



Trade and Structural Adjustment

EMBRACING GLOBALISATION

EMPLEY
TRADE ECONOMICS EMPLOYMENT
ECONOMICS TRADE EMPLOYMENT ECON
TRADE EMPLOYMENT ECONOMICS TRADE EMPLOYMENT ECONOMICS TRADE EMP
EMPLOYMENT ECONOMICS TRADE EMPLOYMENT ECONOMICS TRADE EMP
TRADE ECONOMICS EMPLOYMENT TRADE ECONOMICS EMPLOYMENT TRADE ECONOMICS EMPLOYMENT TRADE
ECONOMICS TRADE EMPLOYMENT ECONOMICS TRADE EMPLOYMENT ECONOMICS TR
TRADE EMPLOYMENT ECONOMICS TRADE EMPLOYMENT ECONOMICS TRADE EMPLOYMENT ECONOMICS TRADE
EMPLOYMENT ECONOMICS TRADE EMPLOYMENT ECONOMICS TRADE EMPLOYMENT ECONOMICS TRADE
TRADE ECONOMICS EMPLOYMENT TRADE ECONOMICS EMPLOYMENT TRADE ECONOMICS EMPLOYMENT TRADE
ECONOMICS TRADE EMPLOYMENT ECONOMICS TRADE EMPLOYMENT ECONOMICS TRADE
TRADE EMPLOYMENT ECONOMICS TRADE EMPLOYMENT

ECONOMICS TRADE EMPLOYMENT ECONOMICS EMP
EMPLOYMENT ECONOMICS TRADE EMPLOYMENT ECONOMICS TRADE EMPLOYMENT E
TRADE ECONOMICS EMPLOYMENT TRADE ECONOMICS EMPLOYMENT TRADE ECONOMICS EMPLOYMENT TRADE
ECONOMICS TRADE EMPLOYMENT ECONOMICS TRADE EMPLOYMENT ECONOMICS TR
TRADE EMPLOYMENT ECONOMICS TRADE EMPLOYMENT ECONOMICS TRADE EMPLOYMENT ECONOMICS TRADE
TRADE ECONOMICS EMPLOYMENT TRADE ECONOMICS EMPLOYMENT TRADE ECONOMICS EMPLOYMENT TRADE
ECONOMICS TRADE EMPLOYMENT ECONOMICS TRADE EMPLOYMENT ECONOMICS TR
TRADE EMPLOYMENT ECONOMICS TRADE EMPLOYMENT ECONOMICS TRADE EMPLOYMENT ECONOMICS TR
ECONOMICS EMPLOYMENT TRADE ECONOMICS TRADE EMPLOYMENT ECONOMICS TRADE EM
ECONOMICS EMPLOYMENT TRADE ECONOMICS TRADE EMPLOYMENT ECONOMICS TRADE EM
TRADE EMPLOYMENT ECONOMICS TRADE EMPLOYMENT ECONOMICS TRADE EMPLOYMENT
ECONOMICS TRADE EMPLOYMENT ECONOMICS TRADE EMPLOYMENT ECONOMICS
TRADE EMPLOYMENT ECONOMICS TRADE EMPLOYMENT

OECD



OECD PUBLISHING

Trade and Structural Adjustment

EMBRACING GLOBALISATION



ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

The OECD is a unique forum where the governments of 30 democracies work together to address the economic, social and environmental challenges of globalisation. The OECD is also at the forefront of efforts to understand and to help governments respond to new developments and concerns, such as corporate governance, the information economy and the challenges of an ageing population. The Organisation provides a setting where governments can compare policy experiences, seek answers to common problems, identify good practice and work to co-ordinate domestic and international policies.

The OECD member countries are: Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The Commission of the European Communities takes part in the work of the OECD.

OECD Publishing disseminates widely the results of the Organisation's statistics gathering and research on economic, social and environmental issues, as well as the conventions, guidelines and standards agreed by its members.

This work is published on the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of the Organisation or of the governments of its member countries.

Publié en français sous le titre :
Les échanges et l'ajustement structurel
LES ENJEUX DE LA MONDIALISATION

© OECD 2005

No reproduction, copy, transmission or translation of this publication may be made without written permission. Applications should be sent to OECD Publishing: rights@oecd.org or by fax (33 1) 45 24 13 91. Permission to photocopy a portion of this work should be addressed to the Centre français d'exploitation du droit de copie, 20, rue des Grands-Augustins, 75006 Paris, France (contact@cfcopies.com).

Foreword

This study has been developed from a Swedish proposal at the OECD Ministerial Council Meeting in 2003 and was launched as a horizontal project by the Council after deliberations in relevant substantive committees. The request from the Council calls for a sector-focused and forward-looking analysis of trade and structural adjustment, supported by country specific case studies. The goal was set to complete the project in time for the MCM in 2005.

ACKNOWLEDGEMENTS

This study was produced by a cross-Directorate team led by Ken Heydon. Assistance in planning was provided by Jun Kazeki, Anthony Kleitz and Marcos Bonturi.

OECD contributors: Denis Audet, Sveinbjorn Blondal, Federico Bonaglia, Peter Czaga, Joe Dewbre, Nora Dihel, Michael Engman, Kiichiro Fukasaku, Kathryn Gordon, Ken Heydon, Wolfgang Hübner, Shin Imai, Jun Kazeki, Anthony Kleitz, Per Mathis Kongsrud, Przemyslaw Kowalski, Jean Le Cocguic, Kyung-Sik Lee, Caroline Lesser, Douglas Lippoldt, Karinne Logez, Julia Nielson, Howard Oxley, Pierre Poret, Udo Pretschker, Raed Safadi, Peter Scherer, Carl-Christian Schmidt, Danny Scorpecci, Paul Swaim, Ricardo-Luis Tejada, Raymond Torres, Charles Tsai, Isabelle Wanner, Janet West.

Outside Contributors: Jens Andersson, José Ardavín, Matt Beckwith, Alexander Böhmer, Luz María González-Robledo, David Harris, Max Nielsen, Gustavo Nigenda, Craig VanGrasstek.

Technical Experts:¹ Carlos Braga, Duncan Campbell, Karolina Ekholm, Anders Ferm, Samuel Kortum, Lisa Gropp, Bernard Hoekman, James Howard, Sam Laird, Patrick Low, Kennedy Mbekeani, Brad McDonald, Patrick Messerlin, Risaburo Nezu, Dominique Nijnkeu, Takato Ojimi, David Richardson, Howard Rosen, Rajeev Suri, Chalongphob Sussangkarn, Robert Teh, Thomas Vant.

Documentation: Avril Ellis, Marie-Paule Huang.

This study was made possible by a grant from the government of Sweden. The Secretariat wishes to thank all experts and OECD member countries who contributed to the study by providing useful comments on the analysis and suggestions on case studies.

1. Participants in a Technical Workshop in Paris on 7 February 2005 and related expert contributors.

Table of Contents

Acronyms	9
Executive Summary	13
Trade and Structural Adjustment: Recommendations for Good Practice.....	19

Part I

STRUCTURAL ADJUSTMENT: CHALLENGES AND POLICY RESPONSES

<i>Chapter 1</i> THE ADJUSTMENT CHALLENGE	25
Overview.....	26
Agriculture.....	30
Fisheries.....	34
Textiles and clothing.....	37
Steel.....	46
Shipbuilding.....	49
Motor vehicles.....	52
Health services.....	60
International sourcing of IT and business process services.....	63
<i>Chapter 2</i> THE DOMESTIC POLICY FRAMEWORK: THE EXPERIENCE OF OECD MEMBER COUNTRIES	73
Structural adjustment and its driving forces.....	74
Countries' capacity to adjust differs.....	79
Policies to facilitate structural adjustment and assist displaced workers.....	81
<i>Chapter 3</i> TRADE AND STRUCTURAL ADJUSTMENT: TOWARDS GOOD PRACTICE	93
Introduction.....	94
National policy making.....	94
Bilateral and regional co-operation.....	116
Multilateral co-operation.....	117
<i>Annex 3.A1</i> Chapter IV of the OECD Guidelines for Multinational Enterprises: Employment and Industrial Relations.....	133

Part II
SECTORAL CASE STUDIES

<i>Chapter 4</i> AGRICULTURE	137
Key points	138
Adjustment implications of reducing agricultural support and trade protection: a cross-country case study	142
Mexico and the United States: Trade in avocados.....	147
Australia: The dairy industry	152
Chile: The agro-food sector	158
Kenya: The cut flower industry	163
New Zealand: Agricultural reform.....	168
<i>Chapter 5</i> FISHERIES	173
Key points	174
Denmark: Fisheries.....	175
Thailand: The seafood sector	180
<i>Chapter 6</i> TEXTILES AND CLOTHING	187
Key points	188
Bangladesh	190
Colombia.....	199
Lesotho: The clothing sector.....	206
Mauritius: The clothing sector	211
The United States: The textile industry.....	217
Australia: The textile, clothing, footwear and leather industries.....	224
The Slovak Republic: Textiles and clothing.....	225
<i>Chapter 7</i> STEEL	231
Key points	232
The European Union.....	233
Restructuring of the US steel industry	238
<i>Chapter 8</i> SHIPBUILDING	241
Key points	242
The European Union.....	243
Japan	247

Australia	252
<i>Chapter 9 MOTOR VEHICLES</i>	257
Key points	258
Japan	260
Poland	266
South Africa	273
Australia	282
<i>Chapter 10 HEALTH SERVICES</i>	287
Key points	288
Mexico and the United States	289
Japan, the Philippines and Thailand	293
<i>Chapter 11 INTERNATIONAL SOURCING OF IT AND BUSINESS PROCESS SERVICES</i>	303
Key points	304
The United States	305
Case study: IBM Corporation	308
The European experience	310
India	312
Case study: Infosys Technologies Ltd	315
Bibliography	319

Acronyms

ACP	African, Caribbean and Pacific states
AGOA	African Growth and Opportunity Act (US)
ALMP	active labour market programme
APEAM	Association of Producers and Exporting Packinghouses of Avocado of Michoacán
APEC	Asia-Pacific Economic Co-operation
APHIS	Animal Plant Health Inspection Service
ASEAN	Association of Southeast Asian Nations
ASIS	Association for Structural Improvement of the Shipbuilding Industry
ASP	Application Service Provider
ATAA	Alternative Trade Adjustment Assistance (US)
ATC	WTO Agreement on Textiles and Clothing
ATPDEA	Andean Trade Promotion and Drug Eradication Act
BPO	Business processing outsourcing
BPS	Business Process services
CGT	capacity gross tons
CMA	Common Monetary Area
CMEA	Council of Mutual Economic Assistance
COMESA	Common Market of Eastern and Southern Africa
DAC	OECD Development Assistance Committee
DDA	Doha Development Agenda
DSAP	Dairy Structural Adjustment Programme (Australia)
EBA	Everything But Arms (EU)
EC	European Commission
ECA	export credit agency
ECSC Treaty	European Coal and Steel Community Treaty
EEA	European Economic Association
EEZ	exclusive economic zone
EPA	economic partnership agreement
EPL	employment protection legislation
EPZ	export processing zone
ERP	effective rate of protection
FDI	foreign direct investment
FTA	free trade agreement

FTZ	free trade zone
GATS	General Agreement on Trade in Services
GATT	General Agreement on Tariffs and Trade
GDP	gross domestic product
GNI	gross national income
GRT/GT	gross tons
GSP	Generalised System of Preferences
HMO	health maintenance organisation
ICT	information and communications technology
IDA	International Development Agency (US)
IF	Integrated Framework for Trade-Related Technical Assistance
IFI	international financial institution
ILO	International Labour Organisation
IMF	International Monetary Fund
IPM	integrated peripheral market
ISI	import-substitution industrialisation
IT	information technology
ITC	International Trade Commission
ITeS	IT-enabled services
ITS	IT services
JLSV	local phytosanitary control boards (Mexico)
JSEPA	Japan-Singapore Economic Partnership Agreement
LDC	least-developed country
MFA	Multi-fibre Arrangement
MFN	most-favoured-nation
NAC	nominal assistance coefficient
NAFTA	North American Free Trade Agreement
NATO	North Atlantic Treaty Organisation
NGO	non-governmental organisation
NIE	newly industrialising economy
NOFP	net open forward position
NPC	nominal protection coefficient
NTB	non-tariff barrier
OBM	original brand manufacturing
OEM	original equipment manufacturing
OTP	outward transaction programme
POEA	Philippine Overseas Employment Administration

PRSP	poverty reduction strategy paper
R&D	research and development
RTA	regional trade agreement
SACU	Southern African Customs Union
SADC	South African Development Community
SDA	Supplementary Dairy Assistance (Australia)
SDT	special and differential treatment
SEZ	special economic zones
SMEs	small and medium-sized enterprises
SOE	state-owned enterprise
SPS	sanitary and phytosanitary
SSRC	Shipping and Shipbuilding Rationalisation Council
TAA	trade adjustment assistance (US)
TBT	technical barriers to trade
TCBDB	Doha Development Agenda Trade Capacity Building Database
TCF	textile, clothing, footwear and leather
TDCA	Trade, Development and Cooperation Agreement (EU-S. Africa)
TFP	total factor productivity
TRTA/CB	trade-related technical assistance and capacity building
UNCLOS	United Nations Convention on the Law of the Sea
UNCTAD	UN Conference on Trade and Development
UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission for Africa
USDA	US Department of Agriculture
USITC	United States International Trade Commission
VAT	value-added tax
VER	“voluntary” export restraint
WSSD	World Summit on Sustainable Development
WTO	World Trade Organisation

Executive Summary

The aim of this study is to identify, for both developed and developing countries, the requirements for successful trade-related structural adjustment. It addresses ways to reallocate labour and capital to more efficient uses in response to the emergence of new sources of competition, technological change or shifting consumer preferences, while limiting adjustment costs for individuals, communities and society as a whole. Adjustment, as used here, thus refers to the use of a range of policy instruments to facilitate adaptation to a structural (rather than transitory or cyclical) change in the economic environment. A summary of policy recommendations is to be found below under “Recommendations for Good Practice”.

The relationship between trade and the adjustment process has many dimensions. While *trade policy* can be a trigger for adjustment – as the phase-out of the MFA undoubtedly is – it can also be a brake on adjustment – as in the persistence of trade policy distortions in agriculture or the restrictive rules of origin in sensitive sectors such as textiles and clothing or motor vehicles. But *trade and trade capacity building* can be an integral part of the adjustment process itself. This is evident, for example, in the way in which the international sourcing of IT and business process services offers significant labour cost arbitrage, enabling companies in international and maturing markets to pursue cost-cutting strategies.

Recognition of the importance of structural adjustment derives from a dynamic analysis of the economy and the desire to reap the benefits of economic growth and welfare by taking advantage of evolving conditions of competition and productivity. In this light, OECD Ministers stressed more than a quarter of a century ago the need to promote “adjustment to new conditions, relying as much as possible on market forces to encourage mobility of labour and capital to their most productive uses” (“Policies for Adjustment: Some General Orientations”, Council Communiqué of 15 June 1978).

Structural adjustment has been studied and discussed from a variety of perspectives and in many forums. Since the 1978 Communiqué was issued, many of the basic challenges have remained, including some specific sectoral ones. In many respects, the perspective on structural adjustment is the same, with broad recognition of the benefits of open markets and of the need for flexible responses – by both governments and industry – to emerging challenges. But the context of the present study is different in many important ways from that of some 25 years ago. Changing societal values, the fuller engagement of non-OECD countries in international economic activity and accelerating technological change¹ have increased the complexity of global economic interaction through trade and investment. Opportunities for developed and developing countries alike to benefit from this interaction have also been strengthened. Moreover, whereas earlier work on the subject of structural adjustment had approached the issue from the standpoint of neoclassical economics, with a particular emphasis on efficiency, today there is greater concern with considerations of equity. More attention now focuses on the differing impact that change – or response to change – has on different groups within or between

countries. Some firms or workers are demonstrably less able to adapt than others; some countries are more severely challenged than others.

Societal values have changed significantly since the late 1970s. Concerns about the environmental effects of economic activity now have a greater influence on both production methods and consumer preferences. Awareness of the economic and social implications of climate change has grown, particularly in sectors strongly affected (as the fisheries sector is by the El Niño phenomenon). In addition, there is fuller recognition today of the importance of sound governance for the economy. Brought into stark relief by the Asian financial crisis, governance appears as a crucial issue at both the national level, through significant movement towards reinforcement of markets via privatisation and regulatory reform, and the firm level, through the pursuit of better corporate governance.

More actors now occupy the global economic stage. China in 1978 was only just embarking on the reforms which have enabled it, now, to be a major force in the world economy. The fall of the Berlin Wall in 1989 opened the way for central and eastern European countries to shift to a market orientation. Developing countries have progressively emerged with a stronger voice and a bigger role in the multilateral trading system.

The growth in the number and range of economic actors has contributed to an intensification of globalisation. A driving factor has been the accelerating pace of technological innovation in recent years, particularly in the field of information technology. One indicator of globalisation has been the rapid growth in international trade and investment flows. At the same time, the determinants of market openness have evolved and become more complex. Since the late 1970s, two rounds of multilateral trade negotiations have been completed and have led to significant reductions in MFN tariffs and the reduction or elimination of many quantitative restrictions. They have provided for discipline in sensitive areas like agriculture, textiles and clothing and trade in services. Global market integration now requires liberal conditions not only in respect of tariffs, but also in terms of non-tariff barriers applied at and behind the border. The multilateral trading system itself has evolved since earlier studies on structural adjustment. Regional and bilateral agreements have come to play a much greater role within the multilateral system, with preferential rules of origin exerting a strong influence on patterns of trade and investment in certain sectors, such as textiles and clothing or motor vehicles. The GATT has given way to the WTO, where the process of dispute settlement now plays a central role in the management of international trade relations.

In all of the sectors examined in this study, a liberal trade environment is found to complement the adjustment process (aided in certain cases by the judicious use of trade safeguards²). At the same time, with the intensification of public concerns about globalisation, making the case for open markets requires greater attention to the costs that liberalisation may entail, costs that may be more strongly felt by workers than by the firms or industries in which they work.³

The nature of the adjustment challenge is highly differentiated:

- It differs from one sector to another, for example between agriculture, where employment is declining, and health services where it is expanding, with the demographics of ageing creating a particularly acute adjustment challenge.
- It differs between different groups in society: producers, consumers and taxpayers are likely to have diverging short-term interests as they may be affected differently by the

adjustment process. The employability advantage from training appears to be lower for women than for men.

- Strong impacts on individuals may translate into modest economy-wide effects. The frequently cited 55 000 jobs estimated to be lost quarterly in the United States because of the international sourcing of business process services is small in comparison with the more than 7 million jobs destroyed on average every quarter as a result of the normal functioning of the US labour market. Moreover, while there has been stable structural change in employment patterns within the service sector over the past two decades, labour adjustments between agriculture, manufacturing and services have actually declined in OECD economies.
- For countries, the adjustment challenge may differ, depending on their level of development. Developing countries face specific trade-related adjustment challenges relating to preference erosion and revenue loss, and formerly high levels of protection from international competition and low levels of productivity and technological sophistication may result in a broader vulnerability. High levels of debt, inadequate infrastructure, weak intellectual property rights, capital shortages and poor governance often compound the challenges.

The differentiated nature of the adjustment challenge means that recommendations about good practice need to be approached with care. It cannot be assumed that an approach which has worked in one sector will *necessarily* work in another, or that good practice for one country or group of countries will *necessarily* translate into good practice elsewhere. The adjustment challenge faced by developing countries differs both in nature and extent from that faced by the advanced industrialised economies. So therefore does the required policy mix and the ability to implement policies. The challenges faced by vulnerable developing countries will require particular attention, in terms both of their own domestic policies and of multilateral action and co-operation. This being said, the cases and peer reviews on which this study is based suggest that a common set of underlying principles of good practice permeate all sectors and tend to be widely applicable across countries, albeit with differing degrees of emphasis.

All countries will benefit by adopting, at the national level:

- Macroeconomic policies that promote stability and growth.
- Labour market policies that help develop human skills and adaptability and facilitate labour mobility across occupations, firms, industries and regions, while providing adequate assistance to those who experience adjustment costs as a result of structural change.
- An efficient regulatory framework that achieves regulatory objectives, while keeping the regulatory burden on enterprises to the necessary minimum, fosters competition and helps ensure genuine market openness.
- A strong institutional and governance framework that favours structural reform, while enhancing social dialogue and thus public understanding and acceptance of reform measures.
- Liberal trade and investment policies that support structural adjustment by contributing to growth, innovation and competitiveness and are implemented over a period gradual enough to enable affected parties to adapt and short enough to avoid policy reversal. Because of downstream linkages, particular benefits are likely to arise

from the liberalisation of trade in services; if account is taken of service barriers, the effective rate of protection for some agricultural and manufacturing industries actually turns negative, meaning that services barriers contribute to effective taxation rather than protection of these industries.

From within this broad menu, poorer developing countries will need to give particular attention to building sound institutions, fostering an appropriate macroeconomic framework and the removal of any anti-export bias, improving firms' access to finance and infrastructure, developing human capital and reducing their own often high barriers to trade. There may be opportunities for a joint package of tariff and tax reform which does not compromise government revenue.

Governments are strongly encouraged to pursue reform across these different policy areas in a complementary, broad-based way to promote acceptance of change, by helping ensure that those disadvantaged by one reform benefit from another and to foster synergies between policies. The combined effect of complementary policies will be greater than the sum of the parts, not least by creating an environment conducive to innovation and technology diffusion that will enable countries to move up the value chain. The key to successful structural adjustment lies less in individual policies than in their interaction. The benefits of a liberal trade regime, for example, will only be fully realised in an economy with appropriate macroeconomic policies, efficient labour markets and a regulatory environment which facilitate mobility of workers and the entry and exit of firms, and an education system which enables skills to match evolving needs. It follows that government should seek, to the greatest extent feasible, to pursue policy reforms in parallel. There may, however, be circumstances when a particular sequence of reform is called for. But there is no blueprint. Many policy initiatives can be advanced as the essential prerequisite of structural adjustment: trade liberalisation, to ensure resources do not migrate to protected sectors; investment liberalisation, to ensure a macroeconomic multiplier effect; reform of industrial relations, to ensure prior labour market preparedness; reform of competition policy, to avoid abuses of dominant position in post-deregulation markets. In fact, the case studies suggest that the actual sequence of these and other policies will finally depend on what is politically feasible in the country concerned.

Governments are also encouraged to rely, as much as possible, on generally available measures to address adjustment costs, including through the tax and social security system, for reasons of both equity and efficiency. In some cases, however, targeted measures may prove effective for addressing certain aspects of the adjustment process, such as to correct for market failure or to address political economy concerns; but when used, these measures should be transparent, cost-effective and compatible with general safety net arrangements. Should it be considered necessary, for example, to use safeguard measures, it is important that their potential benefit in providing breathing space for – and public acceptance of – structural adjustment exceeds the costs they entail.

While appropriate policies adopted at the national level are, for all countries, at the heart of a successful adjustment process, bilateral, regional and multilateral co-operation plays a significant complementary role. Multilateral action is of particular importance for promoting the mutual interests of trade liberalisation, locking in domestic reform and building mutual confidence between enterprises and the societies in which they operate. Multilateral action – through the Doha Development Agenda, the work of international financial institutions, donor co-ordination and greater efforts to improve compliance with ILO core labour standards – is also essential for addressing the multiple adjustment

challenges facing developing countries, particularly the most vulnerable among them. Special attention needs to be devoted to those, relatively few, countries for which preference erosion causes a net welfare loss (of up to -0.4% on a per capita basis) from trade liberalisation. Continued concerted efforts will be needed to improve the supply-side capacities of the poorest developing countries, to diversify their economic activity and to build sound institutions so that they can begin to avail themselves of the full range of policy options identified in this study, some of which, such as certain labour market policies, are currently beyond their reach.

The study has two parts. In Part I, Chapter 1 examines the nature of the challenges faced in each of the eight sectors that are examined in the case studies in Part II.

Chapter 2 then looks at the domestic framework for structural adjustment in OECD countries and addresses structural policies that facilitate adjustment, allowing labour and capital resources to be transferred to more efficient uses in the wake of trade-related displacement and technological change. It draws on existing and ongoing studies, including the OECD Growth Study, the Jobs Strategy and ongoing stocktaking of structural reforms. The policies examined to facilitate the effective deployment or redeployment of labour include benefit and social protection policies, employment protection legislation, job-search assistance, education, training and other active labour market policies. Although the policy implications are drawn from OECD members' experience, they are relevant for all but the poorest countries.

Next, Chapter 3 identifies successful examples of structural adjustment, seeking to distil good practice and draw lessons for both developed and developing countries from the country-focused case studies that can be used to help meet the challenges identified in this report. It also draws on relevant policy lessons from studies of the domestic policy framework of OECD countries. These lessons are put into a trade policy perspective, consistent with the principle that trade policy should facilitate economic efficiency and complement rather than substitute for adjustment. In providing pointers to good practice, the chapter seeks to answer a number of key questions. What structural adjustment policies are likely to be effective and efficient? How do equity considerations affect policy choice? How do policies in different areas interrelate and what might this mean for policy sequencing? What are the respective roles of policy action at the national, regional and multilateral levels?

Part II contains a series of detailed sectoral case studies that provide the underlying source material for much of the analysis contained in this study. Eight sectors were chosen for particular attention: agriculture, fisheries, textiles and clothing, steel, shipbuilding, motor vehicles, health services and international sourcing of IT and business process services. They were chosen because they represent both “old” and “new” areas of activity, although the pervasive nature of technological innovation often blurs this distinction; they impinge upon the interests of both developed and developing economies; and they represent some of the most acute and far-reaching challenges facing the world economy, now and in the near future.

Notes

1. While there is no agreed measure of accelerating technological change, growth in the scale of R&D and patenting activity, along with rises in multi-factor productivity and the transfer of technology from industrialised to developing countries suggest considerable dynamism in both the size and spread of technological innovation.
2. This linkage is enshrined within the WTO Agreement on Safeguards, which recognises in its Preamble “the importance of structural adjustment and the need to enhance rather than limit competition in international markets” and stipulates (Article 5.1) that safeguard measures can be taken “only to the extent necessary to remedy serious injury *and to facilitate adjustment*”.
3. It was pointed out by J. David Richardson that a century or more ago, workers passed through a skills-education revolution that prepared them via public education to move from agricultural and craft jobs into manufacturing and arms-length service production. Today's workers need to pass through an analogous technical and global skills revolution.

Trade and Structural Adjustment: Recommendations for Good Practice

On the basis of the cases examined in this study and other experience gained in the OECD peer review process, governments in both developed and developing countries are recommended to:

1. *Rely, wherever possible, on **generally available measures to address adjustment costs**, including through the social security and tax system, in order to help improve the benefits from openness while reducing adjustment strains.*
2. *Ensure that targeted adjustment measures, should these be considered necessary for reasons of economic efficiency or political economy, are:*
 - 2.1. *Time-bound, with a clear exit strategy.*
 - 2.2. *Decoupled from production.*
 - 2.3. *Aimed at re-employing displaced workers.*
 - 2.4. *Compatible with general safety net arrangements.*
 - 2.5. *Cost-effective.*
 - 2.6. *Transparent and accountable.*
3. *Foster an adjustment-enabling environment, through the promotion of **macroeconomic stability** and growth, which supports the effective functioning of labour markets and the economy in general, and which, particularly in the case of developing countries, complements the process of trade liberalisation by:*
 - 3.1. *Removing anti-export bias and maintaining appropriate exchange rate policies.*
 - 3.2. *Encouraging tax reforms to offset declines in government revenue resulting from tariff reductions.*
4. *Adopt sound **labour market policies** which facilitate the reallocation of workers towards higher productivity employment and so help economies – and their citizens – reap the gains from trade. These entail:*
 - 4.1. *Income-replacement benefits that provide adequate income security for displaced workers while fostering their reintegration into employment. Thus, welfare benefits should support work incentives and not be used as a way to withdraw displaced workers from the labour force (as has often been the case with early retirement and disability schemes).*
 - 4.2. *Active labour market programmes, including job-search assistance, counselling, training, moving allowances and proactive measures in anticipation of mass layoff. These entail:*

- 4.2.1. *Active bipartite co-operation between management and workers' representatives and wider tripartite co-operation with the government in accordance with national practice.*
- 4.2.2. *Realistic assessment of workers' labour market opportunities and adjustment assistance needs.*
- 4.2.3. *Use of external specialists in the case of large-scale layoffs.*
- 4.2.4. *Programmes that are of sufficient duration to provide real support while also discouraging complacency.*
- 4.2.5. *Complementary support via income-replacement benefits.*
- 4.3. *Employment protection policies that achieve a balance between lessening adjustment costs and not restricting business dynamism.*
- 4.4. *Flexible wage-setting systems, pension portability and fluid housing markets.*
- 4.5. *Education and training systems that foster the development of human capital and help ensure that labour skills meet evolving labour market needs.*
5. *Foster a sound **regulatory and competition environment** which permits transformation within firms as well as entry and exit across sectors by facilitating mergers and shifts in corporate culture, keeping regulatory barriers on enterprises to the necessary minimum and reducing the trade-distortive effects of domestic regulation through the reinforcement of:*
 - 5.1. *Transparency.*
 - 5.2. *Non-discrimination.*
 - 5.3. *Avoidance of unnecessary trade restrictiveness.*
 - 5.4. *International harmonisation of standards.*
 - 5.5. *Streamlined conformity assessment.*
 - 5.6. *Vigorous application of competition principles.*
6. *Foster a strong **institutional and governance framework** that will favour structural reform, while also enhancing public understanding and acceptance of reform measures, via:*
 - 6.1. *Effective ex ante policy evaluation, including analysis of whether proposed structural reform is in the overall interests of the community.*
 - 6.2. *Independent review processes to ensure that benefits will outweigh costs while avoiding conflicts of interest.*
 - 6.3. *Mid-term and ex post evaluation to help ensure that policies will be modified if necessary in light of actual experience as well as unanticipated difficulties.*
 - 6.4. *Effective social dialogue based on a well-functioning consultative process between the government and the public, including the private business sector.*
 - 6.5. *Sound public institutions for managing the services and incentives provided to investors, importers and exporters.*

7. Adopt **liberal trade policies**, that support structural adjustment by contributing to economic growth, fostering competitiveness and innovation, improving access to essential imports and encouraging synergies between countries with different areas of comparative advantage, and which:
 - 7.1. Maximise the particular welfare and flow-on benefits which arise from the liberalisation of trade in services.
 - 7.2. Are implemented over a time period long enough to enable affected parties to adjust but short enough to avoid back-tracking.
 - 7.3. Rely sparingly on the use of safeguards, with a careful assessment of whether their potential benefits in providing breathing space for – and greater public acceptance of – structural adjustment justifies the cost they entail.
 - 7.4. Maximise opportunities for associated flows of foreign direct investment.
8. Undertake reforms across different policy areas in a complementary, **broad-based** way, in order to maximise cross-policy synergies and to reduce resistance to structural change, by helping ensure that those adversely affected by one reform may benefit from another.
9. Foster **bilateral and regional initiatives**, where regulatory co-operation can foster opportunities through trade or ease adjustment strains in particular sectors, and where trade-related adjustment and opening can be undertaken among bilateral or regional partners as a transition, or complement, to wider multilateral commitments.
10. Foster **multilateral co-operation** in the adjustment-related and interlinked areas of:
 - 10.1. **Trade and finance**, by avoiding mutually destructive trade policy retaliation, helping lock in domestic reform, while addressing in particular adjustment-related concerns of developing countries, via:
 - 10.1.1. A sustained commitment to the trade-liberalising and rules-strengthening objectives of the Doha Development Agenda.
 - 10.1.2. The effective application of special and differential treatment for developing countries.
 - 10.1.3. Strengthened disciplines on the provision of officially supported export credits.
 - 10.1.4. Enhanced co-operation by the WTO, the World Bank and the IMF to ensure greater coherence in global economic policy making.
 - 10.2 **Capacity building**, via:
 - 10.2.1. Effective co-ordination of the WTO, IMF, World Bank, ILO, bilateral donors and other multilateral agencies to help reinforce developing-country institutional and supply-side capacities.
 - 10.2.2. Co-ordination of donor activities.

10.3. Corporate responsibility and core labour standards, via:

- 10.3.1 Ongoing efforts to enhance the effectiveness, transparency and timeliness of the implementation of the OECD Guidelines for Multinational Enterprises.*
- 10.3.2 Ongoing application of the OECD guidelines relating to corporate social governance in the provision of official support for export credits.*
- 10.3.3 Ongoing application of core labour standards and promotion of decent work, notably by the promotion of the ratification of the relevant conventions and through continued enforcement of the ILO Declaration on Fundamental Principles and Rights at Work.*

Part I

**STRUCTURAL ADJUSTMENT
CHALLENGES AND POLICY RESPONSES**

Chapter 1

THE ADJUSTMENT CHALLENGE

This chapter sets the scene for the present study, identifying sectors, in both developed and developing countries, which are expected to face adjustment challenges in the future and examining for each of these sectors the underlying forces at work and the nature of the adjustment challenges. The eight sectors chosen for particular attention are agriculture, fisheries, textiles and clothing, steel, shipbuilding, motor vehicles, health services and international sourcing of information technology and business process services. The impact of underlying forces can vary significantly from one sector to another. Pervasive economic forces at work include new sources of competition, technological change, shifting consumer preferences and societal concerns, including those related to the environment. The adjustment process to which these forces give rise can differ significantly depending on countries' level of development. A distinguishing characteristic of the adjustment process in low-income developing countries is the need for better institutional capacities and infrastructure. The nature and impact of adjustment will vary among different groups in society as well as between individuals and the economy as a whole (*e.g.* for IT offshoring this is quite modest). The relationship between trade and the adjustment process has many dimensions. While trade policy or trade liberalisation help create conditions favourable to structural adjustment, they can also give rise to adjustment challenges of their own, including those related to preference erosion and revenue loss in developing countries.

Overview

This chapter sets the scene for the present study, identifying sectors that are expected to face adjustment challenges in future and examining for each of these sectors the underlying forces at work and the nature of the adjustment challenge likely to be faced. The eight sectors chosen for particular attention are agriculture, fisheries, textiles and clothing, steel, shipbuilding, motor vehicles, health services and international sourcing of information technology (IT) and business process services. They represent both “old” and “new” industries and impinge upon the interests of both developed and developing economies.

The discussion provides a platform from which to identify, for both developed and developing countries, the requirements for successful structural adjustment via the reallocation of labour and capital to more efficient uses in response to the emergence of new sources of competition, technological change or shifting consumer preferences, while also ensuring that adjustment costs do not fall too heavily on a minority of workers and communities. In considering the nature of the adjustment challenge, some policy considerations will inevitably arise. However, the policy framework is not explored in detail here. It will be examined in Chapters 2 and 3.

The underlying forces at work are as varied as the eight sectors themselves. They range from physical phenomena – such as the effect of El Niño on fish stocks – to demographic factors – such as the strains placed on health systems by ageing populations or the mounting pressures of worldwide migration, which are fuelled by variations in wealth between countries, the ease of international communications and transport, and converging educational levels.

Pervasive economic forces are at work in all of the sectors and include:

- New sources of competition as comparative advantage shifts or is more exposed as trade barriers fall. For example, skill levels are rising in developing countries that supply global business services, and developing and transition economies, not least China, are coming to play a dominant role in many of the sectors.
- Technological change and associated reductions in transport and communication costs. Technological change is of particular importance in technology-intensive industries, such as motor vehicle production, where technical innovation is accompanied by radical changes in production methods as traditional vertical integration gives way to flatter structures, outsourcing and transnational alliances.
- Shifting consumer preferences and societal concerns, seen for example in changing dietary patterns in developed countries and heightened concern about the environmental effects of production processes.

While underlying forces are by nature structural, their interaction with cyclical developments is sometimes crucial. This is particularly clear in the steel and shipbuilding sectors, where strong sensitivity to changes in global macroeconomic conditions can, during downswings, exacerbate a tendency towards persistent overcapacity.

The impact of underlying forces can, over time, vary significantly from one sector to another. Income elasticity of demand plays out quite differently when it is high, as for health services, than when it is low, as for agricultural goods. As the discussion of agriculture reveals, the combined effect of regulatory impediments, changes in total factor productivity (TFP), technical innovation and income levels is to cause prices of

manufactured goods and services as well as the returns to labour in sectors with high income elasticity of demand to rise faster than in agriculture. This may help explain why the adjustment challenge in agriculture is so acute.

Table 1.1. **The changing pattern of global economic activity**

Value added (% of GDP)

Industry	1980	1985	1990	1995	2000	2001
<i>High income</i>						
Agriculture	4.0	3.4	2.8	2.3	1.9	1.9
Industry	37.5	35.5	33.3	30.3	28.4	27.4
Services, etc.	58.5	61.1	63.9	67.4	69.7	70.7
<i>Middle income</i>						
Agriculture	16.1	15.4	14.2	11.5	9.4	9.0
Industry	42.1	40.2	39.0	37.4	35.6	33.7
Services, etc.	41.8	44.4	46.8	51.1	55.0	57.3
<i>Low income</i>						
Agriculture	33.0	31.2	29.1	27.2	25.5	25.0
Industry	28.8	27.6	29.5	30.3	30.8	30.4
Services, etc.	38.2	41.2	41.4	42.5	43.7	44.6

Source: World Bank, World Development Indicators, 2004.

One clear pattern over time, and an important frame of reference for this study, is the marked shift in the structure of global economic activity that has occurred over the past 20 years. As Table 1.1 shows, services have assumed greater importance in all country groupings and account for the largest share of GDP in high-income countries (71%), middle-income (57%) and low-income countries (45%). In high-income and middle-income countries the rise in the share of services has been achieved at the expense of both agriculture and industry. In low-income countries as well, agriculture's share of GDP has fallen although industry's share has risen slightly. A factor that has contributed to the increased share of services is the fact that exposing domestic service providers to foreign competitors tends to contribute to a deepening of service intensity in the economy (OECD, 2004a). Indeed, as service industries in OECD economies are more exposed to international competition, there is likely to be a strengthening of the trend whereby the transfer of resources is less from manufacturing to services than from one service activity to another.

While the rise in service activity is clear, it should be interpreted with care. In all country groupings, there are important synergies between services activity and industrial and agricultural production. Even where the share of agriculture in GDP is now relatively small, as it is in high-income countries, the political sensitivity of the adjustment challenge in that sector is in no way diminished.

As will become clear, the adjustment challenge has a strong political economy component when certain industries – such as steel and shipbuilding – are viewed as

having strategic importance or when employment is geographically concentrated and whole communities depend on a single economic activity, as in fishing and agriculture.

The response to greater environmental awareness is a key element of adjustment in a number of sectors, including steel, where environmentally harmful production in open hearth furnaces has virtually disappeared; in fisheries, where the ultimate goal is to ensure sustainable and responsible resource management; and in motor vehicle production, where societal concerns attract greater attention.

Because of the essentially global nature of the underlying forces discussed here, they are relevant to developed and developing countries alike. However, the adjustment process to which these forces give rise can differ significantly depending on countries' level of development. In agriculture, for example, it is suggested that while the adjustment process is unlikely to have a substantial economy-wide employment effect in developed countries, the case may be different in low-income developing countries. A distinguishing characteristic of the adjustment process in the latter countries is the need for better institutional capacities and infrastructure, whether for information and communications technologies (ICTs) and power-generating capacity for provision of business process services or for transport facilities in support of steel production.

Successful management of the structural adjustment process is a major challenge for low-income countries that depend heavily on commodity exports and have relatively high import barriers. In spite of efforts at reform and market-opening initiatives since the 1980s, many of the world's poorest countries have been unable to reap the full benefits of global trading opportunities and participate in the growth-inducing and poverty-reducing benefits of trade. Specific trade-related adjustment challenges facing developing countries relate to preference erosion and revenue loss and diversification (more broadly, the supply side response).

Access to OECD markets has been, in various ways, of fundamental importance to all the developing countries examined in this study. As members of the group of African, Caribbean and Pacific (ACP) states, exports from Kenya, Lesotho and Mauritius have enjoyed preferential access to EU markets. These countries are likely to face increasing competitive pressures as a result of the economic partnership agreements (including free trade agreements [FTAs]) currently being negotiated between the European Union and ACP countries. The dismantling of the Multi-fibre Arrangement (MFA) quotas (completed in December 2004) will also add to adjustment pressures. A particular concern of developing countries also relates to the revenue effect of tariff liberalisation.

Beyond such specific concerns, many developing countries suffer from a broader vulnerability that makes the impact of trade and investment liberalisation more acute for them than for more advanced economies. This may be because of formerly higher levels of protection from international competition as well as relatively low levels of productivity and technological sophistication (Hoekman and Javorcik, 2004). High levels of debt, inadequate infrastructure, weak intellectual property rights, capital shortages and poor governance, reflected in widespread corruption, often compound these challenges (Mlachila and Yang, 2004).

The development of the global value chain may also put some developing countries at a disadvantage. The globalisation of production, with its concomitant faster links between retailers, manufacturers, processors and farmers, has obscured the formerly sharp distinction between agriculture, industry and services. It privileges segments and individuals that are better linked to global markets, better organised (through industry

associations or the like), better able to manage brands, and better able to influence the internal governance of the global value chain.

The nature and impact of adjustment will also differ among society's different groups. Producers, consumers and taxpayers are likely to be affected very differently by the adjustment process and therefore have diverging short-term interests. Gender is also a factor. In Bangladesh, employment in the export-focused clothing sector is overwhelmingly female and levels of unionisation and wages are relatively low. In spite of increasing employment opportunities for women, daily wages for women in Bangladesh during the mid-1990s were about 40% below those of men. In OECD countries, the employability advantage from training appears to be lower for women than for men. A distinction may also need to be drawn between the impact of the adjustment process on individuals or groups and on the economy as a whole. For example, while the implications of international sourcing of information technology (IT) and business processes can be compelling for workers in the sectors, the overall impact on OECD economies seems to be quite modest and certainly more modest than the public's perception of it.

The nature of the adjustment process may also be very different within sectors, between capital-intensive fabric production and labour-intensive apparel production, for example, or between the primary harvesting and the processing segments of the fisheries sector.

It must also be recognised that the timeframe of the adjustment process can differ significantly among and within sectors. Although it was a defining event, the phase-out of the MFA should be seen as part of a much longer process of adjustment in textiles and clothing. Although there is a necessary sense of immediacy in tackling the adjustment challenge in developing-country agriculture, this too is part of an ongoing process of economic growth and development which typically sees agriculture's share of economic activity decline as development proceeds.

The highly differentiated nature and impact of the adjustment process means that the implementation of shared policy guidelines will also need to be carried out differently, as will be discussed in subsequent chapters.

The relationship between trade and the adjustment process has many dimensions. Trade policy, or rather trade liberalisation, can, through its effects on growth, help create conditions favourable to structural adjustment by fostering job creation and resilience to economic shocks. It can also, however, give rise to adjustment challenges of its own, whether at the macro level, via effects on government revenue, or at the level of individual firms or communities.

Trade policy can trigger adjustment in particular sectors directly, as in the case of the MFA phase-out, but it can also be a brake on adjustment, as in the case of persistent trade policy distortions in steel production and in agriculture or restrictive rules of origin in sensitive sectors such as textiles and clothing or motor vehicles. While such restrictive trade policies are essentially reactions to the underlying structural forces in the industries concerned, they can also serve to compound and perpetuate underlying structural deficiencies and create tensions and disputes within the multilateral trading system.

Trade and trade capacity building can also be an integral part of the adjustment process. This can be seen, for example, in the way in which the international sourcing of IT and business process services offers significant labour cost arbitrage, enabling companies in international and maturing markets to pursue cost-cutting strategies, while it

also creates adjustment challenges in the labour markets of service-receiving countries. The short-term movement abroad of health-care service providers or of patients, for example, may help ease adjustment strains in the OECD health sector, while it also creates adjustment challenges via effects on the pool of skills in exporting countries.

The linkages between trade and adjustment are explored in much greater detail in Chapter 3 of this study.

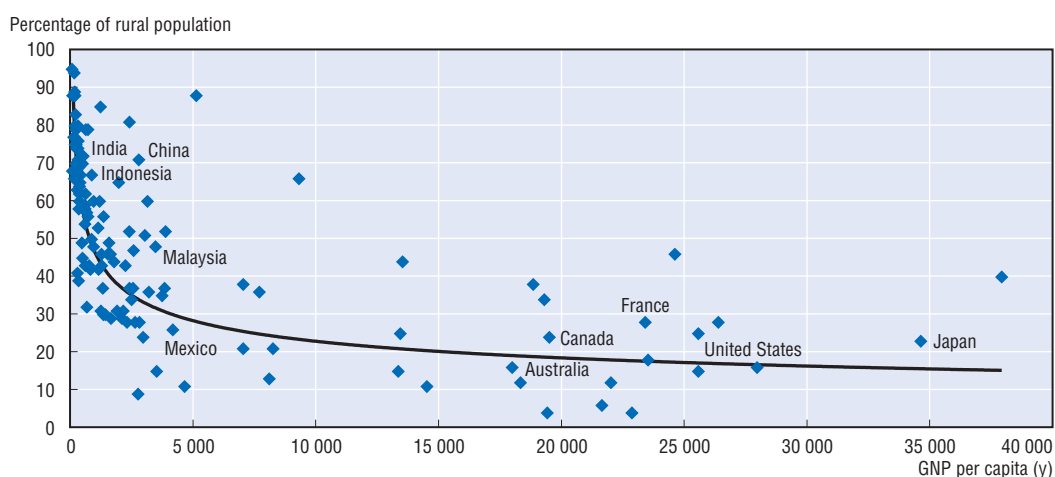
Agriculture

Major forces at work

Historically, the most important forces driving agricultural adjustment have been those associated with ongoing processes of economic growth and development. As Figure 1.1 makes clear, the higher a country's GDP per capita, the lower the share of the population employed in agriculture. Likewise, growth in GDP per capita in a given country is inevitably mirrored by a declining share of agriculture in its economy. The process is well understood; the causal links less so. Three main forces drive ongoing agricultural adjustment in growing economies:

- Total factor productivity rises faster in agriculture than in the rest of the economy (Martin and Mitra, 2001).
- Technical innovation associated with agricultural productivity growth is labour-saving and permits a reduction in the share of labour devoted to production (Johnson, 2000).
- Typically, because income elasticity of demand tends to be less for food than for other consumption, demand for food does not grow as fast as the capacity to produce (or import) food, even when population and per capita income rise.

Figure 1.1. **Agricultural labour shares and GNP per capita, 1990**



Source: Taylor, J.E. and P.E. Martin (2001), "Human Capital: Migration and Rural Population Change" in B. Gardner and G. Rausser, eds., *Handbook of Agricultural Economics*, Vol. I. Elsevier, Amsterdam.

When these trends are combined, prices of manufacturing goods and services as well as the associated returns to labour in those sectors rise faster than prices of agricultural goods and the associated returns to labour in agriculture. The upshot is that, as economies

grow, the agricultural sector must “downsize” and represent an ever-declining share of overall economic activity and employment.

A critical question is whether multilateral, multi-sectoral trade reform slows or accelerates this process. The answer hinges crucially on the link between trade liberalisation and economic growth, a connection that is more strongly supported by empirical observation than by theory (UNCTAD, 2003a). Recent papers by Winters (2004) and by Duncan and Quang (2002) review a large body of empirical work aimed at quantifying such a link. The general conclusion that emerges is that, while not entirely conclusive, the evidence justifies, as Winters puts it, “the strong presumption that trade liberalisation contributes positively to economic performance”. However, the field is rife with methodological problems and controversy. One of many important difficulties is establishing the direction of causality. Do trade liberalisation and openness cause economic growth or is it the other way round?

The adjustment challenge

Generally, trade protection and other forms of government support in developed countries are much higher in agriculture than in other sectors of the economy. In some developing countries, the reverse is true: the agriculture sector is taxed relative to other sectors of the economy.

Ironically, it seems, the overall process of agricultural adjustment in growing economies is often accompanied by increased farm support and trade protection for agriculture. Table 1.2 contains data showing agriculture’s share of employment and OECD estimates of the nominal rates of trade protection afforded agriculture in selected countries. Anderson and Hayami (1986) offer a political economy explanation for the observed tendency of countries to switch from taxing their agricultural sectors during early phases of economic development to subsidising them as per capita incomes rise and the importance of agriculture in the economy dwindles.

In some developed countries, a high level of support for agriculture is viewed as an appropriate policy response to societal demands for the “multifunctional” characteristics of agricultural activities: maintenance of attractive rural landscapes, sustenance of the farming way of life, environmental guardianship, and so on. In the EU, for example, this has resulted in an evolution of agricultural support policy that places greater emphasis on rural development and environmental objectives.

Reductions in trade protection and domestic subsidies that accompany global trade reform could lead to substantial changes in the intersectoral terms of trade and create additional pressures for adjustment in agriculture. However, these pressures and the adjustments they engender will differ depending especially on level of development and the role of agriculture in the economy.

Moreover, within the total population of farmers, some groups will be more affected than others. In developed and developing countries alike, a minority of commercial farmers account for the majority of farm output. OECD-wide, the proportions are roughly 20/80, *i.e.* 20% of farmers account for 80% of production. The 80% of non-commercial farmers typically rely mainly on off-farm sources of income. The situation is not so different in most non-OECD countries. As a general rule, agricultural policy reform triggers economic incentives for adjustment that are relatively much more significant for commercial agricultural producers, while non-agricultural policy reform may have greater implications for non-commercial producers.

For some countries, multilateral trade reform leads to an improvement in the relative returns to resources employed in agriculture, thereby possibly encouraging net resource inflows. In others, the combination of lowering both agricultural and non-agricultural trade barriers may encourage resource outflows from agriculture. For any given country, the result, and thus the associated policy challenges, depend on the ex ante pattern of domestic protection economy-wide and on what happens in world markets when trade protection is reduced.

Table 1.2. **Share of agricultural population and rate of support, 2003**

	Producer nominal protection coefficient ¹	Producer nominal assistance coefficient ¹	Agricultural population share
United States	1.10	1.22	1.65
Canada	1.15	1.27	2.84
Norway	2.83	3.62	3.69
EU15	1.37	1.60	3.73
Australia	1.00	1.04	4.01
Switzerland	2.90	3.86	4.10
Czech Republic	1.22	1.38	4.54
Japan	2.26	2.36	4.64
Hungary	1.21	1.36	5.55
Slovak Republic	1.15	1.26	5.79
Iceland	2.94	3.28	7.30
New Zealand	1.02	1.03	8.16
Korea	2.39	2.53	8.81
Mexico	1.15	1.23	16.26
Poland	1.08	1.10	18.42
Turkey	1.32	1.36	33.88

1. The nominal assistance coefficient (NAC) is the ratio of total farm revenues, inclusive of support, to the total farm revenue obtained with the same farm output valued at world market prices. The nominal protection coefficient (NPC) is the ratio of the average producer price and the corresponding world market price. The main distinction between these two indicators is that the NAC reflects all financial transfers from consumers and taxpayers to agricultural producers while the NPC reflects only those transfers from consumers and taxpayers that directly increase the producer price.

Source: OECD, PSE/CSE database and FAO population data.

The challenge in developed countries

Undoubtedly, high trade protection and domestic support keep the population of farmers and farm workers at a higher level in some developed countries than would be the case in the absence of such support and protection. These effects likely vary significantly across economic regions within a country. In this sense, government policies that confer income benefits on farmers might be viewed as posing impediments to structural adjustment.

In reality, however, further global trade reform would be unlikely to change substantially either the overall level or pattern of employment in developed countries. This is not only because there are so few farmers and farm workers left in the total work force of most developed countries. Farm households in OECD countries typically receive

income from a variety of on-farm and off-farm sources. Some may depend heavily on the income benefits of farm support, but the extra farm income earned because of agricultural support and trade protection typically adds little to total household income. This is so both because farm income constitutes only one of the multiple sources of income for most farm households in OECD countries and because trade protection has been shown to be a highly inefficient mechanism for increasing net farm income (OECD, 2003a).

One of the main reasons why the efficiency of income transfer is so low is that much of the economic benefit of agricultural trade protection is capitalised into farm assets, especially land values. Landlords who do not farm own a high share of farmland, upwards of half or more in many OECD countries. Accordingly, while reducing farm support and trade protection may not substantially reduce the annual flow of total farm household income, such reductions could cut significantly into the net wealth of landowners. Some farmer landowners may find they can no longer afford to stay in business and decide to exit the sector. Others may decide to allocate more of their work time to off-farm activities. Well-targeted government assistance might be necessary to ease the adjustment burden on those most affected and allow such transitions to take place more rapidly. Taking a wider perspective, such adjustments are unlikely change total economy-wide employment noticeably.

The challenge in developing countries

In many low-income developing countries with a high share of employment in agriculture, agricultural trade protection and domestic support are often low. Indeed, in some, the agriculture sector suffers negative protection, either from explicit interventions such as taxes on agricultural exports or from macroeconomic policies that discriminate against the sector.¹

Farmers in agriculturally dependent developing countries with low rates of agricultural trade protection thus stand to benefit from global trade reform that lifts world agricultural commodity prices, especially if reform is accompanied by the easing of their own country's policies that discriminate against the sector. That is, however, only one piece of the much larger economy-wide puzzle. First, sufficiently widespread, multilateral and multi-sectoral reform could lead to improved returns to factors, especially labour, in non-agricultural uses that outstrip the increase in agricultural factor returns. Second, as already noted, the effects of trade reform must be situated in the context of an ongoing process of economic growth and development that leads typically to a reduction in the relative importance of agriculture in the economy.

Anticipating the policy challenges

Policy responses to the adjustment challenges coming with further trade and agriculture policy reform can take a variety of forms. Where farmers, farm workers and those in related industries stand to lose, government intervention in the form of adjustment assistance or compensation may be necessary. Generally, adjustment policy would fall into two broad categories. First, there are programmes to assist producers either to exit the industry or to diversify into other agricultural or non-agricultural activities. Second, there are programmes designed to allow those who wish to remain in the industry to do so. Of course, care would need to be taken in all cases to ensure that all such assistance is consistent with the goal of reducing distortive agriculture support mechanisms.

Programmes in the first category could include grants to those who leave the industry and job training for other agricultural activities or perhaps compensation payments that allow farmers to continue following the abolition of a programme or protective measure. Adjustment assistance of this type may also include non-sectoral policy, in other words, integration into (or adaptation of) economy-wide adjustment mechanisms such as unemployment insurance, education and training, or job-search assistance.

The second broad type of adjustment assistance that might be called for aims to improve the competitiveness of farmers and others in related upstream or downstream economic activities that remain in the sector. Some of these policies may target individual farmers and other economic agents. Others may target whole communities or regions, e.g. infrastructure development, including assistance to improve marketing institutions or facilitate needed changes in trading practices.

In all cases, policy responses need to target specific aims and intended beneficiaries. Agricultural opportunities and challenges will vary widely, both between and within developed and developing countries, and policy responses will need to vary accordingly. For example, finding politically acceptable and economically defensible compensation programmes to deal with the problem of policy-inflated asset values constitutes a major challenge for reforming agricultural policy in developed countries. It requires not merely identifying the magnitude and incidence of potential losses but also deciding who among the likely losers should be entitled to compensation. Some of those holding assets whose values have been boosted by farm policy are not themselves farmers: absentee landlords are one important group. Objectively, there may be no need to compensate unintended beneficiaries for the policy change. There may be other political responses to the demands of secondarily affected economic agents, such as timely announcement of intended policy actions and gradual rather than abrupt implementation.

In countries where farm employment still represents a relatively high but rapidly declining share of total employment, the overriding adjustment challenge confronting agricultural policy makers is how to accommodate the farm to non-farm employment adjustments that accompany ongoing economic growth and development. Agriculture and trade policy reform worldwide may mitigate these pressures in some instances but may exacerbate them in others. In many less developed economies, the appropriate (national and international) policy responses will include further investment in infrastructure, which may range from physical infrastructures (transport, handling, etc.) to regulatory infrastructure (standards, accreditation, etc.) to investments in human resources.

Fisheries

Major forces at work

In the fisheries sector, the introduction from 1977 onwards of the 200-mile exclusive economic zones (EEZ) was a major structural adjustment event and led to a significant reshuffle of available national resources. Structural adjustment continues to be an ongoing process owing to major changes in the availability of national resources, resource management practices and the volatility of resources. This is due, *inter alia*, to mismanagement of the resource base, to changes in natural phenomena (e.g. El Niño) and in some cases to pollution. A particular feature of the fisheries sector is its dependence on the resource base, which is affected by ecosystem interactions and other environmental factors, including climate change, and by the lack of well-defined property rights. The linkages between marine resources (fish stocks) are important in determining the impact

of policy changes, since fishing in one part of the ecosystem may affect another part of it, while the lack of well-defined property rights may make it difficult to determine a given resource base. Predictability of supply will therefore always be a concern, and the sector may need to adapt constantly to a changing resource base. Another relevant factor comes from the demand side, as changes in consumer preferences can also drive structural adjustment.

As national experience in developed and developing countries has shown, managing fisheries resources in a sustainable and responsible way represents a considerable challenge. Problems include fluctuating harvesting possibilities, grossly overexploited resources in many parts of the world, excess fishing capacity and low average fisher incomes. In some cases, these may have been exacerbated by subsidisation and related government support. A further structural change which has already commenced is likely to gain pace in the decades to come: the replacement in the marketplace of fish from capture fisheries by production from aquaculture. The OECD's Committee for Fisheries has analysed various aspects of adjustment in the fisheries sector most recently in *Transition to Responsible Fisheries: Economic and Policy Implications* (OECD, 2000a).

It is important to distinguish between adjustment in the primary harvesting sector, which mostly affects fishing fleets and fishers, and adjustment among fish processors. In the adjustment process, these two sectors can draw upon different national policy interventions. The former has to rely mainly on the introduction of efficient fisheries management regimes, social policies and foreign direct investment (as well as deployment of fleets under bilateral fisheries agreements). The latter draws mainly on traditional trade policy measures, which may aim to supplement declining supplies of "domestic" fish with imports. In terms of trade policy regimes, the result, across OECD member countries generally, is a tariff structure with relatively low tariffs on fish when traded as raw material (fresh frozen whole) but that increase sharply with the level of processing content. A high degree of tariff escalation is thus present in most markets.

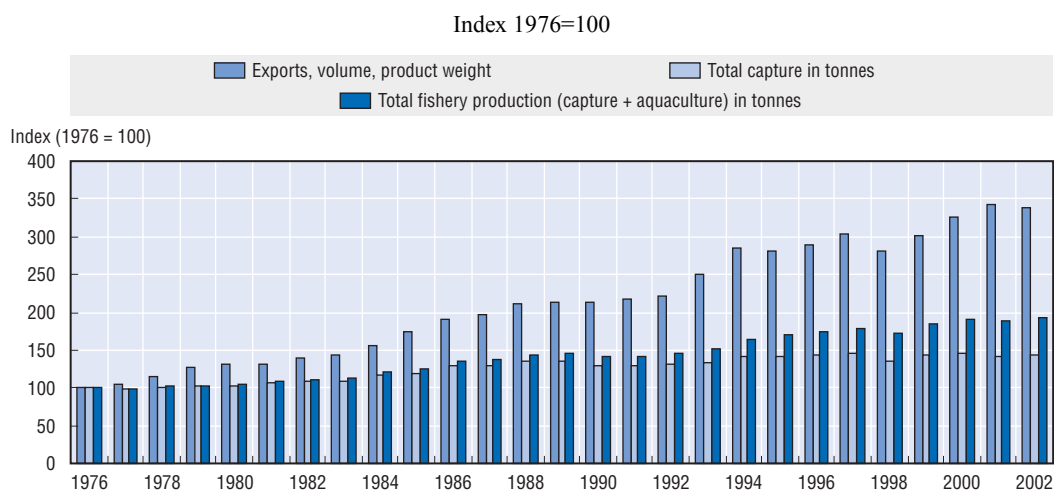
The adjustment challenge

There is a high degree of international interdependence among fish and seafood markets. Fishing vessels (capital) are mobile and many of them (in terms of fishing effort) can fish all over the world, and fish resources do not know national boundaries. These features have helped underpin a globalisation process that has taken place through various channels, including fish trade, investment in fisheries and use of fishing capacity as a service. Owing to increasing resource constraints, OECD markets have become more dependent on imports from developing countries. The globalisation process is reflected in Figure 1.2 which provides an index of quantities of world production and world exports from 1976 to 2002. It is clear that trade has increased more rapidly than production, suggesting that markets have become more interdependent.

What makes fisheries an interesting case in terms of globalisation is that several events have helped enhance and support the interdependence of markets and resources. The extension of EEZs to 200 miles from 1977 led to an important redistribution of fishing possibilities without any immediate change on the demand side. Consequently, two important changes took place: an increase in trade in fish and fish products and an increase in trade in fishing (access) rights. Furthermore, the extension of the EEZs led to a development of fisheries in developing countries that had not shown great interest in "industrialisation" of the fishing industry. Another important contributing factor has been technological change. For example, technological progress has increased the efficiency of

fishing vessels, and improved transport systems have made it possible to transport fish across long distances. Finally, the increasing overexploitation of resources in the developed world during the last decade has added fuel to the globalisation process.

Figure 1.2. **Globalisation at work, 1976-2002**



Data exclude production and trade of marine mammals, crocodiles, corals, sponges, shells and aquatic plants.

Source: FAO.

While consumers in OECD markets have been told that eating fish is good for their health, their domestic resources have not been able to satisfy increasing consumer demands. Consequently, fisheries resources in developing coastal countries and aquaculture have come to play increasingly important roles in satisfying global demand for fish and fish products. Fish is a significant resource base and has become a major trading asset for developing countries. The challenge that the globalisation process gives rise to in the case of natural resources was recognised by the Johannesburg World Summit on Sustainable Development (WSSD) meeting in 2002 (see Box 1.1), thereby increasing awareness of the problems and perhaps indicating political will to address the issues.

Work in the OECD has highlighted the importance of ensuring that trade and resource management policies are mutually supportive. To maximise welfare gains, policies should target trade policies that affect markets and improvements in fisheries management policies concurrently. In this regard, the major future challenge for policy makers, as external pressures continue, is to ensure that resources are managed in a sustainable and responsible way. This is a challenge for developing and developed countries alike, although, owing to different fishing industry structures and resource availability, the use of specific policy mixes may differ.

Box 1.1. Excerpts from the WSSD Political Declaration

We recognise that poverty eradication, changing consumption and production patterns and protecting and managing the natural resource base for economic and social development are overarching objectives of and essential requirements for sustainable development.

Globalisation has added a new dimension to these challenges. The rapid integration of markets, mobility of capital and significant increases in investment flows around the world has opened new challenges and opportunities for the pursuit of sustainable development. But the benefits and costs of globalisation are unevenly distributed, with developing countries facing special difficulties in meeting this challenge.

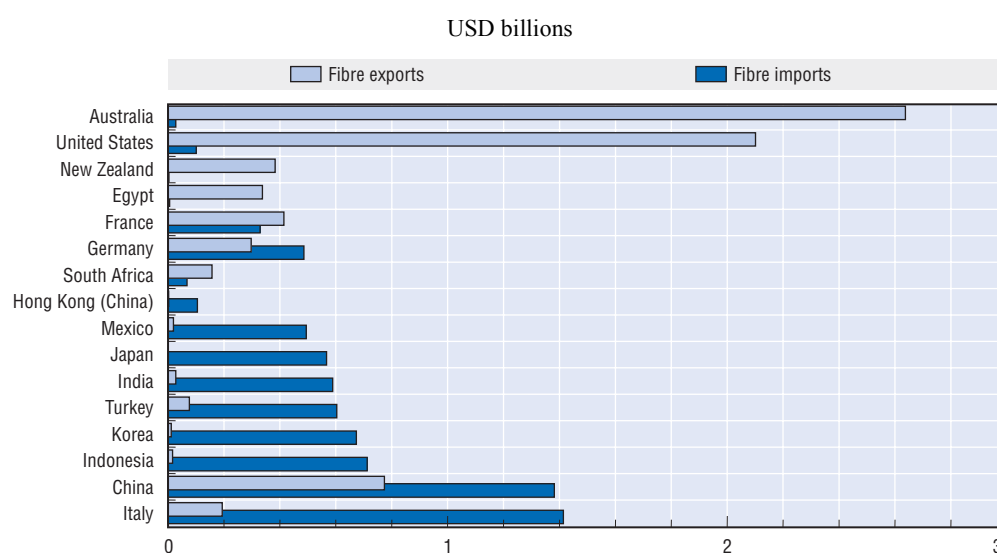
Source: <http://ods-dds-ny.un.org/doc/UNDOC/GEN/N02/636/93/PDF/N0263693.pdf>.

Textiles and clothing

Major forces at work

Textiles and clothing are a significant industry in world trade: in 2003, global exports of textiles and clothing amounted to USD 395 billion, or 5.4% of world exports. The relatively labour-intensive clothing sector accounted for USD 225 billion. Textiles and clothing trade plays a sizeable role in the economy of OECD countries, but it is most important for some developing and least developed countries (Figures 1.3, 1.4 and 1.5). The two main markets for textiles and clothing imports are the EU and the United States, which accounted in 2003 for USD 154 billion and USD 90 billion, respectively (WTO, 2004a).

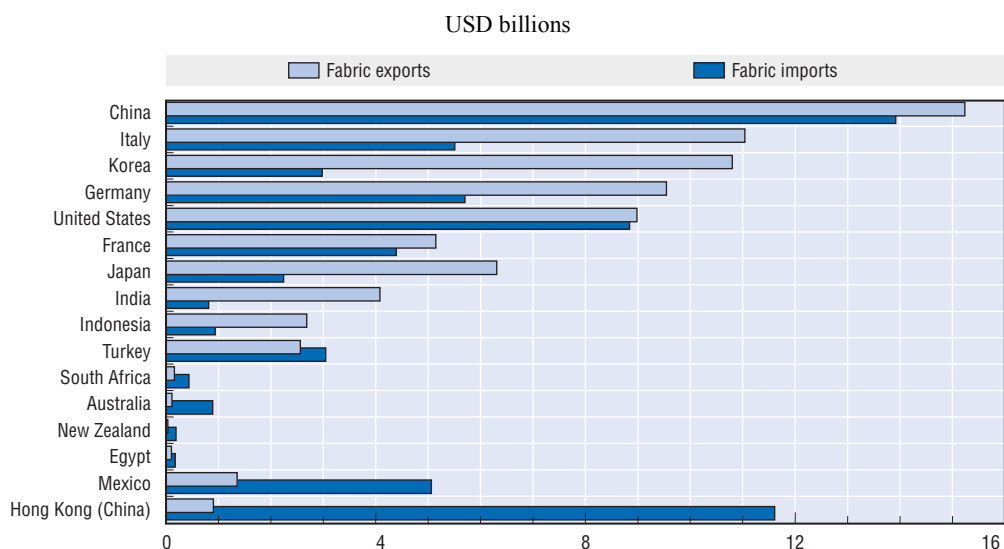
Figure 1.3. Global trade in textile fibres, 2002



Note: Textile fibres: 5001 through 5003.90, 5101.11 through 5105.40, 5201 through 5203.00, and 5301.10 through 5305.99.

Source: Calculated from WITS data.

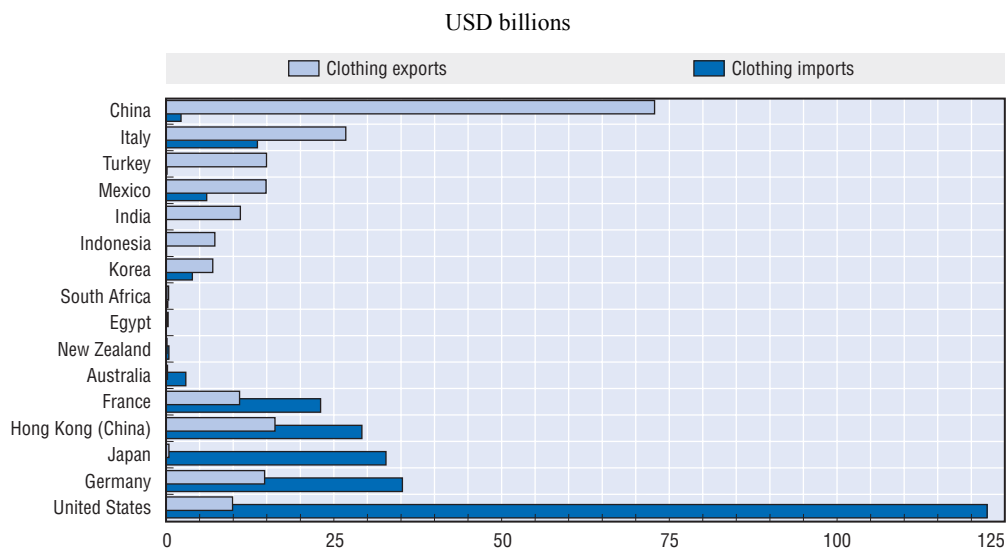
Figure 1.4. Global trade in textile fabrics, 2002



Note: Textile fabrics: 5004 through 5007.90, 5106.10 through 5113, 5204.11 through 5215.25, 5306.10 through 5311, Chapter 54, Chapter 55, 5601.30 through 5607.90, Chapter 58, 5901.10 through 5901.90, 5903.10 through 5903.90, 5907, 5911.10, and Chapter 60.

Source: Calculated from WITS data.

Figure 1.5. Global trade in clothing, 2002



Note: Clothing: Chapters 61 and 62.

Source: Calculated from WITS data.

In 2000, the United States, the EU and Japan together contributed around 70% to global value added² in textiles and clothing (Table 1.3). During that same year, China added another 12% and 10%, respectively. Also in 2000, the contribution of textiles and clothing to domestic value added in manufacturing in industrial countries was 2% and 1.5%, respectively, down from their 1980 levels of 5% and 3%, respectively; in the developing world, the shares in 2000 were 5.5% and 3.2%, respectively, down from their 1980 levels of 9.9% and 3.5%, respectively (Table 1.4).

Table 1.3. Domestic value added in textiles and clothing, 2000

Textiles			Clothing		
Country/Name	USD millions	% of total	Country/Name	USD millions	% of total
United States	40 231	29%	United States	26 816	33%
Japan	19 757	14%	Japan	8 013	10%
China	15 375	11%	Italy	7 524	9%
Italy	10 241	8%	China	7 151	9%
Korea	9 743	7%	Korea	3 840	5%
Germany	4 941	4%	United Kingdom	3 058	4%
United Kingdom	4 931	4%	Germany	2 606	3%
India	3 804	3%	Canada	2 569	3%
France	3 622	3%	France	2 354	3%
Indonesia	2 698	2%	Spain	2 130	3%
Spain	2 678	2%	Turkey	1 890	2%
Canada	2 602	2%	Poland	1 411	2%
Iran	2 254	2%	Portugal	1 126	1%
Mexico	1 630	1%	Indonesia	1 049	1%
Portugal	1 253	1%	Hong Kong, China	846	1%
Hong Kong, China	930	1%	India	814	1%
Netherlands	929	1%	Australia	808	1%
Australia	861	1%	Tunisia	696	1%
Poland	713	1%	Puerto Rico	610	1%
Malaysia	648	0.5%	Colombia	583	1%
Colombia	646	0.5%	Romania	490	1%
Austria	640	0.5%	Malaysia	439	1%
Israel	547	0.4%	Morocco	424	1%
Russian Federation	505	0.4%	Mexico	403	0.5%
Morocco	363	0.3%	Viet Nam	376	0.5%
Tunisia	334	0.2%	Sri Lanka	368	0.5%
Slovenia	318	0.2%	Russian Federation	270	0.3%
Sweden	301	0.2%	Hungary	260	0.3%
Romania	300	0.2%	Israel	242	0.3%
Chile	245	0.2%	Serbia and Montenegro	218	0.3%
Finland	244	0.2%	Chile	208	0.3%
Serbia and Montenegro	244	0.2%	Finland	171	0.2%
Ireland	217	0.2%	Singapore	150	0.2%
Sri Lanka	208	0.2%	Bulgaria	140	0.2%
Viet Nam	199	0.1%	Netherlands	137	0.2%
Hungary	172	0.1%	Ireland	79	0.1%
Norway	168	0.1%	Costa Rica	69	0.1%
Luxembourg	123	0.1%	Iran	58	0.1%
Uruguay	87	0.1%	Jordan	57	0.1%
Latvia	72	0.1%	Estonia	55	0.1%
Bulgaria	57	0.04%	Latvia	50	0.1%
Kenya	55	0.04%	Uruguay	48	0.1%
Singapore	53	0.04%	Sweden	47	0.1%
Estonia	48	0.03%	Norway	45	0.1%
Costa Rica	46	0.03%	Cyprus	39	0.05%
Ethiopia	29	0.02%	Oman	38	0.05%
Jordan	28	0.02%	Kenya	25	0.03%
Bolivia	25	0.02%	Panama	18	0.02%
Puerto Rico	22	0.02%	Bolivia	9	0.01%
Cyprus	14	0.01%	Ethiopia	3	0.004%
Botswana	11	0.01%	Myanmar	1	0.002%
Oman	8	0.01%	Eritrea	1	0.001%
Senegal	6	0.004%	Grand total	80 831	100%
Eritrea	3	0.002%	Number of countries	52	
Panama	3	0.002%			
Grand total	136 501	100%			
Number of countries	55				

Note: Some major producers/exporters may be excluded because data are not available for 2000. For instance, latest data for Bangladesh: 1997, for Thailand:1994, no data available for Pakistan.

Source : INDSTATS3 2004 ISIC Rev.2, Industrial Statistics Database at the 3-digit level of ISIC Code (Rev.2).

Table 1.4. Contribution of textiles and clothing to domestic value added in manufacturing, by region, selected years

		Textiles					Clothing						
		1980	1985	1990	1995	2000	2001	1980	1985	1990	1995	2000	2001
<i>Industrialised countries</i>													
All countries		5.0	4.6	3.7	2.8	2.0	2.0	3.0	2.7	2.7	2.2	1.5	1.5
Eastern Europe and former USSR		8.7	7.8	8.7	4.4	3.3	4.0	4.3	4.1	5.1	3.7	3.3	3.7
Western Europe	EC	4.5	4.3	3.5	3.3	2.7	2.6	2.9	2.7	2.9	2.5	1.7	1.7
	Other	3.2	2.8	2.4	2.2	1.5	1.2	2.4	2.0	1.1	0.9	0.7	0.7
Japan		4.1	3.3	3.0	2.2	1.6	1.6	1.4	1.2	1.7	1.8	1.2	1.1
North America		3.1	2.7	2.6	2.5	1.4	1.3	2.6	2.2	2.3	2.0	1.1	1.1
<i>Developing countries</i>													
All countries		9.9	9.4	7.6	6.4	5.5	5.4	3.5	3.4	5.4	3.9	3.2	3.2
NICS		9.8	9.1	7.1	6.1	5.2	5.0	3.8	4.0	5.3	3.5	2.5	2.3
2nd generation NICs		9.9	10.2	8.6	6.1	5.3	5.3	3.4	2.6	6.4	4.8	4.4	4.5
LDCs				15.1	12.0	10.0	9.7			7.2	7.9	8.7	8.7
China		15.1	11.0	11.4	7.3	6.5	6.7	3.1	3.1	3.4	4.4	4.7	5.2
Others		10.2	9.7	7.2	6.8	6.4	6.3	2.9	2.5	4.7	4.1	3.7	3.6

NIC = newly industrialising country. LDC = least developed country.

Source: 1980-1985: UNIDO (1995), International Yearbook of Industrial Statistics, percentage shares of individual branches in total manufacturing value added at constant 1980 prices (except China, at current prices). Data 1990-2001: UNIDO (2003), International Yearbook of Industrial Statistics, percentage shares of individual branches in total manufacturing value added at constant 1990 prices (except China, at current prices). After 1990, EU data include estimates for eastern Germany.

The textile industry employed more than 11 million people worldwide in 2000, with 4.8 million in China alone (Table 1.5).³ Close to 6.8 million are employed by the clothing industry, with China again contributing the lion's share with 2.2 million.

The textiles and clothing industry is a large and diverse sector that can be subdivided into either three or four distinct parts. The traditional division is between the production of natural fibres,⁴ fabrics and finished clothing.⁵ The present study adds the import and retail segments as another link in the industry's value chain. This is justified by the fact that traditional distinctions between manufacturing and retailing are being blurred by technological advances and organisational innovations.⁶ Some "manufacturers" do not actually produce clothing but contract out all production and market the finished goods in their own speciality stores. Many retailers also perform essentially the same function and are moving the industry from a producer-driven to a buyer-driven model of production. In addition to these four links in the value chain, there are ancillary industries to be taken into account. These include suppliers of both minor inputs (e.g. zippers and buttons, packaging material) as well as capital equipment.

Table 1.5. Domestic employment in textiles and clothing, by available data for 2000

Country/Name	Textiles		Country/Name	Clothing	
	Persons	% of total		Persons	% of total
China	4 829 000	44%	China	2 156 000	32%
India	1 288 647	12%	Indonesia	479 155	7%
Indonesia	657 464	6%	United States	475 890	7%
United States	652 726	6%	India	329 401	5%
Russian Federation	457 852	4%	Russian Federation	259 836	4%
Japan	341 049	3%	Poland	257 500	4%
Italy	259 527	2%	Italy	239 983	4%
Korea	223 052	2%	Japan	217 154	3%
Chinese Taipei	172 330	2%	Viet Nam	213 027	3%
United Kingdom	144 525	1%	Sri Lanka	152 686	2%
Iran	141 818	1%	Turkey	147 178	2%
Germany	135 664	1%	Korea	139 070	2%
Viet Nam	125 313	1%	Portugal	135 847	2%
Mexico	113 681	1%	Morocco	127 878	2%
Spain	105 642	1%	Spain	123 251	2%
France	102 298	1%	United Kingdom	121 308	2%
Portugal	99 321	1%	Ukraine	106 000	2%
Poland	97 100	1%	Bulgaria	101 736	2%
Romania	94 300	1%	Canada	82 046	1%
Ukraine	89 000	1%	France	77 839	1%
Tunisia	84 759	1%	Germany	77 173	1%
Sri Lanka	72 499	1%	Chinese Taipei	74 742	1%
South Africa	65 929	1%	Malaysia	74 087	1%
Morocco	65 185	1%	Tunisia	69 729	1%
Canada	64 702	1%	Hungary	68 074	1%
Malaysia	45 781	0.4%	Colombia	60 451	1%
Serbia and Montenegro	44 100	0.4%	Serbia and Montenegro	47 000	1%
Colombia	39 287	0.4%	Mexico	39 089	1%
Hungary	33 226	0.3%	Lithuania	29 981	0.4%
Slovenia	31 558	0.3%	Croatia	29 400	0.4%
Bulgaria	30 954	0.3%	Costa Rica	29 286	0.4%
Hong Kong, China	28 100	0.3%	Hong Kong, China	26 200	0.4%
Kenya	27 190	0.2%	Australia	25 615	0.4%
Ethiopia	23 747	0.2%	Puerto Rico	15 250	0.2%
Tajikistan	22 968	0.2%	Jordan	14 216	0.2%
Israel	20 800	0.2%	Estonia	13 400	0.2%
Australia	20 791	0.2%	Latvia	12 861	0.2%
Lithuania	20 443	0.2%	Israel	12 000	0.2%
Azerbaijan	20 265	0.2%	Chile	9 800	0.1%
Netherlands	17 632	0.2%	Singapore	8 519	0.1%
Austria	15 641	0.1%	Kenya	7 284	0.1%
Kyrgyzstan	13 297	0.1%	New Zealand	7 249	0.1%
Chile	13 000	0.1%	Armenia	6 940	0.1%
Croatia	11 578	0.1%	Oman	6 357	0.1%
Latvia	10 383	0.1%	Kyrgyzstan	6 261	0.1%
Estonia	8 600	0.1%	Finland	5 970	0.1%
Sweden	8 309	0.1%	Uruguay	4 911	0.1%
New Zealand	8 009	0.1%	Iran	4 800	0.1%
Ireland	7 888	0.1%	Ireland	4 250	0.1%
Armenia	7 225	0.1%	Azerbaijan	4 045	0.1%

Table 1.5. Domestic employment in textiles and clothing, by available data for 2000 (cont.)

Textiles			Clothing		
Country/Name	Persons	% of total	Country/Name	Persons	% of total
Costa Rica	6 531	0.1%	Ethiopia	3 752	0.1%
Finland	5 832	0.1%	Netherlands	3 714	0.1%
Uruguay	4 916	0.04%	Tajikistan	3 478	0.1%
Norway	4 722	0.04%	Panama	2 552	0.04%
Bolivia	4 000	0.04%	Cyprus	2 473	0.04%
Mozambique	3 290	0.03%	Sweden	1 797	0.03%
Botswana	2 732	0.02%	Bolivia	1 751	0.03%
Eritrea	2 723	0.02%	Mozambique	1 572	0.02%
Jordan	2 321	0.02%	Norway	1 400	0.02%
Puerto Rico	1 620	0.01%	Eritrea	400	0.01%
Singapore	1 556	0.01%	Myanmar	278	0.004%
Senegal	1 026	0.01%	Bahamas	153	0.002%
Cyprus	968	0.01%	Saint Vincent & the Grenadines	72	0.001%
Luxembourg	768	0.01%	Bermuda	15	0.0002%
Oman	428	0.004%	Grand total	6 761 132	100%
Panama	244	0.002%	Number of countries	64	
Bahamas	26	0.0002%			
Bermuda	12	0.0001%			
Grand total	11 057 870	100%			
Number of countries	68				

Note: Some major producers/exporters may be excluded because data are not available for 2000. For instance, latest data for Bangladesh: 1997, for Thailand: 1994, no data available for Pakistan.

Source: INDSTATS3 2004 ISIC Rev.2, Industrial Statistics Database at the 3-digit level of ISIC Code (Rev.2)

The industry examined here is confined to those segments related to apparel. As one moves backwards from clothing to fabric to fibres, some of the stream of production is diverted to other uses: some fibres are used to make products other than fabric (*e.g.* cotton balls), and some fabrics are used to make products other than clothing (*e.g.* carpets and bed sheets). While these other products are of some importance to the upstream producers, the focus here is on the supply chain that leads directly to (and from) clothing.

It is overly simplistic to concentrate solely on the clothing segment of the value chain, and to conclude that, owing to the high labour content of these goods, developing countries will inevitably dominate the industry. Important distinctions can be made among segments of the industry (*e.g.* between capital-intensive fabric production and labour-intensive clothing production) and within segments (*e.g.* between the production of commodities such as underwear and high-end products such as tailored suits). Each of the segments in the textile and clothing value chain offers opportunities for countries with differing resource endowments. As illustrated in the matrix below, at least four general types of countries can be identified. The opportunities for agricultural versus non-agricultural economies, and for developing versus OECD countries, break down as follows:

- The division in the natural fibre sector is between agricultural and non-agricultural economies, rather than developing and developed countries.

- Fabric production is somewhat capital-intensive and susceptible to technological advances and lies at the cusp of competition between developed and developing countries.
- Clothing production is labour-intensive, thus giving a great advantage to developing countries in most product lines other than high-fashion and speciality products.
- Retailers in OECD countries, especially those that develop their own design capacities and ties to offshore manufacturing centres, are coming to dominate a greater length of the value chain.

	Developed countries	Developing countries
Self-sufficient in fibres	Net exporter of fibres; position in fabric is indeterminate (case by case); net importer of clothing Examples: Australia, France, New Zealand, United States	Competitive in fibres (which might be retained for domestic use); position in fabric is indeterminate; net exporter of clothing Examples: China, Pakistan, South Africa
Net fibre importer	Do not produce fibres for export; position in fabric is indeterminate; net importer of clothing Examples: Japan, Korea	Do not produce fibres for export; position in fabric is indeterminate; net exporter of clothing Examples: India, Indonesia

The adjustment challenge

The distinctions between country types and industry segments may become sharper following the abolition of the remaining MFA quotas on 1 January 2005. During the four decades of quantitative restrictions under the MFA and its predecessors, production and trade in both developed and developing countries were severely distorted. Quotas prolonged the lives of mature industries in some OECD countries, promoted the birth of “quota babies” in many developing countries, and stifled the growth of industries in some of the larger, more competitive countries. The quotas also affected relations between segments of the industry in some OECD countries, with producers of fabric and clothing making common cause in pursuit of continued protection from import competition.

A massive restructuring is anticipated with the demise of quotas. This event is best viewed as part of a longer process of adjustment, which has taken place over both the medium term (the MFA phase-out has lasted a decade) and the long term (the textiles and clothing industry has long migrated with the industrial evolution of countries). Planning for the post-MFA market, combined with technological developments and evolutionary changes in national policies, has already encouraged a major reordering of patterns of trade and investment. Firms in all countries and segments of the industry will continue to face the challenges of adjustment.

The clothing sector is expected to see the greatest restructuring. It is generally anticipated that the main beneficiaries of the MFA’s demise will be developing-country producers that enjoy economies of scale, low labour costs, vertical integration and underutilised capacity. China is the most notable example, but others (*e.g.* Pakistan) may also do well in the post-MFA environment. The adjustment may be most difficult in countries that have depended on the quota system either to extend the period for adjustment or to establish new operations. The outcome is most difficult to predict for those relatively lower-income OECD countries, or relatively higher-income developing countries, that occupy the middle ground of competitiveness. As discussed below, their

prospects may be enhanced through such means as industrial modernisation and co-production (encouraged through preferential trade arrangements).

At the economy-wide level, it is important to note that most innovations in textiles and clothing come from other industries. New materials are mainly developed in the chemicals industry, and new processes are developed in the machinery industry. This means that the technological competitiveness of producers of textiles and clothing largely depends on their ability to adopt new products and processes developed elsewhere. Therefore, the major focus of innovative activities in these industries is on technology transfer (OECD, 2004b, Chapter 4).

Adjustment for the fibre segment: agriculture trade reform

The end of the MFA quotas will likely offer new opportunities for producers and exporters of natural fibres, owing to expanding demand. At the same time, the agricultural negotiations in the Doha Round could change the playing field. One opportunity arises in the reduction of developing countries' tariffs on fibres (see Table 1.6). Demands for agricultural subsidy reforms, which are being pursued both through negotiations and dispute-settlement cases, could also pose challenges for producers in some OECD countries.

Adjustment for the fabric segment: technology, protection and outward processing

The end of the MFA quotas may produce a short-term increase in the price of fabric, owing to increased global demand and the retention in China of some fabrics that were previously exported to other clothing-producing countries. In the medium to long term, however, there will likely be a shakeout in the fabric sector. Fabric producers in OECD countries may pursue any or all of three options to retain competitiveness and market share. The most pro-trade option is to invest in new technology, both in the product itself and in production processes. Technological developments in the machinery sector can play an important role in the modernisation of the fabric industry. At the other extreme, some fabric producers may continue to join with clothing producers to demand protection from import competition. The middle option, which has been used for years, is to promote preferential arrangements with developing countries in which the rules of origin encourage "outward processing" of fabrics. Unlike protectionism, which encourages political collaboration between fabric and clothing producers, this last option has a centrifugal effect on their relations.

Adjustment for the clothing segment: coping with an open market

Producers of clothing in the OECD countries, as well as their co-production partners in some developing countries, face a sharper and more immediate challenge than fabric producers, and there is much less scope for technological fixes than there is for fabrics. The principal options instead concern the patterns of production and trade.

One is to focus on a smaller size or segment of the market. This might variously mean concentration on high-end and niche markets or moving from production into related services (*e.g.* design and/or contracting). Another option is offshore production, which may be supported through preferential trade arrangements. Clothing producers that take this route sometimes come into conflict with fabric producers over the rules of origin that should apply.

Table 1.6. Selected countries' bound tariff rates on fibre, fabric and clothing after the Uruguay Round

HS #	Description	OECD countries				Non-OECD countries			
		Australia	EU	Japan	United States	Bangladesh	Brazil	China	India
<i>Textile fibres</i>									
5002	Raw silk	0	0	0	0	Unbound	35%	9%	100%
5101	Wool, not carded or combed	1%	0	0	0-spec.	Unbound	15.3-18%	38%	25-100%
5105	Wool, carded or combed	0	2%	0	0-spec.	Unbound	35%	5-38%	Unbound
5201	Cotton, not carded or combed	0	0	0	0-spec.	Unbound	55%	40%	100%
5303.10	Raw jute	0	0	0	0	50%	35%	5%	40%
<i>Textile fabrics</i>									
5007	Woven fabrics of silk	25-42%	3-7.5%	8-12.5%	0-3.9%	Unbound	35%	10%	Unbound
5112	Woven fabrics of combed wool	23-45%	7.2-8%	5.3-7.9%	6.9-25%	Unbound	35%	10%	Unbound
5208	Woven fabrics of cotton	23-40%	8%	3.7-5.6%	0-14.7%	Unbound	35%	10-12%	Unbound
<i>Clothing</i>									
6109	T-shirts, singlets, tank tops	55%	12%	7.5-10.9%	5.6-32%	Unbound	Unbound	14%	Unbound
6110	Sweaters, pullovers, etc.	37-55%	10.5-12%	9.1-10.9%	4-32%	Unbound	35%	14-16%	Unbound
6115	Socks and other hosiery	15-55%	8-12%	5.3-7.4%	1.6-18.8%	Unbound	35%	14-16%	Unbound
6203	Men's or boy's suits, trousers, etc.	37-55%	12%	9.1-12.8%	0-27.9%	Unbound	35%	16-17.5%	Unbound
6204	Women's or girls' dresses, etc.	37-55%	12%	9.1-12.8%	0-28.6%	Unbound	35%	14-20%	Unbound
6205	Men's or boys' shirts	37-55%	12%	7.4-9%	2.8%-spec.	Unbound	35%	16%	Unbound
6212	Brassieres, girdles, corsets, etc.	25-95%	6.5%	8-8.4%	2.7-23.5%	Unbound	35%	14-16%	Unbound

Notes: Item descriptions are shortened here for clarity. "Spec." denotes a specific tariff (e.g. USD 1 per kilogram) for which the *ad valorem* equivalent will vary with price. China's tariff concessions are being phased in during 2002-10.

Textile fibres: 5001 through 5003.90, 5101.11 through 5105.40, 5201 through 5203.00, and 5301.10 through 5305.99.

Textile fabrics: 5004 through 5007.90, 5106.10 through 5113, 5204.11 through 5215.25, 5306.10 through 5311, Chapter 54, Chapter 55, 5601.30 through 5607.90, Chapter 58, 5901.10 through 5901.90, 5903.10 through 5903.90, 5907, 5911.10, and Chapter 60.

Clothing: Chapters 61 and 62.

Source: Countries' schedules on goods, available at www.to.org/english/tratop_e/schedules_e/goods_schedules_e.htm.

Decisions either to downsize or offshore place much of the burden of adjustment on domestic workers. In several OECD countries, the clothing segment has already shed especially large numbers of jobs over the past few decades. The process of adjustment may be eased, both for the workers and the economy as a whole, through retraining and other forms of trade-related adjustment assistance (OECD, 2004b, Chapter 4).

Domestic producers that do not opt to produce offshore, whether they downsize or not, may fall back on demands for protection. Such demands come in two forms: a

slowdown or postponement of the liberalisation schedule and the imposition of new restrictions. Either way, protection merely prolongs and distorts the adjustment process.

Adjustment for retail: modernisation and contract manufacturing

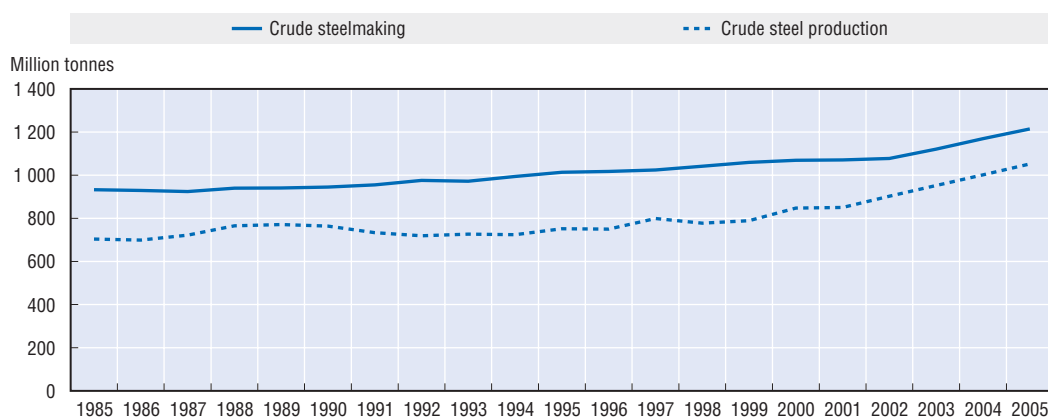
Retailers are the most pro-market segment of the value chain, but this does not mean that they are all prospering. Small and medium-sized retailers in OECD countries have come under tremendous competitive pressure in recent years, and market concentration has increased. One way in which the larger retailers have thrived is by creating their own backward links into the value chain. That competition may be more intense in the post-MFA market, and the competition among retailers may serve to accelerate the rationalisation of global clothing trade.

Steel

Major forces at work

From the end of World War II until the early 1970s, world production of crude steel grew steadily. Growth was most dynamic in the 1960s when world crude steel production almost doubled. In the following decades, growth rates flattened. The development of the global steel market was marked by deep crises in the periods 1980-85, 1991-94 and 1998-2001. The situation changed markedly in 2003 and 2004, however. Driven by strong growth in demand from China, production and demand reached record levels in these two years. Shortages of raw materials and bottlenecks may even have hindered stronger growth. The steel industry did not fully benefit from the boom because increases in raw material prices and transport costs offset to varying extents increases in steel product prices. In 2004, world crude steel production is expected to reach 1 billion tonnes (Figure 1.6). Available figures for employment in the steel sector in OECD countries show a pronounced decline from 2.18 million in 1974 to 706 000 in 2003 (Table 1.7).

Figure 1.6. **World crude steelmaking capacity developments**



Source: OECD data compiled by the Directorate for Science, Technology and Industry.

Table 1.7. Manpower in the steel industry

	Average numbers employed ('000)					% change		
	1974	1984	1994	2001	2002	2003	2003/2002	2003/1974
Belgium/Luxembourg	86.6	51.4	30.9	24.8	25.3	25.1	-0.7	-71.0
Denmark/Ireland	3.5	2.3	1.6	1.2	1.0	1.0	0	-71.4
France	155.7	87.1	40.4	36.5	33.2	31.3	-5.7	-79.9
Germany	230.6	156.5	100.0	101.3	97.9	94.6	-3.4	-59.0
Greece	8.7	4.2	2.7	2.2	2.3	2.3	0	-73.6
Italy	93.8	81.7	45.5	37.0	36.7	38.5	+4.9	-59.0
Netherlands	23.8	18.7	13.1	11.2	12.1	11.9	-1.7	-50.0
Portugal	5.0	6.7	2.9	0.9	2.1	1.9	-9.5	-62.0
Spain	89.4	69.2	26.7	22.4	23.2	23.0	-0.9	-74.3
United Kingdom	197.7	62.3	38.5	22.4	20.9	20.2	-3.3	-89.8
EU12	894.8	540.1	302.3	259.9	254.7	249.8	-1.9	-72.1
Austria	43.0	34.9	15.4	13.7	15.3	15.3	0	-64.4
Finland	8.1	9.0	8.8	9.2	7.3	8.2	+12.3	+1.2
Sweden	51.0	32.2	20.7	19.0	18.8	18.5	-1.6	-63.7
EU15	996.9	616.2	347.2	301.8	296.1	291.8	-1.5	-70.7
Norway	7.3 ¹	4.0	1.3	1.3*	1.0	1.0	0	-86.3
Switzerland	5.2	3.0	1.6	1.0	1.0	1.0	0	-80.8
Turkey	36.1	35.0	32.4	23.4	26.7	27.1	+1.5	-24.9
Canada	52.2	51.5	31.5	28.0	27.5	29.0	+5.5	-44.4
United States	609.5	267.4	233.5	209.4	187.6	162.2	-13.5	-73.4
Australia	43.2	30.5	31.8	19.1	19.0	21.0	+10.5	-51.4
Japan	323.9	264.8	182.7	91.0	85.3	82.4	-3.4	-74.6
Mexico	45.5	77.6*	28.6	33.1	33.1	31.6	-4.5	-30.5
Korea	62.9*	62.9	59.8*	56.5	57.1	57.1	0	-9.2
Total OECD	2 183.0*	1 412.9*	990.8	764.8	743.1	706.6	-4.9	-67.6
Czech Republic	..	..	..	35.4	30.0	28.5	-5.0	..
Hungary	..	..	16.9	9.6	9.0	8.9*	-1.1	..
Poland	..	..	95.9	45.2	37.9	37.4	-1.3	..

Note: Statistics on Belgium and Luxembourg and on Denmark and Ireland are combined based on original data from the EC.

1. OECD estimate.

Source: OECD data compiled by the Directorate for Science, Technology and Industry.

Governments have played an important role in the development of the steel industry. In many countries, the steel industry was considered a strategic sector and significant efforts were made to build up or to expand the domestic industry. Even in developed market economies, the state often owned steel companies or put in place vast support programmes to foster and facilitate development of the industry. While much diminished, state ownership still exists today.

During the past 15 years, China has more than tripled its production to become the world's largest steel producer, and major players such as Korea, Brazil and Mexico have almost doubled their production. Steel producers from developing countries and

economies in transition have improved their performance. Many of the world's most competitive steel companies are now in such countries.

With the emergence of powerful new steel producers, crude steelmaking capacity expanded in the 1990s, but growth in steel consumption was less pronounced. Global capacity utilisation dropped from 81.7% in 1990 to 75.5% in 1999, but reached the 80% mark again in 2003 and has been increasing since. A considerable share of the steel capacity that came on stream over this period benefited from government support.⁷

As in other capital-intensive industries, steel companies encounter particular problems for responding to cyclical downswings in demand. Instead of reducing supplies, many producers have tried to maintain operations at a level of low average costs or even tried to increase production in order to decrease average costs in hopes of finding new demand at lower prices on domestic and foreign markets. This led to more pronounced cyclical swings than in other sectors. In the past decade alone, three cycles registered lows in 1994, 1998 and 2001. In the last of these, steel prices reached historical lows. While companies expanded capacity in times of booming steel demand, reductions in capacity did not occur or occurred only mildly in times of recession. As a result, the cyclical nature of the steel market also contributed to the development of excess capacity.

Subsidies and related government support were used to address adjustment problems in the steel industry. In difficult periods, schemes provided operational aid, debt forgiveness or equity capital injections to ailing steel companies to help them avoid collapse. Such policies contributed to an increase in inefficient excess capacity, and in this sense slowed the achievement of positive structural adjustment or were counterproductive.

Tensions in the steel trade have been common in the past several decades, as they have been accompanied by a relatively large number of trade actions against steel imports. While a global excess of inefficient steelmaking capacity is recognised as an important factor in steel trade actions and conflicts, some of the trade actions have been incompatible with established multilateral rules, thereby contributing to an escalation of conflicts relating to steel trade. In this context, the cost of steel protection has been widely recognised, particularly for steel-using manufactures such as motor vehicles and parts, farm machinery and equipment, construction machinery and equipment, shipbuilding and electrical equipment.

The adjustment challenge

Market-driven adjustment in the steel sector has focused on productivity, technology, energy-efficiency and environmental improvements. As a result, the environmentally harmful production of steel in open hearth furnaces has virtually disappeared, and the share of electric arc furnaces has increased steadily to some 35% in 2001. The energy-efficient continuously cast technology is now applied to almost 90% of world steel output. However, the industry widely failed to adapt capacity levels to the needs of the market either during macroeconomic crises such as the second oil price shock in the late 1970s or the financial crisis that started in Southeast Asia in 1997. Market forces were also unable to address the adjustment needs stemming from recurrent cyclical trade conflicts in the globalising steel market owing to the highly protected and distorted steel markets. With a certain delay compared to other manufacturing sectors, the steel industry engaged in a wave of cross-border acquisitions and mergers in the late 1990s that resulted in a much higher level of concentration.

Governments recurrently pursued policies designed to restructure their domestic steel industries. In the European Union for example, restructuring in response to the steel crises of the 1980s and the early 1990s resulted in capacity reductions of 31 million tonnes and 19 million tonnes, respectively, and the labour force declined continuously from 1 million in 1973 to 301 800 in 2001. These reductions represented nearly 25% of EU crude steelmaking capacity at that time. However, given the global nature of the steel market, such regional or national approaches only made a limited contribution to resolving the adjustment problems of the steel market (See Part II, Chapter 7, for examples of restructuring in other regions).

Other government restructuring policies also did not go far enough to respond fully to the existence of inefficient excess capacity. The restructuring of the steel sector is a costly process that implies high social costs for workers made redundant and for communities in which the steel company is often the main employer. This explains to some extent why companies maintain operations and why governments are reluctant to impose restructuring plans. However, in some countries the steel industry restructured without the benefit of government plans.

In many developing countries, the restructuring of small and medium-sized steel companies remains an issue of great concern. These companies often suffer from developmental disadvantages such as deficient infrastructure and financial markets and obsolescent equipment. With public budgets stretched to the limit, governments of developing countries may be unable to provide the support without which such companies are unable to modernise and upgrade.

In 2001, governments from virtually all major steel-producing countries launched an ambitious initiative to go far beyond existing WTO rules in prohibiting trade-distorting subsidies in steel and eliminating inefficient excess capacity. If the OECD High-level Steel Initiative succeeds, notably with regard to the successful conclusion of a multilateral Steel Subsidy Agreement, and normal competitive conditions reign on steel markets, tensions on the global steel market should decrease and prospects for sound structural adjustment in the sector should improve.⁸

Shipbuilding

Major forces at work

Structural characteristics

The shipbuilding industry employs a large workforce, and its technological developments are linked to related activities in the iron and steel, electrical and mechanical industries. It is regionally based around coastal areas and helps to sustain regional economies. Such socio-economic factors, combined with the strategic importance of shipbuilding for naval defence, have led governments to attempt to maintain at least parts of their shipbuilding industry and to minimise the impacts of adjustments when these became unavoidable.

In considering the effects of trade on the structure of shipbuilding, it is important to recognise the importance of the competitive nature of the market in which shipbuilding operates. According to a recent expert group on shipbuilding convened by the OECD Special Negotiating Group that is considering a new Shipbuilding Agreement, the shipbuilding market is by nature a world market that is open to all buyers and to all suppliers. This means that once a shipbuilding company becomes competitive, either

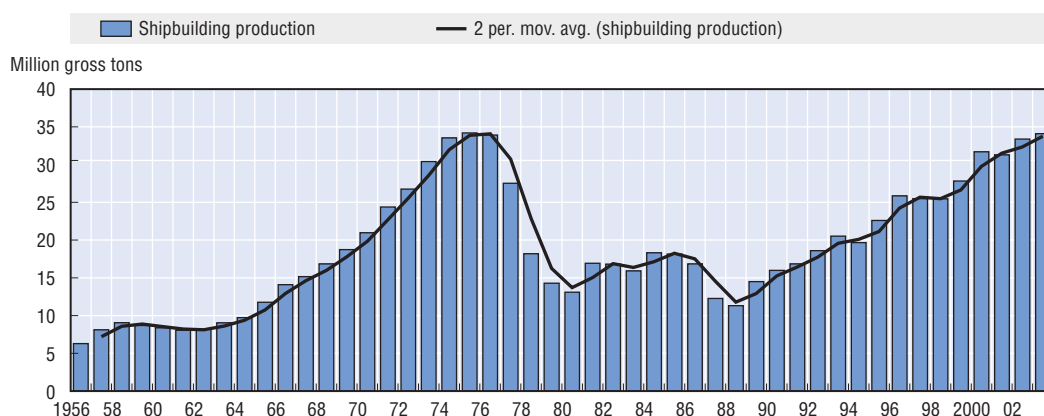
through competitive prices or technological sophistication, it has access to the whole world market. In turn, this facilitates economies of scale which help it to maintain its competitiveness.

Therefore, new countries have been entering the market, endowed with their own competitive advantages (initially based on low-cost labour). They expect to seize the opportunity to access the world market and use shipbuilding as an efficient path to development. This pattern was observed in Japan in the 1960s, in Korea in the 1970s and more recently in China. At the same time, the more mature markets have tried to protect both their position in the industry and whatever market share they possess. The combination of these characteristics greatly increases the risk of persistent overcapacity involving both developed and developing economies and the subsequent intensification of severe price competition.

Fluctuations in shipbuilding

Seen from the demand side, new orders derive from the maritime industry (*i.e.* sea-borne trade volume to be transported by ships), which is itself significantly affected by the world economic situation. As a result, the world's shipbuilding industry has been highly susceptible to external macroeconomic events, with the after-effects of such events exacerbating structural problems in the industry (in particular that of overcapacity). As can be seen in Figure 1.7, the world's shipbuilding industry experienced an unprecedented crisis in the aftermath of the oil shock of 1973-74, from which it took more than a decade to recover. Figure 1.7 also shows a sharp plunge in production starting from 1975, reflecting the 1-2 year lead time in the construction of vessels. There was subsequently a decrease of over 60% in production between 1975 and 1980. The figure also shows that production has been increasing steeply over the last several years.

Figure 1.7. Shipbuilding production, 1956-2003



Source: Data compiled by the Direction for Science, Technology and Industry.

