China in the Global Economy

Challenges for China's Public Spending

TOWARD GREATER EFFECTIVENESS AND EQUITY

OECD
OECDPUBLISHING

China in the Global Economy

Challenges for China's Public Spending

TOWARD GREATER EFFECTIVENESS AND EQUITY

OECD

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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

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

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

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

Publié en français sous le titre :
Les dépenses publiques en Chine
VERS PLUS D'EFFICACITÉ ET D'ÉQUITÉ

© OECD 2006

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

Foreword

This study is based on work carried out by the China Desk of the Non-Member Economies Division of the OECD Economics Department under the supervision of Silvana Malle, Division Head. The work was carried out under the auspices of the OECD study on Governance in China, *which was led by the OECD Directorate on Public Governance and Territorial Development as part of the ongoing programme of dialog and cooperation with China managed on the OECD side by the Centre for Cooperation with Non-Members. A shorter version of much of the material in this monograph is included in the published volume of the* Governance in China *study. The study draws on understanding gained from discussions with a number of Chinese Ministries and Agencies, including some at provincial and lower government levels, but remains an independent study of the OECD Secretariat.*

Acknowledgements. *The bulk of the work for this study was carried out by Margit Molnar, Economist in the Non-Member Economies Division of the OECD Economics Department, and Charles Pigott, formerly the Head of the China Desk in that Division until March 2004. Statistical assistance was provided by Thomas Chalaux. The authors are especially grateful for the support and advice given by Silvana Malle, Head of Division, and the very useful comments received from Richard Herd, Head of the China Desk. We also thank Val Koromzay, Andrew Dean and Willi Leibfritz for their suggestions, and Kang Jia and Qing Zhu for their illuminating comments on the work provided at an informal seminar sponsored by the Economics Department on 14 February 2005. The authors also thank Da Yuan and other officials at the National Development and Reform Commission for arranging meetings with officials of various levels of government during the course of the work on the study.*

Table of Contents

List of boxes

List of tables

List of figures

ISBN 92-64-01371-7
Challenges for China's Public Spending
Toward Greater Effectiveness and Equity
© OECD 2006

Executive Summary

China's evolution from a centrally planned to a market-based economy has led to major transformations of its public expenditure policies. Significant progress has been made in raising spending on infrastructure to a level more in line with China's development needs and in improving mechanisms for expenditure budgeting and planning. Nevertheless, significant problems remain.

Spending needs to be better defined and more transparent

China's officially reported spending figures reflect only about three-quarters of total government spending. Extra-budgetary spending, social security outlays and central government bond financing of local projects are not part of the official budget. Notwithstanding recent reforms, the government remains overly exposed to extra-budget and off-budget activities, which make public expenditures difficult to plan and control and which impair their accountability and transparency. Contingent liabilities have been a major source of unplanned spending and pose perhaps the greatest risk to the controllability of future expenditure.

China's uneven fiscal decentralisation has been an important impediment to the effectiveness of its public spending. Expenditures are considerably more decentralised than revenues and local governments have very little control over spending or tax policies. The result is the delegation of responsibilities to lower government levels without corresponding resources. Such unfunded expenditure mandates coupled with limited sub-national autonomy over revenues encourage sub-national governments to resort to off-budget financing and accumulate debt, which is prohibited by law.

China's government has been making strong efforts to improve the planning, formulation, and implementation of public spending. Experiments with output and outcome targets have started and a series of reforms have been adopted in the area of budget management and planning that are aimed at improving the effectiveness of spending. However much remains to be done. Benchmarks for spending efficiency and effectiveness evaluation have not been fully harmonised across the country. The decision making authority over capital, personnel and current expenditures lies with three different organisations and the capital budget is not anchored into a medium-term framework.

The analysis in this report suggests the following guidelines for further reforms to increase transparency and improve the effectiveness of China's public expenditure policies.

- Continue efforts to bring expenditures now off budget onto the budget as part of broader efforts to subject all expenditures to more rigorous formulation, implementation, and accountability.
- Improve transparency by reforming accounting systems for expenditures along functional lines, using international standards as a guide, so that amounts spent on key social, development, and other needs can be clearly determined and assessed.
- Design clear expenditure assignments for each government level and make sure that there are funds available to finance these assignments.
- Increase efficiency through more standardised benchmarks for evaluation and more market-based procurement.

Expenditure needs to be allocated more efficiently

The allocation of public spending appears out of line with China's development needs and goals in at least three areas: public spending on education, science, and health are still low by international standards.

The analysis in this report suggests the following guidelines for further reforms to improve the effectiveness of China's public expenditure policies.

- Improve allocative efficiency of public expenditures by raising spending on education, health, science, and other social/development needs, as a share of overall spending and relative to GDP, to levels more in line with China's development objectives.
- Reduce unnecessary spending on public administration and improve efficiency of public infrastructure investment, in part to better control future growth in these areas.

Spending inequalities should be lessened

Fiscal relations among different government levels in China are characterised by a comparatively high but also uneven degree of decentralisation. This system decentralises spending decisions much more than tax revenues and gives little freedom for localities to set tax rates. As a result, central and provincial governments have had to spend large amounts on transfers to help make up for disparities in revenues across their sub-jurisdictions. However the transfers have not been able to prevent the emergence of marked variations in public spending across the country. The fiscal system also has

allowed the development of substantial gaps between the expenditure responsibilities of sub-national governments and their resources. Such gaps have been an important factor behind the growing resort to off-budget funds and illicit borrowing by local governments, and are partly responsible for the relatively low level of public outlays on education and other important development needs.

Financing shortfalls of sub-national governments, especially at the lowest levels, are further aggravated by inefficiencies inherent in the system. An excessive number of layers in the administrative system constitutes a burden on sub-national finances and the small size of many grass-root level governments hinders the exploitation of economies of scale.

To increase the potential efficiency gains from the decentralised provision of public goods and services, the inter-governmental fiscal system needs to take better account of differences in resources across the country.

- Reform the systems of transfers between the central government and provinces and provide more equity-oriented guidelines for sub-provincial transfer system design. Increase transfers to provinces, particularly in the central region, where intra-provincial disparities are low, while improving distribution of fiscal resources within provinces where disparities are high, particularly in the western region.
- Improve accountability of sub-national governments by establishing more explicit criteria for performance in key areas such as education. Consideration might also be given to allowing local governments some greater discretion over the rates of certain taxes.
- Increase efficiency by simplifying the administrative system and by better exploitation of economies of scale through joint provision of public goods and services.

CHALLENGES FOR CHINA'S PUBLIC SPENDING – ISBN 92-64-01371-7 – © OECD 2006

Introduction

Public expenditures are one of the key instruments by which governments seek to achieve their economic and social goals. Through their impact on the allocation of resources, the distribution of income, and on aggregate demand, public expenditure policies play a potentially major role in sustaining sound macroeconomic performance and promoting economic development.

The OECD Secretariat has done extensive work on expenditure policies of member countries, through special chapters in the *Economic Surveys* prepared by the Economics Department and in a number of *Public Expenditure Reviews* by the Public Governance and Territorial Development Directorate. These analyses have identified three sets of issues concerning public expenditure policies.*

- *Macroeconomic implications:* whether the overall level of public expenditure is appropriate to a country's economic circumstances; whether public expenditure growth is sustainable and controllable; and the degree and nature of any risks public expenditure policies may pose to macroeconomic stability.
- *Allocative efficiency*: whether public expenditures are distributed optimally with respect to social and economic goals; and the degree to which public spending in particular areas is the most efficient manner of accomplishing government goals *versus* alternatives such as regulation or reliance on the private sector. Issues about the appropriate allocation of expenditures across various levels of government could also be included under this heading.
- *Technical efficiency:* whether public expenditures are planned and implemented in an efficient manner. Public sector management issues, such as the budgeting process, oversight and evaluation of spending, fall under this heading.

This study examines issues concerning China's public expenditure policies falling mainly under the first two headings. The analysis is based on information gathered at the sub-national level in a number of provinces as well as official statistics published by the central government. The first two chapters examine the macroeconomic and allocation issues from a national

* See Atkinson and van den Noord, 2001. See also Joumard *et al.*, 2004, for a synthesis of the findings from OECD country analyses of expenditure policies.

perspective, while the third chapter provides an in-depth look at the current state, problems, and issues concerning expenditure relations among various levels of government. In addition, four annexes provide more details on fiscal relations among sub-national governments, spending in major categories, the estimation of financing gaps and the classification of expenditures.

As with its fiscal policies generally, China's current expenditure policies reflect a not yet complete transformation from the extensive government intervention characteristic of the previous centrally planned economy to the much more limited and focused intervention appropriate to a market-based economy. Completing this transformation is the greatest overall challenge to making China's public expenditure policies more effective in supporting its development and achieving its social goals.

The analysis in the following three chapters identifies five conclusions and related issues in these areas.

- While the *overall scope* of China's government spending does not appear excessive in relation to GDP when measured in terms of explicit government spending, the government controls or heavily influences a substantial amount of off-budget spending in various forms which, in other countries, are more typically left to private or non-state entities, or are carried out through the explicit government budget. The extensive resort to extra-budgetary and off-budget spending results in a severe lack of transparency in China's public spending and undermines accountability and efficient administration of that spending. This lack of transparency is accentuated by the continued use of systems for compiling and reporting government expenditures derived from the central planning era, which are based on administrative criteria that often make it difficult to determine how much is being spent on key economic functional areas, such as education or science, and by which government entities.
- China's public spending has recorded *rapid growth* over the past ten years and, although the rate has moderated somewhat since 2002, expenditures are significantly higher now relative to GDP than they were in the mid-1990s. These trends raise questions about the future prospects for aggregate spending and whether it is adequately controlled. The analysis suggests that growth in general government expenditure could slow significantly in coming years but that expenditure associated with contingent liabilities, primarily from the financial system, constitutes an important risk to the expenditure outlook.
- The *horizontal allocation of public expenditure* among key activities appears out of line with China's development needs and priorities in some important respects. International benchmarks and some other indicators suggest that China's government may need to spend more on key social services such as

education, health, and science and technology if it is to achieve its development objectives.

The two other issues concern the *vertical allocation of spending* among central and sub-national governments but have an important bearing on the first three.

- There are substantial *gaps* between the expenditure responsibilities of sub-national governments and the resources they have to finance these responsibilities. These gaps have been an important factor behind the growing resort to off-budget funds and to the growth in contingent liabilities. The gaps vary widely across provinces and are particularly severe for township and county governments. Disparities among provinces in these gaps are substantially the result of the uneven decentralisation of expenditure *versus* revenue assignments and the inadequacy of the central-local government transfer system. The disparities are further magnified for lower levels of government within provinces by the general lack of objective criteria to ensure that revenues are allocated in accordance with expenditure needs and by inefficiencies and distorted incentives in the allocation of spending by sub-national governments.
- The fiscal decentralisation system also creates *adverse incentives and limits accountability for expenditure decisions at the sub-national level*. Unfunded mandates from the central government have added to fiscal strains at the sub-national level. At the same time, sub-national governments' lack of discretion over tax rates together with China's top down system of evaluation and promotion of government officials creates strong incentives for sub-national governments to spend as much as they earn in revenue, without adequate regard to the social trade-off between the benefits of their expenditures *versus* the costs of the taxes that pay for them.

ISBN 92-64-01371-7
Challenges for China's Public Spending
Toward Greater Effectiveness and Equity
© OECD 2006

Chapter 1

Government Spending is Bigger than it Looks: the Need for Greater Transparency and Control

China's public expenditure policies have been rapidly evolving but still bear important vestiges from the central planning era. There is much public spending carried outside of the formal budget, including off-budget and often illegal outlays by local governments and spending associated with contingent liabilities of the state banks and other activities. After a long decline relative to GDP through the first half of the 1990s, public expenditures have risen quite rapidly over the past ten years although their growth has recently begun to moderate. There are reasons to believe that spending growth may moderate further in the medium term, but off-budget spending and contingent liabilities pose significant uncertainties to the outlook. Public expenditures are also highly decentralised but revenues are noticeably less decentralised and the system of fiscal transfers only partly makes up for the resulting gaps between mandated spending and revenues at the sub-national level. The resulting strains have encouraged the growth of illicit local government debt and engendered other problems. Reforms to improve the effectiveness with which public spending is planned and implemented have been gaining momentum but in most cases are still at an early stage.

This chapter provides an overview of China's public expenditures in the aggregate. China's public spending presents several distinctive features that are partly a legacy of the central planning era. There is a large gap between the overall size of public expenditures reported in the budget and the spending that the government is actually liable for that seriously impedes effective budget planning and management. As discussed in detail in the next chapter, the share of government expenditures on key social and development needs such as education and health is relatively low by international standards. And the rapid growth of government spending over much of the past decade raises questions about whether outlays will continue to grow as rapidly in the future as well as whether they are adequately under control.

China's highly but unevenly decentralised fiscal system has had a key influence on its expenditure policies and has contributed to many of its problems. Sub-national governments account for an exceptionally high share of total government spending but receive a much lower share of revenues, giving rise to a high dependence on transfers from higher to lower government levels. The result has been persistently large gaps between expenditure needs and the resources to finance them for many sub-national governments, particularly those in poorer provinces. These gaps are a key reason for the relatively low portion of China's overall government spending on education and other development needs and have also been an important factor encouraging the rapid growth of off-budget expenditures and contingent liabilities that constitute perhaps the biggest risk to the sustainability of China's public finances.

The Chinese authorities are making strong efforts to reform government institutional and management systems to improve the effectiveness with which public expenditure policies are planned, formulated and implemented. These efforts have focused on budget management reforms, notably to bring extra-budgetary spending onto the official budget and to rationalise systems for managing revenues and expenditures, but also include measures to improve the efficiency with which expenditure policies are implemented. These efforts are summarised in the last section of this chapter and are discussed extensively in the OECD study on *Governance in China* (OECD, 2005d).

Much of China's government spending is off the budget

Judging by its officially reported on-budget expenditures, China's government is relatively small, amounting to just over 20% of GDP in 2004

(Table 1.1). On-budget revenues are also relatively small at 18.9% of GDP in the same year (Table 1.3).

However, as Yang (2002a) has pointed out, on-budget expenditure and revenue to GDP ratios give only a partial view of the level of public finances in China because much of government spending and revenues are not counted in the official government budget. A key component of these transactions is in the form of "extra-budgetary" accounts that are nearly entirely controlled by local governments.[1] Extra-budgetary funds and fees (which comprise surtaxes, levies and user charges) are collected, allocated or arranged by government agencies or by other institutions and social organisations that perform duties delegated to them by the government.[2] Extra-budgetary expenditures, which are also high in several OECD countries[3] as well as many developing countries, are normally regarded as general government expenditures under OECD and IMF definitions. In 2003, extra-budgetary expenditure in China reached 3.4% of GDP or around one-sixth of on-budget expenditure. The ratio to GDP rose between 1997 and 2000, but has since

Table 1.1. **Government expenditure 1990-2004**

	On-budget expenditure[1]	Extra-budgetary expenditure	Social security funds expenditure	Government bond expenditure	Official expenditure (= On-budget + extra-budgetary + social security + government bonds)
	CNY billion	Share of GDP (%)			
1990	366.2	20.0	14.8	0.8	n.a.	35.6
1991	389.7	18.3	14.5	0.8	n.a.	33.7
1992	418.7	16.2	14.1	1.2	n.a.	31.5
1993	505.4	14.6	3.8	1.4	n.a.	19.8
1994	615.9	13.2	3.7	1.4	n.a.	18.3
1995	715.1	12.2	4.0	1.5	n.a.	17.7
1996	827.5	12.1	5.6	1.6	n.a.	19.3
1997	960.2	12.8	3.6	1.8	n.a.	18.2
1998	1 113.2	14.1	3.7	2.1	n.a.	19.9
1999	1 347.8	16.3	3.8	2.5	0.6	23.2
2000	1 616.5	18.1	4.0	2.7	0.7	25.4
2001	1 920.3	19.5	3.9	2.8	0.4	26.6
2002	2 231.3	20.7	3.6	3.2	0.2	27.7
2003	2 487.6	20.4	3.4	3.3	0.2	27.4
2004[2]	2 857.9	20.3	3.4	3.3	0.1	27.1

1. Total expenditure comprises on-budget and extra-budgetary expenditure, outlays of social security funds and central government bond issues on behalf of local governments. In addition, subsidies for state-owned enterprise losses (which are not included in official expenditure statistics) are added to total expenditure.
2. 2004 figures for extra-budgetary outlays and total expenditure are OECD estimates.

Source: Various editions of the *China Statistical Yearbook*, *Finance Yearbook of China* and CEIC database.

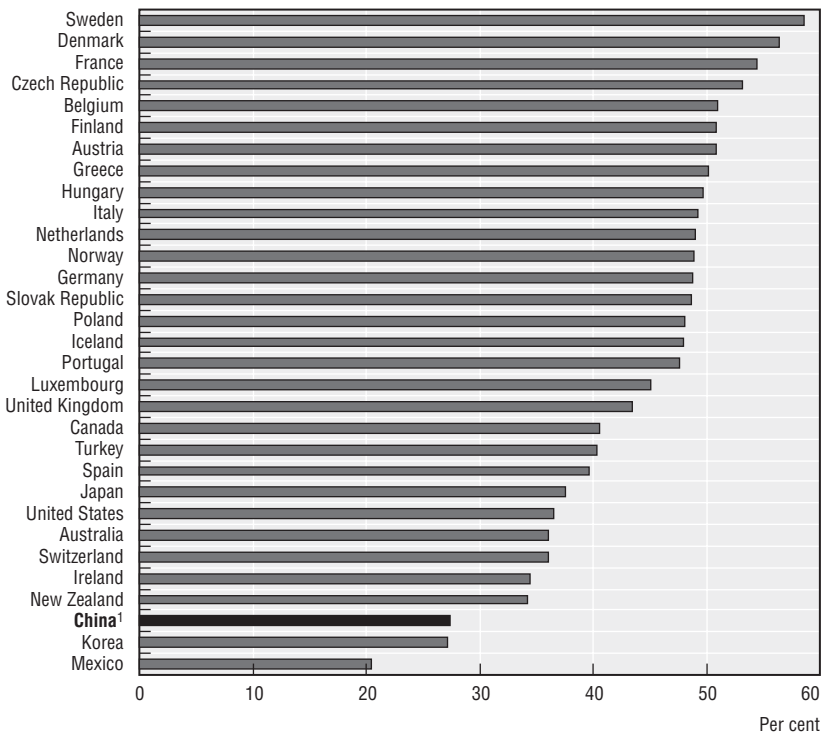
declined. Social security funds are also not included in the budget and amounted to an additional 3.3% of GDP in 2003.

Adding extra-budgetary and social security expenditures to on-budget spending gives what might be termed official government spending, which was 27.4% of GDP in 2003. Official spending is conceptually close to general government expenditure under OECD definitions.[4] The Chinese figure is well below the OECD average expenditure ratio for general government of 44.5% of GDP in 2003, and below that of virtually all individual OECD countries except Mexico and Korea (Figure 1.1).

In addition to officially recorded spending, there are three unrecorded components that are substantial. First, China has extensive *off-budget* expenditures and revenues, which, as with extra-budgetary revenues, are controlled by local governments. Off-budget expenditures are financed by

Figure 1.1. **Ratio of public expenditure to GDP**

2003



1. Total expenditure comprises on-budget and extra-budgetary expenditure, outlays of social security funds and central government bond issues on behalf of local governments. In addition, subsidies for state-owned enterprise losses (which are not included in official expenditure statistics) are added to total expenditure.

Source: OECD Economic Outlook 77 Database, National Bureau of Statistics and Ministry of Finance.

unauthorised fees and charges, often on an ad-hoc basis. Unlike the extra-budgetary funds, off-budget transactions are not legally sanctioned and no official statistics on their amounts are systematically compiled. However estimates by Wong (2001) and Ma (2000) suggest that off-budget expenditures have risen from around 2% of GDP in the mid-1990s to around 4% of GDP in the early 2000s. Adding estimated off-budget expenditures to official spending suggests a figure for China's general government spending (roughly in line with OECD definitions) of around 31% of GDP, still well below the OECD average but more in line with or above those of other emerging economies at a comparable stage of development.

Second, there are substantial *tax expenditures* in the form of preferences or exemptions for certain businesses. The most important are the extensive preferences enjoyed by foreign-funded enterprises, which typically are exempt from the corporate income tax in the first several years of their operation and which have also been exempt from tariffs on their imports of capital equipment and other inputs. The resulting revenue loss has been estimated to be on the order of 1.5% of GDP in 1996[5] and is probably significantly higher now given that the importance of foreign enterprises in the Chinese economy has increased substantially over the past decade.

Third, the true level of government commitment of social resources is still larger because of implicit or *contingent liabilities* that have accumulated as a result of various past government policies and which are widely expected to become manifest in a large increase in public debt at some future point. The largest of these comprises the portion of non-performing loans (NPLs) incurred by financial institutions (in large part) as a result of the government's past use of the banking system to support unprofitable state-owned enterprises (SOEs) or for other social purposes and which cannot be dealt with by the banks themselves or otherwise recovered. Two other components are the government outlays needed to cover the deficit in the social security funds; and potential liabilities incurred in restructuring or closing of state-owned enterprises.[6] Estimates in the OECD *Economic Survey: China* (OECD 2005b) suggest that the ultimate cost to the government from the NPLs amounts to around 30% of 2004 GDP. The unacknowledged past spending that led to this debt could have averaged on the order of 1 to 1.5% of GDP annually over the past twenty years.

The size of China's government would be even greater under a broader definition of government that includes outlays of quasi-government or ostensibly non-government entities, notably SOEs. In principle, SOE expenditures dictated by government mandates rather than their commercial purposes should be regarded as government spending. Such spending was substantial in the past but has become much smaller as the share of the SOE sector has declined considerably over the past decade and as SOEs have divested much of their non-commercial mandates as part of the broader effort

to make them profit making entities. Hence SOEs are becoming much more like their counterparts in OECD countries, where state enterprises are not regarded as part of the general government.

Spending has grown rapidly since the mid-1990s

The current size of China's government reflects very rapid growth in both spending and revenues since the latter half of the 1990s. On-budget expenditures grew at an average annual rate of 17% from 1998 through 2004, while official expenditures have increased at an average rate of 16% over the same period – substantially faster than the average growth of nominal GDP. As a result, official expenditures have risen considerably relative to GDP, from 17.7% in 1995 to a peak of 27.7% of GDP in 2002.[7] There has been some slowdown in spending growth in recent years, to an average rate of 13.2% during 2002-2004 and this, together with an acceleration in nominal GDP growth, led to a decline in official expenditure relative to GDP in 2003 for the first time since 1997.

The trend in expenditures associated with contingent liabilities is much more difficult to assess. These liabilities probably grew quite rapidly from the late 1980s through the mid-1990s as declining financial performance of the SOEs and the investment boom of 1993-1994 led to a sharp rise in loans that would later be recognised as non-performing. The improvement in credit quality of the banking system, and to a lesser extent and more recently in the rural credit system, that is generally acknowledged to have occurred since the banking reforms starting in 1996 suggests that the growth in contingent liabilities associated with non-performing loans has probably slowed substantially since the mid-1990s.[8] Since NPLs appear to be their largest component, this suggests that the growth of total contingent liabilities has been slower in recent years than during much of the 1990s.

The biggest contributors to the overall growth in official expenditures have been capital spending and administration outlays, which have grown at an annual rate of 19.9% and 28.4%, respectively, since 1998 (Table 1.2). Social welfare outlays, which grew even more rapidly but from an initially small base, were the third biggest contributor. Spending on education and health also increased more rapidly than GDP but their shares of total expenditure fell over 1998-2003. Expenditure on science grew slightly more rapidly than total expenditure over the same period. As with total spending, growth in most of these components has slowed noticeably during 1998-2002.

The rapid growth in capital spending reflects a marked increase in infrastructure spending in support of the government's programme to promote development of China's western regions. This spending was also aimed at bolstering aggregate GDP growth as aggregate demand slowed during the latter half of the 1990s. The infrastructure spending has been partly financed by

Table 1.2. **Growth rates in major expenditure categories**

Per cent

	1992-1997	1998-2003	Contribution to growth of total expenditure over 1998-2003
Administration[1]	21.8	28.4	21.1
Defence[1]	16.5	15.3	6.2
Education[2]	20.7	13.6	11.6
Health[2]	18.0	13.6	3.4
Science[2]	16.6	17.3	3.4
Economic services[1]	16.2	12.0	4.2
Social welfare[1]	16.4	73.0	15.8
Capital expenditure[3]	23.0	19.9	31.0
Social security Funds	33.0	19.7	15.2
Total expenditure[4]	10.8	16.2	n.a.

1. Figures for administration, defence, economic services and social welfare include only on-budget current expenditure.
2. Education, health and science figures also include related spending that is in the capital budget or in extra-budgetary outlays.
3. Capital expenditure is national accounts based and the growth rate and its contribution to total spending growth are calculated for 1998-2002.
4. Total expenditure comprises on-budget and extra-budgetary expenditure, outlays of social security funds and central government bond issues on behalf of local governments. In addition, subsidies for state-owned enterprise losses (which are not included in official expenditure statistics) are added to total expenditure.

Source: Calculated from various editions of the *Finance Yearbook of China*.

central government bond issues and partly by local governments. The rapid growth in spending on administration is substantially attributable to a series of pay increases granted to government employees. These have led to a near doubling of total government salary payments since 1998 and have more than offset substantial cuts in public sector workforces, particularly at the central government level.[9] As with total spending, growth in outlays for capital investment and administration (along with most other major components) has slowed noticeably since 2002.

The rapid growth of government spending since the latter half of the 1990s can be viewed at least in part as a correction of the secular decline in the size of China's official government spending from the late-1980s to the mid-1990s. This decline reflects the shrinking importance of SOEs – the main tax base – in the overall economy and their declining profitability, along with difficulties in collecting taxes from non-state enterprises. By the mid-1990s, China's official government spending had fallen to around 18% of GDP, and spending on infrastructure and other key areas was below levels, that by international standards, were needed to meet China's development needs (World Bank, 1996). Beginning with the 1994 tax reform, authorities have placed a high priority on expanding the tax base and improving collection. These efforts, together with a recovery in business profits, have led to an increase in the ratio of official

government revenues relative to GDP from a low of 17% in 1995 to an estimated 26.5% in 2004 (Table 1.3).

Several considerations suggest that some of the pressures that have driven spending growth over the past five years will abate, although others could increase.

- Growth in government investment should be noticeably slower over the medium term than its average during 1998-2004 for at least two reasons. First, a growing portion of infrastructure investment is being financed from non-state sources. And second, the boom in non-state investment more generally and in exports has made fiscal stimulus via government infrastructure spending less necessary. This suggests that government investment as a share of GDP is unlikely to increase further, and it could even fall somewhat. Indeed, capital spending growth has slowed significantly over the past three years.
- Similarly, barring further major increases in salaries of government workers, spending on public administration is also likely to at least decelerate, and could even fall relative to GDP as efforts to cut government workforces at lower levels of government proceed.
- At the same time, spending on education, health, science, pensions, and other key human and development needs are likely to rise as a share of GDP

Table 1.3. **Government revenue 1990-2004**

	On-budget revenue		Extra-budgetary revenue	Social security funds revenue	Official revenue (= On-budget + extra-budgetary + social security)[1]
	CNY billion	Share of GDP (%)			
1990	351.6	19.2	14.8	1.0	35.0
1991	366.0	17.2	15.2	1.0	33.5
1992	392.8	15.2	14.9	1.4	31.5
1993	476.0	13.8	4.2	1.5	19.4
1994	558.4	12.0	4.0	1.5	17.5
1995	657.0	11.2	4.1	1.7	17.0
1996	774.5	11.3	5.7	1.8	18.9
1997	902.0	12.0	3.8	1.9	17.8
1998	1 020.9	12.9	3.9	2.1	18.9
1999	1 173.4	14.2	4.1	2.7	21.0
2000	1 367.4	15.3	4.3	3.0	22.5
2001	1 668.6	16.9	4.4	3.1	24.4
2002	1 916.3	17.8	4.2	3.8	25.7
2003	2 194.2	18.0	3.8	4.0	25.8
2004[2]	2 657.4	18.9	3.7	4.0	26.5

1. Total revenue comprises on-budget and extra-budgetary revenue and payments to social security funds. Subsidies for loss-making state-owned enterprises are added to revenue from which it is deducted in Chinese accounts.
2. Figures for 2004 extra-budgetary and total revenue are OECD estimates.

Source: Various editions of the *China Statistical Yearbook*, *Finance Yearbook of China* and CEIC database.

CHALLENGES FOR CHINA'S PUBLIC SPENDING – ISBN 92-64-01371-7 – © OECD 2006

if needed reforms to the allocation of public expenditure are undertaken (see the next chapter). Interest on the public debt is also likely to increase relative to GDP once the public debt arising from non-performing loans is taken on.

- On-budget spending is likely to rise relative to GDP, and become closer to official and general government spending, as efforts to move extra-budgetary and off-budget activities onto the budget proceed.

Overall, these considerations suggest that the growth in *official* government spending (at least excluding interest payments on the national debt) may slow further over the next several years. The extent to which spending rises further relative to GDP is likely to depend heavily on the future trend in revenue growth. Overall official public expenditure is unlikely to grow more rapidly than revenue since authorities are reluctant to allow the budget deficit to rise.

Over the longer-term, China will face substantial additional demands for pension, unemployment, and other safety net expenditures as it expands coverage to rural workers and to those in urban areas that are now uncovered; however the pace of this expansion is subject to policy decisions of the central government.[10] Probably the two biggest uncertainties in the medium term are outlays for public health, which are subject to the risk of another outbreak of severe acute respiratory syndrome (SARS) or other epidemic (and to the longer-term risk of AIDS) and interest to service the additional public debt resulting from financial system non-performing loans. This latter item could add on the order of 1-2 percentage points of GDP, depending on how large the increase in government debt required to resolve the past NPLs turns out to be.

There are more significant risks to the outlook and controllability of China's overall public expenditures from those areas that are presently off-budget. Despite official efforts to curb it, the incentives for off-budget spending by sub-national governments, and the associated accumulation of illicit local government debt, remain strong.

The future outlays arising from contingent liabilities probably represent the most difficult element of government spending to predict and to control. In particular, new NPLs that may arise from past and future lending, to the extent they require further government support to be dealt with, represent an additional implicit outlay of the government, albeit one that is very difficult to assess. There are significant uncertainties about the cost of social security obligations, particularly during the transition to a more universal system.[11] The future cost from SOE restructuring is also unclear, although much of it is likely to be manifest in further non-performing loans to banks. Overall, contingent liabilities, particularly those associated with NPLs, probably constitute the greatest source of uncertainty surrounding China's future public expenditures.

Outlays are highly decentralised

Fiscal relations among different government levels in China are characterised by a comparatively high but also uneven degree of decentralisation that helps explain much of the distinctive characteristics of its government spending. The central government is almost entirely responsible for spending on national defence but most other major activities, including spending on education, health, and social welfare are largely the responsibility of sub-national governments (Table 1.4). Infrastructure spending is shared between the central and sub-national governments. The division of responsibility for expenditures within provinces is less formalised but typically sub-provincial governments bear the main responsibility for expenditures within their jurisdiction assigned to the sub-national level. The devolution of expenditure responsibilities to sub-national governments has been further accentuated by central government-imposed requirements to support workers laid off from SOEs and other unfunded mandates.

Table 1.4. **Expenditure assignments**

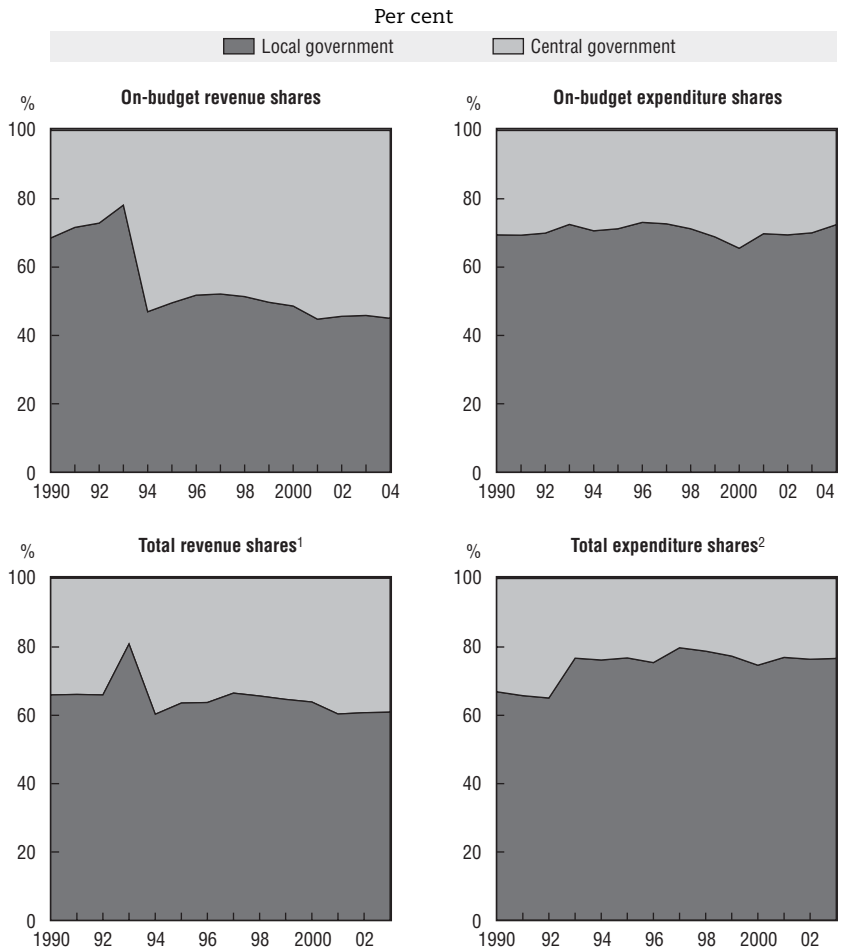
Central	Sub-national	Shared responsibilities
National defence	Sub-national government administration	Capital construction (infrastructure projects of national and interregional nature are undertaken by the central government, local projects by sub-national governments)
Armed police troops	Innovation and science and technology promotion funds of locally controlled SOEs	Operation of agriculture and production support
Diplomacy and external assistance	Urban maintenance and construction	Culture, education, science and public health(the central government is responsible for items of national importance and higher education in general while the location principle applies for the rest)
Central government administration	Price subsidies	Social security funds (the central government makes up partly for the shortfall of PAYGO components of locally managed social security funds)
Innovation and science and technology promotion funds of centrally controlled SOEs	Public security agency, procuratorial agency and court of justice at the sub-national level	
Geological prospecting	Social security-related expenditure	
Principal and interest payment on domestic and foreign government debt		
Public security agency, procuratorial agency and court of justice at the national level		

Source: Ministry of Finance.

CHALLENGES FOR CHINA'S PUBLIC SPENDING – ISBN 92-64-01371-7 – © OECD 2006

As a result of this expenditure assignment, China's sub-national governments account for an unusually large share of total public outlays. The sub-national share of on-budget government expenditure was 70% in 2003 and the corresponding share of total government expenditure was even higher, at nearly 77% in the same year (Figure 1.2). With off-budget

Figure 1.2. **Trends in sharing of expenditure and revenue between central and local governments, 1990-2004**



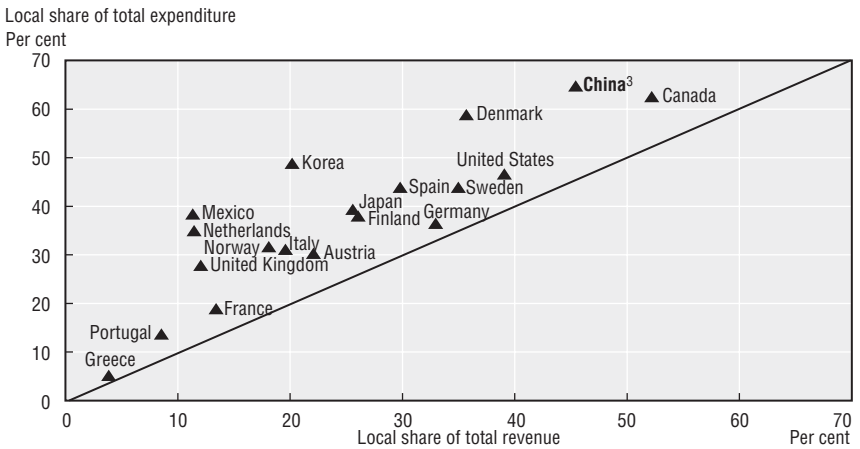
1. Total revenue comprises on-budget and extra-budgetary revenue and payments to social security funds. Subsidies for loss-making state-owned enterprises are added to revenue from which it is deducted in Chinese accounts.
2. Total expenditure comprises on-budget and extra-budgetary expenditure, outlays of social security funds and central government bond issues on behalf of local governments. In addition, subsidies for state-owned enterprise losses (which are not included in official expenditure statistics) are added to total expenditure.

Source: Various editions of the *Finance Yearbook of China*.

outlays included, the share of sub-national spending probably would be over 80%. The degree of decentralisation is therefore much higher than in most OECD countries (Figure 1.3), including those with explicit federal structures. China's share is also higher than those found in any of the large emerging economies (including Russia, which is considered to have a very decentralised system but whose sub-national share of public expenditure was 55.4% in 2002).

