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Intergovernmental Fiscal Reform in China

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Abstract

China is the most decentralized country in the world in terms of expenditures shares, with subnational governments responsible for 85 percent of government spending. Limited revenue autonomy and insufficient intergovernmental transfers have led to large unfunded mandates and a build-up of debt outside the budget. The government has recently announced an ambitious intergovernmental fiscal reform, which will increase the role of the central government. Comprehensive reform is needed to improve public service delivery, increase overall social spending levels and reduce regional disparities. Revenue reforms are also necessary to improve efficiency and reduce vulnerabilities from excessive subnational borrowing. These reforms are challenging, but are crucial so that the government can support China's continued development and prosperity.

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I. INTRODUCTION

China is a unitary state with a highly complex intergovernmental fiscal system. Since 1994, when China underwent its last major fiscal reform, a large vertical imbalance between revenue allocation and spending responsibilities across levels of government has prevailed. A recent intergovernmental fiscal reform plan was announced by the State Council, which aims to alleviate this important source of misallocation, imbalances and risks. This paper assesses the current state of China's intergovernmental fiscal system, describes the main elements of the State Council's recent reform plan and provides recommendations for further improvement based on international experience, with an emphasis on intergovernmental reforms needed to improve the social safety net.

A sound system of intergovernmental relations is crucial to China's continuing development and rebalancing progress. Appropriate allocation of spending responsibilities and funding will be necessary to improve public service delivery, reduce growing regional disparities and promote inclusive growth. While China's social spending levels are increasing, structural deficiencies in the social security system will need to be addressed, especially given the challenges posed by population aging and continuing urbanization. Finally, recent efforts to improve government borrowing frameworks and contain fiscal risks will only succeed if supported by reforms to reduce unfunded mandates for subnational governments.

II. CURRENT SITUATION AND CHALLENGES

This section provides an overview of the current intergovernmental fiscal system in China. It also provides some historical context, highlighting the exceptional degree of expenditure decentralization, the increase of unfunded mandates at the subnational level and the proliferation of off-budget activities that have been especially prevalent since 2009.

Political and Institutional Features

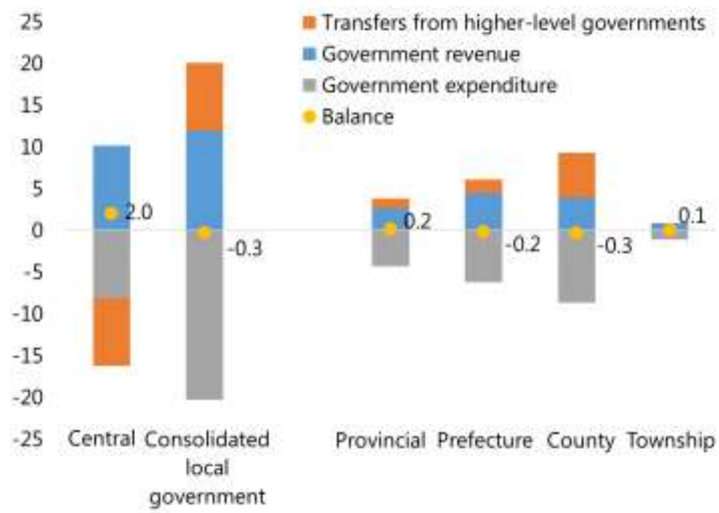
China is a unitary state with a multi-tiered government structure. Subnational governments are in principle agents of the central government, tasked with carrying out national policy objectives within their own jurisdictions. In practice, this also means that the appointment of all provincial or ministry level officials is decided by the center. Historically, subnational governments in China have had *de facto* a high degree of autonomy, partly because of the size and complexity of the country. There are 5 levels of public administration. Beyond the central government, there are 31 provincial level governments[1], 334 prefecture level

[1] This includes 22 provinces, 5 autonomous regions and the municipalities of Beijing, Chongqing, Shanghai and Tianjin.

governments, 2850 counties and over 40,000 townships.[2] County-level governments bear the largest fiscal mandate, with total expenditures amounting to 9 percent of GDP, the largest among all levels (Figure 1). Counties are also more reliant on transfers than other levels of local government.[3]

Figure 1. Fiscal Position Across Levels of Government

(percent of GDP, 2014)



Source: Lam, Wei and van Eden 2017.

The fundamental features of the current fiscal system date back to the fiscal reform of 1994. The government introduced a value-added tax (VAT) to replace a number of indirect taxes, a large share of revenues was centralized and the State Administration of Taxation was created (Brondolo and Zhang 2017). The previous regime consisting of *ad hoc* and negotiated transfers was replaced with rules-based revenue sharing and intergovernmental transfers (Wang and Herd 2013, Qiao and Liu 2013). The reform was successful in increasing overall revenues from 12 percent of GDP in 1993 to 22 percent in 2016 (Figure 2). A larger share for the central government also improved its ability to conduct fiscal policy and increase fiscal redistribution across regions. However, the reform also caused local governments' budgetary surpluses to turn into sustained and growing deficits (Figure 3).

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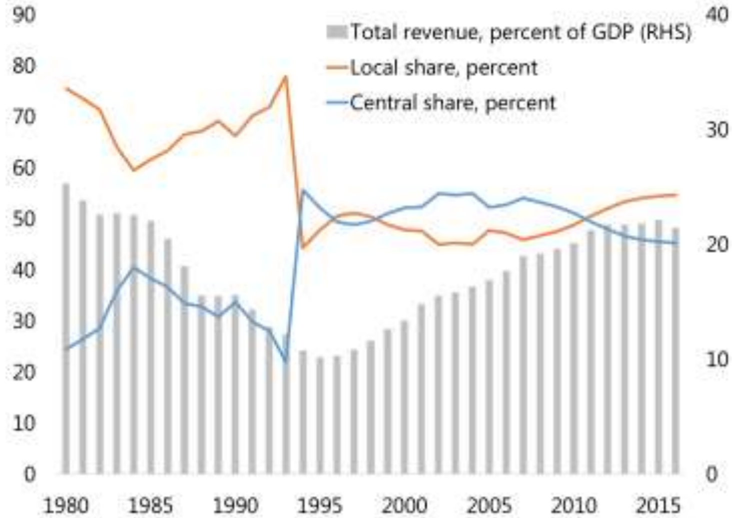
[2] An informal village level also divides the country into 900,000 jurisdictions.

[3] Local and subnational will be used interchangeably throughout the remainder of the text.

Figure 2. Revenue Impact of the 1994 Fiscal Reform



Sources: CEIC; IMF staff calculations.

The last major reform of China's fiscal system occurred in 2014, with the adoption of a new budget law. The main goals of the law are to improve the budgeting process and the transparency and accountability of local government financing. To achieve this, it requires the adoption of a multiyear budget and specifies the conditions for managing annual deficits and surpluses in a medium-term perspective. In principle, moving beyond annual budgeting will improve planning and allow the government to better manage fiscal policy across economic cycles. The new law also allows for the first time provincial governments to issue bonds for financing capital expenditure, subject to approval by the National People's Congress.[4] Crucially, it also closes the "back-door" on off-budget activities of local governments by prohibiting guarantees and any source of financing other than through approved bonds.