The adjustment challenge

Once an emerging economy has entered the shipbuilding market, there is pressure on the government to maintain it, even in the face of unfavourable structural, economic and market trends. Within the OECD area (but also outside it), these efforts have involved subsidisation and other support measures to back the industry and secure its operation to the greatest extent possible. While such domestic policies may have their own rationale as

part of the national agenda, disputes have arisen as to whether or not they are consistent with existing international rules; this is apparent in the EC-Korea shipbuilding disputes currently being examined at the WTO.

On the other hand, recognising the global nature of the problems to be addressed, national governments have also attempted to co-ordinate their policies internationally. Efforts were made in the framework of OECD Working Party on Shipbuilding as early as the 1960s to eliminate subsidies and overcapacity.⁹ The OECD guidelines have served as elements to be reflected in domestic policies.

Some of those policies have been fine-tuned to address the need for domestic structural adjustment; one example is the European approach of providing aid conditional on capacity reduction or the restructuring and closure of shipyards. In Japan, there has been continuing dialogue between government and the industry, based upon expert guidance from government and industry, on ways to enable both policy makers and the industry to respond quickly to changing economic conditions. In Australia, structural adjustment was facilitated by exploiting technological change and finding a niche market for the shipbuilding industry.

As a consequence of these efforts, shipbuilding capacity in the OECD area as a whole was reduced by some 50% between 1973-74 and the mid-1980s, with some countries seeing the virtual disappearance of their industry. The Agreement Respecting Normal Competitive Conditions in the Commercial Shipbuilding and Repair Industry, concluded in 1994, provided for binding rules to eliminate government subsidies and injurious pricing practices. However, the Agreement never entered into force, because it lacked one final ratification. Currently, negotiations are under way on a new Shipbuilding Agreement with all the major shipbuilding economies, both OECD and non-OECD, with the aim of concluding the negotiations by the end of 2005.

While the world's shipbuilding industry is currently enjoying record production levels, it still faces a number of challenges which, if no action is taken, will put the economic viability of the industry at risk in developed as well as developing economies. Persistent worldwide overcapacity, government support and other market-distorting practices (not exclusively in the area of pricing) are among the major structural problems that should be addressed through close co operation (and are currently discussed in the negotiation on a new Shipbuilding Agreement) among major shipbuilding countries in order to ensure normal competitive conditions in world shipbuilding.

The challenge ahead for policy makers in both developing and developed countries is to reflect these international developments in domestic policies and find suitable ways of smoothing out the effects of necessary structural adjustment, without adversely affecting competitive shipbuilders.

Developed countries with a mature shipbuilding industry are faced with the urgent need to push forward structural adjustment programmes in order to facilitate restructuring and enable their industry to survive in the international market. The shipbuilding industry in developing countries has been growing over the past decades and some developing countries are highly efficient and competitive in the international market. However, developing countries are also confronted with the need to reorganise inefficient shipbuilding companies so as to preserve their competitiveness and ability to grow in the future.

Motor vehicles

Major forces at work

The motor vehicles industry is one of the world's largest manufacturing industries, and as such it is a critical driver of economic activity, contributing substantially to employment and productivity. During the last 20 years, the share of motor vehicles in domestic manufacturing value added in industrial countries has hovered around 10%, against a near doubling in developing countries, from 5.7% in 1980 to 10.6% in 2001 (Table 1.8). In 2000, the industry employed close to 11 million people in 55 different countries, with more than 3 million in China alone (Table 1.9).

Table 1.8. **Contribution of transport equipment to domestic value added in manufacturing, by region, selected years**

		Transport equipment					
		1980	1985	1990	1995	2000	2001
		<i>Industrial countries</i>					
All countries		9.1	9.4	10.4	9.5	8.8	8.9
Eastern Europe and former USSR		5.7	6.0	6.5	6.6	7.2	7.0
Western Europe	EC	10.6	10.7	10.8	9.3	9.7	9.8
	Other	6.2	6.2	2.9	3.2	2.9	2.9
Japan		10.0	9.0	10.7	10.2	10.4	11.4
North America		10.5	11.9	11.7	10.0	7.7	7.6
		<i>Developing countries</i>					
All countries		5.7	5.1	7.4	8.4	9.7	10.6
NICs		6.8	6.1	9.2	10.1	12.2	13.7
2nd generation NICs		4.6	5.4	6.8	8.3	7.8	8.6
LDCs				2.0	1.6	1.5	1.4
China		3.4	5.3	4.3	6.5	6.8	7.9
Others		3.6	2.5	2.6	3.3	4.0	3.3

NIC = newly industrialising country. LDC = least developed country.

Source: Data 1980-1985: UNIDO (1995), International Yearbook of Industrial Statistics, percentage shares of individual branches in total manufacturing value added at constant 1980 prices (except China, at current prices). Data 1990-2001: UNIDO (2003), International Yearbook of Industrial Statistics, percentage shares of individual branches in total manufacturing value added at constant 1990 prices (except China, at current prices). After 1990, EU data include estimates for the eastern part of Germany.

The industry also plays a significant role in world trade: in 2003, global exports of motor vehicles amounted to USD 723 billion, or 10% of world exports. The United States remains the largest single-country trader of motor vehicles: in 2003, it exported for a total of USD 69.3 billion and imported USD 181 billion worth of motor vehicles, for a share of 9.6% of worldwide exports, down from 11.9% in 1980; however, the US share of world imports during the same period increased from 20.3% in 1980 to 28.7% in 2003 (Table 1.10). In 2003, extra-EU trade, the second largest in the world, amounted to USD 191.5 billion (exports of USD 125 billion and imports of USD 66.5 billion). Its

shares in global exports declined from 19.8% in 1980 to 14.2% in 2003 and its shares in global imports increased from 5.3% to 9.1% over the same period.

Table 1.9. **Domestic employment in transport equipment, 2000**

Country/Name	Transport equipment		Country/Name	Transport equipment	
	Persons	% of total		Persons	% of total
China	3 062 000	27.7	Croatia	19 319	0.2
United States	1 735 315	15.7	Morocco	18 783	0.2
Germany	988 430	8.9	Israel	15 200	0.1
Japan	819 009	7.4	Ireland	15 148	0.1
Russian Federation	660 046	6.0	Bulgaria	12 999	0.1
India	441 596	4.0	Colombia	11 613	0.1
United Kingdom	404 028	3.7	Chile	9 145	0.1
France	383 583	3.5	Azerbaijan	8 906	0.1
Korea	295 637	2.7	Hong Kong, China	8 400	0.1
Italy	261 431	2.4	Sri Lanka	7 794	0.1
Canada	235 563	2.1	Kenya	7 758	0.1
Spain	213 659	1.9	New Zealand	7 546	0.1
Ukraine	201 000	1.8	Lithuania	6 334	0.1
Poland	175 400	1.6	Latvia	5 178	0.0
Mexico	155 166	1.4	Tunisia	4 221	0.0
Chinese Taipei	136 534	1.2	Costa Rica	2 603	0.0
Indonesia	118 376	1.1	Uruguay	2 065	0.0
Sweden	110 790	1.0	Ethiopia	1 729	0.0
Australia	83 927	0.8	Kyrgyzstan	1 534	0.0
Iran	71 923	0.7	Puerto Rico	1 220	0.0
Malaysia	56 129	0.5	Tajikistan	1 149	0.0
Serbia and Montenegro	56 100	0.5	Jordan	940	0.0
Netherlands	45 851	0.4	Cyprus	448	0.0
Hungary	40 374	0.4	Bolivia	398	0.0
Norway	39 916	0.4	Eritrea	130	0.0
Portugal	39 771	0.4	Oman	122	0.0
Singapore	35 844	0.3	Bahamas	23	0.0
Finland	23 409	0.2			
			Grand total	11 061 512	100/0%
			No. of countries	55	55

Source: INDSTAT3 2004 ISIC Rev.2, Industrial Statistics Database at the 3-digit level of ISIC Code (Rev.2).

Table 1.10. Leading exporters and importers of automotive products, 2003

USD billions and percentages

	Value	Share in world exports/imports				Annual percentage change			
	2003	1980	1990	2000	2003	1995-00	2001	2002	2003
Exporters									
European Union(15)	371.11	52.8	53.8	46.8	51.3	3	2	12	20
Extra-EU15 exports	124.97	19.5	14.3	14.5	17.3	4	5	17	22
Japan	102.73	19.8	20.8	15.3	14.2	2	-9	15	11
United States	69.25	11.9	10.2	11.7	9.6	5	-6	6	3
Canada	56.95	6.9	8.9	10.5	7.9	7	-9	2	1
Mexico ¹	30.13	0.3	1.5	5.3	4.2	17	0	1	-3
Korea ²	22.36	0.1	0.7	2.6	3.1	11	2	10	31
Czech Republic ¹	7.87	-	-	0.8	1.1	...	19	16	23
Hungary ¹	7.21	0.6	0.2	0.8	1.0	...	12	12	20
Poland	7.12	0.6	0.1	0.7	1.0	...	6	23	37
Brazil	6.53	1.1	0.6	0.8	0.9	10	3	2	33
Slovak Republic	5.91	-	-	0.4	0.8	...	-5	23	111
Turkey	4.90	0.0	0.0	0.3	0.7	19	54	35	55
Thailand ²	3.97	0.0	0.0	0.4	0.5	38	11	8	38
China ¹	3.57	0.0	0.1	0.3	0.5	21	20	41	33
Chinese Taipei	3.05	...	0.3	0.4	0.4	6	-2	14	23
Above 15	702.67	94.3	97.3	97.1	97.1	-	-	-	-
Importers									
European Union (15)	312.66	37.5	47.0	39.3	42.6	4	1	10	22
Extra-EU15 imports	66.52	5.3	7.3	7.6	9.1	10	2	12	30
United States	181.28	20.3	24.7	28.9	24.7	10	-3	7	3
Canada ³	49.00	8.7	7.7	7.9	6.7	7	-9	11	5
Mexico ^{1,3}	20.19	1.8	1.6	3.4	2.7	35	-2	9	-5
China ¹	12.78	0.6	0.6	0.6	1.7	8	29	42	84
Japan	11.13	0.5	2.3	1.7	1.5	-4	-7	7	13
Australia ³	11.10	1.3	1.2	1.5	1.5	7	-15	18	30
Switzerland	7.15	1.8	1.9	1.1	1.0	0	3	-1	11
Poland	6.83	0.9	0.1	0.7	0.9	...	7	8	35
Turkey	6.19	...	0.4	1.0	0.8	28	-64	31	122
Saudi Arabia	6.05	2.7	0.9	0.6	0.8	12	36	5	11
Russian Federation ²	5.97	-	-	0.4	0.8	...	57	19	27
Czech Republic ^{1,3}	4.79	-	-	0.4	0.7	...	23	19	26
Hungary ¹	3.94	0.4	0.2	0.4	0.5	...	2	22	27
Slovak Republic	3.64	-	-	0.2	0.5	...	25	25	66
Above 15	642.71	76.3	88.5	88.2	87.5	-	-	-	-

1. Includes shipments through processing zones.

2. Includes OECD estimates.

3. Imports are valued f.o.b.

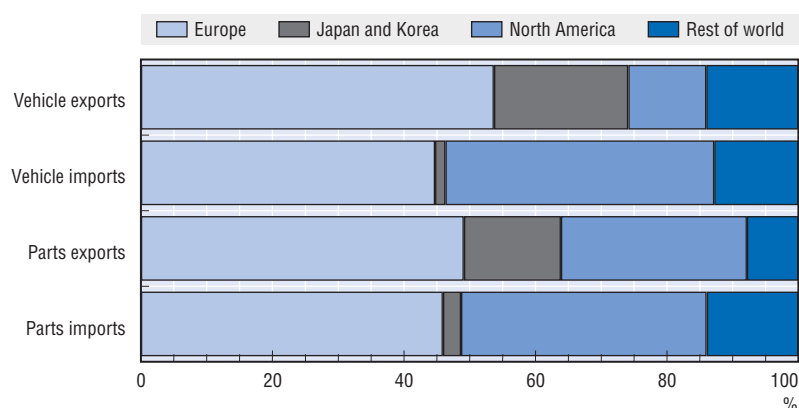
Source: WTO, *International Trade Statistics*, 2004.

The motor vehicles industry can be roughly divided in two ways. One distinction is between types of motor vehicles, which are commonly separated into passenger automobiles, light commercial vehicles (small trucks, vans, etc.) and all other motor vehicles (motorcycles, tractors, buses, large trucks, etc.).¹⁰ The principal emphasis here is upon the first two categories, but much of the production and trade data are unavoidably intermingled. The industry can also be divided into the manufacturers of parts and of finished vehicles. This distinction is so important that it is more accurate to speak of the major firms not as producers but as assemblers. A key aspect of the assemblers' adjustment efforts is a reconsideration of their relationships with parts manufacturers. The industry was once characterised by strong vertical integration, with parts producers either the actual or virtual subordinates of assemblers, but as part of the outsourcing phenomenon, parts suppliers today have larger responsibilities and more independence.

The core characteristic of this industry is its capital and technology intensity. This implies the existence of significant economies of scale and barriers to entry. For much of the 20th century, producers and policy makers in many countries concluded that domestic industries must be protected by walls of trade protection, subsidies, domestic-content laws, and the like. Even the larger, more efficient countries eventually opted to restrict import competition by imposing “voluntary” export restraints (VERs) and other protective measures. These interventionist policies collided with the inexorable economic logic of consolidation. Consolidation first took place at the national level, with smaller producers either being absorbed by others or disappearing. As protection declined, consolidation extended to the transnational level via trade competition, mergers and co-production arrangements.

Figure 1.8 illustrates two well-known facts about motor vehicles trade. First, the field continues to be dominated by the “triad” of Europe, Japan and (more recently) Korea, and North America. These three nodes still account for around 85-90% of trade in motor vehicles and parts. Second, the corners of the triad have very different patterns of trade. Whereas European trade is generally balanced, imports of finished vehicles far exceed exports in North America, while the reverse pattern prevails in Japan and Korea.

Figure 1.8. **Share of global trade in motor vehicles by value, 2002**



Source: Calculated from WITS data.

Now that VERs no longer impose strict limits on inter-triad trade and tariff levels are generally getting lower (Table 1.11), the major competitive issues in the triad arise not only between countries but also between firms. This competition between firms takes

place at two levels: parts producers and assemblers are struggling over their respective positions in the supply chain, with the old pattern of vertical integration giving way to a wider variety of relationships, while competition between assemblers is conducted as much through transnational alliances as it is through individual firms. The data in Tables 1.12 and 1.13 provide insight into the latter half of that equation. Six groups (plus Toyota) now dominate the production of passenger vehicles in every region of the world other than the former Soviet Union. Production of light commercial vehicles is more concentrated by region (two-thirds of production is in North America) and by alliance (the GM and Ford groups control nearly two-thirds).

Table 1.11. Selected countries' bound tariff rates on motor vehicles and parts after the Uruguay Round

Percentages

HS #	Description	OECD countries				Non-OECD countries			
		Australia	European Union	Japan	United States	Brazil	China	India	South Africa
<i>Motor vehicle parts</i>									
4011.10	New pneumatic tires	15	4.5	0	3.4-4	35	10	Unbound	30
8708.10	Bumpers and parts thereof	15	3-4.5	0	2.5	25	10	40	30
8708.21	Safety seat belts	15	3-4.5	0	2.5	25	10	40	30
8708.39	Brakes and parts thereof	1-15	3-4.5	0	0-2.5	25-35	10	40	30
8708.40	Gear boxes for motor vehicles	1-25	3-4.5	0	0-2.5	35	10	40	30
8708.50	Drive axles with differential	1-25	3-4.5	0	0-2.5	25	10	40	30
8708.80	Suspension shock absorbers	1-15	3-4.5	0	0-2.5	25	10	40	30
<i>Motor vehicles</i>									
8701.90	Tractors	0-5	0-7	0	0	30	8	40	10
8702.90	Motor vehicles for 10+ persons	15	10-16	0	2	35	25	40	50
8703.22	Automobiles 1000-1500cc	15-40	10	0	2.5	35	25	Unbound	50
8703.23	Automobiles 1500-3000cc	15-40	10	0	2.5	35	25	Unbound	50
8703.24	Automobiles over 3000cc	15-40	10	0	2.5	35	25	Unbound	50
8704.10	Dump trucks for off-highway use	5	0	0	0	30	6	40	50
8704.31	Motor vehicles for goods trans.	15	3.5-22	0	25	35	25	40	50

Note: Item descriptions are shortened here for clarity. China's tariff concessions are being phased in during 2002-10; all of the tariffs shown here will be in effect by 1 July 2006 (some earlier).

Source: Countries' schedules on goods, available at www.wto.org/english/tratop_e/schedules_e/goods_schedules_e.htm.

Table 1.12. Shares of global production of passenger cars, 2002

Place of production:	GM Group	Daimler Group	Toyota	VW Group	Ford Group	Renault Group	Citroen-Peugeot	All others	Total
Europe	7.40	3.21	0.92	8.61	4.52	4.01	6.28	2.81	37.76
Germany	2.12	2.39	0.00	4.39	1.69	0.00	0.00	1.92	12.51
France	0.03	0.30	0.35	0.00	0.00	2.75	4.60	0.00	8.03
Spain	0.95	0.06	0.00	1.64	0.91	0.18	1.17	0.00	4.92
United Kingdom	0.30	0.00	0.46	0.00	0.33	0.73	0.49	0.83	3.14
Italy	2.69	0.03	0.00	0.00	0.00	0.00	0.03	0.00	2.75
Other EU	0.35	0.43	0.00	0.87	1.59	0.00	0.00	0.05	3.30
Other Europe	0.95	0.00	0.11	1.70	0.00	0.35	0.00	0.01	3.12
Asia	5.44	7.93	9.78	1.07	2.09	3.44	0.59	4.01	34.35
Japan	2.88	1.67	8.58	0.00	1.75	2.91	0.00	3.24	21.04
Korea	0.93	5.33	0.00	0.00	0.02	0.29	0.00	0.35	6.92
China	0.59	0.04	0.22	1.07	0.06	0.09	0.21	0.13	2.41
All Other	1.04	0.89	0.98	0.00	0.25	0.15	0.39	0.29	3.99
North America	6.32	2.25	2.46	0.81	3.77	1.36	0.00	3.28	20.25
United States	4.55	1.75	1.92	0.00	2.92	0.57	0.00	2.30	14.02
Canada	1.43	0.49	0.54	0.00	0.48	0.00	0.00	0.92	3.86
Mexico	0.35	0.00	0.00	0.81	0.37	0.79	0.00	0.06	2.38
South America	2.07	0.03	0.06	1.19	0.36	0.19	0.17	0.05	4.12
Brazil	1.96	0.02	0.05	1.14	0.30	0.12	0.12	0.05	3.77
All Other	0.11	0.00	0.00	0.04	0.06	0.07	0.05	0.00	0.35
Former USSR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.19	2.19
Africa	0.05	0.12	0.13	0.11	0.04	0.00	0.01	0.14	0.59
South Africa	0.02	0.12	0.13	0.11	0.03	0.00	0.00	0.14	0.55
All other	0.03	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.05
Rest of world	0.27	0.12	0.21	0.00	0.14	0.00	0.00	0.00	0.73
Total	21.55	13.65	13.56	11.79	10.91	9.01	7.06	12.47	100.00

Source: Calculated from International Organization of Motor Vehicle Manufacturers data. Daimler Group: Chrysler, Hyundai, Kia, Mercedes, Mitsubishi, Smart, Western Star; Ford Group: Aston Martin, Autoalliance, Ford, Ford-Jiangling, Ford Lio Ho, Jaguar, Land Rover, Mazda, Mazda-Kai, Volvo; GM Group: Daewoo, Fiat, General Motors, Isuzu, Subaru, Suzuki; VW Group: Audi, SEAT, Skoda, Volkswagen; Renault Group: Dacia, Nissan, Renault, Samsung.

Motor vehicle industries outside of the triad account for larger shares of production and consumption than are apparent from the trade data. Much of their output is devoted to servicing national or regional markets. The patterns of investment and industrial development in these countries fall into three general types (based on Humphrey *et al.*, 2000). Arranged in ascending order of market orientation, these are the protected autonomous markets such as China, India and Malaysia; emerging regional markets such as MERCOSUR in South America and ASEAN in Southeast Asia; and the integrated peripheral markets such as Mexico and central Europe. In general, the countries in the third category have thus far been the most successful in establishing efficient industries.

Table 1.13. Shares of global production of light commercial vehicles, 2002

Place of production:	GM Group	Ford Group	Daimler Group	Renault	Toyota	Citroen-Peugeot	VW Group	All others	Total
N. America	27.27	22.38	17.34	1.98	0.00	0.00	0.00	0.00	68.97
United States	20.54	19.47	11.35	1.71	0.00	0.00	0.00	0.00	53.08
Canada	3.66	2.72	2.85	0.00	0.00	0.00	0.00	0.00	9.22
Mexico	3.07	0.19	3.13	0.27	0.00	0.00	0.00	0.00	6.66
Europe	4.22	2.81	1.48	2.80	0.08	2.99	1.17	0.00	15.54
France	0.26	0.07	0.00	1.79	0.00	0.95	0.00	0.00	3.06
Spain	0.84	0.00	0.42	0.90	0.00	0.83	0.35	0.00	3.33
United Kingdom	0.68	1.57	0.00	0.00	0.00	0.00	0.00	0.00	2.25
Italy	1.45	0.00	0.00	0.00	0.07	0.69	0.00	0.00	2.21
Germany	0.00	0.00	0.99	0.00	0.00	0.00	0.81	0.00	1.80
Other EU	0.33	0.76	0.07	0.00	0.00	0.43	0.00	0.00	1.59
Other Europe	0.67	0.41	0.00	0.11	0.00	0.10	0.01	0.00	1.30
Asia	3.77	0.91	2.69	0.84	3.26	0.00	0.00	0.53	12.00
Japan	2.56	0.44	0.92	0.81	2.84	0.00	0.00	0.52	8.08
Korea	0.00	0.00	0.92	0.00	0.08	0.00	0.00	0.01	1.01
China	0.05	0.40	0.00	0.00	0.04	0.00	0.00	0.00	0.49
All other	1.16	0.08	0.85	0.03	0.31	0.00	0.00	0.00	2.41
S. America	0.84	0.50	0.03	0.04	0.00	0.05	0.23	0.00	1.69
Brazil	0.84	0.32	0.00	0.01	0.00	0.01	0.21	0.00	1.39
Argentina	0.00	0.19	0.03	0.03	0.00	0.04	0.01	0.00	0.30
Ex-USSR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.24	1.24
Africa	0.00	0.00	0.07	0.08	0.05	0.09	0.01	0.00	0.31
South Africa	0.00	0.00	0.07	0.07	0.05	0.00	0.01	0.00	0.21
All other	0.00	0.00	0.00	0.01	0.00	0.09	0.00	0.00	0.10
Rest of world	0.11	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.26
Total	36.21	26.76	21.61	5.73	3.39	3.14	1.40	1.77	100.00

Source: Calculated from International Organization of Motor Vehicle Manufacturers data. Daimler Group: Chrysler, Hyundai, Kia, Mercedes, Mitsubishi, Smart, Western Star; Ford Group: Aston Martin, Autoalliance, Ford, Ford-Jiangling, Ford Lio Ho, Jaguar, Land Rover, Mazda, Mazda-Kai, Volvo; GM Group: Daewoo, Fiat, General Motors, Isuzu, Subaru, Suzuki; VW Group: Audi, SEAT, Skoda, Volkswagen; Renault Group: Dacia, Nissan, Renault, Samsung.

The adjustment challenge

The challenges fall into two general categories. One consists of the economic issues associated with competition among firms, industry segments and countries. Another set of challenges stems from recurring concerns over social costs in the areas of safety, congestion, the environment and the tax base.

Competition between countries: protection and discrimination

The motor vehicle industry was perhaps the single largest source of trade disputes among OECD countries in past decades. Among other things, this reflects the pivotal role that the motor vehicle industry plays in domestic economies and its linkages to industries such as textiles, rubber, steel and aluminium. Friction between Japan and the other triad countries gave rise to protection in the 1970s and 1980s and to disputes over sourcing and competition policy in the 1990s. Today those conflicts have receded in importance owing to the emergence of transnational alliances that have been forged in response to intensifying competitive demands (including joint ventures, equity arrangements, contractual production, major component sourcing, marketing and distribution arrangements, technological agreements, and manufacturing and assembly agreements) and the outlawing of VERs in the Uruguay Round.

The major challenges for trade negotiators today do not involve direct competition by producers in the triad countries but centre instead on two other issues. One is the persistently high levels of tariff protection found in some triad market segments (e.g. medium and heavy duty trucks, and panel van and pickup trucks in the United States) and in many non-triad countries (see Table 1.11). The other is the non-tariff barriers that the motor vehicle industry faces. The proliferation of preferential trade agreements is also a source of tension. Some of these arrangements have evolved over the course of several decades (in North America and Europe), while others are more recent developments. These pacts raise questions from third countries when one or more of the partners continues to maintain relatively high barriers with strict rules of origin to the rest of the world.

Competition between firms: consolidation and alliances

As discussed above, many car manufacturers that once competed head-to-head have now entered into various and shifting transnational alliances. These co-operative arrangements, which range in complexity from rebadging to outright acquisition, can have both pro- and anti-competitive implications. On the one hand, they may help many firms to overcome the challenges of recapitalisation, research, economies of scale and penetration of new markets. On the other, they can raise questions about concentration and abuse of market power.

Competition between segments: parts producers and assemblers

Perhaps the most significant development for the long term is the reordering of relationships between the producers of motor vehicle parts and the assemblers of these parts. Whether one looks at the keiretsu arrangements in Japan or the captive producers in Western firms, the trends are towards: *i*) a more arms-length relationship between the two types of producers; and *ii*) the transfer of greater responsibility for design and cost-cutting to parts manufacturers. These trends appear to make for a more competitive and price-

sensitive industry and may also serve to counterbalance the trend towards consolidation among assemblers.

Competition between societal objectives: regulatory issues

Motor vehicles are not merely conveyances for people and goods that attract the attention of regulators in the areas of trade, transport and competition policy. Producers and consumers both want to expand the production and sales of motor vehicles, but these desires can run counter to societal interests in the fields of public health and safety, reduction of congestion, environmental protection and the fiscal needs of the state at all levels of government. The policies adopted by regulatory officials in these areas can, in turn, affect the conditions of competition in the industry both directly (*e.g.* by mandating certain types of equipment or standards) and indirectly (*e.g.* by contributing to the fragmentation of markets and increasing barriers to entry).

Health services

The relatively minor scale of trade in the health sector to date underscores the fact that trade is not the source of structural adjustment in the health sector. However, the sector is worth considering for three reasons. First, demographic changes in developed economies which have contributed to the existing trade are expected to accelerate over the coming years. This may put increasing pressure on health systems and could be highly damaging if ignored. Second, with adequate planning, these changes hold open the possibility of beneficial growth in health services trade for both importing and exporting countries. Third, notwithstanding the potential benefits, this trade has also already caused difficulties for the health sectors of some exporting developing economies and raised difficult questions relating to consumer protection and health financing.

Major forces at work

In OECD countries, the health sector takes up an ever larger share of total output. This reflects a variety of factors, such as growing demand for health care arising from population ageing, the appearance of new technologies and continuing increases in income in an environment where the patient pays directly only a small share of the costs of care. The ability of health-care systems to respond to these pressures is currently limited by government budget constraints and by shortages of qualified personnel. As a result, trade in health services may play an increasing role in the future as a way to facilitate the matching of demand and supply of health-care services.¹¹

Trade in health services potentially encompasses a wide range of activities. However, for the purposes of this study, it can be seen as including:

- Patients going abroad in order to seek health care, including acute medical and dental care, elective surgery and long-term care.
- Health-care professionals resident in, or health organisations based in, one country supplying services in another country telephonically or electronically across international borders.
- Health-care professionals based in one country travelling temporarily to another country to provide health services.¹²
- Multinational health-care organisations setting up subsidiaries.

While health care can be consumed by people who fall sick or have accidents while travelling abroad for a purpose other than seeking health care (such as tourists, business travellers), this more “incidental” trade in health services is excluded from the scope of this study.¹³ While it may touch briefly on all four forms of trade, this study focuses more on the first and third types, which appear to be the most important forms.

These four types of trade are also further distinguished by the private/public distinction in the funding of health care (Table 1.14).

Table 1.14. **Matrix of trade in health services**

	Patients consuming health care abroad	Foreign providers offering health care (telemedicine)	Foreign providers offering health care (mobility of professionals/organisations)
Privately funded	A	B	C
Publicly funded	D	E	F

Privately funded consumption of health care abroad by patients (A)

There has long been international trade of this kind, and it is probably growing as a result of rising standards of living, differences in the availability and quality of health care and sharp differences in international price levels. For example, Canadians can avoid waiting for elective surgery by buying surgery in the United States. Europeans can obtain cheap cosmetic surgery by travelling to certain countries in Southeast Asia. Japanese long-term care patients can obtain cheaper long-term care in the Philippines than in Japan.

Publicly funded consumption of health care abroad by patients (D)

There are perhaps two subcategories of activity here:

- Public health-care plans in a number of countries experiencing waiting lists for public patients and other bottlenecks have sent patients abroad to access various services on a “pre-authorised” basis. For example, certain Nordic countries and the United Kingdom have sent elective surgery patients abroad at public expense. Such treatment abroad is usually conditional on waiting for longer than a certain preset limit.
- A number of patients in various countries have sought care abroad privately and have then sought retrospective public reimbursement for their care (on the grounds, for example, of unreasonable waiting times). In a number of instances litigation has resulted. In the EU, a body of case law has been established under which patients have a right to treatment anywhere in the EU at the expense of their public system if that treatment is covered under their domestic scheme (this usually rules public payment for cosmetic surgery abroad, for example).

Privately or publicly funded provision of health care by foreign providers (telemedicine) (B and E)

Telemedicine is generally provided via the Internet. While relatively modest at this stage and largely limited to certain types of services (e.g. specialist and diagnostic services), it is likely to grow in the future as awareness and technology develop.

Privately and publicly funded provision of health care by foreign providers (professionals/organisations) (C and F)

As an example of this type of trade, one can cite the new contracts between the National Health Service (NHS) in the United Kingdom and various foreign firms or health organisations that supply elective surgery to NHS patients. It is not these contracts, per se, but the use of the services of Europe-based surgeons who travel to the United Kingdom for, say, two days a week to perform surgery, that falls in this category.

The adjustment challenge

Trade opens up the possibility that economies will benefit by allowing regions and countries to specialise in areas in which they have a comparative advantage. Although trade in health-care services has been little developed in the past, there is evidence to suggest that, like other forms of trade, health-care services may benefit from trade. In principle, welfare can be improved by allowing people to receive health services in countries other than their own and by allowing health service professionals to move to countries where their services have greater value.

Mobility of patients

For commercially traded goods and services, the price system serves as a signal of potential gains from trade. Movements across borders in response to relative price differences increase aggregate welfare. Yet, poor transmission of price signals for a variety of reasons, including lack of portability in healthcare coverage, have not only restricted potential benefits from trade in health services but contributed to the difficulties experienced by some exporting countries. In the field of health services, prices are not set in an open market. For example, apart from ancillary services (dentistry in some OECD countries and cosmetic surgery in most), prices paid by patients have almost no relation with the economic cost of the service provided. In most cases, this means that patient mobility across borders has generally been confined to ancillary services.

The reason why trade in health-care services via mobility of patients is largely confined to ancillary services is explained in part by the fact that only a minority of patients have the right to have treatment in foreign countries paid for by their public insurer. As a result, most patients opt for treatment in home institutions even when more efficient treatment may be available abroad. Still, patient charters in some countries (notably in Europe) explicitly provide for the right to treatment abroad if it cannot be provided on a timely basis in their home country. Even in these cases, however, the possibility is limited to instances in which there exists a shortage of facilities in their home country.

For these reasons, trade in health services often concerns ancillary treatments not covered by public health-care schemes. In some cases, this distortion in aggregate international demand for health-care services has led health-care systems in some developing country exporters to specialise in ancillary medical treatments not covered by public health-care systems in high-income countries. Often, developing countries already deficient in resources to provide general health-care services for their own citizens are challenged by a flow of health-care resources into capacity for providing ancillary health-care services to meet international demand.

Increasing the general portability of health-care coverage may make it possible to provide a broader spectrum of health-care services at the international level and may

further exacerbate shortages in exporting developing countries. However, increased demand for general health-care services might also enable more even development of health-care systems in these countries. With adequate planning, the cost differential between treatment in developing countries and developed countries holds open the potential for using revenue generated from exports to subsidise the development of health-care infrastructure. Such subsidies offer the possibility of developing both the quantity and quality of health-care services in exporting countries beyond what would be possible in the absence of trade. To the extent that potential gains from trade in health-care services lie in planning, the difficulties experienced to date might have been reduced through better planning.

Mobility of health professionals

In most countries medical education is heavily subsidised. The number of places is often restricted, so that the system is unable to respond to growing needs without an explicit change in public policy, which often occurs with a lag. Public institutions that employ health professionals exert market power so that salaries (particularly for nurses) are constrained. This contributes to lower wages and poorer work conditions than in other occupations and thus leads to flows out of the profession. As a result, more health professionals are needed than are available locally.

The issue arises as to whether increased international openness is the best way to address such challenges. Given the opportunity, trained health professionals from low-income countries will fill the resultant gap, but it is not clear whether this is an optimal way to allocate resources. If the recruited professionals' training has been publicly funded, such openness involves a clear transfer of resources from the sending to the recruiting country and raises the issue of whether policies should be put in place to ensure that temporary movements of health professionals do not become longer-term migration.

Where adjustment through temporary movements of health professionals is considered an option, such adjustment is often heavily constrained by the recognition and registration requirements to be fulfilled before a person can practise in a foreign country. While legal requirements for mutual recognition of qualifications are sometimes in place – particularly within the European Union – in practice these are very difficult to implement quickly. Control of recognition of qualifications is of necessity confined to those in the profession with the knowledge to judge the suitability of foreign training. This makes it very difficult to distinguish proper caution about the quality of foreign qualifications from protection of local practitioners. It is often the case that foreign medical practitioners are able to find employment in hospitals, but are blocked from practising outside the hospital setting. Similar issues can arise for nurses, although hospitals as employers are often influential in judging which foreign qualifications are acceptable, so protectionist exclusion is less of a problem.

International sourcing of IT and business process services

Major forces at work

International sourcing of IT and business process services (encompassing both provision of services by foreign subsidiaries of global companies (international insourcing) and by foreign external providers (international outsourcing) (see Box 1.2) was until recently lauded as a prime example of the mutual benefits of international trade,

enabling OECD countries to access scarce talent and boost productivity, and low-income countries to develop high-technology industries and gain high-income services jobs.

Box 1.2. Elements of international sourcing

The term “international sourcing” of IT and business process services encompasses companies sourcing these services from their foreign subsidiaries and companies engaging specialised service companies established as domestically owned enterprises overseas to provide them.

From the point of view of the companies concerned, the former (provision of services by foreign subsidiaries) is considered to be “international insourcing” as the service provision remains within the company, while “international outsourcing” refers only to the procurement of services from an external company in a foreign country.¹ For example, Gartner Dataquest Guide (2003) defines business process outsourcing as “the delegation of one or more IT-intensive business processes to an external provider that, in turn, owns, administrates and manages the selected process(es) based on defined and measurable performance metrics”. For companies, the key distinction is thus between activities undertaken within or outside the company; different locations within the company are simply part of the global value chain.

From a government perspective, both types of international sourcing (foreign subsidiaries or foreign external providers) involve the movement of jobs across borders. It is this movement of jobs, as IT and business process services are increasingly traded across borders rather than domestically produced, which gives rise to adjustment challenges. This study thus refers to “international sourcing” to capture the full dimension of the issue. However, it should be noted that a number of commentators use the term “outsourcing” to refer to both types of sourcing, a usage which many companies reject, or focus only on activities contracted to entities outside of the companies concerned.

There is no internationally agreed definition of the range of services covered by international sourcing. The Gartner Dataquest Guide (2003) divides these services into IT and business process services. IT services include data centre, desktop, network, and enterprise applications. Business process services include enterprise services (*e.g.* HR, finance and accounting and payment services), supply management (*e.g.* buying services, storing services and moving services), demand management services (*e.g.* customer selection and customer retention) and operations (*e.g.* financial services operations and healthcare operations). An indicative list of internationally sourced services is presented in Table 1.15).

The WTO’s Services Sectoral Classification List (W/120, cross-referenced to the United Nations Provisional Central Product Classification) defines “business services” as including professional services, computer and related services, research and development services, real estate services, rental/leasing services without operators, and other business services. However, it is not clear that this list includes the full range of services currently sourced internationally, in particular where technology has led to the development of new services. Some new services may also fall under other categories in the list, *e.g.* it has been argued that “web-hosting” has elements of both computer and related and telecommunications services. These issues have implications for the extent to which GATS commitments can cover the range of services currently sourced internationally and those which may be so in the future.

1. Outsourcing can also occur within the domestic market (*e.g.* a company outsources its recruitment processing to a local firm). This may be indirectly related to trade, where work is outsourced to a local subsidiary of a foreign company (*e.g.* to the British branch of an Indian company). However, the focus of this paper is international sourcing, *i.e.* cross-border trade in services.

Table 1.15. **Indicative listing of internationally sourced services**

1. ITS: Information technology services (Computer and related services)	
Software Development and Implementation Services, Data Processing and Database Services, IT Support Services, Application Development, Testing & Maintenance, Business Intelligence & Data Warehousing, Content Management, E-procurement and B2B Marketplaces, Enterprise Security, Package Implementation, System Integration, SCM, Enterprise Application Integration, Total Infrastructure Outsourcing, Web Services (Internet Content Preparation, etc.), Web-hosting and Application Service Providers (ASPs), Requirements engineering.	
2. BPS: Business process services	
Customer Interaction Services	Sales Support, Membership Management, Claims, Reservations for Airlines and Hotels, Subscription Renewal, Order Processing, Warranty Administration, Customer Services Helpline, Handling Credit and Billing Problems, etc., Telemarketing and Marketing Research Services.
Back-office Operations	Data Entry and Handling, Data Processing and Database Services, Medical Transcription, Payment Services, Financial Processing (Financial Information and Data Processing / Handling), Check Credit/debit Card Processing, Human Resource Processing Services, Payroll Services, Healthcare Administration, Warehousing, Logistics & Dispatch, Inventory, Supply Chain Services, Direct & Indirect Procurement, Ticketing, Insurance Claims Adjudication, Mortgage Processing.
More Independent Professional or Business Services	Human Resource Services (Hiring, Benefit Planning and Payroll, etc.), Finance & Accounting Services (including Auditing & Compliance, Bookkeeping, Taxation Services, etc.), Data Analytics & Mining, Data/Knowledge Management, Marketing Services, Product Design and Development.

Source: Adapted from Mattoo, A. and S. Wunsch (2004), “Securing Openness of Cross-Border Trade in Services: A Possible Approach”, Center for International Development, Harvard University, www.cid.harvard.edu/cidtrade/Papers/mattoo-wunsch.pdf. The list is neither exhaustive nor are the categories mutually exclusive.

In the late 1990s, a rush to update existing computer systems and a shortage of IT professionals led companies to search for new sources of IT competence. Large companies often hired services providers or established subsidiaries in South and East Asia to capitalise on the skilled and inexpensive local labour. However, shortly after the turn of the millennium, the IT services (ITS) sector went through a prolonged downturn following drastic cuts in corporate IT investments and an abrupt fall in the availability of risk capital. Many IT professionals in OECD countries lost their jobs. As pressures to cut costs mounted, many companies decided to increase their international sourcing (via subsidiaries and external suppliers) of both labour-intensive business process services and more extensive IT services from low-income countries. The resulting combination of sticky unemployment among certain categories of IT professionals and expanding trade in business services has attracted much media attention, with calls for protection against foreign competition (Table 1.16 provides a number of guesstimates of the impact of international sourcing).

International sourcing of ITS and business process services (BPS) from high-income to low-income countries has become an increasingly common practice among large companies.¹⁴ The main enabler has been rapid technological progress, which has lowered the cost and increased the efficiency of communication and transfers of information. Companies have capitalised on the availability of ICT infrastructure to fragment their value chain and carry out different parts of their operations via geographically dispersed subsidiaries and foreign third-party services providers. Standardisation and service market liberalisation, including increasing openness to FDI by non-OECD countries

(improving ICT infrastructure and permitting establishment by foreign subsidiaries) are other important enabling factors.

Table 1.16. **Guesstimates of the impact of international sourcing¹**

Forecast provider	Title of the report	Provider background	Main conclusion
NASSCOM-McKinsey (February, 2002)	NASSCOM-McKinsey Report 2002	Collaboration between Indian IT lobby group and consultancy company	The Indian software and IT-enabled industry will create over 2 million jobs in India by 2008, with software contributing approximately 1.1 million jobs and the ITeS sector 1 million jobs. The parallel support services industry will create employment for another 2 million.
Forrester Research (November, 2002)	3.3 Million US Services Jobs to Go Offshore	Research and consultancy company	By 2015, an estimated 3.3 million US services jobs (0.5 million in IT) and USD 136 billion in wages will move offshore. India is expected to capture more than two-thirds of the jobs.
Deloitte Research (April, 2003)	Survey: Financial Institutions to Reduce Costs by Moving 2 Million Jobs Offshore	Research and consultancy company	The world's 100 largest financial-services companies expect to transfer an estimated USD 356 billion of their operations and 2 million jobs offshore over the next five years. The impact on service jobs across all industries could be as high as 4 million.
Gartner, Inc. (July, 2003)	U.S. Offshore Outsourcing: Structural Changes, Big Impact	Research and consultancy company	An estimated 500 000 jobs out of a total 10.3 million US technology jobs could move offshore in 2003-04, with one in ten software services jobs at computer vendors and one in 20 technology jobs in the wider corporate world at stake.
McKinsey Quarterly (October, 2003)	Who Wins in Offshoring	Research and consultancy company	The net benefit to the US economy of shifting USD 1 previously spent in the United States to India could be as high as USD 0.12-0.14 per USD 1.
Evalueserve – NASSCOM (October, 2003)	Impact of Global Sourcing on the US Economy, 2003-2010	Collaboration between Indian IT lobby group and research and consultancy company	An estimated 1.3 million American jobs will move offshore during 2003-10. For every USD 1 of call-centre work offshored by US firms, an estimated USD 1.43 is reinvested in the US economy; the amounts are USD 1.33 and USD 1.42 for ITS and for high-end knowledge services, respectively.
Evalueserve – NASSCOM (January, 2004)	Impact of Global Sourcing on the UK Economy 2003-2010	Collaboration between Indian IT lobby group and research and consultancy company	An estimated 272 000 British jobs (84 000 ITS jobs and 128 000 BPO jobs) will move offshore in 2003-10. For every GBP 1 of call-centre work offshored, GBP 1.32 is estimated to be reinvested in the British economy. Similarly for every GBP 1 of ITS or high-end knowledge services work offshored, GBP 1.41 is reinvested in the UK economy.

1. The difficulty in predicting future business trends and in obtaining accurate data on the creation and destruction of jobs in the service sector makes it difficult to determine the true impact of international sourcing. There is also a lack of credible bilateral and multilateral trade statistics regarding outsourced business process services. Note that the above studies encompass both international insourcing (via subsidiaries) and international outsourcing (external suppliers).

On the demand side, increasing competition in international and maturing markets has led companies to focus more on cost-cutting than revenue-enhancing strategies. International sourcing offers significant labour-cost arbitrage and enables companies to offer their clients new, cheaper, more flexible and often higher quality services.¹⁵ International sourcing frequently offers reduced time-to-market, facilitates access to foreign markets and creates business opportunities to develop new products for niche markets. International outsourcing of ITS and BPS allows companies to focus on what they do best, freeing up capital to be reinvested in R&D and more productive activities. Innovations in business practices and low productivity growth have worked as drivers in other instances.¹⁶

On the supply side, many low-income countries that have invested in education are now able to offer an abundance of young, motivated and well-educated professionals. International sourcing enables companies to provide around-the-clock services thanks to differences in time zones between consumers and producers. Language is an important factor, *e.g.* French companies source ITS and BPS from Morocco and Tunisia, while American and British companies often rely on services provided from India and the Philippines. Several non-OECD countries' ITS and BPS sectors are achieving very high growth rates as delivery models improve and service providers become increasingly sophisticated, *e.g.* revenues from IT services grew by 18% in India in 2002-03, while IT-enabled services grew by 67% (Macroscan). Development of the IT sector has been facilitated by other linkages, *e.g.* Indians working in the IT sector in the United States, either temporarily or as permanent immigrants, have brought back best practices and reinvested in India or facilitated investment by US companies in the Indian IT industry.¹⁷

The adjustment challenge

International sourcing of services is changing the nature of the global value chain. While trade in ITS and BPS is predominately conducted between high-income countries, companies in OECD countries are increasingly outsourcing IT and business process services to companies in, or are establishing their own subsidiaries in, non-OECD countries. Both importing and exporting countries face a multitude of challenges in adjusting to these underlying changes.

High-income countries importing services from low-income countries may experience significant changes in certain labour market groups. Governments may face protectionist sentiment owing to job uncertainties, and companies may face internal strains in dealing with workers who risk losing their jobs. There will be growing demand for education and retraining programmes; efficient recruitment services to smooth job transitions; new insurance schemes to reduce adverse effects from labour market shocks; and facilitated relocation of workers. While challenging, this situation is arguably not very different from previous trends in the manufacturing sector and the overall effect on labour markets related to services is likely to remain modest.¹⁸ However, as with manufacturing, job losses can be heavily concentrated in certain sectors and adjustment will require careful management via a range of policies. While it is difficult, given limited data,¹⁹ to predict labour market impacts of international sourcing precisely, any assessment of the adjustment challenges ahead should take several factors into account.

First, many services will remain non-tradable. The great majority of service workers do not face foreign competition, since most services require face-to-face interaction or frequent communication with and proximity to clients. Companies seldom outsource core competence activities and tasks need to be digitised and communicated electronically in

order to be sourced internationally. International sourcing is also a highly complex process which requires strong commitment, familiarisation, frequent communication, close management supervision and replication of technological infrastructure. Most overseas sourcing activities involve high initial costs and require a strong knowledge of the local environment which only develops over time, so that a long-term perspective is imperative for both the establishment of subsidiaries and the engagement of service vendors.

Second, job losses resulting from international sourcing should be considered within the context of broader national employment trends. The 3.3 million American jobs predicted under one “guesstimate” (see Table 1.16) to move overseas by 2015 should be seen in light of the constant destruction and creation of jobs in the US labour market. Indeed, the average number of jobs “destroyed” every quarter in the private sector in the US economy has fluctuated between 7 and 9 million (*i.e.* 2.3-3 million on average per month) over the last ten years, and the number of jobs created has exceeded the number of jobs “destroyed” during most quarters of the same period (BLS, 2004b).²⁰ Depending on overall growth in the service sectors in question, international sourcing could either result in a net job loss for some occupations or a slower pace of job expansion than would otherwise occur. Though trade-related job displacement is estimated at 270 000 a year from 1989 to 2000 (McKinsey Global Institute), the US economy has also generated 15 million net private-sector jobs over the past ten years.

Third, international sourcing is not a static zero sum situation: many jobs are either kept or created during the international sourcing process and efficiency gains are transferred to consumers in terms of lower prices or are reinvested in new businesses. Moreover, employment losses can be mitigated by subsidiaries of foreign companies, including those based in low-income countries, that employ local professionals in high-income countries. This “insourcing” via FDI into OECD countries is not insignificant: one estimate is that, between 1983 and 2000, the number of jobs “insourced” to (*i.e.* created in subsidiaries established in) the United States increased by more than those considered as “offshored” (*i.e.* created abroad by international sourcing) (Drezner, 2004). A further offsetting factor is increased demand for imported goods and services in low-income countries that generate wealth from services exports. Finally, the labour-cost arbitrage incentive may become less pronounced over time as low-income country service providers export increasingly sophisticated services at higher prices.

In addition to labour market adjustment, a further challenge may be a growing productivity gap between multinational companies with the economies of scale needed to take full advantage of international sourcing, and small and medium-sized companies that may lack the scale economies to fully reap those gains. A similar productivity gap may arise between high-income countries because of linguistic advantages in certain countries when it comes to international sourcing of labour-intensive business process services.

Low-income countries will face increasing competition for contracts and their structural adjustment needs will increase as their IT sectors expand. This will increase pressure on countries to ensure stable and efficient ICT and power-generating infrastructure, sectors which are often in poor shape owing to a legacy of inappropriate regulations, low levels of investment and insulated markets. Competition will increase the rewards to countries that invest in education and can produce sufficient numbers of graduates with relevant skills. A premium will also be placed on ensuring political stability, and guaranteeing a sound, accountable and transparent regulatory and juridical framework, including for the protection of intellectual property rights. An important

challenge for some low-income countries may be the need to meet new regulatory requirements in OECD markets, for instance with regard to privacy of information related to individuals. Many developing countries may also find it challenging to improve the efficiency of their credit markets when demand for risk capital rises in fast-growing companies. These substantial adjustment challenges will need to be addressed with limited resources. However, the benefits for countries that manage to become competitive players include accelerated economic growth and an important opportunity to reduce the technological divide.

Notes

1. However, this seems to have been relatively more important in the past than it is today (Jensen *et al.*, 2002).
2. For the 55 (textiles) and 52 (clothing) countries for which comparable data were available (see Table 1.3).
3. For the 55 countries for which comparable data were available (see Table 1.5).
4. In order to highlight the differences between these segments of the industry, this study defines “fibres” to include only natural fibres (*e.g.* cotton, wool, silk). Synthetic fibres are treated as an industrial product and are grouped with fabrics.
5. The analysis works backwards from clothing, not forwards from fibres. Therefore it does not include segments such as HS Chapter 57 (carpets and rugs) and HS Chapter 63 (fabricated textile products) unless otherwise indicated (see Part II, Chapter 6).
6. For a comprehensive description of technological advances and organisational innovations, see OECD (2004b), Chapter 4.
7. For recent developments in steel, see “Communiqué Issued Following the High-level Meeting on Steel, 28-29 June 2004” and “Steel Conference on 12-13 January 2005, at www.oecd.org.
8. On the Steel Subsidy Talks, see “Communiqué Issued Following the High-level Meeting on Steel, 28-29 June 2004”, at www.oecd.org.
9. Understanding on Export Credits for Ships (adopted in 1969, revised several times); General Arrangement for the Progressive Removal of Obstacles to Normal Competitive Conditions in the Shipbuilding Industry lastly revised (adopted in 1972, revised in 1982); Guidelines for Government Policies in the Shipbuilding Industry (adopted in 1976, revised in 1982).
10. The distinction between the first two categories is much less sharp in North America, and especially in the United States, than in the rest of the world.
11. It is stressed that this study presents initial observations from selected cases, and appropriate solutions must take account of the full range of economic and social factors present within each

country. The observations made are thus entirely without prejudice to each country's determination of the most appropriate way to ensure provision of health services. This study does not advocate trade in health services on an across-the-board basis.

12. Permanent migration by health professionals is clearly not trade and is thus beyond the scope of this study. However, there is disagreement over the distinction between trade and temporary migration flows, particularly with regard to foreign health professionals working as employees of domestic employers, as opposed to those working on contract to supply services.
13. There may be some fine lines to be drawn here, such as when travellers combine leisure tourism with health tourism during the same trip abroad.
14. While services are also sourced from OECD countries, notably Ireland and Canada, non-OECD countries are the focus here as they are experiencing high growth rates and have been the focus of most controversy.
15. Limited opportunities for skilled labour in many low-income countries mean that business process service jobs can attract more highly qualified and motivated applicants than in OECD countries. For example, the call centre industry in OECD countries often struggles with high attrition and sick leave rates, but attracts skilled graduates in low-income countries.
16. Several factors have contributed to the increase in international sourcing: the maturation of offshore outsourcing platforms, e-based connectivity enabling cross-border trade in services previously only tradable via mode 4, new imperatives of cost control, innovations in business practices and the pool of skilled labour created by investments of several developing countries in education (Morgan Stanley, 2003; Mattoo and Wunsch, 2004). Motivations for choice of sourcing locations can vary, with access to technical expertise the key factor in software development, creativity the main concern in marketing, reputation most important in accounting and financial services, and cost the main factor in routine data processing and data entry services (Huws and O'Regan, 2001).
17. International sourcing can be a substitute for mode 4, as jobs move to workers rather than vice versa. Given quotas and wage parity requirements for mode 4 workers, developing-country labour-cost advantages show up more in international sourcing (where the service crosses the border via modes 1/2, including from a foreign subsidiary – mode 3), when workers are paid the prevailing local wage, than in mode 4. (There is no agreement among WTO members about whether electronic supply falls under GATS mode 1 or 2, hence the terminology “mode 1/2” is used). In reality, mode 1/2, mode 3 and mode 4 are complementary: first, mode 4 facilitates international sourcing (the presence of Indian IT professionals helped to make US companies aware of the pool of talent in India); and second, international sourcing requires the ongoing movement of personnel for negotiation, familiarisation, training and oversight. International sourcing typically involves around 30-40% of total work being carried out at clients' offices. While there are cost benefits for both client and supplier in a larger ratio of offshore work, as a rule, it increases demands on management.
18. Mann (2003) notes that the number of workers in most job categories in the US Bureau of Labor Statistics (BLS) occupation code grew between 1999 and 2002. Most job losses were in management and manufacturing occupations. The BLS (2004a) predicts that three out of the ten fastest-growing occupation groups between 2002 and 2012 will be IT-related: network systems and data communications analysts, systems software engineers and applications software engineers. Over the same period, job growth in computer and mathematical occupations is forecast to be more than twice the rate of job growth in the overall economy (34.8% compared to 14.8%). Software publishers will have the fastest wage and employment growth over the same period; computer systems design and related services the second fastest; and Internet services, data processing, and

other information services the ninth fastest. That said, the situation is less clear for a broader range of administrative workers, who may be more likely to bear the brunt of international sourcing.

19. Much of the following discussion concerns the US economy because of data availability. There is a particular shortage of data for Europe, especially at the country level.
20. These figures are based on BLS data covering the period 1992-2003. Over this period, the job creation rate exceeded the job destruction rate from 1992 until 2000, but fell below it in 2001 and 2002 before regaining the lead.

Chapter 2

THE DOMESTIC POLICY FRAMEWORK

THE EXPERIENCE OF OECD MEMBER COUNTRIES¹

This chapter examines structural adjustment in OECD member countries with possible policy responses. Structural change, as measured by the rate of change in sectoral employment patterns, is a strong and ongoing process, although it has not accelerated over the past few decades. Structural change in employment patterns takes place to an increasing extent between broad industries within the service sector, as shifts of employment from goods-producing sectors to services have tapered off. In any given year, a considerable share of the workforce experiences an involuntary layoff and a significant minority of these workers suffers long unemployment spells and/or large earnings losses. While the drivers behind structural change have affected all countries, available indicators of labour market performance suggest that countries' adjustment capacity differs in important ways. Drawing on the experience of OECD member countries, this chapter reviews domestic policies to facilitate structural adjustments and assist displaced workers, including: unemployment benefit systems, active labour market policies, employment protection regulations, wage-setting arrangements, education and training policies, and housing policies. It also briefly examines policies impinging on product market adjustments.

Structural adjustment and its driving forces

As Chapter 1 has made clear, structural change is pervasive. This chapter draws on OECD members' experience to consider their structural adjustment in more detail and presents possible policy responses. The policy implications are also relevant for all but the poorest developing countries, where the focus should be on capacity and institution building, as discussed later.

Liberalisation of trade and investment and international competition are important drivers of change in the structure of output and employment. As international integration advances, demand, production and employment are shifted across industries in each country in line with their comparative advantages, while international competition encourages restructuring within firms and industries by spurring innovation and productivity, as the case studies presented in Part II demonstrate. A number of other factors – notably technological progress and international mobility of capital and labour – interact with trade as drivers of structural change, partly by opening up domestic markets to international competition and offshoring possibilities. Trade-related adjustments are, in this respect, part of a wider process of structural change and creative destruction, and disentangling the role of trade in this wider process of change is difficult because of the many possible interactions. The main policy challenges appear, however, to be the same, regardless of the source of the structural change: *i*) to create the general conditions for facilitating a smooth transfer of resources from declining to expanding activities; while *ii*) providing adequate assistance to those who experience adjustment costs as a result of structural change.

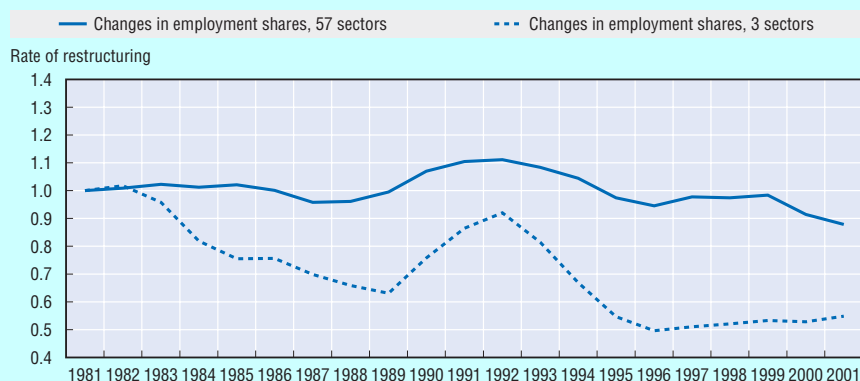
As discussed in Chapter 1, the sectoral composition of OECD economies has changed substantially over time, with services playing an increasingly important role. The transfer of resources from declining to expanding industries is, in this respect, not a new challenge. In fact, the rate of change in the employment shares of broad industries (*i.e.* agriculture, manufacturing and services) seems to have declined in most OECD countries over the past decades (Box 2.1). The continuing reallocation of labour resources, however, remains quite strong, in particular for more narrowly defined industries. This reflects, in part, changing trade patterns. For example, employment declines have often been quite sharp in manufacturing industries, where import penetration has risen most strongly (Figure 2.1, Panel A). The recent strong expansion of intra-industry trade – including international sourcing of intermediate inputs – suggests that trade is also stimulating a significant amount of labour reallocation within industries. These changes in the job mix also tend to reduce (relative) labour demand for the least educated workers (Figure 2.1, Panel B).

To a large extent, structural adjustments take place through *voluntary* job transfers, either directly from one job to another or through the replacement of old cohorts of workers with younger ones. This is accompanied by capital adjustments as fixed investments are reallocated towards expanding firms and industries. These developments have involved relatively low adjustment costs for individuals and spurred growth as resources are moved towards activities providing higher returns.

Box 2.1. The rate of structural change has not increased

The rate of structural change cannot be easily measured as it involves changes within firms as well as between firms, industries and regions. Available indicators suggest, however, that the rate of change has not increased in the OECD area. Developments in sectoral employment shares suggest, for instance that the rate of change has been fairly stable over the past two decades (see figure below).¹ At the same time, labour adjustments between agriculture (and other primary industries), manufacturing and services have declined. This indicates that structural changes in employment patterns take place to an increasing extent between broad industries within the service sector, as shifts of employment from goods-producing sectors to services have tapered off. As new service industries and categories of employees are becoming exposed to international competition, this pattern is likely to persist.

The rate of change in sectoral employment patterns¹
 OECD average, three-year moving average, index 1981=1

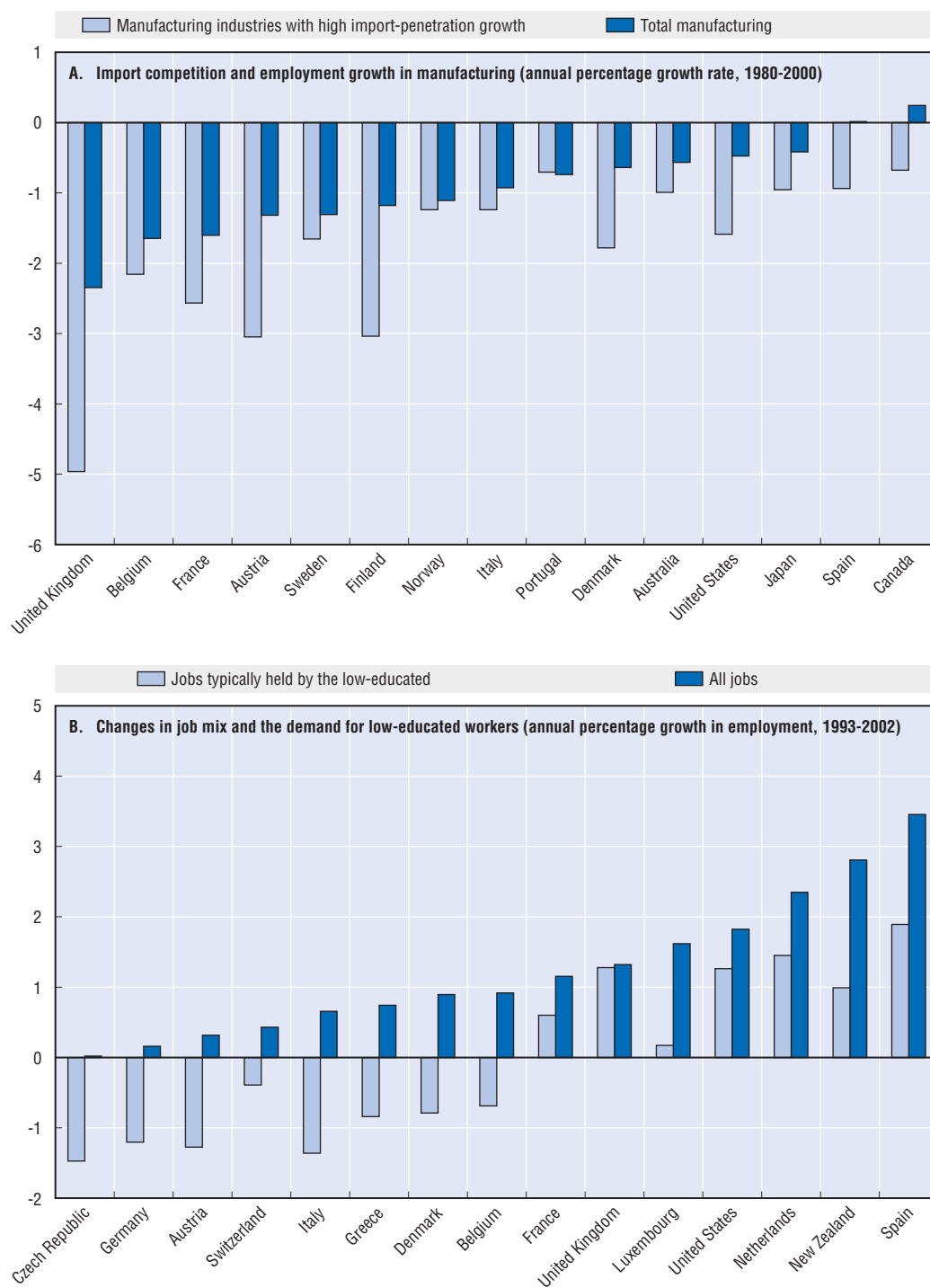


Note: The rate of restructuring is calculated as: $0.5 * \sum_i (N_{i,t} - N_{i,t-1})$, where $N_{i,t}$ denotes the share of sector i in total employment at time t . An unchanged employment pattern returns as an indicator value of zero. The indicator is calculated for three sectors (primary, secondary and tertiary industries) and 57 sectors (dividing services into 55 sectors). Simple average of 20 OECD countries.

1. Such simple indicators are, however, subject to certain limitations. They are, for instance, sensitive to the chosen aggregation level, and pick up relative expansion and contraction of sectors over the business cycle.

Source: OECD STAN Database for Industrial Analysis and Groningen Growth and Development Centre Database.

Figure 2.1. **Trade, structural change and declining employment opportunities for low-educated workers¹**



1. Industries with high import-penetration growth (see Panel A) are those manufacturing industries in which the import-penetration ratio rose most strongly during 1980-2000, whereas jobs typically held by the low-educated (see Panel B) correspond to industry occupation cells with a high share of workers with less than upper secondary education in 1993.

Source: OECD STAN Database; *OECD Employment Outlook*, 2004, Chapter 4.

Table 2.1. Estimates of displacement incidence and costs for selected OECD countries

		Incidence rate (annual) ^a	Probability of still being jobless after		Displacement-induced percentage wage changes	
			6 months	12 months	Total tenure	Tenure more than 10 years
A. Total layoffs						
Canada	1995	4.9	0.47 (men)	0.30 (men)	-1 (men)	-11 (men)
			0.68 (women)	0.41 (women)	-2 (women)	-7 (women)
Japan	1995	3.5	0.23 (men)	0.14 (men)	-4 (men)	
			0.25 (women)	0.11 (women)	0 (women)	
Netherlands	1993-95	4.1	0.46 ^e	0.28 ^e	..	..
United Kingdom	1990-96	4.7	0.2	0.12 ^f	-4	-6 ^h
United States	1993-95	4.9	0.33 ^g	0.24 ^g	0	-19
B. Mass layoffs only^b						
Belgium	1983	2.1	0.72 (men) ^d	..	-6 ^d	-6 ⁱ
Denmark	1988	1.6	0.37 (men) ^d	..	-1 ^d	..
France ^c	1984-90	0.5 (men)	0.62 (men) ^e	0.45 (men) ^e	..	10
Germany ^c	1984-90	1.1 (men)	0.52 (men) ^e	0.40 (men)	..	2

.. Data not available.

a) Workers displaced in a year as a percentage of total employment.

b) Workers separating from dying firms (Belgium, France) or dying plants (Denmark, Germany).

c) Workers 25 to 50 years of age with a minimum of four years tenure.

d) Workers with a minimum of three years tenure.

e) Conditional on a positive spell of joblessness.

f) After ten months.

g) Workers with a minimum of one year of tenure.

h) Workers with a minimum of five years of tenure.

i) Workers with a minimum of six years of tenure.

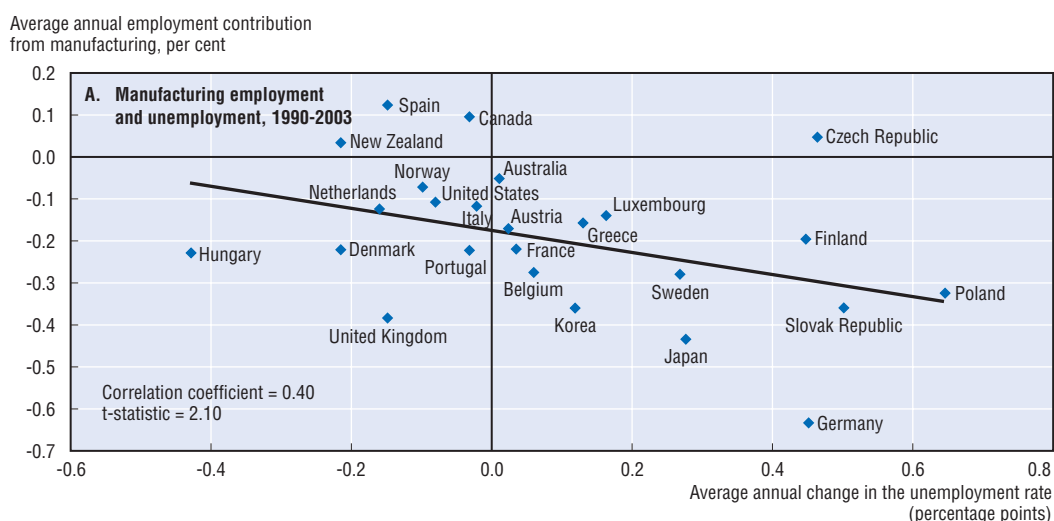
Source: Kuhn, Peter J. (2002), *Losing Work Moving On*, W.E. Upjohn Institute for Employment Research, Kalamazoo, Michigan.

Firm closure and involuntary job displacements are, however, an inevitable and particularly challenging part of the adjustment process. Although the available evidence is limited, it suggests that 3% to 5% of the workforce experience an involuntary layoff in any given year, with about a third of these displacements corresponding to firm closings and other mass layoffs (Table 2.1). This can be painful for the individuals, families and communities involved, while costs for society as a whole can be large in terms of lost human capital and production. Indeed, involuntary displacement of workers is often associated with long spells of unemployment or recourse to early retirement or disability benefits, in particular for high-tenure workers displaced from declining manufacturing industries. Re-employed workers may also experience a significant and persistent loss in earnings compared to their previous employment, particularly if they must change industry and cannot capitalise on accumulated sector-specific skills. For example, a recent

study of import-competing job loss in the United States found that two-thirds of re-employed workers earned less in their new job than they did in their previous one, and one-quarter experienced earnings losses in excess of 30%, which appear to be quite persistent. An OECD analysis of 14 European countries also concludes that a significant minority of displaced manufacturing workers experience large earnings losses, although this is more often due to long-term unemployment or premature withdrawal from the labour force, than to wage cuts on the new job.

The adjustment costs resulting from job displacement and premature scrapping of capital reduce the overall short-term gains from structural changes and place the burden on a narrow segment of the population, raising equity concerns and potentially eroding political support for trade liberalisation and, more generally, efficiency-enhancing structural change. Recent OECD experience indicates, for whatever reason, that the adverse effects may be significant at the macro level. Declining manufacturing employment has, for example, been accompanied by higher unemployment (Figure 2.2), although with important exceptions (notably the United Kingdom).

Figure 2.2. Declining manufacturing employment and unemployment, 1990-2003



Source: OECD STAN Database for Industrial Analysis; OECD Labour Force Statistics.

Nonetheless, the process of transferring resources to more productive uses has been an important driver behind sustained growth and increased living standards. The policy challenge is therefore, as noted above, to facilitate reallocation so as to take advantage of new possibilities, while limiting, at the same time, adjustment costs for individuals, communities and society as a whole. By this standard, successful countries would not necessarily be characterised by stable sectoral patterns of production and employment or by the presence of particular industries. Instead, they would manage structural changes without long-lasting increases in unemployment and/or inactivity rates among the working-age population and would raise their living standards as resources move into new and expanding areas. Successful countries would also ensure that the resulting gains

in overall living standards are not achieved at an unacceptably high cost to adversely affected workers and communities.

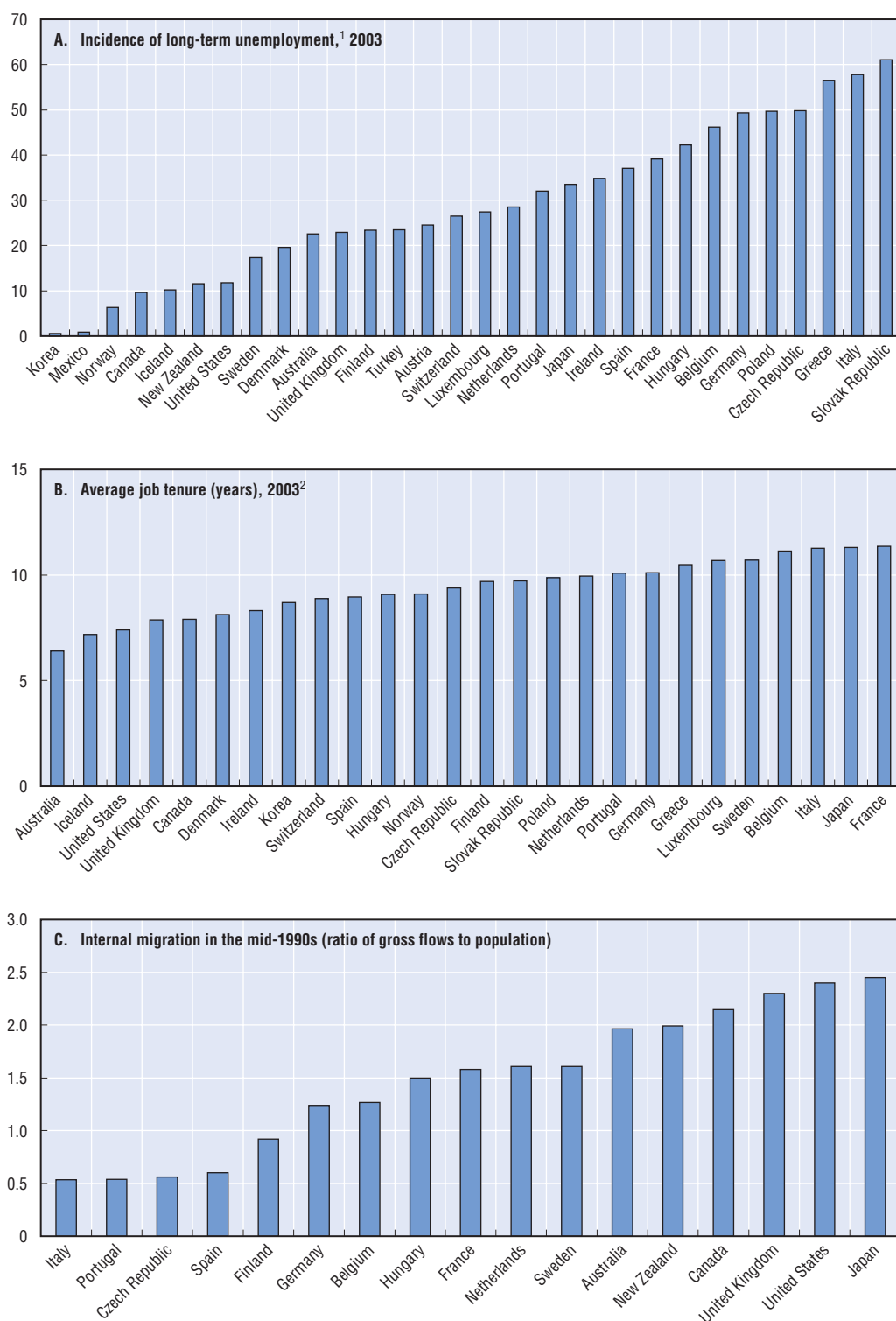
Countries' capacity to adjust differs

Countries' capacity to manage structural adjustments, including those that are directly trade-related, is reflected in broad indicators of performance such as GDP, productivity, employment and unemployment. It is also revealing to examine *labour market mobility*. Indeed, other things being equal, higher mobility is likely to speed adjustment to structural change and lower the associated costs. A number of indicators point to substantial cross-country differences in the mobility of labour resources (Figure 2.3):

- Countries' capacity to re-employ displaced labour resources varies considerably, as measured by the incidence of long-term unemployment (Panel A).
- Labour mobility between employers differs widely, as measured by the average job tenure of workers (Panel B). Shorter job tenure – if accounted for by voluntary job changes – may facilitate the adjustment process by providing a higher flow of vacancies.
- Finally, regional labour mobility is important when structural change has an uneven geographical impact. Again, there seem to be huge country differences, as measured by the incidence of internal migration (Panel C).

These mobility indicators should be interpreted with caution. Some labour turnover may be unproductive “churning” and countries' disparities in re-allocative turnover may reflect differences in the magnitude of structural shocks, rather than differences in their adaptive capacity. Nonetheless, a certain country grouping emerges from the above indicators. First, some countries are characterised by relatively high labour mobility along all the dimensions and appear to have well-developed adjustment capacities (Australia, Canada, Denmark, New Zealand, Norway, the United Kingdom and the United States). At the other end of the spectrum, a number of countries have below-average mobility, which may be symptomatic of particular problems in coping with labour market adjustments (Belgium, the Czech Republic, France, Germany, Greece and Italy).

Figure 2.3. Indicators of labour mobility



1. Defined as those unemployed continuously for 12 months or more as a percentage of total employment.

Source: OECD.

Policies to facilitate structural adjustment and assist displaced workers

The capacity of countries to adjust in the face of structural shocks can be improved through appropriate policies. Because the reintegration of displaced workers is particularly challenging, policies that ensure the existence of sufficient work and hiring incentives as well as employability are needed. In addition, regulations and related policies should favour a mobile labour force and a business environment supportive of growth and job creation. The overriding advice to countries is to aim for good general policies to handle the costs of structural adjustment, although targeted policies may be useful in certain circumstances.

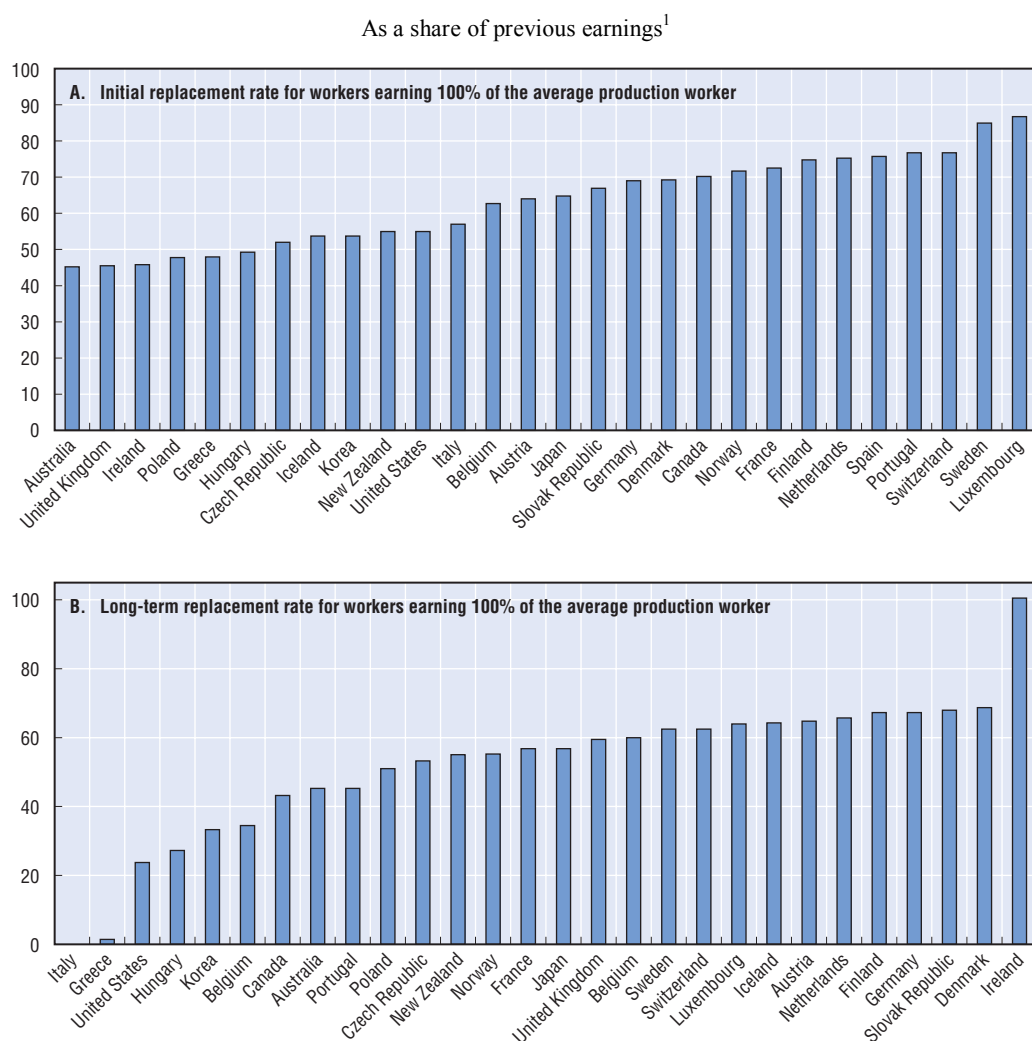
Unemployment benefit, early retirement and disability schemes

Countries' benefit systems play an important role in the reintegration of displaced workers. Unemployment benefits help cushion the cost of adjustment for the affected individuals and subsidise their search for a new job, but when replacement rates are overly high, the economic incentive to find new employment may be low (Figure 2.4). Work incentives can be especially poor for displaced workers who are obliged to change industry when unemployment benefits based on past earnings are high relative to their potential post-displacement wages. There are two main reasons for this. First, workers who have to change industry to find new employment may no longer capitalise on accumulated sector-specific skills, thereby reducing their productivity and potential earning in a future job. Second, different industries tend to pay very different wages to workers with roughly similar skills and other characteristics, possibly reflecting rents originating in weak product market competition and workers' bargaining power in different industries. In general, displaced workers from declining industries might easily face replacement rates close to or above 90% relative to their potential earning in expanding destination sectors when differences in the sectoral wage premiums are taken into account.

Re-employment of older workers is a particular challenge, in part because long-tenured workers often suffer the largest wage losses when displaced. Their unemployment benefits are also often of longer duration and subject to fewer job-search requirements, while early retirement or disability pension schemes may provide an alternative and attractive route out of the labour force. In practice, job displacement of older workers is often associated with long spells of unemployment and a high risk of permanent withdrawal from the labour force.

Because of their high replacement rates, many continental European countries face the challenge of ensuring that benefits do not excessively delay the labour reallocation process. Such countries can either increase their emphasis on effective re-employment services, ensuring work availability and willingness to work, and/or reduce the level of duration of benefits. In the context of OECD peer reviews, recommendations to take such action have been made to several countries (Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, the Netherlands, Norway, Poland, Spain, Sweden and Switzerland). Recommendations to curtail early retirement either through special schemes or the disability benefit system have also been made (Australia, Japan, Norway, Switzerland and most EU member countries). These actions would limit the risk that voluntary departures or layoffs would result in long spells of unemployment or withdrawals from the labour market.

Figure 2.4. Net replacement rates in unemployment benefits schemes, 2002



1. Simple average of four family types: single, one-earner married couple, one-earner married couple with two children and lone parent with two children. The initial replacement rate refers to the first month of benefits, and the long-term replacement rate refers to the 60th month of benefits.

Source: *Benefits and Wages: OECD Indicators*, 2004 Edition.

The structure of unemployment benefits for displaced workers might also be modified, so as to increase the financial incentives to become re-employed promptly and/or to provide some compensation for a long-term reduction in earnings potential. Re-employment bonuses may help shorten unemployment spells by rewarding job seekers who find and accept employment within a specified period of time. Wage insurance is another means of encouraging displaced workers to become re-employed promptly, even if they are unable to find work at a similar wage level. These schemes pay a temporary earnings supplement to displaced workers who accept new jobs at lower wages, with the amount of the supplement increasing with the magnitude of the reduction in wage between the old and new job. Wage insurance is similar in some ways to the in-work benefits that have been used as part of a “make work pay” strategy in a number of OECD member countries. However, wage insurance differs in that the benefit is based on the difference in wages between the new and the previous job, rather than on a new wage that

is low in an absolute sense. While interesting, the approaches discussed in this paragraph remain experimental in nature and no firm conclusions can yet be drawn as to whether the benefits outweigh the potentially high budgetary costs (see Box 2.2). Finally, targeted employment subsidies represent an alternative fiscal mechanism for encouraging re-employment (see the discussion of active labour market programmes) and may be a superior solution in some cases.

Box 2.2. Examples of innovative forms of unemployment benefits

Re-employment bonus

The United States, Japan, France and Korea have used re-employment bonuses in an attempt to shorten spells of post-displacement joblessness. Re-employment bonuses are awards paid to job seekers who find and accept employment within a specified time period. The size of the bonus can be a fixed sum or based on a percentage of the total unemployment benefit for which the worker is eligible. In France, for example, workers receive 65% of their remaining entitlement if they accept a job within ten months. In Japan, the bonus equals between one-third and two-thirds of the remaining entitlement. A scheme in the state of Illinois in the United States compensates job seekers with a lump-sum payment of USD 500 for re-employment within an 11-week period. Evaluation results suggest that re-employment bonuses can reduce the average duration of unemployment, but it is not clear whether this holds for displaced workers experiencing a significant reduction in earnings potential.

Wage insurance (three recent schemes)

The United States recently introduced a wage insurance scheme for older trade-displaced workers. Since August 2003, workers at least 50 years of age eligible for trade adjustment assistance (TAA) may choose Alternative Trade Adjustment Assistance (ATAA) instead. This programme offers a wage subsidy to trade-displaced workers who obtain a different, full-time job within 26 weeks of separation and are paid wages below those in their previous employment. Provided that the worker does not earn more than USD 50 000 a year in the new job, he or she receives a payment (*i.e.* an employment subsidy) of 50% of the difference between the new salary and the old salary, up to a maximum of USD 10 000 over two years. ATAA participants also qualify for a Health Coverage Tax Credit which subsidises private health insurance coverage for up to two years. The German government has recently introduced a similar programme for older job losers, albeit without limiting eligibility to workers affected by trade-related job displacement. In France Article R. 322-6 of the Labour Code, *Arrêté du 26 mai 2004* provides for a system of wage insurance known as conventions d'allocations temporaires dégressives. Under this programme, workers displaced in a mass layoff who are re-employed on a permanent contract at a lower wage are eligible to receive a subsidy covering 50% to 70% of the difference in earnings, up to a maximum of EUR 153 a month, for a period of two years. None of these schemes has been in place long enough to assess how well they are functioning.

Active labour market policies

Active labour market programmes (ALMPs) – including job-search assistance, counselling, training, moving allowances and other re-employment services – are the policy instrument that serves most directly to enhance the re-employment prospects of displaced workers. The reintegration of displaced workers possessing obsolete skills, for example, can be facilitated if adequate retraining programmes can qualify these workers

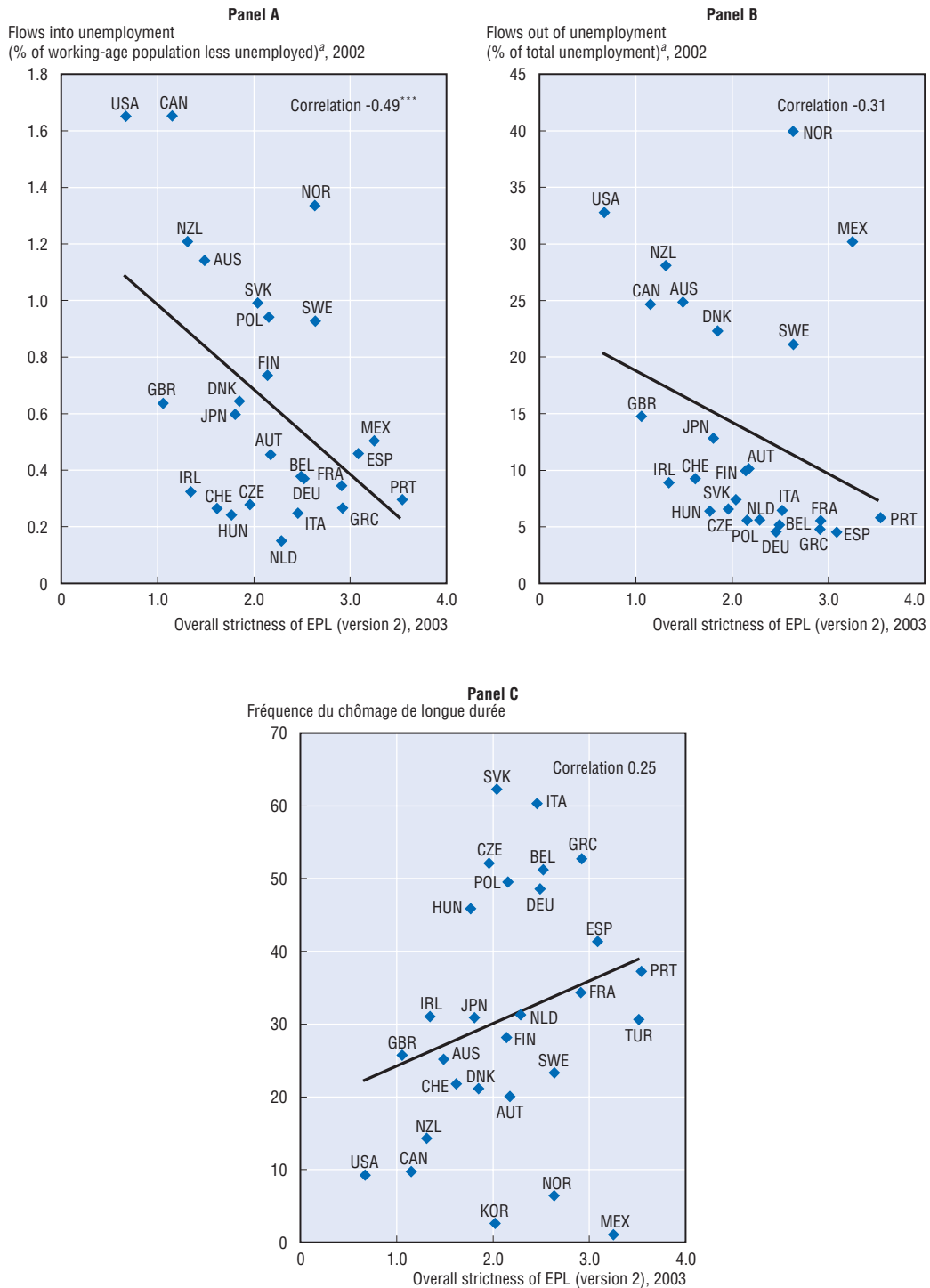
for new jobs at a reasonable cost. To the extent that such interventions are effective, they can both reduce the efficiency costs resulting from structural adjustment and address equity concerns. However, the role of ALMPs goes beyond reducing the adjustment costs borne by workers displaced by structural change to assist labour market entrants (especially those from disadvantaged groups), improve the overall matching efficiency of the labour market and complement income-replacement benefits with “activation” schemes that minimise adverse labour supply responses and long-term dependency on benefits. OECD peer reviews have advised several countries to put greater emphasis on ALMPs relative to passive measures and/or enhance the effectiveness of available programmes (Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Japan, New Zealand, Norway, Poland, Portugal and Spain).

As a general best practice principle for ALMPs, each person should receive a comprehensive package of treatments that corresponds to his or her specific needs. This raises the question of whether workers displaced by trade (or other forms of structural change) tend to require a different mix of treatments than other clients of ALMPs and, if so, whether the services they receive are suitably tailored to their specific labour market situation. Recent experience supports the following observations:

- Workers displaced from jobs in declining import-competing sectors are likely to possess obsolete skills for which there is little demand in expanding industries. This means that job-search assistance in their case may need to be complemented by training to update skills or to provide new ones that can be marketed in a changing economy, or by more frequent (or more intensive) targeted employment subsidies than for the average recipient of unemployment benefits. Nonetheless, it should not be assumed that retraining or employment subsidies are appropriate in most cases. Even in declining industries there is much hiring, as some part of natural attrition must be replaced. Thus, older workers whose skills are highly specialised and linked to those required in their previous industry should sometimes be assisted to locate vacancies in their prior industry, where their productivity and earnings will be higher.
- Where trade-related structural change has suppressed local demand for labour, employment services may need to widen their geographic scope to include areas with more buoyant employment. Relocation grants and mobility assistance may be also required to facilitate moving or simply to permit travel for interviews, and it is necessary to ensure that housing market rigidities do not impede migration (see below).
- Some countries have taken proactive measures in anticipation of mass layoffs, which often can be predicted to some extent. Rigorous evaluations of such early-warning schemes are scarce, but it appears that co-operation between the firm, worker representatives (when present) and the public employment service to prepare for imminent layoffs can ease adjustment and, in some cases, avoid job losses altogether.

Information is lacking to assess whether the mix of services being offered to displaced workers by ALMPs is generally well-tailored to their specific needs. The importance of providing the right services to the right workers is underlined by evaluations results for ALMPs. These are variable, depending on what types of service are being provided to what types of workers, and have frequently been disappointing, particularly for more intensive (and expensive) forms such as in-depth training. This is a policy area where an “evaluation culture” is especially important for constantly monitoring what is working well and what should be changed.

Figure 2.5. Simple correlations between employment protection legislation (EPL), labour market dynamics and the incidence of long-term unemployment



* ** *** means statistically significant at 19%, 5% and 1% levels, respectively.

a) The unemployment inflow rate is defined as persons unemployed for less than one month as a percentage of the source population (the working-age population less the unemployed) and the outflow rate as the percentage of the unemployed moving to employment or out of the labour force in an average month.

Source: OECD Employment Outlook 2004.

Employment protection policies

Employment protection that is relatively strict or implemented in a manner that creates significant uncertainties for employers may slow the adjustment process by constraining firms' ability to cope with a rapidly changing environment (Figure 2.5). It affects firms' hiring, as well as firing, practices and tends to reduce both the inflow to and outflow from unemployment. Strict employment protection may thus imply lower re-employment probabilities and longer unemployment spells for those experiencing unemployment.

Moreover, workers' incentives to change employer are likely to be negatively affected by the existence of strict employment protection, which results in lower voluntary labour flows. This is because workers usually have to stay with the same employer for a certain time (*e.g.* three or five years) before being eligible to full employment protection, including rights to severance pay in case of dismissal. Widespread use of temporary contracts in several countries divide the labour market into segments providing different levels of protection, further reducing the incentive for workers on permanent contracts to change employer (although it may ease the adverse impact on firms' hiring practices). For the inactive population, recent evidence also suggests that strict employment protection can impede work possibilities for youth and prime age women.

However, a certain degree of employment protection, like advance notification of plant closure or other large-scale layoffs, may reduce adjustment costs by providing all interested parties with time to plan and implement the necessary adjustments. Reasonable advance notice to workers and governmental bodies to prepare for imminent job losses is often a prerequisite for co-operation between the firm, its workers and public employment services. It is also possible to ensure workers' compensation against dismissal, while at the same time reducing some of the drawbacks of traditional severance pay systems. For instance, Austria has recently replaced its traditional dismissal compensation system with individual severance accounts that workers can carry with them in the event of changing jobs – thus facilitating mobility, which is so important in the face of structural change.

In general, employment protection regulations need to find a balance that provides workers with adequate protection and fosters a co-operative approach to lessening adjustment costs, without hampering business dynamism and job creation. A better balance can be achieved when adequate unemployment benefits and effective active labour market programmes are in place to assist job losers. An easing of employment protection regulations has been recommended for many OECD countries, including Japan, Korea, Mexico, Norway, Turkey and several European member countries (Austria, Belgium, the Czech Republic, France, Germany, Greece, Italy, the Netherlands, Poland, Portugal, the Slovak Republic, Spain and Sweden).

Wage-setting flexibility and pension portability

Flexible wage-setting systems can facilitate structural adjustment by helping to keep labour resources fully utilised and providing signals to workers in terms of moving to employment where their productivity is highest and improving their human capital. The capacity of various bargaining systems to provide efficient wage structures across occupations, industries and regions may differ, however, with centralised systems sometimes associated with more rigid relative wage structures than more decentralised ones. Displaced low-skilled workers may be particularly affected by insufficient wage

flexibility as wage floors that are set too high, either in bargaining or by statute, may prevent them from finding new employment.

Non-portability of pension rights may further discourage workers from changing employer. Sometimes, workers may lose all their pension rights if, for example, they leave the employer within three or five years of appointment. Defined-benefit schemes are also frequently back-loaded, *i.e.* with disproportionately large employer contributions in later years of employment. This implies that workers who leave prior to retirement may give up a large share of their potential pension benefit. This also acts as a barrier to mobility. Indeed, the value of the pension benefit is sometimes substantially lower for someone who changes employer, interrupts his/her working life or moves to another country.

Recent OECD peer reviews have advised a number of countries to increase wage flexibility to better align wages with evolving labour market conditions (Austria, Belgium, Germany, Italy, Japan, Korea, Norway and Spain). In particular, countries have been advised to relax existing practices of administrative extensions of collective wage agreements (the Czech Republic, Finland, Germany, Italy, the Slovak Republic and Spain) and to reassess the level of minimum wages (Australia, France, New Zealand). Measures to improve the portability of pension rights have recently been recommended for Japan and the euro area.

Housing market policies

High transaction costs on property and rigidities in the rented housing sector can seriously impede regional labour mobility. For owner-occupiers, for example, the tax on property transactions is reported at 11% to 13% of house prices in Greece and at 10% to 12.5% in Belgium (ECB, 2003). Both these countries are characterised by relatively low regional labour mobility. In comparison, the tax on property transactions is 1% to 4% in the United Kingdom and in the range of 1% to 3% in the Scandinavian countries. Changing residence is usually associated with much lower transaction costs for tenants than for owner-occupiers. The mobility of tenants may, however, be hampered by other market inefficiencies. For instance, long waiting lists for locally provided social housing or rent controls for certain accommodations create a segmented market in some countries. Social housing represents roughly half or more of the rental sector in countries like Austria, Ireland, France, the Netherlands, Sweden and the United Kingdom, while private segments are sometimes subject to regulations on rents in the Czech Republic, Denmark and Sweden. Tenants on such contracts may have few incentives to move even when work opportunities are considerably better in other regions, especially if they benefit from housing costs far below the market price.

Inefficiencies in the rental market may also impede the mobility of owner-occupiers by making it more difficult, and possibly more costly, to accept temporary work in another region. The incentives for home owners to use the rental market for temporary moves can be further hampered by the tax system, which sometimes requires the owner to live in the house to be eligible for certain tax preferences (Finland, France, Greece and Italy). In effect, even temporary job moves for home owners may require a process of selling and purchasing a house, making such moves more cumbersome and costly.

A number of OECD countries have recently been advised to improve the functioning of the housing market in order to stimulate regional labour mobility. The functioning of the rental market should be improved by reducing remaining regulations, as explicitly recommended for the Czech Republic, Denmark, the Slovak Republic and Sweden.

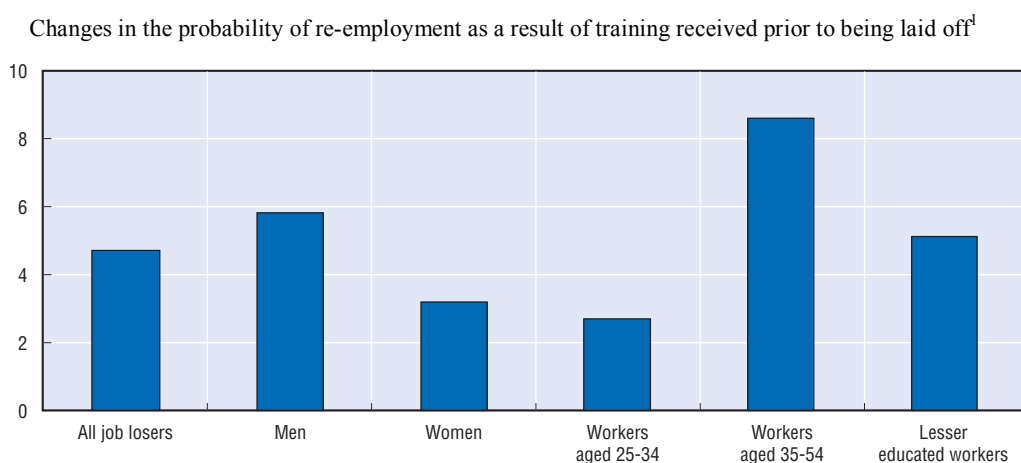
Measures to reduce the implicit subsidy to home owners could further help to create a more efficient rental market and has been recommended for several countries. Moreover, to ensure a more responsive housing supply and thus allow a net inflow of labour resources to expanding areas, some countries have been advised to ease residential zoning and planning restrictions or to take other measures to improve housing infrastructure (the Netherlands, Poland, Spain, Sweden, Switzerland and the United Kingdom).

Education and training

Ensuring a work force with adequate and adaptable skills is a key to facilitating structural adjustments and, in the longer run, will support growth in productivity and real earnings. This has been particularly true since changes in the job mix and production technologies have led to rising skill requirements. Highly skilled workers also tend to have relatively high job-to-job transition rates and are more mobile across occupations, industries and regions. Highly educated workers and workers receiving in-house vocational training also face less risk of layoff than their less educated and untrained counterparts. Even when they lose their jobs, highly educated and trained workers enjoy a relatively high probability of re-employment.

Recent OECD analysis illustrates how workers who have participated in continuing vocational training are in a better position in the event of a layoff (Figure 2.6). For all job losers, the probability of finding a new job within two years after layoff is estimated to be a little over 4 percentage points greater if he/she took some training in the year before job loss. The difference widens to 8 percentage points for workers aged 35-54, who typically have greater difficulty in finding employment following layoffs than younger workers. The employability advantage from training appears to be somewhat lower for women than for men. This is consistent with research suggesting that employers more often organise and finance training for male employees than female employees. It appears that the training that women organise for themselves is less valued by prospective employers and that this difference may disadvantage women in periods characterised by high rates of structural change if their access to employer-sponsored training does not improve.

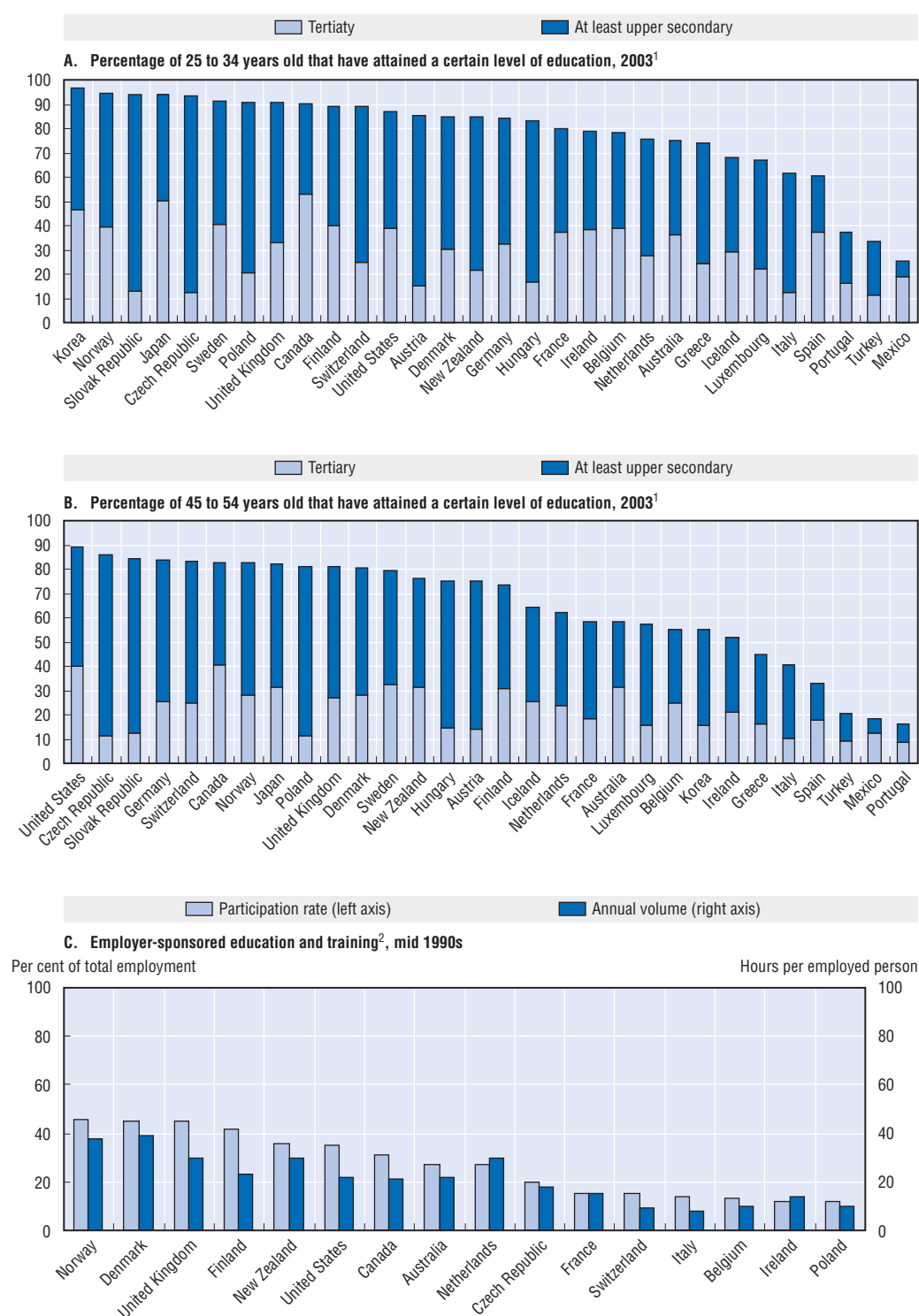
Figure 2.6. Training increases the probability of re-employment after job loss



1. OECD calculations based on the European Community Household Panel, waves 1 to 7 (1994-2000) for Austria, Belgium, Denmark, Finland, Germany, Italy, Ireland, the Netherlands, Portugal and Spain.

Source: *OECD Employment Outlook, 2004*.

Figure 2.7. Indicators of education and in-work training



1. 2002 for Denmark, Greece, Iceland, Italy, Japan, Luxembourg, the Netherlands, Norway and Switzerland.

2. Data refer to job-related education and training which employers provided (or partially paid) to their workers (26-65 years).

Source: OECD, Education database and *OECD Employment Outlook 2003*, Chapter 5.

