



# Fiscal Centralisation and Decentralisation in Russia and China

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We review the fiscal evolution of China and Russia and how the process of creating a separate tax-financed public sector in the two countries differed. China's fiscal budget was consistently smaller than in Russia, and their fiscal decentralisation was consistently greater. In China, local governments that were allowed to keep marginal increases in local tax revenue had incentives to pursue growth-supporting policies, but the absence of financial markets and barriers to investment resulted in protectionism and inefficient use of capital. Interregional fiscal transfers from the centre provided modest fiscal equalisation in China, but not in Russia. Russia's status as a petro-state makes efficient management of the public sector particularly difficult. Rising world energy prices and resource rents have generated growing federal budget surpluses, and fiscal recentralisation has been associated with expanding state control in other areas.

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## INTRODUCTION: FISCAL AUTONOMY IN RUSSIA AND CHINA

Because of their size and strategic importance, and the magnitude of the institutional changes they have experienced during economic transition, the economic policies and performance of Russia and China provide dramatic experiments for the social scientist. A key element of each country's transition has been the attempt to construct a fiscal system providing a coherent framework for improving accountability of the government's use of public funds.



At the end of the 1990s, the contrast between China's rapid growth and structural change and Russia's economic decline focused attention on the difference in Chinese and Russian governmental institutions and policies. Today, as Russia enjoys the short-run benefits of exchange rate depreciation and high energy prices, the contrast between the two economies has weakened. Yet China's rapid structural change and integration into the world market stands in contrast to Russia's continued role as an exporter of raw materials.

In both countries, the early years of transition were associated with fiscal decentralisation. As in other transition economies, fiscal decentralisation in each was a central piece of economic policy reform, for, as reforming economies became more decentralised and market-based, public finances became the primary instrument for supplying public goods, protecting vulnerable members of society, and maintaining growth and stability. While fiscal decentralisation fostered rapid growth in China, however, in Russia *de facto* fiscal decentralisation had dire consequences. Russia's decentralisation was an unintended consequence of state failure at the centre, as the central government transferred more and more of its expenditure obligations onto regional governments that lacked access to tax revenues and administrative capacity.

In both countries, the period of decentralisation was followed by a recentralisation of tax revenues to the centre, beginning in 1995 in China and in 1999 in Russia. In China, the tax reform of 1994 established more clear and consistent tax sharing rules, assigning a growing share of tax revenue to the centre. In Russia, too, a new tax code legislated in 1998–2002 assigned the largest sources of tax revenue, notably the value added tax and export duties, to the federal government. In each case, one motivation for re-centralisation was to improve the fiscal and administrative accountability of public authorities and to provide a social safety net for the most vulnerable members of society. But much remains to be done in both countries.

Today, the budget structures of the two countries show many formal similarities, but the *de facto* operations of central and sub-national bureaucracies diverge. Most Western discussions of fiscal efficiency start from the assumption that there is a separate, tax-based fiscal system in place. However, neither Russia nor China has succeeded fully in establishing an effective, tax-based system for provision of local infrastructure, pensions, and a social safety net. The reform of the governmental fiscal system in each country is incomplete.

Fiscal systems in Russia and China differ in characteristics that cut across the assignment of responsibilities between the centre and sub-national levels. We argue that a key difference between Russian and Chinese fiscal



performance lies not only in the degree of decentralisation, but, rather, in China's greater success in creating an autonomous fiscal system separate from other economic activity. In China, provision of public services is administered and funded across five levels of government. The size and number of centrally funded bureaucracies that provide in-kind public services is declining. In Russia, large, vertically integrated government agencies continue to provide housing, in-kind benefits, and social services outside of official channels, generating hidden inequality. Although China's delivery of health, educational, and infrastructure services at the local level depends on an array of extra-budgetary fees, the delivery of public services appears to be more decentralised and autonomous than in Russia. In contrast, a recent World Bank (2005) report estimates that half or more of in-kind and subsidised social benefits in Russia were allocated as perquisites of public employment rather than based on individual need.

We posit that the Russian fiscal system presents noteworthy shortcomings relative to the Chinese system. These include a greater lack of transparency, especially in the capture of energy revenues, a lack of integration of fiscal expenditures into a unified treasury system, and massive implicit subsidies. We further argue that, at least in the rapidly growing coastal provinces of China, the public sector in China is moving more rapidly than in Russia toward growth-supporting activities. With all its shortcomings, the emerging sub-national public sector in China appears to have stronger incentives to foster the entry and expansion of competitive foreign-assisted and non-state firms than does the Russian state.

## THE EFFECTS OF FISCAL DECENTRALISATION

Decentralisation of governmental fiscal responsibility has been a component of economic reform, with contradictory consequences. The case for fiscal decentralisation rests on the assumption of heterogeneity of regional preferences and the benefits of competition. When communities have heterogeneous tastes, the government closest to the citizens can deliver a bundle of services that reflects community preferences. Similarly, the Tiebout (1956) model posits that, with capital and labour mobility, local governments are motivated by competition with other governments to provide public goods efficiently. Alternatively, centralisation may facilitate fiscal equalisation, address externalities, or foster commitment to hard budget constraints (Rodden *et al.*, 2003).

However, decentralisation in command economies that lack mechanisms for horizontal exchange often proves disastrous (Kornai, 1992, p. 406).



Regional governments devolve into autarkies, capital and labour are not mobile, and the decentralised response to central targets requires destabilising fiscal bailouts.

Qian and Roland (1996) argue that fiscal decentralisation is one of several factors affecting the hardness of local government's budget constraint. Qian and Roland (1998) model fiscal decentralisation as a commitment device for the central government when fiscal competition increases the opportunity cost of bailouts. Comparing Russia and China, Blanchard and Shleifer (2001) argue that political centralisation in China imposed discipline on regional governments, facing local officials with dismissal in the event of short-run rent seeking.

A common feature of federations is that different levels of government share a common tax base. An implication is that tax policies established by one locality will affect taxes collected by other localities as well as by the centre. Such tax externalities can lead to inefficient choices of tax rates by localities for several reasons. First, if there is mobility of producers between jurisdictions, there will be horizontal tax externalities. An increase in one province's tax rate, given the tax rates in other provinces, will lead to an outflow of the tax base to other regions. The consequence is that the marginal cost of public revenues will be perceived by the region to be higher than the true marginal cost. This induces provinces to set tax rates on mobile resources that are too low from an efficiency point of view.

Second, when central and sub-national governments share a common tax base, there are vertical tax externalities between levels of government that are taxing the same common pool. An increase in a province's tax rate causes its tax base to fall, which causes tax revenues to fall both for the regional and the central government. The province, in choosing its tax policies, will neglect the adverse effect of its actions on federal revenues. Thus, it will consider its marginal cost of public funds to be lower than the true value, leading it to set too high a tax rate.

Further, when there are information asymmetries between regional governments and the centre, additional common pool problems arise in the regional competition for federal transfers. If sub-national spending is financed in total or in part by transfers from the centre, while the federal transfers are financed by a general tax on the total tax base, then regions will view federal transfers as a common pool. Regions have incentives to undertake actions that will increase the in-flow of transfers and shift the tax burden to other regions. Local government may shelter local producers or tolerate an informal economy to reduce central taxes (Cai and Treisman, 2004). The centre, in response, may conceal rents, for example, in the off-shore profits of Gazprom.



Looking at the political consequences of decentralisation, Weingast (1995) proposes that a properly designed decentralisation is one way to make government more accountable to its citizens. He uses the term 'market-preserving federalism' for a fiscal decentralisation that provides (1) a clearly delineated scope of governmental authority, (2) strong authority of sub-national governments in their jurisdictions, (3) centrally enforced prohibitions of barriers to trade and factor mobility, (4) hard budget constraints on revenue sharing and borrowing, (5) legal protection of the authority of sub-national government including protection from federal confiscation, and, thus, offers (6) incentives for regional governments to compete for investment and entry of new business. However, Martinez-Vazquez *et al.* (2007) remind us that public officials appointed by higher levels of government may prefer to seek the approval of higher authorities and thus lack incentives to respond to local demand for public services.