The 2014 budget law also seeks to improve coverage and reporting of the budget by consolidating all existing government budgets[5] into the general government budget and by requiring publication of budgets and outturns within 20 days after approval by the People's Congress. Finally, the law requires conditional transfers to gradually be replaced by general transfers to support basic public service delivery and reduce regional disparities. However, it does not address the fundamental misalignment of expenditure responsibilities and taxing

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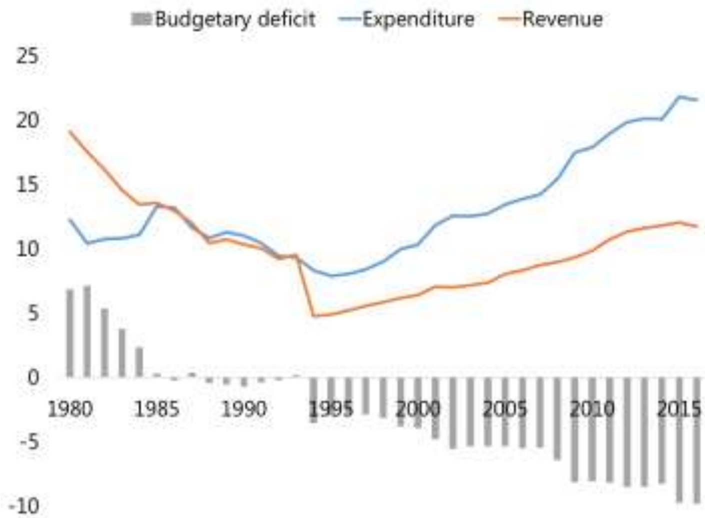
[4] In 2011, the governments of Shanghai, Zhejiang, Guangdong and Shenzhen were allowed to issue bonds on a pilot basis. This was subsequently expanded to 10 provinces in 2014.

[5] These include general operation budget, government-managed funds, state-owned assets fund, and the social security fund.

powers and the large vertical imbalance that has prevailed since 1994 (Lam, Wei, and van Eden 2017).

Figure 3. Local Government Budgetary Aggregates

(Percent of GDP)



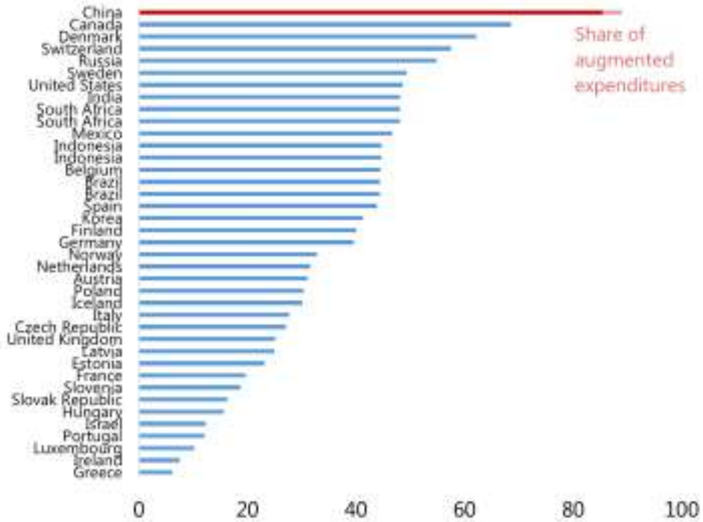
Note: The figure does not include off-budget investment by local governments.
Sources: CEIC; IMF staff calculations.

Expenditures

China is the most decentralized country in the world in terms of subnational spending shares.[6] Local governments account for 85 percent of general government budgetary spending. Taking into account off-budget expenditures financed through local government financing vehicles (LGFVs) raises this ratio to 89 percent of total government spending (Figure 4). While the central government retains some control over subnational spending, notably through the use of binding expenditure laws and mandates (Bahl and Martinez-Vazquez 2006), this ratio is much higher than even the most decentralized federations, even though China is constitutionally a unitary state.

6. While decentralization of statutory spending authority can differ from budgetary outcomes, there is no cross-country data available on such measures. Subnational spending share remains a widely used indicator of fiscal decentralization. See for instance Jiwei 2008.

Figure 4. Local Government Share of Total Spending, 2014



Sources: GFS; CEIC; IMF staff calculations.

Spending Assignment and Composition

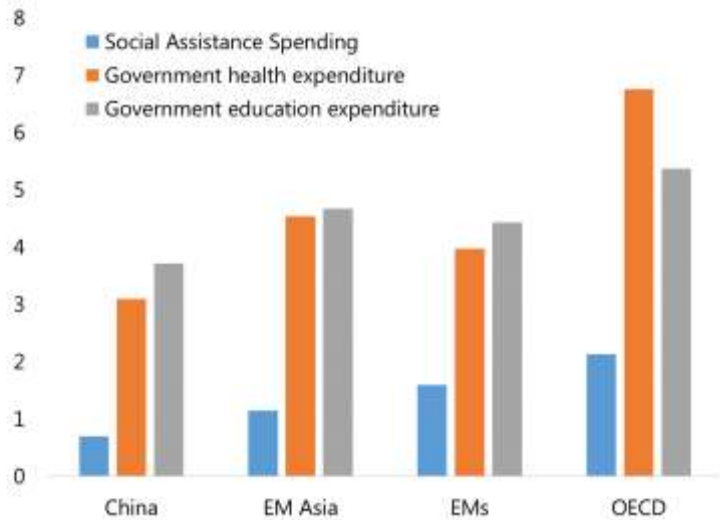
Local governments are largely responsible for public service delivery and managing and financing the social safety net. Many large federal countries also rely on a decentralized social insurance system, but China is unique in having *both* its public pension system and unemployment insurance managed at the local level (Escolano and others 2015). Education and health care are not only extremely decentralized in terms of spending and financing, but they are also the fastest-growing public expenditure categories given aging and urbanization dynamics. This suggest that without a major realignment of expenditure responsibilities, the long-term trend of ever-rising deficits is set to continue for local governments.

Public service delivery is improving and more people are covered by the social safety net, especially for pensions and health insurance (Jain-Chandra and others forthcoming). However, gaps remain for urban migrants without a residency permit and individual benefit levels are still low. Consequently, social spending in China still lags other large emerging markets and advanced economies (Figure 5). Social assistance spending, which in China includes urban and rural "dibao"[7], medical assistance and other programs, is around 0.7 percent of GDP in China, compared to 1.6 percent of GDP on average for emerging markets and 2.1 percent in OECD countries. Government health and education spending similarly lags other emerging markets and is much lower than advanced economies. Not only will

[7] The dibao program provides cash transfers to eligible households to ensure minimum living standards.

China need to increase the levels of social spending further to support economic rebalancing and promote household consumption, it will also have to address the disparities in public service delivery and access. Barriers to mobility from the current fragmented system will have to be removed in order to support the projected 300 million new migrants in cities in the next two decades (World Bank and DRC 2014).

Figure 5. Cross-Country Comparison of Social Spending
(Percent of GDP)



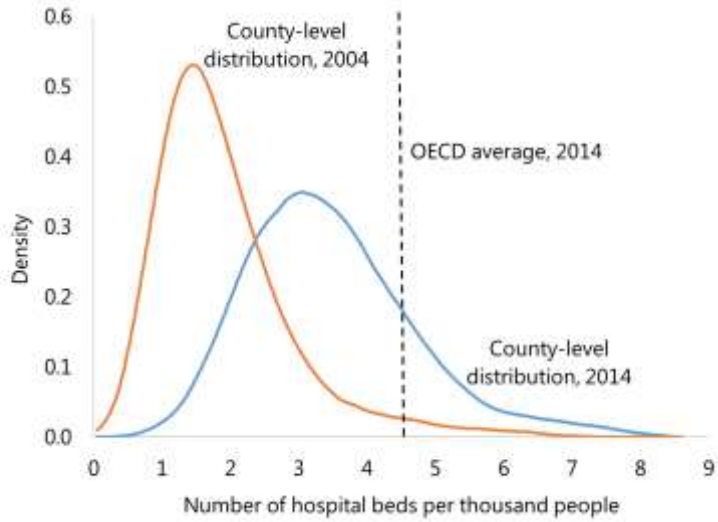
Sources: IMF Expenditure Assessment Tool; CEIC; IMF staff calculations.

