WP/15/66

IMF Working Paper

China: How Can Revenue Reforms Contribute to Inclusive and Sustainable Growth?

W. Raphael Lam and Philippe Wingender

INTERNATIONAL MONETARY FUND

 WP/15/66

IMF Working Paper

Asia Pacific Department and Fiscal Affairs Department

China: How Can Revenue Reforms Contribute to Inclusive and Sustainable Growth?

Prepared by W. Raphael Lam and Philippe Wingender[1]

Authorized for distribution by Steven Barnett

March 2015

Abstract

Revenue reforms can contribute to more inclusive, green, and sustainable growth in China. Relative to OECD economies, fiscal policy in China is less redistributive. Options for promoting more inclusive growth include improving the progressivity of labor taxes (individual income tax and social security contributions), introducing a recurrent property tax, and finishing the transition to a comprehensive value-added tax. Higher environmental taxes, meanwhile, would promote more environment-friendly economy. These reforms could also significantly boost revenue, potentially by as much as 6½ percent of GDP. Such increases in revenue could help reduce the deficit, finance priority social and infrastructure spending, and offset cuts in other taxes. We illustrate how these revenue reforms could be part of a comprehensive fiscal package that achieves the needed consolidation in the (augmented) deficit and foster higher quality growth.

JEL Classification Numbers: H0, H1, H2, H6, H7

Keywords: Fiscal Policy, China, tax reforms, government debt, social security

Authors' E-Mail Addresses: wlam@imf.org and pwingender@imf.org

[1] Sung Jung, Alla Myrvoda, and Xuelei Ji provided excellent data assistance. We are grateful to Steven Barnett and Ruud de Mooij for constructive comments and suggestions. We also wish to thank Mali Chivakul, Carol Wei Liao, Wojciech Maliszewski, Alfred Schipke, John Norregaard and Ian Parry for helpful discussions, as well as officials at the Ministry of Finance of the People's Republic of China.

Contents Page

I. INTRODUCTION

In late 2013 following the Third Plenum of the Eighteenth Communist Party, China put forward an ambitious and comprehensive reform blueprint. It emphasized giving the decisive role of markets in resource allocation and covered a broad range (including financial, fiscal, external, and structural) reforms to help China's transition to high income status. A goal is to unleash new sources of growth in a way that better protects the environment and ensures that China's growing prosperity is shared widely.

Fiscal reforms are an integral part of the blueprint and key for achieving more inclusive, green, and sustainable growth (IMF, 2014). The blueprint includes reforms aimed at collecting revenues more efficiently, improving the fiscal framework, and strengthening local government finances. This paper focuses on revenue reforms. We highlight tax policies that can facilitate economic transition to high income status, promote fiscal sustainability and make growth more inclusive and environmentally friendly.

Inefficiencies in the tax system are an obstacle in China's path toward a new growth model. The overall tax burden in China is lower than OECD average. However, fiscal policy also plays a smaller redistributive role, which reflects the reliance on indirect taxes and the regressive design of direct taxes, particularly social security contributions. As a result, low-income earners often pay a much higher effective tax rate than higher income households. In addition, in part because of the mismatch between revenue and spending responsibilities, local governments have often relied on costly and inefficient revenue sources to finance their spending.

Thus, there is considerable scope for tax reforms to improve economic efficiency and lift living standards, especially for lower income groups. Options include strengthening progressivity of the individual income tax and social security contribution systems; continuing the transition to a value-added tax (VAT) on services; gradually introducing a recurrent property tax; and strengthening environmental taxation. These reforms could also be designed to help better align local revenue and spending responsibilities.

The contribution of this paper consists of a menu of options for these revenue reforms. It illustrates the potential budget impact of these tax reforms and how they can be integrated to other fiscal reforms to ensure public finance sustainability. Our estimates indicate that revenue reforms could lift revenues by 4.5–6.5 percent of GDP over the medium term. These will provide room to address the buildup of risks in local government finances, and increase social spending, such as education and healthcare.

The paper is organized as follows: Section II gives a background of the tax system in China, highlighting inefficiency and challenges to local government finances. Section III then discusses key revenue reform policies and their budgetary impact. In that context, Section IV illustrates a menu of options for revenue reforms and how they can be implemented along with other reforms to ensure fiscal sustainability, including reducing off-budget infrastructure spending by local governments and increasing social spending. Section V concludes.

II. Tax System in China

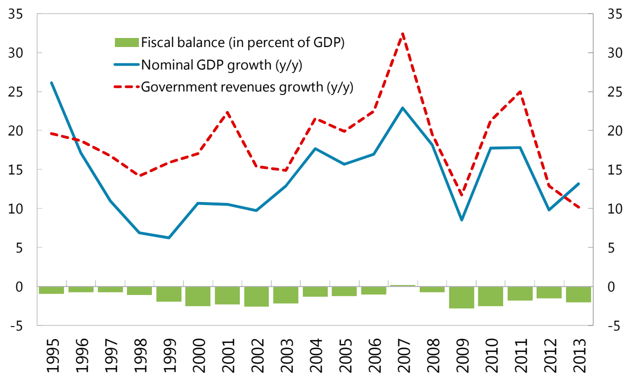
Growth in nominal revenues in China on average has been about 20 percent, much higher than the nominal growth in GDP (Figure 1). The increase in tax revenues above nominal growth reflects the improvements in tax administration and growing share of the service industries that has effectively paid higher effective tax rates. The budget system often aims for an annual balanced budget, reinforcing the pro-cyclicality that higher fiscal revenue is usually matched by increasing expenditure—in turn generating more tax revenue—instead of carrying forward the surplus.[2] The overall tax burden in China is comparable to other OECD economies in Asia, but tax revenues rely heavily on indirect taxes. Tax revenue has accounted for about 22 percent of GDP in 2013, somewhat lower than the average 34 percent of GDP across the OECD. Indirect tax on goods and services, including the VAT and business operation tax, however, accounts for more than half of tax revenue (Figure 1). Direct taxes such as personal income tax and corporate income tax account for a small fraction of tax revenue, much lower than the OECD average. In addition, China has also relied more on nontax revenues such as government funds, fees, fines and income from the SOE ownership), which are often levied by local governments. To make up for revenue shortages, local governments frequently rely on land sale revenues to finance expenditure (see below). Once adjusted for nontax revenue and net land sale proceeds (about 2¾ percent of GDP), the overall tax burden is similar to the tax-to-GDP ratio for other Asian economies such as Australia, Japan, and Korea.

The redistributive effect of taxes and transfers is relatively limited in China. Income inequality, measured by Gini coefficient, was low in the mid-1980s at below 0.3 but has continued to rise to near 0.5 over recent years. The income disparities and limited redistribution are mirrored by the average income by group, with the individuals at the highest income decile earning more than 16–18 times of those at the lowest decile (World Bank and Development Research Center of the State Council (DRCSC), 2013). This widening income inequality is in contrast with the experiences of other middle-income countries, where inequality has remained constant on average over the same time period (see Cevik and Correa-Caro 2015). Fiscal policy also appears to contribute relatively little to narrow the rising inequality, as reflected in the difference between Gini coefficients before and after taxes and transfers (Figure 1). These indicators reflect the limited impact of direct taxes and transfers that are effectively paid, but the reliance on indirect taxes further contributes to the regressive nature of the tax system. Moreover, the quality and access to social services and social safety net vary according to the *hukou* (household residency) status, which reinforces the disparities and weakens the redistributive effect of fiscal policy.

[2] The plan to introduce a multi-year budget and strengthen the medium-term fiscal framework under the new budget law effective in January will would help mitigate the procyclicality inherent in the current budget system. The central government maintains a budget stabilization funds in which some transfers are made to meet additional expenditures or save up part of the surpluses. The size of the budget stabilization fund (around 0.2 percent of GDP), however, is small relative to the size of the budget.

Figure 1. China: Fiscal Revenue and Tax System

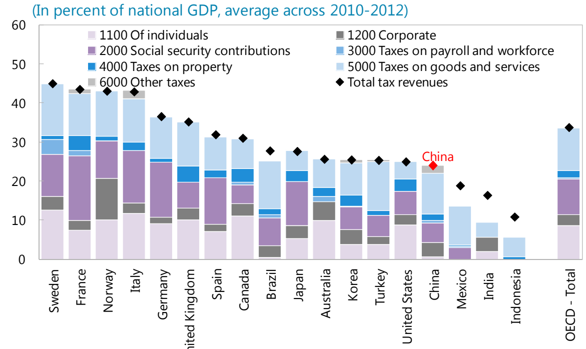
China: Government Revenues and Fiscal Balance



Source: CEIC.

Decomposition of Tax Revenues across Countries [1]

(In percent of national GDP, average across 2010-2012)

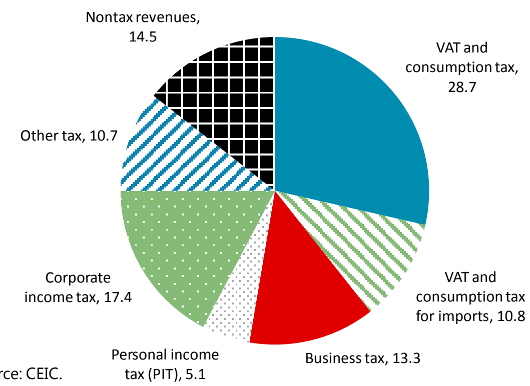


Sources: OECD, Haver Analytics, and staff estimates.

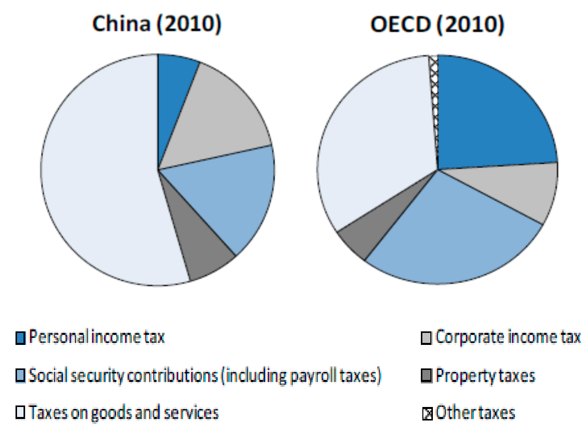
[1] Including social security contributions, average across 2010-2012 where data are available.

China: General Government Revenues

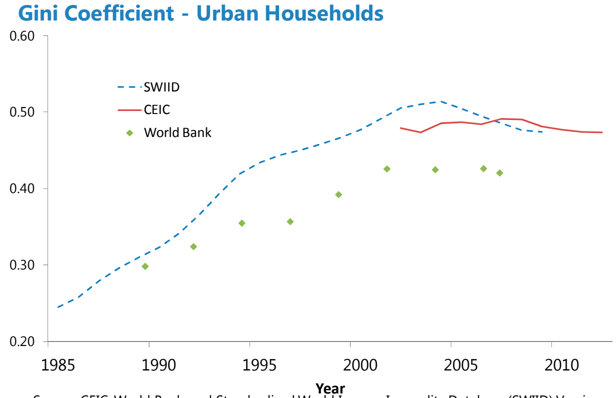
(in percent of 2013 total revenues)



Source: CEIC.



