

**THE RISE AND FALL OF CHINA'S
GOVERNMENT REVENUE**

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I. Introduction

China's fiscal capacity is of great interest to academia and policymakers worldwide. This paper discusses China's tax reforms, analyzes the rise and fall of government revenue, compares the size of China's government revenue with other countries, examines the structural problems in the current tax system, and provides suggestions for further tax reform.

China's government revenue includes three major parts: budgetary revenue, extra-budgetary revenue, and social security contributions. Budgetary revenue consists of tax revenue and state enterprise contributions. Extra-budgetary revenue includes various fees and charges. Social security is run by local governments and social security contributions are included in neither budgetary nor extra-budgetary revenues. There exists also off-budgetary revenue in China, most of which is illegal, consisting of unreported revenue. There is no official data on this government revenue.

China's government budget is managed separately by governments at different levels. There are five levels of governments in China: central government, provincial governments (including autonomous regions), prefecture governments, county governments, and township governments. Each level of government has its own budget. The national budget composes of the central government budget and local government budgets. As stipulated by the *Budget Law of the People's Republic of China*, the budget draft and budget implementation of the central and local governments must be reviewed and approved by the National People's Congress of the People's Republic of China (PRC) and local People's Congresses respectively.¹ The central and local budget adjustment plans and final budgets must be reviewed and approved by the Standing Committee of the National People's Congress and local People's Congresses. The budget year corresponds with the calendar year, starting on January 1 and ending on December 31.

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¹ See the National People's Congress of PRC (1994), *The Budget Law of the People's Republic of China*, passed by the Eighth National People's Congress Second Meeting on March 22.

Under a centrally planned economic system before 1978, the government controlled the production and allocation of resources. Budgetary principle was called “uniform collection and uniform spending” (*tongshou tongzhi*). State enterprises, which produced most of the output, were required to turn in all of their profits to the state. Profits from state enterprises were the major source of government revenue.² There existed no competition among firms and the government set prices for almost all products. The government also taxed farmers explicitly through the agricultural tax and implicitly through lowering its purchasing prices of agricultural products. In 1978, government budgetary revenue share in GDP was 31.2%.

China launched a series of tax reforms in the 1980s. As a result, government revenue share in GDP declined significantly. By 1994 government revenue share in GDP declined to 10.8% of GDP. Economists were deeply concerned about insufficient government revenue for infrastructure construction in China. Bahl and Wallich (1992, p. 20) argued that although it was difficult to judge the overall revenue adequacy of China in the absence of concrete projections of expenditure needs, it could be safely concluded that public service levels were deficient in all parts of China and the infrastructure gap was likely to be an especially critical problem in the future. Chen (1996) and Huang (1996) also advocated an increase in the Chinese government budgetary revenue. Stiglitz (1998) believed that the Chinese government revenue share in GDP is too small compared with other countries and is not adequate to fulfill China’s ambitious development plan. Brean (1998) argued that China’s economic development and social stability needed more government revenue, and warned that if the government revenue remained low the end result could be a serious weakening of the government’s ability to provide essential public goods and services, which could threaten macroeconomic stability and jeopardize the economic transition. In 1994, China implemented another round of major tax reforms which laid the foundation for increasing government revenue in the late 1990s and in the coming century. The target share of government budgetary revenue in GDP was set at 20% [Wang (1998), former Chinese Minister of Finance]. Government revenue has increased much faster than GDP in recent years. As a result, government budgetary revenue share in GDP has increased to more than 20% of GDP in 2007. Despite the financial crisis and economic slowdown in 2008, government fiscal revenue still grew at 17% in nominal value.³ Meanwhile, China ranked third in 2007 and fifth in 2008 in “Forbes Tax Misery Index.” Recently, economists became concerned with excessive tax burden in China and called for a tax reduction [see Lin (2006)].

What are the reasons for the decline in government revenue in the 1980s and early 1990s? What are the reasons for the increase in government revenues since the late 1990s and recent years? Is the Chinese government collecting too much revenue? How can the current tax system be improved? This paper intends to address these important issues. Section II discusses China’s market-oriented tax reforms; Section III analyzes the rise and fall of government revenue; Section IV examines the sources

² In 1978, tax revenues only accounted for 46% of total government revenue. See National Bureau of Statistics of PRC (1998, p. 273).

³ See National Bureau of Statistics of PRC (2009), *Statistical Bulletin on National Economy and Social Development in 2008*, February 26, 2009. The inflation in 2008 was 5.9%. So the real growth rate of government revenue was 11.1%, still higher than the GDP growth which was 9% in 2008.

of government budgetary revenue; Section V discusses extra-budgetary revenue; Section VI compares the size of China's government revenue with other countries; Section VII examines China's tax structure and provides suggestions for further tax reforms; and Section VIII concludes the paper.

II. Establishing a Tax System for the Market Economy

In 1978, China started market-oriented economic reforms. The essence of the reforms was to improve production efficiency through economic decentralization. Tax reform is an important part of economic reform, which is aimed at providing state enterprises with production incentives, cutting off fiscal dependence of state enterprises on government, equalizing tax burdens among enterprises, and providing adequate revenue for the government. Tax reforms experienced the following stages.⁴

1. Early Tax reforms

Experiments in tax reform began in 1979 by allowing state enterprises to keep part of their profits in order to expand production and to issue bonuses and awards to workers. In 1983, the government decided to pursue further fiscal reform by subjecting state enterprises to income taxes, instead of contributing profits, a reform commonly called "substituting taxes for profits (*li gai shui*)". This reform was completed in 1984. The tax revenue share in total government revenue increased from 46% in 1978 to 58% in 1984, and has been steadily increasing since then. To increase government revenue, a Contract Responsibility System (CRS) was introduced in December 1986.⁵ Under the CRS, enterprises were contracted to pay income tax and adjustment tax at a specific level of profit.⁶ If enterprises could not achieve that level of profit, they were to make up the tax shortfall from their own resources. If they exceeded the contract level of profit, they paid taxes at a lower rate on their additional profits. The contract levels were usually based on the previous year's profits plus increment. The CRS provided strong incentives for state enterprises to pursue profits. However, since the contracted profits were not set to grow at a sufficiently high rate, the CRS did not solve the revenue shortage problem for the government. In 1989, the government launched a new tax reform called *profit sharing (li shui fenliu)*. State enterprises were required to submit a portion of their profits to the government after paying corporate income taxes. All these tax reforms failed to increase the share of total government budgetary revenue in GDP, which declined from 31% in 1978 to only 12.3% in 1993. In addition, since 1978, the central government revenue share of total revenue has decreased significantly, down to only 22% in 1993. The central government was determined to reverse this trend.

⁴ For a detailed discussion of the early tax reforms, see Lin (2000).

⁵ The CRS was first introduced in agriculture, then expanded to industry, and finally used in the area of taxation.

⁶ Contracts do not cover product tax, value-added tax, business tax, resource tax, and other taxes.

2. Establishing the Tax Sharing System (*fen shui zhi*)

In 1994, a new tax system, called the tax sharing system, was established. Several significant changes in the tax system took place, including reduction of the number of taxes from 37 to 23; unification of the income tax rate for all enterprises to 33% (joint ventures preserve their preferential tax rates); division of taxes into three categories, namely, national taxes which were paid to the central government, joint taxes which were shared by the central and local governments, and local taxes which were paid to local governments; and the establishment of a central tax bureau (*guo shui ju*), a local tax bureau (*di shui ju*) and a central to local tax rebate (*shuishou fanhuan*) system.

Central government taxes include (1) tariffs (customs duties) and import-related VAT and consumption tax collected by the customs; (2) consumption tax (similar to excise tax in the U.S.); (3) corporate income tax from central government-owned enterprises (e.g., Offshore Petroleum and Natural Gas Corp, PetroChina Company Limited and China Petroleum & Chemical Corporation); (4) income tax from local banks, foreign banks and other financial institutions; (5) income tax from railroad, bank headquarters (Industrial and Commercial Bank of China, Agricultural Bank of China, Bank of China, Construction Bank of China, Development Bank of China, Agricultural Development Bank of China, Import and Export Bank of China), insurance company headquarters, including business tax, income tax, profit and urban construction and maintenance tax, and (6) profits from central government-owned enterprises.

Local government taxes include (1) business tax (excluding business tax from railroad, bank headquarters, and insurance company headquarters); (2) income tax from local enterprises (excluding income tax from local banks, foreign banks and other financial institutions); (3) profits from local enterprises, personal income tax, urban land tax, fixed investment direction adjustment tax; (4) urban construction and maintenance tax (excluding the tax from railroad, bank headquarters, and insurance company headquarters); (5) housing tax; (6) vehicle and vessel usage license plate tax; (7) urban real estate tax; (8) vehicle and vessel usage tax; (9) stamp tax; (10) land appreciation tax; (11) slaughtering tax; (12) agriculture tax and animal husbandry tax (including agriculture special tax) and state-owned land use tax; (13) cultivated land occupation tax, and (14) contract tax.

Taxes shared by the central and local governments include (1) value-added tax (the share of the central government is 75% and the share of the local government is 25%); (2) natural resource tax (only ocean oil resource tax belongs to the central government and the rest goes to the local governments), and (3) stamp tax from stock transactions.

State tax agencies and local tax agencies were established separately. In principle, state taxes and shared taxes are collected by state tax agencies while local taxes are collected by local tax agencies.

The central government returns part of its tax revenue to all local governments and provides additional assistance in the form of fiscal transfers to less developed regions and regions inhabited by ethnic minorities.

The 1994 tax reforms did not raise government tax revenue immediately. In fact, the real total tax revenue actually declined from 1993 to 1994. The decrease in total tax revenue was a result of the reduction of the number of taxes (from 37 to 23) and the reduction of the corporate income tax rate for large and medium size enterprises from 55% to 33%. Corporate income taxes from both state enterprises and collective enterprises declined from 1993 to 1994. However, the 1994 tax reforms laid the foundation for the government tax revenue growth in the coming years.

3. Recent Tax Reforms

Tax reforms have continued after 1994. The significant tax reforms in recent years are as follows.

A. Increasing Tax Share of the Central Government

Stamp tax from stock transactions was allocated in favor of the central government gradually, from 50% initially to 80%, 88% and then 97%. Only 3% goes to local governments now. From January 1, 2002, personal income tax and corporate income tax of local government-owned enterprises, which were pure local government taxes, were shared by the central and local governments at a ratio of 50% to 50%. Since January 1, 2003, the share of the central government increased to 60% and the share of the local governments decreased to 40%.⁷ Interest income also became the revenue of the central government.

B. Abolishing Agricultural Tax

Facing growing rural and urban income disparity, the government decided to reduce the tax burden on farmers. On January 1, 2006, China abolished the *Regulations on Agricultural Taxes*, and eliminated all agricultural taxes. The agricultural tax regulation was passed in 1958. Based on this regulation, the government collected taxes from all individuals and collectives engaged in agricultural activities. The tax base was the agricultural output. A standard output was set. To encourage farmers to produce more, the tax base was fixed, leading to increased agricultural output. Tax rates varied from province to province, at an average of 15.5%. Due to the large increase in agricultural productivity, the effective tax rate was much lower and the revenue from the agricultural tax was small. The agricultural tax revenue only accounted for 3.2%, 1.4%, and 0.9% of total tax revenue in 2003, 2004, and 2005, respectively.

C. Unifying Corporate Income Taxes

For many years, the corporate income tax rate for domestic firms was 33% (30% to the central government and 3% to the local governments), while it was as low as 15% for foreign-invested firms. The unequal tax burdens have drawn a lot of criticism from domestic firms and economists. On January 1, 2008, the government changed the corporate tax rates for domestic firms and foreign firms to a uniform rate of 25%.

⁷ State Council of PRC (2001), *The Notice on the Announcement of the Reform Plan on the Sharing Income Taxes*, State Council Document No. 37.