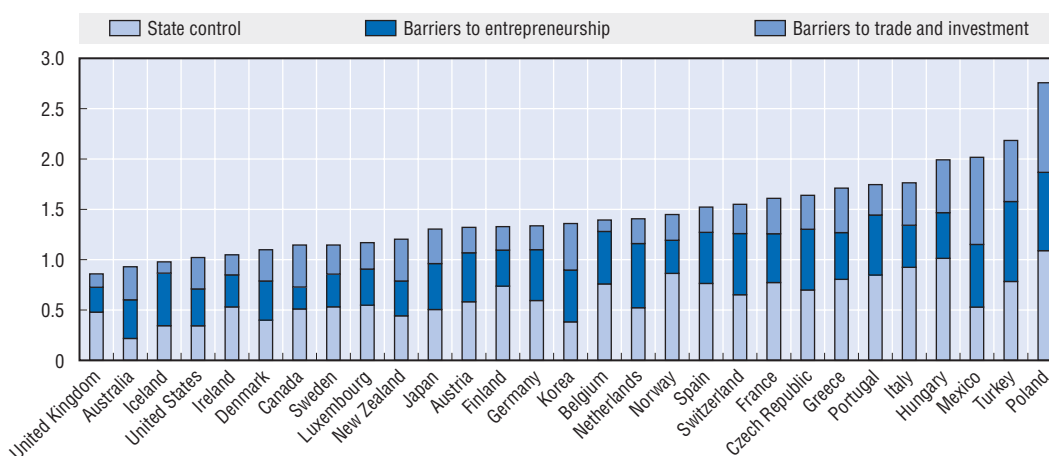
Educational attainment rates and the incidence of in-work training differ significantly among OECD countries (Figure 2.7). This indicates substantial scope for improvement in some countries. Recent OECD peer reviews have recommended that several countries improve enrolment rates in upper secondary education (Australia, Canada, Iceland, Italy, Mexico, Portugal and the United Kingdom) and tertiary education (Austria, Germany, Italy, Korea, Poland and the Slovak Republic). Moreover, greater public support for adult learning has been recommended for some countries, although a cautious approach is suggested (Australia, Finland, Greece, Italy, Japan, Korea, Mexico, Portugal, the Slovak Republic and Switzerland). More generally, a majority of OECD countries have been recommended to take measures to ensure that labour skills meet evolving labour market. In this respect, appropriate incentives for employers and employees to invest more in training and increased scope for competition in higher education could contribute to more effective human capital accumulation.

Product market competition

Exposing domestic markets to increased competition can in itself encourage restructuring and lead to job displacements or reduced asset values. The accompanying worker adjustments can be particularly difficult if workers' wages in deregulated sectors have embodied large rent elements. However, lower barriers to competition, entrepreneurship and growth are instrumental in strengthening the economy's capacity to adjust and to absorb displaced resources. Cumbersome product market regulations and barriers to competition may have particularly detrimental effects on expanding industries, like the business service sector, that are characterised by a large share of relatively small firms or by high entry and exit rates. Inefficiencies in financial markets and distortions created by the tax code may reinforce such obstacles by raising capital costs for small firms. Product market deregulation, by providing a more favourable environment for firm entry and business start-ups, may thus unleash the considerable potential of the service sector as a source of job creation.

Although most OECD countries have pursued substantial regulatory reform over the past decade, anti-competitive regulations are still prevalent in many countries and, in particular, in many service industries (Figure 2.8).

Figure 2.8. **Product market regulations,¹ 2003**



1. Index 0-6 scale from least to most restrictive.

Source: OECD Product Market Regulation Database.

Recommendations for regulatory reforms have been made in the context of OECD peer reviews. Several countries have been recommended to reduce regulatory barriers to business start-ups and firm entry (Austria, the Czech Republic, Denmark, France, Germany, Greece, Hungary, Iceland, Japan, Mexico, Netherlands, Portugal, the Slovak Republic, Spain, Switzerland and Turkey). High compliance costs for firms due to unnecessarily cumbersome regulations have also been seen as a potential obstacle to business dynamism (Belgium, Ireland, Mexico, Netherlands, Norway, New Zealand, Portugal, Switzerland and Turkey). Furthermore, liberalising service trade and reducing restrictions on foreign ownership may help create a more dynamic and international service sector. Steps in this direction have been recommended for most OECD economies.

Note

1. The analysis presented in this chapter draws from two broader OECD studies on the impact of structural policies on trade-related adjustments: OECD (2005, Chapter 1) and Kongsrud and Wanner (2005).

Chapter 3

TRADE AND STRUCTURAL ADJUSTMENT: TOWARDS GOOD PRACTICE

This chapter seeks to identify elements of good practice in domestic and trade policy, for both developed and developing countries. These elements are drawn from the case studies in Chapters 4-11 and the analysis in Chapter 2. In tackling the challenge of structural adjustment, all countries, developed and developing alike, albeit with differing degrees of emphasis, will benefit by adopting at the national level: macroeconomic policies that promote stability and growth; labour market policies that improve workforce skill levels and facilitate a smooth transfer of resources from declining to expanding activities; an efficient regulatory framework; a strong institutional and governance framework; and liberal trade and investment policies that support structural adjustment by contributing to growth, innovation and competitiveness. For the poorest countries, particular emphasis should be placed on appropriate institution building and the development of human and physical capital. Governments are strongly encouraged to pursue reform across different policy areas in a complementary way in order both to reduce resistance to change by helping ensure that those disadvantaged by one reform benefit from another and to foster synergies between policies. Governments are also encouraged to rely, as much as possible, on generally applicable measures to address adjustment costs, including through the tax and social security system, for reasons of both equity and efficiency. Multilateral efforts – including through the Doha Development Agenda, the work of the international financial institutions, donor co-ordination and greater efforts to enforce core labour standards – are of particular importance for promoting mutual interests in trade liberalisation, locking in domestic reform and building confidence between enterprises and the societies in which they work. Co-ordinated efforts will be needed to address developing country concerns about preference erosion and tariff revenue loss.

Introduction

This chapter aims to identify elements of good practice to be found in the case studies covering eight sectors in Part II. Specific attention is devoted to the development dimensions of structural adjustment. The identification of good practice needs to be approached with care. It cannot be assumed that an approach that has worked in one sector will *necessarily* work in another, or that good practice for one country or group of countries will *necessarily* translate into good practice elsewhere. The adjustment challenge faced by developing countries differs both in nature and extent from that faced by the advanced industrialised economies. So therefore does the required policy mix and the ability to implement policy. Nevertheless, underlying principles of good practice permeate all the sectors examined, and while the nature of the adjustment challenge may differ, the principles of good practice tend to be widely applicable, albeit with differing degrees of emphasis, across countries. For the OECD economies, the policy challenge relates in particular to reforming structural policies affecting the functioning of labour and product markets while providing effective income support and re-employment services to job losers. For poorer developing countries, particular attention needs to be devoted to building sound institutions, fostering an appropriate macroeconomic framework, improving access to finance, developing human capital, strengthening infrastructure services and reducing often high barriers to trade. Above all, the poorest countries will need to make concerted efforts to improve supply-side capacities, to diversify economic activity and to build sound institutions in order to begin to avail themselves of the full range of policy options identified in this study, some of which, such as certain labour market policies, are currently beyond their reach.

Policies implemented at the national level are at the heart of successful structural adjustment. However, they can be complemented by bilateral or regional initiatives as well as multilateral co-operation. These three aspects will be considered in turn.

National policy making

Reliance on generally available measures to address adjustment costs

Governments are advised, wherever possible, to rely on generally available adjustment measures, including through the social security and tax system, in order to treat individuals in similar circumstances equally, provide assistance to those in genuine need, and avoid compounding distortions in the economy. However, such measures cannot cover all situations, and targeted adjustment measures can be useful in some cases, for example when structural decline in a particular sector causes geographically concentrated job loss beyond what existing labour market programmes can cope with. This bears on the political economy of structural adjustment: while the benefits are usually dispersed throughout the community, adjustment pressures are typically concentrated on a relatively small group. Targeted programmes may be the price to pay to get reforms enacted.

In almost all of the eight sectors examined, sector-specific measures have been used, sometimes successfully, to help the adjustment process. In many cases, assistance has aimed to address market failure, such as that associated with the undersupply of investment in R&D, because of fears that resulting innovations will be appropriated by new entrants. Such targeted measures – whether to facilitate entry or exit – have involved:

- Transitional budget support to encourage innovation and investment to help textiles and clothing producers in Australia be competitive in a low-tariff environment.

- Subsidies for the decommissioning of Danish fishing vessels to help address problems of overcapacity (though the public cost has been high and underlying structural problems have persisted).
- Transitional budget support to encourage new investment in the motor vehicle industry to meet more stringent environmental standards.
- Financial assistance for Australian dairy farmers to compensate for an adjustment-related fall in the value of farm assets; such assistance was time-bound and decoupled from production (see Box 3.1).

A particular form of targeted assistance helps workers displaced by structural adjustment. Examples from the case studies include specific training schemes and regional development programmes to help redeploy displaced steel workers in Europe and “closure aid” for shipbuilding workers – but not for yards – made redundant, on the condition that capacity reduction was irreversible.

These schemes, to be discussed in more detail below under labour market policies, appear to have had rather mixed success. Indeed, the problem with targeting, more broadly, is that market failure can be hard to identify and sector-specific trade-related assistance or compensation fraught with difficulties:

- *Creating precedents*: The introduction of an adjustment programme may seem to create a precedent of compensating people who lose as a consequence of changes in government policy. Given that governments are unlikely to have the resources to compensate all possible losers from all possible changes in government policy, there is a risk that the creation of a compensatory package will trigger other demands for similar compensation for a wide range of other shocks.
- *Incentive effects*: Enhancing opportunities for workers to move to expanding sectors and areas with better employment opportunities is nearly always a key to successful adjustment. Approaches that are targeted on “declining” sectors and areas risk perpetuating the structural problem.
- *Institutional inertia*: Once started, compensatory programmes are politically extremely difficult to stop.
- *Equity*: People suffer negative consequences from many types of economic (and other) shocks; trade adjustment assistance only compensates for the costs resulting from one kind of shock. Many may regard this as unfair, thereby resulting in internal tensions. In itself, trade displacement confers no special entitlement to preferential treatment. Moreover, it may be difficult to determine whether trade, as opposed to changing global tastes or firms’ poor productivity, in fact accounts for any specific job loss. It is this consideration, among others, that makes it difficult to give practical application to the principle of welfare economics that it is theoretically possible for the gains from trade liberalisation to be such that the gainers can compensate the losers, without anyone being worse off.

Box 3.1. Two cases of targeted policies

The following are two cases in which targeted policies appear to have played a significant and positive role. In the case of the Australian dairy industry, transitional support decoupled from production improved the impact of an overnight phase-out of price support for milk products. In the case of the EU, a set of policies was designed to dampen a concentrated sectoral impact in the shipbuilding industry and facilitate the sector's restructuring.

The Australian dairy industry

In this case a set of targeted measures was designed to strike a balance between equity and efficiency over a credible transition period. The price support mechanism for fluid milk prices in the Australian economy was dismantled in July 2000 to allow for synchronisation of domestic and world fluid milk prices and more efficient resource allocation within the domestic economy. This change not only marked a significant re-instrumenting of support for fluid milk producers but provided a vehicle for reductions on a time-bound and self-financing basis.

To allow producers time to prepare for adjustment, the removal of the price support mechanism was announced nine months prior to implementation. Accompanying this change was a transitional assistance package designed to address the impact of the removal of price support (averaging 20-25%) on producers. Developed in 1999, the Dairy Structural Adjustment Package (DSAP) provided producers with assistance totalling AUD 1.63 billion in the form of payments decoupled from production. The DSAP provides 32 quarterly grants over eight years based on milk production in 1998-99.

To address concerns about the decline in fluid milk prices by late 2000, the government announced an AUD 100 million Supplementary Dairy Assistance (SDA) package in May 2001. During the first three years of this programme, 2 234 farms or 17% of the industry left the sector. Both the DSAP and SDA are funded by the imposition of a Dairy Adjustment Levy on domestic drinking milk which is scheduled to end in 2010, or two years after the end of programme payments in 2008.

The European Union shipbuilding industry

The EU shipbuilding industry is marked by a long-term and steady decline in world market share, from over 60% in 1960 to less than 15% in 2000. The concentrated impact and non-market considerations influencing policy approaches towards the shipbuilding industry can only be partially appreciated by the 70% decline in the work force (to 126 761 employees) between 1975 and 2003. Two categories of targeted policies included Community-wide subsidy disciplines to reduce distortions in production and assistance to facilitate restructuring for competitiveness.

Policy response at the Community-wide level on shipbuilding emerged in 1970 and by the 1990s, three consistent approaches to disciplining shipbuilding subsidies had been taken. First, the maximum allowable "contract-related production aid" was progressively reduced from 28% in 1987 to 9% in 1993. Second, "investment aid" to restructure shipyards was not allowed to result in the addition of overall capacity, and if it did so, capacity had to be equally reduced elsewhere. Finally, "closure aid" was allowed only to finance unemployment assistance for retrenched workers (not closure of the shipyards themselves) and capacity reductions had to be irreversible.

To enhance the competitiveness of the EU shipbuilding industry, selective "investment aid for innovation" was made available in addition to the aid for R&D that was generally available for industry. "Aid for modernisation/upgrading" was also allowed in the form of regional investment aid on the condition that it was not used to finance the restructuring of shipyards.

- *Efficiency of public expenditure and revenue:* Governments have a responsibility to ensure the most efficient use of public funds. If a government's objective is to provide assistance to overcome a trade shock or some other form of structural adjustment arising from such a shock, it needs to be clear that the introduction of a trade

compensation programme will be more effective than any other use of public funds. International experience (including from the OECD Jobs Study) suggests that this is highly unlikely since workers affected by trade reform are often better off than other workers (though this is country-specific). Increased expenditure for adjustment programmes must be paid out of increased revenue, the collection of which through taxation creates additional distortions. For instance, if one assumes that the economic costs of raising an additional USD 1 of government revenue ranges from USD 1.17 to USD 1.56 (based on econometric work undertaken in the United States by Ballard *et al.*, 1985), there is a net efficiency loss in the range of 17% to 56%. Consequently, a public project must produce marginal benefits of more than USD 1.17 per USD of cost if it is to be welfare-improving.

Should governments consider it necessary to target assistance in particular cases, experience suggests that problems of both equity and efficiency will be minimised to the extent that such assistance is:

- Time-bound, with a clear exit strategy.
- Decoupled from production.
- Aimed at re-employing displaced workers.
- Compatible with general safety net arrangements.
- Cost-effective.
- Transparent and accountable.

A sound macroeconomic framework

At the broadest level, structural adjustment will be facilitated where government policies create an enabling environment through the promotion of macroeconomic stability and growth. As shown in the OECD *Growth Study*, macroeconomic stability contributes to a dynamic economy, which is likely to make adjustment easier and swifter. Macroeconomic disequilibria, such as excessive inflation and high budget deficits, have in the past come at the cost of lower economic growth. Several case studies, and notably the case study on the reform of New Zealand agriculture, highlight the complementarity of macroeconomic and trade policy and the crucial role of government in creating an enabling environment for successful adjustment. Indeed, all of the agriculture case studies point to the crucial role of government in creating an enabling environment for successful structural adjustment, while at the same time pointing to the need to reduce the direct role of government in the production, marketing and pricing of farm products.

In developing countries, the case studies indicate that the impact of the overall macroeconomic framework is often more important for the performance of particular sectors than the impact of any sector-specific policy measure. Indeed, with the exception of Kenya,¹ the sectors examined have evolved in a context of strong overall economic growth. This highlights the importance of an enabling policy framework as a prerequisite for successful structural adjustment. Securing macroeconomic stability, removing an anti-export bias and adopting an appropriate exchange rate policy played a key role in developing countries' initial efforts to restructure their economies and put them onto outward-oriented growth paths. Complementary policy measures were also implemented to improve domestic conditions for international business and to encourage long-term investment in non-traditional export sectors. The complementarity of a sound macroeconomic framework and trade policy reform is seen to be particularly important in

the case of developing and transition economies, not least via the role of tax policy in compensating for tariff revenue loss resulting from trade liberalisation (see Box 3.2).

Box 3.2. Macroeconomic stability and trade liberalisation: important complements

A number of case studies support the proposition that macroeconomic reform is an important complement to market opening. In particular, tax reform to offset declines in government revenue resulting from tariff reductions and the rationalisation of exchange rate regimes are seen to be important steps along with or prior to the implementation of trade liberalisation. The question of tax reform to offset revenue loss is discussed in more detail in the section dealing with multilateral co-operation.

Chile: Agro-food industry

The Chilean case study illustrates the relationship between sound macroeconomic policy, structural adjustment and benefits from increasing trade liberalisation. The initial period of policy reform beginning in 1979 led to macroeconomic imbalances which stymied sustainable structural adjustment. In contrast, reforms following the economic crisis of 1982 have since proven effective. Pre-1982 macroeconomic reforms in Chile were characterised by tight fiscal policy, with significant reductions in government subsidies, high interest rates and eventually exchange rate appreciation. Trade policies saw the implementation of a 10% uniform tariff (down from an average of 94%) and the removal of most non-tariff barriers (NTBs). These policies led to an import surge while high interest rates and exchange rate appreciation reduced incentives for domestic industry, including agriculture, to adjust from a subsidised inward-looking focus towards an outward-looking export orientation.

Adjustments to macroeconomic and trade policy following the crisis in 1982 led to a sustained recovery and growth beginning in 1984. At the macroeconomic level, significant exchange rate devaluation was accompanied by fiscal reform designed to replace the government revenue formerly garnered from higher tariff rates. There was a temporary lifting of uniform tariffs to 35% by 1984 and a gradual reduction to 11% by 1991. It is significant that trade policy neither derogated from the principle of non-discrimination nor retreated to use of NTBs throughout this period thus minimising price distortions and allowing for efficient reallocation of resources in support of adjustment and growth. Extensions of credit lines also assisted the agricultural sector's efforts to adjust to a more liberal trade regime while rationalisation of the exchange rate supported the competitiveness of its exports.

Bangladesh: Textiles

The challenge of managing a sound macroeconomic policy in tandem with economic liberalisation is clear in the case of Bangladeshi textiles. For a developing economy highly dependent on tariffs as a source of government revenue, sound macroeconomic policy has helped to maintain fiscal discipline in the face of declining tariff revenues resulting from trade liberalisation, which led to a decline in the average effective rate of protection from 75.7% to 28.6% between the periods 1990-91 and 1997-99. The process of trade liberalisation is still ongoing, as the government continues to rely on import tariffs for half of total tax revenues.

The apparent success of the macroeconomic framework in addressing structural adjustment relied on reform of the domestic tax regime to compensate for revenue loss from tariff reductions. The fiscal discipline that enabled a reduction of the budget deficit from 5.1% to 3.5% of GDP between FY2001 and FY 2003 was likely a key factor in the floating of the exchange rate without major difficulties in May 2003, as part of the process of exchange rate liberalisation begun in 1994. In short, a dynamic macroeconomic policy framework played an important role in effecting the structural adjustments entailed by trade liberalisation, while maintaining the fiscal discipline necessary to support exchange rate liberalisation.

Box 3.2. Macroeconomic stability and trade liberalisation: important complements (cont.)

Mauritius: Textiles

Mauritius demonstrates another approach to the macroeconomic management of economic liberalisation and structural adjustment, through a dual approach allowing both for gradual liberalisation in an import substitution sector and implementation of a liberalised export sector. In the 1960s, export processing zones (EPZs) were established in designated areas although most of the economy continued to be characterised by a continuation of import substitution policies. Economic activities conducted in EPZs had immediate access to duty-free imports, cheap labour, public investment in infrastructure, as well as tax incentives to attract both domestic and international investment. The overall economy also benefited from a gradual programme of trade liberalisation completed in the early 1980s. A number of exogenous economic shocks led to further economic reforms including the introduction of a flexible exchange rate and removal of a number of quantitative import restrictions and price controls. By the mid-1990s, Mauritius had achieved an economic recovery and had one of the most liberal economic regimes in Africa. However, the economic situation has worsened since 2000 with a growing fiscal deficit, sluggish exports and declining income growth.

Poland: Autos

Macroeconomic policy in Poland is coloured by the “shock therapy” applied at the start of 1990 and preparations for accession to the EU soon afterwards. The former consisted of economic policies designed to reanimate the market mechanism and spanned freeing of prices, elimination of rationing, liberalisation of foreign exchange, fiscal discipline and the termination of various subsidies to state-owned enterprises and their privatisation. Structural adjustment resulting from the shock therapy included both liberalisation of the exchange rate and overall reductions of tariffs in preparation for EU accession and facilitated Poland’s integration into the international economy. Further structural adjustments resulting from the removal of barriers to trade and investment with the EU resulting from accession remain under way, but the liberal macroeconomic framework implemented since 1990 has proven flexible to date.

Australia’s experience

Australia’s experience gives strong support to the need for appropriate exchange rate policy (not dissimilar to the Chilean example). The floating of the AUD in 1983 (and the subsequent depreciation) arguably had two effects: it showed the need for real depreciation and the policy reforms for achieving this; it also cushioned adjustments in the traded goods sector following the general reductions in protection which commenced in 1988.

Contrast this with experience in 1973 when tariffs were cut across the board by 25%, a measure taken to avoid further revaluation of the AUD which would have blunted somewhat the minerals export boom. In other words, exchange rates were not allowed to reach their market level. The manufacturing sector, which was already squeezed by the “Dutch disease” effects of that boom, was then faced with a substantial cut in protection. The tariff cut created strong opposition which manifested itself in a subsequent shift to quota protection in key manufacturing industries (*e.g.* textiles, clothing and footwear, cars), which proved very difficult to remove later.

A sound macroeconomic framework also helps foster well-functioning financial markets and access to credits by firms, particularly small and medium-sized enterprises (SMEs). In the developing countries, the availability of short- and long-term finance is essential for entrepreneurs. In Mauritius, for instance, the Development Bank of Mauritius played a key role in providing preferential credit to certain sectors, setting up a foreign exchange risk scheme and supporting SMEs. In other African countries, efforts have also been made in the financial markets, but access to finance remains a serious bottleneck to flexible responses in the area of trade.

Labour market policies

Just as domestic policy making at the national level lies at the heart of the structural adjustment process so labour market conditions lie at the heart of the national policy framework. More particularly, it is often the relationship between labour market conditions and the trade regime that determines whether or not adjustment is successful.

As noted in Chapter 2, in seeking to determine good practice in structural adjustment it is important to recognise that successful countries are not necessarily characterised by stable sectoral patterns of production and employment or by the presence of particular industries. Instead, they are characterised by their capacity to manage structural change without experiencing long-lasting increases in unemployment among working-age persons, while at the same time improving living standards as resources move into new and expanding areas. In short, it is a question of worker mobility and its contribution, along with that of policies such as regulatory reform, to the entry and exit of firms. Recent analysis suggests that entry and exit accounted, respectively, for 25% and 50% of UK manufacturing productivity growth during the 1980s and 1990s.² Moreover, there is strong evidence that while trade liberalisation is positively linked to growth, it is associated with a lower standard of living in economies that heavily regulate new entry or impose high costs on exiting or downsizing (Bolaky and Freund, 2004). The link between trade policy and labour market conditions is amply demonstrated in the case studies on the international sourcing of information technology (IT) and business process services. It is pointed out that while such sourcing is expected to affect fewer workers in the EU than in the United States, the European worker is generally more likely to have difficulty finding a new job because of higher unemployment and lower re-employment rates.

Chapter 2 identified a number of policies related to the labour market that are central to the adjustment process.

Unemployment benefit, early retirement and disability schemes play an important role in the reintegration of displaced workers, though there is a danger that overly high replacement rates will lower economic incentives for re-employment. This danger can be lessened by the use of re-employment bonuses or wage insurance.

Active labour market programmes (ALMPs), including job-search assistance, counselling, training, moving allowances and proactive measures in anticipation of mass layoffs, are found to be the most effective policy instrument for improving the re-employment prospects of displaced workers.

As touched on in Chapter 2 and earlier in this chapter, the issue of targeted assistance for displaced workers arises in discussion of the labour market, and of ALMPs in particular. The case studies in Part II and other examples point to three different ways to target assistance to workers: nation-wide labour market programmes targeted at workers affected by foreign competition and administered by governments; targeted labour market

programmes designed by both the private and the public sector; and corporate initiatives establishing adjustment programmes. Box 3.3 presents brief examples of each type of programme to illustrate experience in OECD countries. In all cases, success seems to be mixed.

There are clearly cases in which displaced workers have been successfully reintegrated into the workforce. And some targeted schemes appear to have been successful in building public support for trade liberalisation. However, participation rates have often been low and success appears to have been dependent on prevailing economic conditions and labour market buoyancy as much as on the specific measures adopted. Moreover, the targeted policies have all been susceptible to the broad targeting pitfalls in terms of equity and efficiency identified earlier. In addition to the broad pointers to good practice outlined there, the case studies suggest that targeted measures to help displaced workers, and indeed ALMPs more generally, are more likely to succeed when:

- Policies are based on active tripartite co-operation between management, workers' representatives and government.
- Labour market opportunities for displaced workers are realistically assessed.
- External specialists are used in cases of large-scale layoffs.
- Programmes are neither too short, incapable of providing real support, nor too long, encouraging complacency.
- Active measures are combined with income-replacement benefits.
- Broad-based policies seek to promote economic growth and opportunity (see Box 3.3).

Employment protection policies can foster a co-operative approach to lessening adjustment costs but care is needed to ensure that they do not restrict business dynamism and job creation.

The effective functioning of the labour market is also seen to depend importantly on flexible *wage setting systems*, *pension portability* and reduced rigidities in the *housing market*.

There is also a crucial role for *education systems* that help build human capital and ensure that labour skills meet evolving needs in the labour market.

In the developing country cases studied here, when the industries first started to grow, they all had access to a pool of relatively well-educated and cheap labour. Literacy and primary education levels were all relatively high. As the industries developed, they were confronted with shortages of skilled labour and rising wage levels. Human resource development has thus become a major challenge for them to improve productivity and climb up the value chain in the face of rising competition and market demands (Bangladeshi and Colombian textiles). Governments can help overcome this challenge by investing in secondary and tertiary education as well as vocational training.

Box 3.3. Active labour market policies

Targeted nation-wide labour market programmes

Adopted in 1962, the United States Trade Adjustment Assistance (TAA) legislation complements general unemployment assistance and ALMPs by providing temporary assistance to workers losing their jobs as a result of trade liberalisation. The economic rationale for this policy remains controversial, since it is not evident that trade-displaced workers should receive more adjustment assistance than other job losers encountering similar difficulties, and, in any case, it has proven difficult to differentiate between the two groups of job losers. Nonetheless, the TAA programme has been a source of innovative practices related to the provision of earnings-replacement benefits (*e.g.* the wage insurance programme introduced in 2003) and training for displaced workers (*e.g.* voucher programmes operating through state community college systems).

On the other hand, TAA seems to respond well to political economy considerations, in particular by consolidating public support for trade liberalisation. TAA has been significant in the area of textiles which accounted for 35% of all TAA certifications between 1995 and 2000. The Trade Act of 2002, which established the current system of Trade Promotion Authority (TPA) that facilitates US acceptance of trade liberalisation by restricting the power of Congress to alter trade agreements negotiated by the president, also contains substantial enhancements to existing TAA for workers displaced as a result of international trade agreements.

The Australian Structural Adjustment Assistance programme, initiated in 1973 following significant tariff cuts, was targeted specifically to trade-displaced workers. The programme, which focused on income assistance rather than active measures, was terminated in 1976 after only three years. Its termination came on the heels of a government evaluation which concluded that the provision of special benefits to designated displaced workers reduced worker mobility. Other reasons for ending the programme included pressures on government to provide similar benefits to other displaced workers and the arbitrariness of the determination that recipients are unemployed as a result of government policies. The programme was similar to the early TAA programme in the United States in its emphasis on passive measures and disappointing evaluation results.

Targeted labour market programmes involving both the private and public sector

The resilience of communities heavily dependent on single industries can be assisted by measures taken in co-operation between the public and private sectors to facilitate transition. When British Steel closed a plant in Corby in southeast England, total employment in Corby was reduced from 23 300 to 15 900 between 1979 and 1981. In response, a combination of measures was implemented: early retirement schemes, programmes for workers retraining and the designation of new land for developing manufacturing industries under regional development programmes. By 1984, total employment in Corby had recovered to 19 700.

In the late 1980s, privatisation of the underperforming Austrian steel industry led to significant layoffs in the sector. As part of a social plan to help cope with the negative aspects of structural reform, management and works council negotiations brought about the creation of the Austrian Steel Foundation. The Foundation's shared responsibility for labour market adjustment is reflected in its executive board, which consists of three members of works council and three managers of steel firms. The Foundation provides services tailored to individual worker needs and includes vocational orientation, small business start-up assistance, rigorous and extensive training or formal education (sometimes for several years) and job-search assistance. Retraining programmes concentrate on re-qualification and occupational reorientation rather than on marginal skill upgrades. The Foundation is financed by the steel firms and programme participants themselves, as well as by the government (in the form of unemployment benefits) and remaining employees who pay a solidarity levy of 0.25% of gross wages towards the Foundation.

Box 3.3. Active labour market policies (cont.)

Evaluations have suggested positive results. One rigorous evaluation suggests that, in the five years following completion of the Foundation's programme, employment prospects were significantly higher for participants than non-participants. Younger participants and low-wage workers also achieved significant wage gains compared to the control group. There is little in the way of evidence, however, to suggest whether the positive results are the result of the unique characteristics of this effort or whether its structure could be duplicated or generalised. Also, participation rates among eligible workers have been relatively low.

Targeted labour market programmes designed by companies

In 2001-03, approximately 12 600 workers were affected by layoffs in Östergötland, a Swedish county with 415 000 inhabitants. One-third of these workers had been employed by affiliates of large industrial groups that offered voluntary adjustment programmes that went beyond corporate obligations. The programmes were tailor-made by companies that laid off significant numbers of workers (350 on average) and offered support in addition to the assistance required by law and collective agreements. The costs were borne by the companies and the programmes were offered during a limited period of time. The perceived value covered all parties involved: first, individuals benefited from early action, longer terms of notice, retraining support and access to external job agents that search for unannounced jobs; second, companies benefited from improved public relations, reduced costs to manage downsizing, better relations with unions and improved reputation as responsible employers; third, the public sector benefited from reduced pressure on job centres and lower unemployment insurance payments, reduced numbers of workers on long-term sick leave, higher tax payments, and smoother channelling of idle labour to expanding industries.

Östergötland's experience suggests that crucial components of adjustment programmes include support activities that can lead to new jobs, support for re-education and co-ordinated policies for people on long-term sick leave. Training for job search and the application process has proved useful and job search initiatives on the "hidden" labour market have been successful. Support for workers who opt for education is particularly important since many workers that are laid-off have skill sets for which demand is decreasing.

External specialists are preferably hired to manage adjustment programmes in situations of large layoffs with short notice. Conversely, internal organisations are more useful in small-scale layoffs with longer notice. To facilitate the working of the programme, the core group that establishes the programme should include people with considerable knowledge of both the private sector and different public actors.

The timing of the programme is critical. First, affected workers need time to adjust between the layoff announcement and the implementation of the adjustment programme. Second, programmes that are too short in duration tend to be perceived as quick fixes incapable of providing real support while programmes that are too long often produce lock-in effects so that individuals become complacent and start their job search activities late. The programme should also be located outside the work place. In addition, workers with high previous salaries are often unwilling initially to take up new lower-paying jobs. This can be bridged with a time-limited offer by the retrenching company to pay the difference in salary between the old and the prospective new job.

In the year ending March 2002, Ericsson reduced its Swedish workforce by 6 300 employees and adjustment programmes were negotiated between the company and local affected parties. Laid-off workers were offered 12 months of support, with guaranteed remuneration and benefits, to find new jobs or retraining alternatives. Ericsson also turned to external job support agencies to help affected workers; in certain instances, white-collar workers were offered retirement packages or direct payments to leave the company. The support programmes included the establishment of teams of 15-20 individuals with an advisor whose task was to find individual solutions for each worker, including through re-education, company visits, internships, seminars and advice in the job search process. Workers who found new jobs were guaranteed their previous levels of salary and benefits for six months. Co-operation was sought from local labour market agencies, and special committees were established with local authorities, representatives from the Social Insurance Office, unions, etc.

Box 3.3. Active labour market policies (cont.)

Almost 4 000 of the 6 300 affected Ericsson workers were at some stage involved in a support programme; of these, 45% had found a solution by March 2002 although most programmes were still running. In light of the severe problems faced, the Swedish government agency was very satisfied with the outcome and responsibility taken by Ericsson. While the corporate adjustment programmes were fairly coherent across subsidiaries, the effects of the adjustment process varied between towns:

- In Linköping (133 000 inhabitants, 1 170 layoffs) the adjustment process was smoothed by a timely expansion in both the public and private sector. Of the 430 workers who completed the adjustment programme, more than 200 found new jobs, 180 enrolled in education programmes while some started new companies and others were on long-term sick leave or actively looking for jobs. In Kumla (19 000 inhabitants, 1 500 layoffs) the adjustment process was fairly successful owing to larger surrounding towns that absorbed some of the idle labour. Many of the retrenched workers were commuters from neighbouring districts and the proximity to external labour markets helped to divert pressure from the local labour market. Seven months after its initiation 65% of the people who joined an adjustment programme had found a new job or joined an education programme.
- In Gävle (91 000 inhabitants, 500 layoffs) and Hudiksvall (37 000 inhabitants, 145 layoffs), the layoffs added pressure to weak labour markets with the former region already suffering from adjustment. There were no signs of an imminent improvement in terms of labour demand.

Sources: Kletzer and Rosen (2004); Länsstyrelsen Östergötland (2004); Karlsson (2002); Winter-Ebmer (2003); Evans-Klock *et al.* (1998); Leigh (1990).

Enhancing product market competition, regulatory reform and institution building

Successful structural adjustment needs to be implemented in a sound macroeconomic context and in the framework of a well-functioning labour market. It needs to be complemented by a sound regulatory and competition environment which enables firms to respond flexibly to changing circumstances whether through mergers or shifts in corporate culture. While private and public sectors must work closely together the ultimate responsibility for effective adjustment rests with firms (see Box 3.4).

Flexible and competitive product markets have been found to facilitate structural adjustment by encouraging efficiency, innovation and job creation. Regulation is an essential part of a well-functioning economy. An efficient regulatory framework that achieves stated objectives, keeps regulatory burdens on enterprises to the necessary minimum, fosters competition and ensures genuine market openness will enable firms to engage effectively in the process of structural adjustment, whether through transformation within firms or industries or through entry and exit across sectors. The case studies underline the importance of the regulatory environment, whether via the reduction of regulatory diversity in Mexican avocado production, the deregulation of the agro-food sector in Chile, or reduced barriers to private capital participation in Japan's health sector.

Box 3.4. The role of firms

Firms are the conduit between the forces of structural adjustment and the impact on the domestic economy. Two ways in which this is manifested are mergers and changes in corporate culture.

In the case of EU steel, mergers facilitated the rationalisation of capacity, uptake of new technologies and promotion of efficiency at the EU level. The Renault-Nissan alliance illustrates how a strategic relationship between a domestic and foreign firm enabled a deep transformation of corporate culture in support of a business turnaround. It also highlights the fact that the manner in which firms respond to structural adjustment may affect the domestic economy more widely.

Mergers: The EU steel industry

Mergers create space to increase productivity, rationalise production and introduce new technologies to increase efficiency. In the case of EU steel, these factors have been present during capacity reductions totalling 13 million tons in EU15 between 1998 and 2002. Between the mid-1990s and 2002, seven EU-based steel producers merged into three. Presently, four EU steel producers rank among the ten largest in the world. These mergers are linked to rationalisations of production and productivity averaging 601 tonnes per employee year in 2002. Closures of inefficient capacity have facilitated the expanding use of new technologies such as energy-efficient continuous-casting technology and electric arc furnaces throughout the EU steel industry. Uptake of new technologies has supported productivity gains and higher rates of capacity utilisation. Between 2003 and 2005, the closure of an additional 8-10 million tons of capacity paralleled by continuing concentration of steel production in the most efficient plants throughout the EU is expected to support a further projected increase in productivity to 645 tonnes per employee year by 2005.

Transforming corporate culture: The Renault-Nissan alliance

Structural adjustment generally affects firms along a continuum ranging from forcing closure to stimulating efficiency. In the case of the Renault-Nissan alliance, the introduction of foreign management practices into a Japanese firm transformed a corporate culture that had prevented the deep restructuring upon which the survival of Nissan depended. The difficulty was not only the perception by the Japanese public (including Nissan employees) that the Japanese corporate culture was an inalienable component of a unique national culture and heritage, but also the fact that the Japanese corporate culture had been considered (domestically and internationally) as the bedrock upon which Japan's rapid post-war recovery and a half century of prosperity had been built. Transforming its corporate culture enabled Nissan to separate itself from traditional but unsustainable external relationships with former keiretsu partners, as well as from inefficient internal practices such as career advancement based on seniority as opposed to merit. Considered at the time radical by Japanese corporate practice, if not cultural norms, these changes gave the flexibility needed to turn Nissan back to profitability. Pressures for structural adjustment may facilitate the introduction of new ideas and approaches to deeply ingrained corporate culture and influence perceptions of culture at the national level.

More generally, anti-competitive product market regulations may effectively hold back countries' ability to take advantage of new possibilities arising, for example, from trade liberalisation or technological advances to create more jobs and raise overall

welfare. As in the case of labour markets, overly complicated or unnecessarily restrictive product market regulation comes with significant economic costs in terms of higher prices, lower employment and less innovation. This may be particularly felt in industries characterised by small firms or high entry and exit rates, like the business services sector. Inefficiencies in financial markets and distortions created by tax codes may reinforce obstacles to entry and growth by raising capital costs for such firms. Service industries, such as transport, professional services and retail trade, are also subject to heavy sector-specific regulations in many OECD countries, with potentially detrimental effects on productivity and employment.

A sound regulatory environment can be established and maintained with the help of practices that improve regulatory design (regulatory impact analyses, the use of regulatory or non-regulatory alternatives, administrative simplification, transparency) and regulatory implementation (administrative justice, judicial review, measures to develop better compliance). The efficient, transparent and accountable design and functioning of institutions involved in the making and implementation of regulations (regulators, regulatory oversight bodies, parliaments, etc.) is also crucial.

OECD work in the area of regulatory reform has enabled the OECD Trade Committee to identify six principles that provide policy orientations for the creation of an efficient regulatory framework from a market openness perspective, while respecting diversity in national preferences and regulatory objectives:

- *Transparency of regulations and openness of regulatory decision-making* contribute to a regulatory framework that supports understanding, compliance and equivalence of competitive opportunities among economic actors. Relevant practices are: systematic publication of rules, public consultation, use of the Internet to disseminate information, the establishment of enquiry points, and clear, open and effective appeals procedures.
- *Non-discrimination* in the treatment of economic actors aims to provide equivalent competitive opportunities for like goods and services irrespective of their country of origin. A liberal investment regime also helps reduce discriminatory effects.
- *Unnecessary trade restrictiveness of regulations can be reduced* through careful design and implementation of regulations. Relevant approaches are: regulatory impact analysis (RIA), simplification of administrative and customs procedures, consideration of regulatory alternatives and use of performance based regulations.
- *The use of internationally harmonised measures or standards* as the basis of domestic regulations, along with systematic procedures for giving consideration to such use, can be effective for reducing unnecessary regulatory diversity and the costs it engenders.
- *Streamlined conformity assessment procedures* and the recognition of the equivalence of results of assessments performed elsewhere help avoid the duplication of procedures for firms operating in more than one country and thus facilitate trade.
- *Vigorous application of competition principles*, including open and accessible complaint procedures and enforceable remedies, is crucial for foreign and domestic players alike, in providing the appropriate conditions for successful entry and competition in the market.

The regulatory environment is particularly important for the development of needed infrastructure. This is demonstrably the case in developing countries. International transport facilities and other physical infrastructure also play a crucial role, in particular for perishable products such as fresh fruit and cut flowers. All the developing country case studies seem to indicate that adequate infrastructure facilities and services were already in place at the time of industry growth, though further investments were undertaken by the government, alongside deregulation of infrastructure services. In Mauritius, the Development Bank of Mauritius was directly involved in building and managing the industrial estates for the EPZ sector. In the case of Kenyan cut flowers, the industry was able to take advantage of the international air traffic created by tourism and early horticultural exports. In Thailand, companies co-operated to negotiate lower international freight costs. In Lesotho, the Lesotho National Development Corporation provided factory space and utility services to investors, although the recent rapid growth of the clothing industry has created a shortage of facilities.

A particularly sensitive aspect of the regulatory dimension of the adjustment process relates to heightened societal concerns about environmental damage that may ensue from increased exports and production. In the developing country case studies considered, the expansion of the examined industries has sometimes caused harmful environmental effects, such as water pollution, depletion of fish stocks and destruction of mangrove ecosystems, which have in turn raised concerns regarding the sustainability of some of these industries (shrimp farming in Thailand is a case in point). Buyers and consumers in importing countries are now putting pressures on producers to comply with a wide range of health, environmental and social standards. To deal with these issues, the governments in the surveyed countries are required to develop legislation, formulate good regulatory practices and put in place appropriate quality control systems in co-operation with the private sector, on occasion with the support of external aid.³

The institutional and governance process of structural adjustment in enhancing public understanding and in anticipating challenges is also seen to be of particular importance. Australian experience (see Box 3.7) highlights three elements:

- Effective policy evaluation, including analysis of whether a proposed structural reform is in the overall interests of the community.
- Independent review processes, operating at arms length from government, to enhance public understanding that benefits will outweigh costs.
- *Ex post* evaluation to help reassure the community that unanticipated adjustment difficulties will be addressed.

Establishing a well-functioning consultative process between the government and the private sector is considered to be a key requirement for effective policy formulation, which is needed to manage and sustain an effective structural adjustment process (OECD, 2002a; Bonaglia and Fukasaku 2002; Rodrik, 2004). For the consultative process to work, it must involve active and vocal business organisations. A variety of such organisations exists in all five developing countries reviewed; they have sometimes emerged with direct government support. These organisations play an important role both in promoting business interests to the government and in providing business services to members. Relevant sector-specific organisations include, for example, the Kenya Flower Council, the Lesotho Textile Exporters' Association, and the Thai Frozen Food Association. There is also a range of more general industry organisations and chambers of commerce that

represent and support the private sector. In addition to the associations, networks of private service and input providers have developed as well.⁴

The developing country case studies also point to the importance of sound public institutions and governance structures for managing the services and incentives provided to investors and exporters, such as the EPZ in Mauritius and the investment incentives in Chile. However, the problem of defining “sound institutions” remains (Rodrik, 2003). Governance indicators available in the public domain highlight Chile’s good performance yet indicate that Lesotho and Kenya lag far behind. In Kenya, the cut flower industry has prospered in what seems to be an adverse governance environment, which has been an important factor behind the country’s disappointing overall economic performance.

The question of institution building in a sound regulatory environment also bears on the question of policy sequencing. While the interdependence of market openness and regulatory reform would suggest the need for parallel action on both fronts, there may be a case for establishing appropriate regulatory institutions and mechanisms *before* technical regulatory decisions are taken and implemented.

There is much debate on the sequencing of reforms. In general, measures to eliminate market distortions should be taken before reforming market regulations, in order to increase benefits from reform and reduce the pain of transition. For instance, state monopolies may need to be restructured prior to deregulation, in order to establish conditions for competition and avoid high market concentration and abuse of dominant position in post-deregulation markets.

Reform in one policy area can also make the costs of inefficient regulations in other areas more visible and painful. This is particularly true with respect to the trade liberalisation of sectors suffering from domestic regulatory inefficiencies. Even when tariffs and quotas no longer significantly limit the export potential of domestic industry, enterprises will have little success in domestic and foreign markets if they are held back by unnecessarily heavy or divergent regulatory burdens.

The optimal sequencing from an economic point of view will reduce transition costs and help achieve benefits quickly. However, as noted earlier, there is no blueprint: appropriate sequencing needs to be determined case by case. Optimal sequencing may not always be possible from a political perspective, when political momentum for reform would be needed. Most countries have approached sequencing very pragmatically, since waiting for the optimal sequence of reforms can delay reform for a long time.

Trade and trade policies

In all of the eight sectors examined in Part II, trade policy appears as a key element of structural adjustment, for developed and developing countries alike. As a general rule, barriers to trade are not effective in facilitating the adjustment process, or in obviating the need for adjustment. In agriculture, for example, there are deep-seated structural factors that cause its importance in overall economic activity to decline as growth and development occur. Notably, income elasticity of demand for food tends to be less than for other commodities, and technical innovation in agriculture is labour-saving. Efforts to resist trade liberalisation will not change these underlying realities, but they will impede adjustment. Put differently, and positively, a liberal trade environment, *backed by supportive action in other policy areas*, complements the adjustment process. At the broadest level, it does this by contributing to economic growth and so helping create an environment in which the movement of factors of production from declining to expanding

areas of activity is facilitated. Insofar as growth through trade helps the adjustment process in developing countries and contributes to increased returns to labour in those countries, it will also help ease the pressures arising from international migration. The study of Infosys shows, for example, that in the Indian IT sector, remuneration grew by 17% in 2004 and salaries have grown by approximately 13% annually over the last five years. The influence of trade on returns to labour is also evident in the studies of cut flowers in Kenya and textiles in Mauritius. As noted earlier, recent papers by Winters (2004) and by Duncan and Quang (2002) review a large body of empirical work aimed at quantifying the trade-growth link. The general conclusion that emerges is that, while not wholly conclusive, the evidence justifies, as Winters puts it, "... the strong presumption that trade liberalisation contributes positively to economic performance". As the case studies in Part II show, trade (both imports and exports) and foreign direct investment help adjustment by:

- Fostering competitiveness and innovation.
- Improving access to essential inputs, whether raw materials, capital goods or services.
- Stimulating exports, by offering enlarged market opportunities or encouraging synergies between countries with different areas of comparative advantage (see Box 3.5).

Box 3.5. Trade and trade policies: helping adjustment

Fostering competitiveness and innovation: Infosys Technologies Ltd.

The case of Infosys demonstrates how openness in trade and trade policies can stimulate competitiveness and innovation. In 1991, India initiated a reform agenda to open its economy to increased trade and investment. As a result, companies such as British Airways and General Electric established IT centres and back offices in India to service English-speaking markets worldwide. Transfer of technology to establish these operations left India with a pool of IT talent that provided a basis for investment and further knowledge transfers by ethnic Indian IT professionals, particularly from the United States. Established under such circumstances, Infosys stands out among the innovative, competitive and independent companies based in India and servicing clientele around the world.

Recording 800% growth over the last five years, Infosys now manages projects and provides services from a variety of locations throughout the world. Its success was facilitated by three factors that signal the benefits of a liberal trade environment and supportive policies in ancillary sectors. First, its development benefited from the easing of the legacy of protectionism and state planning characteristic of the Indian regulatory environment. Second, developing without a domestic client base meant that Infosys, measured by its competitiveness *vis-à-vis* established foreign providers in foreign markets, had to be efficient from the onset by adopting an innovative delivery model based on new IT technologies. Finally, the large pool of skilled labour in India and the fact that IT services companies rely disproportionately on a well-educated work force, rather than physical infrastructure, provided natural synergies between needs and resources.

Improving access to essential inputs: South African autos

Trade policy in relation to the automobile industry in South Africa has evolved over time, moving from simple protectionism in the 1920s, to import substitution characterised by local content requirements in the 1960s, and to two periods of reform and liberalisation since the 1980s.

Box 3.5. Trade and trade policies: helping adjustment (cont.)

In 1989, South African trade policy applying to the auto industry was reformed to enhance international competition through trade liberalisation and increased access to essential inputs. The new policy of “import-export complementation” was designed to create incentives for competitiveness while reducing anti-export biases created by measures originally designed to protect the domestic auto industry. Doing away with mandated local content requirements, the new trade policy regime substituted a system allowing auto producers to receive credits for auto components and vehicle exports that could be applied against duties on imported auto components.

These reforms enabled the auto industry to specialise in producing auto components and vehicles that were internationally competitive by facilitating the incorporation of key auto components that could not be efficiently produced domestically. Significantly, these reforms also stimulated foreign investment in domestic auto component manufacturing which further supplemented the competitiveness of both the domestic auto component and vehicle industries.

Stimulating exports: Australian shipbuilding

The system of government support to the Australian shipbuilding industry, dating back to 1940, consisted of “bounties” in the form of subsidies provided to offset the higher cost of domestic ship production when compared to that in the United Kingdom. Applicable only to ships for domestic use, this system discouraged investment, innovation and diversification of production away from large steel-hulled vessels, which were increasingly being produced with more technological sophistication and at lower cost by European and East Asian shipbuilders in the 1970s. Thereafter, a series of reforms to the Australian shipbuilding subsidy regime resulted in its complete removal by 2003. The effect was a reduction in the number of people employed in the Australian shipbuilding industry by nearly half (to 7 434) between 1985 and 1996, and a three-fold increase in the output of the domestic shipbuilding industry over the same period. The vast majority of current production is now destined for export.

First revamped in the 1970s, the system of subsidies applied to the shipbuilding industry was recalibrated to support structural adjustment for long-term growth, export competitiveness and eventual phase-out. Moving away from a cost-based approach to calculating subsidy amounts, to remove disincentives for efficiency and innovation, the nominal rate of assistance was also gradually tapered down from 27.5% to 0% between the early 1980s and 2003. Building on efficiency and technological advancement as criteria for receiving benefits under the new scheme and allowing for exported vessels to receive benefits in 1984 focused the domestic shipbuilding industry on developing a niche in which it would be internationally competitive. The result was a conversion of the domestic shipbuilding industry from one based on large steel-hulled ships which were produced more efficiently by international competitors to technologically cutting-edge fast ferries for which there were few viable international competitors.

Although in the context of the Doha Development Agenda (see below), trade liberalisation will need to occur across all sectors, in order to ensure that a balance of interests is maintained, specific benefits are likely to result from the liberalisation of trade in services. In a framework of structural adjustment, there are three reasons for this:

- First, the potential welfare gains – and therefore the breathing space in which to adjust – are expected to be much greater from services liberalisation than for goods liberalisation, on some estimates by a factor of five. This is of particular relevance to developing countries which have on average more restrictive barriers than developed

countries and which are expected, in the long run, to gain most from services liberalisation (see Nielson and Taglioni, 2004).

- Second, given the dynamism of the service sector, the adjustment strains of liberalisation are likely to be more easily accommodated than those associated with goods liberalisation.
- Third, the liberalisation of services inputs to agricultural and manufacturing production is likely to ease any adjustment strains which those sectors might face. Ongoing OECD analysis finds that if account is taken of services barriers, the effective rate of protection for some agricultural and manufacturing sectors actually turns negative, meaning that services barriers contribute to effective taxation, rather than protection, of these industries (Table 3.1).

Table 3.1. **Impact of services barriers (SB) on effective rates of protection (ERP) in manufacturing**

ERP results

	Brazil		Morocco		Romania		Thailand	
	Without SB	With SB	Without SB	With SB	Without SB	With SB	Without SB	With SB
Forestry and wood products	(+)	(-)	(+)	(+)	(-)	(-)	(+)	(+)
Chemical, rubber, plastic products	(+)	(+)	(-)	(-)	(+)	(-)	(-)	(-)
Mineral products nec	(+)	(-)	(+)	(+)	(-)	(-)	(+)	(-)
Metals and metal products	(+)	(+)	(+)	(+)	(-)	(-)	(-)	(-)
Motor vehicles	(+)	(-)	(+)	(+)	(-)	(-)	(-)	(-)
Transport equipment	(+)	(+)	(-)	(-)	(-)	(-)	(-)	(-)
Manufactures nec	(+)	(+)	(+)	(-)	(+)	(-)	(+)	(+)

Notes: nec: not elsewhere classified.

The effective rate of protection (ERP) is a measure of the protection provided to an industry by the entire structure of tariffs, taking into account the effects of tariffs on inputs as well as on outputs. These results show the increase or decrease in value added per unit in an economic activity that is made possible by the tariff structure relative to the situation in the absence of tariffs. The difference between ERPs that are calculated without considering services barriers and ERPs that take into account services barriers could be interpreted as an indication of the additional cost imposed by inefficient services barriers. In terms of services protection, the most recent estimates of barriers in telecommunication, banking, distribution, electricity, professional services, and air and maritime transport were employed.

(+) refers to positive ERPs.

(-) refers to negative ERPs.

Source: Ongoing OECD work on services barriers on effective rates of protection in agriculture and manufacturing.

As noted earlier, restrictions on trade are unlikely to affect the underlying structural forces that determine the role of different sectors in overall economic activity. However, in some specific cases, where serious injury is caused by large and unforeseen surges in imports, it may be felt that targeted safeguard action is warranted as part of the adjustment process. The question that needs to be answered is whether the potential benefits of safeguards in providing breathing space for, and greater public acceptance of, structural adjustment justifies the cost they entail (see Box 3.6).

Box 3.6. Harley Davidson: trade safeguards and adjustment

In 2003, Harley-Davidson Motor Company marked its 100th anniversary by announcing record revenues and earnings for an eighteenth consecutive year. The company increased its market share of heavyweight motorcycles in North America to 48% and worldwide sales reached almost 300 000 units of which 22% were exports. Today's strong position stands in stark contrast to the company's precarious condition two decades earlier.

Between 1973 and 1980, Harley-Davidson's market share in North America plunged from 75% to less than 25% for heavyweight motorcycles. Japanese companies had already captured 98% of the North American market for lightweight motorcycles and these companies were now turning their attention to the heavyweight motorcycle market. In 1978, the United States International Trade Commission (USITC) had rejected an antidumping petition brought against imports of Japanese lightweight motorcycles. Although the USITC did find dumping, it reasoned that Harley-Davidson, a subsidiary of NY-based conglomerate AMF, was not injured by the imports, and no action was taken. However, four years later and with an additional 30% decline in the company's market share, the United States' last remaining domestically owned motorcycle manufacturer, having been spun off in a leveraged buy-out by its corporate parent, was on the verge of collapse as it continued to lose ground to lower-cost, higher-quality Japanese heavyweight motorcycles.

At this point, the newly independent Harley-Davidson sought to turn the business around by reducing idle capacity, introducing a new organisation and implementing new quality control measures and production systems. But the United States was in the midst of the deepest recession since the Great Depression, interest rates were extraordinarily high, demand was falling, imports were accelerating and Japanese inventories were at unprecedented levels. Against this backdrop, the highly leveraged Harley-Davidson filed for relief under Section 201 of the Trade Act of 1974, which incorporated the escape clause principle embodied in GATT Article XIX:1(a).

In short, Harley-Davidson asserted that the company was already taking the necessary action for a turnaround, that the Japanese manufacturers had amassed high levels of inventories which they would need to sell at heavy discounts, and that the company needed some time to complete its adjustment to these changes. The USITC evaluated four main issues to determine if Harley-Davidson met the statutory requirements for relief. These were: *i*) whether the domestic industry produced articles like or directly competitive with the imported articles in question; *ii*) whether imports of the article in question had increased; *iii*) whether the domestic industry was seriously injured or threatened with serious injury; and *iv*) whether the increased imports were a substantial cause of the injury or threat thereof.

The three commissioners agreed that the first three requirements had been met. However, concerning the fourth issue, one of the commissioners did not conclude that increased imports were a substantial cause of the injury but rather that the decline in demand resulted from the recession. This commissioner also noted that two Japanese motorcycle producers that manufactured motorcycles in the United States were doing relatively better than Harley-Davidson. The USITC thus found (by two votes to one) that relief was warranted on the basis of a threatened injury and the US president subsequently accepted the USITC's recommendation to increase the 4.4% *ad valorem* tariff on heavyweight motorcycles to 45% for the first year, 35% the second, 20% the third, 15% the fourth and finally 10% during the fifth year.

The new tariff led to a fall of the import share in the US motorcycle market from 60-70% in the early 1980s to 31% by 1984. Japanese manufacturers Kawasaki and Honda responded by increasing their production in the United States.

Box 3.6. Harley Davidson: trade safeguards and adjustment (cont.)

In the meantime, during the period of relief, Harley-Davidson made noteworthy efforts to adjust to import competition. It introduced new computer-aided technologies, lowered production costs and improved product quality. It achieved significant improvements in manufacturing methods and productivity through the introduction of a just-in-time inventory system and statistical process control. It also improved its marketing and retail financing and strengthened its dealer network.

Following the introduction of the tariff and in combination with the reorganisation and efficiency drive, Harley Davidson enjoyed increased employment and output in the mid-1980s together with a rise in its domestic market share. While it was argued by some critics that the success came at an estimated cost to US consumers of USD 400-600 per motorcycle and, in 1984, USD 150 000 per job saved in the motorcycle industry, the swift change in the fortunes of Harley-Davidson led the company to ask the US administration to remove the protective tariffs one year ahead of schedule.

Sources: USITC (1987); Appleyard and Field (2001); Baltzan and Tate (1995); Hufbauer *et al.* (1986).

While trade reform is part of successful structural adjustment, it is worth noting that the developing countries reviewed have taken different approaches. In the early stage of reform, Mauritius undertook a policy of partial opening, by instituting an EPZ in the protected domestic economy. Similarly, the Thai economy has been liberalised only gradually. Among the five countries, only in Chile did the government pursue a policy of full import liberalisation. This policy, together with a range of other measures that further opened up the economy and promoted exports, contributed to the development of fresh fruit, wine and other agro-food export industries. Meanwhile, the government adopted a set of corrective regulatory measures in both product and factor markets (see Box 4.1 in Chapter 4) in order to put the economy onto an outward-oriented development path. Developing country experience suggests that gradual trade-related structural adjustment may be warranted when time is needed to strengthen the institutional framework. The danger with gradualism, however, is the signal it may send about the credibility of reform and the opportunity it may present for back-tracking or specific exceptions.

Like many other developing economies, the five developing countries studied introduced various forms of export incentives, such as duty-drawback schemes (reimbursement of import levies charged on parts and components used for export production), tax holidays and other fiscal measures provided for export firms in EPZs. It is worth emphasising that export incentive packages need to be managed by well-functioning public institutions, in order to avoid delays and other inefficiencies. In addition, these incentive packages must be part of a government's overall export and investment promotion strategy, like the EPZ in Mauritius. The absence of such overall strategies may explain the difficulty of establishing successful EPZs in other Sub-Saharan countries (Bost, 2001). Inefficiencies in the protected sector may also weaken the linkages with the dynamic export sector. Lesotho is a case in point, as the country faces the challenge of strengthening linkages between the mostly foreign-owned clothing sector and the rest of the economy.

The links between trade and investment are often crucial, not least in developing countries. While much investment capital originated from domestic sources in all the developing country sectors examined, FDI has played an important role. In Lesotho, for example, the clothing sector is mainly in the hands of foreign investors. It is noteworthy that capital has often come from export sectors built up previously, such as the sugar

sector in Mauritius, the agro-industry corporations in Thailand, and the horticulture industry in Kenya. In particular, the Mauritian experience highlights (for African governments) how important it is not to kill the “cash cow” and allow domestic sources of risk capital to appear (Subramanian and Roy, 2001).

While domestic investments dominated in terms of quantity, foreign investments seem to have made an important “qualitative” contribution. FDI and expatriate expertise provided capital, managerial and technological know-how, as well as access to foreign markets and buyers. The Dutch and Israelis helped to develop cut flower expertise in Kenya, East Asians the clothing industry in Mauritius and Lesotho, Americans fruit packaging techniques in Chile and Japanese shrimp farming in Thailand. The governments also assisted in attracting FDI with fairly open and non-discriminatory investment regimes put in place in the 1980s.

Reliance on broad-based policy approaches

Undertaking reforms across different policy areas in a complementary way can both reduce resistance to change, because those adversely affected by one reform might benefit from another, and also create cross-policy synergies. The combined effect of complementary policies will be greater than the sum of the parts, not least by creating an environment conducive to innovation and technology diffusion that can enable countries to move up the value chain. The overriding advice to governments for handling structural adjustment is thus to aim for good general measures over a range of policy areas. Comprehensive reform programmes are likely to be more effective than piecemeal strategies. For example, policies that improve labour market flexibility would help reduce adjustment costs in terms of lost production, while promoting growth by facilitating resource transfers to expanding activities. However, if accompanied by measures that ease regulatory barriers to competition and growth in domestic markets, the overall benefits to society may well be reaped earlier and the ultimate gains higher. Broad-based reforms can also reduce resistance to change and make it harder for individual industries to argue for exemption (see Box 3.7).

It follows that governments should seek, to the greatest extent feasible, to pursue policy reforms in parallel. There may, however, be circumstances when a particular sequence of reform is called for. There is however, as we have seen, no blueprint. Many policy initiatives can be advanced as the essential prerequisite of structural adjustment: trade liberalisation, to ensure resources do not migrate to protected sectors; investment liberalisation, to ensure a macroeconomic multiplier effect; industrial relations reform, to ensure prior labour market preparedness, competition policy reform to avoid abuses of dominant position in post-deregulation markets. In fact, the case studies suggest that the actual sequence of these and other policies will ultimately depend on what is politically feasible in the country concerned.

Box 3.7. Structural adjustment insights from Australia's experience with broad-based reforms

Over the past two decades, Australia has implemented an extensive range of structural reforms involving liberalisation of trade, the exchange rate and the financial sector, more flexible labour market regulation, reform of the public sector monopolies that dominated the supply of basic infrastructure services, as well as the systematic review and reform of anti-competitive regulation through a comprehensive “national competition policy”.

The reforms have generated a range of benefits across the economy. They have also often put adjustment pressures on particular firms, workers and regions. While these pressures have typically been concentrated on a relatively small group and been evident from the outset, the benefits have usually been dispersed throughout the community and have taken time to accrue. This highlights the perennial difficulty of achieving support for worthwhile reform.

Australian experience affirms the importance of macroeconomic stability to engender an environment conducive to structural change and successful policy reform. However, it also shows the importance of addressing adjustment issues and implementing appropriate adjustment policies. Some key lessons from the Australian experience are noted below.

Effective policy evaluation processes are fundamental. Decision makers need information and analysis of whether a proposed structural reform is in the overall interest of the community, having regard to its expected benefits and costs and any significant distributional consequences. Where appropriate, different implementation strategies need to be examined and the basis for particular policy choices made clear.

Independent review processes can facilitate acceptance of the need for reform. Governments and communities need to understand the rationales and consequences of different policy choices. Review bodies that operate at arms length from government and sectoral interest groups and whose processes provide for extensive consultation and public scrutiny can help governments “sell” reform and enhance community understanding that the benefits will outweigh the costs.

Broad-based reforms can reduce adjustment costs. Notwithstanding the substantial challenges involved, undertaking reforms concurrently across different policy areas can reduce resistance to change. This is because those adversely affected by one reform may receive offsetting benefits from others. For example, modelling undertaken by Australia's Industry Commission (the predecessor of the Productivity Commission) of tariff, electricity, telecommunications and public sector reforms demonstrated that, although trade liberalisation would reduce manufacturing employment by 0.3%, the net effect of all four reforms would be to increase employment in that sector by about 1.2%. A broad-based reform programme also made it harder for individual industries to argue for exemption.

Reliance on generally available adjustment measures, wherever feasible. The advantages of general social safety nets – such as the social security/tax transfer system, job search assistance and training programmes – are that they treat individuals in similar circumstances equally, target assistance to people in genuine need and support people rather than particular industries or activities. Even so, such measures cannot handle all contingences and additional measures may be needed. There are, however, few hard and fast rules for determining when additional assistance might be warranted and what will work best.

Box 3.7. Structural adjustment insights from Australia’s experience with broad-based reforms (cont.)

Other industry-specific adjustment assistance needs case-by-case evaluation.

Special assistance packages have been used to ease the transition to lower levels of assistance for Australia’s dairy, passenger motor vehicle, and textile, clothing and footwear industries. Specific adjustment measures should facilitate rather than hinder change, be targeted to adjustment problems, be cost-effective and compatible with general safety net arrangements, involve an equitable sharing of financing costs and be transparent, with clear lines of accountability. The risk with special industry “deals” is that they can create incentives to hold out for compensation (thereby slowing adjustment) and encourage other firms and workers to seek favourable treatment.

Incremental reform can facilitate adjustment. One implementation strategy that can ease adjustment pressures is the phasing of reform. It has distinct advantages when gradual, sequential changes would smooth the transition path by allowing affected parties time to adapt to a new policy environment and when there is limited information on the adjustment capacity of different groups of workers and firms. For example, phasing has been used in Australia’s programmes of reform for tariffs, subsidies and public utility pricing. The graduated introduction of reforms can delay receipt of the benefits, however, and in some cases may increase the scope for policy reversal.

Ex post evaluation can help keep reforms on track. The ability of policy makers to identify and address possible adjustment or distributional problems in advance is often limited. Difficulties associated with a reform might only emerge during implementation. Consequently, there is a role for *ex post* assessment and, where appropriate, associated modification of reforms. This can help reassure the community that unanticipated adjustment difficulties will be addressed. The Productivity Commission’s 1999 review of the impact of national competition policy reforms on regional Australia not only found scope to fine-tune arrangements, but also identified some key drivers of change in regional communities, such as changes in technology, terms of trade, consumer tastes and social trends, for which national competition policy was being made the “scapegoat”.

Source: Australian Productivity Commission.

Bilateral and regional co-operation

Action taken at the national level can often be complemented by co-operation between countries on a bilateral or regional basis. At its best, such co-operation can constitute a laboratory for change; trade-related adjustment can be undertaken among neighbours, as a transition, or complement, to wider multilateral commitments. The case studies demonstrate ways in which regulatory co-operation between countries can be fostered through regional or bilateral initiatives, whether through co-operation between sanitary and phytosanitary (SPS) regulatory authorities or via provisions for the portability of health-care insurance (See Box 3.8).

Box 3.8. Bilateral and regional regulatory co-operation

Bilateral and regional trade arrangements can sometimes provide an effective framework for addressing difficulties posed to developing economies when exporting to developed markets, such as meeting SPS requirements. They can also help facilitate trade in health-care services.

Mexico-United States: Avocados

Under NAFTA, Mexican growers have benefited from trade liberalisation on avocado exports to the US market, but actually reaping these benefits has depended on the NAFTA institutional framework, which facilitated co-operation between SPS regulatory authorities in the two countries to meet US SPS standards. Beginning in 1990, meetings between the US Department of Agriculture (USDA) Animal Plant Health Inspection Service (APHIS) and Mexico's Ministry of Agriculture and local phytosanitary control boards (JLSVs) resulted in APHIS inspectors overseeing programmes implemented by JLSVs to build the capacity of Mexican farmers to meet high SPS standards. This programme culminated in 1997 with the certification by APHIS of four Mexican municipalities as pest-free, and gave Mexican avocado exports access to the United States. It addressed the concerns of California's growers relating to risks of infestation. Because NAFTA had foreseen bilateral meetings between national SPS regulatory authorities, there was a mechanism for achieving a resolution that would otherwise have been much more difficult.

Japan-Thailand/Philippines: Health

By 2020, the ratio of working-age adults to senior citizens in Japan will drop from the 4:1 currently to only 2:1, thereby shrinking the tax base that finances public services while increasing demands on the health-care system. Ageing is the primary driver of structural change in the Japanese health-care sector; policy makers seek to address it, in part, through regional trade agreements (RTAs) that facilitate trade in health services. RTAs may foster trade in health-care services through bilateral co-ordination of regulatory institutions to allow for mode 4 trade in health-care services, *e.g.* by developing mutual recognition systems that enable health-care providers to provide services in foreign health-care systems. RTAs can also represent an innovative approach to implementing policies to enhance liberalisation, *e.g.* via portability of health-care insurance which currently restricts mode 2 trade or movement of patients to health-care providers abroad. The potential for Japanese senior citizens to receive care in retirement homes in destinations such as the Philippines and Thailand (thus reducing strains on the domestic system) is generally beyond reach in the absence of greater liberalisation, such as portability of health-care insurance, which may be more accessible as a component of a set of commitments embodied in an RTA.

Multilateral co-operation

Action taken to foster successful structural adjustment nationally or regionally is often strengthened by multilateral initiatives or disciplines. Indeed, in some cases, effective action, which makes possible the full realisation of opportunities, can only be taken on the basis of multilateral co-operation.

The Doha Development Agenda

Full realisation of the gains from trade will require multilateral action via the WTO and effective implementation of the Doha Development Agenda, with balanced and concrete progress across all the core areas of negotiation: agriculture, non-agricultural market access, services, rules and trade facilitation. The 2004 WTO *World Trade Report* (WTO, 2004a) reminds us that some 50 years ago, Harry Johnson demonstrated how countries could co-operate and avoid mutually destructive trade policy retaliation. Commitments entered into in the WTO are also important for helping to lock in domestic reform as well as for addressing particular concerns of developing countries, not least those associated with preference erosion and revenue loss.

Preference erosion

As noted in Chapter 1, some developing countries have become reliant on trade preferences and may become vulnerable as preferences erode. Where trade develops in response to preferences in a manner consistent with a country's underlying comparative advantage, such measures may help the beneficiary to catch up economically without undue structural distortions. However, this is not always the case. Preferences may promote development in sectors where a particular beneficiary country will remain dependent on preferential access and never become fully competitive. If preference margins under an existing scheme are subsequently reduced (*e.g.* as a consequence of reductions in most favoured nation [MFN] tariffs resulting from multilateral negotiations), adjustment pressures will be felt, even in competitive sectors. These pressures will be particularly strong for sectors in which a beneficiary country is relatively uncompetitive. In some cases, the adjustment may prove costly and painful. Consequently, some WTO member countries have raised the issue of preference erosion as a concern in the Doha Development Agenda negotiations.

Although the main beneficiaries of preferences have often been developing countries with relatively high income levels and pre-existing supply capacity (*e.g.* Brazil or Thailand), some small or poor countries have also succeeded in expanding preferential exports. Some have become reliant on preferences and therefore risk dislocations as preferences erode. Two industries of particular concern are textiles and clothing, as market access of large suppliers has been constrained in the past by quantitative restrictions and some developing countries have had preferential access to developed country markets. Countries such as Bangladesh, the Dominican Republic, Haiti, Honduras and Lesotho, among others, all export substantial volumes of products in these sectors under preferential schemes and are especially reliant on preferences (OECD, 2004c). In the case of Lesotho, for example, the International Monetary Fund (IMF) lists as one of the “daunting medium-term problems”, “the growth of the textile industry [which] is driven by preferential treatment under AGOA [the African Growth and Opportunities Act] and may not be sustainable as trade preferences by the US are phased out” (IMF, 2004a). Another sector of concern is agriculture, where some developing country exporters receive high income transfers because of their privileged access to developed country markets that are otherwise protected by high barriers. Mauritius, for example, exports a large amount of sugar under EU preferences. A recent World Bank study on trade preferences in agriculture (Brenton and Ikezuki, 2005) notes that whereas agricultural preferences have provided large transfers to a small number of countries, they have failed to stimulate exports for a broader range of products. The authors note that reform is needed to enhance the effectiveness of agricultural preference schemes

(e.g. through complementary domestic policies in developing countries and improvements in provisions for market access), while taking care to avoid interference with the pro-development process of multilateral trade liberalisation.

A full assessment of preference erosion and adjustment costs from multilateral tariff reductions must balance these negatives against the potential gains. While preferential exports may decrease as a consequence of erosion, new opportunities from MFN tariff reductions may well offset the negatives. Matusz and Tarr (1999) review more than 50 studies on adjustment and trade liberalisation (not necessarily preference erosion) and note that virtually all find adjustment costs to be very small relative to the benefits of trade liberalisation, in part because adjustment costs are typically short-term and welfare gains from trade liberalisation are long-term.

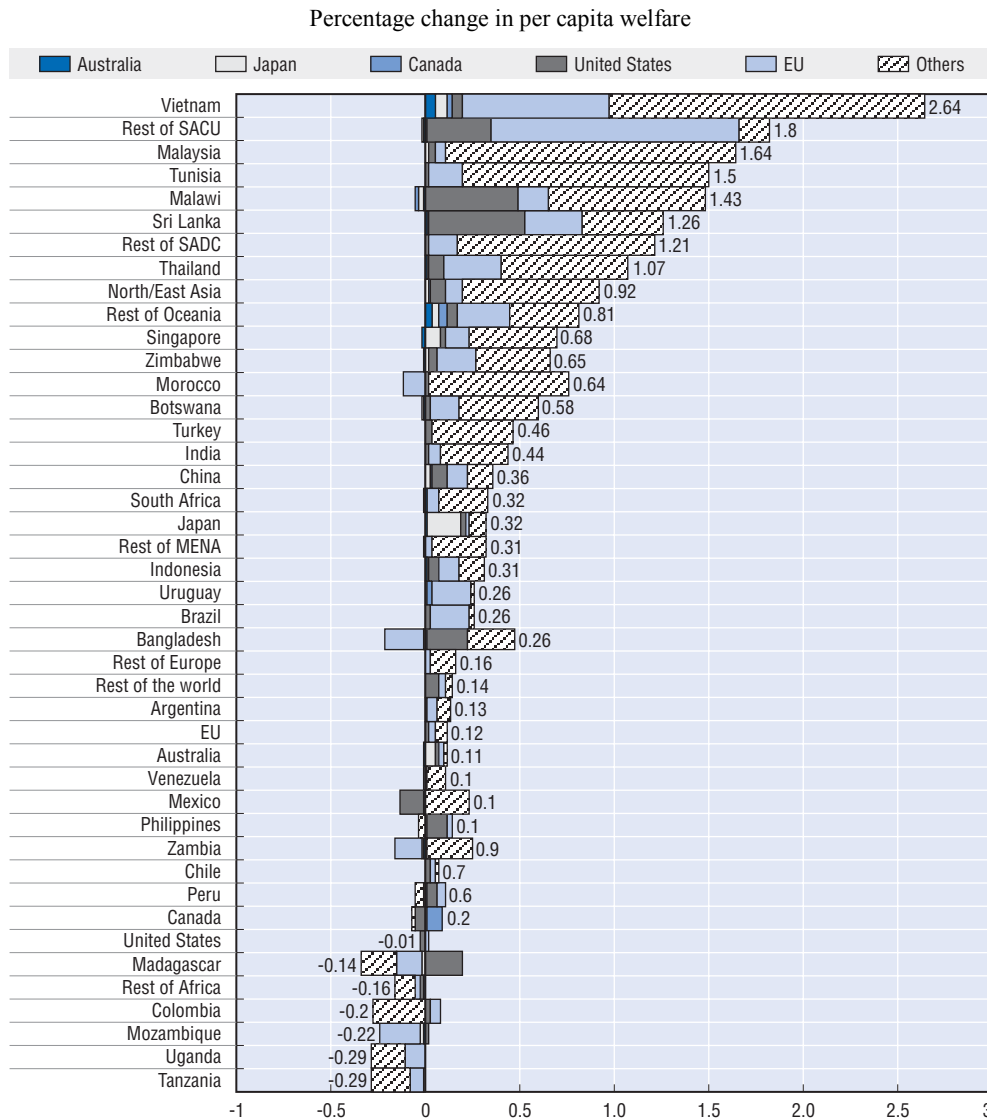
Economic models permit an evaluation of the economy-wide welfare implications of tariff reform in a multi-country, multi-sector framework. In this framework, changes in market access conditions for a given product category are linked to developments in other sectors through goods and factors markets. Similarly, the effects of simultaneous liberalisation in multiple destination markets are assessed. Such an integrated approach enables assessment of the effects of preference erosion, taking into account the WTO approach to tariff reduction (i.e. covering simultaneously multiple markets, tariff lines and product categories). While production in some preference-eligible sectors may be affected negatively, the resources freed from a sector that loses preferential treatment can be employed in other sectors where they may be used more productively. Similarly, the negative effects of preference erosion that may be observed in one destination market may well be outweighed by positive effects resulting from better market access to other destination markets.

Figure 3.1 presents the results of a tariff liberalisation modelling exercise involving a 50% reduction in *ad valorem* measures of protection across all regions. Such a scenario would entail substantial preference erosion. The figure presents the overall welfare change and the geographic sources of the welfare change with respect to markets for trade. Overall, it shows that most developing countries would gain from such liberalisation, with positive net variation in welfare arising as a consequence of the combined changes in the terms of trade and the allocation of resources. In most cases, the gains from trade liberalisation would outweigh the losses from the associated preference erosion. However, in a few regions – primarily in Africa – there may be net losses in welfare, a risk that will pose a challenge for policy makers contemplating the effects of preference erosion. As stated in a recent IMF article (Alexandraki, 2005), “The problem is concentrated on a small number of countries dependent on an even smaller number of products.”

When a preference-reliant developing country faces an erosion of benefits, the best policy responses may well be similar to those recommended for most other situations of trade liberalisation. That is, they should seek to capitalise on new opportunities while facilitating adjustment. To accomplish this, trade policy reform must be accompanied by complementary policies in such areas as promotion of macroeconomic stability and development of a social safety net. To the extent that the sector in question may potentially be competitive internationally, policy may seek to reinforce that competitiveness through support for an upgrading of infrastructure or human resources (e.g. through training). Where new opportunities arise, a focus on facilitating adjustment, redeployment of resources and promotion of entrepreneurship may be appropriate. In terms of trade policy, Matusz and Tarr (1999) note that a uniform tariff policy can help to

minimise incentives for special interest groups to seek protection that can impede adjustment.

Figure 3.1. **Per capita welfare gains¹ from a simultaneous 50% reduction in tariffs by all regions**



1. Welfare gains from trade liberalisation can be broken down into two components: i) the change in efficiency with which countries use their resources, and ii) the change in its terms of trade.

Source: OECD (2004c), "Trade Preference Erosion: Potential Economic Impacts", TD/TC./WP(2004)30/FINAL (2004).

Revenue loss

As also noted in Chapter 1, a particular trade-related adjustment concern of developing countries relates to the revenue effect of tariff liberalisation. Tariff revenue concerns have emerged as an important issue in the framework of multilateral trade negotiations under the Doha Development Agenda (DDA). The July 2004 WTO Framework Agreement explicitly identified the tariff revenue issue as a challenge for

countries dependent on revenues from import tariffs and instructed the Negotiating Group on Non-agricultural Market Access (NAMA) to take into account the particular needs that may arise for the members concerned.

Developing countries that currently maintain higher and more dispersed tariffs are particularly well positioned to benefit from non-discriminatory tariff reform. Empirical estimates from recent studies indicate that the potential gains from dismantling remaining tariffs are significant and that developing countries stand to capture the largest gains relative to GDP.⁵ Reducing tariffs brings welfare gains, net of any losses in tariff revenues and these gains are the ultimate motivation for tariff reform. However, potential revenue shortfalls can undermine macroeconomic stabilisation and development programmes and may cause a reversal of the trade reform process itself.

While the removal of quantitative restrictions and/or their replacement with tariffs has the advantage of preserving or in some cases increasing government revenue, the same cannot be said about tariff reduction. Unless offset by increased demand for imports, a reduction in tariffs will lead to a reduction in tariff revenues and can thus affect governments' ability to mobilise resources. This is of concern to developing countries that depend heavily on revenues from trade taxes. It can also be a particularly serious problem for countries with a small domestic tax base and an inefficient tax regime.

Recent policy advice in the area of fiscal implications of trade liberalisation stresses the use of income, sales or value added taxes as compensating measures (WTO, 2003a, 2003b). Several developing countries have already made significant progress in reducing their reliance on import duties as a source of tax revenue (*e.g.* reduction of 20 percentage points in Tunisia, 17 in Jordan, 16 in Pakistan, 14 in Mauritius and the Democratic Republic of the Congo over the period 1994-2001). Yet, the average share of tariff revenues in low-income countries remains at around 18%. According to the United Nations Economic Commission for Africa (UNECA), in the least developed countries (LDCs) in Africa, import duties represented on average 34% of total government revenues over the period 1999-2001, and exceeded 50% in a number of countries.

Just as reliance on import duties as a source of government revenue differs considerably from country to country, so will the adjustment requirements associated with replacement of import duties by other revenues. Table 3.2 contains basic data on tariff levels and reliance on import duties in selected developing countries. It also presents the results of a simulation of multilateral tariff liberalisation according to a non-linear formula.⁶ The considerable cross-country differences in trade, welfare and revenue effects are largely a reflection of varying initial tariff levels and differences between bound and applied rates (binding overhangs). A comparable simulation in which tariff revenue losses are replaced by a consumption tax indicates that there is significant scope for obtaining positive welfare gains from a joint package of tariff and tax reform without compromising public revenue. Thailand, for example, could achieve a permanent annual welfare gain of 1.3% while keeping overall government revenue intact.

Overall, past experience points both to successful and failed attempts at co-ordinating tariff and domestic tax reforms (see also Box 3.2). The mixed evidence calls for a forward-looking approach to addressing the adjustment costs that may be associated with tariff cuts agreed in the Doha Development Agenda (DDA) negotiations. Such an approach should involve both an advance analytical assessment of which countries may be particularly vulnerable as well as an integration of revenue concerns into special and differential treatment (SDT) provisions, be it in the form of extended implementation periods or co-ordinated financial assistance provided to disadvantaged developing

countries to help them overcome financial, technical or capacity constraints associated with a tariff-cum-tax reform.

Table 3.2. **Tariff profiles, dependence on import duties and simulated welfare and revenue impacts**

	Fiscal indicators		Average tariff ¹		Simulation of tariff reduction according to Swiss formula ²		
	Import duties (% of tax revenue)	Taxes on international trade (% of current revenue) ³	Applied	Bound	% changes		
					Per capita welfare gains relative to base	Tariff revenue	Volume of imports
Argentina	4	4	7.3	32.2	0.6	-15.3	2.9
Bangladesh ⁴	30	23	27.4	158.3	0.3	-42.0	16.1
Brazil	3	3	8.9	34.3	0.3	-24.4	2.8
Chile	..	5	6.6	25.1	-0.1	-0.6	-0.2
China	7	10	9.2	6.9	0.2	-47.1	10.2
Colombia	9	7	8.2	57.3	-0.1	-11.3	0.8
India	24	18	31.1	46.2	0.4	-58.7	29.9
Indonesia	5	3	4.6	38.2	0.5	-12.6	0.9
Madagascar ⁴	54	52	3.8	26.3	0.1	-4.5	0.5
Malawi ^{4,5}	..	..	10.5	105.9	0.7	-16.6	0.8
Malaysia	..	..	5.0	6.7	1.3	-42.6	1.3
Morocco	19	16	29.1	48.9	0.8	-55.4	25.0
Mozambique ⁴	..	..	8.9	99.9	0.2	-11.8	1.6
Peru	11	9	12.4	32.4	0.1	-30.0	6.5
Philippines	20	17	2.8	11.1	0.2	-8.0	0.3
Sri Lanka	13	11	7.3	20.4	0.7	-27.1	2.3
Tanzania	..	..	14.8	84.2	-0.3	-37.0	9.2
Thailand	12	10	15.8	19.0	1.5	-47.0	4.9
Uganda ^{4,5}	50	50	6.1	66.5	-0.2	-10.8	1.4
Uruguay	3	3	5.5	32.0	0.6	-1.8	-0.2
Venezuela	12	7	6.7	33.7	0.0	-19.5	1.0
Vietnam	23	20	17.8	43.5	1.6	-34.1	6.8
Zambia ^{4,5}	..	..	9.3	42.7	0.7	-17.5	1.6
Zimbabwe ⁵	..	..	30.8	75.9	0.7	-43.6	5.5

1. Trade-weighted averages in 2001.

2. Bound rates are reduced worldwide according to the Swiss formula with a coefficient of 10. Applied rates are reduced only in cases where the resulting bound rates fall below the level of initial applied rate.

3. Taxes on international trade include import duties, export duties, profits of export or import monopolies, exchange profits and exchange taxes. Current revenue includes all revenue from taxes and non-repayable receipts (other than grants) from the sale of land, intangible assets, government stocks or fixed capital assets, or from capital transfers from non-governmental sources. It also includes fines, fees, recoveries, inheritance taxes, and non-recurrent levies on capital. Data refer to central government only. The reference year is 2001 with exception of Bangladesh, China, Colombia, Morocco (1999), Brazil (1998), Madagascar (2000), Vietnam (2002).

4. LDCs.

5. Landlocked countries.

Source: World Bank World Development Indicators based on IMF Government Finance Statistics, GTAP and WITS databases and OECD model simulations using GTAP model.

It is clear that overcoming financial, technical or capacity constraints associated with a tariff-cum-tax reform in disadvantaged developing countries will require co-ordinated action by the international community. To that end, the executive heads of the IMF and the World Bank have expressed their commitment to work with the WTO to address problems that some developing countries may have in adjusting to trade liberalisation agreed in the Doha round. It is also worth noting, however, that while the costs associated with the design and implementation of an appropriate (compensating) tax are temporary, the gains they induce through an improved allocation of resources are permanent. Therefore, from an economic point of view, these costs are seen not as an obstacle to liberalisation but rather as necessary investments that would pave the way for the realisation of long-term gains.

Good practices and efforts in trade capacity building⁷

The international community can support the adjustment process in developing countries, among other things by encouraging the development of sustainable trade-related capacities in these countries.

Good practices

The OECD Development Assistance Committee (DAC) recommends in its 2001 *Guidelines on Strengthening Trade Capacity for Development* to target assistance to the strengthening of an effective, participatory and sustainable trade policy process and framework in the developing countries, building on existing endogenous human and institutional capacities.

Supporting an effective trade policy process and framework is a complex task. It requires developing country efforts and donor support in a wide range of areas, including capacity development for economic analysis, diagnosis and (*ex ante*) policy evaluation; the design and execution of a comprehensive trade strategy (see below); the establishment of institutionalised consultation mechanisms among various ministries and with the private sector and civil society; an effective “voice” of the different (state and non-state) stakeholders; and independent monitoring and review.

Ultimately, partner and donor efforts should aim to enhance the ability of policy makers, enterprises and civil society in developing countries to:

- *Formulate and implement a coherent trade strategy* (and related action plans) that cut across all relevant trade-related policy areas. Hence, a comprehensive trade strategy should aim at supporting participation in and compliance with the institutions, negotiations and processes that shape national trade policy and the rules and practices of international trade (including standard-setting bodies); promote export competitiveness (see below) and facilitate trade (*e.g.* by streamlining customs procedures and administrations). The trade strategy should be closely integrated with the country’s overall development strategy.
- *Increase export volumes, value added and diversification*. This implies enhanced production and export capacity to help enterprises take better advantage of new opportunities arising from globalisation (*e.g.* through enhanced trade promotion and market analysis and development capacity, as well as strengthened business support services).
- *Enhance the infrastructure facilities* that are critical for international trade.

Donors' trade-related technical assistance and capacity building (TRTA/CB) efforts should be targeted at the wide range of relevant state and non-state actors involved in, and affected by, trade, *e.g.* government agencies and officials, enterprises and industry associations, labour unions, private and public trade support organisations, research institutes, etc.

In order to maximise aid effectiveness, it is important to:

- Support strong local ownership and high-level leadership in the design and execution of trade and poverty reduction strategies.
- Align donor assistance programmes with developing country priorities – as identified in the national trade strategy and the development and poverty reduction strategies – and take into account the national context (*e.g.* political, institutional, cultural and business environment).
- Use, wherever possible, developing country systems.
- Harmonise (administrative) donor procedures and practices.
- Better co-ordinate assistance programmes and increase donor complementarity (maximising logical sequencing, continuity and synergies among different assistance programmes) in order to ensure a comprehensive approach and integrated delivery of support for trade capacity building.
- Adopt results-based management of national strategies and related assistance programmes (including regular and objective monitoring and evaluation on the part of beneficiaries and donors).

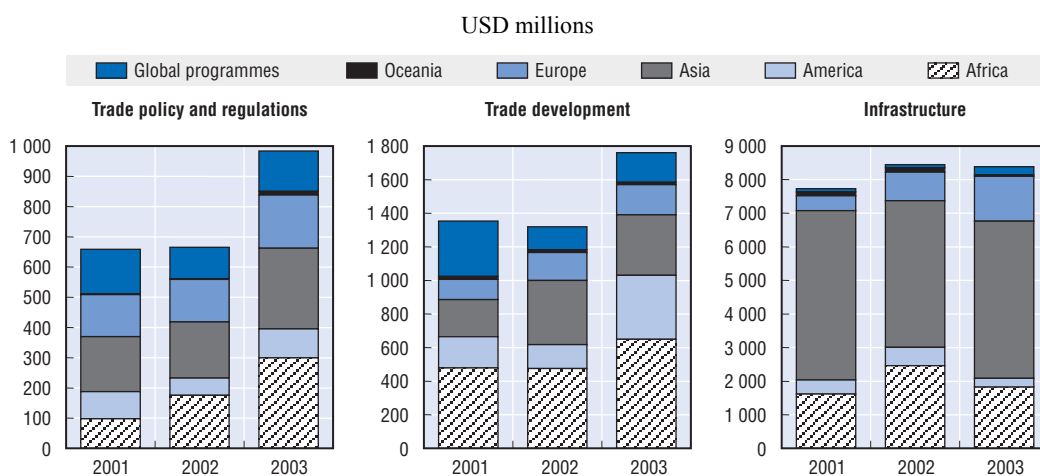
Current efforts

In November 2002, the WTO and OECD Secretariats set up the Doha Development Agenda Trade Capacity Building Database (TCBDB) to monitor the implementation of commitments included in the Doha Declaration and enhance information sharing and co-ordination of bilateral donors' and multilateral agencies' TRTA/CB efforts.

The most recent TCBDB data, presented in Figure 3.2, show a significant increase in TRTA/CB in 2003, after being static between 2001 and 2002. Assistance commitments for trade policy and regulations,⁸ which amounted in 2001 and 2002 to some USD 660 million a year, increased by 48% to reach almost USD 1 billion in 2003. Similarly, commitments for assistance in trade development,⁹ which amounted to some USD 1.35 billion a year in 2001 and 2002, increased by 34% to reach almost USD 1.8 billion in 2003. In addition to these TRTA/CB activities, donors and multilateral agencies committed over USD 8 billion in 2002 to support the economic infrastructure (transport and storage, energy and telecommunications) that is essential to international trade. Commitments in this sector did not vary significantly between 2000 and 2002.

The share of TRTA/CB in total aid commitments also progressed, from 3.6% in 2002 to 4.2% in 2003.¹⁰

Figure 3.2. **Distribution of trade-related technical assistance and capacity building and infrastructure by region and main category**



Source: WTO/OECD Doha Development Agenda Trade Capacity Building Database.

These amounts cannot be summed to give an overall value for TRTA/CB. Assistance for trade policy and regulations is often delivered through training sessions and workshops, at relatively low cost but with potentially high payback in terms of institutional capacity building. In contrast, general assistance to the business sector and agricultural or industrial trade-related projects is greater in terms of value, but only part of the project may build trade capacity. Assistance for infrastructure is “capital-intensive” and so involves high costs.

Aid for trade policy and regulations increased in all developing regions, but particularly in Africa, where it tripled between 2001 and 2003. The sharp increase in 2003 is explained by the rise in commitments for assistance with mainstreaming trade in poverty reduction strategy papers (PRSPs), understanding and complying with the SPS and TBT Agreements and implementing trade facilitation procedures. Examples of broad activities committed in 2003 include a UK regional trade facilitation programme that aims to increase trading opportunities for small-scale farmers and traders through the development of common standards for goods and services and the streamlining of customs procedures in southern Africa. Another example is France’s regional programme for developing “fair trade” in Africa.

In 2003, the volume of commitments to trade development activities increased in Africa and America, mainly through regional programmes, *e.g.* an International Development Agency (IDA) loan to assist the development of power exports between southern African countries, or an EC multi-sector SME development project in South America. The sharp increase in 2003 is due to an important surge in the volume of activities to support trade promotion, particularly in the agricultural and industrial sectors, and to a smaller extent to an increase in aid for market development, particularly in the industrial and services sectors.

For economic infrastructure, Asia remains by far the largest recipient region owing to the number of populous countries in the region. In 2002, Africa’s share in infrastructure diminished, reflecting a tendency of donors to focus more on social sectors and less on infrastructure, while Europe’s share has increased since 2001, mainly owing to post-war reconstruction in Serbia and Montenegro.

International co-operation on regulatory reform issues

The OECD undertakes work to promote understanding of the benefits and practice of regulatory reform. In 1997 it adopted a set of principles of good regulation, which has recently been updated. The OECD has also reviewed regulatory practices in 20 member countries so far. The reviews follow a multi-disciplinary approach and focus on the government's capacity to manage regulatory reform, on competition policy, on market openness and on the regulatory framework of specific sectors.

The OECD is co-operating with the Asia-Pacific Economic Cooperation (APEC) forum in a joint project in this area. The APEC-OECD Co-operative Initiative on Regulatory Reform provides a forum for discussion and aims to facilitate the implementation of similar principles on regulatory reform in their respective member economies.

Under the initiative, an APEC-OECD Integrated Checklist has been elaborated to serve as a tool for guidance and for self-assessment on regulatory reform policies and their implementation. The checklist is designed to view regulations from a whole-of government perspective. When designing and implementing regulations, governments should be aware of the complementarity and the interrelations of regulatory, competition and trade policies. Concerning the trade perspective, it is suggested to integrate market openness considerations into regulatory decision making through the creation of appropriate intra-governmental consultation mechanisms between regulatory, trade and competition authorities, through better training of regulators, and through co-ordination between regulatory and trade officials in the context of negotiating trade agreements.

Export credits

As a consequence of their key role in supporting international contracts for the sale of capital goods and projects, governments' officially supported export credits, provided in accordance with various agreements negotiated and agreed in the OECD, can contribute to structural adjustment by facilitating access to infrastructure projects, by helping to maintain flows of trade finance and by imposing disciplines on the provision of official support (see Box 3.9).

Corporate responsibility

In dealing with the strains, as well as the opportunities, of the adjustment process, it is important to foster an atmosphere of trust between management and workers. The *OECD Guidelines for Multinational Enterprises* make an important contribution to this objective by strengthening the basis of mutual confidence between enterprises and the societies in which they operate, including through the provision that, in the context of *bona fide* negotiations with representatives of employees on conditions of employment, companies should not threaten to transfer activities from the country concerned to other countries in order to influence those negotiations unfairly (see Box 3.10 and Annex 3.A1).

Box 3.9. Officially supported export credits and structural adjustment

OECD members provide official export credit support through export credit agencies (ECAs) in order to finance national exports or to insure/guarantee export credits provided by banks against the risk of non-payment. Historically, the provision of officially supported export credits has been targeted by OECD countries to maximise trade benefits; in addition, aid credits, focused on development purposes, have been channelled via public aid agencies and enjoyed more generous financial conditions than commercial export credits. Statistics show, however, that over the last ten years, more than two-thirds of officially supported export credits were related to exports to developing countries.

The disciplines in this field, *i.e.* the Arrangement on Officially Supported Export Credits, encompass rules that apply to export credits (export loans issued by a private bank with cover from an ECA against non-repayment risk) and disciplines applying to aid credits (*e.g.* soft loans), in particular to tied aid credits. Export credits, but also aid credits, may impact quantitatively on structural adjustment policies in several respects:

- The active role of ECAs tends to reinforce the inflow of long-term infrastructure projects in recipient countries, in particular for sectors such as telecommunications, mining, manufacturing, oil and gas, transport. In a big multi-sourced project ECAs can facilitate the selection of a recipient country with little access to international finance markets for the purchase of efficient equipment and up-to-date capital goods.
- In case of financial crisis, ECAs may also help recipient markets to overcome short-term liquidity problems by contributing to the maintenance of a minimum flow of trade finance.
- OECD members also use aid credits to support projects that the market would otherwise not finance, when such projects are not commercially viable (*e.g.* schools, hospitals, isolated infrastructure projects) and which could not be serviced in a normal repayment period, typically ten years.
- However, official support may not be granted at any cost. The conditions set out in the Arrangement on Officially Supported Export Credits include, in particular, the obligation to charge a risk premium fee commensurate with the risk covered. As well, OECD members' own cover policies (including ceilings of cover/finance) tend to limit in practice the capacity of a borrower to increase its debt. In this connection, the level of the risk premium fee to be paid by the borrower is a function of the buyer country's payment performance in servicing its external debt and, therefore, reflects its capacity to serve its debt while managing new infrastructure projects.
- As an example of such limitations, OECD members have adopted guidance relating to official support to heavily indebted poor countries (HIPCs). They have agreed to a Statement of Principles designed to discourage the provision of officially supported export credits for "unproductive" expenditures in the HIPCs. This agreement complements the World Bank-led Debt Initiative for the HIPCs which seeks to provide debt relief in order to foster sustainable development.

Box 3.10. OECD Guidelines for Multinational Enterprises

The governments adhering to the OECD Guidelines represent countries that are home to most multinational enterprises and the source of most global trade and international investment. Adhering countries comprise all 30 OECD member countries, and to date eight non-member economies (Argentina, Brazil, Chile, Estonia, Israel, Latvia, Lithuania and Slovenia). The Guidelines were reviewed in 2000 to ensure their continued relevance and effectiveness in the rapidly changing global economy.

The Guidelines provide voluntary principles and standards for responsible business conduct consistent with applicable law, in such areas as labour relations, human rights, disclosure of information, anti-corruption, taxation, environment and consumer protection. They apply to the global operations of multinational enterprises based in adhering governments. Governments adhering to the Guidelines should not use them for protectionist purposes.

The Preface to the Guidelines points out that competition in the global economy is intense and multinational enterprises face a variety of legal, social and regulatory settings; in this context, some enterprises may be tempted to neglect appropriate standards and principles of conduct in an attempt to gain undue competitive advantage. The Guidelines both complement and reinforce corporate initiatives to define and implement responsible business conduct.

The Guidelines are backed by unique government-sponsored follow-up mechanisms. While observance of the Guidelines is voluntary for companies, the adhering governments are committed to promote them actively. The most visible sign of this commitment is the national contact points (NCPs), which are government offices (sometimes tripartite in structure) charged with promoting observance of the Guidelines by multinational enterprises operating in or from the national territory. The NCPs are responsible, among other things, for the “specific instance” procedure which allows any interested party to ask an NCP to engage in dialogue with an individual company regarding observance of the Guidelines in specific business situations. As of June 2004, a total of 80 specific instances had been brought to NCPs’ attention since the 2000 review of the Guidelines. The majority concern observance of the provisions of the Employment and Industrial Relations chapter of the Guidelines, which covers all internationally recognised core labour standards (see Annex 3.A1). Many deal with managing social adjustment arising from corporate decisions to close or relocate production or service provision sites.

The main strength of the Guidelines in terms of implementation is that the NCPs allow general principles for business conduct to be promoted in ways that account for different national institutions and circumstances. NCPs have significant flexibility in determining how they go about this. However, they engage in annual peer reviews of their activities and publish an annual report. The 2004 Annual Report on the OECD Guidelines for Multinational Enterprises describes NCPs’ handling of specific instances and ongoing efforts by adhering countries to enhance the effectiveness, transparency and timeliness of the Guidelines procedures.

The Guidelines are part of a broader and balanced instrument of rights and commitments, the OECD Declaration on International Investment and Multinational Enterprises. In addition to the Guidelines, the Declaration provides guidance for governments in the areas of national treatment, avoiding imposing conflicting requirements on international investors and investment incentives and disincentives.

As a separate OECD initiative related to corporate responsibility, OECD governments and their ECAs have in recent years increasingly conditioned their official support for export credits to a series of new guidelines, criteria and procedures relating to “corporate social governance”. In this regard, governments have both increased their accountability with respect to societal concerns and engaged in dialogue with importing countries, in particular in the following areas:

- *Environmental impact of projects*: An OECD recommendation was adopted in December 2003, which establishes detailed environmental review procedures and

exchange of information – including with the public – together with the use of common environmental standards when considering support for projects.

- *Fight against bribery in international business transactions:* OECD members have agreed an Action Statement to detect and deter bribery in officially supported export credits. This statement supplements the OECD Bribery Convention on Combating Bribery of Foreign Public Officials in International Business Transactions. ECAs are committed to taking concrete, co-ordinated measures to deter bribery in the export deals they support.

ILO: Core labour standards

As identified at the outset, one of the underlying forces of structural adjustment comes from shifts in comparative advantage and the emergence of new sources of international competitive pressures. This has led to concerns that countries will – and do – disregard internationally agreed core labour standards in order to gain a competitive edge, thereby promoting a race to the bottom in labour conditions. The emergence of China and the growth of export processing zones are at the centre of these concerns.

An earlier OECD study (OECD, 2000b) found no evidence of a race to the bottom. More recent analysis tends to support this finding. Konings (2004) found that while labour costs are some five times lower in the typical firm in central Europe than in high-wage countries like Belgium and Germany, labour productivity is also more than five times lower in central Europe. The study finds no evidence that employment substitution between high wages and low-wage locations takes place in response to changes in wages and concludes that for most companies the main driving force for investing in central and eastern Europe is not low wage costs, but rather the attainment of first-mover advantages and the opportunity for access to a growing market.

The case study on IBM prepared for this project also puts the importance of wage costs in a broader perspective. IBM experience suggests that location decisions depend primarily on the availability of skills, and on quality and cost factors, which in turn vary with the activity in question; commoditised activities are generally more price-sensitive. Although for some of these activities labour cost differentials between high-income countries and emerging market countries can be significant, operational risks tend to be higher and any cost-benefit analysis must consider the total costs of processes beyond labour expenses alone.

Earlier OECD analysis also found that countries do not gain a sustained improvement in competitiveness by disregarding core labour standards. To the contrary, improved working conditions are found to contribute importantly to growth and development, a point also made by the International Labour Organisation's World Commission on the Social Dimension of Globalisation. The study therefore stressed the need for stronger compliance with, and implementation of, ILO core labour standards. The OECD Guidelines for Multinational Enterprises, as noted earlier, promote observance of core labour standards. This issue is also a principal focus of the work of the ILO. There is agreement that the ILO should remain the main institution to set and monitor core labour standards.

Notes

1. The apparent Kenyan “exception” can be explained in part by the early-mover advantages enjoyed by the sector in question (cut flowers). Moreover, unless the broad policy framework in Kenya improves, the continuing success of this industry cannot be assured.
2. Hoekman and Javorcik (2004). In other recent work it is suggested that in Europe new firms typically make a positive contribution to overall productivity growth. By contrast, entries make a negative contribution in the United States for most industries and a stronger than average contribution tends to come from the exit of low-productivity firms. See Bartelsman *et al.* (2004).
3. Numerous donor agencies and regional bodies have already funded workshops to provide information on the sanitary and phytosanitary (SPS) and technical barriers to trade (TBT) regulations in place in OECD countries, as well as advice on traceability, residue testing, food safety risk/conformity assessments and certification techniques.
4. In the mid-1980s, Singapore suffered two years of recession (1985-86). With contributions from a wide range of stakeholders, including employers, labour, public agencies and private companies, the Economic Committee appointed by the government prepared a report (Report of the Economic Committee, 1986) which represented a broad consensus on the best way forward for the Singapore economy. The report recommended a set of specific cost-cutting measures to restore business confidence and international competitiveness. These measures included, among other things, a reduction in employers' contribution to the Central Provident Fund (CPF) and wage restraints that the report considered unpalatable but inevitable.
5. OECD (2003b) provides an overview of existing estimates of welfare gains associated with tariff reduction.
6. Results extracted from an ongoing OECD project on government revenue loss.
7. This section is based on: *i*) the DAC Guidelines for Strengthening Trade Capacity for Development (2001); *ii*) the 2004 WTO/OECD Report on Trade Related Technical Assistance and Capacity Building (December 2004); and *iii*) the Draft Report on Aid Effectiveness for the Second High-Level Forum, prepared by the DAC Working Party on Aid Effectiveness and Donor Practices (December 2004).
8. Trade policy and regulations covers support to aid recipients' effective participation in multilateral trade negotiations, analysis and implementation of multilateral trade agreements; mainstreaming of trade issues into development plans/poverty reduction strategy papers; strengthening of the trade policy process; understanding and complying with technical standards –SPS and TBT; simplification of trade facilitation procedures; simplification of tariff structures and customs regimes; support to regional trade arrangements and human resources development in trade.
9. Trade development covers assistance related to business development and activities aimed at improving the business climate, access to trade finance, and trade promotion and market development in the productive sectors (agriculture, forestry, fishing, industry, mining, tourism, services), including at the institutional and enterprise level.

10. OECD estimate, calculated on the basis of sector-allowable official development assistance (ODA) commitments.

Annex 3.A1

Chapter IV of the OECD Guidelines for Multinational Enterprises: Employment and Industrial Relations

Enterprises should, within the framework of applicable law, regulations and prevailing labour relations and employment practices:

1.

- a) *Respect the right of their employees to be represented by trade unions and other bona fide representatives of employees, and engage in constructive negotiations, either individually or through employers' associations, with such representatives with a view to reaching agreements on employment conditions;*
- b) *Contribute to the effective abolition of child labour;*
- c) *Contribute to the elimination of all forms of forced or compulsory labour;*
- d) *Not discriminate against their employees with respect to employment or occupation on such grounds as race, colour, sex, religion, political opinion, national extraction or social origin, unless selectivity concerning employee characteristics furthers established governmental policies which specifically promote greater equality of employment opportunity or relates to the inherent requirements of a job.*

2.

- a) *Provide facilities to employee representatives as may be necessary to assist in the development of effective collective agreements;*
- b) *Provide information to employee representatives which is needed for meaningful negotiations on conditions of employment;*
- c) *Promote consultation and co-operation between employers and employees and their representatives on matters of mutual concern.*

3. Provide information to employees and their representatives which enables them to obtain a true and fair view of the performance of the entity or, where appropriate, the enterprise as a whole.

4.