China's government revenues are also highly decentralised (Table 1.5), although less so than expenditures (Figure 1.3). Under the 1994 tax reform, the major tax revenues are subject to explicit sharing formulas between the central and provincial governments (Box 1.1). However the rates and the tax bases are determined by the central government with little discretion for sub-national authorities.[12] Sub-national governments accounted for 45.8% of on-budget and 60.9% of total revenue in 2003. These shares, particularly the first, are noticeably below the corresponding ratios for sub-national expenditure. Moreover, the revenue ratio is lower than in the early 1990s, largely as a result of the increase in the central government share that was a key objective of the 1994 tax reform.[13] (The system of expenditure assignments was not altered by this reform). Transfers from the central to provincial governments to bridge this gap have risen substantially since the 1994 tax reform, and now account for nearly one-third of total central government outlays.

Figure 1.3. **Government expenditure and revenue: the local share**[1]
2003[2]



1. Social security outlays are not included in the local spending but are included in total expenditure figures.
2. Or latest year available: 2000 for Japan, 2002 for Denmark, Korea and Mexico.
3. Chinese local expenditure data include on-budget and extra-budgetary accounts and central government bond issues on behalf of local governments.

Source: Ministry of Finance and OECD, National Accounts Database.

Table 1.5. **Revenue assignments**

Central	Sub-national	Shared revenues
Tariffs	Business tax (except banks, nonbank financial institutions, insurance companies and railroads)	VAT (75% central-25% local)
Consumption taxes	Profits from locally controlled SOEs	Stamp tax (97% central-3% local)
Income taxes of centrally owned SOEs	Urban land use tax	Corporate and individual income taxes (60% central-40% local)
Import-related consumption taxes and value-added taxes (VATs)	Urban maintenance and development tax (except banks, nonbank financial institutions, insurance companies and railroads)	Resource taxes (offshore oil belongs to central, the rest to sub-national government)
Taxes on banks, nonbank financial institutions and insurance companies (business taxes, income taxes and urban maintenance and development tax)	Fixed asset investment adjustment tax	
Taxes on railroads	Housing property tax	
Profits from centrally controlled SOEs	Agriculture-related taxes	
	Contract tax	
	Tax on use of arable land	
	Tax on land value increase	

Source: Ministry of Finance.

While the transfer system between central and local governments does reduce disparities in tax revenues, it has not been able to prevent large gaps between expenditure responsibilities and revenues in the majority of provinces, particularly those in the central and western regions. Within provinces, tax revenues and transfers tend be a "trickle down" process in which higher levels of government decide how much to allocate to their lower levels, according to criteria which are largely unregulated and vary widely across China. This process tends to make the gap between expenditure responsibilities and financial resources to meet them all the more severe for the lowest levels of government – counties, townships and villages. (These issues are discussed in more detail in Chapter 3.)

Fiscal decentralisation, along with the substantial and growing gap between sub-national expenditures and revenues, has had an important influence on China's government expenditures. First, the system has encouraged the resort to extra-budgetary and off-budget funds. Given the greater ease with which governments in wealthier regions can impose fees and charges, this also tends to exacerbate the discrepancies in fiscal resources between regions. The fiscal system also has contributed to pressures and

Box 1.1. **China's tax sharing system**

In China most taxes belong to the central or to local governments, but some important taxes are shared such as the value-added tax, the corporate and individual income taxes and the stamp tax (Table 1.5). In the case of the central government, shared taxes make up the largest part of revenue. Nearly 45% of central revenue comes from the value-added tax, which is shared in a 75-25% proportion between central and sub-national governments. The central government's share of the corporate income tax adds a further 17% of central revenue and the personal income tax a further 6%.

Shared taxes are major sources of revenue for most government levels but their importance is greater at the central government level. While shared taxes are the main source of revenue for the central government (which has few tax sources exclusively assigned to it), for local governments shared taxes have a much lower weight in total (own) revenue, making up only around 36% in 2000-2002. Provincial governments have no power to determine either the base or the rates of local taxes but they do have discretion over extra-budgetary funds and fees. Sub-national governments rely heavily on transfers due to the low share of own revenue or shared taxes relative to expenditure. The dependence, however, varies greatly across provinces. In half of the provinces, the transfer from the central government is larger than the provinces' own revenues while there are only seven provinces and municipalities where less than one third of total revenue comes from transfers.

Tax sharing of the corporate and individual income tax started in 2002 with the objective to increase central government revenues to be used for transfer to the central and western provinces.[*] The taxes were initially shared in equal proportions between the central and local governments, but the central government share was raised to 60% for 2003 and 2004. Certain industries and institutions are exempt from the sharing rule and corporate income taxes collected from them continue to belong to the central government. These include rail transport, the four state-owned commercial banks, the policy banks (the Agriculture Development Bank of China, the Export-Import Bank of China and the China Development Bank) and offshore oil and natural gas exploring enterprises. Prior to the income tax sharing reform in 2002, the personal income tax on interest income belonged to the central government while the personal income tax revenue from non-interest income was assigned to the local level. From 2002, all revenues from the personal income tax are shared. The stamp tax has long been shared between the two government levels, but the central share has been increased several times, from 50% in 1994 to reach 97% in 2002.

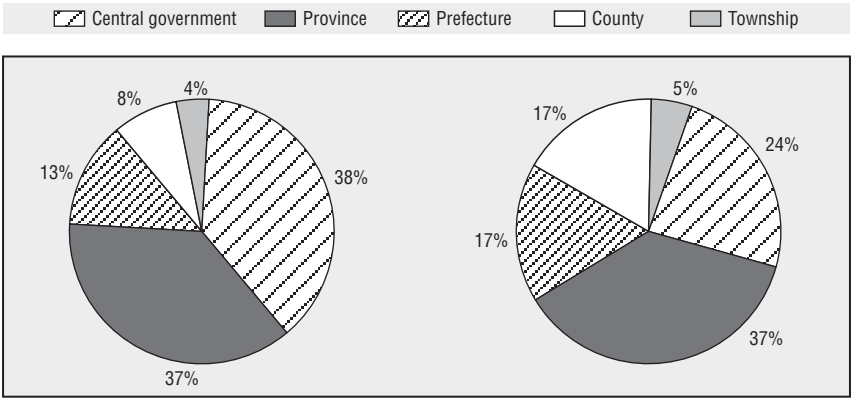
Box 1.1. **China's tax sharing system** *(cont.)*

The reform of the tax-sharing system in 1994 reversed the declining trend in the share of central government revenue in total on-budget revenue. After the reform, the central share in total on-budget revenue stabilised at slightly over 50%. The local share of on-budget expenditure, on the other hand remains at around 70%, which implies that local governments are highly dependent on central transfers.

* Having the 2001 collection as base, if collection of income taxes according to the new sharing rules does not reach this base level, the central government makes up for the difference through a transfer (this new sharing rule introduces a new tax rebate item in the transfers called "income tax base level subsidy" from 2002) and if collection is higher than the base figure, the increase belongs to the central government.

Figure 1.4. **The distribution of revenue and expenditure across government levels**

2002



Source: OECD calculation from the *Finance Yearbook of China*, 2004, the *Prefecture and County Level Public Finance Statistics 2002* and the *2001 Census* by the Rural Society and Economy Survey Group of the National Bureau of Statistics.

incentives of local governments to engage in illicit borrowing or to use local SOEs as vehicles to borrow from banks, thereby potentially contributing to the growth in contingent liabilities. The overall effect is to seriously weaken accountability and transparency of the system as a whole. Likewise, the system makes it difficult for the central government to oversee the spending of local governments or other administrative units affiliated with them.[14]

Local fiscal autonomy is limited by centralised control of policies

The large degree of devolution of spending responsibility to the local level would suggest that China's fiscal system is a *de facto* federalist one. However a closer look at the degree of autonomy local governments have over expenditure decisions, or discretion to raise revenues, reveals a highly centralised system in which local governments are effectively agents acting on behalf of the central government. The contrast between the nominal decentralisation of responsibilities and the high degree of centralisation of actual authority is further accentuated by the lack of elections or other formal mechanisms for holding local officials accountable to the citizens under their jurisdiction for their performance.

Constraints on the autonomy of local governments are manifest in numerous ways including the target responsibility system that provides incentives for local cadres to allocate resources to match preferences of the higher government level and thus increase their career possibilities. At least in the past, local governments' low degree of fiscal discretion, in terms of their freedom to determine the tax base and tax rates, has created incentives to protect local businesses, their main sources of revenue, from outside competition.[15] Unfunded mandates from higher levels of government represent another constraint on local autonomy[16] and they distort the allocation of spending in favour of easily measurable outputs. Other local autonomy-reducing measures include imposition of central government norms on the public goods provided locally or introduction of fiscal rules (see further Li, 2003, Jia, 2004 and Hu, 2000). Passing down national development targets, such as the achievement of nine-years of compulsory education or a minimum level of expenditure per head on birth control, to lower level governments is often done without matching financing sources.

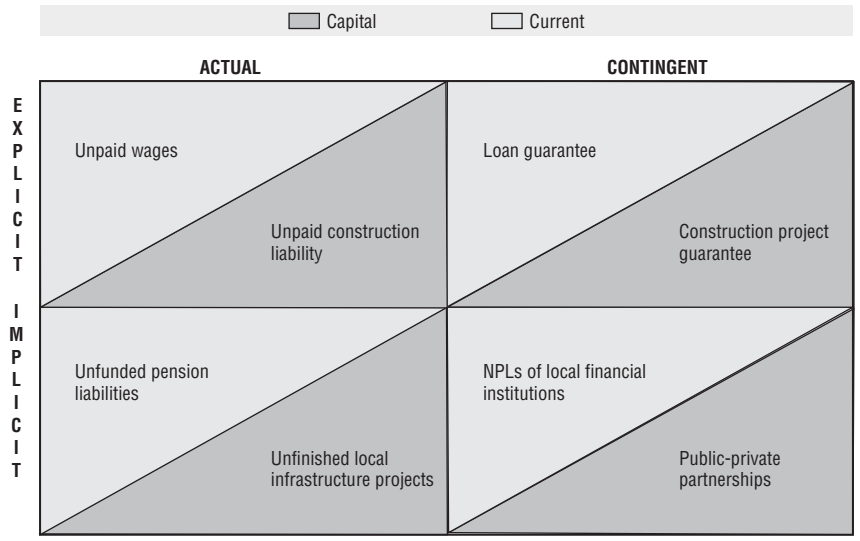
Coupled with the target responsibility system that gives priority to spending related to national goals, these obligations create an incentive to allocate comparatively fewer resources to less visible expenditure. The imposition of the same norms across the country, without funding, hits comparatively more the less endowed local governments. Central norms and unfunded mandates help explain the proliferation of extra-budgetary and off-budget revenues at the local level. The recent decision to eliminate these practices and to bring all revenues and expenditures on-budget will further constrain local governments' fiscal autonomy. Balanced budget requirements embedded in the Budget Law (see below) already limit the ability of local governments to overcome temporary liquidity problems or to undertake longer investment projects. Issuing central government bonds on behalf of local governments eases the need for local governments to use their own funds for capital spending, but can also reduce local autonomy.

Limited autonomy encourages accumulation of illegal local government debt

Problematic fiscal relations between the centre and the regions underlie a development that has raised considerable concern – the growth of local government debt, most of which is illicit. Under Article 28 of the Budget Law,[17] all local government budgets must be balanced at any level *ex post* in each year. Sub-national governments, although responsible for infrastructure investment within their jurisdictions, normally are not allowed to borrow or issue bonds on their own responsibility. They are allowed to carry over surpluses from the previous year but in most cases these are insufficient to finance capital spending. A special clause of Article 28 of the Budget Law allows for debt issue by local governments but only under special circumstances and with the approval of the State Council. To reconcile the need for financing of local capital investment with the prohibition of debt issue by local governments, the central government started to issue bonds on behalf of local governments beginning in the second half of the 1990s. In practice, such financing of projects is typically granted on an *ad hoc* case by case basis irrespective of the financing capacities and fiscal needs of the local government. The requirement to match central expenditure with own funds poses an additional burden on less wealthy local governments and drains funds from spending on other items such as education or social security.

Notwithstanding the prohibition of local borrowing by the Budget Law, debt exists at all sub-provincial levels. Figure 1.5 provides a summary of types

Figure 1.5. **Types of local government debt in China**



Source: OECD compilation.

of local government debt in China. Probably the most visible and, due to sporadic protests and demonstrations, the most discussed form of local debt is wage arrears. Many grass root-level governments are reduced to barely subsistence level budgets (*chifan caizheng* – basically a policy of survival that consists in barely being able to pay bills or running expenses) and quite a few run continuous budget deficits. Persistent operational deficits, unpaid bills, and the accumulation of illicit debt are all symptomatic of inadequate fiscal resources to meet expenditure needs. These in turn can be traced to the lack of effective transfer and other policies to address disparities among sub-national governments.[18]

It should be noted that local government debt is not entirely due to vertical imbalances (*i.e.* the mismatch of expenditure mandates and revenue assignments) in the fiscal system. Several other elements inherent in the system create perverse incentives at the local government level and encourage the accumulation of debt. The lack of accountability that goes together with the target responsibility system and priority given to capital spending encourages local governments to undertake all sorts of investment projects. A large variety of debt is related to the construction industry. Local government unpaid construction works are an explicit liability of local governments, while guarantees for construction projects are contingent liabilities. Public-private partnership projects can also turn into a liability if the project's yield, which is usually guaranteed at least implicitly, is lower than anticipated; in such a case, local authorities may have to bail the project out.

Borrowing from banks or rural credit cooperatives for liquidity purposes by prefectures or municipal governments is common in some provinces while prohibited in others.[19] Given the increased risk-awareness and commercialisation of operations of financial institutions, only local governments with a good credit history and viable budgets (in principle) have access to loans.[20] Those that have no access to the commercial loan market can apply to the upper government level for temporary liquidity loans. Because of the highly vertical hierarchy of the system, the problem of debt related to unfunded mandates is most acute at the lowest levels of government. At the village level, which is not a separate accounting unit but which still has to foot the bill for operating and staff expenses, bailouts by upper level governments are not uncommon (Rong, 2004). There has, however been no precedent in which higher government levels (*i.e.* counties or prefectures) have received unconditional bailouts.

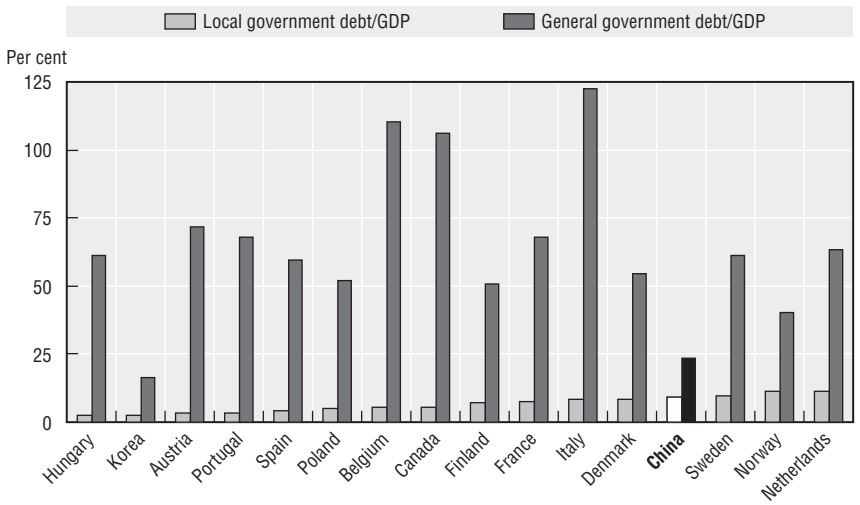
Estimates of the size of local government debt vary considerably, which is not surprising given the absence of effective accounting and monitoring systems that allow much room for creative budgeting. The Ministry of Finance estimates the size of township and village debt at around CNY 300-400 billion, or 2.5%-3.3% of GDP in 2003, but gives no figures for county level debt. Unofficial estimates of local debt including the county as well as township and

village levels range from CNY 363 billion (Lin, 2003) or 3.5% of GDP in 2002 to as much as CNY 1 trillion, or 9.3% of GDP for the same year (Song, 2003; Zhou, 2004). Even under the larger of these estimates, China's local government debt is lower as a ratio to fiscal revenue than in many OECD countries (Figures 1.6 and 1.7). On the other hand, the ratio of local government debt to GDP is higher than in many OECD countries, as is the portion of total government debt owed by local governments (Figures 1.6 and 1.7).

Notwithstanding its share relative to GDP or own fiscal revenue, the importance of local government debt should not be underestimated. The first step in tackling the problem should be the assessment of the total size and types of debt at each government level as suggested by Wei (2004). Views differ as to whether indebted governments should be unconditionally bailed out. Some argue that a bailout is justified since at least some of the debt stems from unfunded mandates from the higher government levels. Others argue that no bailout is justified when debt reflects imprudent investment decisions.

The ultimate resolution of the problem of local government debt will need to involve a number of elements. Unfunded mandates, incentives for inefficient spending, and the undue influence of local governments on lending decisions by local financial institutions need to be curtailed while the accountability of those governments for their spending decisions needs to be increased. Once reforms to accomplish these objectives are firmly in place,

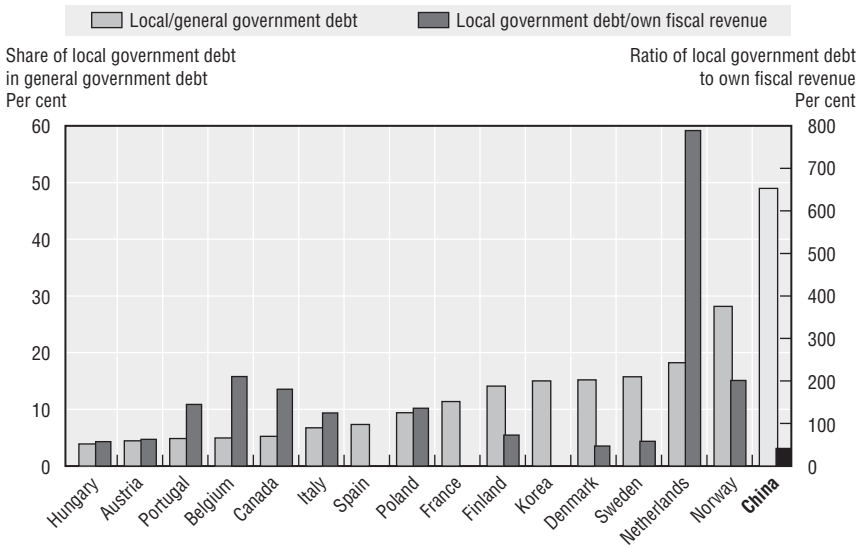
Figure 1.6. **Ratio of local and general government debt to GDP**
2002



Source: OECD Annual National Accounts Database, Song (2003), Zhou (2004) and Ministry of Finance.

Figure 1.7. **Ratio of local government debt to general government debt and own fiscal revenue**

2002



Source: OECD Annual National Accounts database, Song (2003) and Ministry of Finance.

consideration could be given to allowing responsible local governments to issue debt to finance investment projects under well-specified circumstances. However there will also need to be improvements in financial markets, notably a well-functioning credit-rating system and an efficient bond market that can accurately price debt according to risk, as well as a more transparent and comprehensive system of budget accounts for local governments.

Spending needs to be carried out more effectively and efficiently

China's transition to the market economy has increased the need for better institutions and mechanisms for the formulation, planning, and implementation of its expenditure policies. Recognising that how public spending is carried out is as important to its effectiveness as how it is allocated, the authorities have been giving increasing priority to reforms to the budgeting process and to improving the efficiency with which public services are delivered. These reforms are summarised in this section and are examined in more detail in the OECD study on *Governance in China* (OECD 2005d).

Improving effectiveness through budget reform

China's traditional budget process has been impaired by the extensive activities that have been carried out outside of the budget, limited

transparency, and inadequate mechanisms for planning and coordination. Authorities have made important progress in recent years in modernising the budget process to address these problems.[21]

A major effort has been underway for a number of years to bring legitimate expenditure activities that have been carried out through extra-budgetary accounts or off-budget onto the regular budget. Beginning in 1998, a growing number of extra-budgetary expenditures have been brought into the budgets and many of the extra-budgetary fees and charges that have supported these expenditures have been converted into explicit taxes.[22] This policy has resulted in a reduction of extra-budgetary accounts from 5.6 and 5.7% of GDP in 1996 to 3½ and 3¾ per cent of GDP in 2003 for expenditures and revenues, respectively. Authorities have also been making vigorous efforts to suppress unauthorised off-budget funds and surcharges, especially for local authorities in rural areas.

- Significant progress has also been made in rationalising budget procedures. The coverage of the budget has become more comprehensive and the basic infrastructure for budget formulation and implementation has been put in place.
- The principle of separating income and expenditure (*shouzhi liantiao xian*) has been put into effect starting with pilot agencies and was further deepened in 2003 to bring 118 administrative charges collected by 30 government departments and institutions under budgetary control. The objective is to ensure that agencies' expenditures are confined to those that are needed to carry out their functions and are funded by the central budget. This system replaces the old "spend as much as you can earn" practice that prevailed for many spending areas.
- The separation of revenue from expenditure is supported by the central treasury account, which was established in 2001 and based on advice from multilateral agencies including the OECD. This system was instituted on a trial basis in six central government and ten provincial government departments and by 2003 was being applied in 82 government departments. Under the system, all revenues, regardless of their source, are paid into the central account and disbursements for authorised expenditures must be made from the same account.
- The introduction of departmental budgets in 2000 on a pilot basis was another milestone in the direction of making agencies and organisations accountable for their spending. In 2003, more departments were required to submit increasingly standardised budgets to the National People's Congress (NPC). Trial reforms to set the level of basic expenditures and fix the allowed number of employees and funding were extended to 118 more agencies below the ministry level under the central government.

Recently, the Ministry of Finance has also adopted a medium-term framework for aggregate government spending covering three years and which reflects the implications of current debt financing and structural changes. However, the inefficiencies that arise from annual appropriations for multi-year capital projects have not been fully addressed by this reform, as capital spending is planned at the National Development and Reform Commission (formerly known as the State Development Planning Commission), which has not yet adopted a medium-term framework. A move towards a comprehensive medium-term rolling budget should be considered to enhance the role of the budget as fiscal tool.

The new budget classification system adopted from 2004 (Ministry of Finance, 2004) brings data definitions closer to international standards. This new system will improve transparency and make it easier for authorities and outside observers to evaluate how much is being spent in key functional areas. However, more timely publication of accounts conforming to international standards could make international comparisons easier.

Important as the reforms that have been taken are, there is room for further improvement. Better accounting for implicit expenditures, such as tax expenditures, and, where sufficient information is available, provisional estimates of key contingent liabilities would help to provide a more accurate view of the scope of public spending and to predict future spending. Budget reforms have proceeded furthest at the central government level and in some of the major cities but have further to go at lower levels of government. The budget process also needs to be more completely integrated. Better integration of the budgeting processes for current expenditure and capital expenditure, now undertaken by the Ministry of Finance and National Development and Reform Commission respectively, would make overall budget planning and control easier. Better coordination of government staffing decisions, which are now the responsibility of the State Commission Office for Public Service Reform, with the fiscal authorities is also needed. Moreover, it is not clear how successful the budget measures can be in curbing the resort to *ad hoc* fiscal activities by sub-national governments without more fundamental reform of the relations among government levels that currently create strong incentives for such activities.

Improving the efficiency of spending

In addition to the budget, the authorities are seeking to improve the efficiency with which public funds are spent. A key element of this effort is the reform of the nearly 1.3 million "Public Service Units" (PSUs) which now deliver a large portion of public services. The PSUs are a heterogeneous collection of institutions, ranging from schools, hospitals, science and research institutions to government sponsored cultural and social facilities.

These institutions perform a wide range of functions, some of which are carried out by private entities in many other countries, and operate in many cases under unclear mandates and guidelines as to their responsibility to the government. Reforms of the PSUs – which have been underway for nearly twenty years but which are far from complete – are focused on: determining which of the units should be privatised, converted into non-profit organisations, or into government agencies; and on improving their accountability and efficiency (OECD 2005d, Chapter 3).

The new system for public employee evaluation includes several indicators designed to strengthen incentives of public officials to carry out their responsibilities efficiently. This is a major improvement relative to the former scheme based entirely on local GDP growth, but growth figures still have a high weight. The proposed appraisal system for public officials – which at present is implemented in Qingdao City (Shandong province) – represents an attempt to adopt performance-oriented management practices. The large number of indicators, however, blurs priorities and makes it difficult to enforce accountability.[23]

Traditionally, evaluation of public spending has focused on ensuring compliance with legal and regulatory provisions rather than on *ex post* assessment of whether goals were met or the spending was carried out efficiently. Efforts to develop more effective evaluation tools are underway in some areas but are still at an early stage. A pilot project evaluating expenditure efficiency in health, education and agriculture support in Enshi Autonomous Region in Inner Mongolia in 2001 has been expanded to the whole country. The new system is based on benchmarking, *i.e.* expenditure benchmarks are established in various spending categories and actual expenditure is assessed against these benchmarks. This represents a shift of focus from inputs to outputs (*e.g.* from focusing on the amount spent on education to the number of students trained for a given amount of spending) and to a lesser extent to broader outcomes (*e.g.* the quality of education provided). The system now covers investment projects, public agencies (schools, hospitals, etc.) and government organisations. Developing nation-wide references and making them more comparable across regions and less dependent on the evaluating person's subjective judgement, however, could improve the benchmarks.

International experience indicates that competitive bidding for public procurement and removal of restrictions on choice of service providers can substantially reduce the costs of government services by enhancing competition among suppliers. The central government and a number of major cities have instituted rules for more open procurement and more than two-thirds of general government purchases were subject to some form of bidding in 2003 (Table 1.6). The share of market-based government procurement in

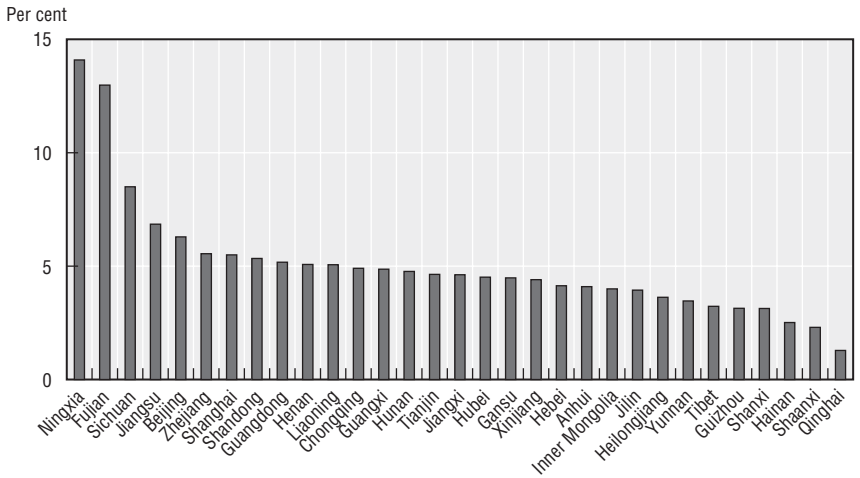
Table 1.6. **General government procurement types**
Per cent, 2003

	Open tender	Invited tender	Competitive bidding	Price inquiry	Single source
Goods	42.9	13.9	12.4	23.0	7.7
Processes	77.9	13.0	4.1	2.9	2.1
Services	50.0	12.3	14.8	13.0	10.0
Total	57.2	13.4	9.3	14.4	5.7

Source: "2003 Nian Quanguo Zhengfu Caigou Gongzuo Tongji Fenxi Baogao" (Statistical Analysis Report on National Government Procurement in 2003), Ministry of Finance.

total expenditures for sub-national governments varies across provinces (Figure 1.8). However participation in the bidding is not always open to all and competitive bidding is still fairly limited. As discussed further in the next chapter, improvement in the efficiency of public infrastructure spending is likely to depend on increased participation of private interests and companies.

Figure 1.8. **Share of market-based government procurement in total provincial expenditure**
Per cent, 2003



Source: "2003 Nian Quanguo Zhengfu Caigou Gongzuo Tongji Fenxi Baogao" (Statistical Analysis Report on National Government Procurement in 2003), Ministry of Finance.

Notes

1. Fees and funds stipulated by laws are registered under the fund accounts of the budget. Extra-budgetary accounts and statistical data for such revenues and expenditures are highly aggregated and are usually reported a year after the general budget figures are published.
2. For more details on the establishment of funds and levying of fees and surcharges at different levels and a more detailed description of the content of extra-budgetary accounts, see Annex D.
3. See Atkinson and van den Noord (2001) and Joumard *et al.* (2004).
4. The figures shown in Table 1.1 for official expenditure are somewhat higher than government expenditure on a national accounts basis (SNA) reported by the Chinese government. See OECD (2005b).
5. OECD (2002), chapter on the "Current tax system and priorities for reform", p. 634. Other such expenditures include the implicit cost of government mandated preferential credits from state controlled financial institutions and exemptions built into the personal income tax code.
6. As discussed in a later section, local governments, although not legally permitted to borrow to cover their expenditures, have incurred substantial illicit debt to financial institutions, non-financial businesses, and individuals. The expenditure associated with this debt is presumably included in the estimates of off-budget spending mentioned earlier. The amount of this debt that will ultimately be assumed by local or central governments is unclear, especially the portion owed to non-financial entities and individuals.
7. The estimates cited earlier suggest that off-budget spending may have grown even more rapidly than official spending. In particular, the estimated ratio of off-budget expenditures to GDP of around 2% in 1995 *versus* around 4% in 2002 implies an annual growth of around 20%.
8. Most observers agree that bank credit quality has improved significantly as a result of financial reforms since the mid-1990s. According to official estimates, the percentage of NPLs on new loans has dropped into the low single digits since 2000, a rate that, if sustained, would curtail the contingent liabilities of the government from this source. However, a number of considerations, such as the lengthening of average loan maturities, suggest that the incidence of new NPLs could turn out to be higher.
9. See Wong, 2005b. The salary increases also were partly aimed at providing a fiscal stimulus to aggregate demand. Central government workforces have fallen by nearly half since 1997 but cuts at lower levels, where most government workers are employed, have been much more modest.
10. Recent statements by government officials indicate that authorities plan to increase the portion of total expenditure going to social security by more than one-half (from around 10-11% now to 17%), although the time horizon is not clear (*People's Daily*, September 22, 2004).
11. Government outlays to cover social security deficits could rise significantly as older SOE workers with generous pension rights retire and to the extent that local governments continue to be unable to fully finance obligations they are in principle responsible for.
12. Sub-provincial governments have no power to determine either the base or the rates of local taxes except for the setting of the rate for the land use tax within a

predetermined range and the option of introducing certain minor taxes such as the entertainment tax. (Slaughter taxes were the other tax whose introduction was at the discretion of local governments and if a local government decided to establish this tax, they could decide whether to levy it by the number or the weight of the animals slaughtered. The importance of slaughter taxes diminished with the phasing out of agricultural taxes under the rural tax reform and they do not exist any longer.) They do have discretion, however, to levy certain fees and surcharges per head or based on other criteria such as turnover. Further insights into the fiscal relations among levels of governments within provinces are provided by case studies presented in Annex A.

13. Tsui and Wang (2004), Su and Zhao (2004), Zhang and Martinez-Vazquez (2003), the World Bank (2002) and OECD (2002) provide a more detailed analysis of central-local relations and the pre-1994 system. Zhang and Martinez-Vazquez (2003) argue that the rigidity of the earlier fiscal distribution between central and local governments implied a sharp decline in the central share as most of the turnover taxes, which registered the highest growth rates, were assigned to the province. Notably, the central share in total revenue declined from 36% in 1986 to 22% in 1993. At the same time, overall tax effort, measured by the ratio of total government revenue to GDP, decreased significantly. They also cite the difficulty of administering the system and its lack of equity arising from the negotiation of fiscal contracts between the central and provincial governments as catalysts for reforms.

14. Local governments often hid funds from the central government. These funds are often referred to as *xiao jinku* or small exchequers.

15. As discussed further in OECD (2005b), there is evidence that such regional protectionism has declined during this decade and that integration of regional markets has increased.

16. According to Jin and Zou (2003), unfunded mandates, by encouraging local governments to resort to extra-budgetary and off-budget revenues, soften budget constraints. They also provide a review of the sources and types of soft budget constraints at the local government level in China. Rodden *et al.* (2003) observe that the more dependent sub-national governments are on transfers, the "softer" the budget constraint they are likely to face. They also detail an arsenal of instruments to harden budget constraints. One such measure is the imposition of hierarchical controls. While such vertical controls may prove effective to reduce disincentives related to a soft budget constraint, they also constrain the ability of local governments to tailor their spending to local needs and preferences.

17. Passed at the second plenum of the 8th National People's Congress on 22 March 1994 and replacing the 1991 Budget Management Regulations. The Budget law came into effect on 1 January 1995.

18. For further discussion on the driving forces of local government debt and possible resolution methods, see Wei (2004) and Molnar (2004).

19. For a more detailed discussion of local governments' contingent liabilities, see *China Development Research Report* (2004) and Zhao and Zhang (2002).

20. It is less clear whether a financial institution operating in a city or county could turn down the loan application of the local government. Approval of such a loan would be more likely in the event that the local government is an owner of the financial institution.

21. Lou (2002) provides an overview of past reforms and future challenges for China's budgetary management.

22. Pilot projects to phase out unsanctioned fees and charges have been underway in several provinces under the aegis of the rural tax reform, with the central government typically providing additional transfers to make up, in principle, for the revenue loss. For further information on rural tax reforms see OECD (2005e), Rong (2004) and Zhang (2001).

23. There have also been proposals to introduce "green GDP" as an additional indicator from 2007. Green GDP is calculated by deducting the cost of resource depletion and other environmental externalities from the standard GDP figure.

ISBN 92-64-01371-7
Challenges for China's Public Spending
Toward Greater Effectiveness and Equity
© OECD 2006

Chapter 2

Where the Money is Going: A Reorientation Towards Human Development is Needed

Capital spending and public administration take a large and, until recently, increasing share of China's overall public spending. In contrast, the portion devoted to certain human capital and other development needs such as education, health, and science and technology appear somewhat low, both in relation to international standards and China's own goals. Education and health spending, which are largely the responsibility of local governments, are also highly unevenly distributed on a per-capita basis across provinces and between rural and urban areas within provinces. A number of considerations, including the opening of infrastructure projects to private capital and inefficiencies in public administration suggest that there is scope to reduce the share of public spending devoted to these activities in the future and to make way for increased spending on human and social development.

This chapter examines the allocation of China's government expenditure and reviews developments in the major categories. Currently, capital spending and public administration take the largest share of public expenditure and it is in these categories that, until recently, spending has been growing most rapidly. The authorities recognise the need to give more emphasis to human capital development, science and technology, and social welfare, but spending has been constrained by the often limited fiscal resources of lower government levels, which bear the main responsibility for such spending.

Spending is oriented to physical capital rather than human capital and social programmes

Examining the structure of Chinese government spending is greatly complicated by the continued use of a classification system derived from the former central planning system. Expenditures are generally classified according to the (formerly) responsible administrative units or by their line-entry in the government plan rather than by functional categories, so that spending on key activities is often divided among official classifications. For example, spending on school buildings and other major educational facilities is included in infrastructure spending while operating expenses are included in the broad category of "culture, education, health and science". Expenditures for many activities are also carried out both on-budget and through the extra-budgetary funds. The difficulty of interpreting expenditure data is further complicated by the high level of aggregation of published expenditure statistics for China as a whole. The overall result is to seriously limit the transparency of government expenditure policies.[1]

Nevertheless, the available data do indicate that China's public expenditures are characterised by a relatively low portion of spending allocated to human resource development, science and technology, and social welfare and a relatively high portion allocated to capital spending and to public administration. As shown in Table 2.1, about the same share of total spending is allocated to current administration expenditure as to operating expenditure in the areas of culture, education, public health and science. As discussed later, the severe financing constraints of local governments have much to do with the comparatively low fraction of government spending allocated to these latter activities compared with that borne by enterprises and private individuals.

Table 2.1. **Shares of major expenditure categories in on-budget expenditure and between central and sub-national governments**

2003

	Amount CNY billion	Per cent of on-budget expenditure	Central share Per cent	Local share Per cent
Current expenditure				
Administration	464	18.6	17.9	82.1
Defense	191	7.7	98.8	1.2
Culture, education, public health and science	471	18.9	10.8	89.2
Economic services	154	6.2	16.6	83.4
Pensions and social relief	266	10.7	9.0	91.0
Subsidies	84	3.4	28.1	71.9
Interest expense	96	3.9	99.1	0.9
Others	310	12.4	23.2	76.8
Capital expenditure				
Infrastructure	343	13.8	44.4	55.6
Development of production capacity of enterprises	109	4.4	24.6	75.4

Source: Finance Yearbook of China, 2004.

Although growing rapidly, spending on pensions and other social relief make up a relatively low fraction of total government expenditure (10.7% of on-budget expenditure and 2.2% of GDP in 2003). These low ratios, as well as the rapid growth of outlays in this area, reflect the still relatively underdeveloped state of pension, unemployment, and other social safety net government programmes in China. Likewise, China's ratio of interest payments on government debt, now just below 1% of GDP and about 4% of general government expenditure, is low by international standards, due mainly to its relatively low ratio of national debt to GDP.[2]

In contrast, the share of China's government spending allocated to investment is high by international standards, well above the OECD average and greater than in any OECD country. The level of capital spending has nearly doubled since 1998, due largely to the heavy infrastructure spending under the aegis of the Western Development Programme. The other notable spending item is administration, whose share (22.6%) of official government spending in 2002 was higher than in most OECD countries.