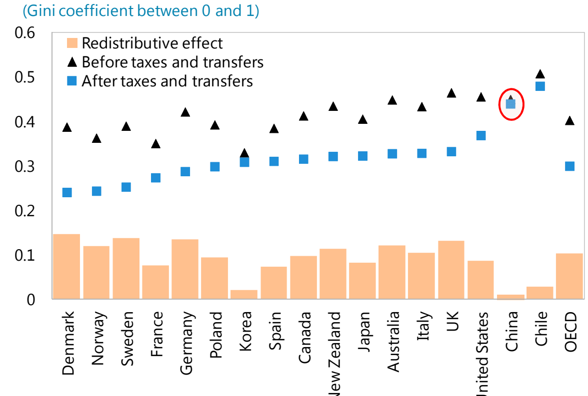
Gini Coefficient - Urban Households



Source: CEIC, World Bank, and Standardized World Income Inequality Database (SWIID) Version 5.0, released October 2014

Redistributive Effect of Taxes across OECD relative to China

(Gini coefficient between 0 and 1)



Source: OECD; and IMF staff calculations.

Local government finances varied across provinces, and in general, metropolitan areas have stronger fiscal positions than inner regions. Across provinces, the tax burden tends to be higher in metropolitan areas and is more relied on indirect taxes, while on average it is similar across coastal and inner provinces (Figure 2 and Appendix Table 1). Tax revenues account for 18 percent of GDP in large cities on average, compared to about 12 percent of provincial GDP among other provinces. Variation in provincial fiscal revenue ranges from 8–14 percent of provincial GDP as of 2012. Municipalities and provinces in coastal areas often run a surplus while the deficit often occurs in inner regions, suggesting that transfers from the central government plays a significant role in local government finances.

Revenue sharing between central and local governments takes various forms according to prescribed ratios. Tax revenue broadly consists of three types (Table 1): (i) central taxes exclusively to finance central government spending, which mostly include taxes related to foreign trade such as duties, trade-related VAT, luxury taxes, and export rebates); (ii) local government taxes under exclusive control of local governments such as property-related taxes and business operation taxes; and (iii) shared taxes between the central and local governments, including direct tax such as personal and corporate income taxes and the VAT (excluding trade-related VAT).

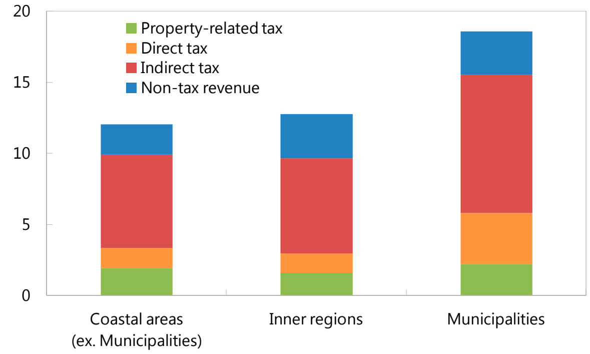
A majority of local governments often face revenue shortfalls forcing them to rely on other sources of financing to meet their spending obligations (Figure 2). Local government tax revenues including the portion of shared taxes, account for nearly half of total government revenue, while local government spending obligations are roughly two-thirds of the total government expenditure (Wang and Herd, 2013). The misalignment is only partially corrected by transfers from the center, forcing many local governments to turn to land sales and other off-budget borrowing through local government financing vehicles (LGFVs) to finance their budgets. Ongoing transition of the business operation tax towards VAT will only intensify the shortfall for many governments unless new measures are introduced to better align local revenue and spending obligation.[3] Local governments can broadly be classified into provincial, prefecture, county, and township levels. Each type of government is required to maintain a balanced budget and receives transfers from an upper level while providing transfers to a lower government level. County level governments have typically the highest spending obligation and are therefore the most dependent on transfers.

[3] The current share of business tax almost entirely stays in local government, while it only shares 25 percent of domestic VAT revenue under the shared tax system.

Figure 2. China: Local Government Revenue and Tax Sharing System

China: Sources of Provincial Government Revenues

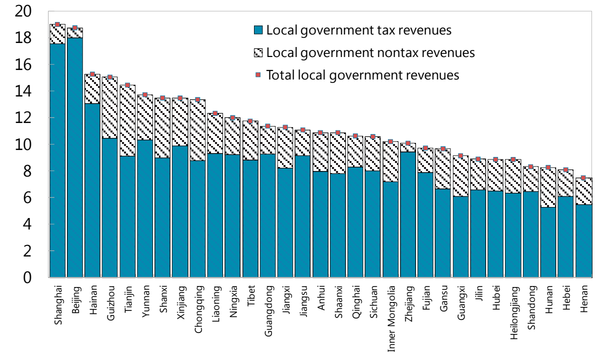
(in percent of 2013 provincial GDP averaging across provinces and municipalities)



Source: CEIC.

China: Government Tax and Nontax Revenues across Provinces

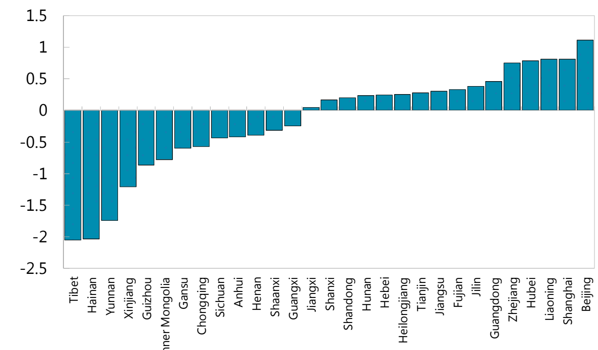
(in percent of 2013 local government's GDP)



Source: CEIC.

Fiscal Budget Balance

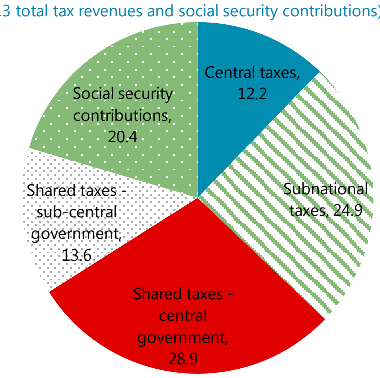
(after transfers from central government; in percent of 2012 provincial GDP)



Sources: CEIC and staff estimates.
1/ Excludes Xinjiang and Qinghai.

China: Tax Revenue Sharing Arrangment between Central and Sub-national government

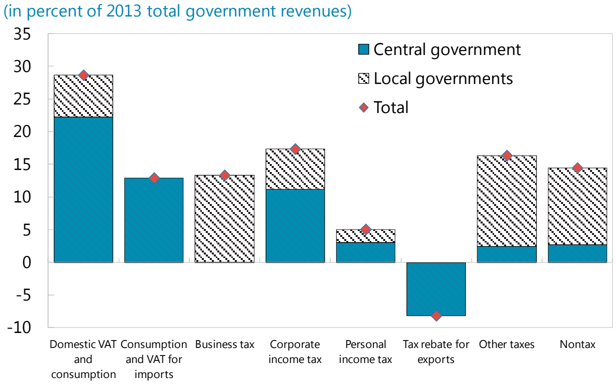
(in percent of 2013 total tax revenues and social security contributions)



Source: CEIC.

China: Fiscal Relation on Revenue Sharing

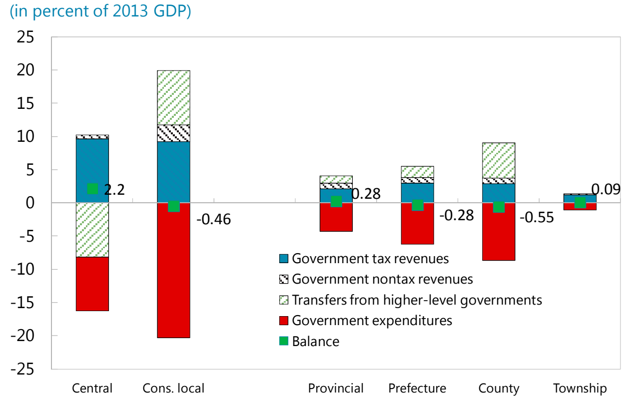
(in percent of 2013 total government revenues)



Sources: CEIC; and IMF staff estimates.

China: Fiscal Position across Subnational Governments

(in percent of 2013 GDP)



Sources: CEIC; and IMF staff estimates.

Table 1. Tax Sharing Arrangement between Central and Subcentral Governments

(As of 2013)	General gov.	Central gov.	Local gov.	in percent of total tax revenues and soc. sec. contributions	Legal sharing rate	
	in RMB billions					
Tax revenues	**11053**	**5664**	**5389**	79.6		
Central taxes						
Consumption	823	823		5.9	100	0
Consumption and VA of Imported Product	1400	1400		10.1	100	0
Tariffs	263	263		1.9	100	0
Refund of Tax for Export	-1052	-1052		-7.6	100	0
Cargo	4	4		0.0	100	0
Vehicle purchase	260	260		1.9	100	0
Shared taxes						
Value Added	2881	2053	828	20.7	75	25
Enterprise Income	2243	1444	798	16.1	60	40
Individual Income	653	392	261	4.7	60	40
Stamp	124	46	79	0.9	97	3
Sub-national taxes						
Operation	1723	8	1715	12.4	1	99
Resource	101	…	96	0.7	0	100
City Maintenance and Construction	342	18	324	2.5	0	100
House	158	…	158	1.1	0	100
Use of Urban Land	172	…	172	1.2	0	100
Value Added of Land	329	…	329	2.4	0	100
Vehicle	47	…	47	0.3	0	100
Occupancy of Cultivated Land	181	…	181	1.3	0	100
Contract	384	…	384	2.8	0	100
Tobacco	15	…	15	0.1	0	100
Other	0	…	0	0.0	0	100
Social security contributions 1/	2837		2837	20.4	0	100
All taxes and social security contributions 2/	13890	5664	8226	100	41	59
Nontax revenues						
Operating Expense in Administration Dept	478	28	450			
Penalty Income	166	5	161			
Special Project Income	353	41	312			
Other Income	872	283	589			
Total government revenues (including social security contributions)	15758	6020	9738		38	62

Source: CEIC and staff estimates.
1/ Estimates based on social security contributions ratio to GDP as of 2013.
2/ The sharing of tax revenues, if excluding social security contributions, will be about 51 percent and 49 percent, respectively for central government and local governments.

After outlining the key features of the tax and fiscal federalism systems, this section now describes the features of the main taxes collected from individuals in China.