Our view of the Chinese case suggests to us that, at least in the coastal provinces of China, local governments had greater incentive to pursue growth-supporting economic policies, as they were able to retain most of marginal tax increases and, thus, expected to benefit from foreign direct investment and the opening of their local economies to the world market. In Russia, by contrast, the source of increased governmental revenue depended more on rising prices of energy than on increased productivity in industry. Regions derived little revenue from the rising value of their resources and strove instead to shelter their income from what they considered federal expropriation.

Many of the differences we see in Russian and Chinese fiscal institutions today can be attributed to differences in the initial command economies of the Soviet Union and China. On the eve of economic reform, the Soviet Union and China shared many common features of the command economy, including state ownership of industry, collectivised agriculture, centralised coordination of economic activities, an absence of true market prices, and the lack of legal alternatives to administrative plans.

The socialist fiscal system was implicit in the vertical structure of planning and prices. In the Soviet Union, the primary sources of tax revenue were enterprise profits and resource rents, turnover taxes, and profits of a foreign trade monopoly. In pre-reform China too, the tax system was implicit in the terms of trade established between agriculture and industry. Low agricultural procurement prices and high industrial prices allowed the industrial sector to generate a fiscal surplus from profits and taxes equal to 25% of GDP (Naughton, 1996, p. 34).

However, in 1978, China differed from the Soviet Union in its resource endowment and economic structure. China was poor, and agricultural.



Peasants suffered high rates of under-employment and vulnerability to income shocks. In contrast to the Soviet Union's large, vertically integrated state enterprises, Chinese industrial output was produced in smaller state firms as well as in small collectives. Infrastructure was weak, and there was little capacity to move commodities between provinces.

Decentralisation of the planning system in China was linked to financial decentralisation as well. Sub-national governments and firms controlled depreciation allowances and profits of small-scale firms, which they could use for regional investment. Regional governments had instruments to influence the directions of local economic activity and incentives to use resources for growth (Wong, 1985). Thus, Chinese central planners concentrated on a limited menu of tasks and elevated regional self-sufficiency to a virtue.

Qian *et al.* (2006) and Roland (2000, pp. 56–65) capture the stylised difference of Russian and Chinese coordination in their modelling of U-form and M-form organisations. Soviet, vertically integrated branch divisions represented U-form structures formed along functional lines, while in China, regionally decentralised, M-form structures could coordinate activities across all industries in a single region. These decentralised arrangements reduced information costs, facilitated small-scale experimentation, and contributed to China's increased flexibility. However, in the absence of horizontal product and input markets, decentralisation led to wasteful duplication and barriers to the movement of goods between provinces. Still, Qian, Roland, and Xu identify as a defining characteristic of Chinese decentralisation the ability to accommodate decentralised experiments in the pursuit of reform. After the fact, decentralisation that linked local tax collection to local expenditure provided incentives to pursue growth-supporting policies. Such experimentation is an important component of China's gradual transition.

## **EVOLUTION OF THE CHINESE FISCAL SYSTEM: DECENTRALISATION AND GROWTH**

China's fiscal system has gone through three basic phases. Before 1979, the central government had a formal monopoly over both revenues and expenditures. Between 1979 and 1993, under the economic reforms championed by Deng Xiaoping and his supporters, this fiscal system changed to a fiscal contract system, but there were at least six different types of contracts between provinces and the centre, and little consistency between provinces or over time. Provinces generally collected most of the revenue and then turned over a contracted portion to the centre – sometimes a quota amount, sometimes a fixed share, and sometimes a combination of the two.



During this period, total fiscal revenues declined significantly as a share of GDP, and the centre's share of revenue also declined.

The decentralised, experimental nature of early economic reform is clear in Chinese establishment of Special Economic Zones – export-oriented enclaves that were allowed to operate with considerable fiscal and administrative autonomy. Guangdong, which was allowed to set up its own foreign trade corporations and retain local tax revenues, was a pioneer. On the eve of reform, Guangdong seemed to have few advantages. It had few natural resources, a low ratio of arable land per capita, and high rates of rural unemployment. But its coastal location and proximity to Hong Kong presented the opportunity to forge a greater-Hong Kong trade area, linking enterprises to the world market, attracting foreign investment, and employing under-utilised labour. In 1979, the province's political leaders negotiated a lump-sum transfer agreement with the centre, under which they promised to transfer a fixed annual tax payment to the centre, but would be allowed to retain all the additional revenues collected above that amount (Cheung, 1998, pp. 89–137).

Fujian, too, was permitted to open its economy in 1978. In 1980, Shenzhen, Zhuhai, Shantou, and Xiamen were established as Special Economic Zones, and, in 1984, 14 additional coastal cities received SEZ status that offered lower tax rates, higher local shares of tax revenues, and special policy environments providing substantial local fiscal autonomy (Lin *et al.*, 2006).

Knight and Shi (1999) document the rising share of spending by provinces from a third of public expenditure in the early 1980s to two-thirds by 1990, and they observe that richer provinces enjoyed more spending, as a share of GDP, and more investment per capita. Fiscal transfers became less equalising over time, thus transferring risk away from the centre to the provinces. However, the fiscal contract systems often faced the province with a high marginal tax rate, and thus acted as a disincentive for tax collection.

In the late 1980s and again in the early-mid-1990s, the central government's fiscal balance was threatened by the centre's declining revenue share, and the CPI inflation rate rose to above 24% in 1994. As Figure 1 illustrates, the inflation was not the result of budget deficits – since the total budget deficit never exceeded 1.2% of GDP during this period – but, instead, resulted from credit expansion as the state banking system was used to fund state expenditures. Between 1992 and 1995, M2 grew by an average annual rate of 36%, mostly due to lending to state-owned enterprises (SOEs) even as their share of output and profit declined. Each year, an increasing number of SOEs became unprofitable, often because of the burden of social services, pensions, and excess employment. Government credits from local branches



of the big four national state-owned banks allowed enterprises to share the costs of structural change, but at the cost of rising debt. While China's inflation rates were low at the time compared to Russia's hyperinflation, they nonetheless threatened macroeconomic stability and the legitimacy of the Chinese Communist Party.

In 1993–1994, when the 'Socialist Market Economy' policy encouraged a new wave of reform, fiscal reforms were put in place to clarify fiscal revenues and responsibilities, and it included three components, a tax-sharing system, tax modernisation, and a reform of tax administration that separated central and provincial tax collection. The new tax-sharing arrangements allocated certain sources of revenues to the centre (eg, customs duties, consumption tax, sales tax, and profit taxes from centrally controlled enterprises), to the provinces and municipalities (taxes on local enterprise income, house and property taxes, profit turnover taxes) and shared according to a predetermined ratio (the value-added tax, natural resource taxes, stock market trading tax). The tax modernisation effort introduced new taxes to replace the former reliance on state enterprise profits, and it had the added effect of placing enterprises with different types of ownership on a relatively equal and predictable tax structure, while the government also attempted to curtail administrative fees and other forms of extra-budgetary revenues.

Figure 1 illustrates that these reforms quickly reduced official extra-budgetary revenues and expenditures. In the case of official budget revenues,

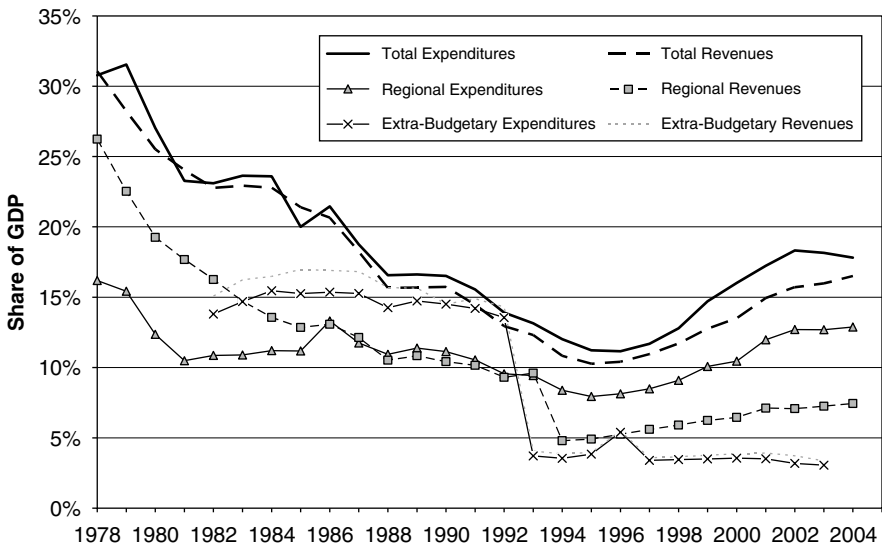


Figure 1: China's budgeted government revenues and expenditures.



the regional share of total revenues fell by half, forcing regions to depend on transfers from the centre to finance their expenditures. Clearly, these reforms benefited the centre, since they now had greater control over more revenues, but the richer provinces appear to have won an important concession. According to Shah and Shen (2006), 60% of the transfers in 2004 resulted from revenue-sharing arrangements and tax rebates, and thus Shanghai became the largest recipient of transfers instead of just the largest net contributor. Of the rest, a majority of transfers were earmarked for special purposes and, with the exception of a few regions like Tibet, Qinghai and Ningxia, poorer provinces now received fewer transfers per capita.