Education and health spending are unequally distributed

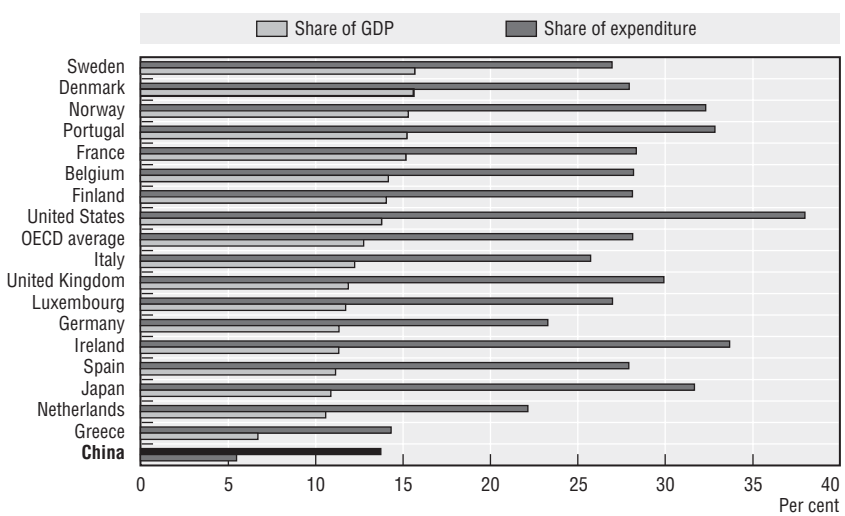
A relatively large share of on-budget spending is allocated to the operating expenses of culture, education, public health and science, but the share of expenditure on this category relative to total spending remains low.

Spending on this broad category made up 18.9% of on-budget expenditure and 3.7% of GDP in 2003. Spending on this category is highly decentralised: it was shared in an 11% to 89% proportion between central and local governments as of 2003 (Table 2.1). While full accounts of capital and other current outlays are not available for all subcategories for 2003, the aggregation of published data for 2002 suggests that spending in this major category could be as high as 13.8% of total spending or over 5% of GDP in the same year.[3] China's spending share on this broad category was well below the unweighted OECD average of 28.2% (Figure 2.1) and lower than in any OECD country for which data were available for 2002.[4]

The largest item in the broader category of current operating expenditure on culture, education, public health and science is education with a share of 8.9% of on-budget expenditure and 2.5% of GDP in 2002. Current operating expenditure on education grew at 17% over 1998-2003. It should be noted that total expenditure on education is not limited to operating expenses.[5] It also includes education-related infrastructure spending and other current expenditure items such as education-related expenditure in aid for less-developed regions, education-related operating expenditure of various other departments and expenditure of urban education-related surcharges[6] (Tables 2.2 and B.1). Additionally, rural expenditure based on rural education-related surcharges is not recorded on-budget.[7] Education operating expenses

Figure 2.1. **Ratio of expenditure on culture, education, public health and science to GDP and to total expenditure**

2002



Source: OECD Annual National Accounts database and *Finance Yearbook of China*, 2004.

CHALLENGES FOR CHINA'S PUBLIC SPENDING – ISBN 92-64-01371-7 – © OECD 2006

Table 2.2. **Trends in education-related general government expenditure for selected years**

	1995	2000	2001	2002	2003
Total education-related expenditure,[1] CNY billion	141.2	256.3	305.7	349.1	385.1
Growth rate, %	22.9	12.7	19.3	14.2	10.3
Share in total expenditure, %	13.6	11.3	11.7	11.7	11.6
Ratio to GDP, %	2.4	2.9	3.1	3.2	3.2
Total education-related on-budget expenditure,[1] CNY billion	110.3	221.6	272.9	328.7	365.7
Growth rate, %	22.8	15.0	23.1	20.5	11.2
Education operating expenses, CNY billion	89.2	176.4	220.8	264.5	293.7
Growth rate, %	21.4	14.6	25.2	19.8	11.1
Education infrastructure expenses, CNY billion	5.8	11.4	12.9	14.0	15.1
Growth rate, %	7.6	14.6	12.7	8.5	7.6

1. Total on-budget and total education-related expenditure figures do not correspond to the data in the *Finance Yearbook of China* as the two items of other on-budget current expenditure on education and other extra-budgetary expenditure on education are missing from that compilation.

Source: Various editions of the *Finance Yearbook of China* and the *Education Financing Statistics Reports* by the Ministry of Education.

stood at 2.5% of GDP as of 2002, but if other education-related on-budget expenses are included, they may be as high as 3% of GDP and once extra-budgetary expenditure on education is added, the figure may exceed 3.2% of GDP.

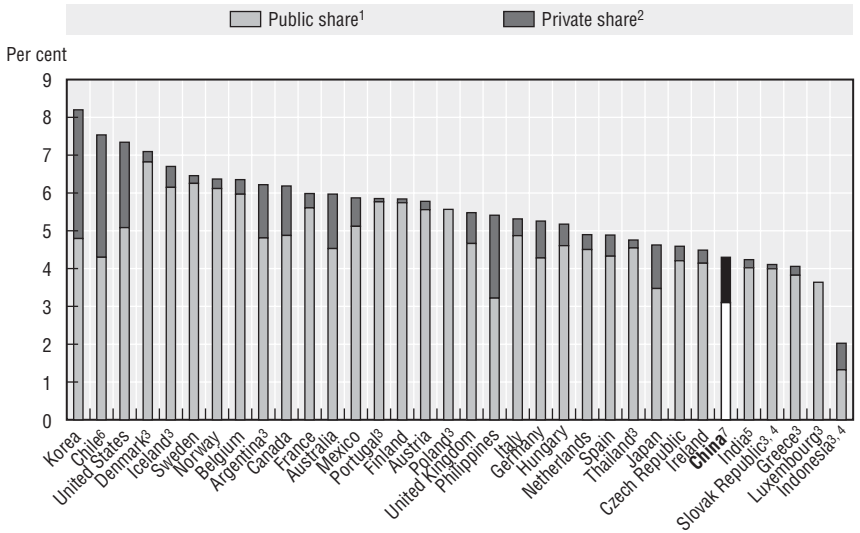
The lack of budgetary funds available for education purposes led to the proliferation of various fees and funds to meet the costs of education services. Only about two thirds of expenditure on education is provided directly from public funds, 88.5% of which come from local governments. The remaining financing of education in 2000 came from tuition and miscellaneous fees (24%), school funds of social organisations and citizens (2.2%), donations and other fund-raising activities (3%) and other revenues (3.9%).[8]

To assess how China compares with other countries, the ratio of total private and public spending on education is depicted, in descending order, in Figure 2.2 for 32 countries in 2001. China's ratio of 4.3% is among the lowest of the countries shown, below that in most OECD countries, just ahead of India and lower than the ratio in several other Asian developing countries with a similar or younger age structure of the population, notably Thailand and the Philippines. Furthermore, the private sector accounts for a relatively high portion of the total amount spent on education in China compared to other countries. China's ratio of public spending on education (3.1% of GDP in 2001) was the lowest of any of the countries shown except for the Philippines.

Education spending per capita (measured in purchasing power parity, PPP) is also low in international comparison, which partly reflects the low level

Figure 2.2. **Public and private education spending as percentage of GDP in selected countries**

Per cent, 2001



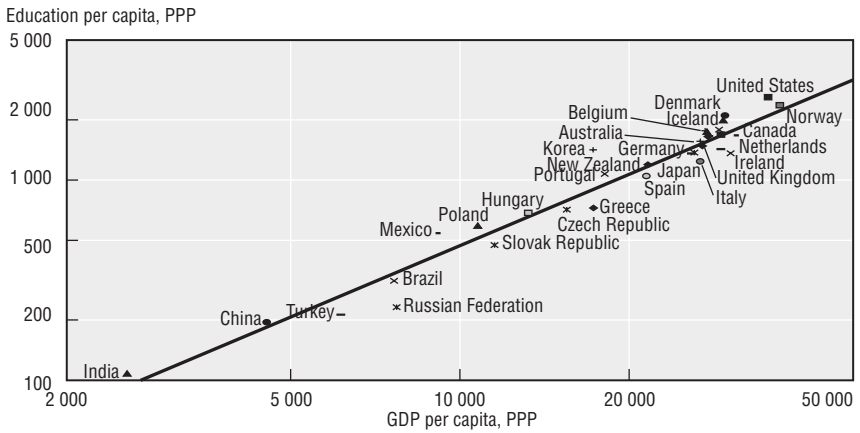
1. Including government subsidies to households for education and direct payments to educational institutions from international sources.
2. Net of public subsidies for educational institutions.
3. Public subsides to households are included in private expenditure.
4. Direct expenditure on educational institutions from international sources exceeds 1.5% of all public expenditure.
5. Year of reference 2000.
6. Year of reference 2002.
7. Includes on-budget and extra-budgetary education-related spending.

Source: OECD (2004) and *China Educational Finance Statistical Yearbook*, 2002.

of China's GDP per capita (Figure 2.3). Both education spending per capita and GDP per capita are, however, higher than in India (measured in PPP).

There is a large inequality in the distribution of spending on education across regions and across levels of education. The extent of the shortage of funds for education differs across the country and the outcomes vary widely. Also, a comparatively large share of education spending is channelled to tertiary education at the expense of primary and secondary education. The National Compulsory Education Programme promulgated in 1995 aimed at correcting for both discrepancies by targeting central education transfers to 592 poor counties (about one-fifth of all counties) and some other counties in the central and western region, mandating compulsory education of 9 years in cities and 6 years in rural areas, guaranteeing teachers' salaries (by shifting the level of government responsible for payment of teachers' salaries to the

Figure 2.3. **Education spending *versus* income per capita**[1]
2003



1. Education spending and GDP are measured in purchasing power parity. The purchasing power parity factors were calculated from the World Development Indicators database. The figure uses logarithmic scales.

Source: OECD (2004) and Ministry of Education.

county level in 2000 and to the central level in 2002) and providing free textbooks in many counties (including the poorest 592) from 2002.

Selected measures of education quality and outcomes at the national level (Table 2.3) do not point to any obvious inadequacy in China's total

Table 2.3. **Education quality-related indicators in selected countries**
Per cent, 2000

	Adult literacy rate	Secondary school enrolment rate (gross)[1]	Pupil-teacher ratio, primary school
China	90.9	68.2	19.6
Argentina	96.8	96.7	20.0
Brazil	86.4	105.3	24.8
India	57.2	48.5	40.1
Indonesia	86.8	56.8	22.2
Philippines	92.6	77.1	35.2
Russia	99.6	83.3	17.3
Thailand	92.6	82.8	19.1
Germany	n.a.	98.9	14.8
Japan	n.a.	102.5	20.4
United States	n.a.	94.1	15.4

1. Gross enrolment ratio is the ratio of total enrolment, regardless of age, to the population of the age group that corresponds to the level of education shown.

Source: World Bank, *World Development Indicators*, 2004.

spending on education relative to GDP. China's national literacy rate, rate of secondary school enrolment and the primary-school pupil-teacher ratio compare favourably to those of India and Indonesia and are close to those of some higher income developing countries such as Argentina; although adult literacy and secondary school enrolment are somewhat less favourable than in Thailand and the Philippines. However the relatively low portion of education funding supplied by the government has been an important factor behind the substantial inequalities in education spending and outcomes among regions. Improving education standards in poorer areas is likely to be needed to achieve government goals to improve the overall human capital of the workforce, reduce unemployment, and to ultimately reduce income inequalities among regions. Given the substantial geographic disparities in incomes in China, this in turn may well require a significant increase in education spending by the government.

Chinese authorities have long recognised the need for strong government support for education and education has been a key target of development policy and public expenditure during the past decade. As early as 1993, a medium-term objective for budgetary expenditure on education was set at 4% of GNP, to be reached by the end of the century.[9] This objective was originally set to approach the average ratio in developing countries, which stood at 4.1% of GDP in 1991.[10] As of 2003, however, this ratio had not been reached (it stood at nearly 3.2%). The latest objective set in the 10th 5-year plan is to achieve the 4% by 2005.[11] In an attempt to narrow the education financing gap, the central government allocated an additional sum of CNY 50 billion per year over 1998-2002. Due to the lack of public funds available for education spending, the participation of the private sector in providing education services is highly encouraged, though in the medium term the government is expected to remain the largest provider.

However, more than government money alone is likely to be needed. Government funds are often used in an inefficient way owing to the structure of education spending. As Jia *et al.* (2002) and OECD (2000) point out, in China a much larger portion of education spending is channelled to personnel expenses than in most other countries and half of personnel expenses is spent on non-teaching staff. Jia *et al.* (2002) also mention that the share of spending on infrastructure and equipment is relatively low compared to other countries.

As indicated in Tables 2.4-Table 2.6, expenditures in other key components of the broad category have lagged behind total spending. The share of all the main sub-components of "culture, sports and broadcasting related outlays" (which also include marine and earthquake related operating expenses and training expenses for the Communist Party) has fallen since 1997 relative to total expenditure and its ratio to GDP has only slightly risen during the same period (Tables 2.4 and B.2). In addition, current

Table 2.4. **Trends in culture, sports and broadcasting-related expenditure 1995-2003**

	1995	2000	2001	2002	2003
Total expenditure – culture, sports and broadcasting,[1] CNY billion	n.a.	36.7	n.a.	33.4	37.6
Growth rate, %	n.a.	n.a.	n.a.	n.a.	12.5
Share in total expenditure, %	n.a.	0.4	n.a.	0.3	0.3
Ratio to GDP, %	n.a.	0.4	n.a.	0.3	0.3
Culture, sports and broadcasting operating expenses, CNY billion	14.9	22.9	27.8	31.4	34.8
Growth rate, %	16.2	9.0	21.6	12.9	10.5
Culture, sports and broadcasting capital expenditure, CNY billion	n.a.	13.8	n.a.	2.0	2.9
Growth rate, %	n.a.	n.a.	n.a.	n.a.	44.7

1. The figures in the table may not be comprehensive as spending on culture, sports and broadcasting in other categories are not included. Neither is extra-budgetary spending in these categories included.

Source: Various editions of the *Finance Yearbook of China* and various editions of the *Wenhua Chanye Niandu Baogao* (Annual Reports on Culture Development).

expenditure on culture, the major component of this subcategory, has increasingly been financed from government sources: the share of public funds in financing culture-related current expenditure has increased from 58% in 1995 to 66% in 2003. The government's share in financing of culture-related infrastructure spending is even higher at 79% in 2003.[12]

Science-related expenditure has been growing at 17.3% on average in 1998-2003, only slightly faster than the growth of total expenditure of 16.3% during the same period. The share of science-related outlays stood at 0.8% of GDP and 2.9% of total spending in 2003 (Tables 2.5 and B.3). Among its components, science and technology promotion (belonging to capital expenditure) has been the single largest category.

The share of public health outlays in total government spending has fallen from 3.7% in 1995 (and 4% in 1994) to 3.4% in 2003 and represented only 0.9% of GDP (Tables 2.6 and B.4). The growth rate of health spending averaged 13.6% over 1998-2003, well below the growth rate of total expenditure at 16.2% over the same period (Table 1.2). Government outlays account for a comparatively low fraction of total spending on health in China. Moreover, rising health costs have reduced the government's share further, from 20% in 1998 to 17% in 2003. The decline in government financing of health expenditure is attributable to the reform of the health sector in 1996 to establish a market-based system.[13] Similarly to the costs of general health care (which are shared between the government, individuals and enterprises), spending of hospitals is also met from multiple sources. Hospitals finance

Table 2.5. **Trends in science-related expenditure 1995-2003**

	1995	2000	2001	2002	2003
Total science-related on-budget expenditure, CNY billion	30.2	57.6	70.3	81.6	97.6
Growth rate, %	17.2	13.8	22.1	16.1	19.5
Share in total expenditure, %	2.9	2.5	2.7	2.7	2.9
Ratio to GDP, %	0.5	0.6	0.7	0.8	0.8
Science operating expenses, CNY billion	9.7	18.9	22.3	27.0	30.1
Growth rate, %	15.6	14.3	18.0	21.0	11.5
Science infrastructure expenses, CNY billion	3.8	6.2	6.3	7.0	11.1
Growth rate, %	19.9	10.3	1.6	11.1	58.7
Science and technology promotion, CNY billion	13.6	27.7	36.0	39.9	41.7
Growth rate, %	16.8	15.3	30.0	10.7	4.5

Source: Various editions of the *Finance Yearbook of China*.

Table 2.6. **Trends in public health expenditure – general government 1995-2003**

	1995	2000	2001	2002	2003
Total on-budget health expenditure, CNY billion	38.7	71.0	80.1	86.4	111.7
Growth rate, %	17.4	12.9	12.8	8.0	29.2
Share in total expenditure, %	3.7	3.1	3.1	2.9	3.4
Ratio to GDP, %	0.7	0.8	0.8	0.8	0.9
Health operating expenses, CNY billion	17.7	29.6	34.1	38.2	n.a.
Growth rate, %	17.2	10.8	15.3	11.8	n.a.
Birth control operating expenses, CNY billion	3.2	6.5	8.2	8.2	n.a.
Growth rate, %	18.6	15.1	26.8	0.3	n.a.
On-budget infrastructure spending, CNY billion	1.2	2.9	4.8	4.6	n.a.
Growth rate, %	12.3	20.5	64.8	–4.0	n.a.

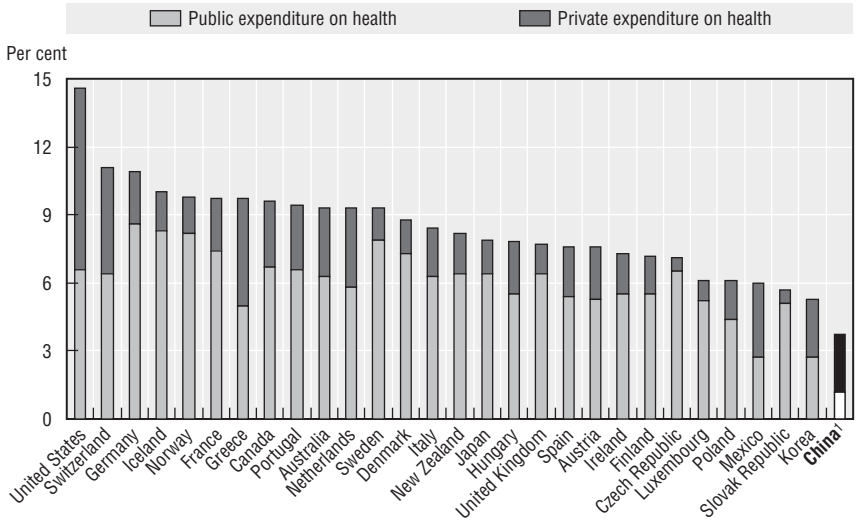
Source: Various editions of the *Finance Yearbook of China* and the *Health Yearbook of China*.

their capital spending and administrative and management expenses, but medical treatment, prevention and related items are financed from the budget of the respective level of government which owns the hospital.

China's total health expenditure at 5.4% of GDP in 2003 is only slightly lower than that of some OECD countries (Figure 2.4). But, as with education, the share of private financing is higher than in most OECD countries and spending per capita is considerably lower in poorer interior provinces and rural areas than in coastal provinces and cities. Health spending per capita (measured in purchasing power parity) is low in international comparison which, as in the case of education spending per capita, partly reflects the low level of China's GDP per capita (Figure 2.5).

Figure 2.4. **Public and private health spending as percentage of GDP in selected countries**

Per cent, 2002

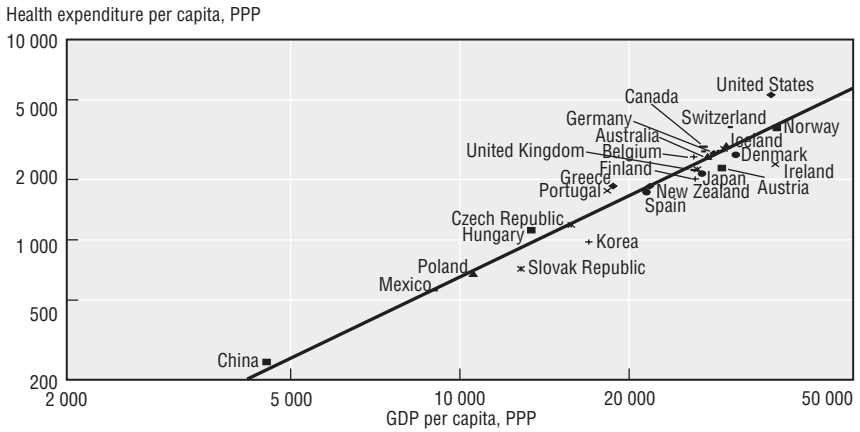


1. For China, public expenditure on health includes government on-budget health spending and outlays of the health social security funds. Private health spending comprises spending by individuals, enterprises, collectives and public service units. For China, the year of reference is 2003.

Source: *OECD Health Data*, 2003 and the *Health Yearbook of China*, 2004.

Figure 2.5. **Health spending *versus* income per capita**[1]

2002



1. Education spending and GDP are measured in purchasing power parity. The purchasing power parity factors were calculated from the World Development Indicators database. The figure uses logarithmic scales.

Source: OECD Health Data (2005) and the *Health Yearbook of China*, 2004.

Health outcomes have improved over the past decades, with life expectancy reaching that of the lower-ranking OECD countries. China's infant mortality rate is well below that of India, close to that of the Philippines and Indonesia, although noticeably higher than that of Thailand. Despite these aggregate figures, China's health care system is widely reported (both by experts within China and in international agencies) to be under serious and increasing strain. The entry of private capital in the health sector has not been able to meet the increasing need for health-care services, which remain severely under funded. According to a survey by the Ministry of Health, nearly 50% of the urban population, and 80% of the rural population are reported to be uncovered by medical insurance, with perhaps half the sick being unable to afford medical treatment.[14] Inequalities in health care and outcomes among provinces and between rural and urban areas are probably even larger than those for education. A recent study jointly conducted by the World Health Organisation and by China's Development Research Centre indicates that individuals in the lowest income group have a life expectancy of nearly 20 years less than that of individuals in the highest income group.[15] The limited insurance coverage and other distortions in the system also have led to serious inefficiencies, such as an over-reliance on prescription drugs due to the fact that they are often better covered by insurance than other forms of treatment.

Correction of the problems in China's healthcare system is likely to require thorough reforms to improve incentives and efficiency. These are likely to require a significant increase in the government share of health care spending given the extent of income inequalities, particularly the limited financial capacities of rural governments and citizens. Increased government outlays may also be required in the future to deal with serious disease outbreaks, such as SARS and AIDS, and to improve health outcomes, particularly in the areas of infant and maternal mortality and to raise the rate of immunisation among children in poor areas. To provide accessible health care services for the rural population, in 2002 the government launched a pilot project of rural cooperative medical and health care services in seven provinces and from the following year allocated CNY 10 per rural inhabitant (with local governments and individuals each contributing the same amount) to create a fund that would cover 50% of medical expenses. The aim of the project is to cover 80% of the rural population by 2010.

A large share of expenditure is allocated to administration

Spending on administration grew by 28.4% over 1998-2003 (Table 1.2) and made up 22.5% of total expenditure in 2002 (Table 2.7). As a ratio to GDP, administration spending is below the OECD average,[16] but is higher as a share of total expenditure than in most OECD countries except Greece, Italy and

Table 2.7. **Major components of administration expenditure,[1] 1998-2003**

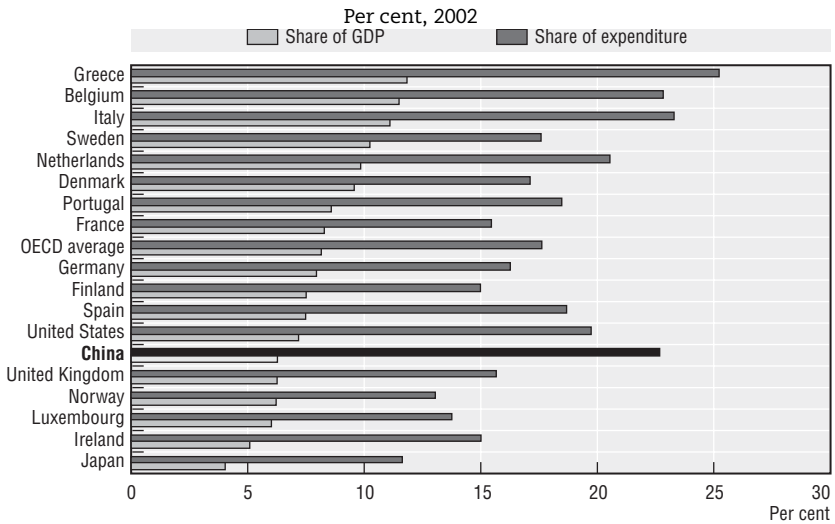
	1998	1999	2000	2001	2002	2003
Total administration expenditure, CNY million	n.a.	414 356	499 386	587 474	670 724	n.a.
Growth rate, %		n.a.	20.5	17.6	14.2	n.a.
Share in total expenditure, %	n.a.	21.6	22.0	22.4	22.5	n.a.
Ratio to GDP, %	n.a.	5.0	5.6	6.0	6.2	n.a.
General administration, CNY million	72 553	82 287	96 547	121 252	180 184	205 835
Growth rate, %		13.4	17.3	25.6	48.6	14.2
Public security, CNY million	55 401	64 831	76 050	91 619	110 157	130 133
Growth rate, %		17.0	17.3	20.5	20.2	18.1
Operating expenses of Tax Department, CNY million	n.a.	64 256	77 783	95 543	82 446	93 714
Growth rate, %		n.a.	21.1	22.8	–13.7	13.7

1. Selected items of on-budget current administration expenditure.

Source: Various editions of the *Finance Yearbook of China*.

Belgium (Figure 2.6). Administration spending has been driven by its largest component, general administration spending, whose share relative to GDP almost doubled during 1998-2003 (Tables 2.7 and B.4), while tax administration spending grew much slower than total outlays.

Figure 2.6. **Share of expenditure on administration in GDP and total expenditure**[1]



1. OECD figures are national accounts based, while figures for China are not available on the same basis.

Source: OECD Annual National Accounts database and *Finance Yearbook of China*, 2004.

Behind the rapid growth and high share of spending on administration are not only generous salary increases but also overstaffing and other inefficiencies. Inefficiency is rooted in part in overlapping responsibilities and duplication between ministries (*e.g.* earmarked transfers are administered by several ministries, which makes allocation of funds less transparent and supervision for local governments more difficult; social security funds are collected by both the Labour and Finance Ministries). The excessive number of layers in the public finance administration system (for example transfers from provincial governments to counties have to go through prefecture authorities) aggravates the inefficiency. As discussed further in the next chapter, clarification of responsibilities and bypassing at least one level in the administration system of public finances could save substantial administrative costs.

Social security and welfare outlays are growing rapidly but from a low initial base

Although growing rapidly, spending on social welfare makes up a relatively low fraction of total government expenditure (8% of total expenditure and 2.2% of GDP in 2003, as in Table 2.8). This category grew at 34.9% annually over 1998-2003, which is much faster than the average annual growth rate of total expenditure at 16.3% over the same period. Some sub-categories, however, have registered more rapid growth, particularly social security subsidies as well as pensions and social welfare relief. These two categories are expected to continue to grow fast as policies to ensure minimum living standards have been given priority in the budget. One of the

Table 2.8. **Trends in pensions and social welfare outlays,[1] 2000-2003**

	2000	2001	2002	2003
Total pension and social relief expenditure, CNY billion	151.8	198.8	263.6	265.6
Growth rate, %	n.a.	31.0	32.6	0.7
Share in total expenditure, %	6.7	7.6	8.8	8.0
Ratio to GDP, %	1.7	2.0	2.4	2.2
Pensions and social welfare relief, CNY billion	21.3	26.7	37.3	49.9
Growth rate, %	14.4	25.3	39.8	33.7
Administrative units pension, CNY billion	47.9	62.5	78.9	89.5
Growth rate, %	n.a.	30.5	26.3	13.5
Social security subsidies, CNY billion	52.6	78.6	101.7	126.2
Growth rate, %	n.a.	49.5	29.4	24.1
Social security programs special fund, CNY billion	30.0	31.0	45.7	0.0
Growth rate, %	7.1	3.3	47.6	n.a.

1. Selected pension and social welfare categories.

Source: Various editions of the *Finance Yearbook of China*.

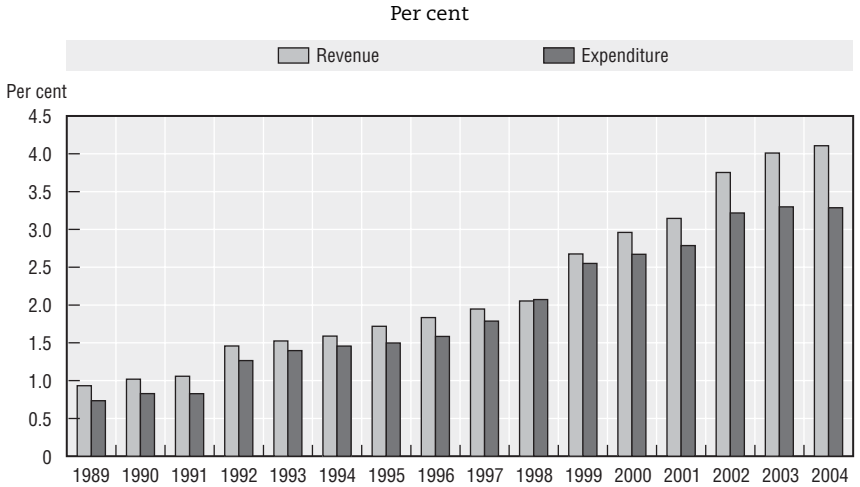
CHALLENGES FOR CHINA'S PUBLIC SPENDING – ISBN 92-64-01371-7 – © OECD 2006

largest components of welfare spending is expenditure on urban minimum living standards, which was introduced nationwide in 1997 and had increased over twelve-fold by 2004 to cover 22 million people. The beneficiaries include laid-off urban employees and retirees. The rural equivalent of the scheme has been established by about 1 400 wealthier counties (about half of the total) and has paid benefits to less than 5 million people. Spending on the minimum living standard in rural areas is about one-tenth of that in urban areas.

Payments under the social security insurance system have also been growing rapidly (Figure 2.7), a trend that is likely to continue as coverage is widened. Social security insurance covers pensions for workers outside the government sector, unemployment insurance, medical insurance, industrial accident insurance and maternity insurance, as stated in a State Council regulation of 1986. Participation, contribution rates, collection and the level of pooling vary by region, making benefits uneven across the country. In theory, enterprises are obliged to pay for the five types of insurance for their employees, but compliance is poor and delinquency is particularly high among non-state enterprises. The joint collection of social security contributions by the Labour and Finance Ministries and the status of social security contributions as a fee rather than a tax make enforcement difficult.

Since 1999, local governments have been given the choice as to which ministry's local body is responsible for collection of social insurance levies.

Figure 2.7. **Ratio of revenue and expenditure of social security funds[1] to GDP, 1989-2004**



1. Social security funds comprise pension, health, unemployment, injury and maternity insurance funds.

Source: China Labour Statistics Yearbook, 2004 and CEIC database.

The experience of the 19 provinces that had switched to collection by tax authorities by end-2003 shows that tax authorities are more efficient in terms of the volume collected and costs of collection.

Among the five social security insurance programmes, the pension programme is by far the largest.[17] The new three-tier pension system, introduced in July 1997, consists of a pay-as-you-go (PAYG) component, individual accounts and voluntary schemes. The PAYG component (Pillar I) is financed by enterprise contributions, usually 20% of total wages. Individual accounts are financed by a contribution of 11% of total wages, of which (initially) 7% is to be paid by the enterprise and 4% by the employee. But the contribution rate of the enterprise to the individual accounts is set to decrease by one percentage point every two years, while that of employees increases by one percentage point until the ratio of enterprise to individual contribution rates out of total wages is 3% *versus* 8%, respectively. Individual accounts, at present, however, are only notional as they are used in practice to finance unfunded liabilities of the first, PAYG, pillar.[18] The share of voluntary pension schemes is minuscule and is limited to some large SOEs and foreign-funded enterprises in selected regions.

Contribution rates vary by region, but in most cases enterprises are obliged to pay 20% of total wages to the pension funds, a further 2% to the unemployment fund and 6% to the health insurance funds. While pooling is ultimately envisaged at the national level, in the near-term the objective is provincial-level pooling. The authorities have begun to pool pension, unemployment and health funds at the provincial level, or to adjust for differences across prefectures and counties, but have not done so for industrial accident insurance and maternity insurance. Most schemes leave out farmers, contract workers, the self-employed and the unemployed. There exists a scheme for the self-employed, which only covers pension and healthcare, with a contribution rate of 18% of the self-reported salary.

Expenditure on physical capital is high

Capital spending has been among the fastest growing expenditure categories with an average annual growth rate of nearly 20% over 1998-2003 (Tables 1.2 and 2.9). The growth of capital spending accelerated in the late-1990s mainly as a result of expansionary fiscal policy adopted after the 1997 Asian crisis to substitute for sluggish domestic demand. The growing fiscal deficit and the increasing need to spend in other priority but underfunded areas made the government drop many infrastructure projects and give way to non-government investors. This trend has been observed especially in coastal areas, where expected returns of infrastructure projects are higher than in other parts of the country, while in the central and western regions government investment dominates in infrastructure. The burden of capital

spending is shared between the central and local governments (in a 48:52 proportion) and the division of responsibilities depends upon the location and the importance of the individual project. Local governments, as a rule, are responsible for projects within their boundaries. If the project is of national relevance and/or stretches across several provinces, co-financing by the central and local budgets or financing entirely from the central budget are both possible. Full central government financing is particularly common in central and western regions.

Table 2.9. **Trends in selected capital expenditures of the general government, 2000-2003**

	2000	2001	2002	2003
On-budget capital expenditure,[1] CNY billion	296.0	350.7	411.1	452.2
Growth rate, %	21.2	18.5	17.2	10.0
Share in total expenditure, %	13.0	13.4	13.8	13.6
Ratio to GDP, %	3.3	3.6	3.8	3.7
Infrastructure spending, CNY billion	209.5	251.8	314.3	342.9
Growth rate, %	27.1	20.2	24.8	9.1
Development of production capacity of enterprises and science and technology promotion, CNY billion	86.5	99.2	96.8	109.3
Growth rate, %	10.4	14.6	–2.3	12.9
Extra-budgetary capital spending,[1] CNY billion	42.6	35.0	26.0	n.a.
Growth rate, %	–5.3	–17.9	–25.7	n.a.
Memorandum:				
Total capital expenditure on a national accounts basis,[2] CNY billion	772.2	972.2	1 005.0	n.a.
Growth rate, %	20.1	25.9	3.4	n.a.

1. Figures for on-budget and extra-budgetary capital expenditure in the table refer only to spending officially classified as capital outlays in the budget. The figures exclude a large amount of capital spending included in figures for other (non-capital) items but which cannot be explicitly accounted for based on available budget data.
2. Total capital expenditure on a national accounts basis includes capital transfers to state owned enterprises and other government controlled entities as well as a substantial amount of investment spending included in other, non-capital, budget categories. Figures for national accounts based capital expenditure are compiled by the Ministry of Finance but no breakdown of the total by major categories is available.

Source: Various editions of the *China Statistical Yearbook*, the *Finance Yearbook of China* and the *White Paper of Defence*, annual reports by the Ministry of Health and the Ministry of Civil Affairs.

No figures for the allocation of total capital expenditure among major categories are available. A more detailed breakdown of on-budget capital expenditure (Table B.7) is available and indicates that a large part of capital spending has been channelled to transport, water control and agriculture and that the share of education and science and technology infrastructure is considerably lower. In 2003, a quarter of government capital expenditure was

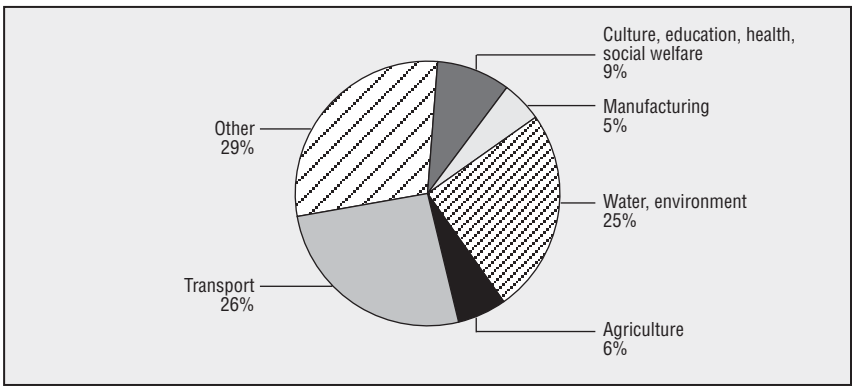
channelled to water management and environment and another quarter to transport, while capital spending on culture, education, health and social welfare altogether stood at only 9% (Figure 2.8). Other priority areas in on-budget capital spending during the past few years (no complete breakdown of data is available) include environmental protection,[19] urban facilities (including maintenance), transportation and communication, grain storage facilities, restructuring of small (county-level) cities, and public sanitary facilities. However, these figures should be regarded with caution since the official figures for on-budget capital spending may not be representative of the breakdown of (the much larger) total capital expenditure.

In 2002, the share of capital expenditure in total government outlays in China was well above the OECD average (Figure 2.9), higher than in all but one OECD country. Capital spending relative to GDP was about three times the OECD average and almost double of that of the highest OECD country, Korea. A distinctive feature of the Chinese budgeting process – a legacy of the planned economy – is that the level of government capital expenditure is determined by the National Development and Reform Commission (NDRC) in accordance with government development objectives and used as an input for the total budget by the Ministry of Finance (MOF), constrained only by availability of total budget resources. An exception to this rule is agriculture-related capital expenditure, including technology innovation, which is budgeted by the Ministry of Finance.