D. *Excluding Investment from the Base of VAT*

In 2009, value-added tax (VAT) was converted from production type to consumption type. Unlike the European countries, China did not exclude investment from the tax base, which made the effective tax rate in China much higher than in other countries. The experiments of VAT reforms, excluding investment from the tax base, took place in three northeastern provinces and ten cities in the provinces in central China. Beginning January 1, 2009, investments have been excluded from the value-added tax base. China's VAT rate is 17% for most products. It is expected that the VAT reform will reduce tax revenue by 120 billion yuan in 2009.

III. The Fall and Rise of Government Revenue

As tax reforms proceed, China's government revenue has experienced large fluctuations. We will discuss the ups and downs of the level of real government revenue and then analyze the decline of the share of government revenue in GDP from 1978 to 1995 and the increase from 1995 to the present.

Total government budgetary revenue in current yuan has been increasing since 1978 (113.2 billion yuan in 1978, 293.7 billion yuan in 1990, 1339.5 billion yuan in 2000, and 5.13 trillion yuan in 2007). However, the level of real government revenue measured at the 1978 constant retail price went through ups and downs in the 1980s. Figure 1 illustrates government revenue and its growth rate based on the 1978 constant price. Real budgetary revenue was 113.23 billion yuan in 1978, decreasing every year to 106.21 billion yuan in 1981. Real budgetary revenue increased consecutively to 156.5 billion yuan in 1985, then, declined continuously to 131 billion yuan in 1989. Since 1989 real budgetary revenue has gone up steadily, reaching 141.4 billion yuan in 1990, 168.22 billion yuan in 1994, 378 billion yuan in 2000, and 1362.4 billion yuan in 2007.

Government revenue grew more slowly from 1978 to 1994, but much faster from 1994 to 2007, particularly in recent years. For example, the growth rate of real tax revenue (adjusted by the retail price index) was 18.25% in 2004, 18.93% in 2005, 21.25% in 2006, and 27.56% in 2007, much faster than the growth rate of real GDP (adjusted by the retail price index), which was 13.83% in 2004, 13% in 2005, 13.89% in 2006, and 12.84% in 2007.⁸ The Chinese government reports growth rates of government revenue based on current values. Thus, the official growth rate of total government revenue for 2003, 2004, 2005, 2006, and 2007 was 20.4%, 25.7%, 20%, 21.4%, and 31.9%, respectively. Due to inflation, the official growth rates exaggerated the real growth of government revenue. For example, the growth rate of government revenue was 10.1% based on current value in 1988, but it was -9.58% based on constant price.

Government revenue grew rapidly only after the 1994 tax reform, while the GDP growth has been high both before and after 1994. From 1978 to 1994, the average annual growth rate of budgetary revenue was only 2.47%, while the average annual growth rate of GDP was 9.06%! From 1994 to 2007, the average annual growth rate of government budgetary revenue was 16.1%, while the average annual

⁸ National Bureau of Statistics of PRC (2008), *Statistical Yearbook of China*.

growth rate of GDP was 11.15%. This caused a decline in the government budgetary revenue share in GDP before 1995 and an increase after 1995. In 1978, total government budgetary revenue accounted for 31.2% of GDP, down to 22.36% in 1985, and 10.7% in 1995. Since 1995 the government budgetary revenue has been steadily increasing. In 2005, total government budgetary revenue accounted for 15% of GDP, and in 2007, it reached 20.6% of GDP. Due to economic slowdown, the share of government budgetary revenue in GDP declined slightly in 2008 to 20.4%. Figure 2 shows the ratio of government budgetary revenue to GDP for the period of 1978 to 2008.

1. Reasons for the Decline in the Share of Budgetary Revenue in GDP 1978-1995

What are the reasons for the fluctuation of government revenue? Tax revenues depend on tax rate, as well as the size of taxable income. Factors which contributed to the decline in government budgetary revenues from 1978 to 1995 include lowered corporate income tax rates, limited tax base, and tax evasions.⁹

Before the economic reforms in 1978, state enterprises submitted all their profits to the government, which implies that the corporate profit tax rate was 100%. Government revenues depended largely on profits from state enterprises. The corporate profit tax rate for small enterprises was lowered from 55% to 35% in 1989 and to 33% in 1991. In 1994 the corporate income tax rate for all domestic enterprises was lowered to 33%. The share of corporate income taxes in GDP for state enterprises declined from 6.65% in 1985 to 1.68% in 1993. The share of corporate income taxes in GDP for collective enterprises declined from 1.11% in 1985 to 0.28% in 1993.¹⁰

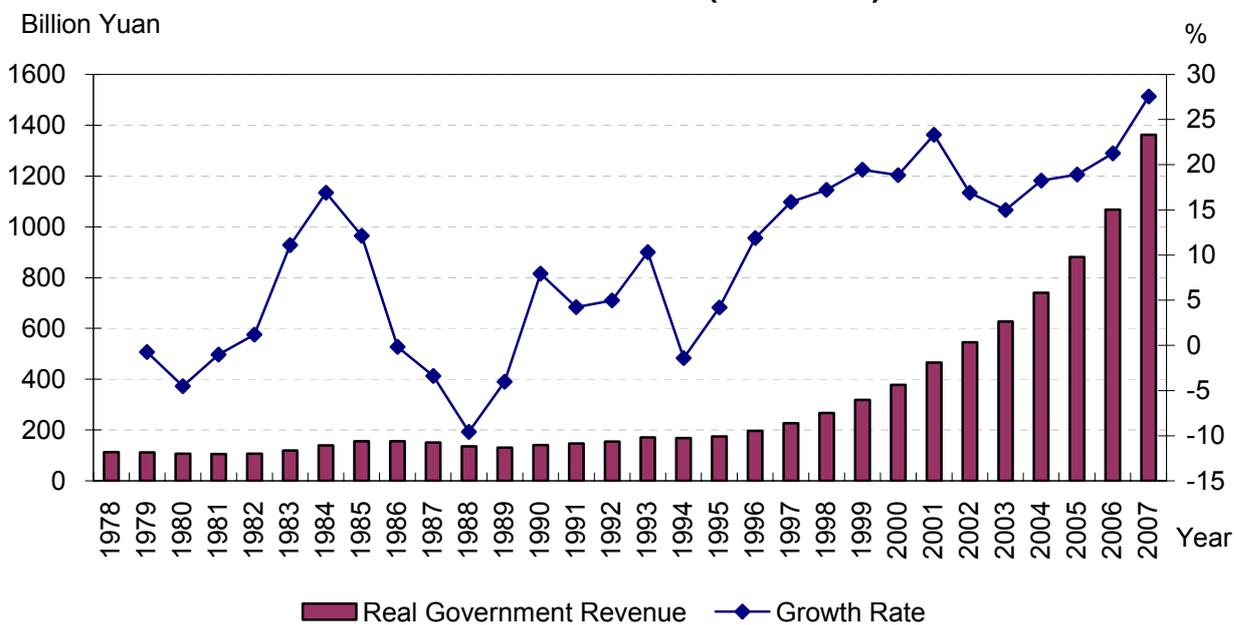
In China, although tax rates might be high, the tax bases were small. One example is the agricultural tax. Agricultural tax rates set in 1958 were different among different provinces, and were around 15%. The tax base is the quantity of agricultural products per unit of cultivated land in an average year. For more than 40 years (particularly since the collapse of the people's communes), despite a large increase in agricultural productivity, the average product per unit of land (*mu*) was never changed. Thus, the actual tax rate was less than 2.5%!¹¹ A small tax base was also caused by tax exemptions and reductions. For example, the decrease in tariffs was caused by tax exemptions and increase in rebate rate on exports, as well as decrease in tax rate on imported goods [see Li (1997)]. Also, for many years, foreign investors have enjoyed tax exemptions for two years, tax reduction for three years, and only paying taxes after the fifth year when they have earned profits.

⁹ See Lin (2000) for a detailed discussion of the decline in China's government revenue.

¹⁰ Calculated by the author based on the data from National Bureau of Statistics of PRC (1999), *Statistical Yearbook of China*.

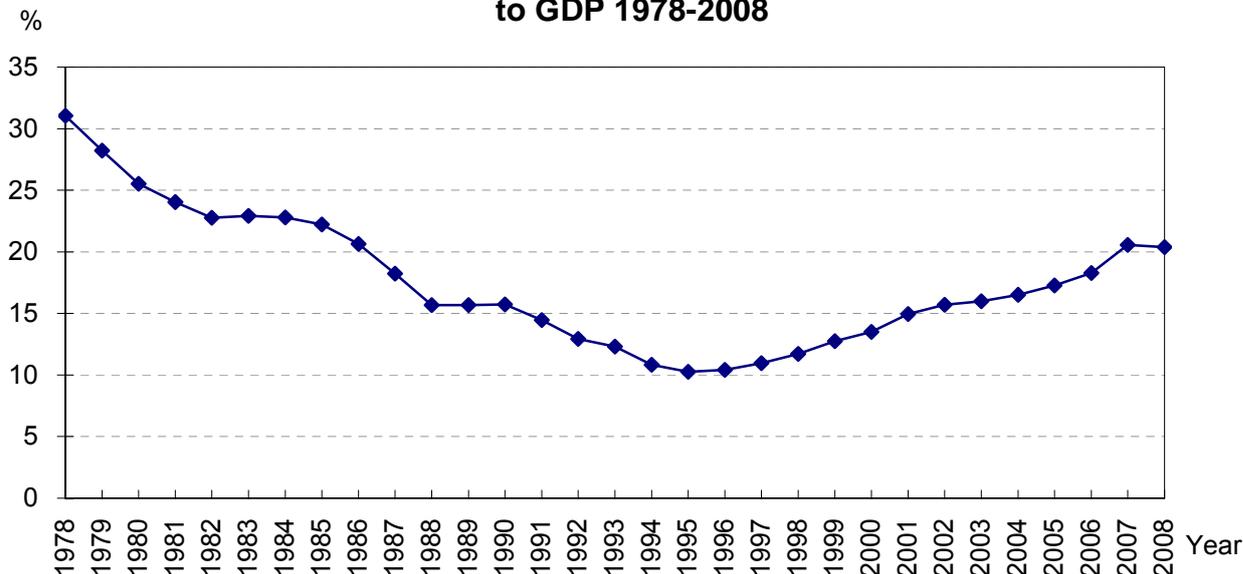
¹¹ See Ministry of Finance of PRC (1996). *Finance Yearbook of China*.

Figure 1 Real Government Revenue at 1978 Constant Price and its Growth Rates (1978-2007)



Data Sources: National Bureau of Statistics of PRC, *Statistical Yearbook of China*, 2000-2008.

Figure 2 The Ratio of Government Budgetary Revenue to GDP 1978-2008



Data Sources: National Bureau of Statistics of PRC, *Statistical Yearbook of China*, 2000-2008. People's Bank of China, 2009, *The Report on Monetary Policy Implementation for the 4th Quarter of 2008*, China.com.cn, February 23. National Bureau of Statistics of PRC, 2009, *Statistical Bulletin on National Economy and Social Development* in 2008.

Tax evasion, one of the most intractable problems of economic policy in developing countries, was widespread in China during the transition period. It was estimated that 30% of state enterprises, 60% of joint ventures, 80% private enterprises, and 100% individual street vendors evaded taxes [Yu (1997)]. Many enterprises had two accounts, one was real, and the other was fake [see Liu (1998)]. The fake account was used for evading tax payment. Personal income tax evasion was also a serious problem. A part of an individual's income was non-wage income (cash awards, subsidies, and in-kind transfers). When people receive payment-in-kind instead of money, it is legally a taxable transaction. However, this part of the income is not reported as income and personal income tax cannot be applied.¹²

2. Reasons for the Rise in Tax Revenue from 1995 to 2007

The rise in the level of government budgetary revenue from 1995 to 2007 was closely related to the rapid economic growth in the same period. Figure 1 shows that government budgetary revenue has been growing at a high rate since 1995. As a result, the level of government revenue has greatly increased. Almost all the taxes are related to output levels, such as value-added tax, business tax, corporate income tax, personal income tax, etc. Figure 3 shows China's per capita real GDP adjusted by the 1978 constant retail price and the growth rates of real GDP reported by the government. In the 1980s, China's GDP growth experienced large fluctuations. According to the official data, GDP growth was 10.2% in 1978, 3.9% in 1981, 13.7% in 1984, 2.5% in 1989, and 2.3% in 1990. The fluctuations were larger based on per capita GDP adjusted by the retail price index. The Chinese economy entered the steady high growth track after 1991. The per capita GDP growth reached 12.8% in 1992, and has never had a significant drop since then. Growth rate of per capita GDP was 6.8% in 1998, 6.7% in 1999, 7.6% in 2000, 7.5% in 2001, 8.4% in 2002, 9.3% in 2003, 9.4% in 2004, 9.8% in 2005, 11% in 2006, and 11.4% in 2007.¹³ Per capita GDP at the 1978 constant retail price was 381.2 yuan in 1978, 791.5 yuan in 1990, 2217.2 yuan in 2000, and 5026.3 yuan in 2007. Per capita GDP in 2007 was 13.2 times as high as that in 1978! Thus, economic growth is undoubtedly the major reason for the growth of total tax revenue.