The reforms also fostered a gradual increase in total budgetary revenues, which funded higher levels of government expenditure. While the central share of government expenditures remained relatively stable – peaking in 2000, the central share of government revenue more than doubled. At the same time, the centre's share of reported extra-budgetary revenues declined dramatically. As a share of total government expenditures, the consolidated government deficit rose modestly between 1997 and 2003, but the provincial deficit rose to 40% of their expenditures.

China's fiscal contract reforms in the early 1980s were clearly a decentralisation of fiscal authority, but what were the effects of the 1994 tax reform? In spite of the fact that regions must now depend on large central transfers to finance their expenditures, Wong and Bird (2005) still consider China one of the most fiscally decentralised countries in the world. Since 1994, regional and local governments have accounted for approximately 60% of total government expenditure, *versus* a 34% average for industrialised economies and a 22% average for less-developed countries. But Tsui and Wang (2004) point out that China nonetheless remains politically centralised, since regional and local cadres are still managed by the top through the Target Responsibility System. Martinez-Vazquez *et al.* (2007, p. 8) note that in spite of a reliance on specific purpose grants from the centre, expenditure assignment in China is still not clearly regulated across multiple layers of government.

There is an extensive literature exploring the consequences of fiscal decentralisation for China. Tsui and Wang (2004) call fiscal decentralisation a 'handmaiden' to China's growth. Chen (2004) argues that regional and local governments have better information, and so more control over expenditures, leading to improved efficiency in government spending. Feltenstein and Iwata (2005) use national macro data to argue that decentralisation led to both faster growth and higher inflation. Qian and Roland (1998) argue that when China recentralised its monetary authority under Zhu Rongji, inflation fell and local governments took the lead in laying off workers from loss-making



SOEs. Jin *et al.* (2005) observe that provincial revenues and expenditures were more closely correlated in the 1980s and 1990s than in the 1970s. This correlation, they argue, shows a relative hardening of budget constraints that provided local incentives to foster non-state development.

What determines provincial government spending? Guillaumont Jeanneney and Hua (2004) ask why more open Chinese provinces have bigger governments, basing their argument on Rodrik (1998). Rodrik argues that a region facing higher external risk from foreign trade and investment will have a higher demand for government services to insure against unanticipated shocks. They find that richer provinces in China have a smaller government share and provinces with greater variance of income have a larger government share, but, in addition, the partial effect of greater openness is associated with a larger government share.

What are the determinants of each province's revenue, expenditures, and transfers? In Table 1, we consider a set of variables capturing regional tax capacity and demand for public services.<sup>1</sup> The dependent variables, revenue per capita and expenditure per capita, are measured in logs. Since net interregional transfers may be negative, these are measured in levels. We posit that per capita tax revenue collected by a province increases with higher GDP and variables measuring the productivity of local resources – educational attainment, foreign direct investment, and openness to trade. Indeed, all the coefficients on these measures of tax capacity are strongly positive.

Provincial expenditures, too, are positively associated with previous period tax capacity, reflecting the region's retained taxes and revenues returned from the centre. Per capita expenditures are positively associated with a province's dependency ratio and negatively associated with the ratio of FDI. This negative coefficient suggests that FDI increases employment and income of workers, reducing the demand for social expenditures. The determinants of central transfers parallel and, presumably, influence the supply of public expenditure. National extra-budgetary revenues are not significant. The high correlation between tax revenue and expenditure implies that provinces benefit at the margin from efforts to increase tax capacity. Transfers are also significantly correlated with income, contradicting the null hypothesis that overall transfers compensate for inequality between provinces.

Foreign direct investment appears to increase provincial revenues and decreases expenditures, thus reducing transfers from the centre. International trade leads to more revenue and more expenditures, which is consistent with

<sup>1</sup> All Chinese data are taken from the *Chinese Statistical Yearbooks* (CNBS, various years).



**Table 1:** Provincial revenue, expenditures, and transfers in China

Regressed with OLS on lagged values,	log(Revenue per capita)	log(Expenditures per capita)	Transfers per capita
Log (Provincial GDP per capita)	0.8005 (0.0463)***	0.8004 (0.0806)***	0.0312 (0.0099)***
Provincial FDI ratio	1.3479 (0.4604)**	-4.4016 (0.8016)***	-0.4302 (0.0887)***
Provincial trade ratio	0.3070 (0.0526)***	0.5037 (0.0853)***	0.0246 (0.0111)**
National revenues as share of GDP	4.1239 (0.6159)***	8.6966 (0.9859)***	0.7666 (0.1125)***
National extra-budgetary revenues as share of GDP			0.1629 (0.5209)
Dependency ratio		0.0147 (0.0044)***	0.0009 (0.0006)*
Secondary education attainment ratio	2.6235 (0.4445)**		-0.2748 (0.1065)**
Constant	-3.7300 (0.1301)**	-3.9535 (0.2290)***	-0.0929 (0.0467)***
$R^2$	0.90	0.69	0.27

Note: Standard errors in parentheses, two-tailed statistical significance at 1% (\*), 5% (\*\*), 10% (\*\*\*).

the findings of Rodrik (1998) regarding the relationship between government size and global risk. The net effect of trade on transfers is positive and significant. Higher national budgetary revenues appear to be positively correlated with higher provincial revenues, provincial expenditures, and transfers to the provinces.

Next, we consider the demand for public goods in Table 2. We estimate the determinants of provincial expenditures in three categories: social expenditures, capital construction, and public administration, and we posit that increased public expenditures will reflect both local and central interests. Increased local demand for public services will respond to local tax capacity, while central demand for public services will respond to increased central transfers to a province. Per capita expenditures on all three categories of public goods rise with per capita income and with central governmental transfers to the province. Both increased average education and a higher dependency ratio increase public expenditures for social purposes and for capital construction. A higher degree of openness to trade is associated with increased social and administrative expenditures, but less public capital construction. Expenditures on government administration rise with tax capacity, openness to trade, and the share of central transfers to the provincial budget.

**Table 2:** Selected provincial expenditures in China

Regressed with OLS on lagged variables	Social expenditures per capita	Capital construction per capita	Government administration per capita
Provincial GDP per capita	0.0289 (0.0011)***	0.0351 (0.0024)***	0.0057 (0.0010)***
Provincial FDI ratio	-0.0536 (0.0107)***	0.0241 (0.0230)	-0.0037 (0.0095)
Provincial trade ratio	0.0052 (0.0013)***	-0.0086 (0.0028)***	0.0038 (0.0012)***
Provincial revenues as share of GDP	0.1068 (0.0141)***	0.0557 (0.0303)*	0.0028 (0.0125)
Central transfers as share of GDP	0.0799 (0.0034)***	0.1672 (0.0073)***	0.0796 (0.0030)***
Central government share of national revenues	0.0019 (0.0043)	-0.0236 (0.0092)***	-0.0085 (0.0038)**
Dependency ratio	0.0002 (0.0001)**	0.0004 (0.0001)***	0.0000 (0.0001)
Secondary Education Attainment Ratio	0.0725 (0.0127)**	0.0555 (0.0273)**	0.0034 (0.0112)
Constant	-0.0290 (0.0046)**	-0.0375 (0.0100)***	0.0060 (0.0041)
$R^2$	0.92	0.77	0.75

Note: Standard errors in parentheses, two-tailed statistical significance at 1% (\*), 5% (\*\*), 10% (\*\*\*).