Regional Variation

Regional disparities are also growing fast. For instance, the disparity of government spending per capita is increasing, with richer counties seeing the fastest rises. This is also reflected in other indicators of public service delivery:

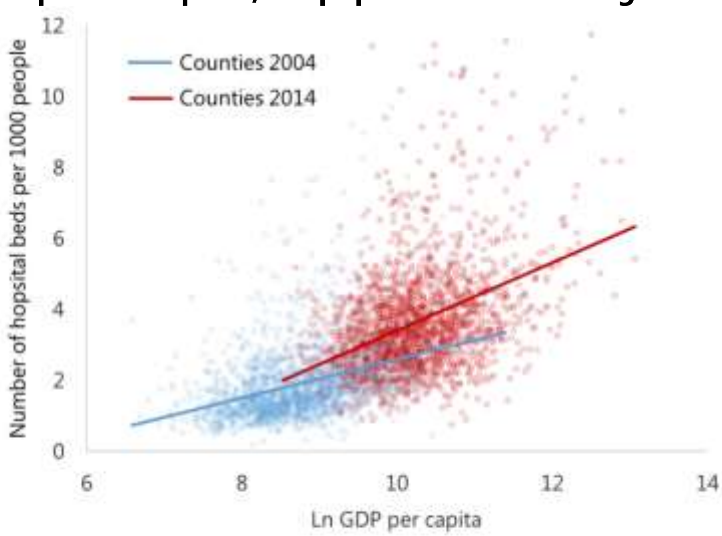
- ***Health.*** While the national average of hospital beds per 1,000 populations increased from 1.9 to 3.6 over the last decade and is catching up to the OECD average, the dispersion across counties has grown significantly (Figure 6). More developed counties are outpacing poorer ones. A one percent increase in GDP per capita at the county level was associated with an extra 0.54 hospital bed in 2004. In 2014, this association was 0.96 (Figure 7). Poor access to qualified healthcare personnel is particularly widespread in rural areas, which is a contributing factor to the much higher child mortality rate in rural areas compared to urban China (OECD 2017).
- ***Education.*** Nine years of free public education is now universal in China and the number of teachers per pupil has been steadily increasing. However, this has also been accompanied by an increase in the variance across prefectures.

Figure 6. Distributions of Hospital Beds per 1,000 population



Sources: CEIC; IMF staff calculations

Figure 7. Hospital Beds per 1,000 population and Average County Income



Sources: CEIC; IMF staff calculations.

Revenues

This section examines the allocation of revenues across levels of government in China. According to the Chinese authorities' definition of local taxes, local governments collect around 60 percent of total taxes. However, when considering only revenue sources over which local governments have authority to either set rates or define the base, local governments' share is negligible (Wang and Herd 2013).[8] The rates and bases for all major taxes are set by central government legislation. This limits the local governments' ability to set tax policy in accordance with local structural and cyclical priorities. The heavy reliance on revenue sharing also exposes local governments to higher uncertainty and cyclicality in their revenue compared to rules-based transfers, which can be adjusted by the central government to smooth local shocks if needed. It also limits autonomy and accountability, which can lead to inefficient uses of fiscal resources (Eyraud and Lusinyan 2013).

Revenue Classification

Taxes in China can be classified into three different types based on the sharing arrangement between the central and local governments (Table 1). The consumption (excise) tax, vehicle purchase tax and other trade-related indirect taxes all accrue to the central government. The domestic component of the VAT and the personal and corporate income taxes are shared according to fixed percentages between the center and local jurisdictions based on place of collection.[9] China stands out in comparison to advanced economies by its heavy reliance on the VAT and corporate income tax (CIT), which amount to almost 50 percent of total tax revenues. On the other hand, the personal income tax's contribution to total revenue is much lower at around 5 percent, significantly less than the average among OECD countries of 25 percent. The drawback of such a revenue structure is very limited progressivity of the tax system.

China also collects several taxes on properties and the real estate sector.[10] Together, these taxes account for around 9.4 percent of total tax revenues, or 2.2 percent of GDP. This is much higher than the level observed in emerging and developing countries on average and roughly equal to the average rate of 2 percent for advanced economies (World Bank and DRC 2014). However, the taxes are based on physical area and transaction values of properties as opposed to recurrent assessments based on the market value of property. Finally, local governments also collect social security contributions, which are used to finance local social insurance systems.

[8] Local governments can lower taxation by granting tax holidays to selected businesses.

[9] The business tax, a turnover tax that applied to some service sectors, was integrated into the VAT in May 2016.

[10] They include the tax on deeds, land appreciation, urban land use, farmland, house property and the stamp tax on property.

Table 1. Tax Sharing Arrangement between Central and Local Governments, 2015

	Central	Local	Share of total taxes	Share of GDP
Central taxes			**9.8**	**2.3**
Consumption tax	100	0	6.6	1.5
Vehicle purchase tax	100	0	1.8	0.4
Tariffs	100	0	1.6	0.4
Cargo tax	100	0	0.0	0.0
Intl trade-related consumption tax and VAT	100	0	-0.2	0.0
Shared taxes			**55.9**	**12.9**
Domestic VAT[a]	50	50	31.8	7.3
Corporate income tax	60	40	17.1	3.9
Personal income tax	60	40	5.4	1.3
Stamp tax on securities	97	3	1.6	0.4
Sub-national taxes			**34.3**	**7.9**
Social security contributions	0	100	21.3	4.9
Tax on deeds	0	100	2.5	0.6
Urban maintenance and development tax	0	100	2.4	0.6
Land appreciation tax	0	100	2.4	0.6
Urban land use tax	0	100	1.3	0.3
Tax on the use of arable land	0	100	1.3	0.3
House property tax	0	100	1.3	0.3
Resource tax	0	100	0.7	0.2
Stamp tax on property	0	100	0.6	0.1
Tax on vehicles and boat operation	0	100	0.4	0.1
Tobacco tax	0	100	0.1	0.0

[a] Includes receipts from the Business Tax, which was replaced by the VAT in May 2016.
Sources: CEIC; de Mooij, Lam and Wingender 2017.

Transfers

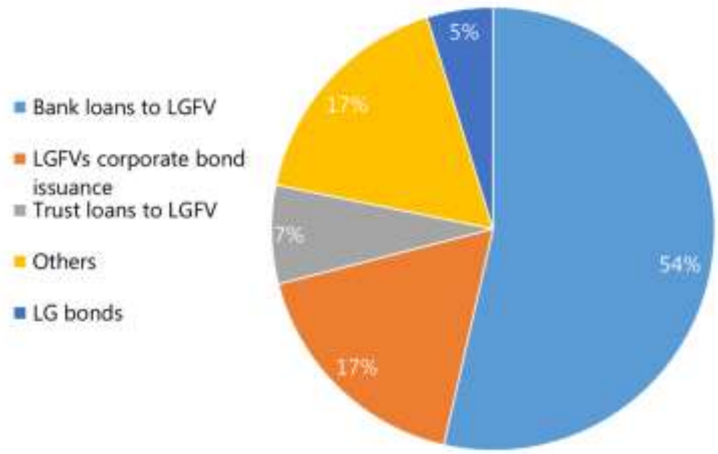
In addition to shared taxes, local governments in China also rely on transfers from the central government to finance their budgets. Transfers from the center can be classified in two broad types: general-purpose and specific-purpose or conditional transfers (Shah and Shen 2008). General-purpose transfers include: 1) the tax rebate, which was designed to compensate local governments for lost revenues after the 1994 and 2001 tax reforms, 2) the equalization transfer, which was established in 1995 to reduce fiscal disparities across provinces, and 3) other general transfers mainly used to finance pension and social security obligations, government wages, and public education. The relatively large centralization of revenues means that resources can be transferred from richer provinces to poorer ones in the central and western regions in order to support their socioeconomic development, increase their fiscal resources, and promote equity in provision of basic public services. The general transfers have been increasing over time and now account for around 60 percent of total transfers. They have also become more redistributive. The correlation between transfers per capita and GDP per capita, which was positive in 2000 mainly because the tax rebate transfer, had turned negative by 2010 (Wang and Herd 2013). While redistribution through intergovernmental transfers is improving, it still does not fully compensate for the increase in regional inequality.

