



Perspectives on Global Development 2010

SHIFTING WEALTH



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SHIFTING WEALTH



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Foreword

Over the past decade, a group of emerging and developing economies has been leading the way in terms of growth and development, shifting the world's economic centre of gravity. Global growth in gross domestic product (GDP) in the last ten years owes more to the developing world than to the advanced economies. If current trends continue, developing countries will account for 57% of world GDP by 2030. Dynamic economies, especially the Asian giants, China and India, are powerful engines for economic growth, and their role has been confirmed by their contribution to the global recovery from the financial and economic crisis.

Policy makers in both developing and developed countries need to capitalise on these trends. The rising prosperity in many parts of the developing world represents an enormous opportunity. Nearly half a billion people have moved out of extreme poverty in the last two decades, a rate of progress unprecedented in recent times.

Development is an integral part of the OECD's overall mission to build a stronger, cleaner and fairer world economy. This first Perspectives on Global Development documents the fundamental and systemic changes in the global economy over the last 20 years. It focuses on the reasons for the improved economic performance of major developing countries and its consequences.

The report draws especial attention to South-South linkages, which promise to be one of the main engines of growth over the coming decade. Economic ties between developing countries have strengthened as new poles of growth have emerged. Between 1990 and 2008, South-South trade multiplied more than 20 times over, while world trade expanded only four-fold. Policy needs to harness the full potential of these South-South flows. By reducing trade tariffs to the levels prevailing among advanced countries, our calculations suggest that developing countries could achieve substantial welfare benefits – worth more than double the gains from similar reductions on North-South trade. The opportunities to benefit from South-South links are not limited to trade but also include aid, foreign direct investment and migration.

There is increasing recognition, however, that economic growth is not enough. The issue of inequality still needs to be tackled. The report documents that inequality within many rapidly growing developing economies has been increasing. For social development to match pace with growth, deliberate and determined interventions are necessary to make growth pro-poor and to establish social policies that protect and promote well-being. Thanks to the new-found wealth in emerging economies, governments can now afford to boost public spending on social protection. Policy innovations in the South provide at least part of the answer. Cash transfer schemes have been adopted by a number of emerging economies – Brazil, China, India, Indonesia, Mexico and South Africa – since the late 1990s, and they now benefit 90 million households. These schemes are not insurance-based or contributory-based, but rather are financed through government taxes.

Policy making at the international level also needs to adjust to a world in which developing countries have a growing economic weight. The decisions we make, the actions we take and how we work together must recognise and reflect the new economic reality. The most significant and positive

development so far has been the Group of 20 establishing itself as the premier forum for international economic co-operation. International institutions also need to adapt. The OECD is opening up and becoming more global and inclusive. We have welcomed new members, and our Enhanced Engagement Initiative is strengthening our dialogue and co-operation with five major emerging market economies, the countries at the heart of the Shifting Wealth story: Brazil, China, India, Indonesia and South Africa.

This report shows that “the rise of the rest” is not a “threat to the west”. Overall, it is good news for development and good news for the global economy. The OECD will continue to support evidence-based policy making to promote progress and reduce poverty and inequality to achieve a stronger, cleaner and fairer world economy.



Angel Gurría
Secretary-General
Organisation for Economic
Co-operation and Development

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Acronyms and Abbreviations

AD	Anti-Dumping
AFTA	ASEAN Free Trade Area
ASEAN	Association of Southeast Asian Nations
BIT	Bilateral Investment Treaty
CACM	Central America Common Market
CCT	Conditional Cash Transfer
CIS	Commonwealth of Independent States
COMESA	Common Market for Eastern and Southern Africa
DAC	Development Assistance Committee
EBA	Everything But Arms Agreement
EPZ	Export Processing Zone
ETDZ	Economic and Technology Development Zone
EU	European Union
FAO	Food and Agriculture Organization
FDI	Foreign Direct Investment
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GNI	Gross National Income
GTAP	Global Trade Analysis Project
IBRD	International Bank for Reconstruction and Development
IEA	International Energy Agency
IFI	International Financial Institution
IMF	International Monetary Fund
ITS	Index of Technological Sophistication
LDC	Least-Developed Country
MERCOSUR	Mercado Común del Sur
MVA	Manufacturing Value Added
NAMA	Non-Agricultural Market Access
NTB	Non-Tariff Barrier to Trade
ODA	Official Development Assistance
PPP	Purchasing-Power Parity
R&D	Research and Development
SADC	Southern African Development Community
SDR	Special Drawing Right
SEZ	Special Economic Zone
SOE	State-Owned Enterprise
SSM	Special Safeguard Mechanism
SWF	Sovereign Wealth Fund

TFP	Total Factor Productivity
TRIPS	Trade Related Intellectual Property Rights
UNCTAD	United Nations Conference on Trade and Development
WEO	World Economic Outlook
WTO	World Trade Organization

Preface

Major events are often misunderstood when they occur, and their relevance underestimated. *Perspectives on Global Development: Shifting Wealth* aims to avoid a costly lag in recognising the new geography of growth – a structural realignment in the global economy at the opening of the 21st century. The seeds of this change were planted over the last 20 years. Billions of people have entered the global market economy – as workers, consumers and investors – and economic catch-up has lifted hundreds of millions out of poverty. The financial crisis, far from reversing this process, has accelerated it; many emerging economies came out of recession faster than OECD countries.

Although the rise of emerging markets, and particularly the remarkable growth of China and India, has already captured media attention, *Shifting Wealth* comprehensively documents the changing geography of economic growth across the developing world as a whole. It examines its global macroeconomic implications, as well as highlighting the increasing importance of South-South interaction in areas such as foreign direct investment, trade and aid flows. The report flags not only the emergence of a growing technological divide within the developing world, but also concerns about rising inequality within countries.

Shifting Wealth looks at these trends from the point of view of developing countries, an angle that is often overlooked in mainstream debates. The changing economic centre of gravity has altered the context in which development policy is made, offering new lessons and tools for implementation. Developing countries are now reviewing their development strategies to capitalise on the increasing potential of South-South linkages and co-operation. The report also argues that the global governance architecture should better reflect the new economic reality, giving greater representation and responsibility to emerging and developing economies.

Shifting Wealth is not a stand-alone report. It builds on a body of work by the Development Centre on the impact of emerging economies' growth on Africa, Asia and Latin America. *The Rise of China and India: What's in it for Africa?* (2006) illustrated how the growing economic power of the Asian Giants was affecting the growth patterns of African countries, while *The Visible Hand of China in Latin America* (2007) explored the opportunities and challenges that Latin American economies face as Chinese influence in the region continues to grow. Through these books and other Development Centre working papers and policy insights, it has become clear that these changes are all part of a broader transformation.

Shifting Wealth also takes inspiration from the work of long-time contributor and friend of the Development Centre, the distinguished British economist Angus Maddison, who sadly died in April this year. The concept of *Shifting Wealth* stands on the bedrock of Maddison's data and conclusions, including his landmark studies for the Development

Centre, *The World Economy: A Millennial Perspective and Historical Statistics* (2006, 2010) and *Chinese Economic Performance in the Long Run, 960-2030 A.D.* (2007). This report is dedicated to his memory.



Mario Pezzini
Director *ad interim*
OECD Development Centre

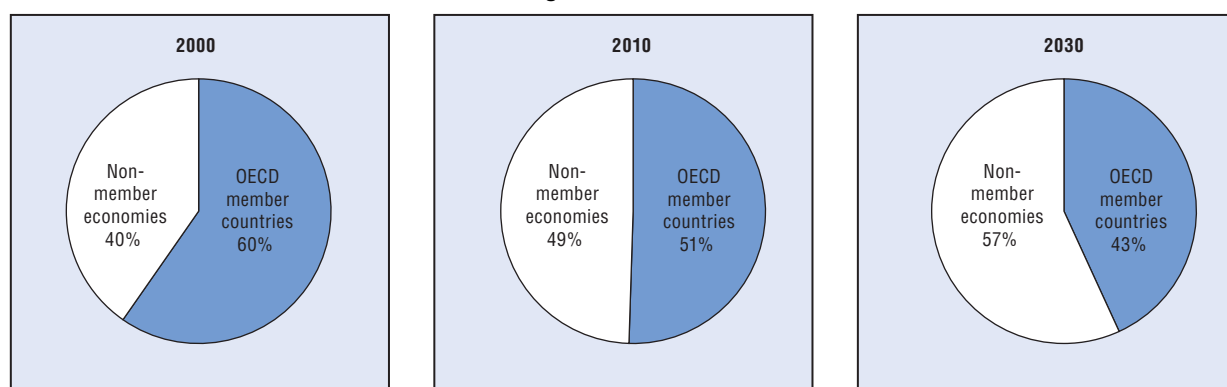
Executive Summary

In 2009 China became the leading trade partner of Brazil, India and South Africa. The Indian multinational Tata is now the second most active investor in sub-Saharan Africa. Over 40% of the world's researchers are now in Asia. As of 2008, developing countries were holding USD 4.2 trillion in foreign currency reserves, more than one and a half times the amount held by rich countries. These are just a few examples of a 20-year structural transformation of the global economy in which the world's economic centre of gravity has moved towards the East and South, from OECD members to emerging economies, a phenomenon this report calls "shifting wealth".

Perspectives on Global Development shows how developing countries have become important economic actors and demonstrates the dynamism of the new South-South economic ties. Although the process has been ongoing for 20 years, the opportunities and risks for poor countries posed by shifting wealth are only starting to be understood.

OECD non-member economies have markedly increased their share of global output since the 2000s, and projections predict that this trend will continue (Figure 0.1). This realignment of the world economy is not a transitory phenomenon, but represents a structural change of historical significance.

Figure 0.1. **Share of the global economy in purchasing power parity terms**
% of global GDP, PPP basis



Note: These data apply Maddison's long-term growth projections to his historical PPP-based estimates for 29 OECD member countries and 129 non-member economies.

Source: Authors' calculations based on Maddison (2007) and Maddison (2010).

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What does the strong growth of large emerging countries mean for our thinking on development? How can countries capitalise on the intensification of links between the developing world? Can lessons from the emerging countries be replicated for those countries which are still poor? What does the new economic geography mean for global

governance? This report addresses these questions by looking at the process of convergence and its macroeconomic impact; how this is fuelling increased South-South interactions; and the distributional challenges that growth can bring.

Shifting up a gear in a four-speed world

It is no longer enough to divide the world simply between North and South, developed and developing countries. In order to understand the complexity of the shift, this report takes and develops James Wolfensohn's concept of a "four-speed" world. This splits the world into Affluent, Converging, Struggling and Poor countries according to their income and rate of growth per capita relative to the industrialised world. This framework reveals a new geography of global growth, exposing the heterogeneity of the South: some developing countries are beginning to catch up to the living standards of the affluent, others are struggling to break through a middle-income "glass ceiling", and some continue to suffer under the weight of extreme poverty.

Seen like this, two distinct time periods emerge in terms of growth performance. For most developing economies, the 1990s were another "lost decade", hampered by financial crises and instability (Figure 0.2). Two regions in particular failed to rebuild their economic fortunes: Latin American growth responded only weakly to reforms, and sub-Saharan Africa continued to stagnate.

In the 2000s, things moved up a gear and much of the developing world enjoyed its first decade of strong growth in many years (Figure 0.3). The new millennium saw the resumption – for the first time since the 1970s – of a trend towards strong convergence in per capita incomes with the high-income countries. The number of converging countries (that is, countries doubling the average per capita growth of the high-income OECD countries) more than quintupled during this period (from 12 to 65), and the number of poor countries more than halved (from 55 to 25). China and India grew at three to four times the OECD average during the 2000s. Nevertheless, there was a great diversity in outcomes and a group of struggling and poor countries continued to underperform.

Figure 0.2. **The four-speed world in the 1990s**

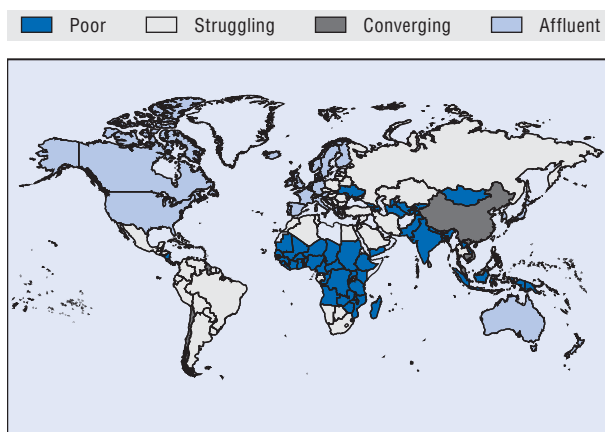
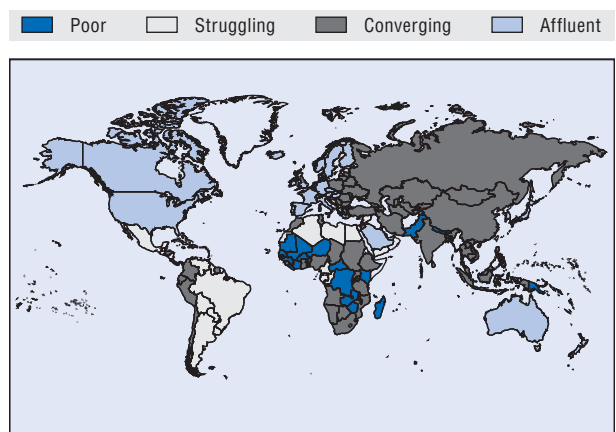



Figure 0.3. **The four-speed world in the 2000s**



Note: See Chapter 1 for a detailed description of the country classification used.

Source: Authors' calculations based on World Bank (2009).

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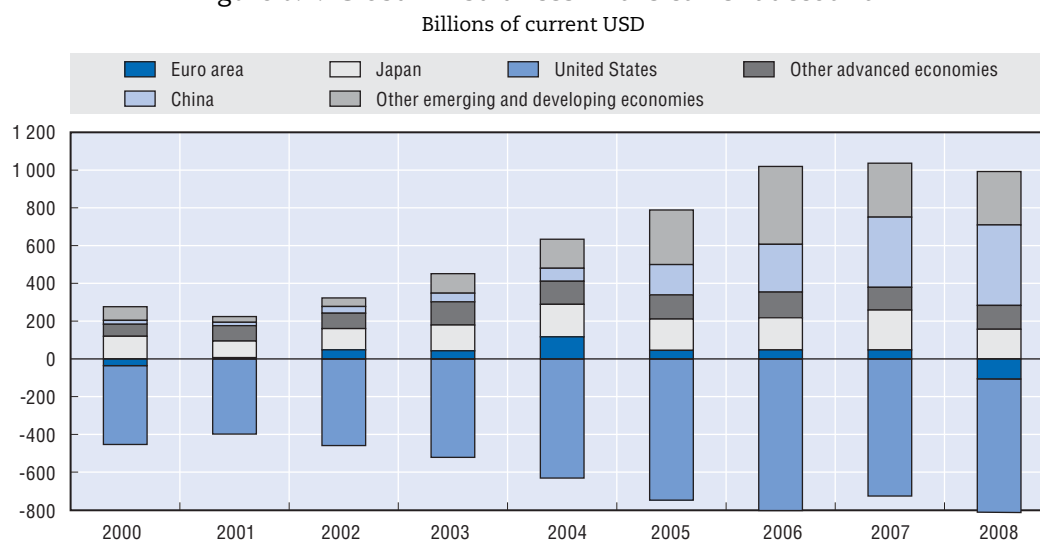
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Understanding the macroeconomics of shifting wealth

What factors underlie the realignment? First, the opening of the formerly closed large economies of China, India and the former Soviet Union brought a supply shock to the global labour market. An additional 1.5 billion workers joined the open market-oriented economy in the 1990s. This reduced the cost of a range of traded goods and services, and made the take-off possible in a number of converging countries, principally in Asia. Second, growth in the converging countries boosted demand for many commodities, particularly fossil fuels and industrial metals, transferring wealth to commodity exporters and bringing an immediate boost to growth across Africa, the Americas and the Middle East. Third, many converging countries moved from being net debtors to net creditors, keeping US and global interest rates lower than they might otherwise have been.

As these processes accelerated, global imbalances grew sharply (Figure 0.4) which has led some observers to call for an appreciation of the Chinese currency, the renminbi. However, a rapid and premature appreciation may harm Chinese growth and, by extension, some of China's economic partners, including many countries already falling in the "struggling" and "poor" categories of the four-speed world. At a deeper level, the imbalances reflect structural issues and addressing them may require profound social changes in China to boost consumption.

Figure 0.4. **Global imbalances in the current account**



Note: Data for 2008 are estimates (except for Japan and the United States).

Source: IMF (2010).

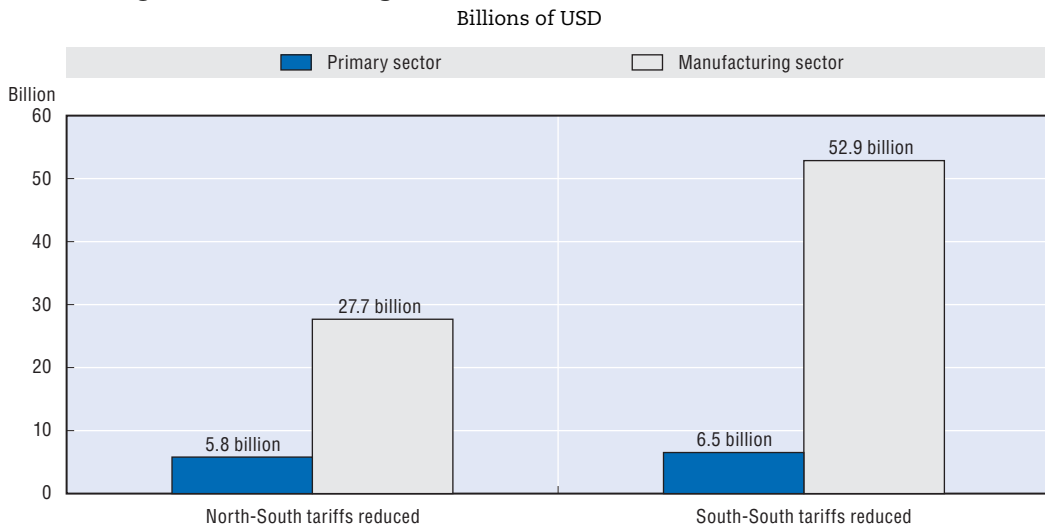
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China, India and, increasingly, other large converging countries matter for policy making as they shape the global macroeconomic context. Development policy will be incomplete without an assessment of their growth, their shifting competitive impact, their domestic demand and the finance that may be available from them.

The increasing importance of the South to the South


The direct channels of interaction between the emerging giants and poor countries – such as trade, foreign direct investment (FDI) and aid – have been intensifying. This trend is likely to continue. Between 1990 and 2008 world trade expanded almost four-fold, but South-South trade multiplied more than ten times. Developing countries now account for around 37% of global trade, with South-South flows making up about half of that total. This trade could be one of the main engines of growth over the coming decade, especially if the right policies are pursued. Simulations by the OECD Development Centre suggest that, were southern countries to reduce their tariffs on southern trade to the levels applied between northern countries, they would secure a welfare gain of USD 59 billion (Figure 0.5). This is worth almost twice as much as a similar reduction in tariffs on their trade with the North.*

Figure 0.5. **Potential gains from South-South trade liberalisation**



Note: Non-standard closure, assumes labour surplus in the South. See Chapter 4 for further details.

Source: Authors' calculations based on Center for Global Trade Analysis (2009).

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South-South FDI has also increased. China is the largest developing country outward investor with an investment stock estimated at more than USD 1 trillion. However, the phenomenon is broader, with growing activity from many firms in Brazil, India and South Africa, as well as new smaller outward investors from countries such as Chile and Malaysia. South-South investment has enormous untapped potential for low-income countries. Southern multinationals, for example, are more likely to invest in countries with a similar or lower level of development since they often have technology and business practices tailored to developing country markets.

* This implies maintaining South-South applied tariffs at current levels, but reducing reciprocal North-South tariffs to the levels prevailing on North-North trade.

Shifting wealth and poverty reduction

Shifting wealth has lifted many people in the developing world out of poverty. Poverty in China fell from 60% of the population in 1990 to 16% in 2005. The number of poor people worldwide declined by 120 million in the 1990s and by nearly 300 million in the first half of the 2000s. The contribution of growth to poverty reduction varies tremendously from country to country, largely due to distributional differences within them. In many cases, growth has been accompanied by increased inequality, complicating the challenge of poverty reduction. High levels of inequality could undermine growth and, ultimately, the sustainability of the shift.

Policy makers should pay particular attention to income inequality, both for its own sake and because it strongly influences the “poverty reduction dividend” of growth. Social policy can be a powerful means by which to limit inequality in outcomes.

The growing technological divide in a four-speed world

There has been a massive shift of manufacturing capacity from OECD members to the developing world, in particular to East Asia. Some developing countries have participated and profited from this reorganisation of global value chains; many others have been marginalised. Shifts are also evident in the distribution of technological capacity, reflected in the rising amount of Research and Development (R&D) being carried out in the developing world – an activity traditionally concentrated in Europe, Japan and the United States. Attracted by rapidly expanding markets and the availability of low-cost researchers and research facilities, the world’s leading multinationals have increased their R&D bases in low- and middle-income countries. There is even talk of a new business model emerging from the developing world, involving “frugal innovation” – designing not just products but entire production processes to meet the needs of the poorest.

One concern is the growing technological divide between those developing countries which are capable of innovating and those which seem not to be. Innovation is not automatic; countries which have been proactive in terms of implementing a national innovation strategy have generally had more success.

Individual country responses

Development strategies in developing countries need to be adapted to harness the opportunities of shifting wealth. National policies should:

- promote South-South foreign direct investment, learning the lessons from successful examples of clusters and Export Processing Zones and using investment links to achieve technological upgrading through national innovation systems;
- ensure appropriate revenue management policies in resource-rich economies and consider using sovereign wealth funds to smooth consumption and channel resources to promote growth and investment in the domestic economy;

- respond to the growing demand for agricultural exports and increasing pressure on arable land by strategies to improve agricultural productivity, through greater support to R&D and extension services, and through South-South technological transfer;
- implement pro-poor growth policies, focusing on providing more and better jobs and improving social protection through further development and replication of institutional innovations such as conditional cash transfers;
- expand South-South peer learning to help design policy based on successful experiences in the South.

Collective responses to shifting wealth

The new configuration of global economic and political power means that the affluent countries can no longer set the agenda alone. The world's problems are becoming increasingly global, and if they are to be solved, then responsibility and solutions must be shared. A new architecture for global governance is emerging to reflect changing economic realities. The post-crisis role for the G20 shows how converging powers are becoming increasingly important protagonists in global governance. This is a positive development. Efforts towards making all institutions of global governance more inclusive and representative should be sustained.

In international negotiations, the new configuration of the economy may open up space for new strategic coalitions between developing countries. Many development benefits can be secured by co-operation among developing countries, particularly in the areas of trade and technological transfer.

Shifting wealth: A win-win situation?

While many observers might see the trends described here as a threat, this report is couched in quite different terms. Rather than see the “rise of the rest” in terms of the “decline of the west”, policy makers should recognise that the net gains from increased prosperity in the developing world can benefit both rich and poor countries alike. Improvements in the range and quality of exports, greater technological dynamism, better prospects for doing business, a larger consumption base – all these factors can create substantial welfare benefits for the whole world.

That is not to deny the challenges. Environmental sustainability, growing levels of inequality within countries and increased competition are three significant issues raised by shifting wealth. The birth pains of this new economic world order have also been accompanied by enormous global imbalances. These challenges have come to the forefront during the economic crisis, but have been building over the last two decades. Despite these challenges, this report argues that the overall picture is a positive one for development.

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Introduction – Why “Shifting Wealth” and Why Now?

The global economy has undergone a structural transformation in the 20 years since 1990 that has shifted the world’s economic centre of gravity away from the OECD and towards the emerging economies.¹ Particularly over the last decade, poles of strong growth have emerged in every developing region. Economic growth has been most visible in Asia, driven by the strong performance of China and India, but it has not been confined to that continent.

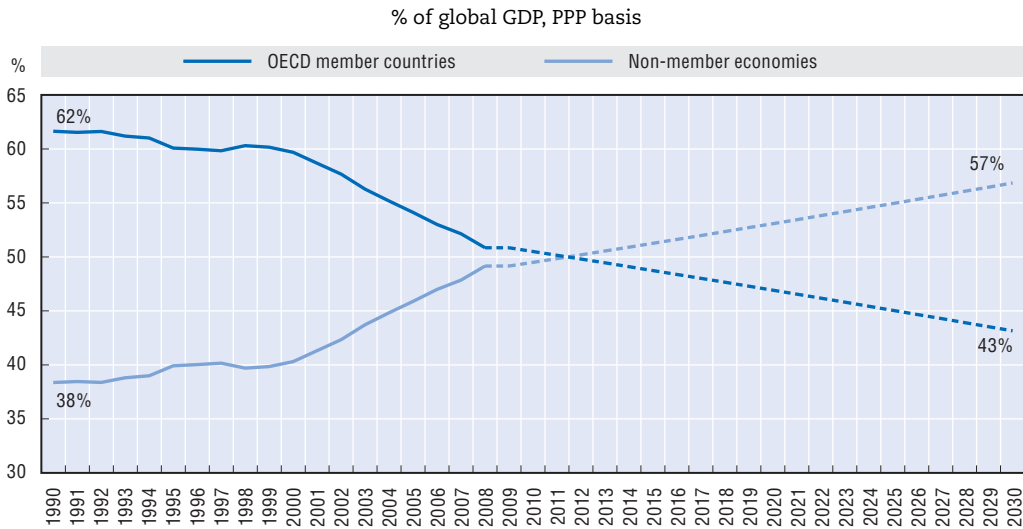
In 2007, just before the global financial crisis hit, no fewer than 84 developing countries grew their per capita income at a rate more than twice the OECD average. Among them were more than 20 countries in sub-Saharan Africa. The five-year growth performance of Latin America was its best since the 1960s. Clearly, these sustained superior growth rates are reshaping the world economy – a phenomenon this report refers to and defines as “shifting wealth”.

In economics and accounting terms, wealth has a very specific meaning. It is the net worth of a nation, household or person: the stock value of all assets owned minus liabilities owed at a particular point in time. Adam Smith, in *An Inquiry into the Nature and Causes of The Wealth of Nations*, described wealth as “the annual produce of the land and labour of the society”, using a flow, not a stock concept. This report follows Smith’s lead and looks at shifting wealth mainly as a flow. Arguably, stock values are of equal importance to shifting wealth, but due to difficulties measuring a nation’s physical, human and natural capital stock, this report refers solely to stock values that can easily be identified such as foreign reserves, sovereign wealth fund assets and the increased size of the global labour force.

The financial crisis has not been a brake on this process of shifting wealth. If anything, it has been an accelerator. Rapid growth in some emerging countries has quickly resumed, while most OECD countries struggle with the consequences of the crisis in terms of sharp increases in debt, fiscal imbalances and unemployment.² If the crisis has to some extent reaffirmed the phenomenon of shifting wealth, there is a strong likelihood that there will be more to come. According to Development Centre forecasts based on Maddison (2007), by 2030, non-OECD member countries as a group could account for as much as 57% of global gross domestic product on a purchasing-power parity basis (Figure 0.6).³


The profound implications of shifting wealth for the global economic and social landscape are only starting to be understood. While there is the beginning of a debate on how a world with new poles of growth affects advanced countries such as the United States, Japan and Europe, there is much less attention given to the benefits and risks for poor countries. Their position is a widely neglected aspect of the shift. Many people in the emerging economies – most visibly in China and India – have been lifted out of poverty in the last decade, but what does the strong growth of these large countries mean for our thinking on development? How can countries take advantage of the ever increasing South-South dimension? Can lessons from the successful countries be replicated for those which seem

Figure 0.6. **Share of the global economy in purchasing power parity terms, 1990-2030**



Note: These data apply Maddison's long-term growth projections to his historical PPP-based estimates for 29 OECD member countries and 129 non-member economies. Dotted lines indicate projections.

Source: Author's calculations based on Maddison (2007) and Maddison (2010).

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mired in poverty? What industrialisation and diversification strategies will catch the tailwinds of the Asian giants rather than struggle against their headwinds?

This report addresses these questions through the lenses of the shift and the financial crisis; the process of convergence and its macroeconomic impact; increased South-South interactions; distributional challenges; global governance and policies for better harnessing the shift. In order to understand the complexity of shifting wealth, the report uses the concept of a “four-speed” world to capture both the spatial and temporal dimension of growth. With its specific focus on South-South linkages and development implications, this report distinguishes itself from previous important work on shifting wealth such as Goldman Sachs (2003) and OECD (2009).

Change is often met with trepidation. While many observers might see the trends described here in terms of a “threat” or “decline”, this report is couched in quite different terms: as an opportunity for the global economy to shift up a gear.⁴ The new-found prosperity in the developing world represents an enormous opportunity for citizens in the developing and developed world alike. Improvements in the range and quality of their exports, greater technological dynamism, better prospects for doing business, a larger consumption base – all these factors can create substantial welfare benefits for the world.

A roadmap to this report

Chapter 1 discusses and documents the phenomenon of shifting wealth. It shows that the financial crisis has accelerated an already ongoing process that has its origins in the transitional period of the 1990s, but has truly come to the fore since 2000. A new geography of growth is introduced – a four-speed world with some countries converging to rich countries' income levels while many still struggle to escape middle-income status or suffer as low-income poor countries.

Understanding the role of the growth engine, China – the strongest performer in the group of converging countries – and its implications for growth and poverty reduction in other regions and countries is crucial. Chapter 2 highlights three important dimensions of the shift with global implications: a huge increase in the global labour force due to the integration of China and India into the world economy, the accompanying surge in demand for commodities, and the move of many emerging countries from net debtor to net creditor status that has followed. The impact of the shift on interest rates, global imbalances and development are also discussed.

One consequence of shifting wealth is the intensification of the links between countries in the South in the areas of trade, foreign direct investment and aid. Chapter 3 presents the recent evidence and discusses the scope for deepening these South-South linkages. Of course, there is nothing new in hopes being pinned on growing South-South linkages.⁵ For the first time in modern history, however, deepening South-South linkages may have reached a critical self-sustaining mass. Both development strategies and the way in which the OECD and non-OECD countries interact will need to change in a very fundamental way.

Shifting wealth has already lifted millions out of poverty and it presents the prospect of helping millions more. The social dimension of shifting wealth is discussed in Chapter 4. While substantial progress has been made in worldwide poverty reduction, more could be achieved if the gains of shifting wealth were more equally distributed and if monetary gains were translated into improving human capabilities. Growth alone is not enough: policy interventions are necessary to make the growth process beneficial to the poor (“pro-poor”) and to establish social policies that protect and promote citizens’ well-being.

Against the backdrop of shifting wealth, Chapter 5 focuses attention on some of the major characteristics of the growth process in converging countries, particularly their ability to absorb technologies and generate new ones. The different channels of absorbing and generating innovation are briefly described – upgrading of human capital, R&D, FDI, and trade. Some implications of shifting wealth for the reorganisation of global value chains are discussed. The chapter draws particular attention to a new cleavage within the developing world – the growing technological divide amongst developing countries, between those which are capable of innovating and those which are not.

The policy implications for poor countries of the trends and changes documented in this report are deep and wide-ranging. Chapter 6 and Chapter 7 map out the major trends and directions in order to facilitate the work of the policy maker, the first at the national level and the second in terms of global governance.

The opportunities presented by shifting wealth are immense – but so are the challenges. It is to some of these challenges that this report is addressed. This report does not purport to have all the answers, but rather sets the scene for a new spirit, a new approach to the way OECD countries look at the developing world, and the developing world looks at itself.

Notes

1. The growing awareness of the nature of this new world order is reflected in the upsurge in publications on the subject in recent years: for example, Prestowitz (2005), Smith (2007), Winters and Yusuf (2007), Mahbubani (2008), Zakaria (2008) and Roach (2009).

2. Reinhart and Rogoff (2010) estimate that the relationship between government debt and real GDP growth is weak for debt levels below 90% of GDP. But, above this threshold, median growth rates fall by 1% and average growth falls considerably more. The implication is that growth in the OECD countries will be weighed down over the coming decade.
3. The forecasts are taken from Maddison (2007), which refer to the period 2003-2030, and updated with the most recent data (up to 2008) available at the University of Groningen website (Maddison 2010). As will be explained in Chapter 1, shifting wealth actually accelerated in the 2000s, and the new data captures that acceleration. In these forecasts, we assume that post-crisis growth rates will decline and thus Maddison's long term projections still hold (a reasonable conjecture given current forecasts for OECD growth). The two OECD member countries missing from Maddison's 2010 dataset are Luxembourg and Iceland. One further issue to consider is the PPPs which are utilised. There has been some controversy over this issue, a controversy which intensified after the publication of the International Comparison Project's 2005 PPP revisions (see Ravaillion 2010 for a recent discussion), Maddison's data uses 1990 international Geary-Khamis dollars, and there are significant differences between the two sets of figures. Maddison himself was highly critical of the recent revisions (see Maddison and Wu, 2008). Because the debate is unresolved, we maintain the Geary-Khamis conversion for Maddison's projections but use the newer PPPs elsewhere in this report.
4. Much of this literature is reminiscent of earlier concerns over the rise of Japan and the competitive threat it represented to the United States and Europe in the 1980s. Such worries dissipated rapidly as Japan's economy began to underperform in the 1990s. Going back further, one might point to the acute concerns about the rise of the Soviet Union in the 1950s and 1960s. This led many observers to ascribe to the Soviet Union an economic and military might which in retrospect looks over-done.
5. Since decolonisation began to sweep the developing world in the 1950s and 1960s, it has been one of the long-standing aspirations of the developing world. Those aspirations were first articulated at the Bandung conference in Indonesia in 1955, and have been periodically revisited in speeches, documents and official declarations of Southern leaders and academics. See UNCTAD (2006).

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Chapter 1

Shifting Wealth and the New Geography of Growth

The resilience of the developing world during the worst financial crisis of the post-war era highlights the importance of the economic activity taking place outside the core OECD countries. In fact, growth in the advanced economies has been outpaced by that of the developing world for more than a decade. The traditional split between North and South makes little sense in an increasingly multi-polar world where the largest and most dynamic economies may no longer be the richest, nor the world's technological leaders. This chapter describes the new geography of global growth. Evident in this is the heterogeneity of the South: many developing countries are beginning to catch up with the living standards of the affluent, others are struggling to break through a middle-income "glass ceiling" and some continue to suffer under the weight of extreme poverty.

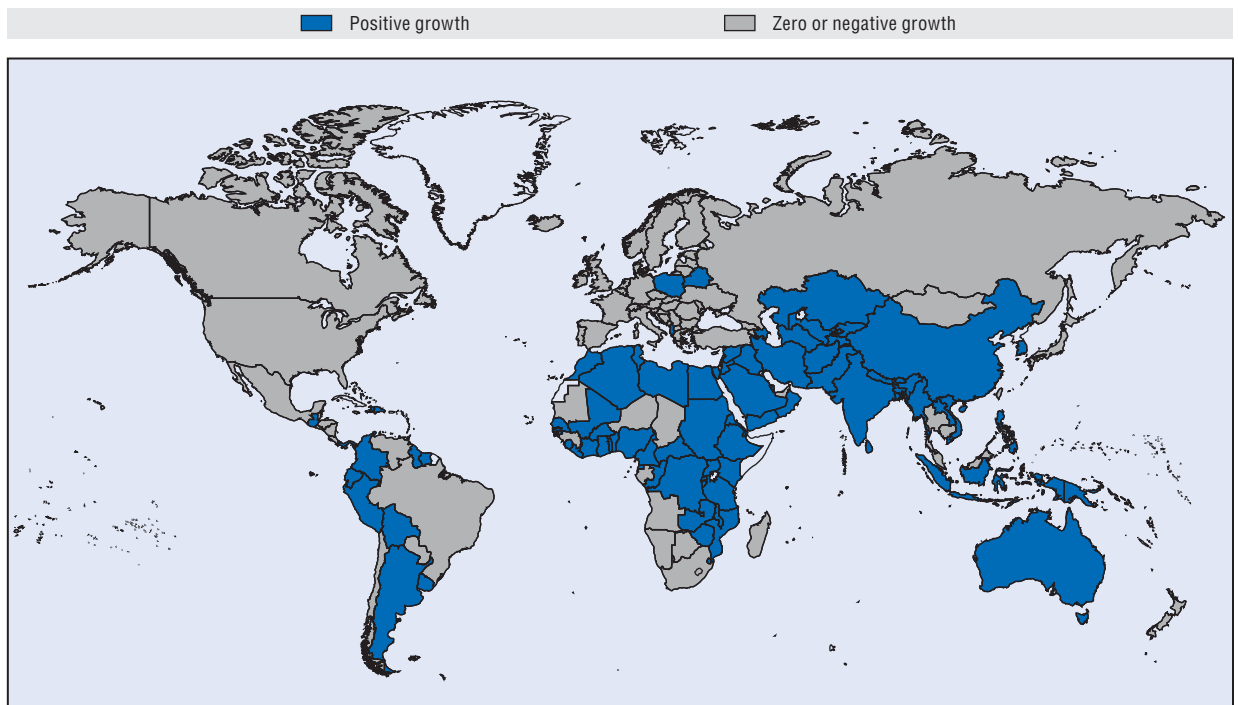
Introduction

The global financial crisis has exposed the realignment of the world economy that has taken place over the past two decades.

Since its onset in the summer of 2007, the crisis has grown into the most serious challenge to global economic prosperity since the 1930s and is testing institutions and governance systems the world over. Affluent countries have suffered major falls in output, investment, trade and employment. The OECD estimates that its members' total gross domestic product (GDP) contracted by 3.3% in 2009.¹ The crisis has affected all OECD members to varying degrees and only three (Australia, Korea and Poland) managed to post positive GDP growth in 2009.

The experience of the developing world has been more varied. Initial predictions that developing countries would suffer disproportionately were unfounded and for the most part they have responded to the crisis resiliently despite difficult external circumstances. Average GDP growth has fallen, but overall rates remain positive. Taken together, the developing countries posted growth of 1.2% in 2009 (after 5.6% in 2008).

Figure 1.1. **Change in real GDP in 2009**



Source: OECD (2010), IMF (2010).

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Economic activity in most developing countries is now starting to recover. Their average growth is expected to rise from 1.2% in 2009 to 5.2% in 2010, and is currently forecast to accelerate to 5.8% in 2011 (World Bank, 2010). To put this in context, while these levels are much lower than the average 6.9% that this group of countries achieved between 2003 and 2008, they are well above the 3.3% average performance of the 1990s.

Table 1.1. **Real GDP growth in OECD member and non-member economies, 2008-2011**

	Percentage			
	2008	2009e	2010p	2011p
OECD ¹	0.5	-3.3	2.7	2.8
High-income countries ⁴	0.4	-3.3	1.8	2.3
Developing countries ⁴	5.6	1.2	5.2	5.8
Africa ²	5.6	2.5	4.5	5.2
Africa: Sub-Sahara ²	5.7	1.6	4.3	5.2
South Africa ²	3.7	-1.8	2.4	3.3
CIS ³	5.5	-6.6	4.0	3.6
Russian Federation ¹	5.6	-7.9	5.5	5.1
Developing Asia ³	7.9	6.6	8.7	8.7
China ¹	9.6	8.7	11.1	9.7
India ¹	6.2	5.6	8.2	8.5
Indonesia ¹	6.1	4.6	6.0	6.2
Middle East and North Africa ³	5.1	2.4	4.5	4.8
Western Hemisphere ³	4.3	-1.8	4.0	4.0
Brazil ¹	5.1	-0.2	6.5	5.0

Notes: e: estimate; p: projection.

Sources: 1. OECD (2010), 2. AfDB/OECD/UNECA (2010), 3. IMF (2010), 4. World Bank (2010).

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Developing Asia is forecast to post growth of 8.7% in 2010 – higher than before the crisis. Latin America, too, has weathered the storm better than expected. The region's economy has been buoyed by both the sharp recovery in commodity prices and the adoption of successful packages of counter-cyclical policies by many countries in the region (ECLAC, 2010). The historic significance of this resilience can hardly be overstated, for a region that has traditionally been one of those most exposed to international crises. Better macroeconomic management and stronger fundamentals at the outbreak of the crisis have made the difference this time.² African countries are also forecast to recover from the crisis in 2010, achieving GDP growth of 4.5% this year (AfDB/OECD/UNECA, 2010). This all contrasts with a sluggish growth forecast for the majority of OECD member countries, despite continuing government stimulus measures.

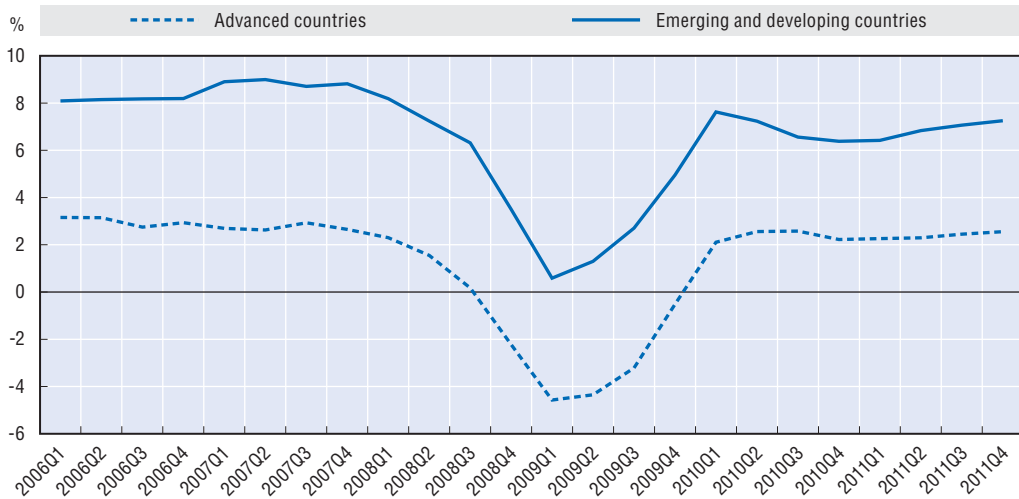
According to the forecasts depicted in Table 1.1, the strong performance of the developing world, relative to the OECD average, will continue in 2011. Despite the global downturn, the gap in growth rates between the two groups has remained relatively stable (Figure 1.2).

Turning to a longer term perspective, the evolution of this gap can be seen more clearly in the difference between the growth rates of low- and middle-income countries, on the one hand, and high-income countries on the other (Figure 1.3). It is clear that a major up-turn in relative growth rates occurred in favour of low- and middle-income countries towards the beginning of the new millennium.

The gap that has opened up in average growth rates since 2000 means developing economies have increased in size faster than their advanced peers, and accordingly

Figure 1.2. **Bouncing back – GDP, change on previous year**

Real GDP, quarterly per cent change year-on-year



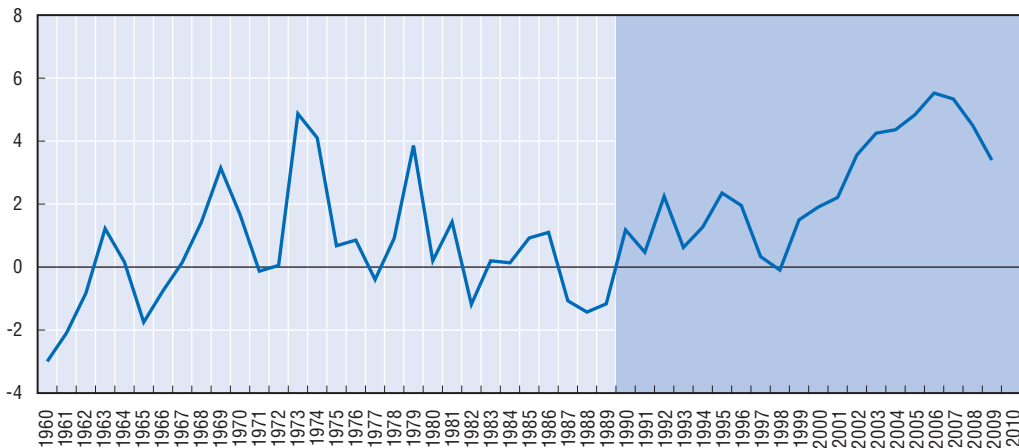
Note: Data limited to economies that report quarterly data to the IMF.

Source: IMF (2010).

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Figure 1.3. **Accelerating growth in the developing world, 1960-2010**

Percentage point difference



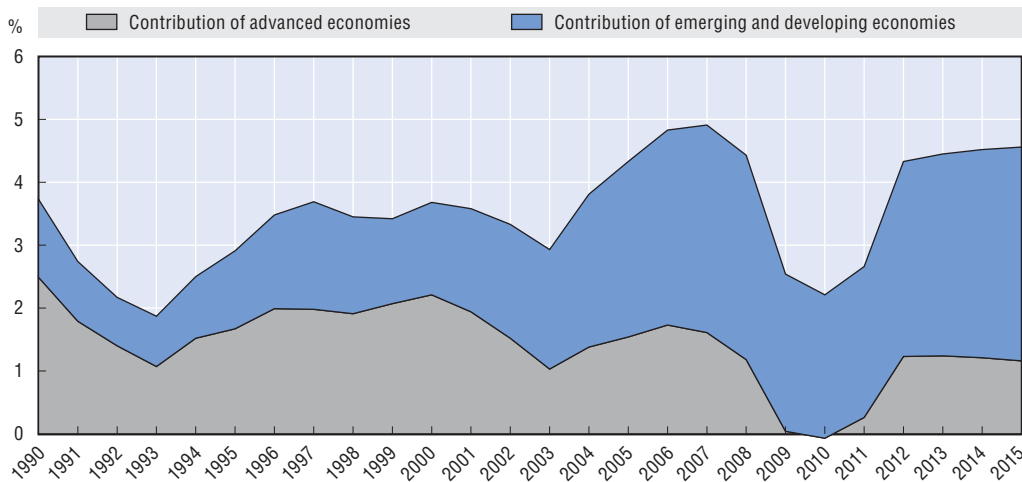
Note: The line shows average GDP growth in the low- and middle-income countries less average GDP growth in the high-income economies. Data for 2009 are based on World Bank staff estimates. Data for 2010 are based on World Bank staff projections.

Source: Authors' calculations based on World Bank (2009) and World Bank (2010).


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account for an increasing share of global growth. In fact, GDP growth over the last decade owes more to the developing world than to the core OECD members. From 2002 onwards, the contribution of the developing and emerging economies to total world GDP growth, on a purchasing-power parity (PPP) basis, was higher than that of advanced countries. Developing and emerging countries contributed nearly three-quarters of global growth between 2005-09, and that share is forecast to remain large (Figure 1.4).

Figure 1.4. **Contribution to world GDP/PPP growth**
Annual global GDP-PPP growth rate (based on a 3-year moving average)



Source: IMF (2010). Data for 2010-2015 based on IMF projections.

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The new geography of growth

The improved economic performance by emerging and developing countries raises the question of whether this is the start of an extended period of growth across the developing world. There is a long tradition of economists and economic historians trying to identify the point of “take off” into sustainable growth (Rostow, 1960; Maddison, 1970; Reynolds, 1983). Recent years have seen revived interest in this, with efforts to classify countries by development experience and thereby shed light on why some have succeeded in growing faster than others (see, for example, Hausmann *et al.*, 2005; Commission on Growth and Development, 2008; Ocampo and Vos, 2008; Kharas, 2010).