## EVOLUTION OF THE RUSSIAN FISCAL SYSTEM: FISCAL IMBALANCE AND HYPERINFLATION

On the eve of reform, the Russian economy was in crisis. In 1991, repressed inflation worsened and real GDP declined 15%. Rising costs and falling enterprise profits cut budget revenues, bringing the government budget deficit to 16.5% of GDP. Persistent price controls in the face of rising money supply created a large monetary overhang. Goods disappeared from the shops, reappearing in ubiquitous black markets. Exports fell by 40% and imports by 84% in dollar terms (Ahrend and Tompson, 2005).

On 2 January 1992, the new Russian government freed most consumer and producer prices, abolished the state foreign trade monopoly, and moved toward external liberalisation, while retaining controls on energy exports. The Gaidar government announced expenditure cuts and committed itself to slow the expansion of credit by the Central Bank of Russia. There was an initial one-time jump in the price level of 245% in January 1992 followed by a continuing monthly price increase of approximately 10%. However, CBR net credits accelerated sharply after the unpopular central bank chairman Georgy Matyukhin was replaced by Viktor Gerashchenko. Gerashchenko authorised



ballooning new credits to agriculture, industry, former Soviet republics, and the federal budget, increasing M2 at 30% per month.

Loss of fiscal balance and rising CBR credits generated hyperinflation. At the end of 1992, the price index stood at 2,500% of the previous year (Granville, 1995).

As shown in Figure 2, the federal budget deficit peaked at  $-20.9\%$  of GDP in 1992, declining to  $-10.7\%$  in 1993 and  $-9.8\%$  in 1994. During 1992, explicit budget subsidies equalled 25% of GDP and Central Bank credits to enterprises at highly negative real interest rates amounted to another 18.9% of GDP (Granville, 1995, p. 68). Subsidised bank credits financed capital flight, as firms transferred their output offshore, paying workers and suppliers with low-interest credits. Real GDP fell by one-third between 1992–1994, with a continuing decline during 1995 and 1996.

Disinflation put new stresses on the Treasury. In 1993, the Ministry of Finance launched the first short-term treasury bills (GKOs) with maturities from 6 weeks to 12 months. Over the next 3 years, these securities grew to a stock of about 159 trillion rubles (\$31 billion). The Central Bank sold these securities at primary auctions to a small number of authorised dealers who could then resell them (Shleifer and Treisman, 2000, Chapter 4). Now, instead of profiting from low interest credits from the central bank, commercial banks holding state securities could get large positive returns by lending the Russian government short-term money at rates of return far above the rate of inflation.

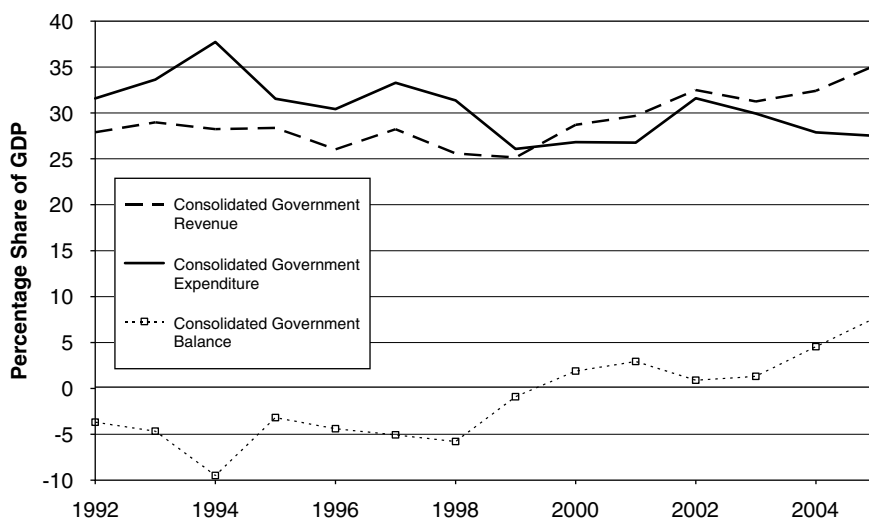


Figure 2: Russian fiscal balance.



Central bank processes were designed to benefit specific constituencies. Primary issues were limited to about 25 authorised dealers, including 19 commercial banks. The largest holders were the state savings bank, Sberbank, and state-owned Vneshtorgbank. By prohibiting access of foreign and domestic investors to the primary GKO auctions, the government assured that prices would remain low and rates of return high. Shleifer and Treisman (2000, p. 64) conclude, 'Both systems – inflationary finance and high-yield government securities – generated a transfer to the commercial banks from other parts of the economy.'

As the government reduced budget subsidies and credits, many of the subsidised organisation became insolvent and ran up arrears to their suppliers, workers, and to the Treasury. The largest arrears were owed to the electricity and energy sectors, and they, in turn amassed a huge debt to the budget. The implicit bargain that emerged involved using the energy sector to subsidise agriculture, the defence sector, and households without requiring any explicit budgetary expenditure. In exchange, Gazprom and the electric power monopoly gained rights to export and enjoyed tax exemptions on foreign sales.

By 1997, Russia's public finances were in disarray. Federal budget revenue fell from 19% to 12% of GDP. Almost half of enterprise transactions were made by barter. The untaxed, informal economy accounted for a significant share of retail sales, and the number of small and medium-sized private firms shrank. Shleifer and Treisman (2000, p. 90) ascribe this unravelling to 'the often fierce and unregulated competition between levels of government within the evolving federation... The way authority and property rights were shared among central, regional, and local governments invited a catalogue of abuses and blunted incentives for economic development.'

In August 1998, Russia experienced a drastic financial crisis as the government suffered a full-scale sovereign default on ruble-denominated public debt. On the eve of the crisis, the country was almost demonetised; ruble money supply was about 15% of GDP – considerably smaller than the estimated dollar money stock. About half of industrial output was transacted through barter, and almost half of fiscal revenue was transacted as offsets.

There were many forces contributing to crisis. The price of oil plummeted to less than \$12 a barrel. There were political pressures opposing devaluation, since investors were borrowing short-term abroad and investing long-term at home. Importantly, fiscal imbalance played a key role. In 1998, consolidated budget plus extra-budget expenditure (41% of GDP) exceeded corresponding revenue (32.9%) by 8% of GDP. Thus, government budget and extra-budget spending still took a large share of GDP. If the full cost of subsidised public housing and utilities were included, then the fiscal burden would be still



higher. Public utilities were required to deliver gas and electric power to all federal agencies in spite of non-payment and to deliver services to households at less than marginal cost.

An infusion of \$4.8 billion in foreign exchange reserves from the IMF disappeared quickly when the CBR cut reserve requirements and extended 32 billion rubles of credits to a few key banks. When short-term government borrowing to finance the budget deficit exceeded foreign exchange reserve, short-term capital left the country. Devaluation fuelled a banking crisis as well, reflecting the currency and maturity mismatch of bank portfolios and the collapse of bank assets among the politically influential Moscow banks.

In the wake of financial crisis, the Russian government finally took steps to put its fiscal budget in order. A four-fold devaluation of the ruble was associated with a drop in real income of about 25%, but it re-kindled production in domestic import substituting industries. With a recovery in energy prices, the government imposed rising export taxes on hydrocarbons, metals, and other commodities. Tax compliance increased as the government began to enforce tax payment on Gazprom and the large petroleum exporters, requiring cash payment. Tax exemptions were cut; tax revenues increased; and the federal government itself began to reduce its own payment arrears (IMF, 1999).

Tax reform was a slow process. Part I of a new tax code clarifying taxpayer rights and obligations passed in 1998. In 1999, the government set up a unified tax authority, and in 2000 the Duma passed four chapters of Part II of the tax code. These changes formalised tax-sharing between the federal, territorial, and local levels, assigning larger shares of the major taxes to the federal government. Income taxes were cut to a flat 13% and profits taxes from 35% to 24%.