Individual income tax (IIT). The tax schedule for employment income itself is progressive and comparable to OECD economies but with wide tax brackets that start at higher levels of income (*text table*). The highest marginal tax rate is 45 percent at the very top of the income distribution (about 35 times the national average wage) and applies to few income earners (Figure 3). In comparison, on

Individual Income Tax Rates Applicable to Annual Wages and Salaries 1/

Range of Income		Applicable Tax Rate
0	18,000	3
18,001	54,000	10
54,001	108,000	20
108,001	420,000	25
420,001	660,000	30
660,001	960,000	35
Over	960,000	45

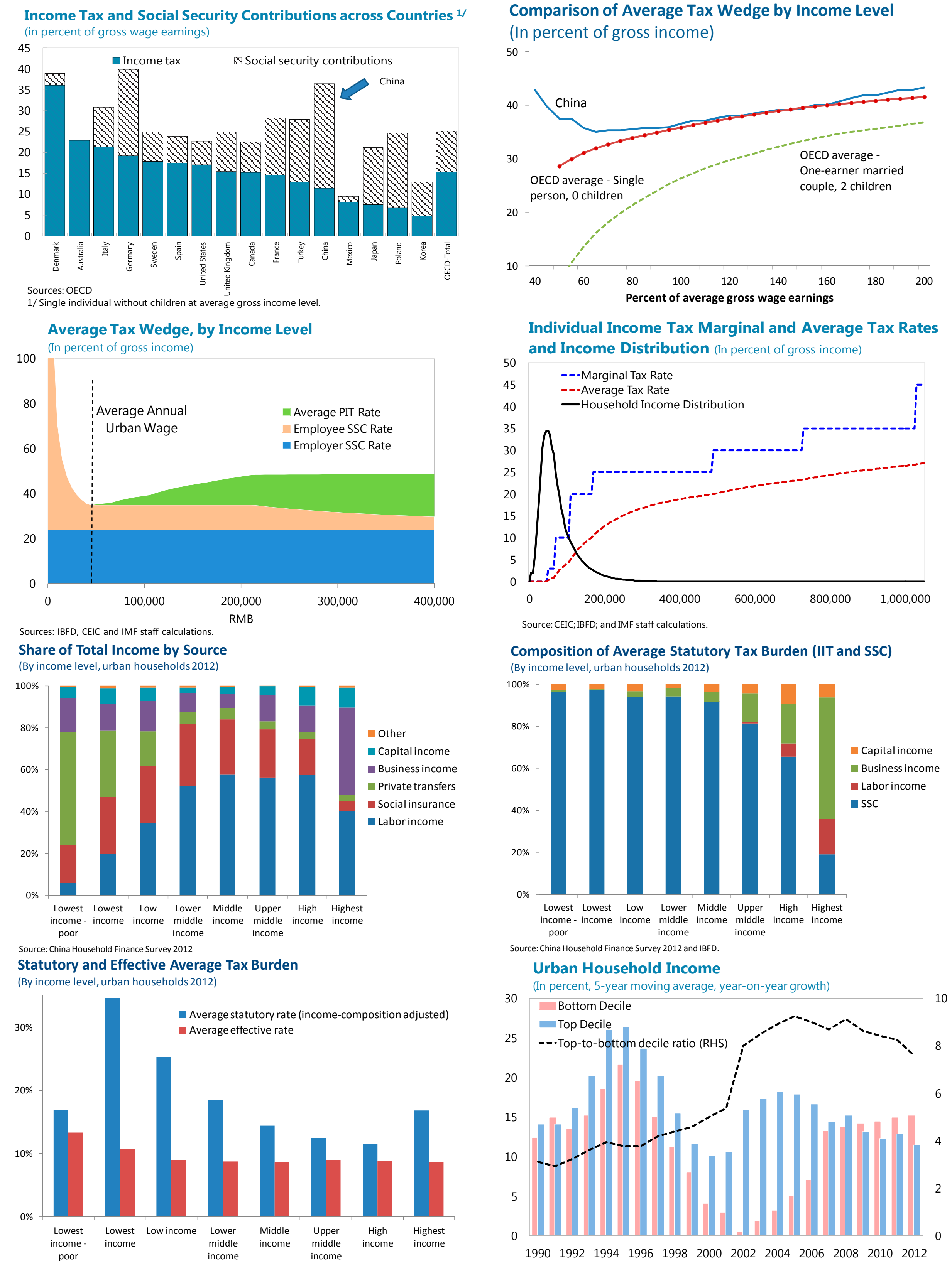
A standard deduction of CNY 42,000 is allowed in calculating taxable income.

average among OECD countries top marginal tax rates for the personal income tax start applying at around four times the national average wage. Moreover, according to illustrative calculations based on household survey data over 80 percent of workers are not liable to pay the IIT given a high basic personal allowance of RMB 42,000. This is around twice the average national wage. The same ratio is approximately 0.25 on average for OECD countries. Also in contrast to some OECD economies, the IIT does not have family-based standard tax credits. Finally, the IIT accounts for about 5 percent, a relatively small share, of total tax revenue in China. As a result, despite a nominally progressive schedule, the individual income tax provides little redistributive effects.

The IIT also taxes the business income of individuals following a progressive schedule with marginal rates varying between 5 percent and 35 percent. Professional income (defined as the income of self-employed individuals from selected activities such as medical, legal and technical services for example) and capital income, which includes dividends, interest, royalties, capital gains and income from transfer of property, are taxed at rates of 16 percent and 20 percent respectively on average. Rental income net of a 20 percent deduction to account for maintenance costs is taxed at 10 percent, following a rate reduction introduced in 2011 to encourage the development of the housing market. Several income sources are exempt from the IIT, including interest from government bonds and deposit accounts with Chinese banks as well as the income derived from agricultural activities. Finally, both pension contributions and pension income at retirement are not subject to the IIT. This implies a very large implicit subsidy on savings for retirement.

Social security contributions. Employers and employees are obliged to contribute to social security for pensions, medical insurance, and unemployment insurance (Table 2 and Figure 3). Contributions are withheld from wages and remitted directly by employers, on average at about 11 percent of gross wage for employees (or net of IIT at near 9 percent) with the exact percentages varying between provinces and localities. Although a nominal flat rate is applied, a minimum employee contribution is required based on some imputed value of earnings. The imputed minimum earnings for workers in turn are set at 60 percent of the previous year's average wage of the locality. It is estimated that around 30 percent of the urban labor force earns below the 60 percent threshold in several large cities (Cai, Du, and Wang, 2011).This feature of the social security contribution (SSC) schedule along with the contribution cap set at 3 times the locality average wage implies that the effective contribution rate is very regressive in employee income (World Bank and DRCSC 2013, Brys and others, 2013). The current structure and in particular the imputed taxable earnings for low income earners distorts and reduces the labor market flexibility, and tends to favor informal and self employment, since the latter is broadly not covered by the contribution rules. This has also probably led to significant opting out of the system by low income workers, as around one quarter of the urban labor force was not covered by social security contributions in 2010 (Pallares-Miralles, Romero, and Whitehouse, 2011).

Figure 3. China: Individual Income Tax



The relatively small share of labor income of the poorest households mitigates somewhat the strongly regressive nature of the earnings imputation system for the SSC at the very bottom of the income distribution. This is also due to the importance of tax-exempt private and social transfers for low-income households. However, SSC constitute over 90 percent of direct tax liabilities for a majority of households. The average statutory tax rate across all sources of income, including business and capital income, also shows very high burdens for households at the bottom of the income distribution. This is also reflected in the average effective tax rate (measured as the difference between gross market income and net disposable income after taxes and transfers) reported by households. [4]

Table 2. China: Social Insurance Contribution Rates 1/ 2/

	Employee	Employer
Old age	8	20
Medical	2	8
Uneployment	1	2
Occupational injury	0	1
Maternity fund	0	1
Total	11	32
After-income tax rate	8.8	24

Sources: IBFD and China 2030.

1/ Social security insurance contributions paid by employees and employers are deductible for the purposes of the individual and enterprise income taxes respectively. The latter is levied at a marginal rate of 25 percent.

2/ Minimum employee contributions equal 60 percent of the average wage in each locality. Maximum epiloyee contributions are set at 300 percent of the average wage in each locality.

3/ Excludes housing fund contributions.

As a result of both the imputed earnings base for SSCs and the very high income levels at which the IIT marginal tax rates apply, the total tax burden on employment income is very high for low income earners. Analysis using household income survey data suggests that households in the lowest income quartile face a much higher effective tax rate than those in higher income groups. The effective tax schedule is in fact regressive at the range of employment income below 70 percent of average wage income (Figure 3 left middle panel), much higher than OECD effective tax rates for both singles and couples with two children.

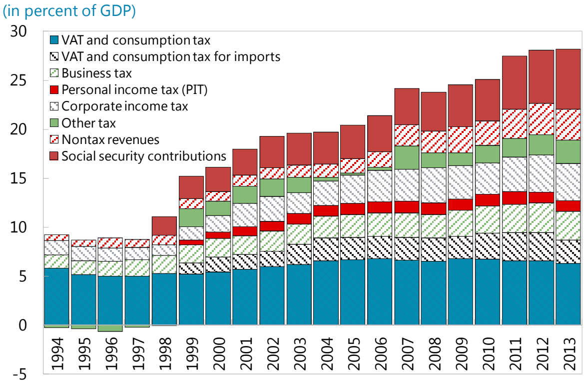
Recurrent property taxes. Total revenue from property and land-related taxes in China is comparable to other OECD countries, but most taxes are levied on transactions rather than on a recurrent basis on the assessed value (Figure 4).[5] Together these taxes account for about 7 percent of tax revenue (or 1.5–2 percent of GDP). The government has introduced pilot areas on property tax in Shanghai and Chongqing in 2011 but generated modest revenue given exemptions and enforcement challenges.

[4] Pension rights portability remains very limited and the pooling of contributions has been highly localized. In 2010, national guidelines recognized the need for portability and outlined principles within the urban workers pension system. However, the principles of portability across urban pension subsystems and between rural and urban systems have not been adopted. As a result, workers face barriers to greater mobility which undermines productivity and flexibility of the labor market. In addition, it may turn growth to be less inclusive and favor informal employment.

[5] Taxes on property and land include a one-off property tax (levied on the original purchase price or construction value net of 10–30 percent of value in urban areas), urban and township land use tax, the farmland occupancy tax, the deed tax and stamp duties.