Hausmann *et al.* (2005) analysed “growth acceleration” episodes (an increase in annual per capita growth of at least 2 percentage points sustained for at least eight years) on growth since 1960. They found a surprisingly large number – 83 in all. Among these are most of the well-known episodes associated with major political changes or policy reforms (including Korea 1962, Indonesia and Brazil 1967, Mauritius 1971, China 1978, Chile 1986, Uganda 1989 and Argentina 1990). However, as the authors noted, the vast majority were not produced by such changes in the policy environment. Instead, the trigger was often minor reforms aimed at freeing bottlenecks in the economy, “reforms which do not go up against the grain of local institutions” (Green, 2008, p. 182).

One important point made in the literature is that spurts of growth are frequent but only rarely are they sustained over longer periods. A second point is that over the last 60 years there have been disappointingly few examples of sustained growth and transition towards middle- and high-income status outside Asia (Milanovic, 2005). For much of the 20th century, trends in Asia, Africa and Latin America diverged, reflecting the fact that some countries had done very well while others lagged. As Milanovic (2005, p. 61) puts it,

The emptying out of the middle of income distribution had the following two consequences. It reinforced the already strong domination of western countries at the very top of the income distribution and it reduced the number of possible contenders for positions in the top of the income distribution. In other words, western countries

have pulled ahead of the rest of the world, and in only a few exceptional cases have non-western countries been able to catch up.

It is against this backdrop that this report explores ways of breaking through this “glass ceiling” on development by harnessing the new dynamics and trends in the global economy. Capturing this complexity is no easy task – as this report will document, the global economy is more complex than ever before. Because of shifting wealth, the traditional North-South dichotomy is no longer useful in understanding the challenge of development; and, at a political level, old groupings and alliances are breaking up and new coalitions forming. Development has become a non-linear process and it is no longer enough to look at simply the “winners” *versus* the “losers”.

Shifting wealth in a four-speed world

In 2007 James Wolfensohn, a former president of the World Bank, presented a categorisation of the global economy using the framework of a “four-speed world”.³ He identified four groups of countries:

- **affluent:** which have maintained their dominance of the global economy for the last 50 years. They are home to only 20% of the world’s population yet account for approximately 70-80% of global income. These countries would continue to improve their living standards, argued Wolfensohn, but their leadership role was increasingly being contested by the next group;
- **converging:** a group of poor and middle-income economies that have been sustaining high rates of growth. This group includes countries such as China and India which will soon become global leaders;
- **struggling:** whose growth performance is irregular even if strong at times. They are not generally recipients of international aid and weigh relatively little in international decision-making processes;
- **poor:** where incomes were stagnating or falling. This last group of countries (mostly in sub-Saharan Africa and broadly equivalent to the “Bottom Billion” [Collier, 2007]) have gained little from globalisation yet are most vulnerable to its adverse effects, such as climate change and higher commodity prices. As Wolfensohn noted, “the human tragedy engulfing this group is a huge concern and political challenge to the rest of us”.

This report builds on Wolfensohn’s conceptual framework to propose a typology for country classification, which is summarised in Table 1.2.

This description of the world economy succeeds in going beyond a simple division along North-South lines but it can be enhanced by adding the dimension of time. The 1990s were for most developing countries very much another “lost decade” after the debt-ridden 1980s. Yet the 2000s were for much of the developing world a first decade of strong growth since the 1970s. Consequently, this report overlays Wolfensohn’s classification with two periods, examining the 1990s and 2000s separately in order to highlight an increase in the number of countries that “shifted up a gear” and enjoyed improved growth performance over the latter period. This four-speed world typology provides a powerful insight to the changing map of global development. Like Kharas (2010), it must be stressed that the classification does not represent analysis of country prospects or potential – it simply reflects their historic performance over the two periods. Nevertheless it highlights how a group of converging countries are pulling away from the rest of the developing

Table 1.2. **Classification of the four-speed world**

GROWTH	
INCOME	AFFLUENT are the World Bank's high-income grouping. (> USD 9 265 Gross National Income (GNI) in 2000 for the 1990s and > USD 11 455 GNI in 2007 for the 2000s) ¹
	STRUGGLING <ul style="list-style-type: none"> ● have less than twice the high-income OECD rate of growth for the respective periods and ● are middle-income at the end of the period (USD 755-USD 9 265 GNI in 2000, USD 935-USD 11 455 GNI in 2007)
	POOR <ul style="list-style-type: none"> ● have less than twice the high-income OECD rate of growth for the respective periods and ● are low-income at the end of the period (< = USD 755 GNI in 2000, < = USD 935 GNI in 2007)
CONVERGING have GDP per capita growing more than twice the high-income OECD growth rate indicative of strong convergence to high-income OECD countries. (> 3.75% for the 1990s, > 3.0% for the 2000s)	

1. This group includes high-income OECD member countries and some non-member high-income economies.
 Source: Authors' calculations based on World Bank (2009).

world. This stylised portrayal of economic performance yields important policy lessons. These are discussed further in Chapters 6 and 7.

1990 – A break with the past

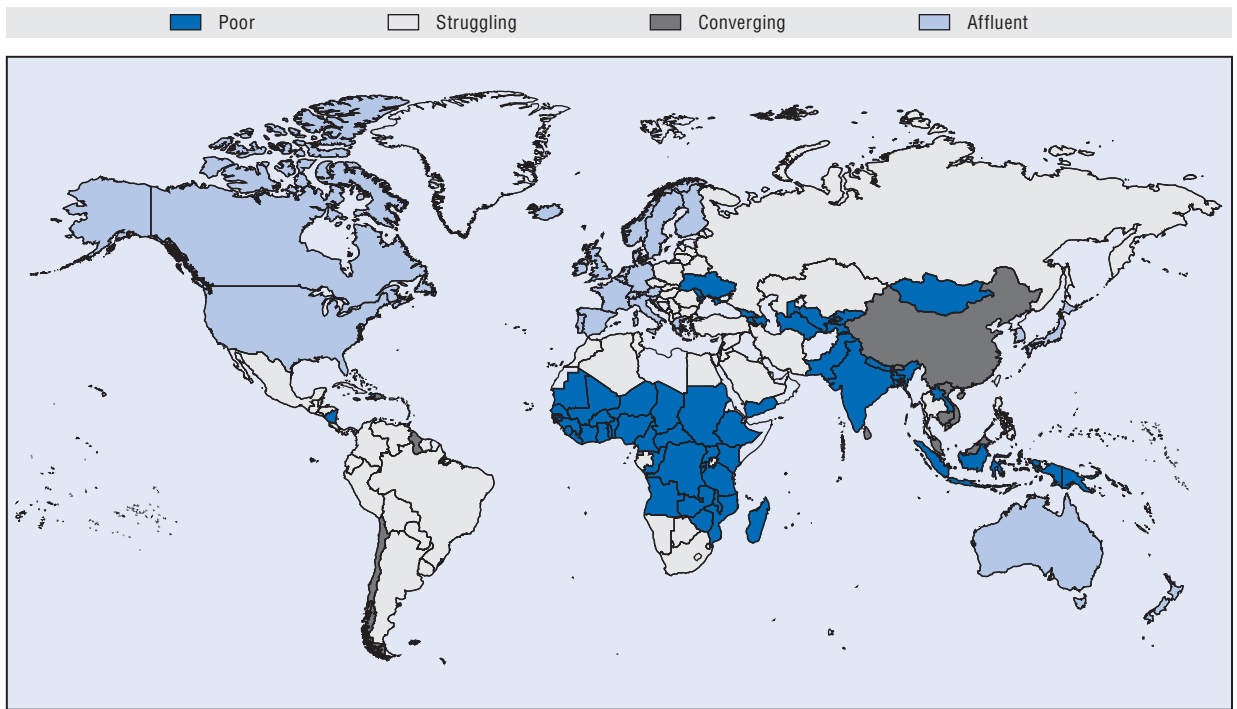
The year 1990 proved to be the midpoint of a cluster of major events that would reshape the world both politically and economically. First and foremost was the collapse of the Soviet Union, beginning with the fall of the Berlin Wall in November 1989 and culminating in the formal dissolution of the Soviet Union in December 1991. Second, elections in India in 1991 brought the pro-reform P.V. Narasimha Rao to power. From then on, the Indian economy was to take quite a different tack, with its tightly controlled and inward-looking economy being gradually deregulated and opened up. Third, in the 1990s, China began to hasten the pace of economic reforms begun in 1978, speeding up its transition towards a market economy.⁴ Finally, the end of apartheid, signalled by the 1990 release of Nelson Mandela, opened South Africa's siege economy to global markets.

This remarkable confluence of events had a profound effect on the nature of the global economy and was to mark the start of a new era of globalisation. In the space of a few years, the global market increased by 2.5 billion people and the global labour market by approximately 1.5 billion workers (Freeman, 2007).⁵ Twenty years later, the global financial crisis can be considered to have brought to a close this first chapter in the new globalised era. Figures 1.5 and 1.6 illustrate the sharply different geographies of growth experienced by the developing world in the 1990s *versus* the 2000s. A proper understanding of the fundamental changes in the global economy during these two decades is crucial for making development policy more effective in the future.

A promising background for growth

Despite the trepidation that accompanies any period of great change and a challenging economic situation in the global economy – the United States, Western Europe and Japan were all in recession – the beginning of the 1990s was nevertheless a period of cautious optimism. The end of the Cold War brought talk of a peace dividend for the developing world. A substantial cut in military budgets was foreseen, and it was hoped that

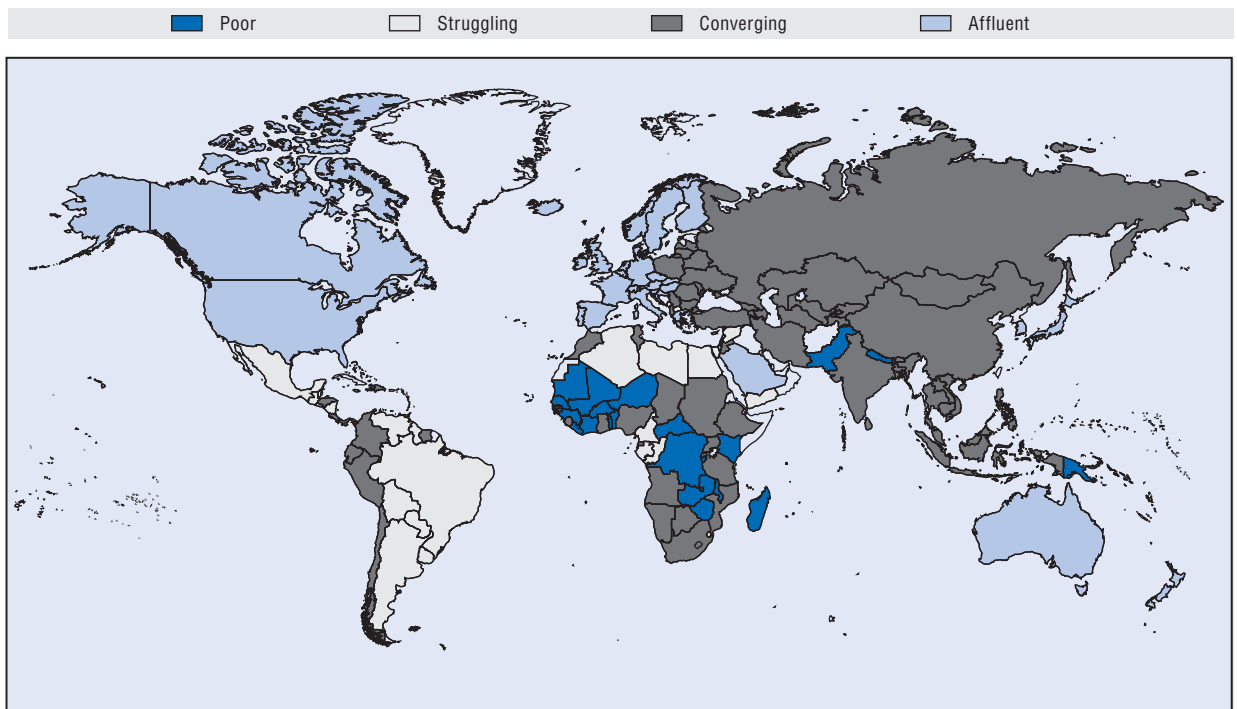
Figure 1.5. **The four-speed world in the 1990s**



Source: Authors' calculations based on World Bank (2009).

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Figure 1.6. **The four-speed world in the 2000s**



Source: Authors' calculations based on World Bank (2009).

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this would be spent on enhancing the “soft power” of the major donors through development aid programmes.

Development policy debates were dominated by the articulation in 1989 of the “Washington Consensus” – the idea that many of the great controversies about “good” policy had been settled, and that henceforth policy makers would work within a much clearer framework (Williamson, 1990). The Washington Consensus provided a rough blueprint for market-based reform. It was not completely devoid of social content (it recommended a higher priority be given to public expenditures in primary education and health), but at its heart were macroeconomic stabilisation, liberalisation, and privatisation – little or nothing was said on policies to build a more competitive economy or more cohesive societies.

In the 1990s, many developing countries correspondingly pursued policies of market liberalisation, sometimes of their own volition, sometimes under external pressure such as under an IMF structural adjustment programme. Capital accounts were liberalised, privatisation was pursued, fixed exchange rates abandoned and investment regimes relaxed. At the same time, multilateral trade negotiations were moving forward, culminating in 1994 with the successful conclusion of the Uruguay Round. This secured considerable reductions in tariffs on manufactured goods, though little progress was made on agricultural trade – a key issue for many developing countries. This policy environment accelerated the move towards a unified global market.

There was also an important political dimension to these reforms. The fall of Soviet communism seemed to be part of a wave of democratisation. In Latin America there was the “return to the barracks”, while in Africa many dictatorial regimes fell. In 1990, both the French and US administrations declared that their aid and co-operation policies would in future explicitly factor in the goal of consolidating the spread of democracy, while there was a tacit recognition that western governments would no longer support authoritarian governments (as had been the case during the Cold War). The link between democratisation and economic development was frequently alluded to at this time.⁶

In sum, there was cautious optimism that the 1990s would be a new “development decade” – that the global economy had turned a corner after the turbulent 1980s, and that development would become a reality for the Bottom Billion as well.⁷

The disappointing reality

In fact the 1990s proved to be a decade of disappointment for many developing countries. For the countries of the former Soviet bloc, the early years of the decade were dominated by long and deep recessions (Ellman, 2003). The transition towards a market economy proved anything but easy, and some countries saw major setbacks in terms of human development – in the Russian Federation, for instance, poverty rose from 2% of the population in 1987-88 to 39% in 1993-5, that is from 2.2 million to 57.8 million people (Milanovic, 1998).⁸

The financial crises of the 1990s were less predictable than those of the 1970s and 1980s. Developing and transition economies rolled from one to another: from Mexico in 1994-95, to Korea, Malaysia, Thailand, Indonesia during 1997-98, the Russian Federation and Brazil in 1998, and Turkey in 2001 and on to the last and perhaps worst of all, Argentina in 2001-02, where GDP fell by an estimated 15%. The behaviour of financial market spreads

in the months preceding these financial crises suggests that few were anticipated (World Bank, 2005).⁹

Arguably, it was the Asian crisis of 1997-98 that had the greatest effect on the policy mindset in many developing countries. Policy makers became distrustful of capital account liberalisation. They increasingly adopted fiscally conservative macroeconomic policies too – though whether this was a response to the crisis or evidence of a spread of the Washington Consensus can be debated. Certainly, the sharp rise in foreign exchange reserves after 1997 reflected a reaction to the crisis. This was an expensive insurance policy, and not necessarily an effective one – there is little apparent correlation between the level of foreign exchange reserves and the incidence of destabilising currency crises (World Bank, 2010). Chapter 2 of this report looks further at this point.

It is important to stress that the 1990s were not a simple case of otherwise good performance being wrecked by financial irresponsibility. Outside Asia, growth in the rest of the developing world was slow. Two regions in particular failed to rebuild their economic fortunes: in Latin America growth responded only weakly to reforms; and sub-Saharan Africa continued to stagnate (World Bank, 2005). Nor did the international community step into the breach – far from reaping the hoped-for peace dividend, real net official development assistance ODA declined by nearly a third over the decade.¹⁰

The performance of the developing world in the 1990s was all the more disappointing precisely because it was a decade of policy reform. Why these reforms did not produce the expected improvement in growth performance has been much debated. Some (such as Edwards, 2007) argue that the reforms needed time to produce results, and so their pay-off did not become apparent until the 2000s. Others argue that the problem resided in challenges of poor implementation, or that the policy recommendations were either incomplete or simply wrong.¹¹

It would be misleading, however, to conclude that the 1990s were uniformly bad news for development: there were some bright spots of sustained rapid growth, especially in Chile, China, India and Viet Nam. There were also examples of strong progress in non-economic indicators of well-being (particularly basic education and children's health), in spite of low growth. Finally, the crises of the decade gave the world economy a greater resilience to stresses (Pritchett, 2006) – something that was to be particularly notable in the 2000s. Most fundamentally of all, the seeds of “shifting wealth” were sown during this period, and these would lead to a very different story for developing countries in the 2000s.

The 2000s – goodbye divergence, hello convergence?

For most of the developing world, the contrast between the 1990s and the decade that followed could not be more striking. Between 2000 and 2007 the developing world experienced one of the most positive periods in terms of economic growth since the 1960s. While large countries with very high growth, such as China and India, tended to attract the headlines, in fact most of the acceleration occurred among smaller countries that in the past had been growing far more slowly (World Bank, 2010).

Every continent shared in this phenomenon. Latin America's per capita growth rates were the highest since 1965-70; by 2008 the region had experienced five consecutive years of per capita GDP growth in excess of 3%. In Africa it was a similar story: after the anaemic growth (or even decline) of the 1980s and 1990s, GDP growth for the region averaged 4.4% between 2000 and 2007. Indeed, five African countries managed to grow by more than 7%

– the commonly recognised threshold for achievement of the Millennium Development Goals. In another 14 countries, growth rates were between 5% and 6%. These numbers are impressive and some commentators went so far as to herald the advent of “African cheetahs”, echoing of the earlier “Asian tigers”.¹²

It was in Asia where the growth performance was strongest. The Asian economies of Hong Kong, China; Singapore, Korea and Chinese Taipei had all been associated with growth since the 1960s, but by the 1990s it was clear that this strong growth performance was expanding to the region’s two giants, China and India. Growth was also becoming more synchronised, drawing in low-income economies such as Bangladesh, Cambodia and Viet Nam by means of intensifying intra-regional trade and investment links (Asian Development Bank, 2007; Gill and Kharas, 2007). In the 1960s, the “flying geese” metaphor was coined to describe the gradual transfer of mature industries from Japan to neighbouring Asian economies, principally through FDI (Akamatsu, 1962; Ozawa, 2005). In the 2000s this process became increasingly relevant to the Asian giants, albeit through rather different mechanisms. China (in goods) and India (in services) became important regional trade and investment hubs, drawing in imports from elsewhere in the developing world and influencing commodity prices.

Thus, whereas in the 1990s, only 12 low- and middle-income developing countries achieved a growth rate equivalent to that of double the OECD average (and so qualified as “converging” in our classification), in the 2000s the converging group included 65 countries. At the same time, the number of poor and struggling countries declined significantly: from 66 to 38 and from 55 to 25 respectively (Table 1.3).


Table 1.3. Shifting wealth in the four-speed world

Number of countries

	1990s	2000s
Affluent	34	40
Converging	12	65
Struggling	66	38
Poor	55	25
Total	167	168

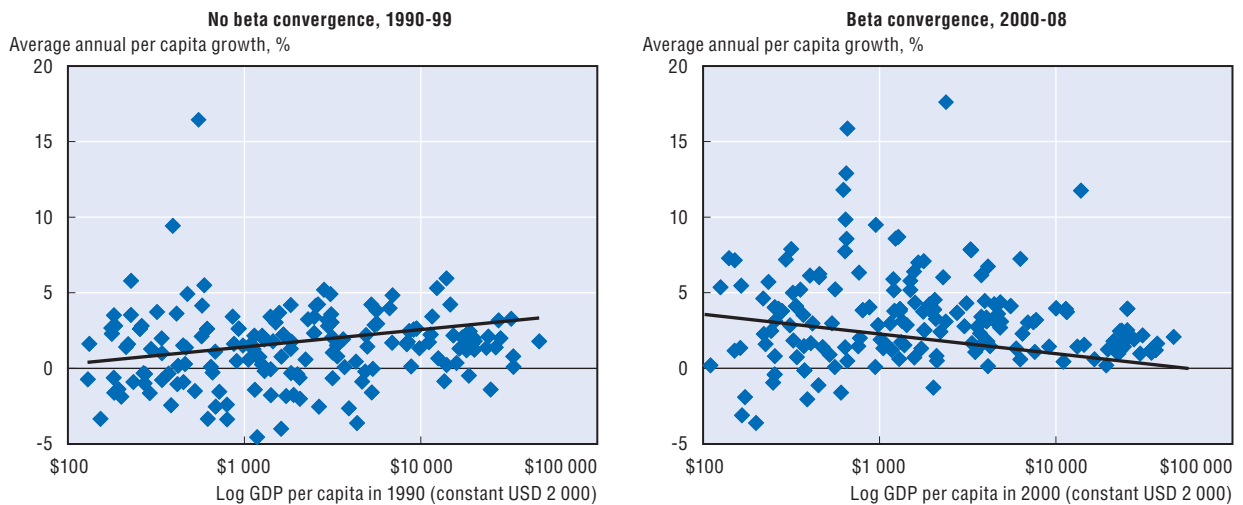
Note: See Table 1.2 for classification criteria.

Source: Authors' calculations based on World Bank (2009).


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As a result – and in a dramatic turnaround from the 1990s – the new millennium saw the resumption for the first time since the 1970s of a trend, albeit weak towards convergence in per capita incomes with the high-income countries. This reflects what economists refer to as beta convergence (Figure 1.7).¹³

Of course, many important development challenges persisted throughout the 2000s, including fragile states, food shortages and environmental degradation. Moreover, it should also be stressed that the convergence observed in the 2000s was not statistically significant.¹⁴ This suggests that any improvement is tentative, and the situation could quite easily be reversed if, for instance, the strong growth performance of the largest convergers (above all India and China) fails. Nonetheless, the “change of gear” in the 2000s was important in psychological terms, helping to shake off the development pessimism of the 1990s.

Figure 1.7. **From a diverging world... to a converging one?**

Source: Authors' calculations based on World Bank (2009).

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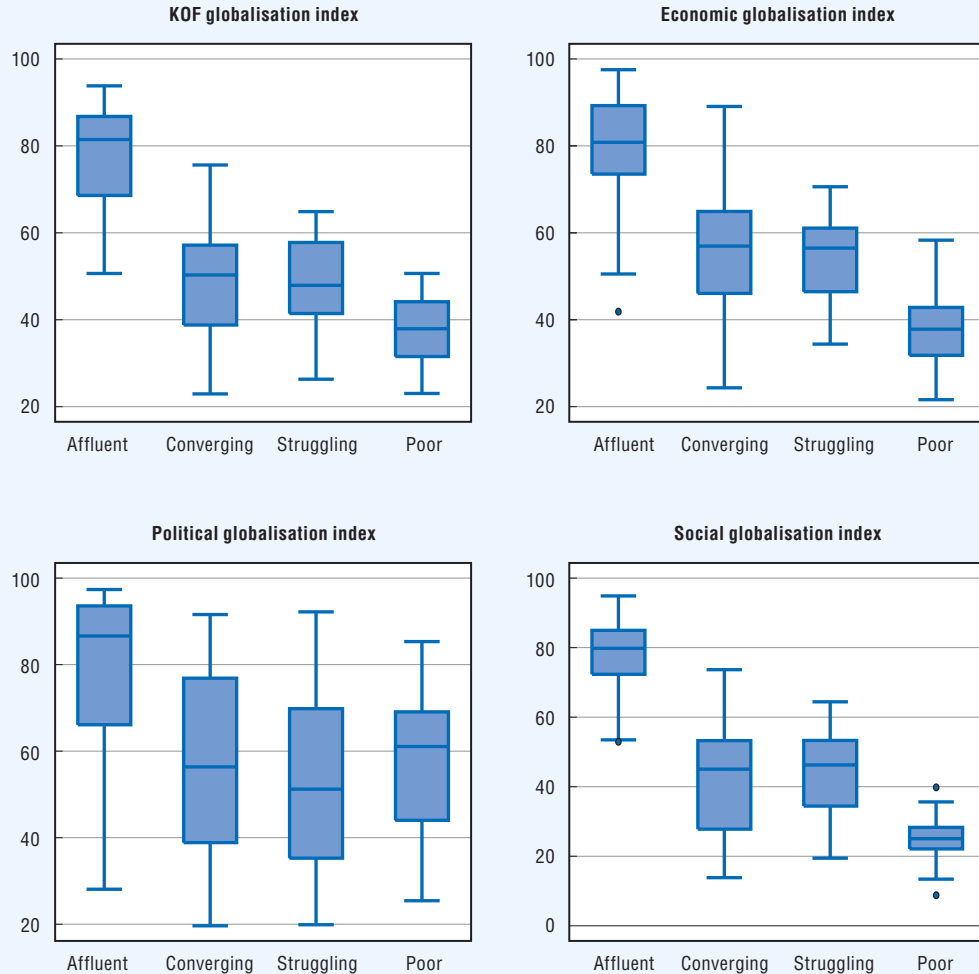
Box 1.1. **Integration into the global economy – Are converging countries different?**

One way to distinguish the 65 converging countries from the 38 struggling and 25 poor ones is to look at how countries in the different groups of the four-speed world have integrated into the global economy. Given the multiple dimensions over which this is possible, the classification is best tested against a suitable index of globalisation. The KOF index, presented by Dreher (2006), is used here. This summarises the different dimensions of integration: the economic, which measures economic globalisation in terms of the long-distance flows of goods, capital and services; the political, characterised by diffusion of government policies; and the social, expressed as the spread of ideas, information, and people. Using a panel of 123 countries with data covering 1970 to 2000, Dreher's own econometric analysis suggested that, on average, those countries that globalised more experienced higher growth rates. This was especially true for countries with a higher level of economic integration with the global economy. The absence of restrictions on trade and capital was a positive factor in developed countries, but, pointedly, was not correlated with growth for developing countries.

How well does the KOF index fit the four-speed world? For the overall KOF index and its economic sub-index using data from 2000-7, affluent countries certainly score higher than poor countries. But the differences between struggling and converging countries are less clear and there is much variability around the mean (Figure 1.8). For the political and social sub-indices, the story is more ambiguous still – surprisingly, the median score of the poor group of countries is higher than both the converging and struggling countries on the political sub-index. And struggling countries score higher on social globalisation than converging countries. Moreover, there is again significant variation around the median values. To cite just two examples, Rwanda, a converging country with an average growth rate of per capita income of 4.1% in the 2000s, has an overall KOF score of only 37.8 whereas Jamaica, a struggling country with a growth rate of only 1.5%, scores 62.2.

**Box 1.1. Integration into the global economy
– Are converging countries different? (cont.)**

Figure 1.8. Average KOF index scores according to the four-speed world classification



Note: The central mark in each box is the median, the edges of the box are the 25th and 75th percentiles. The whiskers extend to the most extreme data points not considered outliers, and outliers are plotted individually.

Source: Authors' calculations based on Dreher et al. (2008).

What this analysis does not do is provide any information on causality: do more successful countries become globally integrated as they compete in the market, or is it integration which causes growth? Clearly economic globalisation has not benefited all participants equally. For instance, the share of trade in GDP for sub-Saharan Africa increased from 51% to 65% between 1990 and 2000, yet over the same period its share of global output fell by nearly a quarter.

Of course, in practice the question for a given country is not whether to integrate into the global economy, since few have much choice in the matter, but rather how to manage that integration. On the whole, converging countries seem to have dealt with these challenges much better than struggling or poor ones.

Conclusion

While the financial crisis has put into sharp relief the emergence of a new global economic order, the seeds for this re-alignment have been well underway for nearly two decades. A broad group of converging countries has pulled away from the poor and struggling countries of the developing world. At the same time, the links between the largest convergers and the rest of the developing world have grown rapidly, and the potential for growth to spill over to struggling and poor countries is greater than ever before. These are issues that will be discussed in greater depth in Chapters 2 and 3.

However, against this apparently positive picture, economic convergence over the last decade has been weak. It could easily be reversed if the right policy decisions are not made. Also of concern is the rise of social and economic inequality and the persistence of poverty in the face of this improved growth performance (Chapter 4). Furthermore, there are signs that a worrying new technological divide is emerging among the developing countries (Chapter 5). All these factors suggest that the development policy environment needs to change in a fundamental way. Chapters 6 and 7 discuss how this can be done.

Notes

1. In 2009, for the OECD members as a group there was an estimated fall of 11.7% in gross fixed capital formation, an increase in the unemployment rate from 6.0% in 2008 to 8.1% in 2009, and an average decline in exports of 11.4% (OECD, 2010).
2. See OECD (2009a).
3. See Wolfensohn (2007).
4. China's market reform policies underwent a substantial reorientation between the 1980s and the 1990s. For discussions of the distinctive periods in the reform process since 1978, see Naughton (2007) and Huang (2008).
5. To the extent that hundreds of millions of subsistence farmers and village workers are still in practice isolated from the world of trade, foreign investment and outsourcing, the figure of 1.5 billion additional workers may exaggerate the scale of the expansion of the global labour market.
6. This shift was encapsulated in Francis Fukuyama's controversial essay "The End of History?" (1989).
7. The UN's "First Development Decade" was announced in the 1960s.
8. It was not until the second half of the 1990s that a number of transition countries improved their growth performance markedly; four of them (Czech Republic, Hungary, Poland and Slovak Republic) joining the OECD between 1995 and 2000.
9. See Bordo and Eichengreen (2002), Aliber and Kindleberger (2005) and Reinhart and Rogoff (2009). By one calculation, since 1980 banking and financial crises wiped 25% off the economic output of developing countries (UNDESA, 2006).
10. See OECD (2009b).
11. For a summary of these debates, see World Bank (2005). For a heterodox perspective, see Chang (2003).
12. Hong Kong, China; Korea; Singapore; and Chinese Taipei. See Hailu (2008).
13. The last period of convergence was in the 1970s. However, this was largely the result of the simultaneous contraction of the OECD economies in the aftermath of the oil-price shock and the expansion of many developing economies led by growing levels of sovereign debt – a trend revealed by the debt crisis of the early 1980s to be ultimately unsustainable.
14. The correlation coefficient is 0.199 in the 1990s and is statistically significant at the 5% level; the corresponding figure for 2000-07 is -0.087, though this is not statistically significant.

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Chapter 2

The Asian Giants and their Macroeconomic Impact

China and India's sustained growth and large populations are reshaping the world economy. Their newly felt scale is affecting global markets for labour and commodities. New demand has raised the price of both oil and industrial metals. The labour shock of China's entry into global markets has depressed low-skill wages globally, though the continuing shift of its export mix to higher-technology goods increasingly impacts middle-income countries.

Asset accumulation by the Chinese public sector has raised the country's global cyclical, financial and macroeconomic importance. Variations in China's output gap have growing repercussions on global interest and exchange rates. Reserve building there and elsewhere contributed to macroeconomic imbalances and the mispricing of financial risk on a global level. Socio-structural explanations for China's saving surplus mean monetary and exchange rate tools will not be enough for rebalancing. There is also a need for an increase in China's consumption rate, perhaps through reforms in its social, pension and family policies.

Introduction

The past two decades have seen an accelerating realignment of the global economy. The crisis has reinforced this rather than interrupting it, given the relatively early emergence of the large converging middle-income countries from recession. Three developments over this 20-year period in particular stand out. First, the initial wage shock resulting from the arrival of huge numbers of workers in the global labour force of large converging economies; second, the rising price of fossil energy and industrial metals – prompted by the vast appetite of these economies for raw materials, in turn, transferring wealth to their exporters; and third, the move of many emerging countries from being a net debtor to a net creditor, together with the downward pressure this has had on US and global interest rates.

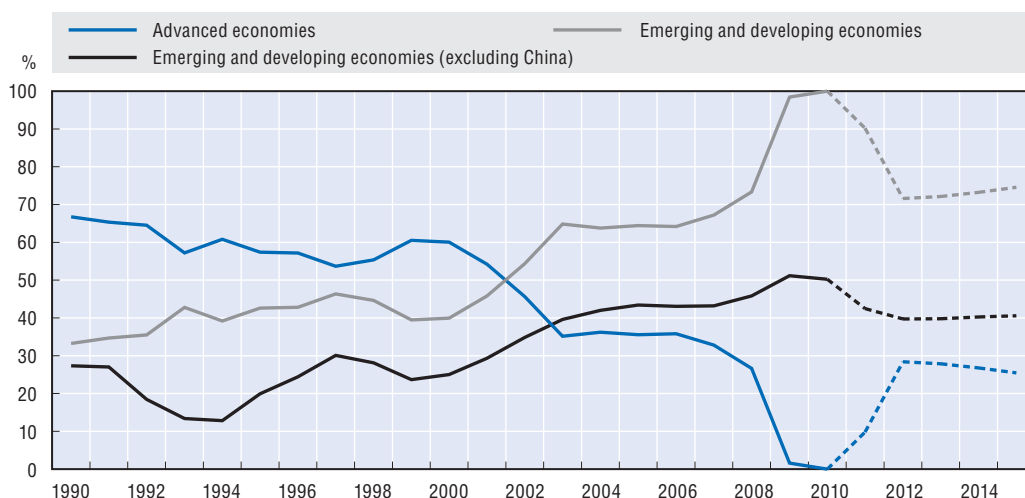
Harnessing the headwinds and tailwinds of the global economy to contribute to poverty reduction strategies now means looking at more than just trade, foreign direct investment (FDI) and aid – the direct channels of interaction between large converging countries and the poor countries. It is necessary to look at the present and future potential of the drivers that support or even lead global growth. This also means analysing the pricing power of the large converging countries on the key macro variables that impact poor countries: raw material prices, low-skill wages and interest rates. A solid understanding of the global drivers of these macroeconomic trends will allow poor countries to formulate the appropriate national strategies and practices to respond to the rise of their converging partners. This chapter therefore looks first at the Asian giants' macroeconomic impact on each of these variables, and then examines what macroeconomic drivers underlie the imbalances that have dominated the global economy over the last decade.

A new engine of growth

As shown in Chapter 1, emerging and developing countries contribute to an increasingly large share of global growth. However, simply adding together the shares of emerging and developing countries can be deceptive. The influence of China and, increasingly, India is disproportionate and overwhelming, a reflection of both their scale and dynamism. Excluding China, the contribution of developing economies to PPP-adjusted global GDP growth was around 40% when the crisis broke in 2008. Including China raises the contribution of the emerging and developing group to almost 70%. As the crisis has unfolded, global growth has relied primarily on the emerging and developing economies, with nearly half coming from China alone (Figure 2.1).

Understanding the China's role – the leading member of the group of converging countries identified in Chapter 1 – is the key to understanding the macroeconomic implications of shifting wealth for poor countries. Indeed, China has become a global growth engine that should be treated as an additional driving force behind the recent growth performance in converging countries. China also has more power to influence

Figure 2.1. **Contribution to world GDP, PPP growth**
 % Contribution to world GDP, PPP growth (based on 3-year moving average)



Note: Projections are shown with a dotted line.

Source: IMF (2010).

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global factor and goods prices than any other converging country (noting sector-specific exceptions for Brazil in agriculture and Saudi Arabia in fossil fuel energy).

Recent research by Levy Yeyati (2009) supports this contention. He shows that growth for a sample of emerging economies¹ from 2000 onwards was more dependent on growth in China than in the G7, a reversal of their dependence in the 1990s. Splitting the data between earlier (1993-99) and later (2000-09) periods, Levy Yeyati finds that the explanatory power of G7 growth virtually disappears in the later period as a result of increasing Chinese influence. The elasticity of growth in the sample to G7 growth in the later period was just 0.267, while the corresponding elasticity to China's growth had grown to 1.115. That is, 1 percentage point of GDP growth in China during this period was associated with growth in the sampled emerging economies of more than 1 percentage point.²

In a similar exercise, Garroway *et al.* (2010) extend the analysis beyond emerging economies and focus on changes in the sensitivity of all low- and middle-income country growth rates to Chinese growth. By comparing the 1990s to the 2000s, they document that the latter period witnessed strengthening of the link between China and the developing world. As was the case with the emerging markets in Levy-Yeyati's work, the sensitivity to advanced economies also significantly decreased for both the low and middle-income economies. They find that any change in the growth rates of the Chinese economy has implications for the emerging and developing world. A 1 percentage point increase in China's growth rates results in an 0.2 percentage point increase in the growth rates of low-income countries. As for the middle-income countries, this growth sensitivity with China is stronger, with a 1 percentage point increase in China implying a 0.37 percentage point increase in middle-income countries' growth rates.

These findings have important implications for low- and middle- income countries that are increasingly benefitting from China's growth. The results show that both the low and the middle-income economies have established a positive link with China. While this was the case for middle-income countries in both the 1990s and 2000s, the impact of China only became significant for the low-income economies in the 2000s. This evidence supports China's rising

profile as the new global driver of growth. However, it also highlights the amplified vulnerability of the developing economies to any shock to China's GDP. It is widely accepted that on average, across countries, economic growth is associated with reductions in income poverty (see Chapter 4). The research by Garroway *et al.* (2010) thus suggests that China's growth may have translated into poverty reduction in poor countries. China may have been the most potent global poverty-reduction engine during the first decade of the 21st century. Given disappointing growth in the G7 but a dynamic Chinese economy, a critical implication is that converging-country growth is linked to the global engine "that works".

What does this mean for poor countries? Their lack of social safety nets, lack of capacity to adopt counter-cyclical policies and a high degree of dependence on foreign flows (mostly in the form of remittances, FDI and aid) mean that macroeconomic linkages matter more for them than for other countries. The nature of economic interactions between the North and the South has evolved from dependence to inter-dependence along many axes.³ Decoupling converging- and advanced-country growth should therefore be good news for poor countries. It should foster a more stable global growth constellation and increase opportunities for risk-sharing across countries. The emergence of new poles of global growth will mean higher output stability if diversified and independent output fluctuations between rich and converging countries tend to cancel each other out. Less welcome may be a conclusion that poor countries will "catch a cold when China sneezes" if China simply replaces the advanced economies as the source of potential contagion.

The shifting of the economic centre of gravity towards new growth engines has implications for asset values and the prices of raw materials. For decades, investors have looked to the United States to pull the world out of recession. Today, the impetus is coming from China, which has come through the financial crisis in much better shape than many observers initially expected. Poor countries, but also the western financial world will need to change their approaches accordingly. For example, when China acted to avoid domestic over-heating by imposing lending curbs on its banks in early 2010, the negative effects on raw material prices and Asian stock markets were virtually immediate.

The broader group of large converging countries matter increasingly for key prices that are important to poor countries, because they can bring massive shifts in relative wealth and purchasing power. This is discussed in the following sections.

**Box 2.1. China's place in the world
– Shifting wealth, shifting health, shifting tastes...**

China's re-emergence as a world power is the most visible and recognisable manifestation of shifting wealth. The table below captures some dimensions of China's meteoric rise. The indicators include both traditional economic ones, as well as some alternative measures that offer a more eclectic view of shifting wealth in action. While China remains home to nearly one-fifth of the world's population, its share of the world's rural inhabitants and arable land has declined as the country transitions from a predominantly agricultural society to a modern industrialised one. The last 20 years have seen China double its share of the world's manufacturing value-added, triple its share of steel production, and almost quadruple its share of gross domestic product. China now holds more than one-tenth of the world's currency reserves and receives nearly one-tenth of the remittances sent home from migrants working abroad. Chinese residents today hold nearly one in three of the world's trademarks and account for one in six of its patent applications.

Box 2.1. China's place in the world
– Shifting wealth, shifting health, shifting tastes... (cont.)

China once accounted for more than one-third of global absolute poverty, now it is less than one-sixth. While holding a negligible part of the world's telecommunications infrastructure 20 years ago, China now accounts for one-fifth of the world's telephone subscribers, more than a quarter of the world's phone lines, and nearly one-sixth of the world's internet users.

The country has also dramatically increased its consumption of the world's luxury products. Chinese imports of French champagne have increased fifty-fold since the 1990s. Even with this growth China still represents less than 1% of global consumption of the beverage, so clearly there is still much more room for Chinese tastes to shift!

Not all the news is reason to celebrate, however. China has more than its "fair" share of the world's smokers, and despite remaining relatively poor, its share of global carbon emissions has been rising extremely rapidly.

Table 2.1. China's share of the world's...

	Percentage	
	Early 1990s	Late 2000s
Total population	21.6	19.8
Rural population	27.5	22.6
Arable land	9.2	8.6
Poor (living on < USD 1.25 PPP/day)	37.6	15.1
Manufacturing value-added	5.1	10.6
Steel production	12.4	38.8
GDP (PPP rates)	3.5	11.4
GDP (market rates)	1.7	7.1
Foreign exchange and gold reserves	2.7	21.9
Workers' remittances (received)	0.3	9.4
Trademarks (held by residents)	5.9	31.7
Patent applications (filed by residents)	0.9	15.1
Telephone subscribers	1.3	19.7
Telephone lines	1.3	28.9
Internet users	0.0	15.2
Champagne (imports by volume)	< 0.1	0.3
Tobacco smokers	–	26.8
Carbon emissions	11.3	20.1
Armed forces personnel	14.6	10.6
Arms exports	5.4	2.2
Arms imports	0.7	5.5

Source: IMF (2009a), World Bank (2009), UNIDO (2009), Central Intelligence Agency (2009), Guindon and Boisclair (2003), Comité Interprofessionnel des Vins de Champagne (2009).

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A labour supply shock – with an effect on global wages

The opening of formerly closed large economies brought a supply shock to the global labour market, the scale of which can be compared to the increase in the western world's access to land and natural resources following the opening of routes to the Americas five centuries ago. In the first years of the 1990s, the integration of China, India and the former Soviet Union brought the world economy new labour forces of 750 million, 450 million and 300 million respectively. The arrival of these 1.5 billion workers doubled the number of people working in open, market-oriented economies and so halved the capital/labour ratio.

Applying a very simple Cobb-Douglas production function (with typical factor shares of one-third for human capital, one-third for capital and one-third for labour), this shock labour integration may have depressed world real equilibrium low-skill wages by 15%.⁴

A core model of economic development, the Lewis-Ranis-Fei or “surplus labour model” (Fields, 2004), helps explain one crucial feature of this period. The modern sectors of the Asian giants – and by extension the world economy – have until recently had an effectively unlimited supply of labour at wages close to subsistence levels. The labour market was Ricardian, not neoclassical, in the sense that wages did not reflect marginal productivity but were able to stay at subsistence levels as long as surplus labour persisted. As the value of the marginal product of this labour far exceeded its cost, profits were high and these profits were saved and reinvested. China’s extremely high corporate savings and investment rates therefore have a link to this labour-market phenomenon.

At first, rapid growth of exports of low-skill and labour-intensive manufactures, particularly by China, increased the available supply of these goods and hence exerted a downward pressure on their prices. Kaplinsky (2006) examined data on the major product-groupings (at the SITC eight-digit level) imported into the EU between 1988 and 2001 in which developing-country exporters were prominent. Reporting the proportion of the sectors for which the unit-price of imports from different income groups fell, he found that in almost one-third of these sectors the price of Chinese-origin products dropped. His later study (Fu *et al.*, 2010) suggests that China’s exports have recently had less effect on those economies where competitiveness is largely based on low wages. Whereas prior to the late 1990s Chinese exports put greatest pressure on the prices of low-income countries, thereafter it was middle-income countries that were most affected. The study also points to a depressive effect for high-income countries in low-tech product markets.⁵

China’s export success was first underpinned by cost-competitiveness in traditional light manufactures and final assembly as a result of its abundance of labour. This was accompanied by policy reforms which facilitated the linking of the local economy into global production chains. Many observers now also believe that China’s competitiveness has benefited from an artificially low exchange rate, though this remains the subject of considerable debate.

This integration into the global economy certainly created competition, notably against labour in countries that have traditionally been outsourcing destinations. On the other hand, it has also created openings. China has become a sizeable importer within global production networks. In fact China’s role as an importer of components from other East Asian countries for processing and re-export to western markets has grown so deep that China cyclically leads its Asian neighbours (Tanaka, 2010). This national and regional integration into global production is reflected in the dual nature of China’s bilateral trade balances: in surplus with most developed economies – particularly European countries and the United States – and in deficit with nearly all Asian countries. The complementarities of Chinese and Asian exports are therefore such that a real effective appreciation of the renminbi would lead to a decline in total exports from many East Asian economies (Garcia-Herrero and Koivu, 2008).

The OECD’s 2010 *Economic Survey on China* (OECD, 2010) sets out how China’s labour market is in transition. Over the past decade the share of jobs not controlled by the state has increased considerably, whilst employment in agriculture has declined against a backdrop of ongoing urbanisation. More than 200 million people have been drawn to urban areas through official or unofficial migration, despite obstacles to labour mobility such as the registration system and its associated restrictions on access to social services. The urban labour market

grew at an annual rate of 3.5% compound during 2000-07 (Cai et al., 2009), implying an annual absorption requirement of 12-15 million people. Behind this movement is the rural-urban income gap – the ratio stood at 1:3 in 2007 – combined with some relaxation of internal restrictions. According to nationally representative Chinese census data from 2005, migrant workers accounted for more than 20% of the labour force in the urban labour market. Yet despite this massive migration, and allowing for rural-urban skill differences (Gagnon et al., 2009), urban per capita income has continued to rise much faster than rural per capita income.

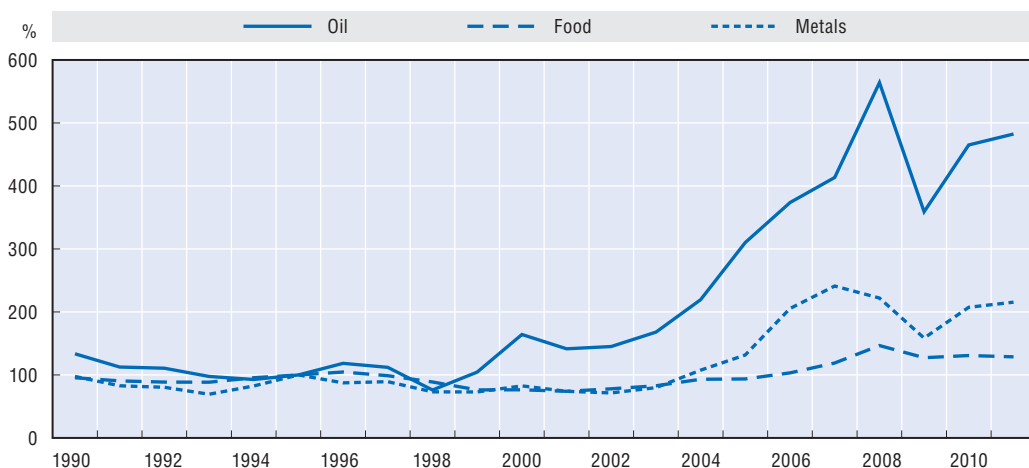
However, recent estimates using provincial-level data show that the marginal product of labour has been increasing at a faster pace than wages. This suggests that China is steadily moving toward the “Lewis Turning Point” (Islam and Yokota, 2008), where wages start to reflect marginal labour productivity. For its trading partners this shift has two effects: it will reduce pressure on global wages, but may also reduce the real purchasing power of wages as the price of low-tech goods rises in response to higher Chinese unit labour costs.

New and growing demand – reflected in commodity prices

Until about 2000, continuing technological advances had prompted the widely held belief that global GDP was becoming “lighter”, that is each unit of output required fewer units of raw-material input to produce. The perception was that demand for commodities would remain subdued even in the face of robust economic growth. In fact, since 2000 the demand for commodities has been strong. By the onset of the crisis, oil prices had quadrupled and metals prices almost doubled from their 1995 levels (Figure 2.2). Food prices, by contrast, saw only a relatively moderate rise over the decade (including a short-term spike in 2007-08), reflecting the prevalence of supply-side determinants which have driven price decreases over longer periods (OECD-FAO, 2008).