By 2000, Russian recovery was underway. With rising energy prices, federal government budget revenue doubled from 12% to 24% of GDP in 2005, although inflation, which reached 84% in 1998, remained in double digits until 2005. Russian fiscal balance had shifted from a deficit of 6% to a surplus of 9% of GDP. In 2006, with the price of oil above \$60 per barrel, the central government collected \$38 per barrel of export duties and resource extraction tax on every barrel of oil exported. As Figure 3 shows, the federal government began to enjoy a comfortable fiscal surplus and was able to establish a long-term stabilisation fund, but for the regions, taxes that had earlier been shared between the Federation and the regions were now reassigned to the centre.

A recentralisation of Russian budget execution after the election of Vladimir Putin in 2000 was linked to significant administrative reforms aimed at consolidating the power of central political leaders. In 2000, the federation

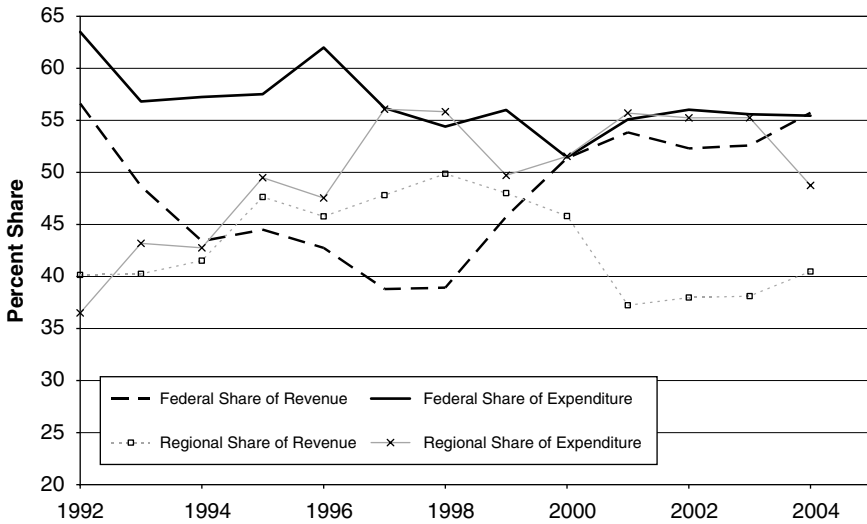


Figure 3: Russian government revenue and expenditure shares.

was divided into seven federal districts, each headed by a presidential representative nominated by the president. Most of these key administrative appointments were drawn from the power ministries (ie, the military and security forces). Next, the provincial governors were removed from the Federation Council, the upper house of the parliament. Finally, in December 2004, gubernatorial elections were abolished, with governors now serving at the will of the president. Thus, in its administrative structures, the form of Russia's government moved closer to China's.

According to law, Russia was hardly a federation. Sub-national governments in Russia were always subject to federal control. A single federal Tax Authority collected tax revenues and transferred them to the Ministry of Finance, which had the authority to determine expenditure priorities. The federal government set tax rates and specified tax sharing rules in an annual federal budget law. Federal tax sharing rates appeared to be arbitrary and highly variable. The annual budget law specified expenditure mandates for major categories of expenditure. Regions and municipalities had authority to collect taxes on property and land and, for a time, had the right to levy a local sales tax of 5%. But own revenues of sub-national units never exceeded 15% of regional expenditure. Their shares of retained taxes were determined by the centre.

Yet, even today, regions enjoy considerable informal autonomy. There is still a vast difference between the budget system in theory and in practice.



These differences are spelled out in Lavrov *et al.* (2001). In the 1990s, a long list of unfunded federal mandates imposed by the federal government on sub-national authorities required local initiatives. Since regional governments were active participants in the local economy – as shareholders in regional enterprises and banks, in their control of subsidised fuel and energy, and in their regulatory powers – they exercised considerable discretion. Regions sometimes levied taxes in kind – for example, taking delivery of a percentage of enterprise output informally and reselling it (Thornton, 2001). They relied on large enterprises to provide a host of social services – supplying housing, utilities, health and social services. These in-kind services allowed regional governments to capture 100% of the in-kind tax, while many of the higher costs could be used to reduce official tax obligations of local producers.

The incentives of regional governments, which expected increased tax collections to be confiscated by the centre, seem to differ from the incentives of Chinese officials. Cai and Treisman (2004) model the perverse incentives created by Russian-style federalism, which gave local officials incentives to shelter local producers from central taxes. The dependence of local officials on in-kind services provided by large enterprises had a negative impact on long-run efficiency, creating incentives to shelter large, former state-owned units, protecting them from new, competitive entrants to the market.

Until 2002, regions also enjoyed considerable control over national extra budgetary funds, such as the pension, social welfare, employment, medical insurance, and road funds. In 2002, these funds were integrated into the consolidated treasury system, with the unified social insurance funds collected at the federal level and returned to the regions on a formula basis.

While most of the Western discussion about the Russian budgetary system focuses on the incentives of provincial leaders to evade the rules, the structure of federal direct expenditures, bypassing the treasury system, introduces another set of problems. Many line ministries and natural monopolies – the power ministries, railroads, state-owned energy companies, government banks, and others – receive direct funding from the centre. Each ministry, separately, controls budget spending for its organisations in all regions, including responsibility for a full range of social services, educational organisations, hospitals, and housing for its employees. Lavrov and Makushkin (1999) estimated that per capita federal direct expenditures were five times larger than the total of public services provided by formal budget funding, with almost half of those expenditures allocated to government employees in the Moscow region.

Most of the recent process of budget reform involves improvement in the capacity of the Ministry of Finance to control and implement budget policy. In the 1990s, much government spending remained outside the authority of the



Ministry of Finance. The core institution responsible for federal budget policy was the Central Budget Department of the Ministry of Finance. However, more than 100 vertically organised line ministries dealt with Branch Departments of the MoF. The Central Budget Department was supposed to coordinate all of these separate branch proposals. Similarly, in 89 regional and 22,340 local offices, more than 50,000 Treasury officials attempted to coordinate budget allocations from myriad separate authorities with little information (Diamond, 2002).

As budget reforms transferred most revenue authority to the federal level, the role of the Treasury increased in an attempt to provide a framework for a separate tax-based fiscal system. Today, fiscal management is centralised in the Ministry of Finance, providing modern budgeting processes and procedures and a new treasury system with a unified accounting and financial management framework. Under the new Budget Code, five state funds allocate most of the financial assistance provided to the regions:

- The fund for financial assistance to the regions provides subsidies based on a formal comparison of a region's tax potential and normative social obligations.
- The compensation fund is determined by the number of people in a region who qualify for federal compensation, including federal employees.
- The fund for co-financing social expenditures supplements social services.
- The fund for regional development provides publicly financed capital investment.
- The fund for regional and municipal finance reform subsidises local budgetary reform.

A key element in the determination of budget expenditure is the Index of Budgetary Requirements. This index is used to determine an indicator of normalised per capita expenditures. Martinez-Vazquez and Boex (2001) write, 'Conceptually, the new approach attempts to break with the Soviet-era practice of filling the gap between a region's normative expenditure needs and the region's fiscal resources, but in practice fails to do so completely.'

A step-by-step perusal of the crucial Index of Budgetary Requirements shows what actually happens. Each region's 'needs' are assessed by calculated numbers of needy constituents (school children, pensioners, veterans, etc) and the cost of serving needs of each group is determined by a regional index of budgetary cost. However, the lists of groups served by budgetary needs include 'veterans of social labour' (32.7 million recipients), invalids (10.6 million), and security personnel and their families (6.3 million), and the budget costs of providing each group's budget needs show considerable difference from other published measures of regional costs of



living. Thus, incentive problems persist, but they appear in the political determination of constituencies and in the estimated budgetary costs assigned to each constituency.