The central government also uses specific-purpose or conditional transfers to subsidize local programs. In certain cases, these grants are subject to matching requirements by recipient governments. There are over 200 conditional grant programs which amount to around 20 percent of local government revenues (World Bank and DRC 2014). These grants mainly target transportation, social housing, agriculture, forestry and water, and energy saving and pollution abatement (Wang and Herd 2013). The system is perceived as opaque and overly complex, with high administrative costs both at central and local levels (Shah 1999, World Bank and DRC 2014). The relative importance of conditional transfers also contrasts with recent trends in advanced economies towards more general transfers to improve fiscal autonomy and accountability of local governments (Blöchliger and Vammalle 2010). Finally, local governments have also come to rely on land sales to finance growing deficits.

Borrowing

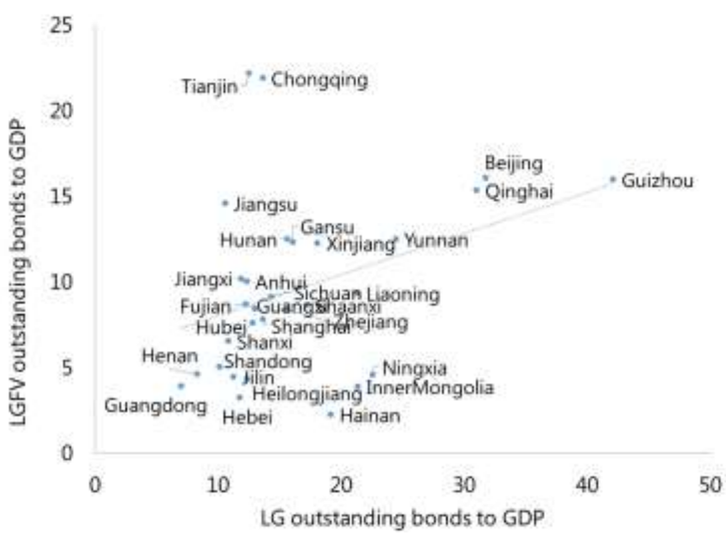
Following the 1994 reform, pre-transfer budgetary deficits of local governments increased from zero to 10 percent of GDP today. In theory, transfers from the central government were supposed to fully finance local government deficits since they were forbidden from issuing debt. In practice, however, local governments were given increasingly large unfunded mandates, especially following the large-scale stimulus of 2008/09. Because of the prohibition on issuing debt, local governments resorted to selling land and using off-budget special-purpose vehicles to borrow and spend on infrastructure and other priority sectors.

Figure 8. Local Government Debt Composition, 2014



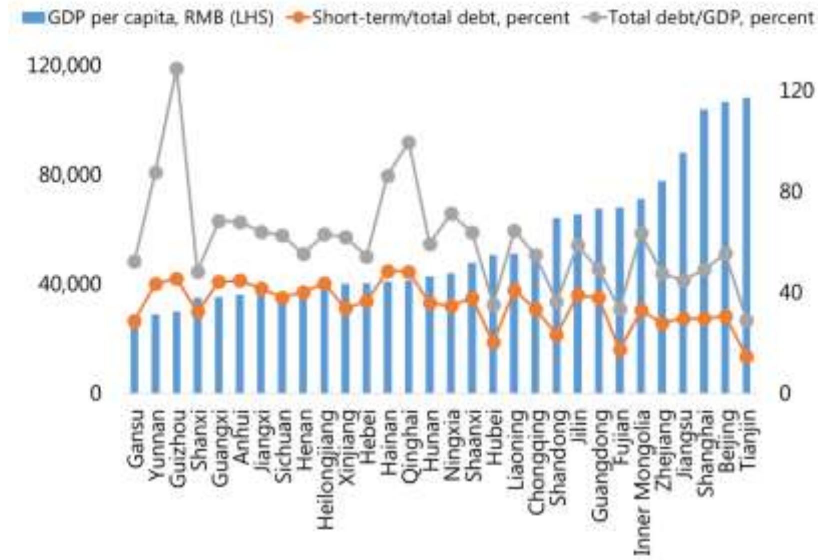
Sources: CEIC; IMF staff calculations

Figure 9. Local Government and LGFV outstanding bonds, 2016
(Percent of GDP)



Sources: WIND; CBONDS; CEIC; IMF staff calculations.

Figure 10. Provincial Government Debt, 2015



Source: Dagong 2017.

A national audit was conducted in 2013 to assess the extent to which local governments had resorted to extra-budgetary borrowing to finance their spending (Lam, Wei, and van Eden 2017). By end-2014, when the new budget law was set to take effect, the composition of total local government debt included a combination of bank loans, local government bonds, LGFVs bonds and trust loans and other funding sources (Figure 8). Provinces that faced a higher debt burden also relied more on LGFV off-budget financing to support infrastructure investment, especially following the 2008/09 fiscal stimulus that relied on local governments to execute a large infrastructure investment program to support growth (Figure 9).

With risks from off-budget activity mounting, the government in 2014 revised the budget law to allow provincial governments to issue bonds. A debt swap program amounting to 22 percent of GDP was rolled out to facilitate the transition by converting LGFV debt to local government bonds (Mano and Stokoe 2017). Provincial governments can now issue bonds, subject to approval by the central government. The proceeds can also be on-lent to their lower levels of government. Since early 2015, when the new law came into effect, provincial governments have issued the equivalent of around 15 percent of GDP in government bonds, with less developed regions having issued higher levels relative to the size of their economy (Figure 10). They have also relied more on short-term debt than richer provinces.

Ongoing Challenges

With efforts to close the "back door" of LGFV borrowing still ongoing and not fully resolved, new sources of off-budget funding are also emerging. Infrastructure investment is relying increasingly on PPPs, financed by policy banks, government funds and other sources. The capital value of such projects is around 27 percent of GDP, less than 20 percent of which were in the implementation phase by end-2016. Government Guided Funds (GGFs) and Special Construction Funds (SCFs) are also being used to finance public investment projects. The total value of the assets of GGFs and SCFs is estimated at around 5 percent of GDP. The activities of these funds are opaque, interact with other public sector units and have a strong public policy drive (Mano and Stokoe 2017).

III. INTERGOVERNMENTAL FISCAL REFORM PLANS

In August 2016, the State Council announced a major intergovernmental fiscal reform to address the long-standing misalignment of revenue and spending across levels of government (SC 2016 No. 49, August 16, 2016). The three overarching goals of the guidelines include (1) the clarification of expenditure responsibilities to minimize overlapping mandates, improve service delivery and increase accountability; (2) a recentralization of key functions that are currently under local government control; and (3) the consolidation and improvement of the transfer system, notably by increasing the fiscal resources of less-developed regions.

The authorities intend to complete the reform by 2020, at which time they plan to introduce an Intergovernmental Fiscal Relations Act. This new intergovernmental framework is intended to ensure more clarity, coherence and predictability and will support ongoing reforms in other areas such as education, social security and health care. A new legislative and regulatory framework should also facilitate budgetary and accounting reforms and improve the supervision of local government performance.

Expenditures

Review of Spending Assignments

The core part of the guidelines includes a review of expenditure responsibilities. The State Council plan outlines three broad categories of spending allocation. The first category will comprise spending items under exclusive central responsibility. These include national security, foreign affairs, major national transportation infrastructure, use and protection of strategic natural resources, and others. The determination for these specific items is based on economies of scale and the national scope of the public goods and whether they involve coordination between regions. The central government will also promote broader access to basic social services and support balanced development across regions. The spending categories included under central government remit amount to around 15 percent of the total general government budget. Some of this spending is currently being carried out by local governments, mainly on the use and protection of strategic natural resources, the management of rivers and lakes in border areas, as well as on national transportation infrastructure.