Figure 2.2. **Real commodity prices**

Price indices, 1995 = 100



Note: Data for 2010 and 2011 based on IMF staff projections.

Source: IMF (2010).

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Many explanations have been put forward for the surge in the real price of crude oil, including speculation in oil futures and spot markets, adverse oil supply shocks, deliberate restrictions on OPEC production, and shifts in global real economic activity.⁶ Recent evidence, however, points to a significant demand effect (which applies also to metal prices)

arising from superior emerging-country growth. Killian and Hicks (2009) utilise a direct measure of global demand shocks, based on revisions to real GDP growth forecasts, to show: that revisions were associated primarily with unexpected growth in emerging economies; that markets were repeatedly surprised by the strength of this growth; that these surprises were associated with a hump-shaped response in the real price of oil that reached its peak after 12 to 16 months; and that news about global growth predicts much of the surge in the real price of oil from mid-2003 until mid-2008 and much of its subsequent decline. The IEA (2007) simulated hypothetical demand on real oil and metal prices by removing the impact of non-OECD growth. According to their simulations, the cumulative impact over 2000-05 of zero growth outside the OECD member economies would have been to leave real oil prices 40% lower than actually observed, and real metal prices 10% lower.

Rising global demand for industrial commodities driven by unexpected economic growth certainly seems to have supported the real price of industrial metals. From 2000 to 2005, China contributed all of the growth in consumption demand in lead, nickel, tin and zinc, and roughly half in aluminium, copper and iron ore (steel). Indian energy and steel use also accelerated in the first decade of the 21st century, although at a more moderate pace. China alone accounted for a third of oil demand growth, and the contribution of the rest of Emerging Asia, Emerging Europe and, especially, the Middle East, was also significant until the global crisis struck. Conversely, the consequent rise in prices actually led to a slowdown in demand growth in mature markets.

Are we in a new super cycle'?

Changes in market demand on this scale, of this pervasiveness and this duration are unusual. In a careful empirical investigation by the IMF of data covering 150 years, Cuddington and Jerrett (2008) looked at the market for copper. They conclude that it was not possible to reject the hypothesis that the high GDP growth rates enjoyed by China and other emerging markets were associated with the emergence post-1999 of a “super cycle” in commodities.

“Super cycles” are phenomena associated with the urbanisation and industrialisation of large populous economies. They are demand driven (which implies that the super cycle components in individual commodity prices should be strongly positively correlated). They are long-period, with upswings of roughly 10 to 35 years. And they are broad-based, affecting a wide range of industrial commodities including metals and other non-renewable resources. The past century and a half brought two earlier super cycle expansions: the first ran from the late 1800s through the early 1900s, driven by economic growth in the United States; the second was from roughly 1945 to 1975, initiated by post-war reconstruction in Europe and fuelled by Japanese economic expansion.

Nevertheless, at current levels of commodity prices it would be reasonable to recognise considerable downside risks. First, China, even though relatively scarce in natural resources, is still a significant producer of some (for example oil and metals) and rising prices can be expected to trigger a domestic supply response. Second, rising prices bring greater scope for the cost-effective implementation of alternative and more efficient technologies – China, for example, is already raising energy efficiency and reducing energy demand per unit of output. Third, the initial rapid take-off phase of energy- and metal-intensive industrialisation is likely to give way to more balanced growth, with emphasis on domestic consumption and rural development. While it is the impact on marginal demand that has driven price determination in oils and metals, future growth may well come more from gains in factor productivity than from capital accumulation.

The exception: food

Agricultural commodities seem to have other drivers. OECD-FAO (2008) do not see demand from China, India or other emerging markets as an over-riding factor in determining price trends in this sector. They believe that growth in the supply of agricultural products (largely as a result of productivity gains) will eventually outweigh demand – whether for human consumption or as a feed-stock for industry, in particular biofuel production. Consequently, they see prices resuming a real decline over the longer term, though possibly not as fast as has previously been the case.⁷ Continued population growth, expanding demand as a result of higher incomes, and climate change are the future challenges for agriculture production (von Braun, 2008). What is certain is that the huge populations of Brazil, China and India will mean these countries, even if not price-setters, continue to play a critical role in world food markets as both major producers and consumers.

Big enough to be a new source of volatility?

Rising absolute prices as a result of new demand from the Asian giants have a significant positive impact on the economic performance of the developing world. However, the value of this is tempered by price volatility. Volatility in global markets arises partly from cyclical variations in demand and partly from arbitrage between domestic production and imports. Although it is difficult in practice to separate out these effects, at least some part may stem from the role of large converging countries as swing producers – exporting when prices are high and stockpiling when (for cyclical or other reasons) they are lower. Given the size of their economies, any behavioural change – real or perceived – is quickly reflected in prices and so may feed increased volatility. Variations in China's and India's commodity stockpiles, or infrastructure investments (as in 2009 economic stimuli) are examples of such changes.

But is the world really experiencing higher commodity-price volatility than before? In the left-hand panel of Table 2.2, we calculate a measure of volatility over a number of periods between 1990 and 2009. Clearly there has indeed been an increase in volatility over the last decade, even discounting the very high levels experienced during the crisis. The increase is most marked in the case of fuel commodities.

Table 2.2. Commodity price volatility

	Volatility of non-fuel primary commodities	Volatility of fuel and non-fuel commodities	Volatility of all commodities			
			USD	SDR	EUR	
1990-1995	0.015	0.019	1990-1994	0.022	0.028	
1995-2000	0.018	0.035	1995-1999	0.019	0.022	
2000-2007	0.021	0.041	2000-2007	0.026	0.025	0.034
2008-2009	0.056	0.096	2008-2009	0.062	0.055	0.056
1990-2007	0.019	0.035	1990-1999	0.021	0.025	
1990-2000	0.017	0.029	2000-2007	0.026	0.025	

Notes: Table entries represent the volatility levels of commodity price indices, calculated as the standard deviation of the per cent change in the monthly price indices over each period. The left-hand table presents the volatility levels of non-fuel and all commodity price indices in USD (2005 = 100). The right-hand table presents the volatility of the all commodity price index reported in USD, special drawing rights (SDR) and EUR (2000 = 100 in each case). This controls for any changes in the volatility of commodity prices induced by exchange rate fluctuations.

Source: (Left-hand) IMF (2009b), (right-hand) UNCTAD (2009b).

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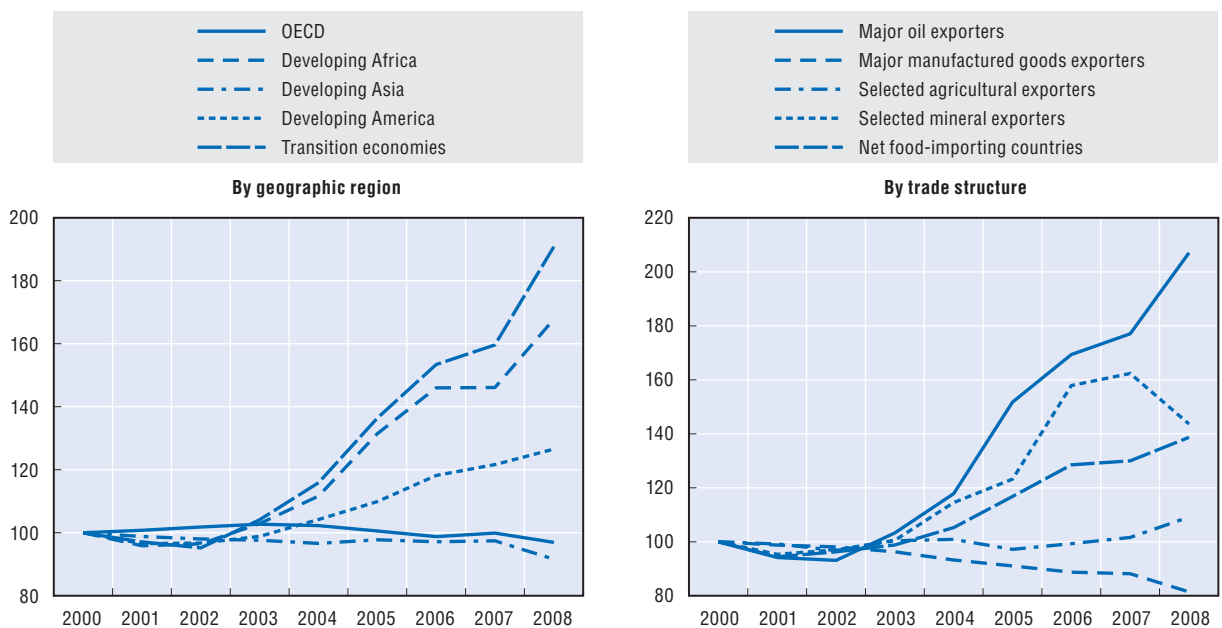
Most commodity price indices are denominated in US dollars, and one component of overall commodity price volatility is therefore volatility in exchange rates. The right-hand panel of the table separates out this component. The figures show that the commodity price volatility calculations are robust to exchange rate fluctuations. Trends in volatility levels cannot be attributed only to the fluctuations in the value of the US dollar. Currency hedging alone will not be enough – the increased underlying volatility of commodity prices will need specific hedging or insurance to mitigate its cost to both importing and exporting countries.

The effect of the giants on terms of trade

From the perspective of the poor countries, the most important consequence of the Asian giants' entry into the global economy has been their impact on the global terms of trade (Kaplinsky, 2006). As noted above, their arrival lowered the global average resource/labour ratio and increased the share of workers with a basic education in the global labour force. Other countries therefore found their relative position shifted in the opposite direction, tending to move their comparative advantage away from labour-intensive manufacturing. The corresponding increase in comparative advantage was mainly in primary production (Wood and Mayer, 2009). For a particular country, therefore, the net impact depends on the composition of its manufacturing and primary production. That is, how closely its industrial products compete with Asian exports and how much additional demand there is for its primary exports. The changing terms of trade (documented in Figure 2.3) have major strategic implications for poor countries, and frame the development of policies covering, for example, aid, foreign investment and trade negotiations. A long-term reversal in the relationship between the prices of manufactures and commodities would challenge the basic premise of industrialisation which underlies


Figure 2.3. **Net barter terms of trade, 2000-08**

Terms of trade indices, 2000 = 100



Note: Net food importers are low-income food-deficit countries, excluding exporters of fuel and minerals.

Source: UNCTAD (2009c).

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much of development strategy (Goldstein *et al.*, 2006). This would upset the rationale behind the commitment to industrialise and so reduce the relative importance of the non-food commodity sectors of the economy. The rise of labour-abundant China and India has challenged the logic of this commitment. Their impact is related to the “fallacy of composition” problem in labour-intensive manufactures: if a number of competing economies all try to expand their exports of labour-intensive manufactures, who will do the importing?

There are two reasons why the fallacy of composition might hold. One is that the glut of manufactured goods depresses prices, reducing the private and social returns to manufacturing investment. The second is that a flood of exports might provoke a protectionist response in the importing markets (largely the advanced economies), again reducing the returns to investment in late industrialising countries (Commission on Growth and Development, 2008). For Africa, these arguments might currently seem rather academic – African countries export very few manufactured goods and so the immediate competition they face from China and India is limited, albeit not insignificant (Goldstein *et al.*, 2006). The key issue, though, is not this immediate effect but rather the possible loss of this route to development for the continent. The good news seems to be that the question of the fallacy seems now to be receding in importance thanks to the increasing sophistication of products from China and India (Woo, 2010).

East and South Asia suffer – but many other groups benefit

The countries in each region depicted in the right-hand panel of Figure 2.3 do not form homogenous groups, but they do tend to trade in similar ways and recent regional trends for net barter terms of trade seem to confirm this. Albeit with notable intra-regional differences, the 2000s witnessed a strong rise in the barter terms of trade for the Arab Gulf region, Africa and Latin America. In contrast, East and South Asia have seen their barter terms of trade decline. These countries tend to be resource poor and are more integrated into global production chains of transnational corporations. Because of similarity in endowment and trade patterns, Southeast Asian manufactures have initially been more affected by China’s opening, with complementary and competitive forces both at play. While China has been increasing competition in the production of standardised electronic parts, it is complementary to the extent that its neighbours are part of an expanding assembly production network within transnational corporations regional production chains (Yusuf, 2009).

Many countries in Africa and Latin America are rich in natural resources and these often dominate their exports. The standard inter-industry trade model implies that third-market export competition with the Asian giants may be harmful for low-income countries in cases where there are significant similarities between their export structures. Such a similarity has indeed been demonstrated for Mexico and South Africa – though these countries do not belong to the low-income group (see Goldstein *et al.*, 2006; and Avendaño *et al.*, 2008). For most of low-income Africa and Latin America, on the other hand, there is little to support the perception of China and India as threatening competitors, and this position is confirmed by the evolution of terms of trade during the 2000s.

For low-income importers, China’s opening has also been welfare-enhancing. In a standard trade theory setting China’s opening and increased interaction with Africa could have two consequences: African countries importing new Chinese products (trade creation); or importing from China what they would have bought from other trade partners (trade diversion). Where trade creation dominates, partial trade liberalisation provides

benefits to African importers. However, if both trade creation and trade diversion occur the consequence in terms of net well-being for the African countries is difficult to predict. Testing creation and diversion effects in a standard gravitation model, Berthélemy (2009) suggests there is clear evidence of trade creation between 1996 and 2007, while over the same period he cannot detect trade diversion from Africa's other trade partners sufficient to be welfare-reducing.⁸

A dynamic effect as export composition changes

The future effects on terms of trade of Asian growth may well be different. The trade patterns of growing countries tend to be quite dynamic, and the composition of output can change quite quickly if productive factors are not being accumulated at identical rates. If, say, skills in China advance faster than its other factors, then China's skill-intensive output will rise disproportionately.⁹ Moreover, the engine of their growth is also important, with capital-driven growth exerting far greater upward force on agricultural and energy prices than productivity-driven growth (Martin *et al.*, 2008). A shift toward higher value-added and better-quality exports would also change the welfare effects (Hummels and Klenow, 2005), with China benefiting from improved unit prices while poorer countries would see their export scope increase. Higher real domestic wages or a real appreciation of the renminbi would encourage China's structural upgrading. This would in turn reduce price pressures on low-tech goods and on low-income countries. At the same time, technological upgrading in China would move China's price impact from the middle-income to the high-income economies. Any such process would be likely to be protracted however, given the still considerable reserves of unskilled labour in China.

Using unit prices of exports to investigate changing comparative advantage and the evolution of export sophistication, Fu *et al.* (2010) find that it is middle-income countries that have faced greatest price competition from China's exports. This is particularly notable from the late 1990s onwards, a consequence of China's market expansion, its WTO entry and movements in the exchange rate. China's exports also appear to have a significant downward impact on the unit prices of exports from high-income countries. For low-income countries, however, the effect is not evident. These findings are confirmed by a variety of studies for ASEAN. Chapponière and Cling (2009), for example, compare the export structures of Viet Nam and China and find them very different. They conclude that China is not "crowding out" Viet Nam in the US markets for textiles and clothing. Petri (2009) finds that China is, in fact, mainly a competitor to middle-income ASEAN countries and that it is India that provides the principal competition for the lower-income countries in the group.

The Asian impact on global interest rates

From the early 2000s, China's influence began to expand beyond goods and commodity markets into world financial markets. Seen first just as a producer of cheap goods, China has increasingly become a source of cheap savings. The accumulation by the Chinese official sector of foreign assets which accompanied this has, in turn, raised the country's global cyclical, financial and macroeconomic importance. Variations in China's output gap now have growing repercussions on key global interest and exchange rates (Reisen *et al.*, 2005).

Over the same period, in a process that might be likened to a supplier making loans to its clients, China has become the world's biggest holder of US government debt. Work by Warnock and Warnock (2009) show how the accumulation of China's foreign exchange

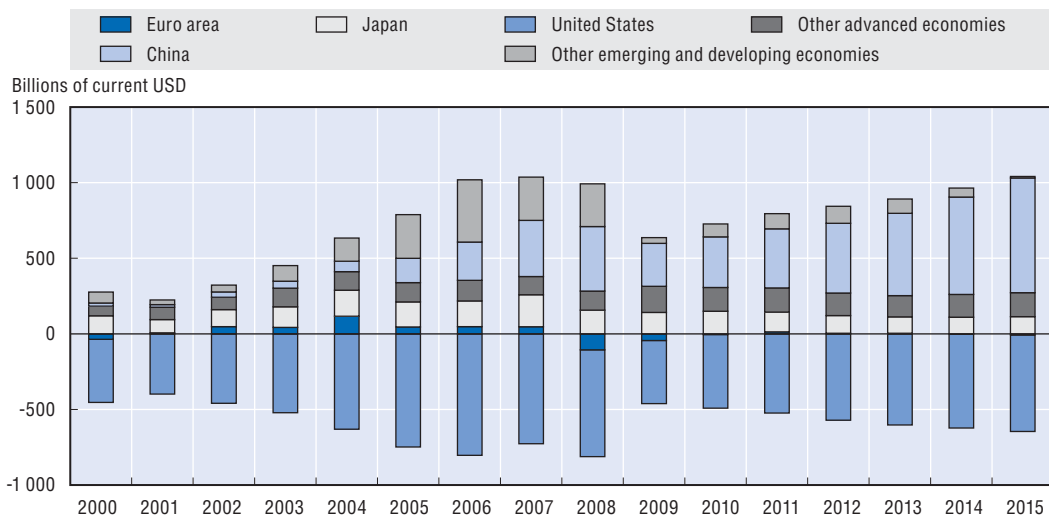
reserves and their investment into US Treasuries has had a dampening effect on US and hence world interest rates. The authors estimate that the effect was to reduce short-term US interest rates by 140 basis points in 2004, and produced some flattening of the US yield curve.¹⁰

Global imbalances

Underlying these Treasury bond acquisitions are the imbalances that have dominated global trade in recent years. It is natural to ask if these are a problem in themselves – did they contribute to the crisis? – and, if so, to look at what macroeconomic drivers underlie them with a view to examining ways in which they might be mitigated in the future.


Talk of “global imbalances” essentially refers to the current account surpluses of around 100 countries, most of them classified as developing or emerging. These have largely arisen in response to the US current account deficit – the excess of US domestic investment over US national savings. The position is summarised in Figure 2.4.

Figure 2.4. **Global imbalances in the current account**



Note: Data for 2009-2015 (Japan and the United States) and 2008-2015 (all others) based on IMF staff estimates.

Source: Authors' calculations based on IMF (2010).

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The annual figures themselves are large, and their accumulation over time has led to the creation of huge net asset positions. The United States, for example, outspent its national income by an accumulated USD 4.7 trillion, equivalent to 47.3% of GDP, from 2000 to 2008. Over the same period, China's accumulated surplus was USD 1.4 trillion – huge by any measure, but by itself only enough to fund some 30% of the US deficit. To fill the gap the United States was absorbing three-quarters of the world's savings until the crisis. Another sizeable imbalance has been the current account surpluses of oil exporters, notably in the Gulf region, where the effect on oil prices of the voracious appetites of the Asian giants has created a second wave of asset build-up. Imbalances on this scale have led to a reshaping of the lender- and investor-bases throughout the world.

Imbalances? Or out of balance?

The perception of these imbalances and their accompanying capital flows at the time was benign: the process was a natural consequence of the rapid economic integration

between China and the United States¹¹ and of limited financial development in the converging middle-income countries.

China's accumulation of assets denominated in US dollars additionally gives it an apparent direct economic interest in the maintenance of a stable dollar-renminbi exchange rate. To some observers, this symbiotic producer-consumer relationship between China and the United States supports a new system of quasi-fixed exchange rates. In this view, current account imbalances matter less because of the mutual economic dependence of the economies at either end of the flows. This relationship has been nicknamed "Bretton Woods II" – a term coined by Dooley *et al.* (2003) in reference to Germany's and Japan's interaction with the United States in the post-war II period.

However, allowing these imbalances and their accompanying capital flows to accumulate may have contributed to the over-leveraging and under-pricing of risk that triggered the crisis. This was recognised at the Pittsburgh Summit in September 2009 when the G20 leaders announced the creation of a new framework to co-ordinate and monitor national economic policies in order to reduce existing global imbalances and prevent them from building up in the future. In addition, Roubini and Stetser (2005), among many others, argued against the stability of the assumed underlying "Bretton Woods II", pointing out that the renminbi-dollar exchange rate was not a standard and that the financing required to sustain US current-account deficits was increasing faster than the willingness of the world's central banks to build their dollar reserves.

International imbalances, notably the US deficit and the Chinese surplus, have reduced appreciably during the downturn. But it is questionable whether the root causes have yet been addressed. According to recent projections (OECD, 2009a) this crisis-related adjustment had run its course by the end of 2009, and the OECD went on to warn that "with imbalances remaining at levels that would have been unprecedented just a few years ago, the risk of disorderly exchange rate adjustment cannot be excluded. This underlines the importance of international efforts ... to ensure a sustainable international growth pattern." While economists may disagree on the role of the global imbalances in the crisis, few dispute that the strength and sustainability of future growth will largely depend on the degree to which a rebalancing of global demand takes place (see, for a recent discussion, Blanchard and Milesi-Ferretti, 2009).

Is a savings glut the problem?

Finding a way to deal with these global imbalances – and defining the appropriate policy responses – will require clarity about their causes. If these are essentially monetary, then monetary policy and exchange rate responses (such as appreciation of the renminbi) will be appropriate. If, on the other hand, they are primarily structural in nature, then structural policy responses, such as obliging state enterprises to pay taxes or dividends, will be needed.

Some observers (for example Wolf, 2008) blame global imbalances on misguided exchange rate policies in Asia. According to this view, these policies fuelled excess savings (the so-called "savings glut"), so facilitating the continuation of loose monetary policy in the United States. This in turn supported high demand and boosted commodity prices, all in a self-reinforcing manner. The governor of the US Federal Reserve Board, Ben Bernanke (2005), famously argued that the US external imbalance was driven by this savings glut, a result of the financial integration of the United States with economies – especially those of

the Asian giants – which found themselves at a much lower level of development and governance of financial markets.

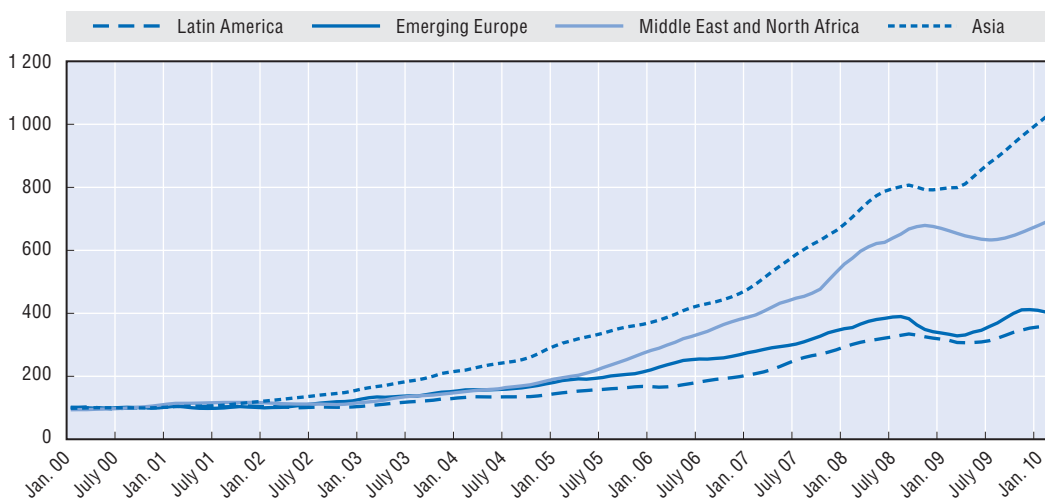
Alternatives to the savings glut view of global imbalances focus on the role of domestic policies in the United States such as lenient monetary, fiscal and financial policies in the face of a housing bubble, and deficiencies in the regulation of financial markets. Another more complementary argument points to the relative scarcity of safe assets and the financial underdevelopment of emerging countries in general, and China in particular.

Bernanke's view has been modelled in an influential paper by Caballero *et al.* (2008). They built a comprehensive framework to explain US current-account deficits, low interest rates globally, and the emergence and subsequent bursting of bubbles (including those in the commodities market). At the root of this model is excess demand for assets from residents in converging economies. This excess demand arises because weak financial systems in their countries prevent these agents from fully appropriating the income generated by domestic assets. When capital account liberalisation allows these agents to invest abroad, they look for opportunities in countries with more developed financial systems. In this hypothesis, the United States maintains its ability to incur dollar liabilities by exploiting its comparative advantage in supplying high-quality financial assets to the rest of the world.

Frankel (2009) classifies this saving glut argument as “exotic”. Its premise of US comparative advantage in financial matters has been undermined by the crisis: many assets were revealed to be of low quality and its financial institutions suffered a major loss of credibility. A study by the European Central Bank (Bracke and Fidora, 2008) explored to what extent the rising imbalances could be attributed to three structural shocks in different mechanisms of the global economy: monetary shocks (the “excess liquidity” hypothesis); preference shocks (“savings glut”); and investment shocks (“investment drought”). They found that US monetary policy explained the greatest part of the variation in imbalances, but also confirmed the existence of an Asian saving glut.

Figure 2.5. **International reserves**

Index based on a three-month moving average, January 2000 = 100



Note: Emerging Europe refers to Bulgaria, Croatia, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, and Turkey. Middle East and North Africa refers to Bahrain, Djibouti, Egypt, Islamic Republic of Iran, Jordan, Kuwait, Lebanon, Libya, Oman, Qatar, Saudi Arabia, Sudan, Syrian Arab Republic, United Arab Emirates, and Republic of Yemen.

Source: IMF (2010).

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The precautionary motive

The immediate cause of reserve accumulation is usually central bank intervention in the foreign exchange market to prevent financial inflows driving up the external value of the currency. However, the Asian and Russian crises of 1997-98 also demonstrated to emerging economies the advantage of holding a large stock of international reserves as a way of enabling them to protect their domestic financial system without recourse to the IMF.

This lesson has certainly been repeated in the current crisis. The crisis, in its post-Lehman phase, has seen capital leaving emerging markets in response to problems in advanced ones. The use of reserves to stabilise net capital outflows has proved to be the most important domestically-controlled circuit breaker for preventing this capital flight translating into local slumps in the countries affected. Countries with reserves have been able to deploy them and still take steps to ease credit in their economy. Countries without reserves could not do this and have largely remained both highly vulnerable and dependent on a recovery of the international system. The influence of differences in holdings of official foreign exchange reserves can be seen in the heterogeneous incidence and severity of the 2008-09 crisis, with Emerging Europe hardest hit and Emerging Asia, Africa and the Middle East least.

The existence of this self-insurance motive for reserve building is supported by recent empirical research (Obstfeld *et al.*, 2008). Other factors have also been important, particularly since 2002: the scale of domestic financial liabilities available to be converted into foreign currency (money supply); financial openness; the ability to access foreign currency through debt markets; and exchange-rate pegs are all significant predictors of reserve stocks. Another precautionary motive will be found where countries have chosen monetary stimulus as a way of responding to the crisis, since the effect of such measures is to increase money supply relative to GDP.

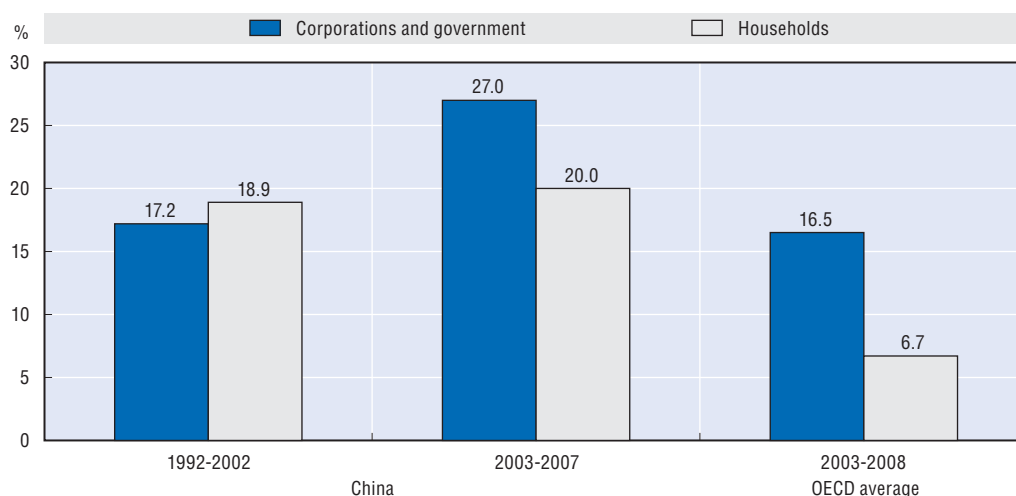
That this accumulation comes with an exposure to asset concentration does not seem to act as a deterrent. As early as 2004, China's monetary authorities were beginning to question the concentration and structure of their foreign exchange reserves. The inherent interest rate and currency risks of their exposure to the US dollar and to the value of US Treasury bonds militated in favour of portfolio diversification. Nevertheless, by early 2010 China's total holdings were nearly USD 3 trillion, of which USD 2.4 trillion was in official reserves and USD 500 billion in sovereign wealth funds. As noted above, China's increase in domestic bank lending in 2009, as a measure to stimulate its economy, might require a further rise in its official reserves for precautionary purposes (Obstfeld *et al.*, 2008).

An alternative view – structural issues in China


Chinese economists and authorities point to structural, rather than monetary, explanations for their country's rising current-account surplus. As a matter of definition, China's current-account surplus is equal to the excess of its national savings over its domestic investment. And China has seen a strong rise in retained corporate and surpluses of government-owned enterprises over recent years (Figure 2.6).

Reforms to the pension, housing and healthcare systems over the course of the 1990s brought an effective end to China's "iron-bowl" system (promising lifetime employment and welfare), and at the same time state-owned enterprises (SOEs) stopped providing free

Figure 2.6. **Sectoral savings balances in China and OECD countries**
% relative to GDP



Source: OECD (2010).

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pensions and housing (Zhou, 2009). Since no social-security system took their place, the effect of this was to transfer costs and risk to households.

The first impact of this was on corporate profitability. As in the presence of a large pool of subsistence labour the rise in wages will only be slowly reflected in the cost-base of an enterprise, the SOE sector became highly profitable and increased its savings while decreasing its contribution to social security.¹² Corporate savings were further bolstered by the fact that until recently the SOEs did not have to pay dividends or taxes. This left them with plentiful retained earnings needing to be allocated. Their domestic financial market offered few alternative investment instruments and the capital account was largely closed. The natural home for these savings was therefore to reinvest in additional capacity. Reforms since 2008 have required SOEs to distribute part of their profits as dividends, but the prescribed dividend rates are low by OECD standards and should be increased to improve shareholder value and lower corporate savings.

The second impact was on the domestic sector and in particular on precautionary savings. No other major country has a household savings rate as high as China's. Since the reforms of the 1990s, the Chinese have worried about costs of healthcare, education, and provision in old age.¹³ As they bear not just the costs, but also the risk of how these costs change over time, households are prompted to save more.

The relative importance of these drivers for savings has recently been tested empirically. Econometric analysis published by the Bank for International Settlements (Ma and Haiwen, 2009) measured the relative importance of a range of variables on the evolution of China's net foreign asset position – a result of its accumulated net saving surplus – over the period 1985-2007. The estimated coefficients for the real effective exchange rate of the renminbi emphasised by Wolf (2008) and for financial development (see Caballero *et al.*, 2008) are both insignificant. By contrast, the ratio of domestic and external government debt to GDP and the youth-dependency ratio (the proportion of the population under 15) are both highly significant.

This array of socio-structural explanations for China's saving surplus suggests that monetary tools alone will be insufficient to redress global imbalances. A structural rebalancing of the world economy will need reforms in China's social, pension and family policies with the goal of raising China's consumption rate. These might include the restoration of basic social services, such as in health and education. The investment required by the Chinese government to build an all-round social-welfare system would be CNY 5.74 trillion (some USD 850 billion) by 2020, according to estimates by the China Development Research Foundation (*China Daily*, 26 February 2009). The potentially fundamental nature of some of these changes is illustrated by Box 2.2.

Box 2.2. "Son preference" and savings rates

New research suggests that gender discrimination in the form of "son preference" may drive up household saving rates. High household savings can be found primarily in a few large Asian countries and in oil exporting countries – including many countries affected by what Nobel laureate Amaryta Sen calls "missing women". "Missing women" refers to baby girls who are never born or who never make it to maturity because of ingrained social preference for a male child. In many of these societies daughters are considered a liability – the view is they provide little productive value to their families and that investing in them is a waste as they will eventually leave the family when they marry. Female infant and child mortality figures in these countries are high, often due to insufficient health care and neglect of girls. In some instances, sex-selective abortions are used to ensure that many girls are never even born.

Wei and Zhang (2009) highlight the increasing imbalance between the numbers of male and female children born in China. For every 100 girls born today there are 122 boys, presumably as a result of the "one-child policy", pre-natal ultrasound screening possibilities and the reduction in fertility. Wei and Zhang found that not only did households with sons on average save more than households with daughters, but also that households with sons tend to raise their savings rate if they live in a region with a more skewed ratio of males to females. The authors show a close correlation between the sex ratio at birth lagged by 20 years and the rise in China's private saving rate. A skewed sex ratio is, it seems, fuelling a highly competitive "marriage market", pushing up the savings rate for all households, since even those not competing in the marriage market must compete to buy housing and make other significant purchases. This driver up China's savings rate and with it global imbalances.

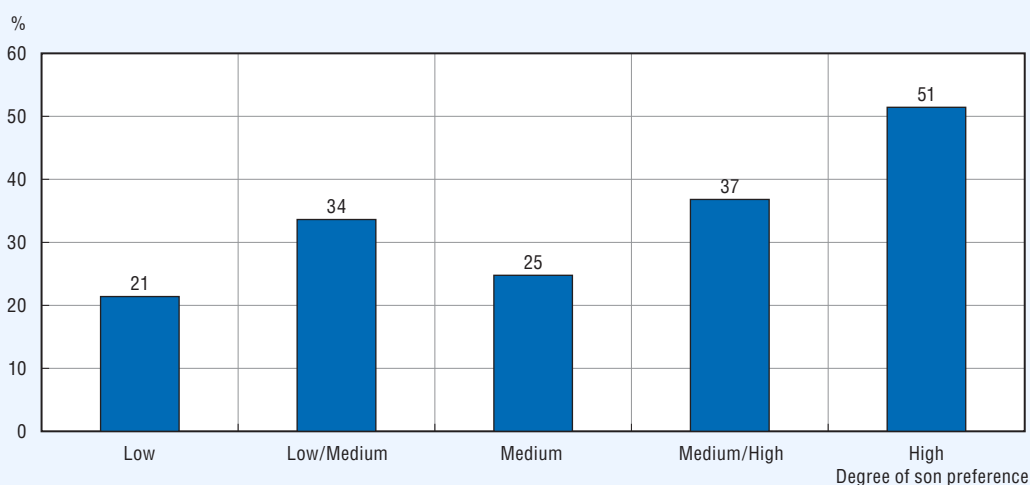
While there are certainly many reasons for high household savings, this research by Wei and Zhang suggests that discrimination against women plays an important role as well. Their findings are further supported by data collected for SIGI, the Social Institutions and Gender Index (www.genderindex.org), compiled by the OECD Development Centre. Figure 2.7 suggests that the link between son preference and a country's gross savings rate also seems to hold in a cross-country setting.* In countries which have a strong preference for boys the household savings are higher than in countries with normal sex ratios.

* Within SIGI "son preference" is an index value describing the difference between the number of women that would be expected in a population (assuming no son preference) and the actual number of women observed. Countries are assigned corresponding values in five categories between 0 (no women are missing) and 1 ("severe incidence").

Box 2.2. “Son preference” and savings rates (cont.)

Figure 2.7. Son preference and savings rates

Average gross savings as a share of gross national income



Note: Sample is the 22 countries which present data for both average gross savings and degree of son preference.

Source: Authors' calculations based on OECD (2009b) and World Bank (2009).

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“Money talks” – the world has new financiers

The fast accumulation of global economic imbalances over the past decade has brought about a significant shift in the world's wealth in favour of those countries running surpluses. The United States finds itself, in common with some of its OECD peers, being financed by countries such as China, the Gulf states, Brazil and Russia – countries which until recently played no substantial role as international investors.

The United States is now the world's biggest debtor: its net international investment position (the difference between the financial claims of its residents on the rest of the world and their equivalent liabilities) had sunk to minus USD 3.5 trillion by 2008, equivalent to 24% of GDP. More than half of all US Treasury securities by the end of 2009 were held outside OECD member countries, with China (including Hong Kong, China) accounting for more than a quarter (Table 2.3). The title of Cohen and DeLong's book (2010) points to the potential implications: *The End of Influence: What Happens When Other Countries Have the Money*.

A corollary to the differing saving rates is the impact on public indebtedness. Progress in tax collection and management of public debt, combined with GDP growth rates higher than interest rates, have brought about a remarkable change in the trend of public debt ratios in poor countries. At the same time, ratios have been deteriorating in advanced countries, particularly since the crisis (Figure 2.8). While in the 1980s and 1990s fiscal weakness was seen as a trait of emerging markets, lack of fiscal discipline increasingly appears to be an attribute of certain advanced countries.

However, emerging-countries are as yet “immature” creditors for which there is not yet any material demand for financial instruments denominated in their own currencies. They must therefore manage their net external financial assets in foreign currencies

Table 2.3. Major non-OECD holders of US treasury securities

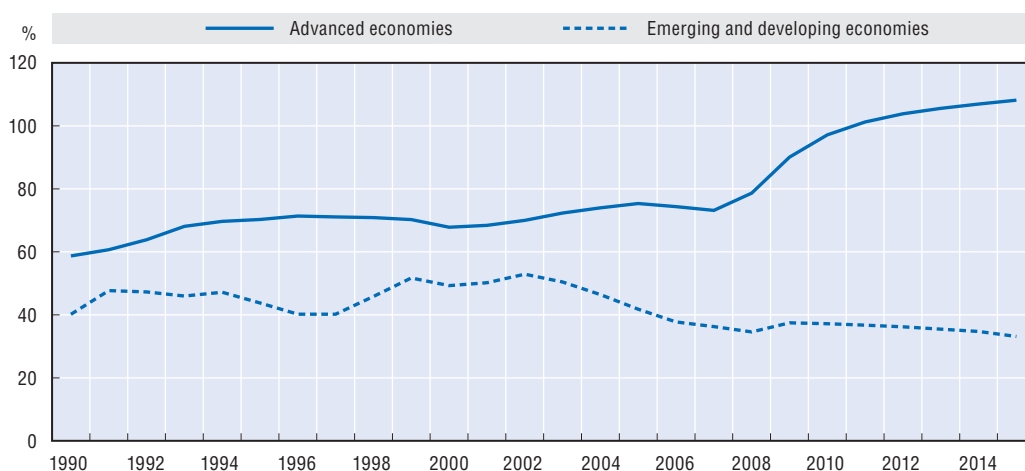
Holder	Holding ¹ USD billions	Proportion of total %
China	895	24.3
Oil exporters ²	207	5.6
Caribbean banking centres ³	128	3.5
Brazil	169	4.6
Hong Kong, China	149	4.0
Russian Federation	142	3.8
Non-OECD total	2 143	57.8

1. Estimated foreign holdings of US Treasury marketable and non-marketable bills, bonds and notes reported under the Treasury International Capital reporting system.
 2. Ecuador, Venezuela, Indonesia, Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, the United Arab Emirates, Algeria, Gabon, Libya and Nigeria.
 3. Bahamas, Bermuda, British Virgin Islands, Cayman Islands, Netherlands Antilles and Panama.
- Source: US Treasury (2009).

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against the inherent currency mismatch. As the crises of the 1990s amply demonstrate, such mismatches can be time bombs that can suddenly wreck balance sheets, cause disruptive change to markets and trigger deep slumps. Eliminating (or at least reducing) this contingent currency risk provides a strong incentive to switch from buying foreign financial assets to foreign real assets. Such purchases will have greatest effect on poorer countries, where real assets dominate financial assets.

Figure 2.8. Public debt as a share of GDP



Source: IMF (2009a) and IMF (2010).

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For the reasons just outlined, poor countries should expect to source capital flows increasingly from cash-rich converging countries with large surpluses in their current accounts. This switch from advanced country to converging country sources of finance will bring with it a higher share of state-sponsored capital as opposed to purely private sector sources. Converging economies are explicitly co-ordinating their actions across investment, aid and trade, in contrast to OECD actors who tend to operate in an unbundled way. While this description may most closely fit China's partnerships with low-income

countries, it is also evident in India's approach following a sharp change in the direction of economic co-operation with poor countries in recent years.

Conclusion

A proper understanding of the present and future currents in the formulation of growth, industry and poverty-reduction strategies will mean more than looking at the direct channels of interaction between the emerging giants and the poor countries – such as trade, FDI and aid. As a result of their sheer size as well as their growth performance, China, and increasingly other large converging countries, matter in particular for global income and price trends. They shape the global macroeconomic background and thereby set the stage for development. This chapter has demonstrated how macroeconomic output linkages, the shape of relative prices for goods and services, wages and terms of trade, and new sources of development finance all provide a new strategic setting for development partners and policy.

These macroeconomic links have been shown to morph, at times quite rapidly. The initial effects of the Asian giants' opening to the world economy that started in the 1980s will fade in importance. Already these powers compete increasingly with advanced countries in global trade and on extraction rights for natural resources; their growth, in turn, has increasingly become complementary to poor country growth, well beyond the resource demand link.

These changes will continue both as a result of the continuing maturing of the giants' own economies, and also as the world seeks either to address the continuing imbalances in the global economy or to find ways to live with them. Understanding this means understanding the economies and policies of the giants themselves. In assessing the growth, liquidity and price trends that form the macroeconomic background for policy decisions in poor countries, the development policy maker will in future need to examine:

- the cyclical situation of the Asian giants, as a leading indicator for poor country growth;
- their upgrading of skills, technology and exports, and its effect on their competitive impact;
- their industrial outsourcing needs and strategies;
- the changing structure of their final demand patterns;
- exchange rate and (unit) wage developments;
- the evolution of their net asset position, as an indicator of sources of capital exports;
- their preferred forms for foreign capital deployment and the policies behind them.

This will not take place in a vacuum of course, and increasingly the shape of the world will reflect the changing, increasing, role of the Asian giants in global governance and the G20, the IFIs and the WTO in particular. Chapter 7 discusses this important angle further.

Only when equipped with a solid understanding of these global macroeconomic trends can poor and struggling countries formulate national strategies that will best embrace their converging partners.

Notes

1. Argentina; Brazil; Chile; Colombia; Mexico; Peru; Hong Kong, China; India; Indonesia; Malaysia; Philippines; Singapore; Chinese Taipei; Thailand; Czech Republic; Hungary; Poland; Turkey; and South Africa.
2. Levy Yeyati tests whether emerging-market sensitivity to global growth has declined over the years by regressing emerging market growth on G7 growth and evaluating how the coefficients have evolved since the inception of emerging markets as an asset class in 1993. Splitting the data between early (1993-99) and late (2000-09) periods, and assuming for simplicity that trend growth remained stable within each, the specification is a regression of the growth rate of economy *i*'s cyclical output (relative to a log linear GDP trend) on the G7 and Chinese cycles, based on quarterly, seasonally adjusted GDP data, identifying the late period (2001-09) with an interacting dummy.
3. Older models of linkages between the North and South have viewed them as "unidirectional dependence" with growth and cyclical fluctuations in the South being determined primarily by developments in the North. In this framework, growth in the South is driven by northern demand for southern exports to be used as inputs in the northern manufacturing sector (Akin and Kose, 2008).
4. Mankiw *et al.* (1992) have shown that an augmented Solow growth model provides an excellent description of cross-country data in the variation of standards of living, with human capital, physical capital and labour providing each a third to PPP-adjusted per capita income. Using their findings to calibrate a simple Cobb-Douglas production function produces a drop in equilibrium wages of 15% when labour input is doubled.
5. How does China's wage pressure spill abroad in theory? Krugman (1994) has offered a useful extension of the Lewis model in a three-goods (low-tech, intermediate, high-tech) one-factor (labour) perspective. It is assumed that, say, OECD labour is more productive than Chinese labour in all three types of goods, but that productivity advantage is greatest in high-tech, moderate in medium-tech, and least in low-tech. Competition will ensure that the ratio of the wage rate in the OECD area to that in China will equal the ratio of labour productivity in those sectors in which workers in the two regions compete head-to-head. If China's productivity increase occurs in low-tech output, there is no reason to expect the ratio of OECD to China's wages to change. China will produce low-tech goods more cheaply, and the fall in the price of those goods will raise real wages in the OECD (and the developing world likewise). Falling (relative) prices raise the purchasing power of importers and consumers; in other words increase their real wages. Surplus labour in China, therefore, may particularly benefit low-income segments in importing countries since low-tech products weigh relatively heavily in their consumption.
6. For UNCTAD (2009a, p. 67), the close correlation between commodities and other asset prices during the second half of 2008 suggests that financial investors "may have had a strong influence on commodity prices". Conceição and Marone (2008) provide an overview of the pros and cons of the proposition that commodity prices have increasingly reflected "financialisation". A careful investigation would need to disentangle the excess of liquidity generated by loose monetary policies in several emerging and advanced countries and the growth in sovereign wealth funds; these factors fuelled the demand for liquid assets and are likely to have contributed to the rise in prices.
7. Underlying this analysis is the belief that agricultural production will be increasingly conditioned by water availability, which leads them to project a substantial slowdown in the rate of expansion in agricultural area under irrigation.
8. Berthélemy corrected for geographical and historical variables such as distance, common borders, common languages, and former colonial ties.
9. This is called the Rybczynski effect.
10. As recently observed by Obstfeld and Rogoff (2009), the partial-equilibrium estimates by Warnock and Warnock (2009) tend to overstate the general-equilibrium yield effects of investment or divestment into or out of dollars by official reserve holders. While reserve accumulation contributed something to the compression of yields in US financial markets, the true magnitude has probably been secondary to the effects of global saving flows and monetary policy.
11. Ferguson and Schularick (2007), who coined the term "Chimerica", argue that China's current account surplus and corporate savings are linked with the undervaluation of the renminbi.
12. The same pattern of GDP growth exceeding household income growth could be observed for India.

13. Fully-funded pensions have been shown to raise the national savings rate in countries that have domestic credit constraints which effectively prevent contributors mortgaging their pension savings (Baillu and Reisen, 1998).

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Chapter 3

The Increasing Importance of the South to the South

The growing dynamism of South-South economic flows is an essential element of shifting wealth. Trade is rising fast both as part of extended global production networks and to satisfy the demands of a growing middle class. South-South trade can be positive for development but capturing maximum benefits requires an active policy approach and recognition of its changing characteristics. Simulations contained in this chapter suggest that there are very large welfare gains to be had from deeper liberalisation of South-South trade.

Shifting wealth is also making the South a bigger player in both foreign direct investment (FDI) and aid. South-South FDI has been rising faster than North-South flows as firms in Brazil, China, India, South Africa and the East Asian tigers have gone multinational. Though still relatively marginal players, Sovereign Wealth Funds (SWF) are new protagonists in South-South financial flows. Some developing countries considered traditionally as aid recipients are becoming important donors themselves, going beyond the technical co-operation that traditionally characterises South-South interaction in this sphere. Their emergence is increasingly challenging existing modes of aid delivery and blurring the distinction between private flows and official ODA.