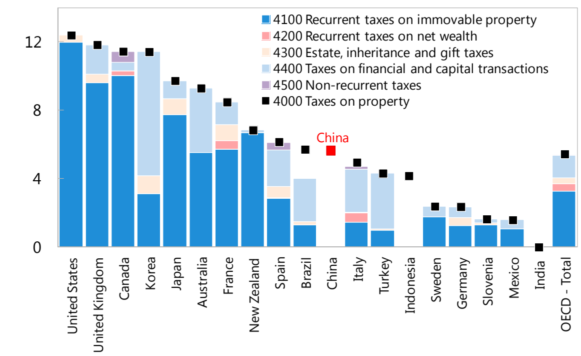
Figure 4. China: Characteristics of Various Taxes

China: Sources of General Government Revenues
(in percent of GDP)



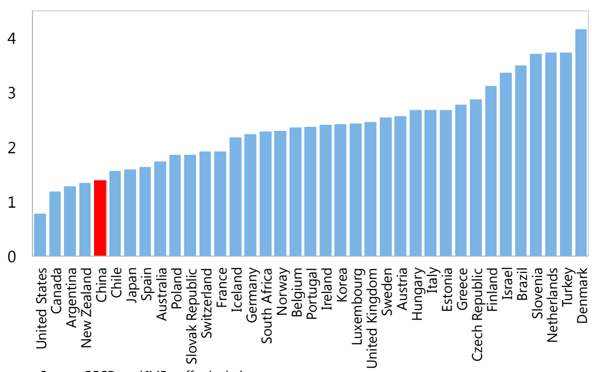
Source: CEIC.

Property Tax across Countries
(In percent of total taxation revenues[1])



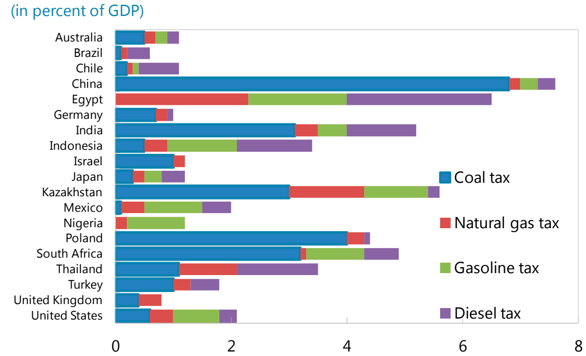
Sources: OECD, Haver, and staff estimates.
[1]Average over 2010-2012 where data are available.

Environmentally-Related Taxes in China
(In percent of GDP, 2011)



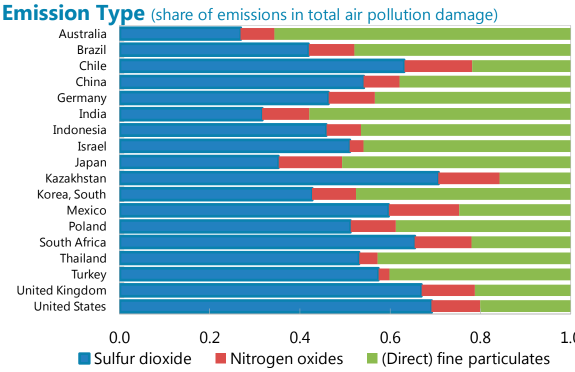
Source: OECD; and IMF staff calculations.

Potential revenue from corrective fuel taxes, 2010
(in percent of GDP)



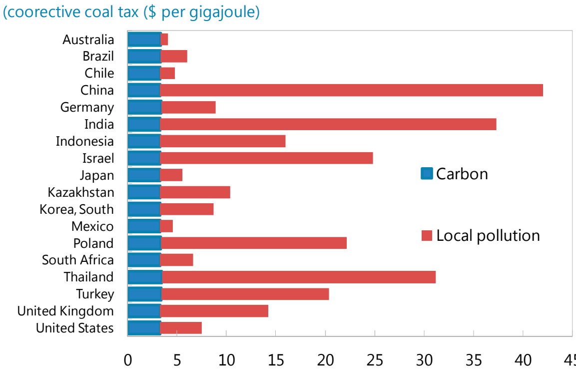
Sources: Parry, I., Heine, D., Lis, E., and Li, S (2014) "Getting Energy Prices Right: From Principle to Practice", International Monetary Fund.

Breakdown of Air Pollution Damages from Coal, by Emission Type
(share of emissions in total air pollution damage)



Sources: Parry, I., Heine, D., Lis, E., and Li, S (2014) "Getting Energy Prices Right: From Principle to Practice", International Monetary Fund.

Corrective Coal Tax Estimates with Uniform Mortality Values
(coorective coal tax ($ per gigajoule)



Sources: Parry, I., Heine, D., Lis, E., and Li, S (2014) "Getting Energy Prices Right: From Principle to Practice", International Monetary Fund.

Environmental taxes. Although China levies multiple resource and vehicle taxes as well as pollution fees, total collection is low compared to OECD countries. Enforcement and design issues also impede the effectiveness of such levies to fully address externality costs. For example, resource use is often charged a specific fee on raw inputs rather than on the externality-generating content. In the notable case of coal, a region-specific fee is charged on extraction as opposed to taxing its carbon content directly. Moreover, the various fee structures, each with different sharing mechanisms among provincial and local agencies often reduce incentives to ensure systematic enforcement and collection from local authorities. This also makes the transition from a fee-based to a broader environmental tax more challenging. Levies are usually set at low levels while the implementation encounters poor enforcement (Parry, Heine, Lis, and Li, 2014). Recent estimates suggest that aggregate externalities from pollution are much higher in China than in other countries, in large part because of the close proximity of polluting sources such as coal-burning power plants and high-density urban populations.

Value-added tax. The ongoing reform intends to replace fully the business operation tax (based on gross receipts) with a VAT on services (Appendix Table 3).[6] In the transition, multiple rates apply to different goods (13–17 percent) and services (6-11 percent), in part because the applicable rates are used to direct resource allocation (e.g., technology upgrade in selected sector) and ensure a smooth transition (e.g., avoid a surge of tax burden for SMEs).[7] Small businesses also remain subject to a simplified VAT scheme based on a reduced rate of 3 percent on output without deductions on inputs. Preliminary evidence from pilot areas suggests that the tax burden on suppliers was not increased and the reform has led to a decrease in revenues collected for a majority of small and medium-sized enterprises. The authorities also claim the reform has lead to increased investment in the sector.

III. Revenue Reforms

Key fiscal reforms of the third plenum blueprint include revenue reforms, improving the fiscal framework, and strengthening local government finances. Revenue reform is an integral part of the reform blueprint and plays a key role in achieving a more inclusive and sustainable growth. The major components of revenue reforms include the ongoing transition from the business tax to the VAT for the service sector, a reduction in social security

[6] The VAT was extended to services at the beginning of 2012. A pilot program was first launched in Shanghai for transportation services (except railway transportation) and modern services industries. The pilot was then extended to eight municipalities and provinces in August 2012. Two new VAT rates of 6 and 11 percent were introduced and added to the existing rates of 13 and 17 percent on goods. The Ministry of Finance and State Administration of Taxation (SAT) extended the VAT for these services to the entire country in August 2013. Beginning in January 2014, the VAT for railway transportation and postal services was also introduced nationwide. In June 2014, the VAT was further broadened to cover telecommunication services. Financial and insurance services as well as other services provided to consumer for daily needs will be taxed using a simplified method.

[7] There is a separate category called consumption tax, which is an excise on specific items on luxury goods, alcohol and cigarettes.

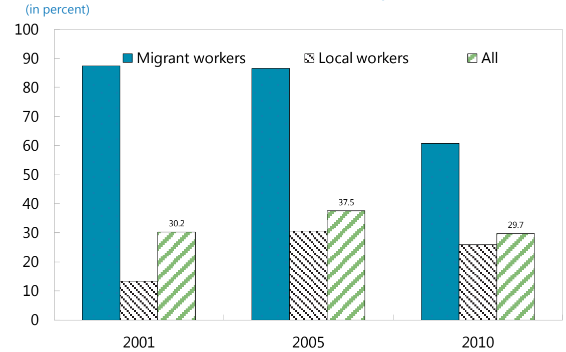
contributions, strengthening environmental taxes, and the introduction of a national property tax (that is recurrent and based on the market value of property) (Appendix Table 3).

Revenue reform can be designed to enhance efficiency, promote greener growth, and strengthen inclusiveness. In that context, a well-designed revenue reform may mitigate the regressive tax wedge from the income tax and social security contribution, may generate more revenues to meet increasing social spending needs, as well as contribute to better alignment of local government revenue and spending obligations. The following describes reforms in each tax area.

A. Strengthening Progressivity of Taxation on Employment Income

Increasing the de facto progressivity of the individual income tax would promote more inclusive growth. Although there is statutory progressivity of the tax schedules for employment and business incomes, that is marginal rates rise with income, the effective progressivity could boosted. One option is to make the higher tax brackets for labor income applicable to a broader set of high income earners, combined with stronger enforcement and compliance. The additional revenue could be used to finance a reduction in the tax wedge (i.e. inclusive of social security contributions) of low income earners (Figure 3). In that context, the basic personal allowance could also be lowered so as to broaden the tax base to include a larger number of middle income workers. This would enhance the redistributive role of tax policy by shifting the tax burden away from the lowest earners to middle and high income earners. According to our estimates based on a nationally representative household survey for 2011, around 80 percent of urban wage earners are not subject to the individual income tax because of the high basic personal allowance. Reducing the allowance would ensure more middle income workers pay the IIT, while preserving the progressivity at low income levels.

Size and Composition of Informal Employment
(in percent)



Sources: World Bank (2014) and Cai, Du, and Wang (2011)

Reducing social security contribution rates, which are high and very regressive, would help lower income workers. The authorities have committed to reduce the rate at an appropriate time and pace in the Third-Plenum reform blueprint. The revision should be done in ways that ensure the sustainability of the social security system, including through parametric changes to the pension system and transferring the welfare and legacy components to the general government budget. Another important change would ensure that actual income of low-income workers is used in the calculation of insurance premiums as opposed to the current system that imputes a minimum level of earnings in the calculation of social security contributions. Changing this would avoid what can be extraordinarily high contribution rates for workers earning below the minimum wage. Indeed, a recent study found that around one third of the urban workforce in several major cities have earnings well below the imputation threshold for social insurance contributions. Moreover, for around half of those workers the effective tax wedge in the formal sector was in excess of 65 percent (Cai, Du, and Wang, 2011).

Reforms to individual income tax and social security contribution would need to be considered jointly. A broader reform could reduce the highly regressive social security contributions. Estimates based on income distribution and applicable tax schedules suggest that the individual income tax can generate additional revenues closer to international levels. This would leave scope to reduce social security contribution for low income groups, and still raise an additional 2–3 percent of GDP in revenue (Box 1).