The rise of the government revenue share in GDP (see Figure 2) implies that the government budgetary revenue increases faster than GDP. Theoretically, if the tax system is progressive and the tax rate remains unchanged when income increases, then an increase in the GDP will increase the share of taxes in GDP. Economic growth will push people to higher tax brackets, making them subject to higher tax rates. In this case, tax revenue will increase faster than income growth, resulting in a higher ratio of tax revenue to income. However, most of China's taxes are proportional and non-progressive, such as VAT, business tax, corporate income tax, etc. Personal income tax is progressive, but it only accounts for a very small proportion of tax revenue. For example, in 2007 personal income tax revenue

¹² There may be several reasons for the high proportion of tax evasion: (1) Lack of "rule of law"; (2) Non-existence of the legal concept of taxation in the Chinese society, and tax payers do not have the habit of paying taxes; (3) Grant of reductions or exemptions without proper authorization from the central government by some local officials; (4) Lack of efficiency in tax administration, and (5) Acceptance of bribes by tax collectors in some cases [See Li (1991)].

¹³ National Bureau of Statistics of PRC (2008), *Statistical Yearbook of China*.

accounted for 6.98% of total tax revenue, and only 1.27% of GDP. Thus, economic growth is the reason for the increase in the growth rate of budgetary revenue, but not the main reason for the increase in the government revenue share in GDP. Increased tax revenue share in GDP is attributable to the following:

A. *Broadened Tax Base*

A broadened tax base was the major reason for the increase in government revenue share in GDP. First of all, the tax base for the value-added tax was largely broadened. In 1984, the State Department formally mitigated “The Preliminary Rules on Value-Added Tax of the People’s Republic of China,” and thereafter, the VAT became an independent tax in China. However, the VAT was imposed only in the production process of a small proportion of products, with a variety of tax rates. Starting in 1994, VAT has been imposed universally on production, wholesale, retail and import of goods. The VAT rate is 17% for most products, 13% for some products (e.g., agricultural products), and 6% for small tax payers. Exporting enterprises receive VAT refunds as an export incentive, with refund rates ranging from 9% to 17%. For example, the refund rate for electronic products is 17%.¹⁴ To prevent tax evasion, a nationwide standard receipt is designed. Usually an invoice method is used – each firm is liable for taxes on total sales but taxes already paid by suppliers as a credit against this liability are claimable. Special VAT invoices were adopted. VAT is self-policing and it is difficult to avoid taxes. Thus, VAT became a money machine for the government.

B. *Introduction of New Taxes*

Introduction of new taxes was another reason for the increase in tax revenue share in GDP. In 1994, consumption tax was introduced. This tax is imposed on some specified consumer goods, which is an extra tax imposed on some selected consumer goods after VAT is levied. Currently, consumption tax is imposed on 11 items including tobacco, wine and alcohol, cosmetics, fireworks, jewelry, gasoline, tires, motorcycles, cars, etc. The volume of consumption tax is computed by the *ad valorem* method or the specific duty method, and the tax is mainly collected at the stage of production and import. The consumption tax rate based on values of goods ranges from 3% to 45%. Some consumption taxes are based on quantities of goods. Also introduced were land value-added tax, stamp tax on stock exchange, inheritance tax, and gift tax. The government also increased the land use tax.

C. *Strengthened Law Enforcement*

The government launched the “Gold Tax Project” in 1994. The objectives of the project were to prevent tax evasion, reduce corruption, and improve the efficiency of tax collection. The government made great efforts to establish a computerized database of the records of both taxpayers and tax collectors. However, in the *first stage* (1994-1995), only 50 cities were involved in the project. The government could only check the VAT invoices of 50 cities, and the VAT invoices outside the 50 cities were not easy to check. In 1998, *the second stage* of the project began. All the provinces were involved in the project. A computer network connecting the National

¹⁴ Other countries, such as European countries that adopted VAT, also rebate VAT on exported goods.

Tax Administration, provincial national tax collectors, city national tax collectors, and county national tax collectors was established. Collectors of local taxes were also hooked up to the network. An accelerated pace in tax computerization was achieved to ensure information integration, promote extensive application of integrated administrative software and improve the database focusing on individual taxpayers. Tax-monitoring meters were widely applied in the industries of retailing, services, entertainment, catering and transport to strictly exercise oversight of the instruments of counter-falsification of VAT invoices. Along with the wide-use of tax-monitoring meters, the practice of prize-winning invoices will be actively promoted. *The third stage* of the project started in 2005, aimed at establishing more comprehensive information and management system.

D. *One-time Factors*

Some one-time factors contributed to the rapid growth of tax revenue. For the high growth of tax revenues in 2007, there are other policy-related and one-time factors. *First*, the increase in transactions on the securities market and in the stamp tax rate on securities transactions raised tax revenue by 182.6 billion yuan. Stamp tax on securities exchanges increased drastically, 500%, in 2007. Its share in total tax revenue increased from 0.48% to 3.69%. This is a result of the large increase in the value of stocks and the increase in the stamp tax rate. The Shanghai Stock Index increased from 2715 in the beginning of 2007 to 6124 on October 16, 2007! Meanwhile, on May 23, 2007, the Ministry of Finance of the PRC increased the stamp tax rate on stock exchanges from 0.1% to 0.3% on the purchasing and selling of stocks. *Second*, tax rebates were reduced by 40 billion yuan due to policy changes, equivalent to an increase in revenue by the same amount. In China, subsidies are treated as negative revenues, instead of spending. *Third*, railway transportation enterprises turned over to the central government 19.6 billion yuan from the proceeds of their sale of state assets, and that was a one-time only source of revenue. *Fourth*, special surcharges on oil sale for the whole year totaled 50.1 billion yuan, an increase of 12.9 billion yuan over 2006 when they were collected for only two quarters.¹⁵ These factors increased government revenue by 305.3 billion yuan, a one-time increase. *Fifth*, the second fastest growing tax is the tax on urban land use, with a growth rate of 118%. The local governments are in severe revenue shortage and have largely relied on sales of land for real estate development. The rapidly rising housing prices inspired real estate developers to allocate more and more land for housing construction. These factors caused a large increase in the tax revenue on urban land use.

IV. **Composition of Government Budgetary Revenue**

China's government revenue is classified under several large categories: tax revenue, contributions by state-owned enterprises, subsidies to loss-making state-owned enterprises, contributions for education, and other revenue. The data of each category can be traced back to the 1950s. Major components of government revenue from 1950 to 2007 will be discussed here.

¹⁵ Ministry of Finance of PRC (2008), *On the Draft of Central and Local Budgets for 2008, First Session of the 11th National People's Congress*, March 5.

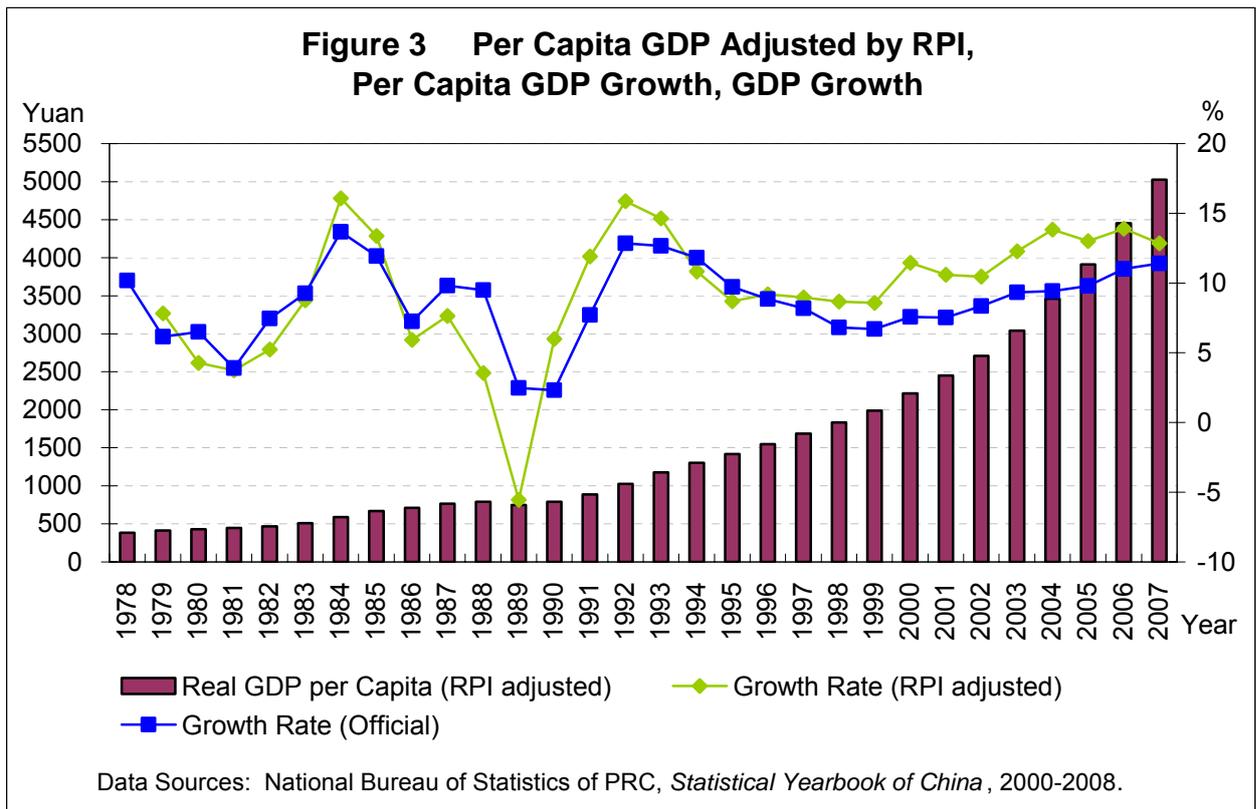


Table 1 shows total government revenue and shares of tax revenue, contributions by state-owned enterprises, subsidies to loss-making state-owned enterprises, additional contributions to education, and other revenues in China's government revenue. From 1950 to 1957, tax revenue was the major part of government revenue, accounting for 51% of total government revenue in 1957. In 1957, China completed socialist economic reforms, eliminated all the private enterprises and established state-owned enterprises and urban collective-owned enterprises. In 1958, China launched a Great-Leap Forward movement to catch up with Great Britain and the United States in a short period of time. Following the example of the Soviet Union, enterprises were required to submit their profits to the government. Contributions from SOEs became the major part of government revenue in all the years before 1978, except in 1962 (end of the Great-Leap-Forward movement), 1968 (the third year of the Cultural Revolution), 1975-1977 (the end of the Cultural Revolution) in which enterprises suffered severe losses. Since 1978, tax has become the major part of government budgetary revenue. After the tax-for-profit reforms in 1984, tax revenue became the predominant component of total government revenue. The share of tax revenue in total government revenue was 102% in 1985, 96% in 1990, 94% in 2000, and 89% in 2007.¹⁶

¹⁶ Since the subsidies to loss-making enterprises are considered negative revenue for the government, tax revenue share can go beyond 100%.