Introduction

South-South linkages have intensified enormously since 1990. And since the large converging countries discussed in Chapters 1 and 2 have proved to be more resilient to the global crisis than affluent countries, the dynamism of South-South flows has been helping the developing world return to pre-crisis rates of growth. South-South flows may also be a key tool in reversing the fortunes of both struggling and poor countries as described in the “four-speed” world. In the past, these groups of countries have not benefited to the same extent as the converging economies from their interaction with the global economy. Growing South-South interaction and co-operation may represent for them an alternative path to greater engagement in the global economy.

What will be the consequences of “shifting wealth” for low-income developing countries? Will they grow faster, lifted up by the large fast-growing emerging countries? The intensification of links with the large converging economies, and in particular with China, has had multiple effects. A stylised model by Coxhead and Jayasuriya (2010) captures the essence of these effects. Labour-intensive manufacturing has encountered intense competitive pressures because of the rise of China; resource exporters have enjoyed a sustained commodity price boom (recent fluctuations notwithstanding), and opportunities for manufacturers to expand through participation in “dis-integrated production” through global value chains have expanded. The trade-off between these different dimensions of shifting wealth determines the developmental outcome – some countries may prosper through a growing participation in value chains linked to the large converging countries, or through an increase in demand for their commodity exports. But others may find themselves “caught between two stools”, losing competitiveness in their skill-intensive manufactured exports, yet not able to integrate themselves in new production patterns.¹

There is an additional sense in which the growing economic power and influence of the large converging economies is multidimensional – more than simply a function of a country’s economic growth. Thus while China and India stand out in terms of their macroeconomic impact, other emerging players have major spheres of influence too in specific sectors. Brazil has established itself as a superpower in global food and agriculture markets. It is the world’s largest exporter of sugar, ethanol, beef, poultry meat, coffee, orange juice and tobacco. Its agricultural sector has benefited from currency devaluations, low production costs, rapid technological advances, and domestic and foreign investment in expanded production capacity (Barros, 2008). In a world in which prime agricultural land is going to be in short supply, Brazil has 20 million hectares of potentially productive land which could readily be brought into production. In sum, Brazil has the potential to be a “breadbasket” of the global economy, in the same way that China has become the “workshop of the world”.

The centrepiece of the economy of a second example, South Africa, is its mining industry. This sector is well-placed to benefit from future increases in global demand resulting from shifting wealth. South African exports of mining products more than tripled

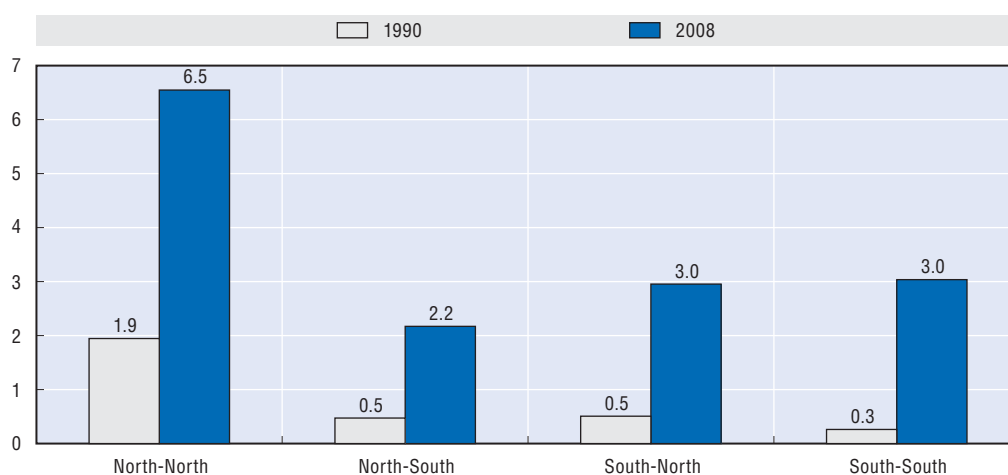
in value over the period 2002-08, reaching USD 28.6 billion in 2008. In energy markets, South Africa (like Brazil) is already creating links to supply the Asian giants with both fossil and alternative forms of energy.

If poor and struggling developing countries are to make the most out of this new international scene, they face important challenges. This chapter goes on to discuss the main trends, opportunities and challenges that shifting wealth brings by looking at three distinct channels of South-South linkage: trade, foreign direct investment (FDI) and aid. This does not pretend to be a comprehensive list of links but rather enough to capture and illustrate the themes that set the policy maker's agenda.²

South-South trade


Trade is one of the key channels through which shifting wealth manifests itself. From the 1950s onwards international trade was predominantly a story of intense exchange between high-income countries, particularly between the triad of Europe, the United States and Japan (Grimwade, 2000). But over the last two decades that picture has changed substantially. In 1990 North-North trade accounted for 58% of the world total (almost USD 2 trillion), but by 2008 rapidly expanding trade in the developing world had pushed that figure down to 41% (USD 6.5 trillion) (Figure 3.1). In total (that is taking into account both South-South, and South-North flows), developing countries were responsible for 23% of global exports in 1990 (USD 0.82 trillion). By 2008 this share had jumped to 37% (USD 6.2 trillion).³ Within this total, exports from developing countries to other developing countries (i.e. South-South trade) increased from USD 0.5 trillion in 1990 to USD 2.9 trillion in 2008, rising from 7.8% to 19% of global trade. South-South trade is clearly a dynamic force in the new global economy.

Figure 3.1. **Exports by region**
Trillions, USD



Note: North refers to developed countries and South refers to developing countries, according to the classification in the UNCTAD *Handbook of Statistics*, i.e. excluding transition economies.

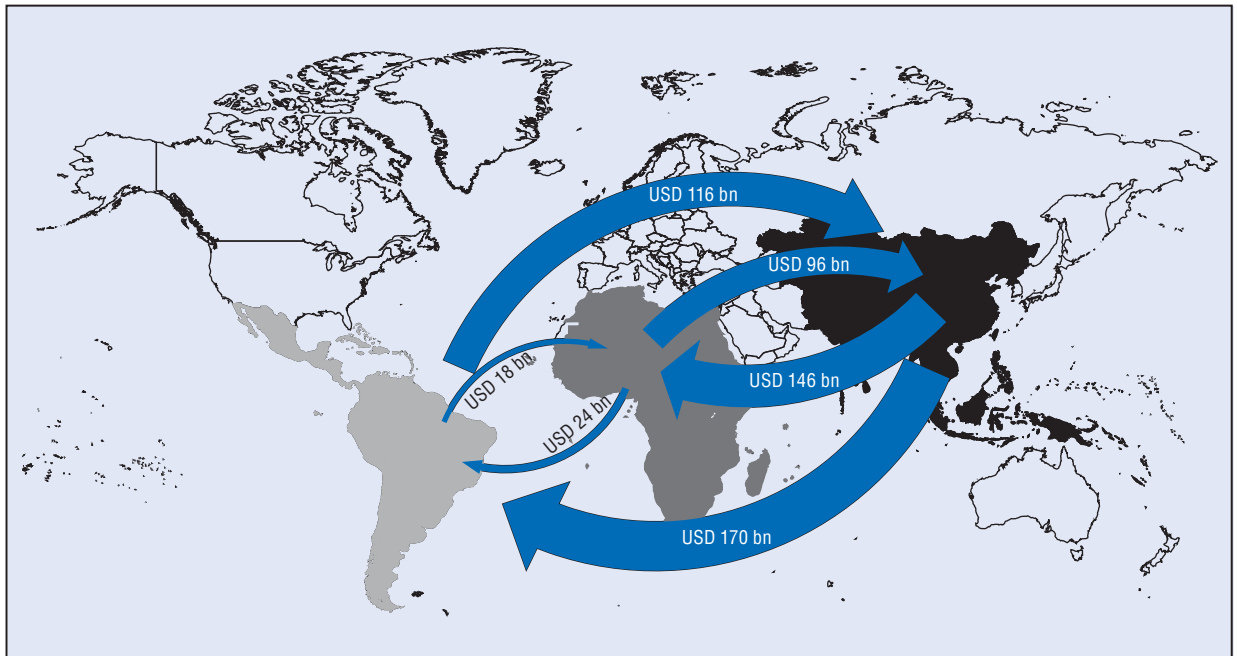
Source: Authors' calculations based on UNCTAD (2010a).

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However, these aggregate figures obscure the heterogeneity of trends in trade flows within the developing world. Figure 3.2 summarises both trade flows between developing

Figure 3.2. **Inter-regional South-South trade flows in 2008**

Billions USD



Source: Authors' calculations based on UNCTAD (2010a).

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Asia, Latin America and the Caribbean, and Africa in 2008. Two things are clear. First, after a decade or more of very fast growth, Asian exports to Latin America and the Caribbean (USD 170 billion in 2008), and Africa (USD 146 billion) are now very large. Second, despite the growth in trade links with Africa and Latin America, the relationships that China and India have built with the rest of developing Asia are both more dominant and have expanded more quickly. Asia now accounts for over three-quarters of South-South trade: USD 2.2 trillion out of a total of USD 2.9 trillion. About 60% of trade within South and Southeast Asia is related to vertically integrated activities – that is, the provision of inputs for goods consumed outside the region. If China is now the world's workshop, then large parts of Southeast Asia have become China's supplier of parts and components (Coxhead and Jayasuriya, 2010). More will be said on this in Chapter 5.

South-South trade for development

The changed drivers of global demand – with the emphasis shifting from North to South – have important consequences for developing country trade. First, as countries urbanise and their economies diversify, there will be sustained growth in local demand for both hard and soft commodities – whether for food, minerals or inputs into infrastructure. Many low-income countries have already seen the benefits of such growth through higher commodity prices (see Chapter 2). Second, South-South demand tends to be for cheap and undifferentiated goods. This runs against the trend in demand in northern economies which since 1970 have increasingly favoured differentiated high-quality products (Kaplinsky et al., 2010). Potentially, this shift of demand patterns gives a second chance for

those poor or struggling countries that so far have failed to enter global supply chains and so missed out on South-North value chains (for a more in-depth discussion, see Chapter 5).

Standard economic analysis says that South-South trade will not provide the same welfare benefits as North-South trade. It is stressed that the endowments and technology structure are relatively similar among developing countries and so, in general, their production structures will be competitive rather than complementary. It is also said that developing countries which pursue South-South rather than multilateral liberalisation through regional trade agreements with other developing countries risk seeing trade-diversion (i.e. the substitution of cheap imported goods with more expensive ones from regional partners) outweigh the benefits of trade creation within their expanded trade with regional partners (Viner, 1950).⁴ It is further argued that the technology transfer associated with South-South trade flows is necessarily much more limited.

However, the empirical evidence does not fully support these ideas:⁵

- In practice South-South regional trade agreements often lead to greater trade creation than diversion. Gains from trade can occur even between countries whose tastes, technology and factor endowments are similar where trade is driven by economies of scale (Krugman, 1979). Mayda and Steinberg (2007) found no evidence that the Common Market for Eastern and Southern Africa (COMESA) caused trade diversion. Using a gravity model, Korinek and Melatos (2009) suggest that AFTA, COMESA and MERCOSUR have increased trade in agricultural products between their member countries and that these agreements have a net trade-creation effect. Berthélemy (2009), in a study for the African Development Bank, examined the welfare effects of China-Africa trade, and again found clear trade creation over the period 1996-2007.
- South-South trade may offer an opportunity for learning-by-doing in a less competitive market environment. It may also provide a platform for the development of externalities or economies of scale prior to breaking into the North's market for higher-tech products (Otsubo, 1998). Arguments about the importance of appropriate technologies' may also be relevant. Olarreaga *et al.* (2003) examined North-South and South-South trade-related technology diffusion at the industry level, and found that R&D-intensive industries learn mainly from trading with the North whereas industries with low R&D-intensity learn mainly from trading within the South. For low-income countries with weak technological capacities, South-South trade may therefore be more advantageous, particularly in the context of a new model of frugal innovation which seeks to address the specific requirements and characteristics of southern markets.⁶
- Precisely because of its cost advantages, South-South trade liberalisation can make intermediate inputs cheaper and thereby eventually stimulate South-North exports (Fugazza and Robert-Nicoud, 2006).
- South-South trade can benefit from proximity – contrary to perceptions, while communications costs have fallen sharply over the last two or three decades, transport and other distance costs have not (OECD, 2009a). Hence there are still cost advantages in trading locally.
- Last but not least, access to northern markets is sometimes obstructed by a myriad of non-tariff barriers, such as phytosanitary and other product standards (Mold, 2005). Up to a point these standards can have a positive effect, stimulating the upgrading of capacity in suppliers. But if too onerous they simply end up impeding exports, and effectively create new barriers to trade. The standards-intensity of global value chains

for products destined for northern economies has risen significantly in recent decades, and they are now much more complex and demanding. It can be hard for a developing country supplier to integrate into such chains. By contrast, value chains supplying southern markets are often much less standards-intensive, both in relation to products and processes (Kaplinsky *et al.*, 2010) and so much more amenable to entry.⁷

Together this evidence suggests there are considerable gains to be secured by stimulating further growth in South-South trade through reductions in trade barriers and costs. As suggested in Chapter 7, regional integration processes have a role to play in realising these gains. In practically all regional blocs involving developing economies regionally-produced manufactures find markets more easily in countries in the same region than in more distant international markets. Developing economies can reap the advantages of geographical and cultural proximity when seeking to develop their industries and upgrade their production. And regional industrial co-operation does not preclude integration into the wider global economy. Indeed, it may serve as a stepping stone towards global competitiveness (UNCTAD, 2007).

Emerging patterns of South-South trade

Given these factors then, how has South-South trade developed over the last two decades? At global level, the main South-South engine of trade is developing Asia, and in particular China. By 2008, African-Chinese bilateral trade was worth USD 106 billion, making China the continent's second-largest trading partner, behind only the United States (see Table 3.1). On current trends, by the end of 2010, China will have become Africa's leading trading partner overall. China is also the second major trading partner for Latin America and the Caribbean and South Asia, the fourth partner for the MENA region. According to the WTO (2009), India is a top-five source of goods for over one-third of African countries. It is the source of more than 10% of imports for Benin, Kenya, Mauritius, Mozambique, Seychelles, Sierra Leone, Tanzania and Togo (Standard Bank, 2009).

Table 3.1. Major African trade partners in 2008

Billions, USD

Destination	Exports	Origin	Imports
China	49.8	United States	117.3
France	36.9	China	56.8
United States	28.6	Italy	56.5
Germany	28.6	Spain	38.4
Italy	26.4	France	38.6
United Kingdom	15.6	Germany	27.6
Saudi Arabia	15.3	United Kingdom	21.0
Netherlands	15.7	Japan	20.9
Spain	14.6	Brazil	20.7
Japan	13.4	Netherlands	19.7

Source: Authors' calculations based on UNCTAD (2010a).

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But the story is wider than this. Many other emerging economies' exports have grown faster than the exports of advanced economies – including India, Indonesia, the Russian Federation and South Africa. Nor is China the best performer in terms of the growth rates of its export flows.⁸ Annual Brazil-Africa trade, for instance, increased from USD 3.1 billion in 2000 to USD 26 billion by 2008 (Standard Bank, 2009). This dynamism is underpinned by

expanding intra-regional trade. This is particularly notable in the Developing Asia and the Western Hemisphere regions,⁹ where from 1990-2007 the share of intra-regional trade increased from 8% to 17% and from 12% to 17%, respectively.

In aggregate, the composition of South-South trade is different from comparable North-South trade, in the sense that there is a greater concentration on manufactures, especially in lower-tech products. As discussed in Chapter 5, much of this is due to the rising importance of production-sharing within East Asia, resulting in a “triangular” trading pattern – rather than exporting directly to developed countries outside the region, developing countries such as Viet Nam export intermediate production inputs to, say, China for further processing and it is from China that re-export to developed countries takes place (Gill and Kharas, 2007; Thun, 2006). The important exception is South-South trade between the Asian giants and Latin America and Africa, which is still predominantly based on raw material exports in exchange for manufactured goods.

It is also worth stressing the extent to which these trading links are concentrated geographically (Broadman, 2007). Some 85% of exports to China are from just five countries: the oil-exporting nations of Angola, Equatorial Guinea, Nigeria, the Republic of Congo and Sudan. South Africa accounts for 68% of the continent’s exports to India, most of which are minerals, precious stones, metals and alloys, and chemicals. Reflecting the general profile of Africa’s global export patterns, a few unprocessed goods (specifically oil, ores, metals and raw agricultural commodities) dominate, accounting for 86% of total trade flows to China and India. Value-added manufactures still make up only a small part of Africa’s exports – no more than 8% of total exports to China, for example. This pattern of trade with both Africa and Latin America raises issues regarding the longer term developmental impact of trade in commodities in resource-rich economies (“the resource curse”). More is said on this in the following section and in Chapter 7.

The rapidly expanding trading links of India and China with the rest of the developing world is a trend which is expected to continue. Bussolo *et al.* (2007) forecast that by 2030 developing countries will be the destination of more than half of India’s exports of agricultural processed food and services, as well the source of more than half of its imports of agricultural processed food and manufactures.

South-South competition...

Competitive pressures are evident in these new trading relations. Kaplinsky and Farooki (2009) note that in some sectors, notably clothing and furniture, there is persuasive evidence that China’s growing competitiveness has been having a harmful impact on poor sub-Saharan exporting economies. Lesotho, Swaziland, Madagascar, Kenya and even South Africa have all been affected by this type of competition. Employment loss has been high, with important distributional and poverty impacts. In the case of low-income Asia, Amann *et al.* (2009) examined competitive impacts in the markets for textiles and clothing. Although they found that the negative impact mainly falls on middle-income countries, they also saw negative competitive effects for lower-income countries, particularly in textiles. An econometric study carried out with export data at the SITC 3 digit level, by Giovannetti and Sanfilippo (2009) finds evidence of the displacement of African exports in some of their traditional export markets especially the manufacturing sector. In general, where China and Africa compete, an increase in China’s exports has corresponded with a

decrease in African exports. They also find displacement for a number of industries especially for textiles and clothing footwear, and machinery and equipment.

The effects of Chinese and Indian competition on third markets take on special importance because of preference erosion. The decline in most-favoured-nation tariffs, as part of the global process of tariff liberalisation, has seen preference margins decline quite dramatically over the past 30 years. Preference erosion tends to undermine the competitiveness of developing country groups, such as the 77-country African Caribbean and Pacific group (ACP) which has enjoyed preferential market access to European markets since the 1970s. This situation has led some (for example Collier, 2007) to suggest that low-income countries may need enhanced preferential access to offset the competitive threat posed by India and China. These proposals are further considered in Chapter 7.

Similar concerns exist for Latin America. Cardoso and Holland (2010) document China's growing relevance to trade flows in Latin America and the Caribbean. These are often complex and difficult to disentangle from other recent changes which have affected the region. They have also created winners and losers both in terms of countries and of sectors and groups within countries. There is a broad consensus in the literature arguing that producers and exporters of raw materials – particularly South American countries such as Argentina, Brazil, Chile and Venezuela and sectors such as agriculture, agroindustry, and industrial inputs – have been the “winners”. On the other hand, Mexico and the Central American countries that specialise in commodity chains such as yarn-textile-garments, and also in electronics, automobiles and auto parts – seem to be the losers both in domestic and third markets (Jenkins *et al.*, 2008; Paus, 2009).

A set of studies focuses on the effects that the rapid increase in Chinese exports to the United States has had on the Mexican maquila economy. According to Sargent and Matthews (2009) this phenomenon contributed to the net loss of over 800 plants and 300 000 jobs from October 2000 to December 2003 and subsequent slow employment growth. Gallagher *et al.* (2008) found that Mexico's main non-oil exports were losing dynamism, and their relative share in the US market was either declining or at least growing more slowly than China's. Pointedly, this trend began after China's entry into the WTO.¹⁰ Chile, on the other hand, has clearly benefited from the boom in raw-material prices, particularly copper, and has not been strongly affected by increased competition from emerging economies (Guinet *et al.*, 2009); its export structure is largely complementary to that of China and other emerging economies. However, despite having diversified its exports in the agro-food sector, as well as some service sectors (such as air freight), the economy still remains relatively undiversified, with weak manufacturing and low product variety and intra-firm trade. Alvarez and Claro (2009) show that imports from China have negatively affected employment growth on manufacturing plants in Chile, and increased the risk of business closures.

The policy conclusion suggested by Amann *et al.* (2009) is that both low-income and middle-income countries should seek to move up the value chain (to higher-quality or differentiated products) if they wish to remain competitive in the long run. This advice is good as far as it goes, though the rapid upgrading of China's export structure means that the competitive challenge is increasingly shifting to middle-income countries (see Chapter 5.) For low-income countries the concern is the way in which China's trajectory might block their path towards similar upgrading in the future. This concern finds some empirical validation in study of long-run growth performance by Ocampo and Vos (2008) which showed that the number of countries specialising in the export of medium-tech

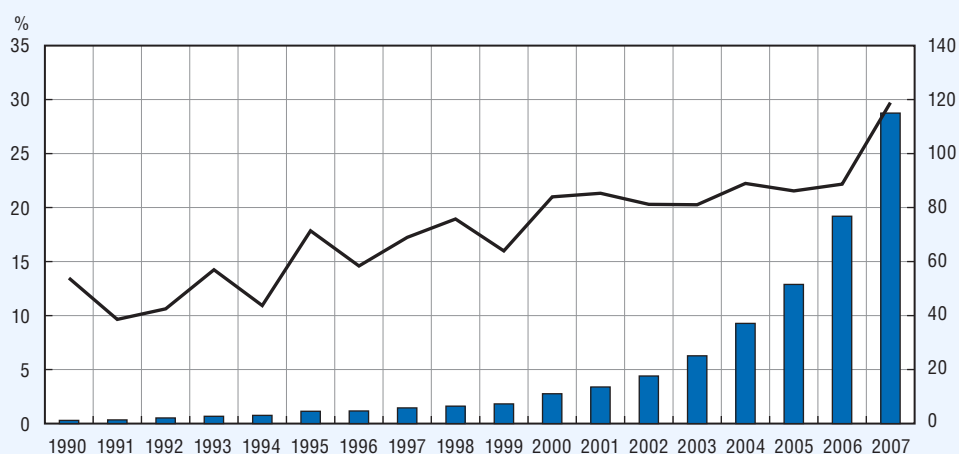
exports shrank by half over 1980-2000 compared to 1962-80. They suggest this reflects a growing dichotomy among the developing world, whereby competition from successful manufacturing exporters – first the four Asian Newly Industrialising Countries, and now India and China – is hollowing out the scope for intermediate-technology manufacturing.

Box 3.1. Growth through cheaper imports for capital goods?

An important potential gain from South-South trade derives from the extent to which China, India and other emerging countries move into the production of capital goods. The first phase in the expansion of Chinese exports has principally involved consumer goods – finished products with a large share of imported inputs. But capital-goods production and exports are expanding rapidly. In the case of China, exports of capital goods to low- and middle-income countries rose from USD 1.6 billion in 1990 (13.5% of total exports to the South) to USD 114 billion in 2008 (29.7% of total exports to the South) (Figure 3.3).

Figure 3.3. **Chinese exports of capital goods to low- and middle-income countries 1990-2007**

Share in Chinese exports to low- and middle-income countries (left-axis), Billions of current USD (right-axis)



Source: United Nations (2010).

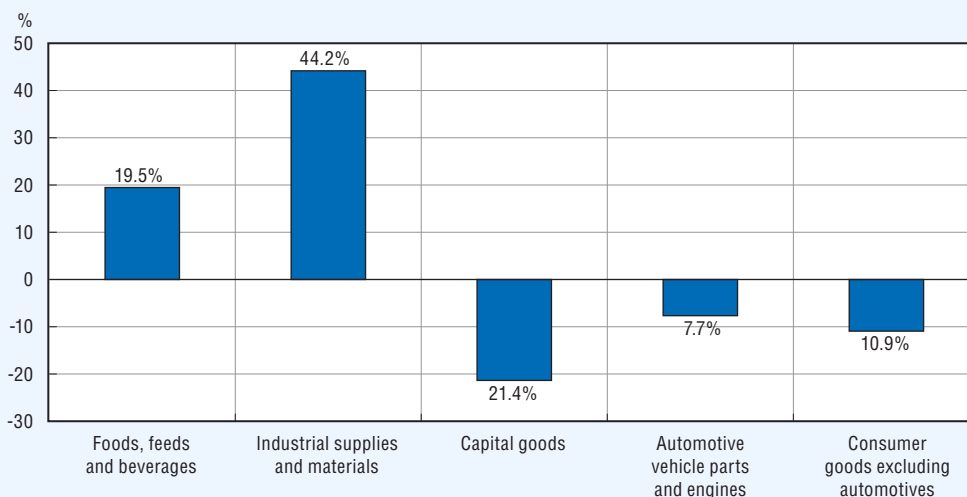
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Chinese production of capital goods could decrease their price relative to other goods in much the same way it has for consumer goods – making capital goods much cheaper to import for low-income countries.

Some signs of this phenomenon can already be detected. Using import prices for the United States – the world's largest importer – as a proxy for world prices, the price of capital goods has declined by more than 20% over 2000-09 (Figure 3.4), while the price of industrial supplies and materials (raw materials) has increased by more than 40%. Such a downward shift in the relative price of capital goods could represent a major growth payoff from the expansion of India and China for the world economy as a whole, but especially for low-income countries where prices for capital goods have historically been excessively high.

Box 3.1. **Growth through cheaper imports for capital goods?** (cont.)Figure 3.4. **Shifts in relative prices for US imported goods, 2000-09**

% change over the period



Source: Authors' calculations based on United States Department of Labor (2010).

StatLink  <http://dx.doi.org/10.1787/888932288432>**The scope for further South-South trade liberalisation – a simulation exercise**

Tariff levels in developing countries have been reduced quite sharply since 1990, the combined result of multilateral liberalisation (notably the Uruguay Round), regional integration processes and unilateral action. Nevertheless, applied tariffs on trade between developing countries still remain relatively high (Table 3.2).


Table 3.2. **Average applied tariff by region and by sector**

Percentage

Origin	Primary sector		Manufacturing sector	
	North	South	North	South
<i>Destination</i>				
North	4.5	11.3	0.9	7.3
South	4.4	7.3	2.4	7.8

Note: Average tariff, expressed as a percentage by value, 2004 data. "North" includes those high-income economies covered by the GTAP 7.0 database as well as non-high-income EU countries. "South" covers all low-income and middle-income countries not included in "North" but excludes Eastern Europe and the Central Asia transition economies. Average tariffs include preferential treatment.

Source: Authors' calculations based on Center for Global Trade Analysis (2009).

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At present, the South applies much higher tariffs on intra-regional trade than it does on trade with the North – almost twice as high in the primary sector (7.3% against 4.4%) and three times as high in manufacturing (7.8% against 2.4%). Moreover, these figures are average tariffs, and do not highlight the very high tariffs applied in some strategically important sectors such as agriculture and capital goods.

This certainly suggests that there is plenty of scope for tariff cuts in South-South trade. The natural question that follows is what shape should such a move take to

maximise its benefits in terms of growth and welfare improvement?¹¹ Using the Global Trade Analysis Project (GTAP) model – a static general-equilibrium model – simulations of liberalisation trade have been run under four different scenarios. These initially use the standard GTAP model closure.¹² The scenarios run are summarised in Table 3.3.

Table 3.3. **Selected scenarios for trade liberalisation**

Scenario	Description
A	North-South tariffs cut to the same level as apply to North-North trade, for the primary and manufacturing sectors, separately and together. This implies cutting reciprocal tariffs on North-South trade to 4.5 and 0.9% respectively. No change in South-South tariffs.
B	South-South tariffs cut to the average levels applied in North-North trade. No change in North-South tariffs.
C	South-South trade completely liberalised – tariffs eliminated. No change in North-South tariffs.
D	Complete liberalisation across all markets. All tariffs – South-South, North-South, North-North – eliminated.

Source: Mold and Prizzon (2010).

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The output of these simulations is shown in Table 3.4.

Table 3.4. **The gains for the South from deeper South-South liberalisation, standard model closure**

Equivalent variation in billions, USD

Scenario	Description	Primary sector	Manufacturing sector	Both sectors
A	N-S tariffs reduced to N-N levels	-2.0	-9.5	-11.5
B	S-S tariffs reduced to N-N levels	1.9	20.1	22.1
C	S-S trade liberalisation	5.6	25.4	31.1
D	Multilateral trade liberalisation	9.0	24.1	33.1

Source: Based on Mold and Prizzon (2010).

StatLink  <http://dx.doi.org/10.1787/888932288850>

Significant gains from South-South co-operation

The results of scenario A may initially seem surprising in that there are quite substantial welfare losses in both the primary and manufacturing sectors from the reduction of tariffs on North-South trade to North-North levels. This is easier to understand when one considers that GTAP 7.0 already contains reduced tariffs for developing countries through preferential market access – further liberalisation does not benefit these countries much in terms of better access to northern markets, but does mean that they have to reduce their own tariffs on imports. Consumers may gain through lower import prices, but this will be offset by competitive pressures through import competition. Similar results have been flagged elsewhere (for example Fosu and Mold, 2008; Ackerman, 2005; van der Mensbrugghe, 2005).

In agricultural trade, the relatively small gains accruing to southern countries may also seem initially counterintuitive (especially given the insistent calls made by developing countries for further agricultural trade liberalisation by the North). They reflect the fact that the gains from such agricultural opening tend to be captured by a relatively small number of competitive agricultural producers (especially in temperate crops), and their gains do not offset the losses suffered by the many developing countries which are now dependent on food imports,¹³ or with weak agricultural export sectors.

Scenario B reflects the potential gains which are available to southern countries if they reduce their intra-regional tariffs to the levels that prevail on North-North trade. For a

simulation of this nature, these gains are quite large – USD 22 billion in total, most of which accrues to the manufacturing sector. The practical significance of this scenario is that it does not require any tariff-reduction agreement with northern countries; achieving these gains needs only South-South co-operation.

Scenario C looks at what would happen if the southern countries were to move even further in this direction, eliminating all tariffs on South-South trade. This scenario is of course less realistic, but its results do show that in comparison with the earlier scenario two-thirds of the gains from complete liberalisation on South-South trade (USD 22.1 billion out of USD 31.1 billion) could be achieved simply by cutting tariffs to North-North levels.

The final scenario D – complete multilateral liberalisation – does not yield a substantial improvement over scenario C, and in fact slightly reduces the gains for the manufacturing sector.

Under more realistic assumptions, the gains are larger still

These results give an idea of the order of magnitude, but are obtained using the standard GTAP closure – including the assumption of full employment. Arguably, a more realistic model closure would reflect the far higher levels of un- and under-employment that prevail in developing countries compared with their northern peers. This has been simulated in the GTAP model by fixing wage rates for southern countries at levels which reflect excess labour supply, then re-running the four scenarios using this new – arguably far more realistic – closure. Table 3.5 summarises the results.

Table 3.5. The gains for the South from deeper South-South liberalisation, non-standard model closure

Billions, USD

Non-standard closure, reflecting surplus labour supply in the South

Scenario	Description	Primary sector	Manufacturing sector	Both sectors
A	N-S tariffs reduced to N-N levels	5.7	27.6	33.4
B	S-S tariffs reduced to N-N levels	6.5	52.8	59.3
C	S-S trade liberalisation	17.0	56.3	73.3
D	Multilateral trade liberalisation	30.6	94.1	124.8

Note: Gains are expressed in terms of equivalent variation based on national income.

Source: Based on Mold and Prizzon (2010).

StatLink  <http://dx.doi.org/10.1787/888932288869>

The striking result is that the gains from liberalisation are at least doubled (scenario C) and in some cases quadrupled (scenario D). Scenario B, reducing South-South tariffs to North-North levels, yields gains of nearly USD 60 billion, almost 90% of which accrue in the manufacturing sector. These are quite large potential benefits from promoting South-South trade. It is notable too that, with this more realistic closure, the losses from further North-South liberalisation under Scenario A now become major gains of around USD 33 billion.

Overall the results of these simulations suggest that there is considerable scope for reductions in protection and trade costs to secure welfare benefits by stimulating further growth in South-South trade. These are only simulation results, of course, but it is worth stressing that the model underlying them only provides estimates of the static gains from liberalisation through better allocative efficiency – the dynamic gains, through enhanced competition and productivity, are likely to augment these in a very significant way. The implications of these findings for policy are explored in Chapter 7.

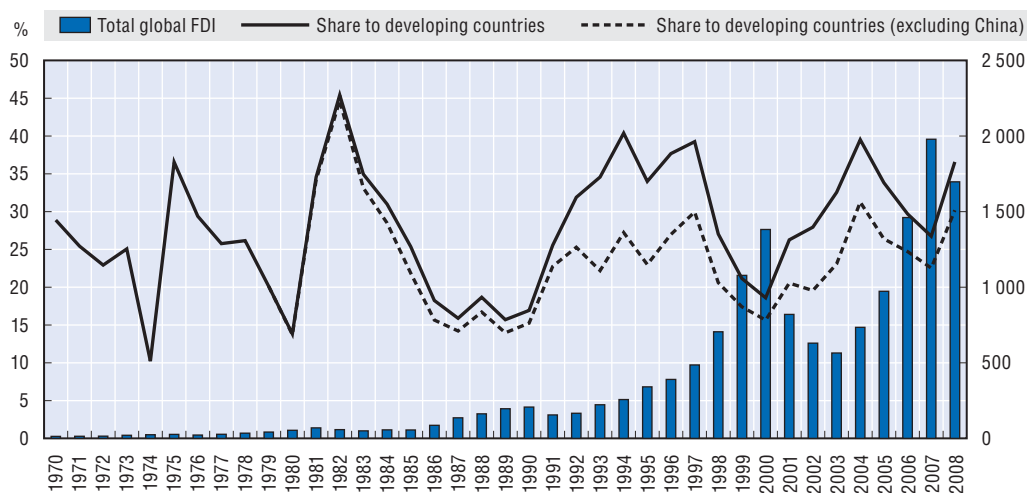
Foreign direct investment

Driven by waves of privatisation, deregulation and the growth of global production chains, the past two decades have seen levels of foreign direct investment (FDI) to developing countries increase rapidly. They rose from USD 43 billion in 1990 to USD 621 billion in 2008.


The financial crisis has impacted in an important way on the geography of FDI. Preliminary figures from UNCTAD (2010b) suggest that global inflows of FDI fell by nearly 40% from USD 1.7 trillion in 2008 to less than USD 1.0 trillion in 2009. But while the United Kingdom and the United States suffered huge declines (down 93% and 57% respectively), China's inward FDI (at USD 90 billion) was down only 3%.¹⁴ Some developing countries have even enjoyed increased inflows – Peru, for example, was up 28% in 2009 against 2008. Most, however, did see a reduction, albeit often from what had been record levels in 2008.¹⁵

Seen from a longer term perspective, the picture is rather different: as Figure 3.5 shows, the share of developing countries in global FDI flows over the 37 years from 1970 to 2008 has fluctuated between a minimum of 10% (in 1974) and a maximum of 45% (in 1982, just prior to the debt crisis). It has generally stayed within a range of about 25% to 33% of global inflows with no clear trend.

Figure 3.5. **Global FDI inflows, 1970-2008**
% of global FDI (left-axis); billions, USD (right-axis)



Source: Authors' calculations based on UNCTAD (2009a).

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This has led Narula (2010) to suggest that there has been no dramatic up-turn in the fortunes of the developing world in terms of its capacity to attract FDI, and that the increase in outward FDI from developing countries has broadly been limited to a handful of large emerging countries – Brazil, China, India and Russian Federation, as well as a few small newcomers such as Chile and Malaysia. This situation could be about to change however. Preliminary figures for 2009, reported by Coricelli (2010), indicate that the crisis has induced a shift of FDI away from advanced economies and towards the emerging economies. For the first time in recent history, flows from advanced going to emerging markets have surpassed the flows from advanced to advanced countries.

Patterns of South-South FDI

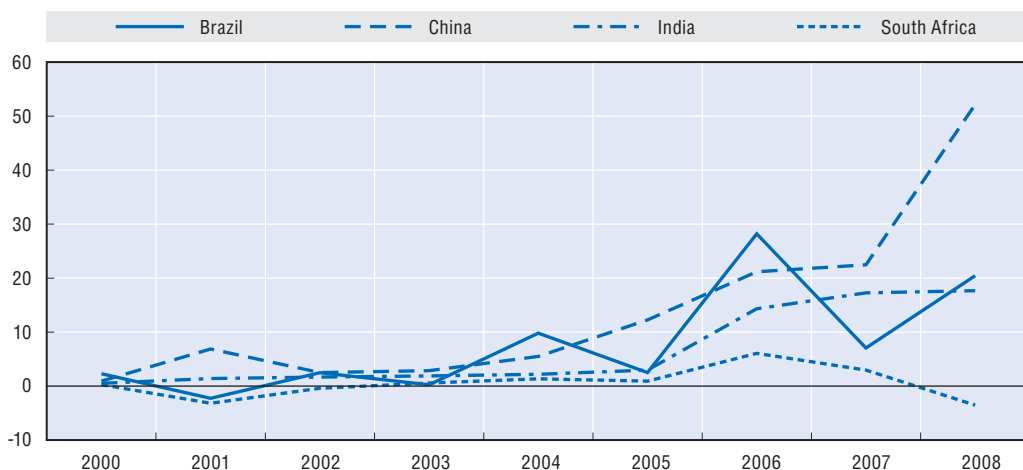
FDI statistics for economies outside the OECD are particularly patchy and unreliable, which makes assessing the importance of South-South flows difficult. Some countries that invest abroad do not identify FDI outflows (Iran, for instance), while some major emerging economies (such as Malaysia and Mexico) only started reporting FDI outflows in recent years. Official statistics do not usually include the financing and reinvested components of FDI outflows and fail to count any capital that is raised abroad (Aykut and Ratha, 2004). In general they also only capture larger investments, missing smaller transactions entirely. These problems are exacerbated by weak accounting standards, tax administration, and administrative capacity in agencies responsible for data collection. All this means that South-South flows are potentially seriously underestimated.

Even if the amount or share of developing country FDI destined to other developing countries cannot be identified with precision, quite a lot is known about the main patterns of investment abroad by the leading emerging investors (Figure 3.6). China is the largest developing country outward investor – figures for 2008 indicate a rise in its outward FDI flows to USD 52.2 billion. Its investment stock is probably in excess of USD 1 trillion (UNCTAD, 2009b), though there are some questions about this figure because of the statistical problems of round-tripping associated with Hong Kong, China.


Different strategies characterise each of the major investing economies and these are reflected in the pattern of their outflows. A substantial part of the outward flow from Brazil, for example, may reflect high domestic interest rates and a lack of investment opportunities in the home market. For China access to energy and raw materials may be an important driver, and increasingly the government's strategy also emphasises access to intangibles including technology and brands (OECD, 2008). The target of FDI flows from China and India is predominantly other developing countries (80% and 65%, respectively). In contrast, very little FDI from Brazil and South Africa goes to developing countries (currently less than 10%) (Gottschalk and Azevedo Sodre, 2008).

Figure 3.6. **Net FDI outflows, major emerging markets, 2000-08**

Billions, USD



Source: UNCTAD (2009a).

StatLink  <http://dx.doi.org/10.1787/888932288470>

The bulk of South-South flows (excluding those to offshore financial centres) from the Asia region are intraregional in nature. Flows within East and Southeast Asia are particularly pronounced, and have contributed to regional economic integration. There has also been a rise in FDI to low-income African countries. In 2008 investments from Asian countries in infrastructure projects in sub-Saharan Africa rose significantly supporting projects in, for example, Angola and the Democratic Republic of Congo (UNCTAD, 2009b).

China's highest profile investments in Africa are in the extractive industries and agriculture (see Box 3.2). But in fact Chinese firms are also taking on a significant number of manufacturing, construction and infrastructure projects (often ones considered too risky by European or US firms). In Sierra Leone in 2005 – within two years of the end of the civil war – China invested USD 270 million in hotel construction and tourism (Green, 2008). According to the Ethiopian Investment Agency, 435 Chinese companies invested a total of

Box 3.2. South-South land purchases – A new form of colonialism or a catalyst for agricultural development?

The growing demand for agricultural commodities has resulted in an upswing in domestic and foreign private investment into agricultural production, and an increasing number of large-scale land purchases in countries such as Ethiopia, Madagascar and Sudan. The process is ongoing at present, with several deals under negotiation. At the Food and Agriculture Organization (FAO) Summit on Food Security in November 2009, FAO and International Fund for Agricultural Development announced the need for a code of conduct to regulate and increase the transparency of what has been called “land grabbing”, that is, “the proliferating acquisition (purchasing, leases, concessions, contract farming, traditional FDI) of farmland in developing countries by other countries to ensure their food supplies” (von Braun and Meinzen-Dick, 2009).

Over 40% of acquisitions of land in this way involve South-South partners. Deals are usually between governments, or entities closely aligned to governments, such as SWFs. The list of developing countries that are actively investing in agricultural land abroad extends beyond the drivers and in fact the main acquirers of foreign agricultural land are the Gulf states, Egypt, China and Korea. Characteristics of these acquiring countries include being poor in land or water but rich in capital, having large populations and food-security concerns, or facing a population which is changing its consumption and dietary habits due to a growing middle class.

The primary motivations of these acquisitions are internal food security, particularly following the spike in food prices in 2007-08; securing alternatives to fossil fuel; growing distrust in the functioning of regional and global agricultural markets; and portfolio diversification. African countries are the main host countries, but Southeast Asian and South American countries also figure.

However, given the lack of food security in host countries such as Ethiopia, the purchases are inherently controversial. Some African countries are now seeking to leverage the rising attraction of their land and water, requiring, for example, investors to make commitments to investment in infrastructure or employment as part of any land deal. The construction of schools and health clinics, together with the spillover from imported agricultural technology and know-how, may indeed contribute to poverty reduction. However, potential downsides remain: loss of control over and access to land, negative effects on domestic food security, increased social instability, reduced local labour and income opportunities, low incentives to use sustainable techniques, and general inequality in bargaining power (UNCTAD, 2009b).

USD 960 million in Ethiopia from 1992 to 2007, spread over many sectors including manufacturing, pharmaceuticals and road construction. A majority of the projects are entering the operational phase and, as of February 2008, 42 000 permanent and 49 000 temporary workers were employed by Chinese companies (Thakur, 2009). Indian companies too are extremely active in Africa. Between 2003 and 2009 Indian multinationals invested in more projects in Africa than did their Chinese counterparts (130 against 86), though these were generally smaller resulting overall in a slightly lower total investment (USD 25 billion against USD 29 billion) (Standard Bank, 2009). One example is the Indian conglomerate Tata – over the period 2003-09 Tata was in fact the second most active investor in sub-Saharan Africa, undertaking a total of 23 projects behind only the Kenya Commercial Bank (Standard Bank, 2009).

The South's new investors – sovereign wealth funds

An increasingly important source of FDI globally is sovereign wealth funds (SWFs). Many of these are based in developing countries (examples include those of Botswana, Brazil, Chile, China, the Gulf states and Nigeria. Kern (2009) estimated their aggregate size at around USD 3 trillion in early 2009 (net of unrealised losses in the wake of the 2008 crisis) and projected their total assets to rise to USD 7 trillion by 2019. The oil-based SWFs are the largest.

Such funds are neither new nor ephemeral: they have been around since the 1950s, mostly created by countries exporting exhaustible raw materials. While the recent drop in global commodity prices and equity returns may have reduced their relative appeal, this may be temporary. They certainly remain an alternative to merely accumulating official foreign exchange reserves, with the monetary complications that this entails. Reisen (2008) points to several additional motives for countries to build up SWFs including portfolio diversification, efficiency gains, industrial policy, and as preparation for future demographic pressures (see also Chapter 6).

SWFs recorded a rise in FDI in 2008, despite a fall in commodities prices, the export earnings of which often provide them with finance. Compared with 2007, the value of their cross-border M&As – the predominant form of FDI by SWFs – was up 16% in 2008, to USD 20 billion (UNCTAD, 2009b, p. xx). FDI by SWFs has historically been concentrated both by geography and sector. About three-quarters of their investments have been in developed countries, mainly the United Kingdom, the United States and Germany. Developing countries (notably in Asia) received only a quarter of total flows, and there has been very limited SWF activity in Africa and Latin America. However, the enormous losses sustained by some SWFs early in the crisis has meant a reassessment of some of these strategies, and they will plausibly show greater interest in southern countries in the future.

Does South compete with South for FDI?

Is there a growing fight within the developing world for FDI? Have China and other emerging markets begun to attract FDI at the expense of other developing countries? Such questions might have seemed rather academic when FDI was booming. But as the world moves out of the financial crisis such questions become more pertinent, especially for those developing countries heavily dependent on FDI in their capital account.

Some econometric evidence exists of FDI diversion towards the stronger developing economies. Looking at data for Latin America, Garcia-Herrero and Santabarbara (2005) found that from 1995 to 2001 – a period characterised by a worldwide boom in FDI as well

as China's entry into the WTO – Chinese inward FDI grew at the expense of Latin American inflows. The effect was particularly noticeable for Mexico and Colombia. Eichengreen and Tong (2007) investigated whether China's attractiveness as a low-cost export platform made it more difficult for other countries to secure FDI, particularly within the Asia region. Examining data for 60 OECD and non-OECD economies, they found FDI diversion in the case of OECD economies. Oman (2000) suggests that, since the internationalisation of production tends to happen more at the regional rather than the global level, competition for FDI is most intense between regional neighbours. But for Asian economies Eichengreen and Tong found no such evidence; on the contrary there was some indication that Chinese FDI inflows made other Asian countries more attractive destinations for FDI, as a consequence of the expansion of regional value chains and the "Flying Geese" phenomenon discussed later in Chapter 6.

South-South FDI – a force for development?

South-South FDI has been rising, as firms in Brazil, China, India, South Africa and the East Asian tigers have gone multinational. For instance, Malaysian and South African investors contributed almost a third of the foreign exchange raised by privatisations in the poorest countries between 1989 and 1998 (Green, 2008, p. 172). Similarly, all the major players in the African telecommunications sector are from other developing countries; these companies have been able to use their operating experience in their home markets to manage the particular characteristics of doing business in poor countries (Goldstein, 2006).

There are a number of arguments why South-South investment may have an especially strong developmental impact for low-income countries. First, southern multinationals are more likely to invest in neighbouring countries with a similar or lower level of development. Second, trends in South-South FDI are not necessarily correlated to FDI from the North, allowing it to reduce the volatility of total flows – this has been observed in Africa during the crisis, where Chinese investors have continued to announce new projects (Davies, 2010). Third, southern multinationals can exploit comparative advantage investing in developing countries because of greater knowledge of technology and business practices specific to developing-country markets (Aykut and Goldstein, 2006, *The Economist*, 2010). They may have, for instance, a stronger capacity to adapt products to poorer customers (Prahalad, 2004) – to cite one example, India's Tata Motors launched its USD 2 500 "people's car" in 2008, promising to give access to personal transport to a new group of consumers in the developing world. Finally, although the evidence is mixed on this point, some studies suggest that developing-country multinationals are more likely to use intermediate technologies that are more labour-intensive, and so create more jobs.

However, an important caveat is the poor performance of many southern multinationals in terms of social and environmental responsibility. Generally speaking, businesses based in the North are subject to greater regulation and oversight. Initiatives by the OECD have encouraged increased transparency and improved labour standards in OECD countries.¹⁶ Northern multinationals are also more likely to be under pressure from their customers to meet certain standards relating to the environment and working conditions. A study of foreign manufacturing firms in Indonesia, for instance, documents an increase in wages paid following anti-sweatshop campaigns in the United States (Harrison and Scorse, 2010).

Such initiatives are less common in southern countries, in which firms may also have low domestic labour standards (Goldstein, 2006). A UNIDO study (2006) found that multinational enterprises from developing countries investing in Africa employed fewer workers and paid lower wages than multinational enterprises from affluent countries. At the same time, however, they employed more low-skilled local workers. To the extent that poverty is higher among low-skilled workers, this may boost the impact on poverty reduction. For policy makers, therefore, the trade-offs are not always straightforward. The controversy is also tied up with discussions over the pros and cons of using Export Processing Zones (EPZs) to attract FDI and promote trade. This will be discussed in Chapters 5 and 6.