The reform also outlines a second category of spending items deemed as joint mandates. These include education, arts and science, research and development, pension, health and unemployment insurance, primary medical care and public sanitation, food security, and environment protection and governance. The funding and execution of major infrastructure projects that cross provinces will also see a larger role for the central government. These spending categories currently comprise the largest share of the general government budget at around 60 percent of total government spending. As of 2015, almost all this spending is carried out by local governments, with the central government taking only a small share. The intergovernmental reform plan will seek to increase the center's role not only in funding, but also to ensure more equal access to basic public services, social assistance and social insurance. For instance, unified national standards for basic pension insurance, basic public health services and compulsory education will be promoted and the central government will bear a larger share of the costs. The plan also seeks to improve the delineation of responsibilities, minimize overlap and clarify the various levels' mandates from strategic planning, decision-making, execution, through monitoring and evaluation. The reform will seek to reduce the scope of these joint mandates. To this effect, cost-sharing arrangements for 18 public services were recently established through regulations that will take effect starting in 2019.

Finally, the third category is spending under local government control. These items cover mainly public service delivery, law and order, municipal transportation and roads, and construction and management of public facilities. In 2015, expenditure on these categories amounted to around 25 percent of total budgetary spending, with almost all of it being already carried out by local governments.

Table 2. Planned and Current Estimated Spending Assignments

Planned	Actual		
	Total	Central	Local
Central mandate	**13.1**	**5.8**	**7.3**
National defense	4.3	4.2	0.1
Foreign affairs	0.2	0.2	0.0
Management of rivers and lakes in border areas	2.1	0.1	2.0
National transportation infrastructure	1.5	0.1	1.4
Use and protection of strategic natural resources	5.1	1.2	3.9
Joint mandate	**62.4**	**3.1**	**59.3**
Compulsory and higher education	12.4	0.6	11.8
Arts, science, research and development	4.2	1.3	2.9
Basic pension insurance	13.2	0.0	13.2
Primary medical care and public sanitation	5.7	0.0	5.6
Medical insurance	4.9	0.0	4.9
Unemployment insurance	0.3	0.0	0.3
Social Safety Net, employment and housing	11.7	0.5	11.2
Major infrastructure projects across provinces	1.5	0.1	1.4
Environment protection and governance	8.4	0.5	8.0
Local mandate	**24.5**	**1.9**	**22.6**
Public service delivery	7.7	0.7	7.0
Law and order	4.4	0.7	3.7
Municipal and rural transportation	2.9	0.2	2.7
Construction and management of public facilities	7.6	0.0	7.6
Other	1.8	0.2	1.6

Note: The numbers are estimated shares for 2015, in percent of budgetary general government spending.
Sources: CEIC; IMF staff estimates.

Impact on Spending Shares

Table 2 provides a comparison of current spending assignment and planned allocation under the reform. The reform is expected to re-allocate around 7 percent of government spending (2 percent of GDP) from local governments to the central government (under central mandate). This would be mostly from an increase in central government spending on protection and management of the environment and of natural resources, as well as from the central government's role in managing national transportation infrastructure.[11] A smaller share of around 2 percent of total government spending would be streamlined and

[11] These figures represent estimates using fixed shares of total reported expenditures on Transportation and Agriculture, Forestry and Water Conservancy.

reallocated from the central government to local governments under the local mandate. The largest share of spending by far is for categories deemed joint mandates, which currently account for around 60 percent of current total general government spending—or about 20 percent of GDP. The role of the central government is expected to increase from a very small share of around 3 percent of total spending. Despite being the largest component of general government spending and one expected to grow significantly from population aging, urbanization and broader reforms to social security, the State Council's guidelines provide few details on the budgetary impacts of the reform plan. Therefore, significant uncertainty remains on the overall impact of the government's plan on spending shares of the different levels of government.

Transfers

Beyond expenditure assignments, the reform also intends to review the transfer system. China relies to a large extent on tax sharing arrangements and conditional transfers. The reform guidelines state that funding sources will be allocated instead based on fiscal mandates, although no clear definition is provided of what this will entail in practice. Several targeted transfers—around 40 percent of total transfers in 2015—will be rationalized and consolidated into general transfer payments. The guidelines also mention further strengthening of fiscal resources for the least developed and economically vulnerable regions through more reliance on equalization transfers. In terms of own-revenue allocation, the plan doesn't foresee any substantial changes beyond new legislation to regularize current funding responsibilities and ensure more predictability through compliance with the rule of law.

Borrowing

Finally, the guidelines are largely silent on reforms to borrowing frameworks. No mention is made of off-budget activity by local governments' through LGFVs and whether the intergovernmental fiscal reform will facilitate the ongoing process of bringing all fiscal activity onto the budget. While the document reiterates the broad principle introduced in the 2014 revised budget law to allow local governments to issue bonds for approved investment projects, no further details are given on rules to ensure local governments' financing arrangements are realistic and in line with national objectives. There is also no attempt to clarify how this reform will support other ongoing efforts to limit implicit guarantees and moral hazard, especially regarding LGFVs.

IV. Policy Issues and Recommendations

This section provides recommendations to further support intergovernmental fiscal reform given best practice principles and international experiences. The recommendations focus first on policies and design to improve social spending, which is at the center of China's development and rebalancing goals.

Expenditures

Social Spending

A crucial question facing the government will be to determine the appropriate level of decentralization for social spending. This also requires drawing appropriate distinctions between various functions such as the setting of policies, financing, administration and implementation as well as monitoring and evaluation. In terms of economic principles, policies and financing of the social safety net should be established at the highest level possible given administrative and political constraints since it embodies elements of insurance and redistribution (Escolano and others 2015). This would reduce the cost of risk pooling, facilitate the portability of benefits, and ensure benefits are equalized across regions. In many cases, some decentralization of administrative functions and implementation can be appropriate, since this can improve accountability and leverage the information advantage of local governments. Finally, monitoring and evaluation functions, such as audits and performance and quality reviews, would be better performed by the central government to ensure basic national standards are met. This is particularly important given sometimes weak accountability of local governments to residents (Martinez-Vazquez and others 2008).

Within the broad category of social spending, important differences exist between some of the largest programs. For instance, while public pension and unemployment insurance programs are centralized in most countries, institutional arrangements for healthcare, education and social welfare policies differ across countries, reflecting various factors that affect the efficiency of public service delivery. International experiences offer several key lessons. Relevant features for China by type of social spending include:

- ***Pensions.*** Public pension systems are centralized in virtually all federal countries. They are also usually financed from a national-level payroll tax, with benefit levels harmonized irrespective of where individuals live (Escolano and others 2015).12 For China,

[12] A notable exception is Canada, where the province of Quebec administers a separate provincial pension system that coexists with the national system.

consolidating pension systems at the provincial level, with some degree of local autonomy for administrative functions, could achieve some efficiency gains in terms of risk pooling and portability. However, full centralization of financing would eliminate the need for central government "gap-filling" transfers to local administrations running pension deficits. Another important consideration in addition to the centralization of the contributory system is to address the financing needs arising from legacy pension costs and social pensions. Since these are not directly tied to workers' own contributions, they should be brought unto the central government's budget. Financing from the general budget as opposed to social security contributions will have the added benefit of decreasing the tax wedge, thereby reducing labor costs.