The most recent fiscal reform is the monetisation of many former free and subsidised social benefits introduced as Law 122 in January 2005. When the new arrangements were announced, tens of thousands of pensioners and public employees took to the street in mass protests. The goal of monetisation is the substitution of 156 kinds of in-kind benefits and 236 categories of recipients with monetary grants. There are many potential gains in efficiency and equity from this change. With monetisation, consumers will face the true costs of housing, utilities, transport, and holidays. A shift to money benefits would encourage means testing of social programmes. A recent World Bank report estimates that large shares of in-kind and subsidised social benefits were allocated on the basis of public employment rather than social need. For various benefit categories, employment-based benefits accounted for 43% of housing and utility services, 71% of medical services, 66% of spas and holidays, and 47% of all social benefits (World Bank, 2005, p. 91).

Table 3 summarises the official distribution of tax revenues between government levels in 2004. The federal government has the right to 100% of the value added tax and a majority of profit taxes, 100% of mineral extraction tax on gas and 95% of mineral extraction tax on oil, and 100% of the export tax revenues on oil and gas. Currently, federal government revenues, equal to about 24% of GDP, exceed regional and local revenues, equal to 15% of GDP. Of federal revenues, trade duties (primarily energy export revenues) equal 8% of GDP, with other natural resource taxes providing an additional 4%. The aggregate data on the structure of total expenditures in Table 4 shows a stable pattern of spending by category between 1998 and 2004. There is a large decline in housing subsidies associated with an increase in spending on the economy and on 'other budget' (Thornton-Nagy, 2006a).

What determines the flow of budget transfers from the Russian central government to its constituent regions? Since 1998, as high export taxes on energy have combined with rising world prices of oil, an increasing share of Russian budget revenue that previously was shared between the federal and sub-national levels is directed solely to the centre. The growth of the vertical fiscal gap between the federal and regional levels means that federal budgetary transfers have an increasing impact on regional welfare, inequality, and competitiveness.

We look briefly at recent research on the determinants of government expenditure to ask whether Russian federal expenditures serve to reduce regional inequality or to insure against exogenous shocks. Kwon and Spilimbergo (2005) observe that regional expenditures tend to expand in

**Table 3:** Distribution of tax revenues in Russia, 2004

	Federal	Sub-national	Municipal and lower levels
<i>I. Federal taxes and fees</i>			
Tax on profits at rates set for RF	100		
Tax on profits at rates set for Subject		100	
Income tax on individuals		70	30
Value added tax	100		
Alcohol excise	100		
Excises on alcohol products		100	
Excises on beer		100	
Excises on tobacco products	100		
Excises on gasoline, diesel fuel	40	60	
Excises on cars and motorcycles	100		
Import duties	100		
Hydrocarbon extraction tax	100		
Mineral extraction tax oil	95	5	
Mineral extraction tax gas	100	0	
Mineral extraction tax other	40	60	
Mineral extraction tax continental shelf	100		
Water tax	100		
Single social tax	100		
Government export duties	100		
<i>II. Regional taxes</i>			
Transport tax		100	
Tax on property of organisations		100	
<i>III. Local taxes</i>			
Land tax			100
Single agricultural tax			100
<i>IV. Other taxes</i>			
Single tax		90	
Imputed single small-scale tax			100
Production sharing agreements, prior to 1995	20	80	
Natural gas extraction under PSA	95	5	
Mineral extraction (Royalties) continental shelf	100		

Source: Institute of the Economy in Transition, p. 97, Table 11.

booms and contract in recessions, providing little inter-regional redistribution or insurance against shocks.

A recent working paper by Thornton and Nagy (2006b) estimates the determinants of regional expenditures using a panel data base of Russia's regions for 1998–2003.<sup>2</sup> Table 5 looks at differences in per capita government expenditures among regions. The strongest determinant of government

<sup>2</sup> Empirical results are summarised, below, with permission of the authors.



**Table 4:** Structure of federal expenditures in Russia

	1998	1999	2000	2001	2002	2003	2004
Social expenditure (Ed, health, soc policy)	35.4	37.1	33.4	33.3	36.0	35.8	37.2
Expenditure on govt. admin and law	6.5	7.1	6.7	6.9	7.3	7.5	7.5
Expenditure on the economy (incl ind, ag, trans, commun)	9.5	9.0	8.9	17.3	13.3	13.3	13.3
Expenditure on housing	19.3	17.1	17.1	13.0	11.5	11.2	10.0
Other	29.3	29.6	33.8	29.5	31.8	32.2	31.4
<i>Total expenditures</i>	100.0	100.0	100.0	100.0	100.0	100.0	100.0

**Table 5:** Determinants of total government expenditures in Russia

	(1)	(2)
Log (Per capita federal administrators)	0.593 (0.169)***	0.650 (0.189)***
Log (Share of fuel × price of oil)	0.038 (0.017)**	0.044 (0.016)***
Log (Share of industry × real exchange rate)	-0.049 (0.024)**	-0.045 (0.020)**
Log (Income per capita)	0.756 (0.133)***	0.720 (0.176)***
d (Moscow city)		0.169 (0.334)
d (Moscow oblast)		0.351 (0.112)***
Constant	2.593 (1.090)**	2.755 (1.285)**
Observations	248	248
R <sup>2</sup>	0.59	0.65

*Note:* Robust standard errors in parentheses, two-tailed statistical significance at 1% (\*), 5% (\*\*), and 10% (\*\*\*).

Variables are deflated using federal average CPI (1998=100).

expenditures is federal administrative employment per capita, which parallels the determinants of government expenditure in China. However, in contrast with China, there is little evidence that federal expenditures serve to reduce levels of regional inequality. A 1% rise in per capita income is associated with a rise of 0.7% in government expenditures in the region. Government expenditures per capita are higher in regions that benefit from a positive oil shock. Government expenditures are also higher in manufacturing regions when they experience a decline in real exchange rate, which, on net, should increase the competitiveness of domestic producers. Although there is little evidence of equalisation, it is possible to interpret the results as an implicit form of tax-sharing, which rewards export-producing regions and provides



incentives to reveal tax capacity. Thornton and Nagy interpret the number of federal administrators and the regional oil share as proxies measuring a region's priority to the centre. Dummy variables for Moscow city and Moscow oblast are positive, but only the latter is significant.

Table 6 presents the estimation of the determinants of federal transfers. A primary determinant of federal transfers is the index of budgetary requirements (Budgetary Requirements Index (BRI)), described earlier. The coefficient on an index of regional manufacturing share times exchange rate is negative and significant. Federal transfers fall with an increase in tax arrears. Again, conditional on other characteristics, Moscow city and Moscow oblast receive significantly more federal transfers per capita than other regions.

Do Russian budget expenditures respond to measures of social need? In Table 7 we look at the determinants of social expenditures, using a regional cross-section for 1999. The dependent variable in the estimates is per capita expenditure on social needs, including education, health, social policy, and housing. The independent variables are the federal BRI, a direct, weighted index of observed categories of social needs (number of school children, pensioners, and invalids) and the unemployment rate. In these estimates, social expenditures rise with an increase in the BRI. However, social

**Table 6:** Determinants of federal transfers in Russia

	(1)	(2)
Log (Budgetary requirement index)	1.650 (0.166)***	1.658 (0.165)***
Log (Share of fuel × price of oil)	0.005 (0.031)	0.006 (0.031)
Log (Share of industry × real exchange rate)	-0.273 (0.055)***	-0.271 (0.054)***
Log (Per capita tax arrears)	-0.290 (0.155)*	-0.288 (0.153)*
Log (Unemployment rate)	-0.244 (0.203)	-0.163 (0.226)
<i>d</i> (Moscow city)		0.599 (0.241)**
<i>d</i> (Moscow oblast)		0.429 (0.099)***
Constant	10.732 (1.319)***	10.492 (1.360)***
Observations	247	247
<i>R</i> <sup>2</sup>	0.56	0.56

Note: Robust standard errors in parentheses, two-tailed statistical significance at 1% (\*), 5% (\*\*), and 10% (\*\*\*).

Variables are deflated using federal average CPI (1998=100).