Table 1 Government Budgetary Revenue and its Composition

Year	Total Govt. Revenue (billion yuan)	Tax Revenue (%)					Rev. from SOEs (%)	Subs. to Loss-making SOEs (%)	Rev. from Add. Contr. for Edu. (%)	Other Rev. (%)
		Total Tax	Industrial and Commercial tax	Tariffs	Agri-culture and Related Taxes	Corpor. Income Tax				
1950	6.22	78.8	42.3	5.7	30.7		14.0			7.2
1951	12.50	64.9	40.7	5.6	18.7		24.4			10.6
1952	17.39	56.2	37.7	2.8	15.7		32.9			10.9
1953	21.32	56.1	40.9	2.4	12.9		36.0			7.9
1954	24.52	53.9	38.7	1.7	13.5		40.6			5.5
1955	24.93	51.1	36.9	1.9	12.3		44.9			4.0
1956	28.02	50.3	37.8	1.9	10.6		47.9			1.8
1957	30.32	51.1	39.4	1.9	9.8		47.6			1.4
1958	37.96	49.4	39.1	1.7	8.6		49.8			0.8
1959	48.71	42.0	33.8	1.4	6.8		57.3			0.7
1960	57.23	35.6	29.6	1.0	4.9		63.9			0.5
1961	35.61	44.6	36.8	1.7	6.1		53.7			1.7
1962	31.36	51.7	42.9	1.5	7.3		46.6			1.7
1963	34.23	48.0	39.8	1.2	7.0		50.5			1.5
1964	39.95	45.6	38.0	1.1	6.5		53.3			1.2
1965	47.33	43.2	36.5	1.2	5.4		55.8			1.0
1966	55.87	39.7	33.3	1.2	5.3		59.7			0.6
1967	41.94	46.9	39.0	0.9	6.9		52.1			1.0
1968	36.13	53.0	43.0	1.8	8.3		46.2			0.8
1969	52.68	44.7	37.9	1.2	5.6		54.4			0.9
1970	66.29	42.4	36.5	1.1	4.8		57.2			0.4
1971	74.47	42.0	37.2	0.7	4.1		57.5			0.5
1972	76.66	41.4	37.0	0.7	3.7		58.1			0.5
1973	80.97	43.1	38.2	1.1	3.8		56.4			0.5
1974	78.31	46.0	40.4	1.8	3.8		52.0			2.0
1975	81.56	49.4	43.9	1.8	3.6		49.1			1.5
1976	77.66	52.5	46.8	1.9	3.8		43.5			3.9
1977	87.45	53.5	47.2	3.0	3.4		46.0			0.4
1978	113.23	45.9	40.8	2.5	2.5		50.5			3.6
1979	114.64	46.9	42.1	2.3	2.6		43.2			9.9
1980	115.99	49.3	44.0	2.9	2.4		37.5			13.2
1981	117.58	53.6	46.6	4.6	2.4		30.1			16.3
1982	121.23	57.7	51.4	3.9	2.4		24.5			17.8
1983	136.70	56.7	50.4	3.9	2.4		17.6			25.7
1984	164.29	57.7	49.3	6.3	2.1		16.8			25.5
1985	200.48	101.8	54.7	10.2	2.1	34.7	2.2	-25.3		21.3
1986	212.20	98.5	56.7	7.1	2.1	32.6	2.0	-15.3		14.8

Table 1 Government Budgetary Revenue (Continued)

Year	Total Government Revenue (billion yuan)	Tax Revenue (%)					Rev. from SOEs (%)	Subs. to Loss-making SOEs (%)	Rev. from Add. Contr. for Edu. (%)	Other Rev. (%)
		Total	Industrial and Commercial tax	Tariffs	Agriculture and Related Taxes	Corporate Income Tax				
1987	219.94	97.3	58.3	6.5	2.3	30.2	1.9	-17.1		17.8
1988	235.72	101.4	63.0	6.6	3.1	28.7	2.2	-18.9		15.4
1989	266.49	102.3	66.1	6.8	3.2	26.3	2.4	-22.5		17.7
1990	293.71	96.1	63.3	5.4	3.0	24.4	2.7	-19.7		21.0
1991	314.95	94.9	62.9	5.9	2.9	23.2	2.4	-16.2	0.9	18.0
1992	348.34	94.6	64.4	6.1	3.4	20.7	1.7	-12.8	0.9	15.5
1993	434.90	97.8	73.5	5.9	2.9	15.6	1.1	-9.5	1.0	9.5
1994	521.81	98.3	75.0	5.2	4.4	13.6		-7.0	1.2	7.5
1995	624.22	96.7	73.5	4.7	4.5	14.1		-5.3	1.3	7.2
1996	740.80	93.3	71.1	4.1	5.0	13.1		-4.6	1.3	10.0
1997	865.11	95.2	75.8	3.7	4.6	11.1		-4.3	1.2	7.9
1998	987.60	93.8	77.2	3.2	4.0	9.4		-3.4	1.1	8.4
1999	1144.41	93.3	77.6	4.9	3.7	7.1		-2.5	1.1	8.1
2000	1339.52	93.9	77.4	5.6	3.5	7.5		-2.1	1.1	7.1
2001	1638.60	93.4	69.3	5.1	2.9	16.1		-1.8	1.0	7.4
2002	1890.36	93.3	69.5	3.7	3.8	16.3		-1.4	1.0	7.0
2003	2171.53	92.2	70.5	4.3	4.0	13.4		-1.0	1.1	7.8
2004	2639.65	91.5	69.2	4.0	3.4	15.0		-0.8	1.1	8.1
2005	3164.93	90.9	67.7	3.4	3.0	16.9		-0.6	1.1	8.6
2006	3876.02	89.8	65.9	2.9	2.8	18.2		-0.5	1.2	9.5
2007	5132.18	88.9			2.8	17.1				
2008	6137.70									

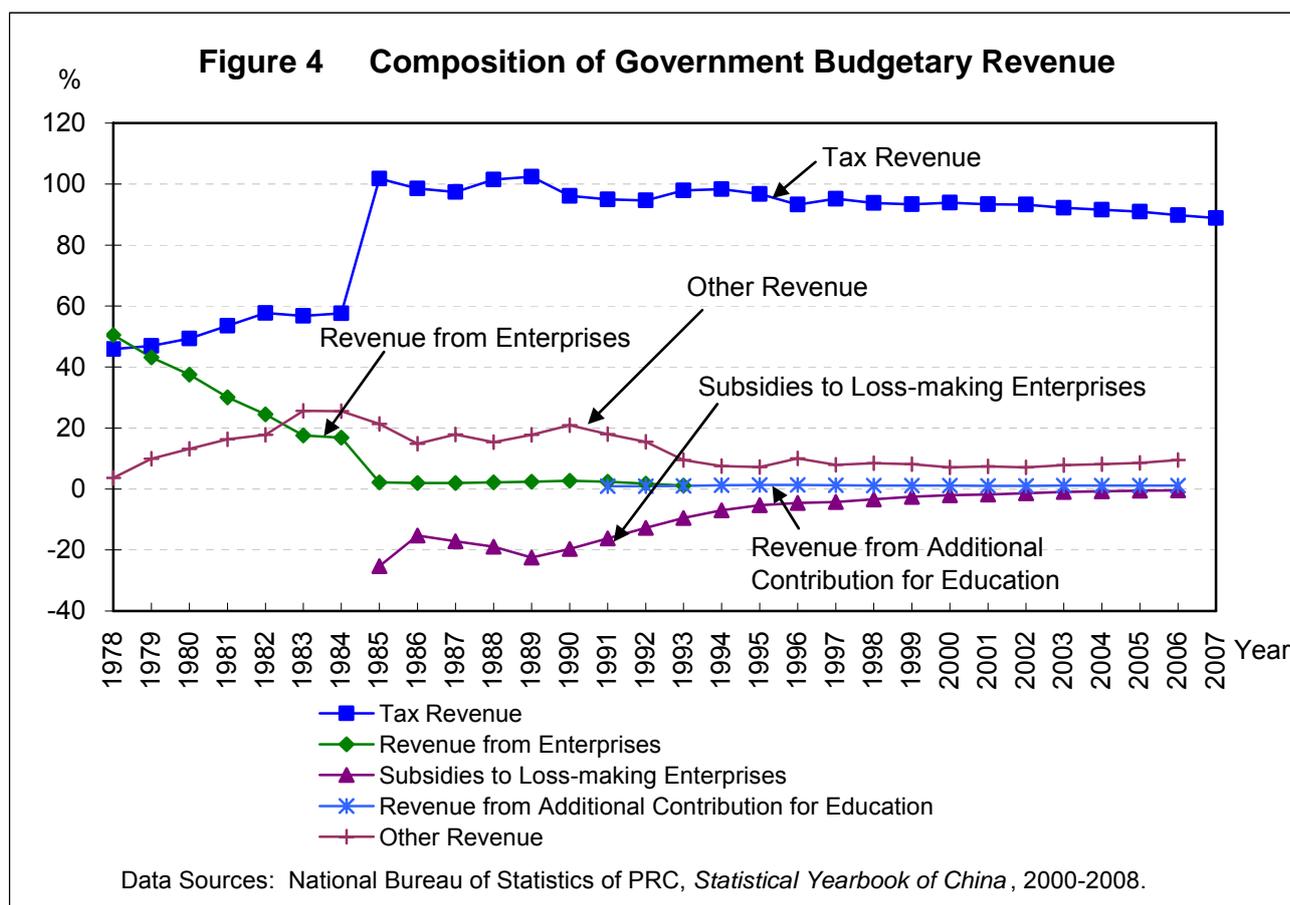
Sources: National Bureau of Statistics of PRC, *Statistical Yearbook of China*, 2000-2008. People's Bank of China, 2009, *The Report on Monetary Policy Implementation for the 4th Quarter of 2008*, China.com.cn, February 23.

Note: Agriculture and related taxes include agriculture tax, animal husbandry tax, and the tax on cultivated land, tax on special agricultural products and contract tax; other revenue includes funds raised for energy, transportation, budget adjustment, etc.

Subsidies to loss-making SOEs increased immediately after the completion of the tax-for-profit reform in 1985. Many SOEs suffered tremendous losses after paying taxes and the government had to subsidize the loss-making enterprises. In 1985, the subsidies were as high as 25% of total government revenue! As SOE reforms proceeded, the government subsidies declined gradually, down to only 0.5% of total government revenue in 2006.¹⁷

¹⁷ Over the years, the government has privatized many small loss-making SOEs. Also, the government has transferred SOEs' social security burden to the society. In the past, SOEs took care of the retirement and healthcare of their workers, and now, local governments take care of the social security of employees of the SOEs. All firms must join the social security program. New firms without retirees actually subsidized the SOEs (see Lin (2008)).

Revenue from additional contribution to education was introduced in 1991 to finance education. Enterprises and individuals who pay product tax (later converted to consumption tax), VAT, and business tax must make additional contributions to education. The contribution rate is 1% of the value of the above taxes. Those who make contributions to rural education based on the 1984 State Council regulation are exempted from making new contributions.¹⁸ Over the years, this contribution has been around 1% of total government revenue.



The last item includes other revenue, such as funds raised for energy and transportation, budget adjustment, etc. The other revenue has varied widely over the years, reaching its peak in 1983-1984 at about 25% of total government revenue and declined gradually at less than 10% of total government revenue in recent years.

Figure 4 shows graphically the changes in the shares of tax revenue, contributions by SOEs, subsidies to loss-making SOEs, additional contributions to education, and other revenues in total government revenue. It can be seen that, before 1985, government revenue composed of tax revenue, contributions by SOEs, and other revenues. After the tax-for-profit reforms, SOEs started to pay corporate income tax, instead of submitting profits, and the government began to subsidize loss-making enterprises.

¹⁸ State Council of PRC (1984), *The State Council's Notice on Raising Revenues for Rural Education*, State Council Document, No. 174.