There appears to be considerable need for improvement in the efficiency with which public infrastructure projects are chosen, planned and implemented. Waste of public funds and failure to complete or put into operation public infrastructure projects is particularly severe for government

Figure 2.8. **Major components of government capital spending**

Per cent, 2003

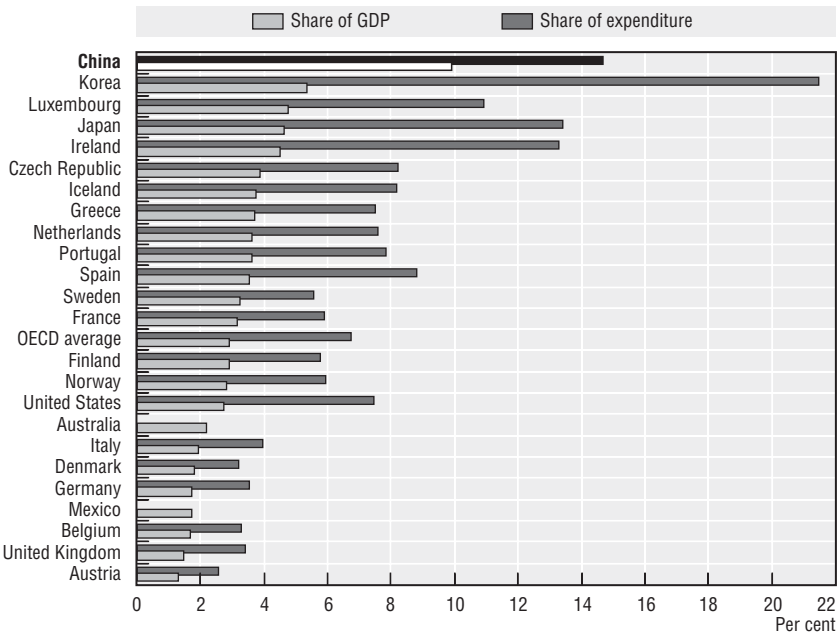


Source: Fixed Asset Investment Yearbook, 2004.

CHALLENGES FOR CHINA'S PUBLIC SPENDING – ISBN 92-64-01371-7 – © OECD 2006

Figure 2.9. **Government capital spending[1] as percentage of GDP and total expenditure**

2002



1. Capital spending is national accounts-based.

Source: OECD Annual National Accounts database and National Bureau of Statistics of China.

bond-financed projects. Only half of these projects have met government standards (National Audit Office 2004).[20]

The inefficiencies in infrastructure projects can partly be traced to weaknesses in the way infrastructure funds are allocated and to inadequate oversight mechanisms, particularly from the market. A large part of central government funds is still allocated without thorough cost-benefit analysis while, as already noted, local government officials have incentives to promote high-profile projects even if their future returns are questionable. Lenders' incentives to rigorously assess credits to infrastructure projects are reduced by perceptions of local government backing despite the lack of an explicit guarantee (which local governments are not permitted to give). The cost efficiency and payoffs from public infrastructure projects could be improved by increasing the accountability of spending units at all government levels and by strengthening project planning, implementation and evaluation.

Introduction of greater participation from private companies in infrastructure projects could help improve the efficiency of infrastructure investment (see Box 2.1 on the experience of investment in wastewater

Box 2.1. **Financing the urban wastewater sector in Sichuan, China**

A fundamental challenge in financing the urban wastewater sector in Sichuan is the excessive reliance on public budgets as opposed to user fees or debt. In particular, operations and maintenance of urban wastewater infrastructure are unsustainable, with wastewater charges covering less than 40% of these costs. The regulatory basis for tariff regimes contains loopholes and is not supported by institutions to implement government policies on cost-recovery at the local level (*e.g.* wastewater treatment tariffs have been established in only seven out of the 14 municipalities examined). In addition, revenues cannot be effectively claimed by wastewater enterprises. Fees for the use of the sewerage network are not often in place.

Local budgets are not filling the financial gaps as government transfers from the centre are biased towards construction of treatment plants rather than the sewerage network, where most capital expenditure is needed. Private finance is discouraged by the low financial viability of the wastewater sector and the associated institutional and regulatory risks.

The limited financial and operational autonomy of wastewater enterprises, despite their formal status as enterprises (although state owned), appears also to be the key obstacle to achieving the self-finance and credit-worthiness of wastewater services. Squeezed into a budgetary regime involving permanent scarcity of funds and annual bargaining for budgetary allocations, wastewater enterprises have no incentives to think strategically about development, to provide additional services (*e.g.* wastewater collection), or to reduce costs and optimise performance of the entire wastewater management system. Higher revenues or savings do not translate into higher profits, salaries or investment funds.

The government appears to encourage wastewater enterprises to borrow without regulatory and institutional conditions that guarantee their financial viability and capacity to service debt. The utilities do not have predictable access to revenues in order to meet debt service obligations and, as they enjoy the implicit guarantees of the municipalities, their liabilities become *de facto* the unsanctioned, non-monitored debt of local governments. Banks must rely on the political commitment of local governments to pay the loans of wastewater enterprises instead of on reforms to enable these enterprises to pay for themselves.

To help address these challenges, the OECD and Chinese counterparts have developed three broad indicative scenarios:

"Taxpayers pay" strategy, which would rely on increasing expenditure from public budgets as a cornerstone to financing wastewater infrastructure.

CHALLENGES FOR CHINA'S PUBLIC SPENDING – ISBN 92-64-01371-7 – © OECD 2006

Box 2.1. **Financing the urban wastewater sector in Sichuan, China** *(cont.)*

"Users pay" strategy, which would rely on a steep increase of user fees in order to move rapidly towards full cost recovery, including using any operational surplus to pay for capital investments.

"Creditors pay" strategy, which would rely on a rapid increase of borrowing on domestic and foreign credit markets to finance capital investments and on user fees to cover debt service.

Simulations and analyses show that any financing strategy that is ultimately applied to wastewater infrastructure in Sichuan will be the mix of these three. The "taxpayers pay" strategy alone does not seem to be feasible as it relies on significant increases of expenditures from already-stretched local budgets. The "users pay" and the "creditors pay" strategies would be in line with government policies. However their feasibility depends crucially on the social affordability and acceptability of tariffs and on the acceleration of institutional and legal reforms in the urban wastewater sector and in local government finance.

Source: Edited excerpt from OECD (2005c). The analysis is based on an examination of 14 municipalities in Sichuan, China.

treatment in Sichuan Province). The opening of certain sectors, such as water provision and treatment, to private companies has led to rapid growth of private investment in these areas and is a positive development in this respect. Participation could be further encouraged by fostering the development of private construction companies and by improving the access of private companies to longer-term finance. However private participation alone will not guarantee more efficient government capital spending. Governments, particularly those at the local level, need to be held accountable for ensuring that projects have an adequate ex-ante rate of return and are implemented in a cost-effective fashion. Local governments also need to be restrained from offering implicit guarantees or from pressuring local banks to lend to inefficient projects.

Notes

1. Detailed data on expenditures is typically released with a lag of 2 to 3 years.
2. For more details on the background and prospects for government debt in China see Liu (2001).

3. These other expenditures were about 25% of on-budget operating expenses in 2002. The estimates include amounts spent on this category in the extra-budgetary funds. See the detailed discussion of expenditures in this area below.
4. For 2002, expenditure on the category of culture, education, public health and science are available for Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Luxembourg, the Netherlands, Norway, Portugal, Sweden, Spain, the United Kingdom and the United States.
5. Operating expenses for education are the single largest item among education-related expenditure items, making up about three quarters of education-related expenses.
6. Urban education surcharges are levied on enterprises and profit-oriented bodies as a kind of turnover tax.
7. Rural education surcharges are levied on rural households.
8. *Educational Finance Statistical Yearbook*, 2002.
9. Gao (2001). As GDP became more frequently used than GNP, the objective was redefined as 4% of GDP.
10. Gao (2001).
11. Ministry of Education.
12. Planning and Finance Department, Ministry of Culture of China.
13. Participation of private capital in health care started with Dongming Hospital in Dongguan City, Guangdong Province in the mid-1990s. By end-2003, the number of private hospitals reached 40% of the total in the province, though given their small scale, they hardly reach 3% in terms of assets, personnel and capacity.
14. The survey by the Ministry of Health conducted in September-December 2003 covers 57 000 households.
15. *International Herald Tribune*, August 20, 2005.
16. Spending on administration as a share of GDP is below that of the United States and well below that of most European countries. However, public administration is likely to be positively related to overall government expenditure, particularly to spending on social programmes such as education, health, and welfare, which involve relatively high administrative costs. Spending on these activities is generally higher relatively to GDP in OECD countries than in China.
17. For a discussion on the financing of the pension system, see OECD (2005b), OECD (2005d), Ministry of Labour and Social Security (2001), Zhao and Xu (2001), Zhu (2002) and Wang (2004).
18. In 2001 a pilot programme was introduced in Liaoning province to fully fund individual accounts with (8%) individual contributions. To avoid emptying of individual accounts to finance the PAYG pillar, they are managed separately and the shortfall of the first pillar is largely made up from central transfers.
19. Environment infrastructure spending has been concentrated on three rivers (the Rivers Hai, Huai and Liao), three lakes (Lakes Tianzi, Qiao and Tai) and pollution treatment in big cities including Beijing.
20. Out of the 526 such projects in 28 provinces and municipalities that were audited, 26% were uncompleted and a further 26% were non-operational, substandard or operated below planned capacity. For further cases of investment efficiency, see Japan Bank for International Cooperation (2003).

ISBN 92-64-01371-7
Challenges for China's Public Spending
Toward Greater Effectiveness and Equity
© OECD 2006

Chapter 3

Getting the Spending to Where it is Most Needed: Reforming Relations Among Government Levels

The uneven decentralisation of the fiscal system in China along with disparities in per-capita tax bases across regions means that China's sub-national governments typically lack sufficient tax revenues to finance their expenditure responsibilities. The large-scale system of transfers only partly makes up for these differences, resulting in significant gaps between expenditure responsibilities and fiscal resources for many provincial and local governments. These gaps are an important factor behind the substantial disparities in per-capita government spending across provinces and between rural and urban areas. Estimates suggest that the gaps are largest for the central and western provinces and at the county level. To address these gaps, the mechanisms for allocating transfers, both between the central government and provinces and within provinces, will need to be reformed to better take account of actual needs. At the same time, measures that are now being implemented to improve the accountability of local governments for expenditure outcomes could be further developed and steps taken to increase the efficiency of sub-national governments' administration.

As noted in Chapter 1, China's fiscal system is highly decentralised in terms of spending responsibilities but revenues are much less decentralised and localities have virtually no freedom to set tax rates in a way that matches revenues with local spending needs. Indeed, tax rates are set almost entirely by the central government and tax yields reflect the marked dispersion of economic activity that exists across provinces. The resulting gaps between expenditure responsibilities and tax revenues of local governments have necessitated a large scale system of fiscal transfers. However, the transfer system has not been able to prevent marked variations in per capita public spending across the country. In addition, while the decentralisation of spending decisions might be expected to raise the efficiency of spending by achieving a better tailoring of public goods and services to local needs than could be achieved by a central administration, there are a number of adverse incentives inherent in the institutional system that distort the allocation of spending at the local level. Thus, both the equity and the efficiency of the current fiscal system could be improved.

This chapter examines the types and sources of disparities in spending and analyses the impact of the transfer system on them. Estimates of the gap between expenditure needs and fiscal resources indicate that central and western provinces and the lowest levels of local government tend to be under the greatest fiscal strains. The gaps are further aggravated by inefficiencies in the way revenues are allocated. The chapter concludes with suggested measures to increase both equity and efficiency of the system.

There are large spending disparities across regions, especially at the county level

There are significant spending disparities across provinces. These disparities are largely due to variations in revenues arising from differences in economic activity and incomes. The interaction between the structure of incomes and the tax system results in tax yields being even more unequally distributed geographically than income. A small increase in income disparities measured by the Theil or the Gini index has been accompanied by a more marked rise in revenue disparities (Table 3.1). The national government has put in place various mechanisms, notably a formal system of transfers, to moderate the effects on spending of the differences in tax revenue. The transfer system has helped to reduce the disparities in

Table 3.1. **Disparities in provincial per capita expenditures, revenues and incomes,[1] 1995-2004**

Index of dispersion[2]	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Total figures										
Theil – Expenditure per capita	0.16	0.17	0.17	0.22	0.22	0.19	0.20	0.20	0.21	n.a.
Theil – Revenue per capita	0.22	0.25	0.25	0.31	0.32	0.30	0.31	0.34	0.35	n.a.
Theil – GDP per capita	0.15	0.16	0.16	0.17	0.17	0.16	0.17	0.17	0.17	0.17
Gini – Expenditure per capita	0.30	0.30	0.31	0.33	0.33	0.31	0.33	0.33	0.33	n.a.
Gini – Revenue per capita	0.35	0.36	0.36	0.39	0.39	0.38	0.40	0.42	0.42	n.a.
Gini – GDP per capita	0.30	0.30	0.30	0.31	0.31	0.30	0.31	0.31	0.31	0.31
On-budget figures										
Theil – Expenditure per capita	0.19	0.19	0.21	0.20	0.21	0.18	0.20	0.21	0.22	0.20
Theil – Revenue per capita	0.30	0.31	0.33	0.33	0.35	0.33	0.39	0.41	0.41	0.42
Gini – Expenditure per capita	0.33	0.33	0.33	0.33	0.33	0.31	0.33	0.34	0.34	0.33
Gini – Revenue per capita	0.39	0.39	0.40	0.40	0.41	0.41	0.44	0.45	0.44	0.45

1. Total provincial expenditures include reported on-budget and extra-budgetary expenditures, social security outlays and spending of central government bonds issues on behalf of local governments except for 2003, for which extra-budgetary data are not yet available. The payments made to cover the losses of state-owned enterprises have been treated as expenditure in the above data, rather than as negative income as in the official statistics. The sample comprises 30 provinces and municipalities excluding Chongqing.
2. A higher figure indicates greater disparity.

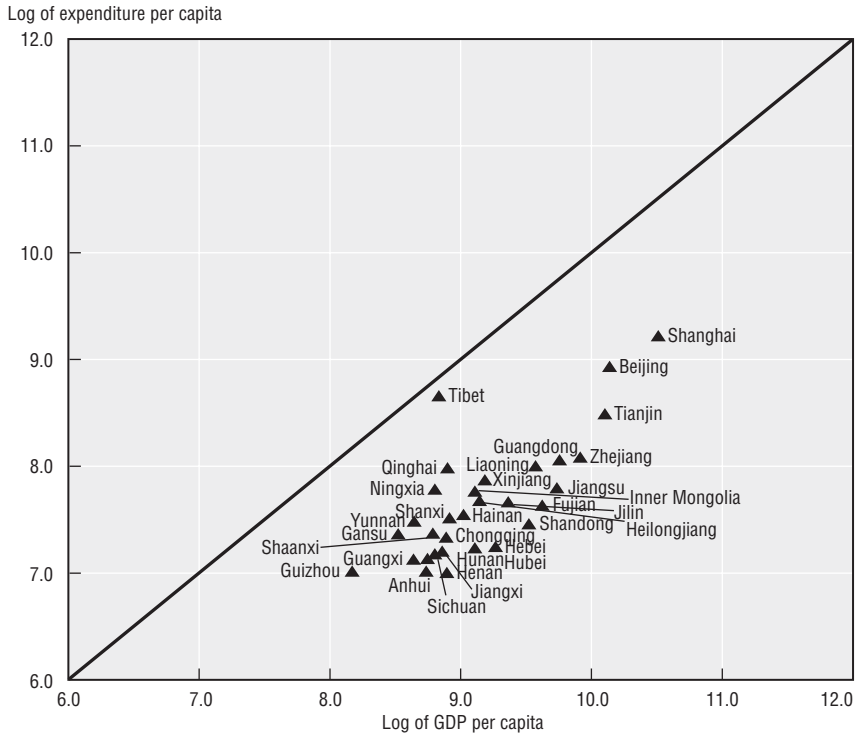
Source: OECD calculations.

expenditures but they have been far from eliminated and are still larger than disparities in incomes. Moreover, there appears to be a positive relationship between per capita income and per capita expenditures (Figure 3.1).

The extent of disparities in spending differs considerably among major categories. Spending per capita on government administration, agriculture and social relief are relatively evenly distributed but capital expenditure per capita is very unevenly distributed (see Table 3.2). Per capita outlays for capital investment are particularly high in a few eastern provinces and in the west where outlays have been boosted by earmarked central government direct spending and central government bond financing of infrastructure projects under the aegis of the Western Development Programme. In central areas, infrastructure spending is very low. As a result of large disparities in capital outlays, disparities in accumulated per capita physical investment are also significant (Figure 3.2). The distribution across provinces of aggregate per capita health and education spending is only slightly more uneven than that of total outlays but there is a very uneven distribution of resources for health care within provinces, notably between rural and urban areas. Moreover, disparities in major sub-categories of education expenditure – led by research and infrastructure expenditure – are significantly higher than for total education expenditure. Operating expenditure on education, at almost three quarters of total education-related spending, is

Figure 3.1. **Relation of per capita expenditure[1] and per capita GDP at the provincial level**

Logarithmic form, 2002



1. Provincial expenditures include reported on-budget and extra-budgetary outlays, subsidies for SOE losses, spending by social security funds and spending financed by central government bonds issued on behalf of local authorities.

Source: Various editions of the *China Statistical Yearbook*.

Table 3.2. **Disparities across provinces in selected categories measured by the Gini and Theil indices[1]**

2002

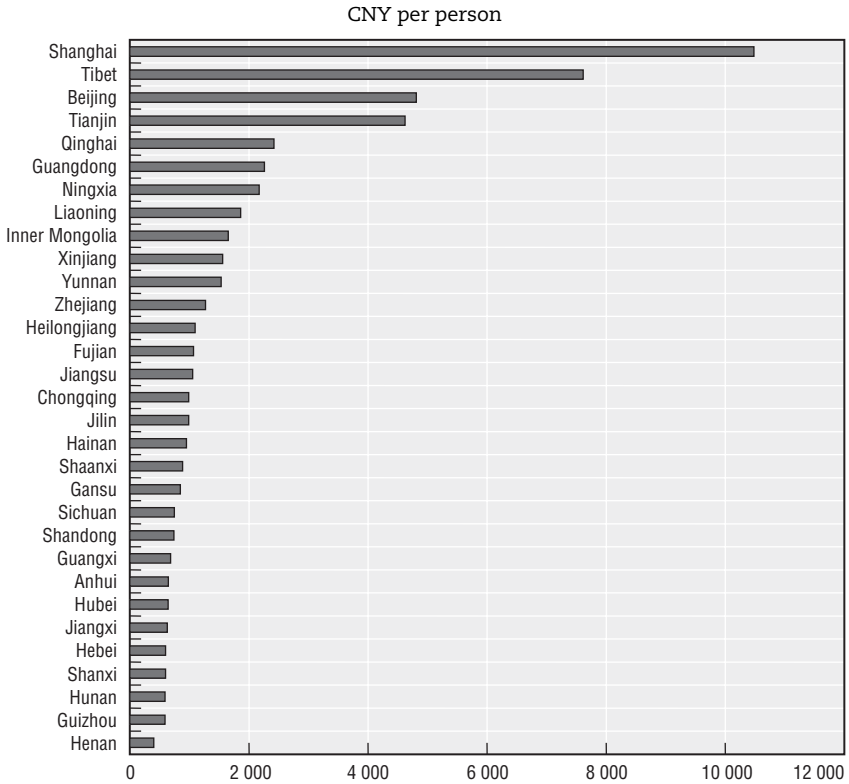
	Capital expenditure	Public health	Social relief	Education	Government administration	Agriculture	Total expenditure
Gini	0.50	0.37	0.28	0.34	0.28	0.26	0.33
Theil	0.48	0.25	0.13	0.25	0.15	0.11	0.20

1. A higher figure indicates greater inequality.

Source: OECD calculations.

CHALLENGES FOR CHINA'S PUBLIC SPENDING – ISBN 92-64-01371-7 – © OECD 2006

Figure 3.2. **Accumulated per capita physical capital[1] by province over 1995-2003**



1. Capital spending accumulated over 1995-2003.

Source: Various editions of the *China Statistical Yearbook*.

particularly unevenly distributed (Theil index of 0.5), while there is little inequality across provinces in teachers' wages, particularly their base salaries which have a Theil index of 0.04. Other salary components such as social security benefits and supplements increase disparities of total wages to 0.1 measured by the Theil index. Moreover, there are marked inequalities in the provision of higher education across provinces.

Spending disparities at the county level are even larger than at the provincial level. A decomposition of the Theil index of inequality for per capita spending shows that 63% of the disparities observed across counties are attributable to within-province differences, with between-province disparities accounting for the remaining 37% in 2002 (Table 3.3).[1] While expenditure disparities have remained about constant during 2000-02, the contribution of within-province disparities has decreased. This may suggest a more rigorous

Table 3.3. **Trends and decomposition of county level disparities measured by the Theil Index,[1] 2000-2002**

	2000	2001	2002
Disparities in GDP per capita	0.23	0.24	0.25
Within province disparities (% contribution to total)	63.5	63.9	63.0
Between province disparities (% contribution to total)	36.5	36.1	37.0
Disparities in revenue per capita	0.28	0.34	0.37
Within province disparities (% contribution to total)	80.3	76.8	69.6
Between province disparities (% contribution to total)	19.7	23.2	30.4
Disparities in expenditure per capita	0.23	0.23	0.21
Within province disparities (% contribution to total)	67.9	66.5	63.5
Between province disparities (% contribution to total)	32.1	33.5	36.5

1. A higher figure indicates greater inequality.

Source: OECD calculations from All China Data database.

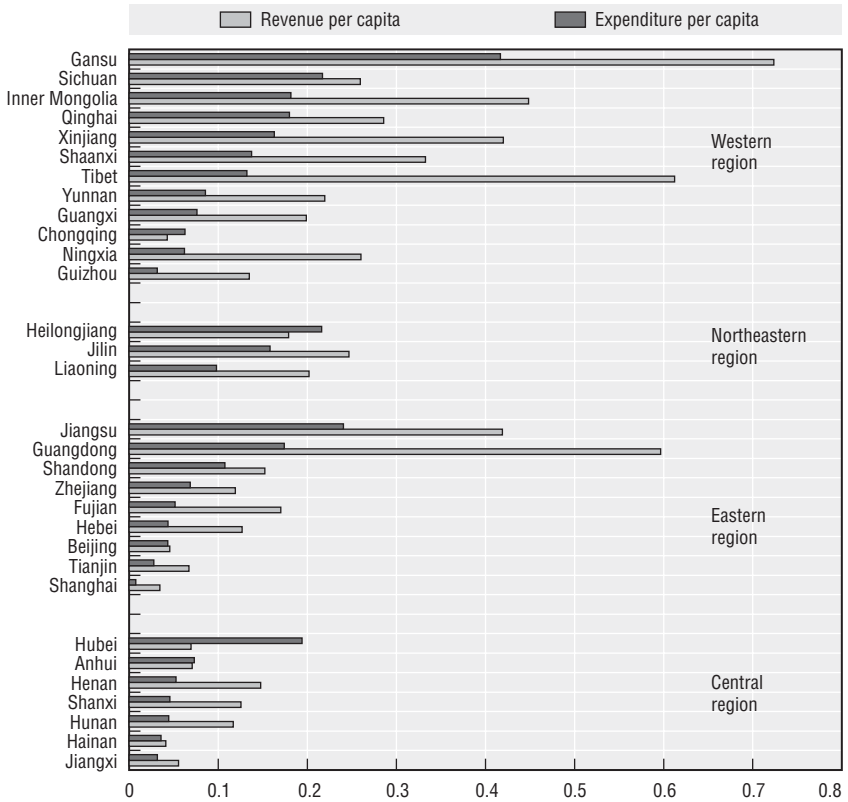
implementation of redistributive policies at the sub-provincial level. The largest within-province expenditure disparities are observed in the poorest western and the richest eastern provinces, while in central and north-eastern provinces expenditures are more equal in per capita terms (see Figure 3.3).

China's complex system of fiscal transfers is only partly based on needs

Marked disparities in expenditure assignments and revenues are not unique to China and governments in other countries have employed a variety of policies to address them. Most countries use intergovernmental transfers to reduce the gaps, but other means used include transferring revenue-raising power to local governments and shifting expenditure assignments to the central government. In China, a blend of these measures has been adopted in recent years. The scope of transfers has been widened to incorporate many elements aimed at compensating local governments for the adverse effects of structural reforms. Simultaneously, the central government has started to contribute to the financing of several expenditure assignments such as wages for teachers. By a systemic cutting of redundant civil servants, local expenditures have substantially been reduced. The past years, however, have not seen a transfer of revenue-raising powers to local governments. On the contrary, the rural tax reform aimed at reducing farmers' burden and gradually phasing out agricultural taxes has adversely affected local revenues, particularly at the lowest levels, although local governments have been compensated to some extent for the loss by increased grants from higher levels.

The system of central government transfers to provinces is composed of three broad types of transfers: tax rebates, general purpose grants and specific

Figure 3.3. **Disparities in county level per capita expenditure by province**
Theil index of inequality,[1] 2002



1. A higher figure indicates greater inequality.

Source: OECD calculations from the All China Data database.

purpose ("earmarked") grants.[2] Tax rebates and specific purpose transfers each make up nearly half of total transfers, while the share of general purpose transfers is relatively small (Table 3.4). The share of tax rebates fell by more than one-third between 1998 and 2001 then increased again in 2002 with the introduction of a new transfer type belonging to this category. The share of special purpose transfers, on the other hand, had increased rapidly until 2001 owing to the introduction of several new transfer items. The share of general purpose transfers remained relatively small throughout 1998-2004.

Tax rebates comprise two transfer items: the VAT and consumption tax (which is a kind of excise tax) rebate and the income tax rebate. The former was introduced with the 1994 tax-sharing reform as a means to ensure that provincial governments did not suffer a major immediate drop in revenues.

Table 3.4. **The composition of central government transfers to provinces**

	1998	1999	2000	2001	2002	2003	2004[2]
Tax rebate-type transfers, CNY million	208 276	212 056	226 754	233 500	361 122	n.a.	n.a.
Share in total transfers, %	*62.7*	*51.8*	*48.6*	*38.9*	*49.1*	*n.a.*	*n.a.*
VAT and consumption tax rebate, CNY million	208 276	212 056	226 754	233 500	301 400	363 100	415 700
Share in total transfers, %	*62.7*	*51.8*	*48.6*	*38.9*	*40.9*	*44.0*	*44.2*
Income tax subsidy, CNY million	0	0	0	0	597 22	n.a.	n.a.
Share in total transfers, %	*0.0*	*0.0*	*0.0*	*0.0*	*8.1*	*n.a.*	*n.a.*
Special purpose (earmarked) transfers, CNY million	106 642	178 554	216 173	338 624	314 874	n.a.	n.a.
Share in total transfers, %	*32.1*	*43.6*	*46.3*	*56.4*	*42.8*	*n.a.*	*n.a.*
Rural tax reform subsidy, CNY million	0	0	1 700	8 010	24 510	30 500	39 600
Share in total transfers, %	*0.0*	*0.0*	*0.4*	*1.3*	*3.3*	*3.7*	*4.2*
Transfer for civil servant wages, CNY million	0	34 300	45 100	89 200	118 000	175 500	187 300
Share in total transfers, %	*0.0*	*8.4*	*9.7*	*14.9*	*16.0*	*21.2*	*19.9*
General purpose transfers,[1] CNY million	17 382	18 920	23 604	28 071	60 204	27 700	48 500
Share in total transfers, %	*5.2*	*4.6*	*5.1*	*4.7*	*8.2*	*3.4*	*5.2*
Block (or transitory) transfer, CNY million	6 054	7 529	11 098	16 100	27 904	15 700	36 500
Share in total transfers, %	*1.8*	*1.8*	*2.4*	*2.7*	*3.8*	*1.9*	*3.9*
Old system subsidy, CNY million	11 328	11 391	12 506	11 971	32 300	12 000	12 000
Share in total transfers, %	*3.4*	*2.8*	*2.7*	*2.0*	*4.4*	*1.5*	*1.3*
Minority region component, CNY million	0	0	2 553	3 300	3 905	5 541	7 615
Share in total transfers, %	*0.0*	*0.0*	*0.5*	*0.5*	*0.5*	*0.7*	*0.8*
Total transfers, CNY million	332 300	409 530	466 531	600 195	736 200	826 141	941 000
Growth rate, %		*23.2*	*13.9*	*28.7*	*22.7*	*12.2*	*13.9*
Central bond issue for local government, CNY million	0	46 000	65 000	40 000	25 000	25 000	15 000

1. An item called settlement transfer is not included in general purpose transfers but is under special purpose transfers due to unavailability of data. However this transfer is quite small, so a proper grouping would not change the relative shares of major transfer components significantly.
2. 2004 figures are either budgeted or preliminary data.

Source: CEIC database, Ni (2004), Ohnishi (2004) and various *Budget Reports*.

The rebate is based on the difference between provincial governments' collection of the value-added tax (VAT) and consumption tax and the base amount collected in 1993, the year before the reform.[3] The VAT and consumption tax rebate system has tended to reduce differences in revenues between richer and poorer provinces. However, because it is based on 1993 revenues (with a proportionality factor of less than 1 applied to increases over that base), its importance has declined over time. Income tax rebates were established in 2002 with the objective to compensate for the income tax revenue foregone relative to that in 2001 due to the sharing of this tax between the central and local government starting from 2002. Despite the fact that this type of transfer was introduced relatively recently and that richer provinces had higher income tax revenues than poorer ones in 2001, it has somewhat reduced revenue disparities across provinces (Table 3.5).

The first component of the *general purpose grants* instituted by the 1994 fiscal system reforms is a block grant often referred to as "old system subsidy". The "old-system subsidy" is related to the gap between revenues and expenditures in the base year of 1993 before the tax sharing reform. The actual transfer by the central government to the province under the old fiscal contracting system was usually close to the size of this gap. Zhang and Martinez-Vazquez (2003) argue that grants under the old fiscal contracting system were the most equalising grants in the history of intergovernmental fiscal relations in China. However a problem with a system that determines transfers by the gap between actual revenues and expenditures is that it creates incentives to underreport revenues and over-report expenditures. Old system transfers involve a two-way flow of funds between the central and provincial governments: provinces that were in surplus in 1993 still continue to submit funds to the central government. The complex rules for the submissions were replaced by fixed submissions in 1995.

Table 3.5. **Reduction in revenue disparities by transfer components at the province level**

Theil index[1] of disparities, 2002

	Theil Index
Revenue (excluding transfers)	**0.337**
Revenue + General purpose (transitory) transfers	0.310
Revenue + Earmarked transfers	0.253
Revenue + VAT and consumption tax refund	0.277
Revenue + Income tax refund	0.320
Revenue + Government bonds	0.332
Revenue + Total transfers	**0.235**

1. A higher figure indicates greater inequality.

Source: OECD calculations.

In 2000, 18 of the 31 provinces were submitters while 13 received subsidies. Old system transfers had had some equalising effect but at the provincial level they are no longer important. The equalising effect of this type of transfer is limited partly because it does not reflect changes in the relative economic size of provinces since 1993. The rigidity of the system affects particularly central provinces such as Anhui, Henan, Hunan, and Hubei, which are still required to make payments to the central government even though their fiscal situation has deteriorated relative to that of other provinces.

A second but relatively small general purpose transfer (often referred to as "transitory transfer") was introduced in 1995 and is similar to equalisation transfers in OECD countries: it is rule based and depends on variables such as provincial GDP, population density, number of civil servants and student-teacher ratios. By definition it has an equalising effect, but it reduces disparities only marginally due to its small size (Table 3.4). The ten wealthiest provinces and municipalities such as Shanghai, Beijing, Tianjin, Zhejiang, Jiangsu, Guangdong, Shandong, Fujian, Hebei and Liaoning do not receive this transfer as their standard revenues (Box 3.1) are equal to or larger than their standard expenditures.

Box 3.1. **How standard revenues and expenditures are determined**

Li (2003) and Zhang and Martinez-Vazquez (2003) provide a detailed description of how standard revenues and expenditures are determined.

In general, standard revenue is given by multiplying the standard tax base (based, for example, on the per capita taxable salaries net of exemptions and the number of employees in a certain region in the case of the personal income tax) by the standard tax rate. Standard expenditures are determined for different categories and types of expenditure within those categories (for example personnel *versus* non-personnel operating expenses). To calculate personnel expenses, the standard number of civil servants in a certain region is determined based on the agricultural and non-agriculture population (with different quotas for civil servants related to the size of population) and the number of government units and is multiplied by the standard per capita salaries of the sector in the respective region.

The method adjusts for cost differentials across regions but it assigns too much weight to wages, which reflects the concern in meeting payroll requirements (World Bank, 2002). Cost differentials of other operating and capital expenses, however, are not adequately taken into account.

Beside the larger objective component determined by fiscal capacities and needs, there is also a "policy" component to aid regions with substantial (and generally poor) minority populations and a component to encourage efforts to collect taxes that are owed. The policy component is designed exclusively for designated regions with ethnic minority inhabitants[4] and is calculated by multiplying the population of the minority region by the shortfall of the region's per capita revenue relative to the national average. The reward component was added in 1996[5] and is the difference between the year-on-year growth rate of revenue in the province and the national average multiplied by 0.5. The amounts given by this calculation are then scaled down proportionately so that the total is equal to the (limited) amount of central government funds that have been allocated for this purpose.

A third and very small component of general purpose transfers is settlement subsidies. Transfers for settlement purposes involve a two-way flow of funds and are related to structural changes such as changes in the ownership of enterprises or public service units. Since ownership changes may imply unforeseen shortfalls or surpluses in revenues/expenditures *vis-à-vis* planned revenues/expenditures in the budget, the settlement transfer's main role is to reduce their volatility.

Special purpose (or earmarked) transfers make up nearly half of total transfers. Although equalising in principle, in practice they tend to reduce the autonomy of local governments in spending decisions and to constrain their ability to channel funds to priority expenditure areas. Earmarked transfers were originally designed for equalisation purposes (in the absence of an effective explicit equalisation transfer system). The major problem with these grants, as Ahmad *et al*. (2000) pointed out, is that the central government lacks the monitoring mechanisms to ensure their effective use. Official statistics report only a part of the specific transfers that make up this category, in particular the subsidies for the rural tax reform (which include transfers for primary and middle school teachers' salaries) and transfers for civil servant salary increases.[6]

Earmarked grants are the most effective among all types of transfers in reducing disparities in revenues (Table 3.5). The requirement to match central transfers with own funds, however, makes such transfers out of reach for many less endowed governments and/or forces them to reallocate scarce funds from priority spending areas. Equalisation transfers and old system subsidies also reduce disparities, but only to a limited extent as their sizes are small. Bond issues by the central government on behalf of sub-national governments for specific (mostly infrastructure) projects and income tax refund subsidies also have only a small redistributive effect.

Box 3.2. **Horizontal inter-provincial transfers**

In China there is no formal, standardised horizontal transfer system as it can be seen in some OECD countries but the central government has long encouraged official aid between provinces. The first schemes materialised during an expert meeting on regional development of border and minority areas in 1979. This meeting resulted in the formulation of donor-recipient pairs such as Beijing-Inner Mongolia, Hebei-Guizhou, Jiangsu-Jiangxi, Shandong-Qinghai, Tianjin-Gansu, Zhejiang-Tibet, Liaoning-Qinghai, Hubei-Qinghai, Guangdong-Guizhou; Shanghai, being the wealthiest municipality was associated with Yunnan, Ningxia, Xinjiang and Tibet. With the strengthening of the market orientation of enterprises and of their controlling local governments, such bilateral flows sharply diminished in the 1990s. To reverse the trend, the Party and the National People's Congress used the method of persuasion to encourage wealthier regions to support the west. For example all provinces were invited to finance projects in Tibet in 2002. Teachers are encouraged to settle in the western region for 5 years and the Ministry of Education designates university donor-recipient pairs. Shanghai is a major donor with aid packages to Aksu Prefecture in Xinjiang, six counties in Xigaze Prefecture in Tibet, Wenchang and Jianghe Autonomous Regions and Simao Prefecture in Yunnan, and several districts in the Three Gorges region. In Aksu alone, Shanghai has provided funding totaling CNY 55 million for 94 projects since 1997. Voluntary donations are earmarked for infrastructure, culture, education, public health, science and technology and other purposes. Beside cash transfers, donor provinces also dispatch experts and teachers to the western regions and provide scholarships to students to move to coastal areas for secondary and/or higher education.

Tax sharing and transfer arrangements within provinces vary widely across China

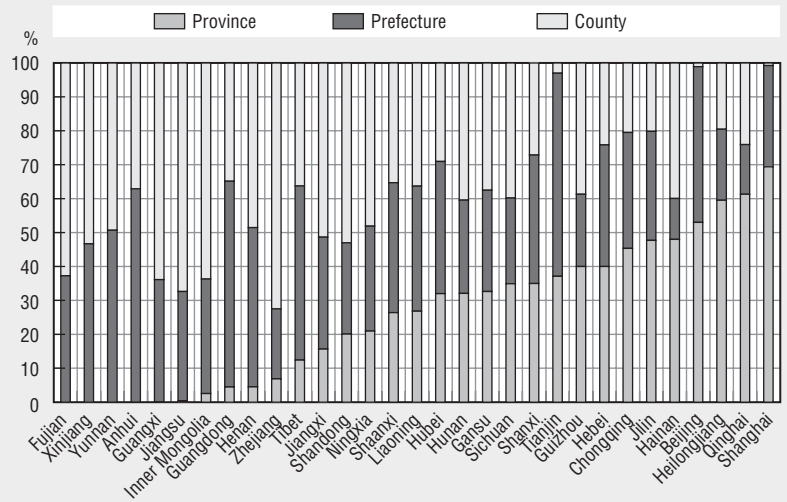
The extent of devolution of spending and revenue assignments within a province shows a large variation across regions. Provinces, similarly to the centre, have few exclusive taxes and derive their revenue from shared taxes. While the central government determines and implements the tax sharing and transfer system between the centre and the provinces, intergovernmental fiscal relations below the province level are determined at each province's discretion. The provinces determine whether and how they share taxes with lower government levels. By the same token, prefectures determine tax sharing and transfers to counties at their discretion, as do counties *vis-à-vis* their townships. There is much variation across provinces in the taxes that are shared with lower levels and the proportions in which they are shared.