- a) *Observe standards of employment and industrial relations not less favourable than those observed by comparable employers in the host country;*
- b) *Take adequate steps to ensure occupational health and safety in their operations.*

5. In their operations, to the greatest extent practicable, employ local personnel and provide training with a view to improving skill levels, in co-operation with employee representatives and, where appropriate, relevant governmental authorities.
6. In considering changes in their operations which would have major effects upon the livelihood of their employees, in particular in the case of the closure of an entity involving collective lay-offs or dismissals, provide reasonable notice of such changes to representatives of their employees, and, where appropriate, to the relevant governmental authorities, and co-operate with the employee representatives and appropriate governmental authorities so as to mitigate to the maximum extent practicable adverse effects. In light of the specific circumstances of each case, it would be appropriate if management were able to give such notice prior to the final decision being taken. Other means may also be employed to provide meaningful co-operation to mitigate the effects of such decisions.
7. In the context of *bona fide* negotiations with representatives of employees on conditions of employment, or while employees are exercising a right to organise, not threaten to transfer the whole or part of an operating unit from the country concerned nor transfer employees from the enterprises' component entities in other countries in order to influence unfairly those negotiations or to hinder the exercise of a right to organise.
8. Enable authorised representatives of their employees to negotiate on collective bargaining or labour-management relations issues and allow the parties to consult on matters of mutual concern with representatives of management who are authorised to take decisions on these matters.

Part II

SECTORAL CASE STUDIES

Chapter 4

AGRICULTURE

This chapter examines cases of trade and structural adjustment in agriculture. Starting with a cross-country case study analysing potential changes in relative prices and factor returns that might accompany widespread reductions in agriculture and non-agriculture trade protection, it surveys examples of agricultural products in specific countries: trade in avocados in Mexico and the United States, the dairy industry in Australia, the agro-food sector in Chile, the cut flower industry in Kenya, and agricultural reform in New Zealand. Some general conclusions emerge although it is essential to differentiate countries according to their level of development. In several of the case studies, the policy reform package reduced the direct role of government in the production, acquisition, marketing and pricing of farm commodities. However, all the studies show that governments made important contributions by providing an enabling environment for successful adjustment. That environment included both economy-wide policies and some sector-specific nurturing. Stable macroeconomic policy, especially exchange rate policy, was seen as essential to successful adjustment in the agricultural economies of New Zealand and Chile. In contrast, in the cases of avocados in Mexico and cut flowers in Kenya, the government played a key role by fostering the development of a private and sector-specific marketing infrastructure. Agricultural trade policy rarely exists in isolation. Implementing reforms to trade-distorting policies typically requires much more than simply adjusting trade and domestic support policy instruments. In some cases, structural adjustment can be facilitated by using instruments of general social policy: unemployment insurance, education and training for displaced workers and relocation assistance.

Key points

The key policy messages relating to trade and agricultural adjustment need to take into account countries' different economic and policy contexts, especially those of highly developed, protectionist countries and less protectionist, less developed countries. Nonetheless, some general conclusions emerge. One concerns the role of government in agricultural markets. In several of the case studies on adjustment in the agriculture and agro-food sectors, the policy reform package reduced the direct role of government in the production, acquisition, marketing and pricing of farm commodities. In none was direct governmental intervention seen as a way to facilitate adjustment. That is to say, direct government participation in agricultural markets was frequently seen as part of the problem, and never as part of the solution.

However, all the studies showed that government made an important contribution in providing an enabling environment for successful adjustment. That environment included both economy-wide policies and some sector-specific nurturing. Stable but accommodating macroeconomic policy, especially exchange rate policy, was seen as essential to the adjustment successes achieved in the agricultural economies of New Zealand and Chile. In contrast, in the cases of the avocado in Mexico and cut flowers in Kenya, the government played a key role by fostering the development of a private and sector-specific marketing infrastructure.

The relative importance of agriculture in economic activity inevitably declines with economic growth and development. The salient feature of the induced adjustment in agriculture is a reduction in the number of people employed in farming. Further reducing trade protection and domestic support for agriculture might add some, but not very much, to the ongoing pressures to downsize the sector in highly developed OECD countries. In particular, the expected employment adjustments needed to accommodate such reforms are small when compared to trend changes in agricultural employment. In other words, efforts to resist liberalisation would have only a limited impact on the underlying process of adjustment.

Of course, reducing trade protection and support for agriculture may engender other kinds of adjustments. Implementing reforms to trade-distorting policies typically requires much more than simply tweaking the trade and domestic support policy instruments that are the most obvious and immediate cause of the problem. More wide-ranging changes seem to be required, whether the aim is to fully exploit the benefits flowing from improved access to a market, as illustrated in the Mexican avocado study, or to accommodate loss in farm income and write-offs of asset values, as illustrated in the Australian dairy study.

Agricultural trade policy rarely exists in isolation. In most cases, trade intervention is an essential complement to a domestic price support programme. Reforming or dispensing with trade intervention may be the easy part. The hard part is dismantling or mantling the regulatory arrangements and finding ways to assist the adjustment process for losers and share benefits equitably among winners.

In some cases, structural adjustment can be facilitated using instruments of general social policy: unemployment insurance, education and training for displaced workers, relocation assistance, etc. In others, however, as when there is to be a sharp write-down of the value of farm fixed assets, such as land or a production quota, sector-specific mechanisms may be needed.

Australian dairy study

Until 1 July 2000, the package of Australian federal and state government intervention in milk pricing and production resembled, in kind if not in detail, government intervention in dairy markets in most other OECD countries. Although the regulatory mechanisms differ from country to country, their economic consequences are similar. Domestic milk producers receive and domestic milk consumers pay higher prices than they otherwise would, exports of dairy products are higher and imports lower, and the domestic dairy industry, and usually taxpayers, pay the costs of administering the programmes and disposing of surpluses on world markets.

Government intervention in dairy pricing also inevitably creates or enhances the value of assets used in dairy production, thereby constituting a kind of “windfall profit” for the asset holder as an unintended side effect. The price and rental rates paid for land used to pasture and grow feed for dairy cattle, the value of buildings for housing and milking cows and the economic value of the entitlement to produce within a quota are all higher under a system of milk price regulation. These higher asset values can create a political barrier to reforming agriculture trade and domestic support policy. The main political questions are how to assist the adjustment process in the reformed sectors and avoid sudden income losses in the target group. That this decline in “windfall profits” can be an issue in further agriculture trade policy reform discussions is hinted at in the land price results presented in this chapter.

Compiling an assistance package to enhance the restructuring process was a main challenge in reforming Australian dairy policy. Australian policy makers adopted an approach that may offer important policy lessons for other countries contemplating dairy policy reform. Important elements of their approach included: advance warning of the inevitability of reform, cost/benefit analysis to quantify potential losses, and a participatory political process that led to the development of an acceptable assistance and/or compensation package.

In July 2000, all dairy price support mechanisms were eliminated and Australia became one of the few dairy-producing countries to fully link producer returns to world market prices. The pain of adjusting to the new situation was eased by an assistance package amounting to about AUD 2 billion and funded by a levy on domestic sales of drinking milk. Eligibility for payment was based exclusively on whether an individual was a dairy farmer in a specific past year. The rate of payment varies among producers in different states depending mainly on the share of their production that went to fluid milk rather than manufacturing uses in the base year. Annual payments to milk producers under the programme are expected to terminate in June 2008.

The sudden removal of all dairy price support measures caused an immediate and substantial decline in market returns, especially for producers of milk destined for fluid milk consumption, but the industry has adjusted rapidly to the effects of deregulation. In the main, these adjustments have increased the pace of ongoing structural adjustments in the sector. There was initially an increase in the number of retirements, especially among producers specialising in production for the fluid milk market. Correspondingly, there have been increases in milk output per cow and per farm and national milk production has continued to increase in line with the continuing growth in domestic and export demand.

Eliminating dairy price regulation in Australia has led to a dairy industry that is undoubtedly more market-oriented, efficient and less trade-distorting than before. As in related reform attempts in other commodity sectors in other countries, the reform package

included an assistance arrangement designed, among other things, to enable industry players to improve farming techniques, diversify or exit the industry. The innovation in the Australian case is the simplicity and apparently finite life of the payments and associated institutional arrangements.

Mexican avocado study

From 1914 until 1997 the United States imposed a phytosanitary ban on all fresh Mexican avocado imports to protect Californian orchards from the avocado seed weevil found in some Mexican orchards. The ban was lifted beginning in 1997 and access has been gradually expanded. Today, over 1 000 Mexican avocado growers export to the United States. The industry's structure has evolved in some demonstrably favourable directions: the quantity, quality and price of Mexican avocados have improved. Also, the share of small avocado producers has risen, possibly signalling an improvement in income distribution.

The opening of the US market fostered two kinds of institutional developments that might be worthy of emulation in other contexts. The first involved co-operation between the US and Mexican national regulatory agencies to form a collaborative cross-border sanitary and phytosanitary (SPS) regulatory agency. The other was the creation of a producer marketing organisation to promote orderly marketing of Mexican avocados towards the US market and to allocate access among producers.

The first of these innovations constitutes an excellent example of how OECD countries with strict SPS standards can actively collaborate with developing-country trade partners, helping them to develop stronger regulatory institutions. It also shows that developing countries can gain by adhering to rigorous SPS standards and that the process offers an opportunity to upgrade their own institutions and strengthen their ability to be robust long-term trade partners.

The second of the innovations, the producer marketing organisation, undoubtedly helped to ease the transition after trade liberalisation, by protecting and distributing equitably to both small and large producers the benefits of access to the higher-price US market. Regulating market access in this manner undoubtedly resulted in smoother flows of exports and higher returns for eligible Mexican avocado producers. Of course, such arrangements are more easily justified as transitional on second-best economic arguments.

New Zealand agriculture

In 1984, and following several years of pervasive intervention in agricultural markets by the New Zealand government, the domestic agricultural policy framework was largely dismantled and associated trade interventions were virtually eliminated. Specific reforms to deregulate the agriculture sector included the removal of nearly all producer, exporter and consumer subsidies. The elimination of import licensing systems and import quotas as well as deep tariff reductions complemented these reforms. Together, these reforms reduced distortions in pricing information facing the domestic agricultural sector and strengthened incentives for better managing domestic agricultural resources in order to benefit from international trade.

Early in the reform period, further changes were introduced to stabilise the macroeconomic framework, and they considerably reduced the burden of agricultural adjustment. Especially important for the export-oriented agricultural sector was a 20%

currency devaluation in 1984, which was followed by the transition from fixed to floating exchange rates. To enhance transparency, confidence and the sustainability of the new macroeconomic policy regime, inflation targeting was explicitly adopted as the governing principle for central bank policy.

The reforms, coupled with a modified environment, have resulted in the success of a number of New Zealand's agriculture and agro-food export sectors, notably manufactured dairy products, apples and wine. New Zealand's share of world trade in all these products greatly exceeds its share in world production of them.

Chile's agro-food sector

Chile's economy-wide reforms, implemented progressively over the past three decades, have fundamentally altered the incentive structure in favour of tradable sectors and set the stage for the successful development of certain agro-food exporting industries. The country has become one of the world's leading exporters of fresh and processed fruits and vegetables. More impressively, Chile's wine producers have benefited hugely from the rapid expansion of world demand for wines produced in particular in countries of the southern hemisphere.

The rise of the export-oriented agro-food sector can be attributed partly to the shift in macroeconomic policy, especially the elimination of export biases due to an initially overvalued exchange rate. Sector-specific export promotion measures also played an important role. These included duty drawbacks, public support through an export promotion agency and the extension of credit to smaller farmers to facilitate adjustment.

Kenya's cut flower sector

Kenya's cut flower industry constitutes one of the country's main sources of foreign exchange. Albeit relatively small in terms of its impact on overall employment, growth and poverty reduction, the sector is one of the rare success stories of non-traditional export development in Sub-Saharan Africa. Moreover, the industry has been able to thrive despite the country's general economic stagnation and increasing poverty. Its success illustrates the importance of the government's non-interventionist and facilitative approach to attracting foreign direct investment (FDI) and foreign expertise, which has led to the emergence of non-traditional exports.

Economy-wide reforms conditioned the development of the industry, but their impact was probably less important than in other industries. The sector has benefited from a relatively liberal trade policy regime, characterised by low export taxes and no marketing or distribution control. It has benefited from the government's decision to avoid direct intervention in production and sales, partly because of the diversity and perishability of the products. The authorities have actively promoted commercial horticultural production more generally but have mostly acted as a facilitator and to provide extension services and research and development (R&D). This approach has proven most appropriate for an industry that has to adjust to rapidly changing market conditions.

Adjustment implications of reducing agricultural support and trade protection: a cross-country case study

Introduction

This case study reports preliminary findings from an analysis of potential changes in relative prices and factor returns that might accompany widespread reductions in agriculture and non-agriculture trade protection. It focuses especially on differences in adjustment challenges facing developed and developing countries. Key policy questions for developed countries relate to potential implications for net incomes and wealth of farm households. Policy concerns for developing countries may also include implications for movement of labour among sectors within the economy and internationally.

Agricultural adjustment may be represented using a wide variety of different indicators of potential policy effects. Popular past choices have included: the number, size and ownership of farms; agriculture's share in employment or in GDP; and the composition of output by farm, region or country. The analysis focuses here on the incidence of simulated reductions in support and trade protection in agricultural commodity markets on the prices and quantities of land, labour and capital employed in the sector.

Country coverage and importance of agriculture in the economy of countries studied

The country coverage chosen reflects several considerations. Paramount among them was the aim of comparing adjustment implications across countries at different stages of economic development, including some in which agriculture is a relatively large sector of the economy, some in which it is not. Seven OECD regions and countries are distinguished individually: Australia/New Zealand, Canada, European Union (EU15), Japan, Mexico, Turkey and the United States. Individually treated non-member countries are Brazil, China, Indonesia, India, Malawi, Russia, South Africa and rest of Sub-Saharan Africa.

The implications of further trade reform for intersectoral, and perhaps international, employment flows constitute an issue of special concern. The magnitude of employment adjustments that might be expected from multi-sectoral trade reform depends not only on the initial structure of protection and the size of the reduction but also on initial levels of employment in the sectors affected. Table 4.1 contains data showing the share of total civil employment accounted for by people classified as employed in agriculture in the countries studied. The numbers are for those countries for which recent data are available.

The data in Table 4.1 reveal striking differences in the importance of agricultural employment. As is generally true, agricultural employment is far less important in highly developed countries such as the United States and the EU than in less developed countries such as Brazil, China, Turkey or Mexico. For example, the number of people employed in agriculture in Mexico is nearly as high as the number in EU15 and nearly twice as high as in the United States, two regions whose total working populations are more than four and three times, respectively, that of Mexico. It follows that employment adjustment resulting from agricultural trade liberalisation is likely to be a far more serious policy concern in the developing than in the developed countries.

Table 4.1. **Agriculture in employment and the economy**¹

	Agricultural employment		Agriculture in the economy
	1 000 persons	Share in total (%)	Agricultural value added as a % of GDP
United States	3 367	2.5	1.30
Canada	416	2.6	2.20
EU15	6 478	4.0	2.10
Japan	2 660	4.2	1.3
Australia/New Zealand	512	4.5	4.20
Mexico	6 282	15.8	9.10
Brazil	15 534	20.6	8.40
Turkey	7 152	33.8	13.80
South Africa	n.a.	10.9	4.00
Russia	7 900	11.8	7.00
China	312 600	42.0	16.60
Indonesia	n.a.	43.8	12.20
India	n.a.	66.7	23.40
Malawi	n.a.	n.a.	28.90

1. In 2001, except China (2000), Russia and South Africa (1999), and India (1995).

Source: OECD Labour Force Statistics and national statistical yearbooks.

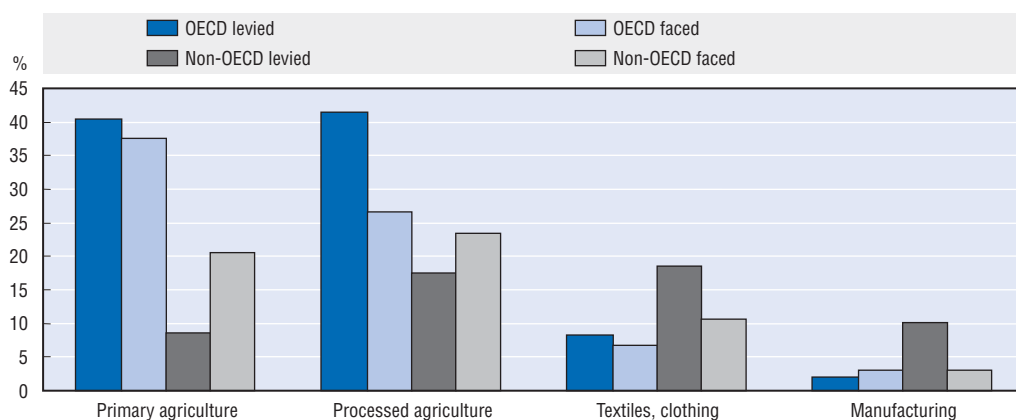
The last column in Table 4.1 compares countries in terms of the share of GDP accounted for by agriculture. This share is consistently lower than that of employment, especially for the developing countries. This finding is frequently cited as evidence of the relatively poor productivity of the agriculture sector. However, some of the difference is undoubtedly due to bias introduced by measurement errors in the employment data.

Model and policy simulation experiment

Quantification of the implications of further adjustment and trade reform was undertaken with a modified version of GTAP, a widely used applied general equilibrium model. The model and details of the policy simulation analysis are described fully in OECD (2004d). The policy simulation experiment undertaken combined a 50% reduction in all forms of domestic support to agriculture with a 50% reduction in both agricultural and non-agricultural tariffs.

Figure 4.1 provides a summary view of the initial tariff landscape. It compares the average tariffs levied on their imports by a country group to the average tariff faced by their exporters. Two broad groups are represented: OECD and non-OECD countries.

Figure 4.1. Average tariffs levied and average tariffs faced by exporters



Source: Global Trade Analysis Project (GTAP) and OECD calculations.

On average, import tariffs on processed agricultural products are higher than those on primary products, providing some limited evidence of tariff escalation. This observation holds for both the OECD and the non-OECD regions. Average tariff rates applied for agro-food products are higher than those on textiles and manufacturing products. However, as findings reported below will illustrate, the effects of multi-sectoral tariff reductions depend both on the initial rates and on the size of the sector. Even when combined, primary and processed agriculture account for significantly less economic activity than non-agricultural sectors in all developed countries and in most developing countries as well.

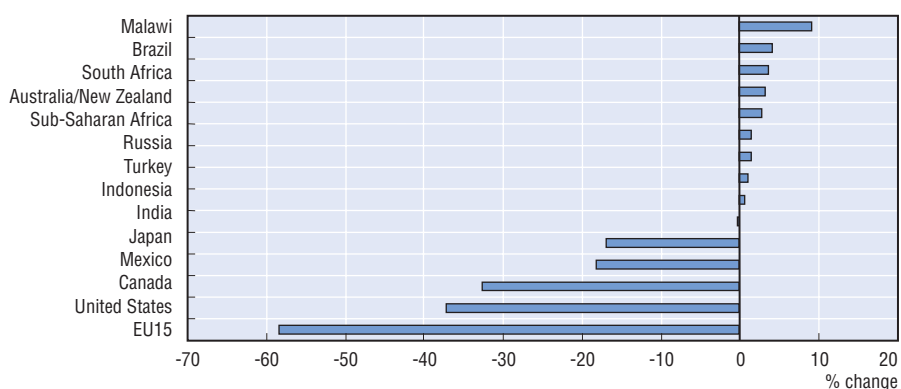
Results

Land prices

Figure 4.2 shows the pass-through effect of the policy reform on land prices. The magnitude of the effect is substantially greater than the corresponding effects on unit wage rates or returns to capital (Figure 4.3). This is especially so for OECD countries that currently provide high levels of support and trade protection for agriculture. Trade and agriculture reform in these countries must be accommodated by reductions in factor payments to land, capital and labour used in farm production. The pattern of such effects, *i.e.* how much of the reduction in the volume of payments will be accommodated via reductions in price and in quantity of factor use, depends on the ease with which factors can be shifted within agriculture and from agriculture to non-agricultural uses.

Obviously, there is much less scope for moving land from agricultural to non-agricultural uses than for shifting agricultural labour or capital. Although land use may be transferred between crop and livestock activities, total supply is largely fixed, *i.e.* highly price-inelastic. This underlies the widely held view that much of the benefit of government interventions in agriculture merely increases the price and rental rate of land. This applies especially here, as a significant share of domestic support to agriculture in North America and the EU takes the form of direct payments per unit area of land. These area payment programmes are in fact designed to minimise the impact on plantings and production, thereby maximising the impact on land prices and rental rates.

Figure 4.2. Simulated impacts on land prices



Source: GTAPEM (Global Trade Analysis Project + OECD Policy Evaluation Model) simulation results.

Indeed, results from a policy simulation of the effects of reducing all forms of agricultural support and trade protection *except* land subsidies (Figure 4.2) show a very modest impact on land prices in most of the OECD countries for which simulated land price impacts are shown to be negative. (Japan, where land-based payments do not feature significantly in the policy mix, is an exception.)

The data in Figure 4.2 also show that simulated net increases in land prices in countries where they rise are considerably smaller than the decreases in countries where they decline. Part of the explanation lies in the importance and nature of the area payment programmes referred to above. Part also reflects the relative abundance of land in countries such as Brazil and Australia/New Zealand, which experience simulated land price increases. Yet another part relates to the fact that the induced increases in world commodity prices that drive the land price increases are themselves modest.

Figure 4.3. Simulated impacts on relative returns to labour and capital used in agriculture



Source: GTAPEM (Global Trade Analysis Project + OECD Policy Evaluation Model) simulation results.

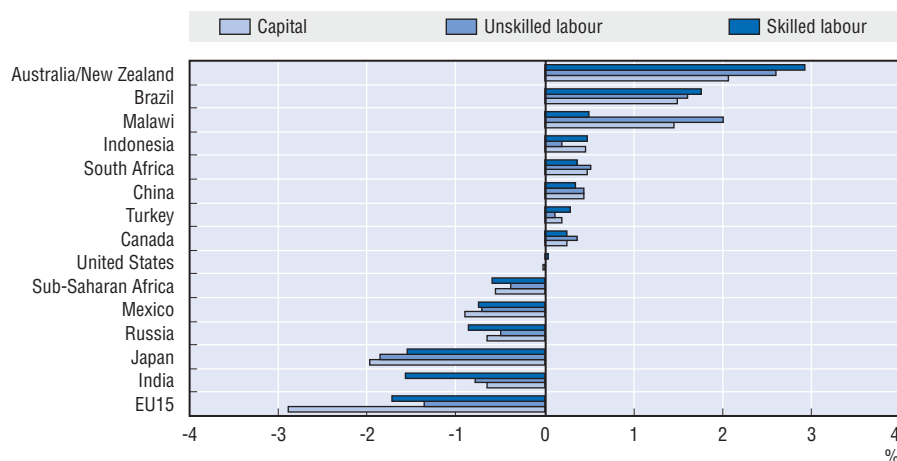
Labour and capital

Figure 4.3 shows the relative change in real returns to labour and to capital used in agriculture and outside agriculture. It should be kept in mind that the figure compares differences in the simulated percentage changes in unit factor returns to agricultural versus non-agriculture uses. As expected, when support is reduced, most countries that offer high support and protection to agriculture see the factor returns in the sector evolve unfavourably relative to returns that can be gained in non-agricultural activities. What matters is not whether unit returns to labour and capital used in agriculture rise or decline in absolute terms but the magnitude of the changes relative to corresponding unit returns in non-agriculture.

Australia/New Zealand experiences the greatest simulated *increase* in relative returns to agriculture and the EU experiences the greatest simulated *decrease*. Among non-OECD countries, Brazil and Malawi also see unit returns to labour and capital employed in agriculture rise significantly more than the returns to labour and capital employed outside agriculture. The reverse is true for India and, to a lesser degree, for Russia.

Figure 4.4 estimates factor quantity impacts based on the unit return results in Figure 4.3. Again, the figures reflect percentage changes relative to base values. The most interesting results concern employment impacts, especially the shifts out of agricultural employment. None of the negative impacts in this respect exceeds 2% and the impact is around 1% on average for the countries shown. Generally, skilled labour is more negatively affected than unskilled labour; this reflects the relative importance of those two categories in agricultural employment.

Figure 4.4. Simulated impact on employment and capital used in agriculture



Source: GTAPEM (Global Trade Analysis Project + OECD Policy Evaluation Model) simulation results.

The data on employment levels (Table 4.1) offer additional insight into the magnitude of some of these impacts. First, and most obviously, although the percentage changes indicated in Figure 4.4 are almost always less than 2%, the number of individuals will be much greater in developing countries with high agricultural employment than in the developed countries.

Consider, as a concrete example, results for the United States and Mexico. During the 1990s, migration of labour from rural Mexico to the United States was higher than during

any other decade of the past century. A recent paper (Martin, 2003) documenting this trend finds its cause in the rapidly expanding gap in wage rates for unskilled workers between the United States and Mexico.

Other things being equal, the approximately 1% simulated decline in unit returns to labour employed in agriculture in Mexico (Figure 4.3) could further increase such earnings gaps, adding to migration incentives. However, the simulated change in unit returns to labour in the United States, whether in agriculture or not, is near zero while the *relative* return to labour employed outside agriculture in Mexico rises nearly 1% (the reflection of the 1% fall in unit returns to labour in agriculture). This suggests that the greater “pull” on Mexican workers may be from agricultural to non-agricultural employment in Mexico itself.

The results in Figure 4.4 can now be used to assess the quantity implications of the simulated wage impacts. They show a simulated decrease in Mexican agricultural employment of -0.8%; using the data in Table 4.1, this amounts to about 54 000 persons. The trend rate in agricultural employment in the last ten years has been about -2% or 120 000 persons a year. Note, however, that the latter is an “annual” rate of decline whereas the simulated impact due to trade liberalisation is a “one-off” impact that could be spread over several years.

A similar analysis for the other countries leads to the same qualitative conclusion: the employment impact of further trade reform does not appear large when compared to year-to-year trend changes in agricultural employment. While this may help to put the adjustment problem in perspective, it does not change the fact that some agricultural workers in some countries would be displaced and could suffer income losses.

Summary and policy implications

The purpose of the analysis was to examine the implications for agricultural adjustment of further trade and agricultural policy reform. Results suggest that among the OECD countries studied, the most acute adjustment pressures would be those associated with reductions in farm asset values, especially land values. Contributing significantly to this result is the fact that some of the support measures being reduced targeted land directly. Typically, such payments are designed to minimise the impact on plantings and production, thereby maximising the impact on land prices and rental rates. Accordingly, reducing them may not induce much increase in world commodity prices or farm incomes of other countries.

Among the developing countries, further trade reform may add to ongoing “downsizing” of the agricultural sectors in some, *e.g.* India, but may offset some of that pressure in others, *e.g.* Brazil. However, pressures for employment adjustment in the sector created by trade liberalisation may not add greatly to those associated with ongoing processes of economic development and growth. Nonetheless, some people currently working in agriculture in some of the affected countries will most likely face reduced demand for their services.

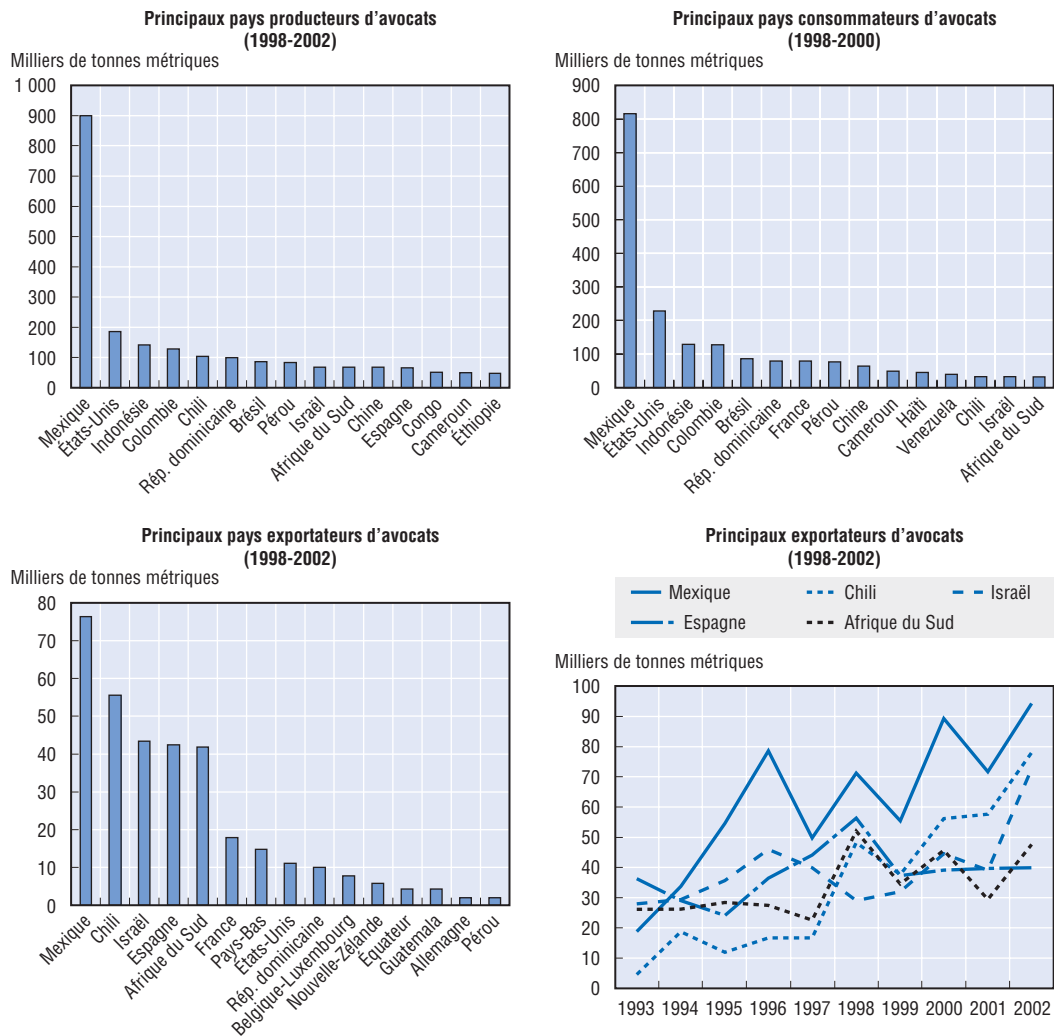
Mexico and the United States: Trade in avocados

Background and historical context

Mexico is the world’s largest producer, consumer and exporter of avocados (Figure 4.5) (Vega, 2003). From 1914 until 1997, the United States imposed a

phytosanitary ban on all fresh Mexican avocado imports to protect Californian orchards from the avocado seed weevil found in some Mexican orchards. The ban was lifted beginning in 1997 and access has gradually expanded since then. Today, over 1 000 Mexican avocado growers export to the United States. This study presents a case of adjustment to opportunity, the process of overcoming technical trade barriers, which results in regional economic development.

Figure 4.5. **Production, consumption and exportation of avocados**



Source: FAOSTAT.

Policy reforms and industry response

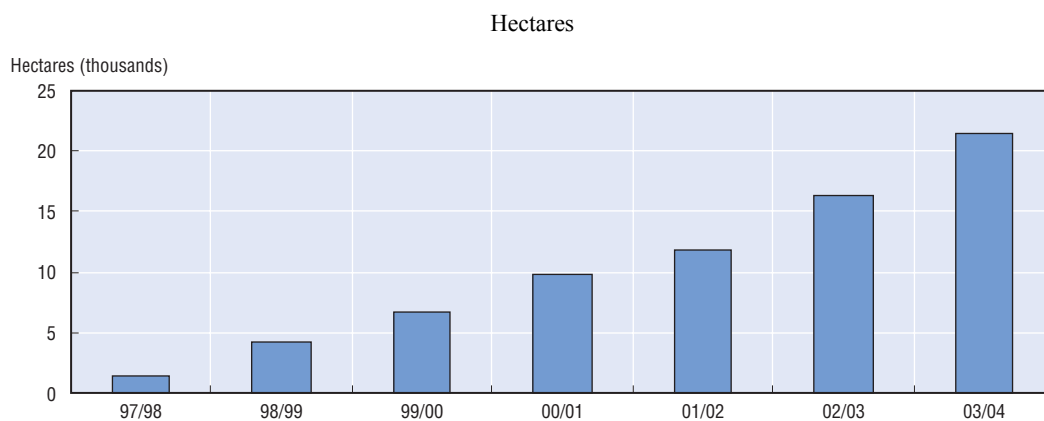
Mexico's avocado industry is heavily concentrated in the state of Michoacán which accounts for over 40% of the world's commercial avocado supply. Beginning in 1990, Michoacán's avocado sector underwent a substantial, largely self-initiated, institutional and economic transformation to overcome obstacles that had blocked access to the US market. The changes included the creation of an SPS regulatory regime, which incorporated American standards and technical know-how into Mexican organisational

structures, and the development of an equitable export market structure, which has increased the participation of small growers in exports, while maintaining price stability.

Today's bi-national, collaborative regulatory framework commenced with talks between the US Department of Agriculture's (USDA) Animal Plant Health Inspection Service (APHIS), Mexico's Ministry of Agriculture and local phytosanitary control boards (JLSVs) (Guzmán and Ángel, 1997). The Mexican government replicated APHIS's SPS standards. JLSVs, organised and operated at municipal level, implemented and managed all SPS campaigns to certify orchards as pest-free. APHIS inspectors oversaw the operations of local SPS campaigns and gained confidence in the ability of Mexican growers to meet strict SPS standards. In 1997 the campaigns bore fruit, and APHIS certified orchards in four municipalities as pest-free. They were given a limited winter export season to 19 north-eastern American states, thereby minimising the infestation risk to Californian growers.

The compliance of locally organised JLSVs with outside regulations initiated a virtuous circle. Higher revenues to be earned from premium export prices increased the attractiveness of export certification and pest controls (SAGAR, 1998). The export-certified area increased from 1 499 hectares in four municipalities in the first 1997-98 exporting season to 21 597 hectares in nine municipalities seven years later (Figure 4.6). Over the same period, exports increased from 50 000 metric tons in 1997 to 94 000 in 2003. Meanwhile, both the approved export area and the season were expanded.

Figure 4.6. Mexican avocado orchards certified for export to the United States



Source: SAGARPA.

The JLSVs and their producer members helped develop export market regulations. As a condition for permitting Mexican avocado imports, APHIS required “growers, packers and exporters” to form an association that would serve as APHIS's liaison with JLSVs and pay all expenses incurred by APHIS (US *Federal Register*, 2003). As a result, the Association of Producers and Exporting Packinghouses of Avocado of Michoacán (APEAM) was formed. It is an important organisational force in a previously fragmented and highly competitive avocado sector and balances the interests of growers and exporters.

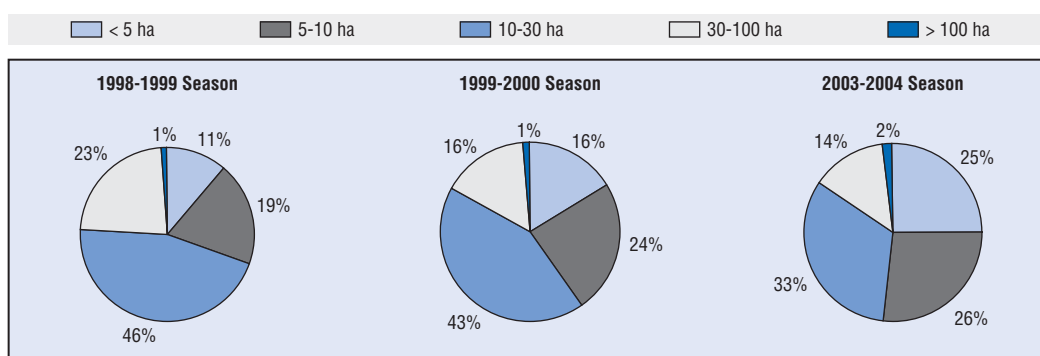
The first export season was characterised by high prices that benefited relatively few exporting growers. During the second season, however, the rush to export avocados led to excess supply and prices collapsed.¹ In response, producers used their influence in

APEAM to limit US-bound exports to two tons per hectare and to establish demand-linked controls to limit the number of shipments to be exported weekly.² These agreements stabilised export prices and allowed smaller producers to enter the export market even as the number of exporting producers increased.³

Structural adjustment

In the 1997-98 season 59 export-approved producers with a mean orchard size of 25 hectares dominated exports. By the 2003-04 season, the number of export-approved producers had increased to 1 490 with a mean orchard size of 11 hectares. The proportion of small and medium-scale producers with ten hectares or less has increased from 30% of participating producers in 1998-99, when smaller producers began to participate, to 49% in the 2003-04 season (Figure 4.7).

Figure 4.7. Mexican producers exporting to the United States, orchard size

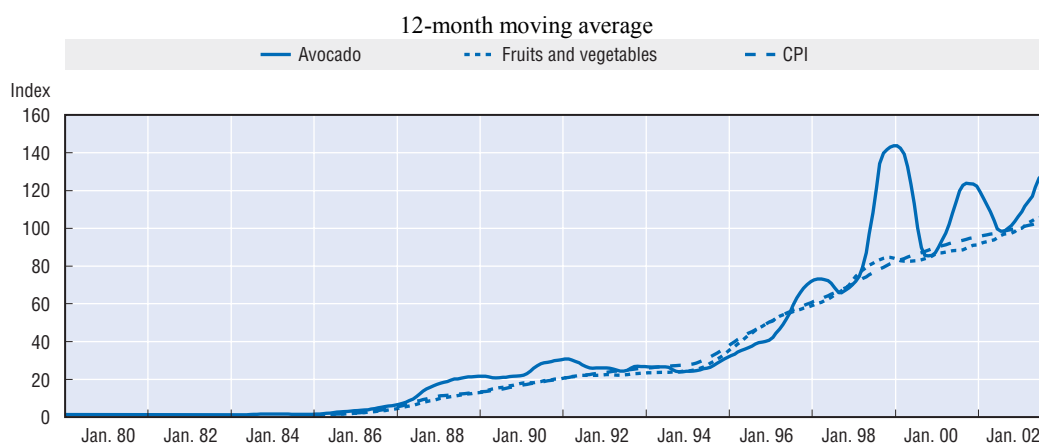


Source: Authors' calculations, APEAM and SAGARPA data.

Export quantities and average market prices have all increased as well. Exports to the United States rose from 50 000 metric tons in 1997 to 94 000 in 2003. Since 1997, avocado prices have increased faster than the Mexican Consumer Price Index and a fruit and vegetable index (Figure 4.8). Although export prices have decreased since 1997, they are still higher than national market prices. Producers who export a portion of their crop and earn export rents are clearly better off than those who do not, but even producers for the domestic market have seen welfare improvements as a result of higher domestic prices (Figure 4.9).

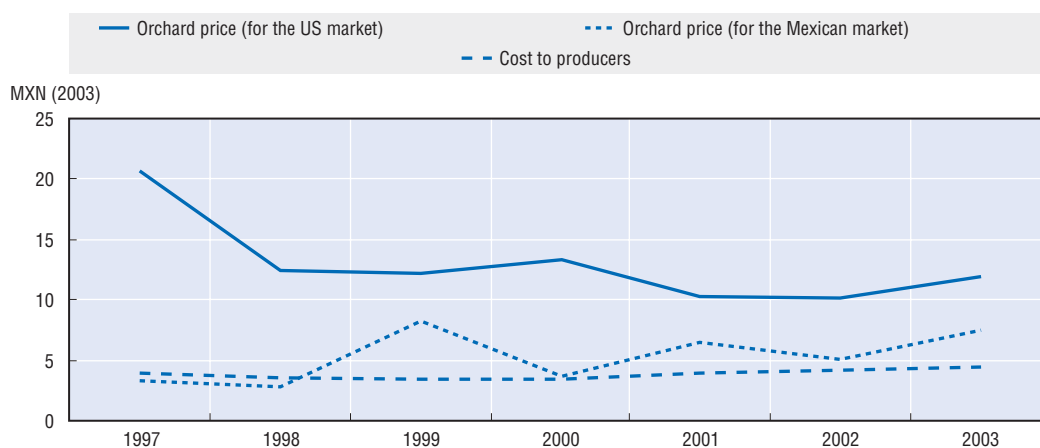
Although some Mexican consumers may have been negatively affected by higher prices, they are partially compensated by improvements in avocado quality. APHIS's export regulations, the introduction of superior technology and better post-harvest management techniques have positively affected overall product quality for both export and national consumption. Only a fraction of the production in exporting orchards is exported to the United States (a maximum of 2 metric tons per hectare with an average production of over 10), with some of the remaining fruit exported elsewhere but most commercialised domestically.

Figure 4.8. Mexican avocado price index, fruits and vegetables price index and consumer price index



Source: Banco de Mexico.

Figure 4.9. Comparison of Mexican export and domestic prices to producer prices, 2003



Source: Authors based on data provided by APEAM.

Positive spillover effects include technology transfer and innovation. Technology transfer took place through the dissemination of production techniques to low-income and small-scale producers⁴ and FDI in American-owned packinghouses, which have introduced superior post-harvest handling techniques and better packaging equipment. The dynamics of change have spurred innovation and specialisation throughout the avocado value chain, from the harvesting process to the industrialisation of the fruit to provide higher-value products ranging from processed guacamole to cooking oil and beauty products.⁵

Overall, while producers have adjusted effectively to opportunity, some negative externalities and institutional deficiencies still hamper the industry. Mexican packinghouses have difficulty competing in the export market against American-owned

packinghouses established in Mexico. American firms dominate the US export market thanks to strong linkages with American distribution channels and cheaper capital.⁶

Owing to fiscal constraints, municipalities cannot benefit directly from the wealth generated by avocados and thus lose opportunities to enhance development by establishing needed public services. Inadequate credit facilities prevent small producers from upgrading their orchards for export certification and packinghouses from improving their technology and processes. Lastly, pesticide usage and deforestation due to the use of wooden packing crates and cutting down established forest to plant avocado orchards are causes for environmental concern.⁷

Policy lessons and implications

Co-operation between US and Mexican national regulatory agencies to form a collaborative cross-border SPS regulatory agency is a policy innovation that should be emulated elsewhere. Mexico's accession into NAFTA did not eliminate SPS barriers against its avocados; however, it provided a context for resolving the matter. In order to promote development, developed countries with strict SPS standards can collaborate actively with developing-country trade partners, helping them to establish stronger regulatory institutions. In this way, SPS standards can catalyse economic development rather than impede it. Likewise, developing countries could recognise that rigorous SPS standards are a desirable goal and represent an opportunity to upgrade their own institutions and increase their capacity to be robust long-term trade partners.

Collaboration and organisation among the different actors in an economic sector, even among competitors, to access developed-country markets should be encouraged. In this context, non-orthodox policies, such as APEAM's quota and market regulations, can be employed as a means to ease the transition following trade liberalisation by allowing both small and large producers to enter the market. Properly managed trade liberalisation has the potential to promote economic development.

Australia: The dairy industry

Introduction

Australian dairies have had a long history of price support. The industry benefited from import protection and support policies that allowed producers to earn higher returns on sales to the domestic market. Then, in July 2000, a major policy reform eliminated, overnight, all dairy price support mechanisms. This meant an immediate and substantial reduction in support for many dairy farmers. Industry adjustment pressures increased considerably. Australia became one of the few dairy-producing countries to fully link producer returns to world market prices.

Dairy deregulation constitutes an unusual case of policy reform and industry adjustment. Australia's policy reforms have generally been phased in and farmers have shown their capacity to adjust to a new market environment. The decision to end all dairy price support measures from one day to the next was announced nine months prior to execution, and producers had to consider their situation relatively quickly. However, government assistance measures sought to provide for an orderly adjustment process by ensuring 32 consecutive quarters of adjustment assistance.

Background to dairy policy reform

A national market for fluid milk did not exist before the industry was deregulated. Government regulations created an artificial market separation between fluid milk sales and milk used for dairy products. State governments had created six separate markets for fluid milk. The Commonwealth maintained a price support scheme for manufacturing milk.

The policy environment

In the fluid milk sector, producer prices were regulated by state marketing authorities and differed among the states. Prices were about double those paid for milk used for manufacturing purposes. Some states used production quotas to ration access to the fluid milk market. Others had pooling arrangements in which farmers received a price premium for a fixed proportion of their annual milk output.

In the manufacturing milk sector, producer prices were supported by policy measures that required domestic consumers to pay higher prices for dairy products. It raised the price of manufacturing milk above export parity. Policy reforms in the mid-1980s encouraged manufacturers to focus on export markets for sales growth. Trade considerations were the driving force behind these reforms. The pooling of export returns was abolished, and the level of support was limited to the landed price of imports. The reforms required support to be phased down from around 40% of average export prices to 10% by 2000.

Most dairy producers gained some assistance from policy arrangements for both fluid and manufacturing milk. In the lead-up to deregulation, market price support for manufacturing milk declined owing to strong growth in production of manufacturing milk. Fluid milk pricing controls continued to provide substantial levels of assistance. The nominal rate of assistance was in the order of 20-25% (Table 4.2). This reflects the average rate of market price support across all states.

Table 4.2. **Price support for the Australian dairy industry prior to deregulation¹**

Year ending 30 June	Manufacturing milk price ² Ac/litre	Fluid milk price ³ Ac/litre	Average milk price ⁴ Ac/litre		Market support rate	
					Maximum ⁵ %	Adjusted ⁵ %
1995-96	28.0	345.0	31.7	..	22.9	17.8
1996-97	26.0	45.9	30.2	-4.7	26.8	21.6
1997-98	24.8	46.2	29.1	-3.7	26.2	21.3
1998-99	25.0	45.5	28.9	-0.9	23.4	18.9
1999-2000	22.1	45.5	26.3	-9.0	24.2	19.9
5 yr average	25.2	45.6	29.2	..	24.7	19.9

Ac = Australian cents.

1. Indicative average prices paid at factory door.

2. State-weighted average price based on manufacturing milk production; includes market support (DMS) payments.

3. State-weighted average price based on fluid milk sales, net of levy payment (1.9Ac/litre) for DMS Scheme.

4. Weighted average price based on manufacturing milk production and fluid milk sales.

5. Estimate of weighted average nominal rate of assistance at factory door.

Maximum rate assumes no commercial price premium for fluid milk on factory price of manufacturing milk

Adjusted rate assumes a 20% commercial price premium for fluid milk on factory price of manufacturing milk.

Source: Dairy Australia.

The rate of market support varied considerably among states, owing to the difference in regulated prices for fluid milk. In 1999-2000, Queensland had the highest rate of assistance at 53-67%, reflecting its stronger focus on fluid milk production relative to other states. Industry assistance was lowest in Victoria (9-11%) because fluid milk sales accounted for about 6% of Victoria's milk production at the time of deregulation.

Structural change in the dairy industry

In the lead-up to deregulation, the industry faced continual adjustment pressures owing to changes in world market prices. Policy reform also contributed to the adjustment pressures. The effects were strongest in south-eastern Australia where producers focused on manufacturing milk production. In Victoria around 3 500 farms left the industry between 1984-85 and 1999-2000.

In spite of the substantial fall in farm numbers, there was strong growth in milk supplies. Production increased by about 80% to 10.8 billion litres over the same period. The growth in milk supplies went almost entirely for manufactured dairy products. By 1999-2000 fluid milk sales were less than 18% of total output. In Victoria the fluid milk market share had declined to less than 7% while in Queensland it remained largely unchanged at 45%.

Growth was strongest in the export sector, with Victorian production almost doubling to 6.9 billion litres during this period. Industry expansion was driven by strong growth in export sales of butter, cheese and milk powders. By 1999-2000 exports of these products had reached 700 000 tons, an increase of almost 150% over export sales in 1984-85.

Milk output per farm is an indicator of farm level adjustment. Between 1984-85 and 1999-2000, average milk output per farm increased by 170%. The gain partially came from herd expansion. Over the same period, the average herd size increased by 80%. There were also substantial gains in livestock performance. In 1984-85 milk yields averaged around 3 340 litres per cow. By 1999-2000 yields were almost 5 000 litres per cow.

Table. 4.3. **Effect of pre-deregulation policy reform on market returns¹**

Year ending 30 June	Regulated price of fluid milk ²	Percentage change			
		Manufacturing milk price		Average milk price	
		Market effect	Net effect ³	Market effect ⁴	Net effect ⁵
1996-97	2.0	-7.5	-7.1	-4.8	-4.7
1997-98	0.5	-3.3	-4.8	-2.8	-3.7
1998-99	-1.5	1.4	0.9	-0.8	-0.9
1999-2000	0.1	-9.6	-11.6	-7.6	-9.0
Average effect	0.3	-4.8	-5.7	-4.0	-4.6

1. Indicative average prices paid at factory door.

State-weighted average price based on manufacturing milk production and fluid milk sales.

2. Average price before deducting levy payment (1.9Ac/litre) for DMS Scheme.

3. Average price after adjusting for market support (DMS) payments.

4. Average price before deducting fluid milk levy payment; excludes DMS payments for manufacturing milk.

5. Average price after adjusting for levy deduction and market support (DMS) payments.

Source: Dairy Australia.

The effect of market forces on manufacturing milk prices was an average annual price reduction of around 5% for the four years (1996-2000) (Table 4.3). The policy reforms had an additional negative impact of around 1%. In the year before deregulation, manufacturing milk prices declined by almost 12% following adjustment for the reduction in support payments for manufacturing milk.

The effect of reduced assistance for manufacturing milk on average milk returns was diluted by continued market support for fluid milk prices. In 1999-2000 the effect of market forces was a 7.6% fall in the average milk price. After adjusting for levy deductions and reduced support payments, the net effect was a decline of 9%.

Structural change and on-farm adjustments in the lead-up to deregulation were largely due to market forces. Industry response to the fluctuations in returns demonstrates the capacity of producers to adjust.

Dairy industry deregulation

By the late 1990s there were pressures for further policy reform. Legislation for manufacturing milk price support (the Domestic Market Support [DMS] scheme) was due to terminate in June 2000. The industry depended heavily on export sales and the growth in manufacturing milk supplies had diluted the value of the support payments. Revenues raised by industry levies were being spread over larger supplies of manufacturing milk.

In the late 1990s all dairy support policies were subjected to a National Competition Policy review. This was a key trigger for dairy deregulation. In mid-1999 the Victorian review found no public benefit from fluid milk price controls and the state government announced that the controls would terminate on 1 July 2000. The industry, which had felt constrained by existing regulatory arrangements, became concerned that differing state-to-state arrangements might develop and therefore approached the federal government and pushed for industry-wide deregulation.

In September 1999 the government announced the termination of the DMS scheme and the implementation of an AUD 1.78 billion restructuring package. The package included the Dairy Structural Adjustment Programme (DSAP) which was designed to provide transitional assistance to manage the initial impact on farm incomes.

Adjustment assistance for dairy producers

The restructuring package was announced in advance of the date for deregulation to ensure that adjustment assistance would be available as soon as possible after the removal of the support measures. The DSAP component of the package was developed in early 1999. It was based on estimates of the value of the support measures in 1998-99. The objective was to provide a restructuring grant for all producers affected by deregulation.

The restructuring grants had two payment components of AUD 0.4623 per litre for fluid milk and around AUD .0896 per litre for manufacturing milk. This ensured that DSAP assistance was distributed according to the loss of support under each policy arrangement. The size of the grant for each producer reflected the level of assistance previously obtained from the two types of support.

DSAP accounted for AUD 1.63 billion of the package funding. It was broadly equivalent to the estimated loss of income from three years of regulated market returns. DSAP grants were considerably higher in states where fluid milk sales were a high

proportion of total output. On a per farm basis the grants were worth AUD 196 000 in New South Wales and AUD 97 000 in Victoria.

DSAP entitlements were calculated on a farm enterprise basis, were fully decoupled and based on milk production for the 1998-99 season. This ensured a fixed level of assistance. Anyone with an economic interest in a dairy farm enterprise on 28 September 1999 was eligible to apply. DSAP entitlements were divided into 32 quarterly instalments and a fixed payment right was issued for an eight-year period commencing in 2000-01.

Supplementary adjustment assistance

In late 2000, the government was concerned about the extent of the decline in fluid milk prices and announced in May 2001 the Supplementary Dairy Assistance (SDA) package. It included AUD 100 million in supplementary payments for producers that depended heavily on fluid milk sales. Producers with an existing DSAP entitlement and with an economic interest in a dairy enterprise on 21 May 2001 could apply for an SDA supplementary payment.

Producers could take a lump sum or 32 quarterly instalments over the same eight-year period applicable to DSAP payments. The assessment criteria effectively excluded producers focused on manufacturing milk. Funds were mostly distributed to producers of fluid milk in Queensland and New South Wales. On a per farm basis, SDA payments were worth about AUD 23 000. The extra payments increased assistance for the fluid milk sector to AUD 995 million.

The total cost of government assistance was about AUD 2 billion with AUD 1.75 billion in direct assistance. The packages are funded by a Dairy Adjustment Levy imposed on domestic sales of drinking milk. The consumer tax of AUD 0.11 per litre will terminate when the cost of both packages is fully covered. Final programme payments will be made in June 2008 but the levy is expected to remain in place until June 2010.

Industry adjustment to deregulation

The effect on manufacturing milk prices was cushioned by a strong rise in export returns. In 2000-01 world prices for skim milk powder increased by 70% in AUD terms. Whole milk powder prices rose by 53% and cheddar prices increased by almost 30%. The improved export returns caused Victorian producer price to rise by 33% in the first year of deregulation.

There was a further rise in manufacturing milk prices in 2001-02 owing to a substantial devaluation of the Australian dollar. Two years of strong export returns offset the loss of assistance from the DMS scheme. The unexpected rise in manufacturing milk returns presented a strong contrast to market conditions in the lead-up to deregulation. In 1999-2000 manufacturing milk prices declined by 10% and many producers in the export sector were under significant financial pressure. It was in this market environment that the adjustment assistance package was developed. These price rises were unusually strong, but in 2002-03 export returns declined in line with changes in global market conditions. In AUD terms, cheese and milk powder prices fell by 25-30%. The average price received for milk in Victoria declined by about 25%.

Following deregulation, fluid milk prices fell substantially. In 2000-01 average milk prices fell by 12% in New South Wales and 17% in Queensland, states with a relatively strong focus on fluid milk. As manufacturing milk returns increased by about 30%, this

suggests an initial fall in fluid milk prices of around 35-40%. Milk prices recovered in 2001-02. Manufacturing milk returns were about 10% higher, which suggests that fluid milk prices may have increased by 10-15%.

The changes in producer prices for fluid milk are broadly consistent with the changes in retail milk prices. In 2000-01 the average price of a litre of milk declined by 16% for supermarket sales of generic house brands. This decline occurred despite the introduction of the Dairy Adjustment Levy.

Structural change since deregulation

Deregulation accelerated the industry adjustment process that had been under way for some time. After three years 2 234 farms had left the industry, a decline of 17%. Initially, farm retirements were limited in Victoria but adjustment accelerated in the second year. The increase in exits occurred despite good seasonal conditions and strong export returns. Improved farm asset values may have encouraged some older farmers to retire. Structural changes in response to deregulation largely took place over a two-year period.

Adjustment pressures were stronger for producers focused on fluid milk sales. In New South Wales almost 20% of the dairy farms left the industry in the first year of deregulation. In Queensland 15% of farms exited the industry. By 2002-03 most of the adjustment to deregulation had occurred. Retirement rates returned to levels typical of the pre-deregulation period.

In 2000-01 milk production declined by 3%, the first reduction in output since 1989-90. Farm retirements played a major role but poor seasonal conditions were a major contributing factor. Milk [production fell by 1% in Victoria, 10% in Queensland and 5% in New South Wales.

Production recovered in 2001-02 with supplies rising by 7% (by 9% in Victoria). The rise in output was driven by developments in the export sector. Improved seasonal conditions and higher export returns encouraged farmers to use more supplementary feed. The effects of deregulation were still evident in the fluid milk sector. Milk production declined marginally in Queensland but rose slightly in New South Wales.

In 2002-03, production declined by 8% (by 11% in Victoria) owing to severe drought conditions that affected all dairying regions. These changes were therefore not an adjustment response to deregulation.

Australian exports of the major dairy products declined by 6% in 2000-01. Some of the decline can be attributed to the effects of deregulation. Poor seasonal conditions in Victoria also contributed to the reduction in manufacturing milk supplies. Exports recovered in the following year in line with the strong growth in Victorian milk supplies.

Australia is the third largest export supplier on the world market with a trade share of around 17% (milk equivalents). The strong rise in world prices in 2000-01 was mostly caused by reduced EU export subsidies for milk powders. Reduced exports from Australia would have had very little effect on world prices. However, the 14% decline in exports of skim milk powder may have contributed marginally to the strengthening in international spot prices.

Changes in milk output per farm reflect the net effect of farm level adjustments to deregulation. There was an immediate response to deregulation. Milk output per farm increased by 6% in the first year and by almost 14% in 2001-02. The change was

especially evident in the fluid milk sector. After two years of deregulation, farm output had increased by 26% in New South Wales and by 18% in Queensland.

The growth in average farm output was primarily driven by expansions in the scale of the farm enterprise. After two years of deregulation the average herd size was 192 head, up 14%. Average milk yields declined in the first year of deregulation by around 3%. This mainly reflected the poor seasonal conditions in 2000-01. In the second year milk yields increased substantially but there were large differences among the states.

Conclusions

The industry has adjusted rapidly to the effects of deregulation and adjustment assistance has helped producers make the transition. The adjustment response of most interest is the reaction of producers focused on fluid milk sales. Some have exited the industry. Those who remain have experienced a substantial drop in average returns and have made adjustments to their farming operations to offset the decline in farm income.

In general producers reacted by increasing farm output. Farmers have expanded their milking herds and in some cases increased land areas. Changes in secondary input use have improved the productive performance of primary inputs. Carrying capacity has increased through greater use of improved pastures, fertiliser and water inputs. Pasture management has improved and livestock productivity (milk yields) gains have come from more supplementary feeding. Herd genetics has also played an important role in higher productivity. Genetic evaluation of dairy cattle is conducted by the Australia Dairy Herd Improvement Services (ADHIS).

Chile: The agro-food sector

Introduction

Chile, Latin America's sixth largest country in terms of both GDP and population, is one of the most open economies in the region with a volume of trade to GDP ratio above 50% and the highest share of FDI to GDP in the 1990s. Since the mid-1980s, it has experienced the region's highest growth in per capita income (OECD, 2003c).⁸ Chile is considered a showcase of successful outward-oriented development (Agosin, 2002; Ffrench-Davis, 2002). The neo-liberal economic policies initiated by the Pinochet regime from 1973 led to a switch in the policy stance from import substitution to export orientation and created the basis for a major transformation of the economy. Chile has managed to exploit to the fullest extent its endowment in natural resources to achieve vertical and horizontal diversification. Besides the copper cluster, which has spurred a rise in engineering and consultancy services, the agro-food sector has played an important role in this transformation, with success stories in fresh fruit, wine and salmon (Fisher, 2001). This case study takes the agricultural and food industry as a focal point for a review of the Chilean experience.

Economic and social developments

The structure of the Chilean economy has changed dramatically since 1973. Economy-wide reforms curbed state intervention, deregulated input and output markets, opened the country to international trade and fundamentally altered the incentive structure in favour of the tradable sector. A large part of the import-competing traditional manufacturing sector (e.g. textiles and machine tools) declined. New natural-resource-based, export-oriented industries, mainly agricultural, became an engine of growth.

Between 1973 and 2000, the share of exports in GDP rose from 14% to 36%, and the export basket was significantly diversified. Copper now represents less than 30% of exports, and vegetables and fruits, fish, forestry products and wine are among the most important export items (Tables 4.4 and 4.5). Export markets have also been significantly diversified.

By 1970, Chile had attained one of the highest levels of social development in Latin America (Ffrench-Davies, 2002). While life expectancy, infant mortality and literacy continued to improve, unemployment and income inequality worsened considerably during the military regime.⁹ The governments in place since 1990 have made systematic efforts to strengthen macroeconomic stability while widening access to the benefits of growth to improve the social situation. These efforts have reduced poverty and unemployment but have only marginally reduced inequality.¹⁰

Table 4.4. **Structure of Chile's economy**

Average percentages

	1976-84	1985-94	1995-2002
Agriculture, value added (% of GDP)	7.4	9.1	8.7
Industry, value added (% of GDP)	37.9	38.8	34.7
Services, etc., value added (% of GDP)	54.8	52.1	56.6
Trade (% of GDP)	45.7	59.8	60.3
Exports of goods and services (% of GDP)	21.8	31.3	30.2
GDP growth (annual %)	3.9	7.4	4.7
Employment in agriculture (% of total employment)	16.0	19.1	14.5
Employment in industry (% of total employment)	20.8	24.7	25.0
Employment in services (% of total employment)	63.1	56.2	60.5

Source: World Development Indicators CD-ROM (2004).

Table 4.5. **Chile's export structure**

Average percentages

	HS Code 2	1976-84	1985-94	1995-03
Non-ferrous metals	68	40.90%	32.55%	27.55%
Metalliferous ores and metal scrap	28	22.21%	13.35%	14.13%
Vegetables and fruit	05	8.85%	15.12%	12.80%
Fish, crustaceans, molluscs, preparations thereof	03	2.96%	6.17%	8.66%
Pulp and waste paper	25	3.86%	4.47%	5.13%
Cork and wood	24	2.91%	5.43%	4.89%
Beverages	11	0.28%	0.87%	2.97%
Feeding stuff for animals, not incl. unmilled cereals	08	5.60%	5.14%	2.63%
Inorganic chemicals	52	0.96%	1.46%	1.81%
Paper, paperboard, articles of paper, paper-pulp/board	64	0.96%	1.28%	1.78%

Source: UN COMTRADE Database, SITC Rev. 3.2.

Agro-food industry developments

Industry performance, structure and impact on the economy

Once a stagnant sector, the Chilean agro-food industry has become dynamic and diversified, averaging around 11% of GDP and 43% of total exports over 1998-2000 (Brooks and Lucatelli, 2004). It is estimated that approximately 14% of the labour force is employed in agricultural and fishery activities. Thanks to its backward (supply of inputs, including pesticides and machinery) and forward (food-processing, distribution and the service industry, including hotels) linkages, the agro-food cluster has a high job creation potential, which has helped to spread the benefits of growth and reduce poverty. At the same time, the jobs created in the expanding commercial agriculture sector, in particular the fruit sector, are often temporary and with lower wages, and have attracted a growing number of women. Thus, the result of the structural adjustment seems to have been a shift from permanent rural employment to feminised temporary jobs (Belfor, 2000; Lavelle, 2003).

Exports are generally processed and concentrated on three products – fresh fruit, wine and salmon – which account for half of agro-food exports (Brooks and Lucatelli, 2004). Chile has been able to take advantage of the fact that its exports are largely off- or counter-seasonal *vis-à-vis* the major export markets (Ffrench-Davis, 2002).

Early reforms in land and water rights, labour regulation, import and export marketing, combined with tight macroeconomic policies and strategic exchange rate devaluations, unleashed the potential of the agricultural sector. Value added in agriculture grew at more than 4% a year over 1973-90, a 20-fold increase with respect to the dismal 0.2 rate of the 1960s (Valdes, 1993; Belfor, 2000).

The success of the agro-food industry is also due to the active role played by a wide range of public institutions and private organisations that participate in policy making (thanks to consultative policy mechanisms), collect and disseminate market information, deliver technical assistance and take part in export promotion.¹¹ The Ministry of Agriculture co-ordinates an extensive network of public agencies related to the agro-food sector (ODEPA, 2003a; WTO, 2003c).

Fruits and vegetables

Chile exports both unprocessed and processed fruits and vegetables (canned, frozen, dehydrated and juices). Exports totalled USD 1.6 billion in 2002, equivalent to over 10% of total export earnings. The country is currently the world's leading exporter of fresh grapes and the fifth largest exporter of apples.

The foundations of the industry can be traced back to the mid-1960s, but fruit exports took off only in 1975, following reforms enacted by the new regime and the ensuing real exchange rate depreciation. Production doubled and export earnings increased by 19% a year up to 1983, when the economy entered a deep recession. Export growth then slowed to around 10% a year until 1989 and 4.6% a year between 1990 and 2002. Technology upgrading was facilitated by agricultural research, which was compounded by the availability of know-how, crops and technologies from abroad, notably from California. The transfer was facilitated by the Corporación de Fomento de la Producción (CORFO), the government agency responsible for developing national productivity.¹²

Box 4.1. A glance at policy reforms in Chile

Macroeconomic policy. During the first phase of reform, the government was concerned with quickly redressing macroeconomic imbalances through tight monetary and fiscal policy, financial liberalisation and reduced state intervention in the economy. Inflation was harnessed. The initially very orthodox policies were later softened, following severe imbalances and a debt crisis in 1982, through nominal currency devaluations, restrictions on short-term capital inflows and the establishment of price stabilisation mechanisms. A constant concern of policy makers has been to avoid exchange rate appreciation, caused by large inflows of short-term capital.

Price and trade liberalisation. The military regime abolished public control over imports and exports and privatised public companies responsible for infrastructure and regulation in various markets. Trade and price reform was radical and fast. All international trade restrictions other than tariffs were removed immediately in 1973, and tariffs were reduced from an average of 94% to a uniform rate of 10% between 1973 and 1979. Price ceilings and public purchasing mechanisms were eliminated. After a temporary reversal during the 1982-84 debt and banking crisis, tariffs were gradually reduced again to 15% by the end of military rule in 1989 and to 6% in 2003.^a The 1990s saw a move from unilateral liberalisation to reciprocal trade agreements (Mercosur, 1996; EU, 2003; and United States, 2004). Negotiations are currently under way with India and China.

Investment policy. In 1974, the Chilean FDI regime was completely liberalised and foreign investments were allowed to play an important role in the development of the fresh fruit sector and the agro-industry. In the 1990s, large flows of short-term speculative capital caused exchange rate and stock market volatility. As a consequence, the authorities put in place measures to discourage short-term flows, such as a requirement for FDI to remain in Chile for at least a year and a reserve requirement of external credit.^b

Infrastructure. At the time of the structural reforms in the early 1970s, Chile already had a physical infrastructure that facilitated the growth of exports, including several large ports, a new international airport and a north-south highway built with foreign aid. The privatisation and deregulation of airlines and telecommunications, which improved quality of services and reduced costs, was particularly important for the fresh fruit industry's perishable exports.

Labour market. The structural adjustment initiated by the neo-liberal reforms of the military regime had a strong impact on the labour force. The reforms incorporated a range of measures affecting workers, including reduction of the minimum wage, easier dismissal of workers and repression of labour unions.

Reform of land and water rights. Reversing the land redistribution programme initiated in 1967, which was based on expropriations and the establishment of co-operative farms, the military regime guaranteed by law land ownership and water rights. These measures secured property rights and created the preconditions for the development of agricultural enterprises more focused on productivity than on extensive farming of large areas.

Innovation and technology. Until 1973, innovation was almost exclusively in the hands of the publicly funded Instituto de Investigaciones Agropecuarias (INIA), which played an important role in the dissemination of new technologies in basic crops. The liberal reforms greatly enhanced the role of the private sector in research and development focused on commercial agriculture. In spite of the success in promoting more efficient research services, the reforms of the early 1970s would have been impossible without the investments in human capital made under the previous pre-reform agricultural research system.

Export promotion. ProChile, the trade promotion division of the Ministry for Foreign Affairs was created in 1974 to gather market information and promote Chilean products abroad. In the 1990s, the government encouraged private companies to form industry associations in order to promote their products internationally.

a. In 1982-84 the government introduced export incentives such as tax rebates and deferred payment on customs duty on imports as long as some protective measures for traditional agricultural products were reintroduced on wheat, sugar and oil seeds.

b. These requirements were abolished in September 1998 and March 2000, respectively.

Wine

Chile's wine industry dates back to the mid-19th century, when wealthy landowners created wine estates on the model of the French Bordeaux châteaux, importing French noble vines and French oenologists. The country has huge vineyards that are disease-free and enjoys ideal climatic conditions. After a good start, the industry floundered during the import substitution era, stymied by government regulations and taxes (Fischer, 2001).

At the beginning of the 1980s, regulations were eased and foreign investors were attracted by Chile's favourable environment. Investors brought capital and new technologies, which were assimilated by an increasing number of local oenology students. The sector went through a period of adjustment, with small producers disappearing and the remaining larger wineries modernising and becoming export-oriented (Torrealba, 1999).¹³ Substantial improvements in the quality of grapes and in methods of wine production, combined with increasing world demand for "New World wines" contributed to impressive growth in exports. At the end of the 1980s, exports started to climb dramatically and reached USD 610 million in 2002, making Chile the world's fifth largest wine exporter with a 4.2% market share.¹⁴

Salmon

With exports of USD 1.2 billion of farmed salmon in 2003, Chile qualified as the world's top exporter of this product. This is all the more remarkable considering that Chilean salmon farming only began in 1979 and that salmon is not a species native to this country (Iizuka, 2004; Bjørndal, 2002).

Though the southern regions of the country present suitable environmental conditions, many essential factors for building competitiveness (domestic markets and knowledge) did not at first exist. The attempt to start farming on a commercial basis dates back to the mid-1960s, led mainly by government agencies, with support from international co-operation.¹⁵ Dedicated government agencies were established and charged with formulating and implementing strategy, providing loans to local firms and supporting aquaculture development (Fischer, 2001; Iizuka, 2004).¹⁶ Strong growth in the 1990s was accompanied by a phase of consolidation and market diversification. Government support to the industry decreased and became more indirect, reflecting the strengthening of producers and producers' organisations.¹⁷ Salmon-producing firms had to specialise and outsource non-core processes to reduce costs. Some of these subsidiary firms became independent after a few years.

Government policies

The rise of the export-oriented agro-food sector was conditioned by the shift in economic policy, which altered the incentive structure and created the conditions for the tradable sector to become competitive and develop. Agro-food exports were initially boosted by real depreciation in exchange rates, improved access to imported inputs and export promotion measures, including duty drawback and public support through the *ProChile* export promotion agency. Moreover, a liberal investment policy was instrumental in attracting FDI inflows, which helped to develop the sector.¹⁸ The Chilean experience shows the importance for successful adjustment of commitment to trade and macroeconomic reforms. Sectoral interventions were only effective because of coherent changes in the overall policy stance (Valdes, 1993; see Box 4.1). Chile's experience also shows that adjustment (the supply-side response) may take longer than expected owing to

inertia and vested interests. On the one hand, initial conditions and inward-looking attitudes adopted during the import-substitution era lingered. On the other, reforms initially brought about a drastic reduction in subsidies, high interest rates and, later, real exchange rate appreciation, which adversely affected the tradable (agriculture) sector. Imports surged, leading to a large decline in domestic production of manufactures and import-competing agricultural crops. Restoring external competitiveness through nominal exchange rate devaluation and sound macroeconomic policies helped to withstand mounting pressures for protection. At the same time, fiscal reform mitigated the negative impact of a decline in international trade taxes, and the extension of credit lines to smaller farmers reduced financial distress during the adjustment period (Valdes, 1993).

Challenges and opportunities

The main challenge facing the agro-food sector is to remain competitive in a market in which technological advances and overall liberalisation are increasing competitive pressures and buyers are asking producers to comply with more stringent quality, health, labour and environmental standards.¹⁹ Currency overvaluation and FDI flows to the sector can be a threat to competitiveness (Agroecómico, 2004b). The government needs to resist pressures from protectionist lobbies to tamper with the country's liberal trade policy environment.

These challenges may be offset by the opportunities created by increased market access through bilateral free trade agreements and regional integration schemes. Thanks to these agreements, the majority of Chile's agro-food exports will enjoy duty-free access in major markets by 2010.²⁰ Moreover, the government has designed, in partnership with the private sector, a long-term strategy for agriculture that aims at enhancing competitiveness, supporting the rural population and contributing to a sustainable use of resources (Gobierno de Chile, 2001).²¹

Conclusions

The liberalisation measures of the 1970s and 1980s initiated a major transformation of the economy, from import substitution to successful export orientation. Besides the copper cluster, the fresh fruit and other food sectors have emerged as drivers of growth. Growth in fresh fruit exports has followed a decreasing trend over the years, but other food industries have emerged, such as processed food, wine and salmon. Overall, Chile seems to be in quite a favourable position to meet increasing competitive pressures and further diversify its economy. The biggest obstacle to development might well be the country's pervasive socio-economic inequalities.

Kenya: The cut flower industry

Introduction

Although it is one of the most advanced countries in Sub-Saharan Africa, Kenya has endured two decades of slow growth, deteriorating social indicators and a shrinking manufacturing sector (Table 4.6). GDP per capita declined on average by 0.5% per year over the 1990s. Nevertheless, some resource-based sectors have been able to develop. A prime example is the cut flower industry that has been growing consistently for over 30 years to become one of the country's main sources of foreign exchange. Albeit relatively small in terms of its impact on overall employment, growth and poverty reduction, the sector is one of the rare success stories of non-traditional export

development in Sub-Saharan Africa. More specifically, it illustrates the importance of the government's non-interventionist and facilitative approach in attracting FDI and foreign expertise, which has led to the emergence of non-traditional exports.

Table 4.6. **Structure of Kenya's economy**

Average percentages

	1976-84	1985-94	1995-2002
Agriculture, value added (% of GDP)	35.3	30.7	24.1
Industry, value added (% of GDP)	19.7	18.6	17.3
Services, etc., value added (% of GDP)	45.0	50.7	58.7
Trade (% of GDP)	60.2	57.4	62.5
Exports of goods and services (% of GDP)	28.1	28.0	27.9
GDP growth (annual %)	4.5	3.6	1.9
Employment in agriculture (% of total employment)	23.0	15.5	18.6
Employment in industry (% of total employment)	21.6	18.7	19.5
Employment in services (% of total employment)	55.4	65.5	61.9

Source : World Development Indicators CD-ROM (2004).

Economic and social developments

Over the last two decades, Kenya has experienced economic decline and falling living standards. One explanation is poor governance, which has led to extensive corruption, weak rule of law, growing insecurity and poor infrastructure (UNECA, 2003). Investment and savings rates have declined, together with decreasing government revenue and a cutback in donor funding. During the 1990s the service sector was the major driver of growth, and the performance of agriculture and industry were dismal (World Bank, 2003).

Kenya's share in world trade has shrunk by 50% over the period, due to declining coffee exports and deteriorating international competitiveness of manufactures (Table 4.7). Kenyan exports performed strongly in the early 1990s, thanks to the abolition of trade licensing and foreign exchange controls, increasing regional integration, a sharp depreciation of the Kenya shilling and a significant fall in the real average wage (Glenday and Nddi, 2000). However, these favourable export conditions were not sustained by adequate government policies. As a consequence, private investment and export performance deteriorated significantly after 1996.²² Stable tea exports, with 25% of the world market, and booming horticultural exports, notably cut flowers, have not been enough to reverse this trend. More recently the US African Growth and Opportunity Act (AGOA) has helped boost clothing exports.²³

Economic stagnation has led to a significant deterioration in social indicators. Wage employment has declined in the formal economy and employment is now larger in the informal sector. The number of the poor increased in the 1990s to reach 55% of the population in 2001. Life expectancy decreased to 47 years in 2000, with HIV/AIDS taking a heavy toll. Primary school enrolment has declined and infant mortality has risen to 78 per 1 000 live births. Gender differences prevail; women persistently have less education, less access to health services and a heavier workload than men (World Bank, 2003).

Table 4.7. Kenya's export structure

	HS Code 2	1976-84	1985-94	1995-03
Coffee, tea, cocoa, spices, manufactures thereof	07	56.70%	52.94%	34.60%
Vegetables and fruit	05	9.15%	12.07%	12.17%
Crude animal and vegetable materials, n.e.s.	29	4.97%	6.86%	9.46%
Petroleum ,petroleum products and related materials	33	7.00%	0.93%	5.12%
Fish, crustaceans, molluscs, preparations thereof	03	0.21%	3.04%	4.95%
Articles of apparel and clothing accessories	84	0.10%	1.40%	4.18%
Non-metallic mineral manufactures, n.e.s.	66	4.62%	2.89%	2.74%
Iron and steel	67	0.02%	0.56%	2.05%
Miscellaneous manufactured articles, n.e.s.	89	0.47%	0.89%	1.72%
Inorganic chemicals	52	1.57%	1.89%	1.55%

Source: UN COMTRADE Database, SITC Rev. 3.

Cut flower industry developments

Industry performance, structure and impact on the economy

With a 2% share of the world market, Kenya was in 2002 the world's seventh largest exporter of cut flowers and the largest exporter to the EU.²⁴ Exports amounted to USD 100 million, accounting for 7% of total exports, with roses the single most important item.²⁵ Volume was up 25% from the previous year and very strong growth continued in 2003 (Gray, 2003). This is a remarkable result, considering that 20 years earlier export volumes were ten times lower.

The industry's origins date back to the late 1940s, but exports only started around the time of independence, as the country emerged as an exporter of off-season vegetables and fruits to the United Kingdom. Further development was fuelled by increased tourist-related air traffic, foreign investments on preferential terms, reinvestment of tea export earnings, expatriate professionals, and training of small-scale growers. The industry continued to expand in the 1980s, driven by foreign investments and technical expertise from abroad, combined with domestic investment by local fruit and vegetable companies and public officials. The major boost came following trade liberalisation and deregulation of air freight tariffs in the early 1990s. The industry also benefited from an improved transport infrastructure (Thoen *et al.*, 2000).

The industry is composed of around 5 000 farmers or enterprises and employs between 40 000 and 50 000 people – predominately young women – or less than 1% of total employment (Opondo, 2002; CBS, 2004). Jobs are precarious, but households involved in horticulture seem to be better off than non-horticultural households thanks to higher wages and better access to credit (McCulloch and Ota, 2002; Minot and Ngigi, 2003).

Flower production has prompted the development of local expertise and stimulated the establishment of a network of support services and businesses. As a result, Kenya now provides consultancy services to neighbouring countries (Dijkstra, 2001). Inputs such as greenhouses, shade structures, agrochemicals, irrigation and other equipment can be procured locally.

Government policies

Economy-wide reforms have conditioned the development of the cut flower industry, but their impact has probably been less important than in other industries. In fact, the government's intervention in the sector, unlike the tea and coffee sectors, has traditionally been limited. The authorities have actively promoted commercial horticultural production but have mostly acted as facilitator and provider of extension services and R&D. The sector has benefited from a relatively liberal trade policy regime, characterised by low export taxes and no marketing or distribution controls (Opondo, 2002).

The liberalisation of foreign exchange controls, the lowering of import barriers for inputs and the decrease in state interference with air freight tariffs in the early 1990s greatly benefited the cut flower industry by reducing previously high transaction costs. At the same time, the reforms were insufficient to tackle the underlying distortions in the economy and the mismanagement of the public sector, as witnessed by the stagnation of other industries (Reinikka, 1996). In fact, the cut flower industry expanded, while the overall economic growth rate continued to decline throughout the 1990s (Thoen *et al.*, 2000).

The reform process ran out of steam between 1997 and 2000 following the onset of the Asian financial crisis, a budgetary crisis related to election spending and, eventually, the collapse of the International Monetary Fund (IMF) stabilisation programme (Glenday and Nddi, 2000).²⁶ The crisis was accompanied by a strong exchange rate appreciation that, in conjunction with strong devaluation in Asian currencies, negatively affected the competitiveness of Kenyan exports. Cut flower exports contracted by 16% in 1998, but then fully recovered with the real decline of the Kenya shilling in 1999.

Preferential access to the European market under the Lomé Convention has played an important role in the industry's development. The outcome of the economic partnership agreements (EPA) will be critical for the industry, since Kenya cannot benefit from the duty-free access granted to LDCs under the EU Everything But Arms initiative. In contrast, the AGOA initiative has so far been largely irrelevant for cut flower exports.²⁷

Foreign capital and expertise have been vital for the development of the cut flower industry, bringing technical know-how, management skills and planting material, and facilitating marketing contracts and joint ventures, sometimes with the support of donors (Thoen *et al.* 2000).²⁸ Investments were attracted thanks to Kenya's competitive advantages for flower production (favourable geographical, climatic and labour conditions), the relatively friendly investment environment and the expected profitability of the cut flower market. Foreign investment was granted legal guarantees on taxes and profit repatriation, as well as work permits for expatriate personnel (Minot and Ngigi, 2003; FKAB Feldt Consulting, 2001). These investments in the cut flower industry have taken place against a background of Kenya's overall dismal FDI performance in the 1990s, which is mainly due to the poor governance and weak institutions that have raised the cost of doing business and deterred investors (World Bank, 2003).

Ease of access to infrastructure is also vital for the industry's perishable production. Infrastructure has traditionally been more developed in Kenya than in most other African countries, even though its quality has deteriorated over the past decade because of lack of investment. Kenyan air transport, which is essential to the sector, is competitive and operating well (World Bank, 2003; Minot and Ngigi, 2003).²⁹ In addition, there are government-run cooling facilities in the airports, though they are reported to be deficient.

This has affected the quality of goods from smaller producers; most large producers have invested in their own cooling facilities (Thoen *et al.*, 2000).

A number of public institutions support the cut flower industry, including the Horticultural Crops Development Authority (HCDA), established in 1967 and funded by an export levy and various donors. HCDA has not been directly involved in buying and selling produce. Instead, it has played a facilitator role, regulating and developing the sector by disseminating market information and advisory services (Ebony Consulting International, 2001). In addition, the Kenya Agricultural Research Institute is responsible for flower R&D and the Kenya Plant Health Inspection Service issues phytosanitary certificates for exports. Two business associations – the Kenya Flower Council (larger enterprises) and the Fresh Produce Exporters Association of Kenya – represent the industry and are involved in policy making through various consultative processes (Opondo, 2002). Both have approved codes of practice covering social and environmental criteria and are active lobbyists to the government.

Future challenges and opportunities

Kenya's cut flower industry faces several major challenges. First, there is stiffening competition from other producer countries, not least in the region, while buyers are becoming increasingly demanding in terms of both price and quality (Thoen *et al.*, 2000). Second, the EU is putting more and more stringent phytosanitary restrictions on flower imports (Riungu and Mbaria, 2004). Third, civil society, importers and consumers are constantly pressuring for higher labour and environmental standards and there is a multitude of codes and labels (Gray, 2003). Fourth, a major setback would be likely if Kenya loses its preferential access to the EU market in 2008. The outcome will depend on the result of the EPA negotiations, but there is a risk that growers will begin to outsource production to neighbouring LDCs (FKAB Feldt Consulting, 2001; Gray, 2003). Fifth, growers are worried that the government may become increasingly involved in the horticulture industry through direct intervention or taxes (FKAB Feldt Consulting, 2001). Sixth, poor governance and deteriorating security increase the cost of doing business in the country and harm Kenya's image (World Bank, 2003).

All these challenges are likely to be felt disproportionately by small and medium-sized producers, with a potential negative impact on employment and poverty. Despite the government's attempt to promote smallholder involvement in flower production, small farmers face an uncertain future. They cannot meet demands for higher quality and face increasing costs, such as having to pay royalties under the International Convention for the Protection of New Plant Varieties which Kenya signed in 1999 (Thoen *et al.*, 2000).

On the positive side, the Kenyan cut flower industry has been able to develop and thrive despite quite adverse domestic policy conditions and fierce international competition. The sector has an early-mover advantage compared to new competitors and there is a backbone of well-established enterprises with a high degree of control over the supply chain. This will provide some "protection" in the short term, but in the long run the industry must rely on its ability to innovate to remain competitive. A further positive development may be increased market access to the United States through AGOA, but so far this has mainly benefited the Kenyan clothing industry. Business associations have been developing their own labour and environmental standards, but these are so far less stringent than international codes. Work is under way to develop a national code on social accountability (Thoen *et al.*, 2000; Opondo, 2002).

Conclusions

Despite poor governance, general economic stagnation and growing poverty, the Kenyan cut flower industry has been able to thrive. Overall, the government has played a facilitating role, providing and securing sufficiently attractive investment opportunities for both domestic and foreign capital. A key past decision by the government was to avoid direct intervention in production and sales, partly because of the diversity and perishability of the products involved. At the same time, both public agencies and business associations have actively participated in the country's policy making through various consultative processes. This approach has proven to be very appropriate for an industry that has to adjust to rapidly changing market conditions. Yet, the industry is now facing a multitude of emerging challenges, as international trade and regulations evolve. Its future depends in no small measure on expanding trade opportunities to new markets and enhancing the competitiveness of small- and medium-sized producers. Indeed, unless the broad policy framework is improved, the continued success of the cut flower industry cannot be assured.

New Zealand: Agricultural reform

Conscious adaptation to a changing world through economic reforms to facilitate structural adjustment across the economy has supported diversification and competitiveness in New Zealand's agricultural sector. New Zealand is a developed economy with a far higher share of agriculture as a percentage of gross domestic product (GDP) and merchandise exports than most other OECD economies. Moreover, the sector is essentially unsubsidised as has very low levels of border protection. The current status of the country's agriculture resulted from a period of difficulty that prompted sweeping reforms and structural adjustment. Between 1977 and 2003, agriculture shrank as a percentage of GDP by nearly half, from 9.8% to 5.0%, a decline that was partly a reflection of relative growth in other parts of the economy (Smith, 2003, p. 116). Between 1989 and 2002, however, agriculture-based exports nearly doubled to NZD 16.6 billion to account for over half of total exports in 2002. As of March 2001, agriculture employed 114 000 people and represented 7% of total employment. If related activities beyond the farm gate are also included, agriculture represents 12% of New Zealand's total employment (MAF, 2004).

The importance of agriculture in New Zealand has evolved against a background of changing economic development and has run the gamut from prosperity to crisis to reform. During the early post-war period, New Zealand experienced rapid growth and prosperity. By the early 1950s, its GDP per capita was exceeded only by that of Switzerland (MAF, 2004). Thereafter, GDP per capita was eroded throughout the 1970s and 1980s by a combination of factors including reliance on primary production, protection of the domestic market, world oil shocks and the accession of the United Kingdom to the European Economic Community, which diminished New Zealand's traditional role as the United Kingdom's "off-shore" farm and thus its agricultural exports to the United Kingdom.

Economic reforms implemented beginning in 1984 included macroeconomic, microeconomic and sectoral elements. These reforms provided the agriculture sector with a stabilised macroeconomic policy environment, more accurate price information, flexibility in the domestic allocation of resources and incentives to respond to changing domestic and international demand for agricultural products. Together, these reforms

made it easier for the domestic agricultural sector to allocate domestic and international resources efficiently to meet domestic needs and enhance international competitiveness.

Early in the reform period, changes were introduced to stabilise the macroeconomic framework, facilitate adjustment and improve the price transmission mechanisms linking the domestic to the international economy. A 20% devaluation of the currency in 1984 responded to rapid declines in foreign reserves and was followed by transition from fixed to floating exchange rates. To enhance transparency, confidence and the sustainability of the new macroeconomic policy regime, inflation targeting was explicitly adopted as the governing principle for central bank policy (MAF, 2004).

Microeconomic reforms to provide public services more efficiently and better allocate resources to more productive activities included implementation of a “user pays” principle and the restructuring of state-owned enterprises to respond to market incentives, with a view to subsequent privatisation. Increasing labour market flexibility further facilitated flows of resources to emerging sectors of the economy.

Specific reforms to deregulate the agriculture sector included the removal of virtually all producer, exporter and consumer subsidies. OECD producer subsidy estimates (PSE) for New Zealand agriculture declined from 40% in 1975 to 32% in 1982 and now stand at 2%. Removing support not only exposed domestic agriculture to the discipline of the world agricultural market but addressed distortions in agricultural production resulting from production-based subsidies, which continue to exist in many advanced economies. To complement these reforms, trade liberalising measures included the elimination of import licensing systems and import quotas as well as deep tariff reductions. Together, these reforms, along with the revaluation of the currency, reduced distortions in pricing information facing the domestic agricultural sector while enhancing incentives and prospects for better managing domestic agricultural resources in order to benefit from international trade.

The enabling environment created for structural adjustment in the agriculture sector is reflected in a variety of areas, including the deregulation of the apple and pear industry. Previously regulated by a marketing board, the liberalisation of apple and pear exports in 2001 has seen many new players enter this industry. Exports of apples rose from NZD 341 million in 2001 to NZD 391 million in 2003, when they represented 18% of total horticultural export earnings and employed over 10 000 people (MAF, 2004). New Zealand accounts for only 1% of world apple production, but its 5% share of total world apple exports demonstrates the industry’s competitiveness. The success of New Zealand’s pip fruit industry results from a combination of cultivating new varieties and an emphasis on quality. While the varietal composition of New Zealand apple exports is increasingly emulated by competitors, returns in major markets remain significantly greater than market share by volume.

Box 4.2 Adjustment in the New Zealand wine industry

New Zealand's domestic wine industry reveals a long history of regulatory reform preceding a dramatic seven-fold increase in exports which rose from NZD 34 million to NZD 246 million between 1992 and 2004 (New Zealand government data). Structural adjustment in the New Zealand wine industry reflects the importance of regulatory reform and trade liberalisation in stimulating healthy evolution, innovation and technological change in response to changing market preferences.

The early period of the New Zealand wine industry was characterised by small-scale family enterprises producing simple fortified wines for a heavily regulated and unsophisticated domestic wine market. Two independent systems of licensing for the distribution of wine and beer favoured the more politically powerful beer producers at the expense of wine. Societal attitudes towards alcohol consumption were conservative. Low quality and limited domestic demand for wine were accompanied by a trade policy that generally insulated domestic wine and beer from foreign competition.

Throughout the 1960s and 1970s, increasingly positive social perceptions of wine coupled with regulatory reforms allowed the sale of wine to move beyond traditional venues such as hotels and bottle shops into specialist wine shops, licensed restaurants and theatres. Changing domestic market conditions during the period also saw innovations resulting from experimentation with varietal wines and particularly Germanic-style wines (*e.g.* Muller Thurgau) well suited to introducing non-wine drinkers to wine. With the industry focus moving away from fortified wines and towards table wines, an increasing number of foreign-trained oenologists entered the domestic industry. Increasingly modern winemaking methods, such as the use of temperature- and pressure-controlled stainless steel fermentation and storage technology, were adopted. There was also significant overseas investment including by US drinks giant Seagram's (Barker, 2001, p. 211).

In the 1980s, government research successfully addressed two persistent problems for wine production in New Zealand: damaging viruses and excessive canopy production (which affects the quality of the fruit) (Barker, 2001, p. 211). Uptake of these technologies by the New Zealand wine industry, along with other forms of non-trade-distorting government support typified by the Wine Industry Development Plan, led to the establishment of new wine production capacity. It was also during this period that the domestic wine industry accepted a plan to phase in liberalisation of wine imports in connection with the Australia-New Zealand Closer Economic Relations Trade Agreement.

Thereafter, rapid increases in domestic wine production coupled with dramatic gains by foreign wines in the domestic market led to a period characterised both by consolidation, which led to the growth of large producers, and by an expanded number of new independent "boutique" producers of high-quality specialised wines. Significantly, this period of consolidation resulted in mergers between beer- and wine-producing interests to the extent that economic interests coincided with a reduction of regulatory barriers hampering licensing for domestic wine distribution.

The period of structural adjustment in the wine industry beginning in the 1980s continued well into the 1990s with ongoing consolidation and even stronger growth in the number of innovative boutique producers. Regulatory reform during this period shifted away from supporting production towards programmes such as the Grapevine Extraction Scheme (GES) which addressed domestic overproduction and imports by facilitating removal of capacity for low-quality wines and a shift towards high-quality varietals of the prestigious French *vinifera* family. This period also saw domestic capacity owned by foreign firms leveraging overseas distribution and marketing knowledge to better synchronise domestic production and global consumer preferences, which were now increasingly conveyed through retail distribution. Largely complete by 2000, the transition to *vinifera* varieties saw domestic wine production in descending order as: Chardonnay, Sauvignon Blanc, Pinot Noir, Merlot, Cabernet Sauvignon and Riesling. By this time, New Zealand was a net – and significant – international wine exporter (Barker, 2001, p. 207).

Notes

1. Salgado Bedolla, Ricardo. APEAM, Manager. Personal interview, 14 January 2004.
2. Méndez Sánchez, Jesus. Personal interview, 15 January 2004.
3. Under its APHIS mandate, APEAM cannot refuse export certification to qualifying growers, but can require growers and packinghouses to respect market stability and can deny those who do not respect APEAM's regulations their export privileges.
4. Flores Estrada, Martha Xochitl. Fundación Produce, President. Personal interview, 13 January 2004.
5. Arceo García, Francisco, AVOLEO S.A. de C.V. General Director. Personal interview, 12 January 2004.
6. López Ceja, Efraín, Fresh Directions Mexicana S.A. de C.V., CFO, Personal interview, 16 January 2004.
7. Jiménez Rosalez, Prisciliano. Government of Uruapan, Michoacán, Personal interview, 14 January 2004.
8. Between 1984 and 1997 GDP per capita increased at an annual pace of 5-6%, more than double the long-term trend over the last 40 years of around 2.4% (OECD, 2003c, p. 29).
9. Major recessions contributed to dramatic increases in unemployment, which topped 24% in 1982. Since then, the unemployment rate and mean duration have declined steadily to reach their historical lows in the 1990s (Edwards and Cox-Edwards, 2000).
10. High growth, supported by targeted policies, led to a reduction in poverty from 45% to 21% between 1987 and 2000. However, Chile still has one of the most uneven income distributions among emerging market economies. The labour market is characterised by a dualistic structure, with a high share of informality and precarious contracts. Economic development is also split between the modern and dynamic metropolitan area of Santiago and several poor and relatively underdeveloped regions (OECD, 2003c).
11. These are the Chilean Fresh Fruit Association and the Fruit Growers Federation of Chile. They participate in the co-ordinating committee in the Ministry of Agriculture; the Asociación de Exportadores y Embotelladores (largest wine exporters), and the Asociación de Productores de Vinos Finos de Exportación (exporters of high quality wines); and the Asociación de la Industria del Salmón de Chile.
12. The government favoured private investment in R&D. Private expenditure on agricultural research increased 19 times to about 13% of total spending on agricultural research between 1973 and 1990.
13. Deregulation led to an initial increase in production, without a corresponding increase in demand, which caused a reduction in prices. The crisis spurred adjustment and upgrading. Yields were lowered and growers started to produce higher quality wines for export, initially targeting the regional market. Additional investment in modern technology and quality improvement of the vineyards, mainly thanks to foreign capital, was needed to meet North American and European consumers' tastes.
14. Only 2% of the total production volume was exported in 1984, 7% in 1989 and 63% in 2002. This is the fastest growth recorded for New World wine producers during this period (Iizuka, 2004).
15. In the "experimental period" (1960s to 1973), donor agencies from Japan, the United States and Canada lent financial and technical support to government agencies to survey potential areas for salmon farming. In the "learning period" (1974-84), government agencies underwent

structural change and local and foreign private initiatives for salmon and trout farming emerged. The “forming period” (1985-89) witnessed a large increase in the number of local salmon-farming firms and the first attempt at collective action by the local private sector (Iizuka, 2004).

16. The semi-public *Fundación Chile* played a particularly important role through the establishment in 1980 of the first modern farming centres by demonstrating the technical and commercial feasibility of large-scale salmon farming in the country. It focused on research and the implementation of new technology and provided technical assistance to other firms.
17. For instance, the private sector took the lead in promoting the establishment of quality certification, with support from a government agency (Maggi, 2002, quoted in Iizuka, 2004).
18. See www.foreigninvestment.cl/, which also includes FDI legislation and statistics, and Agosin (2002).
19. As Chilean fresh fruit exports achieve dominant market positions, they may face more and more non-tariff barriers in foreign markets. In order to meet these challenges, a programme of good practices in agriculture has been developed by sector associations, the Ministry of Agriculture and other stakeholders (www.fdf.cl/Buenas_prac.htm).
20. The successful conclusion of negotiations with India and China may give access to potentially huge markets.
21. Some elements of this strategy include: risk mitigation through insurance schemes, forward markets and information; improved competitiveness through strengthened research and training; development of markets through bilateral agreements and consultations with the private sector in connection with negotiations.
22. During the stabilisation crisis of 1997, the government raised interest rates. This attracted short-term capital inflows, which in turn led to a substantial appreciation of the exchange rate in 1997 and 1998. The average wage rate followed and reverted to its pre-1990 levels (Glenday and Nddi, 2000).
23. According to USITC, Kenya’s exports to the United States under AGOA have increased more than threefold since 2001 from USD 59 million to USD 184 million at the end of 2003. Garments represented a large share of those exports (USD 52 million in 2001 and USD 176 million in 2003).
24. Two-thirds are marketed through the Netherlands, either through auctions or directly (Opondo, 2002). Direct sales to supermarkets in the United Kingdom are also important outlets (Gray, 2003).
25. UN COMTRADE database, SITC Rev. 2 Code 2927 Cut flowers and foliage.
26. Aid was frozen in July 1997 when the government refused to comply with IMF conditionalities on governance reforms and was resumed only in July 2000. See Bonaglia and Fukasaku (2002, p. 125), for a detailed discussion.
27. Kenya began to ship cut flowers to the United States under AGOA for the first time in 2001, and reached some USD 1.8 million in sales in 2003 (Gray, 2003).
28. Domestic sources of investment include tea estates, large fruit and vegetable companies seeking to diversify, spin-offs from established cut flower companies, and prominent public officials. The industry and its institutions have received non-negligible international donor support, much of which seems to have been directed at smallholding farmers.
29. A major challenge is to improve safety and security in the airports. For instance, direct flights from Kenya to the United States are not allowed, because of security concerns (World Bank, 2003; Cowell, 2003).

Chapter 5

FISHERIES

This chapter examines cases of trade and structural adjustment in fisheries. It surveys fisheries in Denmark, with a focus on the fish harvesting and processing sectors, and the seafood industry in Thailand. It illustrates challenges relating to declining fish stocks on the supply side and increasing market integration on the demand side. Denmark's experience with adjustment in the harvesting sector shows that subsidies for decommissioning vessels have reduced fleet overcapacity to some extent, but at high public cost, and the underlying problems have not been solved. In the processing sector, the opening of trade in raw materials has eased pressure on domestic fish stocks and contributed to the adjustment process. Outsourcing has also eased pressure and improved efficiency, with primary processing being carried out in developing countries and secondary processing in developed countries. Thailand's seafood industry has enjoyed rapid growth, making the country a world leader in the international market for processed foods such as canned tuna and frozen shrimp, but there are a number of challenges on both the demand and supply sides, including non-tariff measures (mostly sanitary and phytosanitary) applied in developed country markets. The Thai government has taken action to increase the competitiveness of the seafood sector by enhancing vocational skills and promoting R&D, while also developing quality control, tracing and certification systems. It has improved natural resource management to promote sustainable fishing practices, *e.g.* by establishing conservation zones, reducing the number of fishing vessels, promoting community-based fisheries and introducing regulations on fish farming in mangrove areas.

Key points

The relationship between trade and structural adjustment in fisheries is somewhat different from that in most other sectors where globalisation and the opening of trade can trigger adjustment. While this also occurs in fisheries, an additional strong adverse causality exists as well. This is because fishers catch what nature and fishery managers allow. Hence, the quantities allowed in fisheries determine prices, whereas in other sectors it is prices that determine the amount suppliers are willing to supply to the market. Therefore, changes in both resources and in the market initiate pressure for adjustment in fisheries.

On the supply side, the decline in fish stocks is the most important driver for adjustment. It is caused both by overexploitation and by inappropriate management, ignorance about the resource base (e.g. stock levels), pollution and changing natural conditions (such as a change in water temperature, or natural phenomena like El Niño). The intensive development of aquaculture over the last two decades has compensated for some of the pressure for structural adjustment caused by declining fish stocks. Farmed species, however, are not necessarily the same as captured species. This is important since there is a marked degree of differentiation between fish species and product forms in fish markets owing to the availability of many different fish species (more than 800 are commercialised globally), combined with differences in eating habits developed over centuries. Hence, substitutability is limited, although it exists for similar and closely related species.¹ Fish markets for individual species are closely linked internationally.

On such markets, producer and consumer countries necessarily adjust when the supplies of some (farmed) species increase and others (captured) decline. Hence, both the increase in aquaculture and changes in species composition have required structural adjustment. Since aquaculture is expected to increase in future, there will be further adjustment to compensate in some instances, but certainly not all, for the decline from capture fisheries.

On the demand side, several factors create pressure for adjustment. Globalisation of markets for final products and for raw materials has led to specialisation through outsourcing. This trend is expected to continue, in particular with the further integration of China in world trade. A rise in incomes in developing countries, owing to a rapidly growing urban middle class, also causes adjustment pressures, and demand for fish is expected to continue to increase. Greater demand for convenience foods and thus for secondary processed fish products has been a factor in adjustment in developed countries. Finally, global concentration in the retail sector has caused pressure for adjustment in the fisheries sector as elsewhere. Retailers have increasingly used market power to impose standards and quantities on their suppliers.

Several of these factors have been important in the Danish cod sector. Most important has been the 80% decline in Danish catches of cod over the last 20 years. Both primary harvesters and processors have been severely affected, although the processing sector had considerably more potential to compensate than primary harvesters. As a result, turnover declined by 50% in the primary harvesting sector but only by 20% in the processing sector. Initiatives to compensate for declining cod stocks are reviewed in the case study.

Denmark's experience with adjustment in the harvesting sector shows that subsidies for decommissioning have reduced fleet overcapacity to some extent. However, the public cost has been high and the underlying problems have not been solved. In the

processing sector, the opening of trade in raw materials has eased pressure on domestic fish stocks and contributed to the adjustment process. Outsourcing has also eased pressure and improved efficiency, with primary processing being carried out in developing countries and secondary processing in developed countries. However, care is needed in implementing labour market policies, as Danish reforms to reduce unemployment inadvertently diminished the sector's labour supply.

Thailand's seafood industry has enjoyed rapid growth, making the country a world leader in the international market for processed foods such as canned tuna and frozen shrimps, but there are a number of challenges on both the demand and supply sides. Non-tariff measures (mostly sanitary and phytosanitary – SPS) in developed country import markets are obliging the Thai government to develop quality control, tracing and certification systems. The government has already taken action to increase the competitiveness of the seafood sector by enhancing vocational skills and promoting R&D. Furthermore, it has improved natural resource management to promote sustainable fishing practices, e.g. by establishing conservation zones, reducing the number of fishing vessels, promoting community-based fisheries and introducing regulations on fish farming in mangrove areas.

Thai industrial groups have played an important role in the development of Thailand's seafood industry, often relying on joint ventures with foreign companies to acquire expertise and penetrate foreign markets. Direct government intervention in production and sales has been limited and the case of the seafood industry suggests that the active involvement of industry associations in the national policy-making process can help design effective policy responses to adjustment challenges.

Subsidies and related government support are also a defining feature of the fishing industry. During the 1980s and into the 1990s, after coastal states extended their jurisdiction over living marine resources to the limit allowed by the United Nations Convention on the Law of the Sea (UNCLOS) (as much as 200 nautical miles from shore), many OECD countries provided large amounts of support for building and modernising fishing vessels. Today, most OECD countries have either reached the natural limit of fishing or impose catch quotas, and subsidies aimed directly at expanding capacity and effort have declined. Indeed, many countries are now paying vessel owners to decommission their vessels or to give up their licences to fish (see Danish case study). However, some subsidies continue to inhibit the natural contraction of the industry, either by discouraging vessel owners and crew from leaving the industry (e.g. through special income support) or by reducing the cost of operating a fishing vessel or having it tied up in port. Such policies have helped to maintain an inefficient level of excess capacity, which in turn has slowed the recovery of depleted fish stocks. Currently, subsidies to fishing are the subject of negotiations at the World Trade Organization (WTO), which is seeking to “clarify and improve” subsidy disciplines in this area.

Denmark: Fisheries

Adjustment in the fish harvesting sector

To ease the pressure for structural adjustment following declining fish stocks, primary harvesters can target other species, harvest on fishing grounds in other areas or leave the fishery. In most cases, harvesting other species or on foreign fishing grounds requires government permission. In some countries permission can be obtained to target other species in domestic waters, but there are often few alternative species in commercially

interesting quantities so that the scope for such initiatives is limited. This implies that the most likely option for the individual fisher is to exit the fishery when fish stocks decline.

This limited capacity to adjust is clear in the case of Danish cod, where approximately half of the vessels dependent on cod left the fishery. While Norway found lobster in domestic waters as an alternative species, Danish fishers were unable to find alternative fishing grounds, partly because other countries also suffered from fleet overcapacity.

The management of fisheries plays an important role in adjustment in the fish harvesting sector. If management is poor, there are too many fishers, causing overexploitation and low economic returns. Factors such as the level of subsidisation can also contribute to overexploitation. With good fishery management and other appropriate policies, market-based adjustment can ensure that an optimal amount of fish is caught at the lowest possible cost. The management scheme for Danish cod fisheries cannot be characterised as either open access or as optimal management, but lies somewhere between these extremes. Fishing takes place in the North Sea and the Baltic Sea, where stocks are shared with several other countries. The Baltic fishery is managed through the International Baltic Sea Fisheries Commission and the EU Ministers' Council, while the North Sea fishery also involves negotiations with Norway. Total allowable Danish catches are determined internationally in these forums, and national implementation includes output regulations (fishing permits specifying conditions in terms of species, fishing grounds and time). Input limitations are also applied in the form of capacity measures, as the introduction of new vessels is to be accompanied by capacity reduction of older vessels. Furthermore, there are restrictions on entry into the fishery.