V. Extra-Budgetary Revenue

An important part of China's government revenue is the extra-budgetary revenue, which mainly includes non-tax revenues collected by local governments, government agencies and institutions, and state enterprises. Fees are officially classified under two large categories: administrative fees (*xingzheng xing shoufee*) and operating fees (*shiye xing shoufee*). Administrative fees are those collected by government branches such as ministries at the central government level and bureaus at the local government level. Operating fees are collected by government operating units such as public schools, public health institutes, and public infrastructure maintenance units. Fee collection was widespread in China in the late 1980s and 1990s. Table 2 shows extra-budgetary revenue, its composition, its ratios to budgetary revenue and GDP from 1952 to 2006. The ratio of extra-budgetary revenue to budgetary revenue was 8% in 1952, 20.6% in 1960, and 31.1% in 1978. The ratio of extra-budgetary revenue to budgetary revenue increased to 76% in 1985 and reached 111% of budgetary revenue in 1992. The coverage of the extra-budgetary revenue has been adjusted since 1993 by excluding the extra-budgetary revenue of state-owned enterprises. Thus, the data after 1993 are not comparable with the earlier data.

Usually, local governments rely more on fees as a source of revenue than the state, provincial, or regional governments, while the state government, provincial and regional governments rely more on fees as a source of revenue than the central government. In most countries, fees are only a small part of government revenue. In the U.S. in 2000, the revenue from fees, service charges, non-industrial and incidental sales, fines and forfeits accounted for 1% of the central government's revenue, 8.5% of total revenue of the state government, and 19% of total revenue of the local governments. In Mexico in 2000, it accounted for 1% of the central government's revenue, 7.4% of total revenue of the state government, and 11.2% of total revenue of the local governments. In Malaysia in 1997, it accounted for 5% of the central government's revenue, 17% of total revenue of the provincial governments. In Thailand in 2000, it accounted for 1.3% of central government revenue and 2.5% of local government revenue. In Russia in 2000, it accounted for 0.4% of the central government's revenue and 0.5% of the total revenue of the local governments.¹⁹ As shown, China's fee collection was much higher than all of these countries.

The main reason for the increase in fee collection was the rapid increase in government expenditure caused by the large increase in government administrators and the slow growth of government budgetary revenue due to fiscal reforms.²⁰

¹⁹ International Monetary Fund (2002), *Government Finance Statistics Yearbook*.

²⁰ See Lin (2005) for a detailed discussion of fee collection in China.

Table 2 Extra-budgetary Revenue 1952-2006

Year	Extra-Budgetary Revenue (billion yuan)							Share in GDP (%)	Share in Budgetary Revenue (%)
	Total	Administrative and Institutional Units	Local Govts	SOEs and Supervisory Ministries	Fund-raising of Township Govts	Government Funds	Others		
1952	13.62		12.53	1.09				2.01	21.90
1953	8.91	2.07	1.40	5.44				1.08	7.10
1954	14.23	3.34	2.07	8.82				1.66	8.20
1955	17.02	3.68	3.27	10.07				1.87	8.00
1956	21.42	3.85	5.00	12.57				2.08	8.70
1957	26.33	3.80	5.66	16.87				2.47	10.60
1958	55.99	9.29	17.59	29.11				4.28	20.00
1959	96.55	11.78	35.39	49.38				6.71	31.80
1960	117.78	23.13	23.39	71.26				8.08	31.00
1961	57.40	15.61	13.29	28.50				4.70	11.80
1962	63.63	15.21	20.50	27.92				5.54	11.10
1963	51.85	11.99	7.19	32.67				4.20	14.60
1964	65.86	16.07	8.87	40.92				4.53	21.00
1965	75.56	18.74	9.47	47.35				4.40	22.10
1966	81.13	20.00	10.36	50.77				4.34	20.30
1967	83.61	22.00	9.72	51.89				4.71	17.70
1968	77.44	24.00	9.96	43.48				4.49	13.90
1969	87.42	26.00	12.19	49.23				4.51	20.80
1970	100.94	28.00	13.45	59.49				4.48	27.90
1971	118.56	30.00	14.72	73.84				4.89	22.50
1972	134.24	31.66	23.28	79.30				5.33	20.30
1973	191.29	32.57	24.14	134.58				7.03	25.70
1974	219.72	34.60	22.65	162.47				7.88	28.70
1975	251.48	42.30	27.86	181.32				8.39	31.10
1976	275.32	48.81	28.35	198.16				9.35	35.20
1977	311.31	56.84	30.76	223.71				9.72	38.20
1978	34.71	6.34	3.11	25.26				9.52	30.66
1979	45.29	6.87	3.99	34.43				11.15	39.50
1980	55.74	7.44	4.09	44.21				12.26	48.05
1981	60.11	8.49	4.13	47.49				12.29	51.12
1982	80.27	10.12	4.53	65.63				15.08	66.21
1983	96.77	11.39	4.98	80.40				16.23	70.79
1984	118.85	14.25	5.52	99.07				16.49	72.34
1985	153.00	23.32	4.41	125.27				16.97	76.32
1986	173.73	29.42	4.32	139.99				16.91	81.87

Table 2 Extra-budgetary Revenue (Continued)

Year	Table Extra-Budgetary Revenue (billion yuan)							Share in GDP (%)	Share in Budgetary Revenue (%)
	Total	Administrative and Institutional Units	Local Govts	SOEs and Supervisory Ministries	Fund-raising of Township Govts	Government Funds	Others		
1987	202.88	35.84	4.46	162.58				16.82	92.25
1988	236.08	43.89	4.89	187.29				15.69	100.15
1989	265.88	50.07	5.44	210.38				15.65	99.77
1990	270.86	57.70	6.06	207.11				14.51	92.22
1991	324.33	69.70	6.88	247.75				14.89	102.98
1992	385.49	88.55	9.09	287.86				14.32	110.67
1993	143.25	131.78	11.47					4.05	32.94
1994	186.25	172.25	14.00					3.86	35.69
1995	240.65	223.49	17.17					3.96	38.55
1996	389.33	339.58	22.47		27.29			5.47	52.56
1997	282.60	241.43	11.59		29.58			3.58	32.67
1998	308.23	198.19		5.47	33.73	47.84	23.00	3.65	31.21
1999	338.52	235.43		5.01	35.89	39.65	22.54	3.77	29.58
2000	382.64	265.45		5.92	40.33	38.35	32.58	3.86	28.57
2001	430.00	309.00		6.00	41.00	38.00	36.00	3.92	26.24
2002	447.90	323.80		7.20	27.20	37.60	52.10	3.72	23.69
2003	456.68	333.57		5.23	29.31	28.71	59.85	3.36	21.03
2004	469.92	320.84		6.41	21.31	35.13	86.23	2.94	17.80
2005	554.42	385.82		4.78	19.29	35.93	108.59	3.03	17.52
2006	640.79	421.68		4.49	22.13	37.65	154.84	3.02	16.53

Sources: Ministry of Finance of PRC (2000, 2005, 2007, 2008)

Note: The scope of extra budgetary revenue and expenditure was adjusted between 1993-1995 and 1996, not comparable with previous years. Since 1997, the extra budgetary revenue and expenditure do not include the intra-budgetary government funds (fees), and thus, the figures are not comparable with the previous years.

First, the large increase in government administrative expenditure. One might think that more government employees are needed under a centrally planned system to formulate and implement government plans, while fewer government employees are needed under a market-oriented system. Unfortunately, this is not the case in China. The number of government employees has increased dramatically since economic reforms began in 1978. Workers and staff in government agencies, party agencies and social organizations (in state units) increased by 158.8%, from 4.17 million in 1978 to 10.86 million in 2000.²¹ In the meantime, the population increased

²¹ See National Bureau of Statistics of PRC (2002), *Statistical Yearbook of China*, p. 129.

by 29.4% from 962.59 million to 1267.43 million.²² The government was under strong pressure to raise the compensation (salaries and bonuses) of government employees. The share of government administrative and operating expenditure in total government expenditure increased from 4.71% in 1978 to 17.42% in 2000!²³ Administrative and operating expenditure in total extra-budgetary expenditure increased from 6% in 1982 to 32% of total extra-budgetary expenditure in 1995, to reach 48% in 1997 and 63.1% in 2000!

Second, the low growth of budgetary revenue. Budgetary revenue accounted for 31.1% of GDP in 1978; it declined to 23.4% in 1980, 14.7% in 1992, and 10.3% in 1995. Local government budget situations have been more serious than the central government situation. After economic reforms, the central government has transferred many duties of public goods and services provisions to the local governments. Since the tax reform in 1994, provinces have reported budget deficits. Chinese provincial and local governments have no right to issue debt (neither do they have the right to make tax laws). Local governments have to look toward the central government for money. Even the rich provinces needed large rebates to cover their budget deficits. The prefecture, county and township governments usually request for money from their higher level of government. There is less and less money available for the lower levels of government. The fiscal difficulties are especially severe for township governments. Many local governments have yet to pay their employees and are desperately in need of more revenues.²⁴

Third, the self-collection and self-utilization policy. Facing limited revenue and growing demand for expenditure, the central government could not provide its agencies, institutions and local governments with the needed fiscal transfers. All it could do was to give them the right to raise their revenue on their own.²⁵ In 1980, except three major cities controlled by the central government (Beijing, Shanghai and Tianjin), the government started the “fiscal responsibility system (caizheng baogan)” in all provinces, calling for government agencies and institutions with potential for fund-raising to actively expand services and raise their own revenue.²⁶ In 1989, after four consecutive years of fiscal deficits, the Ministry of Finance announced that government institutions should rely fully on the government for some expenditure, rely partially on the government for some expenditure, and rely on themselves for other expenditure.²⁷ The policy of self-collection and self-utilization provides strong incentives for government agencies and institutions, as well as local governments, to

²² It was estimated that the ratio of officials to the population was 1:3900 in Tang Dynasty, 1:2900 in Ming Dynasty, and 1:297 in the early 1950s, 1:50 in 1978, and 1:29 in 1994 (Zhouwei Liu, 2000).

²³ National Bureau of Statistics of PRC (2003), *Statistical Yearbook of China*.

²⁴ See Lin (2005) for a discussion of local government fiscal difficulties.

²⁵ Government institutions refer to state universities, research institutes, etc.

²⁶ Chen (1996, p. 291).

²⁷ See Wu (1997, p.228).

collect more revenue. Many of them began to start their own businesses.²⁸ Poor management skills and harsh competition from private enterprises soon drove them out of business. They finally figured out an effective way to raising revenue: collecting fees from the business enterprises and the general public using their monopoly power!

Facing increasing complaints about excessive fee collection, in the late 1990s the government launched a tax-for-fee reform to lower the number of fees and reduce the size of extra-budgetary revenue and expenditure. Entering the new century, although extra-budgetary revenue is increasing in absolute value, the ratio of extra-budgetary revenue to budgetary revenue and the ratio of extra-budgetary revenue to GDP have declined. Extra-budgetary revenue accounted for 38.55% of budgetary revenue in 1995, 28.57% in 2000, 17.52% in 2005, and 16.56% in 2006. Extra-budgetary revenue accounted for 4.12% of GDP in 1995, 3.43% in 2000, and 3.01% in 2005 and 2006.

VI. Size of China's Government Revenue in an International Perspective

The calculation of China's government revenue is slightly different from that of many other countries. For example, in many countries, such as the United States, Great Britain, and Russia, social security contributions are included in total government revenue. However, in China the social security system is run by the local governments and social security contributions are not included in government revenue. Also, in China the government subsidies to loss-making enterprises have been treated as negative revenue (deducted from total government revenue), instead of expenditure. This has reduced the size of government revenue. For a more accurate comparison of China's government revenue size with the rest of the world, it is necessary to include social security contributions and subsidies to loss-making enterprises in China's total government revenue.

Social security contribution includes contributions to basic pension insurance, unemployment insurance, medical insurance, work injury insurance, and maternity insurance. The social security account revenues have grown rapidly, from 18.68 billion yuan in 1990 to 100.6 billion yuan in 1995, 264.45 billion yuan in 2000, 697.52 billion yuan in 2005, and 864.32 billion yuan in 2006.

As can be seen in Table 1, the subsidies to loss-making state-owned enterprises were large in the 1980s and the early 1990s, but declined substantially in recent years, along with the privatization of unprofitable SOEs and reduction of social security burden of existing SOEs. For example, in 1985 the subsidies to loss-making SOEs were 50.702 billion yuan, accounting for 25% of total tax revenue; in 1990 the subsidies to loss-making SOEs were 57.89 billion yuan, accounting for 20.5% of total tax revenue, while in 2006 the subsidies to loss-making SOEs were 18.02 billion yuan, accounting for only 0.5% of total tax revenue.