Box 3.3. **How the value-added tax is shared**

While the sharing arrangements between central and provincial governments are well-determined, the 1994 Budget Law provides only general guidelines as to how tax revenues should be shared across sub-provincial government levels.[1] The more recent State Council circular[2] explicitly states that basic expenditure needs of township and county level governments must be met and that the shortfall of revenues to finance these needs should be made up by general transfers from the province and prefecture levels. This circular, however, does not provide guidelines regarding the sharing of tax revenues. As a result, provinces have considerable discretion as to whether or how they share taxes.

To assess the degree of decentralisation of shared taxes, and variation across provinces, shares of the value-added tax (VAT) are calculated at different government levels across provinces (see Figure 3.4 below). Some

Figure 3.4. **Partition of the value-added tax among government levels**
Per cent, 2002



Source: : Calculated from *Finance Yearbook of China*, 2003 and *Regional Public Finance Statistics*, 2002.

provinces such as Xinjiang, Yunnan, Anhui, Jiangsu, Guangxi, Henan, Guangdong, Fujian or Zhejiang assign less than 10% of the VAT to the provincial level, while at the other extreme, in Shanghai, Hainan, Qinghai, Heilongjiang or Beijing the VAT is highly centralised. Dispersion across provinces is relatively high and the tax sharing system does not seem to be related

Box 3.3. **How the value-added tax is shared** *(cont.)*

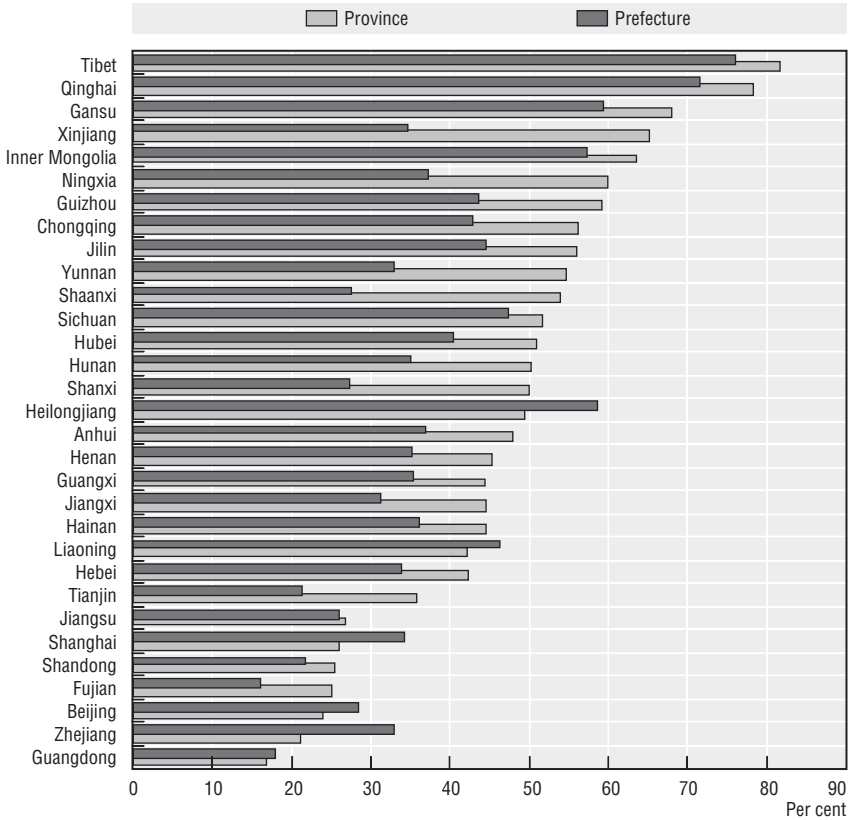
to the economic strength, location or size of the province. Municipalities at the province level tend to be highly centralised (Shanghai, Beijing, Chongqing and Tianjin) while other relatively wealthier provinces such as Fujian, Zhejiang, Jiangsu, and Guangdong are highly decentralised in terms of VAT assignment. Patterns at the prefecture and county level are more difficult to identify. In several provinces where the VAT assignment appears to be highly decentralised (see the left hand side of the Figure), the collection-site principle applies (*i.e.* the VAT belongs to the level where it is collected) while in others there is a determined proportion of VAT assigned to different government levels.

1. Lou, J. (2002) provides a detailed description and interpretation of these guidelines.
2. State Council Circular (2002) No. 26 *On the Issue of Improving the Sub-provincial Fiscal Management System*.

Dependence on transfers varies considerably across levels of sub-national governments. *Provinces* rely to a large extent on transfers (Figure 3.5) and there are also relatively large submissions to the central government by some wealthy provinces and municipalities. *Prefectures* in general are less transfer dependent than provinces except for the two wealthiest municipalities (Shanghai and Beijing) and some north-eastern provinces and Zhejiang, where the prefecture level is the most dependent on transfers. This can be explained by the special relation between prefecture and county in these provinces. In the northeast region, prefectures are relatively more important in terms of tax collection and redistribution than elsewhere. This, coupled with sufficient shared tax assignment to the county level (35%) in Liaoning and highly centralised VAT collection at the province level in Heilongjiang, makes prefectures in these provinces more transfer dependent. In Zhejiang, counties have been directly reporting to the province, thereby making prefectures highly dependent on transfers. Transfer dependence of *counties* tends to mirror that of the respective province (Figure 3.6), except that the majority of counties are more transfer dependent than their provinces. This is the case for counties contained in municipalities, which appear significantly more transfer-dependent than the municipality itself (with the exception of Tianjin), or than counties in less endowed provinces such as Xinjiang, Ningxia, Gansu, Tibet, Yunnan, and Sichuan and also some wealthier provinces such as Guangdong or Jiangsu. There are some poorer provinces, such as Anhui, Henan and Guangxi, where the counties are less transfer dependent than their higher government levels, possibly because of their relatively high decentralisation of the VAT. *Townships* seem to be less

Figure 3.5. **Share of transfers in total revenue at the province and prefecture levels**

Per cent, 2001



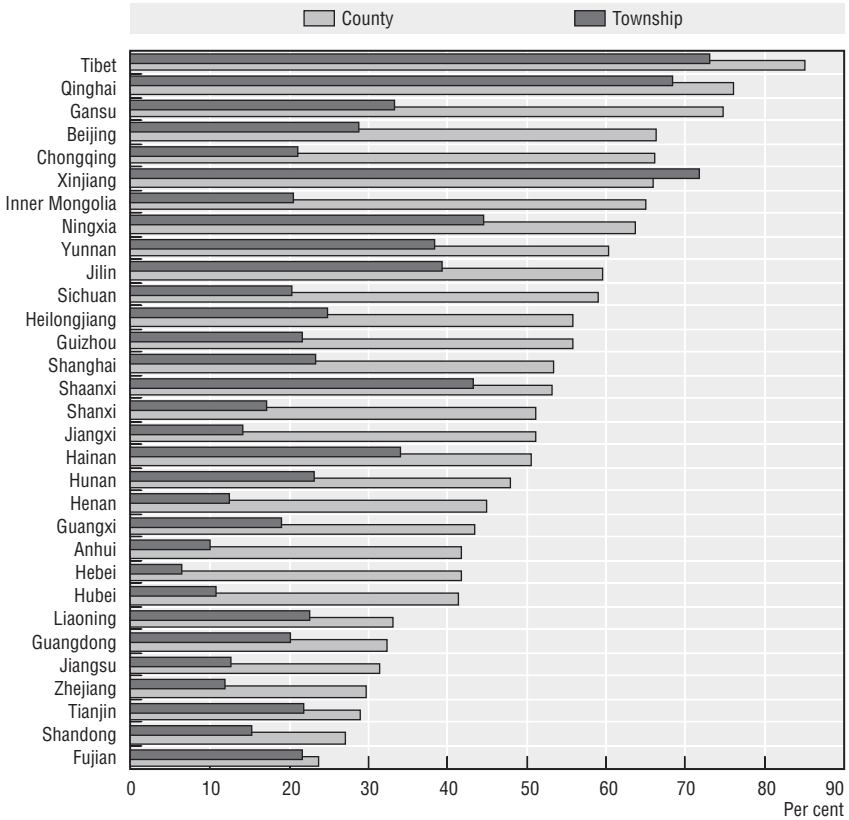
Source: OECD calculations from the *Finance Yearbook of China, 2002* and the *Prefecture and County Level Public Finance Statistics*, 2001.

dependent on transfers than their counties, especially in agricultural provinces such as Hubei, Anhui, Jiangxi or Henan (Figure 3.6). In the western provinces and in municipalities, on the other hand, townships' expenditures are financed by transfers to almost the same extent as those of their respective counties.

The repartition of transfers between the four government levels (province, prefecture, county and township) shows a large variation across provinces.[7] Western provinces that highly decentralise the VAT, such as Tibet, Shaanxi, Ningxia and Qinghai, appear to keep most of their transfers at the provincial level (Figure 3.7). Qinghai is a special case in the sense that it assigns over 60% of VAT and nearly 70% of transfers from the central

Figure 3.6. **Share of transfers in total revenue at the county and township levels**

Per cent, 2001

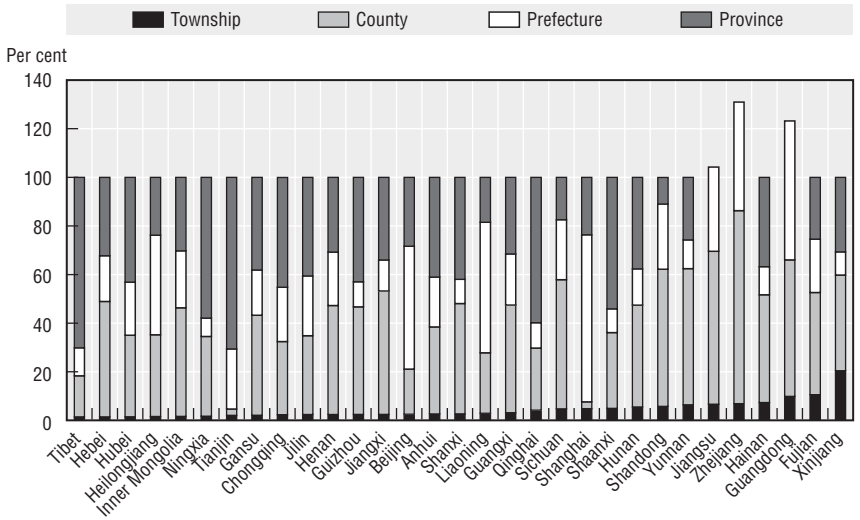


Source: OECD calculations from the *Prefecture and County Level Public Finance Statistics*, 2002 and *2001 Census* by the Rural Society and Economy Survey Group of the National Bureau of Statistics.

government to the provincial level. Anhui, Hubei and Henan assign a large share of VAT to prefectures while allocating them a smaller share of transfers. To check whether there are some regular patterns between tax sharing and transfers across provinces, the share of VAT and the ratio of transfers to own revenue at the four government levels are plotted across provinces. While at the province level there is a slight positive relation, at the prefecture level the relation is slightly negative, and at the county level (Figure 3.8) the negative relation is clear. This confirms that highly transfer dependent provinces keep the largest portion of VAT at the province level and counties that are assigned lower VAT shares are more dependent on transfers.[8] No regularity can be identified in prefectures.

Figure 3.7. **Repartition of transfers between the four government levels**[1]

Per cent, 2001

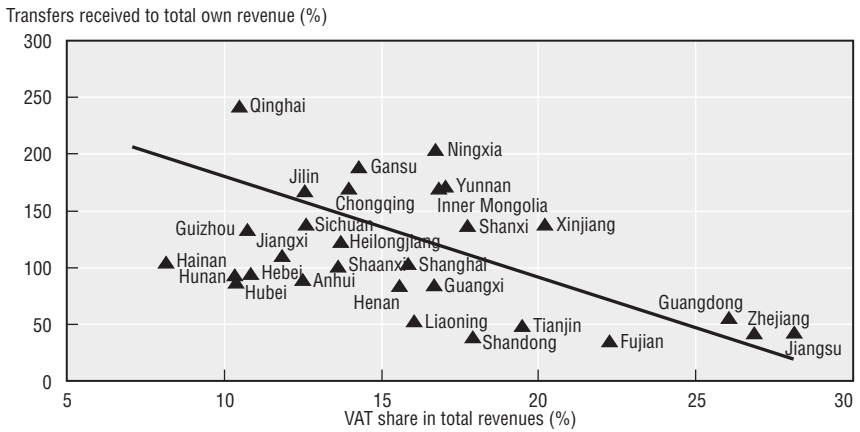


1. The columns show the share of each level in central transfers to each province. In Jiangsu, Zhejiang and Guangdong, the level of total transfers reaching sub-provincial levels is larger than central transfers to these provinces, *i.e.* above 100%, and there are no provincial shares.

Source: OECD calculation from the *Finance Yearbook of China*, 2002 and the *Prefecture and County Level Public Finance Statistics*, 2001.

Figure 3.8. **Relation between VAT share and transfer dependence at the county level**

Per cent, 2001



Source: Calculated from *Finance Yearbook of China 2002* and *Regional Public Finance Statistics 2001*.

The effect of various transfer components on total revenue disparities across county-level jurisdictions[9] in the 31 provinces is similar to that at the province level (Table 3.6). Earmarked transfers have a strong redistributive effect, while the effect of equalisation (general or transitory) transfers is limited. Central bond issues on behalf of local governments also reduce disparities. However, in contrast to the province level, the VAT and consumption tax refunds increase disparities at the county level. Salary subsidies, on the other hand, make total revenues more even.

Estimates suggest large financing gaps for sub-national governments

The mismatch between revenue and expenditure assignments leads many sub-national governments to face persistent shortfalls of revenues to meet expenditure needs. In order to better understand where these shortfalls are greatest, estimates of these gaps are presented below, first at the provincial level then at the county level. These estimates are based on a revised version of an approach originally developed by the World Bank.[10] It should be emphasised that because the factors that determine expenditure needs cannot be known with any precision, these estimates are highly tentative and should be regarded as only indicative of relative gaps. They are not intended to provide a measure of absolute spending gaps. A number of alternative methods are used to calculate expenditure needs to see if the results are significantly altered, but the main conclusions discussed below appear to remain valid across the different specifications.

The shortfall in financing expenditures is captured as the difference between actual revenues (including actual transfers under the base setting) and

Table 3.6. **Reduction in revenue disparities by transfer components at the county level**[1]
Theil index of disparities,[2] 2002

	Theil Index
Revenue (excluding transfers)	**0.197**
Revenue + General (transitory) transfers	0.190
Revenue + Earmarked transfers	0.136
Revenue + VAT and consumption tax refund	0.267
Revenue + Income tax refund	0.182
Revenue + Government bonds	0.178
Revenue + Salary subsidies	0.112
Revenue + Total transfers	**0.155**

1. The sample comprises county level data aggregated at the province level for 31 provinces and municipalities. Due to this aggregation, disparities only capture differences between provinces.
2. A higher figure indicates greater inequality.

Source: OECD calculations.

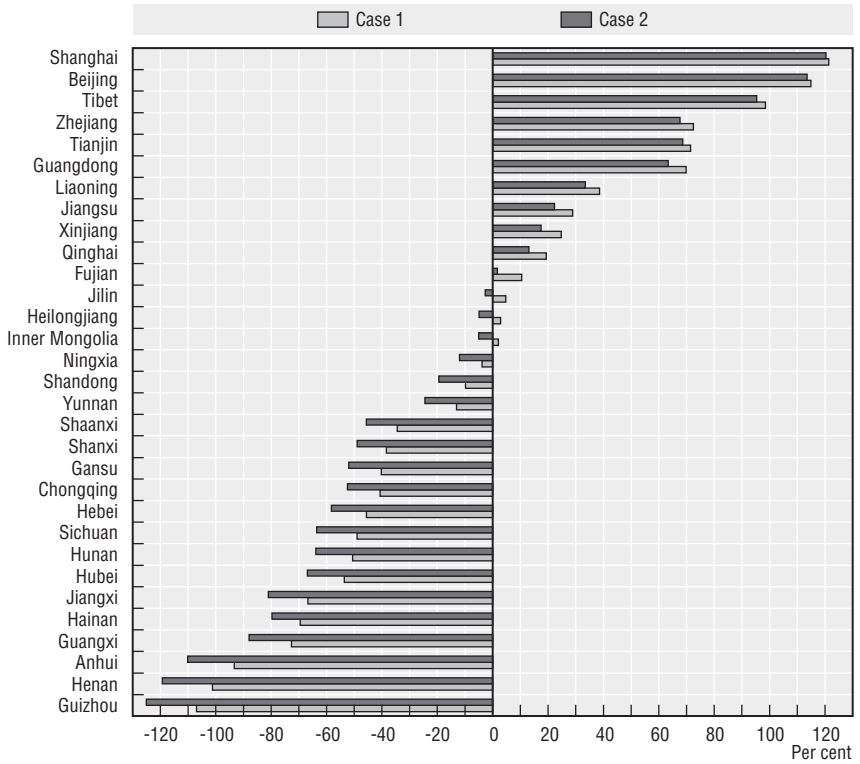
hypothetical amounts that would be spent if expenditures in each category were allocated across provinces in accordance with indicators of the relative need for spending in each category. (The method is explained in detail in Annex C). For example, the hypothetical expenditure on education in a province is based on the number of school-age children in that province relative to the national average. To estimate such hypothetical expenditures (herein expenditure needs), spending was broken into eight categories and an assumption was made about the major determinants of spending on these categories. After calculating the share of each spending category in total spending, the expenditure need for each province in each category was determined. To get the total fiscal need of the province, the need in each category was summed up and adjusted for wage and cost differentials across provinces.[11] The difference between expenditure needs and the sum of actual revenues[12] and transfers in each province gives the financing shortfall. The shortfall is expressed as a share of actual expenditure to better capture its relative burden. The most recent data available allow for estimation for the year of 2003.

For comparison, gaps were also calculated assuming needed expenditure per-capita in each area is equal to the national average. In addition to using actual transfers, estimates were made assuming that transfers to provinces with a surplus (more revenue than needed expenditure) are reallocated to those with deficits.

Two cases are considered under the base setting. Case 1 assumes that the allocation of national spending across the eight categories is unchanged and reallocates expenditure in each category across provinces. This is a major caveat of the estimations in case 1 since, as discussed in Chapter 2, the allocation of public spending seems somewhat distorted, with too little spent on education and other key development needs. Therefore in case 2, the gaps are estimated assuming that aggregate spending is reallocated to better reflect national development goals[13] and an increase in total expenditure is allowed to the extent that national development goals and other explicitly quantified central government expenditure targets are met in all provinces.

The results indicate that in both cases the majority of provinces with the largest shortfalls are located in the central region (Figure 3.9). Six out of the ten provinces with the largest shortfalls (Henan, Anhui, Hainan, Jiangxi, Hubei and Hunan) are central provinces, one is eastern (Hebei) and the remaining three are western (Guizhou, Guangxi and Sichuan); while six out of the largest surplus provinces (Shanghai, Beijing, Zhejiang, Tianjin, Guangdong and Jiangsu) are located in the eastern region, one is in the northeast (Liaoning) and the remaining three are in the west (Tibet, Xinjiang and Qinghai). A comparison across regions reveals that none of the central provinces have surpluses of revenues over expenditure needs while only two eastern provinces (Hebei and Shandong) have shortfalls. Largely owing to the Western Development

Figure 3.9. **Province level financing shortfalls with actual transfers**
Percentage of expenditure, 2003



Source: OECD calculations.

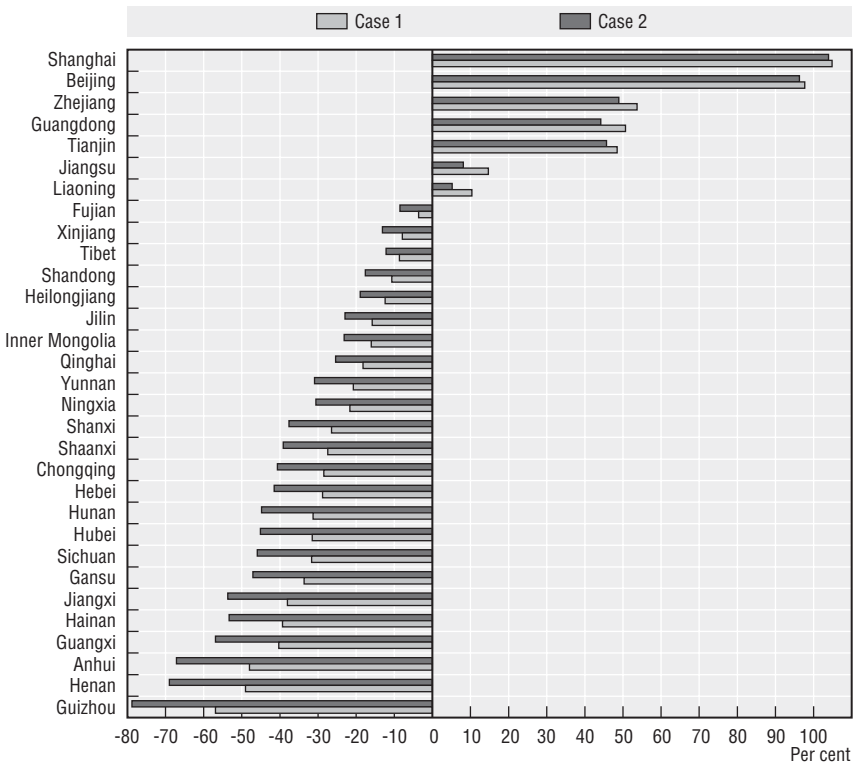
Programme, several western provinces are able to spend above the national average in per-capita terms (Tibet, Xinjiang, Qinghai), while spending in others (Guizhou, Guangxi, Sichuan, Chongqing, Shaanxi, Gansu and Yunnan) still lags behind. Two north-eastern provinces (Jilin and Heilongjiang) are close to breaking even and the third (Liaoning) has a surplus. These comparisons show that central provinces are in the most disadvantaged situation under the current transfer system and given their present resources.

The results indicate that in case 2 the gaps are larger than in case 1. The significantly larger gaps in several central and western provinces in case 2 indicate that there is significant undershooting of national development goals in these provinces.

Assuming that all transfers to surplus provinces are reallocated to those with shortfalls in proportion to the size of the shortfall does not fundamentally alter the rankings. Compared to the actual allocation of

transfers there are slight changes in the order of the provinces, but the main outcome, *i.e.* the largest shortfalls are concentrated in the central region, is unchanged. The reallocation would significantly reduce the burden on provinces with the largest shortfalls (Figure 3.10). In Guizhou, which has the largest shortfall, the estimated gap between revenues and needed expenditures would be nearly halved. The result of this kind of redistribution of transfers which takes into account local needs (*i.e.* whether there is shortfall or surplus and its size) is fewer provinces with large financing surpluses but also fewer with large financing gaps. With such an allocation of transfers, several eastern provinces would still have surpluses, while all western provinces that at present get disproportionately high transfers would have shortfalls. While reallocation would reduce the burden on those with the greatest shortfalls, many central provinces, such as Anhui or Henan, would still be left with large financing gaps. This implies that even if the present amount of central government transfers were distributed according to needs,

Figure 3.10. **Shortfalls after reallocation of transfers**
Percentage of expenditure, 2003



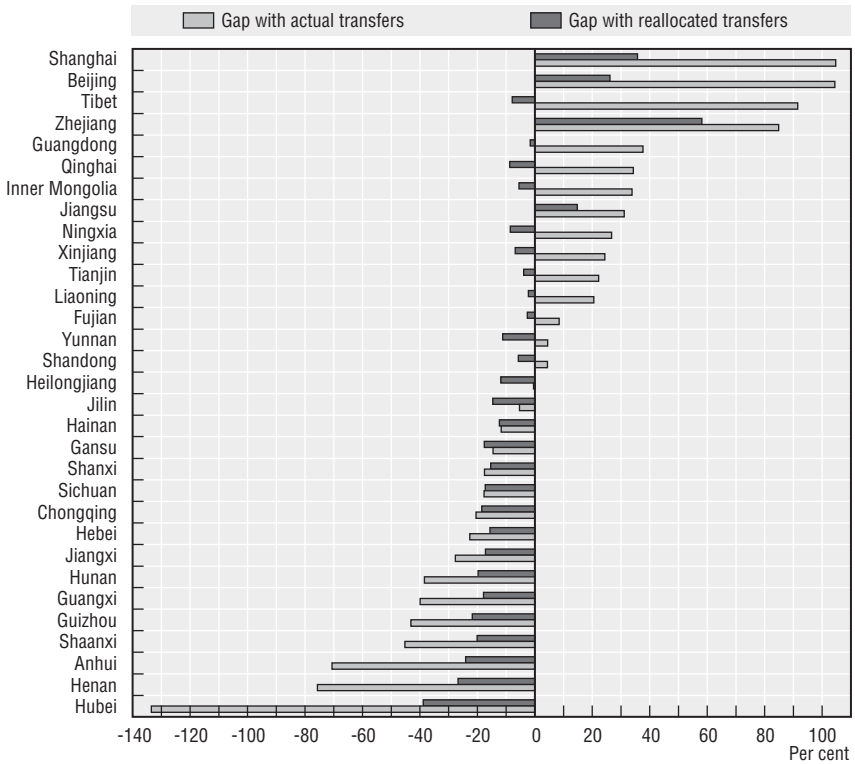
Source: OECD calculations.

it would not be sufficient to cover the shortage of funds in the central regions. Central provinces are in general better off in terms of per-capita income than western ones, but their financing gaps seem to be filled to a lesser extent. Behind this is the fact that the move to help less developed regions tends to be focused on only the poorest provinces (*i.e.* provinces in the western region).

Financing gaps are also large at the county level

The estimation results of financing shortfalls at the county level are similar to those at the provincial level (Figure 3.11).[14] Among the ten provinces with the largest county-level financing shortfalls, five are located in the central region with the remaining half in the west. Moreover, the size of the gaps (based on actual transfers) recorded at the county level in Hubei, Henan and Anhui is markedly larger relative to expenditures than in other provinces. If, however, transfers were reallocated only to counties where estimated

Figure 3.11. **County level financing shortfalls**
Percentage of expenditure, 2002



Source: OECD calculations.

CHALLENGES FOR CHINA'S PUBLIC SPENDING – ISBN 92-64-01371-7 – © OECD 2006

expenditure exceeds actual revenue, the burden of many central and western counties would be substantially reduced. Nevertheless, as at the provincial level, the reallocation of transfers alone would not be sufficient to ensure that all counties have resources to finance their estimated expenditures.

Central provinces appear to have the largest financing shortfalls both at the province and the county level. This fundamental result appears to be robust to a range of alternative assumptions.[15] While there are slight differences in the results under different scenarios, in general the same group of provinces appear to have the largest financing gaps. Most provinces with the largest gaps are located in the central region followed by western provinces. While there is a special programme – the Western Development Programme launched in 1999 – targeted towards the poorest western provinces,[16] less attention seems to be paid to the central region. This leaves central provinces with large financing gaps and makes it more difficult for them to catch up with wealthier provinces in terms of per capita income and living standards.[17] While it would not be possible to fully eliminate these gaps given the present size of central government transfers, they could be reduced if transfers were based on more objective criteria reflecting genuine financing needs.

Financing gaps are further aggravated by some other factors

The discussion of disparities and the estimation of provincial governments' financing gaps in the previous section highlight some of the strains of the present public expenditure system. The disparity across local governments in terms of potential financing sources and expenditure needs as well as differences in efficiency of use of funds also exist at the sub-provincial levels. There the problems are more acute and the situation is aggravated by additional administrative, economic and social factors.

The fiscal decentralisation literature indicates that by tailoring outputs of goods and services to particular preferences, decentralised provision can increase economic welfare (Oates, 1999). Joumard and Kongsrud (2003) examine the prerequisites for decentralisation to increase economic efficiency. Among other things, the accountability of sub-national governments to local voters and the limited ability of human and fiscal capital to change jurisdictions (voice and exit options) emerge as highly relevant. The lack of voice and exit options at the sub-national level significantly hinder the efficiency-enhancing effect of devolution of spending power to sub-national governments in China. Given their nomination by higher government levels, local government officials are more accountable to the level above than to their own citizens, as has also been pointed out by Tsui and Wang (2004). The household registration or *hukou* system, on the other hand, weakens the effectiveness of the exit option as a possible disciplining device of local governments.

Excessive number of layers in the public finance administration system

China's present fiscal system hierarchy, which is derived from long historical tradition, contains four sub-national government layers: the province/municipality, the prefecture (or prefecture-level city), the county (or county-level city) and the township.[18] While the township level is the base unit of a community and the county is a historical administrative formation collecting several townships and hundreds of villages, the need for the next layer in fiscal administration, the prefecture, which is in most cases managed by a city, is at least questionable. Given that prefectures sit between provinces and counties in the fiscal administration hierarchy, they have strong incentives to reduce the volume of transfers to the lower levels of government. Very few provinces have equalisation schemes based on objective criteria. Moreover, the hierarchical administrative system often prevents funds from getting to the county or township level, where they are most needed. In the end, this results in wage arrears, budget deficits, and debt at the county level. Bypassing the prefecture level in the fiscal administration system could economise administrative expenses and make transfers more effective. To better ensure that adequate funds are transferred to counties, several provinces such as Zhejiang and Hainan have placed their counties under the direct jurisdiction of the provincial government (*sheng guan xian)* although the prefecture level still exists.

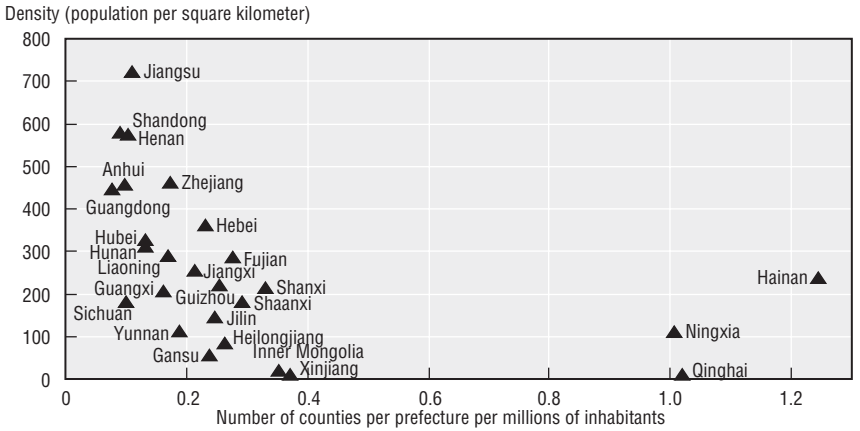
The wide variation in the number of lower government levels supervised by prefectures across China also argues for simplifying the four-tier hierarchy, at least in some provinces. There are 12.3 prefectures per province on average for China as a whole, but in Hainan there are only 2 and in Sichuan and Guangdong 21. There is an average of 8.5 counties per prefecture for China as a whole but in Qinghai, Ningxia and Guangdong there are less than 6 and in Tibet, Shanxi, Shaanxi and Hebei there are over 10.[19] Figure 3.12[20] shows that there is an inverse relation between population density and the number of counties per prefecture (adjusted for population size). On organisational efficiency grounds, the bypassing of the prefecture level in the public administration system could be most justified in provinces such as Anhui, Shandong, Henan, Jiangsu and Guangdong, where population density is high and prefectures control relatively few counties. On the other hand, in less densely inhabited inland provinces with large distances of counties from the provincial capital, prefectures may provide a useful link between higher level governments and counties.

Merging some local governments could improve efficiency

Inefficiencies stem not only from the excessive number of layers in the administrative system, but also from an excessive number of units at a given government level. Amalgamation would not only reduce administrative costs but would also allow economies of scale to be better exploited. Recent moves

Figure 3.12. **Relation between population density and number of counties per prefecture adjusted for population size**

2003



Source: OECD calculations from various editions of the *China Statistical Yearbook*.

to merge districts or townships and villages have partly been driven by efficiency considerations. Particularly when mergers are initiated by the next higher government level, the primary objective is to better exploit economies of scale, but management capacity of the government organisation is also taken into account. A recent example is the large scale merger between townships in Anhui Province.[21]

The optimal size of a township or county in terms of population is a function of several variables such as population density and geographical conditions. A study by Pang (2001) estimates the optimal size of county-level administrative units in Sichuan in terms of area and population. His findings suggest an optimal size for a district of a city of 394 to 1 575 square kilometres and 250 thousand to 1 million people; for a county-level city 763 to 3 053 square kilometres and 330 thousand to 1.32 million people; for a county 542 to 2 167 square kilometres and 310 thousand to 1.2 million people; for a minority autonomous county 3 026 to 12 103 square kilometres and 55 to 220 thousand people. The author emphasised that the applicability of his results is limited to Sichuan province and may differ substantially for other provinces with different conditions. There have been similar studies that estimate the optimal size of counties and townships in other provinces. For example, one such estimate implies that, in terms of population, the optimal size is 1 million for a county in Anhui Province and for townships it is 50 thousand for mountainous areas and 120 thousand for flat areas.[22]

Apart from economies of scale, mergers in China are meant to take advantage of complementary endowments. An example is the merger in 2000 in Shanghai Municipality of Huangpu District with constrained land resources but relatively ample financial resources and Nanshi District with more limited financial resources but more abundant land. Similar considerations drove the recent merger of city districts in Xiamen. The third most common type of merger between local administrative units is the absorption of surrounding counties by a prefecture level city. An example is the merger of Jingshan County with Haikou City under the name of Jingshan District.

Such mergers, however, while allowing former county habitants to enjoy the privileges of urban citizens, do not always result in efficiency gains. Indeed, there is no conclusive evidence that larger jurisdictions are always more efficient than smaller ones. This is partly because scale economies constantly change with changes in technology and government function (Asian Development Bank, 2004). Therefore, joint provision of public goods and services by adjacent local governments should also be considered along with administrative simplification as a way to exploit scale economies and thereby increase efficiency.

Overlapping expenditure assignments reduce efficiency

Very often multiple levels of government are responsible for the same expenditure item such as education, health care, social security or infrastructure[23] and there are no clear guidelines as to how to share the responsibilities of financing, delivering or regulating those goods or services. The lack of clear expenditure assignments leaves room for upper level governments to delegate expenditure mandates downwards, often without providing adequate funding. Unfunded mandates and lack of accountability in turn create incentives to levy unsolicited fees and accumulate debt at the local level and create disincentives to take citizens' needs into account when providing goods and services. Without clear assignments of responsibilities and accountability of local governments, efficiency gains from decentralisation are unlikely to materialise.

Rural tax reform has had some problematic consequences

The rural tax reform aims to standardise farmers' tax burdens and eliminate arbitrarily levied fees and charges. This reform was first adopted in Anhui province in 1994 as a pilot programme and gradually extended to 20 provinces (allowing 620 million farmers or three quarters of the total to benefit from the reform) by 2002. Broader objectives are to boost rural incomes and rural consumption, thereby revitalising the rural economy. The widening divide between urban and rural incomes and the increasing burden on rural households and its social implications have called for corrective measures. The

key elements of the tax reform are the reduction of the number of taxes and levies and the replacement of various fees on farmers with taxes. Specific measures comprise the abolition of the slaughter tax, reduction of the agricultural tax, abolition of fund-raising programmes (including local education funds), reform of the "15 charges"[24] and other policies. Transparency and efficiency of collection has been raised by abolishing the practice of having rural officials visit farmers to collect fees in favour of letting farmers pay the tax by themselves according to amounts enumerated in a tax bill.

The preliminary assessment of the rural tax reform reports an average decrease of financial burden on farmers by 30%. But the reform had also some problematic consequences. Village, township, and county level governments suffered a reduction in their revenue after fees and charges were abolished. The loss of revenue tends to be more pronounced in the central and western provinces, where local governments relied heavily on charges and fees for lack of other sources of financing. The financing gap at the county and lower levels implied by the rural tax reform is partly being taken care of by central government earmarked transfers for wages of rural teachers (CNY 10 billion per year since 2002) and for education spending in the central and western provinces.