The Danish management scheme for cod has not ensured automatic adjustment of fleet size. One way to ensure reasonable incomes for fishers in the short to medium term is to remove vessels enjoying public support. On this basis, decommissioning grants to Danish fishers were introduced in the 1980s as part of a package which also covers other EU countries.² The decommissioning scheme has run over three periods: 1987-93, 1994-99 and 2000-06.

The purpose of the decommissioning scheme was to improve the economic viability of the fleet and to rebalance the fleet to fit the fish resources. The Danish criteria for the grants were changed virtually every year. In the first period, older cod-fishing vessels and older owners with high levels of activity (in terms of fishing days) and low debt were favoured. In subsequent periods, smaller grants for modernisation and construction were also allowed as the fleet grew older and was less able to meet requirements for fish handling, and quality, etc.

The total amounts spent for decommissioning were (at 2002 price levels) DKK 1 267 million (1987-93), DKK 360 million (1994-99) and DKK 294 million (2000-02), which corresponded to 5%, 2% and 3%, respectively, of the annual value of landing. The European Commission (EC) and the Danish government contributed to the funding of the scheme, but since the grants were subject to taxation, the EC was the largest net contributor.

According to Frost *et al.* (1995), 796 vessels, or 25% of the fleet, were withdrawn during the first period and approximately 2 000 jobs (25-30%) were lost. The scheme targeted in particular trawlers (-33%) and Danish seines (-41%) while gill-netters were largely ignored. The largest reduction was for medium-sized trawlers of 60-150 gross tonnes (GRT) (-45%). As a result, the scheme produced the desired adjustment: the remaining vessels obtained better financial results owing to more fishing days per vessel

and lower fishing costs. However, the overall number of fishing days remained largely the same, implying unchanged fish mortality. Hence, while the first scheme improved the economic viability of the fishing fleet, it did not change total fishing pressure. Information on the employment of those who left the cod fishery is sparse but suggests that older people retired, some found jobs in other fisheries, others found employment in other sectors and some remained unemployed.³

During the second and third schemes, 366 (16%) and 217 (12%) vessels, respectively, were withdrawn (Lindebo, 2004). During the third scheme, the focus changed owing to concerns over the ageing of the fleet, and in 2000-02 grants were given for the construction of 55 new vessels with total public support of DKK 57 million. As a condition of the grant, a corresponding or larger capacity had to leave the fishery.

The second and third decommissioning schemes had results similar to the first, although the schemes were used less and the criteria for receiving grants changed. The reasons for the decrease included better fishing conditions. However, the underlying problem may not have been solved, *i.e.* the pressure on fish stocks remains. Fishing costs remain high and pressure for structural adjustment continues. Technological progress increases the pressure. The implication is that income in the primary cod sector will continue to be low or that the government will have to continue the decommissioning grants as part of fisheries management.

The Danish experience shows that subsidies, in the form of decommissioning grants, have reduced problems of overcapacity in the short to medium term. However, the public cost has been high and has not removed the underlying problem. Furthermore, the recent grants for the construction of new vessels may induce overinvestment, and problems of overcapacity may remain.

Adjustment in the fish processing sector

Fish processors possess more options for dealing with structural adjustment, as the amount and degree of processing can be increased, raw material can be imported, other species can be used as raw material and companies can leave the business. Outsourcing can also be used to ease the pressure of adjustment, although this is more likely a result of internationalisation than of declining stocks.

The Danish case shows that there is scope for easing the pressure of structural adjustment, as the total turnover of the processing sector declined only 20% over the 20-year period, compared to the decline of 50% in primary harvesting. In the process, primary processing⁴ of cod decreased but was partly replaced by secondary processing, processing based on imports of unprocessed cod and increased use of imported alternative species like farmed salmon and cold-water shrimp.

Furthermore, primary processing of cod fillets has also recently been outsourced, owing to lower wage costs in other countries. For example, Danish processors of cod have established plants in Poland, which rely on Danish raw materials, but also on raw material imported from Russia and domestic Polish landings. The frozen cod fillets are exported to the EU, the traditional market for Danish cod. In Norway, similarly, processors of cod outsource to China, where the cod is typically thawed to just above zero degree Celsius, filleted and refrozen. Subsequently, the twice-frozen fillets are re-exported to the EU market. The main reason for outsourcing to China is the combination of low labour and transport costs. It may, however, also be affected by favourable exchange rates (the low EUR-USD rate, given the fixed USD-CNY exchange rate), and it

remains to be seen whether this outsourcing will continue with a less favourable exchange rate and higher transport costs.

These examples demonstrate that outsourcing of processing to lower-cost countries offers processors in developed countries a way to ease the pressure of adjustment. Developed countries specialise in secondary processing and developing countries in primary processing.

The Danish fish processing sector received EU aid in the period 1983-2002 to improve productivity and to support further development and modernisation and adjust to changes in supply and market conditions. According to the Danish Technological Institute (2003), support in the 1994-2002 period was given for increasing processing capacity and for modernising existing processing plants.⁵ Modernisation support was given for implementing hygiene, sanitary and environmental regulations and for innovations in quality and technology. Support in 1994-99 was given to 137 projects for a total of DKK 350 million, corresponding to 1.5% of total sector value added. In 2000-02 support amounted to DKK 107 million, corresponding to 1.0% of value added.

According to the Danish Technological Institute (2003), the projects have addressed, in order of priority, quality improvements, better use of existing raw materials and environmental and hygiene improvements. Processing of new fish species has been introduced to a lesser extent. The effect has been improved competitiveness through new technology and greater efficiency and productivity as well as better quality of final products. Most companies have achieved larger production and higher turnover, generally without an increase in employment, which has remained at earlier levels. The working environment has improved. In some cases, the production process generates less waste. Thus, EU aid may have helped processors to deal with structural adjustment pressures due to declining cod stocks.

Trade policies applicable to imports of unprocessed cod into the EU almost exclusively involve tariffs. Generally, the EU applies a system under which imports are subject to the WTO bound tariffs, but tariff quotas grant access to the EU market on an *ergo omnes* basis at tariff rates below the WTO bound rate. In addition, some specified countries are granted further preferential access as compensation for losses endured as the EU has enlarged. The result has been that access at zero or reduced tariff rates has been the rule more than the exception. The tariff measures applied for imports to the EU in the period 1988-2002 are presented in Table 5.1.

Trade-weighted tariff rates for imports into Denmark were 2.0% in 2002, 4.4% in 1996 and 6.2% in 1983. Hence, the increase in the share of imports in total production might partly be explained by the gradual lowering of the applied tariff rates. In 1988-96, the removal of tariffs on imports from European Economic Association (EEA) countries led to an increase in imports from 34 600 to 64 300 tonnes, or by 86%. In the period 1996-2002 the autonomous tariff suspensions to 3% on an unlimited amount of unprocessed Atlantic cod meant that Denmark was able to maintain imports almost unchanged in volume terms while catches of cod in the north-eastern Atlantic declined by one-third.

Table 5.1. **Tariff measures and Danish imports of unprocessed Atlantic cod**

	Tariff measures			Imports (DKK millions)	
	1988	1996	2002	1996	2002
MFN (%)	12.0	12.0	12.0	139	0
Quota (tonnes)	45 000	50 000 ¹	Unlimited	130 ²	707
In quota rate (%)	3.7	6.0 ¹	3.0	.	.
From Norway (%)	12.0	0.0	0.0	97	155
From Iceland	3.7	0.0	0.0	6	11
From rest of EU	.	.	.	184	156
Total	.	.	.	532	1 039

1. From 1994.

2. Denmark assumed to use the same share of the tariff quota as obtained for total EU imports and the tariff quota is assumed fully used.

Sources: EU TARIC Database; Hatcher, A.C. (1997), *The European Community's Tariff Regime for Fish Imports 1988-94*, Report to the European Commission No.46 from the Centre for the Economics and Management of Aquatic Resources, University of Portsmouth.; and OECD (2003d), *Liberalising Fisheries Markets – Scope and effects*, OECD, Paris. pp. 238-55.

The policy of granting EEA countries, mainly Norway, preferential access to the EU market for raw materials of cod in 1983-96 was therefore successful in providing foreign raw materials to a processing industry suffering from declining domestic supplies. Furthermore, the EU policy of autonomous tariff suspension on unprocessed cod also successfully maintained supplies of foreign raw materials, despite declining cod stocks in the North Atlantic as a whole. The increase in imports in 1996-2002 were almost exclusively from Russia.

Structural adjustment in the Danish processing sector, faced with a declining domestic raw material base, has been effectively facilitated by productivity-improving support and by the unilateral liberalisation of EU tariff rates on unprocessed cod. The processing of cod fell in the period in question, but without the preferences and suspensions introduced, it would have fallen more. Thus, the unilateral liberalisation of raw material imports aided adjustment in a processing sector dependent on imported raw materials.

The key lesson is that the opening of trade in raw materials eased the pressures of structural adjustment by allowing domestic raw material to be replaced by imports. Such a policy could be used in other sectors with a processing industry reliant on imported raw material and located in a consumer country or area (e.g. the EU).

Finally, the experience of the Danish fish processing sector illustrates the care needed in implementing labour market policies. The reform of the unemployment benefit policy implemented in the late 1990s indirectly caused additional adjustment pressures in the fish processing sector. The aim of reform was to reduce unemployment, and it diminished the possibility for part-time employees to receive supplementary unemployment benefits. As a result, the reform decreased the incentive to work part-time and take on seasonal jobs, which is an important feature of the fish processing industry, in particular in filleting factories. Hence the sector's labour force, traditionally located in remote areas, declined.

Furthermore, the fish processing sector has found it difficult to attract workers and this has increased wage costs.

Thailand: The seafood sector

Introduction

Thailand has been called a new Asian tiger, because of its high economic growth – despite the 1997-98 economic crisis – and its rapid industrialisation based on both vertical and horizontal export diversification. The development of traditional and high-value agriculture and fishery have stimulated the growth of export-oriented food processing industries and contributed significantly to the country's industrialisation process. The seafood industry in particular has grown rapidly, making Thailand a world leader in international markets for canned tuna and frozen shrimps. It has expanded continuously over the last two decades, despite chronic shortages of raw materials and labour, increasingly stiff international competition, and non-tariff measures imposed by importing countries (TDRI, 2003). Because the industry presents an interesting case study for other developing economies, this review examines various factors that have contributed to its development, with special reference to government policies.

Economic and social developments

The Thai economy has grown at a rapid pace since the mid-1980s, not far behind the newly industrialising economies (NIEs) of East Asia. Between 1986 and 1991, growth averaged 9.6% a year in real terms (Dixon, 1999). Even though the overall macroeconomic situation was favourable, with relatively low inflation and stable exchange rates, there were some structural problems, such as heavy reliance on imported inputs and weak inter-industry linkages. The rapid growth of the early 1990s, along with the country's financial opening and exchange rate peg, led to a large inflow of private capital. Fuelled by these capital flows, particularly of short-term capital, private credit booms made the economy vulnerable to external shocks. The heavy capital inflows were disruptive for the Thai economy, as they led to a real appreciation of the baht, heightened inflationary pressures and widened the current account deficit to an unsustainable level. The country was badly hit by the currency and financial crisis, following the government decision to abandon the peg in July 1997. Real GDP fell by over 10% in 1998 and did not recover to the pre-crisis level until 2002 (IMF, 2003b). In 2003, the economy grew by 6.8%, its fastest pace since the 1997-98 crisis.

In 1970, 85% of Thailand's exports were primary products, such as rice, rubber, tin and maize (Table 5.2). In 2002, manufacturing products made up 86% of total exports, while agriculture represented only 10%. However, employment patterns have not shifted as dramatically as the composition of exports: around 40% of the population is still employed in agriculture (Table 5.3).

Economic growth has brought about improvements in living conditions and social indicators. Since the mid-1970s, the incidence of poverty has been cut by three to around 10% in 2002. However, there are wide regional differences in income levels, and income distribution is characterised by high inequality (World Bank, 2004a). Life expectancy and infant mortality have improved markedly, and the expansion of primary education has raised literacy rates.

Table 5.2. Thailand's export structure

Product name	HS Code 2	1976-84	1985-94	1995-03
Office machines and automatic data processing equip.	75	0.18%	7.26%	15.60%
Electrical machinery, apparatus and appliances n.e.s.	77	4.62%	7.84%	12.77%
Fish, crustaceans, molluscs, preparations thereof	03	7.60%	10.49%	6.67%
Telecommunications and sound recording apparatus	76	0.12%	4.04%	6.52%
Articles of apparel and clothing accessories	84	4.87%	8.80%	5.98%
Miscellaneous manufactured articles, n.e.s.	89	1.83%	6.84%	4.93%
Crude rubber (including synthetic and reclaimed)	23	8.78%	4.58%	3.30%
General industrial machinery and equipment, and parts	74	0.31%	2.04%	3.15%
Non-metallic mineral manufactures, n.e.s.	66	4.52%	4.34%	3.14%
Cereals and cereal preparations	04	14.54%	5.09%	2.89%
Textile yarn, fabrics, made-up art., related products	65	5.14%	4.24%	2.68%
Vegetables and fruit	05	16.78%	7.53%	2.55%
Sugar, sugar preparations and honey	06	5.69%	2.76%	1.34%

Source: COMTRADE Database, SITC Rev. 3.

Table 5.3. Structure of Thailand's economy

Average percentage

	1976-84	1985-94	1995-2002
Agriculture, value added (% of GDP)	22.3	13.4	9.5
Industry, value added (% of GDP)	29.7	36.4	41.1
Services, etc., value added (% of GDP)	47.9	50.2	49.4
Trade (% of GDP)	48.4	69.0	106.0
Exports of goods and services (% of GDP)	21.7	33.0	55.5
GDP growth (annual %)	7.0	9.0	2.5
Employment in agriculture (% of total employment)	64.8	63.0	49.2
Employment in industry (% of total employment)	12.6	13.8	19.5
Employment in services (% of total employment)	20.5	23.3	31.3

Source: World Development Indicators CD-ROM (2004)".

Seafood industry developments

Industry performance, structure and impact on the economy

Thailand leads China as world's the largest exporter of seafood products. Its exports totalled USD 4.2 billion in 2002, for a world market share of over 18% and 6% of the country's total exports.⁶ Expansion of the seafood industry has been based on ease of access to fishing grounds, high levels of domestic investment and foreign capital and expertise (Dixon, 1999). During the 1970s, signs of depletion of fish stocks, rising fuel prices and the loss of traditional fishing grounds (owing to the establishment of exclusive

economic zones) pushed the industry to introduce aquaculture and develop new marine fishing technology. Agreements with other countries in the region gave access to more distant fishing grounds. Since the mid-1970s, production has expanded at a sustained pace and exports have been multiplied by 30.

The seafood industry is an important source of employment and export revenue. Fish is also the major source of protein for most people in Thailand. The industry involves marine fishery establishments and fishing crafts, aquaculture farms and processing factories.⁷ It is estimated that 700 000 people, representing approximately 2% of the active labour force, are engaged in fishing and related industries (TDRI, 2003). Aquaculture in particular has fostered a range of related activities in fields such as animal feeds, chemicals and construction (FAO, 2000). However, the industry creates negative environmental spillovers in the form of damage to mangrove ecosystems and water pollution (Huitric *et al.*, 2002).

Thailand's two major export products are canned tuna and frozen shrimps, mainly destined to the US, Japanese and EU markets. The canned tuna industry grew rapidly in the 1980s and Thailand is now the world's principal producer of canned tuna. However, the industry faces shortages of domestic raw material. Since 1995, over 80% of the tuna is imported from countries such as Indonesia and Chinese Taipei, making Thailand the largest importer of unprocessed tuna, together with Japan (Josupeit and Catarci, 2004). Shrimp farming was initiated in 1973 and intensified in the 1980s. Farmed shrimp became a global commodity mainly through a Thai multinational, Charoen Pokphand (also known as CP Group), rather than a link to an established "northern" agro-food conglomerate (Goss *et al.*, 2000).⁸ Thailand became the world's leading producer of shrimps in 1991 and accounted at its peak for over a third of world production (Huitric *et al.*, 2002).

The industry has faced and still faces a range of tariff and non-tariff barriers in export markets and the frozen shrimp industry has been particularly affected (TDRI, 2003). These barriers and the resulting uncertainty have prompted some Thai companies to move abroad to bypass these barriers.⁹

As a consequence of the constant threat of trade barriers facing the export seafood sector, the industry has become highly organised. The main business organisation, the Thai Frozen Food Association, has played an important role in dealing with SPS and anti-dumping cases through lobbying, financial assistance and training, while other associations provide specific services to members.¹⁰

Government policies

The Thai government is said to have been the least interventionist of any in South East Asia, basically restricting its role to promoting the development of private enterprise (Dixon, 1999). Consequently, there is very little direct government involvement in the Thai seafood industry (TDRI, 2003). Nevertheless, a range of government policies have had a direct or indirect impact on the industry's expansion and international competitiveness.

Since the 1960s, the government's development strategy has sought to combine conservative macroeconomic policies with a mix of import substitution, export promotion and strong investment incentives. This policy mix has stimulated the emergence of a strong group of Thai industrialists in import-competing light industries – mainly through joint ventures with foreign investors – as well as in the agribusiness and food processing

sectors – mainly with the support of local commercial banks (Lauridsen, 2003). The period of highest growth and structural change in the Thai economy occurred between 1980 (when the economy entered a period of recession following the second oil shock) and 1998 (second recession, following the Asian financial crisis). These crises helped to trigger important economic policy changes.

The first recession led to the adoption of a World Bank-supported structural adjustment programme. In the following years, the economy experienced unprecedented growth, driven by booming manufactures exports. Undoubtedly, the adoption of a more export-oriented policy stance and better targeted export-promotion measures helped to attract FDI. However, the slow implementation of reforms – import barriers are still relatively high and complex today (TDRI, 2003; World Bank, 2004a) – suggests that they only played a limited role in fuelling the recovery. Initial conditions and concomitant international developments probably had a greater impact (Jomo and Rock, 1998; Dixon, 1999).¹¹

Overall, Thailand's agro-industrial sector weathered the 1997 Asian financial crisis, while other manufacturing industries floundered under heavy debt. In fact, the industry benefited significantly from the weaker baht, which enhanced its price competitiveness (TDRI, 2003). However, aggregate performance masked significant differences, even within the seafood sector. While frozen shrimps exports received a significant boost from the devaluation, import-intensive industries such as canned tuna contracted sharply due to a rise of about 35% in production costs (UNESCAP, 1999).¹²

Recently, Thai trade policy has focused on negotiating bilateral free trade agreements (FTAs) with a range of countries.¹³ As a result of the agreements, seafood exports are expected to face lower tariff barriers in various markets (TDRI, 2003). In addition, the country is a member of two important regional groupings: ASEAN (Association of Southeast Asian Nations), which is in the process of developing an FTA among member countries, and APEC (Asia-Pacific Economic Co-operation).¹⁴ It is worth noting that in 1999 Thailand "graduated" from its developing country status in the EU's Generalised System of Preferences (GSP), which led to higher tariffs for exports to the EU market.¹⁵

The relatively open investment regime and the incentives schemes developed as part of the import substitution strategy of the 1960s attracted FDI into the sector. Yet, the positive spillover of FDI, *i.e.* transfer of knowledge, has probably been more important than the modest share of FDI in total investment would suggest. In particular, foreign partners have provided expertise, technology and privileged access to export markets. For example, through joint ventures with Japanese companies, Thai exporters have been able to concentrate on production (following specifications set by their foreign partner), invest less in marketing activities and penetrate the Japanese market more easily (TDRI, 2003).¹⁶

A range of sector-specific policies and services have targeted the seafood sector, under the auspices of the National Fisheries Policy Committee, chaired by the Prime Minister, and the Department of Fisheries within the Ministry of Agriculture. The latter is engaged in fishery conservation and R&D and has played an important role in developing the seafood sector, by providing technical and financial assistance (FAO, 2000; Dixon, 1999). The National Food Institute (Ministry of Industry) undertakes research and offers training to raise competitiveness and help with food safety standards (TDRI, 2003).

Future challenges and opportunities

A number of challenges face the Thai seafood industry. First, there are various non-tariff barriers (mostly SPS measures) in developed-country import markets. Second, future growth is threatened by constraints on the quality and quantity of raw material, owing to environmental problems and disease. Third, there is increasing competition from low-cost producers from China and Vietnam (for shrimps) and the Philippines and Indonesia (for tuna). However, the Thai seafood industry enjoys a strong market position and has reacted to increased competitive pressures by moving into higher-value production and possibly moving to low-cost areas (TDRI, 2003). Overall, international demand for shrimps continues to be strong, but the canned tuna industry suffers from over-capacity.¹⁷ The bilateral trade agreements that are being negotiated have the potential to further boost trading opportunities.

A major challenge for the government is to address emerging industry constraints by developing quality control, tracing and certification systems; improving natural resource management; enhancing vocational skills; and promoting R&D. Such efforts may be hampered by the fact, in comparison to the newly industrialising economies (NIEs), a large share of the Thai population still lives in rural areas, with on average much lower incomes than in urban areas and relatively low educational attainment past primary education (Dixon, 1999).

The government has already taken action to respond to a number of these challenges. It is actively pursuing various measures to promote Thailand's international competitiveness in various sectors. In early 2003, the government set up the National Competitiveness Committee, whose main task is to set up, implement and supervise a strategy for upgrading national competitiveness, at both macro and sectoral levels. A range of niche sectors is being targeted, one of which is the processed food sector.¹⁸

In addition, it has taken various measures to promote more sustainable fishing practices in light of emerging environmental concerns, for example by establishing conservation zones, reducing the number of fishing vessels, promoting community-based fisheries and introducing regulations on fish farming in mangrove areas (FAO, 2000). The Frozen Foods Association and the Department of Fisheries have promoted a code of conduct on "Sustainable Marine Shrimp Culture" to address social and environmental impacts and problems related to diseases. Education and training, which are essential to raise awareness of rules and regulations among fish farmers, are also being offered.

Conclusions

The development of Thailand's seafood industry should be seen in the context of the country's long-term economic transformation. Industrial groups and capital from the import substitution period have played an important role, often relying on joint ventures with foreign companies to acquire expertise and penetrate foreign markets. Direct government intervention in production and sales has been limited, but the industry has benefited from public support for production and transfer of technology, as in the case of shrimp farming, and increasingly active export promotion at a later stage. In addition, the industry initially faced relatively lax environmental regulations. While Thailand's seafood industry has a favourable position in the world market, issues such as natural resource management, access to sustainable raw materials and non-tariff barriers in exports markets pose a considerable challenge for the industry. In this regard, the active involvement of industry associations in the national policy-making process can help design effective policy responses to these issues.

Notes

1. For example cod, saithe and haddock are substitutes in some markets but not in others. Salmon and herring have a lower degree of substitutability than herring and mackerel.
2. Decommissioning grants are public aid to remove vessels from a fishery in order to conserve the stock and maintain the economic performance of the remaining vessels. The vessels are scrapped or sold for other purposes.
3. The Danish unemployment insurance scheme includes both the vessel owners and their employees and provides relatively good coverage.
4. Primary processed products only involve cutting, while secondary products involve additional processing.
5. Productivity-improving grants for the processing sector were also given before 1994, but since reliable information on them was not available, these are not discussed here.
6. UN COMTRADE mirror data: world imports of “Fish, crustaceans, molluscs, aquatic invertebrates” (HS code 03) and “Meat, fish and seafood food preparations” (HS code 16). See also Vannuccini (2003).
7. Around 480 factories were operating in 2001, most of which are small. Less than a tenth are tied to multinational companies, mostly from Japan and the United States (TDRI, 2003).
8. The CP group is the largest company in the Thai shrimp industry, with highly vertically integrated operations spanning R&D, feed inputs and farm technology, processing and marketing of products in export markets. Its involvement in shrimp farming started in 1986, with the acquisition of technology in a joint venture with the Japanese company Mitsubishi, employing Taiwanese technicians. The group has also promoted shrimp farming in neighbouring countries (see *www.cpthailand.com*).
9. For example, the tuna producer Unicord, established itself in the United States and Germany in the early 1990s, and the CP group is considering setting up a shrimp farm in Madagascar to take advantage of its zero import tariffs (Thai exports to the EU currently face a 20% import duty for fresh shrimp and 15% for processed shrimp). See Dixon (1999) and *The Nation* (2004a).
10. For instance, the North America Shrimp Exporters Group negotiates freight prices with liners on behalf of members. Public agencies and private sector association have set up an Export Problem-solving Committee to deal with problems in importing countries (see *www.thai-frozen.or.th*).
11. The most important factors were the devaluation (following the 1985 Plaza Accord) of the baht *vis-à-vis* major partner countries’ currencies and the declining competitiveness of NIEs

in labour-intensive production, combined with low labour and land cost and existing spare capacity in the Thai industry.

12. For example, in 2000, the value of exports of canned tuna was only half that of the previous year while exports of frozen shrimps jumped. The trend was reversed in the following year when canned seafood experienced a rebound, while frozen seafood has weathered various non-tariff measures imposed by the EU and the United States (TDRI, 2003).
13. The first agreement was signed with Bahrain in 2002. Negotiations are under way with China, India, the United States, Australia, Japan, and Peru, and are being considered for Mexico and the South Africa Customs Union.
14. Members joining the ASEAN FTA will abide by a common external tariff of 0.5%.
15. www.foodmarketexchange.com/datacenter/product/seafood/shrimp/detail/.
16. The Thai Board of Investment recently started redefining its role as a regulator focusing on tax incentives to that of a facilitator that addresses the needs of investors. Instead of trying to attract large amounts of investments, it now works to promote quality investments with potential for research and development and technology transfer. The agro-industry is one of the five focus industries identified.
17. See www.foodmarketexchange.com/datacenter/product/seafood/dc_pi_seafood.htm
18. See www.competitiveness.in.th

Chapter 6

TEXTILES AND CLOTHING

This chapter examines cases of trade and structural adjustment in textiles and clothing. It surveys experience in Bangladesh, Colombia, Lesotho, Mauritius, the United States, Australia and the Slovak Republic. The case studies offer examples of producers in both industrialised and developing countries which have used the decade of phase-out of Multi-fibre Arrangement quotas by 2004 as an opportunity to prepare and adjust and have taken steps to reduce trade barriers in different ways. Bangladesh has reduced barriers on imports of capital goods to lower production costs and address problems of corruption and administrative inefficiency. The key lesson from the Bangladeshi case is that an export industry cannot be indefinitely sustained solely on the basis of preferential access to restricted markets. The point regarding preferential market access is further demonstrated by experience in Lesotho. Similarly, the Mauritian case underlines the importance of domestic economic reforms. Political and macroeconomic stability have been crucial to attracting foreign investment and to improvements in social conditions. Colombia has eliminated the anti-export bias of protectionism while promoting healthy competition among its producers. The clothing industry in the Slovak Republic has taken advantage of the country's entry into the European Union and engaged in outward-processing operations with European partners. The United States has established a series of programmes and agreements that offer duty-free, quota-free access to its clothing market with fibre-forward or fabric-forward rules of origin, which have promoted co-production between the US textile industry and the clothing industries of the partner countries. Australian experience with trade policy reform, through lower tariffs and greater access to imported textile, clothing, footwear and leather products, has shown how this can be a trigger for successful adjustment, prompting firms to focus on innovative high-value, capital-intensive and niche products and on market development.

Key points

Trade policy should promote, not postpone, adjustment

Perhaps more than in any other sector examined in this volume, the barriers to trade in textiles and clothing are substantial, but they are declining rapidly. From the early 1960s through 2004, quantitative restrictions have allowed importing countries to limit the amount and influence the direction of trade. The quotas of the Multifibre Arrangement (MFA) have been phased out over the past decade and disappeared altogether at the end of 2004. Even in the absence of these quotas, import tariffs are much higher on these products than on most other non-agricultural products. These tariff and non-tariff barriers have distorted markets in many ways, leading to higher prices for consumers, the maintenance of industries in “mature” economies, the spread of “quota baby” production to some countries that might not otherwise engage in this trade, and rents for the more efficient (but restrained) producers.

Both in developing and industrialised countries, the quota regime created the seductive illusion that producers were insulated from competition and did not need to adjust. This point is equally true for the “quota baby” producers in developing countries, many of which existed solely because even the inefficient can thrive with artificially high prices, and for the producers in industrialised countries that have long been under pressure from import competition.

It is widely expected that the end of the quota regime will lead to major changes in the pattern of trade. This may be especially true for the smaller and less efficient producers in developing countries. It does not necessarily follow, however, that producers in all but a few countries will see the end of the quotas as the termination date for their industries. All of the case studies offer examples of producers in both industrialised and developing countries that have used the decade of quota phase-out as an opportunity to prepare and adjust. In all cases, the countries have reduced trade barriers in anticipation of 2005. Each has done so, however, in a somewhat different way.

Bangladesh has reduced the barriers it had imposed on imports of capital goods and supplies in order to reduce the production costs of its clothing producers. In addition to easing the burden of tariffs and taxes, the country has freed the exchange rate and addressed problems of corruption and administrative inefficiency.¹ The key lesson from the Bangladeshi case is that an export industry cannot be indefinitely sustained solely on the basis of preferential access to restricted markets.

The point regarding preferential market access is further demonstrated by Lesotho. While the country has enjoyed preferential access to the markets of the European Union (under the Lomé Convention, the Generalized System of Preferences [GSP], and the Everything But Arms [EBA] programme) and the United States (under the African Growth and Opportunity Act [AGOA]), it was domestic reforms that attracted investment in the first place. The first investments date from the mid-1980s, following a shift in development strategy that combined import substitution with export promotion.

Similarly, the Mauritian case underlines the importance of domestic economic reforms. Political and macroeconomic stability have been crucial to attracting foreign investment and to improvements in social conditions. The textile and clothing industry has also depended upon an accommodating trade policy. Having abandoned the failed import-substitution policies of the 1960s, the government of Mauritius encouraged

production through the establishment of export promotion zones in the 1970s and a structural adjustment programme in the 1980s.

The Colombian strategy has included elements that resemble both the Bangladeshi and (as described below) the US approaches. Even more than Bangladesh, Colombia has replaced its earlier attachment to import-substitution industrialisation. By embracing market reforms more fully, Colombia has eliminated the anti-export bias of protectionism while promoting healthy competition among its producers. It has also negotiated numerous free trade agreements (FTAs) in order to secure its access to export markets.

Just as Colombian exporters have benefited from their proximity and access to the US market, the clothing industry in the Slovak Republic has taken advantage of the country's entry into the European Union. Starting with the Europe Agreement in 1995, the industry has enjoyed access to the European market. It has used this opportunity to engage in outward-processing operations with European partners.

The United States has established a series of programmes and agreements that offer duty-free, quota-free access to its clothing market for imports from selected developing countries. The rules of origin for programmes such as the Caribbean Basin Initiative, as well as the FTAs with partners in Latin America and other regions, generally condition free access to the US market on fibre-forward or fabric-forward rules of origin. The intention here is to promote co-production between the US textile industry and the clothing industries of the partner countries. This strategy aims to provide a “soft landing” for US clothing producers (many of which are relocating production in the partner countries), while also providing a new outlet to replace the textile industry's lost domestic sales.

Australian experience with trade policy reform, through lower tariffs and greater access to imported textile, clothing, footwear and leather (TCF) products, has shown how this can be a trigger for successful adjustment, prompting firms to focus on innovative high-value, capital-intensive and niche products, and on brand development, customer service and market development. The process of adjustment has, however, been accompanied by substantial transitional budgetary support to encourage innovation and investment to help firms to be competitive in a low-tariff environment.

Both the cost and the quality of labour are important

It is tempting to conclude that competitiveness in the clothing industry is a simple function of the cost of labour. This conclusion would be based upon the observed facts that labour accounts for a high share of the value of most clothing products, and that wages in developing countries are lower than in industrialised countries. It therefore comes as no surprise that the long-term trend is for clothing production to migrate from industrialised to developing countries and then to leave those countries once they attain a certain level of development.

This does not mean, however, that countries would be well-advised to compete solely on the basis of low-cost labour. The Colombian case study demonstrates that the quality of labour is equally important, especially for a country that hopes to retain a clothing industry after it reaches the middle levels of industrial development. The key difference is between mere assembly, where the cost of labour is indeed a critical variable, and more sophisticated industries that engage in more of the value-added operations involved in transforming fabric into garments. In Colombia's case, the transition from assembly to full-package production has required an improvement in labour skills, as well as

managerial talent, but has paid off in the establishment of a more competitive industry that is in a better position to weather the end of the quota regime. Some firms in Bangladesh are seeking to make the same transition.

The workplace environment is also important. The Australian case suggests that greater co-operation and more effective communication between management and employees, including in workplace negotiations, would help deliver a more flexible and productive outcome.

The higher the barriers, the harder the fall

The preceding point concerned training to promote adjustment *within* the industry. It is equally important to promote adjustment *out* of the industry, especially in countries where production is expected to drop – and jobs are expected to be lost – with the end of the quota regime. The end of the quota regime will affect countries at all levels of economic development.

Trade adjustment assistance programmes have thus far been more prominent in industrialised than in developing countries. This might be attributed both to supply and demand: the industrialised countries have more resources to devote to this undertaking and are more likely to have a wider range of “mature” industries that face competitive challenges from imports and are in need of assistance. In the case of textiles and (especially) clothing, however, it can be anticipated that disruptions will be common to both industrialised and developing countries in the coming years. National governments and other funding sources, such as international and regional financial institutions, may need to devote greater resources to such programmes.

The Australian case notes that where there is large-scale or regionally significant job losses in the TCF sector, the government will augment generally available labour adjustment measures with sector-specific adjustment support.

The US case notes that displaced workers in the textile and clothing industry have been prominent in that country’s trade adjustment assistance programme. Some questions that have arisen in the design and execution of the US programme will merit examination in other countries and institutions that consider programmes in the coming years, including the economic and political rationales for distinguishing displaced workers according to the causes of their unemployment (*i.e.* whether trade-related unemployment should be treated differently) (OECD, 2004b).

Bangladesh

Introduction

The Bangladeshi clothing industry offers a clear example of an export-oriented success story in a desperately poor country, but one that is also marked by serious difficulties and future uncertainties. Beginning from almost nothing in the 1970s, the industry has experienced very rapid growth in employment, production and exports. Clothing accounted for one-eighth of Bangladeshi exports by 1985, two-thirds by 1996 and three-quarters by 1999 (Bhattacharya and Rahman, 2000, p. 4). The opportunities were created by a combination of low wages and a restricted quota system, and Bangladesh increased its ability to exploit these opportunities by enacting economic reforms and obtaining preferential access to some foreign markets. That confluence of favourable conditions and policies has allowed producers to overcome such impediments

as natural disasters, poor infrastructure, political instability, corruption and protection in foreign markets. The main source of uncertainty stems from the abolition of the MFA quotas in 2005. Bangladeshi policy makers and producers recognise that this is both a challenge and an opportunity and have spent a decade preparing for the coming shakeout.

Challenges and reforms in the Bangladeshi environment

Any examination of Bangladeshi development must start from the fact that this is among the world's poorest countries and suffers from all of the problems that cause, and are caused by, extreme poverty. These include infrastructural bottlenecks such as inadequate transport facilities and unreliable power supplies, as well as institutional shortcomings. The country has nevertheless managed to take advantage of the one opportunity that stems from poverty (*i.e.* the low cost of labour) and to devise means of working around some of its structural disadvantages. Some of the more specific challenges in the Bangladeshi environment, together with the ways in which the government has addressed them, are examined below.

Two caveats are in order. First, not all problems are susceptible to legislated solutions. Bangladesh is subject to recurrent and often devastating floods and tidal waves, and natural disasters periodically wreak havoc on the economy in general and the clothing industry in particular. While the country might enhance its ability to cope with natural disasters (*e.g.* by improving its infrastructure and emergency services), the underlying climatic/geological problems cannot be eliminated.

Second, Bangladesh has not maintained a consistent pace or direction in its path to reform. Bangladeshi trade policy during the 1970s – the first decade of independence – was based upon import substitution and government intervention, but significant economic reforms were undertaken in the 1980s and accelerated in the early 1990s. Many more advances in trade and other economic policies were made during the stable and prosperous early 1990s than were achieved in the less predictable environment of the late 1990s, when the country became politically unstable. The World Trade Organization (WTO) acknowledged in 2000 that the government had “liberalized its trade regime, broadened the base on which value-added tax (VAT) is levied, strengthened the banking sector’s legislative and regulatory framework, implemented significant adjustments in some administered prices, closed or privatized some loss-making state-owned enterprises (SOEs), and taken steps to improve governance”, but still noted a slow pace of reforms in the “tax revenue base, customs administration, banking, restructuring/privatization of SOEs, and matters of governance” (WTO, 2000, p. 3).

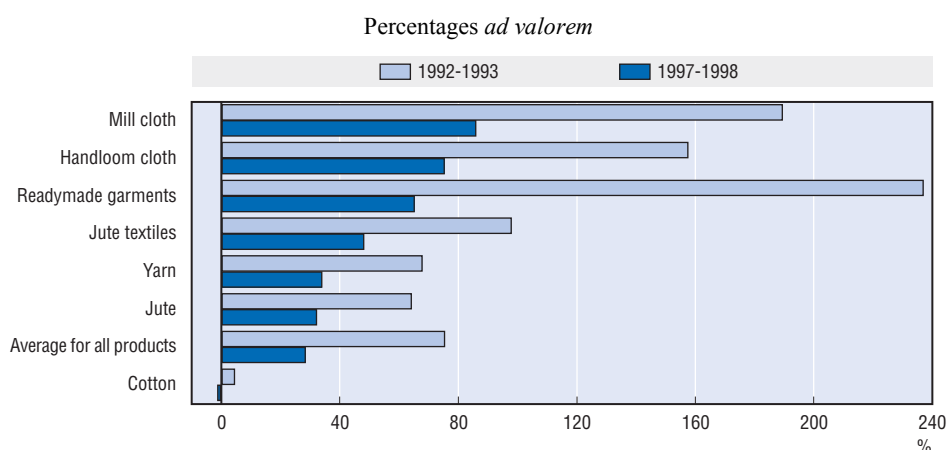
Since that time, however, Bangladesh has taken several important steps towards a more market-oriented economy. Many reforms have been undertaken in concert with the International Monetary Fund (IMF), as promoted under the Poverty Reduction and Growth Facility and laid out in the Interim Poverty Reduction Strategy Paper (IMF, 2003c). Some of these steps are inspired by the certain knowledge that the country must be ready for the shocks that will occur with the end of the MFA clothing quotas. The reforms appear to have paid off in the short term, with exports of clothing experiencing a rebound in 2003;² the question now is whether they will be equally successful in promoting the country’s long-term prospects.

Budget, taxes and tariffs

Bangladesh suffers from a persistent government budget deficit and is heavily reliant on trade taxes, but has nevertheless managed to reduce the height of the tariff wall. The

maximum tariff rate was lowered from 350% in 1991 to 37.5% in 2000 (Muqtada *et al.*, 2002, p. 6), and import-weighted average tariffs on manufactures fell from 51.8% in 1990-91 to 23.8% in 1998-99 (Ahmed, 2001, p. 36). As can be appreciated from the data in Figure 6.1, the average effective rate of protection was slashed from 75.7% in 1992-93 to 28.6% in 1997-99; the cuts were especially deep for some textile and clothing products (see below). The taxation of imports still accounts for over half of total tax revenues and a large share of corporation taxes come from export profits or taxes on foreign investors. These taxes are partly compensated by various exemptions made available to export-oriented industries (e.g. tax holidays, duty concessions and drawbacks, bonded warehouses, etc.), as well as direct subsidies to exporters of textiles and clothing. These mechanisms nevertheless make for a more complicated system that lends itself to abuse (see below).

Figure 6.1. **Effective rates of protection on Bangladeshi imports**



Source: Based on estimates of the Bangladesh Tariff Commission, as reported in Nasiruddin Ahmed (2001), *Trade Liberalization in Bangladesh*, Table 5.7.

Recent reforms have sought to address both the composition of the government's revenue and the persistent budget deficit. A combination of increased revenue and fiscal discipline helped to reduce the budget deficit to 3.5% of GDP in fiscal year (FY) 2003, down from 5.1% in FY 2001. In the FY 2003 budget, the top customs duty was reduced from 37.5% to 32.5%, and the effective average tariff rate was reduced to 24%. The government plans to pursue further reforms by moving to a maximum rate of 30% in FY 2004 and reduce trade taxes further in the FY 2005 budget (IMF, 2003c).

Government inefficiency and corruption

The government's efforts to aid the textile and clothing industry are undermined by "delays in customs clearance, hassles in accessing duty drawbacks, port congestions and various rent-seeking activities" (Bhattacharya and Rahman, 2000, p. 21). Both the restrictions and the multiplicity of incentive programmes create serious problems with corruption and illicit activities (Quddus, 1996). In Transparency International's 2003 Corruption Perceptions Index, which is based on surveys from independent institutions, Bangladesh had the highest perceived level of corruption among 133 countries.³ "There is a general consensus", according to one analysis, "that a lot of wealth made by garment entrepreneurs in Bangladesh was earned through illegal means." (Quddus and Rashid,

2000, p. 106) The government's own Textile Policy 1995 explicitly recognised that “[i]llegal imports of yarn and fabrics in the country is a serious constraint”, (Bangladesh, Ministry of Textiles, 1995, p. 19) and proposed a series of steps to address the problem.

While corruption is among the more intractable problems facing Bangladesh, efforts are under way to address it. Working with outside donors, the government is promulgating a new law to establish an Independent Anti-Corruption Commission. The problems stemming from the bonded warehouse system may also be reduced by reforms of the system, which was revamped at the end of 2003. Under the reforms, all imports for domestic consumption and most of the export-oriented imports are subject to bank guarantees for import duties (100%) and the value-added tax (25%) (IMF, 2003c). Complementary reforms are also under way in the government procurement system, tax holidays for the expansion of existing units are being withdrawn, and certain tax exemptions eliminated.

Foreign investment

Bangladesh has one of the most liberal investment regimes in South Asia, placing no limit on foreign equity participation. Under the Investment Policy 1999, private investment by local and foreign investors is allowed in all but four sensitive sectors (forestry and three security-related fields). The inflow of foreign capital has nevertheless “been low even by South Asian standards” (Muqtada *et al.*, 2002, p. 7). This may be largely the consequence of perennial problems for which there are no simple cures: Bangladesh's vulnerability to natural disasters, together with its political instability, reduce the willingness of foreign firms to invest (and sometimes even to place orders with its producers). Nearly all clothing production is carried out by domestic producers, although foreign investors, notably from East Asia, have established some facilities in export-processing zones (Hossain, 2002).

Foreign investors have nevertheless had a greater influence than the raw figures might suggest. The Korean firm Daewoo was instrumental in a “catalyst model” of industrial development, in which “new industries are developed through successful collaboration between local entrepreneurs and well-established foreign investors” (Quddus and Rashid, 2000, p. 3). Daewoo's partnership in the late 1970s with a local firm (Desh) produced the first wave of local clothing entrepreneurs. The venture was based on subcontracting and technology transfer, rather than direct investment.

Given the already open nature of the Bangladeshi investment regime, the legal regime is not an area requiring significant reforms. The main goals are instead to find ways to make up for the scarcity of foreign capital while enhancing the country's overall attractiveness to investors. One means of leveraging the existing sources of foreign capital is to employ back-to-back letters of credit. This allows entrepreneurs to use future revenues from clothing exports to finance the necessary imports of fabric and other inputs.

Exchange rate

The Bangladeshi taka has gradually become subject to market forces. It was made convertible in 1994, when banks were permitted to make international payments and transfers without prior approval from the central bank. Exchange rate policy for the past decade was based on discrete, periodic adjustments of the taka that follow movements in macroeconomic indicators and the real effective exchange rate (as calculated on the basis of a trade-weighted basket of currencies). This system was a matter of some controversy.

While the WTO opined that these devaluations made “exchange rate policy unduly susceptible to political considerations” (WTO, 2000, p. 4), other observers believed that the government’s efforts to maintain a competitive real effective exchange rate contributed to the clothing industry’s success (Bhattacharya and Rahman, 2000, p. 8; Ahmed, 2001, Chapter 7). Some Bangladeshi producers called for either devaluation of the national currency or the creation of a separate exchange rate for this industry.

Perhaps the most important economic reform in recent years was the float of the taka as of 31 May 2003. This was achieved without major difficulties and was facilitated by the tightening of monetary policy. The country is now committed to flexible management of the exchange rate, in which “[i]ntervention in the exchange market will be undertaken only to address disorderly conditions” (IMF, 2003c). The government also aims to phase out both the export-surrender requirement and its export subsidies.

Labour

While labour is relatively cheap in Bangladesh, it is also relatively unproductive. One study in the late 1990s estimated that it took 25 person-minutes to perform a basic clothing-making operation in Bangladesh, compared to 19.75 minutes in Hong Kong, China, and 14 minutes in the United States (a 1998 study cited in Bhattacharya and Rahman, 2000, p. 17). Even so, the unit labour cost was far lower in Bangladesh. As of the mid-1990s, the labour to produce a shirt in Bangladesh cost just USD 0.11, compared to USD 0.26 in India and USD 0.43 in Pakistan (Rahman, 2000, p. 29). Employment in the clothing sector is overwhelmingly female, and is marked by relatively low levels of unionisation and wages (Paul-Majumder, 2002). As of the mid-1990s, daily wages for women in Bangladesh were about 40% below those of men.⁴ Labour disputes are also a source of domestic and international difficulties. Nationwide strikes (*hartals*) are a major source of disruption, and in the 1990s Bangladesh faced possible sanctions over the use of child labour. The latter issue was resolved in 1995 with the signing of a memorandum of understanding between Bangladeshi clothing producers, the International Labour Organisation (ILO), and the UN Children’s Fund, brokered by a non-governmental organisation (NGO) (Quddus and Rashid, 2000, pp. 102-103, 227-228).

Representatives of the Bangladeshi government and the private sector recognise that, in order for Bangladesh to compete effectively in the post-MFA environment, it cannot rely solely on the low cost of labour. Effective competition will require upgrading workers’ skills, both to produce existing lines of clothing more efficiently and to move into new, higher-value lines.⁵ The government has addressed this issue by expanding its programmes for skills development. More may need to be done in this regard, however, with one critic observing that this policy “is being implemented in a somewhat *ad hoc* manner” (Rahman, 2002, p. 90). Competitiveness also requires foreign buyers’ assurance that orders will not be delayed or cancelled due to disruptions; this in turn will require addressing the rights of workers. In May 2004, the government reached an agreement with outside donors to adhere to ILO standards in its export-processing zones (EPZs). As of writing, the terms of the agreement are pending approval by Parliament in the form of a draft “EPZ Workers Association and Industrial Relations Act, 2004”.

Characteristics of Bangladesh’s textiles and clothing industry

The fibre-fabric-clothing complex in Bangladesh is like an inverted pyramid: the country produces very little fibre, some fabric, and a great deal of clothing. Although Bangladesh is a major producer of jute, this fibre is not significant in the manufacture of clothing for export; it is used primarily for fabrics and clothing that are consumed locally

and for other jute products that are exported (Sikdar, 1990). The domestic and export-oriented clothing markets “maintain a dual existence with little crossover of entrepreneurial talent or resources” (Quddus and Rashid, 2000, p. 71). Many export garments are made of cotton, of which Bangladesh grows very little. The cotton-spinning industry cannot keep up with the demands of the clothing sector, and the country produces an even smaller share of the synthetic fabrics that it consumes. The government’s Textile Policy 1989 aimed to achieve complete self-sufficiency in fabrics, but this goal proved far too ambitious. The government opted instead, in its revised Textile Policy 1995, to aim for “self-reliance in textiles for meeting local demand as well as for supplying fabrics to the [ready-made garment] industry by establishing necessary backward linkages through development of the private sector” (Bangladesh, Ministry of Textiles, 1995, p. 2).

The limited capacity of the country’s textile producers has hampered Bangladesh’s ability to capitalise on the success of the clothing sector and places it in a more vulnerable position at the end of the MFA. The government has nevertheless taken steps to strengthen the position of the fabric sector. It privatised the weaving sector in the mid-1980s, and placed textile looms on the list of industries for which government permission was not required for new, private investment. (However, some textile plants continue to be operated as SOEs.) These steps stimulated new investment in the sector, but not enough to keep up with the growing demands of a rapidly expanding clothing sector. Textile mills are hampered by undercapitalisation and antiquated technology. One analyst estimated that “90% to 95% of the installed spinning capacity in Bangladesh is unsuitable to meet the high performance requirements of modern weaving and knitting machinery or to satisfy the critical demands of the fabrics used in export quality garments” (Dowlah, 1998, p. 37).⁶

Bangladesh is thus not an integrated producer of textiles and clothing, but is primarily an assembler of imported inputs into finished garments. Clothing production largely takes place in EPZs that are subject to special tax and regulatory regimes, or under similar regimes that are specific to a factory (*e.g.* bonded warehouses) or a transaction (*e.g.* duty drawback). The flow of trade is quite apparent from the data in Table 6.1 and Figure 6.2: Bangladesh imports significant quantities of fabric from China and other East Asian countries, and exports finished clothing to North America and western Europe. The movement in the opposite direction is almost nil; Bangladesh imports almost no fabric from OECD countries and exports almost no clothing to either the developed or the developing countries of Asia. The net proceeds from clothing exports must be discounted for imports of fibre and fabric. The government estimated in 1995 that “value addition from [the clothing] industry does not exceed 20-25% of total export proceeds” (Bangladesh, Ministry of Textiles, 1995, p. 15).

Table 6.1. Bangladesh trade in fibre, fabric, and clothing

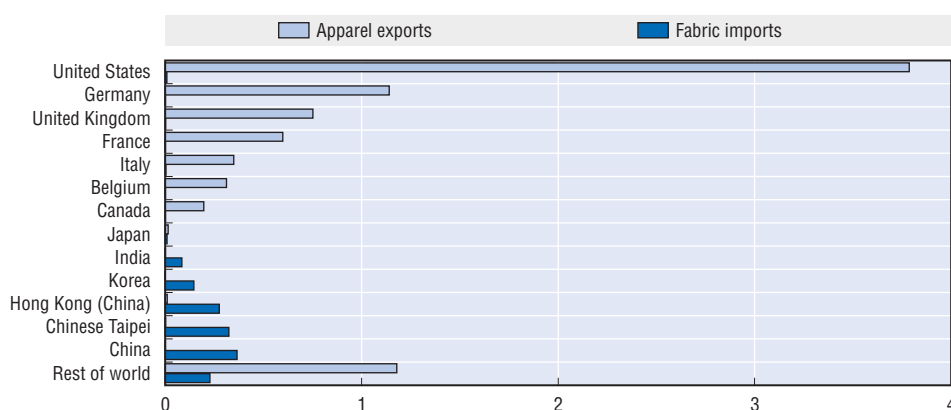
Thousands of current USD

	1993	1995	1996	1997	1998	2001
Fibre imports	98 904	114 474	187 375	249 888	302 756	412 730
Fibre exports	71 448	79 318	73 316	101 899	83 144	51 156
Fibre balance	-27 456	-35 156	-114 059	-147 989	-219 612	-361 574
Fabric imports	690 919	1 495 380	1 400 276	1 042 149	1 532 537	1 504 465
Fabric exports	179 180	275 230	277 114	294 999	278 897	282 445
Fabric balance	-511 739	-1 220 150	-1 123 163	-747 150	-1 253 641	-1 222 020
Clothing imports	7 333	198 076	304 777	66 697	120 736	369 589
Clothing exports	2 611 145	3 937 368	4 436 365	5 376 450	7 567 891	8 432 851
Clothing balance	2 603 812	3 739 292	4 131 589	5 309 753	7 447 155	8 063 262
Overall balance	2 064 616	2 483 986	2 894 366	4 414 614	5 973 902	6 479 668

Source: Calculated from WITS data. Note that data on Bangladeshi trade are missing from WITS for some years.

Figure 6.2. Bangladeshi fabric imports and apparent exports, 2001

Billions of USD

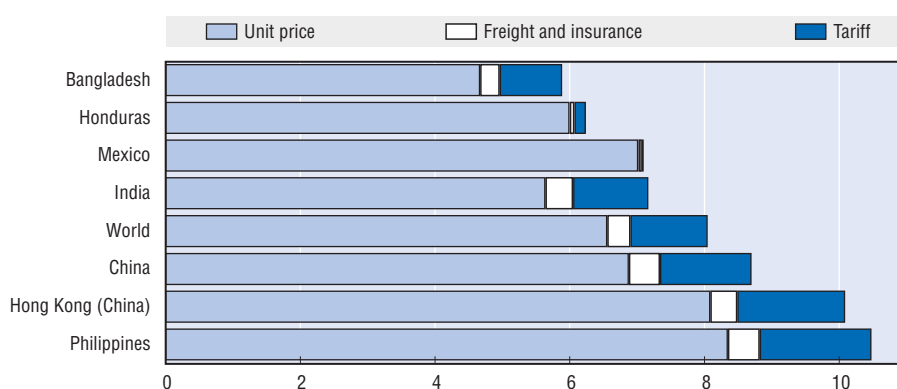


Source: Calculated from WITS data.

Bangladesh is in a less secure position than India, an integrated producer that grows cotton, produces fabric and makes clothing. This versatility will stand India in good stead as the quotas end. Many observers expect the price of fabric to surge with increased global demand and anticipate that some Chinese fabrics will be retained for domestic processing. This may lead to shortages in Bangladesh, which is much more vulnerable than an integrated producer to disruptions in supply. Its clothing industry is also less agile; the lead time for a project is only around 12 days in India, but 120-150 days in Bangladesh (Bhattacharya and Rahman, 2000, p. 16). How competitive will Bangladesh be in the post-MFA world? It is difficult to answer this question using existing data, as the MFA quotas have greatly distorted patterns of production and trade. Comparisons of unit costs are not as straightforward as they would be in a truly open market, as can be appreciated from Figure 6.3. The data seem to show *prima facie* that for one type of

cotton shirt Bangladesh enjoys the lowest landed price in the US market. This is especially true if one looks only at the unit cost of the goods, leaving aside the tariff and the shipping costs. The raw numbers do not tell us, however, whether the lower average cost of a Bangladeshi shirt (USD 4.68) *vis-à-vis* the Chinese product (USD 6.89) is due more to greater Bangladeshi efficiency or to a deliberate decision on the part of Chinese producers to concentrate on the higher end of the shirt market. As long as China is constrained by quotas, its producers have an incentive to get the most out of each shipment by producing goods at the higher end of the market. When the quotas are gone, the competition may grow more intense in the lower-value market niches where Bangladesh's production is now concentrated (*e.g.* T-shirts, pyjamas, jeans, cheaper types of shirts, etc.). Production may converge in the coming years. While Chinese manufacturers will have an incentive to compete in both the high and low ends, many Bangladeshi producers will hope to enter the higher end.

Figure 6.3. Average landed prices for certain men's shirts imported in the United States from selected partners, 2003



Actual dollars, based on customs value, imports for consumption, of HTS item 6205.20.20651

1. Men's cotton shirts, not knitted, less than two colours in the warp.

Source: Calculated from US International Trade Commission data.

Trade policy

The expansion of Bangladesh's clothing industry has been facilitated by trade liberalisation and the creation of an incentives regime. The government reduced the tariff on cotton yarn from 50% in 1984 to 7.5% in 1995. Liberalisation has not been comprehensive, however, with the government seeking to balance the demands of relatively efficient clothing producers against the fears of relatively inefficient textile producers. While the tariff on woven fabrics was reduced from the previous 100% rate, it is still quite high. The result, as shown in Figure 6.1, is a semi-inverted tariff structure in which the effective rate of protection is higher for intermediate than for finished goods. The high rate of protection on fabric makes it attractive for those who import under duty-free arrangements to "leak" textiles into the domestic market, and these "illegal imports of fabrics and clothing may weaken the protective effects" of the tariff (Centre for Policy Dialogue, n.d., p. 274).

In the early 1990s, in addition to reducing tariffs on raw and intermediate goods, the government provided a series of incentives. These included an advance income tax deduction on export earnings; a cash-compensation scheme based on the percentage of

local value-added, originally set at 15% and later increased to 25%; elimination of the tariff on machinery imported for export-oriented sectors; and reform of the duty-drawback system (Bhattacharya and Rahman, 2000, pp. 8-9). Some of these incentives still have strings attached, with the government seeking to influence entrepreneurs' decisions. One instrument of government intervention is designed to encourage greater incorporation of domestic materials in clothing. Under 1993 revisions to the Import Policy Order, for transactions made under letters of credit, the value of the imports cannot exceed 70% of the value of the exports (75% for knit products). This amounts to a requirement that such exports contain 30% Bangladeshi value added.

One initiative now under consideration in Bangladesh is the negotiation of FTAs with other countries in East and South Asia. A leading objective of these negotiations is the development of new markets for exports of Bangladeshi clothing, in order to diversify the country's export portfolio.

The MFA is generally credited for the take-off of the Bangladeshi clothing industry in the 1980s and 1990s, as other Asian producers engaged in "quota-hopping" (*i.e.* transferring production to countries not restrained by quantitative restrictions). The MFA's consequences for Bangladesh were not all favourable. To the contrary: the industry suffered great losses in 1985 following the imposition of quotas by Canada, the European Economic Community and the United States. At the end of the Uruguay Round, Bangladesh was among the 22 countries on which Canada imposed quotas under the MFA, and among the 28 that were subject to US quotas. The European restrictions never took full effect, and in 1986 the EU granted unrestricted, duty-free access to Bangladeshi textile products. This may explain why in the 1990s Europe surpassed North America as the leading destination for Bangladesh's clothing exports.

While the MFA has served to restrict global trade in textiles and clothing, other initiatives seek to promote trade opportunities for developing countries in general and the least-developed countries (LDCs) in particular. Bangladesh has been on the official United Nations list of LDCs ever since the first 24 countries were so identified in 1971. The industrialised countries made a commitment in 2001 to provide free access to their markets for goods exported by the 49 LDCs,⁷ and reaffirmed it at the WTO's Doha Ministerial Conference.⁸ The EU extends free access to "Everything But Arms" (EBA) imported from Bangladesh and other LDCs, but many clothing exporters find it difficult to meet the EBA rules of origin.⁹ The United States also extends special treatment to LDCs, but the preferences extended to Bangladesh are not as generous as those granted to most US partners in Africa, the Andean countries and the Caribbean Basin. Countries in those regions benefit from programmes that offer duty-free, quota-free treatment to textiles and clothing. Moreover, the United States is now considering the reduction or removal of Bangladesh's privileges under the GSP because "[t]he Government of Bangladesh does not provide freedom of association or the right to collective bargaining to workers in its" export-processing zones.¹⁰ As of writing, that matter is still under active consideration.

Conclusions and lessons

The most significant lesson to be derived from the Bangladeshi case is that an export industry cannot be indefinitely sustained solely on the basis of preferential access to restricted markets. Trade policy *per se* may have been significant for this most protected sector in the past, but that will no longer be the case in the coming years. The MFA has had a catalytic effect in two periods. The existence of quotas served to catalyse

development of the industry a generation ago, when Korean producers saw Bangladesh as a useful partner in the “quota-hopping” game, and the phase-out of those quotas has similarly catalysed the adoption of reforms in recent years. In preparation for the post-MFA environment, the country has taken steps that, it is hoped, will put it in a better position to compete head-to-head with countries that have heretofore been restricted by quotas.

The impending end of quotas prompted a switch in industrial strategies. Under the MFA regime, Bangladesh’s strategy was based primarily on low wages and quota access. The prospect of a more or less level playing field has inspired Bangladesh to address problems it cannot afford to ignore in the new environment. With varying degrees of success, it has acted to reduce the tariff and tax burden on entrepreneurs, simplify procedures, reduce corruption, make the exchange rate subject to market forces, enhance workers’ skills and address the demands of labour. These reforms have been more complete in some areas (*e.g.* freeing the exchange rate) than in others (*e.g.* labour reform).

How will Bangladesh fare in the post-MFA environment? The available evidence regarding the competitiveness of Bangladeshi producers is mixed, and expectations regarding the country’s post-MFA prospects are similarly diverse. “The challenge for Bangladesh is elephantine in size, formidable in magnitude and simply overwhelming in comprehension” according to the pessimistic perspective of one Bangladeshi scholar (Dowlah, 1998, p. viii), but another local team concluded to the contrary that while “in the short run there may be some turmoil and difficult adjustment ... in the long run Bangladesh will come out ahead” (Quddus and Rashid, 2000, p. 21). Based upon the reforms that have been undertaken to date, as well as the country’s commitment to further steps, there is ample reason to believe that the latter opinion is more accurate.

Colombia

Introduction

Colombia offers the example of a mid-level developing country that is moving from the protected production of commodity clothing to full-package manufacture of higher-end merchandise. It must compete not on price alone, but on the ability to provide advanced goods at a superior level of quality with a shorter turnaround time. It is this strategic perspective that shapes the Colombian view of trade barriers and preferences. Restrictions on market access, both at home and in export markets, are no longer seen in the narrow context of rent-seeking opportunities. These terms of market access are instead viewed in light of their impact on the country’s ability to compete at the higher end of the market. These calculations were part of what prompted Colombia to abandon an industrial strategy based on import-substitution industrialisation (ISI), which proved to be much more attractive in theory than in actual practice, and to promote forms of preferential trade that facilitate product upgrading. This might be called an “FTZ to FTA” approach, in which the earlier reliance on free trade zones – especially the emphasis on mere assembly of fabric – is replaced by the more advanced operations that are possible in suitably flexible FTAs.

The economic and policy context

Colombia’s ability to compete effectively in the world textile and clothing market depends upon its overall industrial competitiveness. Like many other developing

countries, Colombia based its development strategy for decades upon a protectionist foundation. That approach was ultimately abandoned in favour of a market-oriented model.

Commitment to market opening

One study properly described the “evolution of the political economy and trade policies in Colombia” as having followed “a circuitous path” (Haar and Reyes, 2000, p. 4). Like most Latin American countries, Colombia adopted a policy of import-substitution industrialisation in the early 1950s. Beginning in 1960, the government supplemented this approach with a policy of export promotion. The turn towards a truly market-oriented approach did not come until the disruptions caused by the debt crisis of the early 1980s. The initial effect of that crisis was to interrupt a process of liberalisation that Colombia had begun in the late 1970s. This first liberalisation period (1977-81) was derailed by a temporary retreat into protectionism (1982-84), which was followed by a second liberalisation period (1985-91) (Fernandes, 2003, pp. 9-10).

Colombia’s real commitment to an open economy dates to the early 1990s, with the launching of the *apertura* (openness) policy. While adjustments have been made across different administrations, the country has not returned to a protectionist orientation. This policy of openness goes beyond trade. It is an example of the “second-generation reforms” that several Latin American countries have adopted, these being defined as “supplemental measures, refinements of past actions, course corrections, or more far-reaching changes in strategy and policies” (Starck, 1999). In Colombia’s case, the structural reforms of the 1990s dealt with taxes, financial liberalisation, privatisation and liberalisation of external capital transactions. At the same time, average tariffs declined rapidly from 83% in 1985 to 7% in 1992 (Haar and Reyes, 2000, p. 7). It is on the basis of these reforms that Colombia is said to adhere to a “competitive” strategy – as distinguished from a “standard” market strategy – in its economic reforms. Whereas the standard strategy is based upon fairly strict adherence to the tenets of neo-liberalism, in the competitive strategy such instruments of public policy as “tax and credit incentives for smaller trading companies, export promotion, and job training programmes ... ha[ve] been more actively used as part of a development model based on free trade” (Wise, 1999, p. 1). Chile practiced this approach, for example, with much better results than were achieved by Argentina under the standard strategy or Brazil under a mostly standard strategy.

Exchange rate

One key component of *apertura* is a market-driven exchange rate. Since late 1999, when Colombia eliminated its exchange rate band and floated the peso, the Banco de la República has conducted its foreign exchange intervention through options-based mechanisms. This involves the auctioning of calls or puts (depending on whether the bank seeks to buy or sell US dollars), which may then be exercised when the spot rate deviates (through appreciation or depreciation) from its arithmetic moving average for the previous 20 days. In deciding whether to intervene in this way, the bank monitors the accumulation or decumulation of reserves, as well as the volatility of the exchange rate (for further details on these operations, see IMF, 2004, p. 6). This approach, and the volume of interventions, “are designed to slow the rate of change of the peso while letting the market determine its level” (IMF, 2004b, p. 17) and also avoid creating inflationary pressures.

The textile and clothing industry's fortunes have always been dependent on fluctuations in the dollar-peso exchange rate. As is always the case for multistage industries, however, changes in the exchange rate have different effects on producers in different segments of the value chain. For textile producers, a devaluation will improve its price-competitiveness *vis-à-vis* imported fabrics, but may also increase the cost of imported raw materials and capital goods. These costs might be managed, however, by specialising in fabrics that can be made from domestic inputs and by timing the purchases of imported capital goods. The problem may be more difficult to manage for clothing producers, where capital investments are less significant but fabrics must be supplied on a regular basis. In each case, however, eliminating the swings in exchange rates makes for a more predictable business environment.

Characteristics of Colombia's textile and clothing industry

The key fact for the Colombian industry – like its counterparts in OECD countries – is that domestic wage rates are well above those in developing Asian countries. As is the case in nearly all countries, wages are higher for textile workers (typically about USD 240 per month) than clothing workers (about USD 160 per month) (USITC, 2004a). The Colombian business model seeks to make up for the disadvantage in wage rates through non-price factors. These include the higher skill levels of Colombian workers, superior quality-control procedures and exploitation of the country's favourable geographic position.

Colombia has gradually moved up the ladder of sophistication in the clothing industry. Analysts commonly distinguish three types of arrangements in clothing trade, based on ascending levels of quality and involvement: *i*) mere assembly of clothing, often done on a subcontracting basis and usually in special economic zones; *ii*) original equipment manufacturing (OEM) is similar to assembly of low-value, commodity clothing, but is devoted to costlier, branded clothing; and *iii*) original brand manufacturing (OBM), in which the OEM manufacturer has acquired the expertise needed to design and market its own goods.¹¹ In the 1960s, most production consisted of simple assembly in free trade zones. By the late 1970s, Colombian firms were producing clothing under licence for several major brand-name companies. Today, an increasing number of OEM producers are developing their own capabilities in OBM production.

Moving up this ladder of sophistication has required that the clothing industry, and the economy in general, address several factors that restrained productivity. In a now-classic study of problems in the clothing industry during the 1960s and 1970s, one analyst noted that the main difficulties included low productivity of the work force, which greatly neutralised the advantages of low wages; lower management productivity, including a lack of appreciation for quality and punctuality; a tariff policy that restricted the availability of world quality inputs at world prices; export promotion zones that existed but did not work; and transport costs that were very advantageous but were not efficiently used (Morawetz, 1981). These bottlenecks have been dealt with in a series of reform initiatives, some of them undertaken on an economy-wide basis and others specific to the industry. Co-operation between the public and private sectors has been crucial. In 1989, for example, the government commissioned a series of outside studies of industrial sectors in order to promote their modernisation, one of which focused on the textile sector. In a happy coincidence, the industry received and began to adopt the recommendations emerging from this study at a time when it was already pursuing a self-initiated process of conversion and also at the time when the government adopted the

policy of *apertura*.¹² The initiatives of the public and private sector thus converged into a shared effort.

The clothing industry today has a reputation as a high-quality provider that can meet just-in-time deliveries, especially in such niche markets as women's underwear, babies' clothing and swimwear. In anticipation of 2005, the industry has been shifting its focus from basic garments to higher-end fashion items, while also offering full-package programmes. These are sourcing arrangements that can provide the entire range of garment manufacturing – clothing design, all steps of textile production, distribution of the finished garment – or any combination of these operations.

Labour, management and investment

Major problems in past decades included the lack of competence in the work force and the lack of professionalism in management. Both of these issues have been dealt with at industry level. The clothing industry in particular undertook new training programmes in the early 1990s, seeking to ensure that workers could perform new functions or “have the flexibility required to execute distinct tasks within the same production process” (*i.e.* multitasking) (Jaramillo *et al.*, 1996, p. 174). While this approach would appear to contradict the logic of specialisation, it paid off for the industry. Colombia's plans for the post-2004 environment depend upon its ability to compete in the higher end of the market, including full-package production of quality garments. This in turn depends on the skill levels of its workers, which already compare favourably with competitor countries in Asia. Worker training is therefore a priority in the clothing industry, with permanent training programmes held jointly by the government and the private sector.

Managerial improvements have kept pace with advances in labour, largely through a process of learning by doing. Colombian clothing production is primarily based on trade rather than investment. This is true both for the full-package producers in the higher end of the market and for those that do contract work for foreign retailers. Local management operates both textile and clothing companies, and most firms in Colombia's textile and clothing sectors are owned by Colombians. Producers of man-made fibres, however, are reportedly foreign-owned or have foreign capital from companies headquartered in the United States, Mexico, Germany and the United Kingdom. Colombian policy makers hope to attract new foreign investment in order to enhance the country's competitiveness in the production of higher-quality fabrics and clothing.

The *apertura* led to increased trade activity, but was even more significant for the changes that it inspired in the internal operations of the textile industry. Whereas some 38.5% of producers said in a poll that they had begun substituting imported inputs for national products, this was much smaller than the percentages saying that they had reorganised their productive processes (73.0%) (Jaramillo *et al.*, 1996, p. 108). It was during this period that many firms in the textile industry adopted programmes based on total quality management, just-in-time production and strategic planning (*Ibid.*, p. 172). The clothing industry undertook similar efforts, especially in total quality management (*Ibid.*, p. 110).

Transport costs

Much has been done to take better advantage of Colombia's strategic location. It is close to the United States and is the midpoint between North and South America. It is also the only South American country with ports on both the Pacific Ocean and the Caribbean. Its location gives Colombia an advantage in turnaround time, a critical

consideration in the higher value-added segments of this industry, especially for co-production arrangements. Shipping US-made and -cut fabric to Asia for assembly can require a turnaround cycle of four to six weeks, which is much less attractive for an Asian producer than the transformation of Asian fabric into clothing (a process that may take only a week) (McMillan *et al.*, 1999, pp. 21-22). Colombia can ship products to the United States within three days by sea or three hours by air.

Trade policy

The Colombian textile and clothing industry has transformed itself from one based on a protected local market to competition in export markets. This required not only the all-important transition from ISI to an export orientation, but also avoiding the pitfalls of simple assembly and price-based rent seeking. Under MFA quotas, it would have been easy for Colombia to establish a “quota baby” industry that chased short-term profits in restricted markets. The Colombian strategy is instead to be competitive in a post-2004 world. Colombia has taken steps to reverse its earlier policy of protectionism. Those steps were at first limited to autonomous programmes that provided for exemptions from protection, but then moved into reciprocal agreements that provide for the removal of protective barriers on a mutual and negotiated basis.

This required a revolution in producers’ expectations, as many were happily insulated in the ISI system. In the early 1990s, half of all textile producers did not export at all, and only 3.8% exported more than half of their production (Jaramillo *et al.*, 1996, p. 101). Just over half (51.7%) of clothing producers were exporters (*Ibid.*, p. 163). Clothing producers took a more pessimistic attitude towards the *apertura* than the textile industry, with “entrepreneurs being more concerned about the damage that could be done to them by imports – especially the illegal ones – than they were by the benefits they derived from exports” (*Ibid.*, p. 165). Since then, the clothing industry has a greater degree of export orientation and has undergone a change in mentality.

An export industry’s competitiveness is determined in part by its ability to escape the anti-export bias of protectionist barriers. Because the Colombian fibre-fabric-clothing chain is only partly integrated, it is dependent on trade in both directions. While Colombia grows cotton, production declined during the 1990s and cotton fibre imports now account for more than 65% of consumption. Most of the synthetic fibres used by Colombia’s textile industry are imported, primarily from the United States (USITC, 2004a). Trade reforms have helped to enhance the competitiveness of Colombian industry. One study examined the response of textile, clothing and other industries in Colombia to changes in the level of protection. It found “strong evidence supporting the hypothesis that Colombian plants’ productivity is negatively affected by trade protection,” due to “an increase in *i*) skilled labour intensity of production, *ii*) imports of intermediate inputs, and *iii*) investments in machinery at the plant level” (Fernandes, 2003, p. 3).

Improvements in the domestic industry’s capabilities have been complemented by shifts in the nature of the trade regime. In past decades, tariffs on imported textiles and clothing were set at virtually confiscatory levels, but – under the terms of the Plan Vallejo adopted in 1967 – incentives were available for exporters who imported raw materials and capital goods. The Plan Vallejo allows tariff-free imports of raw materials for use in finished products to be exported. With modifications, it remains in place to this day. That plan, coupled with free trade zones, helped to establish clothing assembly and OEM production in Colombia. The FTZs permit exemption from income tax on all export

earnings; exemption from all customs duties and value-added taxes on goods and services brought into the zone; the right to exchange, hold and negotiate foreign currency and to open domestic or foreign bank accounts in foreign currency; and exemption from income tax on all export earnings.

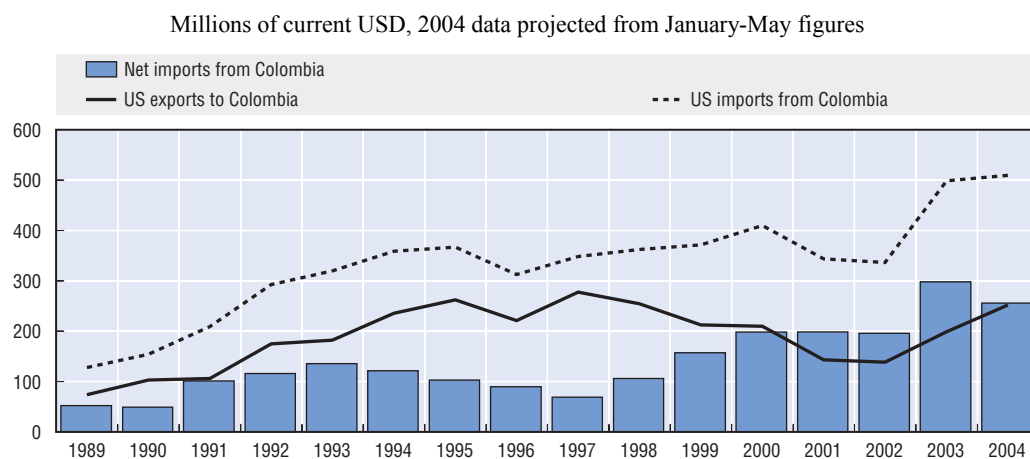
While the Plan Vallejo remains in place, it is being overtaken in importance by another, more ambitious regime. In a strategy that might be described as “from FTZs to FTAs”, Colombia has gradually moved away from simple assembly of commodity clothing in enclaves to more sophisticated production for sale in the markets of its FTA partners. FTAs can be more conducive to value upgrading than FTZs, provided that their rules of origin are not too restrictive. The current FTA negotiations between Colombia and the United States – as discussed below – are just the latest and largest in a series of steps towards free trade between Colombia and the rest of the Americas. Among the other major steps were the transformation of the import-substituting Andean Group into the Andean Community in the 1990s, based on a common market and “open regionalism” (*i.e.* simultaneous reduction of barriers to trade with third countries); negotiation of the Group of Three (or G-3) agreement with Mexico and Venezuela in 1994; the Colombia-Chile bilateral agreement (1994); and the launch of the negotiations for a Free Trade Area of the Americas in 1998.

The conclusion of an FTA between the United States and Colombia – which may also include Ecuador, Peru and perhaps Bolivia – will be the culmination of a process that has been under way for two decades. As discussed at greater length in the US case study on textiles and clothing, much of US textile and clothing policy since the mid-1980s has attempted to encourage co-production with countries that incorporate US-made fabric into finished clothing. The application of that policy to Colombia has gone through three phases. Prior to the early 1990s, the only available means was to encourage production in FTZs. The US complement to the Plan Vallejo was the HTS 9802 programme, under which imports of products assembled abroad from US components would be subject to tariffs only on the foreign value added. As Figure 6.4 shows, there is a close correspondence between US exports to and imports from Colombia in this sector. Until recently, those imports and exports were usually two ends of the same transaction: US fabric entered Colombia duty-free under the Plan Vallejo, and the finished clothing entered the United States on reduced-duty basis under the 9802 programme. Use of the 9802 programme has declined in recent years, however, a development that has been attributed to “a shift in Colombia’s sector trade from clothing assembly-only operations to “full package” clothing programmes in an effort to boost its competitiveness” (USITC, 2003, pp. 2-32).

The second phase came with the enactment of the Andean Trade Preferences Act of 1991, which was renewed and expanded by the Andean Trade Promotion and Drug Eradication Act of 2002 (ATPDEA). The 1991 preferences did not include textiles and clothing, but the 2002 amendments did. Provided that products met the ATPDEA rules of origin – which do allow for some use of third-country materials – the goods would receive duty- and quota-free access to the US market. The allowance for limited use of third-country materials is critically important, as Colombian producers need greater sourcing flexibility in order to continue their transition from simple assembly operations. The early results of the expanded preferences can be seen in Figure 6.5. While the raw data suggest that some of the US imports from Colombia in 2003 and 2004 (Jaramillo *et al.*, 1996, p. 182) may have represented only a change in the dutiable status of existing trade flows, the jump in import values also implies that the preferences stimulated some additional sales. The FTA negotiations offer an opportunity for further transformation of

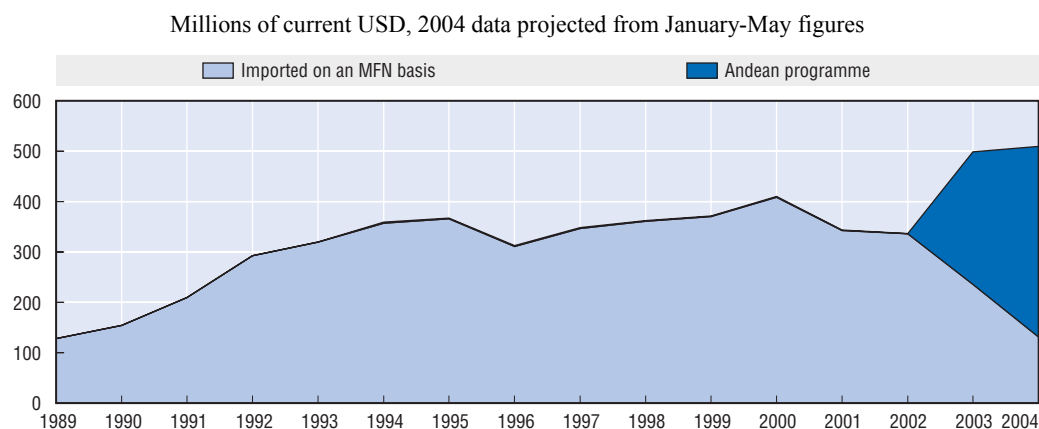
the US-Colombian textile and clothing relationship, but this will depend in part on the rules of origin that are negotiated.

Figure 6.4. US-Colombian trade in fibre, fabric and apparel, 1989-2004



Source: Calculated from US International Trade Commission data.

Figure 6.5. US imports of apparel from Colombia, 1989-2004



Source: Calculated from US International Trade Commission data

Conclusions and lessons

The Colombian experience underlines the importance of eliminating the anti-export bias that is inherent in protectionist regimes. While Colombian policy makers sought for decades to reconcile these two aspects of the textile and clothing policy regime, they ultimately had to sacrifice the protectionist barriers altogether. Once the country was committed to open markets, the domestic industry enjoyed the advantages of access to higher-quality, lower-cost imports of supplies and capital goods, while also being exposed to the challenges of competition.

Changes in government policy offer only an opportunity to compete. It is the firms themselves that need to take advantage of these opportunities by improving their competitiveness. According to one study of the clothing industry, the success of the firms

that have performed the best during the *apertura* has been “founded upon their capacity to deal with competition through their controls of production costs, management of sales prices, and improvement in the quality of the goods that they offered for sale” (Jaramillo *et al.*, 1996, p. 182). Firms that undertook reforms were then in a better position to serve both the local and export markets.

Trade policy can complement these efforts by encouraging the upgrading of products and processes. The industry has benefited in particular from a complementarity in the trade policy goals of both Colombia and the United States, both of which have acted to encourage co-production operations and the progressive upgrading of Colombian firms’ operations. Through a combination of more liberal government policies, enhancement of managerial and labour skills, learning by doing, preferential trade programmes, and the negotiation of FTAs, the Colombian industry has been transformed. What was once a protected industry with narrow goals has developed the capacity to offer high-quality, full-package production. This industry would be in poor shape if it sought to compete with the major Asian producers solely on the basis of price, but it has instead moved into higher-value segments where non-price considerations are equally important.

Lesotho: The clothing sector

Introduction

Lesotho is a land-locked, LDC surrounded by, and to a large extent dependent on, its South African neighbour. Nonetheless, it has managed to develop a flourishing clothing industry and become one of the largest exporters of clothing in Sub-Saharan Africa. This case study reviews the Lesotho clothing sector and focuses on government policies that have influenced its expansion and competitiveness. A combination of factors has helped attract (mainly Asian) investors: *i*) relative political stability; *ii*) a relatively well-educated and productive labour force; *iii*) an active export and investment promotion policy; *iv*) access to South Africa’s infrastructure; and *v*) preferential access to the EU and US markets. Although the US African Growth and Opportunity Act (AGOA) helped trigger an industry boom, it is important to emphasise that the first investments occurred long before its introduction.

Economic and social developments

At independence, in 1966, the country was totally dependent on agriculture and lacked a manufacturing base. Rapid growth in the 1970s (average real GDP growth of 7% a year) and between 1987-97 (6.4%), driven first by remittances from migrant labour and aid money and later by foreign investments, transformed the economy. Manufactures now make up 18% of GDP, around half of which comes from the clothing sector (IMF, 2004c) (Table 6.2).

Traditionally, the economy has been heavily dependent on workers’ remittances, which accounted for nearly half of GNP during the 1980s.¹³ Declining demand for low-skilled workers in South Africa – in conjunction with domestic civil unrest – contributed to a severe crisis and dramatic reduction in remittances, to one-quarter of GNP, by 1998 (Lundahl *et al.*, 2003).

Table 6.2. Structure of Lesotho's economy

Average percentages

	1976-1984	1985-1994	1995-2002
Agriculture, value added (% of GDP)	30.9	21.2	17.4
Industry, value added (% of GDP)	24.7	33.0	40.9
Services, etc., value added (% of GDP)	44.4	45.8	41.7
Trade (% of GDP)	134.8	135.5	133.3
Exports of goods and services (% of GDP)	16.5	16.9	31.1
GDP growth (annual %)	8.0	5.0	3.3
Employment in agriculture (% of total employment)	40.2	40.0	n.a.
Employment in industry (% of total employment)	34.1	27.9	n.a.
Employment in services (% of total employment)	25.6	32.1	n.a.

Source: World Development Indicators CD-ROM (2004).

Exports grew markedly during the 1990s and increased even more dramatically at the end of the decade thanks to AGOA (Table 6.3). Exports now make up over 50% of GDP, with clothing accounting for three-quarters. Approximately 95% of clothing exports are sold on the US market under AGOA.¹⁴ Even though all inputs to the clothing industry are imported from Asia and South Africa, growth in exports has helped to lower Lesotho's large trade deficits. Nevertheless, in 2002, overall imports were more than twice exports and came mainly from the countries of the Southern African Customs Union (SACU).

Table 6.3. Lesotho's export structure

	HS Code 2	1976-84	1985-94	1994-03
Articles of apparel and clothing accessories	84	5.91%	77.97%	86.65%
Non-metallic mineral manufactures, n.e.s.	66	17.97%	7.66%	11.62%
Gold, non-monetary (excluding gold ores and concentrates)	97	0.00%	6.45%	0.60%
Fish, crustaceans, molluscs, preparations thereof	03	0.01%	0.02%	0.36%
Vegetables and fruit	05	3.71%	3.82%	0.31%
Other transport equipment	79	0.29%	0.03%	0.08%
Special transactions and commodities not classified according to kind	93	0.11%	0.16%	0.05%
Miscellaneous manufactured articles, n.e.s.	89	30.32%	0.18%	0.04%
Dairy products and birds' eggs	02	0.00%	0.00%	0.04%
Non-ferrous metals	68	0.01%	0.03%	0.02%

Source: UN COMTRADE Database, SITC Rev. 3.

Although Lesotho's growth performance has been remarkable, there has been a low level of formal employment creation and rising poverty, notably because of low productivity in agriculture and declining employment possibilities in South African mines (Lundahl *et al.*, 2003). The official unemployment rate is over 30%. Employment in the

clothing industry surpassed that in the public sector in 2001 but has not been sufficient to absorb losses in other sectors. Moreover, income inequality is among the highest in the world and gender inequality is pronounced. Women have fewer opportunities than men, partly because they are still prohibited from owning and transferring property. HIV/AIDS is taking a heavy toll and life expectancy declined from 53 years in 1989 to 45 years in 1999. Education has been a priority of the government since the structural adjustment programmes of the late 1980s, and at 81.4%, Lesotho's literacy rate is higher than the Sub-Saharan average of 63%.

Clothing industry developments

Industry performance, structure and impact on the economy

The clothing sector has been the main source of economic growth and employment in Lesotho. The origins of the industry date from the early 1980s, when clothing operations were moved from South Africa to Lesotho to avoid international sanctions, to take advantage of cheap and relatively productive labour and of the country's derogation to the Lomé Convention rules of origin.¹⁵ Preferential market access to the European Union and the United States and the provision of incentives helped to lure investors. The first East Asian investment was made in 1986. Since then the industry has grown at a sustained pace, which only slowed at the end of the 1990s. The approval of AGOA in 2000 gave a major boost to the industry (Gibbon, 2002; IMF, 2004c).

The clothing industry has created a large number of jobs for a predominately female labour force. In February 2003, 43 firms with 43 000 employees (90% women) were reported, with several investment projects under way. In addition, many small manufacturers produce for the domestic market. Chinese Taipei-owned companies dominate, and production focuses almost entirely on jeans (60%) and t-shirts (40%) for the US market.¹⁶ All inputs are sourced from abroad, but rules of origin that will apply from 2007 have prompted investment in fabric, spinning and knitting facilities (ITC, 2001; USITC, 2004b; Gibbon, 2002).

The private sector is very polarised, and there is no internal co-ordination to voice common concerns to the government. Larger firms tend to rely on their own networks for trade information, while smaller ones are reported to be quite unaware of production standards and market opportunities. Overall, there are very limited links between the foreign-owned export sector and domestic firms, in terms of providing inputs and services.

Government policies

Lesotho is highly dependent on South Africa in terms of macroeconomic policies, trade, investment, transport and employment. Nevertheless, government policies have played an important role in the development of the clothing sector.

In the late 1970s there was an important shift in the country's development strategy. The government adopted an industrial promotion policy combining import-substitution and export-oriented production and acknowledging a larger role for the private sector (Matlsoa, 1999). This was not enough, however, to overcome the economy's structural weaknesses (Lundahl *et al.*, 2003). Economic stagnation in South Africa, combined with rising budget and current account deficits, led to a build-up of public debt in the 1980s. At the end of that decade, the country embarked on a set of structural adjustment

programmes sponsored by the international financial institutions (IFIs). This co-operation has continued, with a focus on macroeconomic stability and structural reform.

In terms of macroeconomic and trade policy, Lesotho's room for manoeuvre is constrained by the country's membership in the Common Monetary Area (CMA) which comprises Namibia, South Africa and Swaziland, and in SACU, which also includes Botswana.¹⁷ The currency is pegged to the South African rand, which affects Lesotho's external competitiveness and inflation rate. Lesotho applies the common SACU external tariff policies and trade laws and enjoys duty-free access to other member countries' markets. Half of government revenue comes from customs duties collected and redistributed by South Africa's National Revenue Fund.¹⁸

The common external trade regime is relatively open, with an average simple tariff rate of 11.4% in 2002, down from 15% in 1997. However, this conceals significant tariff peaks on clothing and inputs, which create an anti-export bias for Lesotho. In addition, there is a range of less transparent, specific, mixed, compound and formula duties (Integrated Framework, 2003; WTO, 2003a). A combination of weak institutional capacity and poor public-private dialogue undermines the ability to handle complex policy issues in the trade policy-making process.

In terms of external market access, Lesotho's clothing exports enjoyed preferential market access in the 1980s to the European Union under the Lomé Convention and to the United States under the Generalised System of Preferences (GSP). At the end of the decade, the EU requested that two stages of production be carried out in the country of origin or in an eligible ACP country. After an eight-year dispensation period, several foreign producers reduced their activities in Lesotho, while others shifted their exports to the US market to take advantage of unused quota under the MFA. In 2000, the AGOA took effect, granting qualifying Sub-Saharan countries duty-free access for clothing and a range of other products to the US market. Inputs must normally originate from the United States or another eligible Sub-Saharan country, but this rule will not apply to LDCs such as Lesotho until January 2007.¹⁹

FDI has played a fundamental role in the development of Lesotho's clothing industry and its export performance (World Bank, 1998; Lundahl *et al.*, 2003). The country has no foreign investment law, but the investment regime is considered liberal and non-discriminatory. There are no restrictions on ownership and no history of expropriation. The Investment Promotion Centre, a branch of the parastatal *Lesotho National Development Corporation* (LNDC) acts as a one-stop facility for investors, providing a range of incentives for them.²⁰ Although important, incentives were not the main drivers of FDI.²¹ Reasons for Lesotho's attractiveness as a destination for FDI include: favourable international trade agreements (including the exceptions from the EU rules of origin); the productive labour force; access to South African ports; and efficient mechanisms in place for exporters.²²

Future challenges and opportunities

The most acute future challenge for the clothing industry might be changing market access conditions. The threat posed by the phasing out of the special textile provision in 2005 (now postponed to 2007) has induced some companies to invest in backward integration, but the overall impact on the industry is still unclear. At the same time, the elimination of the MFA quotas will probably mean stronger competition from countries like China and other Asian producers. Opportunities include the FTA that is being

negotiated between SACU and the United States, and the EU's Everything But Arms initiative, even though the rules of origin of the latter need to be clarified (IMF, 2004c).

On the domestic side, the government faces major challenges to further develop and diversify the economy. As regards clothing, it is necessary to enhance the linkages between the foreign-owned firms and the local economy by improving the business climate, supporting local entrepreneurs and enhancing on-the-job training. This task is complicated by Lesotho's weak entrepreneurial culture, cultural differences between foreign investors and the local population, and the declining quality of the vocational skills component in the education system (Lundahl *et al.*, 2003). Training facilities are lacking, partly because of the reluctance of foreign employers to train and promote local employees (Integrated Framework, 2003). In parallel, HIV/AIDS looms as a major health and development threat.

The lack of dialogue between government and the private sector may seriously undermine the country's ability to handle trade-related challenges, such as those enumerated above (Integrated Framework, 2003; Capra-TFOC Consortium, 2003). In this respect, donors have been very active in supporting the country's trade policy making, in particular through the Integrated Framework for Trade-Related Technical Assistance (see Box 6.1).

Box 6.1 Integrated Framework for Trade-Related Technical Assistance

The Integrated Framework for Trade-Related Technical Assistance (IF) is a multi-donor programme that aims to integrate trade priorities in national development plans, such as the Poverty Reduction Strategy Papers (PRSPs), of least-developed countries and to assist in the co-ordinated delivery of trade-related technical assistance, in response to needs identified by the LDCs. The programme was initiated in 1997 by six multilateral institutions (IMF, ITC, UNCTAD, UNDP, World Bank and the WTO). Fourteen countries currently participate in the IF, including Lesotho.

An important element of the IF is the Diagnostic Trade Integration Study (DTIS) – a country report that assesses the participating country's present trade and investment regime, identifies trade bottlenecks and opportunities, and suggests recommendations for policy reform and technical assistance. The Lesotho DTIS was finalised in November 2003 and is available on the IF Web site. The following recommendations are included in the report:

- Engage actively in regional arrangements (SACU and SADC), including pursuing liberalisation of SACU's common external tariff, limitations on the use of non-tariff barriers, and regional co-operation in the introduction of trade-facilitating measures.
- Undertake efforts to improve the country's investment climate for foreign and domestic investors alike, which includes streamlining the licensing system for new business entrants and foreign trade operations, land management, and the system governing entry of foreigners into Lesotho.
- Invest in infrastructure and human resources, both in long-term education and short-term training, especially in the clothing sector.
- Attempt to improve statistical reporting and administrative procedures.

The DTIS recognises that there is great need for external assistance to develop the institutional capacity required to address these issues. As a consequence, a national IF steering committee, with participants from the government, the private sector and donors, has been established to manage follow-up activities (*i.e.* the implementation of technical assistance and capacity-building projects).

Source : Integrated Framework (2003), www.integratedframework.org.

There are concerns that the booming clothing sector may contribute to the spread of HIV/AIDS, since the employment opportunities created have fuelled rural-to-urban migration of young people. In response, a Private Sector Coalition against HIV/AIDS was launched in 2002 (IRIN, 2003). In addition, the sector may have a negative environmental impact, owing to its extensive use and pollution of scarce water. The 2000 Environmental Bill deals with the environmental threat, but stakeholders have been slow to implement concrete solutions (Gibbs and Gibbs, 2002).

Conclusions

Lesotho's clothing industry has been called a "success story" (IMF, 2004c, p. 14), and the sector has undoubtedly made an important contribution to economic growth, exports and employment. However, the spillover effects to the local economy are limited and it remains to be seen how the foreign-owned export enterprises respond to changing market access conditions. In any case, the economy has now become dependent on a single major industry, which makes it vulnerable. Further diversification and promotion of local entrepreneurship should be high on the government's agenda.

Mauritius: The clothing sector

Introduction

Despite preconditions that may appear unfavourable, such as high population growth and monocrop dependency, Mauritius is now widely cited as a success story in terms of development and economic diversification (Subramanian and Roy, 2001). In less than three decades, it successfully transformed itself into an "upper middle-income" country, by achieving sustained growth of real per capita GDP and developing an internationally competitive clothing industry and a flourishing tourism industry. A combination of (OECD country) trade preferences and incentives in the form of EPZs allowed the clothing industry to grow rapidly. However, what made this possible were strong public institutions and democratic traditions, which facilitated the introduction of well-crafted and widely accepted economic reforms. Preference erosion and a relative decline in international competitiveness now put pressure on the government to help the clothing sector adapt through upgrading and regional integration. This case study reviews the emergence of the Mauritian clothing sector since 1970, with specific emphasis on the role of government policies.

Economic and social developments

Both economic and social developments have been impressive since Mauritius gained independence. It has enjoyed political and macroeconomic stability, which favoured the inflow of foreign investment and the development of export-oriented manufacturing. The economy has diversified into manufactures (mainly clothing), services (*e.g.* tourism and financial services), agricultural products and fisheries (Table 6.4). These changes are also reflected in trade patterns, with manufactures accounting for around 65% of total exports in 2003 (Table 6.5). Moreover, from being a net recipient of FDI, Mauritius has become an outward investor to neighbouring countries, such as Madagascar (clothing) and Mozambique (sugar).

Table 6.4. Structure of Mauritius's economy

Average percentages

	1976-84	1985-94	1995-2002
Agriculture, value added (% of GDP)	17.4	13.4	8.2
Industry, value added (% of GDP)	25.7	32.4	31.6
Services, etc., value added (% of GDP)	56.9	54.2	60.2
Trade (% of GDP)	100.5	123.6	126.6
Exports of goods and services (% of GDP)	46.3	60.2	62.7
GDP growth (annual %)	4.0	6.4	5.2
Employment in agriculture (% of total employment)	29.4	15.1	14.5
Employment in industry (% of total employment)	24.5	43.0	39.8
Employment in services (% of total employment)	42.9	40.5	45.7

Source: World Development Indicators CD-ROM (2004).

Table 6.5. Mauritius's export structure

	HS Code 2	1976-84	1985-94	1995-03
Articles of apparel and clothing accessories	84	21.82%	52.25%	57.24%
Sugar, sugar preparations and honey	06	63.48%	30.05%	19.31%
Fish, crustaceans, molluscs, preparations thereof	03	2.75%	2.12%	5.23%
Miscellaneous manufactured articles, n.e.s.	89	1.39%	2.82%	4.39%
Non-metallic mineral manufactures, n.e.s.	66	1.09%	1.82%	2.97%
Textile yarn, fabrics, made-up art., related products	65	2.01%	1.95%	1.65%
Photographic apparatus, optical goods, watches	88	1.75%	2.99%	1.52%
Professional, scientific and controlling instruments	87	0.09%	0.25%	0.69%
Animals, live, zoo animals, dogs, cats, etc.	94	0.00%	0.15%	0.60%
Fertilisers, manufactured	56	0.17%	0.30%	0.54%

Source: COMTRADE Database, SITC Rev. 3, PART III: ANNEX A2. SECTORAL CASE STUDIES (5-8).

These economic achievements have been coupled with social improvements. Mauritius today ranks second in Africa in terms of the UNDP Human Development Index. At independence, most people lived in poverty (World Bank, 2002). According to the most recent survey, less than 14% of households fall below the official poverty line (CSO, 2002). Life expectancy at birth has increased considerably and infant mortality declined to 64 per 1 000 live births in 2002, a quarter of the 1970 level (World Bank, 2002; UNDP, 2003). Income equality is much higher than in other non-LDC Sub-Saharan countries (Anker *et al.*, 1998; CSO, 2002). The status of women has also improved, through better education, labour market participation and political representation (World Bank, 2002).

Clothing industry developments

The expansion of the clothing industry, facilitated by a wide range of government policies, has been the main driver behind the structural change that has taken place in Mauritius since the 1970s. (Chernoff and Warner, 2002). The main growth period took place in the 1980s, but slowed during the 1990s, when the industry was confronted with increasingly difficult market conditions.

Industry performance, structure and impact on the economy

In 2002, Mauritius exported almost USD 1 billion in clothing (SITC code 84), nearly 55% of its merchandise exports and 1% of world clothing exports. The sector comprises more than 200 companies, employing 62 500 workers (13% of total employment), most of them women (CSO, 2004a).²³ About two-thirds of the firms are owned by Mauritian nationals and mainly export to the European market. Chinese-owned companies mainly export to the United States (Gibbon, 2000).

The main products are t-shirts, men's shirts, trousers and pullovers. Because of the year-round demand for these product types, Mauritius's remoteness and long delivery times to the main markets are not a serious problem. Production is heavily dependent on imports of intermediary products such as yarn and fabrics. Imports – mainly from China and India, Europe and South Africa – make up about half of the exports (CSO, 2004a; Anker *et al.*, 1998).

The sector developed during the 1970s, thanks to capital from sugar exports and foreign investors (mainly from Hong Kong, China), attracted by cheap labour, preferential access to export markets and government incentives. After dramatic growth during 1970-77 (employment in the sector grew by almost 40% a year), rising labour costs and exchange rate appreciation reduced the sector's competitiveness. A second expansion took place during the 1980s, when structural adjustment programmes contributed to economic stabilisation, and the government granted improved incentives to investors (Chernoff and Warner, 2002). The downside of the boom was a significant increase in labour costs. Labour shortages drove up wages without a corresponding increase in productivity. In the 1990s, international competition intensified. Increased pressure forced inefficient companies out of business; others were compelled to adjust by improving productivity, upgrading production, importing foreign labour and outsourcing to lower-cost locations, such as Madagascar (Gibbon, 2000).

Some companies have recently invested in backward integration to adhere to the AGOA rules of origin requirements. However, the basic clothing sub-sector has moved up the value chain. Some producers for the EU market tried to develop their own brands in the 1990s, but failed because of the costs involved and the remoteness of the markets.

The impact of the clothing industry on the rest of the economy has been substantial in terms of contribution to growth, export, employment and poverty reduction, but less so in terms of production linkages (Anker *et al.*, 1998; Chernoff and Warner, 2002). The EPZ sector has created a demand for services in packaging, consultancy, water and other areas, and local enterprises have learned extensively from foreign companies (UNCTAD, 2001). The room for linkages creation is constrained by the small size of the economy and the inability of local suppliers to meet world standards in terms of quality and timeliness (Wignaraja, 2002).

Government policies

The clothing sector has benefited from a stable macroeconomic environment and the adoption of outward-oriented policies. On the one hand, fiscal deficits and inflation have been under relative control and the exchange rate has remained competitive. On the other, the government has actively promoted the development of export-oriented industries, mainly by establishing an EPZ and joining the Yaoundé Convention, which gave Mauritian exports privileged access to the EC market.

The failure of the import-substitution policies of the 1960s to reduce high unemployment demonstrated the need for a change in development strategy. However, the government sought to develop a labour-intensive export-oriented sector without disrupting the import-substitution industries established in the second half of the 1960s. To resolve this trade-off, it adopted a two-track approach, by insulating the export sector from the import-competing one. The main feature of the dual system was the establishment of the EPZ, which benefited from tax incentives, duty-free imports and loose labour legislation. Combined with public investments in infrastructure, a cheap and abundant labour supply and preferential market access, international and domestic investments were attracted to the nascent clothing industry in the EPZ (Bonaglia and Fukasaku, 2001).²⁴

The mix of import substitution and export promotion prevailed up to the structural adjustment programmes of the early 1980s, when trade liberalisation was gradually completed. Structural adjustment grew out of a combination of exogenous shocks, such as falling sugar prices, an international recession and a domestic fiscal imbalance. Key reforms to restore competitiveness included the introduction of a flexible exchange rate and wage restraint and boosted the clothing sector. Quantitative restrictions on imports and a number of price controls were abolished (Gulhati and Nallari, 1990). By the mid-1990s, Mauritius was one of the most liberal regimes in Africa, although protection was still higher than in the newly industrialising economies (NIEs) in Southeast Asia (Milner, 2001; WTO, 2001).²⁵ In addition, measures introduced to streamline bureaucratic procedures and further attract investment included the adoption of double-taxation agreements, the establishment of a one-stop shop for investors (Mauritius Export Development and Investment Authority [MEDIA]), export guarantees set up by the Development Bank of Mauritius and tax reforms. The reforms paid off, stability was restored and sustained growth resumed.²⁶ The situation began to worsen in 2000 owing to a widening fiscal deficit, declining clothing exports and sluggish income growth.²⁷

The government has invested heavily in improving the country's endowment, in terms of human and physical capital, and supports the private sector through various structures (see Box 6.2). The Development Bank of Mauritius and MEDIA have been important vehicles for financing infrastructure and industrial facilities (Lamusse, 2001). A range of public institutions supports the private sector in general and the clothing industry in particular (Bonaglia and Fukasaku, 2001; Wignaraja, 2001).

Well-managed investment incentives and promotion have played an important role in attracting foreign enterprises and allowing them to exploit the country's comparative advantage to the fullest extent. However, these measures would have been less successful without a conducive macro- and microeconomic environment.²⁸

Box 6.2. Public support institutions in Mauritius

Throughout the years, the government has actively promoted trade and investment activities in the clothing sector. Four parastatal institutions under the Ministry of Industry, Commerce and International Trade make up the backbone of the system: the Mauritius Industrial Development Agency (MIDA, former MEDIA), the Export Processing Zone Development Authority (EPZDA), the Small and Medium Industry Development Organisation (SMIDO), and the Board of Investment (BOI). A range of other public organisations also support Mauritian industry, such as the recently established National Productivity and Competitiveness Council and the Industrial and Vocational Training Board. In spite of an impressive institutional framework, government efforts to upgrade technology in the clothing industry are reported to have had limited impact. Wignaraja (2001) concludes that, overall, the support institutions have been too constrained in size, financial resources and technical skills to respond to emerging industry needs, even though the situation has improved in recent years. What seems clear, however, is that the Development Bank of Mauritius has played a key role in providing long-term financing and investments in infrastructure to the clothing industry. Overall, it is difficult to gauge the importance of the support institutions in the development of the clothing industry relative to other factors. However, although the direct impact may be limited, they are part and parcel of a strong public framework for promoting business.

Source : www.jec-mauritius.org; Bonaglia and Fukasaku (2002) and Gibbon (2000).

A key element for success has been the country's stable and inclusive democratic traditions, based on political consensus, a free media and the respect for the rule of law and property rights. The need for social cohesion – vital in a country characterised by significant ethnic diversity – also fostered relatively strong public institutions and important social protection, including centralised wage bargaining, price controls on sensitive items, and generous social security (Subramanian and Roy, 2001).²⁹

A number of examples show that this participatory policy environment has been of significant importance to the economy in general and the clothing sector in particular. First, in 1970 the government was responsive to demands from business circles to establish the EPZ. Second, ethnic networks were largely instrumental in attracting FDI to the EPZ. Third, a deal was struck between sugar exporters and the government; the property rights of the sugar owners were guaranteed while a share of the sugar rents was transferred to the public sector. In that way, earnings from sugar exports were available for private investment in the clothing industry, while the government could pay for civil servants and social protection (Subramanian and Roy, 2001). Fourth, Gulhati and Nallari (1990) argue that Mauritius's democratic culture helped the country get through the economic imbalances at the end of the 1970s by providing politicians with early signals about what was wrong in the economy. Finally, the private sector participates in trade policy discussions and negotiations, *e.g.* through the Joint Economic Council, its apex organisation (see Box 6.3). This enhances the possibility of reaching an outcome supported by all actors (Bonaglia and Fukasaku, 2002).