Another priority is to improve pension portability. Although progress has been made in this area, work remains to be done to ensure that pensions will follow workers form job-to-job and region-to-region. For example, there are still portability issues in practice with regards to the different subsystems for urban workers and between rural and urban pensions. Over time, social security reform could extend the portability guidelines across schemes and across provinces, while taking fuller integration of different pension schemes (World Bank and DRCSC, 2013). Together with the announced household registration (hukou) and rural land reforms, strengthening the social security system will make a significant contribution to elevating living standards, improving labor mobility, and boosting the disposable income of the lowest earning workers. While the increase in marginal tax rates for middle and higher income workers, might reduce their labor supply and increase avoidance and evasion behaviors, the resulting reform should improve the overall distribution of labor taxation. The current low level of IIT revenues should also ensure that increased rates should not have a prohibitive cost to growth as long as the effective rate increases are accomplished in conjunction with base broadening.

B. Transition towards Value-Added Tax

The extension of VAT to services as a replacement of the business operation (turnover) tax is an important part of the government's revenue reforms. The VAT is more efficient and easier to collect. It will also encourage investment in the service sector and reduce distortions caused by the cascading of a turnover tax and the current coexistence of the two sales taxes. Once the transition is complete, consideration could be given to reducing the number of rates that currently exist in the system to improve efficiency. Ideally, there would be a single VAT rate. The policy objectives underlying the multiple rates can be better met through other means, such as targeted expenditure programs, investment credits or accelerated depreciation schedules under the CIT.

Broadening the base and unifying rates would increase VAT revenue considerably. An analysis of recent household consumption, business investment, and tax revenue data suggests the average effective VAT rate is around 11–14 percent. This is between the 17 percent VAT rates on goods and the 6–11 percent rates that apply to services. For instance, if the VAT was extended to services (replacing the business operation tax) at the current standard rate of 17 percent rate on goods—as opposed to the 6 percent or 11 percent being applied to some services—revenue would

Box 1. Illustrative Revenue Projections

The projected revenue gains from the proposed IIT and SSC reforms on labor income are meant to be illustrative and are based on the simple assumption of no behavioral changes in either labor supply or other adjustments in reported taxable income. While this might lead to overestimating the potential revenue gains, the analysis also holds enforcement levels constant, which would tend to underestimate tax revenue growth over the reform period. Calculations are based on current IIT and social security revenues in China and on the nationally representative earnings data taken from the China Household Finance Survey (CHFS) for the year 2011. Our reform proposal entails the following measures aimed at increasing IIT revenues and improving the progressivity of the tax system on labor income:

Box 1 Table 1. IIT and SSC Reform Measures

Tax Measure	Illustrative Revenue Change (In percent of GDP)
Lower the personal allowance from 42,000RMB to 12,000RMB	0.3
Shorten tax brackets	2.2
Increase marginal rates from 3-10-20-25-30-35-45 percent to 5-15-25-35-45 percent.	0.6
Remove SSC income imputation	-0.5
Total revenue change	2.6

Source: IMF staff calculations based on IBFD, CEIC, and China Household Finance Survey 2012.

Lowering the personal deduction from its current level of 42,000RMB to 12,000RMB would ensure more middle-class earners pay the IIT and more importantly, that higher-earning workers pay IIT on a larger share of their earnings. 1/ Based on CHFS survey data, this level would still ensure that almost 25 percent of the lowest earning workers would not have to pay any IIT. This measure is expected to yield around 0.3 percent of GDP in additional revenue per year.

An important feature of the current IIT system is the width of the marginal tax brackets. They are currently very wide so that the top rates only apply to a very small fraction of the labor force. Shortening these brackets so that higher rates start applying at lower levels of earning could generate significant revenue of over 2 percent of GDP. The proposed recalibration would still ensure that over 50 percent of workers pay a 5 percent marginal tax rate or lower and around 75 percent of workers pay less than 20 percent. The top marginal rate of 45 percent would apply to less than 10 percent of top wage earners. These proposed parametric changes are given in more details in Table 2 and Figure 1 below.

The final proposed measure consists of repealing the current imputation system of insurable earnings for SSC. As discussed earlier, this generates a very high tax burden for the poorest workers and results in a very regressive labor tax wedge. The transition to an effective earnings system would result in lower revenues, but would also be partially offset by the deductibility of SSC for IIT purposes. The reform would nevertheless result in around 0.5 percent of GDP less revenue. The combined total of all these measures would be between 2.5 to 3 percent of GDP.

1/ The deduction could also have been converted to a tax credit along with other appropriate parametric changes to the marginal rate schedule to generate similar revenue projections. It should be noted that in general holding everything else constant, a credit is cheaper and more progressive than a deduction.

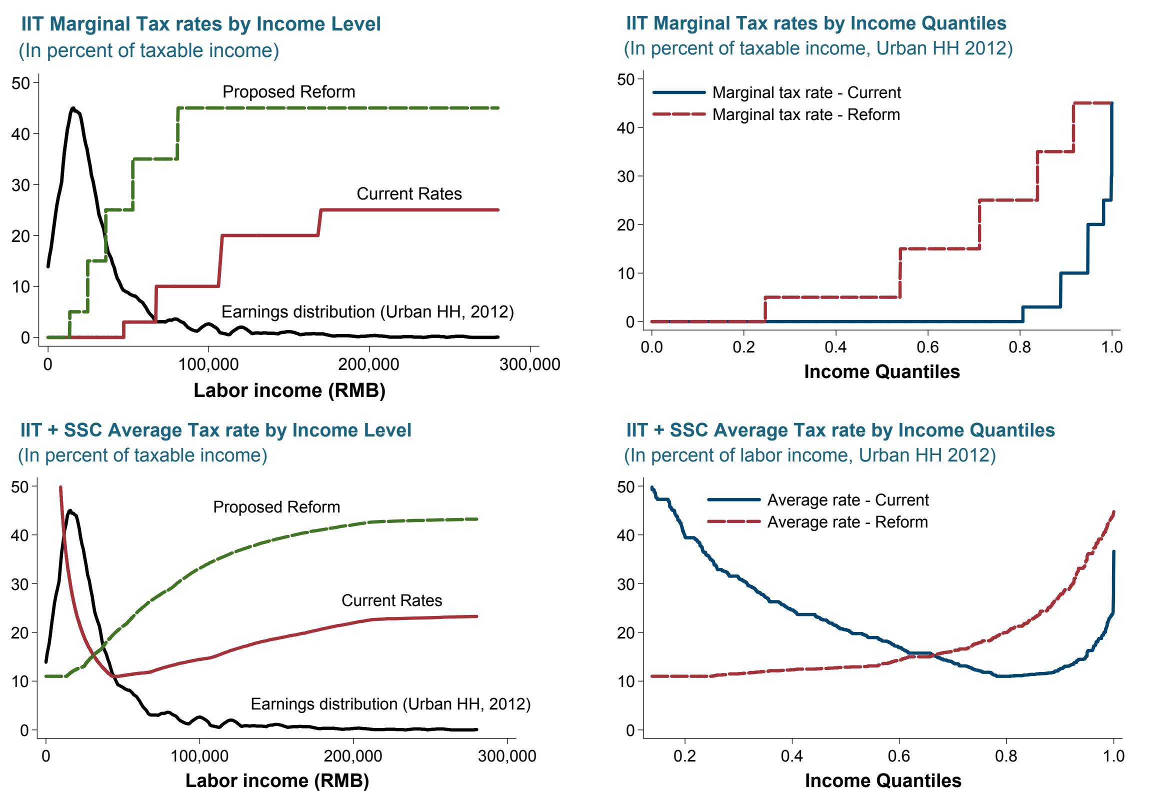
Box 1. Illustrative Revenue Projections *(concluded)*

Box 1 Table 2. IIT Parameters Under Current and Illustrative Reform

Current Regime				Illustrative Reform			
Gross Labor Income Between (RMB)		IIT Marginal Tax Rate	Share of Taxpayers	Gross Labor Income Between (RMB)		IIT Marginal Tax Rate	Share of Taxpayers
0	47,191	0	80.7	0	13,483	0	24.7
47,192	67,416	3	8.2	13,484	24,719	5	29.3
67,417	107,865	10	5.9	24,720	35,955	15	17.2
107,866	168,539	20	3.5	35,956	52,809	25	12.6
168,540	519,101	25	1.7	52,810	80,899	35	7.9
519,102	788,764	30	0.1	Over	80,900	45	8.3
788,765	1,125,843	35	0.0				
Over	1,125,843	45	0.1				

The figures below illustrate the impact of the reform on the tax burden by earnings level for a nationally representative sample of urban households in 2011. The panels show that the current structure effectively exempts from any tax a very large proportion of wage earners, even though some of these have relatively high incomes. The bottom panels display these parametric changes over the quantiles of the income distribution and make explicit the levels of marginal and average tax rates faced by specific quantiles instead of revenue levels. The figures clearly show how the average tax burden is displaced away from the lowest earning workers to those at the top of the income distribution.

Box 1 Charts: China: IIT and SSC Reform



increase by over 2 percent of GDP.[8] Instead, a single VAT rate of around 12–14 percent for goods and services—similar to the current effective rates—could be an option, which would likely raise an additional ½–1 percent of GDP in revenue over time. In addition, the expected rebalancing of the economy toward consumption (including services) would also result in higher VAT revenue (all else equal, a higher consumption to GDP ratio would yield higher VAT revenue). This could provide scope for some combination of higher revenue or lower single VAT rate (Lam and Maliszewski, 2015).

C. Expanding Recurrent Property Tax

The reform blueprint calls for introducing a recurrent property tax beyond the current two pilot cities. Following the launch of the pilot programs in Chongqing and Shanghai in 2011, the recurrent property tax could be extended to other municipalities and provinces.[9] Over time, the recurrent property tax can replace the numerous transaction-based taxes and fees on land and property levied by local governments. Development of a nation-wide registry is underway. The Ministry of Land and Resources recently announced measures on real estate registration rules to be effective from March 2015. A registry system and value assessment framework will also need to be in place prior to the complete rolling out of the property tax at the national level.

A well designed and implemented recurrent property tax can support the move to a more inclusive and sustainable growth path:

- First, cross-country evidence indicates that revenue from recurrent property tax is often used for financing local spending on public services, which would help align the local government revenue with its spending obligation (Brys and others, 2013 and Norregaard 2013).

- Second, the tax base is more stable than transaction taxes on property, and can be made progressive with the appropriate exemptions (and also given higher property wealth of high-income households).

- Third, a well-designed property tax could also contribute to urban development and help contain speculative pressures on real estate markets. Barnett and Zhang (2014) estimated this fiscally-induced pressure to be driving about one-third of the property transactions in large cities in 2012–13, though other estimate the role of taxes to be much lower (Rothman 2014).[10] The introduction, however, needs to be timed well and phased-in to avoid triggering a real

[8] VAT revenue and business operation tax in 2013 was 8.1 percent of GDP.

[9] The tax is currently applied to the ownership of a second property. In Shanghai, the tax applies to newly acquired second properties exceeding 180 square meters for a family of three but subject to multiple exemptions. For example, the tax is not levied if married children of the owner live in and use a house as a primary property.