Box 3.3. The surge in South-South banking

Over the last decade there has been a surge in FDI into the banking sector in developing countries. The lowering of cross-border investment barriers has presented investors with opportunities to seek relatively higher returns and profitability than would typically be available in their home economy. Investors have been encouraged by improved macroeconomic conditions in the developing world, the strengthening South-South links documented in this chapter and by increasing global financial integration and standardisation (see, for example, Galindo et al., 2003; and Focarelli and Pozzolo, 2000).

South-South banking FDI tends to be intra-regional. A recent study by Van Horen (2007) reports that 27% of cross-border bank investments (by number) into developing countries come from other developing countries. Southern banks appear to be less risk-averse and so more willing than developed-country banks to invest in small developing countries with a weak institutional climate. Cross-border syndication of loans within the South has also increased, taking a share of 4% of total syndicated loans to the developing world (World Bank, 2005) – a small absolute share, but one that had multiplied four-fold over the decade since 1995.

Examples of the changes taking place can be found in sub-Saharan Africa. One of the most visible manifestations at the regional level has been led by South Africa's Standard Bank group.* But investment is not just limited to the Africa region, nor is it one-way: Standard Bank became the first African bank to have a banking licence in China as well as selling 20% of its shares to ICBC Bank. Another South African bank, FirstRand, has signed a deal with China Construction Bank and expanded into the Indian market. Recently there have also been signs of increasing interest by Chinese banks in Latin America, as local FDI and trade links strengthen.

Whether the arrival of these foreign-bank investors has a positive or negative impact on economic development and growth is still much debated. The supporters of such investment argue that the know-how and competition it brings increase banking sector efficiency and encourage bankarisation and private-sector credit. Opponents, on the other hand, allege that the foreign banks engage in “cream-skimming” in the credit markets – only providing funds to state enterprises and multinationals – and contribute little to the growth of local credit markets. This negative outcome can be mitigated if domestic banks respond by trying to expand their customer base downwards, reaching out to previously overlooked local customers such as SMEs. The downside is that this may result in domestic banks holding riskier portfolios than foreign banks.

* Others include FirstRand (South Africa), United Bank for Africa (Nigeria) and BMCE (Morocco).

Aid

Countries grouped in the Development Assistance Committee (DAC) at the OECD still provide the majority of total official development assistance (ODA) (Manning, 2006). Nevertheless, the first decade of this century has seen the number of countries that provide aid but do not belong to DAC rise steeply to nearly 30. Among this group are emerging market countries such as Brazil, China, India, Malaysia, the Russian Federation, Thailand, and oil-rich countries such as Saudi Arabia and Venezuela.

South-South development co-operation is not, of course, a new phenomenon. Regional development banks such as the Kuwait Fund for Arab Economic Development, the Islamic Development Bank and the Arab Bank for Economic Development in Africa date back to the 1960s and the 1970s. Chinese assistance to Africa started in the late 1960s with the construction of the Tazara railway between Tanzania and Zambia, and over 1957-89 total Chinese aid commitments amounted to some USD 4.9 billion (Alden, 2007).

In some cases, delivery of aid takes the form of “triangular co-operation” whereby developing countries provide aid to a third-party through partnerships with traditional donors and international financial institutions.¹⁷ For example, Brazil has established triangular co-operation initiatives with Canada, ILO, Norway, Spain, the World Bank and the United States focusing on Portuguese-speaking countries in Africa, East Timor, Latin America and Haiti (also with Argentina) (UN/ECOSOC, 2008). Bringing these donors into programmes like this can harness their knowledge of developing-country practicalities. It can also be very cost effective, since their experts and training programmes are often less expensive than those of developed countries.

As with South-South FDI and trade, measurement of South-South development assistance suffers from problems of data definition and collection and lack of co-ordination of data at country level. Table 3.6 presents data based on reports made to the DAC.

Table 3.6. Official development assistance reported to the DAC

Millions, USD

Donor	1990	1995	2000	2005	2008
DAC countries	78 907	69 671	74 548	117 858	115 632
Non-DAC countries	90	1 176	1 630	4 440	9 077

Note: 2007 constant prices, net disbursement.

Source: OECD (2009c).

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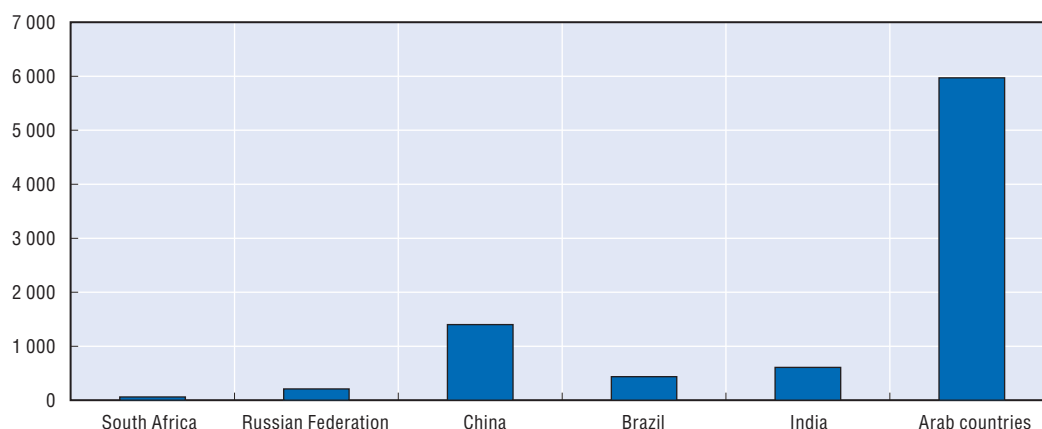
ODA from non-DAC donors reporting to the DAC¹⁸ amounted to almost USD 9.1 billion in 2008. This represents only about 7.8% of assistance from DAC-donors, and the grant share element is even lower since most non-DAC assistance takes the form of concessionary loans.¹⁹ On the other hand, these figures only reflected aid reported to the DAC. A more comprehensive analysis, UN/ECOSOC (2008), estimates that southern countries delivered as much as USD 12.1 billion in 2006 (representing between 9.8% of total flows). Both Saudi Arabia and Venezuela (which does not report to the DAC) provided development assistance of more than 0.7% of their gross national income. If southern countries meet their pledges, their development assistance could exceed USD 15 billion in 2010 (UN/ECOSOC, 2008). Like other South-South flows, once disbursements by China

are excluded, concessionary loans (78%) and grants by southern donors are mostly intraregional (World Bank, 2006).

Southern donors

Saudi Arabia is the largest single donor. But China is now the second largest donor and, arguably, has become the most influential of the non-DAC donors (Figure 3.7). According to Qi (2007), China's aid more than doubled from 1998 to 2007. Its impact is relatively difficult to evaluate as Chinese aid often comes as part of a package, tied to trade and investment deals and requiring the participation of Chinese contractors (Foster *et al.*, 2008).²⁰ China typically provides its assistance in the form of complete turnkey projects, providing planning, finance, manpower and training. Financing is channelled not through a development agency but through the Export-Import Bank of China – Eximbank loans, not aid, account for the vast majority of China's infrastructure finance for Africa. The IMF estimated China's financial assistance to Africa – loans and credit lines – to have totalled about USD 19 billion as of 2006 (Jacoby, 2007). The amount, form and destination of Chinese aid (and similar data for each of the countries and groups discussed in what follows) are summarised in Table 3.7.

Figure 3.7. **Aid from non-DAC donors**
Millions, USD



Note: 2008 data for Arab countries, 2007 data for Brazil, 2007 data for China, 2008-09 data for India, 2007 data for Russian Federation, 2006-2007 data for South Africa.

Source: OECD (2009b) and OECD (2010).

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Table 3.7. **Allocation of bilateral southern development co-operation, 2006**

Donor	Recipient countries (number)	Top three recipients (% of bilateral aid)			Aid by income/region (% of bilateral aid)	
		1	2	3	To LDCs	To sub-Saharan Africa
South Africa		Mostly sub-Saharan Africa				
China	86					44%
India		Bhutan (36%)	Afghanistan (25%)	Nepal (13%)		
Malaysia (2005 data)	136	Indonesia	Myanmar	Cambodia		47 countries
Thailand	58	Lao PDR (59%)	Cambodia (26%)	Myanmar (7%)	95%	1%
Arab countries	40	Morocco (28%)	Sudan (14%)	China (11%)	7%	1%
Brazil	46	Haiti	Cape Verde	Timor-Leste	33%	24%

Source: Based on UN/ECOSOC (2008).

StatLink  <http://dx.doi.org/10.1787/888932288907>

In 2007, India announced an annual budget of around USD 1 billion for development co-operation, and its budgets for 2006/07 and 2007/08 respectively register annual grants and loans to foreign governments at USD 500 million each (OECD, 2009b). Much of Indian assistance takes the form of lines of credit, tied in some part to the purchase of Indian exports (Kaplinsky and Farooki, 2009). In addition to financial assistance, India also provides technical assistance and training. An estimated 15 000 students of African origin are currently studying in India (Thakurta, 2008).

DAC figures show that Arab countries provided USD 6 billion in assistance in 2008. However, in common with many Middle-Eastern donors, only a small part of their development assistance is reported to the DAC (Villanger, 2007) and actual aid figures are thus likely to be higher. Like China and India, this region tends to view ODA as one component of a wider package of economic co-operation.

Brazil plays an important role as a donor both bilaterally and multilaterally, particularly within the group of lusophone nations, and has also been prominent in discussions of innovative finance (Manning, 2006). Brazilian officials estimated their country's aid programme at USD 437 million in 2007. The bulk of development aid takes the form of financial and technical co-operation (OECD, 2009b). Fellow South American countries received over half of the total aid budget.

South Africa has only a modest bilateral programme, but its economic weight in its region gives it considerable influence in the development of its neighbours. The African National Congress policy conference in 2007 confirmed that the focus of assistance should continue to be regional, including technical assistance for capacity building within the Southern African Development Community and support for democratic governance in countries such as Liberia and the Democratic Republic of the Congo (OECD, 2009b; p. 139-141).

Aid with a different angle

In terms of its geography, the allocation of development assistance from southern donors quite closely mirrors that of DAC members – with the exemption of Myanmar, the top-ten recipients of southern assistance are the same as the top-ten recipients of DAC ODA. However, southern assistance can be distinguished from that provided by northern donors or the international financial institutions by the fact that few (if any) policy conditionalities are typically attached to it. This does not mean that, say, the Chinese attach no conditionality at all to the use of their aid – indeed on occasion they have vigorously expressed their concerns about corruption and possible diversion of resources towards illegitimate uses (Mold, 2009). Such concerns are distinct, however, from the explicit attempts to shape domestic policy that often accompany northern aid.

Mold (2009) argues that this low conditionality combined with the project-based approach of Chinese aid provides a useful alternative model for the donor community – albeit with its own drawbacks and limitations (*e.g.* a lack of transparency, a high share of tied-aid, etc.). There are a number of potential benefits from Chinese aid: better targeting on important infrastructure projects with long maturity and long-term potential; less bureaucracy (meaning lower transaction costs), greater efficiency and potentially faster response; and greater policy space (through lower conditionality) (Oya, 2006).

Paulo and Reisen (2010) discuss how the growing relevance of new donors is weakening the effectiveness of the “soft law” created by DAC rules (see also Chapter 7).

This raises the question of compliance in a changing donor landscape. It may be possible for the international community to build an effective peer-review mechanism around values shared between established and emerging donors – among which are the sense of solidarity and a long-term perspective.

Conclusion

The rising importance of the South to the South since 1990 – in terms of the flows examined in this report as well others such as migration and remittance flows – is clear. What broad conclusions can be drawn? This chapter has provided evidence for the following:

- A common advantage of South-South flows lies in physical and cultural proximity. They are likely to share more of the technology and business practises specific to developing countries. Technological acquisition and up-grading is thus potentially easier.
- The development of strong technological capabilities in some southern countries and diversification of exports in many others create new potential for co-operation. These poles of higher-tech expertise and skills, coupled with the spread of low-cost and effective communications, widen the prospects for cross-border clusters of specialisation and co-operation among developing countries. (The opportunities and challenges that flow from this are looked at in detail in Chapter 5.)
- There is huge potential for welfare improvement from the judicious removal of trade barriers and reduction of trade costs on South-South trade. Moreover, these gains are not contingent on the outcome of ongoing multilateral negotiations, which are currently stalled.
- Developing countries themselves are becoming important donors. The resources and experience of these new development actors should be leveraged to maximise aid effectiveness.
- Shifting wealth and rising competition from the Asian giants mean there is a new imperative to making South-South regional integration more effective.
- Finally, the growing importance for the South to the South does not end with economic flows. It extends further to their rising voice in global governance and increasing bargaining power on the international stage.

Chapters 6 and 7 will elaborate on these points from a policy perspective.

Notes

1. Another stylised model, by Chamon and Kremer (2009), helps throw light on some of the opportunities and challenges which arise. As emerging countries grow, their success improves export opportunities for the remaining developing countries, which leads to accelerating global growth. As countries get richer, according to the model, they experience a demographic transition with a drop in fertility and young age dependence. If population growth differentials between developing and advanced economies are small, economic development accelerates over time. Both migration and aid from rich to poor countries can support this process. The model predicts that once China and India become rich and once their poor share the new wealth, over 2 billion more people will live in countries that import labour intensive goods and fewer in countries that export them, opening up opportunities for other countries to fill this niche. Their initial opening may hurt some developing countries in the short term, but their sustained growth improves the overall long-term prospects of low-income developing countries.
2. In particular, migration is beyond the scope of this report. The scale of South-South migration often surprises: nearly half of international migrants from developing countries live in other

developing countries, with only about 40% of the stock of international migrants conforming to the somewhat stereotypical view of the southern migrant in a northern country. For a fuller discussion in the Latin American regional context see OECD (2009d).

3. UNCTAD (2010a) *Handbook of Statistics* does not include transition economies in the developing countries group.
4. The reasons for this are intuitively quite straightforward: countries may end up sourcing goods not from the cheapest source, but rather the source on which the lowest tariffs apply, with a negative impact on consumer welfare and competitiveness where the imported products are inputs for export production.
5. See Kowalski and Shepherd (2006).
6. For a brief discussion on this, see Chapter 5. See also *The Economist* (2010).
7. Of course, this presents both opportunities and challenges. Opportunities in terms of new export opportunities for developing countries which have previously been marginalised, and challenges in the sense of reducing the incentive to upgrade towards northern product standards.
8. See OECD (2009e) for more detail.
9. Based on the IMF regional classification as used in the Balance of Payments Statistics.
10. A number of factors could explain these findings. These include: i) the real appreciation of the peso relative to the US dollar combined with the trend toward undervaluation of the Chinese currency; ii) the decline of public investment in Mexico, especially in infrastructure; iii) limited access to bank credit in Mexico; and iv) the absence of government policy in Mexico to help spur technological innovation and to strengthening its domestic backward and forward linkages (see Chapter 5).
11. In the GTAP framework, welfare improvement is measured by Equivalent Variation (EV). EV attempts to capture the “consumer surplus”, but except as a source of income EV underplays the impact of liberalisation on the productive sectors of the economy. The measure therefore tends to exaggerate the benefits derivable from changes in GDP.
12. The GTAP model assumes that investment adjusts endogenously to changes in savings, although the trade balance can vary, so that at a national level the change in exports need not equal the change in imports. Real exchange rates are implicit in the model and are assumed to be fully flexible. See Hertel (1997) for full details and explanation.
13. Because of the way in which agricultural subsidies distort prices, there is a general consensus in the literature that trade liberalisation in agriculture would raise world prices for many agricultural commodities, not reduce them. See Bouët et al. (2004).
14. In December 2009 alone China drew in more than USD 12 billion in FDI, double the figure of a year earlier.
15. Brazil’s inward FDI fell by half in 2009, from 2008’s all-time high of USD 45 billion. For India, according to official forecasts, FDI in the year to March 2010 is expected to be about USD 18 billion, down a third from its peak of USD 27 billion in 2008/09.
16. The OECD *Guidelines for Multinational Enterprises* and the OECD *Convention against Bribery of Foreign Public Officials in International Transactions*.
17. It is worth noting that most triangular assistance is not additional aid provided by southern contributors but rather part of northern-donor flows (UN/ECOSOC, 2008).
18. Non-DAC donors reporting their aid to the DAC are: the “Arab donors” (Kuwait, Saudi Arabia and United Arab Emirates) together with Czech Republic, Estonia, Hungary, Iceland, Israel, Korea, Latvia, Lichtenstein, Lithuania, Poland, Slovak Republic, Slovenia, Chinese Taipei, Thailand and Turkey.
19. Furthermore part of the apparently explosive growth since 1990 is explainable by more comprehensive data collection.
20. China’s figures cover aid in the form of grants, interest-free loans, preferential loans, co-operative and joint-venture funds for aid projects, science and technology co-operation, and medical assistance, on a bilateral basis. They exclude debt relief, in contrast to DAC donors’ reported ODA. In US dollar terms, aid jumped from less than USD 0.5 billion in 1998 to a little under USD 1.5 billion in 2007.

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Chapter 4

Shifting Wealth and Poverty Reduction

Since 1990, the number of poor people living on less than one dollar-a-day has declined by nearly half a billion. High growth in the converging countries played a major role in this decline, though poverty also fell in a number of poor and struggling countries. In fact, improvements in health and education were largely independent of growth. The pace and pattern of growth as well as initial country conditions matter for how much growth turns into social development. The technological and structural changes underpinning shifting wealth are often accompanied by increases in within-country inequality. While high inequality can limit poverty reduction, the good news is that today an increasing number of countries actually have the resources to address distributional challenges and foster social development.

Introduction

Shifting wealth means a radical change in the geographical distribution of growth and, if sustained, will eventually transform the pattern of differences in income per capita across the globe. The previous chapters of this report have documented the sometimes dramatic reshaping of the world economy that shifting wealth has brought in its wake. This chapter looks at how this has translated into social outcomes in the developing world and what lessons can be learned for the future.

The average standard of living in middle-income countries has risen to a level that brings with it new concerns about inequality and relative, rather than absolute, poverty. As they grow, economies can afford greater investment in public goods and social development, and can introduce or reinforce redistributive policies. Making the change in mindset that may be needed to do this requires a measured but firm policy stance; some countries unfortunately have lagged behind.

This chapter first examines the differences across countries in the degree to which growth has helped poverty reduction. It then looks at the evolution of inequality across the groups of countries defined by the four-speed world classification presented in Chapter 1. In many cases, fast growth has been accompanied by increased inequality, further complicating the challenge of poverty reduction. The chapter further looks at efforts to make growth pro-poor and goes on to argue that, measured in relative terms, poverty remains a significant obstacle even in converging countries that have successfully reduced absolute poverty. Ultimately, higher levels of inequality could end up undermining continued growth and thereby the sustainability of the shift.

An important reduction in absolute income poverty

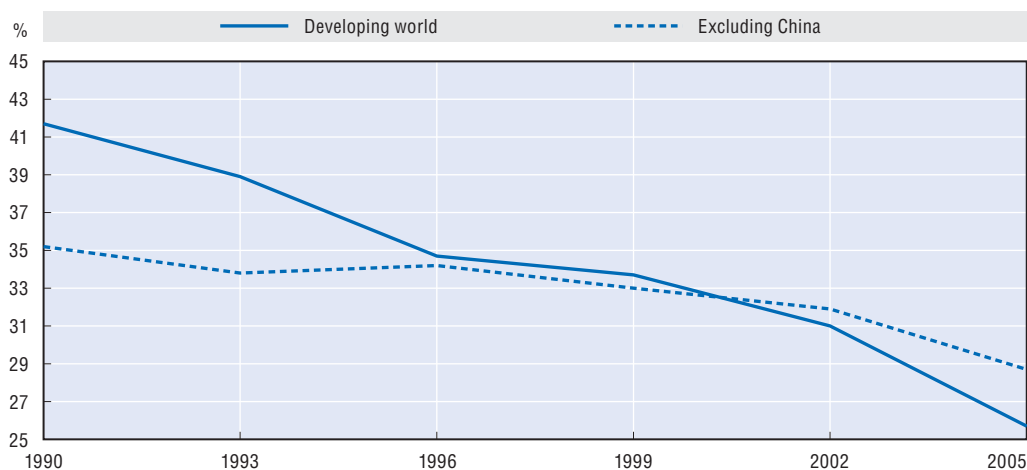
Aggregate economic performance improved significantly in the developing world between the 1990s and 2000s, and over the same period average poverty rates decreased ever faster (Figure 4.1). China's success was responsible for much of this.

Poverty in China stood at 84% of the population in 1981, but had dropped to 16% by 2005.¹ Excluding China, the picture is more mixed. Poverty in India – home to a sixth of the world's population – fell fairly steadily from 60% to 42% over the same period (Ravallion, 2009). This is certainly a worthwhile improvement, but will not be fast enough to eradicate poverty in a lifetime. During the 1990s the rate of poverty reduction in the rest of the developing world did not change dramatically and remained at a level insufficient to meet the Millennium Development Goal of halving poverty by 2015 (Chen and Ravallion, 2008). There has, however, been some improvement since the early 2000s.

The impact of growth on poverty has been unequal across countries

Growth in gross domestic product (GDP) is widely acknowledged to play an important role in poverty reduction (Dollar and Kraay, 2002; Ravallion, 2001). Figure 4.2 plots change in poverty against per capita growth for converging, struggling and poor countries in all

Figure 4.1. Headcount poverty rates
% of population living under USD 1.25 2005 PPP



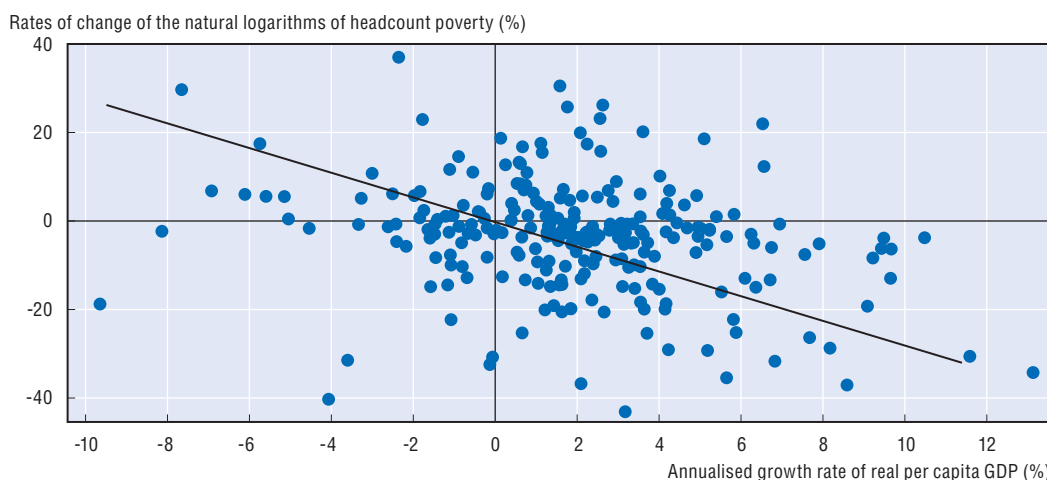
Source: Chen and Ravallion (2008).

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periods for which data is available. It demonstrates that growth and the speed of poverty reduction are strongly correlated: a 1% rise in real per capita GDP corresponds, on average, to a 1.1% reduction in the absolute poverty rate.²

Despite the strong association between growth and poverty reduction, Figure 4.2 also suggests that growth in per capita output explains a relatively small part of the differences in poverty reduction across countries.³ While growth has led to substantial poverty reduction overall, there are wide differences across countries in the sensitivity of poverty to growth. Chapter 1 documented differences in the pace of growth among developing

Figure 4.2. Poverty and growth – a strong relationship, but much unexplained variation



Note: Data covers 1990-2007. The figure presents the rates of change of the natural logarithms of headcount poverty (measured at USD 1.25 PPP per day) and real GDP per capita for all countries other than high-income countries. Plot points represent country-period observations. Most countries have multiple observations. The fitted line is weighted by the size of intervals in the observed spells so that countries carry equal weight when the period covered is identical.

Source: Based on World Bank (2009b).

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countries since 1990. Did the countries that grew faster manage to turn that growth into more rapid poverty reduction?

The sensitivity of poverty to growth differs across countries

Table 4.1 shows annualised changes in poverty and real per capita output growth for 24 developing countries, as well as the implied growth elasticity of poverty reduction over a 10-year period.⁴ On average, an increase of 1 percentage point in the long-term growth rate increases the rate of poverty reduction by around 0.7 of a percentage point.⁵ Overall, though, while fast-growing countries have achieved substantial poverty reduction, they were not the best performers.

Table 4.1. **Poverty reduction and growth for selected countries (1995-2005)**

	Annual change in poverty	Annual change in real GDP per capita	Total growth elasticity of poverty reduction (mid-1990s to mid-2000s)
	(dollar-a-day headcount index)		
	% per year	% per year	
	1995-2005	1995-2005	
<i>Convergers in the 1990s and 2000s</i>			
China	-9.2	7.9	-1.2
Dominican Republic	-1.8	3.2	-0.6
Cambodia	-1.9	5.2	-0.4
<i>Convergers in the 2000s (only)</i>			
Costa Rica	-12.2	2.6	-4.6
Ecuador	-4.4	1.6	-2.8
Ethiopia*	-4.4	2.6	-1.7
Honduras	-2.2	1.7	-1.3
Uganda*	-2.5	2.7	-0.9
Bangladesh*	-2.0	3.5	-0.6
Panama	-1.7	2.8	-0.6
Nigeria*	-0.8	1.8	-0.4
India*	-1.6	4.7	-0.3
Peru	-0.5	1.9	-0.3
Mongolia*	1.7	3.3	0.5
Georgia*	12.2	7.0	1.7
Colombia	3.2	1.2	2.7
<i>Struggling</i>			
Brazil	-3.0	1.0	-3.1
El Salvador	-1.4	2.1	-0.7
Paraguay	-3.1	-0.9	3.5
<i>Poor</i>			
Senegal	-4.8	1.6	-2.9
Mali	-4.3	2.8	-1.6
Nepal	-2.7	1.7	-1.6
Zambia	0.4	0.6	0.7
Niger	-1.6	-0.2	7.9

Notes: Growth rates are annualised rates of change in between the start and the end of the period. Data are within one year of the start (1995) and end (2005) of the period for each country. All struggling and poor countries in the table remained in the same group over the two decades. Among the convergers from the last decade, an asterisk (*) indicates the country was classified as "Poor" in the 1990s, while the others were classified as struggling in the 1990s. Source: Authors' calculations based on World Bank (2009a, 2009b).

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Among the convergers, the growth elasticity of poverty reduction in China is -1.2 , while that for both the Dominican Republic and Cambodia is below the -0.7 average. For India, the corresponding figure is only -0.3 . Converging countries, by and large, exhibit modest elasticities while a number of countries with slower growth performance display higher poverty reduction elasticities. Costa Rica (-4.6) and Brazil (-3.1) are notable examples. Ferreira *et al.* (2009) identify the expansion of federal social protection in Brazil as the single most important factor driving poverty reduction in the country over 1985-2004, a period which was characterised by disappointing growth.

Growth alone does not secure other human development goals

Social development cannot be measured solely through incomes or analysed through the narrow lens of income poverty. The links between growth performance and social development are all the more complex once non-income forms of poverty are considered. Indeed, by some measures of non-income poverty – for example infant mortality – converging countries were not the star performers.

Both the United Nations Millennium Declaration and the literature on pro-poor growth (see for example OECD, 2006; Besley and Cord, 2007) emphasise the multidimensionality of poverty. Pro-poor growth in income dimensions does not guarantee that improvements in non-income dimensions will also disproportionately benefit the poor. Until recently, the degree to which growth was pro-poor was measured exclusively by its incidence in income (or consumption) poverty, following measurement techniques proposed by Ravallion and Chen (2003), or using the average elasticities approach adopted in Table 4.1. Grosse *et al.* (2008) extended this methodology to non-income poverty, using indicators for education, health and nutrition. Looking at Bolivian data, they concluded growth in Bolivia was pro-poor between 1989 and 1998, in the sense that both the income poor and those deprived in terms of education, health and nutrition outcomes experienced a faster than average improvement in their well-being from growth.⁶

Bourguignon *et al.* (2008) found that the countries with the best growth performance are often off-track in terms of the achievement of the Millennium Development Goals (MDGs). They found the correlation between growth and non income-related MDGs, to be zero. Non-income dimensions of human development are also important for determining future growth, in particular by enhancing human capital.⁷


Using infant mortality rates as an example, Table 4.2 demonstrates that economic performance alone is not sufficient to secure the achievement of other human development goals. Certainly, sub-Saharan Africa, which has many poor and struggling countries, performed relatively badly. However, the best performing region is not Asia (which had by far the best growth performance), but Latin America. Strong results in terms of human development and poverty reduction are clearly contingent on the right set of social policies being in place and executed efficiently.

Table 4.3 shows absolute changes in child mortality rates and life expectancy, two major human development indicators, using the categories of the four-speed world. Affluent countries start with high absolute levels of achievement in these indicators so it is unsurprising that they are not the leading performers in terms of absolute change. More unexpectedly, the performance of poor countries outpaces all the other groups in the reduction of infant mortality rates. Given the sharp deterioration in life expectancy in a number of poor countries as a result of the HIV pandemic and civil conflicts, improvements

Table 4.2. **Under-5 infant mortality rates by region (per 1 000 live births)**

Region/country grouping	1990	2008	% change over period
Sub-Saharan Africa	108	86	-20
Middle East and North Africa	57	33	-42
South Asia	88	57	-35
East Asia and Pacific	41	22	-46
Latin America and Caribbean	42	19	-55
Central and Eastern Europe and the CIS	42	20	-52
<i>Industrialised countries</i>	<i>8</i>	<i>5</i>	<i>-38</i>
<i>Developing countries</i>	<i>68</i>	<i>49</i>	<i>-28</i>
<i>Least developed countries</i>	<i>113</i>	<i>82</i>	<i>-27</i>
World	62	45	-27

Source: UNICEF (2010).

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in life expectancy are also notable. Moreover, among converging and struggling countries, progress in these two human development indicators was actually faster in the slow growing 1990s compared to the 2000s, again suggesting that economic growth alone is certainly not a sufficient condition for human development.

Table 4.3. **Human development in a four-speed world**

	Average reduction in Infant mortality rate (per 1 000 live births)		
	1990s	2000s	1990-2007
Affluent	-3.1	-1.3	-4.7
Converging	-10.1	-8.2	-18.2
Struggling	-9.1	-6.0	-17.6
Poor	-13.4	-11.8	-24.7
	Average reduction in child (five-year) mortality rate (per 1 000 live births)		
	1990s	2000s	1990-2007
Affluent	-3.9	-1.7	-6.2
Converging	-15.4	-12.3	-27.0
Struggling	-12.3	-8.6	-25.6
Poor	-22.5	-21.1	-42.7
	Average increase in life expectancy at birth (years)		
	1990s	2000s	1990-2007
Affluent	2.3	1.8	4.0
Converging	3.1	1.6	3.9
Struggling	1.6	1.1	2.5
Poor	1.2	2.4	3.9

Source: Authors' calculations based on World Bank (2009b).

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Inequality, growth and poverty reduction

The diversity in the responsiveness of poverty reduction to growth is partly related to distributional issues. It has been argued that growth on average and across countries is distribution neutral (Ravallion, 2001; Dollar and Kraay, 2002). In other words, a given

percentage increase in mean income raises the income of the rich and the poor by the same percentage. However, this still implies that the rich capture a much larger share of the absolute growth in income than do the poor. The poor gain less – and poverty reduction will be weaker – the more unequally income is distributed (see Box 4.1).

Box 4.1. **Inequality can limit the impact of growth on poverty**

Between the mid-1990s and 2005, GDP per capita in Mali and Uganda grew at comparable rates – around 2.75%. But over that same period absolute poverty in Mali decreased from 86% of the population to 51%, while in Uganda it fell less rapidly from 64% to 52%.

Two key factors explain this difference. First, the degree to which GDP growth translated into household-expenditure growth was much higher in Mali: expenditure per capita grew at a rate of 6%, about double the rate observed in Uganda. Second, the distribution of benefits from growth was dramatically different in the two countries. While in Mali the Gini coefficient dropped from 0.53 to 0.39, in Uganda the same measure of inequality increased from 0.38 to 0.43. In other words, the relatively well-off in Uganda benefited disproportionately from growth.

Fosu (2010) argues that inequality and changes in inequality play a major role in explaining differences in growth elasticities of poverty reduction across countries. Greater inequality reduces the amount by which a given level of growth will reduce poverty. Increases in inequality generally lead to increases in poverty (for a given level of growth). Following this argument, if Uganda had grown at the same rate but maintained its level of inequality it would have reduced poverty by an extra 10 percentage points. If it had gone on to achieve a fall in inequality comparable to that in Mali, poverty would have fallen to 32% by 2005 – a full 20 percentage points lower than observed.

Source: Fosu (2010).

The unequal distribution of peoples' standards of living irrespective of the country in which they live is referred to as "global inequality". Between two-thirds and three-quarters of global inequality can be attributed to inequality between countries.⁸ This "between" dimension corresponds to differences in average incomes between countries, roughly measured by GDP per capita. As shown in Chapter 1, an extended period of increases in inequality between countries has reversed over the past decade thanks to the improved growth performance of the developing world.

At the same time, inequality in incomes or consumption *within* many countries has increased steadily since 1990. Has the rise in within-country inequality come as the price of success? In a recent report, the International Labour Organisation found that over 1990-2005, income inequality rose in more than two-thirds of the 85 countries it sampled (ILO, 2008), a trend which continued until at least the mid-2000s according to studies using more recent data.⁹ These increases in inequality are worrying because they threaten to reduce the impact of growth on poverty and because they also call into question the sustainability of growth itself.

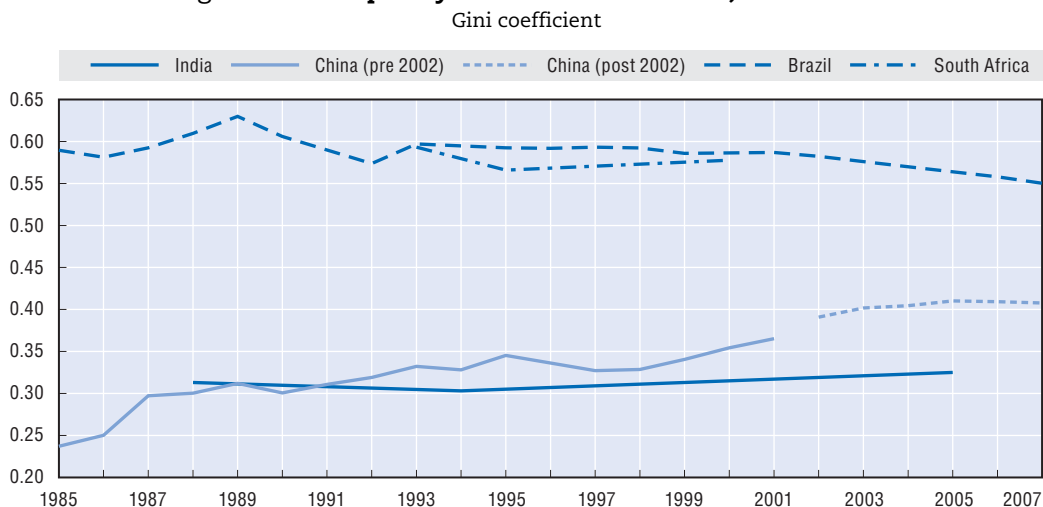
Did growth contribute to rising inequality within countries?

The global evolution of within-country inequality is heavily influenced by increasing inequality in the Asian giants, given their weight in the world population. Figure 4.3 contrasts rising inequality in two converging countries, China and India, with falling

inequality in two struggling countries, Brazil and South Africa. Though the two large converging countries saw inequality increase, it rose from lower levels. In contrast, the two large struggling countries experienced declines in inequality, but from extremely high initial levels.

Of the four countries, China exhibited the most striking change. Inequality in China rose dramatically between 1990 and 2005 (Figure 4.3). The Gini coefficient rose from 0.30 to over 0.40 in that period – taking inequality in China from close to the OECD average of 0.31 to a level shared by the most unequal of OECD countries (OECD, 2008a).¹⁰ Since 2005, the rise in income inequality in China appears to have come to a halt. In fact, using measures of inequality that give more weight to lower incomes, inequality has in fact decreased since 2005, especially in rural areas.¹¹

Figure 4.3. **Inequality in selected countries, 1985-2007**



Note: Gini coefficients for income (Brazil) or per capita expenditure (India, China, South Africa).

Source: Based on Topalova (2008) for India, OECD (2010) for China and World Bank (2009a) for Brazil and South Africa.
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China was not the only country to witness a marked increase in inequality. For example, Székely (2003) found that across comparable survey data, inequality did not decrease significantly in any country in Latin America during the 1990s, and increased strongly in Argentina, Bolivia, El Salvador and Nicaragua. Inequality also increased among countries transitioning from centrally planned socialist economies. Overall, the majority of emerging and developing countries witnessed increases in inequality in the 1990s. The position is summarised in Table 4.4.¹²

Since 2000, inequality has risen in a number of countries, but, for the majority, the trend moderated and inequality remained constant or changed only a little. A substantial number (more than half of the countries for which distribution data are available) experienced moderate falls in inequality. They include a number of Latin American countries for which differences in outcome in the 2000s are not explained solely by improvements in their external environment (Cornia, 2009).

Table 4.4. **Changes in the Gini coefficient in the 1990s and 2000s**

Change in inequality	Number of countries	
	Early to end 1990s	Early 2000s to latest
Large decrease	11	6
Moderate decrease	11	18
No significant change	19	16
Moderate increase	25	13
Large increase	7	9
Number of economies with data	73	62

Note: Economies are only considered if there is data at the beginning and the end of a period for the same measure of living standards (consumption or income). For some countries, inequality data refer to urban or rural areas only. For a given country the periods assessed in the two decades depend on data availability. “Large” refers to changes greater than 1 percentage point per annum in either direction, “moderate” refers to changes between 0.2 and 1 percentage point per annum, “no significant change” refers to variations smaller than 0.2 percentage points per annum.

Source: Authors calculations based on World Bank (2009a).

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Shifting wealth, labour markets and inequality

Accelerated globalisation brought about profound changes in the global labour market (see Chapters 1 and 2). Are these changes linked to the increases in inequality in the 1990s and the 2000s? Most existing analysis concentrates on inequality in advanced countries, particularly in the United States, although some observers stress that the mechanisms and implications would differ for developing countries (e.g. Kohl, 2003). Two arguments share centre stage.

The first rests on international competition between unskilled workers, mediated through trade in goods. If trade liberalisation equalises relative wages of unskilled workers worldwide, unskilled wages in less developed countries should rise, while unskilled wages in rich countries decline.¹³ As early as 1995, Freeman (1995) was asking the question whether US wages for low-skilled workers were being set in Beijing because of the rising competition faced by US manufacturers from Chinese imports. But while inequality has grown in developed countries (OECD, 2008a), wage differentials actually increased during the period in a number of emerging and developing economies (Kohl, 2003).

The second argument rests on skill-biased technological change (see, for example, Krugman [2000]). It says that technological change, and above all the revolution in information technology, has led to an increase in demand for skilled workers relative to their unskilled peers who as a result have seen their relative wages fall.¹⁴

Whatever the merits of these two theories in the advanced-country context¹⁵ their relevance to developing countries will differ greatly across countries. The relevance of each will depend on a country’s economic structure and level of development. International competition between unskilled workers, for example, will matter more where unskilled workers earn more than their counterparts in other developing and emerging countries because of local market conditions. Note too that this relationship is not static: the point at which global competition bites will depend on the future upgrading of international – especially Chinese – industry and the skill composition of trade.¹⁶ An empirical analysis of the links between globalisation and inequality found that trade globalisation and export growth since 1990 have tended to decrease inequality in most countries, while financial globalisation and technological progress have both tended in the opposite direction (IMF, 2007).

Moreover, domestic factors are also at play in the link between growth and inequality. The duality of labour markets, particularly those of the Asian giants, is a case in point. In both India and China there is substantial inequality in incomes between rural and urban workers. Dual-economy models along the line of Lewis (1954) have been used to represent the Chinese labour market (for example by Cai *et al.* [2009]). Kuznets (1955) posited that inequality increases over time while a country is developing and, after a certain average income is attained, inequality begins to decrease. The mechanics underpinning increasing inequality in Kuznets's hypothesis may be at play in the large converging countries. As structural transformation brings workers from the lower-inequality lower-productivity agricultural hinterland to the urban manufacturing sector, aggregate inequality first increases with development before eventually falling.¹⁷ The extent to which this will prove to be case in the large converging countries remains an open question.

New challenges to making growth benefit the poor

Taking initial conditions into account, there is wide room for policy to influence how growth affects poor households. Even when growth remains modest, countries with adequate financial and administrative capacity can reduce poverty through redistribution. Public action is also important as a tool against non-income forms of deprivation through the provision of key public goods, such as health care, education, water, sanitation, and other services. Policies that target inequality directly can similarly advance further poverty reduction. At the same time, the countries that have successfully decreased absolute poverty face new challenges of fostering social inclusion.

This section looks first briefly at how growth can be made pro-poor by focusing on the sectors where growth affects poor people most, such as agriculture. It then looks at the emerging need for converging countries to pay attention to relative deprivation in addition to absolute poverty.

Making growth pro-poor

Pro-poor growth is a pace and pattern of growth that “enhances the ability of poor women and men to participate in, contribute to and benefit from growth” (OECD, 2006). Many of the factors that determine whether growth is indeed pro-poor and benefits the poor disproportionately depend heavily on the country context – just like the determinants of growth itself. Nevertheless, a substantial body of country studies allows for the identification of a number of general principles for pro-poor growth.¹⁸

One view of the key mechanisms of pro-poor growth builds on the general principle that growth needs to happen in regions and sectors where poor people are (or to which they have access) and utilise the production factors the poor possess (Klasen, 2007). In most countries, this requires growth in the agricultural sector and in rural areas as well as growth that is labour-intensive, but this depends on factor and skill endowments and their distribution, as well as the external environment.

The importance of the sectoral composition of growth is one of the recurring elements of the literature on pro-poor growth. Growth in agriculture is found to be more pro-poor than non-agricultural growth in a wide range of country studies, including ones covering China, Ghana, Uganda and Viet Nam.¹⁹ Cross-country studies and policy reviews confirm this finding (see OECD, 2006). The importance of agriculture in this regard can be attributed to three distinct characteristics. First, even though it represents a shrinking share of value

added in the great majority of countries, large numbers of people still depend on agriculture for their livelihoods – 67% of the labour force in sub-Saharan Africa and some 60% in India, for instance. Second, agricultural growth directly uses the labour and the land of the poor. Third, agricultural growth is linked to non-agricultural growth through a number of channels – including the stabilisation of food prices and the freeing-up of labour for non-agricultural activities. In the story of China's success in fighting poverty, it is notable that most rapid poverty reduction occurred during the period of rural and agricultural-market reforms, associated with the creation of markets for production in excess of government-set quotas from 1980 onwards (Ravallion and Chen, 2007).

Notwithstanding this importance, agriculture need not be the sole engine of poverty reduction. Growth in services was found to have a higher elasticity of poverty reduction in India (Ravallion and Datt, 1996) and Brazil (Ferreira *et al.*, 2009). More generally, understanding the factors that can allow poor households to take advantage of non-agricultural jobs in rural areas and other opportunities in urban areas is critical for pro-poor growth.

In turn, the capacity of the poor to take advantage of new opportunities depends critically on their skills and access to complementary assets. The better educated are also better placed to take the best non-agricultural jobs; unequal distributions of educational attainment not only restrict average growth by limiting the level of human capital, they also constrain poverty reduction and limit the poverty-reducing effect of growth in the future. In Uganda, access to secondary education by the poor declined throughout the 1990s and the early 2000s, while it increased for children in the top income quintile, leading to greater welfare inequality and thereby limited poverty reduction, despite a favourable external environment (Besley and Cord, 2007).

Policies can counter inequality, and a regional analysis confirms that policies that reduce inequality can greatly foster poverty reduction. An examination of the links between poverty and income growth in Latin America during the past decade showed that, although per capita household income growth accounts for 83% of the variation in poverty reduction in the region, the remaining variation is significantly related to reductions in inequality (OECD, 2009).²⁰

Moreover, co-ordinated falls in poverty and inequality are driven by policy to a substantial extent. During the recovery from its 2001-02 economic crisis, poverty in Argentina decreased from almost 10% of the population to fewer than 3% in the space of four years, while inequality as measured by the Gini coefficient fell from a high of 0.52 to 0.48.²¹ Only about a fifth of this change in poverty is explained by growth levels. A number of redistributive policies were put in place including cash transfers, job-creation initiatives and subsidies both explicit and implicit (through price controls). These policies, it seems, made a dent in inequality – although their sustainability has since been called into question by the crisis (see OECD, 2009).

This conclusion is significant for the future direction of policy. According to the Commission on Growth and Development (2008), growth is the main route to poverty reduction in very poor countries. But as a country develops redistribution becomes increasingly important. This means redistribution will have to become an increasingly important motivator of policy if momentum in poverty reduction is to be maintained.

From absolute poverty to relative deprivation

As average incomes grow and absolute poverty declines, the number of people whose existence is threatened by a lack of resources diminishes. However while fewer people face life-threatening poverty, they still may face extraordinary challenges to take advantage of the benefits that economic growth brings to their societies. Indeed, for those at the bottom end of the income distribution, gaping differences in standards of living are merely a new form of deprivation, one which brings its own challenges along with the new-found prosperity.

Yet international comparisons of poverty have long treated affluent and developing countries differently. Under the emerging configuration of the world economy, as developing countries succeed in reducing and ultimately eradicating absolute poverty, this distinction becomes increasingly questionable. When poverty is measured by relative deprivation rather than the threat to subsistence, the challenge of social development calls for determined action to foster social inclusion.

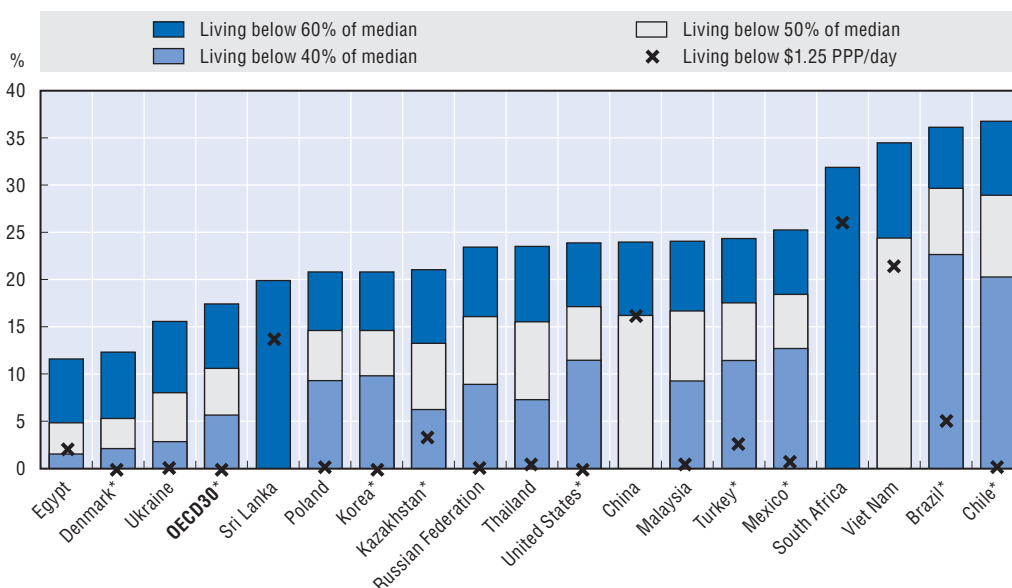
Poverty in many affluent countries of the world is defined by incomes that are unacceptably low by the standards of that society – even though they might be high by others' standards and may be a long way from life-threatening. Affluent countries (that is most OECD member countries) focus therefore on relative poverty lines and define poverty in terms of consumption or income below a given proportion of the mean or median (see for example OECD [2008a]). Relative poverty lines capture changes in social needs and their costs across countries and over time, since they change as the society itself changes. The World Bank's well-known "dollar-a-day" poverty line, on the other hand, sets an absolute standard based on a uniform minimum level of daily consumption or income needed for subsistence (the current USD 1.25 PPP per day international benchmark). This absolute measure is the one which tends to be used to measure progress on global poverty reduction in developing countries. When absolute poverty is high and per capita expenditure is clustered around the absolute poverty line (that is most people are at near subsistence levels), the two measures will provide similar information. They will tend to diverge as incomes rise for large enough subsets of the population.