- ***Unemployment insurance.*** Like pensions, unemployment insurance programs are generally centralized. An important exception is the United States, where state governments manage their own programs and set eligibility conditions, benefit levels, and employer contribution rates. However, as in other large federations, the federal government contributes to the financing of states' systems, including through a federal payroll tax. Beyond the importance of pooling labor market risks, unemployment insurance also acts as an automatic stabilizer. This makes the case for centralization of unemployment insurance even stronger than for pensions, since such an arrangement facilitates the macroeconomic stabilization functions of the central government (Musgrave 1959). Finally, the current low levels of coverage in China provide another reason for reforming the system, with only around 40 percent of all urban workers and 10 percent of migrant workers covered by unemployment insurance (OECD 2017). Removing residency-based eligibility requirements by merging local unemployment insurance program into a single nationwide system would broaden coverage and enhance equity.
- ***Healthcare.*** Determining the optimal level of decentralization for healthcare is not as clear cut as for pensions and unemployment insurance. In many cases, some decentralization of spending coupled with centralized coordination of policy is both desirable and feasible. For instance, preventive and primary health care are usually provided at the municipal or county level, while hospital and specialized facilities are most appropriately provided at higher levels. Consequently, country experiences vary greatly. Examples of highly decentralized countries include Canada, Denmark, Italy, Sweden, Ireland and Finland, where subnational governments account for more than 80 percent of healthcare spending. Public healthcare spending in France, Greece, New Zealand and the United Kingdom on the other hand is almost entirely at the central level (OECD/KIPF 2016). Nevertheless, central government spending shares for healthcare have been increasing consistently since the mid-1990s in several OECD countries (OECD 2016, Saltman 2008). One such example occurred in Germany, where the country centralized important health care functions in 2009. The reform transferred responsibility for pooling all social health insurance contributions to the federal government, which now allocates

them to private health funds. Financing of the system remains employment-based, with premiums also mandatory for pensioners. A general tax is also used for some funding, ensuring a diversification of revenue sources. Partly as a result of the reform, Germany achieved universal health care coverage for the first time, with a system administered by subnational social security institutions, and financed through a national payroll taxes and general tax revenues (OECD 2016).

While several models could be considered for healthcare reform in China, the majority of migrant workers that are still outside the medical insurance system constitute a serious impediment to reform. This is compounded by the fact that only around 50 percent of health care spending is financed through individual contributions. For China to catch up with OECD and other large emerging countries in terms of public spending on health, it will need to overcome the fragmentation and low coverage rates that characterize its public healthcare system. Moreover, better funding through a combination of higher revenues from health insurance contributions and larger transfers from the central government to fund budgetary outlays for healthcare will be crucial to further reduce individuals' out-of-pocket expense for health services.

- ***Education.*** Public spending on education is carried out mostly by local governments in many federations, with a number of countries having also implemented decentralization reforms since the early 2000s (OECD/KIPF 2016). As is the case for healthcare, there are also significant cross-country differences in institutional arrangements in education. For example, many countries delegate primary and secondary education to municipal governments, with university education often more centralized. Harmonization of standards is sometimes imposed by the central government or is established through a coordinating body among local governments. Funding from central governments is used in Mexico and the United States to ensure compliance of state and local governments, while implementation of national standards is monitored by independent institutions in Germany (Escolano and others 2015). Therefore, a combination of local management and financing, alongside policy coordination and monitoring from the central and provincial government levels, would be appropriate for China.
- ***Social assistance.*** The institutional arrangements for income maintenance and welfare programs also differ significantly across countries. For instance, Australia, Austria, Belgium, and Germany all have centrally administrated programs. In Brazil, the *Bolsa Família* program managed by the federal government has been a key policy tool to reduce poverty in the country, as well as to promote the use of health and education resources among recipient families (de Brauw and others 2015). Canada and Switzerland on the other hand rely on a largely decentralized system (Escolano and others 2015). Many other large federal countries rely on both subnational and national programs, while ensuring some degree of harmonization. For instance, in the United States, the federal government sets minimum spending levels by state governments and maximum benefit

durations. Federal transfers to fund these programs also play a key role in ensuring harmonization. Local administration of social welfare programs in China is likely to benefit from decentralization due to better knowledge of local circumstances and needs of targeted populations. However, the central and provincial governments will need to ensure minimum standards in terms of benefit levels, eligibility requirements and targeting are being implemented, with transfers used to complement local funds and promote compliance with national objectives.

Some recentralization of key spending programs—in particular pensions and unemployment insurance—will improve efficiency and welfare. However, more fiscal resources will have to be made available to subnational governments both from own-revenues and through increased equalization grants. This is especially the case in less developed regions, where social spending levels are most likely to fall behind national averages. Enhancing fiscal resources for urban areas to cover the costs of public service delivery to urban migrants currently without residency permits will also be needed. Recent estimates of the fiscal cost of extending access to basic healthcare and social security point to additional spending needs between 1 and 4.5 percent of GDP (World Bank and DRC 2014). The greater role for the central government on joint mandates envisaged in the reform is therefore a welcome step,

The reallocation of expenditure responsibilities, if properly implemented and accompanied by appropriate levels of funding, will improve the government's ability to provide social insurance. Not only will this improve welfare by better protecting families against unexpected employment or health shocks, but it will also reduce the need for households to save for precautionary motives and therefore increase consumption and support the rebalancing of the economy (Barnett and Brooks 2010, Zhang and others forthcoming). More centralized provision of social insurance will also improve the equity dimension of fiscal policy, since more equal funding and quality in public service delivery will enable better health and education outcomes and human capital investment, which will result in lower future inequality (Jain-Chandra and other forthcoming). Finally, recentralization of key components of social insurance will lower spending pressures for local government and reduce the current large vertical imbalance, and reduce the need for off-budget borrowing by local governments.

Need for Further Clarification

Beyond the optimal assignment of social spending, there is also a need for further clarification of other spending items defined as joint mandates. For instance, some activities would better be assigned to the central government because there are significant economies of scale, decentralized administration can be inefficient, or could lead to large externalities or differences in public provision between jurisdictions. This would apply in particular to the arts, science, research and development, environmental protection, certain infrastructure projects, or income redistribution.

However not all spending categories can be neatly assigned to either the central of local level. In fact, clarity of function can be more important than finding an optimal assignment rule (Dollar and Hofman 2008). Concurrent assignments are common in many countries, as they are in China. It is therefore important to delineate responsibilities when many levels of government are involved in public service delivery. In this respect, the reform guidelines remain very broad and further clarity is needed along three main dimensions. First, the government should determine the level responsible for the formulation of policies. Second, appropriate sources of financing must be determined. And third, the framework must clearly indicate which level of government is responsible for implementation and service delivery. Unclear delineation of these responsibilities often leads to duplication of tasks, weak coordination and accountability and ultimately, can result in excessive spending and waste or, equally damaging, large gaps in services for parts of the population, often the most vulnerable ones (IMF 2009).

Revenues

While the State Council guidelines provide some granularity on spending and transfer reform, the document is largely silent on revenue assignment. This section provides a brief overview of principles for revenue assignment and concrete recommendations for specific taxes. It also covers key principles to consider in reforming the transfer system.

The broad principles for optimal assignment of revenues are the same as for spending. On the one hand, decentralization of revenues allows for a better matching of the tax system to local preferences. It can also promote more accountability for policy makers. On the other hand, economies of scale, risk-sharing, and externalities warrant more centralization of taxing powers. Normative theories also recommend centralization for (1) large and elastic bases for macroeconomic stabilization and income redistribution purposes, (2) relatively mobile tax bases, such as corporate profits, to minimize revenue losses from tax competition, and (3) tax bases that vary significantly across regions to minimize fiscal imbalances (IMF 2009). Decentralization on the other hand is recommended for revenue sources that 1) can be tied to the provision of local services, and 2) are relatively stable, to provide local governments with steady and predictable revenue streams.