Where these earmarked transfers are insufficient to make up for the shortfall in revenue resulting from the rural tax reforms, larger transfers from higher levels of provincial governments are likely to be needed. The recentralisation of financing for teachers' salaries – notwithstanding its positive role in easing rural budget strains – increases the administrative burden at the central level and further complicates intergovernmental fiscal relations and transfers. Other targeted transfers by the central government for school construction and certain education-related spending in rural areas similarly add to administration costs and do not always reach the designated administrative unit.[25] Notwithstanding its positive achievements – reducing farmers' financial burdens, making the rural tax system more transparent and efficient – the rural tax reform has introduced new sources of inequality and inefficiency (OECD 2005e, Guo 2003 and Zhang 2001). To address these problems, pilot programmes have been introduced that shift the responsibility of townships for public finances up to the county level (*xiangcai xianguan*).[26]

Further reforms are needed to improve intergovernmental fiscal relations

One of the major and most urgent tasks of fiscal reform is to better match expenditure assignments with revenue sources at all government levels, particularly in order to eliminate unfunded expenditure mandates at the lowest levels. This could be done by reassigning expenditure responsibilities

or by changing the revenue sharing and transfer systems or some combination of these measures. There are a few expenditure categories that could be centralised without foregoing the benefits of decentralised provision of public goods and services. A potential candidate is unemployment benefits, which could be reassigned to the centre in part to reduce the burden on local budgets and in part to ensure better integration of labour markets and better functioning of "automatic stabilisers" against macroeconomic fluctuations. The major reforms to better match expenditure assignments with resources, however, probably need to be implemented on the revenue side. These include boosting local own revenue and reforming the tax sharing and intergovernmental transfer systems. Potential local own revenue sources could be a modern property tax, and, with upgraded management, the proceeds from sale of locally owned state assets could be increased. However, given the large dispersion of provinces in terms of the tax base and the potential sources of non-tax revenue, it is unlikely that all sub-provincial governments could meet their expenditure needs under a standardised revenue sharing scheme. Therefore a redistributive transfer system would still be necessary to reduce inequality across the country.

Transfers should serve the purpose of reducing inequalities, and their size should depend on actual need. While the present amount of central transfers is unlikely to allow disparities to be completely eliminated, a better allocation of transfers, especially at the sub-provincial level, would reduce them substantially. In provinces where within-province income disparities are relatively low and estimated financing shortfalls are large (as in most central provinces such as Henan, Anhui and Hunan), a larger portion of taxes could be shared with the county level to provide stable revenue sources for their operations without generating further inequalities in spending. In provinces with large financing gaps and where the distribution of per capita expenditures is already fairly equal, larger amounts of transfers from the central government would likely be needed to ease the fiscal strains.

However, in a number of cases where initial income disparities are high and financing shortfalls are large (as in Shaanxi, Sichuan and Gansu), simply increasing central transfers would not be sufficient to eliminate the financing gaps. Reduction in the extent of revenue sharing together with increased intra-provincial transfers based on need would be necessary to make spending more equal. As a first step, differences across counties within a province could be reduced by direct province-to-county transfers. To exploit the advantages of local provision of public services and allow local governments to tailor public services to local needs, the share of general purpose transfers could be increased. Earmarked grants from the central government should be used for services for which the need is standard across the country such as education or health; and the monitoring of the use of

earmarked transfers should be enhanced to ensure that they are used for what they are meant for. Providing sufficient revenue sources for counties to meet expenditure needs – besides easing the revenue-expenditure mismatch – would give them incentives to allocate resources to where social utility is highest.

Thus the solution does not solely lie in the redesigning of the transfer system and making larger amounts of funds available for needy provinces. Notwithstanding the importance of the equalising function of fiscal transfer systems, making local governments largely rely on transfers from the central government would have a potential negative effect on the allocation of these resources. That is, if local governments have little room to affect the amount of their revenues, they may not sufficiently take the marginal social costs of raising revenues into account when deciding how to allocate resources. In order to allocate resources efficiently while also bearing in mind equity issues, transfers could be based partly on local governments' efforts to improve tax collection and achieve a better allocation of available resources among expenditure categories. However the GDP-based appraisal system of local officials may hinder the achievement of these objectives. This system, although modified recently, still encourages local officials to allocate resources to investment projects that are included in GDP rather than to education or other social needs whose outcomes do not show up immediately in local GDP.

In China, the devolution of service provision to the local level has sometimes gone too far, thereby reducing the efficiency gains that decentralisation is supposed to afford. Economies of scale remain unexploited as public goods and services are provided by township level governments that are too small to efficiently provide them. Amalgamations among townships and shifting of township finances to the county level are presently used as measures to solve the problem of scale economies. However, joint provision of public services should also be considered as scale economies change with the change of technology and by government function. Further administrative simplification could be considered: bypassing the prefecture level in fiscal administration in those areas where population density is high and the number of counties per prefecture is low could increase efficiency. Efficiency gains could also be enhanced by clearer expenditure and revenue assignments across government levels as it would help to reduce overlapping and sometimes conflicting responsibilities.

Notes

1. In comparison, disparities in per capita revenues are markedly higher than disparities in per capita spending and nearly 70% of revenue disparities are attributable to within-province differences. Disparities in per capita incomes have

been stable at about the same level as disparities in per capita expenditures over 2000-2002.

2. Official sources do not seem to have a consistent grouping of the 10 types of transfers that have separate codes in the most recent budget classification system (these 10 transfers are: tax rebates, old system subsidies, earmarked transfers, general transfers, salary adjustment subsidies, social security subsidies, settlement subsidies, rural tax reform subsidies, income tax base rebate and other subsidies; as in Ministry of Finance, 2004). Ohnishi (2004) classifies these transfers into four broader types: tax rebates comprising the VAT and consumption tax rebate as well as the income tax base rebate; earmarked subsidies; old system subsidy; and transfers related to fiscal capacity including general transfers with a minority region component, salary adjustment subsidies and rural tax reform subsidies.

3. The formula to calculate the base for tax refund deducts originally received subsidies (in 1993) from the central share of newly shared taxes to get the amount to be refunded:

$$TR = C + 0.75 * VAT - OldSubsidies1993$$

where TR is tax refund and C is consumption tax. The formula also implies that if net submissions to the central government do not reach the 1993 base, then local governments have to make up for this shortfall from their own revenues. There has, however been no precedent for this. From 1994 onwards tax refunds have been increasing with the average growth rate of the consumption and value added taxes in the proportion of 1:0.3. That is post-1994 tax refund is calculated according to the formula:

$$TR_t = TR_{t-1} + TR_{t-1} \times 0.3 \frac{(C + 0.75 \times VAT)_t - (C + 0.75 \times VAT)_{t-1}}{(C + 0.75 \times VAT)_{t-1}}$$

where t denotes time.

4. There are 56 officially recognised ethnic groups in China.

5. Transitory grants are one of the most dynamically evolving components of transfers. They have been revised several times following the 1996 adjustments. Li (2003) provides a detailed description of the revisions.

6. The central government established this transfer component to share the burden of the six salary increases for civil servants since 1998 with local governments. As salary increases imply a relatively higher burden for less wealthy provinces, this type of transfer is confined to the central and western regions. Depending on the relative burden that the salary increment puts on local governments, the central government shares between 20 and 80% of this incremental payment. A new component called "border area subsidy" was added to this transfer in 2001. This component targets 634 border counties and makes up 0.8% of total transfers. An even smaller component within this transfer category is "poverty relief subsidies", which is channelled to designated poor counties and is jointly administered by the State Council and the Ministry of Agriculture (Ohnishi, 2004).

7. It should be noted that several provinces add own funds to the transfer received from the central government, but the amount of these funds is not revealed in their accounts. It, however, is revealed when total transfers exceed 100% such as in Gansu, Guangdong, and Zhejiang.

8. Causality is unlikely to work in the opposite direction. For the province the degree of transfer dependence is supposed to be determined by its relative situation

among provinces, *i.e.* it is determined by outside authorities, while the sharing of the value-added tax is decided by the province itself. Counties on the other hand face pre-determined tax sharing rates and then fill the gap with transfers.

9. Given that the data used here are county-level data aggregated by province, disparities are confined to those between provinces.

10. This approach is based on World Bank (2000) with extensive modification of the definition of expenditure categories, variables considered to be driving expenditures in various categories and the expression of the expenditure shortfalls. A similar methodology is applied in Ahmad *et al*. (2004) in estimating financing shortfalls at the province level.

11. The method of adjusting for wage and cost differentials across provinces is described in Annex C.

12. Actual revenues include on-budget revenues adjusted for state-owned enterprise losses, extra-budgetary revenues and social security contributions.

13. National development goals are described in Annex C.

14. Financing gaps for counties are only estimated for case 1 (the present national allocation of expenditure across categories is unchanged) given their distinct roles in providing public goods and services. While at the provincial level it is reasonable to assume that expenditure can be reallocated in line with national development goals across all spending categories, there is a division of labour among lower government levels in providing goods and services that varies among provinces. This together with differences in administrative systems and expenditure assignments across provinces makes it difficult to define spending objectives at sub-provincial levels.

15. These include calculations with: actual transfers *versus* reallocation of transfers based on the size of the gap; the present allocation of funds across expenditure categories *versus* an allocation more in line with national development goals; and total expenditures at the present level *versus* allowing for an increase to meet development goals and targets. Calculations were also made using alternative weights for the factors driving expenditures at the province and the county levels.

16. In 2003, a new programme targeted at the industrial rustbelt area of the northeast was launched.

17. It has not been until recently that the government acknowledged the need to target central provinces with a special programme, and the specific measures to promote development of the central region have not been announced yet. This component of regional policy has often been referred to as "take-off by the centre" (*zhongbu jueqi*).

18. Below the township level there are villages but they do not constitute an individual unit in public finance administration.

19. In a county on average there are about 15 townships (municipalities are not taken into consideration as they have different administrative structures). In densely populated areas such as Sichuan or Hunan there are over 20 and in Tibet or Qinghai less than ten.

20. Tibet is not included in the sample.

21. For instance in Nanling County the number of townships was reduced from 24 to 8 in 2003.

22. Public Finance Bureau, Anhui Province.

23. See Li (2003) for a discussion of how to divide the responsibilities of infrastructure financing and investment between the central and sub-national governments.

24. This reform implies abolition, exemption or lowering of 15 charges designated by the Ministry of Finance and the National Development and Reform Commission. These include quarantine certificate charges, licensing fees for using water resources, education fees, land-use right certificates and charges for fishing boat inspections.

25. It has been reported that earmarked funds designated for less developed areas often end up in eastern regions. In 2002 alone, CNY 500 million of social security assistance and education transfers ended up in provinces that were supposed to be excluded from the benefits; most of this, CNY 408 million, ended up in 4 such provinces. Similarly, of the earmarked transfers to the central and western provinces for vocational school construction, 56% ended up in more developed regions (*http://news.soufun.com/2003-06-26/169582.htm* downloaded on 22 January 2004).

26. This pilot programme is implemented in major agricultural provinces such as Anhui, where after experimenting with the new system in 9 counties including He, Wuwei and Wuhe since 2003, the scheme was extended to the whole province in July 2004. The major novelty of the programme is that the major components of public finances of county and township level governments are integrated: the budget is drafted jointly, payments and receipts are made using an integrated account, and government procurement is centralised at the county level.

ISBN 92-64-01371-7
Challenges for China's Public Spending
Toward Greater Effectiveness and Equity
© OECD 2006

Conclusions and Recommendations

China's evolution from a centrally-planned to a market-based economy has led to a major transformation of its public expenditure policies. Significant progress has been made in raising infrastructure spending to levels more in line with China's development needs and objectives and in improving mechanisms for expenditure budgeting and planning. Nevertheless, the transformation of expenditure policies remains incomplete. This incomplete transformation is reflected in problems in the macroeconomic dimensions of expenditure policies, in the allocation of expenditure among alternative uses and government organs, and in the technical efficiency with which expenditure policies are formulated, implemented, and assessed.

This report has focused on the first two dimensions of expenditure policies – macroeconomic and allocative efficiency – and has highlighted several problem areas and the efforts authorities are making to address them. *First*, a substantial part of China's public expenditure, more than one-third of total spending, is outside the formal budget and its planning and control mechanisms. This outside-the-budget spending is partly a vestige of the former central planning system and partly the result of strains that have arisen in the fiscal relations among levels of government. The result has been a severe weakening of accountability, coherence, control and transparency in expenditure policies. Some expenditures, notably those arising from contingent liabilities of the major banks and many of the larger SOEs (for which state backing is virtually unavoidable) are, at best, under only very limited control of the government. Transparency of expenditure policies is further undermined by the extensive resort to tax expenditures; and by the antiquated system for classifying expenditures, which is largely based on administrative distinctions and which makes it difficult to identify or monitor the amounts being spent on key functional areas such as education or science.

Second, while the rapid growth of public spending over the past decade in part represents a healthy correction of the decline of on-budget spending relative to GDP to sub-optimal levels in the mid-1990s, it also reflects some more problematic features. While some of the forces that have driven the rapid growth in official government spending may abate somewhat in the medium-term, there remain important uncertainties about off-budget spending by local governments and especially the growth of contingent liabilities. Moreover, China's government may be spending less than needed to achieve its development goals in key areas, notably education, health, and science, while spending a relatively high amount

on public administration. If anything, this imbalance has increased in recent years as spending on public administration has grown more rapidly than spending in the other areas.

Third, the degree to which China's expenditure policies achieve their goals depends as much on the effectiveness with which they are formulated, planned and implemented as on how funds are allocated. China's governments have made considerable progress in modernising budget systems and are making good use of international practices in seeking to improve the efficiency with which public goods and services are produced and delivered. But many of these efforts are in an early stage and are most developed at the central government level; they will need to be further developed and extended to lower levels.

Fourth, China's public expenditure policies have been seriously impeded by the distortions in fiscal relations among levels of government. The higher degree of decentralisation of expenditure responsibilities relative to revenues has led to major financing gaps of sub-national governments that are greatest at their lowest levels. The fiscal transfer system has only very partially reduced the gap between expenditure responsibilities and revenues for the western provinces, has done little for the central provinces where the gaps are now greatest, and has increased the disparities between the interior and coastal provinces. The strains resulting from these gaps have been further aggravated by the imposition by the central government of unfunded mandates on sub-national governments, by the lack of clear standards for the division of revenues between higher and lower levels of government and by the limited formal accountability of local governments to their citizens. They have also been aggravated by the prevalence of "top-down" evaluation of local government officials based on local aggregate output growth and other criteria at best imperfectly related to the practical needs of the jurisdictions they are responsible for. These distortions, and the adverse incentives they have engendered, have been important factors limiting government spending on education and other social/development needs and have encouraged the resort to off-budget expenditures and other inefficiencies in China's public expenditure policies. Recent reforms, notably those to reduce agricultural taxes and suppress unsanctioned fees and other charges, while beneficial in themselves, risk aggravating government financing gaps and the distortions resulting from them in the absence of a more comprehensive reform of China's fiscal federalism arrangements.

These findings suggest the following guidelines for further reforms to improve the effectiveness of China's public expenditure policies.

- Continue efforts to bring expenditures now off-budget onto the budget as part of broader efforts to subject all expenditures to more rigorous formulation, implementation and accountability. Accurate and

comprehensive reporting of all government expenditures should be required of all government levels. Over time and as conditions permit it would be desirable to include estimates of tax expenditures and of contingent (and other off-budget) liabilities as part of published budget reports.

- Improve transparency by reforming accounting systems for expenditures along functional lines, using international standards as a guide, so that amounts spent on key social, development and strategic needs can be clearly determined and assessed.
- Improve the allocation of public expenditure by raising spending on education, health, science, and other social/development needs, as a share of overall spending and relative to GDP, to the extent necessary to achieve China's development goals and objectives. In particular, public expenditure on education should be raised within the next several years to a level that is in line with the longer-standing official goal. Strong efforts should be made to constrain the growth of spending on public administration by improving efficiency and eliminating waste. Public administration spending could be reduced by simplifying the administrative system, for example by bypassing the prefecture level in fiscal administration, at least in certain provinces.
- Reform fiscal relations among central and sub-national governments to bring expenditure responsibilities at each level of government more into line with financial resources. This effort will entail some combination of changes in expenditure and/or revenue assignments along with reform of the fiscal transfer system, as well as establishment of enforceable norms for expenditure assignments and revenue distribution within provinces. Central government mandates that entail additional spending by sub-national governments should be explicitly accounted for in budget statements and wherever possible accompanied by transfers or other additional revenue. Among other specific reforms that might be considered are: the establishment of a graduated system of tax sharing under which poorer provinces would receive a higher portion of shared revenues than more wealthy provinces; and increases in transfers to poorer provinces (only) that are able to improve their tax collection.
- Improve accountability of sub-national governments by establishing more explicit criteria for performance in key areas such as education. These should include not only aggregate targets but also, for higher levels of government, indicators of uniformity of accomplishment across lower levels for which they are responsible. Recent initiatives from the central government to broaden criteria for evaluation of provincial and lower level government officials to include indicators of progress toward key social goals are a useful step in this direction. Consideration might also be given to allowing local governments some greater discretion over the rates and other provisions of certain taxes.

ISBN 92-64-01371-7
Challenges for China's Public Spending
Toward Greater Effectiveness and Equity
© OECD 2006

References

Ahmad, Etisham, Li Keping and Thomas Richardson (2000), "Recentralisation in China?", paper presented at the IMF Conference on Fiscal Decentralisation, Washington 20-21 November.

Ahmad, Etisham, Raju Singh and Mario Fortuna (2004), "Toward More Effective Redistribution: Reform Options for Intergovernmental Transfers in China", *IMF Working Paper No. 04/98*.

Asian Development Bank (2004), *To Serve and to Preserve – Improving Public Administration in a Competitive World*, Asian Development Bank, Manila.

Atkinson, Paul and Paul van den Noord (2001), "Managing Public Expenditure: Some Emerging Policy Issues and a Framework for Analysis", *Economics Department Working Paper No. 285*, OECD, Paris.

Chen, Chien-hsun (2004), "Fiscal Decentralisation, Collusion and Government Size in China's Transitional Economy", *Applied Economics Letters 11,* pp. 699-705.

China Development Research Report Series (2004), *Zhongguo Difang Caizheng Yanjiu Baogao – Zhongguo Difang Zhengfu Huoyou Zhaiwu Wenti Yanjiu*, in Chinese (Chinese Local Government Finance Research Report – Research on Local Governments' Contingent Liabilities in China), Zhongguo Caizheng Jingji Chubanshe, Beijing.

Gao, Peiyong (2001), "Guanyu Caizhengxing Jiaoyu Zhichu Zhan GNP de Bili Wenti de Kaolu", in Chinese (Thoughts on the Ratio of Public Expenditure on Education to GNP), *www.edu.cn/20011011/3004503.shtml* downloaded 26 April 2003.

Guo, Feng (2003), *Nongcun Shuifu yu Nongmin Fudan*, in Chinese (Rural Taxation and Farmers' Burden), Jingji Ribao Chubanshe, Beijing.

He, Long (2002), "Chugoku no Zaisei Mondai" in Japanese (China's Public Finance Problems) *www.mof.go.jp/jouhou/soken/kouryu/h13/chu08.pdf* downloaded 25 April 2003.

Hu, Shudong (2000), "Caizheng yu Fazhan – Zhongguo Caizheng Zhidu Bianqian Yanjiu", in Chinese (Public Finance and Development – Research on the Evolution of China's Public Finance System), Ph.D. dissertation at CCER, Beijing University, China.

Japan Bank for International Cooperation (JBIC) (2003), *Meta Analysis of Ex-Post Evaluation Reports by Country and Sector-Country Review Report: China*, JBIC, Tokyo.

Jia, Kang (2003), *Zhuangui Shitai de Zhizhao Tansuo*, in Chinese (Searching for a Handle in a Transition Era), Zhongguo Caizheng Jingji Chubanshe, Beijing.

Jia, Kang (2004), *Difang Caizheng Wenti Yanjiu*, in Chinese (Research on Local Public Finance), Zhongguo Kexue Chubanshe, Beijing.

Jia, Kang and Wenjie Guo (eds.) (2002), *Caizheng Jiaoyu Touru jiqi Guanli Yanjiu,* in Chinese (A Study on Public Education Spending and Management), Zhongguo Caizheng Jingji Chubanshe, Beijing.

Jin, Jing and Heng-fu Zou (2003), "Soft Budget Constraints and Local Government in China" in Rodden, Jonathan A., Gunnar Eskeland and Jennie Litwack (eds.), *Fiscal Decentralisation and the Challenge of Hard Budget Constraints,* MIT Press.

Jones, Derek, Chen Li and Ann Owen (2001), "Growth and Regional Inequality in China during the Reform Era", *William Davidson Institute Working Paper Series* 561.

Joumard, Isabelle, Per Mathis Kongsrud, Young-Sook Nam and Robert Price (2004), "Enhancing the Effectiveness of Public Spending: Experience in OECD Countries", *Economics Department Working Paper No. 380*, OECD, Paris.

Joumard, Isabelle and Per Mathis Kongsrud (2003), "Fiscal Relations across Government Levels", *Economics Department Working Paper No. 375*, OECD, Paris.

Kurihara, Kazutomi (2005), "Governance in Taxation in China" in OECD, *Governance in China,* China in the Global Economy, OECD, Paris.

Li, Qiyun (2003), *Fenji Caizheng Tizhi Yanjiu,* in Chinese (Study on Decentralised Public Finance Structure), Jingji Kexue Chubanshe, Beijing.

Li, Yihua (2003), *Zhongguo Difang Zhengfu Touzi Yanjiu*, in Chinese (Research on Local Government Investment in China), Jingji Kexue Chubanshe, Beijing.

Lin, Shuanglin (2003), "China's Government Debt: How Serious?", *CHINA: An International Journal* 1 (1) p. 73-98.

Liu, Ying (2001), "Dui Woguo Shedu Chizilu he Zhaiwulu de Jizhong Guji", in Chinese (Some estimation of China's Appropriate Budget Deficit and Debt Ratio), *www.cass.net.cn/show_News.asp?id=2001* downloaded 2 October 2002.

Lou, Jiwei (ed.) (2002), *Zhongguo Zhengfu Yusuan: Zhidu, Guanli Yu Anli*, in Chinese (Chinese Government Budgeting: Structure, Management and Practice), Zhongguo Caizheng Jingji Chubanshe, Beijing.

Ma, Jun (2000), "Off-budgetary Activities Of China Governments Since Economic Reform", paper presented at Association for Budgeting and Financial Management 12th· Annual Conference, Kansas City, 7 October.

Ministry of Finance (2004), *2004 Nian Zhengfu Yusuan Shouzhi Kemu*, in Chinese (Budgetary Accounts Categories for 2004), Zhongguo Caizheng Jingji Chubanshe, Beijing.

Ministry of Labour and Social Security (2001), *Zhongguo Yanglao Baoxian Jijin Cesuan yu Guanli*, in Chinese (Implicit Debt Projection and Pension Management in China), Jingji Kexue Chubanshe, Beijing.

Molnar, Margit (2004), "Chugokuno Chiho Seifu Zaimu to Kisai", in Japanese (Local Debt and Possible Debt Issue in China), in Policy Research Institute of the Ministry of Finance, *Zaimusho Zaimu Sogo Seisaku Kenkyujo to Chugoku Kokumuin Hatten Kenkyu Chushin tono Saishu Hokokusho* (Proceeds of Joint Research on Local Government Debt by the Policy Research Institute of the Ministry of Finance and the Development Research Centre of the State Council), Policy Research Institute of the Ministry of Finance, Tokyo.

Molnar, Margit (2005a), "Chugokuno Zaisei Iten Seido no Sentaku", in Japanese (Choice of Fiscal Transfer System for China), Policy Research Institute of the Ministry of Finance, Tokyo.

Molnar, Margit (2005b), "The Challenges Facing Public Spending Policy", *BOFIT China Review No. 2*, Bank of Finland, Helsinki.

Molnar, Margit and Charles Pigott (2005), "China's Public Expenditure Policies" in OECD, *Governance in China,* China in the Global Economy, OECD, Paris.

Naito, Jiro (2002), "Bunzeiseigo no Chugoku no Seifukan Kankei – Zaisei Yiten wo Chushin ni", in Japanese (Post-Decentralisation Relationship between Government Levels – With a Focus on Fiscal Transfers), *Chugoku Keizai* No. 11 pp. 50-79.

Naito, Jiro (2004), *Chugokuno Seifukan Zaisei Kankei no Jittai to Taio*, in Japanese (The Present State and Handling of Inter-governmental Fiscal Relations in China), Nihon Tosho Centre, Tokyo.

National Audit Office (2004), "Bufen Chengshi Jichu Jianshe Guozhai Xiangmu Jianshe Xiaoguode Shenji Jieguo", in Chinese (Auditing Report on Outcome of Construction of Infrastructure Projects Financed by Government Bonds in Selected Cities), *Audit Report No. 4*, National Audit Office, Beijing.

Ni, Hongri (2005), "Chugokuno Zaisei Iten Seido", in Japanese (China's Fiscal Transfer System), paper presented at the Conference on Fiscal Transfers organised by the Policy Research Institute of the Ministry of Finance, Tokyo, 20-21 January.

Oates, Wallace E. (1999), "An Essay on Federalism", *Journal of Economic Literature* 37, pp. 1120-1149.

OECD (2000), *Current Issues in Chinese Higher Education – Education and Skills*, OECD, Paris.

OECD (2002), *China in the World Economy*, OECD, Paris.

OECD (2004), *Education at a Glance*, OECD, Paris.

OECD (2005a), *Budgeting in China*, OECD, Paris.

OECD (2005b), *Economic Survey: China*, OECD, Paris.

OECD (2005c), *Financing Strategy of the Urban Wastewater Sector in Selected Municipalities of the Sichuan Province in China*, OECD, Paris.

OECD (2005d), *Governance in China*, China in the Global Economy, OECD, Paris.

OECD (2005e), *Review of Agricultural Policies: China*, OECD, Paris.

Ohnishi, (2004), "Chugoku Zaisei/Zeisei no Genjo to Tenbo" in Japanese (Present State and Prospects for China's Public Finance and Tax System), *PRI Discussion Paper Series No. 04A-26.*

Pang, Senquan (2001), "Jiance Xianji Xingzheng Quyude Heli Guimo – Yi Sichuan Sheng Xianji Xingzheng Quyu Wei Li", in Chinese (Estimating the Optimal Size of County-Level Administrative Units – The Example of County-Level Administrative Units in Sichuan Province), *Zhongguo Fangyu-Xingzheng Quhua yu Diming Vol. 3.* pp. 22-25.

Rodden, Jonathan A., Gunnar Eskeland and Jennie Litwack (eds.) (2003), *Fiscal Decentralisation and the Challenge of Hard Budget Constraints,* MIT Press.

Rong, Hongyuan (*ed.*), (2004), *Zhongguo Xiangcun Caizheng yu Gonggong Guanli Yanjiu*, in Chinese (Research on Fiscal and Public Management of Townships and Villages in China), Zhongguo Caizheng Jingji Chubanshe, Beijing.

Song, Li (2003), "Shizheng Shouyi Zhaijuan: Jiejue Difang Zhengfu Zhaiwu Wenti de Zhongyao Tujing" in Chinese (Municipal Revenue Bonds: A Major Path to Solve the Problem of Local Government Debt), paper presented at the Local Government Debt Conference in Dalian.

Su, Ming and Quanhou Zhao (2004), "China's Fiscal Decentralisation Reform", paper presented at the International Symposium on Fiscal Decentralisation in Asia, Tokyo, 20-21 February.

Tanaka, Osamu (2002), "Chugoku Zaisei no Iji Kanosei", in Japanese (Sustainability of China's Public Finances) *www.mof.go.jp/jouhou/kokkin/tyousa/tyou040h.pdf* downloaded 20 May 2003.

Tanaka, Osamu (2004), "Chugoku Zaisei no Kozo Mondai", in Japanese (Structural Problems in China's Public Finances), *PRI Discussion Paper Series No. 04A-11*.

Tsui, Kai-yuen and Youqiang Wang (2004), "Between Separate Stoves and a Single Menu: Fiscal Decentralisation in China", *The China Quarterly* No. 177 pp. 71-90.

Van den Noord, Paul (2000), *Surveillance of Public Expenditure: A Framework for EDRC Reviews* ECO/CPE/WP1(2000)15.

Wang, Shaoguang (2001), "For National Unity: The Political Logic of Fiscal Transfer in China", *Department of Government and Public Administration Working Paper,* The Chinese University of Hong Kong, Hong Kong, China.

Wang, Xin (2004), "China's Pension Reform and Capital Market Development", *China and World Economy*, Vol. 12 (3), pp. 3-16.

Wei, Jianing (2004), "Chugoku no Chiho Zaimu Mondai to sono Taisaku ni tsuite no Kosatsu", in Japanese (The Local Debt Problem in China and Ways to Solve it), paper presented at the Local Government Debt Conference in Tokyo.

Wong, Christine (2001), "Fiscal Decentralisation in China: the Problematic Outcomes of Unplanned Changes in Transition toward a Market Economy", paper presented at Asian Development Forum, Bangkok.

Wong, Christine (2005a) "Budgeting Issues in China" in OECD, *Governance in China*, China in the Global Economy, OECD, Paris.

Wong, Christine (2005b), "Can China Change Development Paradigm for the 21st Century? – Fiscal Policy Options for Hu Jintao and Wen Jiabao after Two Decades of muddling through", *Working Paper FG 7, 2005/03*, Research Unit Asia, Stiftung Wissenschaft und Politik, German Institute for International and Security Affairs, Berlin.

World Bank (1996), "*China 2020 – Development Challenges in the New Century*", World Bank, Washington.

World Bank (2000), *China: Managing Public Expenditures for Better Results*, Country Economic Memorandum, World Bank, Washington.

World Bank (2002), *China – National Development and Sub-National Finance – A Review of Provincial Expenditures*, World Bank, Washington.

Yang, Jisheng (2002a), "Zhongguo Caizheng: Tigao Liange Bizhong Bixu Shenxing", in Chinese (China's Public Finances: Should be Careful about Raising the Two Ratios) *www.dajun.com.cn/caizhengwenti.html* downloaded 30 April 2003.

Yang, Jisheng (2002b), "Zhongguo Caizheng: Ling Ren Kunrao de Nanti", in Chinese (China's Public Finances: Puzzling Problems) *www.dajun.com.cn/caizheng2.html* downloaded 20 January 2004.

Zhang, Baoqing (1998), "Guanyu Zhongguo Jiayu Jingfei Wenti de Huigu yu Sikao", in Chinese (Review and Reflection on Educational Finance Problems in China), speech by Vice Minister of Education *www.cbe21.com/Law/jichulei/0050-05.htm* downloaded 3 April 2003.

Zhang, Ping (ed.) (2001), *Anhui Nongcun Shuifei Gaige – Shijian yu Tansuo*, in Chinese (Tax for Fee Reform in Anhui – Implementation and Exploration), Dangdai Zhongguo Chubanshe, Beijing.

Zhang, Zhihua and Jorge Martinez-Vazquez (2003), "The System of Equalisation Transfers in China", *Georgia State University Working Paper 03-12*.

Zhao, Yaohui and Jianguo Xu (2001), "Woguo Chengzhen Yanglao Baoxian Tizhi Gaige zhongde Jili Jizhi Wenti" in Chinese (Incentive Mechanisms in China's Urban Pension System Reform), *Jingjixue Jikan*, Vol. 1 (1), pp. 193-207.

Zhao, Zhiyun and Deyong Zhang (2002), "Lun Difang Zhengfu Huoyou Fuzhai", in Chinese (Discussion on Local Governments' Implicit Liabilities), *Caimao Jingji* Vol. 12 pp. 20-27.

Zhou, Tianyong (2004), *Zhongguo Zhengzhi Tizhi Gaige*, in Chinese (Reform of the Chinese Political System), Zhongguo Shuili Shuidian Chubanshe, Beijing.

Zhu, Qing (2002), *Yanglaojin Zhidu de Jingji Fenxi yu Yunzuo Fenxi*, in Chinese (Economic and Operations Analysis of the Pension System), Zhongguo Renmin Daxue Chubanshe, Beijing.

ISBN 92-64-01371-7
Challenges for China's Public Spending
Toward Greater Effectiveness and Equity
© OECD 2006

ANNEX A

Case Studies of Local Government Finances

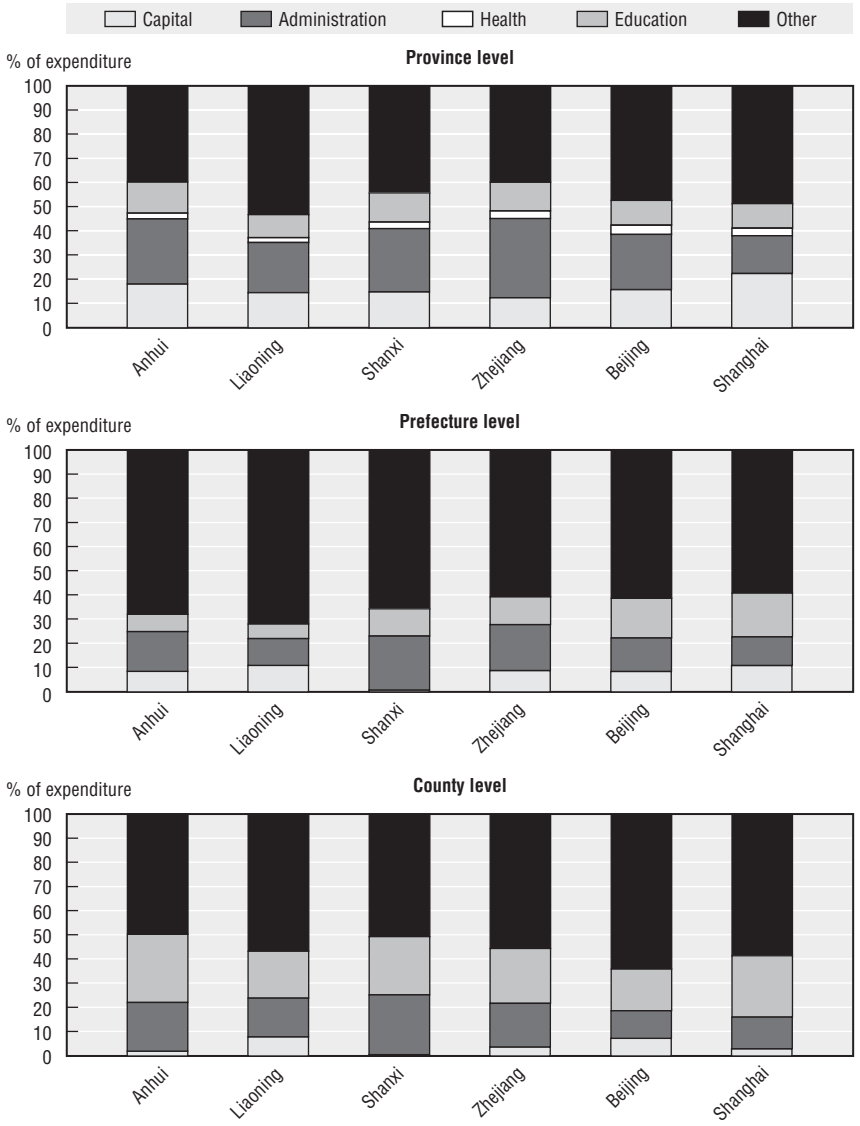
This annex provides further insights into how provinces and lower government levels allocate spending and how the division of labour among government levels in delivery and financing of public goods and services differs among provinces. The analysis here is based on the examples of six provinces and municipalities (Anhui, Liaoning, Shanxi, Zhejiang, Beijing and Shanghai) where fieldwork was conducted during 2003-04.

There is a large variation across the six provinces and municipalities in the size of outlays relative to GDP and also in the allocation of their expenditures across categories. The size of the government measured by total outlays relative to GDP was 30% in Beijing, more than double that in Zhejiang (14%) in 2000. The different government sizes largely explain the different ratios of spending on various categories relative to GDP (Figure A.1). There is, however, also some variation in the allocation of expenditure across categories. Shanghai allocates a larger share of its total spending to capital outlays than any other province (22.5%), while Zhejiang, Anhui and Shanxi spend a larger portion of their total outlays on administration (between 26.2% and 32.8%). The large share of spending allocated to administration in Shanxi is even more striking at the prefecture and county levels. At the county level, the larger ratio of government employees in Shanxi (at 3% of the population) *versus* that in other provinces (2% in Anhui, 2.2% in Zhejiang) might explain the larger share of outlays allocated to administration. In Anhui province, one of the motivations in the shifting of township public finances to the county level is to reduce administration spending and avoid the buildup of illicit debt.[1]

Different provinces have different patterns in the delivery of public goods and services to their citizens. As discussed in Chapter 3, the central-provincial division of revenue and expenditure assignments is determined by laws and regulations, while the provincial governments have nearly full discretion as to whether and how they decentralise the delivery and financing of the goods and services assigned to them. In general, provinces (Anhui being an

Figure A.1. **Allocation of expenditure across categories**[1]

Per cent, 2000



1. Expenditure in all three categories includes on-budget and extra-budgetary outlays in the respective category. Total expenditure comprises on-budget and extra-budgetary spending, social security fund outlays and central bond issues on behalf of local governments.

Source: OECD calculation from the *Finance Yearbook of China*, 2004, the *Regional Public Finance Statistics*, 2000 and the *Prefecture and County Level Public Finance Statistics*, 2002.