Given the decline in absolute poverty over the last two decades, the two poverty measures have indeed diverged in a number of countries, particularly among members of the converging group of the four-speed world. It is increasingly relevant to look at poverty in these countries through a relative lens, to complement the information derived from absolute poverty measures. In much the same way that shifting wealth raises concerns about inequality in countries with strong growth, notable reductions in absolute poverty levels prompt questions about the evolution of relative poverty.

As these countries turn increasingly from ensuring the survival of their people to fostering their social inclusion, comparisons of relative poverty outcomes with OECD countries become increasingly fruitful. These comparisons are all the more interesting given the wide variation in relative poverty within the group of OECD member countries (see OECD [2008a]). Figure 4.4 displays measures of relative poverty for selected emerging and developing countries that have achieved significant reduction in absolute poverty, and compares them on the same measures with a variety of OECD members.

To ease comparison, and since there is no single common relative poverty line, data at three different relative poverty lines are presented. These are set at 40%, 50% and 60% of the median income in each country. To be sure, in some of the developing countries

Figure 4.4. **Relative poverty rates for selected OECD and non-OECD countries**
Share of population, mid-2000s



Note: A cross (x) indicates use of income, rather than consumption data. Relative poverty is not reported in cases where the relevant poverty line would fall below the absolute poverty line of USD 1.25 PPP a day (2005 international dollars). These are the 50% line for Sri Lanka and South Africa, and the 40% line for China, Sri Lanka, South Africa and Viet Nam.²²

Source: Based on OECD (2008b) and World Bank (2009a).

StatLink  <http://dx.doi.org/10.1787/888932288565>

included in the data, absolute poverty remains significant, despite the recent decreases, and relative poverty is not reported for any poverty line which would fall below the international absolute-poverty line (and would therefore be below subsistence levels).

Brazil, Viet Nam, South Africa, Malaysia and China have successfully reduced absolute poverty but still face relative poverty levels much higher than the OECD average. The task confronting these countries is the difficult one of fostering social inclusion. Significantly, however, economic development in these countries is at a stage where redistribution becomes a viable tool in the policy armoury. Increasing wealth also means that governments can increasingly afford to address the social needs of their citizens directly. Where this is the case social objectives and policies should evolve accordingly and reflect the new-found capacity of the economy to secure greater social cohesion.

Conclusion

The rapid growth since 2000 (at least until the crisis) and the shifting wealth that has accompanied it have important implications for poverty reduction and social development. Growth can be seen as a rising tide, but though it has lifted many boats, not all have risen by the same amount. Strong growth is necessary to reduce poverty and deprivation sustainably in poor countries and can substantially contribute to reducing poverty in middle-income ones. However, the actual contribution of growth to poverty reduction varies tremendously across countries.

Moreover, the shift in wealth that has resulted from rapid growth in China and other developing countries has brought with it increased inequality. This matters because of its

direct impact on social cohesion. Increased inequality also reduces the poverty impact of future growth. Inequality has no single cause and many factors are highly country-specific. Ultimately, higher levels of inequality could end up undermining continued growth and thereby the sustainability of the shift.²³ Policy makers should pay attention to the evolution of income inequality, both for its own sake and because it influences the poverty dividend of growth. Social policy can limit inequality in outcomes today. But macroeconomic stabilisation and education can level the playing field over the longer term and offer possibilities for the poor to take advantage of future opportunities.

Policy makers can make a difference by seeking a pro-poor dimension to policy. This requires not only the right economic policy (focusing on growth in sectors and regions where the poor are concentrated), but also the right social policy. For social development to match pace with output growth, deliberate and determined interventions are necessary to make growth pro-poor and to establish social policies that protect and promote the productivity and earning potential of citizens. Through substantial income growth in populous countries and by spurring convergence elsewhere in the developing world, shifting wealth has dramatically increased the number of the world's people living in middle-income countries. These countries have acquired the potential to put in place social policies that foster human development and social cohesion.

Notes

1. This refers to absolute poverty measured by the international poverty line of USD 1.25 PPP (purchasing-power parity) per day.
2. The growth elasticity of poverty reduction derived from the regression line in Figure 4.2 is -1.12 . Allowing for the fact that the figure uses GDP per capita rather than mean per capita consumption expenditure, this exercise updates earlier findings (Ravallion, 2001) with results of a similar magnitude.
3. Per capita GDP growth explains just under 10% of the variation in poverty reduction across countries and periods. This is partly due to the inclusion of short spells, longer data series are considered in the following section.
4. In order to allow comparison over identical 10-year periods in the face of relatively sparse poverty data, the period used is 1995-2005. This 10-year period does not perfectly overlap that used in Chapter 1's four-speed world, but countries are nonetheless presented according to their place in that classification in the 1990s and the 2000s.
5. The average elasticity for all countries in Table 4.1 is -0.76 , and -0.71 if outliers are excluded.
6. Grosse *et al.* (2008) find evidence of mildly pro-poor income growth in the relative sense (the growth rate of income was larger for the poorer percentiles) but not in the in strong absolute sense (which would require average income increases to be positive and larger for poorer than for richer percentiles). Non-income poor with the lowest health, education and nutrition outcomes in 1989 achieved larger relative improvements in those same indicators. However, the social outcomes of the income poor did not grow at the same correspondingly rapid pace.
7. In aggregate studies, human development and economic growth are found to mutually reinforce each other (see, for example, Ranis and Stewart, 2007), a finding which is broadly consistent with endogenous growth theory. See Jolly and Mehrotra (2000), and Stewart and Cornia (1995).
8. See the review by Anand and Segal (2008) and individual studies by Sala-i-Martin (2006) and Milanovic (2002). Milanovic attributes 88% of global inequality to between-country inequality.
9. See also Pinkovskiy and Sala-i-Martin (2009). Given that primary data for distribution analysis are collected relatively infrequently, further extensions rely on material assumptions regarding the behaviour of inequality in a number of countries.
10. This increase in inequality in China is related to increased incomes for people already well-off relative to Chinese average incomes. Since more people in China are thereby brought closer to the modal world income, the two effects balance out to some degree in calculations of global

inequality. For this reason, the evolution of the global distribution of income is the subject of an intense and as yet unsettled debate. See Anand and Segal (2008) and Pinkovskiy and Sala-i-Martin (2009) for recent contributions.

11. The OECD *Economic Survey of China* (2010) presents the evolution of the Atkinson inequality index over the period 1985-2007.
12. It should be noted that there are substantial differences in how different countries performed depending on whether measurement is of income or expenditure inequality. Moreover, the availability of recent distribution data is somewhat biased towards middle-income countries meaning that recent trends should be seen as only indicative.
13. Standard trade theory – based on the Stolper-Samuelson theorem and its prediction of factor-price equalisation – suggests that trade liberalisation should lead to the global equalisation of the relative wages of unskilled workers. This would mean narrowing wage differentials between unskilled and skilled workers in less-developed countries (unskilled wages rise, other things being equal) while increasing wage inequality in developed countries (unskilled wages fall).
14. Since the trade and foreign direct investment are themselves vehicles of technology diffusion, these two arguments are difficult to disentangle empirically.
15. The extent to which either fits the available evidence has been questioned (Card and DiNardo, 2002; Goos and Manning, 2007).
16. See Chapter 5 for more discussion on technological upgrading and skill composition.
17. See McKinley (2009) for a recent exposition of Kuznets's hypothesis in the context of the pro-poor growth debate.
18. See, for example, Besley and Cord (2007) and OECD (2006).
19. For China, see Ravallion and Chen (2007); for Ghana, Uganda and Viet Nam, see Besley and Cord (2007).
20. Indeed, the simple correlation between poverty reduction and falls in inequality once average income growth is controlled for is about 0.5.
21. The Gini coefficient lies between zero and one. Zero represents perfect equality (all individuals have the same income/consumption) and one perfect inequality (all income is concentrated in the hands of one person). As illustrated in Figure 4.3 and Table 4.4, changes in inequality of 1 percentage point per annum or more are large and infrequent events.
22. When looking at absolute and relative poverty statistics together, a critical issue is how to interpret relative poverty when it falls below absolute poverty (so that people who are absolutely poor are not necessarily considered relatively poor). Given that the international USD 1.25 PPP a day poverty line will be tantamount to physical subsistence minima for a number of emerging countries, we have chosen not to report relative poverty for cases where it falls below dollar-a-day poverty. This is consistent with recent advances in poverty measurement (see Ravallion and Chen, 2009).
23. Although the facts are disputed (Jomo, 2006), there is an extended literature on how low levels of inequality were conducive to growth in East Asia (see World Bank, 1993). The inference from this literature is that strong economic growth is difficult to sustain in the context of high inequalities. In addition, Amsden (2001) suggests that countries with high income inequalities have had much less success at promoting national industries because of the difficulties in mobilising public support behind “national champions”.

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Chapter 5

The Growing Technological Divide in a Four-speed World

The massive transfer of manufacturing capacity from OECD members to the developing world is one of the most striking changes in the global distribution of industrial activity over recent decades. Against the backdrop of shifting wealth, this chapter focuses attention on some of the major characteristics of the growth process in converging countries, particularly on their ability to absorb technologies and generate new ones. Shifting wealth has been accompanied by a growing technological divide between those developing countries which are capable of innovating, and those which seem not to be. There are several different channels through which technological generation and acquisition can take place – upgrading of human capital, R&D, FDI and trade. To meet the challenge of achieving competitive advantage, policy makers in developing countries must promote effective policy actions that help domestic firms absorb state-of-the-art technology and management know-how. However, this requires a far more active government policy to create an enabling environment than typically exists in most poor and struggling developing countries today.

Introduction

Chapter 1 presented the “four-speed” framework as a way of understanding the growth performance of the developing world over the last two decades. Explaining the different outcomes in economic performance between countries is however no easy task. Despite promising theoretical advances such as endogenous growth theory, the current state of understanding about the precise causes of economic growth and success is still relatively vague (Kenny and Williams, 2001, Pritchett, 2006). It is known that human capital – education and training – is important. It is also known that the institutional setting within which growth takes place is a key factor in explaining growth. However as a practical guide for policy makers growth theory has been found to be wanting. This chapter adopts a more modest aim. It does not attempt to explain the fundamental differences in economic performance between converging, struggling and poor countries in the four-speed world. Rather, it focuses attention on some of the major characteristics of the growth process in converging countries, particularly their ability to absorb technologies and generate new ones. A new cleavage within the developing world may be forming, between those countries which are capable of innovating and those which seem not to be. This – growing – technological divide is a source of concern.

The technological divide within the developing world

As economies develop, the drivers of economic growth change. Porter *et al.* (2001) proposed a three-stage model. Early growth depends on putting unused or underutilised factors of production, such as labour or land, to work. Later the challenge is to use factors more efficiently. Finally growth comes to depend largely on innovation. Different issues arise at each stage, and countries that fail to recognise the changing nature of the challenges they face and the correspondingly different requirements for institutions and policies can find their growth stalling (Wiggins and Higgins, 2008).

As the process of shifting wealth deepens and incomes rise in the developing world, the capacity to absorb and generate new technologies clearly becomes more important. A large theoretical and empirical literature has found that growth in total factor productivity (TFP) (the unexplained part of growth beyond the direct inputs of capital and labour) depends to a great degree on the ability of countries or industries to adopt the technologies and production techniques of their more productive peers (see Aghion and Howitt, 2006).


About half of total cross-country differences in per capita income and growth are due to differences in the efficiency of production, as measured by levels of TFP. TFP, in turn, is mainly driven by technological development and innovation, with a strong influence from research and development (R&D) (Guinet *et al.*, 2009). According to a study by Hulten and Isaksson (2007), differences in TFP levels are the dominant factor in explaining differences in development levels. Hulten and Isaksson (2007) also find that the gap between rich and most poor nations is likely to persist, given their prevailing rates of saving and productivity change.¹

Calculating the contribution of TFP to output growth within the framework of the four-speed world described in Chapter 1 is instructive. Average TFP contributions over the period 2000-07 reveal a clear and growing technological divide (Table 5.1). Struggling or poor countries have extremely low TFP contributions to growth (0.5% and 0.6% per year respectively) compared with their converging peers (2.8%). It is also striking that these converging countries have an average TFP contribution two and a half times higher than the affluent countries (1.1%). China stands out in terms of its TFP contribution (4.4%). India has experienced a lower value (2.1%), but this is still significantly higher than the average for poor or struggling countries. India's performance is driven by knowledge-intensive service exports and information technology rather than manufacturing (Dahlman, 2009).² Thanks to these gains in TFP, and capital deepening in firms, labour productivity in China and India has improved – keeping real labour costs to about 20% of the US equivalent even in the context of rapidly rising wages (Dougherty, 2008).

Table 5.1. **Growth accounting, 2000-07**

	Output growth (average annual growth rate) (%)	Contribution to output growth by		
		TFP (%)	Physical capital (%)	Human capital (%)
Affluent	3.3	1.1	1.6	0.6
Converging	5.7	2.8	1.8	1.1
Struggling	3.1	0.5	1.2	1.4
Poor	3.2	0.6	1.2	1.4
Brazil	3.4	1.4	0.7	1.3
China	9.3	4.4	4.4	0.5
India	7.0	2.1	3.7	1.2
South Africa	4.2	1.8	1.7	0.7

Source: Authors' calculations based on Heston et al. (2009).

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A factor explaining TFP contributions to growth which is particularly important for China and India is the massive shift of resources, notably labour, out of agriculture and into manufacturing and services. Economy-wide TFP growth is not simply the weighted sum of sectoral growth rates since it also captures changes in the structural composition of the economy, and hence reflects the gains from moving labour from relatively unproductive to relatively more productive sectors. As discussed in Chapter 2, the simple dual-sector model of Lewis-Ranis-Fei fits in well with the stylised facts in the Chinese case – labour has been moving from low-productivity sectors, such as traditional agricultural and primary production, towards higher productivity activities in modern manufacturing (and modern agriculture), a process which has generated the surplus that spurred rapid capital accumulation and growth.

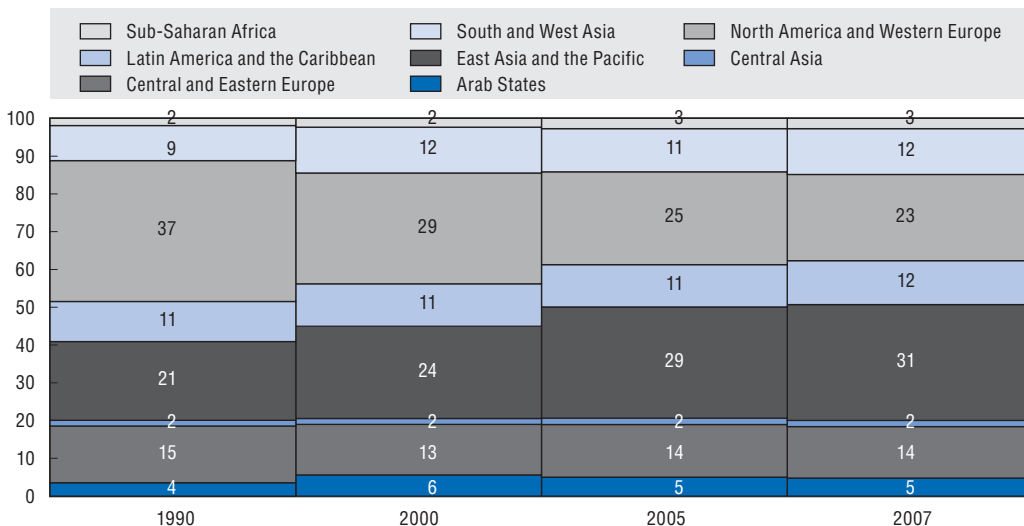
The role of human capital and education

The capacity to innovate is crucial. Human capital is an important part of this, and education may be expected to be a key explanatory factor. Recent evidence suggests that schooling quality in the development of cognitive skills is of particular importance to enhancing human capital and economic growth (Hanushek and Woessmann, 2008). As well as aiding in the development of skills-intensive industries and new technologies, human capital also influences the country's productivity performance by facilitating technological diffusion between firms.³

One widely accepted lesson is the developmental importance of primary education. China has been exemplary in this sense. Even prior to its economic opening in 1978, China stood out for its massive investment in basic education. The number of students in primary education tripled and the number in secondary education increased by a factor of ten between 1952-78, raising the average worker’s level of education from 1.6 years to 8.5 years, in the period 1950-92 (Maddison, 2007, p. 66). When China opened up to global markets in the 1980s, the relatively high education levels of low-wage Chinese industrial workers proved an irresistible draw for firms looking to shift labour-intensive production offshore (Schwartz, 2010, p. 256).

Nevertheless, in a highly competitive global economy, to focus only on the provision of primary education is surely a short-sighted policy and risks condemning developing countries to being stuck with a low-skilled, low-tech economy. Policy makers in the developing world are clearly aware of this, and over the last two decades the expansion of higher education in some parts of the developing world has been dramatic. Globally, the total number of tertiary students rose from 101 million in 2000 to 153 million in 2007, an increase of more than 50% (UNESCO, 2009). Within these global totals, the share of students from the developing world has been rising particularly rapidly – all developing regions outside North America, Europe and Central Asia have seen their shares grow (Figure 5.1). Since 1990, the largest increases have been in East Asia and the Pacific, which have enlarged their share of global tertiary enrolments from 21% to in excess of 30%. Of course, the share of the population with access to tertiary education in the developing world is still far below that of developed countries. But for the global labour market, absolute numbers are the ones which matter.

Figure 5.1. **Tertiary enrolment by region**
Share of world total by region



Note: Calculations based on number of pupils enrolled in tertiary education worldwide regardless of age.
Source: UNESCO (2009).

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China and India have been pouring resources into education over the last couple of decades – China grants 75 000 higher degrees in engineering or computer science every year, and India 60 000 (*The Economist*, 2010). These increases seem to be feeding a rise in

research capability in the developing world. Of the increase from 5.8 million to 7.1 million researchers worldwide between 2002 and 2007, two-thirds was in the developing world – 2.7 million researchers in 2007, against 1.8 million five years earlier. The biggest increase – yet again – was in Asia. This region is now home to 41.4% of the world’s researchers, up from 35.7% in 2002, a trend which has principally been at the expense of Europe and the Americas (UNESCO, 2009).

There is a temptation to see gains in human capital and educational achievement in the Asian giants as representing a competitive threat to other countries (particularly through the pressure they put on wages – see Chapter 2). However, it is important to stress the positive spillovers from the rise of research capacity and educational attainment in China and India. These come not only through enhanced economic growth but also through expanded educational opportunities. China and India are becoming increasingly effective centres of learning for the developing world (Altenburg *et al.*, 2008). Universities in India and China have long received students from other parts of the developing world, though the brightest were often sent to universities in North America and Western Europe. China and India now offer some world-class centres of learning, and the available evidence highlights increasing South-South co-operation in this field.⁴

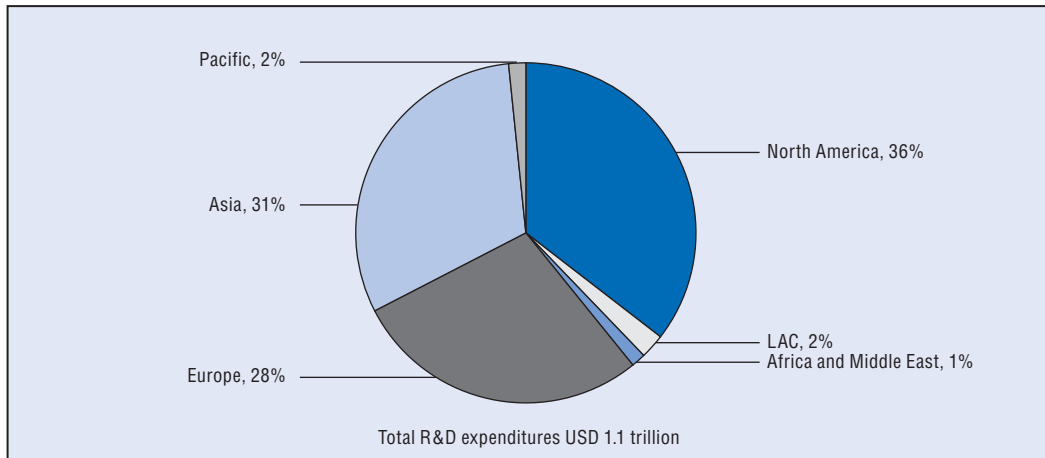
Shifting patterns of R&D expenditure

The shift in technological capacity is also reflected in the sharply rising amount of research and development (R&D) being carried out in the developing world – an activity that has traditionally been concentrated in Europe, Japan and the United States. Multinationals are proving to be a major contributor to this changing pattern. Between them they carry out more than half of all global R&D, and the R&D budget of a large multinational can be greater than the total R&D expenditure of all but the biggest developing countries. In 2007, for instance, Toyota (USD 8.4 billion) and General Motors (USD 8.1 billion) outspent India. The 1 000 companies most active in R&D in the world in 2008 (the “G 1000”) spent a total of GBP 396 billion (BIS, 2010).


Figure 5.2 shows how this translates into geographical concentration. Three regions predominate: North America accounts for 36% of worldwide R&D expenditure, Asia 31% and Europe 28%. The small balance, approximately 5%, is spread across the whole of the Latin America/Caribbean, Pacific and Africa/Middle East regions. The concentration is even starker at the country level. By itself the United States accounts for about 33% of global R&D and Japan, the second-largest, about 13%. China at 9% comes next, followed by Germany (6%) and France (4%). The top two countries thus account for almost half of the global total, and the top five about two-thirds. Adding the next five countries – Korea, the United Kingdom, the Russian Federation, Canada and Italy – increases the total to just below 80%, meaning that four-fifths of the world’s R&D is concentrated in just 10 countries (National Science Board, 2010).

Most of this R&D budget is still spent in affluent countries. But attracted by rapidly expanding markets and the availability of low-cost researchers and research facilities, the world’s leading multinationals have rapidly increased their R&D bases in low- and middle-income countries. R&D expenditures by Chinese affiliates of US companies, for example, increased more than 20-fold in a decade: from less than USD 50 million in 1997 to over USD 1.1 billion in 2007 (Ibarra-Caton and Mataloni, 2010). A few specific examples demonstrate the nature of this: General Electric’s health-care arm has invested more than USD 50 million in building a new R&D centre in India’s Bangalore; Cisco is reportedly

Figure 5.2. **Research and development expenditure**
Share of world total by region, 2007



Source: National Science Board (2010).

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spending more than USD 1 billion on a second global headquarters – Cisco East – also to be based in Bangalore; Microsoft’s R&D centre in Beijing is its largest outside its American headquarters (*The Economist*, 2010). Surveys of the most attractive R&D locations summarised by Pilat *et al.* (2009) suggest that these trends will only intensify in the future.

For the recipient countries, expenditures by foreign-owned companies can represent a large share of national R&D. In 2003 the share of foreign affiliates in total R&D was 24% in China, 48% in Brazil, 47% in the Czech Republic and 63% in Hungary (Nolan, 2009). Bruche (2009) observes that although much of this outsourced R&D is relatively routine in nature, there are emerging poles of higher-level innovation in a number of middle-income economies including Brazil. This strengthens the sense that the world is moving away from a model in which technologies are developed by multinationals based in high-income countries and then exported to low-income countries, towards “polycentric innovation”, as multinationals spread their R&D centres around the world.

Securing a share of global R&D

Given general acceptance that ability to absorb technologies and take advantage of the presence of foreign firms and trade depends crucially on domestic capacity, some developing countries have made efforts in recent years to increase their own public R&D expenditure. Tunisia is one example. Its government has set a target of 1% of gross domestic product (GDP), as part of an initiative to upgrade its productive capacity in response to competitive threats in its traditional European Union market from emerging market exporters. In Latin America, a number of countries have established technology development funds (TDFs) to positively affect R&D intensity. Econometric evidence shows that participation in TDFs leads to increased R&D expenditures and induces beneficiary firms to take a more proactive attitude towards innovative activities (Hall and Maffioli, 2008). Low-income countries too are increasingly conscious of the need to boost R&D if they are not to be left behind. As part of its drive for private sector investment to transform its smallholder agricultural economy into a regional hub for financial services, Information and Communication Technologies (ICT) and tourism, the government of Rwanda, for

instance, has recently announced its intention to establish an Endowment Fund to promote development through scientific innovation (*African Business*, 2010).

China and India are however again the big story, with a sharp expansion in the resources dedicated to science and technology. China now ranks amongst the top countries in both total R&D spending and number of researchers, with gross R&D expenditure reaching 1.5% of GDP – against the OECD average of 2.2% (see OECD, 2010b). The equivalent figure in 1995 was 0.6% and, given that Chinese GDP has more than doubled over the same period, the implied growth in absolute expenditure is huge. Measured in PPP terms, China's R&D expenditure is now second only to that of the United States (Yusuf, 2009). India lags behind somewhat, though its expenditure on R&D has been increasing at around 20% per year (Dougherty, 2008).⁵

The size and dynamism of the Indian and Chinese economies are important in terms of their capacity to absorb and generate innovation. First, they can innovate on a much bigger scale, enabling both countries to invest heavily in R&D and skills development. They can make major purchases of embodied technology in different forms – licences, machinery and even entire high-tech firms – and can attract leading scientists, managers and consultants. Second, both countries are also highly attractive for foreign direct investment (FDI). China in particular leverages investors' interest in its large and growing market by obliging them in return to share technology.⁶ The ability to do this, and so address its technological backwardness, has been a fundamental motive for the country's strategic opening to FDI and trade – with its high savings rate China was hardly in need of foreign capital. China has, in effect, been trading market access for technology (Altenburg *et al.*, 2008, p. 330).

For developing countries the world over, then, the challenge represented by the emergence of China and India in terms of their innovative capacity is a serious one. But the issue is especially urgent for countries geographically near the Asian giants and with strong trading links. With China and India's increasing share of global R&D, their rapid absorption of technology from abroad and the establishment of national innovation systems, other Asian countries are aware that they need to move quickly. If not, their options for maintaining growth by diversifying into higher-tech products could be constrained by China's having cornered the competitive advantage in this more lucrative segment (Yusuf, 2009). When measured by R&D expenditure, technological effort in other Asian countries is certainly lagging behind that of the Asian giants – Malaysia spends less than 1% of GDP on R&D and in Thailand the figure is closer to 0.25%.

An input, not an end in itself

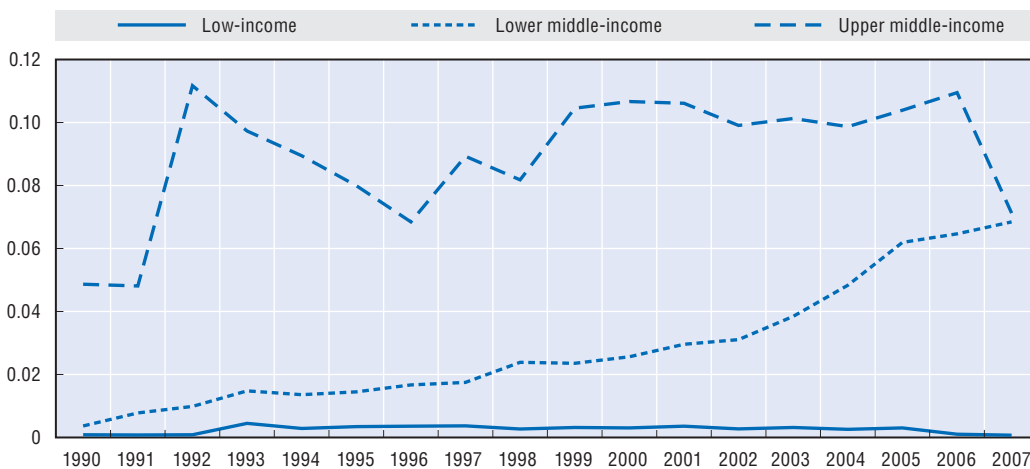
Of course, R&D expenditure is an input measure, not an output. On output measures the evidence for the advance of India and China is more ambiguous. Some indicators of technological output show Chinese and Indian progress in a very favourable light. China's share of patent applications worldwide has risen quite sharply, for example, from about 1.5% in the late 1980s to nearly 10% in 2004 (Burns, 2009). Nevertheless, China and India together represent only about 1% of all patents granted to foreigners by the US Patents and Trademark Office compared to more than 6% in the case of the much smaller Korea (Altenburg *et al.*, 2008).

This divergence between inputs and outputs is reflected in other indicators. Thus, while the number of articles published by China's scientific community has grown at a


furious pace, India's has remained comparatively static. This is surprising, since India's legal system appears to offer better protection to intellectual property rights and so should promote more research activity (Dougherty, 2008). There are legitimate questions over the depth of innovation in the Chinese case. It is also often argued that the usual indicators of innovation such as patent grants overstate the innovation capacity of China given that much innovation in China is associated with incremental improvements in production technology rather than major breakthroughs (Puga and Trefler, 2010; see also OECD, 2010b). Although rising rapidly, only 11% of patents by Chinese firms in 2006 were considered inventive, compared with 74% of patents by foreign firms patenting in China. China's spending on R&D remains heavily focused on experimental development: only 5.2% of total R&D in 2006 was aimed at basic research, compared to 10-20% on average in OECD countries.⁷

Considering this broader picture (strong technological commitment, but outputs that remain modest), it does not come as a surprise that composite indicators such as the alternate innovation capability index in the Global Competitive Index of the World Economic Forum rank neither China nor India as major innovation powers (though in a number of aspects, they have moved up the ranking rapidly in recent years). Growth in output indicators for other lower-middle-income countries has also been relatively modest. More starkly, for low-income countries there has been absolutely no increase in their rate of patent activity over the last 20 years, suggesting an already serious technological divide is only worsening (Figure 5.3).

Figure 5.3. **Patent intensity**
Patent applications per 100 000 people



Source: World Bank (2009).

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New workshops of the world? The role of manufacturing

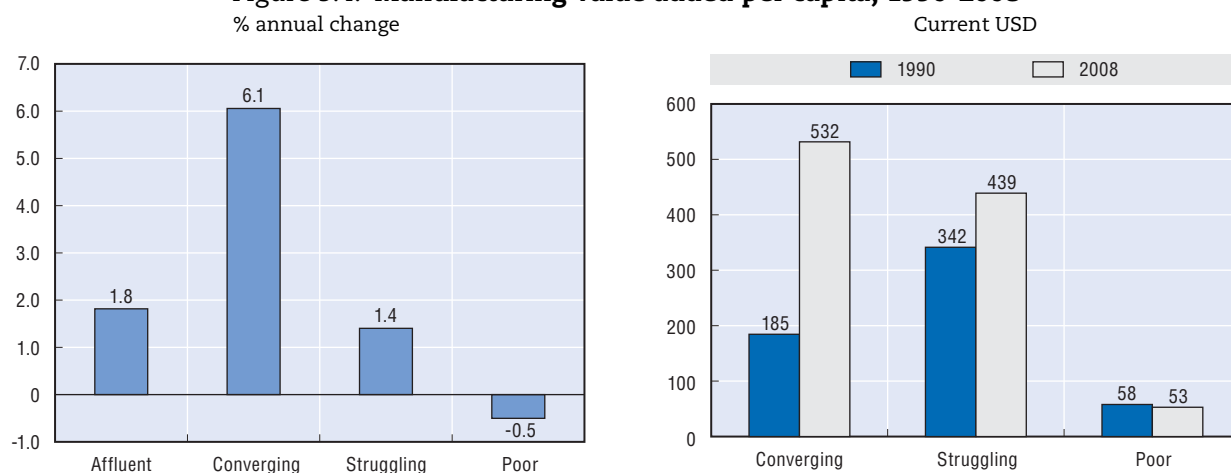
One of the most striking characteristics of shifting wealth has been the massive transfer of manufacturing capacity from OECD members to the developing world and, in particular, towards East Asia. The magnitude and the speed of this change is unprecedented, and the industrialisation it has brought to China and India has lifted millions out of poverty (Altenburg *et al.*, 2008; UNIDO, 2009).

Behind this movement lie deep structural changes in the global economy – the growing significance of industrial clusters, the rapid increase in the proportion of manufacturing output that is traded internationally, the explosive growth of task-based manufacturing – and their consequences for the location of manufacturing and for commodity markets (UNIDO, 2009). These structural changes will transform future patterns of economic development and opportunities for development.


In the 1990s, many developing countries were encouraged to abandon industrialisation strategies on the grounds that other sectors could also be dynamic sources of growth, and that there was “nothing special about manufacturing”. Looking back at the phenomenal success of Asian countries in manufacturing, one is led to ask if this was the right advice. It is now acknowledged that most trade growth is obtained by moving into new products, not by intensifying the export of similar products (Hummels and Klenow, 2005). And the scope for such innovation through processing of raw materials and commodities is likely to be relatively limited compared to the enormous variety of products within manufacturing. Productivity gains too are generally easier to generate in manufacturing, through learning-by-doing and scale economies (Thirlwall, 2002).⁸

Looked at through the framework of the four-speed world, the data suggest that there is indeed a link between countries which have achieved strong economic growth in the 1990s and 2000s and their ability to sustain strong growth in manufacturing value-added: since 1990 growth in manufacturing value added (MVA) per capita in the converging group of countries has been in excess of 6% per annum, while for the struggling and poor groups the figure is approximately half that (Figure 5.4).

Figure 5.4. **Manufacturing value added per capita, 1990-2008**



Source: Authors' calculations based on World Bank (2009).

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This is not to deny that other sectors can play an important role in generating technological spillovers. Some services have shown that they can act as economic drivers for developing countries: the information and communication technologies sector in India is a very strong example (Dahlman, 2009; Dasgupta and Singh, 2005). Since the mid-1980s the Indian software industry has grown in a spectacular way, achieving average annual growth rates of more than 30% over the past decade. The Indian software and services sector reportedly employed nearly 1.3 million people in 2006, with revenues of

USD 30.3 billion (Altenburg *et al.*, 2008).⁹ As suggested in Chapter 4, growth in the service sector can also underpin poverty reduction strategies. Broader econometric evidence also supports the view that services can act as a catalyst for growth. In a study of 18 Latin American countries over 1951-2006, Acevedo *et al.* (2009) found strong evidence that segments of the service sector acted as drivers of economic growth, notably finance, commerce and transport.

Nor should the scope in resource rich countries for development through moving into higher-value-added commodity exports be dismissed. Although it has, for various reasons, proved difficult in the past,¹⁰ this is still an extremely important strategy for many developing countries. Moreover, there are a number of examples of countries having used their natural resource base efficiently to achieve high levels of income per capita and development. These include not only developed countries such as Norway and Australia, but also developing countries such as Chile and Botswana which have succeeded in catalysing their development through the prudent management of their natural resources (Wright and Czelusta, 2004; Havro and Santiso, 2008). In this sense, there need be no “resource curse”.

Nonetheless, the association between manufacturing capacity, growth and innovation appears to be especially strong (see, for example, UNIDO, 2009; Wells and Thirlwall, 2003). Even in a post-industrial advanced economy like the United States (where 70% of GDP is accounted for by services) manufacturing is still responsible for 60% of R&D spending (National Science Board, 2006). Scientists and engineers make up 9% of the manufacturing labour force, twice the share in the rest of the economy (Scott, 2008).

Led by global markets, yet still geographically concentrated

Two characteristics are notable in the dramatic shift of manufacturing capacity towards the developing world. The first is the increasingly important role FDI has played in transferring manufacturing capabilities across borders over the last two decades. Approximately two-thirds of China’s inward FDI has gone into manufacturing, and the country’s foreign-funded enterprises now account for 60% of pharmaceuticals output, 75% of medical, precision and optical output, 88% of electronic and telecommunications and 96% of computer and office equipment. In China’s passenger-vehicle industry, joint ventures with global firms take 72% of the domestic market (Nolan, 2009).

The second factor is the extent to which growth in MVA has been geographically concentrated. Whether due to the development of indigenous firms or spurred on by FDI or trade, the accumulation of manufacturing capacity has been largely limited to Asia. As Table 5.2 shows, MVA per capita has increased nearly six-fold in China since 1990, but stagnated in Latin America and sub-Saharan Africa. China is estimated to represent about 15% of world value-added in manufacturing, similar to Japan and more than 50% greater than its share in world PPP GDP. Given the pace of expansion of the Chinese economy, it may well overtake the United States in the next five to seven years to become the world’s leading producer of manufactured goods (OECD, 2010b).

Export processing zones as a tool for technological upgrading


Simply looking at the total exports from an economy in assessing its structure or growth can be misleading because of the increasing importance in trade flows of integrated value-chains and the vertical dis-integration of production – something discussed in more depth in the next section. Provided the right policy framework is in place (Ancharaz, 2009),

Table 5.2. **Manufacturing value added per capita 1990-2007**

USD

	1990	1995	1998	2000	2005	2007
World	812	837	886	944	1 014	1 060
CIS	462	216	195	237	327	361
Sub-Saharan Africa	30	26	28	28	30	30
China	100	199	256	303	491	597
Latin America	622	696	733	687	759	789
North Africa	150	155	171	194	208	215
Developing countries	171	215	239	253	326	366
Industrialised (excl. CIS)	3 491	3 658	3 925	4 238	4 421	4 554
Asia	117	170	195	222	314	367

Source: UNIDO (2009).

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Box 5.1. Upgrading trade

How easy is it for a country to shift its trade up the value chain? Presented below is an index of technological sophistication (ITS) for the exports of selected countries. The ITS rises as more of a country's exports fall into higher-tech categories (Woo, 2010).^{*} Table 5.3 summarises ITS scores for selected countries in 1995 and 2007. It confirms that Asian economies tend to specialise in higher-tech exports, and this contrasts with their Latin American and sub-Saharan African peers. China's increasing exports of higher-tech products are reflected in an increase in its ITS score from 3.13 in 1995 to 3.75 in 2007, suggestive of rapid technological catching-up. By contrast, exports from India and Indonesia are significantly less technologically sophisticated than in the rest of their region and their ITS scores have little changed between 1995 and 2007. Indeed, the scores have changed little in most countries suggesting that technological upgrading is an outcome of long, cumulative processes of learning and assimilation of more advanced technology. Hence moving from a low-tech structure to a high-tech one may be a challenging goal for many developing countries.

Few rules are iron-clad, however, and there are important exceptions to this pattern. The ITS score of the Philippines jumped from 1.93 in 1995 to 4.11 in 2007 because of a sharp increase in electronics (HT1, from 16% to 61%). Equally impressively Costa Rica's ITS also jumped from 1.66 in 1995 to 3.11 in 2007. Its biggest export share gains were made in electronics (HT1, from 0.8% to 28%) and medium-tech engineering (MT3, from 2.9% to 13.7%). Brazil, Mexico, Mauritius and South Africa all have a bigger presence in high-tech categories than the rest of their regions. In some cases, including Costa Rica, Mexico and the Philippines, the link with the presence of foreign multinationals is clear. But even in Brazil, 14 of the largest 25 "Brazilian" firms are in fact foreign-owned affiliates (Nolan, 2009), and these are responsible for a large share of high-tech exports.

^{*} The ITS index is constructed by assigning lower values to the lower-tech categories and higher values to higher-tech: 1 to primary products (PP), 2 to resource-based manufactures (RB1, RB2), and 3 to low-technology manufactures (LT1, LT2) and 4 to medium-technology (MT1, MT2, MT3) and 5 to high-technology (HT1, HT2). The percentage of exports in each category is then multiplied by the assigned value, and these are summed and divided by 100. The resulting index ranges from 1 to 5, with higher values indicating greater technological sophistication.

Box 5.1. **Upgrading trade (cont.)**Table 5.3. **Index of technological sophistication for selected economies**

	Index of technological sophistication in 1995	Index of technological sophistication in 2007
OECD	2.92	2.96
Asia (except Japan)	3.09	2.95
China	3.13	3.75
Hong Kong, China	3.53	3.95
India	2.5	2.61
Indonesia	2.19	2.22
Japan	3.98	3.69
Korea	3.78	3.88
Malaysia	3.58	3.47
Philippines	1.93	4.11
Singapore	3.98	3.68
Chinese Taipei	3.80	3.94
Thailand	3.16	3.34
Latin America	1.98	2.16
Argentina	2.05	2.06
Brazil	2.53	2.49
Chile	1.55	1.58
Colombia	1.81	2.07
Costa Rica	1.66	3.11
Mexico	3.37	3.25
Peru	1.45	1.53
Sub-Saharan Africa	1.62	1.82
Mauritius	2.74	2.75
South Africa	1.82	2.44

Source: Woo (2010).

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export processing zones (EPZs) can play an important role in the diversification of export structures and the development of domestic economies.

Around the world it is estimated that 66 million people are employed in EPZs or EPZ-like operations, 40 million of whom are in China (Milberg and Amengual, 2008). The vast majority of FDI in China is located in its special zones that provide preferential treatment for investors. Beginning in 1979, China established its first four Special Economic Zones (SEZs) that were established to capture foreign investment from Chinese living overseas along China's southeast coast, including Hong Kong, China; Chinese Taipei and Macao. In 1984, 14 new Open Cities were designated along the coast: they all set up Economic and Technology Development Zones (ETDZs). As a result of the lobbying of provinces and cities throughout China, there were over 100 investment zones by 2003, including High Technology Development Zones recognised by the central government, with at least one in each of China's 31 provinces (Jefferson, 2007, p. 211). They have played a major role in China's export success. EPZs contributed less than 6% of China's exports in 1995 but about 25% by 2005 (Wang and Wei, 2008).

India has also dramatically expanded its SEZs, created to promote exports and attract investment in the manufacturing sector – there were 19 in 2004 and 558 in 2007 (see OECD, 2009a). Outside Asia, there have been longstanding EPZ-type arrangements, particularly in

Central America, and increasingly in Africa. For instance, EPZ exports represented 52% of national exports in Costa Rica in 2006 (as compared to 21% in 1997) and 56% of national exports in Madagascar in 2005 (ILO, 2008).

This expansion of EPZs has not been uncontroversial. It has occurred in the face of growing international political and economic resistance. Political resistance comes from labour activists and NGOs, international organisations and regional trading arrangements. The economic forces working against EPZs include the declining terms of trade for manufactures and the enormous gains by China in world export shares of many products produced in EPZs (Milberg and Amengual, 2008).

The establishment of EPZs typically incurs two types of cost factors. Firstly, the direct costs for establishing the EPZ in terms of infrastructure and subsidised services. Secondly, the indirect costs in the form of foregone government revenue and national income as a result of exemption from taxes, import and export duties. In some senses, then, it is not a first-best policy option, and can act in a distortionary way on the domestic economy. For policy makers the key question is whether the positive effects, in terms of employment generation and spillover effects on the rest of the economy, particularly in terms of technological upgrading, outbalance the costs.

A number of studies are not particularly encouraging on this score, showing that spillover effects and externalities typically tend to be limited as a result of low integration between businesses in the EPZs and the local economy.¹¹ As the *Industrial Development Report* (UNIDO, 2004, p. 84) puts it, “like FDI, EPZs by themselves do not guarantee success in the absence of capacity in the domestic firms to establish backward and forward linkages, diversify their output and upgrade their capabilities. Exposing only part of industry to the rigours of globalisation may protect and even entrench uncompetitive enterprises elsewhere. EPZs cannot substitute for economy-wide productivity gains and improvement of business environment conditions.”

A case in point is Mexico – a country which has used EPZs extensively (its *maquila* industry) as part of its strategy for diversification. At first sight the policy appears to have achieved much in terms of diversifying Mexico’s export structure and raising its level of technological sophistication through the promotion of its *maquila* industry: the share of trade in GDP has doubled over the last 20 years, with the share of manufacturing rising from 20% to about 85%. The country has an increasing export specialisation in sectors or products integrated in global value chains (see OECD, 2009b). But most of this is based on imported inputs which are re-exported with low levels of value-added and little use of local inputs. Mexico’s trade performance can be attributed more to comparatively low labour costs than to high and rising productivity or innovative capacity. In fact MVA as a share of GDP in Mexico has fallen since the 1990s, and its overall growth performance has been poor. What lies behind this disappointing performance is open to dispute, but it has been blamed on a slow “*maquilización*” of the Mexican economy, whereby domestic industry has copied the *maquila* model and has been “hollowed out” by a rising share of imported intermediates, with a subsequent collapse of the export multiplier (Mold and Rozo, 2006; Palma, 2005).

In the Chinese case, too, the story is more complex than it initially appears. As noted earlier, the use of EPZs has been pervasive. But domestic content is often low. Of China’s exports 55% are made by foreign firms, and generally the more high-tech the industry, the higher the foreign firms’ share – more than 80% of electronic and telecommunications

exports are made by foreigners, as are 70% of plastics, and 60% of electrical goods.¹² But the value added of firms engaged in technology-related products can be minimal. Research by Koopman *et al.* (2008) suggests that the domestic value added of technology-related products in China is extremely low – ranging between 4% for computers and related equipment to 15% for telecommunications equipment. In contrast, given that domestic private companies are less likely to be involved in processing trade, the total value-added component of their exports is high, at 84% against just 3% for foreign-owned firms (see OECD, 2010b).

This puts poorer developing countries in a particularly difficult position. The fact that even a country like China, in so many senses an economic success, continues to struggle with capturing maximum benefits from foreign investment illustrates the scale of the challenge. As Thun (2008, p. 370) puts it, “Rather than strong-arming multinational firms into transferring technology and utilising local suppliers, it is far more effective (and more difficult) to create a policy environment that will support the development of the capabilities that multinational firms are seeking in their supply base”.¹³

Governing the value chain

Securing for the local economy an appropriate share of gains in the value chain is clearly not an easy task. Thanks to the literature, we now have a more sophisticated view of the way in which the gains from globalisation are distributed (Gereffi and Korzeniewicz, 1994; Kaplinsky, 2000; Humphrey and Schmitz, 2001). Altenburg *et al.* (2008) argue that the global value-chain approach helps to explain the massive and rapid disbursement of production capabilities away from the OECD countries.

Over the last two or three decades, the decrease in the costs of international communications and reductions in international trade barriers have fuelled what Baldwin (2006) called the “second unbundling”: the end of the need to perform most manufacturing stages physically close to each other.¹⁴ Each stage of production can be geographically re-assigned according to countries’ comparative advantage, leading to new patterns of specialisation among countries (OECD, 2009c). Moreover, unbundling in this sense is no longer restricted to the manufacturing sector; services are also increasingly susceptible to this kind of outsourcing. Knowledge-intensive firms such as IT specialists and consultants have greatly increased the number of people they employ in developing countries – a quarter of Accenture’s staff are now reportedly located in India, for example (*The Economist*, 2010).