Adding up budgetary revenue, extra-budgetary revenue, subsidies to loss-making enterprises, and social security contributions, China's total government revenue in 2006 should be 5399.15 billion yuan, accounting for 25.5% of GDP in

²⁸ Even the People's Liberation Army had its own businesses (hotels, restaurants, etc.) for a long time.

2006. Figure 5 shows the ratios of government budgetary revenue, extra-budgetary revenue, social security contributions, and total government revenue to GDP from 1978 to 2007. It can be seen that the share of total government revenue in GDP, as well as the share of tax revenue to GDP, declined sharply from 1978 to 1995, and has been increasing steadily since 1995. The share of extra-budgetary revenue was high in the 1980s but has declined significantly since the early 1990s. Also, the share of social security contribution in GDP is low but increasing.

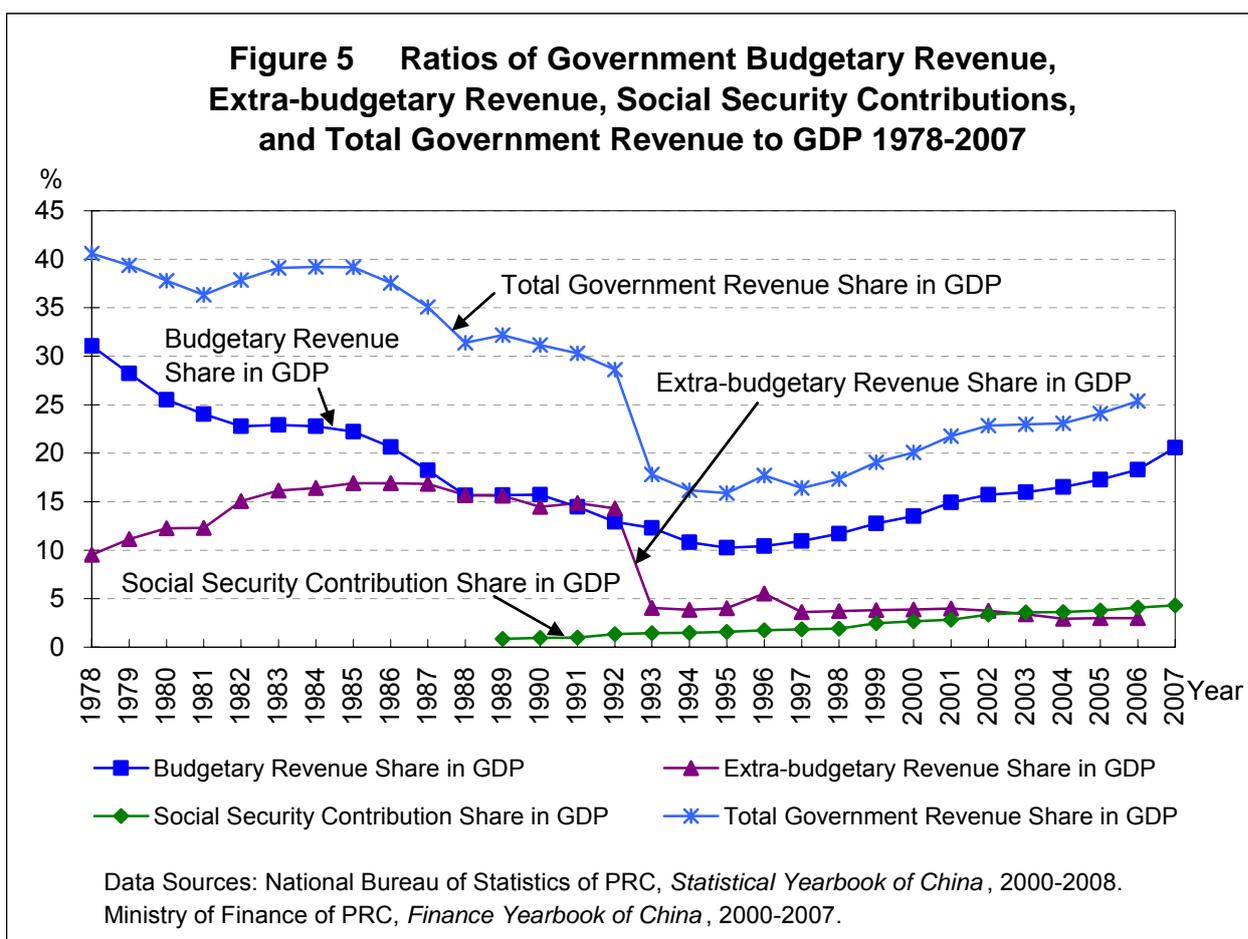


Table 3 shows the shares of government revenue in GDP in other countries with data available. It can be seen that industrial countries on average have higher share of government revenue in GDP, with Norway, Sweden, Denmark, Finland, and France among the highest. Asian countries had lower shares of government revenue in GDP in 2006, with Maldives being an exception (61.2%, the highest in the world). China's share of government revenue in GDP is higher than Singapore (19.9%), Hong Kong (20.04%), and Thailand (21.95%), but lower than some other Asian countries. With a 25.5% government revenue share in GDP, China's government revenue share in GDP ranks low in the world, lower than those of any industrial countries, and lower than most developing countries. However, when looking at the size of government, one should never overlook the large number of SOEs owned by the Chinese government.

Table 3 Shares of Government Revenue in GDP

Country	Year	%	Country	Year	%
Industrial Countries			Asia		
Japan	2005	32.32	Singapore	2005	19.90
United States	2006	33.99	Hong Kong (China)	2005	20.04
Australia	2006	36.26	Thailand	2006	21.95
Ireland	2006	37.12	Vietnam	2004	25.07
Switzerland	2005	37.32	Macau (China)	2006	25.42
Greece	2006	39.53	China, People's Republic	2006	25.50
Luxembourg	2006	39.69	Malaysia	2003	26.07
Spain	2006	40.40	Bhutan	2000	35.89
Canada	2006	41.67	Mongolia	2003	38.73
United Kingdom	2006	41.93	Maldives	2006	61.24
New Zealand	2006	42.31	Europe (East)		
Portugal	2006	42.46	Armenia	2006	19.91
Germany	2006	43.82	Kyrgyz Republic	2006	22.04
Italy	2006	45.62	Kazakhstan	2006	22.38
Netherlands	2006	46.66	Albania	2005	24.89
San Marino	2002	46.95	Georgia	2006	27.92
Austria	2006	47.82	Romania	2005	31.69
Belgium	2006	48.71	Lithuania	2006	33.75
Iceland	2006	49.09	Slovak Republic	2006	35.06
France	2006	50.81	Latvia	2006	35.53
Finland	2006	52.55	Estonia	2006	36.60
Denmark	2006	55.88	Czech Republic	2006	38.09
Sweden	2006	56.55	Moldova	2005	38.58
Norway	2006	58.47	Poland	2006	39.07
Middle East			Bulgaria	2006	39.99
Iran, I.R. of	2004	30.72	Russia	2006	40.55
Israel	2006	45.05	Malta	2006	41.53
Kuwait	2006	45.88	Hungary	2006	42.64
Western Hemisphere			Cyprus	2006	42.69
El Salvador	2006	18.21	Ukraine	2006	43.59
Peru	2005	18.65	Slovenia	2006	44.72
Paraguay	2006	22.49	Croatia	2006	44.81
Costa Rica	2006	25.12	Belarus	2006	48.21
Chile	2006	27.84	Africa		
Argentina	2004	29.43	Mauritius	2006	21.11
St. Vincent and the Grenadines	2004	33.57	Swaziland	2003	29.34
Jamaica	2005	35.68	Congo	2003	31.80
St. Kitts and Nevis	2003	37.88	South Africa	2006	37.25
Barbados	2004	43.86	Lesotho	2005	51.07
Bolivia	2006	50.87	Seychelles	2005	58.08

Sources: International Monetary Fund (2007), *Government Finance Yearbook 2007*.

Although the share of government revenue in GDP is not large, China has recently been ranked high in terms of tax burden. According to the 2007 "Forbes Tax Misery Index," China ranked third in the world on tax burden, only behind France and Belgium. According to the 2008 "Forbes Tax Misery Index," China ranked fifth in the world on tax burden, only behind France, Netherlands, Belgium, and Sweden. Some Chinese experts criticize the index for using the maximum statutory tax rate as a standard for its tax index calculation while ignoring the number of individuals who are subject to the highest tax rate (this information is unavailable to the public), and focusing on statutory tax rates and ignoring the tax waivers. In fact, all countries have some kind of tax waivers. Thus, high tax rates are a fact in China.

VII. China's Tax Structure and its Further Reforms

With the size of China's government revenue in mind, we now examine China's tax structure, compare China's tax structure with other countries, and discuss options for future tax reforms in China.

1. China's Tax Structure

After completing the tax-for-profit reforms in 1984, tax revenue became the major component of government revenue. The tax structure has changed over time. In 1985, corporate income tax was the major revenue-generating tax in China, followed by business tax and value-added tax (VAT). The 1994 tax reforms completely changed the landscape of China's tax structure.

The most important tax is the value-added tax levied on all stages and spheres of industrial processing and is shared by the central and local governments. Currently, there are two rates: for products related to agricultural production (such as fertilizer, feeds, and machines) and basic consumption goods (such as foods, cooking oil, water, and natural gas) the tax rate is 13%, and for most other goods the rate is 17%. Business tax (*yingye shui*) is the major local tax. It is levied on the transfer of intangible assets or sale of immovable properties, primarily service industries, including transportation, communications, financial services, real estate sales, and entertainment. Educational institutions and hospitals are exempt from this tax. The tax rate varies from 3% to 20% according to tax regulations passed in 1993. Consumption tax is the tax imposed on special products, such as tobacco, alcoholic beverages, and luxuries. Consumption tax and VAT on imports are other major taxes for the government.

Corporate income tax is another important source of government revenue. Until recently, the tax rate on domestic enterprises was 33%, while the rate for foreign-invested enterprises in special areas was as low as 15%. As mentioned earlier, the rate was unified at 25% in 2008. Personal income tax was also introduced in 1980 and was reformed in 1994. The tax rate on personal income is not low, with the highest marginal tax rate being 45%.

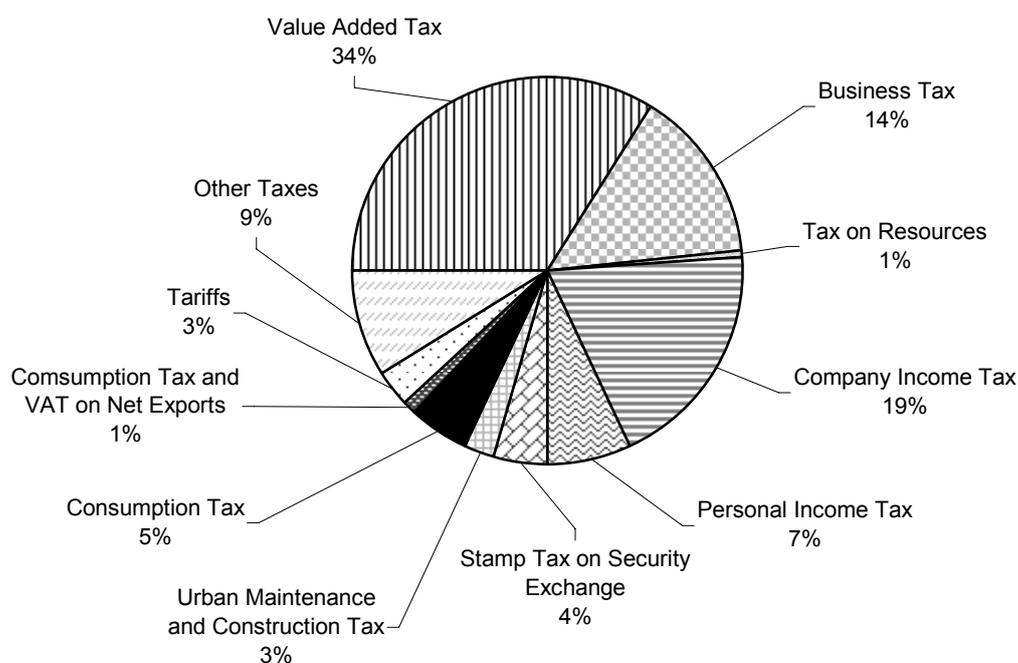
Resource tax, which was initiated in 1984 and reformed in 1994, includes taxes on resources on crude oil, natural gas, coal, iron ore, precious metal, salt, and so on. Resource tax is a specific tax, based on the quantity of the product. As resource prices increased in recent years, there were calls for increasing resource tax by

changing the tax base to the value of the product. The revenue from recourse tax in China has been low, varying from 0.89% to 0.5% of total tax revenue. Urban land use tax was introduced in 1988 and reformed in 2006. This tax is collected from individuals, enterprises, and governmental organs and institutions for using urban land. The tax rate, based on square meters of land used, varies from 0.6 yuan/square meter to 30 yuan/square meter. The central government gives local governments the limited right to adjust the rate, i.e., the rate cannot be lowered by more than 30% and any increase in rate must be approved by the Ministry of Finance. As urban real estate develops, the revenue from this tax has increased significantly in recent years.