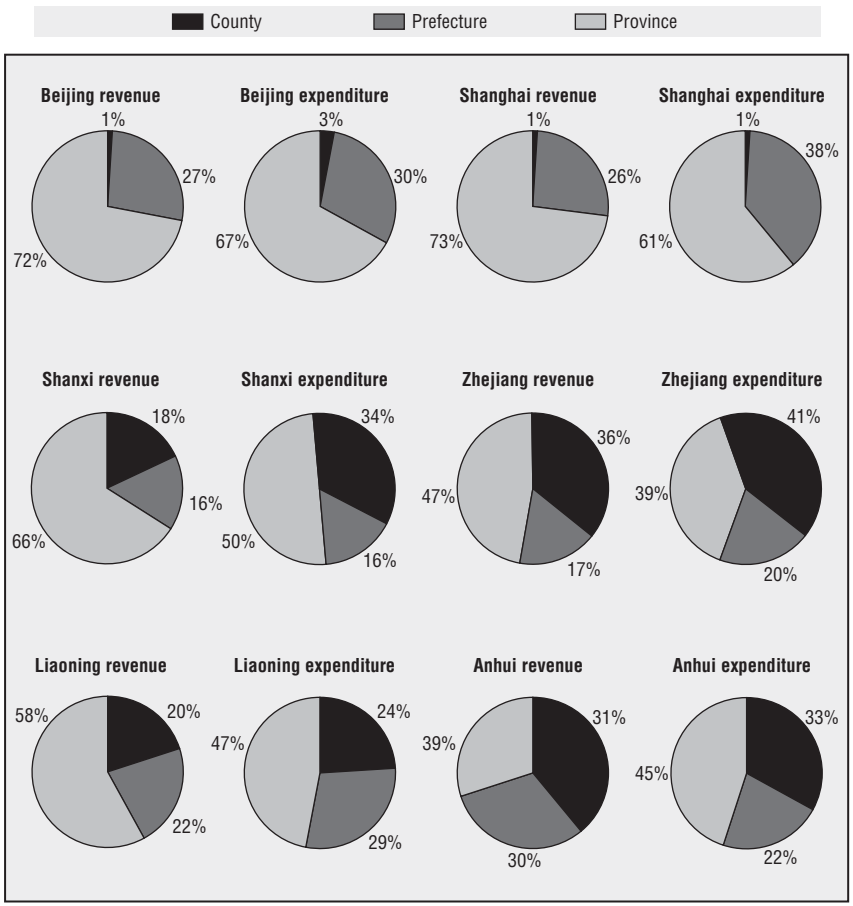
CHALLENGES FOR CHINA'S PUBLIC SPENDING – ISBN 92-64-01371-7 – © OECD 2006

exception) decentralise expenditures to a larger extent than revenues (Figure A.2). The share of the province level in sub-national own revenue varies between 39-73%, with Anhui and Zhejiang being highly decentralised and the two municipalities (Beijing and Shanghai) highly centralised.[2]

There is also a large variation in the division of expenditures. Zhejiang delegates expenditure mandates to lower government levels to a larger extent than do Shanxi, Liaoning or the two municipalities. The prefecture level has a

Figure A.2. **Division of revenue and expenditure assignments among government levels in selected provinces and municipalities**

Per cent, 2002



Note: Revenue comprises on-budget and extra-budgetary revenue and social security fund contributions, while expenditure is total expenditure comprising on-budget and extra-budgetary spending, social security fund outlays and central bond issues on behalf of local governments.

Source: OECD calculations from the *Finance Yearbook of China*, 2004 and the *Prefecture and County Level Public Finance Statistics*, 2002.

larger share of spending in the two municipalities and in Liaoning than in the other three provinces. This pattern is not surprising in the two municipalities as the district (equivalent to the prefecture level) is the lowest level that delivers many of the major public services. In Liaoning, the high portion of spending done by the province level can be explained by the fact that, for historical reasons, economic activity in the industrial "rustbelt" of the northeast of China has traditionally been centred around cities that later became the prefecture capitals and major providers of public services.[3] On the other hand, in provinces that are more agricultural, such as Anhui and Zhejiang, prefectures are often comprised of a collection of counties without a city above them. In these areas, counties naturally play a bigger role in providing public services than in more urbanised provinces. This helps explain why in Anhui and Zhejiang, the share of the county level in total revenue is much higher than in Shanxi or Liaoning, where tax sharing with the county level is more limited. However there is less variation across the provinces in the share of total expenditures carried out by counties than there is in the corresponding shares of revenues.

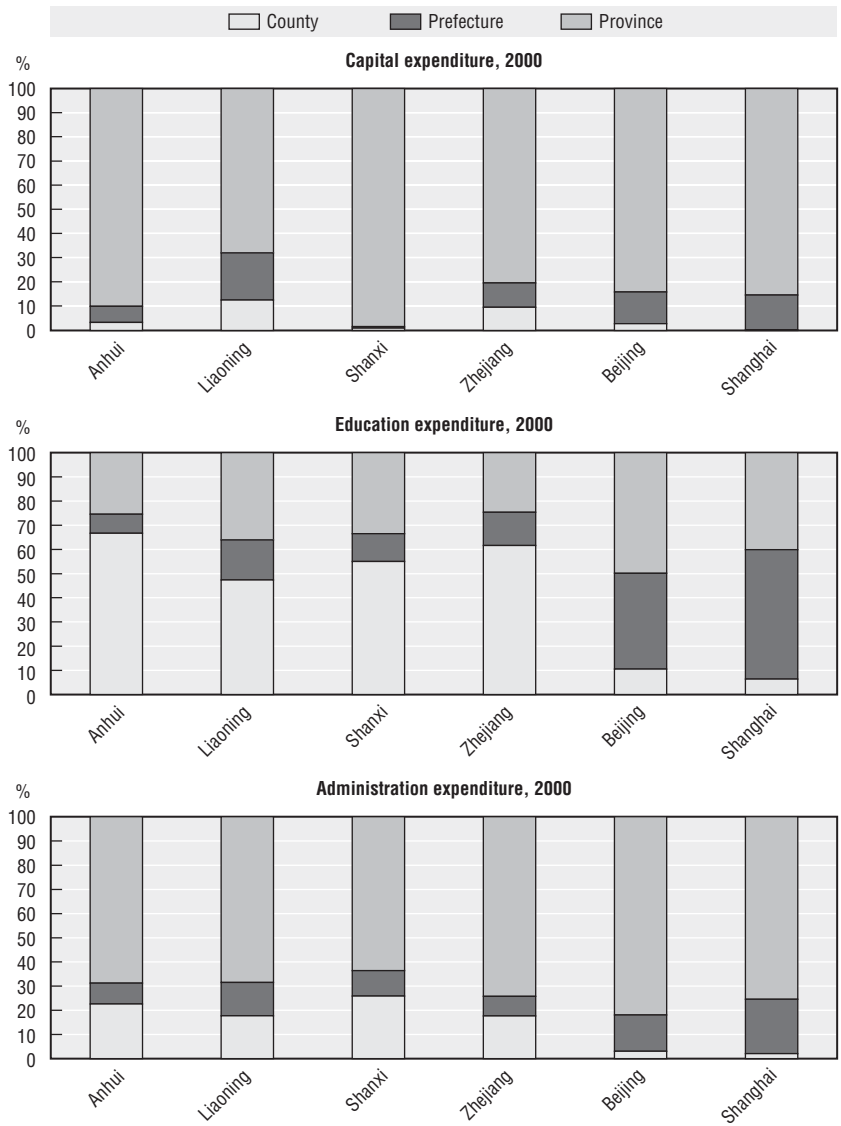
There seems to be a clear pattern in the division of expenditure assignments among government levels by type of expenditure: capital and administration expenditure are mainly the responsibility of the province, while around two-thirds of education outlays are spent at the county level (Figure A.3). The ratio of capital spending carried out by the province varies from 70% (Liaoning) to 100% in Shanxi province. Education spending is much more decentralised: the county level spends nearly half or more of the total in this category in the four provinces. The portion of education spending undertaken by counties is considerably smaller in Beijing and Shanghai where the province (in this case the municipality) and district levels carry out most of the education spending. The division of administration expenditure among government levels seems to follow the pattern of capital spending, with the bulk of spending occurring at the provincial level. However, in Shanxi and Anhui, the country level accounts for a noticeably larger share of total administration spending than in the other two provinces or the two municipalities.

The variation across provinces in the division of expenditure assignments in the three major categories is similar to that of total expenditure and can largely be explained by the historical factors and administrative characteristics mentioned earlier. In province level municipalities, spending in general is more centralised than in the other provinces. The municipality together with the district level carry out virtually all spending, while the small number of counties explains the low share of spending at this level. In most other provinces, the county is the major level responsible for the bulk of crucial categories of outlays such as education and health.

The greater extent of decentralisation of sub-national expenditures than revenues necessitates the establishment of transfer systems between

Figure A.3. **Division of selected spending responsibilities among government levels**[1]

Per cent, 2000



1. Expenditure in all three categories includes on-budget and extra-budgetary outlays in the respective category. Total expenditure comprises on-budget and extra-budgetary spending, social security fund outlays and central bond issues on behalf of local governments.

Source: Calculated from the *Finance Yearbook of China*, 2004, the *Regional Public Finance Statistics*, 2000 and the *Prefecture and County Level Public Finance Statistics*, 2002.

Box A.1. **Tax sharing in provinces with two different types of fiscal administration systems – Anhui and Liaoning**

The system of direct control of counties (*sheng guan xian*) by the province has increasingly been adopted by China's provinces. While initially not explicitly called *sheng guan xian*, the system was first (re-)introduced by Zhejiang province in 2002 with the objective to ameliorate the financing strain on county level governments. In 2004, a number of provinces followed this example including all the four province level municipalities, along with Hubei, Anhui, Henan, Shandong and Fujian. (It should be noted that in areas other than fiscal administration there has not been an equivalent devolution of power in most provinces except for Hainan and the municipalities). In Anhui, the adoption of this system made tax sharing simpler. Since 2004, the assignment of the local share of 25% of the VAT is determined on a collection basis, *i.e.* it either belongs to a prefecture level city or the county level (which could be a county level city) depending on where it is collected. Of the 40% sub-national share of income taxes, 15% is assigned to the province and the remaining 25% to the prefecture level city or the county where it is collected. Cities may further share the income tax with their districts: for example, Wuhu (Anhui province) divides its income tax in a 13.75%-11.25% portion between the city and the district level, respectively.

Tax sharing shows a different pattern in Liaoning province, which as of 2004 had not adopted the system of direct control of counties by the province. Therefore, the province had only determined the types of taxes to share and the sharing ratios with the prefecture level. The provincial share of 25% of the VAT is shared in a 10%-15% proportion between the provincial government and the prefecture where it is collected. The 40% local share of the corporate income tax is shared in an equal proportion, while the same local share of the individual income tax is split in a 15%-25% proportion between the province and the prefecture. In addition, Liaoning province also shares the real estate tax in an equal proportion and the business tax in a 30%-70% proportion with the prefecture level. Sharing rules below the prefecture level vary across prefectures. To follow the example of other provinces and reap the benefits of decentralised fiscal administration, Liaoning province decided to re-adopt the system of direct control of counties by the province at the end of 2004. Interestingly, Liaoning was the first province to experiment with prefecture control of counties beginning in 1982, after which it was extended to the whole country and fully established by 1999.*

* "Cong Shi Guan Xian dao Sheng Guan Xian de Lunhui" in Chinese (Turning back from prefecture control to province control of counties) available at *www.tsinfo.com.cn/Disp.Aspx?ID=2038&ClassID=96*.

government levels (see Boxes A.1 and A.2 for examples). In general, the county level is to a larger extent dependent on transfers than either the province as a whole or the prefecture level (Table A.1). The exception is Liaoning, where transfers have a larger share in prefecture level expenditure than in county level spending. In Anhui and Shanxi, where the province tends to rely on transfers to a larger extent than in Liaoning or Zhejiang, transfers make up 40-50% of total revenues.

Overall, the analyses of the six provinces and municipalities show that there is a relatively large variation in the allocation of their expenditures across categories and in the division of expenditure responsibilities across government levels. The differences in the allocation of spending are particularly high at the sub-provincial levels: less wealthy regions allocate a larger share to administration. The province level tends to take a larger share of spending in province level municipalities (Beijing and Shanghai) than in others. The prefecture level is an important provider of public services where counties are centred around urban agglomerations (Liaoning) and in other provinces the county has virtually kept its original status as major provider of basic public services (Anhui, Shanxi and Zhejiang). Due to a larger extent of decentralisation of expenditures than revenues, transfer payments are widely applied. The share of transfers in total revenue tends to be higher in less wealthy regions, particularly at the county level. The high disparities in spending among prefectures relative to within prefectures in the same province suggest that the prospects of a county to receive transfers largely depend on the relative wealth of the prefecture to which it belongs. This may argue in favour of reforms that aim at bypassing the prefecture level in fiscal administration in channelling funds to counties, such as those adopted by several provinces including Anhui, Hainan and Hubei and long practised by Zhejiang.

Table A.1. **Share of net transfers[1] in total revenue**

Per cent, 2002

	Anhui	Liaoning	Shanxi	Zhejiang	Beijing	Shanghai
Province total[2]	39.0	24.7	35.4	14.0	10.6	10.6
Prefecture level[2]	19.2	33.3	30.3	14.5	16.6	34.0
County level[2]	41.8	28.8	54.2	18.6	51	45.4

1. Net transfers are calculated as transfers minus submissions to higher levels.
2. The provincial figures refer to the province as a whole while the prefecture and county level numbers refer only to those levels.

Source: Calculated from the *Finance Yearbook of China 2004, Regional Public Finance Statistics 2000* and the *Prefecture and County Level Public Finance Statistics 2002*.

Box A.2. **Disparities in revenues and the effect of transfers in reducing them in Anhui and Liaoning**

Disparities in revenues at the county level are largely driven by within-province disparities as was pointed out in Chapter 3. In Anhui and Liaoning provinces, most of the disparities appear to occur at the prefecture level: nearly two-thirds of county disparities in revenues are due to differences in revenue across prefectures while only one-third is due to within prefecture differences. As also pointed out in Chapter 3, disparities (in absolute terms) in county level revenues tend to be noticeably smaller in central provinces than in other regions. In particular, county level disparities in (own) revenues measured by the Theil index were at a very low level of 0.069 in Anhui province while the corresponding figure for Liaoning was substantially higher at 0.225 in 2001. Disparities across counties in revenues in both provinces have been reduced after adding transfers to own revenues. These results may indicate that prefectures are relatively effective in equalising revenues within their boundaries but may not have sufficient funds to raise the revenues of their counties to the provincial average level.

Notes

1. The experience of the first years shows that at the township level the rapid increase in government employees has been contained and entertainment spending has been curtailed. This has allowed a marked reduction in township level government debt.
2. Zhejiang and Anhui appear to retain a very low share of the VAT at the provincial level (see Box 3.3 in Chapter 3).
3. Another illustration of the importance of the prefecture level in Liaoning in delivering public services is the fact that social security funds are pooled at the prefecture level, while in Anhui and Zhejiang, where the county level is the major provider of public services, there is county level pooling.

ANNEX B

Statistical Tables

The following tables supplement the discussion in Chapter 2 and are presented here as a reference for other work. The tables are derived from statistical and government finance yearbooks, annual reports, and other sources. Accordingly, figures for similar items presented in the tables may not always be completely consistent.

Table B.1. **Education-related spending by the general government,[1] 1991-2003**

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Total education-related expenditure, CNY billion	61.8	72.9	86.8	117.5	141.2	167.2	186.3	203.2	228.7	256.3	305.7	349.1	385.1
Growth rate, %		18.0	19.1	35.4	20.2	18.4	11.4	9.1	12.5	12.0	19.3	14.2	10.3
Share in total expenditure, %	8.6	8.9	12.7	13.8	13.6	12.7	13.7	13.0	11.9	11.3	11.7	11.7	11.6
Ratio to GDP, %	2.9	2.8	2.5	2.5	2.4	2.4	2.5	2.6	2.8	2.9	3.1	3.2	3.2
Spending of additional rural education fees, CNY billion	4.7	5.5	6.3	8.0	11.3	14.7	14.7	16.5	16.2	15.2	13.3	12.5	2.8
Growth rate, %		17.0	15.1	25.8	41.8	30.6	0.0	11.9	–1.5	–6.5	–12.5	–6.0	–77.7
Share in total expenditure, %	0.7	0.7	0.9	0.9	1.1	1.1	1.1	1.1	0.8	0.7	0.5	0.4	0.1
Ratio to GDP, %	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.0
Other extra-budgetary expenditure on education, CNY billion	8.6	10.8	12.1	15.6	19.6	22.2	26.0	19.9	19.7	19.4	19.5	7.9	16.6
Growth rate, %		26.2	11.4	28.9	26.0	13.2	17.3	–23.5	–0.9	–1.6	0.4	–59.6	110.8
Share in total expenditure, %	1.2	1.3	1.8	1.8	1.9	1.7	1.9	1.3	1.0	0.9	0.7	0.3	0.5
Ratio to GDP, %	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1
Total education-related on-budget expenditure, CNY billion	48.5	56.5	68.4	94.0	110.3	130.2	145.5	166.8	192.7	221.6	272.9	328.7	365.7
Growth rate, %		16.6	20.9	37.4	17.4	18.1	11.7	14.6	15.5	15.0	23.1	20.5	11.2
Share in total expenditure, %	6.8	6.9	10.0	11.0	10.7	9.9	10.7	10.6	10.0	9.8	10.4	11.0	11.0
Ratio to GDP, %	2.3	2.2	2.0	2.0	1.9	1.9	1.9	2.1	2.3	2.5	2.8	3.0	3.0
Education operating expenses, CNY billion	41.0	45.3	55.8	77.3	89.2	103.8	114.5	133.8	152.3	176.4	220.8	264.5	293.7
Growth rate, %		10.3	23.4	38.4	15.4	16.5	10.3	16.9	13.8	15.9	25.2	19.8	11.1
Share in total expenditure, %	5.7	5.5	8.2	9.1	8.6	7.9	8.4	8.5	7.9	7.8	8.4	8.9	8.8
Ratio to GDP, %	1.9	1.7	1.6	1.7	1.5	1.5	1.5	1.7	1.8	2.0	2.2	2.5	2.4
Education infrastructure expenses, CNY billion	4.3	4.9	5.3	5.5	5.8	6.2	7.3	10.3	11.6	11.4	12.9	14.0	15.1
Growth rate, %		13.4	9.0	3.4	5.1	6.9	17.7	41.6	11.9	–1.1	12.7	8.5	7.6
Share in total expenditure, %	0.6	0.6	0.8	0.6	0.6	0.5	0.5	0.7	0.6	0.5	0.5	0.5	0.5
Ratio to GDP, %	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

CHALLENGES FOR CHINA'S PUBLIC SPENDING – ISBN 92-64-01371-7 – © OECD 2006

Table B.1. **Education-related spending by the general government,[1] 1991-2003** *(cont.)*

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Education-related expenses in operating expenses of various agencies, CNY billion	3.0	3.7	4.0	5.5	5.9	7.6	8.0	1.2	0.8	1.0	1.1	1.2	1.9
Growth rate, %		22.8	6.5	37.9	7.7	29.6	4.3	–84.9	–30.6	19.8	10.2	9.1	54.7
Share in total expenditure, %	0.4	0.5	0.6	0.6	0.6	0.6	0.6	0.1	0.0	0.0	0.0	0.0	0.1
Ratio to GDP, %	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Spending of additional urban education fees, CNY billion	0.0	2.7	3.9	5.6	7.4	9.0	9.8	10.3	11.2	13.1	14.7	17.3	20.3
Growth rate, %			47.8	40.8	33.5	21.9	7.9	5.2	8.7	17.1	12.2	18.0	17.3
Share in total expenditure, %	0.0	0.3	0.6	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6
Ratio to GDP, %	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
Education-related expenses in aid for less-developed regions, CNY billion	0.2	0.1	0.1	0.1	0.1	0.1	0.3	0.5	0.7	0.8	0.9	1.1	1.4
Growth rate, %		–13.3	–23.1	0.0	30.0	0.0	161.5	52.9	26.9	18.6	14.9	22.2	27.6
Share in total expenditure, %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ratio to GDP, %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other on-budget current expenditure on education, CNY billion	0.0	0.0	0.0	0.0	1.9	3.4	5.7	10.7	16.3	18.9	22.5	30.6	33.3
Growth rate, %						81.0	67.1	88.1	52.1	16.5	19.0	35.9	8.7
Share in total expenditure, %	0.0	0.0	0.0	0.0	0.2	0.3	0.4	0.7	0.8	0.8	0.9	1.0	1.0
Ratio to GDP, %	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.3	0.3

1. Total education-related expenditure and the total on-budget figures do not correspond to the data in the Finance Yearbook of China as the two items of other extra-budgetary expenditure on education and other on-budget current expenditure on education are missing from that compilation.

Source: Various editions of the *Finance Yearbook of China* and the *Education Financing Statistics Reports* by the Ministry of Education.

Table B.2. **Trends in culture, sports and broadcasting-related expenditure,[1] 1991-2003**

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Total expenditure – culture, sports and broadcasting, CNY billion	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	36.7	n.a.	33.4	37.6
Growth rate, %		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	12.5
Share in total expenditure, %	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0.4	n.a.	0.3	0.3
Ratio to GDP, %	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0.4	n.a.	0.3	0.3
Culture, sports and broadcasting operating expenses, CNY billion	8.2	9.7	10.9	13.3	14.9	17.0	19.6	19.9	21.3	22.9	27.8	31.4	34.8
Growth rate, %		18.2	13.1	21.8	11.8	13.9	15.9	1.4	6.7	7.7	21.6	12.9	10.5
Share in total expenditure, %	1.1	1.2	1.6	1.6	1.4	1.3	1.4	1.3	1.1	1.0	1.1	1.1	1.0
Ratio to GDP, %	0.4	0.4	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Culture, CNY billion	2.1	2.4	2.7	3.4	3.9	4.6	5.3	5.6	6.1	6.8	7.8	9.1	10.3
Growth rate, %		15.4	11.9	28.4	14.0	17.7	16.4	4.6	8.2	12.0	15.7	15.6	13.7
Share in total expenditure, %	0.3	0.3	0.4	0.4	0.4	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3
Ratio to GDP, %	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sports, CNY billion	1.7	1.9	2.1	2.4	2.8	3.2	3.9	3.7	3.9	4.2	5.2	5.7	5.8
Growth rate, %		12.8	12.3	16.2	14.1	15.4	22.5	–5.9	5.8	7.7	23.5	9.1	3.0
Share in total expenditure, %	0.2	0.2	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2
Ratio to GDP, %	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.0
Communications and broadcasting, CNY billion	2.1	2.5	2.8	3.5	3.9	4.3	4.7	4.8	5.1	5.3	6.4	7.4	7.8
Growth rate, %		17.0	13.6	24.0	9.7	11.7	8.8	2.5	5.6	3.7	21.2	15.9	5.6
Share in total expenditure, %	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2
Ratio to GDP, %	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

CHALLENGES FOR CHINA'S PUBLIC SPENDING – ISBN 92-64-01371-7 – © OECD 2006

Table B.2. **Trends in culture, sports and broadcasting-related expenditure,[1] 1991-2003** *(cont.)*

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Other culture-related expenditure, CNY billion	2.3	2.9	3.3	3.9	4.3	4.8	5.7	5.8	6.2	6.6	8.4	9.3	10.8
Growth rate, %		25.6	14.0	18.1	10.5	11.3	17.3	2.4	6.8	7.0	26.8	10.6	15.9
Share in total expenditure, %	0.3	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3
Ratio to GDP, %	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Culture, sports and broadcasting capital expenditure, CNY billion	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	13.8	n.a.	2.0	2.9
Growth rate, %		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	44.7
Share in total expenditure, %	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0.6	n.a.	0.1	0.1
Ratio to GDP, %	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0.2	n.a.	0.0	0.0

1. The figures in the table may not be comprehensive as spending on culture, sports and broadcasting in other categories are not included. Neither is extra-budgetary spending in these categories included.

Source: Various editions of the *Finance Yearbook of China* and of the *Wenhua Chanye Niandu Baogao* (Annual Reports on Culture Development).

Table B.3. **Trends in science-related expenditure, 1991-2003**

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Total science-related on-budget expenditure, CNY billion	16.0	18.9	22.6	26.8	30.2	34.9	40.9	43.9	54.4	57.6	70.3	81.6	97.6
Growth rate, %		18.0	19.2	18.9	12.7	15.3	17.2	7.3	24.0	5.8	22.1	16.1	19.5
Share in total expenditure, %	2.2	2.3	3.3	3.1	2.9	2.6	3.0	2.8	2.8	2.5	2.7	2.7	2.9
Ratio to GDP, %	0.8	0.7	0.7	0.6	0.5	0.5	0.5	0.6	0.7	0.6	0.7	0.8	0.8
Science operating expenses, CNY billion	5.4	5.7	6.6	8.8	9.7	11.0	12.7	15.2	16.8	18.9	22.3	27.0	30.1
Growth rate, %		5.5	14.7	34.0	10.2	13.2	15.9	19.5	10.7	12.4	18.0	21.0	11.5
Share in total expenditure, %	0.8	0.7	1.0	1.0	0.9	0.8	0.9	1.0	0.9	0.8	0.9	0.9	0.9
Ratio to GDP, %	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2
Science infrastructure expenses,[1] CNY billion	1.8	2.5	3.4	3.6	3.8	4.9	4.3	4.7	5.3	6.2	6.3	7.0	11.1
Growth rate, %		33.7	38.2	6.2	5.3	27.9	–12.1	10.8	11.8	17.2	1.6	11.1	58.7
Share in total expenditure, %	0.3	0.3	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.3
Ratio to GDP, %	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Science and technology promotion,[1] CNY billion	7.3	8.9	10.7	11.4	13.6	15.5	19.0	19.0	27.3	27.7	36.0	39.9	41.7
Growth rate, %		22.5	19.2	7.1	19.1	14.0	22.6	0.0	43.7	1.5	30.0	10.7	4.5
Share in total expenditure, %	1.0	1.1	1.6	1.3	1.3	1.2	1.4	1.2	1.4	1.2	1.4	1.3	1.3
Ratio to GDP, %	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.4	0.4	0.3
Other science and technology operating expenses, CNY billion	1.5	1.8	2.0	3.0	3.2	3.5	4.9	5.0	5.0	4.8	5.7	7.8	14.7
Growth rate, %		22.3	7.7	54.4	4.7	12.4	38.4	1.0	1.2	–4.4	19.4	36.0	89.1
Share in total expenditure, %	0.2	0.2	0.3	0.4	0.3	0.3	0.4	0.3	0.3	0.2	0.2	0.3	0.4
Ratio to GDP, %	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

1. Science infrastructure and science and technology promotion expenditure are included in capital spending.

Source: Various editions of the *Finance Yearbook of China*.

CHALLENGES FOR CHINA'S PUBLIC SPENDING – ISBN 92-64-01371-7 – © OECD 2006

Table B.4. **Trends in public health expenditure – general government,[1] 1991-2003**

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Total health expenditure, CNY billion	20.4	22.9	27.2	34.2	38.7	46.2	52.4	59.0	64.1	71.0	80.1	86.4	111.7
Growth rate, %		12.0	19.0	25.8	13.2	19.2	13.4	12.7	8.6	10.7	12.8	8.0	29.2
Share in total expenditure, %	2.8	2.8	4.0	4.0	3.7	3.5	3.8	3.8	3.3	3.1	3.1	2.9	3.4
Ratio to GDP, %	1.0	0.9	0.8	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.9
Health operating expenses, CNY billion	9.4	10.4	11.7	15.9	17.7	20.3	22.7	24.3	27.0	29.6	34.1	38.2	n.a.
Growth rate, %		11.3	12.1	35.9	11.2	14.8	11.9	6.9	10.9	9.8	15.3	11.8	n.a.
Share in total expenditure, %	1.3	1.3	1.7	1.9	1.7	1.5	1.7	1.5	1.4	1.3	1.3	1.3	n.a.
Ratio to GDP, %	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	n.a.
Birth control operating expenses, CNY billion	1.6	1.9	2.3	2.6	3.2	3.8	4.4	5.0	5.8	6.5	8.2	8.2	n.a.
Growth rate, %		20.2	18.2	15.6	20.6	18.6	16.9	13.9	15.8	10.5	26.8	0.3	n.a.
Share in total expenditure, %	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	n.a.
Ratio to GDP, %	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	n.a.
On-budget infrastructure spending, CNY billion	0.7	0.8	1.1	1.2	1.2	2.2	2.3	2.0	3.5	2.9	4.8	4.6	n.a.
Growth rate, %		5.8	49.1	8.0	–6.6	87.1	5.6	–11.9	72.5	–15.4	64.8	–4.0	n.a.
Share in total expenditure, %	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.2	0.2	n.a.
Ratio to GDP, %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.a.
Other expenses, CNY billion	8.7	9.7	12.1	14.4	16.7	19.9	22.9	27.6	27.8	32.0	32.9	35.4	n.a.
Growth rate, %		11.8	24.2	19.7	15.6	19.2	15.1	20.6	0.7	14.8	3.0	7.7	n.a.
Share in total expenditure, %	1.2	1.2	1.8	1.7	1.6	1.5	1.7	1.8	1.5	1.4	1.3	1.2	n.a.
Ratio to GDP, %	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	n.a.

1. In some official publications the figures may not be consistent with the ones in the table as birth control expenses are sometimes not included in public health expenditure. The figures in the table reflect only on-budget spending.

Source: Various editions of the *Finance Yearbook of China* and the *Health Yearbook of China*.

Table B.5. **Major components of administration expenditure**[1]

	1998	1999	2000	2001	2002	2003
Total administration expenditure, CNY million	n.a.	414 356	499 386	587 474	670 724	n.a.
Growth rate, %		n.a.	20.5	17.6	14.2	n.a.
Share in total expenditure, %	n.a.	21.6	22.0	22.4	22.5	n.a.
Ratio to GDP, %	n.a.	5.0	5.6	6.0	6.2	n.a.
General administration, CNY million	72 553	82 287	96 547	121 252	180 184	205 835
Growth rate, %		13.4	17.3	25.6	48.6	14.2
Share in total expenditure, %	4.6	4.3	4.2	4.6	6.0	6.2
Ratio to GDP, %	0.9	1.0	1.1	1.2	1.7	1.7
Public security, CNY million	55 401	64 831	76 050	91 619	110 157	130 133
Growth rate, %		17.0	17.3	20.5	20.2	18.1
Share in total expenditure, %	3.5	3.4	3.3	3.5	3.7	3.9
Ratio to GDP, %	0.7	0.8	0.9	0.9	1.0	1.1
Foreign affairs, CNY million	4 723	5 450	6 161	6 881	7 601	7 800
Growth rate, %		15.4	13.0	11.7	10.5	2.6
Share in total expenditure, %	0.3	0.3	0.3	0.3	0.3	0.2
Ratio to GDP, %	0.1	0.1	0.1	0.1	0.1	0.1
Armed police troops, CNY million	13 922	15 844	20 224	22 073	24 741	26 421
Growth rate, %		13.8	27.6	9.1	12.1	6.8
Share in total expenditure, %	0.9	0.8	0.9	0.8	0.8	0.8
Ratio to GDP, %	0.2	0.2	0.2	0.2	0.2	0.2
Operating expenses of Tax Department, CNY million	n.a.	64 256	77 783	95 543	82 446	93 714
Growth rate, %		n.a.	21.1	22.8	–13.7	13.7
Share in total expenditure, %	n.a.	3.3	3.4	3.6	2.8	2.8
Ratio to GDP, %	n.a.	0.8	0.9	1.0	0.8	0.8
Extra-budgetary expenditure: operating and administrative, CNY million	158 828	181 613	222 509	250 000	265 500	n.a.
Growth rate, %		14.3	22.5	12.4	6.2	n.a.
Share in total expenditure, %	10.1	9.5	9.8	9.5	8.9	n.a.
Ratio to GDP, %	2.0	2.2	2.5	2.5	2.5	n.a.

1. The total expenditure on administration does not include on-budget capital spending for administrative purposes or facilities as the official figures do not allow for delineation of capital spending by expenditure category.

Source: Various editions of the *Finance Yearbook of China*.

CHALLENGES FOR CHINA'S PUBLIC SPENDING – ISBN 92-64-01371-7 – © OECD 2006

Table B.6. **Trends in pensions and social welfare outlays,[1] 1997-2003**

	1997	1998	1999	2000	2001	2002	2003
Total pension and social relief expenditure, CNY billion	n.a.	n.a.	n.a.	151.8	198.8	263.6	265.6
Growth rate, %		n.a.	n.a.	n.a.	31.0	32.6	0.7
Share in total expenditure, %	n.a.	n.a.	n.a.	6.7	7.6	8.8	8.0
Ratio to GDP, %	n.a.	n.a.	n.a.	1.7	2.0	2.4	2.2
Administrative units pension, CNY billion	n.a.	n.a.	n.a.	47.9	62.5	78.9	89.5
Growth rate, %		n.a.	n.a.	n.a.	30.5	26.3	13.5
Share in total expenditure, %	n.a.	n.a.	n.a.	2.1	2.4	2.6	2.7
Ratio to GDP, %	n.a.	n.a.	n.a.	0.5	0.6	0.7	0.7
Social security subsidies, CNY billion	n.a.	n.a.	n.a.	52.6	78.6	101.7	126.2
Growth rate, %		n.a.	n.a.	n.a.	49.5	29.4	24.1
Share in total expenditure, %	n.a.	n.a.	n.a.	2.3	3.0	3.4	3.8
Ratio to GDP, %	n.a.	n.a.	n.a.	0.6	0.8	0.9	1.0
Social security programs special fund, CNY billion	n.a.	n.a.	28.0	30.0	31.0	45.7	0.0
Growth rate, %		n.a.	n.a.	7.1	3.3	47.6	n.a.
Share in total expenditure, %	n.a.	n.a.	1.5	1.3	1.2	1.5	0.0
Ratio to GDP, %	n.a.	n.a.	0.3	0.3	0.3	0.4	0.0
Pensions and social welfare relief, CNY billion	14.2	17.1	18.0	21.3	26.7	37.3	49.9
Growth rate, %		20.5	5.1	18.3	25.3	39.8	33.7
Share in total expenditure, %	1.0	1.1	0.9	0.9	1.0	1.2	1.5
Ratio to GDP, %	0.2	0.2	0.2	0.2	0.3	0.3	0.4
Pension for handicapped and bereaved families, CNY billion	3.8	4.0	5.5	6.0	7.0	6.0	9.9
Growth rate, %		7.4	35.1	9.3	17.1	–14.1	65.2
Share in total expenditure, %	0.3	0.3	0.3	0.3	0.3	0.2	0.3
Ratio to GDP, %	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Table B.6. **Trends in pensions and social welfare outlays,[1] 1997-2003** *(cont.)*

	1997	1998	1999	2000	2001	2002	2003
Pension for retirees, CNY billion	1.4	1.6	2.0	2.4	3.0	4.1	4.2
Growth rate, %		20.0	21.6	20.3	27.8	36.2	2.2
Share in total expenditure, %	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Ratio to GDP, %	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Social welfare and relief funds, CNY billion	3.7	3.5	4.9	6.0	9.0	14.2	21.8
Growth rate, %		–3.6	37.4	23.1	50.8	57.4	53.7
Share in total expenditure, %	0.3	0.2	0.3	0.3	0.3	0.5	0.7
Ratio to GDP, %	0.0	0.0	0.1	0.1	0.1	0.1	0.2
Disaster relief, CNY billion	3.5	5.2	3.4	2.9	3.5	3.3	5.6
Growth rate, %		51.6	–34.8	–15.8	22.6	–6.4	69.2
Share in total expenditure, %	0.3	0.3	0.2	0.1	0.1	0.1	0.2
Ratio to GDP, %	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Other expenses, CNY billion	2.0	2.7	2.3	4.1	4.1	9.7	8.4
Growth rate, %		35.7	–14.4	78.4	0.5	134.5	–13.4
Share in total expenditure, %	0.1	0.2	0.1	0.2	0.2	0.3	0.3
Ratio to GDP, %	0.0	0.0	0.0	0.0	0.0	0.1	0.1

1. Capital spending on pensions and social welfare are not included in the figures as official data do not allow for delineation of capital spending by expenditure category.

Source: Various editions of the *Finance Yearbook of China*.