Box 6.3. Public-private dialogue

The participatory nature of policy making, through private-sector representation in parastatal institutions and regular consultations with industry groups, has had an important impact on the adjustment process. A key mechanism for inclusive politics has been the Joint Economic Council (JEC), established in 1970. It operates as the co-ordinating body of the major multi-sectoral institutions and industry associations in Mauritius (Chamber of Commerce; Chamber of Agriculture; Employers' Federation; Sugar Producers' Association; Export Processing Zone Association; Bankers' Association; Insurers' Association; Hotels and Restaurants Association). The structure and functioning of the JEC enable greater co-ordination of the different institutions while making it possible to build institutional expertise for each represented industry. Hence, sectoral issues are dealt with by the relevant industry association, while cross-cutting issues such as national budget, wage negotiations and international trade negotiations are dealt with by the JEC as a whole. Discussions take place in a structured manner as well as on an *ad hoc* basis. The JEC is fully funded by its members. Bonaglia and Fukasaku (2002) argue that while the private-public partnership has been a key element in Mauritius' success, some shortcomings hamper the pace of reforms, such as delays in policy formulation and implementation, and a "wait-and-see" attitude on the part of the private sector.

Source : Bonaglia and Fukasaku (2002).

Future challenges and opportunities

Mounting global competitive pressures in terms of demands for lower prices, higher quality and shorter lead times are putting Mauritius' clothing industry in peril. In view of the failed attempts to move up the value chain, Gibbon (2000) foresaw a rapid contraction of the Mauritian clothing industry if no reforms were undertaken to increase the sector's productivity, with Mauritian enterprises becoming delocalised mid-market suppliers of basic clothing to the EU and the United States. Improved market access through the AGOA has provided temporary relief to the sector, by promoting backward linkages and increased regional investments and sourcing (IMF, 2003d). By 2003, half of Mauritius' clothing exports to the United States benefited from the AGOA, but total clothing exports to the United States increased by only 10% between 2000 (the year before AGOA) and 2003, and Mauritius has not been granted the exemption for third-country fabric under the new AGOA.³⁰ Moreover, the sugar quotas are being challenged, with possibly adverse consequences for Mauritian sugar production and the availability of domestic capital (IMF, 2003d).³¹ In addition, the government's budget deficit is growing because of falling revenue, poorly managed state-owned utilities and increased public investments, reducing the room for manoeuvre.

Acknowledging these challenges, the government has undertaken a thorough examination of the industry's competitiveness within the framework of its Economic Agenda for the New Millennium (2000), in view of upgrading the sector's productivity, promoting diversification and attracting new FDI. The insufficient skill composition of the labour force and the poor quality of the educational system have been identified as a major constraint to the development of a competitive and diversified economy. Despite high literacy rates and educational progress, many still do not finish primary school. Secondary and tertiary enrolments remain low and few take scientific subjects. This compares very unfavourably with the Asian countries Mauritius is competing with.

The government aims to transform Mauritius into a high-technology, high-income service and knowledge economy by increasing competitiveness and productivity in the sugar and EPZ sectors, expanding the ICT and financial services sectors, and bringing about greater social development and social cohesion (World Bank, 2002). As regards the clothing-dominated EPZ sector, specific measures are being evaluated to favour skills and technological upgrading, re-engineering of business processes, development of clusters and linkages, product and market diversification, as well as encouraging small and medium-sized enterprises (SMEs) to become exporters.³²

Deepening regional integration is also an important priority. Neighbouring countries are increasingly important to the clothing sector as a destination for investments, source of inputs and market for products. Overall, Mauritius is trying to position itself as a regional service industry hub. It participates actively in regional co-operation arrangements such as the Common Market for Eastern and Southern Africa (COMESA), the Southern African Development Community (SADC) and the Indian Ocean Commission.

Conclusions

The clothing sector has played a key role in shifting the Mauritian economy away from mono-crop dependency. The core locus of this process is the period from 1983 to 1988, when a 20% unemployment rate was absorbed by the booming clothing industry, according to Chernoff and Warner (2002) an example of a pure structural change. A number of favourable circumstances made this possible, the most important being preferential access to export markets and a pool of cheap labour. However, it was the government's choice of a dual-track approach to openness, based on an EPZ sector and a gradually liberalised import-competing sector, that made it possible to exploit these opportunities. The macroeconomy, incentives and support structures were managed in a way that attracted investments in the clothing industry. This was a result of Mauritius' strong civil service, tradition of participatory policy making, and focus on social cohesion. It may be difficult for other developing countries to follow a similar path, among other things because of declining global trade preferences and the lack of high-quality public institutions (Subramanian and Roy, 2002). Mauritius now needs to move on to the next step of development and diversify into higher value-added activities. This will require reforms to enhance the competitiveness and diversity of the manufacturing sector as well as substantial investments in human resources and education, areas in which the country has lagged behind. The Mauritian government seems well aware of these challenges.

The United States: The textile industry

Introduction

This case study focuses on the textile industry, which represents the more technologically advanced segment of the fibre-fabric-clothing value chain. As a general rule, the competitiveness of US producers declines as one moves up that chain into the more labour-intensive processes. The United States is a major producer of cotton and other fibres (agriculture),³³ and faces increasing competition in the production of fabrics (relatively capital-intensive manufacturing), but faces a more difficult challenge in the clothing sector (labour-intensive manufacturing). Producers of yarns and fabrics have proven to be more resilient than clothing manufacturers, although their fate is ultimately

tied to the fortunes of downstream customers. One of the keys to the long-term survival of the US textile industry is to replace dwindling sales to the US clothing industry with exports to clothing producers overseas, especially those engaged in co-production under preferential programmes and agreements.

The data in Figure 6.6 confirm that wages in the US textile and clothing industries – like those in other industrialised countries – are indeed several times higher than those in developing countries. The average worker in a US textile plant earned USD 15.11 an hour in 2001. This was lower than the average wage in all of US manufacturing (USD 20.32), and above the average wage in the US clothing industry (USD 12.17), but much higher than the prevailing wages for textile workers in Chinese Taipei (USD 4.52) or Brazil (USD 2.28). Comparable data are not available for even less developed Asian countries, where prevailing labour costs are lower still.

Adjustment through improved productivity

Firms in labour-intensive industries that are located in high-wage countries can improve their productivity through a variety of means. Prominent among them are specialisation and investment in new technology. No matter what approach is taken, however, they typically involve downsizing and thus imply reductions in employment. Ideally, these approaches are complemented by adjustment-assistance programmes for workers who lose their jobs.

Figure 6.6. **Wages in selected countries' textile and apparel industries**



** 1999 data. * 2000 data.

Source: Adapted from US Department of Labor data.

Improvements in productivity

Compared to the clothing industry, where the opportunities to substitute capital for labour are quite limited, the textile industry is a relatively capital- and technology-intensive undertaking. It has devoted considerable capital to improving productivity. Between 1972 and 1992, the real per-employee capital stock in the US textile industry doubled (Levinsohn and Petropoulos, 2001, p. 5). By the 1980s, the share of shipment value that was ploughed back into new technology was far higher for textile producers

(4.0%) than for clothing manufacturers (1.5%) (Murray, 1995, p. 62). Reinvestment has been aided by various adjustments to the tax-depreciation schedules in order to accelerate the amortisation of these expenses (see for example, Rosen, 2002, p. 92).

These investments have produced results. Using US Bureau of Labor Statistics data, one analysis found that “textile industry productivity has increased more than three times over the last 50 years compared to only two times for overall manufacturing” (Christoffersen *et al.*, 2003). The authors reported that while “the number of production workers declined by nearly 17%” from 1987 to 1999, “capital per worker increased from 3% to 6.5%, reflecting the technological changes”. One business writer noted in 2001 that the industry had spent USD 2 billion annually on new technology over the past decade, and concluded that it “is astonishingly innovative and productive” (Moore, 2001). The looms that the industry now uses weave textiles four times faster than machines in the 1980s and ten times faster than in the 1970s.

Reductions in output have not been universal. Producers of textiles and textile products have shifted towards segments in which they serve niche markets profitably, such as industrial textiles and home furnishings, as demonstrates by the data in Tables 6.6 and 6.7, which show industry trends for 1997-2001. Output has contracted sharply in some of the lower-end segments, such as yarn throwing and thread production, but has stabilised or even expanded in non-woven and narrow fabrics, especially in the furnishings industry.

Table 6.6. US shipments of textiles, 1997-2001

Millions of current USD

NAIC	Description	1997	1998	1999	2000	2001	% change 1997-2001
31311	Fibre, yarn & thread mills	12 897	12 669	11 904	11 334	10 030	-22%
313111	Spinning	8 143	7 943	7 216	6 374	5 720	-30%
313112	Yarn throwing	4 232	4 123	4 376	4 586	4 033	-5%
313113	Thread	522	603	311	374	278	-47%
3132	Fabric mills	29 980	29 688	27 900	26 410	22 604	-25%
31321	Broad woven	18 269	18 306	16 655	15 562	13 295	-27%
31322	Narrow fabric	1 646	1 711	1 834	1 759	1 724	5%
31323	Non-woven fabric	4 368	4 416	4 674	4 873	4 407	1%
31324	Knit fabrics	5 697	5 255	4 737	4 216	3 179	-44%
3133	Finishing & coating mills	6 896	6 554	6 245	6 326	5 905	-14%
	Total	49 773	48 911	46 049	44 070	38 540	-23%

NAIC = North American Industrial Classification.

Source: US Department of Commerce, Bureau of Industry and Security, *The US Textile and Apparel Industries: An Industrial Base Assessment* (2003).

Job losses and trade adjustment assistance

Whether jobs are lost owing to plant closings or to improvements in productivity, there is no doubt that the industry has a contracting employment base. Between the end of the Uruguay Round and 2001, employment in the thread, yarn and fabric industries fell

by about one-fifth. This is not as severe as the job losses in the clothing sector, where more than half of all jobs disappeared during that same period.³⁴ Moreover, not all job losses in this industry are permanent. One analysis found that the US textile and clothing industry is subject to a high degree of “job churning”, whereby “the sum of job creation and job destruction is substantial” (Levinsohn and Petropoulos, 2001, p. 13). Even so, it is evident that adjustment programmes are needed in order to assist the unemployed.

The Trade Adjustment Assistance (TAA) programme was first established in 1962 and has evolved since through a series of laws. It offers benefits such as extended unemployment insurance and job-training aid to workers who lose their jobs to import competition. It is especially significant for textile and clothing workers, a group that accounted for about 35% of all TAA certifications during 1995-2000 (GAO, 2001a, p. 2).

Table 6.7. US shipments from textile mills, 1997-2001

Millions of current USD

NAIC	Description	1997	1998	1999	2000	2001	% change 1997-2001
3141	Textile furnishings mills	20 296	20 658	21 119	22 436	21 793	7%
31411	Carpet and rugs	11 493	12 070	11 686	12 748	12 659	10%
31412	Curtains, linens & household products	8 803	8 588	9 433	9 688	9 134	4%
3149	Other textile product mills	10 756	10 479	11 570	11 219	10 178	-5%
31491	Textile bags and canvas	2 502	2 516	2 606	2 598	2 464	-2%
314991	Rope, cordage and twine	777	766	804	821	809	4%
314992	Tire cordage and tire fabric	1 269	1 300	1 428	1 479	1 038	-18%
314999	Products not listed elsewhere	6 208	5 897	6 732	6 321	5 867	-5%
	Total	31 052	31 137	32 689	33 654	31 971	3%

NAIC = North American Industrial Classification.

Source: US Department of Commerce, Bureau of Industry and Security, *The US Textile and Apparel Industries: An Industrial Base Assessment* (2003).

There are two contrasting views on the nature of the US programme. One suggests that it is misdirected on an economic basis, insofar as the unemployment insurance programmes in most other OECD countries are designed to assist all unemployed workers without respect to the cause of their job losses. The contrary view holds that creating a special programme for trade-prejudiced workers is politically wise, insofar as it serves to reduce the extent of domestic opposition to new, market-opening initiatives. Special programmes for workers who lose their jobs to trade liberalisation may also be justified on grounds of equity, considering the disadvantages faced by many members of this group.³⁵ One study highlighted the fact that “displaced workers from the textile and clothing industries ... tend to have low levels of education, low skills (and thus earn low wages), and are predominantly women and minorities (including minority women)”, and “these characteristics make it more difficult for workers to adjust to changes in the labour market” (OECD, 2004b). These are the very workers that are most in need of help.

Specific aspects of the programme’s structure and funding are subject to criticism.³⁶ For example, one review of adjustment policies in the United States and four other OECD

countries (France, Germany, Japan, and the United Kingdom) found that “The United States appears to spend the least amount on assisting its unemployed workers among the five countries.” (OECD, 2004b) The TAA programme nevertheless continues to be an important part of the overall US approach to managing adjustment to open markets.

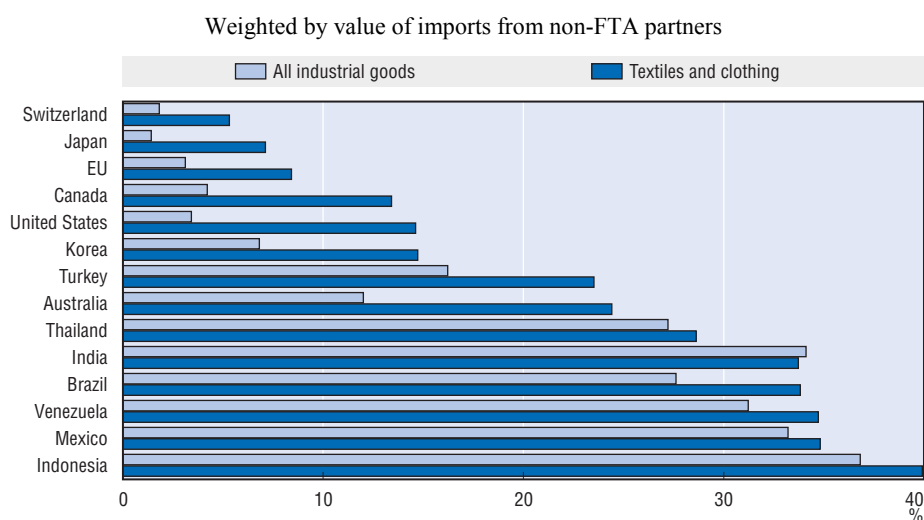
Adjustment through trade policy

Adjustment can additionally or alternatively be pursued through trade policy. In this respect, the United States has gone through two periods in recent decades, both of which might be classified under the broad rubric of management of trade. One was the pursuit of management of trade in a protectionist environment, under which tariffs and quotas were used to restrict import competition. More recently, this policy has given way to the management of liberalisation. In this strategy, the US market has been opened more widely, and more rapidly, to imports from countries that incorporate US-made fabric in clothing.

From protection to liberalisation

The US import market for textiles and clothing has long been relatively closed, both by high tariffs and – since the early 1960s – by quotas. The first half of this equation is illustrated in Figure 6.7, which shows the levels of tariff protection in the United States and many other countries. Two points stand out. The first is that the United States is certainly not alone in imposing relatively high tariff rates on textiles and clothing. Many countries, including some other OECD members, have bound tariffs in this sector that average more than 10%. The second is that nearly all countries impose higher tariffs on textiles and clothing than on industrial goods in general. Among the industrialised countries, it is common – as is the case for the United States – to impose tariffs in this sector that are a significant multiple of the average rate for all industrial products. As for the quotas imposed under the MFA, trade theory suggests that *ceteris paribus* they are even more restrictive than tariffs.

Figure 6.7. Average bound tariff rates after the Uruguay Round



Source: Adapted from J. Michael Finger, Merlinda D. Ignco and Ulrich Reinke (1996), *The Uruguay Round: Statistics on Tariff Concessions Given and Received*, The World Bank, Washington, DC.

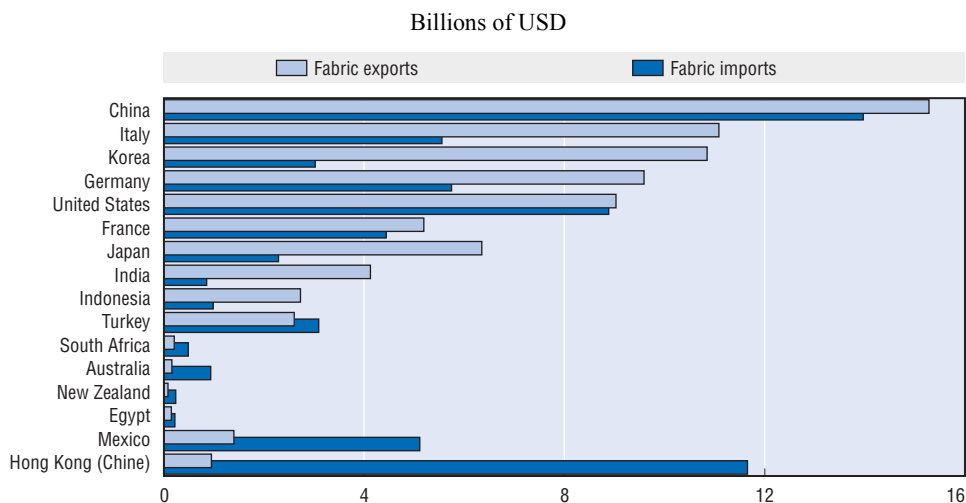
Although the United States did not make substantial commitments to cut its textile and clothing tariffs in the Uruguay Round, it made an even more significant concession. In exchange for other commitments from developing countries, the industrialised countries agreed to phase out the MFA quotas over a ten-year period. The final phase-out took place on the last day of 2004. In preparation for that day, the main theme of US textile and clothing trade policy has switched from management of protection to step-by-step liberalisation. The objective of management of protection was to prolong the survival of US producers through protectionist quotas, especially by suppressing the rate of growth of imports from China and other Asian suppliers. The objective of the new liberalisation is to encourage a “soft landing” for the US industry by encouraging the co-production of clothing with selected partner countries. This is accomplished by negotiating agreements and creating preferential programmes that offer quota- and duty-free market access, but conditioning this preferential access upon strict rules of origin that require the use of US yarn, fabric and (in some cases) fibre.

The change in strategy is based on the recognition of three hard facts. The first is that the United States cannot indefinitely support the domestic production of commodity clothing on a large scale. It is possible to engage in profitable niche segments, especially in the fashion industry, but the low end of the market is simply not amenable to competition from low-wage countries. Second, the yarn and fabric industries have better prospects, especially if the declining purchases of a shrinking US clothing industry can be compensated by increased exports to offshore production facilities (Figure 6.8). Third, not all foreign producers are equally threatening to the interests of the US industry. While some Asian countries import significant amounts of US fibre, some of which returns in the form of fabric or clothing, they import very little fabric or semi-finished clothing from the United States. By contrast, much of the clothing imported from the Americas – and especially from Mexico and the Caribbean Basin – consists of goods assembled in offshore plants from US-made components. A few simple calculations serve to illustrate this last point. For every dollar’s worth of US clothing imports from the Americas in 2003, the United States exported USD 0.03 worth of fibre, USD 0.36 worth of fabric, and USD 0.22 worth of clothing (much of which was semi-finished product shipped for offshore processing). Altogether, USD 0.61 worth of US product went out for every dollar that came in. By contrast, every USD 1 worth of clothing imported from Asia was matched by less than USD 0.10 worth of total US exports (USD 0.06 worth of fibre, USD 0.03 worth of fabric, and less than USD 0.01 worth of clothing).³⁷

These flows are influenced by the differing treatment that is extended to partners under various programmes and agreements. Beginning in the mid-1980s, the United States devised preferential programmes to facilitate co-production in the textile and clothing sectors. Imports from partner countries are given preferential quota and tariff treatment, conditional upon rules of origin that encourage or mandate purchases of US fibre and fabric, as well as certain processing operations in the United States (*e.g.* cutting and dyeing of fabric). The arrangements that underlie this strategy have come in two waves. One consisted of the preferential trade programmes that are extended to developing countries in specific regions. The United States extended quota-free treatment to the Caribbean Basin in 1986, and supplemented this with duty-free treatment in 2000. Comparable programmes have also been extended to Sub-Saharan Africa (in 2000) and the Andean countries (in 2002). The second wave has come with the negotiation of successive free trade agreements. Mexico was first FTA partner to export significant quantities of clothing to the United States. After negotiating this FTA in 1993, the United States completed agreements with such exporters as Jordan (2001) and

Singapore (2003), and as of mid-2004 agreements were pending approval or still under negotiation with, among others, Central America and the Dominican Republic, Panama, three Andean countries, the Southern African Customs Union and Thailand.³⁸

Figure 6.8. **Shares of global trade in textile fabrics, 2002**



Source: Calculated from WITS data.

Conclusions and lessons

This case demonstrates that trade policy can serve to promote the interests of an industry that is challenged by import competition, but that the policy need not take the form of blunt protectionism. The US textile and clothing industry had indeed demanded protection from imports for decades, and the policy of protection was devised to shield these producers from foreign competition, but that policy was not sustainable indefinitely. Not only did it impose costs on US consumers, it also inhibited the negotiation of ambitious commitments in multilateral trade negotiations. The decision to put the MFA on the table in the Uruguay Round helped to produce a more far-reaching set of commitments from all parties.

Liberalisation has taken the place of protection and has helped to ease the transition to the post-MFA regime. By providing incentives for co-production arrangements between US producers and their partners in developing countries, this policy has replaced some – though not all – of the sales that US textile producers have lost at home.

Trade instruments alone cannot form the basis of an adjustment strategy. The US textile industry has improved its productivity through a combination of specialisation and capital investment. While both of these steps enhance productivity, they also impose an adjustment burden on displaced workers. That burden can be relieved in part through trade adjustment assistance programmes for displaced workers.

Australia: The textile, clothing, footwear and leather industries³⁹

Australia's textile, clothing, footwear and leather (TCF) industries are experiencing a sustained period of structural change. Major rationalisation of production has reduced sectoral output and employment (down 35% since the early 1990s). Product mix and

supply chains are changing. The import share of the domestic market has nearly doubled since the late 1980s, reaching 50%, and exports of Australian TCF products also growing rapidly, albeit from a low base.

To a large extent, structural change in the sector is a response to the global pressures confronting producers in most developed countries. Intense competition from suppliers in developing countries, reductions in the share of consumer spending devoted to TCF products (down 25% since 1990 in Australia), technological change, and more stringent environmental regulations are among the key factors driving change.

Until the late 1980s, as in many other developed countries, successive Australian governments sought to ward off increasing competition from developing country imports through various support measures, including high tariffs and tariff rate quotas. (The effective rate of assistance to the sector peaked at over 150% in the mid-1980s).

However, in recognition of the large costs imposed on Australian consumers by this attempt to forestall inevitable and necessary adjustment, and in keeping with Australia's general tariff reform programme, assistance to these industries has since been significantly reduced. Tariff rate quotas were abolished in 1993, and tariffs reduced to a maximum of 25% in 2000, with further reductions in prospect. Lower tariffs and greater access to imported TCF products have been of considerable benefit to consumers. For instance, the real price of TCF products in Australia has fallen by 20% since 1990, although factors other than reform have clearly contributed.

Equally, reductions in assistance have added to the adjustment pressures confronting Australian TCF producers. Nonetheless, and notwithstanding the recent significant declines in sectoral output and employment, some firms have adapted successfully to the more competitive market environment. An emphasis on innovative high-value, capital-intensive and niche products and on brand development, customer service and market development, have been among the hallmarks of the firms that have made a successful transition or are capable of doing so in future.

Looking ahead, it is clear that the adjustment process is far from complete. There is still much labour-intensive production, especially in the clothing sector. Large labour-cost disadvantages compared to developing-country competitors mean that many firms producing standardised products will struggle to survive, irrespective of the assistance regime.

The adjustment will not be easy. Many of the industries' employees come from a non-English-speaking background and have few skills that can be used in other areas. They also tend to be somewhat older than employees in other manufacturing activities. Also, the inability of some non-competitive firms to meet previously negotiated employee entitlements in the event of closure has become a barrier to an orderly exit and a trigger for industrial disputes.

For (home-based) "outworkers", adjustment pressures may be particularly severe. As a result of the flexibility that outwork can provide, part of the previous adjustment process, in the clothing industry in particular, has involved a shift from factory-based to home-based employment. However, with employment in the Australian clothing industry now dominated by outwork, this group of workers is likely to bear the brunt of future contraction.

Against this backdrop, the assistance regime for the TCF industries over the coming decade has been designed to facilitate an orderly adjustment process, without imposing

excessive costs on consumers and the wider community. Legislated reductions in tariffs to take effect at the beginning of 2005 will see the maximum rate for any TCF product fall to 17.5%. Also, as part of a new assistance package announced in response to a recent report by the Productivity Commission (2003), the government has announced that tariffs on footwear and most textiles will fall to the general rate of 5% in 2010, with the currently higher rate for clothing and certain finished textile products falling to 5% in 2015. These reductions have been legislated as part of the Australian Customs Tariff.

To facilitate adjustment to these further tariff reductions and the broader pressures confronting the sector, the package will also provide substantial transitional budgetary support. Like the transitional regime for the automotive industry, this support focuses on encouraging innovation and investment that will help firms to be competitive in a low-tariff environment. Further, in keeping with proposals in the recent Productivity Commission report, the government has announced that where there is large-scale or regionally significant job shedding in the TCF sector, it will augment generally available labour adjustment measures with sector-specific adjustment support.

For orderly adjustment, broader microeconomic reform and continued government efforts to improve access of TCF exporters to protected overseas markets will also be important. There is also much that the industry can still do to improve its prospects of operating successfully without special assistance. For example, greater co-operation and more effective communication between management and employees, including in workplace negotiations, would help deliver more flexible and productive outcomes.

That said, there is little that can or should be done to stop labour-intensive, standardised TCF production from migrating to developing countries. As past experience demonstrates, attempts to do so would be very costly for the community and merely delay the inevitable. This reality is now generally recognised in Australia.

The Slovak Republic: Textiles and clothing⁴⁰

The first industrial textile mills in the Slovak Republic appeared more than 100 years ago and, throughout its centrally planned regime, the economic importance of the textile and clothing industries grew and fulfilled social functions. In the late 1980s, these industries employed 74 300 persons and accounted for 4.7% of total industrial output. Between 1970 and 1985, employment rose by 17 100, supported by an export-led strategy based on exchanges of oil, gas, iron ore and grain with the Soviet Union.

The demise of this barter exchange with the end of the Soviet Union had a dramatic impact on these industries: employment dropped immediately by 16 500 in 1989 and by a further 11 000 shortly thereafter. Between 1989 and 1993, total textile and clothing production declined by 46.5% in volume: cotton yarn production fell by 50.2%, woollen fabrics by 45.2% and clothing production by 30.5%. Moreover, it triggered a complete shift in the composition of production and a reorientation of export destinations.

To survive during the evolving economic circumstances, Slovak suppliers underwent a significant transformation by moving from supplying clothes primarily made from domestic fabrics to subcontracting for EU customers using imported fabrics. The transformation was facilitated by the outward transaction programmes (OTPs) that provided for preferential access to the EU market for clothing products made from EU fabrics. Moreover, the entry into force of the “Europe Agreement” in 1995 granted Slovak textile and clothing products duty- and quota-free access to the EU market and thus helped to prevent further hardship. Between 1993 and 2002, the employment level

stabilised initially at about 43 000 and increased slightly to 46 500 by 2002, before falling by 5.3% in 2003 in the face of increased import competition, notably from China, in both the Slovak and export markets.

Despite the considerable production and trade opportunities offered under the Europe Agreement since 1995, almost three-quarters of the Slovak clothing exports were still carried out under OTPs in 2003. This suggests that the Slovak clothing industry has adapted faster than the Slovak textile industry to the high-quality requirements of export shipments destined for the EU market. As a result, the Slovak trade balance shows a deficit for trade in textile products and a surplus for clothing products.

The competitive edge that relatively low wages have given to Slovak producers has been offset by low productivity and concentration on standardised products for which international competition is most intense. In 2003, the Slovak productivity level was estimated at 31% of the EU15 level and 36% of the EU25. Its low productivity is typified by a low share of high value-added production segments, such as technical textiles and textile finishing, and, conversely, a high share of spinning, weaving and knitting activities. Moreover, the stock of capital used per unit of labour in the textile industry is relatively low: it stood at 58% of the EU15 level in 2003. The small involvement of foreign investors in the Slovak textile industry is cited as another explanatory factor for its lagging behind competitors on the technology and productivity fronts.

In light of the elimination of quantitative restrictions on trade in textile and clothing products by the end of 2004, as provided under the WTO Agreement on Textiles and Clothing (ATC), the adjustment process in the Slovak textile and clothing industries is clearly far from complete. To facilitate restructuring, the Slovak government see its role as setting the framework conditions that enable private entrepreneurs to compete in the new competitive environment and promoting market opening on a reciprocal basis. Government actions are placed within a context of horizontal policies and programmes aimed at: the creation of a favourable business climate; the development of the education system; support for innovation, research and development; support for small- and medium-sized enterprises; and taking advantage of deeper integration programmes at the EU-wide level. In the context of the Industry Development Grant Scheme, Slovak firms can apply for investment funds aimed at strengthening their competitiveness, supporting innovation and research projects, saving energy and developing international co-operation.

As a new EU member country as of May 2004, Slovak horizontal industrial policies will be supplemented by sectoral initiatives defined and implemented at the EU-wide level. The Slovak Republic intends to take advantage of the resolution approved by the European Parliament on the conclusions of the conference, “The Future of the Textile and Clothing Sector in an Enlarged European Union”.

Notes

1. Similar policies have been adopted in Mauritius (see the case study).
2. Exports climbed by 9.5% in fiscal year (FY) 2003, led by the ready-made garment sector (IMF, 2003).
3. Transparency International Corruption Perceptions Index 2003, at www.transparency.org/cpi/index.html#cpi.
4. Women earned 60% of what men earned in urban pay scales, and 56% in rural pay scales. Calculated from data in Rahman (2000), p. 29.
5. See the recommendations in this regard in Quddus and Rashid (2000), pp. 189-190.
6. The problem is more acute in the woven fabric sector. Local knitting mills can supply nearly 80% of the knitted fabrics needed by the export-oriented garment producers, but most woven fabrics are imported (Dowlah, 1998, p. 35).
7. The Brussels Declaration approved at the Third United Nations Conference on the Least Developed Countries called for “improving preferential market access for LDCs by working towards the objective of duty-free and quota-free market access for all LDCs’ products in the markets of developed countries.” Paragraph 6 of the Brussels Declaration, in Third United Nations Conference on the Least Developed Countries, A/CONF.191/12 (2 July 2001).
8. The assembled trade ministers “commit[ed] [them]selves to the objective of duty-free, quota-free market access for products originating from LDCs”. Paragraph 42 of the Doha Ministerial Declaration, Doha Ministerial Conference, WT/MIN(01)/DEC/W/1 (14 November 2001).
9. The issue of rules of origin is discussed at greater length in case study on Colombian clothing exports below.
10. See Office of the United States Trade Representative, “Generalized System of Preferences (GSP): Request for Public Comments on the Possible Withdrawal, Suspension, or Limitation of GSP Benefits with Respect to Bangladesh” Federal Register, Vol. 69 No. 70 (12 April 2004), page 19258. However, removal of Bangladesh’s GSP privileges would have almost no impact on the clothing sector per se, insofar as the United States generally does not extend GSP treatment to products in this sector.
11. This typology, as well as the discussion of different regional models, is adapted from Gereffi and Memedovic (2003), p. 1.

12. See the discussion of the Boston Consulting Group study in Jaramillo *et al.*, 1996, pp. 88 ff.
13. At that time almost half the adult male population was employed in South Africa.
14. In 2003, the value of total US garment imports from Lesotho amounted to USD 392 million. AGOA imports for the same year reached USD 372 million (USITC, 2004b).
15. This derogation allows Lesotho to export duty-free garments produced in Lesotho from cotton of non-ACP (African, Caribbean and Pacific states) origin. Productivity levels are at about 70-80% of that in Asian factories for basic garments but lower for more elaborate items (USITC, 2004b).
16. Major US customers include Gap, Wal-Mart and K-mart.
17. See Grandes (2003) for a detailed analysis of the functioning of the CMA and its implications for the various members. Lesotho is also a member of the South African Development Community (SADC), which is engaged in establishing a free-trade area among its 14 member states, but withdrew from the Common Market of Eastern and Southern Africa (COMESA) in 1998.
18. Until 2002, South Africa primarily determined tariff rates, but under a new agreement, rates will be set by a separate tariff setting board. See www.tralac.org for details.
19. In July 2004 the AGOA Acceleration Act (AGOA III) was approved, extending the previous Act, which would have expired in 2008. The preferential agreements on textiles have been extended until 2015 and the exemption for “third country fabric” until 2007. See www.agoa.gov.
20. These include an export finance facility, long-term loans and/or equity participation, unimpeded access to foreign exchange and general sales tax exemption on capital machinery and equipment for manufacturing industries. Besides LNDC (www.lndc.org.ls), the Basotho Enterprises Development Corporation (BEDCO) provides finance, training and assistance to domestic enterprises.
21. In this respect, Integrated Framework (2003, p. 26) notes: “Exports to the EU took place well before the EU derogation on local content expired, while export expansion to the US took place even before the local content was allowed under the AGOA. This suggests that Lesotho’s performance could hardly be attributable to special preferences, setting it aside from a large number of developing countries. Furthermore, this suggests that attractiveness of Lesotho to foreign investors goes beyond special preferences, albeit – as far as textiles are concerned – preferences have mattered.”
22. Exporters of garments outside SACU are eligible for full duty rebates on all raw material or components used in exports (WTO, 2003a).

23. The employment figures refer to firms located in the EPZ. It should be noted that 9 500 jobs were lost in the garment sector in 2003, compared to the end of 2002, when employment stood at 72 000.
24. Domestic investment mainly came from export earnings from the sugar industry. Mauritius has benefited from an export quota to the EU at the internal EU sugar price (which exceeds the world market price under the African, Caribbean, and Pacific/EU Sugar Protocol). Between 1977 and 2000, the resulting rents have amounted to an average 5.4% of GDP a year and made it possible to sustain high levels of investment in the Mauritian economy (Subramanian and Roy, 2002).
25. In 2001 the average import tariff was around 20% and there were eleven tariff bands, with the highest at 80% (WTO, 2001).
26. Annual real GDP per capita growth averaged 7.4% over 1985-89, 5.4% over 1990-94 and, despite slow productivity growth, 5% during 1995-99 (Bonaglia and Fukasaku, 2002).
27. Between 2001 and 2002, the volume of exports declined by 9%, with EPZ exports declining by more than 10%. See National Accounts of Mauritius 2003, <http://statsmauritius.gov.mu>.
28. Foreign enterprises have brought advanced technologies, know-how, managerial skills and an industrial culture. However, domestic investors were involved early in the garment industry and later surpassed FDI, and a majority of garment firms are now owned by nationals. The importance of domestic factors is highlighted by the failure of many other African countries to promote industrialisation through preferential market access and EPZs (Kinunda-Rutashobya, 2003).
29. Mauritius is a multi-ethnic society, with a Hindu majority and Franco-Mauritian, Creole and Muslim minorities, and diversity has played an important role in shaping national policies. In the years leading up to independence, it fostered political compromises aimed at protecting minority rights within a parliamentary system inherited from the British.
30. The exemption would have permitted Mauritian firms to import raw materials from countries outside Africa while still benefiting from duty-free access to the US market.
31. According to an outline of reform of the EU sugar regime by the European Commission released on 14 July 2004, the price ACP producers receive may be reduced by more than one-third (http://europa.eu.int/comm/agriculture/capreform/index_en.htm).
32. For instance, in an effort to promote backward integration into spinning and technological upgrading, an equity fund managed by the Mauritian Bank of Development has been set up to invest in EPZ enterprises that upgrade their technology or undergo restructuring (UNECA, 2003).
33. The matter of cotton subsidies is outside the scope of this study. The competitive posture of the US producers in this sector is undoubtedly affected by the large volume of government subsidies that they receive, and these subsidies have come

under increasing challenge in the WTO from African producers. See WTO Negotiations on Agriculture; Poverty Reduction: Sectoral Initiative in Favour of Cotton: Joint Proposal by Benin, Burkina Faso, Chad and Mali TN/AG/GEN/4 (16 May 2003). For present purposes it is sufficient to note that this is the one sector of the fibre-fabric-apparel spectrum in which the United States is a major exporter which faces little import competition.

34. These comparisons are complicated somewhat by the fact that, during this period, the US government switched from the old Standard Industrial Classification (SIC) system to the North American Industry Classification (NAIC) system. The correspondence between the SIC and the NAIC is relatively close but imperfect. In 1994, there were 624 400 people employed in the production of textile mill products (SIC 22); by 2001 the number had fallen to 293 900 persons employed in textile mills (NAIC 313) and 209 700 employed in textile product mills (NAIC 314). For apparel, employment fell from 925 500 persons in 1994 (as classified in SIC 23, “Apparel and other textile products”) to 456 500 in 2001 (as classified in NAIC 315, “Apparel manufacturing”). See US Department of Commerce (1994) and (2001).
35. For comparisons in support of these contentions, see the data reported in GAO (2001a), p. 15.
36. For one example, see GAO (2001b), especially the discussion in Appendix V of experience in El Paso, Texas, which lost many textile and apparel jobs in the 1990s.
37. Author’s calculations, based on US International Trade Commission data.
38. Not all of these programmes and agreements have identical rules of origin. Some of them offer more generous terms to the exporting country, while others require that qualifying products contain substantial quantities of US-origin materials.
39. This case study was provided by Australia’s Productivity Commission as input to the OECD project on trade and structural adjustment.
40. This case study was provided by the government of the Slovak Republic as input to the OECD project on Trade and Structural Adjustment.

Chapter 7

STEEL

This chapter examines cases of trade and structural adjustment in steel. It surveys experience in the European Union and the United States. Structural adjustment has posed ongoing challenges to the steel industry which has struggled with at least one deep crisis in each of the recent decades. To support the industry, governments frequently applied restrictive trade measures during such crises. These, together with other government support (such as subsidies), served to sustain global overcapacity, which, in turn, distorted steel trade. In response to the crises, some regions made efforts to restructure the industry, often with the objective of maintaining the domestic steel-producing base. In Europe, the phasing out of subsidies starting in the 1980s and the privatisation of European steel companies were key elements in the restoration of normal competitive conditions in the common steel market. Governments took an active role in managing the restructuring process, which first involved massive interventions in the market, trade measures and a broad range of government support. In 1992-94, the European steel industry restructuring programme was characterised by soft interventions and a narrow set of support measures on the one hand and a stronger involvement of the steel industry on the other. In 1998-2004, industry-driven adjustment involved significant cross-border consolidation. In the United States, the steel industry has been restructured primarily through market forces, and the bankruptcy process has played a major role in consolidation and restructuring. While the federal and state governments provided subsidy programmes to assist in the restructuring, the impact of such measures was less significant than in other countries. Noting that many countries have taken trade action to limit steel imports, this chapter concludes that in the absence of such measures, adjustment pressures would have been higher and resulted in more far-reaching industry restructuring. A high price was paid for the protection of domestic steel producers in the form of diminishing competitiveness in steel-consuming sectors.

Key points

Structural adjustment has posed ongoing challenges to the steel industry, which has struggled with at least one deep crisis in each of the recent decades. To support the industry, restrictive trade measures were frequently implemented by governments during such crises. These, together with other government support (such as subsidies) helped to sustain global overcapacity, which, in turn, distorted steel trade. In the 1980s, the steel industry was one of the most heavily subsidised manufacturing sectors. In spite of the improved subsidy discipline established under the WTO Agreement on Subsidies and Countervailing Measures, market-distorting subsidies and related government support remain an issue of concern in steel. With the objective of restoring normal competitive conditions on steel markets, governments of all major steel-producing economies are engaged in the negotiation of a sector-specific steel subsidy agreement under the auspices of the OECD.

In response to the crises, some regions made efforts to restructure the industry, often with the objective of maintaining the domestic steel-producing base. Others, notably in Asia and South America, allowed the expansion of the steel industry to continue. In Europe, governments took an active role in managing the restructuring process, while in other major steel-producing countries, the steel industry adjusted to market changes without any specifically tailored governmental restructuring programmes. Economies in transition in southeast and eastern Europe and the newly independent states of the former Soviet Union addressed restructuring needs in comprehensive and complex privatisation programmes, most of which ended in the early 2000s.

More specifically, in the early period of restructuring in the European steel sector, governments were unwilling to let market forces alone carry out the necessary adjustments. Instead, complex political solutions were pursued which involved massive interventions in the market, trade measures and a broad range of government support measures, including ECU 38 billion of direct subsidies. While overseen by the Commission, most of the restructuring was pursued in a national context that appears to have impeded needed cross-border consolidation. That being said, the results achieved in terms of capacity closures and the creation of alternative employment for redundant steelworkers are impressive; it is hard, however, to envision that governments would nowadays be prepared to spend comparable amounts to restructure of their steel industries.

Soft interventions and a narrow set of support measures on one side and a stronger involvement of the steel industry on the other characterised the European steel industry restructuring programme in 1992-94 and led to a significant reduction in capacity. The programme's emphasis was enhancement of the viability of European steel companies. The European example shows that steel companies can withstand a deep crisis without any specific government assistance and take the necessary initiatives to adapt their activities to a changing economic environment, if they are viable and competitive. Such industry-driven adjustment took place in the period 1998-2004, with significant cross-border consolidation of the industry.

The phasing out of subsidies starting in the 1980s and the privatisation of the European steel companies were key elements in the restoration of normal competitive conditions on the common steel market. The integration of the Steel Aid Code into the general framework of the European Union's State Aid Code and the expiry of the

European Coal and Steel Community (ECSC) Treaty in July 2002 put an end to sector-specific regulations for the steel sector.

In the United States, the steel industry has primarily been restructured through market forces, and the bankruptcy process has played a major role in its consolidation and restructuring. While the federal and state governments provided subsidy programmes to assist in the restructuring, the impact of such measures was less significant than in other countries.

The Japanese steel industry reorganised through business integration or tie-ups among integrated steel producers, such as the merger and integration of NKK and Kawasaki Steel, as well as strategic co-operation between Nippon Steel and Sumitomo Metals, Kobe Steel and others. The restructuring resulted in a capacity reduction of about 20% by 2002. The industry's continuous efforts towards more efficient management have contributed to such reductions. Moreover, Japan's five big steel companies reduced employment from 127 000 in 1993 to 56 000 in 2003; this led to a decline in labour costs of the order of 50%.

On the trade front, import measures played an important role in European markets until the mid-1990s and in the United States until recently. Many other countries have also taken trade actions against steel imports, some of which were controversial, and tensions rose in the international steel trade. In the absence of such measures, adjustment pressures would undoubtedly have been higher and resulted in more far-reaching industry adjustment. A high price was paid for the protection of domestic steel producers in the form of diminishing competitiveness in steel-consuming sectors.

Even in most OECD member countries state ownership or control of steel companies or of the entire sector prevailed until the 1980s. Among major steel-producing economies, only the United States and Japan lacked strong state influence in the post-war era. Privatisation started in the European Union and South America, and at the end of the 1990s, most of the steel companies in the transition economies of central and eastern Europe, the Russian Federation and India as well as the principal Chinese companies were privatised.

The European Union

In the European Union of then nine member states, the peak in steel was reached in 1974, with a capacity for hot-rolled products¹ of 179 million tonnes, crude steel production of 156 million tonnes, sales in the EU market of 102 million tonnes, and a work force of 800 000. Following the first oil shock, production dropped by 19% in 1975. Demand remained weak in subsequent years, competition intensified in third markets and imports into the European Union increased. As a result of declining prices, steel producers experienced heavy losses, and an increasing number of governments provided subsidies to their weak steel industries in the form of investment aid, social aid, research aid and/or compensation for operating losses. The ban on subsidies under the Treaty of Paris, establishing the European Coal and Steel Community, was effectively set aside to deal with the crisis.

Using its powers under the Paris Treaty, the European Commission launched a set of measures to mitigate the effects of the deteriorating situation. As a first step, producers were asked to limit their production on a voluntary basis. This approach had little effect on the market, and in May 1977 the Commission introduced minimum prices by law for some products and recommended minimum levels for others. In addition, it negotiated

bilateral agreements with the principal steel-exporting countries to voluntarily restrain their deliveries to the common market. However, the situation on the EU steel market did not improve, because the voluntary engagements did not hold and prices were not maintained (United Nations Economic Commission for Europe, 1992, pp. 3 ff).

In October 1980, the Council of Ministers declared a state of manifest crisis in the steel industry according to the terms of Article 58 of the ECSC Treaty. Compulsory production quotas, limiting deliveries within the Community and limiting exports, were imposed for each undertaking. This market regulation was linked to a system of fines for any breach of the allocated quotas. Mandatory minimum prices for steel, compulsory production and sales caps on each individual steel producer were applied until mid-1988. The last of the bilateral steel agreements with the principal steel-exporting countries expired in December 1991.

Table 7.1. EU9 steel market data 1980-85

	1980	1981	1982	1983	1984	1985
Crude steelmaking capacity	202.1	197.6	193.0	186.9	170.3	165.7
Crude steel production	128.0	125.0	111.0	109.0	119.0	120.0
Apparent consumption	87.0	79.0	77.0	75.0	81.0	80.0
Imports	10.0	8.0	10.0	10.0	10.0	10.0
Exports	29.0	33.0	26.0	27.0	31.0	34.0
Net trade (exports – imports)	19.0	25.0	16.0	17.0	21.0	24.0

Source: Data compiled by the OECD Directorate for Science, Technology and Industry.

The Steel Industry Restructuring Plan 1980-85, the so called Davignon Plan, was put in place to reduce capacity for hot-rolled products from the 172 million tonnes recorded in 1980 to 142 million tonnes or less by the end of 1985 (Table 7.1). From the end of 1980 onwards, a broad range of actions were taken to improve competitive conditions in the steel market of the European Union (Moffat, 1991, p. 3 ff):

- A political agreement with all member states to prohibit all subsidies for the steel industry from 1986, with the exception of subsidies for plant closures, R&D and social and regional interventions. Prior authorisation by the European Commission became mandatory for all subsidies.
- Until the end of 1985, member states were permitted to grant subsidies, subject to the authorisation of the Commission, if the steel company would proportionately close capacity and restore financial viability.
- ECSC loans at a favourable interest rate were made available for modernisation and investments.
- Under the Regional Development Fund, programmes such as RESIDER provided financial support to heavily affected steel regions with the aim of creating new economic activities in other sectors of the economy.
- Under the Social Fund, training and retraining programmes for steel workers were provided as well as programmes covering the costs of the relocation of steel workers and the costs of redundancies and early retirement.

A presentation of national and individual restructuring plans supported by a quota system, which guaranteed for each company, and thus each member state, a certain market share, formed the basis of a political agreement on the restructuring programme. It was the task of the governments of the individual member states, together with the companies concerned, to determine what capacity should be cut and where and which kind of restructuring at the company level would be necessary to restore its financial viability. However, the final decision on the acceptability of companies' restructuring programmes and the authorisation of the subsidies involved remained with the Commission.

At the expiry of the Steel Industry Restructuring Plan, the EU's hot-rolling capacity had been reduced by some 31 million tonnes, including the carryover of some closures into 1986, or some 1 million tonnes of capacity reduction greater than initially envisaged. This figure takes into account the investments made in new facilities and the upgrading and modernisation of existing facilities. With regard to crude steel capacity, the reduction was equally impressive. Between 1980 and 1988, when the restructuring plans for the then new member states Greece, Portugal and Spain expired, crude steelmaking capacity in the EU12 decreased from 222 million tonnes to 188 million tonnes.

Employment in the steel sector of the EU12 declined from 672 000 in 1980 to 409 000 in 1988, a reduction of almost 40% of the work force. For example, when British Steel closed capacity on its Corby site in Southeast England, more than 6 000 jobs were affected. Total employment in Corby, with British Steel dominant, fell from 23 300 in 1979 to 15 900 in 1981. In part, steelworkers took advantage of early retirement schemes, others upgraded their skills in steel or acquired new skills, *e.g.* obtaining heavy goods vehicle driving licences under specific training schemes. Moreover, 400 acres were made available in Corby for the development of other manufacturing sectors under regional development programmes, and by 1984, total employment in Corby had recovered to 19 700 (OECD, 2001a, p. 6).

The closure of inefficient capacity, the upgrading of existing facilities, notably through expansion of energy-efficient continuous-casting technology and a greater number of electric arc furnaces led to higher productivity in the EU steel industry. Productivity gains and a higher rate of capacity utilisation helped European steel producers to increase their international competitiveness.

Between 1980 and 1985, the then nine EU member states spent almost ECU 38 billion in support of the restructuring programmes of EU steel producers. They granted ECU 23 billion for continued operations, ECU 11.5 billion for investment and ECU 2.3 billion for closures. R&D subsidies and spending for emergencies accounted for ECU 1 billion (European Commission, 1986, Table 3). In addition to these subsidies for steel companies, considerable financing was provided under the Regional Fund and the Social Fund for steel communities affected by the restructuring and social measures for steel workers. Thus, the restructuring of the European steel industry placed a heavy burden on the budgets of member states and on Community funds.

Overall, capacity reductions of the order of almost 20% and the modernisation of the European steel industry achieved under the Davignon Plan underline the success of this plan. The market regulations that were in place during the restructuring period – production quota, minimum prices, voluntary restraint agreements – imposed additional economic costs, but such regulations were viewed as essential, taking broader social and economic concerns into account.

After a short recovery from 1986 to 1990, the situation in world steel markets deteriorated, mainly as a result of the collapse of demand in the former Soviet Union. In 1992, steel consumption fell to its level in the mid-1980s, and low steel prices led to a global weakening of the financial situation of steel producers. Even the EU steel industry, which had just emerged from a rigorous restructuring process, was affected, and losses by European steelmakers were close to the levels of the previous crisis period. Requests to re-enact the broad range of measures available under the ECSC treaty were voiced to cope with the crisis, but the Commission adopted a different, less interventionist approach.

The overall objective of the three-year programme, which was agreed by the Council on 25 February 1993, was a further significant reduction in production capacity. It was based on parallel actions involving: *i*) the industry, which was requested to establish a detailed plan for the necessary capacity reductions; and *ii*) the Community, which was to put in place a set of accompanying measures to facilitate restructuring (Canevali, n.d., p. 2). In particular, the following measures were adopted:

- In support of market stabilisation, the Commission, in accordance with Article 46 of the ECSC Treaty, published indicative quarterly sales guidelines based on information provided by companies. The companies could adapt their production plans in light of the indicative aggregate data. With regard to third-country imports, voluntary restraint agreements were concluded.
- In support of the restructuring of the European steel industry, additional funding was made available from the ECSC budget to contribute to the costs of redundancy and early retirement. Other Community programmes continued to support the retraining of steel workers for careers outside the steel sector. Furthermore, subsidies were provided to companies reducing their hot-rolling capacity under narrowly defined conditions such as privatisation of the company, restructuring plans, viability studies for the restructured company and the freezing of the company's remaining capacity.

By the end of 1994, the Commission decided to abolish the accompanying measures, except for the social support measures, which expired in 1996. This restructuring programme led to the closure of around 11 million tonnes of hot-rolled product capacity and a further reduction of the work force to 287 000 employees in 1995.

More than half of the capacity reduction, 5.8 million tonnes, resulted from voluntary closures by the private sector, which did not benefit from closure subsidies. This demonstrates that, in the crisis of the early 1990s, a large part of the Community's steel industry succeeded in making the necessary adjustments to a deteriorating market situation without governmental support. In the crisis of the 1980s, such industry-driven and industry-financed adjustments would have been unimaginable. Moreover, while about 60% of the European steel industry was under state control in the 1980s, virtually all companies were privatised by the time when the restructuring programme expired.

In spite of the voluntary restraint agreements with major steel exporting countries, steel imports into the European Union increased during the period 1991-95 (Table 7.2). The upward trend of such imports was similar to the trend in the international steel trade, which showed an increase of roughly 50% during this period. Steel exports of the EU12 also increased, but at a much lower rate. This shows that protection of the EU steel market did not play a strong role in the restructuring programme of the 1990s.

Table 7.2. EU12 imports/exports and world trade 1991-95

	1991	1992	1993	1994	1995
World steel trade	117.0	147.0	166.0	177.0	180.0
EU imports	13.6	15.6	12.5	16.7	22.3
EU exports	26.0	25.4	35.0	34.8	25.8

Source: Data compiled by the OECD Directorate for Science, Technology and Industry.

In 1998, the European steel industry again had to adjust production and capacity (Table 7.3). In this case, the Commission did not intervene to regulate the Community steel market and no particular restructuring programme was launched. In spite of the difficult situation of the European steel industry, the European Union fulfilled its commitment, made in the course of the Uruguay Round negotiations, to eliminate, over a ten-year period, all tariffs on steel. Thus, the Community steel market was becoming more and more open when exports from third countries started surging in 1998. By that time, market access was only limited for non-WTO members Russia, Ukraine and Kazakhstan, with which the Community had bilateral agreements imposing quantitative restrictions on imports. In 2002, in response to the safeguard measure taken by the United States, a safeguard measure to protect the common steel market was introduced to prevent trade from being diverted to the EU market. The EU safeguard measure was set to expire as soon as the US safeguard measure was withdrawn.

Table 7.3. EU15 steel trade 1998-2002

	1998	1999	2000	2001	2002
Imports	24.0	22.2	28.6	29.3	26.7
Exports	23.5	23.0	28.6	28.5	25.7
Net trade (exports – imports)	0.5	-0.8	0.0	0.8	1.0

Source: Data compiled by the OECD Directorate for Science, Technology and Industry.

In the period following the Asian crisis, the European steel industry closed further capacity, created larger firms by mergers and acquisition across national boundaries and intensified the conclusion of specialisation agreements. Such consolidation helped the European steel industry to withstand the recent shocks (Salerno, 2001, p. 5). The European steel industry now appears to be in a far better position than previously to cope without any specific governmental assistance with necessary adjustments to changes in the market.

With regard to closures, capacity of almost 13 million tonnes was permanently rendered inoperable in the EU15 in the period 1998-2002 and further closures, in the range of 8-10 million tonnes are envisaged between 2003 and 2005. Equally important, recent mergers and acquisitions have reshaped the structure of the European steel industry: the merger of the German steel companies Thyssen and Krupp in the mid-1990s, the merger of British Steel and Hoogovens (Netherlands) into Corus in 1999 (see Box 7.1) and the merger of Usinor (France), Arbed (Luxembourg) and Aceralia (Spain) into the world's largest steel company, Arcelor, in 2001. As a result, four European companies now rank among the world's ten largest steel producers. The synergies gained through mergers and acquisition, notably with regard to more specialised production and

the building of strategic alliances with companies throughout the world, along with the concentration of steel production on the most efficient plants has made the European steel industry very competitive. Average productivity of 601 tonnes per employee per year, reported in 2002, and a further projected increase to 645 tonnes per employee per year in 2005 demonstrate the high level of international competitiveness of the European steel industry and point to continued efforts to strengthen the industry's role in the global steel market and to respond to future challenges.

Box 7.1 The restructuring of British Steel in the 1990s

The restructuring of the state-owned British Steel was one of the most spectacular turnarounds in the country's industrial history: from enormous losses in the late 1970s to profitability by the late 1980s; successful privatisation in 1988; peak profits of over GBP 1 billion in 1995/96; merger with Hoogovens to form Corus in 1999.¹

British Steel came under severe commercial pressure in the wake of the financial crisis in Southeast Asia in the late 1990s, when the direct and indirect effects of the strong sterling exchange rate hit the company harder than European companies of the euro zone. The company merged with Hoogovens in 1999 to form Corus. At the end of 2000, Corus had a work force of 32 000 in the United Kingdom and restructured its steel activities in response to the difficult situation on steel markets. It announced the closure of some 3 million tonnes of steelmaking capacity, notably through closures of steel plants in Wales and widespread downsizing. It spent GBP 202 million on redundancy payments and related costs and GBP 130 million on other rationalisation measures, including site demolition and environmental clearance costs. This restructuring was expected to result in a reduction of the UK work force to 22 000 by 2003.

The UK government put in place a range of schemes to mitigate the effects of this restructuring for redundant workers, jointly financed with funding from the ECSC, and for the affected regions, notably Southeast Wales, at an overall expenditure of GBP 140 million. These schemes did not provide benefits directly to Corus.

1. "Financing the Restructuring of British Steel", SG/STEEL/RD(2001)9, p. 6, OECD Working Document.

Restructuring of the US steel industry²

Since the financial crises of 1997-98, much of the US steel industry has been in serious difficulty. The surge in imports brought steel prices down to a level at which US producers could no longer produce steel profitably. Moreover, integrated steel producers³ had difficulty in funding the so-called legacy costs, *i.e.* pension and health-care benefit commitments to which they agreed in the 1980s. Most of the integrated steel producers and some of the smaller mini-mills⁴ went into bankruptcy.

In response to growing congressional concern, the Clinton Administration announced a Steel Action Programme on 5 August 1999. This programme had three main elements:

- Vigorous enforcement of US trade laws, including expedited investigations.
- Bilateral talks to address the underlying problems that caused the crisis, including consultations with Japan and Korea, and an agreement with Russia to limit steel imports.
- Improved import-monitoring mechanisms to detect potential import surges.

In addition, the Congress passed the Emergency Steel Loan Guarantee Act, which was put in place to assist the financing of weak steel companies that were unable to get

commercial loans. This programme only temporarily helped to reduce imports, which fell by some 20% in 1999 from an historic record in 1998, while consolidation in the industry stagnated and steel production in ailing companies continued under the protection of Chapter 11 of the US bankruptcy law.

When the general economic situation worsened in the following years, President Bush announced a three-pronged strategy to address the structural challenges facing the steel industry.

- First, the United States Trade Representative requested the International Trade Commission (ITC) to initiate an investigation, under Section 201 of the Trade Act of 1974, to determine if serious injury had been caused to the steel industry by increasing imports of steel products.
- Second, efforts were initiated with trading partners to eliminate inefficient excess capacity in the steel industry worldwide.
- Finally negotiations were to be undertaken on the rules that govern steel trade, seeking stronger disciplines in order to reduce or eliminate all trade-distorting government subsidies to the steel sector, going well beyond current international rules governing such measures.

President Bush took action under Section 201 of the Trade Act of 1974 in March 2002, after a nine-month investigation found that ten steel industry products had been seriously injured by a surge in imports that warranted relief.

At the time when President Bush imposed temporary duties on steel imports, steel prices were at 20-year lows. Relief under Section 201 was put in place for up to three years, to be reviewed at mid-term to determine if it was still necessary. The measure, which was vigorously criticised by the governments of steel-exporting countries, triggered a series of trade actions against steel imports worldwide.

The Section 201 measure, the closure of Geneva Steel in November 2001 and LTV in December 2001 with a combined reduction of some 10 million tonnes of capacity (some of which reappeared under new ownership), the closure of inefficient capacity on other sites and a general improvement in the domestic economy may all have contributed to the recovery of the US steel market since mid-2002. Capacity has decreased since 2000 and reached its 1998 level of 113 million tonnes in 2003. Employment decreased from 235 000 in 1998 to 187 000 in May 2002. Between 1974 and 2003 the work force in steel fell by 73.4% in the United States compared to 70.7% in the EU15. Integrated producers, which accounted for around 60% of total steel production in the 1990s, nowadays produce less than 50%, while mini-mills have increased production and market share, respectively.

After reviewing the ITC mid-term report and economic conditions in late 2003, President Bush lifted the steel tariffs in December 2003. The measures had achieved their intended purpose: to allow needed breathing space so that the US steel industry could regain its competitiveness. The decision to rescind the tariffs was due to significant improvements in the US steel industry, and other changed economic circumstances, including:

- Steel industry consolidation and restructuring (more than half of steel production capacity is owned by firms that merged or restructured, closing about 4 million tonnes of inefficient capacity).

- Prices considerably higher than in February 2002, the month before the safeguard went into effect.
- Increased productivity.
- New labour agreements that increase flexibility and protect retiree welfare.
- Growing demand in other markets, including China and Russia.
- Improving exports for US companies.

Consolidation in the steel industry continues, notably in integrated companies, and profitability has returned to steel-producing companies. Consolidation in the US steel industry leads to economies of scale and stronger steel companies. In the months since the safeguards were lifted, ISG, the second largest integrated producer, entered into an agreement to buy Weirton Steel, the fifth largest integrated producer. Rouge Steel was acquired by Severstal, the largest Russian producer, and Valbruna Steel acquired Slater Steel in Indiana. In October 2004, ISG announced its plans to merge with Ispat International to form Mittal Steel, the world's largest steel company.

Participants in the OECD High-level Steel Initiative worked for two years to urge governments to identify and close inefficient excess capacity and to develop strong subsidies disciplines through a Steel Subsidies Agreement.

In June 2004, the High-level Steel Group concluded that while significant progress towards an agreement to curtail steel subsidies had been made, remaining differences require further examination and discussion. These differences centre in particular on exceptions to the overall subsidies prohibition, preferential treatment for developing countries, and whether excepted subsidies should be countervailable.

Participants in the OECD process are consulting informally in an attempt to bridge some of these differences and with the view towards reconvening the High-level Group sometime in 2005 to assess prospects for concluding an agreement.

Notes

1. Hot rolling capacity is the capacity for the transformation of crude steel into finished products such as sheet, bar, rod and sections. Crude steel capacity is the capacity to produce crude steel in the form of billets, blooms, slab and ingots.
2. Largely based on S. Cooney, *The American Steel Industry: A Changing Profile*, 2003.
3. Integrated producers produce steel from iron ore.
4. Mini-mills generally produce steel from melted scrap.

Chapter 8

SHIPBUILDING

This chapter examines cases of trade and structural adjustment in shipbuilding. It surveys experience in the European Union, Japan and Australia. Structural adjustment policies in Europe (both member states and the European Commission) were based on two pillars: reduction of capacity in recognition of structural deficiencies in shipbuilding (*i.e.* persistent overcapacity); and facilitating industry efforts to nurture new sources of competitiveness, via aid for modernisation and upgrading. The Japanese shipbuilding industry took a co-operative approach to restructuring. Faced with two rounds of severe crisis (in the late 1970s and late 1980s), the OECD established guidelines to encourage member governments to reduce shipbuilding capacity, and the Japanese government responded by establishing a Council, composed of experts, industry representatives and other interested parties to oversee a collaborative reduction of excess capacity among all Japanese shipbuilders. The Australian shipbuilding industry did not simply restructure, but undertook a wholesale transformation to achieve its current competitive position in the fast-ferry niche market. One catalyst was a recalibrated subsidy scheme introduced by the Australian government in the mid-1970s which moved away from a cost-based approach in order to stimulate efficiency and innovation. The traditional steel-based shipbuilding industry was transformed into an efficient and technologically advanced boat-building sector that could move relatively easily to the building of fast ferries. With the removal of the subsidy scheme at the end of 2000, the Australian shipbuilding industry moved to a situation in which the industry was self-sustaining without the need for further government assistance

Key points

The structural adjustment of European shipbuilding has been an ongoing effort, involving both industry and governments, to respond to the marked changes that have driven the world economy and to keep and improve its competitiveness in what has frequently been a turbulent market.

Having dominated the world shipbuilding market for decades until the early 1970s, European shipbuilding was severely affected when the overheated market collapsed in the mid-1970s. The downsizing of European shipbuilding continued even when the market began to show signs of recovery in the 1980s and production continues to be stagnant today.

The structural adjustment policies of European governments were first focused on how to deal effectively with a shipbuilding industry that was contracting and how to find sources of competitiveness other than cheap labour. In doing so, European governments (both member states and the European Commission) formulated shipbuilding policies based on two pillars:

- Recognising the structural deficiencies in shipbuilding (*i.e.* persistent overcapacity), governments tailored policy measures to reduce building capability, which, in the context of structural adjustment, led to a reduction in labour forces, thereby alleviating adjustment costs involved with the restructuring of shipyards.
- Governments also made efforts to encourage the industry to find and nurture new sources of competitiveness and helped to sustain the industry's ability to compete in the market, for example by permitting aid for modernisation or upgrading or for R&D activities.

The shape of the restructuring efforts differed among member states. Sweden, for example, virtually ceased commercial shipbuilding and diversified into other industries, while in France, restructuring involved mergers and regroupings of the yards. Another way of enhancing competitiveness was to tailor government policies to enhance competitiveness, for example by promoting technological upgrading, as in Germany. In Denmark, industry clustering around shipping groups helped lessen adjustment pressures on shipbuilding.

Owing to the global nature of competition in shipbuilding and the problems to be solved, European shipbuilding policies have been constantly affected by the international dialogue undertaken at the OECD Working Party on Shipbuilding (WP6). Domestic policies were gradually brought in line with the commitments made on the basis of the OECD guidelines and arrangements, and these were repeatedly drawn on in promoting structural adjustment.

The Japanese shipbuilding industry, which had a 50% share of the world market in the 1970s, faced two rounds of severe crisis owing to sharp fall-offs in world demand for tankers. The first was in the late 1970s and the second in the late 1980s.

The OECD guidelines encouraged governments to reduce shipbuilding capacity, and the Japanese government responded by establishing a Council, composed of experts, industry representatives and other interested parties, to advise it on possible courses of action. This Council recommended that excess capacity should be reduced collaboratively among all Japanese shipbuilders, recommending first in 1976 a reduction of 35% and

later in 1987 a further reduction of 20%. The Council's recommendations were accepted by the Japanese government.

To achieve these reductions collaboratively, an association was established to purchase and eliminate excess capacity. The cost of this activity was charged to the whole Japanese shipbuilding industry and enabled it to successfully reduce its capacity by about 50% throughout the period. The key point in the policy-making process was the recognition, by the Japanese shipbuilding industry as a whole, of the need to substantially reduce capacity, and it accepted at an early stage the need to pay for these reductions.

The Australian shipbuilding industry did not just restructure itself, it undertook a wholesale transformation to achieve its current strong and competitive position in the fast-ferry niche market. One catalyst was a subsidy scheme introduced by the Australian government in the mid-1970s. It was intended to provide a lifeline to the traditional steel-based shipbuilding industry, but instead it fostered the turn towards a new niche market that was open to innovation.

This shift succeeded largely because the industry found fertile ground in a thriving, efficient and technologically advanced boat-building sector that could relatively easily move to the building of fast ferries. By shedding its traditional steel-based industry and drawing instead on its experience with small boats, the Australian shipbuilding industry tapped into an existing technology and skills base and was able to build from the ground up rather than converting from the top down. The strong competition that existed in Australia in the small-boat sector also helped the development of a new industry able to focus on establishing itself as a more dynamic, technologically advanced and competitive industry.

With the removal of the subsidy scheme at the end of 2000, the Australian shipbuilding industry moved to a situation in which the industry is expected to survive without further government assistance.

The European Union

European shipbuilding in decline

With over 60% of the market in the 1960s, European shipbuilding dominated the world market before the global recession that began in the mid-1970s. As Figure 8.1 shows, even though its relative market share was gradually declining, European shipbuilding continued to grow until the recession began.

This growth was helped by the economic boom of the time, as well as optimistic anticipation of future economic growth and an ensuing surge in seaborne transport. In addition, governments' proactive shipbuilding policies, in particular through subsidies for favourable export credits, afforded ample grounds for growth to continue.

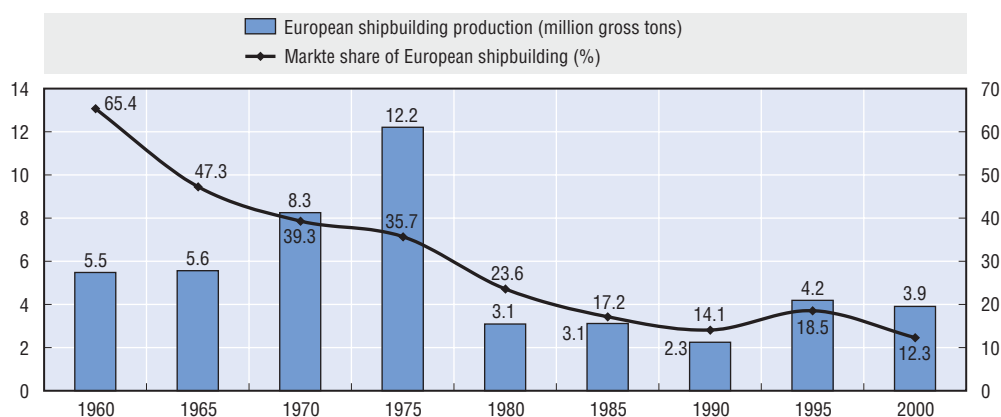
Through the recession, European shipbuilding endured an unprecedented decrease in production, which declined by more than 70%, from 14.0 million gross tons in 1975 to 3.6 million gross tons in 1985. Moreover, European shipbuilding continued to decline, both in production and world market share, even when the market generally began to recover from 1987-88 onwards. In fact, in production, European shipbuilding never recovered to the pre-crisis level (see Figure 8.1).

Since then, new shipbuilding economies, endowed with their own competitive advantage (*i.e.* cheap labour), have gradually taken a larger place in the world market.

Japan, which had already secured a dominant position in the early 1970s, continues to represent a significant market in world shipbuilding and Korea, with an almost non-existent role in the 1960s, has rapidly increased its market share.

With continuing lower rates of production, European industry has been compelled to shed over 70% of its work force since 1975 (from 461 988 in 1975 to 129 761 in 2003) (Table 8.1). Over the years, European shipbuilding underwent a lengthy process of structural adjustment, in some countries even to the point of virtual disappearance of the industry. At the same time, the situation also forced European governments to recognise the need to restructure the industry and accelerate efforts towards competitiveness in shipbuilding.

Figure 8.1. **European shipbuilding: production and world market share,¹ 1996-2000**



1. 100 gross tons and above. Poland is included from 1995.

Source: Lloyd's Register Statistical Tables.

Table 8.1. **Work force changes in selected European countries, 1975 and 2003**

	1975		2003	
	Employment ¹	Newbuildings ²	Employment ¹	Employment ¹
Denmark	18 900	15 300	2 900	2 400
France	40 354	24 938	6 250	4 350
Germany	105 988	71 598	22 000	14 200
Sweden	31 500	25 000	0	0
Total ³	461 988	306 047	129 761	90 948

1. Work force directly employed by shipyards.

2. Newbuildings include merchant ships and offshore facilities.

3. Members of the AWES (Association of European Shipbuilders and Shiprepairers)

Source: Association of European Shipbuilders and Shiprepairers, *Annual Report 2003-04*.

Emergence of Community-wide restructuring policies

During the early years of the recession of the 1970s, when the industry's problems were still believed to be short-term, the main European policy response was to provide short-term assistance to keep companies running. This was often motivated by social considerations and to secure the supply potential in the expectation of a recovery.

However, faced with mounting costs for supporting the industry in this way, European governments gradually introduced a more cost-effective and customised way to pursue restructuring. Also, the recession made it clear that persistent overcapacity was the major structural problem for world shipbuilding and that it directly affected all domestic shipbuilding industries.

EC Directives on aid to shipbuilding in 1987 and 1990 (87/169/EEC and 90/684/EEC) represented milestones in shipbuilding restructuring policy, as they embodied a Community-wide approach to facilitating structural adjustment in the industry. For example, common aid limits (“ceilings”) were set for the first time throughout the Community. The Directives were a bold attempt to respond to the recessions running from the 1970s to the late 1980s, drawing policy lessons from experience during or after the recession periods.

First, the goals of aid were clarified, and maximum ceilings (as a percentage of the contract value of the ships) were introduced throughout the Community. Provisions were also made for the progressive reduction of such aid from the 28% “contract-related production aid” set in 1987 to 20% in 1990, 13% in 1992 and 9% in 1993.

“Investment aid” was allowed, provided that it was linked to the restructuring of the yard, to avoid any increase in the shipbuilding capacity of the recipient yards. In the case of an increase, there had to be a corresponding capacity reduction in other yards in the same member state.

“Closure aid” was allowed, not for the yards, but for workers made redundant as a result of closures, thus ensuring that aid covered social costs related to the restructuring (payments to workers, counselling services, vocational training, etc.). Such aid was made available on the condition that the capacity reduction was genuine and irreversible, and the recipient yards had to be closed for at least five years (later increased to ten years).

With clearly defined purposes and commitments to reduce public support for the industry, the EC directives served to gradually reduce building capacity and/or labour forces and thereby lessened the adjustment pressure associated with restructuring.

At the same time, governments also attempted to nurture new sources of competition and sustain the industry's ability to compete in the market:

In addition to the R&D aid generally available for the overall industry, selective “investment aid for innovation” was permitted, provided that it related to innovative products and processes that were not currently used in the member states.

“Aid for modernisation/upgrading” was allowed as regional investment aid, provided that it was not linked to the financial restructuring of the yard.

The effectiveness of the Community-wide policies was enhanced by notification and/or monitoring requirements, which were binding on member countries. Any aid scheme – new or existing – was bound to be notified to the European Commission, which had the task of surveying the compatibility of government aid programmes with the principles of the common market. In pursuance of this objective, the European

Commission has issued a number of Directives, binding upon EC member states, to influence such aid and ensure transparency.

In light of the global competition in shipbuilding and the need for international co-operation in addressing its structural problems, European shipbuilding policies have been affected by the international dialogue in the OECD Working Party on Shipbuilding. Domestic policies were brought in line with commitments made in that context and discussions in that forum were drawn on for promoting structural adjustment.

The “*General Arrangement for the Progressive Removal of Obstacles to Normal Competitive Conditions in the Shipbuilding Industry*”, first introduced in 1972 and finally revised in 1982, prompted member governments (as well as the European Commission) to gradually reduce domestic subsidies. The “*General Guidelines for Governmental Policies in the Shipbuilding Industry*”, adopted in 1976 and revised in 1982, directed shipbuilding policies towards reducing building capacities.

Examples of restructuring in EU member states

Swedish yards, which specialised in large oil tankers in the 1970s, were affected more quickly and more sharply than others by the oil price crisis. Its magnitude, and the mounting adjustment costs to the industry, led the government to co-ordinate the activities of shipyards, notably by ordering new ships for the public account and keeping these in stock in the expectation of recovery.

However, by 1985, faced by the escalating cost of keeping yard activity alive in this way, the government decided to terminate that policy and to promote other industries (such as the automobile industry) which were regarded as more profitable. The result for shipbuilding was a severe drop in the number of jobs, and almost all the major shipyards essentially ceased their commercial activities.

In France, commercial shipbuilding was considered as a business activity separate from the naval sectors. Military vessels were built in “arsenals”, *i.e.* shipyards that were dependent on the Ministry of Defence. Therefore, commercial shipbuilding could not benefit from the buffer effects of military orders, and as a consequence was more heavily affected by the recession. During the difficult process of structural adjustment, the government promoted a series of restructuring activities, mainly through mergers and regrouping of yards. Over the years, these reorganisations downsized the industry to a few major yards, with Chantiers de l’Atlantique producing the most technologically sophisticated ships, and medium-sized yards (Alstom Leroux Navel, Lorient) and Les Chantiers Piriou) focusing on specialised ships such as research vessels. The remaining small yards have focused on building small fishing vessels.

In Germany, the government’s policy stance has been that the responsibility for adjustment falls first to the shipyards themselves and that they need to adapt to new market conditions and improve their structures to remain competitive. Therefore, government aid to help companies over the recession was regressive and subject to certain conditions. For example, subsidies were granted provided the ships incorporated high technology.

Reunification in 1989 created a major challenge for the German shipbuilding industry. Limited aid was provided to modernise former East German yards under the strict condition that they would reduce capacity. Another distinctive feature of German shipbuilding policy has been an emphasis on promoting demand for ships, for example in the form of export credit support to developing countries. Currently, major yards

(e.g. Meyer Werft, Aker MTW Werft and HDW) are engaged in building cruise vessels or large container vessels. Remaining medium yards specialise in medium container vessels or general cargo ships.

In Denmark, the restructuring of the shipbuilding industry offers an example of concentration of shipbuilding activities around shipping activities. Probably more than in any other country, Denmark's present shipbuilding industry has been created around yards owned by the big ship-owner groups. The close relationship thus created between these two industries – shipbuilding and ship-owner – served as a shock absorber for shipbuilding and helped prevent abrupt changes in the industry. The largest shipbuilder in Denmark, Odense Steel Shipyard, a member of the A.P. Moller-Maersk Group, is active in the building of containership vessels.

Continuing structural adjustment efforts

The commitment to reduce public subsidies to the industry has been repeatedly reaffirmed, and shipbuilding policies have been constantly tailored through monitoring of the balance of supply and demand in world shipbuilding. As a consequence, contract-related operating aid was abolished as of the end of 2000 (Council Regulation [EC] No. 1540/98 of 29 June 1998).

Nowadays, European shipbuilding leads the high-value shipbuilding market, for example for cruise ships (which are considered the highest-value sector of shipbuilding). It held almost 80% of world cruise ship orders as of the end of 2003. It is also actively involved in technologically sophisticated segments such as fast ferries, car carriers or multi-purpose cargo vessels. Small and medium-sized yards focus on specialised vessels (e.g. fishing vessels and mega-yachts).

Efforts also continue to capture new sources of competitiveness (e.g. finding niches in so-called “conventional” segments such as containerships, chemical and gas carriers) and thus enable the industry to remain competitive.

Very recently, LeaderSHIP 2015,¹ a joint initiative between government and industry, was launched to further restructure the industry and enhance its competitiveness. With Community-wide action programmes to enhance competitiveness, this initiative takes an all-encompassing approach, from creating a “level playing field” in shipbuilding, to increasing RDI (research, development and innovation) activities, to building a sustainable industry structure (including incentives for consolidation).

Japan

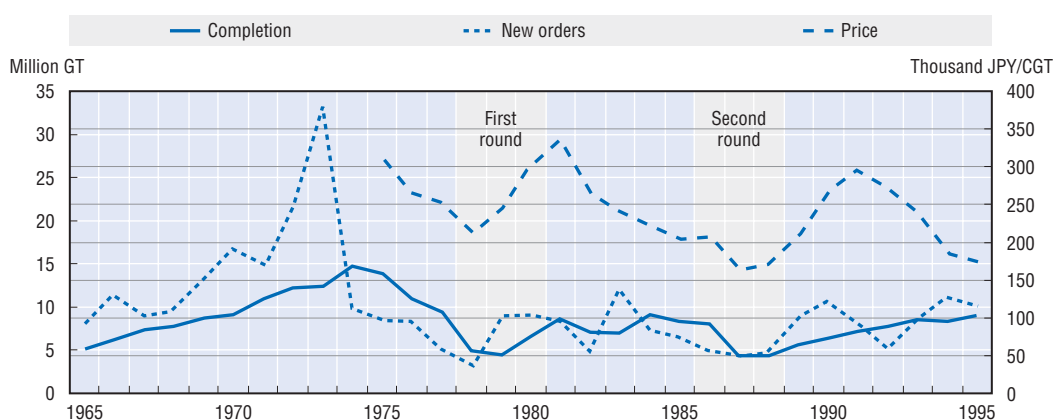
Short history

The Japanese shipbuilding industry grew as a key industry during the country's rapid economic growth after World War II. In 1956, Japan became the world's dominant producer, and shipbuilding made a great contribution to the Japanese economy as one of its major export industries.

In the 1960s, taking advantage of growing world demand for ultra-large tankers, Japanese shipbuilding achieved strong growth, and in 1968 increased its share to half of the world total. The industry has maintained its competitiveness for decades and still commands some 35% of world output. However, growth was not without difficulties, as the Japanese shipbuilding industry faced two rounds of severe crisis caused by sharp fall-

offs in demand for tankers, the first in the late 1970s and the second in the late 1980s (Figure 8.2).

Figure 8.2. Changes in Japanese shipbuilding industry market



CGT = capacity gross tons.

1. 2 500 GT and over.

Source: Ministry of Land, Infrastructure and Transportation (MLIT), Japan.

First round of structural adjustment

In 1974, world shipbuilding was suddenly plunged into a serious structural recession following the first oil crisis, owing to a drastic drop in newbuilding orders because of a slackening in the shipping market and surplus tonnage, particularly in large tankers. Conditions in Japan were more severe than in European countries, principally because large tankers were a large share of Japanese production. In 1974, orders placed with Japanese yards dropped by as much as 72% over the preceding year. This was accompanied by a large number of cancellations, which almost equalled the new orders received, and as a consequence, shipbuilding firms deteriorated rapidly (Table 8.2).

Table 8.2. New and cancelled orders to Japanese shipbuilders

Millions of gross tons

	FY1973	FY1974	FY1975	FY1976	FY1977	FY1978
New orders	33.79	9.35	8.50	8.42	4.95	3.22
Cancellations	-	0.91	6.96	7.59	2.80	0.68

Note: 2 500 GT and over.

Source: Ministry of Land, Infrastructure and Transportation (MLIT), Japan.

The first round of capacity adjustment was launched in June 1976 following a report by the Shipping and Shipbuilding Rationalisation Council (SSRC). The SSRC was established to assist the government in formulating policies for the shipbuilding industry, and consisted of experts in various fields, including shipbuilding representatives.

Referring to the OECD Guidelines of 1976 and the world economic situation at the time, the SSRC strongly endorsed the need for a significant reduction in shipbuilding

capacity. In response, the Minister for Transport provided the shipbuilding industry with guidelines concerning shipyard operations, which led to a reduction in hours of operation. Compared to previous years, these were reduced by about 30% in fiscal year (FY) 1977 and by about a further 35% in FY 1978.

In addition, under the pressure of bankruptcies, particularly of small and medium-sized shipbuilders, the SSRC submitted a further report in July 1978 to the effect that some 35% of existing shipbuilding capacity should be disposed of. Subsequently, in August 1978, the shipbuilding industry was designated under the Special Measures Law Concerning Stabilisation of Designated Industries, which provided for loan guarantees to help companies (across all industries) to reduce production capacity. However, these guarantees did not by themselves prove adequate to promote sufficient capacity reduction.

In December of the same year, the Designated Shipbuilding Enterprise Stabilisation Association (DSESA) was established for the purpose of facilitating the disposal of capacity. It did this by purchasing excess berths or docks with shipbuilding facilities from shipbuilders and holding them temporarily until sold to third parties for purposes other than shipbuilding. This enabled the shipyards to close or reduce their capacity immediately and to use the capital gains to service their debts and fund their retirement liabilities.

In order to limit production, an “anti-depression cartel” was also formed in August 1979 by 39 shipbuilders and exempted from the Antitrust Law. This allowed shipbuilders to agree collectively to reduce production, and the cartel took over the administration of the guidelines issued earlier by the Minister for Transport.

When this round of structural adjustment ended in March 1980, capacity had been reduced by 37% from the previous year (Table 8.3).

Table 8.3. Changes in the scale of the Japanese shipbuilding industry

	April 1979	March 1980	Reduction
Shipbuilders ¹	61	44	-28%
Berths or docks	138	88	-36%
Capacity (million CGT)	9.77	6.19	-37%

CGT = capacity gross tons.

1: Shipbuilders able to build ships of 5 000 GT and over.

Source: Ministry of Land, Infrastructure and Transportation (MLIT), Japan.

These actions seemed to have produced positive results. Reduced capacity in the shipbuilding industry helped newbuilding prices to stabilise in 1979 for the first time in six years. Signs of recovery became visible and the structural adjustment initially seemed to be performing properly.

Second round of structural adjustment

Although the tonnage of vessels built increased after the first crisis, it remained at only half that of the earlier peak year, as it did in Europe. New shipbuilding economies such as Korea and Chinese Taipei were increasing their share. Additionally, a continued slump was predicted for the industry, and the international situation was bound to become

increasingly complex and difficult. In these circumstances, Japan and European countries exchanged views and information at the OECD Working Party on Shipbuilding and other forums.

Domestically, in a report issued in March 1983, the SSRC strongly recommended the further restraining of capacity expansion and a capping of production. In that report, the Council again referred to the policy guidance contained in the agreements concluded at the OECD,² and urged the government to respect the obligations laid down in them. The Ministry of Transport then took various steps, including restrictions (as far as possible) on the development and expansion of facilities, as well as additional restraints on yard operations in order to reduce output.

However, changes in the international situation from autumn 1985, such as the appreciation of the yen against the dollar and the drop in oil prices, had a considerable effect on the Japanese economy. Exchange losses adversely affected international business operations such as ocean-going shipping and shipbuilding. Orders for new vessels received by Japanese shipbuilders decreased by 11% in FY 1985 and by 25% in FY 1986. At this point, the situation of shipbuilders became more difficult, and there were rising concerns about the deteriorating employment and economic conditions in districts depending mainly on the shipbuilding industry.

Then, in addition to the recommendation prepared in 1983, the SSRC in June 1986 suggested that to stabilise the nation's shipbuilding industry, Japan should take the following measures as quickly as possible:

- Disposal of excess facilities to reduce capacity by about 20%.
- Strengthening of the industrial structure through mergers and acquisitions.
- Promotion of the scrapping of vessels.
- Creation of demand for shipping.

This gave rise to the second round of measures to reduce capacity which started in early 1987, at a time when world shipbuilding demand was at its lowest, with the formation of a new "anti-depression cartel". This was immediately followed by the Temporary Measures Law Concerning Operation Stabilisation of Designated Shipbuilding Enterprises which aimed to facilitate disposal of facilities and the merger of shipyards. The law provided for the purchase of excess facilities, and for loan guarantees by the DSESA,³ which had been formed during the first round of adjustments for the same purpose.

By March 1988, the process of concentration facilitated by the Temporary Law led to the reduction in the number of shipbuilders to 26, organised in eight groups (formerly 44 shipbuilders and 21 groups), and capacity had been reduced by another 24% (Table 8.4).

This ended the second round of structural adjustment, but restrictions on the expansion of individual shipbuilding facilities continued until the government, following the SSRC's recommendation in 1996, loosened some of the restrictions, while maintaining the overall capacity capping until 2003.

Table 8.4. Changes in scales of Japanese shipbuilding industry

	April 1987	March 1988	Reduction
Shipbuilder ¹	44	26	-41%
Group	21	8	-62%
Berth or dock	73	47	-36%
Capacity (million CGT)	6.03	4.60	-24%

CGT = capacity gross tons.

1: Shipbuilders able to build ships of 5 000 GT and over. [CGT]

Source: Ministry of Land, Infrastructure and Transportation (MLIT), Japan.

Conclusion

The Japanese shipbuilding industry overcame unprecedented recessions in the 1970s and 1980s by adjusting capacity to reflect market changes. The key point underlying the policy-making process was the recognition, by the Japanese shipbuilding industry as a whole, of the need to substantially reduce capacity. It accepted at an early stage the need to pay for that reduction. The difficult process of eliminating excess capacity was achieved because government policies, and the measures implemented by the industry, largely followed the guidance developed on a consensus basis by experts, representatives of employees and workers in shipbuilding, and other interests.

Of note is that, under the law, costs of the DSESA's operations were charged to all shipbuilders able to build ships of 5 000 GT and over remaining in the market and subsequently received new orders. This approach was practicable because the purchase of the facilities was implemented not only upon individual request from a shipyard that wanted to dispose of its facilities, but also relied on plans made by groups of shipyards, including those that were to remain in the market. In other words, the measures were developed and executed on the basis of a consensus among the industry, stockholders, creditors, government and other interests, and were based on the belief that future benefits would exceed the cost of the measures.

While problems have emerged in terms of after-effects, including the ageing of engineers and skilled workers and stagnating technological development, Japanese shipbuilding has maintained its competitive edge for almost half a century, and still has some 35% of the world market. Unlike most other industries in Japan that have declined or shifted facilities to foreign economies to take advantage of cheap labour, shipbuilding has been able to adapt to changes in the world market and to retain almost all of its activity in Japan.

Since the completion of the restructuring programmes, the government has ceased all direct intervention in the industry, except for assistance for R&D (especially for environmental protection) and the Japanese shipbuilding industry has been left to respond freely to subsequent changes in the international shipbuilding market. Japan also actively participates in the current OECD negotiations to establish a global level playing field.

Australia

Short history

The colonial government built Australia's first shipyard in 1797, only nine years after colonisation by the British. While both commercial and naval ships were built since that early beginning, shipbuilding did not entrench itself firmly in Australia's landscape until just prior to the World War II, when the Broken Hill Proprietary Company (BHP) established a yard in Whyalla (South Australia) and Evans Deakin established itself in Brisbane. Subsequently, major shipbuilding was also carried out in Newcastle in New South Wales.

In terms of production of large, traditional steel ships, Australia's golden age was between the end of World War II and 1972, when these yards built over 70 large merchant vessels. Both the Whyalla and Evans Deakin yards built a number of ships of over 50 000 dwt (dead weight tons), with the largest exceeding 80 000 dwt.

An industry in decline

As in many of the industrialised (and industrialising) countries in the 20th century, Australia considered shipbuilding a "strategic industry" from both economic and defence perspectives, and it was supported by the government through import duties and later production bounties (a form of subsidy assistance intended to equate the cost of building a vessel in Australia with the cost of building a similar vessel in the United Kingdom). The Australian government's drive to firmly establish a viable shipbuilding industry commenced in 1947 when it re-introduced a bounty that had been introduced in 1940, but scrapped in 1943 as no claims had been lodged during the war years. Originally the bounty only applied to vessels built for use in Australia. A bounty was chosen, rather than a tariff on imported vessels, to avoid adding to the cost of shipping operations. Therefore, instead of providing tariff protection to bring the cost of import vessels up to those built locally, the bounty provided a subsidy to local producers to recompense them for the "additional" cost of building the vessel in Australia.

If the intent of the bounty was to foster a viable industry in Australia, it seems in practice to have had the opposite effect. The level of assistance provided to the local shipbuilding industry was high and therefore much prized by the group of six companies that comprised the registered shipbuilders eligible for the bounty. Its restricted application had the effect of limiting opportunities for new entrants that had no choice but to operate outside the scheme. Moreover, because of the implied threat that the bounty might be reduced if significant profits were made on the construction of ships, there was a disincentive for registered shipbuilders to upgrade their facilities to improve efficiency.

As in many countries in the post-war period, the shipbuilding industry was trying, when the bounty was introduced in 1947, to keep shipyards built or extended during the World War II in operation. Like its counterparts in other countries the Australian commercial shipbuilding industry built large steel-hulled vessels, mostly tankers and bulk carriers.

In the mid-1970s these large ships were still being built, but the industry had long been facing serious problems. The lack of investment and of innovation (partly as a result of the bounty) and difficult industrial relations highlighted the fact that the industry was in crisis. As an example, a shipyard operating in the 1970s employed members of

26 different unions, and disputes related to demarcations and work practices were common.

Simply put, the inefficient Australian shipyards were unable to compete either with the skills and technical superiority of the traditional European shipbuilders, nor with the efficiency of newer yards in lower-cost countries like Japan (at the time) and (later) Korea. Moreover, the help provided by the bounty was negated by subsidies provided by governments around the world to their own industries.

The government's response

The government's response to the crisis in the shipbuilding industry was to revamp the bounty scheme in 1975, replacing the original cost-based approach with one based on the selling price of the vessel. This was in turn replaced in 1980 by a new bounty scheme in which assistance was based on the cost of construction of the vessel.

In the early 1980s the nominal rate of assistance was 27.5%, but it declined to 15% by the end of the decade. In the 1990s it declined steadily until it reached 5% towards the end of the decade. By the end of 2003, when the bounty was discontinued, the rate had fallen to 3%.

The clear intent of the bounty scheme was to support the local industry, and throughout this time import controls were maintained, although imported vessels meeting specific criteria (principally vessels that could not be built by the local industry) were increasingly permitted. This placed further pressure on the local industry as it was increasingly unable to enter the market for the more specialised and larger vessels.

In 1984 the application of the bounty only to vessels intended for use in Australian waters was lifted to assist the industry to take up excess capacity. The new scheme also introduced a more rigorous registration scheme for shipbuilders eligible to receive the bounty. The purpose of the registration was to lead to a more “orderly development” of the industry, by focusing on those most able to succeed in future. Crucially, unlike the earlier registration scheme for a fixed number of builders, whose positions were “grandfathered” to the clear detriment of the entire industry, the new registration scheme was open to all who could meet the rigorous criteria.

These new criteria ensured that the bounty would be paid to shipbuilders that had, or could demonstrate, a clear long-term commitment to the industry, and could be regarded as part of a viable, efficient, outward-looking and technologically advanced industry. The new arrangements were also dependent on continuing progress in discussions between the industry and unions to improve industrial relations. This, in turn, was to improve the skills base available to the industry and contributed greatly to its longer-term efficiency.

Impact on the industry

The outcome of these changes was largely unanticipated. Originally put in place to assist structural adjustment and rationalisation of the traditional steel-based industry, the new scheme only acted to further accelerate its demise, which had been gathering pace throughout the 1970s and the early 1980s. Instead, and quite unexpectedly, the new scheme's emphasis on long-term viability, export orientation, technical excellence and efficiency served to nurture an “infant” industry that used different skills, different technologies and new materials, and built vessels that were far different from those constructed by their predecessors.

A quick examination of the changes in employment patterns in selected years during the period of the changeover indicates the fairly rapid reduction in employment in the traditional shipbuilding and repair industry, which since then has focused almost entirely on the construction of military vessels for the Australian Defence Forces (although this has also generated some moderate export activity).

While numbers in the “bountiable sector” (*i.e.* the new fast ferry builders) increased overall, employment remained well below that of the “old” sector (Table 8.5). A comparison with industry output also attests to the substantial improvement in productivity that accompanied the transition.

Table 8.5. **Australian shipbuilding employment and output, selected years**

Year to 30 June	Employment		Output AUD millions
	All shipbuilding and repair	Bountiable builders	
1985	11 200	1 598	480
1988	7 500	2 287	822
1992	5 600	1 982	1 469
1996	4 100 ¹ (est.)	3 334	1 486

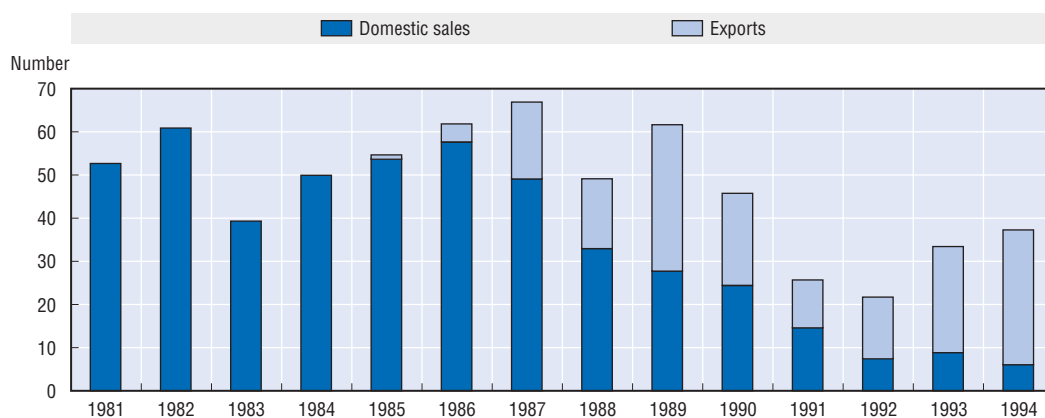
1. Estimated.

The bounty payments peaked in the late 1980s and early 1990s, driven up by growing production, even though the rate of assistance had been gradually falling. A sharp decline in the rate of the bounty in the mid- to late 1990s further brought down overall bounty payments, which settled at around AUD 25 million per financial year between 1990 and 1997. Since then the bounty payments have fallen further as the rate of support continues to decline. The lowest bounty payments (AUD 5.5 million) occurred in FY 2001/02, while in FY 2003/04 they rose to AUD 13.8 million.

An industry re-invented

As noted earlier, the original intention of the revamped bounty scheme was to help the restructuring of the traditional steel-based shipbuilding industry. In fact, however, none of the traditional shipbuilders survived the transformation. All either closed down or abandoned the commercial market and turned to the manufacture of naval vessels, and their place was taken by a new breed of shipbuilder. The particular niche occupied by the new Australian shipbuilding industry covers fast ferries (passenger and passenger/vehicle combinations) and luxury cruisers, patrol boats and yachts. It has been extremely successful in capturing this niche, and has been at the leading edge of technology in design and the use of aluminium and composite material for many years. It is also located in different parts of Australia (primarily in Henderson in western Australia and in Tasmania). As these new entrants were also very export-oriented, the industry was completely revolutionised. Figure 8.3 shows, in quite dramatic fashion, the transformation that took place between 1981 and 1994. That situation still exists today, and almost all vessels produced in Australia are exported.

Figure 8.3. Sales of bountiable ships, 1980/81-1993/94



Source: Australia, Department of Industry, Science and Technology (1994).

In an analysis carried out in 1995 the Australian Bureau of Industry Economics attributed this re-invention to the following factors:

- Fast ferries can be considered as large boats rather than small ships, and many of the current shipbuilders had their origins in advanced-design boat building, where there was a stronger technological continuity than in the traditional steel-based sector.
- By turning away from the traditional steel-based industry and drawing instead on their small boat experience, the new Australian shipbuilders tapped into an existing technology and skills base and were able to build from the ground up, rather than converting from the top down.
- Capital requirements were relatively low, and this allowed a number of competitors to emerge, generating strong competition and a flow of ideas and personnel within the industry.
- Strong initial domestic demand for such ships (fed by growing tourism) provided a bridge while the manufacturers developed their export market.

The industry today

The Australian shipbuilding industry in 2004 still focuses heavily on aluminium fast ferries and other similar vessels. These have grown incrementally over the years with a passenger/vehicle/cargo fast ferry of 126.6 metres long currently being built by Austal for a European buyer. At present, there are around a dozen shipbuilders with the capability of constructing fast ferries and similar vessels, mostly clustered around Henderson in western Australia.

Over the years the Australian industry had been at the leading edge of design and technology, and has been involved in a number of joint overseas ventures involving technology and design transfers. In particular Austal Ships and Incat Tasmania have established subsidiaries and joint ventures in the United States to tap the Jones' Act market, as well as growing military applications for these types of vessels.

On the government's part, it had anticipated as early as 1995 that if the OECD Shipbuilding Agreement had come into force in 1996 as intended,⁴ and Australia joined it, then the bounty would have had to be removed immediately. As the Shipbuilding

Agreement did not come into force as expected, the bounty was renewed, but with decreasing levels of assistance.

The bounty terminated on 31 December 2000, with phase-out provisions in place until 31 December 2003 for vessels under contract as of the end of 2000. In 2003/04, the commercial shipbuilding industry generated a turnover in excess of AUD 500 million and the entire Australian shipbuilding industry (including those employed in the construction of naval ships) employed in excess of 7 000 people.

The new, subsidy-free status underlines the necessity of a global “level playing field so that the Australian industry can continue to compete on the international market. Not unexpectedly, Australia has participated actively in the present negotiations in the OECD for a new Shipbuilding Agreement to bring about normal competitive conditions in the industry.

Notes

1. European Commission (2003), *LeaderSHIP 2015 – Defining the Future of the European Shipbuilding and Shiprepair Industry – Competitiveness through Excellence*, http://europa.eu.int/comm/enterprise/maritime/leadership_2015.htm.
2. *The General Guidelines for Government Policies in the Shipbuilding Industry and the General Arrangement for the Progressive Removal of Obstacles to Normal Competitive Conditions in the Shipbuilding Industry*.
3. The association was reorganised in 1989 as the Association for Structural Improvement of the Shipbuilding Industry (ASIS) with expanded activities including research on trends in world shipbuilding supply and demand.
4. It has not yet come into force as the United States has so far failed to ratify it, a necessary requirement under its entry into force provisions.

Chapter 9

MOTOR VEHICLES

This chapter examines cases of trade and structural adjustment in the motor vehicle sector. It studies the experience of four countries *i.e.* one developing country (South Africa), one country in transition (Poland) and two industrialised countries (Australia and Japan). In spite of the many differences, these countries share three common characteristics: *i)* the automotive industry is important in all; *ii)* each has recently faced a major adjustment challenge in the sector; and *iii)* the approaches taken in meeting these challenges bear certain similarities. Trade policy is found to be particularly important in the South African and Polish cases, where preferential access to the markets of Europe and North America offered incentives for automotive producers to invest in export-oriented production. Foreign investment is found to be significant not just for the capital or technology that it brings, but for the changes it prompts in the outlook and practices of the firms or industries involved, as illustrated by the Japanese case. The gradual dismantling of high levels of protection for the Australian automotive industry has engendered a more competitive environment with a much greater focus on innovation and customer service. Trade liberalisation has, however, been accompanied by a number of key concomitant policies: the introduction of enterprise bargaining; broad-based regulatory reform such as that in the electricity and transport sectors; and transitional budgetary support that has encouraged new investment and innovation.

Key points

The case studies examine the experience of four countries in the motor vehicles sector. These include one developing country (South Africa), one country in transition from communism to a market economy (Poland) and two industrialised countries (Australia and Japan). In spite of the many differences, these countries share three common characteristics: *i)* the automotive industry is important in all of them; *ii)* each has recently faced a major adjustment challenge in the sector; and *iii)* the approaches taken in meeting these challenges, and the results obtained, serve to illustrate the key points described below.

All countries face challenges and must adjust

One recurring point in the political economy of automotive trade is that adjustment challenges – sometimes rising to the level of crises – affect countries at all levels of economic development. The challenges described in the case studies differ widely, depending on the countries' economic and political systems: Japan has had to deal with the collapse of a “bubble economy”, Poland with the transition from communism to a market economy, South Africa with the end of *apartheid* and re-entry into a global trading system from which it had been partially excluded, and Australia has undertaken a major reorientation of a highly protected, inward-looking industry policy. Two of the cases are extreme: not every country is likely to undergo the radical changes seen in Poland and South Africa in the past two decades. The Japanese case, however, serves to underline that challenges are a recurring feature of this industry. It is all too easy for a successful firm, or a national industry, to develop a dangerous sense of complacency. The automotive industry is noted for its long lead times in the development of new models, so that problems arise slowly and solutions must be pursued through sustained efforts over several years. In the case of Japan, Nissan and other firms overbuilt in response to the boom years of the 1980s. The miscalculations became apparent with the bursting of the bubble economy, but recognition of the problem did not lead to an immediate, effective resolution.

The challenge that Japan faced, as well as the successes achieved in Poland and South Africa, raise the question of long-term prospects for the “triad” producers of western Europe, Japan and North America. It is often observed that competitive industries tend to migrate over time from more to less developed countries. While some analysts posit that this is a response to shifts in the costs of production (especially labour), others take a more pessimistic view. The social sciences are rife with theories suggesting that large and competitive economies are unlikely to retain their position indefinitely. This is the underlying message of Veblen's “leader handicap” theory (Veblen, 1915), which is presented in reverse form by Gerschenkron's assertions regarding the “advantages of backwardness” (Gerschenkron, 1962), as well as of Olson's concerns over the decay of competitiveness in a developed country that is beset by “distributional coalitions” (Olson, 1982). If these theories are universally valid, the automotive industries in “challenger” countries such as Poland and South Africa must ultimately overwhelm the established producers in the triad countries.

The Japanese case suggests that this pessimism may be unwarranted. While Nissan and other Japanese firms came under strong competitive pressure, and even verged on bankruptcy, their difficulties did not prove insuperable. Consider first the question of programmes costs, where Japan has some of the highest rates in the world. High wages do

increase the costs of production, but they are counterbalanced by the high productivity of Japanese workers. To assert that a country cannot pay high wages and remain competitive is reminiscent of the oft-heard contention that, according to physics, it is impossible for bumblebees to fly. The demonstrable fact that bumblebees do get aloft suggests that there is something wrong with the contention, and the same can be said for the fact that there are vibrant automotive industries in high-wage countries. Unlike programme-intensive industries, where an industrialised country may find it supremely difficult to remain competitive in all but the product lines at the highest end, the prospects are not so bleak for a capital-intensive industry with massive economies of scale.

Australia, which is outside the “triad-challenger” configuration, demonstrates a point that is common to all motor vehicle industries: one of the major challenges facing the industry is the large scale of investment that is likely to be required to enable automotive producers to meet more stringent environmental standards.

Trade protection is not the answer

Trade offers a means for industries to enhance their competitiveness both by access to high-quality, lower-cost inputs, and by the ability to take advantage of greater economies of scale through export sales to large markets. In none of the cases presented here, however, did the country or firm rely upon new protection from imports in order to enhance its competitiveness or preserve the *status quo*. To the contrary, in three of the four cases, the countries undertook liberalisation on an autonomous basis. In two of those cases, new and preferential access to foreign markets served to magnify the available opportunities.

The cases offer a spectrum of experience. At one end is Nissan, where trade policy has not been a prime mover. In fact, it is ironic that Nissan’s problems became most acute *after* the quantitative restrictions in the US and EU markets had expired. The Nissan Revival Plan called for many changes in the operations of the company itself, but it was not predicated on any changes in the trade policies of Japan or its partners.

Trade policy was more important in the South African and (to a greater degree) the Polish cases, where preferential access to the markets of Europe and North America offered further incentive for automotive producers to invest in export-oriented production. For both countries, the improved market access came in three stages: the lifting of sanctions, the extension of preferential access on a non-reciprocal basis, and the negotiation of regional trade arrangements (South Africa’s free trade agreements with the European Union and the United States, and Poland’s accession to the EU). Open access to a triad market was especially important for Poland, where anticipated EU membership – and hence permanent, free access to the world’s largest automotive market – affected not only the magnitude but the nature of foreign investment. While some of assemblers began with simple, small-scale operations, primarily in order to “jump” the tariff wall for local sales, they later established much larger, more integrated operations in order to meet EU rules of origin.