The rapid integration of developing country producers into value chains is still mainly driven and co-ordinated by firms based in the United States, the European Union or Japan, but developing country multinationals are becoming increasingly important protagonists. For instance, the Brazilian aircraft manufacturer Embraer, now buys many of its component parts from affluent countries and does the value-added assembly work in Brazil (*The Economist*, 2010).

The rapid acquisition of production capabilities results from the dual role of the lead firms: they demand high quality standards and they often also provide constructive monitoring so that these demands are met. As pointed out by Schmitz (2006), this does not mean that all producers joining such value chains can expect to learn fast from their customers. Lead firms only provide this support where they perceive a low risk of supplier

failure, something which is not always the case in many low-income countries. Poor developing countries thus risk being completely excluded from global value chains.

From a strategic perspective, it is also important for policy makers to take into account the fact that power in the value chain increasingly stems from intangible factors (linked with technology, marketing, management practices, etc.) rather than competition through low cost (Kaplinsky, 2000; Humphrey and Schmitz, 2001). Thus a firm that depends on low wages to convert physical inputs into a physical product will consistently face downward pressure on its prices because of competition from ambitious firms throughout the developing world. But a firm which can deploy intangible factors such as design, brands, business contacts or marketing is better able to protect its position because its skills are not easily copied.

As noted in Chapter 3, shifting patterns of South-South demand are also changing the nature of global value-chains. Demand in the developing world tends to be for cheap and undifferentiated goods. This runs against the trend in demand in the affluent economies which since 1970 have increasingly favoured differentiated high-quality products (Kaplinsky *et al.*, 2010). Potentially, this shift of demand patterns gives a second chance for those poor or struggling countries that so far have failed to enter global supply chains and so have missed out on South-North value chains. In addition, in some kinds of goods developing country firms may indeed possess a competitive advantage, through “frugal innovation” – the adaptation of products and marketing practices to better suit the needs of customers in low-income countries (*The Economist*, 2010; van Agtmael, 2008; Prahalad, 2005). Shifting wealth is certainly impacting on the nature of global value chains in ways which are both dynamic and unpredictable.

Conclusion

A number of conclusions can be drawn from this discussion of the role of innovation, exports and FDI in the reconfiguration of the global economy. First, Asian success in the global economy has, to an important extent, been built on manufacturing. However, the nature of competition is changing, and it is increasingly better to compete through the use of intangibles rather than through being lowest cost producer. Second, as reported in Chapter 3, developing countries themselves are increasingly becoming protagonists in global value chains – with important implications for other developing countries in terms of their ability to integrate into these value chains. Thirdly, innovation and technological acquisition do not fall like “manna from heaven” and need to be fostered, and those states which have been most active in trying to promote such upgrading have generally had most success. And last, but by no means least, for the “Bottom Billion” countries in particular, policy advice on how to integrate into the global economy needs to be based on a rigorous assessment of their institutional capacities and human capital – openness to capital inflows and trade, in themselves, are not enough to secure the desired outcomes in terms of innovation and technological upgrading.¹⁵

This chapter has focused on the manufacturing and industrial sectors, principally because of the striking rise in productive capacities in Asia in these sectors. But this does not mean that other sectors cannot also play their role as technological drivers. Brazil now stands out as a superpower in global food supply and agricultural markets, thanks to a combination of natural comparative advantage, low production costs and rapid technological advances (Barros, 2008), fostered partly by government-subsidised

research.¹⁶ There is a sense in which technological advance in agriculture is especially urgent, given the growing demand for agricultural produce and increase in food insecurity. Research-led technological change in agriculture can be a highly efficient way of pursuing poverty reduction (Thirtle *et al.*, 2003).

To meet the challenge of achieving competitive advantage, policy makers in developing countries must promote effective policy actions that help domestic firms absorb state-of-the-art technology and management know-how to achieve stronger technological competitiveness. The promotion of innovation requires a far more active government policy to create an enabling environment than typically exists in most poor and struggling developing countries (Cimoli *et al.*, 2009). For African and Latin American policy makers, this theme is particularly relevant. Although the process has not been without problems (Chandra *et al.*, 2009), East Asian countries have, broadly speaking, been extremely successful in technological upgrading. But for developing countries in other regions, defining a new innovation-led growth strategy represents a major challenge. China and India can potentially provide access to technology for other developing countries at lower cost. Chapter 3 has shown that they can already provide capital goods and knowledge-intensive business services in ways that undercut the traditional affluent-country sources. There is also much scope for deeper South-South technological alliances, an issue that will be discussed further in Chapter 6.

Notes

1. Hulten and Isaksson (2007) carry out a long-run econometric study of 112 countries over 1970-2000. Another long-run study (covering 1970-2006) (Woo, 2010) finds that TFP levels in the developing world are still low relative to the United States, averaging 51%, 58% and 35% for Asia (excluding Japan), Latin America and sub-Saharan Africa respectively. Other studies broadly confirm this pattern of large absolute differences in TFP levels between developing and developed countries.
2. These results are broadly consistent with other calculations of recent TFP growth (see OECD, 2010a; also Bosworth and Collins, 2007).
3. See OECD (2010a) for more detail.
4. At the United Nations meeting on the Millennium Development Goals in 2005, President Hu Jintao of China promised to offer training to more than 30 000 people from developing countries between 2006 and 2009, and subsequent pledges at the November 2006 Forum on China-Africa co-operation made it clear that half of these would be from Africa. The new training programmes include courses in economics and trade, telecommunications, security, health, water pollution technology and sewage treatment, agriculture and financial management (Brautigam, 2009).
5. It should be stressed that it is not just the size but also the composition of R&D spending which is important. While public-sector R&D can be particularly beneficial for creating new technologies with high social returns, private-sector R&D investment is crucial. It can be facilitated by framework conditions which provide sufficient incentives for businesses to invest (OECD, 2010b).
6. One way in which this has been done has been through forcing foreign investors seeking access to the Chinese market to create joint ventures with Chinese state-owned enterprises (SOEs), a policy particularly targeted on the strategic car, semiconductor and civil aviation sectors (Schwartz, 2010, p. 257).
7. For further detail on research and innovation in China, see OECD (2008).
8. An important caveat here is related to measurement issues. It has been argued that whereas it is possible to control for quality change in manufacturing industries (some countries, including the United States, do this), it is virtually impossible in services. Diewert and Fox (1999) ascribed the US productivity slowdown between the 1970s and 1990s to measurement problems related to the introduction of new products.

9. The dynamism of the software sector has been driven both by national firms and multinationals. Among the major national firms are companies such as Tata Consultancy Services, Infosys, Wipro Technologies and Satyam. Among the foreign multinationals, IBM employs more than 60 000 people in India (Altenburg *et al.*, 2008).
10. One problem has been tariff escalation, whereby importing countries have imposed higher tariffs on processed products than the raw materials, thereby providing a disincentive to the commodity-producing country to move up the value chain. According to the WTO (2010), the situation is improving. Tariff escalation remains after the Uruguay Round, but it is less severe, with a number of developed countries eliminating escalation on selected products. Now, the Doha agenda includes special attention to be paid to tariff peaks and escalation so that they can be substantially reduced.
11. See the reviews of the relevant literature in Madani (1999), Engman *et al.* (2006), Milberg and Amengual (2008).
12. See OECD (2005).
13. Conscious of these problems, in March 2006 China's central government announced its "homegrown" innovation strategy for the period of 2006 to 2020. The principal objective of this strategy is to foster indigenous R&D and innovation activity in Chinese industry and reduce dependence on foreign technology (Huang *et al.*, 2008).
14. Baldwin's "first unbundling" was the end of the need to manufacture goods close to the point of consumption as a result of improvements in the speed and cost of physical transport – a trend which has been going on since the late 19th century.
15. A growing body of evidence suggests that reaping the benefits from interaction with the global economy, through trade flows and FDI, is contingent on a certain minimum threshold level of human capital and institutional capacity. See, *inter alia*, Hausmann and Fernández-Arias (2000), Balamoune (2002), Blonigen and Wang (2005), and Calderón *et al.* (2005).
16. For instance, through the work of Embrapa, a government research agency, a total of 116 new varieties of soya beans were launched between 1968 and 1997, and in the past few years new ones have been added at a rate of almost 100 a year (*The Economist*, 2009).

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Chapter 6

Harnessing the Winds of Change

Developing countries face novel policy challenges in the world's new economic and social landscape. With the growing dynamism of large developing economies, development strategies need to be re-assessed to reflect new opportunities and risks. Specific attention should be paid to national policies focusing on foreign direct investment, resource management, agricultural development as well as social protection. Increasing South-South co-operation and interactions are prominent in all these areas. South-South peer learning is a useful tool for developing appropriate policies.

Introduction

Previous chapters of the report have documented the major transformation in the global economy that constitutes shifting wealth. Chapters 6 and 7 now turn to the policy implications of these changes. This chapter asks what developing countries need to do to take full advantage of today's economic environment. Specifically, it seeks to answer the question of whether new development strategies are needed in a world in which the centre of economic gravity is shifting, and asks which policy areas need particular attention.

A common theme running throughout the chapter is the use of South-South peer learning to inform policy making. One of the main messages from the December 2009 United Nations conference on the *Promotion of South-South Co-operation for Development* was indeed the recognition that “developing countries tend to share common views on national development strategies and priorities when faced with similar development challenges. The proximity of experience is therefore a key catalyst in promoting capacity development in developing countries” (United Nations, 2009).

The chapter proceeds as follows: First, it starts with a discussion on how development strategies need to be adapted to harness the opportunities of shifting wealth. It then addresses different policy areas that are strongly affected by shifting wealth, and where there is a large potential for policy changes to have a positive impact on development. Second, it looks at foreign direct investment and policies to promote technology transfer, particularly how struggling or poor countries can strengthen co-operation between themselves and the large emerging economies, to encourage flows of capital and knowledge. Third, it looks at policies for commodities and agriculture. The rise of the large emerging economies has significantly increased the demand for both natural resources and food, and policies will need to respond accordingly. Finally, given the rising inequality that has accompanied strong growth in many emerging economies (as detailed in Chapter 4), it discusses two areas which have great potential to encourage pro-poor growth – policies for informal employment and social protection.

Development strategies

Development strategies help guide policy making. In many settings there is no single “correct” policy, and of course how well policy is implemented is as crucial for success as its design.¹ Development policy must be the result of a realistic evaluation of options, taking fully into account a country's political economy. Crucially, however, development strategies can help ensure that national policies do not go against the grain of broader trends at work in the global economy; shifting wealth is one such trend.

Chapter 1 noted how the “Washington Consensus” became the major developmental policy framework of the 1990s. Despite its name, it was widely disputed at the time, both within the economics profession and outside it (Rodrik, 1999; World Bank, 2005). John Williamson (2003), the economist who coined the term, has stressed it was never intended as a complete one-size-fits-all policy package. It offers a concise (if disputable) discussion

of the desirable characteristics of a well-functioning economy, but for the practically minded, no real guidance about priorities, sequencing or the mechanics of how to get to A from B.² Shifting wealth makes this kind of strategic thinking of crucial importance. In addition, the Washington Consensus focused on liberalisation and macroeconomic stabilisation, downplaying the role of government and the quality of institutions in steering the processes of technological learning and economic growth (Cimoli *et al.*, 2009).

Strategy, not planning?

In the 1980s and 1990s, the development community largely discouraged the use of national development strategies. This was in part a reaction against planning, which was blamed for many of the developmental failures of the 1960s and 1970s. Many planning ministries were abolished or sidelined from the decision-making process. However, not all developing countries took heed of such advice. A number of countries are well-known for their comprehensive national plans (China and India, for instance). Some poor developing countries have also persisted in drawing up development plans (*e.g.* Ethiopia).

Planning and strategy are often used interchangeably, but in reality can have quite different meanings. Some forms of planning can imply directing economic activity, regardless of market signals. With strategy, however, there is no inherent tension with the market – indeed, the best strategic approaches to development harness market forces and work with them, rather than go against them. In any case, planning is carried out constantly by the business community – as Coase (1937) observed long ago, internally the firm is driven by planning, not the market, so it is not necessarily clear why governments themselves should avoid any pretence to “plan”.

Attitudes towards planning and strategy have changed more recently. In the late 1990s, Poverty Reduction Strategy Papers were introduced at the instigation of the international financial institutions. The G8 summit at Gleneagles in 2005 suggested that “it is up to developing countries themselves and their governments to take the lead on development. They need to decide, plan and sequence their economic policies to fit their own development strategies, for which they should be accountable to all their people” (cited by UNCTAD, 2008, p. 93).³

Still, according to the World Bank (2007), fewer than 20% of least-developed countries (LDCs) have national development strategies around which donors can co-ordinate, and fewer than a quarter have operational development strategies of any kind. No LDC has a “sustainable” development strategy, and only six of the 37 LDCs have “largely developed” ones. These countries are Burkina Faso, Ethiopia, Rwanda, Uganda, the United Republic of Tanzania and Zambia.

Appropriate strategies for the new economic landscape

Development strategies have traditionally stressed the importance of gradual technological upgrading in the context of increasing integration with the global economy. Economies begin by producing simple unsophisticated manufactures (such as toys or textiles) for global markets, and gradually build their capacities in order to produce more sophisticated goods. China; Chinese Taipei; Hong Kong, China; Korea; Malaysia; Mauritius; Singapore and Thailand have all found success by taking this approach (Rodrik, 2008).

Is this strategy still viable in this new global economy where a number of large developing countries (principally India and China) are showing a remarkable degree of

economic resilience and dynamism? Is there “space” in the global market for more producers of manufactured goods to export to saturated markets in the industrialised world? As Chapters 3 and 5 discussed, there are signs that some developing countries are finding it difficult to compete with the large emerging countries in global markets. Competitive pressures through trade and FDI have been intensifying. Attempting to replicate the development strategy of the Asian giants is also unlikely to be possible for smaller developing countries. Their size means that they do not have the kind of “room for manoeuvre” in terms of policy space that the Asian giants have enjoyed.

There are, however, lessons to be learnt about technological up-grading from the emerging giants. For instance, Ravallion (2009) draws a number of interesting conclusions for African countries from China’s experience of accelerated poverty reduction, including the importance of productivity growth in smallholder agriculture (which requires both market-based incentives and public support) and the role played by strong leadership and a capable public administration at all levels of government. Crucially, China’s development strategy prioritised the upgrading of technological capacity, first through attracting foreign investment, and then increasingly through the promotion of domestic innovation capacities (Paus, 2009). This strategy differed significantly from the approach used earlier by Japan and Korea whereby the state took a protagonistic role in promoting domestic industries and boosting investor profitability (Amsden, 1989; Kohli, 2004). Both proved to be good strategies, although the latter makes considerable demands on institutional capacities that may in fact be scarce in many low-income countries.

In the 1990s, it was widely believed that macroeconomic stability, liberalisation, and “getting prices right” would enable the right sectors to emerge, without any need for government intervention. In many cases this did not happen (see Chapter 5), strengthening the case for sectoral policy. In many developing countries, strategies should support and nurture growth in specific sectors where the developmental payoff is large and the social returns are high. As Chapter 5 noted, there is a close association between technological upgrading, the generation of knowledge and know-how (“intangible assets”) and success in production. Sectoral support could help narrow the technological divide between large emerging economies and developing countries.

Sectoral policy should aim to “follow the market”, systematically nudging firms to upgrade their technologies through incentives, performance requirements, or playing a brokering role at putting firms in touch with foreign investors. This is a much less risky form of sectoral policy than trying to “lead the market”, whereby policy makers decide that the country needs a specific industry – for example, a steel or computer-chip industry – and then deploy enormous resources in order to make this happen. It worked for Korea (Amsden, 1989), but has failed for many others. Chinese Taipei is a successful model of “follow the market” policy.

Appropriate development strategies are clearly important for countries pursuing technological upgrading in manufacturing or, as in the case of India, through services. They are equally important for countries whose economies are based more on natural resources. The voracious demand for raw materials, in part a consequence of shifting wealth, is a potential blessing for many resource-rich countries. At the same time it poses questions about diverging fortunes between resource-rich and resource-poor developing countries, and revives concerns about the existence of a “resource curse” – the paradox that countries with an abundance of natural resources such as minerals and fuels tend to

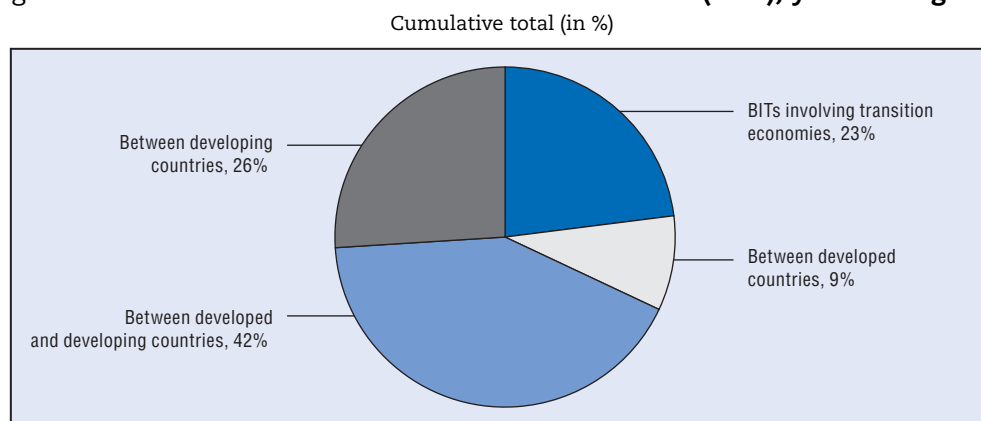
have less economic growth and worse development outcomes than countries with fewer natural resources (Collier and Goderis, 2009). For these countries, sectoral diversification is still an important policy objective. This point will be expanded upon later in this chapter.

Capitalising on foreign direct investment


Development strategies can thus guide policy making to work with, rather than against, the broad trend of shifting wealth. As Chapter 3 documented, a feature of shifting wealth has been the vibrancy of South-South flows of foreign direct investment (FDI); developing countries should articulate policies to capitalise on the developmental potential of these new FDI flows. Post crisis, FDI will be one of the more reliable flows of capital, as it is less risk-adverse than other capital flows. Moreover, South-South FDI flows have been particularly resilient because the source countries have not been affected by the financial crisis to the same degree as the industrialised countries. There is much scope for their future growth.

One manifestation of this is the growing number of bilateral investment treaties (BITs) signed between developing countries. The majority of existing BITs involve developing countries (68%), nearly a third of which are South-South agreements (Figure 6.1). Developing countries themselves are clearly aware of the potential – for instance, at the Africa-India Summit of April 2008, the Africa-India Framework for Co-operation was agreed which aims to reinforce efforts to promote FDI (UNCTAD, 2009).

Figure 6.1. **Distribution of bilateral investment treaties (BITs), year ending 2008**



Source: UNCTAD (2009).

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National innovation systems

Through the development of new technologies, FDI and trade can push nations to develop new comparative advantages and eventually to move to the next stage of development. Ozawa (1992) calls this “dynamic paradigm of FDI-facilitated development”.⁴

This is not an automatic process, however. National innovation systems appear to make a critical difference in the ability to fully capitalise on the flows of FDI into an economy. To meet the challenge of achieving competitive advantage, policy makers in developing countries should promote effective policy actions that help domestic firms absorb state-of-the-art technology and management know-how to attain stronger technological competitiveness. As discussed in Chapter 5, this includes taking a holistic

approach to educational policies, promoting R&D expenditure by both the private and public sectors, and the judicious use of incentives to foreign investors. The different experiences of Asia, Africa and Latin America are illustrative here.

FDI and trade have been central to the process of integrating Asian countries into global value chains. Much of the FDI into Asia has been in the manufacturing sector, and in line with countries' comparative advantage. The complementarities between trade creation and FDI were high (Ozawa, 1992), supporting a pattern of development known as the "Flying Geese" model, in which capital, technologies and know-how trickled down, first from Japan to the "Tiger" economies (China; Chinese Taipei; Hong Kong, China; Korea and Singapore) and then to the aspirant Tigers of Southeast Asia (Indonesia, Malaysia, the Philippines and Thailand), fostering economic development throughout the region. Different countries within the region adopted different strategies towards FDI – some more liberal, some far more restrictive – but all used trade and investment links to pursue technological upgrading and development. The success of these strategies depended on the policy environment, in particular the creation of effective national innovation systems (Cimoli et al., 2009).

The experience has been quite different for Africa and Latin America, where national innovation systems have not been given priority in policy making. In Africa, host governments have failed to attract much investment in the activities that are central for development (see for instance, UNCTAD, 2007; Jordan, 2007). They have also broadly failed to diversify exports. In general, downstream activities and diversification efforts related to FDI inflows in the primary sector remain marginal (UNCTAD, 2009). South America, in contrast, has in the past succeeded in attracting FDI inflows that were large relative to the size of the economy. Nevertheless, the purpose of much of this investment was to penetrate domestic markets, rather than develop a vigorous export sector (Vernon, 1998). Like Africa, neither national nor foreign firms have contributed to a significant diversification away from resource-based exports, even in relatively successful countries such as Chile.

In Central America and Mexico, on the other hand, FDI inflows have been considerable and much of that investment has been oriented towards the export sector. Over the last two decades, there has been a marked diversification away from a dependence on primary commodities in countries such as Costa Rica or Mexico. As seen in Chapter 5, however, the benefits have not been automatic. Mexico, for instance, has not gained significantly from technological spillovers through foreign direct investment – productivity increases, employment creation and economic growth have all remained sluggish. This represents an important cautionary tale about the importance of embedding policies towards foreign investment and trade within a wider framework of policies for technological upgrading. China itself, in so many senses one of globalisation's success stories in terms of its capacity to attract FDI and promote trade, is aware of the potential pitfalls. In March 2006 its central government announced its "home-grown" innovation strategy for the period of 2006 to 2020, the principal objective of which is to foster indigenous R&D and innovation activity in Chinese industry and avoid an excessive dependence on foreign technology (Huang et al., 2008).

Industrial and service-sector clusters

As discussed in Chapter 5, the arguments in favour of export promotion zones (EPZs) are complex, and specific country experiences are not unambiguous. In particular, Chinese

success with EPZs contrasts with the experience of sub-Saharan Africa or Latin America where, with notable exceptions such as Mauritius, strategies to use them to upgrade and integrate into global value chains in a pro-developmental way have broadly failed.

Learning from the Chinese experience is important. A particularly interesting initiative in this sense is a Special Economic Zone (SEZ) investment proposal, discussed at the Beijing summit of the Forum on China-Africa Co-operation in November 2006, and subsequently supported by the World Bank (Box 6.1). The agreement is intended to improve the investment climate and attract foreign private investment into dedicated investment clusters. Such zones could help African states build economic clusters within

Box 6.1. EPZs and African development – New partners, new approaches?

China has recently been active in promoting the creation of EPZs in Africa. The first, announced by President Hu Jintao in February 2007, is in Chambishi in the heart of Zambia's copperbelt. Its objective is to catalyse "industrial and economic development in the manufacturing sector for the purpose of enhancing both domestic and export orientated business". Total investment is expected to be as much as USD 1 billion, of which the anchor is a USD 250-300 million copper smelter built by China Nonferrous Metal Mining Group. By early 2009 it was reported that more than ten Chinese firms had established operations in the zone, creating over 3 500 local jobs.

The second EPZ, in Mauritius, was announced in mid-2007. It will focus on services, servicing Chinese enterprises operating and investing in Africa. The zone is expected to earn about USD 200 million in export earnings per annum once fully operational contributing to the island's economic diversification process. According to the Mauritian prime minister, China will utilise Mauritius as "a springboard for entry into Africa".

The third zone is in Egypt. Chinese investment in Egypt's EPZ near Suez was announced in early 2007. This zone is twinned with the very successful cluster development in the north-east Chinese city of Tianjin, and a Tianjin company is a major shareholder (with Egyptian partners) in the developer of the zone. Construction is planned to continue until 2018 and total investment from China is expected to reach USD 2.5 billion, mainly in the automotive components, electronics, logistics, clothing and textiles sectors. The zone is strategically positioned for access to markets in the Middle East, North Africa and sub-Saharan Africa.

A zone in West Africa is being established in Nigeria – the Lekki Free Trade Zone – which is to be developed in three phases and seeks to attract investment of more than USD 5 billion. The vice-president of the lead Chinese investor in the zone stated that Nigeria was chosen because of its large domestic market and good access to the West African and European marketplaces. Other potential zones are planned for Angola, Ethiopia, Mozambique, Tanzania and Uganda. The zones in Mauritius, Egypt and Nigeria are partially supported by the CADFund (China-Africa Development Fund), which is assisting both with zone construction and support to Chinese companies looking to expand into these zones.

All these developments are still in an early stage, and it remains to be seen to what extent potential benefits for the industrial development of the host economies will be realised. The initiative is an important one, however, with the promise of bringing a new dynamism to the African export sector.

Source: Davies (2010).

their economies and thus move away from simple resource extraction. Partnerships between African and Chinese firms may facilitate technology transfer, add value to African exports, and help African firms position themselves to benefit from world markets – not least the rapidly expanding Chinese market. However, the Indian example, discussed in Chapter 5, shows that these clusters need not be restricted to manufacturing. Certain services can also fulfil the role of generating dynamic clusters, particularly in sectors such as ICTs, financial services or tourism. Low-income countries such as Rwanda are trying to create the right policy environment to catalyse this kind of service-based cluster.

One final caveat is needed. South-South investment is a potentially powerful tool to facilitate technological upgrading and development. It should be stressed, however, that the nature of South-South FDI is quite different from most cases of North-South investment. Multinationals from emerging countries are often state-owned (for example China's Lenovo), or may be part of a highly diversified conglomerate (such as India's Tata Group). This does not mean that they should be treated differently from other multinationals by national authorities in the host country, but it does change the relationship when dealing, for instance, with the appropriate regulatory framework. The implicit backing of their governments, for example, may give foreign firms unfair advantages or, if part of a conglomerate, issues of unfair cross-subsidisation may arise. In framing competition policy (or establishing one where it does not exist), national authorities should take such considerations into account.

Dealing with the resource boom

FDI flows are not the only South-South links which have strengthened. Shifting wealth has increased the demand for raw materials in the large emerging economies, with resource-rich developing countries providing the supply. The commodity price boom has changed developmental prospects and challenges for many developing countries. Comparing, say, Angola oil revenues of USD 66 billion in 2008 with total official development assistance (ODA) to the 45 poorest countries of USD 38 billion, it is easy to appreciate the scale of the resources and their potential for influence.⁵

These flows also bring challenges, particularly to macroeconomic policy. By diverting resources from non-raw material sectors and contributing to real exchange-rate appreciation, a commodity boom runs the risk of locking developing-country commodity exporters into what Leamer *et al.* (1999) called the “raw-material corner”, with little scope for industrial progress or skills advancement. In order to avoid this, resource-rich Africa and Latin America must find ways to capitalise on windfall gains by promoting sectors with strong spillovers with the rest of the economy, in terms of demand, employment and technological acquisition. Policy responses such as managed currency floats, reduced short-term debt or higher foreign-exchange reserves and – above all – a countercyclical fiscal stance, may be required to mitigate the negative effects of a raw materials boom (Avendaño *et al.*, 2008).

Managing revenues

Managing revenues is a problem common to all resource-rich countries, but sub-Saharan African countries are especially affected: they are often heavily dependent on commodity exports and account for half of the world's “commodity-currency” countries. On average, movements in real commodity prices alone account for over 80% of the variation in the real exchange rates for these countries (Cashin *et al.*, 2004). Prudent

revenue management is therefore important, for the self-insurance that this provides and to promote asset diversification.

Many resource-rich developing countries have been managing the macroeconomic implications of the surge in commodity prices far better than in the past, keeping inflation and real effective currency appreciation in check (Avendaño *et al.*, 2008). This suggests some degree of sterilised foreign-exchange intervention and the absence of hard nominal exchange-rate pegs (which would have been expected to see commodity-induced appreciation pressures leading to a rise in inflation).

Official foreign-exchange reserves allow a country to smooth domestic absorption in response to sudden stops. However, they yield lower returns than the interest rate on a country's long-term debt. The optimal choice is not evident because holding reserves involves social as well as financial costs, in terms of foregone social expenditures. With increasing international financial integration, considerations regarding reserve adequacy have shifted from an emphasis on trade (the "three-months-of-imports" rule) to financial-account and balance-sheet fragilities (the "Greenspan-Guidotti" rule that reserves should cover short-term debt). Evidence from Avendaño *et al.* (2008) for a sample of African and Latin American resource-rich countries shows improvements in the Guidotti-Greenspan indicator in all cases. The commodity boom has in this sense worked to reduce vulnerability to future speculative attacks.

One alternative (or addition) to reserve accumulation is to create a sovereign wealth fund (SWF) (see Chapter 3). Although the original model of these is based on the funds built up by the Gulf States and developed resource-rich countries like Norway, a number of developing countries, including low-income countries such as Nigeria and Mauritania, have either already set up such funds or have announced proposals to do so. SWFs provide both a smoothing mechanism for expenditures and address issues related to intergenerational equity (*i.e.* the idea that the proceeds from the exploitation of an exhaustible natural resource should be shared with future generations). For low-income countries, Collier and Venables (2008) recommend that priority should be to use revenues to promote growth and investment in the domestic economy rather than building up a SWF. However, SWFs can be used to enhance growth by supporting diversification and technological upgrading of the economy, and there is not necessarily a contradiction between the two alternatives. The United Arab Emirates, for example, have used their fund to diversify from oil towards tourism, aerospace, and finance. Such a diversification motive is as legitimate as the desire to maximise the returns to their investments through acquiring stakes in leading global companies.

Government fiscal policy must also respond to resource booms. Fiscal discipline is needed to reduce demand for non-tradables, hence limiting unwarranted exchange-rate appreciation. Policy should aim to eliminate instability in aggregate demand (and consequently real exchange rates) by smoothing expenditure over time. The ability to maintain expenditure during busts depends on prudence during booms. Avendaño *et al.* (2008) have shown that the fiscal responses to the threats identified earlier have been remarkably strong. The African countries studied displayed a surprisingly significant anti-cyclical response of public spending over time and in response to both changes in the output gap and terms of trade. This is an encouraging improvement over the pro-cyclicality of government budgets observed at the end of the 20th century. It has helped to contain

inflation, real exchange rate appreciation and excessive output volatility – and thereby supported growth.

Revitalising agriculture and rural development

It is not just mineral or energetic resources which have seen a surge in demand. Shifting wealth is also increasing the demand for food. In 2008 China, the largest agricultural producer in the world, became a net food importer for the first time in three decades. As Chinese incomes continue to rise, there is likely to be growing demand for agricultural imports (Bello, 2009). In particular, the emerging middle classes of the Asian giants (see Chapter 2) with their increased demands for protein-rich food will make disproportionately greater demands on arable land. Moreover, land availability is critically low – and declining – in both India and China (Figure 6.2). Land degradation and loss of fertility mean that good agricultural land is becoming increasingly scarce.

Increasing demand for food and decreasing land availability is forcing up global food prices. This is, of course, good news for those poor developing countries which are exporters, but bad news for those that are dependent upon food imports. In 2010, 33 countries suffer from chronic food insecurity, 16 of which have been in this position for a decade or more (FAO, 2010). After decades of failed agricultural policies, many low- and middle-income countries have become net importers of food. Africa was a net food exporter in the 1970s, but became a net importer by the early 1990s.

Higher agricultural commodity prices harm terms of trade for these countries. As the recent food crisis shows, developing countries are vulnerable to sudden shifts in the prices of their imports, and these can trigger political and social instability. The 2007-08 food price rises affected the availability of staples in many countries in Asia and Africa and led to riots in Burkina Faso, Cameroon, Côte d'Ivoire, Egypt, Mauritania and Senegal among others. Price volatility is also a problem from the point of view of fiscal management and macroeconomic balance for both exporters and importers.

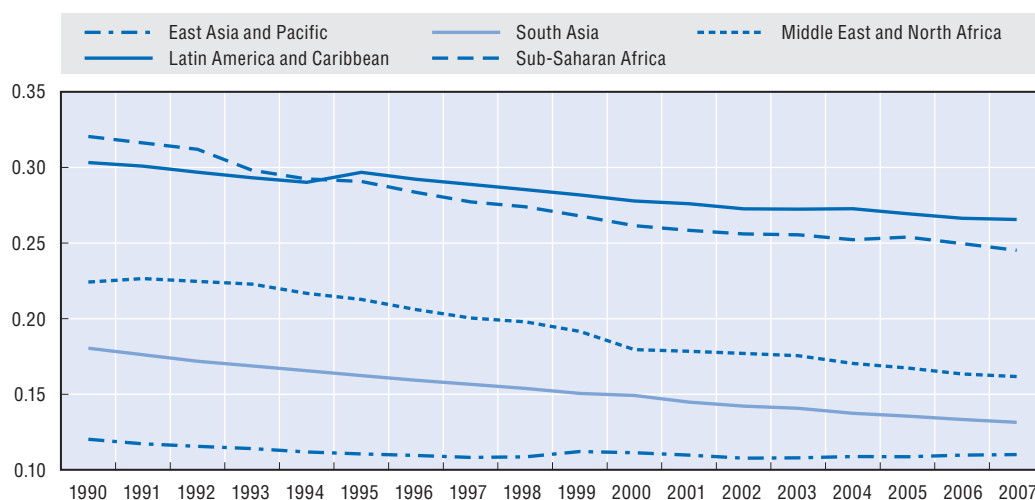
Despite these trends, for the past two decades both developing country governments and donors have effectively withdrawn from the countryside (Green, 2008). Aid to agriculture dropped from 11.4% of all aid in 1983-84 to 3.4% in 2004-05. Between 1980 and 2004, spending on agriculture as a share of total government expenditure fell in Africa (from 6.4% to 5%), in Asia (from 14.8% to 7.4%), and in Latin America (8% to 2.7%). Many developing countries have formally acknowledged this as a problem. In their 2003 Maputo Declaration, African countries set a target that at least 10% of government budgets be dedicated to support the agricultural sector. But more needs to be done to redress this situation.

Technology in agriculture

The largest tracts of land available for agricultural development are to be found in Latin America and Africa (OECD-FAO, 2009) (Figure 6.2). This presents a tremendous opportunity for agricultural development. Increasing agricultural productivity through investment in technological innovation will be vital. The technologies available to farmers continue to change and develop – established techniques including greater irrigation or the application of fertilisers and pesticides are being supplemented by more novel ones such as improved seed technologies. But growth in agricultural productivity, which is a reflection of the adoption and diffusion of successful technologies, has slowed since the

Figure 6.2. **Arable land per person**

Hectares per person



Source: World Bank (2009a).

beginning of the last decade across Europe, North America, high-income Oceania and the large developing or transition economies.

This is partly the result of a fall in investment in technological innovation over recent decades (with China and Brazil as notable exceptions). There has also been a switch from public to private sources of investment (Godfray *et al.*, 2010). The observed improvements in agricultural productivity in Southeast Asia have been closely linked to increased public spending on agricultural research and development (R&D) and better extension services (the application of scientific research and new knowledge to agricultural practices through farmer education). In Africa, public R&D spending has been declining over the last three decades. This trend should be reversed. At the same time, extension services should be improved to ensure that farmers obtain full and timely benefit from R&D results (OECD, 2008).

As well as increasing public sector and donor support of R&D in agriculture, partnerships with countries at the technological frontier such as Korea or Brazil could help in addressing this deficit in developing countries. The state-owned Brazilian enterprise Embrapa, for example, hopes to “transfer and adapt” the know-how in pest resistance and yields gained through its 41 research centres. It has already extended its technical expertise to several African countries, including Angola, Ghana, Kenya and Mozambique, while others have expressed a desire for technical aid for improving sugar-cane productivity and producing ethanol efficiently (Standard Bank, 2010).

Despite the rise in demand for agricultural products from the Asian drivers, the market potential of staple foods within Africa should not be overlooked. The over-arching objective of donor and government assistance to the agricultural sector is to lift smallholders out of poverty and create more off-farm rural employment. Traditional food crops are often better adapted to local agro-ecological conditions. Currently donors and governments tend to put too strong a focus on export crops and too little on staple foods (OECD, 2008). Rising local and regional demand in Africa provides ample opportunities to

expand production and to develop food-processing industries. As suggested in Chapter 3, the scope for intra-regional trade in staple food products is also large.

Policies for pro-poor growth

Shifting wealth has led to a reduction in poverty, but has often been accompanied by increased inequality. As documented in Chapter 4, pro-poor growth strategies can significantly alter the distribution of the benefits of growth and improve human development outcomes. The core of such strategies needs to include labour market policies which take into account the large informal sector present in most developing countries, as well as social protection mechanisms.

Dealing with informal employment

Shifting wealth has substantially affected the world labour market, chiefly through the integration into the global economy of workers hitherto isolated from competition. During the period from 1990-2008, at the global level, the expansion of employment associated with economic growth was strong enough for employment creation to keep pace with population growth. However, although employment creation grew, job quality deteriorated in a number of countries including in the Asian giants. During that period, the wage share of income declined in the majority of countries for which data are available (ILO, 2008). Equally, despite the global growth of employment, the formalisation of the workforce failed to occur on the scale anticipated.

In India and China, informal work as a share of non-agricultural employment grew along with output. In India, it increased from 76% to 83% from the mid-1980s to the mid-1990s and it now involves almost 90% of workers. Conservative estimates for China put the same ratio at 35% of total urban employment (OECD, 2009; Cai *et al.*, 2009). Overall, informality in the developing world affects 55% of all non-agricultural jobs, making it an issue both for aggregate productivity and social protection. Moreover, informal employment is very heterogeneous, and includes both those who are excluded from formal jobs and those who choose to exit the formal economy. The relative shares of these stylised groups vary from country to country and from one sector to the next. Policy will be more effective if it acknowledges this diversity and strives to adapt to the specific country environment.

OECD (2009) proposes a three-pronged strategy. First, for many poor informal workers, informality is not a choice and policies should try to unlock them from their low-productivity low-income traps and enable them to be more productive so as to climb the social ladder. Active labour market policies, such as training and skills development, can open the doors to formal employment while also increasing productivity in the formal sector. Second, policies can alter incentives by both establishing credible enforcement mechanisms, in particular for labour laws and regulations, and by making formality pay. More flexible formal structures and more efficient public services can help tilt the balance. Third, in many low-income countries informal employment is the consequence of insufficient job creation in the formal economy. Job creation depends on the aggregate performance of the economy but governments can support small businesses in complying with formal requirements and encourage larger companies to create formal employment opportunities so as to improve the quality of new jobs.

Innovative social protection

Shifting wealth has placed an unprecedented proportion of the world's population in middle-income countries. That can now realistically afford to establish social protection and poverty-reduction programmes. But expenditure is only one element of social protection. The prevalence of informal work limits the scope of payroll-tax-financed social protection systems and makes them potentially regressive, since the majority of the poor population is in practice excluded. Moreover, in some of these middle-income countries absolute poverty remains a concern, so that other instruments are necessary. These challenges are shared by many converging countries, even if the functioning of their labour markets and the structure and coverage of their social protection systems differ. In a number of cases, existing systems need to be scaled up or complemented by other instruments; in others a more fundamental transformation of the social protection model is needed.

Emerging middle-income countries have been particularly proficient at generating institutional innovations and social protection instruments that are adapted to their circumstances. These are often radically different from those of the affluent countries, reflecting characteristics such as weaker administrative capacity and largely informal economies. Different circumstances have thus given rise to new instruments, bred in the South, that have permeated to other low- and middle-income countries and even to northern partners.

The most popular innovative instruments are conditional cash transfers (CCTs), such as Brazil's *Bolsa Família*. Modelled on pioneer programmes such as Bangladesh's Female Stipend Programme and Mexico's *Progresa/Oportunidades*, these interventions provide transfers to poor families conditional on health and education actions, typically ante-natal visits, school attendance and vaccinations. The conditionality of these programmes serves a dual purpose. It improves targeting, thus contributing to the financial sustainability and political support of the social programmes, and it helps unite two objectives that were hitherto often separate: alleviation of immediate poverty, and social development to limit the inter-generational transmission of poverty.

In Brazil, the *Bolsa Família* (which covered 11.9 million families as of September 2009 [IPEA, 2008])⁶ and a traditional unconditional transfer for old age and those with disabilities (the BPC or *Benefício de Prestação Continuada* – Continuous Benefit) have helped the country to reduce absolute poverty (USD 1.25 PPP per day) from 17% to 8% between 1990 and 2005, despite a modest average growth performance over this period. Social spending was high (almost 24% of GDP in 2007) and expenditure on its main social assistance programmes reached 0.9% of GDP in the same year (de Laiglesia and Nagler, 2010).

Social protection is an increasingly pressing policy issue in China. The transition in health provision from a public to a market-based system brought about a dramatic fall in coverage (OECD, 2005). Social expenditure in China remains low relative by both OECD and average developing country standards. Private expenditure in health and education make up some of the shortfall in public outlays.⁷ China has adopted policies to establish social protection including a targeted transfer known as the Minimum Living Standard Scheme (or *Di bao*). Like many other social safety nets in emerging countries, *Di bao* started in a local context and was later expanded. The programme was initially implemented in Shanghai in 1993, then replicated in other cities and finally adopted as national policy in 1999. The programme provides a low unconditional benefit (just below the urban poverty line) based

on a series of income proxies. The programme has grown rapidly, from 0.004% of GDP in 1996 to 0.24% in 2008 (OECD, 2010). Despite the achievement that scaling up the programme represents, its coverage (roughly 40% of the urban poor) leaves much scope for improvement. Moreover, rural migrants are explicitly excluded via the household registration (*hukou*) system.

The attention received by individual instruments should not hide the greater challenge: establishing welfare states in accordance with each country's priorities and social cohesion. Great efforts have been made in certain countries, such as Thailand, to extend basic health coverage with the ambition of making this universal. Even in countries like Mexico, where substantial efforts have been made in this regard, the focus on individual instruments can create dual systems. Such dual systems can damage efficiency, especially in the labour market. Whether, for example, CCTs can form the backbone of a social-protection system is an open question. They remain a social-assistance instrument and do not incentivise risk management – as would compulsory pension or unemployment insurance contributions. What welfare states can and should look like in the face of sizeable poverty headcounts and high informality is far from settled.⁸

Conclusion

In the post-crisis world, old development strategies and paths are more than ever under scrutiny. Good development strategy means anticipating change. To make the most of shifting wealth, countries need to recognise how it has changed the world and adjust their development strategies accordingly.

This chapter has looked at how policy in many areas – foreign direct investment, resource management, agriculture and rural development, pro-poor growth and social protection – can respond at the national level. To best harness the consequences of shifting wealth, development policy should:

- promote South-South interactions in the field of foreign direct investment, learning the lessons from successful examples of clusters, EPZs and the use of investment links to pursue technological upgrading through the creation of effective national innovation systems;
- develop opportunities for appropriate revenue management policies in resource-rich economies, and contemplate the use of sovereign wealth funds for smoothing consumption over time and channelling resources to promote growth and investment in the domestic economy;
- respond to the growing demand for agricultural exports and increasing pressure on arable land by strategies to improve agricultural productivity, through greater support to R&D and extension services, and through South-South technological transfer;
- implement pro-poor growth policies, focusing on providing more and better jobs and improving social protection through further development and replication of institutional innovations such as conditional cash transfers;
- expand the scope for South-South peer learning about social protection, based on successful experiences in the South and using these to contribute to better policy targeting.

Shifting wealth does not only change the background for national development strategies. The emergence of new growth poles challenges the current framework for international economic relations, the subject of the next chapter.

Notes

1. Whereas two decades ago, this statement might have been considered controversial, the point is now widely accepted. See, for instance, Pritchett and Woolcock (2004), El-Erian and Spence (2008) and Rodrik (2008).
2. John Williamson (2003) was quite explicit on this point: "I never thought of the Washington Consensus as a policy manifesto, for it omitted a number of things that seemed to me important, most notably a concern for income distribution as well as rapid growth."
3. Similarly, the outcome document of the 2005 United Nations World Summit called on countries to prepare national development strategies, taking into account the international development goals agreed in the various United Nations summits and conferences of the past two decades.
4. Similar ideas have been put forward by Dunning and Narula (2004) with their "investment development path" which argues that different types of FDI are attracted to economies at different stages of economic development.
5. It is also widely recognised that the gains accruing to the exporting countries from such trade are small compared to the absolute size of the exports. For instance, Ghana exported gold worth USD 2.2 billion in 2008, representing 40% of its total exports. However, it reportedly only received USD 115 million in taxes and royalties, less than 4% of the country's total tax income (*African Business*, April 2010).
6. From the main webpage of the Brazilian Ministry of Social Development www.mds.gov.br.
7. While formal social protection (and guaranteed work) was previously provided mainly by state-owned enterprises, laid-off workers found themselves at best covered by temporary regimes. After the "shattering of the iron rice bowl", the absence of social protection and transfer mechanisms in the market economy led to rapidly increasing inequality and urban poverty, as the "old" forms of poverty – mainly elderly individuals or families without breadwinners – were joined by "new", stemming from unemployment, low wages and rural-to-urban migration (World Bank, 2009b; Chen and Barrientos, 2006).
8. See Rudra (2007) for a review of the different models of social protection in developing countries.

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Chapter 7

Collective Responses to Shifting Wealth

Some responses to shifting wealth cannot be made unilaterally, but need collective action. The existing global governance architecture was created following the Second World War and needs updating. Evolution can be seen in the replacement of the G7, first by the G8, then the G8+5 and now by the G20. Originally intended to be a short-term response to the financial crisis, it has in fact become the new forum for discussions on international economic matters. The emergence of new donors such as China, Saudi Arabia and India also reveals the need to re-think development co-operation. As an example of the growing need for collective action, whether at the multilateral, regional or bilateral levels, this chapter focuses on trade policy. Reducing barriers to South-South trade, whether tariff or non-tariff, is an area for mutually beneficial action. Technology transfer between developing countries – through cross-border clusters of specialisation and co-operation along the global value-chain – is another potentially fruitful area for collaboration.

Introduction

This chapter addresses necessary collective responses to shifting wealth. As Chapter 6 has shown, there are many policies and actions that developing countries could take independently to capitalise on shifting wealth. But in an ever-more interdependent global economy, some action will require international co-operation and co-ordination.

The chapter starts with a discussion of the architecture of global governance in light of the growing power and influence of developing countries: its history and evolution; the goals of inclusiveness and representation; and the challenges of efficiency and effectiveness of decision making when more countries are involved. Next, it looks at international negotiations and how shifting wealth has changed the patterns and prospects for new developing-country coalitions. It takes as examples climate change negotiations at the United Nations and trade negotiations at the WTO. The chapter finishes with an examination of two areas where greater co-operation between developing countries could reap significant rewards: trade and technology transfer.

A new architecture for global governance

The post-war global economy has been associated with the Bretton Woods conference, which aimed to provide a structure for post-war reconstruction and stable growth in the world economy. The result was a triad of institutions. First was an agency, the International Monetary Fund (IMF), supporting a fixed exchange-rate regime. Its objective was not only to lend stability to the global financial system, but also to avoid the competitive devaluations of the 1930s. Countries agreed to adopt realistic parities and to discuss devaluations with the Fund whilst the Fund would give loans to countries to deal with speculative attacks. Second was a new bank, the International Bank for Reconstruction and Development (IBRD), more commonly known as the World Bank, to guarantee and provide loans to countries to finance infrastructure and other needs for development. Third was a trade body tasked with ensuring ever more open markets for exports and imports and supporting growing world trade. This emerged in 1947 as the General Agreement on Tariffs and Trade (GATT), and became the World Trade Organisation (WTO) in 1995.