Stamp tax on security exchange was introduced in 1990 by the Shenzhen City government, with a rate of 0.6% on the value of sold stocks. In 1992, the National Bureau of Taxation and National Committee on Economic System Reforms set the tax rate at 0.3% on both purchasing and selling of stocks. Over the years, the rate has been adjusted many times. The revenue from stamp tax on security exchange fluctuates along with the stock index.

Consumption tax and VAT on imports are collected on imported products. Meanwhile China rebates VAT to exporting enterprises at various rates. China considers the tax rebate as negative tax revenue, instead of expenditure. In 2007, the government lowered the tax rebate to curb China's increasing trade surplus with the United States and Europe. However, facing an economic slowdown, the government restored the tax rebate for some industries in 2008.

Figure 6 Composition of Tax Revenue in 2007



Data Sources: National Bureau of Statistics of PRC, *Statistical Yearbook of China*, 2008.

Urban maintenance and construction tax is collected from the taxpayers of VAT, business tax, and consumption tax. The tax base is the amount of VAT, business tax, and consumption paid. The rate varies from 1% to 7%, depending on the residency of the taxpayers. Foreigners and foreign companies do not pay this tax.

Figure 6 shows the revenue share of major taxes in total tax revenue in 2007. The revenue from VAT accounted for 34% of total tax revenue, corporate income tax 19%, business tax 14%, consumption tax 5%, and VAT and business tax from net exports 1% (taxes from VAT and business tax on imports minus rebates from VAT and business tax on exports), personal income tax 7%, urban maintenance and construction tax 3%, tariff 3%, resource tax 1%, and other taxes 9%.

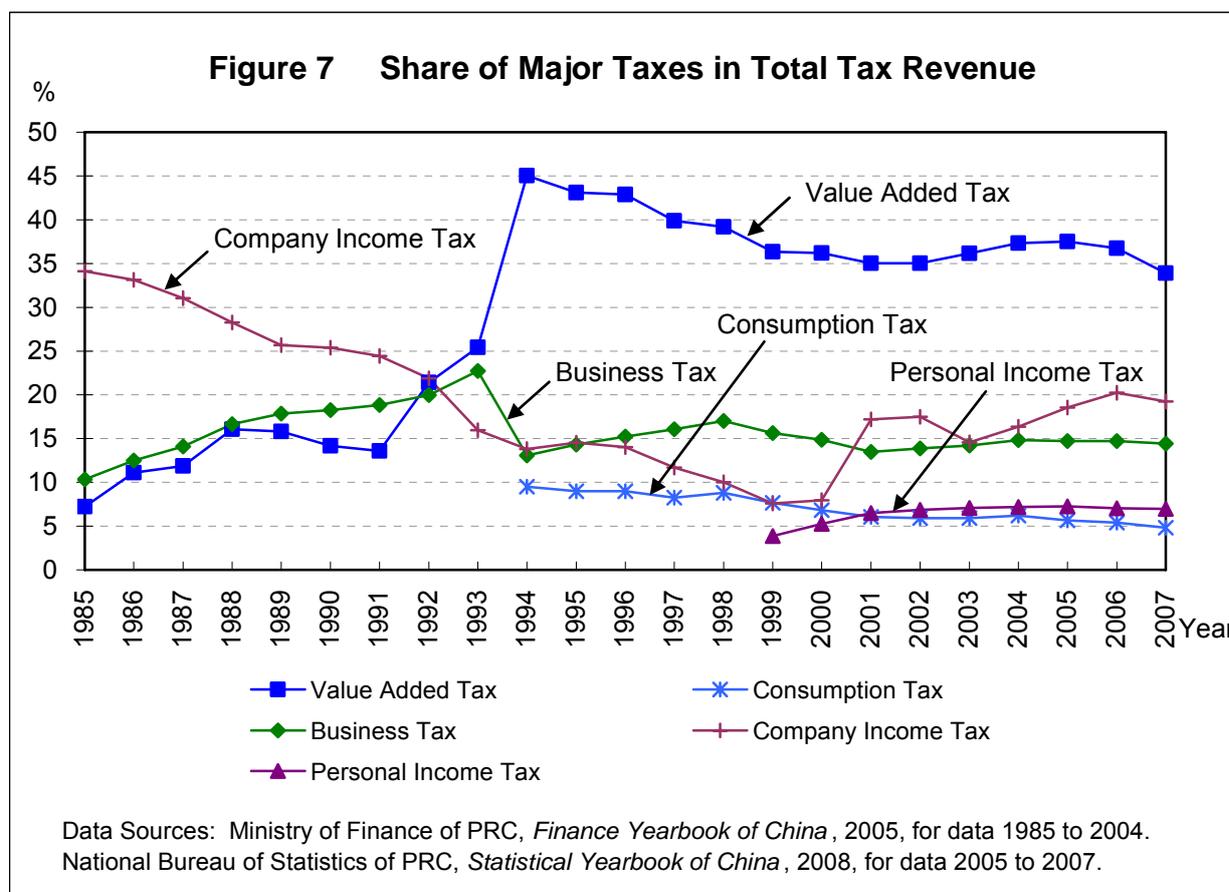


Figure 7 shows the revenue share of major taxes in total tax revenue from 1985 to 2007. The share of value-added tax in total tax revenue increased from 7.2% in 1985 to 45% in 1994, and then decreased to 33.9% in 2007; the share of business tax increased from 10.3% in 1985 to 13.07% in 1994, and to 14.4% in 2007; the share of corporate income tax decreased sharply from 34.4% in 1985 to 13.8% in 1994, increased to 20.2% in 2006, and declined to 19.2% in 2007. Personal income tax was negligible before 1999, and its share in total tax revenue was 3.9% in 1999 and 7% in 2007.

2. Tax Structure of Other Countries

We now examine tax structures in other countries. Table 4 shows the share of various taxes (taxes on income, profits, and capital gains, taxes on property, and taxes on goods and services), as well as non-tax contributors (social security contributions, grants, and others) in GDP for all countries in the world with data available in 2006. If the data for 2006 is not available, the data for the closest year is used. Table 4 also shows the share of various taxes in total tax revenue. Other taxes are small in generating revenue, and therefore, are not shown in the table.

Several observations can be made based on Table 4. First, developed economies heavily rely on taxes on income and capital gains. For example, taxes on income, profits, and capital gains accounted for 63.4% of total tax revenue in the US, 63.6% in New Zealand, 63.1% in Hong Kong, 62.1% in Norway, 61.4% in Denmark, 59% in Australia, and 57.7% in Canada. In developing countries, South Africa, Chile and Singapore have relatively higher shares of taxes on income and capital gains in total tax revenue (52.9%, 48.3%, and 47.3%, respectively). It should be mentioned that personal income tax plays an important role in developed countries as well as developing countries. In 2006, personal income tax accounted for 47.8% of total tax revenue in the US, 45.2% in New Zealand, 42.5% in Canada, 39.4% in Germany, 35.6% in the UK, 27.6% in Hungary, 21.4% in Poland, and 13% in Russia.²⁹

Second, developing countries rely more on taxes of goods and services. For example, taxes on goods and services accounted for 71.7% of total tax revenue in Croatia, 69.4% in Bulgaria, 50.2% in Thailand, 68.7% in Bolivia, 52.3% in Peru, and 43.7% in Chile. Among industrialized countries, Greece, Portugal, and Netherlands have high shares of taxes on goods and services in total tax revenue (56.3%, 56.7%, and 49.5%, respectively). The share of taxes on goods and services in total tax revenue was only 14.9% in Japan, 21.1% in the US, lowest among all the countries listed.

Third, property tax is levied in all developed countries and almost all developing countries, and the revenue from property tax is significant. For example, the revenue from property tax accounted for 14.5% of total tax revenue and 3.1% of GDP in the United States, 16.5% of total tax revenue and 4.6% of GDP in France, 11.5% of total tax revenue and 2.6% of GDP in Argentina. Overall, revenue from property tax is higher in developed countries than in developing countries.

Fourth, social security contribution is higher in developed countries than in developing countries. For example, in 2006 the share of social contribution in GDP was 15.96% in Austria, 15.71% in Belgium, 15.13% in Netherlands, 8.39% in the UK and 7.03% in the US. In Australia and New Zealand, social security is financed by general taxes, and therefore, social contributions are negligible.

²⁹ Calculated by the author based on International Monetary Fund (2007), *Government Finance Statistics Yearbook*.

Table 4 Composition of Taxes and Other Government Revenue for Countries with Data for 2005-2006 (%)

Country or Region	Year	Taxes							Social Contributions as % of GDP	Grants as % of GDP	Other Revenue as % of GDP
		Income, Profits, Capital Gains		Property		Goods and Services		Total Taxes as % of GDP			
		As % of GDP	As % of Total Tax Revenue	As % of GDP	As % of Total Tax Revenue	As % of GDP	As % of Total Tax Revenue				
United States	2006	13.46p	63.37p	3.08p	14.50p	4.49p	21.13p	21.24p	7.03p	—p	5.73p
Canada	2006	17.04p	57.74p	3.49p	11.82p	7.95p	26.94p	29.51p	5.40p	—p	6.76p
Australia	2006	17.57	59.16	2.58	8.69	7.76	26.13	29.70	—	—	6.56
Japan	2005	8.23	46.66	0.31	1.76	2.62	14.85	17.64	10.64	—	4.04
New Zealand	2006	22.70p	63.62p	1.99p	5.57p	10.32p	28.92p	35.68p	0.07p	—p	6.57p
Austria	2006	12.43	45.85	0.57	2.10	11.82	43.60	27.11	15.96	0.16	4.60
Belgium	2006	15.97p	52.55p	3.18p	10.46p	11.20p	36.85p	30.39p	15.71p	0.13p	2.48p
Finland	2006	16.58p	53.29p	1.10p	3.53p	13.39p	43.04p	31.11p	12.23p	0.26p	8.96p
France	2006	10.85	39.44	4.55	16.54	11.09	40.31	27.51	18.31	0.08	4.92
Germany	2006	12.10	52.56	0.83	3.61	10.10	43.87	23.02	17.27	0.21	3.32
Greece	2006	7.46p	37.28p	0.97p	4.84p	11.26p	56.27p	20.01p	13.22p	....	....
Ireland	2006	12.91p	47.01p	0.85p	3.09p	....	....	27.46p	6.25p	....	....
Italy	2006	14.02	47.87	0.83	2.83	12.54	42.81	29.29	13.02	0.29	3.03
Luxembourg	2006	12.48	49.27	1.43	5.65	11.37	44.89	25.33	10.78	0.03	3.55
Netherlands	2006	10.74	43.34p	1.69p	6.82p	12.27p	49.51p	24.78p	15.13p	0.09p	6.66p
Portugal	2006	8.51p	35.07p	1.06p	4.36p	13.75p	56.67p	24.26p	12.47p	....	....
Spain	2006	....	....	....	....	....	....	24.11p	12.86p	0.59p	2.84p
Denmark	2006	29.30p	61.43p	1.86p	3.90p	16.33p	34.24p	47.69p	1.92p	0.08p	6.19p
Iceland	2006	18.71	47.96	2.16	5.54	17.57	45.04	39.01	3.36	0.12	6.59
Norway	2006	21.66p	62.13p	1.21p	3.47p	11.89p	34.10p	34.86p	8.72p	—p	14.89p
Sweden	2006	19.33p	52.95p	1.39p	3.80p	12.61p	34.54p	36.50p	12.89p	....	....
Switzerland	2005	13.00	58.56	2.33	10.50	6.67	30.05	22.20	6.98	—	8.13
UK	2006	14.82p	48.95p	....	....	....	....	30.27p	8.39p	....	....
Lesotho	2005	9.93p	22.83p	0.09p	0.20p	8.19p	18.83p	43.49p	—p	2.00p	5.59p
Mauritius	2006	3.63	20.60	1.06	6.02	9.32	52.89	17.62	1.04	0.24	2.21
Seychelles	2005	7.28	20.26	—	—	19.57	54.47	35.93	11.24	1.35	9.55
South Africa	2006	16.19p	52.94p	1.72p	5.62p	10.77p	35.21p	30.58p	0.65p	0.01p	6.01p
Hong Kong	2005	7.99	63.11	2.44	19.27	2.02	15.96	12.66	—	—	7.38
Macao	2006	1.26	5.73	0.77	3.50	19.74	89.77	21.99	0.12	—	3.31
Maldives	2006	0.77p	3.83p	0.07p	0.34p	4.67p	23.25p	20.08p	—p	17.66p	23.50p
Singapore	2005	6.00	47.32	0.98	7.73	4.66	36.75	12.68	—	—	7.23
Thailand	2006	7.38p	39.78p	0.48p	2.59p	9.31p	50.19p	18.55p	0.95p	0.02p	2.43p
Albania	2005	3.72	20.98	—	—	11.89	67.06	17.73	4.39	0.75	2.01
Armenia	2006	3.79	25.61	0.25	1.69	6.14	41.49	14.80	2.25	0.63	2.23