[10] At present, there is no recurrent property tax and investors carrying cost on buying property is relatively low.

estate slowdown. At present, preparation on the legislation of property registration and value assessment is underway.

The initial consolidation of the current transaction-based taxes and fees on land and property into a recurrent property tax could be revenue neutral. Over time, economic growth and urbanization could generate more local revenue, which would strengthen the fiscal position while mitigating the shortfall in local government revenues. For example, bringing the level close to the OECD average could raise additional revenue of the order of 1–1½ percent of GDP.

D. Introducing Environmental Tax

Reform of environmental taxation and fees is explicitly included in the Twelfth Five Year Plan. Rationalizing the use of natural resources will promote more environment-friendly growth. The revision of the environment protection law is an important step towards setting a sound legal basis for further measures to be implemented. Several tax instruments can complement the government's current reform agenda.

- First, tax based on fossil fuel carbon emission rates can be introduced. A tax imposed at the pollution's point of entry in the economy (such as coalmine, energy plant, or petroleum refinery) would reduce the number of taxable agents and thereby reduce the administrative burden. It would also build off the administrative structures already in place for China's resource tax. Finally, an upstream tax would also provide the necessary incentives for optimal emission-reducing behavior across sectors and activities. Specifically, it would reduce energy consumption and pollution emission more where the marginal cost of doing so is smallest, for example by encouraging old plants using outdated and highly polluting technology to install and operate emissions control technology. This contrasts with the current regulatory approach where reduction targets are often set without regards to current levels of energy consumption and pollution. This can be especially burdensome for new plants and investments that already operate at the highest environmental standards.

- Second, the current levies on local air pollutants such as SO_2 and NO_X emissions and small particulates could be significantly increased. Their current rates are only a fraction of the estimated health cost of local pollution (Parry and others, 2014). Their legal status could also be upgraded to full fledge taxes to facilitate enforcement. Excise duties on gasoline and other petroleum products could be further increased to mitigate adverse externalities. The effective tax rate on gasoline could increase from its current level of 40¢ per liter to roughly 55¢ per liter, according to empirical estimates of externality cost, putting the level comparable to many OECD economies, but still significantly lower than Japan (75¢ per liter) and South Korea (85¢ per liter). The recent hikes in fuel taxes are important steps in the right direction, although tax rates remain below their optimal levels.

- Third, vehicle taxes could be calibrated to better reflect emission levels as a source of externality. This could replace the current graduated system based on engine capacity. Options for reform include an ad valorem excise tax on vehicle value to meet revenue objectives and revenue neutral 'feebate' on emission rates.[11]

These market-based approaches can offer significant advantages to achieve a greener growth and preserve the environment. While the main objective of these taxes would be to stimulate cleaner behavior, over time it's reasonable to expect that they could also raise revenues to levels comparable to the OECD average of about 2½ –3 percent of GDP (an increase of 1–1½ percentage points). Going forward, emphasis should be on better implementation of pollution pricing, strict enforcement of environmental regulations and incentives to use greener technology, and gradually moving towards explicit taxes collected by local fiscal authorities.

IV. Harmonizing Revenue and Overall Fiscal Reforms

Revenue reforms would need to be consistent with other fiscal reforms and stay within in the fiscal envelope to ensure sustainability. The fiscal reforms outlined in the third-plenum blueprint include better control of local government finances, strengthening social spending on basic health, pension and education, and improving the fiscal framework to align local revenues with spending obligations (Table 3). This section points to a menu of options for revenue reforms that could complement the overall fiscal reforms—such as strengthening social spending and containing risk from local government finances—while ensuring fiscal sustainability over the medium term.

A. Containing Risks Arising from Local Government Finances

The heavy reliance on off-budget activity of local government finances is not sustainable and carries substantial risks (Barnett and Zhang, 2014; IMF 2014). The investment financed by off-budget spending through LGFVs has remained large and could put increasing strains on local government finances and pose risks to financial stability and growth (Figure 5).[12] Local government debt, on average, has risen to nearly 70 percent of total fiscal revenue in 2013 (or 23 percent of provincial GDP). Adding government guaranteed and contingent liabilities would push the average to about 33 percent of provincial GDP, and to over 60 percent of GDP in some provinces—a high level given the small revenue base.[13] The debt burden is often higher for

[11] This 'feebate' structure would impose an additional fee on cars that are more polluting than some predetermined reference threshold and provide a rebate for cars that generate less emission than the threshold.

[12] The official general government budget has a modest fiscal deficit of around 2 percent as of end-2013 and the stimulus during 2009–10 was withdrawn. Following some consolidation in 2010–2011, the augmented net borrowing has widened again, rising to 7½ percent of GDP in 2013. Local governments were at the front lines of the spending, supporting activity through a considerable rise in investment. The augmented fiscal data better capture the significant contribution of fiscal policy to supporting demand in recent years. Preliminary estimates suggest that one-percentage point narrowing of augmented fiscal deficits would reduce 0.20–0.25 percentage points of growth next year. Fiscal deficit (or a more conservative estimate of net borrowing netting out net land sale proceeds), however, stands out at a high level if including off-budget activity financed by arms-length LGFVs.

[13] Relative to other countries, the fiscal debt in China does not stand out to be particularly high, regardless of the measure used (below 60 percent of GDP threshold), although fiscal debt has risen rapidly in the post global

(continued…)

those provinces that rely more on off-budget LGFV activity to support growth (Appendix Table 2). This underscores the role of LGFVs in supporting activity on the one hand, but also in exacerbating the reliance on credit-fueled investment as an engine of growth. Local government finances are also susceptible to a correction in the real estate. Some provinces have one-fifth of tax revenue (excluding land sale) coming from real estate and related sectors. Moreover, they have relied on net revenue from land sales to finance public infrastructure investment.[14]

A framework to limit local government borrowing has recently been introduced. The strategy of 'opening the front door' to allow municipal bond issuance while 'closing the back door' of other means of financing (such as through LGFVs) would improve oversight on local government borrowing. In June, a pilot program allowing the issuance of municipal bonds directly from the market was put in place. The revision to the budget law to be implemented starting in January 2015 also intends to establish a warning system and will require local government borrowing to be on-budget subject to disclosure.

Scenario analyses consider a full reform scenario of less reliance on public investment in the transition of the growth model. Empirical estimates suggest that growth in provincial LGFV liabilities during 2009–13 was significantly correlated with provincial investment growth, especially in the central and western regions. To contain local government borrowing, public investment and infrastructure spending (including by LGFVs) could be reduced by about 5–6 percentage points of GDP over the medium term, returning it to roughly the same level that prevailed before the global financial crisis (IMF 2014; Lam and Maliszewski, 2015). The reduction of public investment and infrastructure spending will reduce pressures on local government finances, help contain risks, and improve resource allocation. Strengthening the oversight of local government borrowing will also contribute to better aligning local government revenue with its spending obligation.

B. Providing Better Social Services

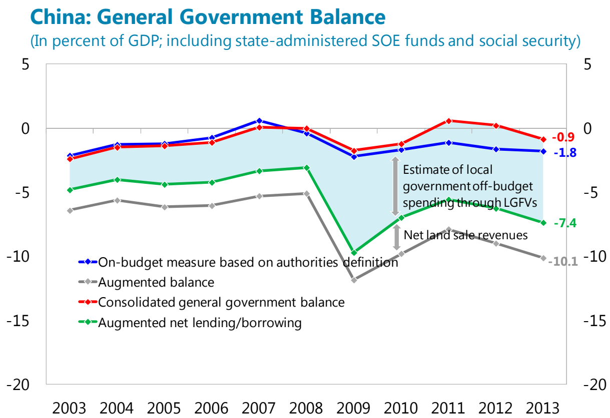
China's social spending, which is lower than in other large economies (such as Brazil, Russia, and Turkey), will likely be under pressure to rise. Key sources of such pressure are the long-term demographic trends and the government's commitment to expand pension and health coverage. Public spending on pension could double by 2030 based on World Bank's projections. Health care spending could increase by 50 percent solely as a result of demographic trends. Policy commitments to expand education and pension coverage would significantly add to the spending.

According to the proposed reform scenario, China could potentially aim to increase public expenditures by around 1 percent of GDP for education, 2–3 percent of GDP for health care, and

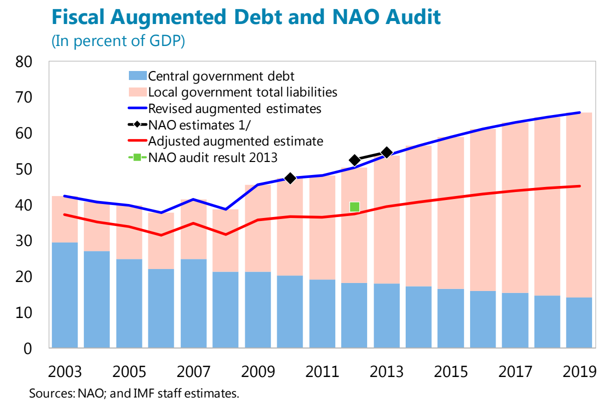
financial crisis period. The difference with the official budget deficits has been large, indicating the importance role of the off-budget activity.

[14] Though provincial-level land sales are not available, the aggregate gross land sale revenue was sizeable at about 7 percent of GDP in 2013 (net land sale revenue was 2½–3 percent of GDP after accounting for expenses related to city construction, land development, and compensation for relocation).

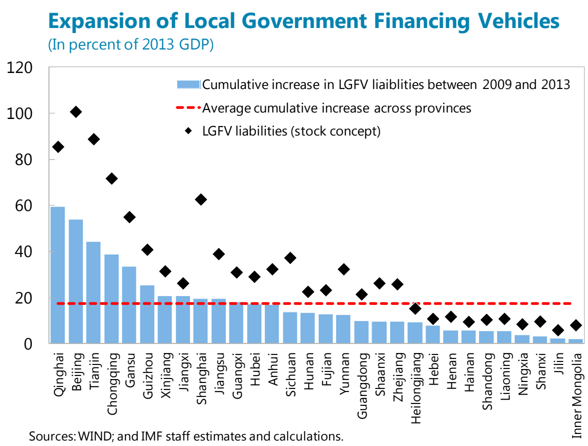
Figure 5. China: Local Government Finances



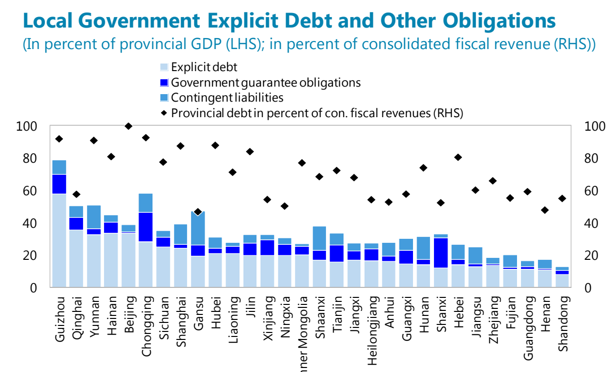
Sources: CEIC; and IMF staff estimates.