Table B.7. **Trends in selected capital expenditures of the general government, 1997-2003**

	1997	1998	1999	2000	2001	2002	2003
On-budget capital expenditure,[1] CNY billion	166.3	202.9	288.3	296.0	350.7	411.1	452.2
Growth rate, %		22.0	42.1	2.7	18.5	17.2	10.0
Share in total expenditure, %	12.2	12.9	15.0	13.0	13.4	13.8	13.6
Ratio to GDP, %	2.2	2.6	3.5	3.3	3.6	3.8	3.7
Capital construction, CNY billion	102.0	138.8	211.7	209.5	251.8	314.3	342.9
Growth rate, %		36.1	52.5	–1.0	20.2	24.8	9.1
Share in total expenditure, %	7.5	8.8	11.0	9.2	9.6	10.5	10.3
Ratio to GDP, %	1.4	1.8	2.6	2.3	2.6	2.9	2.8
Agriculture infrastructure, CNY billion	16.0	46.1	35.7	41.5	48.1	42.4	52.7
Growth rate, %		188.3	–22.5	16.1	16.0	–11.8	24.3
Share in total expenditure, %	1.2	2.9	1.9	1.8	1.8	1.4	1.6
Ratio to GDP, %	0.2	0.6	0.4	0.5	0.5	0.4	0.4
Science and technology infrastructure, CNY billion	4.3	4.7	5.3	6.2	6.3	7.0	11.1
Growth rate, %		10.8	11.8	17.2	1.6	11.1	58.7
Share in total expenditure, %	0.3	0.3	0.3	0.3	0.2	0.2	0.3
Ratio to GDP, %	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Education infrastructure, CNY billion	7.3	10.3	11.6	11.4	12.9	14.0	15.1
Growth rate, %		41.7	11.9	–1.1	12.7	8.5	7.6
Share in total expenditure, %	0.5	0.7	0.6	0.5	0.5	0.5	0.5
Ratio to GDP, %	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Civil affairs, CNY billion	n.a.	n.a.	n.a.	n.a.	n.a.	3.0	3.0
Growth rate, %		n.a.	n.a.	n.a.	n.a.	n.a.	–0.3
Share in total expenditure, %	n.a.	n.a.	n.a.	n.a.	n.a.	0.1	0.1
Ratio to GDP, %	n.a.	n.a.	n.a.	n.a.	n.a.	0.0	0.0
Defence, CNY billion	n.a.	n.a.	n.a.	38.9	49.5	57.2	64.7
Growth rate, %		n.a.	n.a.	n.a.	27.0	15.7	13.0
Share in total expenditure, %	n.a.	n.a.	n.a.	1.7	1.9	1.9	1.9
Ratio to GDP, %	n.a.	n.a.	n.a.	0.4	0.5	0.5	0.5
Development of production capacity of enterprises and science and technology promotion, CNY billion	64.3	64.1	76.6	86.5	99.2	96.8	109.3
Growth rate, %		–0.3	19.5	12.9	14.6	–2.3	12.9
Share in total expenditure, %	4.7	4.1	4.0	3.8	3.8	3.2	3.3
Ratio to GDP, %	0.9	0.8	0.9	1.0	1.0	0.9	0.9
Development of production capacity of enterprises, CNY billion	45.3	45.1	49.2	58.8	63.2	57.0	67.6
Growth rate, %		–0.4	9.1	19.4	7.5	–9.8	18.7
Share in total expenditure, %	3.3	2.9	2.6	2.6	2.4	1.9	2.0
Ratio to GDP, %	0.6	0.6	0.6	0.7	0.6	0.5	0.6

Table B.7. **Trends in selected capital expenditures of the general government, 1997-2003** *(cont.)*

	1997	1998	1999	2000	2001	2002	2003
Science and technology promotion, CNY billion	19.0	19.0	27.3	27.7	36.0	39.9	41.7
Growth rate, %		0.0	43.7	1.5	30.0	10.7	4.5
Share in total expenditure, %	1.4	1.2	1.4	1.2	1.4	1.3	1.3
Ratio to GDP, %	0.3	0.2	0.3	0.3	0.4	0.4	0.3
Agricultural science promotion, CNY billion	0.6	0.9	0.9	1.0	1.0	1.0	1.2
Growth rate, %		65.5	0.0	7.7	4.9	–3.9	25.8
Share in total expenditure, %	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Ratio to GDP, %	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Extra-budgetary capital spending,[1] CNY billion	50.2	39.4	54.0	42.6	35.0	26.0	n.a.
Growth rate, %		–21.5	37.0	–21.0	–17.9	–25.7	n.a.
Share in total expenditure, %	3.7	2.5	2.8	1.9	1.3	0.9	n.a.
Ratio to GDP, %	0.7	0.5	0.7	0.5	0.4	0.2	n.a.
Central bond financed local infrastructure investment, CNY billion	n.a.	n.a.	46.0	65.0	40.0	25.0	25.0
Growth rate, %		n.a.	n.a.	41.3	–38.5	–37.5	0.0
Share in total expenditure, %	n.a.	n.a.	2.4	2.9	1.5	0.8	0.8
Ratio to GDP, %	n.a.	n.a.	0.6	0.7	0.4	0.2	0.2
Memorandum:							
Total capital expenditure on a national accounts basis,[2] CNY billion	445.4	485.6	652.4	772.2	972.2	1 005.0	n.a.
Growth rate, %		9.0	34.4	18.4	25.9	3.4	n.a.
Share in total expenditure, %	32.7	31.0	34.0	34.0	37.1	33.6	n.a.
Ratio to GDP, %	5.9	6.1	7.9	8.6	9.9	9.3	n.a.

1. Figures for on-budget and extra-budgetary capital expenditure in the table refer only to spending officially classified as capital outlays in the budget. The figures exclude a large amount of capital spending included in figures for other (non-capital) items but which cannot be explicitly accounted for based on available budget data.
2. Total capital expenditure on a national accounts basis includes capital transfers to state owned enterprises and other government controlled entities as well as a substantial amount of investment spending included in other, non-capital, budget categories. Figures for national accounts based capital expenditure are compiled by the Ministry of Finance but no breakdown of the total by major categories is available.

Source: Various editions of the *China Statistical Yearbook*, the *Finance Yearbook of China* and the *White Paper of Defence*, annual reports by the Ministry of Health and the Ministry of Civil Affairs.

CHALLENGES FOR CHINA'S PUBLIC SPENDING – ISBN 92-64-01371-7 – © OECD 2006

ANNEX C

The Estimation of Financing Gaps

The provincial level financing gaps discussed in Chapter 3 of the main text were estimated using a modified version of the methodology applied in World Bank (2000). The estimated gap excluding transfers in nominal terms is equal to the difference between the estimated expenditure requirements of the province and its own revenue (taxes and fees but excluding transfers). The gap including (net) transfers is the difference between expenditure requirements and the sum of the own revenue and (net) transfers received from the central government.

Province level

Expenditure requirements

Expenditure requirements for each province in each major category are based on imputed shares of total national spending (central plus sub-national governments) in that category calculated on the basis of objective indicators related to the need for each type of expenditure. An important assumption – and caveat – to this approach is that actual and required expenditures in each category are assumed to be equal at the national level so that misalignments at the provincial level average out to zero.

For example, requirements for education expenditure in each province are assumed to be proportional to an equally weighted average of a province's students at the primary and junior middle school levels (school) and the portion of its population of school age (pop014) multiplied by the total provincial population and each expressed relative to the total across all (N) provinces.* The determinants of education expenditure, pupils' number and school age population are expressed as ratios of national averages to the corresponding figures in the province and are denoted by a(i) and b(i).

* As an alteration to the specification of what drives expenditure on education, the illiteracy rate was also employed, but it did not change the results significantly.

Calculations:

In all equations: i denotes the individual province, i = 1,…., N, with N = 31.

Regional variables:

school: number of junior middle and primary students

pop014: population between 0 and 14

pop05: population between 0 and 5

pop65: population over 65

popwage: population divided by the average of the yearly wage per staff

laidwage: laid-off people (sum of resigned and terminated retirees of state organs) divided by the average of the yearly wage per staff

capital: inverse of the capital stock per capita

population: total population

farmers: number of employed persons in the primary sector

urbunemp: number of urban unemployed

$$\left\{\frac{school_{(i)} \times N}{\sum_{i=1}^{N} school_{(i)}}\right\} \div \sum_{i=1}^{N}\left\{\frac{school_{(i)} \times N}{\sum_{i=1}^{N} school_{(i)}}\right\} = \left\{\frac{school_{(i)}}{\sum_{i=1}^{N} school_{(i)}}\right\} = a_{(i)}$$

$$\left\{\frac{pop014_{(i)} \times N}{\sum_{i=1}^{N} pop14_{(i)}}\right\} \div \sum_{i=1}^{N}\left\{\frac{pop014_{(i)} \times N}{\sum_{i=1}^{N} pop014_{(i)}}\right\} = \left\{\frac{pop014_{(i)}}{\sum_{i=1}^{N} pop14_{(i)}}\right\} = b_{(i)}$$

Proceeding in this manner, all the components needed for determining fiscal needs in the other seven categories are expressed below as ratios of the individual provincial indicator to the sum of that indicator across all provinces.

$$\left\{\frac{pop05_{(i)} \times N}{\sum_{i=1}^{N} pop05_{(i)}}\right\} \div \sum_{i=1}^{N}\left\{\frac{pop05_{(i)} \times N}{\sum_{i=1}^{N} pop05_{(i)}}\right\} = \left\{\frac{pop05_{(i)}}{\sum_{i=1}^{N} pop05_{(i)}}\right\} = c_{(i)}$$

$$\left\{\frac{pop65_{(i)} \times N}{\sum_{i=1}^{N} pop65_{(i)}}\right\} \div \sum_{i=1}^{N}\left\{\frac{pop65_{(i)} \times N}{\sum_{i=1}^{N} pop65_{(i)}}\right\} = \left\{\frac{pop65_{(i)}}{\sum_{i=1}^{N} pop65_{(i)}}\right\} = d_{(i)}$$

$$\left\{\frac{popwage_{(i)} \times N}{\sum_{i=1}^{N} popwage_{(i)}}\right\} \div \sum_{i=1}^{N}\left\{\frac{popwage_{(i)} \times N}{\sum_{i=1}^{N} popwage_{(i)}}\right\} = \left\{\frac{popwage_{(i)}}{\sum_{i=1}^{N} popwage_{(i)}}\right\} = e_{(i)}$$

$$\left\{\frac{laidwage_{(i)} \times N}{\sum_{i=1}^{N} laidwage_{(i)}}\right\} \div \sum_{i=1}^{N}\left\{\frac{laidwage_{(i)} \times N}{\sum_{i=1}^{N} laidwage_{(i)}}\right\} = \left\{\frac{laidwage_{(i)}}{\sum_{i=1}^{N} laidwage_{(i)}}\right\} = f_{(i)}$$

$$\left\{\frac{capital_{(i)} \times N}{\sum_{i=1}^{N} capital_{(i)}}\right\} \div \sum_{i=1}^{N}\left\{\frac{capital_{(i)} \times N}{\sum_{i=1}^{N} capital_{(i)}}\right\} = \left\{\frac{capital_{(i)}}{\sum_{i=1}^{N} capital_{(i)}}\right\} = g_{(i)}$$

$$\left\{\frac{population_{(i)} \times N}{\sum_{i=1}^{N} population_{(i)}}\right\} \div \sum_{i=1}^{N}\left\{\frac{population_{(i)} \times N}{\sum_{i=1}^{N} population_{(i)}}\right\} = \left\{\frac{population_{(i)}}{\sum_{i=1}^{N} population_{(i)}}\right\} = h_{(i)}$$

$$\left\{\frac{farmers_{(i)} \times N}{\sum_{i=1}^{N} farmers_{(i)}}\right\} \div \sum_{i=1}^{N}\left\{\frac{farmers_{(i)} \times N}{\sum_{i=1}^{N} farmers_{(i)}}\right\} = \left\{\frac{farmers_{(i)}}{\sum_{i=1}^{N} farmers_{(i)}}\right\} = i_{(i)}$$

$$\left\{\frac{urbunemp_{(i)} \times N}{\sum_{i=1}^{N} urbunemp_{(i)}}\right\} \div \sum_{i=1}^{N}\left\{\frac{urbunemp_{(i)} \times N}{\sum_{i=1}^{N} urbunemp_{(i)}}\right\} = \left\{\frac{urbunemp_{(i)}}{\sum_{i=1}^{N} urbunemp_{(i)}}\right\} = j_{(i)}$$

Education expenditure needed in province i is $\hat{E}_{(i)} = E\left(0.5 \times a_{(i)} + 0.5 \times b_{(i)}\right)$ where E is total education spending nationwide. Proceeding in this manner the provincial share factors determining required spending for other categories are calculated as follows.

Required health expenditure (H(i)) is based on provincial population between 0 and 5 years (c) and provincial population of more than 65 years (d):

$$\hat{H}_{(i)} = \sum_{j=1}^{N} H_{(j)}\left(0.5 \times c_{(i)} + 0.5 \times d_{(i)}\right)$$

Expenditure on social security and other social benefits requirements in each province are based on two ratios, the population divided by average yearly wage (e) and the laid-off workers divided by average yearly wage (f), with respective weights of 64% and 36%.

$$\hat{S}_{(i)} = \sum_{j=1}^{N} S_{(j)}\left(0.64 \times e_{(i)} + 0.36 \times f_{(i)}\right)$$

Capital expenditure requirements in each province are assumed to be determined by the inverse of the capital stock per capita (g).

$$\hat{C}_{(i)} = \sum_{j=1}^{N} C_{(j)} \left(g_{(i)} \right)$$

Government administration expenditure requirements in each province are assumed to be determined by the population of the province (h) expressed relative to the total across all (N) provinces.

$$\hat{G}_{(i)} = \sum_{j=1}^{N} G_{(j)} \left(h_{(i)} \right)$$

Other expenditure requirements are assumed to mainly depend on the population of the province expressed relative to the total across all (N) provinces.

$$\hat{O}_{(i)} = \sum_{j=1}^{N} O_{(j)} \left(h_{(i)} \right)$$

Agriculture expenditure requirements in each province are assumed to be determined by the number of farmers of the province (k) each expressed relative to the total across all (N) provinces.

$$\hat{A}_{(i)} = \sum_{j=1}^{N} A_{(j)} \left(k_{(i)} \right)$$

Social security funds and other social benefits requirements are assumed to be based on the registered urban unemployment (j), the population above 65 years (d) and the population (h).

$$\hat{SS}_{(i)} = \sum_{j=1}^{N} SS_{(j)} \left(0.057 \times j_{(i)} + 0.8447 \times d_{(i)} + 0.0983 \times h_{(i)} \right)$$

Extra budgetary requirements are estimated with the population of the province (h).

$$\hat{EB}_{(i)} = \sum_{j=1}^{N} EB_{(j)} \left(h_{(i)} \right)$$

From the above, total estimated expenditure for province (i) is

$$\hat{E}_{(i)} + \hat{H}_{(i)} + \hat{S}_{(i)} + \hat{C}_{(i)} + \hat{G}_{(i)} + \hat{O}_{(i)} + \hat{A}_{(i)} + \hat{SS}_{(i)} + \hat{EB}_{(i)}$$

And similarly, total estimated expenditure for all provinces is

$$\sum_{i=1}^{N}\left(\hat{E}_{(i)}+\hat{H}_{(i)}+\hat{S}_{(i)}+\hat{C}_{(i)}+\hat{G}_{(i)}+\hat{O}_{(i)}+\hat{A}_{(i)}+\hat{SS}_{(i)}+\hat{EB}_{(i)}\right)$$

Given the significant wage and price differentials across provinces, the cost of provision of public services also differs widely. To adjust for these differentials, a composite indicator is constructed using wages, food prices, building material prices, services prices and housing prices with weights of 40, 20, 20, 10 and 10%, respectively. The assignment of weights is somewhat arbitrary and is based on the perceived relative importance of the respective types of goods and services. The composite index is assumed to be 1 for the national average and for provinces with higher prices and wages than the national average it is higher than 1.

Incorporating national development goals in the estimation of expenditure needs of provincial governments

For certain expenditure categories, national development goals spell out measurable output (in some cases also outcome) targets, while for others the goals are described in terms of a growth rate above the growth rate of total expenditure in the previous years; hence the incorporation of these goals into the estimation of financing needs of local governments is also somewhat arbitrary. To avoid baseless assumptions, the actual national level is retained for expenditure categories without clear goals. Expenditure needs in the seven expenditure categories defined above are estimated according to the following assumptions.

Education

As early as in 1993, the national objective for expenditure on education in relative terms had been set. That time it was 4% of GNP (later 4% of GDP), which still has not been reached at the national level. For the purpose of estimating financing needs, it is assumed that the need equals the development goal, *i.e.* 4% of GDP spent on education. The other two components of this category, culture and broadcasting are assumed to be unchanged as a percentage of GDP; this gives 4 + 0.8 + 0.4 = 5.2% for this category. Further, assuming unchanged local-central sharing of expenses, this implies a total need of CNY 445 billion (*i.e.* CNY 9 593 * 0.052 billion of national expenditure * 0.89 local share).

Public health

National development goals state that the growth of expenditure on this item should not be below the growth of total expenditure. Given that expenditure growth averaged 18.3% over 1997-2001 and the local share is 90%, this implies a total need of CNY 52.14 billion.

Agriculture

Agriculture, like public health, is regarded as a priority expenditure item, so that the growth of spending on agriculture should not be lower than the growth rate of total expenditure. Assuming that agriculture spending grew at the same rate as total expenditure, total agriculture expenditure need is CNY 77.3 billion.

Social security and other social benefits

Expenditure in this category is assumed to be unchanged at 2% of GDP or CNY 151 billion.

Capital expenditure

Assumed to be unchanged at CNY 351 billion for China as a whole in 2001; with local share of 52%, the expenditure need is CNY 182.52 billion.

Administration and defence

The need for expenditure in this category is assumed to be actual expenditure. Although there are no specific targets, defence is considered a priority item (*i.e.* no reduction in expenditure is expected) and the net effect of salary increases and downsizing in the public sector is not clear, therefore no change is assumed relative to actual share of expenditure on these to items relative to GDP.

Other expenditure

This category is used as residual, it is assumed to be the difference of actual expenditure and expenditure need in all other categories.

CHALLENGES FOR CHINA'S PUBLIC SPENDING – ISBN 92-64-01371-7 – © OECD 2006

Table C.1. **Summary of estimated province level financing gaps**

2003

	Actual revenue CNY million	Actual expenditure CNY million	Net transfer CNY million	Gap case 1 CNY million	Gap case 2 CNY million	Gap + actual transfer case 1 as percentage of total expenditure	Gap + actual transfer case 2 as percentage of total expenditure	Gap + reallocated transfer case 1 as percentage of total expenditure	Gap + reallocated transfer case as percentage of total expenditure
Beijing	101 978	84 067	14 507	82 110	80 944	114.9	113.5	97.7	96.3
Tianjin	37 745	42 727	9 806	20 718	19 523	71.4	68.6	48.5	45.7
Hebei	67 001	100 897	32 612	–29 085	–41 877	3.5	–9.2	–28.8	–41.5
Shanxi	38 732	67 600	22 381	–17 887	–25 425	6.6	–4.5	–26.5	–37.6
Inner Mongolia	26 343	60 825	27 642	–9 766	–14 077	29.4	22.3	–16.1	–23.1
Liaoning	96 524	128 141	36 198	13 290	6 636	38.6	33.4	10.4	5.2
Jilin	33 691	62 886	29 783	–9 927	–14 428	31.6	24.4	–15.8	–22.9
Heilongjiang	51 660	87 181	31 743	–10 826	–16 512	24.0	17.5	–12.4	–18.9
Shanghai	153 434	124 376	20 486	130 420	129 238	121.3	120.4	104.9	103.9
Jiangsu	163 640	177 400	25 148	26 032	14 421	28.9	22.3	14.7	8.1
Zhejiang	141 032	125 174	23 499	67 210	61 199	72.5	67.7	53.7	48.9
Anhui	42 530	80 098	29 122	–38 445	–53 791	–11.6	–30.8	–48.0	–67.2
Fujian	59 883	70 354	14 263	–2 547	–5 994	16.7	11.8	–3.6	–8.5
Jiangxi	34 694	63 149	22 797	–24 030	–33 899	–2.0	–17.6	–38.1	–53.7
Shandong	134 826	163 344	30 885	–17 388	–28 737	8.3	1.3	–10.6	–17.6
Henan	69 200	118 641	37 068	–58 151	–81 874	–17.8	–37.8	–49.0	–69.0
Hubei	53 918	89 950	28 324	–28 329	–40 578	0.0	–13.6	–31.5	–45.1
Hunan	61 680	94 116	31 936	–29 443	–42 191	2.6	–10.9	–31.3	–44.8

Table C.1. **Summary of estimated province level financing gaps** *(cont.)*

2003

	Actual revenue CNY million	Actual expenditure CNY million	Net transfer CNY million	Gap case 1 CNY million	Gap case 2 CNY million	Gap + actual ransfer case 1 as percentage of total expenditure	Gap + actual transfer case 2 as percentage of total expenditure	Gap + reallocated transfer case 1 as percentage of total expenditure	Gap + reallocated transfer case as percentage of total expenditure
Guangdong	229 498	215 230	41 332	109 064	95 032	69.9	63.4	50.7	44.2
Guangxi	37 738	66 095	23 921	–26 632	–37 621	–4.1	–20.7	–40.3	–56.9
Hainan	9 953	17 420	6 388	–6 847	–9 293	–2.6	–16.7	–39.3	–53.3
Chongqing	29 926	50 458	18 294	–14 365	–20 523	7.8	–4.4	–28.5	–40.7
Sichuan	72 611	112 679	41 317	–35 714	–51 772	5.0	–9.3	–31.7	–45.9
Guizhou	22 674	46 518	21 809	–26 478	–36 666	–10.0	–31.9	–56.9	–78.8
Yunnan	42 310	80 305	34 503	–16 654	–24 831	22.2	12.0	–20.7	–30.9
Tibet	1 752	10 938	13 331	–946	–1 331	113.2	109.7	–8.7	–12.2
Shaanxi	35 212	63 071	25 054	–17 318	–24 681	12.3	0.6	–27.5	–39.1
Gansu	19 664	42 736	21 682	–14 385	–20 117	17.1	3.7	–33.7	–47.1
Qinghai	5 508	14 260	9 767	–2 593	–3 622	50.3	43.1	–18.2	–25.4
Ningxia	6 778	14 218	7 776	–3 080	–4 345	33.0	24.1	–21.7	–30.6
Xinjiang	29 176	52 049	24 003	–4 106	–6 823	38.2	33.0	–7.9	–13.1

Source: OECD estimation.

County level

The estimation of fiscal capacities and expenditure needs of counties is carried out in a similar way to those at the province level summarised in the first section of this Annex with the exception that, given data constraints, fewer expenditure categories are defined.

Table C.2. **Shortfalls at the county level**
2002

	Actual revenue CNY million	Actual expenditure CNY million	Net transfer CNY million	Gap CNY million	Gap + actual transfer as percentage of total expenditure	Gap + reallocated transfer as percentage of total expenditure
Beijing	1 060	1 936	1 516	506	104.4	26.1
Tianjin	694	963	383	–38	35.9	–3.9
Hebei	15 058	34 928	16 741	–5 454	32.3	–15.6
Shanxi	6 412	19 077	9 899	–2 931	36.5	–15.4
Inner Mongolia	7 622	21 890	12 852	–1 205	53.2	–5.5
Liaoning	17 574	27 383	8 383	–613	28.4	–2.2
Jilin	4 606	14 733	8 936	–2 151	46.1	–14.6
Heilongjiang	8 203	20 852	11 063	–2 469	41.2	–11.8
Shanghai	654	1 005	694	359	104.7	35.7
Jiangsu	42 704	52 085	8 530	7 667	31.1	14.7
Zhejiang	42 878	44 689	11 946	25 974	84.9	58.1
Anhui	11 628	24 217	9 253	–5 831	14.1	–24.1
Fujian	14 599	19 408	3 935	–509	17.7	–2.6
Jiangxi	8 361	22 337	11 191	–3 843	32.9	–17.2
Shandong	34 360	53 581	16 268	–3 078	24.6	–5.7
Henan	15 692	38 834	17 573	–10 393	18.5	–26.8
Hubei	14 133	30 385	12 769	–11 803	3.2	–38.8
Hunan	12 398	27 794	14 120	–5 487	31.1	–19.7
Guangdong	28 752	48 611	21 847	–786	43.3	–1.6
Guangxi	10 859	21 876	8 956	–3 915	23.0	–17.9
Hainan	1 988	5 127	2 262	–634	31.8	–12.4
Chongqing	3 229	11 268	7 087	–2 079	44.4	–18.5
Sichuan	14 400	40 103	24 152	–6 915	43.0	–17.2
Guizhou	6 272	18 153	10 045	–3 956	33.5	–21.8
Yunnan	10 607	28 248	15 551	–3 165	43.8	–11.2
Tibet	293	1 854	2 357	–146	119.3	–7.9
Shaanxi	7 035	16 171	7 360	–3 247	25.4	–20.1
Gansu	4 044	13 806	8 973	–2 431	47.4	–17.6
Qinghai	1 123	3 438	2 534	–300	65.0	–8.7
Ningxia	1 406	4 682	3 064	–401	56.9	–8.6
Xinjiang	6 032	14 704	8 106	–1 000	48.3	–6.8

Source: OECD estimation.

ANNEX D

The Classification of Expenditures

The structure of Chinese public expenditures seems to be more complex compared to most other countries. Beside the general "on-budget" accounts that now comprise general and fund accounts, extra-budgetary expenditure of fees collected by administrative organisations are classified under the extra-budgetary accounts. Social security funds are also considered extra-budgetary funds, but they do not enter in the official classification of extra-budgetary accounts. Central government bond issues on behalf of local government are not accounted for in either on-budget or extra-budgetary accounts. Further, there exist several types of expenditure not recorded in either on-budget or extra-budgetary accounts that are often called "off-budget" or "off-institutional" expenditure. To highlight the content and nature of different accounting items below, a brief description of major accounting categories is provided. It should be noted that the classification of broader expenditure categories does not necessarily correspond exactly to that used in the main text.

On-budget expenditure

The expenditure side of the general budget account (Table D.1) covers current and capital expenditure of the central and local governments. There is no clear categorisation of current and capital expenditures, although the distinction can often be inferred from the name and description. The two largest categories belonging to capital expenditure are expenditure for capital construction, and innovation funds and science and technology promotion funds. In Table D.1 the largest categories are listed with explanations concerning their content.

CHALLENGES FOR CHINA'S PUBLIC SPENDING – ISBN 92-64-01371-7 – © OECD 2006

Table D.1. **Government general expenditures by accounting item**

Item (translation of Chinese term)	Explanation
Expenditure for Capital Construction (sub-item under capital expenditure)	This category basically includes infrastructure-related budgetary expenditure of all industries and non-profit organisations. Sub-categories listed by industry, for instance under "education-related infrastructure expenditure", are not only infrastructure expenditure of educational institutions, but also infrastructure expenditure of enterprises and non-profit organisations producing educational equipment.
Innovation Funds and Science and Technology Promotion Funds (sub-item under capital expenditure)	The innovation funds for enterprises category includes budgetary spending on all industries and non-profit organisations. The science and technology promotion funds category includes expenditure related to new product development, intermediary experiment, and basic research expenditure. The sub-categories are similar to those under expenditure on capital construction.
Geological Prospecting Expenses (sub-item under current expenditure: economic services)	Current expenditure of geological prospecting units.
Additional Appropriation for Circulating Capital of Enterprises (sub-item under current expenditure: economic services)	Includes budgetary expenditure on working capital for enterprises in metallurgy, oil, electricity, automobile, nuclear, aviation, tobacco and some other industries and policy banks.
Expenditure for Supporting Agricultural Production and Agricultural Forestry, Water Conservation and Meteorological Operating Expenses (sub-item under current expenditure: economic services)	The agriculture category covers current expenditure such as land cultivation, animal breeding, fishery management, township and village enterprises, and other agriculture-related current expenditure. But it also covers support for education expenditure of primary and secondary schools in wastelands, training and other items. The forestry category covers current expenditure related to forestry, including making up for missing pension contribution due to cessation of production, social welfare expenditure for laid off workers, and other items. The water conservation and meteorology categories cover current expenditure related to the respective categories including training.
Operating Expenses of Industrial, Transportation and Commercial Departments (sub-item under current expenditure: operating expenses of industry and commerce)	This category covers current expenditure of industry, transportation, and commerce agencies. In the industry category the sub-categories are similar to those under expenditure on capital construction.
Operating Expenses for Culture, Education, Science and Public Health (sub-item under current expenditure)	Under the operating expenses of culture and broadcasting category there are the major sub-categories of culture, publishing, cultural relics, sports, archives, earthquake measures, communications, broadcasting, birth control, training of Party cadres and other items. Operating expenses under the education category cover general education, vocational education, adult education, education broadcasting, studying abroad, special training and teacher's training. Science includes natural and social sciences, dissemination of scientific achievements and other categories. Operating expenditure on public health includes hospitals, clinics, quality control of food and medicines, and health care expenses of employees of administrative and non-profit units.
Operating Expenses of Other Departments (sub-item under current expenditure)	These include tax administration, statistics, public finance, auditing, business administration, state asset management, tourism, labour security, customs, quality control, administrative units, Party-related operating expenses and other items.

Table D.1. **Government general expenditures by accounting item** *(cont.)*

Item (translation of Chinese term)	Explanation
Pensions, Social Welfare and Relief Funds (sub-item under current expenditure)	This category includes pension of retired personnel of administrative and non-profit units, social security expenditure in urban areas, social relief in rural areas, relief funds for natural disasters, expenses for the handicapped, settlement support and other items.
Expenditure on Subsidies to Social Security Programs (sub-item under current expenditure: pensions and social welfare relief)	This category includes subsides to social security funds at all levels of government, employment support, support for laid-off workers of state-owned enterprises (SOEs), subsidies to the national social security fund and support for exit of bankrupt SOEs.
Expenditure for National Defence (sub-item under current expenditure)	National defence expenditure includes military defence, science and technology operating expenses, military recruitment mobilisation, and special operations expenditure.
Expenditure for Government Administration (sub-item under current expenditure)	Includes expenditure related to activities of the People's Congress such as elections meetings. It also covers administration expenditure of government institutions, Party organisations, and social organisations.
Expenditure for Foreign Affairs (sub-item under current expenditure)	Covers expenditure related to foreign affairs, membership fees to international organisations, operating expenses of local governments for international relations, advertisement expenses abroad, and border inspection.
Expenditure for Armed Police Troops (sub-item under current expenditure)	Includes firemen and forces for various purposes such as border forest transport.
Expenditure for Public Security Agency, Procuratorial Agency and Court of Justice (sub-item under current expenditure)	This category covers current spending on public security, public prosecution, courts, prisons, and anti-contraband measures.
Urban Maintenance (sub-item under current expenditure)	Covers various aspects of urban maintenance such as maintenance of roads, bridges, flood prevention, sewage, water supply, heating service, parks, urban planning and cleaning, and general maintenance of all public facilities.
Expenditure for Price Subsidies (sub-item under current expenditure)	The major item in this category is price subsidies for grains, cotton, and oil but it also includes grain, non-staple food, and local coal reserve funds and subsidies for policy-related losses of banks. Subsidies for loss-making SOEs according to Chinese statistics are not included in this category but are deducted from revenues.
Foreign Aid (sub-item under current expenditure)	Foreign aid takes different forms such as preferential loans, medical aid, technology cooperation and general goods.
Expenditure for Supporting Underdeveloped Areas (sub-item under current expenditure)	This category includes a wide range of types of expenditures for these areas, such as infrastructure development of resources, science and technology promotion and training, social development (which covers basic rural education, culture, broadcasting, television, healthcare, and public health) and poverty alleviation.
Expenditure on Sea Development and Land Use (sub-item under current expenditure)	Includes exploration, preservation, and management of sea areas and land use expenses of investors from Hong Kong, China; Macau, Chinese Taipei, and foreign countries.

Table D.1. **Government general expenditures by accounting item** *(cont.)*

Item (translation of Chinese term)	Explanation
Expenditure of Automobile Taxes and Fees	These are earmarked expenditures of the revenues from taxes and fees levied upon car purchase. The revenue from taxes and fees levied upon car purchase is earmarked for transport projects, subsidies for renovation of old cars, water resources development, and personnel expenditure.
Interest Expenditure on Debt	Includes interest on domestic (treasury bonds and bank borrowing) and foreign government debt (borrowing from foreign governments, from international organisations and borrowing by local governments from abroad).
Earmarked Expenditure	This category covers various items such as spending of additional education fees, urban water resources, environmental expenditure and other items.
Other expenditure	This category includes all the remaining public expenditure items such as government compensation, foreign training, housing reform, bond issuance costs, small and medium-size enterprise development funds and other items.

Source: Ministry of Finance (2004).

Categorisation by function of expenditure

There are two types of classification in Chinese public finance statistics. One is "Government Expenditures by Accounting Item", discussed above, and the other is "Government Expenditure by Categories of Expenses". These categories are listed below with explanations.

Table D.2. **Government expenditure by categories of expenses**

Category (translation of Chinese term)	Explanation
Economic Construction	This is the largest category according to the Chinese classification by categories. It includes all Capital Expenditure (Capital Construction, Innovation Funds and Science and Technology Promotion Funds) and from Current Expenditure: Economic Services (Geological Prospecting, Agriculture, Operating Expenses of Industry, Commerce, and Transport, and Working Capital for State Enterprises), Urban Maintenance and Construction, Support for Developing Areas, and Policy Subsidies.
Social, Cultural, and Educational Development	These are Current Expenditure items such as Culture, Education, Science, Health, Social Relief, Social Security Subsidies, Pension for Retired Employees, and Spending of Additional Education Fees.
National Defence	National Defence spending
Government Administration	Government Administration, Police and Courts, Armed Police, Tax Administration, and Foreign Affairs.
Others	This category includes External Assistance, Interest on National Debt and other items.

Source: Ministry of Finance (2004).

Fund expenditure

The fund accounts of the budget were created as a result of the detachment of 13 funds and fees from the extra-budgetary accounts in 1996 (Guofa 1996 No. 29). The disbursements of these funds and fees, which must be established or approved by the central government, are in principle subject to similar control as on-budget spending. Such funds and fees can only be established by the central government, but certain local funds that had already been established by 1996 were sanctioned by the central government. In 2004, the number of funds and fees at the central and local levels was 31, over half of which will be abolished by end-2005. While some other funds and fees have a slightly longer life span, the remaining ones will be preserved for the foreseeable future.

Table D.3. **Fund expenditure by category of expenses**

Name of fund	Explanation
Fund Expenditure of Industry and Transport Sectors	This category includes both central and local-level funds and fees. Many of these fees and funds are used for infrastructure construction such as the Three Gorges Construction Fund, the Railway Construction Fund, the Port Construction Fund, the Salt Iodination Fund, and the Airport Construction Fund collected at the central level or the road maintenance fees, railway construction fees, and road passenger and freight fees levied at the local level. As a result of an effort to bring various fees and funds in the accounts, there are also some province-specific items under this category such as the Energy-Related Construction Fund of Shanxi Province.
Fund Expenditure of Commerce Sector	There are only two items under this category: the Foreign Trade Development Fund and the National Silk Cocoon Development Reserves, both funds at central and local levels.
Fund Expenditure of Culture and Education Sectors	Culture-related expenditure includes infrastructure fees of cultural organisations and earmarked funds for the development of the film industry. The rest of the items are education-related such as spending of additional rural education fees, additional local education spending, and spending of local education funds.
Agricultural Funds	Agriculture-related funds are established both at central and local levels and they target specific areas such as the Forestry Development Fund or the New Land Development Fund.
Expenditure of Land Use Fees	Fees derived from rental of state-owned land are used for urban land development and the fees derived from rental of arable land for construction are earmarked for land cultivation development.
Government Housing Funds	These funds are used for rent supplement for eligible tenants and for building and managing social housing.
Funds in Other Sectors	This category includes funds in all other sectors not mentioned above such as the Tourism Development Fund, the Foreign Cooperation and Investment Fund, or the Fund for Employment Assistance to the Handicapped.
Expenditure of Additional Local Taxes and Fees	This category is at the local level and may be province-specific such as expenditure of the additional charge on the fuel tax in Hainan province.

Source: Ministry of Finance (2004).

Extra-budgetary expenditure

Extra-budgetary expenditure refers to expenditure of fees collected by administrative undertakings and various other charges, neither of which are covered by the general or the fund budget. These fees and charges are collected, allocated or arranged by government agencies institutions and social organisations while performing duties delegated to them by the government in accordance with laws, rules and regulations. The major characteristic of fees and charges in extra-budgetary accounts is that they are stipulated by laws and regulations. Fees can be collected at only the central or provincial level and any fee or extra charge below the provincial level is considered illegal. Fees have to be approved by the responsible level of government (the State Council in case of fees levied at the central level and by provincial governments in case of fees at the provincial level) and the corresponding level of the Ministry of Finance. Fees approved and collected at the provincial level have to be reported to the Ministry of Finance and the National Development and Reform Commission at the central level. Fees that apply to the whole country or to more than one province or that are related to management of natural resources have to be approved at the central level.

Social security funds are extra-budgetary funds but are not reported in extra-budgetary accounts. Strict accounting rules apply to extra-budgetary fees: all extra budgetary income must enter the special finance accounts and become part of public funds. Extra-budgetary revenues comprise revenue of administrative and institutional units, revenue from fund-raising programmes of township governments, revenue of government departments and their institutions and some other revenues. Expenditure, on the other hand, is determined by the expenditure plan. Surplus revenue on the extra-budgetary account can be spent on approval of the respective body of the Ministry of Finance, except for funds earmarked for following years.

OECD PUBLICATIONS, 2, rue André-Pascal, 75775 PARIS CEDEX 16
PRINTED IN FRANCE
(11 2006 02 1 P) ISBN 92-64-01371-7 – No. 54479 2006

China in the Global Economy

Challenges for China's Public Spending

TOWARD GREATER EFFECTIVENESS AND EQUITY

Public spending is one of the Chinese government's key tools to shape national development. Currently, public expenditure policies are undergoing a major transformation to meet the changing requirements of the market economy. However, major challenges remain: to develop more effective institutions and practices for planning, implementing and controlling spending; to improve the allocation of spending so that it better meets China's needs; and to reform the relations among levels of government.

This study draws extensively on Chinese government and other sources to provide a detailed and up-to-date picture of the current state of China's public expenditure policies, the main reforms that are being undertaken, and the problems that remain to be resolved. The first and second chapters discuss the main elements of China's public expenditures, the factors underlying their rapid growth over the past 10 years, and efforts to improve the effectiveness with which public expenditures are planned, implemented, and evaluated. These chapters also provide an overview of the fiscal relations among levels of government in China and analyse the allocation of public spending among major areas. The third chapter gives an extensive analysis of a key problem in China's public expenditure policies: the widespread gaps between expenditure responsibilities and the fiscal resources available to pay for them for provincial and lower levels of government. Reforms to address these gaps are likely to be critical to improving the allocation of public spending and its overall effectiveness, as well as to restrain the illicit spending and borrowing by local governments that has become a matter of great concern in recent years.

The full text of this book is available on line via these links:
http://www.sourceoecd.org/governance/9264013717
http://www.sourceoecd.org/transitioneconomies/9264013717
http://www.sourceoecd.org/finance/9264013717

Those with access to all OECD books on line should use this link:
http://www.sourceoecd.org/9264013717

SourceOECD is the OECD's online library of books, periodicals and statistical databases.
For more information about this award-winning service and free trials ask your librarian,
or write to us at **SourceOECD@oecd.org.**

www.oecd.org

ISBN 92-64-01371-7
11 2006 02 1 P

OECD
OECDPUBLISHING