Specific Tax Assignments

Based on these principles, recommendations for specific taxes in China include the following:

- ***Personal Income Tax.*** China could consider allowing provinces to impose a surcharge in addition to the national personal income tax (PIT). This would confer provinces some degree of autonomy, which could be allowed within a centrally-approved upper limit of 5 to 10 percent for example. This would also be an efficient way to increase the revenue contribution of the PIT in China, which is low by international standards, while increasing the tax autonomy of provinces.
- ***Corporate Income Tax.*** Most fiscal federations rely on a single national CIT, with notable exceptions including Canada, the United States and Switzerland. This is explained by the relatively high elasticity of the corporate tax base, which may cause economic inefficiency from tax-driven business location decisions. Pro-cyclicality and high volatility makes centralization preferable. The current arrangement for a unique central CIT should therefore be maintained.
- ***Value-Added Tax.*** While the national scope of the VAT should be maintained, the revenue sharing arrangements based on place-of-collection could be reviewed to reduce compliance costs for taxpayers with multiple business locations. Simple allocation rules such as population (Germany) or aggregate consumption (Japan) for example could be considered.[13]
- ***Property taxes.*** A recurrent market-value based property tax would be an ideal tax for local governments in China. They are closely tied to public service delivery through property values, their base is immobile and they are highly visible, which can improve accountability of local officials. Such taxes are also broadly viewed as progressive, because high-income households usually tend also to have higher property wealth (Norregaard 2013). While the tax base should be defined following national guidelines, local governments could set tax rates within bands set by the central government.

Vertical Fiscal Imbalance

Beyond recommendations for specific taxes, the overall level of own-revenues of local governments should also be increased. There is growing evidence that high levels of vertical fiscal imbalance can pose risks to fiscal discipline and efficiency (Eyraud and Lusinyan 2013, European Commission 2012, Sow and Razafimahefa 2015). Indeed, when local governments are highly dependent on transfers, it is often more difficult to impose hard budget constraints. This is because policy makers do not bear the full cost of the additional revenue needed to finance public spending (Dahlby, 2001). Markets may also come to believe that the central government will eventually bail out local governments. The exceptional degree of

[13] In principle, the VAT in China could be complemented by provincial level VATs. However, in practice there are significant difficulties in monitoring border flows between local jurisdictions and country experiences with subnational VATs have been mixed (Perry 2009).

expenditure decentralization in China therefore calls for larger assignment of own revenues to local governments to maximize the gains from decentralization. As outlined above, this could mainly be achieved through higher reliance on provincial PITs and local property taxes.

Transfers

General Transfers

In practice, vertical fiscal imbalances are difficult to avoid in most countries. This is especially the case when countries seek to minimize regional variations in public service delivery. Equalization transfers are then needed to compensate regions with low tax revenue capacity. For example, national minimum standards in health care and social protection typically require equalization transfers to be effectively enforced (Escolano and others 2015). Other types of transfers also include general purpose transfers to fund broad policy mandates and special purpose transfers to promote certain types of spending by local governments.

The State Council reform envisages consolidation and simplification of the transfer system and more reliance on general transfer payments. A rules-based general transfer as opposed to the revenue-sharing and tax rebate transfers programs currently in place could lead to more clarity and predictability and a reduction of the pro-cyclicality of local government funding. These two programs account for around 60 percent of central government transfers to local governments, with more developed provinces, where most taxes are collected, benefitting disproportionately. It will therefore be important to define precisely the expenditure-sharing formula between the central government and local governments to determine the amounts transferred to individual provinces. The cost-sharing formulas recently published by the State Council are a positive step and should be extended to other types of public service delivery.

The share of general transfers has been increasing in recent, including for the equalization grant, but fiscal disparities across areas could be reduced further. This could be achieved for instance by increasing the size of the funding pool for equalization grants, which currently account for less than half of total transfers (World Bank and DRC 2014). Such parametric changes will necessarily lead to winners and losers, and should therefore be decided as part of a broader reform in revenue and spending responsibilities.

Conditional Transfers

Finally, targeted transfers should be rationalized and simplified. The current system is complex and costly to administer both at central and local levels (World Bank and DRC 2014). The Ministry of Finance has reduced the number of targeted transfers from 200 to 76 in 2017, but more time is needed to evaluate the effects of the reform. In particular, it will be important to focus conditionality more on outputs or quality of services as opposed to inputs. This will promote more efficiency in public service delivery by local governments. To this end, the central government should also improve monitoring capacity and reporting requirements for local governments to ensure local delivery of basic public services meet national minimum standards and objectives.

Borrowing

Important gains have been made in the management of local government debt in recent years. The intergovernmental fiscal reform can provide further support by increasing own-revenues and decreasing the extent of unfunded mandates at the local level. Still, there remains a need to ensure fiscal discipline within a new fiscal framework by minimizing excessive borrowing.

Expanding the Perimeter of Government

First, borrowing quotas for local governments should be set high enough to ensure all fiscal spending carried out by LGFVs can be brought onto the budget.[14] This will improve transparency, resource allocation and medium-term fiscal planning. A sufficiently large reduction in unfunded mandates of local governments could potentially provide the necessary space to accommodate this. However current reform plans suggest that significant increases in borrowing quotas will also be necessary to fully absorb off-budget spending given their scale. Recognizing off-budget fiscal activities carried out by LGFVs and through over vehicles will have the benefit of making fully explicit the fiscal and aggregate demand implications of current policies.

Supporting Institutions

Improvements in planning and disclosure will also help align incentives to respect borrowing limits. Operationalization of a medium-term expenditure framework (MTEF)[15] could support

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14 According to the Government Finance Statistics Manual 2014, entities that do not generate commercial returns and are owned by a government unit should be considered part of general government. See Mano and Stokoe 2017.

[15] An MTEF is a macroeconomic and institutional framework for setting fiscal and budgetary policies within a multiyear perspective. MTEFs also usually include mechanisms and procedures for ensuring these policies are respected in budget formulation, approval, and execution. See van Eden, Gentry, and Gupta 2017 for further details.

the development of more realistic and targeted expenditure policies. It would also clarify local government resource envelopes, thereby supporting them in adjusting their policies to available funding rather than relying on off-budget financing. Annual quotas for provincial governments' debt issuance, for instance, should be announced earlier in the government's budget cycle to facilitate planning. The government should also better communicate debt issuance allocation criteria for provincial and sub-provincial levels in the annual budget process. To this end, further refining the early warning system to better consider repayment capacity and various types of risk is needed.

Over the medium term, when a sound, rules-based framework is established, lower-level governments, such as prefectures and cities, could be allowed to borrow independently. Timely and credible disclosure of local government finances, preferably in the context of the MTEF, would improve oversight and strengthen market discipline by investors and rating agencies. In the meantime, provincial governments should charge sub-provincial level governments premium for on-lending. The rates should be differentiated based on financial soundness indicators, which should also be made public.

Insolvency Mechanism

The central government will also need to clarify *ex post* measures to deal with local government insolvency. Key elements should include (1) the definition of a trigger for the procedure, (2) clear provisions to resolve local government debts collectively and to negotiate debt restructuring, and (3) plans for fiscal adjustment to bring expenditure into line with revenue (IMF 2009). The framework must also ensure that insolvent subnational governments remain able to deliver essential public services during a debt restructuring procedure and eventually regain some level of creditworthiness. An insolvency mechanism must also protect creditor rights to reduce borrowing costs and encourage financial market development.

V. Conclusion

Comprehensive fiscal reform is necessary to ensure China's government can improve service delivery, increase social spending levels and reduce regional disparities. The State Council's intergovernmental fiscal reform plan addresses the long-standing misalignment of revenue and spending across levels of government, but further clarity is still needed on a number of spending programs and revenue items.

In particular, the following reforms should be considered:

- Pensions and unemployment insurance policies and financing should be centralized, with some degree of local autonomy for administrative functions. This will reduce the cost of risk pooling, improve portability of benefits, and ensure equal benefits across regions.