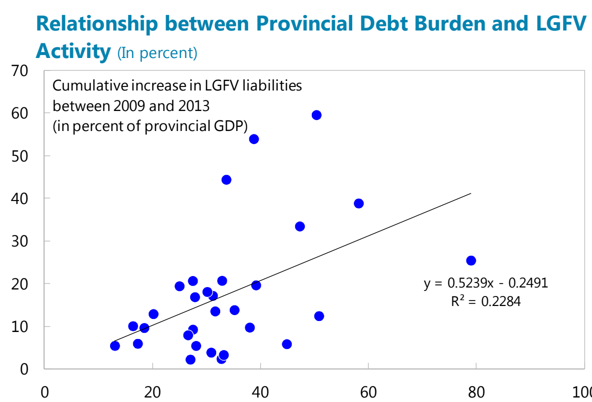
Sources: NAO; and IMF staff estimates.
1/ including explicit government debt, government guaranteed debt, and the liabilities that the government may incur obligations.



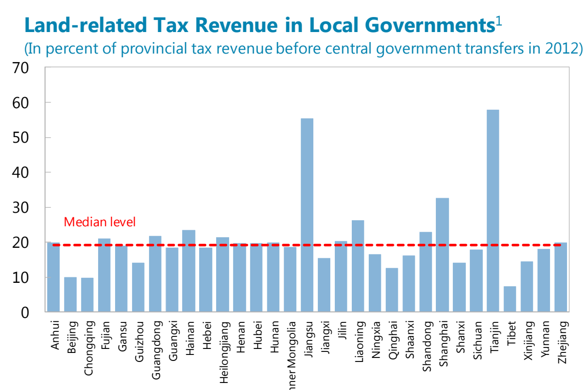
Sources: WIND; and IMF staff estimates and calculations.



Sources: NAO; provincial audit offices; and IMF staff estimates and calculations.
[1]Includes explicit debt and all government guaranteed debt and contingent liabilities based on provincial audit results. The provincial debt audit considered that only part of government guarantee obligations and contingent liabilities would eventually become government debt based on historical evidence.



Sources: WIND; CEIC; and IMF staff estimates and calculations.



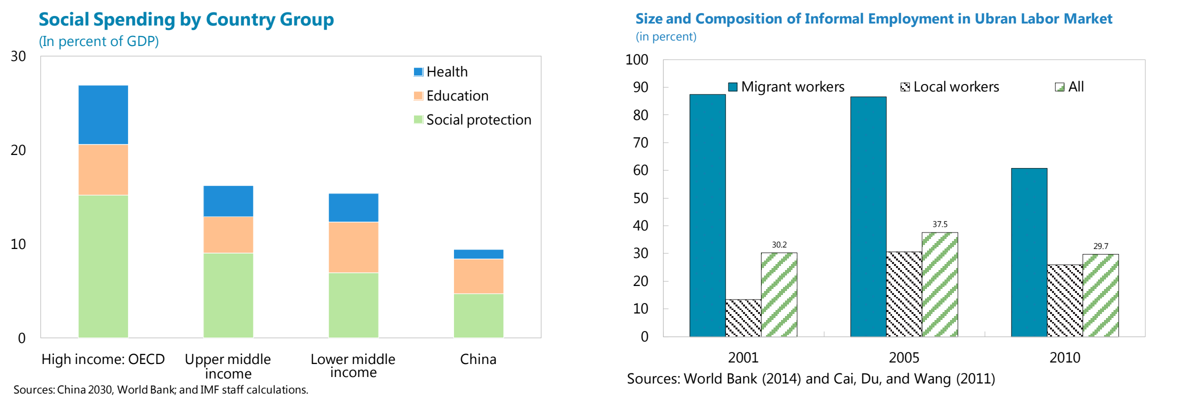
Sources: CEIC; and IMF staff estimates and calculations.
[1] Includes city maintenance and construction, stamp duties, house tax, value-added tax for land, and use of urban land revenues. The large shares in Jiangsu and Tianjin are driven by the large city maintenance and construction revenues.

another 3–4 percent of GDP to fully finance the basic old-age pension and to gradually meet the legacy costs of current obligations (Figure 6). These would add up to additional social expenditures expenditures of around 7–8 percent of GDP by 2030, including the demographic effect (World Bank and DRCSC 2013, IMF 2013). Assuming a gradual approach, by 2020 the social spending would increase by 5–6½ percent of GDP to reach 15–16 percent of GDP. The increased spending would place China near to the level of average middle-income countries and within the lower range of high-income countries (text table).

		Middle Income		
Expenditure	OECD	Upper Middle	Lower Middle	China
Total outlays	41.6	33.1	36.1	25.7
Socia epxenditures	26.9	16.2	15.4	9.4
Health	6.3	3.3	3.1	1.0
Education	5.4	3.9	5.4	3.7
Social protection	15.2	9.0	6.9	4.7
Other	14.7	16.9	20.7	16.3

Note: World Bank China 2030; data as of 2007, except for China as of 2008.

Figure 6. China: Moderate Increase in Social Services Spending



The size of additional social spending is large but affordable as part of a package of fiscal reforms. For example, it could be 'financed' by a combination of reprioritizing government spending away from public infrastructure and additional revenue from implementing the reforms discussed above Over the medium term, off-budget spending—measured by the augmented net borrowing (7½ percent of GDP in 2013)—would also need to be contained. Further strengthening the pension and health insurance systems—including by improving and expanding coverage could improve financing and efficiency in social programs.

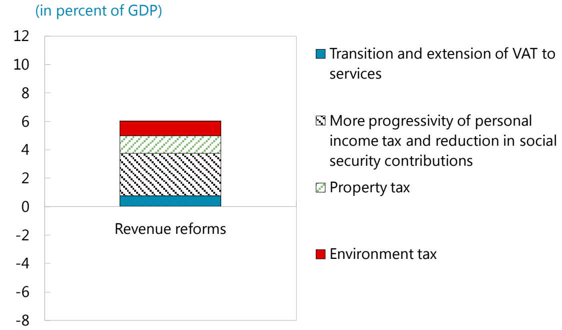
C. Menu of Options to Fiscal Reforms

A menu of options illustrates how the mix of revenue reforms, cuts in off-budget spending, and higher social spending can be consistent with ensuring fiscal sustainability. Revenue reforms would generate fiscal resources of 4½–6½ percent of GDP, while gradually cutting public investment would release 5 percent of GDP. These two steps would provide scope to increase social spending on health, education, and social security to levels comparable to other emerging markets. While, at the same time, also achieve the desired consolidation of off-budget activity by about 1 percentage point of GDP a year over the medium term, though the pace of adjustment each year would depend on the macroeconomic conditions (Table 3). As indicated before in Section III, the resources from

Table 3. Menu of Options for Medium-Term Fiscal Adjustments

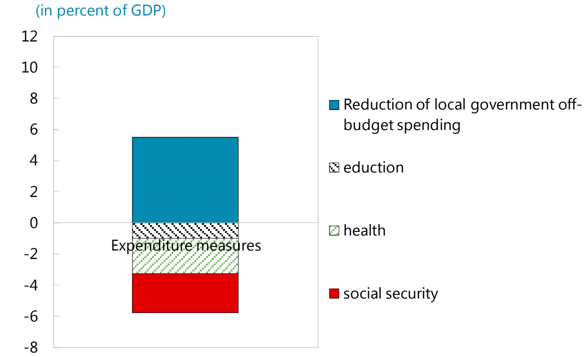
Fiscal Adjustment	In percent of GDP
Revenue measures	**4.5-6.5**
Transition and extension of VAT to services	0.5-1.0
More progressivity of personal income tax and reduction in social security contributions	2.0-3.0
Property tax	1.0-1.5
Environment tax	1.0
Expenditure measures	**0.5-1.0**
Reduction of local government off-budget spending	-5.5
Increase of social spending	5.0-6.5
Of which:	
Education	1.0
Health	2.0-2.5
Social security	2.0-3.0
Net adjustment from above measures	**4.0-5.5**
Financing towards consolidation of augmented fiscal balance	*-5.0*

Fiscal Revenue Reforms
(in percent of GDP)



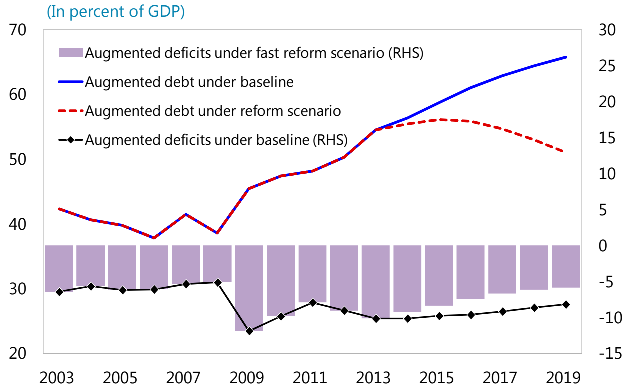
Sources: staff estimates.

Fiscal Expenditure Reforms
(in percent of GDP)



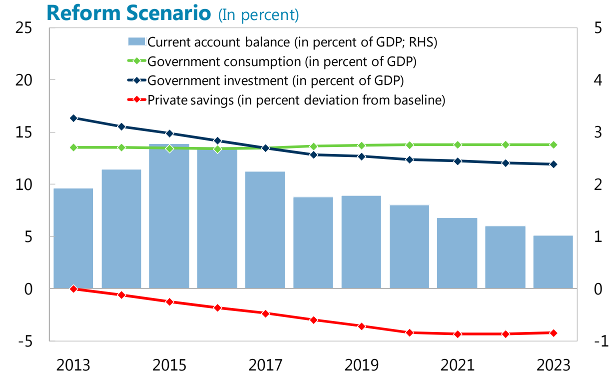
Sources: staff estimates

Augmented Fiscal Balance and Debt
(In percent of GDP)



Source: IMF staff estimates.

China: Saving and Investment Balance Under Fast Reform Scenario (In percent)



Sources: IMF staff simulations.

revenue reforms will come from strengthening progressivity of the individual income tax and social security contributions, transitioning to the VAT on services and gradually unifying to ideally a single rate, introducing recurrent property tax, and strengthening environmental taxes. An illustrative scenario shows that the package of measures also ensures that public finances are sustainable. Implementing all the fiscal reforms in the menu of options would result in government debt being on a firmly downward path over the medium term. This contrasts to a baseline that assumes a slow reform implementation, in which the augmented government debt will continue to rise over the medium term.