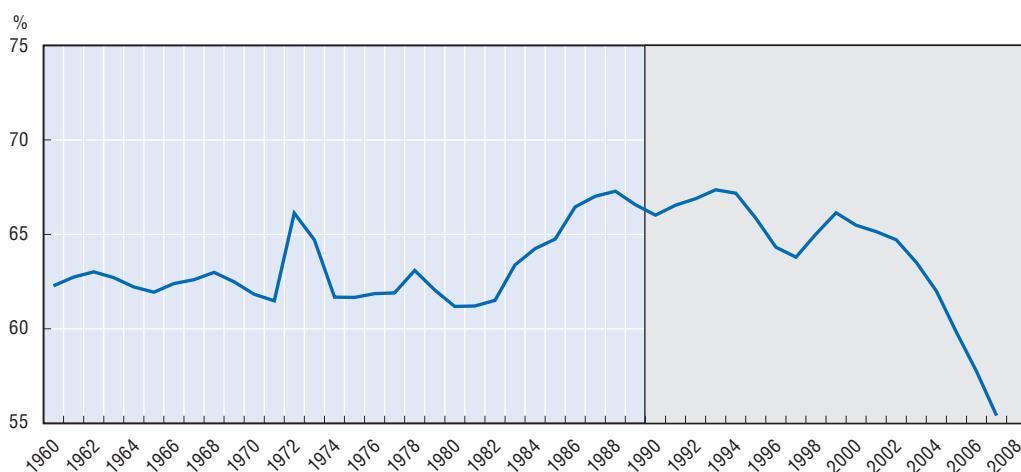
For over 60 years, this triad of institutions has provided the bedrock for international co-operation on economic organisation. Each organisation has evolved as differing circumstances arose. The role of the IMF was fundamentally changed by the adoption in 1971 of floating currencies throughout the industrial world. It progressively refocused its activities on developing countries and began to apply policy conditionality (Mold, 2009). Over time the IBRD shifted from a focus primarily on infrastructure lending to an entity guaranteeing and providing loans linked to policy conditionality. In recent years as China, India, and other larger countries have accumulated significant reserves of their own it has transferred its focus to smaller poorer countries, particularly in Africa. The GATT succeeded in significantly reducing tariffs through its negotiations, and also began to spread and broaden its coverage to other issues such as services and intellectual property,

a wider role that was recognised by the establishment of the new WTO, formed in 1995. Through all these changes the basic triad structure endured. While in the case of the WTO the point is debateable (it operates under the principle of one country, one vote), broadly speaking decision-making power in the Bretton Woods institutions is still dominated by the industrialised nations and the G7 (Canada, France, Germany, Italy, Japan, the United Kingdom and the United States).

Such arrangements are less tenable in a world in which the G7 accounts for a declining share of global output (Figure 7.1). Since the financial crisis, in particular, we have seen a potentially major change in this institutional setup, the dimensions of which are yet to become clear. The triad is not now redundant or being replaced, but there are new institutional responses to the global problems which are not well addressed by existing institutions. New South-South coalitions are emerging, and they are becoming increasingly assertive in international forums (Sanahuja, 2010).

Figure 7.1. **Declining share of the G7 in global output, 1960-2008**

Share of global GDP at market exchange rates



Source: Authors' calculations based on World Bank (2009) and Maddison (2009).

StatLink  <http://dx.doi.org/10.1787/888932288679>

Modernising representation

The debate on the reform of the Bretton Woods institutions has been defined by the need to restore representativeness to the system, so that the institutions reflect the shift in economic power toward emerging countries (Boughton and Bradford, 2007). Although the institutions governing world finance and trade have adapted over time, there remains a clear disconnect between economic developments on the one hand and their institutional reflection on the other. This is particularly true of the power balance within them.

Any new order should reflect the emerging balance of economic power rather than that of two generations ago. One proposal put forward is that the European Union could create space for the rapidly growing emerging countries by moving to single representation. This change could even benefit Europe by raising its profile and increasing its influence in international affairs (Padoan, 2007). Single European (or euro-zone) representation, if set at the same level as for the United States (a little over 17% of the voting rights, in the case of the IMF), would arguably carry more clout than the current sum

of EU representatives (despite their having close to 30% in total). In the IMF, greater involvement by the large emerging countries would also be more likely if the United States relinquished its veto. Chinese economists (for example Yongding, 2009) have cautioned against committing any funds to the IMF before the removal of the US veto. Currently the voting rights in the IMF of Brazil, the Russian Federation, India and China total 9.6% – about half the US share.

Including all those who matter

Global governance still fails to be truly inclusive. Low-income developing countries make extensive use of the insurance and intermediation services supplied by the multilateral financial institutions yet have little or no meaningful representation within them. Such countries have a large stake in ensuring that regulatory reforms do not stifle their development prospects and yet have little direct say in how negotiations progress. Developing countries need to be made part of the international regulatory-reform process, side-by-side with emerging and advanced countries. The challenge is to find ways to have small countries participate in global governance without imperilling effective negotiation. Two possible mechanisms for meeting this challenge are double-majority voting or delegated voting.

Double-majority voting requires a measure to secure both a majority of weighted votes (each country weighted by GDP) and a majority of countries (by number). Double-majority voting would recognise the interests of the major creditors who hold more shares (since in a reformed institution they would have the heaviest GDP), while at the same time rendering the decision-making process more inclusive. Requiring that key decisions win a majority of country votes would give developing countries for the first time the means to block major changes that they as a group are unwilling to support (Birdsall, 2009). Double-majority voting for elections of new presidents is now the rule at three of the regional multilateral banks.

Under delegated voting, nations are assigned to constituencies each of which provides one voting delegate. The constituencies can be of variable size and indeed may comprise a single nation. This is the mechanism used now at the IMF Executive Board, albeit with unreformed voting shares. Better representation of the broader membership in the Bretton Woods institutions is hindered by the current split between those countries that appoint national representatives (that are effectively in a constituency of one) and the others. The Fourth Pillar (Civil Society) Consultation on the Reform of IMF Governance suggests multi-country constituencies of equal size for all IMF member countries (Lombardi, 2009).

The rise of the G20

Outside of the triad, other international forums have become more prominent in global governance. The G20 was formed in 1999 as an opportunity for finance ministers and central bank governors from both developed and emerging-market countries to discuss financial issues. Large emerging countries started to have more sway in financial markets in the 1990s, and the Asian financial crisis of 1997-98 showed that emerging markets were too important to exclude from international economic discussions. With the onset of the current financial crisis, the G8 leaders convened a G20 summit to discuss and co-ordinate policy responses. At their September 2009 Pittsburgh meeting, the G20 leaders announced that in future the G20 would be the premier forum for international economic co-ordination, supplanting the G8's role.

The launch of this G20 process and the enlargement of the Financial Stability Forum (now Board) represent an acceleration of a trend of granting the converging powers more standing. It builds on China's role in the WTO since its entry in 2001, and their visibility in international climate discussions and the governance of international financial institutions. However, the G20 is neither multidisciplinary nor truly multilateral, since it focuses only on macro-financial issues and excludes (currently) the other 175 countries in the world. This narrow range may risk development co-operation, social, educational, security and environmental themes being neglected in global governance.¹

The global crisis showed that finding common solutions toward sustainable long-term growth needs multilateral responses and greater inclusiveness. The crisis also exposed the limits of the "one organisation per issue" approach to global governance. The belief that a specific agenda should be assigned to a certain institution on an exclusive basis has proved inefficient (Gurría, 2010). It is useful to take a look at the same problems from different angles – although international organisations should co-ordinate and avoid duplication (Reisen, 2010).

Some argue that the shift to the G20 – precisely because it draws in the large emerging countries – actually risks undermining multilateralism, and that it marginalises the smaller countries, many of which are in Africa. Accepting its imperfections, the G20 is more inclusive than what went before. The key issue from a developmental perspective is the extent to which this new configuration will work in favour of development.

The reality is that large developing countries have always had more negotiating clout – and enjoyed more policy space – than their smaller peers. Countries such as Brazil, China, India, Indonesia, Nigeria and South Africa have always enjoyed more margin of manoeuvre than smaller developing countries. A good example of this can be found during the period of structural adjustment, when large countries were generally able to choose the pace and degree of liberalisation, but small African countries were expected to take the medicine in one go, with Latin American countries in an intermediate position (Stewart, 2006). If such a two-tier treatment becomes institutionalised, what we can look forward to might not be the catastrophic implosion of developing-country aspirations as a whole, but rather what Churchill once called "the agony of little nations" (Mold, 2007). That would be a lost opportunity for development policy.

Ensuring effective multilateral co-operation

Multilateral action will not be easier in the realigned global setting in which China and other large emerging countries have more weight than before. Pisani-Ferry (2010, p.10) has pointed to China and the United States where "the structure of domestic power does not bode well for the multiplication of binding external commitments and where willingness to accept encroachments on sovereignty is in consequence limited. China sees existing international arrangements as a way of preserving the global *status quo* and thus EU/US power, at the expense of developing countries."

This reticence to multilateral co-operation could be overcome if the benefits were more clearly visible for the emerging powers. As part of this, it is of great importance to separate positive-sum ("win-win") issues from the much more difficult zero-sum issues, which are about the sharing out of some limited resource or right. Pure zero-sum issues arising from the rise of the converging powers do exist (Pisani-Ferry, 2010). First, a rebalancing of influence will see the relative weight of the advanced countries diminish.

And second, there will be pressures for a redistribution of the stock of global commons, particular in relation to climate change and extraction rights for exhaustible resources. In such zero-sum settings, it is quite possible that emerging powers will continue to prefer bilateral agreements with resource-rich developing countries over multilateralism.

The resurrection of multilateralism is certainly high on China's policy agenda when it comes to global trade and global money. A recent Chinese presentation (Yu, 2010) painted China's interest in global governance as a "Grand Bargain": China would relinquish its rigid currency peg and some of its accumulated foreign-exchange reserves in return for increased voting shares in the international financial institutions and for resuming the stalled WTO Doha Development Agenda. "Winner-takes-all" issues such as international money (Reisen, 2009) and global regulation, where the dominant power tends to have disproportionate influence, will be particular candidates for global governance reform brought about by the rise of the converging powers.

Aid – Making international action efficient

The governance architecture for aid is another area which needs to adjust to incorporate new actors. As another sign of shifting wealth, the number of bilateral donors who are not members of the OECD's Development Assistance Committee (DAC) has grown rapidly at the beginning of the new millennium (see Chapter 3). The Paris Declaration emphasised the importance of efficiency in aid delivery. "Excessive fragmentation" of aid at the global, country or sector level impairs effectiveness, increasing transaction costs and overburdening partner administrations. The Declaration goes on to call for increased donor complementarity. The ever increasing number of bilateral donors, while welcome, risks adding to this fragmentation. Concerns have been voiced that competition from emerging donors and lenders permits recipient governments to turn down aid that is pegged to conditionality on good governance. Another source of concern is that lending practices of emerging donors might negatively affect debt sustainability in the poorest countries.

Many representatives of Western donor agencies conclude that these policy concerns can be addressed by assimilating new donors into existing frameworks of soft law in the field of development co-operation. The established donor community has certainly been trying hard to engage China and other emerging countries in a policy dialogue. The DAC launched an outreach strategy in 2005 in order to foster dialogue and co-operation with non-DAC donors. A China-DAC study group has been created to look at selected aspects of China's development co-operation in Africa.

Assimilating new actors into established frameworks of standards and best practices is of special interest for the OECD whose operational model is based on international soft law and peer review. Soft law is not effective when its reach is not global. While geopolitical considerations outlined by Paulo and Reisen (2010) may provide barriers to a rapid integration of eastern donors into existing soft law, both sets of donors share some important common concerns about development and poverty reduction. Both China and India follow the Bandung principles of the Non-Aligned Movement (1955) as the main guidelines for South-South co-operation: mutual respect for territorial integrity and sovereignty; mutual non-aggression; non-interference in internal affairs; mutual equality and mutual benefit; peaceful coexistence. Solidarity between developing countries is also the fundamental motivation of Arab aid, though here with a special emphasis on Arab and Muslim solidarity.

The inclusion of emerging development partners into existing soft law frameworks needs solutions that reconcile the requirements of transparency with new and different modes of development co-operation – Chinese aid, for example, is generally bundled together with investment and trade deals, blurring the distinction between private investment and public aid. The emergence of new donors with very different approaches to development co-operation may require a move from a system which is still largely donor-dominated to one giving an enhanced role to partner countries, for example through “reverse conditionality” – putting recipient development partners into the driving seat as they compare, evaluate and select co-operation offers from new and old donors (Mold, 2009).

Changing interests and coalitions in international co-operation

The new configuration of the global economy has changed the negotiating power of the large emerging economies within international negotiations. Examples of this can be seen in a number of issues on the international agenda. This section focuses on two in particular: climate change and trade.

Coalitions in climate change

The Bretton Woods institutions were not set up to recognise physical interactions between countries, which they saw as linked only by trade and finance. They provided no forum for negotiations on global warming. These have taken place within the United Nations Framework Convention on Climate Change, adopted at the United Nations Earth Summit in 1992 which then came into force in 1994. Since then, successive rounds of discussion and negotiations have taken place on an almost annual basis.

These climate negotiations demonstrate the impact of shifting wealth on the negotiating power of emerging and developing economies within international fora. A meaningful agreement without China, India, and the Group of 77² is not possible. With huge populations and growing emissions, their leverage is large. Nor, in sharp contrast to the Bretton Woods world, can the industrialised countries go it alone and rely on their own global weight to carry others in their wake. Yet the two sides approach the problem from divergent perspectives, reflecting their very different starting points.

An example is emission reductions. The joint interest in securing a reduction is accepted but how to divide the restrictions and costs involved among countries is much less clear. A central element is money: how much are developed countries prepared to put on the table to bring the developing countries to the negotiations? Developing countries are asking for what many regard as large sums (perhaps USD 200-300 billion per year after 2012), while developed countries are talking of much more modest amounts (USD 10 billion per year after 2020).

The size of this gap is evidence of a clear North-South divide over global climate arrangements, a divide which is prompting new developing-country coalitional activity. Shared opposition to northern insistence on an annual emissions cap, for example, has led China and India into a pact under which they will take a joint negotiating stance for the next five years. Such co-operation would have been unthinkable even a few years ago. It creates a block which represents half the world's population.

Broader questions are emerging, too, as to how these climate-change negotiations link to other international negotiations covering classic North-South issues. Outside the WTO

system, for example, there have been calls – most notably in the European Union – for border tax adjustments to offset the additional production costs of including carbon as an input to production.

New patterns in multilateral trade negotiations

Sustained surpluses in the balance of payments of most emerging countries have changed perspectives on the political economy of regulatory frameworks for trade and capital movements. On trade issues, protectionist calls have become more prominent in the advanced economies, while levels of protection remain considerable in many developing economies.³ The emerging trade powers – China, India and Brazil – have fared quite well with unilateralism and regionalism while their commitment to multilateralism is relatively untested. They, like the United States, the European Union and Japan, have enough market leverage to defend their interests.

The WTO has a unique position in the governance architecture of the global economy, in the sense that it is the only Bretton Woods Institution which uses the principle of “one country, one vote”. Because the WTO’s consensus-based rules and negotiations are anchored in shared values, such as reciprocity, transparency, non-discrimination and the rule of law, it should in principle benefit small nations disproportionately (Baldwin, 2006). Since the meeting at Cancun in 1999, the current Doha round of multilateral negotiations (the “Development Round”) has stalled, weighed down by differences over issues such as agricultural subsidies, Trade Related Intellectual Property Rights (TRIPS), Non-Agricultural Market Access (NAMA), services trade and government procurement. The crisis has made reaching an agreement all the more difficult: in a booming economy, it is easier for countries to accept trade liberalisation – to do otherwise is perceived as a lost opportunity to gain from global growth, and perceptions of winners and losers are muted. Post-crisis, all participants seem to agree on the importance of avoiding falling into protectionist beggar-thy-neighbour policies. Nevertheless, for the time being it would seem that their underlying confidence in the state of the global economy is not conducive to concluding an agreement.

The large countries in the South do not necessarily speak for all

Despite the much stronger positions of some emerging countries in the negotiating forums within the WTO, “drawing a few large fast-growing developing countries into the exclusive circle of power does not make the WTO more developmental, nor does it make the institution more inclusive” (Scott and Wilkinson, 2010, p. 150). South-South trade relationships are certainly not exempt from tensions, even among the large developing countries. India’s trade deficit with China, for example, widened to USD 16 billion in 2009. Echoing anxieties also voiced in Africa and Latin America (see, for instance, Paus, 2009), Indian officials and industrialists have expressed concern that India’s exports to China are predominantly raw materials, whereas trade in the other direction is of manufactures which are undercutting India’s small and medium-sized businesses.

Agricultural issues are one of the main bones of contention at the WTO. The agenda is being shaped increasingly by developing country coalitions – joint action by India, Brazil and South Africa contributed crucially to a situation of deadlock at the WTO ministerial meeting in Cancun by pressing for fundamental changes to the developed world’s agricultural subsidies regimes. Such groups continue to push for more progress on three main issues: agricultural tariffs; the support that developed countries provide to their

farmers; and agricultural-export subsidies. Hertel *et al.* (2007) suggest that developing-country poverty could be reduced by liberalising both developed countries' agricultural trade (to increase agricultural prices in developing countries), and developing countries' trade (to reduce food prices). However – as the simulation exercises in Chapter 3 clearly show – the true developmental potential of further South-South liberalisation lies in trade in manufactures rather than agricultural products. The situation is complicated further by the fact that some estimates suggest that Chinese farmers may be the largest absolute losers from global agricultural reform (van der Mensbrugghe and Beghin, 2005) – there are thus no guarantees of Chinese support on this issue.

Another example of a conflict of interest within the WTO between developing countries is with regards to calls for a “Special Safeguard Mechanism” (SSM). During the negotiations of the Doha round, the “G33” group of developing countries requested the SSM to allow an increase in tariffs if imports flooded the local market or if the prices of imports fell too low to guarantee the survival of local farmers. While the United States and Australia have been opponents of this instrument, some of its fiercest critics have been among exporting developing countries – Argentina, Malaysia, Uruguay, Thailand and, to a lesser extent, Brazil. The objection is that the SSM would affect South-South trade. They do not want a mechanism that could affect their small farmers who export (Kwa, 2010).

The current pause in multilateral trade negotiations provides an opportunity for developing countries to take stock of the situation. Arguably they would benefit from taking greater initiative in the review and reform of the multilateral trading system. A review of WTO rules from a development perspective would need to extend to an examination of the basic principles of national treatment, liberalisation and reciprocity; the body's decision-making processes and governance; and its specific agreements (for example covering agriculture, services and intellectual property). Khor (2008) argues that this would require a revitalisation of other institutions in the multilateral trading system such as UNCTAD. It would also need to address issues not covered in WTO but key to developing countries, such as commodities. A reformulation along these lines would require much South-South co-operation and co-ordination of positions and processes.

There are some particular areas in which developing countries have a strong vested interest in making sure the agenda moves forward. Some are most appropriately pursued in a multilateral setting, others regionally or bilaterally. The key question is how poor and struggling countries, can take advantage of the new configuration in the global economy. Trade and technology transfer are two areas in which developing countries would benefit from co-operation with each other.

Trade – and the need for the South to work together

Trade is one of the most powerful and direct channels for transmitting the impact of shifting wealth. Chapter 3 documented the rise in South-South trade over the last 20 years, and its sharp acceleration in the last ten. There is scope for even greater dynamism. The simulations in Chapter 3 show that the gains from liberalising South-South trade are much higher than for North-South trade: by bringing South-South tariffs down to northern levels developing countries could enjoy welfare gains of USD 60 billion. This is almost double the estimated gains which would accrue from bringing down North-South applied tariffs to the same average that applies on North-North trade. These results in themselves are unsurprising as applied and bound tariffs continue to be much higher on South-South trade (notwithstanding special schemes such as the Indian and Chinese preferential

market access schemes for low-income countries). The results do however give an idea of the scope for further increasing South-South trade. Moreover, this kind of study only reports the static gains; the dynamic gains through, for example, greater competition are potentially much larger. Deep trading links with dynamically growing regions have a far better payoff in terms of growth than links to slower-growing more mature markets. For low-income, non-converging countries the opportunities are too important to be missed.

Developing countries are clearly aware of the importance of South-South tariff reductions and are pursuing this agenda outside the WTO. Their negotiations, known as the “São Paulo round”, were launched in 2004 on the occasion of the UNCTAD XI quadrennial conference in São Paulo, Brazil. Through a technical co-operation agreement with UNCTAD, member states of the Global System of Trade Preferences are trying to pave the way for greater tariff reductions. In December 2009, 22 participating nations (including Egypt, Morocco and Nigeria) agreed to cuts of at least 20% on tariffs that apply to some 70% of the goods exported within this group of nations. A timeline was set for intensive negotiations to conclude the agreement by the end of September 2010.⁴

Opportunities for South-South agricultural trade

The potential for increased agricultural trade among developing countries is great. For example, sub-Saharan African agricultural markets currently suffer from much fragmentation, with little cross-border trade in agricultural produce. Contrary to conventional wisdom, factor endowments between different countries in Africa are often highly diverse, leaving a large – and currently untapped – potential for mutually beneficial trade in products like food crops. Greater intra-African trade would reduce annual variability in supplies, and create a huge potential market for the smallholders who represent the backbone of African agricultural production, particularly in the food-staples sector (cereals, roots and tubers, and traditional livestock products).⁵

For example, Kenya is a land-scarce country with an inefficient agricultural sector. A policy of self-sufficiency would therefore lead to high food costs. Yet Kenya’s land-locked neighbour Uganda has relatively abundant land with reliable rainfall. Uganda could supply food to Kenya at much lower prices than currently prevail in Kenya, and this in turn would permit urban wages in Kenya to fall in terms of manufactured goods, without reducing the living standards of Kenyan workers. As a consequence, competitiveness could be enhanced (UNIDO, 2004; Ravallion, 2009).

The barriers which need to be removed to make such proposals feasible are the familiar ones associated with high transport and frontier costs. Trading costs, which are high in low-income regions generally, are still higher in sub-Saharan Africa according to the IFC Doing Business database. The World Bank (2009) has estimated that Africa has a USD 93 billion deficit in financing for its infrastructure projects. In recent years, China has been especially active in this area. New infrastructure projects should be directed towards meeting the needs of the domestic economy and promoting intra-regional trade, rather than focused simply on reducing transaction costs for raw-material exports, as has often been the case in the past. Reinvigorating the New Partnership for African Development strategic plan for infrastructure with new infusions of finance would be one way forward.

Preferential market access for struggling and non-converging countries?

Some authors have argued that what Africa needs to deal with the challenge of growing competition from the emerging economies is a policy giving all African countries

(not only the poorest) preferential access to the markets of OECD members, with no rules-of-origin requirements, for a period of 10 to 15 years (see, for example, Commission on Growth and Development, 2008, and Collier and Venables, 2007). This argument for preferential treatment is based on Africa's "threshold problem" – the fact that regional trade between neighbours is low and so African countries cannot exploit agglomeration benefits (Collier and Venables, 2007).

However, recommendations for preferential treatment ignore the relatively disappointing developmental impact of preferential access schemes in the past, as well as the enormous degree of erosion in the relative value of preferences over the last three decades (Mold, 2005a). Average industrial tariffs in the OECD countries now stand at under 1%, meaning that the only area where meaningful preferential access can be conceded is in agricultural products. Contrary to the original intention of preferential access – providing strong incentives for diversification towards industrial products – such preferences now, paradoxically, offer incentives to remain specialised in agricultural commodities.

However, because developing country industrial tariffs are still typically much higher than those of OECD countries (see Chapter 3), there is still considerable scope for preferential market access to expand manufacturing trade with the emerging countries. In 2007, Brazil announced that it was to offer quota-free market access to 32 developing countries which fall into the least-developed country (LDC) classification. African governments have encouraged industries to intensify their ties with India through India's Duty-Free Tariff Preference Scheme for 34 African LDCs. The scheme provides market access on tariff lines that comprise 92.5% of global exports of LDCs and cover 94% of India's total tariff lines (Sen, 2008). In October 2009, China also announced the elimination of tariffs on 60% of imports from LDCs. However, this is still well below the coverage given by European schemes like the Everything But Arms (EBA) agreement, which gives tariff reductions on 100% of LDC exports. So far, there have been no rigorous studies as to whether such offers by the emerging countries are taken up, or whether in practice they offer significant market-access opportunities. Certainly, governments and businesses in low-income countries could be more assertive in taking advantage of preferential access. For example, China offers duty exemption on over 400 African exports to China, but few governments seem to actively take advantage of this opportunity (Standard Bank, 2009).

The key issue here is that such concessions are offered in the context of a booming trade relationship. In the past many LDCs have not managed to fully take advantage of schemes like the European Union's EBA agreement because of complex rules of origin or simply through administrative problems in taking advantage of the duty reductions (Mold, 2005b). These are errors which developing countries themselves need to learn from if their own preferential market access schemes are to be effective.

Avoiding own-goals with trade – the reduction of Non-Tariff Barriers (NTBs)

Chapter 3 investigated the scope for South-South trade liberalisation in terms of welfare improvement. South-South tariff reduction represents a necessary but not sufficient condition to expand South-South trade flows. NTBs a long list including licensing, quotas and tariff quotas, voluntary export restraints and price-control measures, and extending to import controls on food and phytosanitary standards as well as rules of origin – are not just a North-South problem. African countries often apply NTBs in a way

which damages their own developmental progress through loss of intra-regional trading opportunities (Mold, 2005b).⁶


South-South trade has been characterised by an increasing number of NTBs. Cases from regional dispute-settlement mechanisms in the WTO provides a good account of barriers to market access encountered in intra-regional developing-country trade (OECD, 2005). A telling instance in which developing countries have acted to remove tariffs intra-regionally, but then undermined this by maintaining or even increasing their use of NTBs, is the Central America Common Market (CACM): half of the complaints brought by CACM members against other members during 2003-04 involved various fees and charges on imports. The phenomenon is not confined to Latin America, and has been reported widely in Africa, the Middle East and the Caribbean (OECD, 2005).

Developing countries have become extremely active in Anti-Dumping (AD) and mainly targeted other developing countries (Table 7.1).⁷ Prior to the 1990s, developed countries (primarily Australia, Canada, Europe and the United States) were responsible for up to 97% of all AD initiations and 98% of all measures. From the 1990s onwards, developing countries became more active users of AD measures. Since 1995 they have accounted for 64% of all AD initiations and two-thirds of AD measures. The top five developing countries using AD measures are India, Argentina, Mexico, South Africa and Brazil (WTO, 2009). Between the beginning of 1995 and the middle of 2008, Latin American countries initiated 162 AD measures against Chinese producers, of which 115 were approved by the WTO (Paus, 2009).

Table 7.1. **Anti-dumping initiations, 1995-2007**
Number, by user and target

User	Target		Total
	Developed countries	Developing countries	
Developed countries	262	904	1 166
Developing countries	566	1 488	2 054
Total	828	2 392	3 220

Source: WTO (2009).

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Shifting wealth provides a new impetus to effective regional co-operation and integration

Regional trade agreements among southern partners need to be made more effective. In both Africa and Latin America, there has been a relatively long tradition of reaching regional trade agreements, without actually managing to put them into effective practice (Cardoso and Holland, 2010; UNECA, 2006). Shifting wealth provides a new opportunity to break with that legacy. If regional agreements in the South have failed in the past, it is broadly because participants did not really have sufficient faith in intra-regional trade – they were often trapped in the old North-South mode of thinking even when expressing aspirations in favour of greater economic links with their neighbours and other developing regions. With the increase in dynamism and depth of South-South linkages, however, the potential gains are much larger, and the potential losses in terms of trade diversion are much smaller.

The desire to strengthen regional co-operation in the economic, monetary and financial domains reflects in part a response to concerns over multilateral intrusion into areas of national sovereignty. Regionalism can also potentially help shield countries from global instability (Amsden, 2007). The rise of the large emerging countries is likely to strengthen renewed interest in regional co-operation. Because many of the competitive advantages in global markets that India and China enjoy stem at least in part from their large size (through the workings of scale economies and lower sunk costs), regional integration becomes all the more imperative for smaller developing countries. Moreover, there is some evidence to suggest that the spectacular growth of global trade over the last two decades has been principally driven by regional processes (Chortareas and Pelagidis, 2004). There are political as well as economic benefits from regional integration. The changing balance of power provoked by shifting wealth will require smaller countries to work together more effectively or risk becoming marginalised in decision-making processes.

Especially interesting is the “open regionalism” promoted within Asia. Most Asian countries “insisted that regional integration focus primarily on the promotion of economic development, and that trade liberalisation should be promoted gradually” (Kojima, 2002). Asian emerging powers have tended to embark on co-operation with their neighbours, such as in the framework of the Association of Southeast Asian Nations (ASEAN)+3 forum or the Chiang Mai initiative, a multilateral currency swap arrangement among the ten members of the ASEAN, China, Japan and Korea. The initiative was launched in March 2010 and draws from a foreign exchange reserves pool worth US 120 billion.

Technology transfer

The development of strong technological capabilities in some southern countries and diversification of exports in many others create new potential for co-operation. These poles of higher-tech expertise and skills, coupled with the spread of low-cost and effective communication technologies, widen the prospects for cross-border clusters of specialisation and co-operation along the global value-chain among developing countries, supporting technology transfer. In the 1960s and 1970s such transfer was one of the clarion calls of the development movement, particularly through forums like UNCTAD. But for different reasons the issue disappeared from the debate in the 1980s and 1990s.

In the light of the new circumstances, it is perhaps time that this was reconsidered. Given their role in the – ever expanding – framework for intellectual property rights, organisations such as the World Trade Organisation (WTO) have become focused on defending rights to rents from existing technologies rather than facilitating the flow of new technologies towards poorer countries. As Chapter 5 demonstrated, the issue is of great importance to development. The difficulties of keeping up with ever faster technological change are creating new barriers against the full integration of many developing countries as competitive members of the global economy (see also Dahlman, 2009). Software provides an instructive example. Software technology is gaining prominence in national strategies for the development of information and communication technology. There has been a surge in regional and bilateral co-operation in software development in recent years, especially in e-governance and e-learning. Most technical capacity, however, remains concentrated in China, India and a few Southeast Asian countries.

The burning question is whether the leaders in this process of technological dynamism in the South – Brazil, China, India and South Africa – will draw smaller and weaker countries into the benefits of their technological dynamism, or whether they will simply become a “second-layer” next to the OECD member countries (Altenburg *et al.*, 2008). In principle, they could provide technological access more broadly and at a more affordable price (*e.g.* through licensing agreements). The challenge is to make sure that this relationship does not become one of dependence and simply widen the breach between converging and struggling or poor countries in coming years. Having been argued about for decades in multilateral forums and bilateral negotiations with OECD members, it is clear that technology transfer needs to be put back on the agenda this time in a wider context. Continuing to restrict the debate to the protection of intellectual property will not suffice against the backdrop of shifting wealth.

Conclusion

The new configuration of global economic and political power means that the affluent countries can no longer set the agenda alone.

This chapter has explored some of the dimensions in which the parameters of global governance have already been altered by shifting wealth, focusing on the implications for development. Clearly there is an urgent need for greater and more forceful multilateral action. The world’s problems are becoming increasingly global, and if they are to be solved, then responsibility and solutions must be shared ones. As the world emerges from the financial crisis, co-operative solutions in many fields have become imperative.

Multilateral negotiations are often hard and slow. This should not be allowed to distract from the many areas where development benefits can be secured by co-operation among countries. Opportunities for change on this scale come along once in a lifetime. Doing so may require greater and more determined international action by players not used to having their voices heard. They will be more effective if they work together.

Notes

1. The contribution of institutions such as the OECD with its capacity to measure and benchmark the effectiveness of policies between countries and to propose best practices in practically all areas of public policy may be valuable in this context, precisely because it is multidisciplinary. This is particularly true when looking at the expansion of standards and norms originally developed for advanced countries to a more broadly applicable set of policies and governance practices.
2. Established in 1964, the “Group of 77” is the largest intergovernmental organisation of developing states in the United Nations. Member countries work to promote their collective economic interests and seek to enhance their joint negotiating capacity on major international economic issues within the United Nations system, including South-South co-operation for development.
3. See Chapter 3, and the latest information in Global Trade Alert – www.voxeu.org/reports/GTA1.pdf.
4. See UNCTAD (2009).
5. See, for instance, the study by Weeks (1996) on the scope for regional agricultural trade in SADC and COMESA countries.
6. For most of the African countries covered in the Investment Climate Surveys cited by Clarke (2005), enterprises involved in exporting were significantly more likely to say that trade and customs regulations were a serious obstacle than exporters in the three Asian countries in the sample. Since most exports for these African firms are to neighbouring countries, it gives an approximate idea of the impediments to intra-regional trade.
7. From 1979 to 1989, only 13 anti-dumping investigations were initiated by developing countries against other developing countries.

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STATISTICAL ANNEX

The Four-speed World Classification

Table A.1. **Affluent**

	Population 2008 (millions)	Four-speed world classification		Gross national income per capita	Income group
		1990s	2000s	2007	2007
				Current USD (Atlas method)	
United States	304.0	Affluent	Affluent	46 090	High-income
Japan	128.0	Affluent	Affluent	37 800	High-income
Germany	82.1	Affluent	Affluent	38 990	High-income
France	62.3	Affluent	Affluent	38 790	High-income
United Kingdom	61.4	Affluent	Affluent	43 430	High-income
Italy	59.8	Affluent	Affluent	33 490	High-income
Korea	48.6	Affluent	Affluent	21 210	High-income
Spain	45.6	Affluent	Affluent	29 290	High-income
Canada	33.3	Affluent	Affluent	39 650	High-income
Saudi Arabia	24.6	Struggling	Affluent	15 500	High-income
Australia	21.4	Affluent	Affluent	35 760	High-income
Netherlands	16.4	Affluent	Affluent	45 650	High-income
Greece	11.2	Affluent	Affluent	25 740	High-income
Belgium	10.7	Affluent	Affluent	41 120	High-income
Portugal	10.6	Affluent	Affluent	18 960	High-income
Czech Republic	10.4	Struggling	Affluent	14 240	High-income
Hungary	10.0	Struggling	Affluent	11 670	High-income
Sweden	9.2	Affluent	Affluent	47 870	High-income
Austria	8.3	Affluent	Affluent	41 970	High-income
Switzerland	7.6	Affluent	Affluent	60 820	High-income
Israel	7.3	Affluent	Affluent	22 170	High-income
Hong Kong, China	7.0	Affluent	Affluent	31 570	High-income
Denmark	5.5	Affluent	Affluent	55 450	High-income
Slovak Republic	5.4	Struggling	Affluent	11 720	High-income
Finland	5.3	Affluent	Affluent	44 310	High-income
Singapore	4.8	Affluent	Affluent	31 890	High-income
Norway	4.8	Affluent	Affluent	77 370	High-income
Croatia	4.4	Struggling	Affluent	12 000	High-income
Ireland	4.4	Affluent	Affluent	47 610	High-income
New Zealand	4.3	Affluent	Affluent	27 090	High-income
Slovenia	2.0	Affluent	Affluent	21 510	High-income
Trinidad and Tobago	1.3	Struggling	Affluent	14 480	High-income
Cyprus ¹	0.9	Affluent	Affluent	22 950	High-income
Macao, China	0.5	Affluent	Affluent	35 360	High-income
Luxembourg	0.5	Affluent	Affluent	79 060	High-income
Malta	0.4	Affluent	Affluent	16 680	High-income
Brunei Darussalam	0.4	Affluent	Affluent
Bahamas, The	0.3	Affluent	Affluent	21 390	High-income
Iceland	0.3	Affluent	Affluent	57 750	High-income
Bermuda	0.1	Affluent	Affluent

.. Data not available.

— Not applicable.

- Footnote by Turkey: The information in this document with reference to “Cyprus” relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognizes the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of United Nations, Turkey shall preserve its position concerning the “Cyprus issue”.

Footnote by all the European Union member states of the OECD and the European Commission: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

Four-speed world classification based on average per capita growth rates for 1990-2000 and 2000-7.

For a full explanation of the Four-Speed World Classification, see Chapter 1.

Income classification based on World Bank criteria, GNI per capita Atlas method:

- high-income economies: GNI per capita > USD 9 265 in 2000 for 1990s; GNI per capita > USD 11 455 in 2007;
- middle-income economies: USD 755 < GNI per capita < USD 9 265 in 2000 for 1990s; USD 935 < GNI per capita < USD 11 455 in 2007;
- low-income economies: USD 755 < GNI per capita for 1990s; USD 935 < GNI per capita in 2007.

Source: World Bank (2009), *World Development Indicators Database* (CD-ROM).


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Table A.2. **Converging**

	Population 2008 (millions)	Four-speed world classification		Gross national income per capita	Income group
		1990s	2000s	2007	2007
				Current USD (Atlas method)	
China	1 320.0	Converging	Converging	2 410	Middle-income
India	1 140.0	Poor	Converging	950	Middle-income
Indonesia	227.0	Poor	Converging	1 650	Middle-income
Bangladesh	160.0	Poor	Converging	480	Low-income
Nigeria	151.0	Poor	Converging	970	Middle-income
Russian Federation	142.0	Struggling	Converging	7 530	Middle-income
Philippines	90.3	Struggling	Converging	1 600	Middle-income
Viet Nam	86.2	Converging	Converging	770	Low-income
Ethiopia	80.7	Poor	Converging	220	Low-income
Turkey	73.9	Struggling	Converging	8 120	Middle-income
Iran, Islamic Rep.	72.0	Struggling	Converging	3 540	Middle-income
Thailand	67.4	Struggling	Converging	2 660	Middle-income
South Africa	48.7	Struggling	Converging	5 730	Middle-income
Ukraine	46.3	Poor	Converging	2 570	Middle-income
Colombia	45.0	Struggling	Converging	4 100	Middle-income
Tanzania	42.5	Poor	Converging	400	Low-income
Sudan	41.3	Poor	Converging	910	Low-income
Poland	38.1	Struggling	Converging	9 870	Middle-income
Uganda	31.7	Poor	Converging	370	Low-income
Morocco	31.6	Struggling	Converging	2 290	Middle-income
Peru	28.8	Struggling	Converging	3 340	Middle-income
Uzbekistan	27.3	Poor	Converging	730	Low-income
Malaysia	27.0	Converging	Converging	6 420	Middle-income
Ghana	23.4	Poor	Converging	600	Low-income
Mozambique	22.4	Poor	Converging	340	Low-income
Romania	21.5	Struggling	Converging	6 390	Middle-income
Sri Lanka	20.2	Converging	Converging	1 540	Middle-income
Angola	18.0	Poor	Converging	2 590	Middle-income
Chile	16.8	Converging	Converging	8 160	Middle-income
Kazakhstan	15.7	Struggling	Converging	4 970	Middle-income
Cambodia	14.6	Converging	Converging	560	Low-income
Ecuador	13.5	Struggling	Converging	3 150	Middle-income
Chad	10.9	Poor	Converging	510	Low-income
Tunisia	10.3	Struggling	Converging	3 210	Middle-income
Dominican Republic	10.0	Converging	Converging	4 070	Middle-income
Rwanda	9.7	Poor	Converging	330	Low-income
Belarus	9.7	Struggling	Converging	4 240	Middle-income
Azerbaijan	8.7	Poor	Converging	2 710	Middle-income
Bulgaria	7.6	Struggling	Converging	4 460	Middle-income
Serbia	7.4	Struggling	Converging	4 540	Middle-income
Honduras	7.3	Struggling	Converging	1 590	Middle-income
Tajikistan	6.8	Poor	Converging	460	Low-income
Lao, PDR	6.2	Poor	Converging	610	Low-income
Jordan	5.9	Struggling	Converging	2 960	Middle-income
Sierra Leone	5.6	Poor	Converging	280	Low-income
Kyrgyz Republic	5.3	Poor	Converging	610	Low-income
Turkmenistan	5.0	Poor	Converging	2 230	Middle-income
Costa Rica	4.5	Struggling	Converging	5 520	Middle-income
Georgia	4.3	Poor	Converging	2 090	Middle-income
Moldova	3.6	Poor	Converging	1 130	Middle-income

Table A.2. **Converging** (cont.)

	Population 2008 (millions)	Four-speed world classification		Gross national income per capita	Income group
		1990s	2000s	2007	2007
				Current USD (Atlas method)	
Panama	3.4	Struggling	Converging	5 500	Middle-income
Lithuania	3.4	Struggling	Converging	9 910	Middle-income
Albania	3.1	Struggling	Converging	3 360	Middle-income
Armenia	3.1	Poor	Converging	2 580	Middle-income
Mongolia	2.6	Poor	Converging	1 290	Middle-income
Latvia	2.3	Struggling	Converging	10 090	Middle-income
Namibia	2.1	Struggling	Converging	4 100	Middle-income
Botswana	1.9	Struggling	Converging	6 100	Middle-income
Mauritius	1.3	Converging	Converging	5 610	Middle-income
Bhutan	0.7	Converging	Converging	1 480	Middle-income
Equatorial Guinea	0.7	Converging	Converging	9 710	Middle-income
Suriname	0.5	Struggling	Converging	4 450	Middle-income
Cape Verde	0.5	Struggling	Converging	2 680	Middle-income
Samoa	0.2	Struggling	Converging	2 750	Middle-income
St. Vincent and the Grenadines	0.1	Struggling	Converging	4 890	Middle-income

.. Data not available.

— Not applicable.

Four-speed world classification based on average per capita growth rates for 1990-2000 and 2000-7.

For a full explanation of the Four-Speed World Classification, see Chapter 1.

Income classification based on World Bank criteria, GNI per capita Atlas method:

- high-income economies: GNI per capita > USD 9 265 in 2000 for 1990s; GNI per capita > USD 11 455 in 2007;
- middle-income economies: USD 755 < GNI per capita < USD 9 265 in 2000 for 1990s; USD 935 < GNI per capita < USD 11 455 in 2007;
- low-income economies: USD 755 < GNI per capita for 1990s; USD 935 < GNI per capita in 2007.

Source: World Bank (2009), *World Development Indicators Database* (CD-ROM).


StatLink  <http://dx.doi.org/10.1787/888932289078>

Table A.3. **Struggling**

	Population 2008 (millions)	Four-speed world classification		Gross national income per capita	Income group
		1990s	2000s	2007	2007
				Current USD (Atlas method)	
Brazil	192.0	Struggling	Struggling	6 060	Middle-income
Mexico	106.0	Struggling	Struggling	9 400	Middle-income
Egypt	81.5	Struggling	Struggling	1 500	Middle-income
Argentina	39.9	Struggling	Struggling	6 040	Middle-income
Algeria	34.4	Struggling	Struggling	3 610	Middle-income
Venezuela	27.9	Struggling	Struggling	7 550	Middle-income
Yemen	22.9	Poor	Struggling	950	Middle-income
Syrian Arab Republic	20.6	Struggling	Struggling	1 740	Middle-income
Cameroon	19.1	Poor	Struggling	1 050	Middle-income
Guatemala	13.7	Struggling	Struggling	2 470	Middle-income
Bolivia	9.7	Struggling	Struggling	1 220	Middle-income
Libya Arab Jamahiriya	6.3	—	Struggling	..	Middle-income
Paraguay	6.2	Struggling	Struggling	1 710	Middle-income
El Salvador	6.1	Struggling	Struggling	3 200	Middle-income
Nicaragua	5.7	Poor	Struggling	990	Middle-income
Lebanon	4.2	Converging	Struggling	6 190	Middle-income
Congo	3.6	Poor	Struggling	1 510	Middle-income
Uruguay	3.3	Struggling	Struggling	6 620	Middle-income
Jamaica	2.7	Struggling	Struggling	4 420	Middle-income
Lesotho	2.0	Poor	Struggling	1 040	Middle-income
Former Yugoslav Republic of Macedonia (FYROM)	2.0	Struggling	Struggling	3 410	Middle-income
Gabon	1.4	Struggling	Struggling	6 450	Middle-income
Swaziland	1.2	Struggling	Struggling	2 550	Middle-income
Djibouti	0.8	Struggling	Struggling	1 070	Middle-income
Fiji	0.8	Struggling	Struggling	3 690	Middle-income
Guyana	0.8	Converging	Struggling	1 170	Middle-income
Solomon Islands	0.5	Struggling	Struggling	1 050	Middle-income
Belize	0.3	Struggling	Struggling	3 760	Middle-income
Vanuatu	0.2	Struggling	Struggling	1 970	Middle-income
St. Lucia	0.2	Struggling	Struggling	5 310	Middle-income
Micronesia, Fed. Sts.	0.1	Struggling	Struggling	2 280	Middle-income
Tonga	0.1	Struggling	Struggling	2 460	Middle-income
Grenada	0.1	Struggling	Struggling	5 350	Middle-income
Kiribati	0.1	Struggling	Struggling	1 800	Middle-income
Seychelles	0.1	Struggling	Struggling	11 060	Middle-income
Dominica	0.1	Struggling	Struggling	4 500	Middle-income
Marshall Islands	0.1	Struggling	Struggling	3 190	Middle-income
St. Kitts and Nevis	0.0	Struggling	Struggling	9 860	Middle-income

.. Data not available.

— Not applicable.

Four-speed world classification based on average per capita growth rates for 1990-2000 and 2000-7.

For a full explanation of the Four-Speed World Classification, see Chapter 1.

Income classification based on World Bank criteria, GNI per capita Atlas method:

- high-income economies: GNI per capita > USD 9 265 in 2000 for 1990s; GNI per capita > USD 11 455 in 2007;
- middle-income economies: USD 755 < GNI per capita < USD 9 265 in 2000 for 1990s; USD 935 < GNI per capita < USD 11 455 in 2007;
- low-income economies: USD 755 < GNI per capita for 1990s; USD 935 < GNI per capita in 2007.

Source: World Bank (2009), *World Development Indicators Database* (CD-ROM).

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Table A.4. **Poor**

	Population 2008 (millions)	Four-speed world classification		Gross national income per capita	Income group
		1990s	2000s	2007	2007
				Current USD (Atlas method)	
Pakistan	166.0	Poor	Poor	860	Low-income
Congo, Dem. Rep.	64.3	Poor	Poor	140	Low-income
Kenya	38.8	Poor	Poor	660	Low-income
Nepal	28.8	Poor	Poor	350	Low-income
Côte d'Ivoire	20.6	Poor	Poor	880	Low-income
Madagascar	19.1	Poor	Poor	340	Low-income
Burkina Faso	15.2	Poor	Poor	430	Low-income
Malawi	14.8	Poor	Poor	250	Low-income
Niger	14.7	Poor	Poor	280	Low-income
Mali	12.7	Poor	Poor	560	Low-income
Zambia	12.6	Poor	Poor	740	Low-income
Zimbabwe	12.5	Poor	Poor	450	Low-income
Senegal	12.2	Poor	Poor	870	Low-income
Haiti	9.9	Poor	Poor	520	Low-income
Guinea	9.8	Poor	Poor	390	Low-income
Benin	8.7	Poor	Poor	610	Low-income
Burundi	8.1	Poor	Poor	120	Low-income
Papua New Guinea	6.6	Poor	Poor	850	Low-income
Togo	6.5	Poor	Poor	370	Low-income
Central African Republic	4.3	Poor	Poor	370	Low-income
Liberia	3.8	Poor	Poor	150	Low-income
Mauritania	3.2	Poor	Poor	840	Low-income
Gambia	1.7	Poor	Poor	330	Low-income
Guinea-Bissau	1.6	Poor	Poor	220	Low-income
Comoros	0.6	Poor	Poor	690	Low-income

.. Data not available.

— Not applicable.


Four-speed world classification based on average per capita growth rates for 1990-2000 and 2000-7.

For a full explanation of the Four-Speed World Classification, see Chapter 1.

Income classification based on World Bank criteria, GNI per capita Atlas method:

- high-income economies: GNI per capita > USD 9 265 in 2000 for 1990s; GNI per capita > USD 11 455 in 2007;
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Perspectives on Global Development 2010

SHIFTING WEALTH

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