**Table 7:** Determinants of social expenditures in Russia, 1999

	(1)	(2)
Log (Budgetary requirement index)	0.791 (0.066)***	0.792 (0.064)***
Log (Per capita number of needy)	-0.046 (0.022)**	-0.039 (0.022)*
Log (Unemployment rate)	-0.347 (0.088)***	-0.281 (0.089)***
<i>d</i> (Moscow city)		0.659 (0.257)**
<i>d</i> (Moscow oblast)		0.030 (0.245)
Constant	8.387 (0.236)***	8.178 (0.245)***
Observations	79	79
$R^2$	0.67	0.69

Note: Robust standard errors in parentheses, two-tailed statistical significance at 1% (\*), 5% (\*\*), and 10% (\*\*\*).

Variables are deflated using federal average CPI (1998=100).

expenditures are *negatively* correlated with a direct index of number of needy per capita and negatively correlated with the unemployment rate. Again, Moscow city receives significantly higher social expenditures than other regions.

## LESSONS FROM THE CHINESE AND RUSSIAN FISCAL REFORMS

China's rapid economic growth of the past two decades makes it easy to see China as a positive example of policies that worked. It does, in fact, appear that China's fiscal reforms got more right than wrong, at least in comparison with Russia. First, we list some of the obvious comparisons that emerge from our survey. Then we elaborate, briefly on the lessons from the comparison.

- Both countries have achieved a separate tax-based fiscal system. Yet, both countries depend on large-scale firms to provide implicit social services and to maintain excess employment. China's growth is based on a rapid increase in the share of small and medium-sized firms while Russia's small-scale sector has languished.
- In China, re-centralisation of budget functions was associated with gradual separation of enterprise activities and the state sector. In Russia, re-centralisation has been linked with expanding state ownership of enterprises and continued implicit subsidisation of housing, utilities, and social services.
- Government budget expenditures were consistently lower in all periods in China than in Russia.



- China's public sector was substantially more decentralised in all periods, measured on two dimensions – the decentralisation of public-service administration and the effective separation of the public sector from the producing sector.
- In China, there are many separate municipalities attracting foreign investment and growth. These trade-oriented regions contributed a major share of value added and enterprise income tax revenue to the government. In Russia, export duties and other taxes on energy producers provide the largest source of tax revenue, which is centralised in the federal budget.
- In China, local governments that were allowed to keep marginal increases in local tax revenue had incentives to pursue growth-supporting policies. In Russia, local governments that depend on in-kind public services from enterprises have incentives to shelter local producers from taxes and to protect local firms from new entry.
- Over a period of 25 years, China accomplished an extraordinary structural change from agriculture to industry and from public to private employment. Although Russia has free labour markets and partially free housing markets, out-migration from poor regions has been slow and one-third of employment is still in the public sector.
- Fiscal deficits and rapid expansion of credit have threatened stability in both countries, but China has proved more successful than Russia in managing macroeconomic policies. Russia's fiscal crisis in 1998 provides a warning to China that macroeconomic mismanagement can destroy growth.
- Provincial units in both countries are extremely heterogeneous in their resource bases and levels of income and transition has increased income disparities in both countries. In Russia, the budget directed to pensions and health insurance is larger than in China, while household saving is much larger in China.
- Central transfers in both countries are positively related to income levels and changes. In China, central transfers respond positively to the dependency ratio. In Russia, central transfers respond to a federal index of budgetary requirements, but negatively to the dependency ratio and rate of unemployment.

### **Fiscal policies in China**

In the initial fiscal decentralisation of the early 1980s, provinces were given more control over revenues and expenditures, but they also faced unfunded mandates to prop up unprofitable state firms and maintain their social services. The centre allowed regions to retain a growing share of revenues. In addition, provinces funded services with increases in extra-budgetary fees and political credits from state-owned banks. While credit expansion fuelled



inflation, those provinces that retained marginal tax revenues had incentives to encourage economic growth.

The 1994 fiscal reforms recentralised many revenues while expenditures remained decentralised, generating a large fiscal gap. The resulting system of central transfers to the provinces appears to have resulted in harder budget constraints for the provinces. The strong correlation between provincial budget incomes and expenditures played a strong role in encouraging growth-enhancing policies by provincial governments. Meanwhile, the commercialisation of state-owned banks gradually led to a reduction in policy loans to provincial governments. As China's overall government, including both national and sub-national units, increased its share of GDP from about 12% to 20% of GDP and the centre increased its share of total government revenue to 30%, China maintained a macroeconomic environment of low inflation.

The decentralisation of China's public sector policies afforded notable advantages but also heavy costs. Administrative decentralisation was appropriate to the heterogeneity of China's regions, allowing individual regions to undertake local initiatives. Decentralisation also fostered the separation of the government and the enterprise by encouraging the substitution of markets and competition for administrative coordination. True, the central government continued to impose constraints on market forces – for example, in the failure to formalise property rights to agricultural land, in the direction of investment to state-owned firms, in regulatory barriers to foreign firms. In the absence of financial markets, there are still barriers to the movement of capital to more productive activities across provinces. However, all constituencies appear to benefit from market-supporting change.

On the other hand, decentralisation imposes costs as well. Wong and Bird (2005) consider China's present fiscal system to be 'unsatisfactory' for a number of reasons. Poorly designed VAT and enterprise income taxes create disincentives; high taxes on banking hinder financial sector development; and weak tax administration generates corruption. Government funds are often spent inefficiently, the governmental administrative burden remains high, and auditing is weak.

Wong and Bird argue that the decline in officially reported extra-budgetary revenues and expenditures is largely illusory, as extra-budgetary expenditures go unreported. While official sources claim that extra-budgetary funds have fallen to 15% of GDP, Wong and Bird estimate their continuing share at 19%–27% of GDP.

Our regressions also support the conclusion that China's fiscal reform led to increased fiscal disparities between provinces. Because many public goods are provided by local governments, basic needs in health care and education



are not being met in many parts of China. The lack of public health funding is particularly costly for the rural poor and the migrant workers seeking jobs in growing cities.

### **Fiscal policies in Russia**

Russia's initial years of transition are a testimony to the devastating consequences of macroeconomic mismanagement. Initially, total budget expenditure remained at approximately 40% of GDP, generating a budget deficit equal to almost 10% of GDP. Ballooning central bank credits generated hyperinflation of 2,500%. The subsequent process of disinflation was equally difficult. Firms accumulated tax arrears, paying their local taxes in-kind, if at all. In August 1998, the Russian government defaulted on its ruble debt and devaluation fuelled a banking crisis as well. After a four-fold devaluation of the currency that cut per capita income to 75% of its previous level, the Russian government finally got its fiscal house in order.

As in China, the government of the Russian Federation transferred most expenditure obligations for health, education, pensions, and utilities to the territorial and municipal levels of government, leaving the regions with a host of unfunded mandates. Decentralisation in Russia was a cat-and-mouse game in which the centre confiscated any rents while territorial administrations colluded with local enterprises to shelter their income in exchange for in-kind social services.

As in China, the Russian bureaucratic system created opportunities for asset stripping of public assets to private entrepreneurs, but in a risky and violent environment, decision-makers with control rights to wealth in Russia had incentives to move their portfolio offshore instead of undertaking profitable production at home.

Politically, Russia's current centralisation has been associated with the approval of a new budget code and the introduction of measures, such as the monetiation of a range of in-kind subsidies that could provide a framework for a strong, accountable public sector. Moreover, a substantial revenue surplus funded by export taxes and extraction fees on energy is supporting a balanced budget, repayment of government debt, and accumulation of a stabilisation fund. Yet, there is little evidence that federal transfers reduce regional disparities in income or provide insurance against income shocks. However carefully defined are the formal rules for distribution of social assistance funds, in practice, it appears to be the *ad hoc* negotiated agreements between the centre and regions that account for the largest transfers.

Writing in the *Moscow Times*, Makrushin and Yudayeva (2005) say, 'How did this happen in the era of the Putin power vertical? As strange as it may



seem, the biggest threat to fiscal federalism today is coming from the federal government itself. First, the power vertical has in effect eliminated all checks and balances, which makes it relatively easy to change the way financial assistance is divvied up. Second, by appointing governors, the Kremlin is becoming more and more partial in the way it creates budget policy.'