Foreign investment brings more than capital

Foreign investment is significant not just for the capital or technology that it brings, but for changes in the outlook and practices of the firms or industries involved. This is especially important in an industry where firms’ internal operations, and their relationships with supplier networks, have undergone radical changes in recent decades. A country in which domestic automotive firms are isolated from these trends may have

fewer options to learn best practices for meeting the adjustment challenges that they will inevitably face.

This point is best illustrated by the Japanese case, where Nissan proved incapable of making the hard decisions necessary to reverse its decline. It was only in the alliance with Renault, which brought major changes in corporate culture and an innovative management style, that management was able to take the difficult steps necessary to cut costs and restore profitability. These cultural changes were much more significant than the infusion of cash Renault brought to the table.

Similar observations can be made for South Africa and Poland, where the national automotive industries had once been constrained by their country's semi-isolation from the global trade and investment system. In both cases, the few investments made by automotive producers from the triad economies were restricted. That changed with the collapse of the Soviet Union and the end of *apartheid*. New and substantial investments in these two economies have brought not only new capital and advanced technologies, but also improved managerial practices. In Australia, trade policy has been an essential trigger for reform.

The gradual dismantling of high levels of protection for the Australian automotive industry has engendered a more competitive environment with a much greater focus on innovation and customer service. This has allowed the industry to offset the impact of a surge in vehicle imports by strong export growth. Trade liberalisation has, however, been accompanied by a number of concomitant key policies: the introduction of enterprise bargaining, which was instrumental in facilitating the uptake of just-in-time production methods; broad-based regulatory reform, which has led to the more efficient provision of infrastructure services, such as electricity and transport; and transitional budgetary support, which has encouraged new investment and innovation.

A good policy framework is crucial

Another key lesson is that success in the automotive industry develops in a conducive policy environment. This can be observed in the programmes market and regulatory reforms in Australia. In Poland, the foundation for foreign investment was laid with the restoration of property rights and the abolition of state ownership, and in South Africa, the automotive industry has benefited from the radical economic reforms undertaken in the post-*apartheid* era.

Japan

Introduction

The main focus of this example is the restoration of competitiveness in an OECD country, as seen from the perspective of a single firm. The focus is appropriate for an oligopolistic industry in which a relatively small number of firms in the triad countries collectively account for the great majority of passenger car production. These producers are extraordinarily influential players in the global economy. The 2003 revenues of General Motors – the largest automotive firm – were USD 185.5 billion, an amount greater than the gross domestic product (GDP) of all but 26 countries. Although Nissan is smaller than General Motors, its 2003 revenues of USD 56.0 billion are larger than the GDP of Bangladesh (the world's 53rd economy).¹

Nissan had flourished during the boom years of the 1980s, but it stagnated in the following decade. Market share and revenues fell, debt rose and the company was on the verge of bankruptcy. Its own efforts at revival failed. The company's fortunes were turned around after it entered into an alliance with Renault in 1999; under the leadership of Renault executives and its own managers, Nissan adopted a bold plan based on internal and external reforms. Within a year, Nissan was earning record profits.

The steps taken by Nissan illustrate a larger trend in the global industry: firms are simultaneously pursuing horizontal consolidation and vertical disaggregation. Along the horizontal axis, a series of mergers, acquisitions and alliances are pulling once separate firms into trans-regional families. Along the vertical axis, auto assemblers are also reordering their relationships with the producers of parts. Producers that were once owned by assemblers, or operated in very close co-operation with them, are now being put at arm's length. This latter process is especially dramatic in Japan, where the Nissan case exemplifies the challenges to the once dominant *keiretsu* model of close inter-corporate relations.

The economic and policy context

Although this example revolves around the experience of a single firm, its foreign partner and allied suppliers, it cannot be viewed in isolation from larger developments in the Japanese economy and the global automotive industry. The challenges that Nissan faced can be traced in large part to a long-lasting, economy-wide recession, and the solutions that it pursued are not unique. Its recovery may also be attributed in some measure to broader economic developments, notably the declining value of the yen. It is nevertheless useful to examine in greater depth how a firm responded to challenges at the micro level, treating the broader environment as exogenous.

The bubble economy

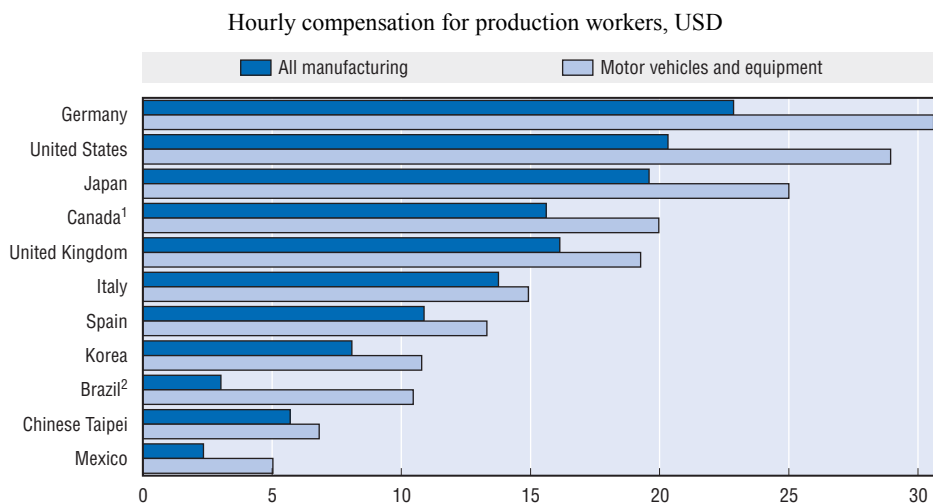
The Japanese economy once appeared to be unstoppable, but the prosperity of the 1980s gave way to years of drift in the 1990s. Fuelled by the success of its export industries and the demands of its partners, Japan agreed in the 1980s to pursue an expansionary monetary and fiscal policy. The resulting growth in domestic demand, accompanied by a rapid rise in prices, could not be sustained indefinitely. By the early 1990s, that bubble had burst. The Japanese economy has since been marked by negative rates of inflation, extremely low interest rates, persistent downward pressure on prices, levels of unemployment that are high by Japanese standards, and uncertainty about prospects for the future. The suppression of domestic demand has complicated Japanese producers' efforts to work their way out of the doldrums.

The bubble economy stimulated excessive expansion in domestic capacity, especially in the automotive industry. Based on the optimistic assumption that Japan would enjoy global dominance for the foreseeable future, Nissan and other firms increased capacity to a level that did not fit any reasonable projection of domestic demand (Smitka, n.d., p. 2). The industry was not prepared for some things it should have predicted (*e.g.* reduced purchasing by an aging population) and others that were less easy to foresee (*e.g.* a persistently strong yen and an unusually lengthy recession). Producers soon found that their plants could produce millions of units more than they could sell at home or abroad. In the meantime, Japan's share of the market declined.²

The high cost of programmes in Japan also complicated the recovery. As Figure 9.1 shows, the cost of hourly compensation for workers in Japanese manufacturing industries exceeds that of most other OECD countries (and is well above the levels found in

developing countries). The data also show that in Japan, as in all other countries, wages are significantly higher in the motor vehicle industry than in other manufacturing sectors. It is nevertheless notable that Japanese programme costs are not the highest: wages are higher still in both the United States and Germany. Rigidities in the programmes market extend, however, beyond the simple question of wages. The Japanese tradition of lifetime employment, coupled with strong deference to seniority and a marked aversion to the closing of plants, have made it even more difficult for firms to take strong measures in response to competitive challenges.

Figure 9.1. **Wages in selected countries' motor vehicle industry, 2001**



* 1999 data. ** 2000 data.

Source: Adapted from US Department of Labor data.

The slow economic recovery has nevertheless obliged Japanese firms to take steps that were once thought impossible. These include closing of assembly plants, selling of shares and subsidiaries, pushing early retirement packages, and even laying off workers. They have also become much more open to partnerships with foreign competitors.

Foreign investment

The history of foreign investment in the Japanese automotive industry can be reduced to three periods. One is the pre-war era, when foreign firms established plants in Japan. Both Ford and General Motors did so in the 1920s, but were then eased out. (Nissan rented Ford's facility soon after the firm was established in 1933.) The second notable period was in the 1970s and 1980s, when Japanese producers invested abroad. They began to shift towards overseas production only after they were forced to contend with voluntary export restraints and other barriers. Japanese firms were reluctant investors in the United States, where they "were extremely concerned about higher wages, frequent strikes, the lower standard of workmanship, the lack of an established system of parts suppliers and the different legal system" (Satake, 2000, p. 5). Nissan took the first step, establishing a plant in Tennessee in 1980. Many of the later investments were joint ventures: Toyota-General Motors (1984), Mazda-Ford (1985) and Mitsubishi-Chrysler (1985). Japanese investments in Europe were similarly inspired by concerns over potential market restrictions.

The third period began when the bubble burst, and ailing Japanese firms found themselves in need of foreign capital and partnerships. Once the process began, it proceeded rapidly. Out of the original 11 Japanese automobile producers, just two, Toyota and Honda, remained in their original form. The wave of consolidations ensured that all others are now either in alliances or owned outright, sometimes by other Japanese firms (Toyota acquired Hino and Daihatsu), but more often with European or American partners. In addition to the Renault-Nissan deal, foreign partners include General Motors (which has a 12% share of Isuzu and 20% shares of Suzuki and Subaru), Ford (which has a controlling share in Mazda), and DaimlerChrysler (which has a 25% share of Mitsubishi). Moreover, Nissan is not alone in accepting foreign management. In 1996 Mazda became the first major Japanese corporation to be run by an outsider, when a Ford executive took charge. Mitsubishi was run by a Daimler-Chrysler officer. Most of these changes took place during the period 1996-2000.³

The Nissan-Renault alliance of 1999 was thus part of a larger trend. Renault bought a 36.8% equity stake in Nissan with a USD 5.4 billion cash infusion, but the two companies did not formally merge. By teaming with Renault, Nissan joined the fifth-largest of the world's six major alliances. Together with Samsung of Korea and Dacia of Romania, this group accounted in 2002 for 9.0% of global production of passenger cars and 5.7% of light commercial vehicles.⁴ The two firms had complementary needs. Renault needed a foreign partner just as much as Nissan did; after failing to merge with Volvo and concluding that an American partner would be too large, the firm looked to Asia. Renault and Nissan were roughly equal in size – in 2000 Nissan's worldwide sales were 11.1% above those of Renault – and generally not in competition with one another. Renault's sales in 2000 were concentrated 34.2% in France and less than 0.1% in Japan, Nissan's sales were 28.6% in Japan and 1.4% in France (see Yoshino and Fagan, 2003).

Development and execution of the Nissan Revival Plan

Once a leader in both the Japanese and the global markets, Nissan had fallen on hard times. Its share of the domestic market fell from 34% in 1974 to less than 19% in 1999; between 1991 and 1999, its share of the global market had declined from 6.6% to 4.9% (Magee, 2003, p. 44). Nissan's procurement and production methods were inefficient; purchasing costs were 15-25% higher than Renault's (Ghosn, 2002, p. 4). The company carried a high load of debt and was rumoured to be on the verge of bankruptcy. The Nissan Revival Plan (NRP) came just in time to pull the company back from the brink. Developed by Nissan veterans under the guidance of Renault executives, it involved radical changes in Nissan's internal and external practices.

Carlos Ghosn's cross-cultural management practices

Carlos Ghosn is the key person in this story. Originally appointed as Nissan's chief operating officer in 1999, he became president the following year and CEO the year after that. Ghosn has a cosmopolitan background that well suited his cross-cultural approach to business: Lebanese by heritage, Brazilian by birth, educated in France, and with corporate experience in several countries. He had earlier led revival plans at the ailing divisions of Michelin South America, Michelin North America and Renault itself. In those prior ventures Ghosn developed a management style based upon asking questions directly of employees at all levels, gathering information on the nature of a firm's troubles, and creating teams of diverse personnel to devise detailed proposals. That approach produced the NRP in 1999. Ghosn described the philosophy behind the multidisciplinary teams in the following terms:

Executives in a company rarely reach across boundaries. Typically, engineers prefer solving problems with other engineers, salespeople like to work with fellow salespeople, and Americans feel more comfortable with other Americans. The trouble is that people working in functional or regional teams tend not to ask themselves as many hard questions as they should. By contrast, working together in cross-functional teams helps managers to think in new ways and challenge existing practices. The teams also provide a mechanism for explaining the necessity for change and for projecting difficult messages across the entire company. (Ghosn, 2002, p. 7)

Even before they produced the NRP, teams of Nissan and Renault employees had begun working in this way. Ghosn established a series of cross-company teams (CCTs) during the time when the two firms were still exploring the possibilities of an alliance. Eleven such CCTs were made up of members from similar functional areas, “charged with finding possible synergies between the companies and exploring specifically how these might work if an alliance was formed” (Magee, 2003, p. 38). By the time that the two companies made their deal in March 1999, they were already accustomed to dealing with one another at the working level.

The CCTs then gave way to cross-functional teams (CFTs) that Ghosn established within Nissan. Consisting primarily of middle managers, the CFTs were told to identify problems and make recommendations to Ghosn and the Nissan executive committee. Each CFT had two leaders who also served on the executive committee and a “pilot” whose job was to drive the agenda at meetings. Underneath these CFTs were a series of sub-teams devoted to more specific issues. The guidelines for the CFTs provided that “[n]othing is off limits to discuss and explore”, with teams being encouraged to “come up with ambitious yet realistic ideas”, but they also clarified that “[t]eams have no decision-making power ... [and] can only make recommendations to the executive committee” (Magee, 2003, p. 72).

The NRP’s internal and external changes

The input from the CFTs led to the NRP three months later. The unusually aggressive three-year plan was based on an effort to “get lean”, but at a cost. It set a series of specific objectives, such as reducing operating costs by JPY 1 trillion, cutting the number of parts and materials suppliers in half, reducing the global headcount by 21 000 (including cuts of more than 16 000 in Japan), slashing net debt in half, and so forth. Meeting these objectives would mean changing the way that Nissan conducted business with itself and with its erstwhile *keiretsu* partners.

The internal changes came first. Ghosn’s goal was to “allo[w] the company room to develop a new corporate culture that built on the best elements of Japan’s national culture” (Ghosn, 2002, p. 4). He attacked the “culture of blame” at Nissan, where “[i]f the company did poorly, it was always someone else’s fault” (Ghosn, 2002, p. 6). Nissan was saddled by the costs and rigidities associated with lifetime employment, a reward system that prized seniority, and lavish expense accounts for executives. While it had taken some painful steps on its own, including a first-ever closure of a plant in Japan, Nissan’s own revival plans in the 1990s had all failed. These plans “were never followed company-wide and often were changed shortly after announcement, when politics and tradition got in the way” (Magee, 2003, p. 100). It may indeed have been necessary to bring in an outsider to solve the problem.

Under the NRP, Nissan replaced the established decision-making structure with one that encouraged innovative thinking and gave more authority to middle management. The

CFTs were emblematic of the changes in Nissan's corporate culture. According to one Nissan official, "At old Nissan it would have been unthinkable for a small group of middle managers to come up with a plan for the company's future organisation or a drastic re-examination of our human resources practices without spending a lot of time building consensus." (Yoshino and Egawa, 2003, p. 4) The old approach would have produced conservative proposals. At the same time, the new management was careful to ensure that the partners did not lose face. By adopting English as the working language of the alliance, for example, they ensured that both the Japanese and the French executives had to work in a second language and thus "put both parties on an equal footing" (quoted in Yoshino and Fagan, 2003, p. 15). The reform was complemented by the adoption of an advancement and compensation policy based on performance rather than seniority.

Externally, Nissan brought an end to *keiretsu* dominance in procurement. A competitive bidding process was adopted for orders that had once been placed with *keiretsu* companies almost automatically. Nearly one-third of parts and supplies became "globally integrated sourcing parts", allowing central sourcing and – working jointly with Renault – improving the firm's ability to obtain price discounts for volume purchases. This meant ending some relationships that had been in place for decades. For example, the firm reduced the number of steel providers from five to three, and made a significant reduction in the amount of steel that it purchased from one long-term supplier with which it had a close relationship. Nissan had invested about USD 4 billion in the stock of *keiretsu* partners, a practice that locked up capital without ensuring any real control over the partners. Ghosn "directed that Nissan consider selling its stake in all but four critical companies and put the proceeds to more productive use" (quoted in Yoshino and Egawa, 2003, p. 6).

Other external reforms came in co-operative ventures with Renault; the partners reduced costs by co-operating in joint purchasing arrangements, sharing production plants in Mexico and Brazil, developing joint distributorships, developing the Renault-Nissan Information Services to integrate many aspects of management and control, and took some first steps towards joint R&D (starting with fuel cell technologies) (Yoshino and Fagan, 2003).

The NRP's results

The impact of the NRP was immediate and dramatic. The number of employees was reduced by 9.6% in the first year of what was intended to be a three-year programme, and while capacity utilisation in Japan made an initial dip from 53.0% to 51.1% it rose to 75.7% in the first half of FY 2001. Nissan also cut the number of parts suppliers by 29.3% in the first year, and made a 29.5% cut in its net automotive debt. The result was a turnaround from a USD 5.7 billion net loss to a USD 2.8 billion net profit, the highest in Nissan's history, in just one year.⁵ The NRP was ended after just two years, allowing Nissan to move forward with a new, three-year plan called "Nissan 180". Taking effect in FY 2002, the new plan called for selling 1 million more units, an 8% operating margin, and zero net automotive debt. It is too early to say whether it will be equally successful, but the very fact that it could be launched speaks volumes about the achievements of the NRP.

Conclusions and lessons

This case study offers three important lessons. The first concerns what did *not* happen: at no time did trade policy *per se* play any part in these events. Trade was not a

part of the problem: Nissan's problems came at a time when it enjoyed very open access to other triad markets, and the voluntary restraint arrangements of past decades were no longer a factor. Japan's own recession limited demand for all cars, both foreign and domestic, in the local market. Nor were trade instruments part of the solution: Nissan did not request, and did not receive, any relief from import competition. More broadly, it did not seek any other special treatment from government. The reforms concerned solely the operations of the two companies involved.

The second observation concerns the nature of the challenges facing a "mature" producer. It is sometimes assumed that there is a natural progression by which countries with dominant industries will inevitably, if gradually, be replaced by challengers. The migration of competitiveness may be attributed to a variety of causes, including lower wages in the challenger countries and rigidities in the "mature" country. If this process were inescapable and universal, the only real objective for companies such as Nissan would be to relocate their production, or even to exit the business altogether, with the least disruption possible. To the contrary, this case demonstrates that decline is not irreversible. Nissan was indeed subject to difficulties that are common to companies in decline, including high programmes costs and overcapacity, but it was able to undertake the needed reforms. Some of those reforms shifted burdens outside of the company – especially the reordering of relationships with *keiretsu* partners – but others required such painful steps as layoffs and plant closings.

This leads to the third point, which concerns the importance of both national and corporate culture. In Nissan's case, cultural norms had inhibited the company's ability to address its problems effectively; serious changes could not be undertaken until the corporate culture was radically changed. This point speaks to a continuing debate over the impact of cultural norms on corporate behaviour. One school of thought stresses the "the enduring influence of national structures within the home states of world's leading corporations", such that these distinctive characteristics "account for the striking diversity in the character of core operations undertaken by those corporations" (Doremus *et al.*, 1998, p. 3). Japanese corporate culture has long been seen in a positive light, with stress on the fact that networks are "built upon relationships of trust, the reciprocal exchange of information, technology and even management, and expectations of long-term endurance" (Doremus *et al.*, 1998, p. 45). Those same characteristics can take on a negative character, however, when facing fundamental challenges that require major changes. This is precisely what happened after the bubble burst for the Japanese economy. The same cultural norms of harmony, stability and respect for hierarchy that had helped to build Nissan and other Japanese multinationals in the good years may have impeded reforms in the bad years. The case offers an example of how foreign partnerships can bring more than just increased capital and new technology. By shaking up a sedentary corporate culture, the Nissan-Renault alliance allowed a company in danger of extinction to revitalise itself.

Poland

Introduction

Polish motor vehicles offer an illustration of a country making a successful transition from a centrally planned to a market-oriented economy. During the transition period between the collapse of communism and the accession of Poland to the European Union, the country underwent dramatic changes in its economic and political systems. The transition for the automotive sector was pursued in stages and was not as swift, but was no less impressive. A generation ago, Poland was an inefficient producer of vehicles that were not competitive in foreign markets. Following the privatisation of state-owned

facilities, significant foreign investments in the production of vehicles and parts, the phased liberalisation of a previously protected sector, and the adoption of EU trade and competition rules, the Polish motor vehicles sector greatly increased the quantity and quality of its output and is effectively competing in the European market.

Challenges and reforms in the Polish environment

Poland operated under communist economic policy from 1947 to 1990. It was not a wholly autarkic economy during that period, nor was its trade confined to the Soviet Union and other members of the Council of Mutual Economic Assistance (CMEA). Poland had joined the General Agreement on Tariffs and Trade (GATT) in 1967 and traded with both Western Europe and North America. Together with Yugoslavia, for example, it was one of only two communist countries that enjoyed most-favoured-nation (MFN) access to the US market for most of the Cold War period.⁶ Trade nevertheless remained a state monopoly throughout this period, and industrial production was under state control as well.

After the last communist government was replaced, Poland adopted a series of economic and political reforms. These internal developments were complemented at the international level. Poland acceded to the OECD in 1996, joined the North Atlantic Treaty Organisation (NATO) in 1999, and – most significant of all – became a full member of the European Union in 2004. In retrospect, this sequence of accomplishments may look like a rapid transition. The process was quite difficult, however, especially in the early years.

Economic and political reform

At the start of the reform period, Poland “suffered from all the typical deficiencies of central planning: it had deeply distorted structures, including prices, pervasive shortages, massive misallocation of resources and state enterprises lacked inventiveness” (Belska, 2001, p. 13). These problems were exacerbated by price increases that verged on hyperinflation, lack of credibility in previous government reform programmes, and a sense of demoralisation among managers and workers. Launched at the start of 1990, the stabilisation package became known as “shock therapy”. The aim of this programme was to establish a foundation for a market economy while reducing macroeconomic instability. It entailed the freeing of prices, elimination of rationing for goods and foreign exchange, internal convertibility for the zloty (together with an upfront devaluation of 50%), termination of many subsidies and tax concessions for state enterprises and fiscal discipline. The package was also supported by external financial assistance in the form of a special stabilisation fund. While initial results were painful and chaotic, including high rates of unemployment, it later became apparent that “the Polish recession was the mildest among all transition economies” (Belska, 2001, p. 15).

Among the first steps taken by the reformers was abolition of the state monopoly on the conduct of foreign trade and the introduction of *zloty* convertibility. Once those steps were taken, trade became an important engine of growth and progress for the economy.

Attractiveness to foreign investors

The most important fundamental step in the reform of the Polish economy was the restoration of private ownership of property. This was achieved through the privatisation of state-owned enterprises (SOEs), the abolition of privileges enjoyed by SOEs, tax and

trade reforms, and other measures that made possible the establishment and profitable operation of private firms. The automotive industry was among the first to be privatised.

Privatising the existing automotive industry was much less ambitious than attracting new investment in the sector. In order to bring in new investment, Poland first had to get past the initial question that automotive producers face in any market: trade or invest? Trade is a low-risk undertaking, as the producer need only overcome the trade barriers that a country imposes on foreign providers. To have the confidence to invest in production, a prospective foreign investor must have even greater confidence in a country's business environment. And even if the investor chooses to invest, the question still arises as to whether it will do so in a limited way to increase share in that market or will make a greater commitment to export-oriented production.

Poland was ultimately successful in its efforts to attract substantial foreign investment in its automotive industry. It had a few advantages in this respect. First, it is the largest economy in eastern Europe. That alone, however, could lead prospective investors to make "tariff-jumping" investments that aimed solely at servicing the local market. Prospective investors in export-oriented automotive production were attracted by two additional factors. One was the existing stock of industrial workers, which offered a pool of trainable workers available at wages well below the western European average. Another was Poland's relationship with the European Union, which, as described below, first offered preferential market access, and then moved towards Poland's accession to the EU. Accession became a key part of Poland's trade and investment policy from the start of the reform period, precisely because policy makers were aware of the experience of other relatively low-wage countries that had acceded to the EU in earlier waves. Greece and the Iberian countries enjoyed surges of investment from the established EU members. Poland hoped for, and ultimately received, a similar boost (Meyer and Jensen, 2003).

Characteristics of Poland's motor vehicles industry

Poland is now a notable, though not especially large, player in the global automotive industry. It produced 285 372 passenger cars in 2003, putting it in 21st place, after South Africa and before Sweden. As of 2002, the chief producers were Fiat (164 849 passenger cars and 19 624 light commercial vehicles) and Opel (97 669 cars). In addition, in 2002 Poland produced 828 heavy trucks (Man-Star) and 885 buses and coaches (650 by Volvo and 235 by Man-Star) (International Organization of Motor Vehicle Manufacturers data). In addition, the country has a large and diverse industry producing automotive parts and accessories. For example, Delphi Automotive Systems (DAS) has been in Poland since 1995, and currently operates six plants as well as an R&D centre. The DAS plants in Poland produce a wide range of products – radiators, ignition coils, shock absorbers, steering rods, etc. – which it supplies to such diverse assemblers as Citroen, DaimlerChrysler and Toyota (Polish Chamber of Automotive Industry, 2004, p. 4). Investments in the parts and vehicles industries have established a virtuous circle of growth, much like chicken-and-egg relationship: the presence of the parts producers makes auto assemblers more interested in Polish investments, and those new assembly operations, in turn, expand the market for parts and accessories.

Both in investment and trade, the Polish industry is highly internationalised. Foreign firms had invested USD 3.6 billion in Poland's automotive sector by 1998 (Polish Chamber of Automotive Industry, 2004, p. 2); six years later, that figure has nearly doubled. As Table 9.1 shows, these investments include USD 4.1 billion in automobiles, and USD 3.0 billion in original equipment. These investments are less attracted by the prospect of sales in Poland, large as that country's internal market may be, than by the

opportunity to export. Poland's market size is somewhat diminished by the comparatively low level of domestic demand. Per capita ownership of passenger cars is at about one-third the level of Western European countries, and Poles tend to keep their vehicles for much longer periods.

Table 9.1. **Foreign investment in the Polish automotive market, 2004**

USD millions

Automobiles	4 105.8
Fiat	1 768.7
General Motors (Opel)	1 010.0
Daewoo	936.4
Volkswagen AG ¹	390.7
Original equipment	2 980.0
Saint-Gobain	690.0
Fiat-GM Powertrain	432.5
Delphi Automotive Systems	345.0
Pilkington	295.0
Ispol-IMG Holdings	192.7
Goodyear Luxembourg	181.0
Toyota	180.0
Michelin	161.3
Bridgestone Corporation	148.0
Faurecia Investments	140.0
Eaton	125.0
Lear Corporation	89.5
Total	7 085.8

1. In addition to the USD 390.7 million already invested, Volkswagen has plans to invest another USD 250.0 million in Poland.

Source: Calculated from Polish Chamber of Automotive Industry data.

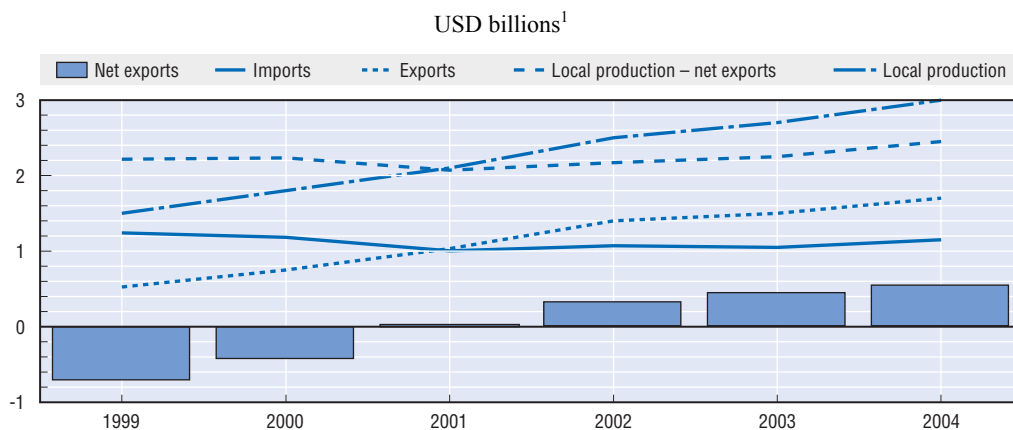
Exports are vital for the Polish industry. Between 1994 and 2002, Poland's share of global motor vehicle exports nearly doubled (from 0.27% to 0.50%) (WITS data). During the same period, the country's share of global exports of motor vehicle parts increased even more impressively, from 0.15% to 1.07% (WITS data). Export markets account for nearly all of the growth in production of automotive parts and accessories (Figure 9.2). Domestic consumption, which can be measured as local production minus net exports, has been at more or less the same level throughout 1999-2004. In contrast, exports have increased steadily, and the pace of local production has risen in tandem with exports.

Foreign investment in the Polish automotive industry

“A common feature in Central Europe”, according to one analysis, is that new producers “replace – more precisely restructure and revitalise – formerly state-owned firms” (Havas, 2000, p. 240). That was in fact generally the experience in Poland, but

foreign investors in the automotive industry had varying degrees of experience with Polish partners.

Figure 9.2. Polish production and trade in automotive parts and accessories, 1999-2004



1. 2003 and 2004 are estimates.

Source: Calculated from US Department of Commerce data, based on Chief Statistical Office of Poland.

Poland's oldest and largest relationship with a foreign producer precedes not only the overthrow of communism, but even the establishment of communism in the first place. Fiat's presence in Poland dates back to the 1920s, when it established Polski Fiat with the intention of establishing an assembly plant. Those plans were scuttled by the Great Depression and then World War II, but the Fiat licence was renewed in 1948. Actual production of Fiat-designed vehicles did not begin until 1967, however, in the Fabryka Samochodow Osobowych (FSO) facility. The relationship deepened with the creation of a research centre in 1972 and the production of new models in 1971 and 1973. Fiat and Poland collaborated in production plans right through the transition from a centrally planned to a market economy, with production of the Cinquecento being planned just before the transition began (1987) with vehicles produced just afterwards (1991) (Havas, 2000, pp. 237-238). Fiat eventually acquired its partner, which it renamed Fiat Auto Poland. After the transition, Fiat found it profitable to locate all of its production of small cars – both the Cinquecento and its successor, the Seicento – in Poland.

Other foreign producers operating in Poland have used a variety of investment methods. Daewoo entered the Polish market through the privatisation policy, having acquired controlling shares in two SOEs in 1995-96. General Motors lost out to Daewoo on one of these deals, and opted instead for a greenfield investment. For its part, Volkswagen began its Polish operations as a joint venture with FSR Tarpan in 1993. The Opel Polska factory in Gliwice, which opened in 1998, is very large. It currently produces 120 000 cars a year and will eventually produce 150 000 (Polish Chamber of Automotive Industry, 2004, p. 2).

Poland as an integrated peripheral market

If foreign investment has always been a factor in the Polish industry, large-scale exports to the European Union are a more recent development. Poland and other eastern European producers adhere to what has been called the “integrated peripheral market”

(IPM) strategy of automotive development. The same approach was taken in past decades by Spain (when it was still on the periphery of the EU) and Mexico (on the periphery of North America), both of which managed to become integral parts of their respective regions.

“The IPMs tend to specialise in the production of products for which they have a comparative advantage”, according to one cross-national study, but will eventually “be totally integrated into their respective regional production/consumption systems” (Humphrey *et al.*, 2000, p. 7). That has been the case in Poland, where automotive parts such as radiators and shock absorbers provided the basis for an expanding range of domestically produced goods which are incorporated by assemblers in export-bound vehicles. Poland’s automotive industry has thus evolved from simple assembly to integrated production. Assembly operations based on imports of completely knocked down (CKD) kits and integrated production are best seen as the end points along a spectrum, rather than diametrically opposed alternatives. It is possible for an assembler to become increasingly ambitious in terms of local sourcing, a process that may be affected by the rising capabilities of local programmes, the expansion of local suppliers and government policy. In Poland’s case, accession to the European Union has been a supremely important catalyst.

To cite one example, Volkswagen began operations in Poland by reassembling CKD kits at a plant in Poznan. The reassembly was so simple that it reportedly could be done in less than an hour, but this was sufficient to avoid prohibitive tariffs (Havas, 2000, p. 254). That initial investment was of the tariff-jumping variety, aimed principally at serving the local market, but later investors incorporated more local content. This transition was encouraged by the terms of access to western European markets. Daewoo began exporting duty-free to the European Union in mid-1999, for example, when its Polish-made vehicles reached the requisite 60% local-content level (Havas, 2000, p. 252).

Trade policy

As already noted, Poland’s automotive industry is heavily oriented towards exports. The principal factor is the relationship between Poland and the European Union. Accession to the European Union was a strategic goal for Poland from the very beginning of the reform period. Achieving this goal required serious adjustments on both sides. Absorbing Poland and the other low-income eastern European candidates has required existing members to offer significant transitional assistance. As of 1996, Poland’s GDP per capita was just 38% of that of the average EU country (Orłowski, n.d., p. 282). For its part, Poland was obliged to bring its trade and other economic policies in line with EU standards. Like all other accession candidates, Poland was obliged to adopt the EU’s *acquis communautaire*.

The first major step towards Polish accession was the conclusion of an association agreement in 1991, also known as a “Europe Agreement”, that took effect in 1993. This agreement provided for trade liberalisation on an asymmetrical basis, as well as some financial assistance. It mandated a ten-year phase-out of tariffs on industrial goods, which meant that 2001 was the last year in which cars imported from the European Union were subject to import tariffs. At the Copenhagen Summit in 1993, the EU invited Poland and other central and eastern European countries to apply for membership and laid out something of a “roadmap” for accession. Poland made its application the following year, but formal accession negotiations did not begin until 1998 (*i.e.* the year after the European Commission issued a favourable opinion on the application) (European

Commission, 1997). While accession to the EU reduced tariffs on cars and parts imported from other European countries, it also required that Poland – now subject to the EU’s common external tariff – reduce its tariffs on imports from third countries. Prior to its accession, Poland’s tariff on parts was 15%; as part of the EU, the rate declined to zero.

Accession to the EU also required Poland to adopt the EU’s rules on competition policy. Previously, automakers had controlled passenger car distribution through a network of exclusive agreements with franchised dealerships. The EU’s own rules in this area used to allow some restrictive practices. Under the EU’s “block exemption”, vehicle manufacturers were permitted to employ such vertical restraints. The exemption expired for EU member countries on 1 October, 2003, and for Poland upon its accession. Dealers may now sell cars from different makers (Conybeare, 2004, p. 111). In Poland, this also means that authorised service stations can now offer spare parts made by different manufacturers, which had been prohibited.

Many of the automotive investments operate out of Poland’s 16 special economic zones (SEZs). The SEZ regime offers foreign investment preferential treatment and tax breaks, including partial or total exemption from income taxes for defined periods. The forms of public assistance available in SEZs include subsidies, tax breaks and bonuses for creating new plants. Local governments still have the authority to impose property taxes or to grant exemptions. As part of its accession to the European Union, Poland was obliged to bring its SEZs in line with EU regulations on public assistance. As amended in 2000, the rules stipulate that the value of public assistance to an investor may not exceed half of the value of the investment.

Under the principle of variable geometry, some aspects of EU policy are not mandatory for all members. This is especially notable in the area of monetary policy. No date has been set for Poland’s entry into the euro zone, although the euro has been legal tender for transactions since Poland’s entry into the EU.

Conclusions and lessons

The success of the Polish automotive industry results from the confluence of two related processes. Poland’s own economic reforms, coupled with its accession to the EU, provided the opportunity for the establishment of a viable automotive industry. The reforms and the market access provided incentives for investors to establish facilities in Poland. “[T]he restructuring of the Central European motor industry is not only due to ‘push’ factors such as fierce competition among automotive companies and the pursuit of cost cutting through production relocation”, according to one analysis, “but also arises from ‘pull’ factors such as the attractions of the region’s economic environment.” (Havas, 2000, p. 259) The Polish case supports this contention. Poland’s success can be jointly attributed to broader industry trends and to Poland’s efforts to enhance its attractiveness for foreign firms.

Of these two processes, Poland’s reforms were the *sine qua non*. No amount of preferential access to the EU market, either on the basis of unilateral programmes or reciprocal agreements, could induce foreign investors to put significant capital at risk in a market that did not inspire confidence. It was only with the establishment of secure rules of the game, starting with the restoration of property rights and the abolition of state monopolies, that the foundation was laid for investment. Once the domestic environment was established, however, the additional inducement of free access to the EU market created new incentives both for deeper Polish reforms and investment by international

firms. The trade policies of Poland and the EU complemented and magnified the effects of the Polish reform programme.

South Africa

Introduction

The South African automotive industry offers a positive example of liberalisation in a formerly autarkic market. It had developed behind barriers that took the form of voluntary, autonomous protectionism as well as involuntary foreign sanctions. Since the early 1990s, both aspects of this restrictive regime were eliminated in tandem, as South Africa made the transition from domestic protection and external sanctions to market liberalisation and preferential access to foreign markets. The only unique aspect of the South African experience is the revolutionary changes that ensued with the end of *apartheid*, and even here there are parallels that can be drawn to other countries that underwent radical political reforms during the same period. As in Eastern Europe, where in certain respects the fall of communism might be compared to the overthrow of *apartheid*, these political changes were complemented by far-reaching economic reforms. In addition to trade liberalisation, these have included sound fiscal and monetary policy. The country's automotive industry has enjoyed improved competitiveness and a surge in exports, but continues to face several challenges.

Challenges and reforms in the South African environment

South Africa has undertaken sweeping reforms in its economic and political institutions since the early 1990s. Although not yet complete, these reforms have won praise from multilateral economic institutions. “Extensive trade liberalisation undertaken since the mid-1990s and the lifting of trade sanctions, supported by real effective exchange rate depreciation”, according to the WTO, “have rendered the South African economy more competitive and efficient, contributing to a strong trade performance.” (WTO, 2003d, p. A4-219) The IMF has also praised the country for “accomplish[ing] a great deal in recent years in establishing a sound and stable financial environment and in strengthening the economy's resilience to external shocks and contagion” (IMF, 2003e, p. 11). The government's commitment to monetary and fiscal discipline led to lower inflation and cut the overall budget deficit as a share of GDP, and the country has made steady progress in reducing its exposure to external debt.

While these reforms have helped South Africa through a major economic and political transition, they do not solve all problems. It still faces a series of challenges ranging from geographically immutable facts to recent pandemics. Some of the more important issues are discussed below, together with a review of government responses and the implications for the automotive sector.

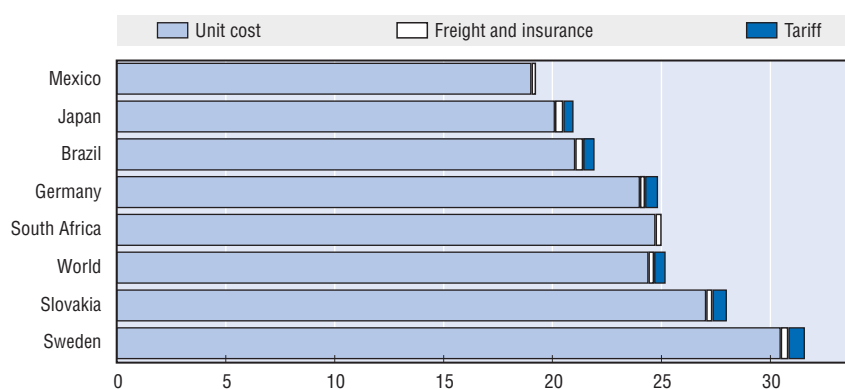
A small and remote market

Perhaps the most remarkable fact about South African automotive exports is the fact that, like Australia, the country can overcome “the tyranny of distance”.⁷ Reduced transport costs have historically been more important to the global trading system than the liberalisation of border barriers; while a government may raise tariffs as readily as it lowers them, technological progress is irreversible.⁸ This point is especially important for South Africa, a country that is equally remote from almost all major markets. The country has nevertheless managed, through well-developed logistics, to keep its shipping costs

within reason. This point can be appreciated from Figure 9.3, which shows that in 2003 the average cost for shipping a certain class of automobile from South Africa to the United States was USD 280 per vehicle. While that is 17.6% higher than the cost of shipping a comparable vehicle from Germany (USD 238), it is a manageable difference that is compensated for by South Africa's duty-free access to the US market. The total landed cost for the South African vehicle at the US border (USD 25 045) was actually 0.7% below the world average (USD 25 233). The country's remote location has not deterred foreign investment. When asked to rank the importance of ten performance criteria in the automotive components sector, investors assigned last place to location.⁹

Figure 9.3. **Landed cost of certain automobiles imported into the United States from selected partners, 2003**

USD thousands, based on customs value, imports for consumption of HTS item 8703.23.00.62



Source: Calculated from US International Trade Commission data.

In addition to being remote, South Africa is also – by world standards¹⁰ – a small economy. The small size of its market means that exports are absolutely critical for achieving a favourable economy of scale. South Africa has partially addressed this problem through regional integration, with the other economies of the Southern African Customs Union (SACU) providing a ready outlet for its automotive exports, but the triad countries – especially in North America and western Europe – present a much larger and more attractive option.

Apartheid, sanctions and political reform

South Africa's trade strategy evolved with *apartheid* and the sanctions regime it incurred. Even if South African officials had wanted to adopt a more liberal trade policy in the 1980s, the sanctions would have made it very difficult for them to do so. By restricting access to foreign markets and the supply of foreign exchange, these restraints helped to push South African automotive policy from simple protectionism into a strategy of import substitution industrialisation (ISI) that mandated levels of domestic content.

The connections between *apartheid* and protectionism were especially apparent after the racial policy was overturned in 1994. These domestic political reforms, coupled with the lifting of economic sanctions, encouraged radical shifts in trade policy in general and in the automotive industry in particular. The new environment prompted a great increase in productivity: whereas the average rate of economic growth during the sanctions period of 1980-93 was just 1.0%, in the post-*apartheid* years of 1994-2001 it rose to 2.8%

(Arora and Bhundia, 2003, p. 3). The higher growth rates can be traced to improvements in total factor productivity (TFP), rather than to changes in the factors of production themselves (Arora and Bhundia, 2003). The improved TFP can, in turn, be attributed largely to increased trade and capital investment, both of which were beneficial for the automotive industry. The share of trade in real GDP rose from 34.2% during 1980-93 to 46.6% in 1994-2001. Over the same periods, the share of equipment and machinery in investment rose from 35.4% to 50.4% (Arora and Bhundia, 2003, p. 14). These are trends in which the automotive industry took part; trade not only permitted firms to export their goods, but also subjected them to competition while allowing increased imports of intermediate and capital goods (in which new technology is embodied).

Foreign investment

The end of *apartheid* also loosened the capital restrictions imposed by some countries, allowing a restoration of former relationships with foreign investors. The local affiliates of Nissan and Toyota, for example, had been domestically owned and operated under licence during *apartheid*; Japan prevented its firms from investing directly in South Africa. Both firms have since acquired equity stakes in South African operations. Similarly, Ford and General Motors disinvested during the 1980s, but have now reinvested. (The Volkswagen and BMW affiliates have always been owned by their multinational parents.)

It is worth noting that the reinvested automotive industry is an exception to the general rule that makes foreign investors reluctant to commit major resources in South Africa, where FDI inflows have averaged just 1.5% of GDP in recent years. The IMF attributes this reluctance to “high rates of crime, inflexible programmes, market practices, the economic cost of HIV/AIDS, and the potential social and political strains associated with wide income, wealth and land ownership disparities” (IMF, 2003e, p. 13).

Exchange rate

South Africa maintains an exchange system free of restrictions on payments and transfers in international currency transactions. The rand floats freely, the intervention of the South African Reserve Bank being restricted to the acquisition of foreign exchange, and is subject to volatile swings. The significance of this volatility cannot be overemphasised, because “[t]o a significant extent, growth performance has mirrored movements in the exchange rate” (IMF, 2003e, p. 7). Just as a sharp depreciation in 2001 gave a boost to the economy, an appreciation of the rand in 2003 put a squeeze on South African exporters and provoked a deficit in the current account. The causes for the rand’s volatility are a matter of considerable investigation but there are no firm conclusions. One study found, for example, that “financial market developments are the most likely source ... but the exact cause remains unclear” (Bhundia and Gottschalk, 2003, p. 12).

South Africa is nevertheless seeking to reduce its vulnerability to external shocks by cutting the net open forward position (NOFP) of monetary authorities. The NOFP had reached nearly USD 24 billion in 1999, but since then has been steadily reduced through a combination of retained earnings from official external borrowing and privatisation, as well as modest intervention in the foreign exchange market (IMF, 2003e, pp. 10-11). The NOFP was eliminated altogether in May 2003; the IMF urges South Africa to pursue “a further build-up in international reserves” (IMF, 2003e, p. 17) because this should *inter alia* reduce exchange-rate volatility.

Labour market programmes

Unemployment is an acute problem in South Africa, where it sometimes exceeds 30%. Even 3% annual growth is insufficient to create the needed jobs. Although South Africa made significant amendments to programmes laws in 2002, the IMF points to the need to raise worker productivity and lower its programmes costs, urging that “the long-term solution lies in the education and training of the young and unemployed” and that “more could be done to address institutional and legal impediments to programmes market flexibility” (IMF, 2003e, p. 13).

The South African economy is undergoing a transition from dependence on mining and manufacturing to one in which services predominate. Between the periods of 1980-90 and 1991-2001, the manufacturing sector lost 4% of its jobs. This loss was more acute in the motor vehicles, parts and accessories sector, where 13% of jobs disappeared; in the field of “other transport equipment”, 45% were lost (Hlekiso, 2004, p. 4). The reduction in employment in this industry did not mean a commensurate reduction in output, however, as productivity increased significantly.

The HIV/AIDS crisis

The HIV/AIDS pandemic might be compared to the situation in Bangladesh (see Chapter 5), where floods and tidal waves regularly wreak havoc on the economy. Natural disasters and health crises are exogenous shocks that do not lend themselves to simple solutions. It is estimated that 5 million South Africans, or 11.5% of the population, live with HIV/AIDS (IMF, 2003e, p. 57). While the consequences of this health crisis are usually considered at the level of either individuals or a whole economy, one must also take into account the effects on the rational calculations of actual or prospective investors in a specific industry. Disease may raise the cost of doing business through “absenteeism, sick leave and disability pensions, medical care, pensions to surviving dependents, loss of productivity, and funeral costs and attendance”. Increased rates of mortality may “also reduce the incentives to companies to invest in training of their employees” (Haacker, 2002, pp. 20, 22), a factor of particular importance in the capital-intensive, high-skill automotive industry. The crisis is being addressed by outside donors, the South African government and the industry itself. The Automotive Industry Development Centre Pty. Ltd. pursues HIV/AIDS workplace programmes in joint partnerships with automotive producers, while some firms also have extensive testing, counselling and treatment programmes in place (see, for example, Galbraith, 2004). These programmes may help to contain the damage, but there is no denying the fact that this crisis will place a major drag on the economy, and on this industry, for the foreseeable future.

Characteristics of South Africa’s motor vehicles industry

South Africa offers a paradigmatic case of a country that has made a successful transition from a protected autonomous market based on import substitution to an integrated peripheral market based on export-led growth. By the end of the *apartheid* period, the automotive industry was relatively large but inefficient. As is common in a “hothouse” automotive industry, the protected sector was characterised by a high cost structure, a proliferation of models and makes, low volumes and an inability to achieve economies of scale in an industry serving a small, national market. It has subsequently adopted a strategy based on liberalisation and export promotion, similar to the approaches undertaken by Mexico (whose industry developed on the periphery of the United States) and eastern Europe (on the periphery of the European Union). In this instance, the

“periphery” is defined in terms of the economic relationship rather than geography: South Africa is not near the triad markets, yet it has obtained preferential access to two of them. The transition is not complete, but is aided by facilitative policies in both South Africa and its OECD country partners.

The automotive industry began in the 1920s and 1930s, when US firms established vehicle-assembly plants. These were followed in the 1960s by Japanese and European producers. All of the assemblers are now wholly or partly owned by their parent companies, following post-*apartheid* reinvestments and acquisitions (Barnes, 2000a, p. 12). The major assemblers include firms with parent companies in each corner of the triad: Japan (Toyota South Africa), Europe (BMW South Africa, Land Rover South Africa and Fiat Auto South Africa), the United States (Ford Motor Company of Southern Africa and General Motors South Africa), and a transatlantic alliance (DaimlerChrysler South Africa). Foreign ownership also increased in the components industry. Whereas domestic companies accounted for 58% of the major component suppliers in 1998, two years later multinational firms accounted for 60% (Barnes, 2000a, p. 20). Like increased trade, expansion of investment contributes to productivity through technology spillovers.

The centrepiece of the current automotive policy, as described at greater length below, is the Motor Industry Development Programme. This is a trade-centric, transitional regime that stands between the import-substitution policies of the past and a true commitment to open markets. The overall effect of the new programme is to expose the industry to greater competition and to reward firms that are sufficiently competitive to export. “To survive in the domestic market” under the new regime, according to one analyst, “automotive component manufacturers need to meet the increasingly onerous demands of domestic buyers, who can now procure their products internationally if they are dissatisfied with the performance of South African suppliers.” (Barnes, 2000b, p. 5)

The new regime has led to a consolidation of the industry, which is now leaner but more efficient. Employment in the automotive industry peaked in 1995 – the year in which the current automotive policy took effect – at 38 600 persons. By 1999, it had declined to 32 000 (Barnes, 2000a, p. 10). These reductions have come at a time when output is levelling, and “[d]irect programmes costs per vehicle have been reduced by some 30% over the past five years”.¹¹ Employment in the component manufacturing industry currently amounts to 58 500 employees, and there are around 8 500 persons employed in the tyre manufacturing industry. Even after this consolidation, the automotive sector is South Africa’s third largest (after mining and agriculture). It accounts for about 29% of manufactured output, and the sector accounted for 14.6% of all trade in 2001.¹²

One measure of the programme’s success is the reduction in the number of models produced in uneconomical runs. “[T]he number of car and light commercial vehicle base models has declined from over 42 at the commencement of the programme to 26 at present”,¹³ but South African producers are still operating at relatively low volumes. While global analysts often cite the 100 000-unit benchmark as the dividing line between competitive and uncompetitive automotive assembly plants, the eight light vehicle plants in South Africa produced an average of just 40 000 units in 1999 (Black, 2001, p. 17).

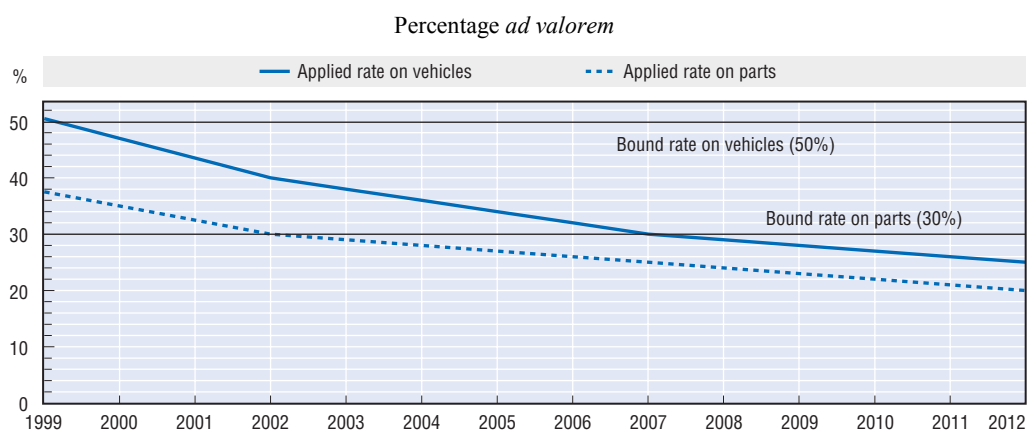
While the vehicle assemblers are all based on foreign investment, the parts producers consist of both foreign-owned and local firms. The more successful segments of the components industry are at the two extremes of the spectrum between capital-intensive and programmes-intensive production. Among capital-intensive items, South Africa is a very competitive producer of catalytic converters. The country “now supplies over 10%

of total world supply and looks set to expand further” (Black, 2001, p. 13). For their part, the leather seat-cover producers now fill most of BMW’s global requirements, and supply other assemblers as well. Taken together, these two segments account for more than 40% of South African component exports (Barnes, 2000b, p. 7). Significantly, both of these products are based on the elaboration of raw materials that are produced domestically. Catalytic converters are based on platinum group metals, which South Africa has in abundance, and leather can also be sourced locally. Surveys of buyers indicate that South African component manufacturers have done relatively well in meeting quality requirements and conformance to standards, but need to improve the reliability of their deliveries. The latter issue “is clearly a major problem that impacts negatively on international customer perceptions of South African performance levels” (Barnes, 2000b, p. 17).

Trade policy

Trade policy for the automotive industry has developed in four stages. It was based on simple protectionism from the 1920s through the 1950s, evolved into ISI with mandatory levels of domestic content in the 1960s through the 1980s, gave way to early reform efforts during the period of transition from *apartheid* and sanctions, and is now moving towards a more mature reform period. This pattern follows the general drift of overall South African trade policy, which has been liberalised over the past decade. The current average (unweighted) tariff rate is, at 11%, precisely half what it was in 1988 (IMF, 2003e, p. 27). Tariffs on automobiles and components are much higher than that average, but – as shown in Figure 9.4 – are declining steadily.

Figure 9.4. South African motor vehicle tariffs, 1999-2012



Source: WTO and Government of South Africa.

South African automotive trade policy has long been based as much on domestic-content requirements as on tariffs. In 1961 South Africa introduced the first in a series of programmes intended to increase the level of local content. The programme had the intended effect of increasing both the production of components and the domestic content of vehicles, as well as conserving scarce foreign exchange; the latter objective, rather than efficiency or the generation of jobs, was “the main motivating factor” behind the government’s action (Black, 2001, p. 6). The required level of local content in automobiles was increased to 66% in 1971, and this level was required for light vehicles as of 1980.

The local-content programme changed direction in 1989, when the government made export promotion an equally important objective. It did so by adopting a policy of import-export complementation that is designed to encourage specialisation by component and vehicle producers. The policy allowed an assembler to count exports as domestic content for purposes of achieving the required minimum. The revised programme permitted the actual level of domestic content to be as low as 50%, provided that the assembler achieved a sufficiently high level of exports.

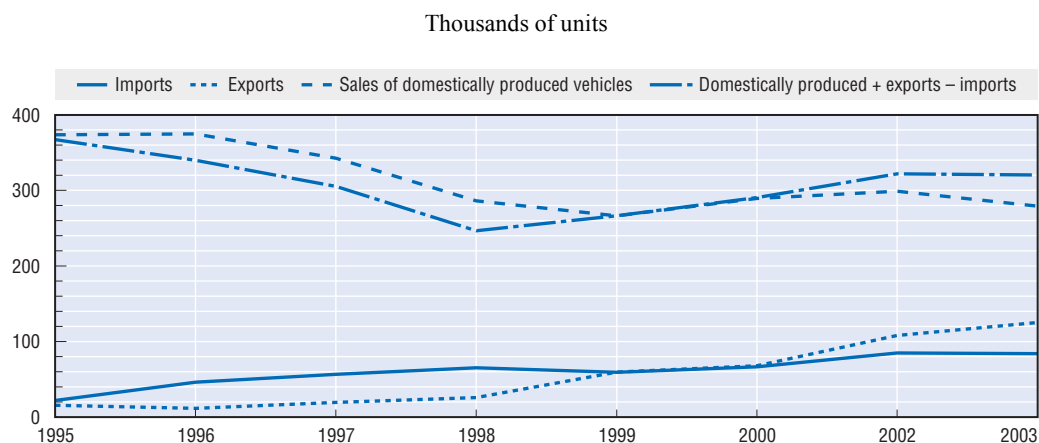
The government made further steps towards the market in 1995. Styled as the Motor Industry Development Programme (MIDP), the new policy combined elements of export complementation with a greater commitment to trade liberalisation. The programme's underlying philosophy is to promote a more competitive and export-oriented industry by reducing the anti-export bias that is inherent in a protectionist regime. The MIDP provided for even greater reductions in tariffs than those required by South African commitments in the Uruguay Round; as shown in Figure 9.4, applied rates on parts and vehicles are now below the WTO bound rates. The MIDP also changed the approach taken towards local content. The policy did away with mandated minimums, seeking instead to encourage local sourcing through a different form of export complementation. Manufacturers of light vehicles are now entitled to a duty-free allowance of 27% of the wholesale value of the vehicle, and can earn rebate credits on import duties by exporting components and vehicles. They can also earn credits based on the value of their capital investment to increase production of vehicles for export. The import/export complementation scheme allows for reductions of import duties on cars and light commercial vehicles according to values exported. The earned Import Rebate Credit Certificates are a specialised type of negotiable instruments for which a secondary market now exists.

The MIDP falls short of a full commitment to free trade. It seeks instead to strike a balance between further opening to global competition and maintaining a certain measure of protection. It requires vehicles to be produced in South Africa from completely disassembled components; operations such as assembly and painting must be performed locally.

The MIDP was to be terminated in 2000 for medium and heavy commercial vehicles, and in 2002 for motor cars and light commercial vehicles. The government instead decided to extend the MIDP until 2012, and import duties will continue to phase down but at a slower rate. The MIDP is being reviewed in 2005, and a major review of motor industry policy is provisionally planned for 2006-07, and will investigate the long-term future of the MIDP.

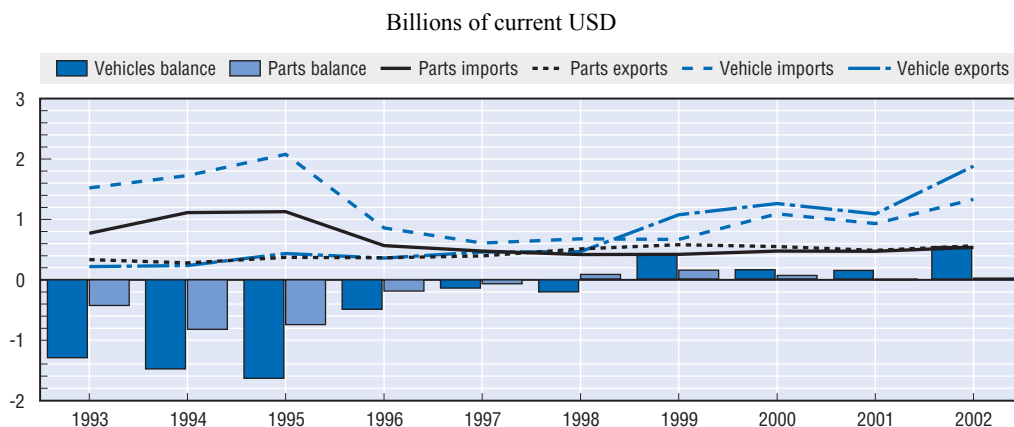
The clearest sign of success is in the direction and volume of trade. As shown in Figure 9.5, both imports and exports rose from low levels in 1995 to substantial shares of the market in 2002. The growth of imports initially overwhelmed exports, for both parts and vehicles (see Figure 9.6), but by 2001 South Africa had reached a balance in parts and a surplus in vehicles. While the overall size of the domestic market remained essentially flat during 1999-2002, total production rose. Exports as percentage of domestic production increased from 4.0% in 1995 to 31.0% in 2002. During that period, the import share of the South African market rose from 5.5% to 23.1%. These imports have come at the expense of the less efficient producers that are unable to compete in export markets and have seen the greatest reductions in output and employment. “[T]he bulk of export expansion has not been by ‘traditional’ component suppliers”, according to one analysis, “but by a rapidly emerging new group of mainly foreign-owned firms frequently with links to vehicle manufacturers.” (Black, 2001, p. 12)

Figure 9.5. South African motor vehicle production and trade, 1995-2002



Source: Calculated from NAAMSA data.

Figure 9.6. South African motor vehicle trade, 1993-2002



Source: Calculated from WITS data.

The country's move towards a more liberal automotive trade policy has been complemented by preferential access to the US and EU markets. Both of these triad partners have extended duty-free access first under one-way, preferential programmes, and are shifting to two-way, reciprocal free trade agreements (FTAs).

South African vehicle exports to the United States have risen rapidly since enactment of the African Growth and Opportunity Act (AGO) of 2000, under which the remaining tariffs on almost all South African goods are eliminated. As Table 9.2 shows, these exports had already grown a hundred-fold between 1993 and 1999, and then grew by ten times more between 1999 and 2002. This thousand-fold growth may have been aided by the extension of preferential access to the US market, but the relatively low US tariff rate on cars (2.5%) does not extend a large margin of preference. Much more significant is the fact that South Africa can assemble quality vehicles at a competitive price. The terms of this preferential access will be transformed by the FTA that the United States is now negotiating with SACU. That agreement will not lead to a change in South African access

to the US automotive market, which is already free, but will presumably reduce the barriers to imports from the United States.

Table 9.2. South African trade in motor vehicles and parts, by value (USD 000s), 1993-2002

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Parts exports	333 776	281 280	374 280	365 172	397 876	511 537	582 876	550 104	489 366	564 939
Germany	154 421	119 179	114 551	80 475	93 640	164 418	207 916	156 150	141 492	159 726
United States	25 702	22 401	34 631	41 396	49 322	57 641	64 338	76 226	71 998	85 921
United Kingdom	14 291	14 478	25 303	29 724	37 420	45 586	57 575	46 437	44 560	40 218
Japan	554	645	728	554	896	3 370	2 866	6 426	10 763	14 571
Italy	2 900	3 409	9 270	6 832	6 391	19 141	16 986	23 823	7 700	5 789
Rest of world	135 908	121 167	189 796	206 190	210 207	221 380	233 195	241 042	212 854	258 713
Parts imports	772 020	1 114 653	1 130 620	565 929	477 049	419 660	422 720	476 035	474 646	536 961
Germany	446 889	734 745	598 920	148 272	122 376	103 201	128 657	145 190	177 771	202 286
Japan	137 656	143 620	167 433	104 941	105 944	95 678	95 314	92 138	75 061	89 450
United States	45 848	61 117	91 842	87 620	56 158	35 620	33 652	37 650	35 401	37 770
United Kingdom	27 301	38 376	74 374	43 184	33 095	29 859	23 023	21 714	19 100	21 708
Italy	20 258	21 601	33 360	27 940	22 098	21 785	22 304	21 816	21 022	20 863
Rest of world	94 068	115 194	164 691	153 972	137 377	133 517	119 771	157 527	146 291	164 884
Parts balance	-438 245	-833 373	-756 340	-200 758	-79 172	91 876	160 157	74 069	14 721	27 977
Vehicle exp.	219 400	238 382	434 401	359 907	459 910	465 978	1 077 929	1 261 763	1 090 196	1 882 735
United States	382	1 231	7 531	9 053	21 128	19 746	38 963	126 369	29 076	379 455
United Kingdom	4 130	4 502	2 782	4 662	8 745	51 673	118 398	122 859	266 615	363 477
Germany	839	339	1 171	828	16 013	89 757	540 058	397 156	24 054	284 024
Japan	4 259	4 420	7 048	2 850	2 707	1 238	343	129 627	211 331	277 517
Italy	177	454	27	105	105	110	929	1 780	1 270	167
Rest of world	209 613	227 438	415 842	342 410	411 212	303 455	379 239	483 972	557 850	578 096
Vehicle imp.	1 523 390	1 726 116	2 077 070	859 287	611 512	679 129	669 863	1 092 988	932 211	1 331 248
Germany	252 662	333 986	509 686	181 604	146 973	173 796	197 104	339 594	189 248	529 143
United States	36 408	49 005	80 588	96 142	93 318	104 703	104 731	105 701	146 453	192 745
Japan	1 124 918	1 065 863	1 163 844	56 258	80 222	124 775	104 963	156 757	101 517	145 531
United Kingdom	47 143	94 037	86 543	114 292	71 193	68 911	74 812	102 155	77 846	89 241
Italy	17 590	54 579	61 029	67 633	40 429	29 723	36 265	45 993	42 644	49 282
Rest of world	44 669	128 645	175 380	343 357	179 377	177 221	151 988	342 787	374 503	325 307
Veh. balance	-1 303 990	-1 487 734	-1 642 668	-499 379	-151 602	-213 150	408 067	168 775	157 985	551 487

Source: Calculated from WITS data. South Africa is already an FTA partner with the European Union. The Trade, Development and Cooperation Agreement (TDCA) came into force in 2000. The agreement provides for asymmetrical trade liberalisation between the two parties, with a view towards forming a free-trade area by 2012. During the 12-year transitional period, South Africa will liberalise around 86% of its imports from the EU; the EU commitments cover 95% of imports and will be phased in over ten years. Certain products are subject to only partial liberalisation, such that tariffs are merely reduced or are subject to preferential tariff quotas. Some automotive parts are included among the 2.9% of South African imports that are only partially liberalised; the end rate will be in the range of 6-11%. Similarly, the end rate for tyres will be in the 10-15% range. These partial liberalisations are to be reviewed at a later date.

Conclusions and lessons

This case study is about the opportunities that arise in a time of radical reform. The major political and social changes that South Africa underwent in the 1990s, coupled with the shifts provoked in its relations with other countries, provided a chance to conduct similarly sweeping reforms of economic policy. It was by no means inevitable that the government would take advantage of this opportunity, or that its policy choices would prove appropriate. As it happens, however, South African officials adopted a set of economic reforms that have well served the wider economy and the automotive industry: the liberalisation of trade, combined with sound fiscal and monetary policy, have produced increases in both trade and foreign investment. These developments have promoted a rise in TFP, exposed South African producers to healthy competition, and transferred new technologies. The South African automotive industry is among the beneficiaries, having become a leaner but more efficient producer that competes effectively in global markets.

The lessons here are not unique to South Africa. While *apartheid* was a uniquely South African institution, one can easily find parallels for this policy, the sanctions that it inspired and the reforms that followed its overthrow. South Africa is not the only country that has undertaken major political and economic reforms since the early 1990s and been reintegrated into the world economy. The same can be said for former military dictatorships in Latin America as well as European and Asian countries in transition from communism.

South Africa's economic reforms are still a work in progress, and the last vestiges of the ISI strategy have yet to be eliminated. Further steps may also be needed to reform programmes markets, and the HIV/AIDS pandemic is expected to cast a shadow over African development prospects for the foreseeable future. Despite these challenges, the South African automotive industry has survived the transition, and appears to be in a good position to make further advances.

Australia¹⁴

The Australian automotive industry has undergone a major transformation in recent years from a highly protected, inward-looking industry relying almost exclusively on the domestic market, to one increasingly looking to exports to secure its future. While many factors have contributed to this transformation, reductions in previously very high levels of government support for the industry, and changes to the nature of that support, have clearly played a key role.

Two decades ago, the industry was protected by nominal tariffs of up to 57.5%, quantitative import restrictions on passenger vehicle imports with a tariff equivalent of over 100% and local content rules providing similarly high levels of support to local component production. Within this cocoon, five vehicle assemblers, purchasing from a plethora of component suppliers, produced 13 models at low volumes, almost solely for the small domestic market. The industry's productivity and quality performance was poor and industrial disputes were rife. However, the "made-to-measure" nature of the assistance provided by quotas and local content protection greatly diminished the incentives for the industry to address its progressively worsening competitiveness.

The unwinding of this regime began in the mid-1980s, as part of a general push to "internationalise" and improve the performance of the Australian economy. By the end of

the 1980s, quantitative restrictions and local content rules had been removed and the phasing down of tariffs was well under way. While tariffs on passenger vehicles paused at 15% in 2000, they will be cut to 10% in 2005, with a further cut to 5% in 2010. This last reduction will align automotive tariffs with the general manufacturing tariff.

Not surprisingly, these reductions in protection have provided significant benefits to consumers in terms of lower prices and greater choice. For example, there are now 250 vehicle models available in Australia, compared to just 70 before the removal of quotas.

The reforms have also contributed to considerable industry rationalisation. The number of locally produced passenger vehicle models has fallen from 13 to five, and the number of significant “original equipment” and raw material suppliers has more than halved. This rationalisation has contributed to a large increase in the industry’s productivity. For example, the number of vehicles assembled per employee has increased by 50% since 1990. Product quality has also improved markedly. In combination with a much greater focus on innovation and customer service engendered by the more competitive environment, these performance improvements have allowed the industry to offset the impacts of a surge in vehicle imports through strong export growth. Exports now account for more than 30% of production compared to less than 10% a decade ago.

Moreover, while an inevitable consequence of strong productivity growth and stable total output has been a marked decline in employment – down 38% in the 1990s – these reductions have occurred in a reasonably orderly fashion.

The industry’s largely successful adjustment to much lower levels of protection has been helped by other elements of the reform programme. For instance, the fall in the value of the Australian dollar in the mid-1980s, following the floating of the currency, cushioned the effects on the industry of the removal of import restrictions and local content protection. Programmes market reforms in the 1990s – especially the introduction of enterprise bargaining – have been instrumental in facilitating the uptake of just-in-time production methods, an essential part of modern automotive manufacture. The industry’s competitiveness has also been improved by reforms that have led to more efficient provision of infrastructure services, such as electricity and transport.

Aspects of the industry’s assistance package have also been designed to facilitate an orderly transition. Apart from reducing protection gradually to give the industry “breathing space” to increase its competitiveness, many firms have had access to transitional budgetary support. This support, which is oriented towards encouraging new investment and innovation, will continue until 2015, with more generous levels of funding than those recommended in the Productivity Commission’s review (PC, 2002).

In 2002, Australia’s Productivity Commission reported that the industry faces some significant challenges. It noted that industrial disputation remained a problem, with the CEO of one major vehicle assembler labelling Australia as “strikeland”. The report found that production volumes remained low by international standards. As in other countries, large investments would likely be required to enable automotive producers to meet more stringent environmental standards and to incorporate new technologies into their vehicles. Also, fluctuations in the value of the Australian dollar would impact on the industry’s competitiveness in both domestic and export markets.

Nonetheless, and notwithstanding future reductions in tariffs and the eventual cessation of budgetary support, much of the industry is optimistic about the future. The strong performance of the Australian economy has seen the domestic vehicle market

grow strongly, a trend that is expected to continue. Growing recognition internationally of the industry's capabilities, together with new trade agreements with countries such as the United States and Thailand that came into force in January 2005, are seen as providing a platform for further export growth.

Such optimism in the face of the prospective removal of the industry's special treatment would have been inconceivable when the reform programme began. Moreover, the industry's transformation has been achieved without the disruptions seen in some other highly assisted sectors (such as textiles, clothing and footwear). The measured nature of the reform programme – giving the industry both time to adjust and incentives to improve its performance – has clearly contributed to the successful outcome achieved. But wider economic reforms have also been important in enhancing the industry's capacity to compete successfully with lower levels of assistance.

Notes

1. Sales data for General Motors and Nissan are from Forbes.com; GDP data are from the World Bank.
2. The Japanese share of motor vehicle exports fell from 23.53% in 1994 to 16.90% in 2002. The country's share of global imports also fell, owing to a contraction in domestic demand. Japan went from a 3.03% share of global imports in 1994 to a 1.58% share in 2002 (calculated from WITS data).
3. See the summary table in Smitka, p. 23. Note that Smitka defines "control" as possessing more than one-third, rather than more than one-half, of another firm.
4. See Tables 1.12 and 1.13 in Chapter 1.
5. All data in this paragraph summarized and calculated from Ghosn (2002), p. 10.
6. The United States withdrew MFN treatment from Poland and other communist countries (except Yugoslavia) in 1951. Poland's MFN status was restored in 1960, however, and remained in place until sanctions were imposed in the 1980s.
7. The term was originally coined to describe the economic geography of Australia and the influence of its remote location on development. See Blainey (1966).
8. O'Rourke and Williamson (1999), for example, found that in the latter half of the 19th century "*all* of the commodity market integration in the Atlantic economy ... was due to the fall in transport costs between markets, and *none* was due to more liberal trade policy", p. 29.
9. Both sets of respondents gave first place to "quality", an area in which the South African producers are relatively competitive (but still face some challenges). See Barnes (2000), p. 33.
10. Size is always relative, of course, so South Africa is quite large by comparison to other African countries.
11. *National Association of Automobile Manufacturers of South Africa (NAAMSA) Annual Report*, in Galbraith (2004).

12. All data cited in this paragraph, and all other statistical data in this case study for which a source is not otherwise identified, are from materials included in Galbraith (2004).
13. *National Association of Automobile Manufacturers of South Africa (NAAMSA) Annual Report*, in Galbraith (2004).
14. This case study was provided by the Australian Productivity Commission as input to the OECD project on Trade and Structural Adjustment.

Chapter 10

HEALTH SERVICES

This chapter examines cases of trade and structural adjustment in health services. It surveys two cases: Mexico/United States and Japan-Philippines/Thailand. Trade in health services can help to ease structural adjustment pressures but may also exacerbate them. There are both opportunities (increased efficiency, variety and availability of services) and risks (increased shortages of health-related services in the domestic system). The case studies underline the potential for mutually beneficial trade in health care over the long run, particularly between developed and developing economies. Such trade may be a key source of repatriated foreign exchange earnings, as in the Philippines. For receiving countries, trade can be a way of increasing the access of groups that previously were not served, or were underserved, to a wider range of health services; it can also help to meet rising demand by ageing populations. US-Mexico trade means that health-care facilities in Mexico benefit from a larger clientele, including low-income populations living near the border between Mexico and the United States, and gain a source of revenue for expansion of services beyond what could be provided on the basis of domestic revenue alone. The key will be an approach that integrates health and trade policy to support structural adjustment and expand the domestic provision of health care in supplying and receiving economies beyond what would be possible in the absence of trade. The emergence of programmes such as those described in the Mexico-US case study, and those being contemplated in the Japan-Philippines/Thailand case study, reveals a growing trend towards facilitating the training of nurses abroad for eventual domestic employment.

Key points

As noted in Chapter 1, the relatively minor scale of trade in the health sector underlines the fact that trade is not the source of the sector's structural adjustment. However, given the need to address demographic changes in developed economies – changes that hold the possibility for growth in health services trade – and the need to ensure, via adequate planning, that such trade is beneficial for both importing and exporting countries, it is useful to look at how trade and health-care policy can be mutually supportive. This study only presents initial observations from selected cases; to find appropriate solutions it is necessary to address the full range of each country's economic and social factors, and each country must determine the most appropriate way to ensure its provision of health services.

Trade in health services can help to ease structural adjustment pressures but it may also exacerbate them. There are both opportunities (increased efficiency, variety and supply available to both importers and exporters) and risks (increased shortages in the domestic system). The case studies underline the potential for mutually beneficial trade in health care over the long run, particularly between developed and developing economies. However, co-ordinating the development of trade and health policy will be essential.

Structural adjustment in the health-care sector is driven primarily by changing demographics and economic development, not by trade. Structural adjustment has, however, stimulated trade in health services and movement of nurses, and this has led in some instances to increased demands on scarce health-care resources in sending developing countries. When movement of nurses to developed countries is long-term or permanent rather than temporary, it no longer falls under the definition of trade in services.

Increasing exports of health-care services may cause difficult problems of structural adjustment in exporting economies, particularly in those where trade is large and unanticipated, as in Thailand, or where trade has exacerbated a shortage of health workers and supported a two-tier system of health-care provision: a public sector with less good resources and a private sector with better resources. In other cases, such trade may be a key source of repatriated foreign exchange earnings, as in the Philippines. For importing countries, trade can be a way of increasing the access of groups that were previously not served or underserved to a wider range of health services or helping to meet rising demand by ageing populations.

The key will be an approach that integrates health and trade policy to support structural adjustment and expand the domestic provision of health care in exporting and importing economies beyond what would be possible in the absence of trade.

This potential is clear with respect to movement of nurses. The emergence of programmes such as those described in the Mexico-US case study, and those being contemplated in the Japan-Philippines/Thailand case study, reveals a departure from an initial approach of merely recruiting nurses and towards systematic training of nurses for foreign health-care systems. These trends suggest several observations. First, coherent design and implementation of trade and health policies make it possible to increase the number of nurses trained for employment in the health-care systems of both trade partners. Second, short-term movement via trade is increasingly explored as a preferable alternative to long-term migration of health workers. Third, even temporary movement

can entail costs and complementary measures (such as training of more nurses) to address potentially harmful effects on exporting countries.

Adjusting the Thai health-care system to meet unanticipated demand from foreign patients travelling to Thailand for health-care services may help develop and expand the Thai health-care system's capacity over the long run. To date, this trade has primarily involved ancillary treatments not covered by foreign patients' national health insurance and has reduced health-care resources available to the domestic population. The vast price differential between the cost of medical treatment in developed and developing economies allows foreign patients to be treated in Thailand at costs well below what they would face at home, but still high enough for a portion of such revenue beyond what would be available in the absence of trade to be reallocated to expand domestic health-care capacity.

In a converse situation, low-income populations living near the border between Mexico and the United States purchase health insurance from US-certified insurers based in Mexico. Such insurers provide routine medical services at health-care facilities on the Mexican side of the border and emergency medical services on the US side. As a result, US-based populations unable to afford US-based health-care schemes have access to health care through the more affordable Mexican-based plans and benefit further if their native language is Spanish. In this way, health-care facilities in Mexico benefit from a larger clientele and a source of revenue for expansion of services beyond what they could provide on the basis of domestic revenue alone. In some cases, the broader customer base has allowed Mexican health-care facilities to provide specialised services which would otherwise be economically unsustainable, thereby increasing access to such services by the domestic population.

In the other direction, telemedicine enables patients in Mexico to receive sophisticated medical services from the United States without leaving their home facilities. Benefits to Mexico of such trade include a wider selection of specialised medical services, a greater number of services and access for a larger share of the population because of lower costs, including for foreign travel. Benefits to US health-care facilities include greater use of specialised medical services and potentially improved capacity to deliver such services owing to an increased revenue base.

Mexico and the United States

Introduction

Trade in health services between Mexico and the United States is complex. Although the pace of trade related to health was slow soon after the signing of the North American Free Trade Agreement (NAFTA), the last five years have seen significant growth.¹ This increase is due to demand for health services relating to economic activities generated by NAFTA, as well as to non-trade-related domestic health-care challenges facing both economies. Trade in health services between Mexico and the United States is mainly in three areas: consumption abroad by patients, telemedicine and the movement of nurses. It demonstrates both the potential for, and the challenges of, leveraging trade to enhance health care in both economies.

Trade and non-trade-related structural adjustment facing health care

The evolution of the Mexican and US health-care systems has been indirectly affected by significant migration to the border region between the two economies as a result of

increased trade and investment under NAFTA. However, the most important factors behind structural adjustment in the health systems of both economies remain unrelated to trade in health-care services.

Trade-related factors

Increasing trade and investment has supported rapid population growth along the Mexican-US border and stimulated increased trade in health services. Approximately 12 million people now reside in the 42 US counties and 39 Mexican municipalities located along the Mexico-US border, and this population is expected to double by 2020. Communities along the border are economically and socially interdependent and residents on both sides routinely cross the border to work, shop, visit friends and relatives and purchase health services. There are about 1.1 million legal northbound crossings a day.

Non-trade-related factors

In both economies, however, overall shortages in health provision result primarily from factors unrelated to trade in health-care services. Economic development in Mexico has led to greater demand for access to health services, including in remote areas, and for expansion of the range of specialised services available. At present, 50% of the population is covered by government health care and 4% rely on private coverage. In the United States, an ageing population will increase demand for health services, particularly those provided by nurses. One study by the American Nurses Association estimates the current deficit of nurses at 126 000 and projects that it will increase to 400 000 by 2020.

A significant proportion of US citizens lack health-care coverage, particularly in the border states of Arizona, California, New Mexico and Texas. Immigrants from Latin America make up a disproportionate percentage of the total population without access to health care; they are more likely to be uninsured and suffer from language barriers (Davis, cited in Sullivan, 2002). Trade in health services (mode 2 consumption in Mexico by these US patients) is an intuitive way to address this challenge.

An overview of health-care capacity on the two sides of the border

Despite better health-care coverage than in Mexico as a whole, available health-care resources are still low in the six Mexican border states² when compared to the those of the US border states. In terms of human resources, the Mexican border states have fewer doctors than the state of Texas alone. They have 837 inhabitants per doctor while the corresponding figure for Texas is 644, and for nurses, they have one professional nurse per 958 inhabitants compared to one per 98 inhabitants in Texas. In terms of physical health-care resources, the state of Texas alone has double the number of hospital beds available in the six Mexican border states (one bed per 363 inhabitants in Texas versus one bed per 688 inhabitants in the Mexican border states).

The complexity of bilateral trade in health services

Both Mexico and the United States experience shortcomings in health-care provision, albeit for different reasons. Increased trade in health services can both ameliorate and exacerbate these shortcomings. Patients from US border states can consume cheaper health-care services in Mexico, and Mexican patients can access specialised care from the United States via telemedicine. However, the movement of nurses from Mexico to the United States addresses a shortage in one economy but increases one in the other,

although innovative cross-border programmes may increase the number of nurses available to both economies in the long run.

Cross-border consumption of health services

Private hospitals and health maintenance organisations (HMOs) on the Mexican side of the border are exploring ways to provide health care to underserved populations in the United States. One of the most interesting, SIMNSA (Sistemas Médicos Nacionales SA de CV),³ has established a comprehensive health-care plan in response to the growing needs of US workers with dependents in Mexico. SIMNSA offers its members the option of receiving care at a state-of-the-art medical clinic located within walking distance of the border crossing. Provisions are also made for emergency care in the United States.

SIMNSA offers two health-care programmes, both at rates significantly below US rates, thus making care accessible to low-income populations that previously did not have access to care. The HMO-type plan provides coverage for a fixed monthly fee per person and reasonable co-payments for medical visits and prescription drugs. Another plan offers a discounted fee for service for care received in Mexico. SIMNSA requires a minimum participation of 30 individuals for a collective policy, with the employer paying 50% of the fee. As SIMNSA premiums are much lower than US equivalents, most employers pay closer to 80% of the premium, and some pay 100%. Recently, SIMNSA created the Small Business Group Plan to tap into the substantial market of companies in California employing fewer than 50 people. In order to qualify, companies must maintain a business licence in California and enrollees must live within 50 miles of the SIMNSA service area.

SIMNSA has seen a rise in emergency service claims over the last year and a half. This may be partially because of clients who purchase a SIMNSA plan and do not intend to receive care in Mexico but rather to rely on US emergency services for care. As of December 2003, SIMNSA had not removed members from its plans. However, to reduce out-of-area use, it is considering premium incentives to encourage members to receive care in Mexico.

Telemedicine

Telemedicine can eliminate the difficulties created by transport from Mexico to see medical specialists in the United States, and bring the cost of diagnosis down to a level that greatly increases the accessibility of such care. VistaLink, a private company based in Houston, Texas, targets Latin America, where affluent patients are accustomed to travelling to the United States for medical care. VistaLink has 80 offices around the world with sophisticated digitalisation equipment and sends pictures, x-rays and other computerised medical material through the Internet. For a USD 500 fee, doctors in Mexico and throughout Latin America are able to access US medical specialists via the Internet. VistaLink selects appropriate specialists for individual cases from a roster of physicians affiliated with leading US medical centres. The first appropriate specialist available for consultation among the 4 000 in the VistaLink network is assigned to the case and responds with a second opinion within 24 to 72 hours, depending on the level of emergency. The increasing availability of telemedicine enhances the accessibility of US medical specialists to Mexican patients in terms of quantity and variety of service available, as well as affordability, particularly in terms of reduced travel expenses.

Movement of nurses

The migration of nurses from Mexico to developed countries started about ten years ago, but the number migrating to the United States has increased significantly in recent years. Some 10% of newly graduated nurses and of those working at three major institutions⁴ look for opportunities abroad. According to the Employment Promotion Centre in Mexico City, more than 4 000 nurses from these institutions left to work in foreign hospitals during the first four months of 2004. Of these, 1 000 went to the United States, 200 to Spain and 50 to the United Kingdom.⁵

Mexico and the United States have agreements permitting the latter to obtain employees with urgently needed skills. US institutions have established several agreements to attract nurses, particularly from Mexico. A variety of recent programmes employ strategies not so much to recruit trained nurses from Mexico, but to facilitate or subsidise the training of Mexican nurses for employment in the United States. For example, in 2003, a group of hospitals in southern Texas decided to provide scholarships to Mexican nurses for study in the United States to enable them to pass US licensing exams.⁶ Under this agreement, the students cross the border for coursework in the United States but continue to reside in Mexico, where they receive most of their professional training. Each of the four participating hospitals provides scholarships for five students to work in a hospital for three years, after which the hospitals assist students to obtain visas for work in the United States.

The Employment Support Plan co-ordinated by the Mexican Labour Ministry has a pilot plan in Zacatecas and ten other states to train nurses in English so that they can work in the United States. The first English course started at the end of March 2004 with 28 professionals. Interest is expected to grow. Nevertheless, some states have declined the plan owing to unclear conditions in the agreements relating to how personnel are to be contracted (*e.g.* nurses are expected to commit to completing contracts despite potentially difficult working conditions).

Conclusion

Structural adjustment in the Mexican and US health-care systems is largely unrelated to trade. An increasing ambition to enhance the capacity, coverage and sophistication of the Mexican health-care system contrasts with an expanding US deficit in nurses and the demands of an ageing population. Over the past five years, trade in health services between Mexico and the United States has increased substantially. Growing trade in health services between Mexican and US border states whereby US-based patients travel to Mexico for affordable Spanish language health care is an example of potential gains from increased trade. The ability of telemedicine to bring highly specialised health-care services from the United States to Mexico without the need for international travel improves both the variety of services available and broadens access to such care in Mexico. While migration of nurses remains a structural challenge to the health-care systems of both economies, innovative programmes hold out the possibility of increasing the number of nursing graduates in both.

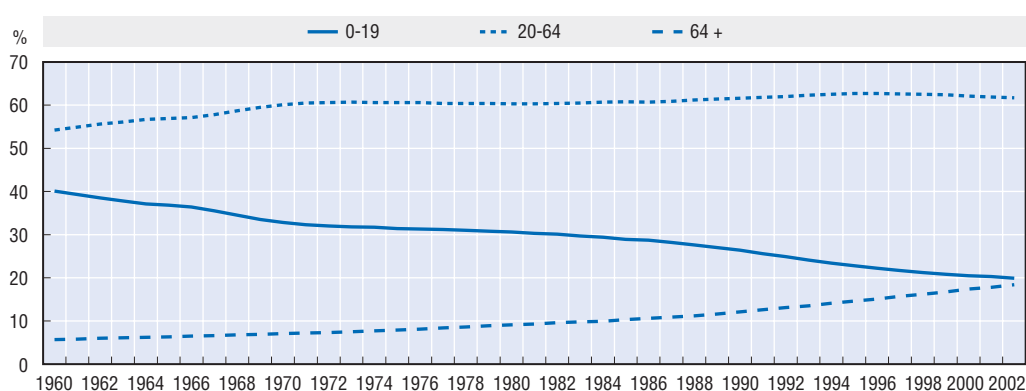
Japan, the Philippines and Thailand

Introduction

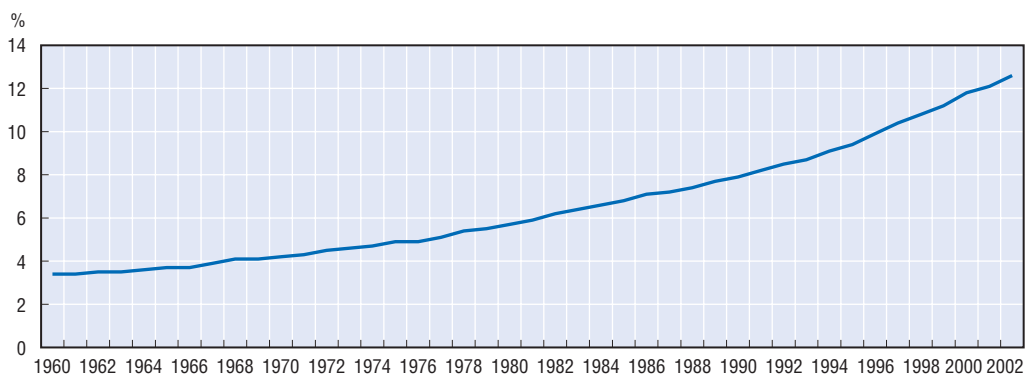
Rapid ageing in the Japanese population will place increasing demands on the health-care system over the next decade and beyond. The ratio of working age adults (aged 20-64) supporting senior citizens (65 or older) will be roughly halved by 2020 (Carey, 2002, p. 8). Population ageing will decrease tax revenues as the pool of working-age adults declines relative to total population. Structural adjustment to accommodate increasing demands on the national health-care system will take place against a backdrop of shrinking public resources. This case study explores how the adjustment challenge presented by Japan's ageing population has been addressed domestically through recent regulatory reforms and internationally through regional trade arrangements. It also examines how trade in health services may become a source of structural adjustment in exporting developing countries (Philippines and Thailand).

Demographic changes over the last two decades have already placed significant strains on Japan's health-care system. Between 1980 and 2002, senior citizens more than doubled as a percentage of the total Japanese population from 9.1% to 18.4%, while the proportion of working-age adults rose slightly from 60.3% to 61.7% (Figure 10.1). Senior citizens aged 70 and older (elderly) are known to spend five times more per capita on health care than younger ones (non-elderly) (Imai, 2002, p. 9), and average life expectancy in Japan was 81.9 as of 2002 (WHO, 2002). From 1980 to 2002, the number of elderly as a percentage of total population more than doubled from 5.7% to 12.6%, and the rate of increase has steepened noticeably over the last two decades (Figure 10.2). The strain placed on the health-care system has left the regulated health insurance industry in circumstances characterised by an OECD study completed in 2002 as one in which it "cannot meet payment obligations if the current financing arrangements remain unchanged" (Imai, 2002, p. 9).

Figure 10.1. Demography of Japan, 1960-2002



Source: OECD (2004e), *OECD Health Data*, OECD, Paris.

Figure 10.2. **Proportion of the Japanese population above age 70**

Source: OECD (2004e), *OECD Health Data*, OECD, Paris.

Over the next two decades, structural adjustment in the health-care system will be characterised by increasing demand for services and shrinking public sector resources. The demographic trajectories propelling decline in the proportion of working age adults relative to senior citizens will see population peak in 2007 and shrink thereafter (Ogawa, 1997). By 2020, the tax base of working-age adults relative to (largely retired) senior citizens will drop from the current 4:1 towards 2:1. As a result, the Japanese health-care system will face mounting pressure to reduce costs as demand for health-care services by a growing population of senior citizens increases.

Further structural adjustment in the health-care system will be difficult not only because Japan is ageing more rapidly than other OECD economies, but because the Japanese health-care system already reveals some evidence of efficiency.⁷ Despite lower spending on health care as a share of gross domestic product (GDP) and fewer doctors as a proportion of the total population, Japan consistently ranks among the healthiest of the G7 countries (OECD, 2004e, 2004f). Evidence supporting the efficiency of the Japanese health-care system suggests that reliance on traditional approaches to increasing efficiency will not suffice to satisfy the demands of an ageing population given shrinking public resources.

The effect of ageing on the health-care system will be acutely felt in the demand for health services provided by nurses. Illnesses such as dementia prevalent in ageing populations and the higher proportion of bedridden individuals require a disproportionate amount of nursing services. In addition, the traditional role of women as surrogate health-care providers for senior citizens in extended families is declining as women increasingly take up full-time employment and fewer Japanese live in extended families. In fact, the Japanese Ministry of Health, Programmes and Welfare estimates that although the supply of nurses in Japan is expected to increase by a dramatic 13% between 2001 and 2005, there will nevertheless be a shortage of 5 000 nurses relative to demand in 2005 (METI, 2003, pp. 233-34).

On-going domestic reforms

An ongoing programme of reforms being carried out across the Japanese economy will define the regulatory environment in various sectors, including health care.⁸ Two elements of the general reform programme are particularly relevant. The first is “Reforming Government-made Markets through Increased Private Sector Participation“

in *The Second Report Regarding Promotion of Regulatory Reform: Priority Regulatory Reform Measures to Promote Economic Vitalization* prepared by the Council on Regulatory Reform. This is an ambitious effort to “aggressively expand private-sector participation in public services”, including health care, which have hitherto been provided by the government.

Recent progress in this respect can be found in the March 2004 decision to relax the previous ban on private investment in health-care facilities. Significantly, this liberalisation is, in principle, open to domestic and foreign investors alike. However, the systemic effect of this liberalisation is limited as health services provided by facilities established with private investment are not reimbursable under the public health-care scheme.

The second element of the general regulatory programme relevant to structural adjustment in the health-care sector is the Special Zones for Structural Adjustment programme. This is a policy framework for regulatory experimentation in support of structural adjustment. Under this programme, local governments in areas designated as “special zones” may (on the basis of recommendations from the private sector and subject to approval by the central government) relax regulatory obstacles to economic growth. Regulatory reforms that are successful at the local level are then considered for application on a national basis.

A decision of 27 February 2003 under the Special Zones programme will support efforts to facilitate structural adjustment in health-care services through measures enabling Japan to accept more foreign medical practitioners nationwide. This decision supports relaxation of the requirement for reciprocal recognition of Japanese medical credentials by a sending economy as a pre-condition for foreign doctors to provide medical services in Japan. It also establishes a precedent allowing for taking the Japanese medical examination in English. However, a restriction that foreign medical practitioners may only provide services to nationals of their home economies is a limiting feature of this decision. An increase in the number of foreign medical practitioners allowed to practice in Japan is nonetheless foreseen.

Regional trading arrangements

The Japan-Singapore Economic Partnership Agreement (JSEPA) provides a foretaste of how regional trade agreements (RTAs) can facilitate structural adjustment in the Japanese health-care system. The JSEPA allows for a limited number of medical and dental practitioners to provide services in a member economy based on a quota determined under separate arrangements. As a forerunner to the programme under the Special Zones programme described above, the JSEPA set a groundbreaking regulatory precedent by allowing foreign-trained (Singaporean) doctors to pass the Japanese medical examination in English, but similarly curtails liberalisation by limiting potential patients to Singaporean nationals. The JSEPA nonetheless establishes a framework for future RTAs such as those under discussion with the Philippines and Thailand.

Current negotiations for economic partnership agreements (EPAs) with the Philippines and Thailand foresee liberalisation of trade in health-care services. These negotiations have focused on mode 4 liberalisation of trade in nursing services⁹ as opposed to the medical services performed by doctors in the case of JSEPA. The nursing shortages expected by 2005 (see above) have prompted initiatives to liberalise trade in nursing services. Presently, it appears that it will be necessary to obtain a nursing licence or qualifications using the Japanese language in order to provide nursing services in Japan. Meanwhile, a business group has proposed that a future system should account for

the types of occupations and skills concerned, the length of tenure and number of workers needed and include a structure for sending/accepting non-Japanese workers to/from public institutions under bilateral agreements (Nippon Keidanren, 2004). This proposal also proposes providing nursing education with instruction in the Japanese language through capacity building initiatives.

Also under consideration in talks for EPAs is mode 2 liberalisation of trade in health-care services, including the Japanese citizens moving to retirement homes or health-recreation facilities located in the Philippines and Thailand. In these talks, the portability of Japanese health-care insurance coverage to a foreign country has been under review. While the health-care insurance system supports both patients and sustainable domestic health-care institutions, the fact that globalisation has increased movement of natural persons overseas in various forms has prompted debate regarding the possibility of expanding or clarifying insurance coverage (Ito, 2004).

Structural adjustment in the health-care systems of exporting economies

The Philippines and Thailand provide a contrast in terms of how trade in health-care services may become a source of structural adjustment in exporting economies. Increasing exports of health-care services may generate difficult structural adjustments in exporting economies, particularly if trade is large and unanticipated, as in Thailand. In other cases, such trade may prove to be a key source of repatriated foreign exchange earnings, as in the Philippines. In yet others, an approach integrating the development of both health and trade policy could support structural adjustment to expand the domestic provision of health care in exporting economies beyond what would be possible in the absence of trade.

Thailand

With just over a quarter of the number of practicing doctors per 1 000 population as in Japan in 1996, it is not immediately obvious that a developing economy such as Thailand, with limited provision of domestic health-care services, would be an exporter of health-care services. In fact, although the number of practicing doctors per 1 000 population nearly doubled between 1982 and 1996, from 0.16 to 0.29 (Janjaroen, 2002, p. 99), Thailand is still far below the OECD average of 2.9 recorded for 1998 (Jeong 2001, p. 32). While not historically an exporter of health services via mode 4 (mainly owing to a lack of English-language skills), Thailand has developed private health-care facilities that provide short-term nursing care/resort packages to foreign patients via mode 2 as well as lucrative medical services for specialised and elective treatments not covered under patients' national health-care schemes.

The fact that the Thai public health-care scheme does not reimburse treatment received in private facilities has created a two-tier system of domestic health care in which varying qualities of care are available depending on ability to pay. Better funding of private hospitals has resulted in "skimming", whereby highly qualified doctors are brought into the private sector from the public sector. Private investment in health-care facilities has also contributed to a "brain drain" of medical practitioners from rural to better remunerated private practices in metropolitan areas. Most evident between the mid-1960s and mid-1970s, this problem led to a three-year period of compulsory public service, with more than two-thirds of new graduates assigned to rural areas.

While undertaking domestic reform, Thailand has sought to leverage its comparative advantage in health-care services by pursuing liberalisation of trade in health-care

services via modes 2 and 4 in current EPA negotiations with Japan.¹⁰ Integrating trade and health policies may facilitate structural adjustment, if not an increase in the capacity and quality of the health-care system in exporting economies. This is potentially much more significant when the cost differential of traded health services is large – as is generally the case when trade is between developed and developing economies. For instance, a portion of the revenue generated from exports of health services via mode 2 in Thailand could be directed towards financing the expansion of the domestic education system for medicine, thus expanding the number of graduating doctors to compensate for mode 2 trade.¹¹

Philippines

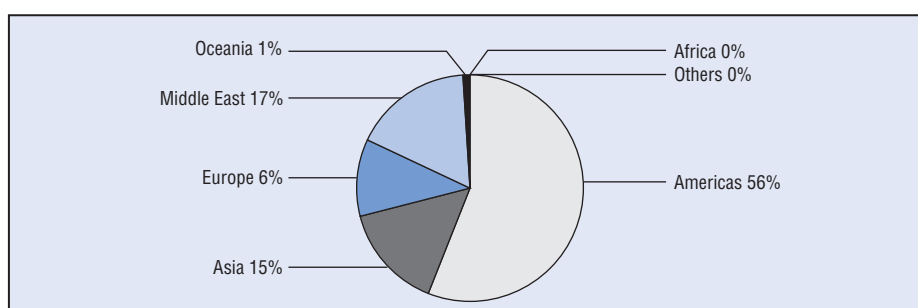
The USD 4.9 billion in foreign exchange earnings repatriated by the 7.1 million overseas workers from the Philippines in 2001¹² represented over 37% of total foreign exchange reserves as of May 2004 (IMF, 2004d). Although the Americas account for only 2% of overseas Philippine workers, these workers were responsible for 56% of repatriated foreign exchange earnings in 2003 (Figures 10.3 and 10.4).¹³ The corresponding figures of 42% of workers and 15% of remittances for Asia suggest that substantial gains may be possible by elevating the quality of the programmes outflows from the Philippines into the Asian region. In terms of destination economies for Philippine workers in Asia, Japan ranks high as a receiving economy and highest in level of remittances per overseas Philippine worker (Figures 10.5 and 10.6).

Figure 10.3. **Deployed land-based overseas Philippine workers by destination**



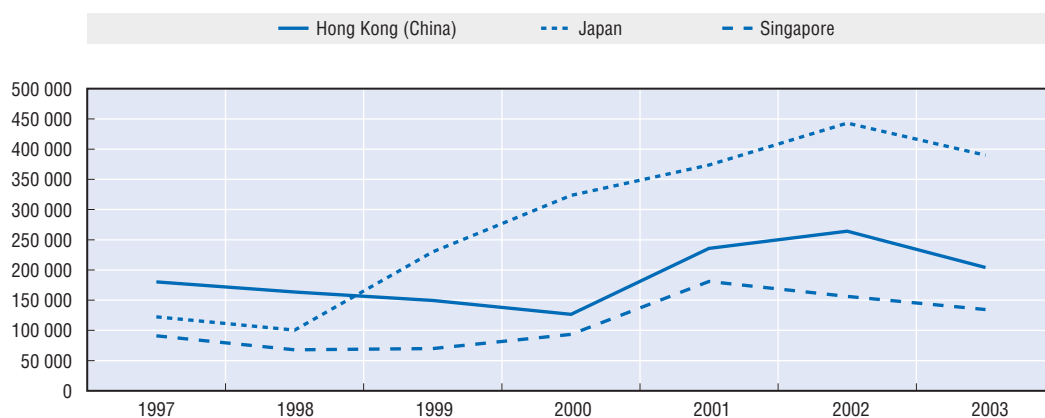
Source: POEA (2004), *Overseas Employment Statistics*, POEA, Mandaluyong City, www.poea.gov.ph/html/statistics.html.

Figure 10.4. **Remittances by land-based Philippine workers by region, 2003**



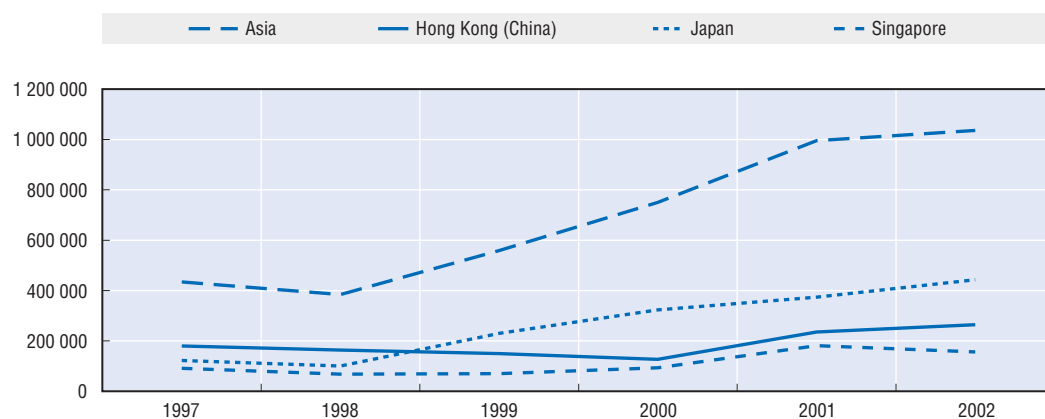
Source: POEA (2004), *Overseas Employment Statistics*, POEA, Mandaluyong City, www.poea.gov.ph/html/statistics.html.

Figure 10.5. Remittances by land-based overseas Philippine workers in Asia by destination



Source: POEA (2004), *Overseas Employment Statistics*, POEA, Mandaluyong City, www.poea.gov.ph/html/statistics.html.

Figure 10.6. Remittances by land-based overseas Philippine workers in Asia



Source: POEA (2004), *Overseas Employment Statistics*, POEA, Mandaluyong City, www.poea.gov.ph/html/statistics.html.

Given an active and longstanding programme of promoting work abroad for Philippine workers, current EPA negotiations with Japan may result in a broadening of occupations for which Philippine nationals may seek work in Japan to include qualified nurses.¹⁴ A well-established history of sending nurses to the Americas and the Middle East suggests an augmented institutional infrastructure for training nurses and an improved impact of outflows on the domestic health-care system. The high levels of remittances anticipated from potential outflows of nurses to Japan may facilitate structural adjustment in the Philippine health-care system in order to meet demand from both economies.