- Enhancing fiscal resources for urban areas, notably through increased general transfers, to cover the costs of public service delivery for urban migrants is needed.
- A recurrent market value-based property tax would be an ideal tax for local governments. China could also consider allowing provinces to impose a surcharge in addition to the national personal income tax.
- A rules-based general transfer could eventually replace both the revenue-sharing and tax rebate transfers programs. Fiscal disparities across areas could also be reduced further by increasing the size of the equalization grants.
- Targeted transfers should be rationalized and simplified, with stronger emphasis on outputs or quality of services as opposed to inputs.
- Borrowing quotas for local governments should be increased while ensuring that all off-budget fiscal spending is brought onto the budget.

If successful, these reforms will allow China' s government to improve social safety nets and better protect citizens from adverse economic and health shocks. In turn, this would improve welfare and promote consumption and economic rebalancing. More clarity in spending and borrowing responsibilities by local governments will also increase transparency of the budget and the effectiveness of fiscal policy. These reforms are challenging, but are crucial to ensure China's continued development and prosperity.

VI. References

Bahl, R. and J. Martinez-Vazquez, 2006, "Fiscal Federalism and Economic Reform in China," in *Federalism and Economic Reform: International Perspectives*, edited by Wallack, J.S. and T.N. Srinivasan, Cambridge University Press.

Barnett, S. and R. Brooks, 2010, "China: Does Government Health and Education Spending Boost Consumption?," IMF Working Paper 10/16, International Monetary Fund, Washington, DC.

Blöchliger, H. and C. Vammalle, 2009, "Grants Systems in OECD Countries: Trends and Some Policy Issues," Paper prepared for the KIPF Meeting in Copenhagen.

Brondolo, J. and Z. Zhang, 2017, "Strengthening Tax Administration," in *Modernizing China: Investing in Soft Infrastructure*, edited by Lam, W. R., M. Rodlauer, and A. Schipke, International Monetary Fund, Washington, DC.

Dagong, 2017. *An Overview of China's Local and Regional Governments – Provincial Governments*, Hong Kong.

Dahlby, B., 2001, "Taxing Choices: Issues in the Assignment of Taxes in Federations," *International Social Science Journal*, 167, 93–101.

de Brauw, A., D.O. Gilligan, J. Hoddinott, and S. Roy, 2015, "The Impact of Bolsa Familia on Schooling," *World Development*, 70, 303-316.

de Mooij, R., W.R. Lam, and P. Wingender, 2017, "Modernizing the Tax Policy Regime," in *Modernizing China: Investing in Soft Infrastructure*, edited by Lam, W. R., M. Rodlauer, and A. Schipke, International Monetary Fund, Washington, DC.

Dollar, D., and B. Hofman, 2008, "Intergovernmental Fiscal Reforms, Expenditure Assignment, and Governance," in *Public Finance in China: Reform and Growth for a Harmonious Society*, edited by Jiwei, L. and S. Wang, World Bank, Washington, DC.

Escolano, J., D, Benedek, H. Jin, C. Mulas Granados, M. Nozaki, J. Pereira, G. Rota Graziosi, L. Sinn, and J. Torres, 2015, "Distribution of Fiscal Responsibilities in Federations," in *Designing a European Fiscal Union: Lessons from the Experience of Fiscal Federations*, edited by Cottarelli, C. and M. Guerguil, Routledge.

European Commission, Economic and Financial Affairs, 2012, "2012 Report on Public Finances in EMU," *European Economy*, Vol. 4, Brussels.

Eyraud, L., and L. Lusinyan, 2013, "Vertical Fiscal Imbalances and Fiscal Performance in Advanced Economies," *Journal of Monetary Economics*, 60(5), 571-587.

International Monetary Fund, 2009, "Macro Policy Lessons for a Sound Design of Fiscal Decentralization," IMF Departmental Paper, International Monetary Fund, Washington, DC. Available at: http://www.imf.org/external/np/pp/eng/2009/072709.pdf

Jain-Chandra, S., N. Khor, R. Mano, J. Schauer, P. Wingender, and J. Zhuang, Forthcoming, "Inequality in China – Trends, Drivers and Policy Remedies," IMF Working Paper, International Monetary Fund, Washington, DC.

Jiwei, L. 2008. "The Reform of Intergovernmental Fiscal Relations in China: Lessons Learned," in *Public Finance in China: Reform and Growth for a Harmonious Society*, edited by Jiwei, L. and S. Wang, World Bank, Washington, DC

Lam, W.R., J. Wei, and H. van Eden, 2017, "Local Government Finances and Fiscal Risks," in *Modernizing China: Investing in Soft Infrastructure*, edited by Lam, W. R., M. Rodlauer, and A. Schipke, International Monetary Fund, Washington, DC.

Mano, R. and P. Stokoe, 2017, "Reassessing the Perimeter of Government Accounts in China," IMF Working Paper 17/272, International Monetary Fund, Washington, DC.

Martinez-Vazquez, J., B. Qiao, S. Wang, and H.F. Zou, 2008, "Expenditure Assignments in China: Challenges and Policy Options," in *Public Finance in China: Reform and Growth for a Harmonious Society*, edited by Jiwei, L. and S. Wang, World Bank, Washington, DC.

Musgrave, R.A., 1959, *The Theory of Public Finance: A Study in Public Economy*, New York: McGraw-Hill.

Norregaard, J., 2013, "Taxing Immovable Property: Revenue Potential and Implementation Challenges," IMF Working Paper 13/129, International Monetary Fund, Washington, DC.

OECD, 2016, *Universal Health Coverage and Health Outcomes: Final Report for the G7 Health Ministerial Meeting* Kobe, Japan, 11-12 September 2016. http://www.oecd.org/els/health-systems/Universal-Health-Coverage-and-Health-Outcomes-OECD-G7-Health-Ministerial-2016.pdf

_____, 2017, *OECD Economic Surveys: China 2017*, OECD Publishing, Paris.

OECD/KIPF, 2016, *Fiscal Federalism 2016: Making Decentralisation Work*, OECD Publishing, Paris.

Perry, V.J., 2009, "International Experience in Implementing VATs in Federal Jurisdictions: A Summary," *Tax Law Review*, 63, 623-38.

Qiao, B., and L. Liu, 2013, *Intergovernmental Fiscal Relationship and Risk-Sharing Function.* Beijing: China Financial and Economic Publishing House.

Saltman, R. B., 2008, "Decentralization, Re-Centralization and Future European Health Policy," *The European Journal of Public Health*, 18(2), 104-106.

Shah, A. 1999. *Expenditure Assignment*. Decentralization Briefing Notes, World Bank, Washington, DC.

Shah, A., and C. Shen, 2008, “Fine-Tuning the Intergovernmental Transfer System to Create a Harmonious Society and a Level Playing Field for Regional Development,” in *Public Finance in China: Reform and Growth for a Harmonious Society*, edited by Jiwei, L. and S. Wang, World Bank, Washington, DC.

Sow, M. and I. F. Razafimahefa, 2015, “Fiscal Decentralization and the Efficiency of Public Service Delivery,” IMF Working Paper 15/59, International Monetary Fund, Washington, DC.

van Eden, H., D. Gentry and S. Gupta, 2017, “A Medium-Term Expenditure Framework for More Effective Fiscal Policy,” in *Modernizing China: Investing in Soft Infrastructure*, edited by Lam, W. R., M. Rodlauer, and A. Schipke, International Monetary Fund, Washington, DC.

Wang, X. and R. Herd, 2013, “The System of Revenue Sharing and Fiscal Transfers in China,” *OECD Economics Department Working Papers*, No. 1030, OECD Publishing.

World Bank and the Development Research Center of the State Council, P. R. China, 2014, *Urban China: Toward Efficient, Inclusive, and Sustainable Urbanization*, World Bank, Washington, DC.

Zhang, L., R. Brooks, D. Ding, H. Ding, H. He, J. Lu, and M. Rui, forthcoming, “China’s High Savings: Drivers, Prospects, and Policies,” IMF Selected Issues Paper.