In Russia's case, then, neither decentralised nor centralised fiscal policies have succeeded in creating the necessary incentives for increased productivity and structural change. Instead, recentralisation has been associated with expansion of state ownership of banks and exporting firms. In a resource-owning country in which ownership of the state is, itself, the main asset, the process of creating an accountable public sector is particularly difficult.

In conclusion, then, neither China nor Russia has succeeded fully in constructing a fiscal system that provides a coherent framework for efficiency and accountability in the government's use of public funds. In each country, a period of strong decentralisation was followed by a recentralisation of tax assignment and expenditure mandates. However, the size of each economy and the heterogeneity of sub-national units means that centrally mandated tax obligations and expenditure assignments often fail to provide appropriate incentives and the necessary flexibility for sub-national officials to pursue growth-supporting policies. After the fact, China's economic success suggests that sub-national units in China have enjoyed more flexibility to respond to local interests and a fiscal incentive structure that has led them to support growth-enhancing policies, while sub-national units in Russia have put more effort into the cat-and-mouse game of hiding fiscal resources from central expropriation or lobbying the centre for a larger share of energy rents.

## REFERENCES

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- Ahrend, R and Tompson, W. 2005: *Fifteen years of economic reform in Russia: What has been achieved? What remains to be done?* OECD Economics Department Working Papers: 430.
- Blanchard, O and Shleifer, A. 2001: Federalism with and without political centralization, China versus Russia. *IMF Staff Papers* 48(4): 171-179.
- Cai, H and Treisman, D. 2004: State corroding federalism. *Journal of Public Economics* 88(3-4): 819-843.
- Chen, C-H. 2004: Fiscal decentralization, collusion and government size in China's transitional economy. *Applied Economics Letters* 11(11): 699-705.
- Cheung, P. 1998: The Guangdong advantage, provincial leadership and strategy toward resource allocation since 1979. In: Cheung, P, Chung J and Lin Z. (eds). *Provincial Strategies of Economic Reform in Post-Mao China*. M.E. Sharpe: Armonk.
- CNBS (China National Bureau of Statistics). 1995-2005: *Statistical Yearbook of China*. Zhongguo Tongji Chubanshe: Beijing.



- Diamond, J. 2002: *The new Russian budget system, a critical assessment and future reform agenda*. IMF Working Paper 21.
- Feltenstein, A and Iwata, S. 2005: Decentralization and macroeconomic performance in China, regional autonomy has its costs. *Journal of Development Economics* 76(2): 481–501.
- Granville, B. 1995: *The Success of Russian Economic Reforms*. Royal Institute of International Affairs: London.
- Guillaumont Jeanneney, S and Hua, P. 2004: Why do more open Chinese provinces have bigger governments? *Review of International Economics* 12(3): 525–542.
- IMF. 2000: *Russian Federation: Selected Issues*, Chapter 2, Public Finances, 1 September, pp. 59–74. <http://www.imf.org/external/pubs>.
- Institute of the Economy in Transition. (2005): *Russian Economy in 2004, Trends and Perspectives* (Issue 26). <http://www.iet.ru/publication.php?folder-id=44&category-id=2083>.
- Jin, H, Qian, Y and Weingast, BR. 2005: Regional decentralization and fiscal incentives, federalism, Chinese style. *Journal of Public Economics* 89(9-10): 1719–1742.
- Knight, J and Shi, L. 1999: Fiscal decentralization, incentives, redistribution and reform in China. *Oxford Development Studies* 27(1): 5–32.
- Kornai, J. 1992: *The Socialist System, The Political Economy of Communism*. Princeton University Press, Princeton, NJ.
- Kwon, G and Spilimbergo, A. 2005: Russia's regions, income volatility, labor volatility and fiscal policy. CEBR/CEPR Conference on Labor Markets, Fiscal Policy and Structural Reform, Copenhagen, June.
- Lavrov, A and Makushkin, A. 1999: *Federal'nyi Biudzhet i Regiony, Opyt Analiza Finansovykh Potokov*. Dialog-MGU: Moscow.
- Lavrov, A, Litwack, J and Sutherland, D. 2001: *Fiscal federalist relations in Russia, a case for sub-national autonomy*. OECD Economics Working Paper, unpublished (January). The first version was published as OECD. 2000: *Economic Survey of the Russian Federation for 1999–2000*, Chapters 2 and 3 (March). <http://www.oecd.org/dataoecd/31/18/2402039.doc>.
- Lin, JY, Tao, R and Liu, M. 2006: Fiscal decentralization and political centralization in China: Implications for regional inequality In: Bardham, P and Mookherjee, D (eds). *Decentralization and Local Governance in Developing Countries: A Comparative Perspective*. Cambridge: MIT Press pp. 305–328.
- Makrushin, A and Yudayeva, K. 2005: Funding federalism in the power vertical age. *Moscow Times*, 10 June, p. 8.
- Martinez-Vazquez, J and Boex, J. 2001: *The Design of Equalization Grants, Theory and Applications*, Case Study 4: An Analysis of the Equalization Mechanism in the Russian Federation. World Bank Institute, pp. 41–66. <http://isp-aysps.gsu.edu/projects/module2001/ModulePartTwo.pdf>.
- Martinez-Vazquez, J, Qiao, B and Zhang, L. 2007: *The role of provincial policies in fiscal equalization outcomes in China*. ISP Working Paper 07-05, Andrew Young School of Policy Studies, Georgia State University.
- Naughton, B.. 1996: *Growing Out of the Plan*. Cambridge University Press: Cambridge.
- Qian, Y and Roland, G. 1996: The soft budget constraint in China. *Japan and the World Economy* 8(2): 207–223.
- Qian, Y and Roland, G. 1998: Federalism and the soft budget constraint. *American Economic Review* 88(5): 1143–1162.
- Qian, Y, Roland, G and Xu, CG. 2006: Coordination and experimentation in M-form and U-form organizations. *Journal of Political Economy* 114: 366–402.
- Rodden, J, Eskeland, GS and Litwack, J. (2003): *Fiscal Decentralization and the Challenge of Hard Budget Constraints*. MIT Press: Cambridge, MA.
- Rodrik, D. 1998: Why do more open economies have bigger governments? *Journal of Political Economy* 106(5): 997–1032.



- Roland, G. 2000: *Transition and Economics*. MIT Press: Cambridge, MA.
- Shah, A and Shen, C. 2006: *The reform of the intergovernmental transfer system to achieve a harmonious society and a level playing field for regional development in China*. World Bank Policy Research Working Paper 4100.
- Shleifer, A and Treisman, D. 2000: *Without a Map: Political Tactics and Economic Reform in Russia*. MIT Press: Cambridge, MA.
- Thornton, J. 2001: The exercise of rights to resources. In: Bradshaw, M. (ed). *The Russian Far East and Pacific Asia, Unfulfilled Potential*. Curzon Press: London, pp. 58–120.
- Thornton, J and Nagy, K. 2006a: Tax reform and federal transfers to Russia's regions. Association for Comparative Economic Studies, ASSA, Boston, January.
- Thornton, J. and Nagy, K.. (2006b): The response of federal transfers to measures of social need in Russia's regions. Asia Pacific Economic Association, Seattle, July.
- Tiebout, C. 1956: A pure theory of local expenditures. *Journal of Political Economy* 64: 416–424.
- Tsui, K-Y and Wang, Y. 2004: Between separate stoves and a single menu, fiscal decentralization in China. *China Quarterly* 177: 71–90.
- Weingast, B. 1995: The economic role of political institutions: Market-preserving federalism and economic development. *Journal of Law, Economics, and Organization* 11(1): 1–31.
- Wong, C. 1985: Material allocation and decentralization, impact of the local sector on industrial reform. In: Perry E and Wong C. (eds). *The Political Economy of Reform in Post-Mao China*. Harvard University Press, Cambridge, MA, pp. 253–278.
- Wong, C and Bird, R. 2005: *China's fiscal system, a work in progress*. ISP Working Paper, Andrew Young School of Policy Studies, Georgia State University.
- World Bank. (2005): *Reducing poverty through growth and social policy reform*. Report no. 28923-RU, Poverty Reduction and Economic Management Unit, Europe and Central Asia Region.