Table 4 Composition of Taxes and Other Government Revenue for Countries with Data for 2005-2006 (%) (Continued)

Belarus	2006	7.75	22.80	1.60	4.71	18.59	54.69	33.99	11.72		2.50
Bulgaria	2006	5.42	21.65	1.29	5.15	17.38	69.44	25.03	8.78	1.23	4.95
Croatia	2006	6.37	23.91	0.38	1.43	19.11	71.73	26.64	13.52	0.08	4.57
Cyprus	2006	10.16	35.39	0.95	3.31	16.03	55.83	28.71	7.90	....	....
Czech	2006	8.62p	43.60p	0.42p	2.12p	10.73p	54.27p	19.77p	14.65p	1.11p	2.56p
Estonia	2006	7.15	34.95	0.25	1.22	9.61	46.97	20.46	10.31	....	....
Georgia	2006	5.27	27.45	0.62	3.23	12.18	63.44	19.20	3.65	1.41	3.66
Hungary	2006	9.07	37.14	0.86	3.52	14.22	58.23	24.42	12.62	0.53	5.08
Kazakhstan	2006	9.31	42.65	0.56	2.57	8.43	38.62	21.83	—	—	0.54
Kyrgyz	2006	3.10	18.53	0.48	2.87	10.68	63.84	16.73	—	0.24	5.07
Latvia	2006	8.09	38.93	0.59	2.84	11.82	56.88	20.78	8.51	2.38	3.87
Lithuania	2006	9.67p	46.20p	0.33p	1.58p	10.89p	52.03p	20.93p	9.26p	1.34p	2.22p
Malta	2006	11.42p	41.80p	1.57p	5.74p	14.28p	52.26p	27.32p	7.77p	3.11p	3.33p
Moldova	2005	4.44	19.04	0.62	2.66	16.20	69.47	23.32	7.83	1.22	6.21
Poland	2006	7.00	32.47	1.23	5.71	12.71	58.95	21.56	12.18	0.65	4.68
Romania	2005	....	....	....	....	....	....	18.20	9.69	0.59	3.21
Russia	2006	10.32	38.75	1.01	3.79	6.69	25.12	26.63	5.65	—	8.27
Slovak	2006	5.72p	32.98p	0.43p	2.47p	11.19p	64.53p	17.34p	12.26p	0.42p	5.03p
Slovenia	2006	9.16	37.85	0.62	2.56	13.21	54.59	24.20	15.17	1.07	4.27
Ukraine	2006	9.38	39.90	0.30	1.28	12.22	51.98	23.51	13.10	0.03	6.95
Israel	2006	13.84	45.08	2.97	9.67	11.96	38.96	30.70	6.75	2.20	5.40
Kuwait	2006	0.20	24.39	0.03	3.66	—	—	0.82	—	—	45.06
Argentina	2004	5.18p	22.61p	2.64p	11.52p	10.97p	47.88p	22.91p	3.01p	0.01p	3.49p
Bolivia	2006	3.2	12.94	2.95	11.93	16.99	68.70	24.73	1.88	15.96	8.31
Chile	2006	10.6	48.25	0.58	2.64	9.61	43.74	21.97	1.36	—	4.51
Costa Rica	2006	3.48	23.61	0.67	4.55	9.35	63.43	14.74	7.41	0.06	2.91
El Salvador	2006	4.37	31.97	0.32	2.34	7.89	57.72	13.67	1.96	0.1	2.48
Jamaica	2005	5.28	19.02	0.23	0.83	11.76	42.36	27.76	2.54	0.12	5.26
Paraguay	2006	1.84p	14.45p	0.39p	3.06f	7.75p	60.88f	12.73p	3.29p	0.10p	6.38p
Peru	2005	4.28p	31.01p	0.21p	1.52p	7.21p	52.25p	13.80p	1.54p	0.10p	3.21p

Source: Calculated based on International Monetary Fund, *Government Finance Statistics Yearbook*, 2007.

Notes: — indicates that a figure is zero or less than half of a significant digit.

.... indicates the absence of data.

f denotes forecasted or projected data.

P denotes data that are preliminary or provisional.

† marks a break in the comparability of data; that is, data appearing after the symbol do not form a consistent time series with those for earlier years. Typically, break symbols will appear in the summary statements or detailed tables when, for example, changes have occurred in the coverage and classification of data or when the basis of recording has changed from cash to noncash.

Eastern European countries and former USSR countries have reasonably high ratios of social contribution to GDP. For example, the ratio of social contribution to GDP was 14.65% in Czech, 13.1% in Ukraine, and 5.65% in Russia. Most developing countries have relatively small social contributions in government revenue. For example, the ratio of social contribution to GDP was 1.54% in Peru, 1.32% in Chile, 3.1% in Argentina, and 0.95% in Thailand.

3. Prospects for Further Tax Reforms in China

Economic development and social stability require governments to have adequate revenue for the provision of essential public goods and services. In the future, China's tax reforms would be structural, i.e., reducing some taxes, increasing some taxes, and establishing new taxes.

First, reduce tax burden on enterprises. Corporate income tax is high in China compared with other economies. Starting January 1, 2008, the corporate income tax rates for domestic firms and foreign firms have been unified at 25%. China's accounting system follows the Soviet style, and is different from the western style. It was estimated that China's effective tax rate was 50% higher than countries with high corporate income tax.³⁰ Thus, there is still room to lower the corporate tax rate. Recently, the government excluded investment from the tax base, effectively lowering VAT on firms in production areas. However, business tax for firms in the service industries remains unchanged. To stimulate the development of service industries, the government should consider lowering business tax.

Second, collect more revenue from personal income tax. The top tax rate for personal income is high but the share of personal income tax revenue in total tax revenue is small. The top marginal tax rate for personal income is 45%, higher than that of many countries including the US (35%) and the UK (40%). The standard deduction is 2,000 yuan per month; there is no other deduction. Monthly personal income is taxed progressively at 5% - 45%, starting from taxable income 1-500 yuan. In the US, there are many other deductions, such as trade or business expense deductions, moving expenses, itemized deductions or standard deduction, deductions for the taxpayer's dependents, etc. The taxable income is much smaller than the gross income. Even though China's top marginal tax rate is high, only a very small group of individuals is subject to the top tax rate. A part of the compensation to employees is in-kind or in cash and is therefore not documented and taxable. Thus, tax evasion is still a serious problem. As a result, personal income accounted only for about 7% of total tax revenue and about 1.4% of GDP in 2007. The percentage of U.S. federal personal income tax revenues in GDP from 1946 through 2006 was around 8%. In the U.S., many state governments also collect personal income taxes. China's revenue from personal income tax is not only substantially lower than that of the industrial countries, but also lower than many developing countries at the same level of economic development. Thus, China should consider lowering the maximum marginal tax rate and strengthen its accounting system by collecting taxes on all taxable income.

³⁰ Xu (2001).

Third, establish new taxes, such as property tax, inheritance tax, and gift tax. As can be seen from Table 4, almost all countries collect property taxes, and the revenue share of this tax is quite high. Property tax accounted for a substantially high proportion of tax revenue in US history. For example, in the early 1920s the revenue from property tax accounted for more than 45% of total government revenue.³¹ As revenue from personal income tax increased, the revenue from property tax has declined. However, property tax is still the main source of local government revenue, accounting for 73.2% of local government taxes.³² Property tax rates vary from state to state. For example, in 2007, it was 2.57% in Texas and only 0.4% in Hawaii in 2007. The rates of inheritance tax and gift tax are also high in the US. In 2007, the federal estate tax rate was 45%. Introducing property tax, inheritance tax, and gift tax can increase government revenue and redistribute income.

VIII. Summary

This paper has discussed China's tax reforms, analyzed the reasons for the ups and downs of budgetary revenue and the extra-budgetary revenue, compared the size of China's government revenue with that of other countries, examined the structural problems in the current tax system, and provided suggestions for further tax reforms.

Tax reforms went through a number of changes: lowering taxes and allowing state enterprises to keep a part of their profits (1979); substituting taxes for profit (1983-1984), introducing the contract responsibility system that required SOEs to pay income tax and adjustment tax at a specific level of profit based on a contract with the government (1986); reviving a profit remitting system which required SOEs to submit a portion of their profits to the government after paying corporate income taxes; establishing the tax sharing system which divided taxes into central government taxes, joint taxes of the central and local governments, and local government taxes (1994); eliminating agricultural taxes (2006); merging corporate income taxes for domestic and foreign enterprises (2008); and excluding investment from the value-added tax base (2009).

Early tax reforms provided great incentives for state-owned enterprises to make profits, but caused a large decline in government budgetary revenue and a huge expansion of extra-budgetary revenue. The 1994 tax reforms laid the foundation for China's modern tax system and government revenue has grown rapidly since then. Value-added tax, business tax, consumption tax, and corporate income tax become the major sources of government revenue. Rapid economic growth has resulted in rapid growth of government revenue. High tax rates, broadened tax base, and strengthened law enforcement have pushed the government budgetary revenue share in GDP from 10.7% in 1995 to 20.6% in 2007. As budgetary revenue rises, the relative size of extra-budgetary revenue has significantly declined in the past decade.

³¹ See Wallis (2000).

³² See U.S. Census Bureau (2004), Local Governments--Revenue by State.

Including social security contributions and budgetary and extra-budgetary revenues, China's government revenue share in GDP is around 26% of GDP, which is lower than any industrial countries, and lower than most developing countries. However, China's government revenue share in GDP is higher than some Asian economies, such as Singapore, Hong Kong, and Thailand.

The Chinese government now heavily depends on value-added tax, business tax, and corporate income tax. Personal income tax is low in China, and personal property tax has not been established, which are important for revenue collection and income redistribution. Further tax reforms should aim at reducing taxes on enterprises, raising more tax revenue from personal income, and establishing new taxes, such as personal property tax, inheritance tax, and gift tax.

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