V. Conclusion

The paper illustrates how revenue reforms can contribute to more inclusive and environment-friendly growth in China. Compared to OECD economies, China has considerable scope to increase the redistributive role of fiscal policy. Key steps would include reducing the reliance on indirect taxes and increasing the progressivity of the individual income taxes and social security contributions. Other measures include introducing a recurrent property tax, strengthening environmental taxation, and transitioning towards a comprehensive VAT.

These revenue reforms serve as a key part of a package of reforms to boost social spending and ensure public finances are sustainable. The revenue reforms could generate additional fiscal space of 4.5–6.5 percent of GDP. Meanwhile, combined with reductions in off-budget public infrastructure spending—mainly by containing local government borrowing—this would make room for a gradual but considerable hike in social spending. Overall, the package of reforms would achieve a consolidation in the augmented deficit of about 1 percentage point of GDP a year over the medium term, though the annual adjustment pace should be calibrated based on economic conditions.

APPENDIX

Appendix Table 1. Distribution of Fiscal Revenue Across Subcentral Governments

	General gov.	Central gov.	Local gov.	Sub-national governments 1/ Provincial	Prefecture	County	Township	Revenue of sub-national gov. in percent of GDP
	in RMB billions			in percent of total sub-national gov. tax revenue				
Tax revenues	As of 2012							
Value-added tax	2642	1968	674	19.6	32.0	31.9	16.6	1.3
Business tax / Operations	1575	20	1554	29.2	30.5	29.1	11.3	3.0
Urban maintenance and development tax	313	19	293	6.4	44.5	36.1	13	0.6
Corporate income tax	1965	1208	757	37.8	31.1	23	8.1	1.5
Personal income tax	582	349	233	34.6	31.2	25.1	9	0.4
Property tax	563		563	8	37.9	39.7	14.5	1.1
Reserouce tax	90		86	19.4	16.7	37	26.9	0.2
Other	601	29	572	6.3	32.2	40.7	20.7	1.1
Total of sub-national gov. tax revenues			4732	23.3	32.9	31.1	12.7	9.1
in percent of GDP			*9.1*	*2.1*	*3.0*	*2.8*	*1.2*	
Nontax revenues	As of 2012			in percent of sub-national gov. non tax revenue 1/				
Operating Expense in Administration D	458	38	420	35.6	31.1	28.9	4.4	0.8
Penalty Income	156	4	152	36.4	31.8	27.3	4.5	0.3
Special Project Income	323	41	282	16.7	33.3	50.0	0.0	0.5
Other Income	727	205	522	41.2	29.4	23.5	5.9	1.0
Nontax revenues for sub-national government			1376	35.6	31.1	28.9	4.4	2.7
Memorandum item:				in percent of 2012 national GDP 3/				
Land sales receipts 2/		34	2852	1.4	2.1	1.8	0.2	5.5

Sources: CEIC and OECD (2013).
1/ Distribution across sub-national governments based on local fiscal statistical yearbook for 2009.
2/ For local governments, the receipts consist of (i) compensation from "newly constructed land use" fund RMB 77.3 bn; (ii) compensation from the "Transfer of usage rights for government-owned land" fund RMB 2665 bn, (iii) revenues from government owned land fund RMB 89.7 bn, and cultivation fund of argricultural land 19.5 bn.
3/ The distribution across sub-central governments is based on the relative share in 2009.

Appendix Table 2. Reconciliation of Staff Estimates and National Audit Office on General Government Debt

(As of end-2012; in percent of GDP)	Total	Central Government Total	Explicit debt	Contingent Liabilities Guaranteed debt	May incur liabilities	Local Government Total	Explicit debt	Contingent Liabilities Guaranteed debt	May incur liabilities
Staff estimate of augmented debt 1/									
Last year's staff report (IMF Country Report No. 13/211) 2/	46.2	14.4				31.8			
Revised staff estimate this year for debt in 2012	50.3	18.1				32.2			
Staff estimate of general government debt 3/									
As of end-2012	37.4								
As of end 2013	39.4								
National Audit Office (2013) 4/									
Total debt as of end-2012	**53.5**	*22.9*	18.2	0.5	4.2 5/	*30.6*	18.5	4.8	7.3
Government debt as of end-2012 6/	**39.4**	*18.9*	18.2	0.1	0.6	*20.5*	18.5	0.9	1.1
Memorandum item:									
Fraction of contingent liabilities NAO considered as government debt				*19.1*	*14.6*			*19.1*	*14.6*

Sources: NAO; and IMF staff estimates.
1/ Augmented debt expands the perimeters of general government to include off-budget activity and local government financing vehicles activity.
2/ Staff estimate of augmented debt in 2012 excluded debt by China Railway Corporation and debt for bank recapitalization (about 7 percent of GDP in total).
3/ Staff estimate of general government debt is based on applying a similar share of total debt as government debt according to the NAO audit. Staff estimate excludes the debt by China Railway Corporation.
4/ National Audit Office report (2013).
5/ National Audit Office report included the debt raised by China Railway Corporation (4.2 percent of GDP) as a contingent liabilities.
6/ National Audit Office report applied a fraction (19.1 percent of guaranteed debt and 14.6 percent of the liabilities that the government may be obliged to repay) of those debt as government debt, based on the historical data.

Appendix Table 3. Recent Tax Reform Initiatives in China 1/

	Transition from Business Tax to VAT	Corporate income tax	Personal income tax	Property Taxes
Current tax system	Tax rate of 3-5 percent on business tax based on turnover and 5-20 percent for entetainment services; A standard VAT tax rate of 17 percent was applied on goods and 6-11 percent on selected services. 2/	A profit tax of 20-25 percent for enterprises	Marginal tax rates on wage income range from 3-45 percent in 7 progressive scales. Tax rates for other personal income at about 20 percent. 3/ 4/	- Real estate tax are levied in the form of urban land use, land appreciation, and properties other than privately-owned residential units, proeprty contracts based on use and transactions. - Tax on privately-owned residential property was rolled out in several pilot areas. 5/
	Tax reform measures and initiatives			
2008		- Standardize tax rates between Chinese enterprises and foreign investment or enterprises.		
2010				- Pilots to introduce property taxes for residential property approved.
2011	- The plan to establish pilots for The transition from business turnover tax to value-added tax was jointly approved by The State Council, MoF, and State Administration of Taxation.		- The number of tax brackets was reduced from 9 to 7 with rates ranging from 3-45 percent.	- A tax rate of 0.5-1.2 percent was introduced for residential properties in Shanghai and Chongqing. 4/
2012	- Beginning January, Shanghai was the first pilot area for the transition to VAT for transportation and modern services. - Pilots areas extended to 8 provinces from September to December.			
2013	Transition to VAT tax was extended to entire country for transportation and part of modern services in August.			
Authorities' current plan and initiatives 6/	*1) Extend pilot areas for railway transportation and telecommunications; extend other services to include in pilot areas* *2) Complete the transition to VAT by 2015.*		*1) Deepen the reform in social security*	*1) Plan to expand the scope and pilot areas for introducing property tax but timing is not announced.*
Fund advice (2013 AIV)	Support the transition to VAT as a support to rebalancing and promote efficiency.		Lower the rate of regressive social contributions; ensure the budget to compensate social security funds for lost revenues.	Support the property tax that help contain speculation in the real estate sector and boost local government revenues.

Sources: State Council, Ministry of Finance, and State Administration of Taxation.

1/ As of October, 2013.

2/ The 17-percent VAT rate is levied on the tangible goods, though some items are subject to 13 percent rate. The 11 percent rate is levied on transportation services and the 6 percent rate is levied on R&D, technological, cultural, logistical and consultative services.

2/ Income from sole proprietorship and contractual work carries a tax rate of 5-35 percent in 5 progressive scales.

3/ Employees and employers also have social security contributions that range about 10-30 percent of employment income, respectively. Employment incomes are subject to a threhsold between 60 percent to 300 percent of the previous year's local average income determined by local statistics departments.

4/ A tax of 0.5-1.2 percent was introduced for single-family houses and high-end apartments in Chongqing, while a property tax of 0.6 percent was levied on newly purchased properties for residents who has two or more proeprties and newly purchased properties for nonresidents in Shanghai.

5/ Fiscal tax reform is listed as one key area of reforms in a recent reform framework proposal by the State Council Development Research Center, which serves as inputs to the Third Plenum discussion.

REFERENCES

Barnett S., and Y. Zhang, 2014, "Fiscal Vulnerabilities and Risks from Local Government Finance in China," IMF Working Paper No. 14/4 (Washington: International Monetary Fund).

Brys, B., S. Matthews, R. Herd, and X. Wang, 2013, "Tax Policy and Tax Reform in the People's Republic of China," OECD Taxation Working Papers, No. 18, OECD Publishing.

Cai, Fang, Yang Du, and Meiyan Wang, 2011, "Overview of China's Labor Market," Institute of Population and Labor Economics, China Academy of Social Sciences, Beijing.

Cevik, S. and C. Carolina Correa-Caro, forthcoming, "Growing (Un)equal: Fiscal Policy and Income Inequality in China and BRIC+," IMF Working Paper (Washington: International Monetary Fund).

International Monetary Fund, 2013, "People's Republic of China: 2013 Article IV Consultation-Staff Report," IMF Country Report No. 13/211. Available via the Internet: http://www.imf.org/external/pubs/ft/scr/2013/cr13211.pdf

———————, 2014, "People's Republic of China: 2014 Article IV Consultation-Staff Report," IMF Country Report No. 14/235. Available via the Internet: http://www.imf.org/external/pubs/cat/longres.aspx?sk=41799.0

Lam, W. R. and W. Maliszewski, forthcoming, "Giving Credits to China's Slowdown: Reforms to Achieve More Inclusive and Sustainable Growth," IMF Working Paper (Washington: International Monetary Fund).

Ministry of Finance, 2013, "Public Finance Yearbook," (Beijing: Ministry of Finance).

Norregaard, J., 2013, "Taxing Immovable Property: Revenue Potential and Implementation Challenges," IMF Working Paper No. 13/129 (Washington: International Monetary Fund).

Pallares-Miralles, M., C. Romero, and E. Whitehouse, 2012, "International Patterns of Pension Provision II: A Worldwide Overview of Facts and Figures," (Washington: World Bank).

Parry, I., D. Heine, E. Lis, and S. Li, 2014, "Getting Energy Prices Right: From Principles to Practice," (Washington: International Monetary Fund).

Survey and Research Center for China Household Finance, 2013, "China Household Finance Survey," Survey and Research Center for China Household Finance, Southwestern University of Finance and Economics, Chengdu, China. Available via the Internet: http://www.chfsdata.org/

Wang, X. and R. Herd, 2013, "The System of Revenue Sharing and Fiscal Transfers in China," OECD Economics Department Working Paper, OECD, Paris, No. 1030.

World Bank Group, 2013, “China 2030: Building a Modern, Harmonious, and Creative Society.” Available via the Internet:
http://documents.worldbank.org/curated/en/2013/03/17494829/china-2030-building-modern-harmonious-creative-society