Conclusion

Structural adjustment prompted by the demographic transition in Japan presents both a challenge and an opportunity. Domestic reforms and liberalisation of trade in health-care services in Japan may provide opportunities for positive linkages between structural adjustment in the Japanese health-care system and that of its trading partners. However, coherent and integrated policy frameworks must be carefully thought out. On the developing-

country side, assessing the varying levels of co-ordination between trade and health policies provides a framework for understanding the difficulties experienced by Thailand and the performance of the Philippines, which actively pursues general exports of services via mode 4. Their experience demonstrates that, in the absence of careful management, complementary policies and co-ordination between health and trade policy, trade in health-care services may bring further difficulties to under-resourced health-care systems in exporting developing countries. Yet, it also illustrates that there is a strong potential for positive interaction between domestic development needs and trade policies owing to the financial resources that trade can attract, especially to exporting developing countries. By maintaining an integrated whole-of-government approach, trade in health-care services holds substantial possibilities for promoting mutually beneficial structural adjustment in the health-care systems of both developed and developing economies.¹⁵

Notes

1. Overall, total US exports of health-care services through the establishment of US affiliates abroad reached nearly USD 1 billion in 2001 alone. Sales by foreign-owned affiliates located in the United States totalled USD 5.6 billion in the same year.
2. Baja California, Coahuila, Chihuahua, Nuevo Leon, Sonora and Tamaulipas.
3. SIMNSA is a leading HMO in northern Mexico with over 200 physicians along the US-Mexican border. In March 2004, SIMNSA became the first Mexican HMO authorised to market products in California.
4. The Mexican Social Security Institute (*Instituto Mexicano del Seguro Social – IMSS*), the Security and Social Services of the State Workers Institute (*Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado – ISSSTE*) and of the Ministry of Health (*Secretaría de Salud – SSA*).
5. While permanent migration of health workers is not trade, the temporary movement of health workers to supply services can fall under mode 4 of the GATS. There is, however, disagreement over whether foreign employees of domestic firms fall under mode 4. Government procurement is currently also excluded from market opening commitments under the GATS.
6. NAFTA does not allow Mexican doctors or nurses to practice in the United States without meeting individual state licensing requirements. The trained nurses wanting to work in the US must fulfil the following criteria:
 1. To be a certified nurse in his or her own country.
 2. To complete the Commission on Graduates of Foreign Nursing Schools (CGFN), nurses must fulfil three requirements: pass the Test of English as a Foreign Language (TOEFL), which certifies competence in oral and written English; pass an education credentials revision; and pass the CGFNS Qualifying Exam. Successful completion of

these three requirements by foreign nurses leads to a CGFNS. The CGFNS confirms that the education, licensing and training received by a nurse in a foreign country are equivalent to those of the United States.

3. Once the above requisites have been fulfilled, foreign nurses must present the NCLEX-RN which is the state exam. After passing this exam they may obtain a licence to work in the United States.
4. Finally, to obtain the H1-C visa they need a hospital, clinic or equivalent to serve as a sponsor or to complete a petition (I-129) to employ the foreign nurse with the United States Citizenship and Immigration Services (USCIS). This visa grants permission to work only for the employer that applies for it. When there is more than one potential employer, each must make a separate petition if the nurse is to work at two or more places simultaneously. This visa is not transferable among employers and also implies H-4 visas for a nurse's husband or wife and children under 21. The H-4 visa does not provide the right to work. Those who obtain the H1-C visa as a first step, may later begin the process to obtain residence based on employment and change their status as long as they are working in the United States.
7. For a detailed discussion weighing evidence for and against the efficiency of the Japanese health-care system, see Jeong (2002).
8. This study addresses recent reforms relating to trade and does not discuss other relevant initiatives on ageing such as the introduction of the long-term care insurance system in 2000 or pension reform.
9. Owing to the limited scope of this study, the focus on professional nurses in medical services while "health-care workers" may include caregivers in the home who have certain national qualifications.
10. Japan-Thailand (2003), p. 25: "Both sides held expert group meetings on medical and public health sector and discussed the possibility of liberalisation of the movement of nationally qualified specialists by accepting country including nurses, massage therapists, and care givers for the elderly and the Japanese side expressed that the scope of these specialists ... would be limited to those who had national qualifications of accepting country. Also both sides shared the view that the influence on domestic programmes market should be duly considered regarding these specialists."
11. The example of the United Kingdom demonstrates how integrating health-care services exports in a domestic health-care strategy has already supported better domestic health-care provision to citizens. The United Kingdom established the National Health System Overseas Enterprise (NHSOE) to facilitate health-care services exports from public enterprises to foreign markets. The programme seeks to "strengthen the financial capacity of public health institutions to maintain and increase standards, by exporting medical services, thus counterbalancing the trend towards decreasing contributions from the government". And, "The impact of the this strategy has been very positive. Through the NHSOE, public health institutions have been able to sell services overseas by pooling their surpluses of highly skilled human resources, medical technological advances, and idle transformation to provide full health-care coverage to citizens." (Benavides, 2002)
12. Note that all figures are based on *land-based* Philippine overseas workers (POEA, 2004).

13. Note, however, that attribution of remittances to the United States might be the result of routing via US banks, as commonly occurs for remittances from the Middle East, for example.
14. Japan-Philippines (2003), p 17. “The Joint Coordinating Team shared a common understanding that the Movement of Natural Persons is one of the most important issues of the JPEPA. The Philippine side expressed its keen interests in opening the Japanese programmes market to Filipino workers, especially in the field of health-care services, because additional health-care workers may be required as a result of Japanese population’s age profile... The Japanese side responded that capability of communication in Japanese language as well as medical knowledge and skills is essential for health-care professionals in Japan and therefore obtaining national qualification of Japan is a minimum requirement for not only Japanese but also foreigners to work in Japan as health-care professionals. The Japanese side also stressed that the influence on domestic programmes market should be duly considered regarding health-care professionals.”
15. For further discussion of other OECD as well as non-OECD countries, see Benavides (2002). Economies such as Australia and the United Kingdom have gone a step further by incorporating exports of health services (particularly via mode 2) as a source of supplemental financing for their respective universal health-care systems, thus taking advantage of potential synergies from co-ordinating trade and health policy strategies. Also see OECD (2003e) regarding policy lessons based on the case of South Africa (focusing on the English-speaking market). It presents the need for greater international co-operation and policy coherence with regard to the international mobility of health professionals.

Chapter 11

INTERNATIONAL SOURCING OF IT AND BUSINESS PROCESS SERVICES

This chapter examines international sourcing of information technology and business process services and the case for adjustment in major markets. It provides country case studies of the United States, the European Union and India as well as corporate case studies of IBM and Infosys Technologies. The experience of the United States and India indicates that trade in IT and business process services has the potential to be beneficial for both OECD and non-OECD countries. US companies have increased their productivity by outsourcing services to other companies or insourcing services to foreign subsidiaries that perform these services most efficiently. From an adjustment perspective, the number of jobs likely to migrate is small in relation to overall movement in the US labour market and to the estimated number of jobs likely to be created. The challenge for any government is to secure the benefits of international specialisation while facilitating re-employment of affected workers. This means establishing conditions that promote job creation and endow workers with the skills to take up new jobs, by ensuring the provision of high-quality education, maintaining a business-conducive environment and focusing on policies that increase productivity and promote innovation. In India, long-term growth in information technology services sectors will depend on further reform.

Key points

The experience of the United States and India indicates that trade in IT and business process services has the potential to be beneficial for both OECD and non-OECD countries; for both, however, open markets are essential to reap the gains and manage adjustment. US companies have increased their productivity by outsourcing services to other companies or insourcing to foreign subsidiaries that perform these services most efficiently. These gains, and accompanying links to non-OECD markets, have created new business opportunities at home and abroad. Indian economic reform and trade liberalisation in the 1990s attracted foreign investment that contributed to the establishment of the Indian IT and business process services industry. Economic growth in India has increased the demand for US goods and services, despite the continuing existence of significant trade barriers, and there are signs that Indian services companies are starting to invest in the United States and in many other OECD member countries.

International outsourcing will become a more common and efficient business practice over time, but there is a natural limit to what can be outsourced. Adjustment is likely to affect certain occupational categories in the US labour market. However, there is no fixed number of “good” jobs for which countries compete. Increased specialisation in dynamic economies leads to a more efficient use of labour and capital. Estimates of the number of jobs likely to migrate is small in relation to the US labour market and to the estimated number of jobs likely to be created. Further, there is evidence that around two-thirds of workers who lose their jobs in the services sector find new employment with average earnings close to previous earnings. International sourcing of IT and business process services is expected to affect fewer workers in the EU than in the United States, but the European worker is generally more likely to face difficulties for finding a new job because of higher unemployment rates and lower re-employment rates.

The challenge for any government is to secure the benefits of international specialisation while facilitating re-employment of affected workers. International sourcing is technically difficult to prohibit and US companies would lose out in terms of competitiveness and existing and future business opportunities. Worker assistance, not trade restrictions, is the right response to labour market adjustment. The challenge is to establish conditions that promote job creation and endow workers with the skills to take up new jobs. That is, governments should promote overall competitiveness by ensuring the provision of high-quality education; maintaining a business-conducive environment; and focusing on policies that increase productivity and promote innovation. Specifically, dislocated workers will require assistance, for example through insurance programmes, while they search for jobs or possibilities for retraining if they opt for a change of profession.

In India, the IT services (ITS) and IT-enabled services (ITeS) sectors are developing fast. India may have the long-term potential to be in services what China is in manufacturing: a leading emerging market choice for foreign direct investment (FDI) and a home to increasingly globally competitive companies. However, further reform is needed and competition is increasing as other countries copy India’s business model. To enable long-term growth in the ITS and ITeS sectors, the Indian government could consider the following:

- *Remove administrative and regulatory inefficiencies:* Reducing corruption and improving the efficiency of administrative procedures related to business would

increase the competitiveness of Indian companies, increase India's attractiveness as a destination for FDI and benefit the entire Indian economy.

- *Invest in education:* Demand for specialist competence in the ITeS sector will rise in a number of areas as India offers increasingly sophisticated services. The ITS sector will need more IT scientists and researchers who can help develop domain expertise. Better quality and access in primary and secondary education will also be critical for avoiding future bottlenecks.
- *Consider services liberalisation:* This would help improve the quality of infrastructure (with benefits for the domestic economy), increase trade in services and goods, and strengthen India's bargaining position in combating trade restrictions against its exports.
- *Ensure international access:* The global delivery model employed by Indian IT and business process services companies includes a central element of overseas work. The Indian industry has much to gain from a reduction in barriers to international movement of people under mode 4 of the GATS.

India is a developing country, with all the challenges this implies for institutions, infrastructure, budgets, etc. However, the Indian government and several states have taken the initiative to provide an enabling environment for the IT and business process services sector. The dialogue between companies and the public administration has in general been constructive. The IT and business process services industries have offered well-paid career opportunities to hundreds of thousands of young workers. A rise in income inequality may create social tensions, but society will gain overall from the growing number of taxpayers and well-run and transparent private companies. This and other development-related perspectives will be examined in more detail in the following section.

The United States

The United States and India have been at the centre of the international sourcing debate, and both are facing adjustment challenges. For the United States as well as for Europe, these focus on the potential impact on certain occupational categories in the labour market, while in India the adjustment needs are broader and related to growth barriers. How each country might best respond to these challenges is the subject of this chapter.

Scale of the adjustment

In order to provide policy recommendations, it is essential to define the potential scope of adjustment: What is the extent of international sourcing (see Chapter 1, Box 1.2 for definitions)? Who is likely to be affected? Some have tried to answer this by first identifying the type and number of services that can be sourced internationally and then projecting future job migration based on a set of static assumptions. For example, Forrester Research (2002) estimates that 3.3 million American jobs could migrate by 2015, with customer service representatives (343 000), “bookkeeping, accounting, and auditing clerks” (300 000) and “office clerks, general” (214 000) the most affected in absolute terms.

Others have tried to estimate the outer limit of jobs that may face international competition in the future. The occupations are identified using a set of attributes

necessary for international sourcing, thereby excluding, for example, services requiring face-to-face interaction and those that cannot be transferred over ICT networks. On this basis, occupational categories representing roughly 11% of total US employment are estimated as likely to face some form of foreign competition, with more than three out of five being office support occupations (Bardhan and Kroll, 2003). Estimates vary from 12–16% of service sector jobs having “disaggregation potential” (World Bank, 1995) to only 5% being contestable by low-income countries (ILO, 2001).

These are all more or less qualified guesses. What is certain is that international sourcing will expand and global delivery models will improve with experience, falling communication costs and technological progress. Companies from countries like India, the Philippines and Mexico will increasingly offer their services to clients in the United States, and US companies will produce more parts of the value chain in subsidiaries in these countries, as has occurred in the manufacturing industry.

The number of good jobs is not fixed and neither lost nor won as a result of international trade. Increased specialisation in dynamic economies leads to a more efficient use of labour and capital. However, structural adjustment – as a result of technological change, shifting consumer preferences or new sources of competition – may cause strains because even if companies, investors and consumers are better off, some individuals, professions or regions may be worse off. The challenge for any government is to secure the benefits of international specialisation while facilitating mobility of resources within the economy, including re-employment of those affected.

International sourcing is likely to affect certain occupational categories rather than entire industries. Three factors are crucial for analysing how it will affect workers: re-employment rates, salary levels of re-employed workers and salary growth rates for those who keep their jobs but face competition. While there are no data available on the specific impact of international sourcing, there is some evidence on adjustment in services in general in the United States. During 1979–99, 69% of US workers who lost their jobs as a result of cheap imports in non-manufacturing sectors were re-employed within a year with a mean salary equal to 96% of previous salaries (the United States has the highest re-employment rate among OECD countries) (Kletzer in *McKinsey Quarterly*, 2003). More recently, of US workers who lost their jobs in 2001–03, 67% of “private non-agricultural wage and salary workers” were re-employed by January 2004; 20% remained unemployed. High-skill occupational categories such as “management, business, and financial operations occupations” and “professional and related occupations” had re-employment rates around 70%, while the figure was 65% for “sales and office occupations”. Of the re-employed workers who lost full-time wage and salary jobs, 43% were earning as much or more in their new jobs; of the remaining 57%, about one-third experienced earnings losses of 20% or more (BLS, 2004). To date, there are no available data on the effect that international sourcing of IT and business process services may have on wages.

Analysis of the labour market effects of international sourcing is at an early stage, but several factors should be borne in mind. First, there is scant evidence of a direct link between international sourcing and job losses. The job losses in the US IT services sector during the first years of this decade – a 7.8% decrease in employment in the IT services sector between 2000 and 2002 (BLS 2004) – was mainly due to the fall in IT investment and industry depression following the bursting of the stock market bubble. Second, job losses due to international sourcing should be seen in the context of overall job creation; for example, the 252 000 computer programming and computer software engineering jobs

predicted to migrate by 2015 (Forrester Research, 2002) should be seen in the light of the additional 1.15 million IT jobs forecasted to be created by 2012 (PPi, 2004). Third, guesstimates have focused only on potential losses: far fewer are available on how many jobs international sourcing has created in the United States and how much time and resources companies and consumers have saved owing to specialisation. Some studies to date have suggested that international sourcing in the IT sector could create more jobs than it destroys (modelled by Global Insight, 2004) and that there are important benefits for importers at the national level (*McKinsey Quarterly*, 2003).

Policy responses and their effects

Initial reaction to the growth of international sourcing, particularly outsourcing, has been defensive, with more than 100 bills pending in 38 US states to prohibit the use of foreign contractors by state and local governments; legislation has been passed in five states and vetoed in two.¹ Such responses are unlikely to be an effective means of addressing the adjustment challenges arising from international sourcing, however. First, international sourcing would be very difficult to stop since the potential range of sectors and activities likely to be affected, and the causal relationship between international sourcing and actual job losses, are unclear. Second, the scope for trade restrictions is limited because government procurement, which is the focus of most proposed legislation, accounts for a small share of imports from low-income countries. Third, trade restrictions increase costs, which are passed on directly to consumers, or taxpayers in the case of government procurement, and can undermine the competitiveness of US companies. State-level discrimination against international sourcing is also likely to make companies more discreet about their sourcing activities.

Fourth, trade-restrictive reactions may actually hurt US employment overall via negative repercussions for US exporters. A trade-restrictive response from trading partners could have serious consequences for American companies which would lose out not only in terms of international competitiveness but also in terms of export opportunities in emerging markets. Indian imports of US goods have grown by 8% a year since 1994 and trade-restrictive responses could hurt US exports of large items such as electrical machinery, chemicals and high-technology goods. The value of the Indian internal software market is expected to reach USD 27 billion in 2008 (NASSCOM, 2002) and US companies are expected to capture a considerable share of this market. Lastly, the United States is the world's largest exporter of commercial services, with more than a sixth of world exports. In 2002, the United States recorded a USD 67 billion surplus in commercial services, and the trade surpluses for "other business services" and "computer and information services" were USD 19.1 billion and USD 2.7 billion respectively (Table 11.1).

For all these reasons, a more effective response to growing imports of IT and business process services is likely to lie in the area of labour market and other domestic policies. The United States already has extensive experience in trade-related adjustment: it has been under way in manufacturing industry for some years on a larger scale than the projected adjustment challenges for IT and business process services. However, it should be stressed that the impact is still largely unknown and policy makers will need to take this into account.

Table 11.1. US trade in services, selected categories, 2002

USD billions

	Export value	Import value
Commercial services ¹	272.6	205.6
Other commercial services ¹	141.2	86.2
Other business services ²	60.8	41.6
Computer and information services ²	6.9	4.3

Source: 1. WTO Trade Statistics 2003; 2. OECD (2004h), *OECD Statistics on International Trade in Services: Detailed Tables by Service Category 1993-2002*, Vol. 1, OECD, Paris.

The main challenges from a government policy perspective are to create the underlying conditions for job creation and to ensure that workers have the necessary skills to take advantage of new opportunities. Ensuring the provision of high-quality education, from primary school to postgraduate studies, maintaining a favourable business environment, and focusing on policies that improve competitiveness – *e.g.* by encouraging activities that raise productivity and foster innovation – are all equally important.

Workers facing adjustment require support: unemployment insurance while they search for jobs or retraining opportunities for those who opt for a change of occupation. The Trade Adjustment Assistance programme established under the Trade Act in 1974 and last amended in 2002 is only offered to workers affected by international competition in goods markets. An extension to include service workers could be considered; the cost of extending the scheme would only take a small proportion of the gains from trade (see *e.g.* Brainard and Litan, 2004). Equally, however, workers might be supported by similar general social insurance and assistance schemes applied to all workers who lose their jobs; indeed, it is arguable whether assistance policies should differentiate between workers who lose their jobs from trade and those who lose their jobs as a result, for example, of technological change (for further discussion, see Chapters 2 and 3).

Case study: IBM Corporation

IBM was incorporated in 1911 and is today the world's largest IT company. Its 330 000 employees conduct business in some 165 countries and in 2003 it generated revenue of USD 89 billion, or ten times the value of Indian exports of IT products and services.

Two trends stand out in IBM's operations. First, IBM has transformed itself from being mainly a supplier of IT products to being the world's largest IT and business services provider. Second, approximately 60% of its revenue has been generated by non-US operations for the last 15 years, and in recent times revenue growth has been mainly generated by non-US markets. Between 1998 and 2003, the share of revenue from US operations decreased from 43.2% to 37.9%.

Global sourcing activities

The decision whether to produce in house or to contract to external parties (insource vs. outsource) is separate from the location decision (domestic vs. foreign/international).

Much of IBM's activity to date has consisted of international insourcing; that is, creation of a truly global value chain in which service activities are produced all over the world within IBM's own subsidiaries. IBM has regularly moved work from one location to another to support clients and its own operations more effectively and to improve efficiency by consolidating functions, matching local skills with customer needs and participating in new opportunities in emerging economies. Activities located in different countries are integrated in a global business and delivery model.

Location decisions depend primarily on the availability of skills and on quality and cost factors, which in turn vary with the activity in question; for example, commoditised activities are generally more price-sensitive. Although for some of these activities labour cost differentials between high-income countries and emerging market economies can be significant, operational risks tend to be higher and any cost-benefit analysis must consider the total costs of processes rather than labour expenses alone.

Additionally, IBM has also undertaken some international outsourcing, with some service activities contracted to external parties. Contracting of commoditised activities to specialised companies allows IBM not only to cut costs but also to focus on its core activities.

IBM provides services worldwide at all stages in the value chain, including back-office functions, business process outsourcing such as human resources and procurement, software development, regional management activities and R&D. Highly competitive markets force companies to search for high-quality, cost-competitive services all over the world in order to stay in business. Lower costs result in price cuts, dividends or reinvestment in research and product development; and the outcome depends on market characteristics such as market maturity and price competition.

More than half of IBM's employees work outside the United States and the company considers each country operation to be a long-term investment, tapping into local pools of skills. It has 22 global service delivery centres and 30 software labs around the world. IBM Research has three labs in the United States, and five elsewhere, in Beijing, Haifa, New Delhi, Tokyo and Zurich. These globally dispersed labs have contributed to placing IBM at the top of the world's patent ranking lists for more than a decade. Investment in R&D exceeded USD 5 billion in 2003.

Managing change and adjustment

IBM's work force is expanding throughout the world, but growth is particularly strong in emerging markets. For the third quarter of 2004, combined growth in the emerging markets of Brazil, China, India and Russia exceeded 30% , a figure far higher than predicted only a few years ago.

Although some activities for which cost and productivity constitute a key to competitiveness are located in emerging markets, much of the growth stems from new business opportunities. For example, growth in the Indian operations has benefited from large contracts with new clients: in early 2004, IBM won a ten-year contract with the Indian firm Bharti Televentures worth USD 700-750 million to provide the company with hardware and software, including consolidating its data centres and servicing its IT help desks and disaster recovery capabilities. Acquisitions also play a role: IBM has acquired Daksh e-Services, India's third largest call centre company, in the largest deal of its kind in India's business-processing outsourcing (BPO) industry. The new entity is now being fully integrated into IBM's global business model.

IBM estimates that around 1-2% (or 3 300-6 600) of full-time positions worldwide will be affected by a relocation of jobs in 2004, a figure below the company's average attrition rate. It also estimates that it will create 18 800 new jobs over the same period.

The number of redundancies is lowered by IBM's continuing investment in upgrading the skills of its employees. Internal replacement is a priority: the focus is to retrain people rather than hire external professionals. In 2004, IBM invested USD 800 million to upgrade the skills of its employees and an additional USD 25 million for joint training and job placement programmes for its employees and its network of business partners around the world.

IBM is, and will remain, a large employer of highly skilled service workers. The company aims to create an environment that fosters innovation in order to remain an attractive provider of business and IT services. It advises governments to do the same and to create a broader policy environment that fosters innovation: investment in skills, research, entrepreneurial activity and other policy measures that foster innovation is the sustainable way to ensure that new, high value-added jobs will be created in the future.

The European experience

International sourcing practices within the European Union

International sourcing practices in the European Union vary widely among member states, depending among other things on differences in language, cultural heritage, labour market regulations and local business practices. While trade in IT and business process services is predominantly conducted between high-income countries – either between EU member states or with trading partners in other OECD countries – EU companies are starting to realise the benefits of importing services from non-OECD countries.

Language proficiency and cultural ties play an essential role in the choice of business process service provider, and to a certain extent for IT service providers too. Thus, Indian companies have been highly successful in attracting business in the United Kingdom but have faced greater challenges in continental Europe. Morocco has quickly captured a 70% market share of the small but rapidly growing share (2-3%) of foreign call centre and support services imported by France, amid competition from Tunisia and Senegal (*Le Nouvel Observateur*, 2004; *L'Expansion*, 2004). German companies have strong ties to eastern Europe, where 59% of "planned offshoring investment" will flow according to a survey cited by Farrell (2004); a number of Spanish companies are looking to South America for delivery of IT and business process services (*Financial Times*, 2004).

Differences in the demand and supply of labour and wage levels in the recently enlarged EU have also spurred intra-EU trade in IT and business process services. Western European companies are increasingly importing services from eastern Europe, where salaries are modest and skilled labour abundant. Trade is further boosted by inflows of FDI from non-EU companies that locate regional headquarters and service centres in countries like Hungary and the Czech Republic to service customers in the European single market. However, two remarkable success stories are represented by high-income countries as providers of IT and business process services: Ireland, which has become a European centre for the provision of IT and business process services (McKinsey Global Institute, 2004), and the United Kingdom, which together with the United States introduced and cultivated the practice of outsourcing. The British trade surplus in commercial services, excluding transport and travel services, provides a hint: in

2003, it reached USD 58 billion, up from USD 49 billion in 2002 and USD 42 billion in 2001 (WTO, 2002, 2003e, 2004b).

The use of international sourcing also varies among European countries: in the United Kingdom, the proportion of companies that source services from India is similar to the relatively high proportion in the United States, while Italian companies source few IT and business process services internationally. Approximately one-quarter (USD 2.3 billion in the year ending March 2003) of India's rapidly growing exports of IT and business process services is destined for the European market, and around 60% of these services is imported by the United Kingdom, with Germany as the second most important market (NASSCOM, 2003, 2004). Companies in Germany and France are hindered from engaging IT service providers from low-income countries because of regulatory barriers such as prohibitively long waiting times for issuing work permits (international sourcing of IT services usually requires some service providers to be located at the client site). Anecdotal evidence also suggests that companies in these countries hesitate to source services internationally because of hostility from workers and unions.

Scale of the adjustment

European companies have been more reluctant to source IT and business process services internationally than their North American competitors but there are signs that international sourcing is on the rise in large companies across Europe. One influential study concluded that a cumulative 1.2 million European jobs might migrate by 2015 with clerical workers (342 000), computing professionals (119 000), “architects, engineers and related professionals” (82 000), and “production and operations managers” (76 000) expected to be most affected in absolute terms.

Two-thirds of these job losses would occur in the United Kingdom and represent approximately 6% of jobs terminated each year (see Table 11.2). Germany and France are predicted to sustain fewer job losses but they are also likely to lose out in competitiveness to American and British companies because of anticipated weak productivity performance. Another study found that German companies stand to gain from international sourcing, but the broader German economy may lose because of its less flexible labour market and its relatively low re-employment rate. That is, the flow of gains would not materialise: while the United States would gain 12-14% from international sourcing (with similar gains in the United Kingdom), Germany would lose up to 20% of the resources used to buy services abroad (McKinsey Global Institute, 2004).

In sum, the current state of international sourcing practices in Europe is multifaceted: the United Kingdom is the most affected economy in terms of jobs moving abroad, but the British government has been cautiously optimistic and pragmatic in meeting this phenomenon as its services sector has thrived and acted as an engine for job creation (DTI, 2004). Ireland has established itself as a leading centre for the delivery of IT and business process services, while large economies such as Germany, France and the Netherlands have been more hesitant to import services from low-income countries. Most Mediterranean countries are expected to be little affected by service job migration in the foreseeable future and international sourcing is more likely to be of regional nature (European Foundation, 2004). While international sourcing of IT and business process services is expected to affect fewer workers in the EU than in the United States, European workers are generally more likely to have difficulty finding a new job because of higher unemployment rates and lower re-employment rates.

Table 11.2. European jobs moving abroad¹

	2005-10	2005-15
United Kingdom	264 900	702 400
Germany	53 000	131 900
France	37 300	97 600
Netherlands	14 100	34 000
Italy	10 100	26 400
Sweden	7 800	18 800
Belgium	6 700	16 700
Switzerland	5 800	14 300
Denmark	5 000	12 200
Austria	4 600	11 300
Finland	4 100	10 100
Spain	3 800	9 400
Ireland	1 400	3 600
Portugal	900	2 300
Greece	800	2 100
Luxembourg	350	850
Sum	420 400	1 089 000

1. Cumulative numbers.

Source: Forrester Research (2004), "Two-Speed Europe: Why 1 Million Jobs Will Move Offshore".

India

Trade in IT and business process services is growing rapidly and the growth potential is significant. Indian exporters have done well: during the 1990s India recorded the highest growth rate (17.3% a year) of services exports among the world's top 15 exporters (World Bank, 2004b) (see Box 11.1). The software and services industry represented 2.7% of GDP in 2003 and 13% of total exports, or roughly 40% of commercial services exports, in 2002 (NASSCOM, 2004a; WTO, 2003e; World Bank, 2004c).² India ranked 37th in business competitiveness (out of 95 countries) in the World Economic Forum's *Global Competitiveness Report 2003-2004* – ahead of China (46) and most other low-income countries. However, the continuing rapid growth of India's IT and business process service industry cannot be taken for granted. Other low-income countries are trying to catch up and growth may be limited by the introduction of regulatory trade barriers in client countries. This section explores how government policy at the national and state level in India may contribute to sustaining the competitiveness of the industry.

Institutions and domestic policies

Indian IT and business process service providers operate in a relatively favourable business environment, with states competing to attract investment. High-technology parks offering reliable (and subsidised) public services and ICT infrastructure have been established across the country. Duty-free imports and corporate income tax exemptions

are available for exporters in many instances. Competition among states has also prompted regulatory reform: some states with significant ITeS sectors have changed their local labour regulations to allow female employees to work at night and relaxed regulations on overtime work. Even a communist-run state such as West Bengal, with a reputation for labour unrest, has declared its IT sector an “essential service” in order to reduce the number of strikes and attract investment.

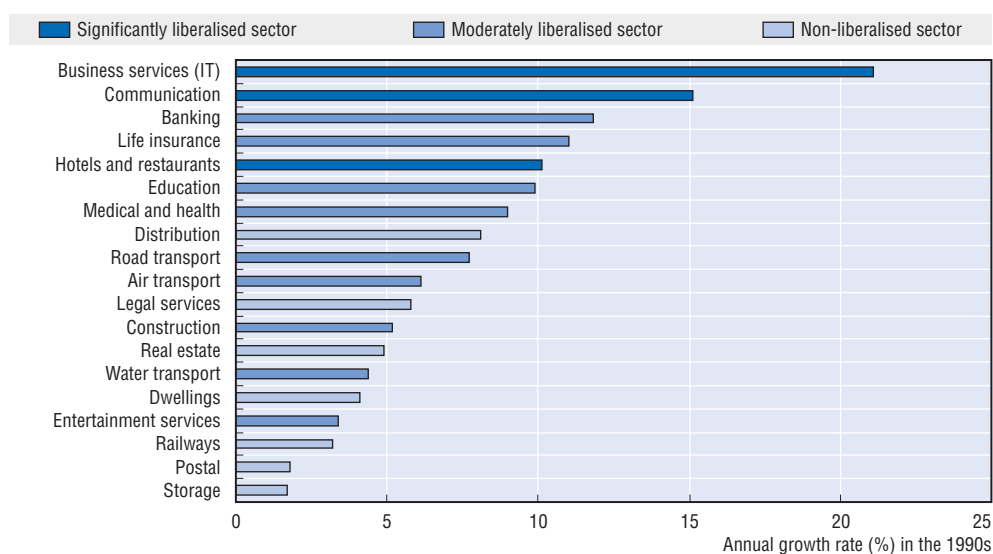
However, there are several areas in which the Indian government could improve conditions for entrepreneurs. Overall, the regulatory environment for businesses and small-scale entrepreneurs remains poor. It takes almost three months to establish a company in India, or four times the number of days as in neighbouring Pakistan; and costs 50% of gross national income (GNI) per capita, almost four times the cost in China. The time frame for enforcing a contract – approximately one year – is twice what it is in China. Moreover, India is ranked 83rd (out of 133 countries) in Transparency International’s Corruption Perceptions Index 2003 and its corruption index (2.8 out of 10, with a lower index indicating higher corruption) has not changed since the survey was first conducted in 1995. Also, 61% of Indian businesses report that more than 10% of senior management time is occupied by government regulations – the highest share in 145 countries (World Bank, 2004d).

Education is a potential bottleneck in the medium term. The ITS sector has benefited from the large and growing number of IT graduates that India produces every year. Almost 100 000 IT graduates are expected to join the labour market in 2004 (NASSCOM, 2002). Jobs in the ITS sector are well paid and coveted, and the number of new IT graduates has grown at an annual average of 13% since 1997. The ITeS sector has also benefited from India’s young, well-educated and English-speaking talent pool. However, despite the large population, continued expansion of the service sector could place pressure on the availability of skilled labour in the medium and long term (BBC, 2004).

Indeed, India’s large population is not necessarily a useful reference point for discussing labour capacity in the services export sector. Weaknesses in India’s primary and secondary schools are limiting the number of potential recruits for the industry, and much of the Indian work force speaks little or insufficient English. The educational challenge lies in producing both the number of graduates needed for a rapidly growing export industry in basic services and the kinds of specialist skills needed for high-end support services. Labour demand predictions indicate that in the future ITeS companies may need accountants, radiographers and tax specialists, for example, to provide more specialist support functions. Equally, India will need to produce more researchers in ICT to foster product innovation and develop domain expertise.

Growth and trade liberalisation

While Indian productivity lags behind high-income countries in the manufacturing and services sectors, the gap is less pronounced in the software, telecommunications and software services and products sectors (McKinsey, 2001). This relatively smaller gap may be explained by a positive correlation between sector-specific liberalisation and growth (Figure 11.1). IT services and telecommunications are two of three “significantly liberalised sectors” and these sectors experienced the highest growth rates among examined industries in the 1990s. Indeed, the Indian IT sector more generally was greatly assisted by the wave of reform and liberalisation undertaken by the Indian government in the early 1990s (see the Infosys case study below).

Figure 11.1. Growth and gains from liberalisation, selected sectors

Source: World Bank, World Development Indicators Database, 2004.

Despite tangible gains – e.g. the price of a phone call between India and the United States or the United Kingdom fell by 84% between 2000 and 2003 (HSBC, 2003) – problems remain. NASSCOM (2004b) recently reported that users find India’s bandwidth capacity inadequate, “extremely high-priced” and uncompetitive when compared to other Asian countries offering IT and business process services. While Indian high-technology parks provide enabling infrastructure in major IT centres, daily life in these centres is becoming increasingly difficult as fast and unplanned growth has led to heavy traffic congestion, pollution and housing and power shortages. There is also a growing demand for improved international transport links to IT centres like Bangalore and Hyderabad. In addition, the rapidly expanding IT industry is considering new locations in India from which to deliver services because some existing IT centres suffer from rapid salary growth and high attrition rates. These future, second-generation IT centres are facing the same infrastructure challenges that today’s IT centres did three to five years ago.

Services liberalisation could play an important role in improving the quality of Indian infrastructure and generate future export opportunities and growth in both services and goods. India itself has benefited from the openness of other markets, including the developing country markets that are increasingly important FDI locations for the Indian software industry. The Infosys case study illustrates how Indian companies increasingly establish foreign subsidiaries to supply customised services to their clients. Greater openness of the Indian economy may also improve India’s bargaining position when combating trade restrictions in trading partners.

In addition to the threatened legislative prohibitions on government procurement, Indian exporters of IT and business process services currently confront barriers to movement of service providers. A serious concern is the quantitative restrictions that impede the movement of Indian professionals to provide services at client sites. Economic needs tests and wage parity requirements are just some of the regulations that make IT consultants’ work more difficult. Other constraints include inadequate

recognition of qualifications, training and experience, and differential treatment of foreign service providers. As approximately 60% of India's software exports may be generated from work at client sites (Mattoo, 2003), restrictions on mode 4 trade could pose a serious threat to the industry's long-term growth potential.

Case study: Infosys Technologies Ltd

The Indian government adopted a reform agenda in 1991 following a severe balance-of-payments and fiscal crisis. The reforms aimed at gradually restructuring India's highly protected planned economy and policies were implemented to reduce government control over market entry, trim tariffs and quotas on goods, and ease strict limits on FDI. These moves pushed India towards a more market-oriented and open economy and prompted pioneering companies such as British Airways, General Electric and Citigroup to enter the country to set up IT services and back-office operations for their English-speaking markets. These new establishments transferred knowledge and some employees soon chose to establish their own service companies. The Indian IT services sector took off when companies like Infosys began to target foreign multinationals (see Box 11.1), aided by the best practices and risk capital brought back or provided by Indian professionals working in the US IT industry.

Infosys made a name for itself in the late 1990s as one of the most admired and fast-growing Indian IT services companies. In March 1999 it became the first Indian company to list its shares on NASDAQ. Countless companies have tried to copy its global delivery model which manages projects and supplies services from multiple locations around the world. Infosys was also one of the first Indian IT companies to compete on quality rather than cost, and much of its success has been attributed to its proven track record on timely delivery of high-quality services. The company has grown by almost 800% over the last five years; scalability is a comparative advantage of Indian companies such as Infosys which can take on big projects engaging hundreds of professionals on short notice. Infosys's North American and European markets generated 71% and 19% of revenue, respectively (Table 11.3) and services are provided to a range of industry segments. Infosys's software professionals spend around one-third of their time at client sites and the rest at domestic software development centres. Owing to wage parity requirements and expenses related to offshore work, around half (53% in 2004) of total revenues were generated from billings by professionals working at client sites.

Foreign expansion and future challenges

Over the past two years, Infosys has adopted a diversification strategy to become a full business services provider, with both a more sophisticated package of business services and expansion into business process outsourcing. This has included investment in developed country markets: in 2003 Infosys acquired an Australian company with 330 employees to add to its 73 employees at Infosys Australia, and in 2004 it established a consulting branch in the United States. The US branch will hire 75 local consultants to work with five senior managers recruited from US competitors. By early 2007, Infosys Consulting aims to employ some 500 consultants in its American offices. Infosys is also targeting developing countries with a software banking solution for low-income countries, and it recently established a development centre in Shanghai to serve the East Asian market.

Table 11.3. Infosys key data, end of March 2004

Revenue (USD millions)	1 063
Net income (USD millions)	270
Employees (number)	25 634
Revenue by geographic segment	
North America	71.3%
Europe	19.2%
India	1.4%
Rest of the world	8.1%
Revenue by industry segment	
Financial services	36.6%
Manufacturing	14.8%
Telecom	16.6%
Retail	11.7%
Other	20.4%

Source: Infosys.

Box 11.1. Factors in the success of Infosys

Infosys's global delivery model for services has gone from strength to strength since the mid-1990s: Indian exports of IT services and IT-enabled services reached USD 12.5 billion in the year ending March 2004. Several factors contributed to the early success of the Indian IT services sector:

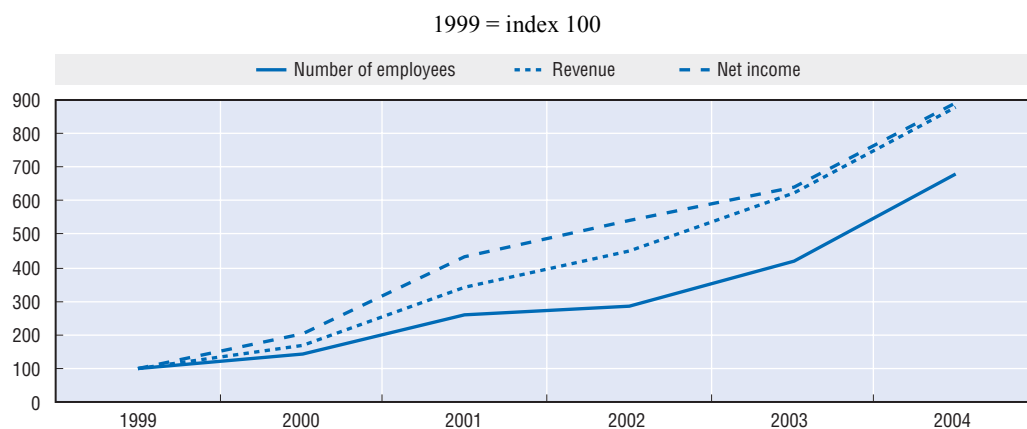
- **Independent growth path:** The young industry was relatively unaffected by domestic inefficiencies resulting from the Indian legacy of protectionism and industrial state planning.
- **Foreign competition:** Most IT companies developed without a domestic client base and faced international competition from the beginning. In order to win contracts, Indian service companies had to be not just as good as their foreign competitors, but better.
- **Innovative delivery model:** The modes of service delivery – including cable, satellite and temporary movement of professionals to client sites – circumvented a number of trade and regulatory barriers.
- **Investment in tertiary education:** The industry is highly labour- and skills-intensive and less dependent on capital and infrastructure. India's large and well-educated labour force matched the requirements for a thriving ITS and business-processing services industry and rewarded previous investment in tertiary education.

While its previous business model was based around efficient marketing and sales organisations in client countries with headquarters, administration and operations situated in India, Infosys is now leading the way for the Indian IT services sector by establishing small, but not insignificant, front offices in client countries. Infosys plans to deploy

around 30% of its work force in client countries, of which around half would be local hires (the other half would continue to be rotated in and out of India and client country offices). This is a big step: front offices alter the cost equation by adding local professionals with local salaries and overhead costs and pose many new challenges related for example to management and corporate culture. It also demonstrates an interesting convergence: companies such as Infosys are adopting a business model similar to those of OECD multinationals, in global, higher value-added activities, just as OECD IT services companies are transforming their operations to include a larger offshore component.

Rapid growth puts stress on hiring and service quality. Remuneration grew by 17% in 2004 and salaries have grown by approximately 13% annually over the last five years. Infosys last year recruited 10 000 people from nearly 1 million job applications (Figure 11.2). This year it expects to add another 10 000 to its payroll. The scale of the expansion is difficult to manage and Infosys invests heavily in in-house training and retraining.

Figure 11.2 Infosys growth indicators



Source: Infosys.

Restrictions on temporary movement of natural persons remain a serious concern. Quotas for temporary work visas in key client markets are not only low but tend to fluctuate with the political climate and the business cycle. In Europe, bureaucracy and regulatory barriers add to the problems – recent changes in France have slowed down the issuance of work permits. This has concrete consequences: a large western European bank recently approached Infosys to help it integrate four Asian partners using its banking software solution. The project had a three-month deadline and the deal was brought down when visa processing times for key staff proved too long. However, Infosys recognises that it has limited ability to influence foreign country visa policies and has taken a pragmatic approach, investing in a global automatic visa application system to facilitate the often cumbersome application process.

The threat of trade-restrictive measures in some of Infosys' main markets have yet to create any commercial problems, including because public-sector contracts make up less than 2% of Infosys' exports to the United States. However, the company is keeping a close watch on the debate and is helping to improve data. It remains sensitive to the issue and to the need for corporate social responsibility in markets where it operates.

While acknowledging that the IT industry has already enjoyed strong support from the Indian government, for example through the removal of burdensome regulations, the company identified four priority areas for government policy in the future. First, investment in basic and higher education will be essential if the size of the talent pool is to match the growth of the industry. Second, the government could do more to advise and support small and medium-sized enterprises in becoming more competitive. Third, investment in affordable and easy-to-use technology will allow more people to tap into their talents. Finally, investment in infrastructure needs to be increased to keep pace with the rapid expansion of the IT industry.

Notes

1. The National Foundation for American Policy, cited in *The New York Times*, 17 July 2004. Proposed restrictions include “call centre restrictions”, “state contract bans”, “bans on assistance to companies that outsource overseas and have 100-person job loss”, “data restrictions”, “in-state preference”, “development restrictions for companies that outsource overseas”, “in-state resident requirement for state contractors”, “personal data and health care restrictions”, “outsourcing notification requirements” (Klinger and Sykes, 2004).
2. Indian trade data for IT services are collected from industry surveys conducted by India’s National Association of Software and Service Companies (NASSCOM). See OECD’s *Information Technology Outlook 2004* for a discussion of the inadequacy of existing data.

Bibliography

- Agosin, Manuel (2002), “Export Performance in Chile: Lessons for Africa”, in Helleiner (2002), pp. 72-106.
- Agrawal, V., D. Farrell and J.K. Remes (2003), “Offshoring and Beyond”, *The McKinsey Quarterly*, Issue No. 4, Global Directions.
- Agroecómico (2004a), “Certificarse: Más que un Desafío, una Obligación”, revista n° 78, www.agroecologico.cl/, January.
- Agroecómico (2004b), “El Balance de 2003 y Cómo Viene 2004”, revista n° 79, www.agroecologico.cl/, March.
- Ahmed, Nasiruddin (2001), *Trade Liberalization in Bangladesh: An Investigation into Trends*, The University Press, Dhaka.
- Alexandraki, Katerina (2005), “Preference Erosion: Cause for Alarm?”, Finance and Development, IMF.
- Ancharaz, V.D. (2003), “FDI and Export Performance of the Mauritian Manufacturing Sector”, Department of Economics and Statistics, Faculty of Social Studies and Humanities, University of Mauritius, Réduit, <http://r0.unctad.org/p166/reduit2004/module6/FDI%20and%20Export%20Performance.pdf>.
- Anderson, K. and Y. Hayami (1986), *The Political Economy of Agricultural Protection*, Allen and Unwin, Sydney.
- Anderson, J.L. (2003), *The International Seafood Trade*, Woodhead Publishing Limited, Cambridge, England.
- Anker, Richard and Rajendra Paratian (1998), *Studies on the Social Dimensions of Globalization: Mauritius*, International Labour Organisation, Geneva.
- Appleyard, Dennis R. and Alfred J. Field, Jr. (2001), *International Economics*, Fourth Edition, McGraw-Hill, NY.
- Arancibia, C. P. (1995), “Structural Adjustment and Agricultural Performance: The Chilean Case”, in Weeks (1995).
- Arora, Vivek and Ashok Bhundia (2003), “Potential Output and Total Factor Productivity Growth in Post-Apartheid South Africa” *IMF Working Paper* WP/03/178, IMF, Washington, DC.
- Asociación de la Industria del Salmón (2004a), “Producción mundial de salmón y trucha cultivado 1992-2003”, 1 April.
- Asociación de la Industria del Salmón (2004b), “Exportaciones chilenas de salmón y trucha 1992-2003 por mercados”, 19 April.

- Bacchetta, Marc and Marion Jansen (2003), *Adjusting to Trade Liberalization: The Role of Policy, Institutions and WTO Disciplines*, Special Studies 7, WTO, Geneva.
- Ballard, Charles L., John B. Shoven and John Whalley (1985), “General Equilibrium Computations of the Marginal Welfare Costs of Taxes in the United States”, *The American Economic Review*, Vol. 75, No 1, 128-138.
- Baltzan, B. and A. Tate (1995), *Harley-Davidson and Adjusting to the Costs of Free Trade*, Institute for the Study of Diplomacy, Georgetown University.
- Bardhan, A.B. and C. Kroll (2003), “The New Wave of Outsourcing”, *Fisher Center Research Reports*, Paper 1103, <http://repositories.cdlib.org/iber/fcreue/reports/1103>.
- Barker, J., N. Lewis and W. Moran (2001), “Reregulation and the Development of the New Zealand Wine Industry”, *Journal of Wine Research*, Vol. 12, No 3, Carfax Publishing, pp. 199-221.
- Barnes, Justin (2000a), *Domestic Market Pressures Facing the South African Automotive Components Industry*, Research Report No.33, School of Development Studies, Natal.
- Barnes, Justin (2000b), *International Customer Perceptions of South African Automotive Component Manufacturer Performance Levels*, Research Report No.32, School of Development Studies, Natal.
- Bartelsman, Eric, John Haltiwanger and Stefano Scarpetta (2004), “Microeconomic Evidence of Creative Destruction in Industrial and Developing Countries”, IZA Discussion Paper No. 1374, October.
- Belfor, Portilla R. (2000), *La política agrícola en Chile: lecciones de tres décadas*, Serie Desarrollo Productivo 68, División de Desarrollo Productivo y Empresarial, ECLAC, February.
- Belska, Marek (2001), “Lessons from the Polish Transition”, in George Blayca and Ryszard Rapacki, eds., *Poland into the New Millennium*, Edward Elgar, Cheltenham.
- Benavides, Díaz (2002), “Trade in Health Services: Global, Regional and Country Perspectives”, in Cesar Vieira, ed., *Trade in Health Services*, Pan American Health Organisation, Program on Public Policy and Health, Division of Health and Human Development, Washington, DC, www.paho.org/English/HDP/HDD/trade.htm.
- Bhattacharya, Debapriya and Mustafizur Rahman (2000), “Bangladesh’s Apparel Sector: Growth Trends and Post-MFA Challenges”, in Pratima Paul-Majumder and Binayak Sen (eds.) (2000).
- Bhundia, Ashok and Jan Gottschalk (2003), “Sources of Nominal Exchange Rate Fluctuations in South Africa” *IMF Working Paper* WP/03/252, IMF, Washington, DC.
- Bjørndal, Trond (2002), The Competitiveness of the Salmon Aquaculture Industry, *Aquaculture Economics and Management*, 6 (1/2), pp. 97-116.
- Black, Anthony (2001), *Globalisation and Restructuring in the South African Automotive Industry*, Cape Town.
- Blainey, Geoffrey (1966), *The Tyranny of Distance: How Distance Shaped Australia’s History*, MacMillan, Melbourne.

- Bolaky, Binesuaree and Caroline Freund (2004), “Trade, Regulations and Growth”, World Bank Policy Research Working Paper, World Bank, Washington, DC.
- Bonaglia, F. and K. Fukasaku (2002), *Trading Competitively: Trade Capacity Building in Sub-Saharan Africa*, Development Centre Studies, OECD, Paris.
- Bonaglia, F. and K. Fukasaku (2003), “Export Diversification in Low-income Countries: An International Challenge After Doha”, *OECD Development Centre Working Papers*, No. 209, June, OECD, Paris.
- Bost F. (2001), *Les Zones Franches en Afrique Subsaharienne*, Centre Français du Commerce Extérieur.
- Brainard, L. and R.E. Litan (2004), *Services Offshoring: Bane or Boon and What To Do?*, CESifo Forum 2/2004.
- Brenton, Paul and Takako Ikezuki (2005), “The Impact of Agricultural Trade Preferences, With Particular Attention to the Least-Developed Countries”, in *Global Agricultural Trade and Developing Countries*, M. Ataman Aksoy and John C. Beghin (eds.), World Bank, Washington, DC.
- British Broadcasting Corporation (BBC) (2004), *Indian Tech Firms Face Skills Gap*, <http://news.bbc.co.uk/2/hi/business/3652382.stm>.
- Brooks, Jonathan and Sabrina Lucatelli (2004), *International Competitiveness of the ABC Agro-Food Sector*, OECD, Paris.
- Bureau of Labor Statistics (BLS) (2004a), *Occupation Outlook Handbook*, www.bls.gov/news.release/ecopro.nr0.htm.
- BLS (2004b), *Business Employment Dynamics: Second Quarter 2003*, www.bls.gov/news.release/pdf/cewbd.pdf.
- BLS (2004c), “Displaced Workers Summary”, News: United States Department of Labor, Washington, DC, www.bls.gov/news.release/disp.nr0.htm.
- Canevali, A. (n.d.), *The Restructuring of the EU Steel Industry*.
- Capra-TFOC Consortium (2003), *Evaluation of the Revamped Integrated Framework For Trade-related Technical Assistance to the Least-developed Countries*, Final Report, World Trade Organization, Integrated Framework Steering Committee, WT/IFSC/6/Rev.2 November.
- Carey, David (2002), “Coping with Population Ageing in the Netherlands”, *Economics Working Papers* No. 325, OECD, Paris.
- Carrillo, J., Y. Lung and R. van Tulder (eds.) (2004), *Cars, Carriers of Regionalism?*, Palgrave MacMillan, Great Britain.
- CBS (2004), *The Economic Survey 2004*, Kenyan Central Bureau of Statistics.
- Central Statistics Office of Mauritius (CSO) (2002), *2001/02 Household Budget Survey*, CSO.
- CSO (2004a), *Export Processing Zone*, 4th Quarter 2003, CSO.
- CSO (2004b), *External Trade Data*, 4th Quarter 2003, CSO.
- Chanda, Rupa (2002), “Trade in Health Services: Global, Regional and Country Perspectives”, in Cesar Vieira ed., *Trade in Health Services*, Pan American Health

- Organisation, Program on Public Policy and Health, Division of Health and Human Development, Washington, DC, www.paho.org/English/HDP/HDD/trade.htm.
- Chernoff, Brian and Andrew Warner (2002), *Sources of Fast Growth in Mauritius: 1960-2000*, Center for International Development, Harvard University.
- Christoffersen, Susan, Davinder K. Malhotra and Anusua Datta (2003), “Optimal Investment Strategies for Enhanced Productivity in the Textile Industry”, NTC Project: S01-PH13, www.ntcresearch.org/pdf-rpts/Bref0603/S01-PH13-03e.pdf.
- Collinson, Chris (2001), “The Business Costs of Ethical Supply Chain Management: Kenya Flower Industry Case Study”, *NRI Report No. 2607*, Natural Resources Institute.
- CONAPO (2003), “La situación demográfica de México en 2002”, Consejo Nacional de Población, Mexico City.
- Conybeare, John (2004), *Merging Traffic: The Consolidation of the International Automobile Industry*, Rowman & Littlefield, Lanham, Maryland.
- Costello, M. (2003), “Program Taps Foreign-trained Nurses in U.S. 24-03-2003”, www.hospitalconnect.com/ahanews/jsp/display.jsp%3Fdcpath%3DAHA/NewsStory_Article/data/AHA_News_032403_Program_taps%26domain%3DAHANEWS+Mexican+nurses+in+U.S&hl=es.
- Council for Regulatory Reform (2002), *Second Report Regarding Promotion of Regulatory Reform: Priority Regulatory Reform Measures to Promote Economic Vitalization*, Council for Regulatory Reform, Tokyo, www8.cao.go.jp/kisei/en/021212report/.
- Dabee, Rajeen and David Greenaway (2001), *The Mauritian Economy*, Palgrave.
- Danish Directorate of Fisheries, *Yearbook of Fishery Statistics*, several editions.
- Danish Research Institute of Food Economics, *Account Statistics for Fisheries*, several editions.
- Department of Trade and Industry (DTI) (2004), *Services and Offshoring: The Impact of Increasing International Competition in Services*, www.dti.gov.uk/ewt/offshoring.pdf.
- DeVoretz D. and K. G. Salvanes (1993), Market Structure for Farmed Salmon, *American Journal of Agricultural Economics*, 75 (February), 227-233.
- Diario La Raza (2004), *Cambio de requisitos para enfermeras extranjeras*, Publicado el 17-07-2004.
- Dijkstra, Tjalling (2001), “Export Diversification in Uganda: Developments in Non-traditional Agricultural Exports”, *African Study Centre Working Papers*, No. 47, Leiden University.
- Dirección General de información y evaluación del desempeño de la Secretaría de Salud (2001), “Información básica sobre recursos y servicios del Sistema Nacional de Salud”, *Sal, Pub, Mex. Vol.43, No. 6*, pp. 614-623. Mexico City.
- Dirven, Martine (2002), *Los encadenamientos de la agricultura chilena -acercamiento a una medición*, División de Desarrollo Productivo y Empresarial, ECLAC, March.
- Dixon, Chris (1999), *The Thai Economy: Uneven Development and Internationalisation*, Routledge, London and New York.

- Docteur, Elisabeth and Howard Oxley (2003), “Health-care Systems: Lessons from the Reform Experience”, *OECD Health Working Papers*, OECD, Paris.
- Doremus, Paul N., William W. Keller, Louis W. Pauly and Simon Reich (1998), *The Myth of the Global Corporation*, Princeton University Press, Princeton, New Jersey.
- Dowlah, CAF (1998), *The Consequences of GATT Uruguay Round for the Textile and Garments Sector in Bangladesh*, GTZ/DC.CI Business Advisory Services, Dhaka.
- Drezner, D. (2004), “The Outsourcing Bogeyman”, in *Foreign Affairs*, May/June issue, www.foreignaffairs.org/20040501faessay83301/daniel-w-drezner/the-outsourcing-bogeyman.html.
- Duncan, R. and D. Quang (2002), *Trade Liberalisation, Economic Growth and Poverty Reduction Strategies*, Australian National University and Government of Australia – AusAID, www.aid.gov.au/research.
- Durberry, Ramesh (2001), “The Export Processing Zone”, in Dabee and Greenaway (2001).
- Ebony Consulting International (2001), *The Kenyan Green Bean Subsector*, A Report for DFID Kenya.
- Edwards, Sebastian and Alejandra Cox Edwards (1991), *Monetarism and Liberalization: The Chilean Experiment*, The University of Chicago Press, Chicago.
- Edwards, Sebastian and Alejandra Cox Edwards (2000), “Economic Reforms and Labour Markets: Policy Issues and Lessons from Chile”, *Economic Policy* 30, pp. 183-229.
- European Central Bank (ECB) (2003), “Structural Factors in the EU Housing Market”, European Central Bank, March.
- European Commission (1986), *Final Report from the Commission to the Council*, COM (86)235.
- European Commission (1997), *Agenda 2000: Commission Opinion on Poland’s Application for Membership of the European Union* (avis), European Commission, Brussels.
- European Foundation for the Improvement of Living and Working Conditions (2004), *Outsourcing of ICT and Related Services in the EU*.
- Evans-Klock, Christine, Peggy Kelly, Peter Richards and Corinne Vargha (1998), “Worker Displacement: Public Policy and Labour-Management Initiatives in Selected OECD Countries”, *ILO Employment and Training Papers*, Geneva.
- Farrell, D. (2004), “How Germany Can Win From Offshoring”, *The McKinsey Quarterly*, No. 4.
- Faruqee, Hamid and Martin Mühleisen (2003), “Population Ageing in Japan: Demographic Shock and Fiscal Sustainability”, *Japan and the World Economy*, Vol. 15, Issue 2, pp. 185-210.
- Fernandes, Ana M. (2003), *Trade Policy, Trade Volumes and Plant-Level Productivity in Colombian Manufacturing Industries*, World Bank, Washington, DC.
- Ffrench-Davis, Ricardo (2002), *Economic Reforms in Chile: From Dictatorship to Democracy*, The University of Michigan Press, Ann Arbor, Michigan.

- Financial Times* (2004), “When Push Comes to Shove”, Special Report: Including News from the FT/Nasscom Conference, 1 December.
- Finger, J. Michael, Merlinda D. Ignco and Ulrich Reinke (1996), *The Uruguay Round: Statistics on Tariff Concessions Given and Received*, The World Bank, Washington, DC.
- Fischer, R. (2001), *Trade Liberalization, Development and Government Policy in Chile*, University of Chile, August.
- FKAB Feldt Consulting (2001), *Sector Study of the Horticultural Export Sector in Kenya*, A Study made on behalf of USAID, Kenya.
- Food and Agriculture Organization (FAO) (2000), “Fishery Country Profile”, FAO, May.
- Forrester Research (2002), “3.3 Million US Services Jobs To Go Offshore”.
- Forrester Research (2004), “Two-Speed Europe: Why 1 Million Jobs Will Move Offshore”.
- Frost, H., R. Lanters, J. Smit and P. Sparre (1995), *An Appraisal of the Effects of the Decommissioning Scheme in the case of Denmark and the Netherlands*, Report to the European Commission No. 16 from the Danish Institute of Fisheries Research, South Jutland University Centre, Denmark.
- Galbraith, Lynn (2004), “BMW’s Drive against AIDS”, Lynn Galbraith, ed., *South African Automotive Industry Yearbook & Industry Database 2004*, compact disk, Balgair Publications, KwaZulu Natal, South Africa.
- Gartner Dataquest Guide (2003), *Worldwide IT Services Market Definitions Guide, 2Q03*, www4.gartner.com/resources/116300/116318/116318.pdf.
- Gelston, S. (1999), “Prescriptions for Private Health Care in Developing Countries”, www2.ifc.org/publications/pubs/impact/impssp99/s9doctor/s9doctor.html.
- General Accounting Office (GAO) (2001a), *Trade Adjustment Assistance: Improvements Necessary, but Programmes Cannot Solve Communities’ Long-Term Problems* GAO-01-988T, Washington, DC.
- GAO (2001b), *Trade Adjustment Assistance: Experiences of Six Trade-Impacted Communities* GAO-01-838, Washington, DC.
- Gereffi, Gary and Olga Memedovic (2003), *The Global Apparel Value Chain: What Prospects for Upgrading by Developing Countries*, United Nations Industrial Development Organization, Vienna.
- Gereffi, G., D. Spener and J. Bair (eds.) (2002), *Free Trade and Uneven Development, The North American Apparel Industry after NAFTA*, Temple University Press, Philadelphia.
- Gerschenkron, Alexander (1962), *Economic Backwardness in Historical Perspective*, Harvard University Press, Cambridge, Massachusetts.
- Ghosn, Carlos (2002), “Saving the Business Without Losing the Company”, *Harvard Business Review*, Vol. 80, No.1, January.
- Gibbon, Peter (2000), ““Back to the Basics’ through Delocalisation: The Mauritian Garment Industry at the End of the Twentieth Century”, CDR Working Paper 00.7, Centre for Development Research (CDR), Copenhagen.

- Gibbon, Peter (2002), “South Africa and the Global Commodity Chain for Clothing: Export Performance and Constraints”, CDR Working Paper 02.7, CDR, Copenhagen.
- Gibbon, Peter (2003), “AGOA, Lesotho’s “Clothing Miracle’ and the Politics of Sweatshops”, *Review of African Political Economy*, No. 96, pp. 315-350.
- Gibbs, Andrew and Tim Gibbs (2002), *A Water Supply and Pollution Crisis in Lesotho’s Textile Factories: The Problems of Footloose Investment*, University of Natal, Durban.
- Global Insight (2004), *The Impact of Offshore IT Software and Services Outsourcing on the US Economy and the IT Industry*, Sponsored by Information Technology Association of America.
- Gobierno de Chile (2001), “Una Política de Estado para la Agricultura Chilena Período 2000-2010”, Ministerio de Agricultura.
- Gordon, D.V. and R. Hannesson (1996), “On Prices of Fresh and Frozen Cod Fish in European and U.S. Markets”, *Marine Resource Economics*, 11, PP. 223-238.
- Goss, Jasper (2002), “Shrimp Farms or Shrimp Harms?”, *Samudra*, International Collective in Support of Fishworkers (ICSF), August.
- Goss, Jasper *et al.* (2000), “Agri-Food Restructuring and Third World Transnationals: Thailand, the CP Group and the Global Shrimp Industry”, *World Development*, Vol. 28, No. 3, pp. 513-530.
- Government of the People’s Republic of Bangladesh, Ministry of Textiles (1995), *Textile Policy – 1995*, Dhaka.
- Grandes, Martin (2003), “Macroeconomic Convergence in Southern Africa: The Rand Zone Experience”, *OECD Development Centre Working Papers*, No. 231, www.oecd.org/dev/wp.
- Gray, David (2003), “Growing around the World: Floriculture in East Africa”, *Floraculture International*, www.floracultureintl.com/archive/articles/705.asp.
- Gulhati, Ravi and Raj Nallari (1990), “Successful Stabilization and Recovery in Mauritius”, *EDI Development Policy Case Series*, Analytical Case Studies, Number 5, Economic Development Institute of the World Bank.
- Haacker, Marcus (2002) “The Economic Consequences of HIV/AIDS in Southern Africa”, IMF Working Paper, WP/02/38, Washington, DC.
- Haar, Jerry and Sylvia Reyes (2000), *Economic Reform, Trade Liberalization, and Global Competitiveness: The Case of Colombia’s Apparel Industry*, North-South Agenda Papers #43 North-South Center, Coral Gables, Florida.
- Hatch, J. (1984), “Harley-Davidson Case: Escaping the Escape Clause”, *Law and Policy in International Business*, Vol. 16, pp. 325-349.
- Hatcher, A.C. (1997), *The European Community’s Tariff Regime for Fish Imports 1988-94*, Report to the European Commission No. 46 from the Centre for the Economics and Management of Aquatic Resources, University of Portsmouth.
- Havas, Attila (2000), “Changing Patterns of Inter- and Intra-regional Division of Labour: Central Europe’s Long and Winding Road”, in Humphrey, Lecler and Salerno (2000).

- Helleiner, G.K., ed. (2002), *Non-traditional Export Promotion in Africa: Experience and Issues*, United Nations University, Palgrave.
- Hildegunn, Kyvik Nordås (2004), “The Global Textile and Clothing Industry post the Agreement on Textiles and Clothing”, *WTO Discussion Paper 5*, Geneva.
- Hlekiso, Thami (2004), “Employment Gains and Losses by Sector and Subsector Between 1980 and 2001”, *Labour Market Frontiers*, No. 5, June.
- Hoekman, B. and B.S. Javorcik (2004), “Policies Facilitating Firm Adjustment to Globalization”, Discussion Paper Series, No. 4692, Centre for Economic Policy Research, London.
- Hoekman, B., C. Michalopoulos and A. Winters (2003), “More Favorable and Differential Treatment of Developing Countries: Towards a New Approach in the WTO”, World Bank Policy Research Working Paper 3107..
- Homedes, N., A.W. Nichols, P.A. LaBrec and A.E. Geller (1994), “The Use of Arizona Physician Services by Residents of Mexico”, *Salud Pública México* 36, pp. 129-139.
- Homedes, N. and A. Ugalde (2003), “Globalization and Health at the United States – Mexico border”, *American Journal of Public Health*, Vol. 93, No. 12, December, pp. 2016-2022.
- Hong Kong Shanghai Banking Corporation (HSBS) (2003), *World Economic Watch*, November.
- Hossain, Ismail (2002), “Export Processing Zones in Bangladesh and Industrial Relations”, in Muqtada, Singh and Rashid (2002).
- Hufbauer, G.C., D.T. Berliner and K.A. Elliott (1986), *Trade Protection in the United States: 31 Case Studies*, Institute for International Economics, Washington, DC.
- Huitric, Miriam, Carl Folke and Nils Kautsky (2002), “Development and Government Policies of the Shrimp Farming Industry in Thailand in Relation to Mangrove Ecosystems”, *Ecological Economics*, Vol. 40, No. 3, pp. 441-455.
- Humphrey, J., Y. Lecler and M. Salerno (2000), *Global Strategies and Local Realities: The Auto Industry in Emerging Markets*, MacMillan Press, London.
- Huws, H. and S. O’Regan (2001), *eWork in Europe: The EMERGENCE 18-Country Employer Survey*, Institute for Employment Studies, IES Report 380, Brighton.
- Iizuka, Michiko (2004), “Organizational Capability and Export Performance: The Salmon Industry in Chile”, SPRU University of Sussex, Paper presented at the DRUID Winter Conference 22-24 January, www.druid.dk/conferences/winter2004.
- Imai, Yutaka (2002), “Health Care Reform in Japan”, Economics Working Papers, No. 321, OECD, Paris.
- Instituto Nacional de Estadísticas (INE) (2004), *Estadísticas de Ocupación y Desocupación*, Series Estadísticas Trimestre Febrero-Abril del 2004, Chile Instituto Nacional de Estadísticas.
- Instituto Nacional de Estadística, Geografía, Informática (INEGI) (2000), “XII Censo General de Población y vivienda 2000”, www.inegi.gob.mx/est/contenidos/espanol/tematicos.

- INEGI (2004), “Estadísticas a propósito del día de la enfermera. Datos Nacionales”, Mexico City.
- Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado (ISSSTE) (1999), Telesalud del ISSSTE tecnología de alto nivel aplicada a la ciencia medica. Boletín B-012 Mexico City, www.google.com.mx/search?q=cache:e8diBO5_0TUJ:informatica.issste.gob.mx/web/site/comunicados/boletines/99/boletin12.html+inversion+en+telesalud+y+telemedicin+a%2Bmexico&hl=es.
- ISSSTE (2002), Raliza el ISSSTE la primera telecirugia laparoscopica astida por brazo robótico. Boletín B.035-2002 Mexico City, www.google.com.mx/search?q=cache:8ITH4cQDFawJ:www.issste.gob.mx/web/site/comunicados/boletines/2002/abril/b35_2002.html+boletines%2BISSSTE%2BMexico%2Btelemedicina&hl=es.
- ISSSTE (2003), Médicos de Inglaterra se interesan en los avances del programa de telemedicina del ISSSTE. Boletín B.203-2003. Mexico City, www.google.com.mx/search?q=cache:y4-ZFjbcF7MJ:www.issste.gob.mx/web/site/comunicados/boletines/2003/julio/b203_2003.html+boletines%2BISSSTE%2BMexico%2Btelemedicina&hl=es.
- ISSSTE (2004), “Plan Nacional de Telesalud”, Presentación Power Point, México, 2004.
- Integrated Framework (2003), *Lesotho: Integration into the World Trading Environment*, Diagnostic Trade Integration Study, Vol. 1, November.
- International Council for Exploration of the Sea (2003), *Report from the Advisory Committee on Fishery Management*, www.ices.dk.
- International Labour Office (ILO) (2001), *World Employment Report 2001: Life at Work in the Information Economy*, ILO, Geneva.
- ILO (2004), *A Fair Globalization: Creating Opportunities for All*, World Commission on the Social Dimension of Globalization, ILO, Geneva.
- International Monetary Fund (IMF) (2000), *Thailand: Selected Issues*, IMF Country Report No. 00/21, February.
- IMF (2002), *Kenya: Selected Issues and Statistical Annex*, IMF Country Report No. 02/84.
- IMF (2003a), *Chile: Selected Issues*, IMF Country Report No. 03/312, October.
- IMF (2003b), *Thailand: Statistical Appendix*, IMF Country Report No. 03/388, December.
- IMF (2003c), *Bangladesh: Letter of Intent, Memorandum of Economic and Financial Policies*, IMF, 18 December, www.imf.org/external/np/loi/2003/bgd/02/index.htm.
- IMF (2003d), *Mauritius: 2003 Article IV Consultation*, IMF Country Report No. 03/319.
- IMF (2003e), *South Africa: Staff Report for the 2003 Article IV Consultation*, IMF, Washington, DC.
- IMF (2004a), “IMF Concludes 2003 Article IV Consultation with Lesotho”, *Public Information Notice No. 04/6*, Washington, DC, 5 February.

- IMF (2004b), *Colombia: Third Review Under the Stand-By Arrangement and Request for Waiver of Nonobservance of Performance Criterion*, IMF Staff Report, Washington, DC.
- IMF (2004c), *Lesotho: Selected Issues and Statistical Appendix*, IMF Country Report No. 04/23, January.
- IMF (2004d), *Philippines: International Reserves and Foreign Currency Liquidity*, IMF, Washington DC, www.imf.org/external/np/sta/ir/phl/eng/curphl.htm.
- IMF and World Bank (WB) (2002), *Market Access for Developing Country Exports – Selected Issues*, report prepared by the staff of the International Monetary Fund and the World Bank, September, www.imf.org/external/np/pdr/ma/2002/eng/092602.htm.
- International Trade Centre (ITC) (2001), *Subregional Trade Expansion in Southern Africa: Lesotho Supply Survey on Textiles and Clothing*, ITC, December.
- IRIN (2003), “Lesotho: Growth of Garment Industry Fuels AIDS Concerns”, Integrated Regional Information Networks, UN Office for the Coordination of Humanitarian Affairs, 16 June, www.irinnews.org.
- Ito, Motoshige (2004), “Keizai Kyoshitsu: EPA and Health Insurance System”, *Nikkei Shinbun*, 2 August.
- Janjaroen, Wattana S. and Siripen Supakankunti (2002), “International Trade in Health Services in the Millennium: The Case of Thailand”, in Cesar Vieira ed., *Trade in Health Services: Global, Regional and Country Perspectives*, Pan American Health Organisation, Program on Public Policy and Health, Division of Health and Human Development, Washington, DC, www.paho.org/English/HDP/HDD/trade.htm.
- Japan-Philippines (2003), *Japan-Philippines Economic Partnership Agreement Joint Coordinating Team Report*, December.
- Japan-Thailand (2003), *Japan-Thailand Economic Partnership Agreement Task Force Report*, December.
- Jaramillo, J.Alberto, Carlos Montoya Corrales and Mauricio Ramirez Gomez (1996), *Apertura e Industria en el Valle de Aburra*, N.P.
- Jarvis, Lovell and Esperanza Vera-Toscano (2004), “The Impact of Chilean Fruit Sector Development on Female Employment and Household Income”, World Bank Policy Research Working Paper 3263, April.
- Jensen, H.T., S. Robinson and F. Tarp (2002), “General Equilibrium Measures of Agricultural Policy Bias in Fifteen Developing Countries”, TMD Discussion Paper No. 105, International Food Policy Research Institute, Washington, DC.
- Jeong, Hyoung-Sun and Jeremy Hurst (2001), “An Assessment of the Performance of the Japanese Health Care System, Labour Market and Social Policy”, Occasional Papers, No. 56, OECD, Paris.
- Johnson D.G. (2000), “Population, Food and Knowledge”, *American Economic Review*, Vol. 90, No. 1, pp. 1-14.
- Jomo, K.S. and Michael Rock (1998), “Economic Diversification and Primary Commodity Processing in the Second-tier South-East Asian Newly Industrializing Countries”, UNCTAD Discussion Papers No. 136, June.

- Josupeit, Helga and Camillo Catarci (2004), *The World Tuna Industry – An Analysis of Imports, Prices, and of Their Combined Impact on Tuna Catches and Fishing Capacity*, FAO, March.
- Karlsson, H. (2002), “Redovisning Av Uppdraget Att Överlägga med Ericsson Och Övriga Parter I Samband Med Företagsnedläggning”, N2001/4891/A.
- Kathuria, S. and A. Bhardwaj (1998), “Export Quotas and Policy Constraints in the Indian Textile and Garment Industries”, Policy Research Working Paper, No. WPS 2012, The World Bank, New Delhi Office.
- Kaufmann *et al.* (2002), “Governance Matters II: Updated Indicators for 2000/01”, *World Bank Policy Research Department Working Paper* No. 2772, January.
- Kinunda-Rutashobya, L. (2003), “Exploring the Potential of EPZs for Africa: Lessons from Mauritius”, *Management Decision*, Vol. 41 No. 3, p. 22.
- Kletzer, L. (2001), *Job Losses from Imports: Measuring the Costs*, Institute for International Economics, Washington, DC.
- Kletzer, L. and H. Rosen (2004), “Honoring the Commitment: Assisting US Workers Hurt by Globalization”, paper presented at the conference: Job Loss, Causes, Consequences, and Policy Responses, Chicago Reserve Bank, Chicago, 18-19 November, www.chicagofed.org/news_and_conferences/conferences_and_events/files/job_loss_paper_kletzer.pdf.
- Klinger, S. and M.L. Sykes (2004), “Exporting the Law: A Legal Analysis of State and Federal Outsourcing Legislation”, The National Foundation for American Policy, April.
- Kongsrud, P. M. and I. Wanner (2005), “The Impact of Structural Policies on Trade-related Adjustments and the Shift to Services”, *OECD Economics Department Working Papers*, No. 427.
- Koning, Jozef (2004), *Wage Costs and Industry (Re)location in the Enlarged European Union*, Paper prepared for Economic Council of Sweden, October, preliminary draft.
- Kuhn, Peter J. (2002), *Losing Work Moving On*, W. E. Upjohn Institute for Employment Research, Kalamazoo, Michigan.
- Lall, Sajaya (2002), “Selective Policies for Export Promotion: Lessons from the Asian Tigers”, in Helleiner (2002).
- Lamusse, Roland (2001), “Macroeconomic Policy and Performance”, in Dabee and Greenaway (2001).
- Länsstyrelsen Östergötland (2004), “Erfarenheter från Omställningsprogram i Östergötland, Regionalekonomiska Enheten”, June.
- Lavelle, Daniel (2003), *Women at Work in Chile's Fields: A Change in the Labour Dynamic*, <http://ist-socrates.berkeley.edu:7001/Events/fall2003/09-29-03-goldfrank/>.
- Laver, R. (2000), *Private health care in Latin America: emerging opportunities*, Publication of the Institute of the Americas.
- Lee, M. (2004a), “Recruiters Head South of the Border for Nurses”, *The Los Angeles Times*. 27 June.

- Lee M. (2004b), “Facing Shortage of Nurses, U.S. Hospitals Recruit in Mexico”, *The San Diego Union-Tribune*, 27 June.
- Leigh, Duane (1990), *Does Training Work for Displaced Workers? A Survey of Existing Evidence*, W.E. Upjohn Institute for Employment Research, Kalamazoo, Michigan.
- Le Nouvel Observateur* (2004), *Délocalisation: Après les usines, les services?*, 5-11 February.
- Levinsohn, James and Wendy Petropoulos (2001), “Creative Destruction or Just Plain Destruction?: The U.S. Textile and Apparel Industries Since 1972” Working Paper 8348, National Bureau of Economic Research, Cambridge, Massachusetts.
- L'Expansion* (2004), *L'Afrique, Terre de Téléopérateurs*, November edition.
- Lindebo, E. (2004), “Vessel Decommissioning in Danish Fisheries”, paper presented at the International Workshop on Fishing Vessel and License Buy-back Programs, Weaver Centre, Institute of the Americas, University of California, 22-24 March.
- Lopez-Ortega M, G. Nigenda, and E. Troncoso (2004), “Free Trade Agreements and the Health Sector in Mexico”, Funsalud, Working paper, Mexico City.
- Lundahl, Mats *et al.*, (2003), *In the Shadow of South Africa – Lesotho's Economic Future*, The Making of Modern Africa Series, Ashgate, Aldershot.
- Macroscan (n.d.), *Outsourcing for Development*, www.macrosan.com/fet/dec03/fet031203UNCTAD_1.htm, accessed 22 January 2004.
- Magee, David (2003), *Turnaround: How Carlos Ghosn Rescued Nissan*, HarperCollins, New York.
- Maggi, Claudio (2002), “Cadenas Productivas: lecciones de la experiencia internacional y regional: el cluster del cultivo y procesamiento del salmon en la region sur-austral del Chile”, Paper based on the Proyecto Cooperacion Tecnica: BID-FOMIN Trust Fund Italiano.
- Maguire, R. (2004), “SIMNSA and Salud con Health Net”, Chapter 4 in David C. Warner and Pablo G. Schneider, eds., *Cross-Border Health Insurance: Options for Texas*, The University of Texas at Austin.
- Mann, L.M. (2003), “Globalization of IT Services and White Collar Jobs: The Next Wave of Productivity Growth”, International Economics Policy Briefs No. PB03-11, www.iie.com/publications/pb/pb03-11.pdf.
- Martin, P. (2003), “Mexico-US Migration”, *Institute for International Economics*, Washington, DC.
- Martin, W. and D. Mitra (2001), “Productivity Growth in Agriculture and Manufacturing”, *Economic Development and Cultural Change*, 49(2), pp. 403-23.
- Matlosa, Khabele (1999), “Aid, Development and Democracy in Lesotho, 1966-1996”, paper presented to a workshop organised by the Centre for Southern African Studies on Aid, Development and Democracy in Southern Africa, University of the Western Cape, Cape Town, South Africa, 21-22 November, www.eldis.org.
- Mattoo, A. (2003), “Introduction and Overview” in A. Mattoo and A. Carzaniga (eds.), *Moving People to Deliver Services*, World Bank and Oxford University Press.

- Mattoo, A. and S. Wunsch (2004), “Securing Openness of Cross-Border Trade in Services: A Possible Approach”, Center for International Development, Harvard University, www.cid.harvard.edu/cidtrade/Papers/mattoo-wunsch.pdf.
- Matusz, S.J. and D. Tarr (1999), “Adjusting to Trade Policy Reform”, World Bank Working Paper 2142, World Bank, Washington, DC., July, <http://econ.worldbank.org/view.php?type=5&id=427>.
- McCulloch, Neil and Masako Ota (2002), “Export Horticulture and Poverty in Kenya”, IDS Working Paper 174.
- McKinsey & Co (2001), *India – The Growth Imperative: Understanding the Barriers to Rapid Growth and Employment Creation*.
- McKinsey Quarterly (2003), *Who Wins in Offshoring?*
- McKinsey Global Institute (2003), *Offshoring: Is It a Win-Win Game?*
- McKinsey Global Institute (2004), *Can Germany Win from Offshoring?*
- McMillan, Margaret, Selina Pandolfi and B. Lynn Salinger (1999), “Promoting Foreign Direct Investment in Labor-Intensive, Manufacturing Exports in Developing Countries” CAER II Discussion Paper No. 42, Cambridge, Massachusetts.
- Mendoza, G., A. Ruiz and E. Flores (2002), *Frontera México-Estados Unidos. Diagnóstico sobre servicios de salud. Volumen II Estados Unidos*. Organización Panamericana de la Salud.
- Meyer, Klaus E. and Camilla Jensen (2003), “Foreign Investor Strategies in View of EU Enlargement”, in Heinz-Jürgen Stütting, Wolfgang Durow, Frank Claassen and Susanne Blazejewski (eds.), *Change Management in Transition Economies: Integrating Corporate Strategy, Structure and Culture*, Palgrave, New York.
- Milner, Chris (2001), “International Trade and Trade Policy”, in Dabee and Greenaway (2001).
- Ministry of Agriculture and Forestry (MAF) (2004), “Agriculture and Forestry in New Zealand – An Overview”, www.maf.govt.nz/mafnet/rural-nz/overview/httoc.htm, accessed December 2004.
- Ministry of Economy Trade and Industry (METI) (2003), *White Paper on International Economy and Trade 2003*, METI, Tokyo, www.meti.go.jp/english/report/index.html.
- Minot, Nicholas and Margaret Ngigi (2003), “Are Horticultural Exports a Replicable Success Story? Evidence from Kenya and Côte d’Ivoire”, Conference Paper No.7, paper presented at the InWEnt, IFPRI, NEPAD, CTA conference Successes in African Agriculture, Pretoria, 1-3 December .
- Mlachila, M. and Y. Yang (2004), “The End of Textile Quotas: A Case Study of the Impact on Bangladesh”, IMF Working Paper, WP/04/108, IMF, Washington, DC.
- Moffat, G. (1991), *Restructuring of the Community Steel Industry*.
- Moore, Alicia Hills (2001), “U.S. Textiles Hang In With High Tech”, *Fortune*, 16 April, www.fortune.com/fortune/subs/article/0,15114,370518,00.html.
- Morawetz, David (1981), *Why the Emperor’s New Clothes Are Not Made in Colombia: A Case Study in Latin American and East Asian Manufactured Exports*, Oxford University Press.

- Morgan Stanley (2003), “Outsourcing, Protectionism, and the Global Labour Arbitrage”, session paper for the 2003 Boao Forum Annual Conference, Hainan, PR China, 2-3 November, www.adb.org/Documents/Events/2003/Boao_Forum_Asia/Paper_Roach.pdf.
- Muqtada, Muhammed, Andrea Singh and Mohammed Ali Rashid (2002), “Economic and Social Challenges of Globalisation in Bangladesh: Policy Perspectives”, in Muqtada, Singh and Rashid (eds.), *Bangladesh: Economic and Social Challenges of Globalisation*, The University Press, Dhaka.
- Murray, Lauren A. (1995), “Unraveling Trends in Textiles and Apparel”, *Monthly Labor Review*, Vol. 118 No. 8, August.
- Na Thalang, Jeerawat and Benjaprut Akkarasriprapai (2004), Farmed-shrimp Export: Move to delay US Ban, *The Nation*, 13 May, www.nationmultimedia.com.
- Narro, I. (2000), “México busca en la telemedicina un medio de paliar desigualdades”, IBLNEWS.com, <http://iblnews.com/news/noticia.php3?id=32309>.
- National Association of Automobile Manufacturers of South Africa (NAAMSA), *Annual Report*, in Galbraith.
- National Association of Software and Service Companies (NASSCOM) (2002a), “Knowledge Professionals”, www.NASSCOM.org/articleprint.asp?art_id=.
- NASSCOM (2002b), *NASSCOM-McKinsey Report 2002*.
- NASSCOM (2003a), “Indian Software and Services Exports Clock Revenue of Rs. 46,000 Crores, (US\$ 9.5 billion) Registering 26.3% Growth in FY 2002-2003”, www.nasscom.org/articleprint.asp?art_id=1836.
- NASSCOM (2003b), “Indian IT Software and Service Industry”, www.nasscom.org/artdisplay.asp?Art_id=1959.
- NASSCOM (2004a), “Indian Software and Services Exports” www.NASSCOM.org/artdisplay.asp?Art_id=2707.
- NASSCOM (2004b), “Policy”, BPO Newslines, www.NASSCOM.org/bponewslines/policy.asp.
- New York Times* (2004), “India Sees Backlash Fading Over Boom in Outsourcing”, 14 July.
- Nielson, J. and D. Taglioni (2004), “Service Trade Liberalisation: Identifying Opportunities and Gains”, *OECD Trade Policy Working Paper* No. 1, OECD, Paris.
- Nielsen, M. (forthcoming), “Price Formation and Market Integration on the European First-hand Market for Whitefish”, *Marine Resource Economics*.
- Nikomborirak, Deunden and Somkiat Tangkitvanich (2003), “Thailand Case Study”, Background Paper for the OECD Regional Workshop on Trade Capacity Building and Private Sector Development in Asia, Thailand Development Research Institute, November.
- Nippon Keidanren (2004), “Recommendations on Accepting Non-Japanese Workers”, Nippon Keidanren (Japan Business Federation), 14 April, www.keidanren.or.jp.

- Notimex (2004). “Destacan Beneficios de Telemedicina en Comunidades Rurales. México D.F.”, www.google.com.mx/search?q=cache:UiMYgdLRAgUJ:www.e-mexico.gob.mx/wb2/eMex/eMex_Telemedicina+telemedicina%2Bmexico&hl=es.
- ODEPA (2003a), *Panorama de la Agricultura Chilena 2002 – Chilean Agriculture Overview*, Oficina de Estudios y Políticas Agrarias de Chile.
- ODEPA (2003b), “Inserción de la agricultura chilena en los mercados internacionales”, Documento de trabajo Serie comercio exterior n° 4, December, Oficina de Estudios y Políticas Agrarias de Chile
- Ogawa, Naohiro (1997), “Demographic Trends and Their Implications for Japan’s Future”, transcript of a speech delivered on 7 March at the Japan Information Center in San Francisco, www.mofa.go.jp/j_info/japan/socsec/ogawa.html.
- Olson, Mancur (1982), *The Rise and Decline of Nations: Economic Growth, Stagflation and Social Rigidities*, Yale University Press, New Haven, Connecticut.
- Opondo, M.M. (2002), *Trade Policy in the Cut Flower Industry in Kenya*, Department of Geography, University of Nairobi.
- Organisation for Economic Co-operation and Development (OECD) (1978), “Policies for Adjustment: Some General Orientations” (Council Communiqué of 15 June 1978), OECD, Paris.
- OECD (1997), *Market Access Issues in the Automobile Sector*, OECD, Paris.
- OECD (2000a), *Transition to Responsible Fisheries: Economic and Policy Implications*, OECD, Paris.
- OECD (2000b), *International Trade and Core Labour Standards*, OECD, Paris.
- OECD (2001a), “Financing the Restructuring of British Steel”, SG/ STEEL/RD(2001)9, OECD, Paris.
- OECD (2001b), *The Development Dimensions of Trade*, OECD, Paris.
- OECD (2002a), *The DAC Guidelines Strengthening Trade Capacity for Development*, Development Assistance Committee, OECD, Paris.
- OECD (2002b), *African Economic Outlook*, OECD, Paris.
- OECD (2003a), *Farm Household Income: Issues and Policy Responses*, OECD, Paris.
- OECD (2003b), “The Doha Development Agenda: Welfare Gains from Further Multilateral Trade Liberalisation with respect to Tariffs”, TD/TC/WP(2003)10/FINAL, OECD, Paris.
- OECD (2003c), *Economic Surveys: Chile*, Vol.2003, Issue 17, OECD, Paris.
- OECD (2003d), *Liberalising Fisheries Markets – Scope and effects*, OECD, Paris.
- OECD (2003e), “The International Mobility of Health Professionals: An Evaluation and Analysis based on the Case of South Africa”, DELSA/ELSA/WP2(2003)4, OECD, Paris.
- OECD (2004a), *Economy-wide Effects of Barriers to Trade in Services in Selected Developing Countries*, forthcoming, OECD, Paris.
- OECD (2004b), *A New World Map in Textiles and Clothing: Adjusting to Change*, OECD, Paris.

- OECD (2004c), “Trade Preference Erosion: Potential Economic Impacts”, TD/TC./WP(2004)30/FINAL (2004), OECD, Paris.
- OECD (2004d), *Market and Welfare Impacts of Agriculture and Non Agriculture Reform*, forthcoming, OECD, Paris.
- OECD (2004e), *OECD Health Data*, OECD, Paris.
- OECD (2004f), *Towards High-Performing Health Systems*, OECD Health Project, OECD, Paris.
- OECD (2004g), *Information Technology Outlook 2004*, OECD, Paris.
- OECD (2004h), *OECD Statistics on International Trade in Services: Detailed Tables by Service Category 1993-2002*, Vol. 1, OECD, Paris.
- OECD (2005, forthcoming), *OECD Employment Outlook*, OECD, Paris.
- Orłowski, Witold M. “Poland-European Union: The Economics of Accession”.
- O’Rourke, Kevin H. and Jeffrey G. Williamson (1999), *Globalization and History: The Evolution of a Nineteenth-Century Atlantic Economy*, The MIT Press, Cambridge, Massachusetts.
- Paul-Majumder, Pratima (2002), “Organising Women Garment Workers: A Means to Address the Challenges of Integration of the Bangladesh Garment Industry in the Global Market”, in Muqtada, Singh and Rashid (2002).
- Paul-Majumder, Pratima and Binayak Sen (eds.) (2000), *Growth of Garment Industry in Bangladesh: Economic and Social Dimensions*, Bangladesh Institute of Development Studies and Oxfam GB Bangladesh, Dhaka.
- Philippine Overseas Employment Administration (POEA) (2003), *Annual Report 2003*, POEA, Mandaluyong City, www.poea.gov.ph.
- POEA (2004), *Overseas Employment Statistics*, POEA, Mandaluyong City, www.poea.gov.ph/html/statistics.html.
- Polish Chamber of Automotive Industry (2004), *The Polish Automotive Sector*, N.P. PIM.
- Pongvutitham, Achara (2004), US Anti-dumping Ruling: Shrimp Exports Tipped to Drop 20-30%, *The Nation*, 19 February, www.nationmultimedia.com.
- Presente. Diario del Sureste (2004), “Exporta México enfermeras a EU y Europa”. Mexico City, www.presente.com.mx/Portal/ArticleView.php?article_id=2565.
- Progressive Policy Institute (PPI) (2004), *Understanding the Offshoring Challenge*, Policy Report, May.
- Quddus, Munir (1996), “Apparel Exports from Bangladesh: Brilliant Entrepreneurship or Spurious Success”, in Ashraf Ali *et al.* (eds.) (1996), *Development Issues of Bangladesh*, University Press Limited, Dhaka.
- Quddus, Munir and Salim Rashid (2000), *Entrepreneurs and Economic Development: The Remarkable Story of Garment Exports from Bangladesh*, The University Press, Dhaka.
- Rahman, Rushidan Islam (2000) “Industrialization in a Labour Surplus Economy: The Apparel Sector in Bangladesh”, in Paul-Majumder and Sen (2000).

- Rahman, Rushidan Islam (2002), “Skills Development in Bangladesh: Responses to Globalisation”, in Muqtada, Singh, and Rashid (2002).
- Reinikka, Ritva (1996), “The Credibility Problem in Trade Liberalisation: Empirical Evidence from Kenya”, *Journal of African Economies*, Vol. 5, issue 3, pp.444-468.
- Report of the Economic Committee (1986), *The Singapore Economy: New Directions*, Ministry of Trade and Industry, Republic of Singapore, February.
- Rios, J. and A. Valdez (2000), “The Relationship between Infrastructure, Utilities and the Incidence of Illness in the Border Colonias”, *Journal of Border Health*, Vol. V, No. II. July-December.
- Riungu, Catherine and John Mbaria (2004), “Kenya: New EU Threats over Flowers”, *East African*, 16 February.
- Rodrik, D. (2003), “Growth Strategies”, NBER Working Paper Series, National Bureau of Economic Research.
- Rodrik, D. (2004), “Industrial policy for the Twenty-First Century”, Faculty Research Working Paper Series, Harvard University.
- Rosas, A. (2004), Enfermeras de Exportación. Un curso de inglés y un examen de certificación abren las puertas de uno de los mercados laborales más difíciles. Expansión. Sección reportajes. Edición 893. Mexico City, 23 June.
- Rosen, Ellen I. (2002), *Making Sweatshops: The Globalization of the U.S. Apparel Industry*, University of California Press, Berkeley, California.
- Salerno, S. (2001), “Current Mainstream Directions of Structural Change in the Steel Industry of OECD Member Countries”, DSTI/SU/SC/RD(2001)1, OECD, Paris.
- Satake, Masao (2000), “Trade Conflicts Between Japan and the United States over Market Access: The Case of Automobiles and Automotive Parts”, Technical Report Pacific Economic Papers, No.310, The Australian National University.
- Savio, F. (2004), “Executive Summary”, in David C. Warner and Pablo G. Schneider, eds., *Cross-Border Health Insurance: Options for Texas*, The University of Texas at Austin.
- Sidorenko, Alexandra (2003), “Liberalisation of Trade in Health Services is on the APEC Economies Agenda”, *APEC Economies Newsletter*, Vol. 7, No. 9, Asia Pacific School of Economics and Government, The Australian National University, http://apseg.anu.edu.au/pdf/news/APEC7_9.pdf.
- Sikdar, M. Firoze Shah and B.N. Banerjee (1990), *Jute Cultivation in India and Bangladesh: A Comparative Study*, Mittal Publications, New Delhi.
- SIMSA (2002), “Changes to the Provider Network in Tijuana”, www.simsa.com/press_release_important.htm.
- Smith, Willie and Hayden Montgomery (2003), “Revolution of evolution? New Zealand agriculture since 1984”, *Geo Journal*, Vol. 59, Kluwer Academic Publishers, Netherlands, pp. 107-118.
- Smitka, Michael, *Adjustment in the Japanese Automotive Industry: A Microcosm of Japanese Cyclical and Structural Change?* Lexington, Virginia:

- Stark, Jeffrey (1999), “From Neoliberalism to Second Generation Reforms in Latin America: Views from the International Financial Institutions”, paper presented at the 40th Annual International Studies Association Convention.
- Station WJLA-TV (2004), “Nursing Shortage Averted in Canada, Mexico”, www.wjla.com/headlines/0704/160311.html.
- Subramanian, A. and D. Roy (2001), *Who Can Explain the Mauritian Miracle: Meade, Romer, Sachs, or Rodrik?*
- Sullivan L. (2004), “Latinos in California and Texas and Access to Health Care”, Chapter 1, in David C. Warner and Pablo G. Schneider, eds., *Cross-Border Health Insurance: Options for Texas*, The University of Texas at Austin.
- Taylor, J.E. and P.E. Martin (2001), “Human Capital: Migration and Rural Population Change” in B. Gardner and G. Rausser, eds., *Handbook of Agricultural Economics*, Vol. I. Elsevier, Amsterdam, pp. 457-511.
- The Asia Program (2003), *The Demographic Dilemma: Japan’s Ageing Society*, Asia Program Special Report, No. 107, The Asia Program, The Woodrow Wilson International Center for Scholars, <http://wwics.si.edu/events/docs/ACFE9.pdf>.
- The Nation* (2004a), CPF’s New Strategy: Foreign Plants to Help Minimise Risks, *The Nation*, 22 April, www.nationmultimedia.com.
- The Nation* (2004b), Anti-dumping Tariff: US Slaps 6.4% Duty on Shrimp, *The Nation*, 31 July, www.nationmultimedia.com.
- The National Foundation for American Policy (2004), cited in *The New York Times*, 17 July.
- The Times of India* (2004), “Infosys to Create BPO Jobs in the US”, 26 May.
- Thoen *et al.* (2000), *Equatorial Rose: The Kenyan – European Cut Flower Supply Chain*.
- Torrealba, Francisca Silva (1999), *La inversión en el sector agroindustrial chileno*, Serie Reformas Económicas 46, ECLAC, November.
- Tullao, Tetsuo S., Jr. and Michael Angelo A. Cortez (2003), “Movement of Natural Persons between the Philippines and Japan: Issues and Prospects” (PowerPoint presentation), Center for Business and Economics Research and Development (CBERD), De La Salle University, Manila, http://pascn.pids.gov.ph/jpepa/docs/tullao-revised_sept%2009.PDF.
- UK Trade & Investment (2003), “Healthcare & Medical Market in Japan”, www.uktradeinvest.gov.uk/healthcare/japan/profile/overview.shtml.
- United Nations Conference on Trade and Development (UNCTAD) (2001), *Mauritius Investment Policy Review*.
- UNCTAD (2003a), *Back to Basics: Market Access Issues in the Doha Agenda*, United Nations, New York and Geneva.
- UNCTAD (2003b), “Trade Preferences for LDC.s: An Early Assessment of Benefits and Possible Improvements”, www.unctad.org/Templates/WebFlyer.asp?intItemID=3074&lang=1, United Nations, Geneva.

- United Nations Development Programme (UNDP) (2003), *Human Development Indicators 2003*, <http://hdr.undp.org/>.
- United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) (1999), “Implications of the Asian Economic Crisis for Sustained Industrial and Technological Development in the Region”, 55th session of the United Nations Economic and Social Commission for Asia and the Pacific, Bangkok, 22-28 April 1999, ref.E/ESCAP/1123, www.unescap.org/55/.
- UNESCAP (2002a), *Development of the Automotive Sector in Selected Countries of the ESCAP Region*, UNESCAP Reference No: ST/ESCAP/2223.
- UNESCAP (2002b), *Promotion of Trade and Economic Cooperation in the Automotive Sector*, UNESCAP Reference No: ST/ESCAP/2212.
- United Nations Economic Commission for Africa (UNECA) (2003), *Economic Report on Africa 2003*, Addis Ababa.
- United Nations Economic Commission for Europe (1992), *The Restructuring of the Steel Industry in the European Community*, p. 3 ff., STEEL/SEM.18/R.23, 16 March.
- US Department of Commerce (1994), *1994 Annual Survey of Manufactures: Statistics for Industry Groups and Industries M94(AS)-1*.
- US Department of Commerce (2001), *Statistics for Industry Groups and Industries: 2001 M01(AS)-1*.
- US International Trade Commission (USITC) (1987), *Report to the President on Investigation No. TA-203-17, Under Section 203 of the Trade Act of 1974*, Washington, DC.
- USITC (2003), *Andean Trade Preference Act: Impact on U.S. Industries and Consumers and on Drug Crop Eradication and Crop Substitution — Ninth Report 2002* Investigation No. 332-352, Washington, DC.
- USITC (2004a), *Textiles and Apparel: Assessment of the Competitiveness of Certain Foreign Suppliers to the U.S. Market*, Investigation No. 332-448, Washington, DC., February.
- USITC (2004b), *United States – Sub-Saharan Africa Trade Data*, Quarterly updates, January-June, USITC, http://reportweb.usitc.gov/africa/trade_data.html.
- Valdés, Alberto (1993), Mix and Sequencing of Economy-wide and agricultural reforms: Chile and New Zealand, *Agricultural Economics*, Vol. 8, Issue 4.
- Valdés, A. and W. Foster (2003a), “Recent Economic and Agricultural Policy Developments Affecting the Roles of Chilean Agriculture”, *Roles of Agriculture Project*, FAO, October.
- Valdés, A. and W. Foster (2003b), “The Positive Externalities of Chilean Agriculture: The Significance of its Growth and Export Orientation A synthesis of the ROA Chile Case Study”, *Roles of Agriculture Project*, FAO, December.
- Vannuccini, Stefania (2003), *Overview of fish production, utilization, fishery consumption and trade Based on 2001 data*, Information, Data and Statistics Unit, FAO, May.

- Veblen, Thorstein (1915), *Imperial Germany and the Industrial Revolution*, Macmillan, New York.
- Vega, Ricardo (2003). "Integración de la cadena de valor de la empresa Comercial Aguacatera, S. A. de C. V., para la producción y comercialización de aguacate variedad hass", Thesis ITESM Campus Toluca.
- Verma, S. (2002), "Export Competitiveness of Indian Textile and Garment Industry", Indian Council for Research on International Economic Relations, Working Paper No. 94, New Delhi.
- Weeks, John, ed., (1995), *Structural Adjustment and the Agricultural Sector in Latin America and the Caribbean*, Institute of Latin American Studies, St. Martin's Press.
- Wignaraja, Ganeshan (2001), *Firm Size, Technological Capabilities and Market-oriented Policies in Mauritius*, United Nations University, Institute for New Technologies.
- Wignaraja, Ganeshan (2002), "Competitiveness, Productivity Management and Job Creation in African Enterprises: Evidence from Mauritius and Kenya", ILO.
- Winter-Ebmer, Rudolf (2003), "Coping with a Structural Crisis: Evaluating an Innovative Redundancy-retraining Project", IZA Discussion Paper No. 277, Bonn.
- Winters, L.A. (2003), "The Economic Implications of Liberalizing Mode 4 Trade" in A. Mattoo and A. Carzaniga (eds.), *Moving People to Deliver Services*, World Bank and Oxford University Press.
- Winters, L.A. (2004), "Trade Liberalization and Economic Performance: An Overview", *Economic Journal*, Vol. 114(2), pp. 4-21.
- Wise, Carol (1999), "Latin American Trade Strategy at Century's End", North-South Agenda Papers #37 North-South Center, Coral Gables, Florida.
- World Bank (1995), *Global Economic Prospects and Developing Countries*, World Bank, Washington, DC.
- World Bank (1998), "Lesotho's Garment Exports: Attracting Foreign Direct Investment", *Africa Region Findings*, No. 103, World Bank, Washington, DC, www.worldbank.org/afr/findings/english/find103.htm.
- World Bank (2002), *Country Assistance Strategy for Mauritius*, World Bank, Washington, DC.
- World Bank (2003), *Kenya: Country Economic Memorandum*, World Bank, Washington, DC.
- World Bank (2004a), *Thailand Economic Monitor*, World Bank, Washington, DC.
- World Bank (2004b), "Sustaining India's Services Revolution", World Bank, Washington, DC.
- World Bank (2004c), World Development Indicators Database, July, World Bank, Washington, DC, www.worldbank.org/data/databytopic/GDP.pdf, accessed 23 August 2004.
- World Bank (2004d), *Doing Business in 2005: Removing Obstacles to Growth*, World Bank, Washington, DC.

- World Health Organisation (WHO) (2002), *Life expectancy at birth (years), total population, 2002: Japan, Core Health Indicators*, WHO, www3.who.int/whosis/country/compare.cfm?language=english&country=JPN&indicator=strLEX0Both2002,strLEX0Male2002,strLEX0Female2002.
- World Trade Organization (WTO) (1991), *Services Sectoral Classification List*, MTN.GNS/W/120.
- WTO (1998a), “Health and Social Services: Background Note by the Secretariat”, S/C/W/75, WTO, Geneva, www.wto.org.
- WTO (1998b), “Presence of Natural Persons (Mode 4): Background Note by the Secretariat”, S/C/W/75, WTO, Geneva, www.wto.org.
- WTO (2000), *Trade Policy Review, Bangladesh*, Report by the Secretariat, WT/TPR/S/68.
- WTO (2001), *Trade Policy Review, Mauritius*, Report by the Secretariat, WT/TPR/S/90.
- WTO (2002), *International Trade Statistics 2002*, Geneva.
- WTO (2003a), “Communication from the International Monetary Fund: Trade and Safeguarding Public Revenues”, WT/TF/COH/16, 14 February.
- WTO (2003b), “Revenue Implications of Trade Liberalisation, Communication from the United States”, TN/MA/W/18/Add.2.
- WTO (2003c), “Trade Policy Review Chile”, Report by the Secretariat, WT/TPR/S/124, November.
- WTO (2003d), “Trade Policy Review Southern African Customs Union”, Report by the Secretariat, WT/TPR/S/114, March.
- WTO (2003e), *International Trade Statistics 2003*, WTO, Geneva.
- WTO (2004a), *World Trade Report, 2004*, WTO, Geneva.
- WTO (2004b), *International Trade Statistics 2004*, WTO, Geneva.
- YeungLamKo, Louis (1998), “The Economic Development of Mauritius Since Independence”, School of Economics University of New South Wales, Discussion Papers, No. 6, Sydney, www.economics.unsw.edu.au/research/dp/dp98-6.pdf.
- Yoshino, Michael and Perry Fagan (2003), *The Renault-Nissan Alliance*, Harvard Business School Case 9-303-023, Cambridge, Massachusetts.
- Yoshino, Michael and Masako Egawa (2003), *Implementing the Nissan Renewal Plan*, Harvard Business School Case 9-303-111, Cambridge, Massachusetts.
- Zuart R., Atención Médica a Distancia. Se Inauguró un Nuevo Concepto en Servicios de Salud: Telemedicina. www.gdl.uag.mx/202/noticiasaldia.htm.

OECD PUBLICATIONS, 2, rue André-Pascal, 75775 PARIS CEDEX 16
PRINTED IN FRANCE
(22 2005 02 1 P) ISBN 92-64-01096-3 – No. 54123 2005

Trade and Structural Adjustment

EMBRACING GLOBALISATION

The relationship between trade and structural adjustment has many dimensions. Though restrictive trade measures can be a barrier to adjustment, liberal trade policies and trade capacity building can be an integral part of a successful adjustment process.

Adjustment refers to the use of a range of policy instruments – including an enabling macroeconomic environment and efficient labour markets – to facilitate adaptation to a structural (rather than transitory or cyclical) change in the economic environment. Structural adjustment requires a dynamic analysis of prevailing economic circumstances, and the desire to stimulate growth and improve welfare by taking advantage of evolving conditions of competition and productivity. The OECD has long maintained the need to promote adjustment to new conditions, relying on market forces to encourage mobility of labour and capital from declining to expanding areas of activity.

Trade and Structural Adjustment: Embracing Globalisation identifies the requirements for successful reallocation of labour and capital to more efficient uses in response to the emergence of new sources of competition, technological change and shifting consumer preferences. At the same time, it focuses on limiting adjustment costs for individuals, communities and society as a whole.

Based on specific sectoral case studies, this volume includes analysis of the adjustment challenge and policy framework in both developed and developing countries, together with practical recommendations for good practice.

The full text of this book is available on line via these links:

<http://new.sourceoecd.org/industrytrade/9264010963>

<http://new.sourceoecd.org/development/9264010963>

<http://new.sourceoecd.org/emergingeconomies/9264010963>

Those with access to all OECD books on line should use this link:

<http://new.sourceoecd.org/9264010963>

SourceOECD is the OECD's online library of books, periodicals and statistical databases. For more information about this award-winning service and free trials ask your librarian, or write to us at SourceOECD@oecd.org.



ISBN 92-64-01096-3
22 2005 02 1 P

www.oecd.org

