MINISTÈRE DE L'ÉCONOMIE, DES FINANCES ET DE LA SOUVERAINETÉ INDUSTRIELLE ET NUMÉRIQUE
Liberté
Égalité
Fraternité

Tresor-Economics

No. 327 • May 2023

Direction générale du Trésor

# China's Public Finances: Short-Term Risks and Structural Issues

*Thibault Alix, Thomas Carré, Lennig Chalmel*


- Public finances have been a major driving force behind China's growth, not least through public investment at the local level particularly since the 2008 crisis. In 2019, China's public spending amounted to 24% of GDP according to official statistics, versus the 36% and 41% figures reported by the IMF and the OECD respectively.

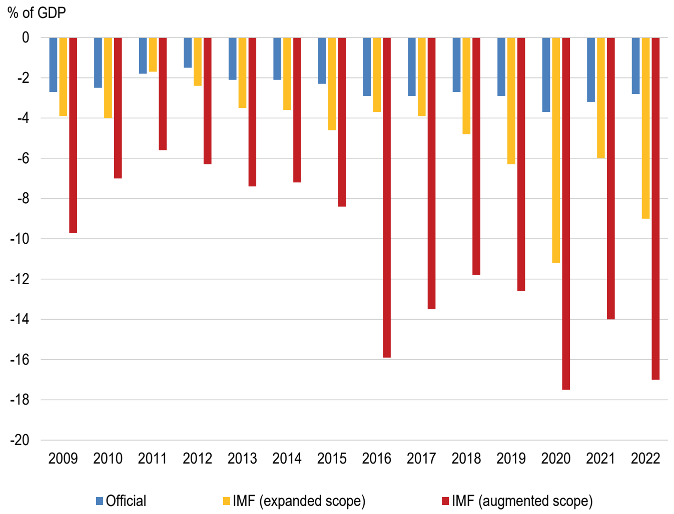
- Analysing China's public finances is hindered by the lack of clarity in the definition of the prerogatives of various administrative levels (central, provincial, prefecture, county, city) in the Constitution of the People's Republic of China and Chinese law, as well as by the fact that national laws often merely outline principles which are subsequently implemented at local level with significant leeway. The structure of public accounts is also based on opaque and complex methodology, lacking clarity on what spending falls within their scope, and the line between local and central government sometimes being blurred.

- Public accounts structurally post a high level of deficit and debt. These two indicators have considerably worsened over the past few years, particularly as a result of the COVID-19 pandemic (see Chart). The situation at local level now emerges as a financial stability issue, with 57% of total government debt incurred at this level – according to official data – in a relatively opaque way.

- While local financial risks are high, a short-term systemic crisis seems unlikely given the guarantees granted by the central government and the fact that a large portion of the debt is held by major banks and local government entities.

- Over the long term, imbalances and risks relating to public finances hamper growth and its necessary rebalancing, implying a shift from investments to domestic consumption. Despite the proactive stance of the authorities and the repeated recommendations of international observers, implementation of the reforms – a designated priority since 2013 – is still a slow and piecemeal process.


**Change in Chinese general government balance based on the determined scope**




*Sources: Chinese Ministry of Finance and IMF.*

Note: The official general government balance only relates to the first public account. The IMF's expanded scope covers all the accounts of the official government budget, whereas the augmented scope also covers off-balance sheet expenditure.

## 1. The ability of China's public finances to boost growth is reaching its limits

### 1.1 Public finances have played a key role in boosting the Chinese economy

The highly decentralised structure of public finances has played a crucial role in China's economic growth, particularly in the 2010s. Since 1978, the role of the Chinese authorities has first and foremost involved "meeting the ever-increasing needs of the people". Initially this watchword pushed for efficiency, flexibility and rapid local coordination, fostered by an environment in which strong economic results would allow local politicians to climb the career ladder. This resulted in fast and effective implementation of economic development policies. The recovery efforts made by the Chinese authorities after 2008 and the decentralised structure of public finances resulted in a swift provision of infrastructure for the country through the use of local public investment. Overall, according to IMF estimates (expanded scope, see below), the level of public spending increased from 28% of GDP in 2010 to 36%[1] in 2022.

### 1.2 This driving role seems to have reached its limits

The fiscal balance of local governments is structurally unbalanced: even though only 55% of general revenue[2] is directly channelled to them, they incur 85% of expenditure. This expenditure is often decided centrally and has to be implemented at local level, although the corresponding specific resources are not necessarily allocated (for example regarding the recovery plan in 2008). Local governments therefore rely to a large degree on transfers from the central government (see below). This structural imbalance has also led to an increase in their already massive debt, including off-balance sheet debt.

The development model driven by public investment is also running out of steam, with public investments generating less and less growth over the long term. An aggregate indicator of their yield, the incremental credit-to-output ratio (ICOR),[3] has greatly deteriorated as a result since the early 2010s. Putting provincial leaders in competition with each other in line with the watchword "everything for growth" has also exacerbated over-investment and ineffective capital allocation, and has worsened the negative impacts on the environment and inter-provincial inequalities.

## 2. The operation of China's public finances is complex and opaque[4]

### 2.1 An accounting system comprising four public accounts[5]

China's public finances are structured into four accounts. Their scopes are poorly defined, particularly because they do not correspond to administrative levels of responsibility and of expenditure and revenue management. Transfers and adjustments between these accounts also make the whole system more complex.

- **First public account: ordinary revenue and expenditure**

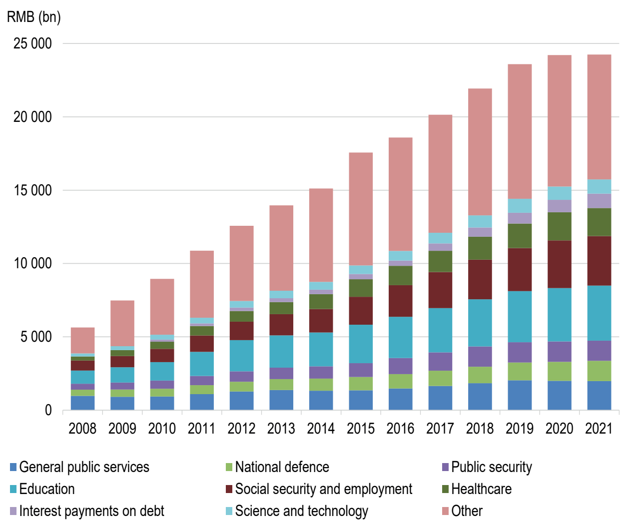
The Chinese administrative system is primarily organised into two levels: the central government level and the local government level (provincial governments and lower levels). The responsibilities of each level are not precisely set out, but there is in practice a division of roles.

As far as ordinary expenditure is concerned, local governments and, more broadly speaking, all

(1) Nominal GDP for China in 2022 is RMB 121,021bn (€17,289bn). The exchange rate applied for this paper is €1:RMB 7.
(2) Of the first public account, see below.
(3) This indicator measures the ratio between the level of investment in a given economy and the resulting GDP increase. More specifically, it measures the number of additional units of investment or capital required to create one additional unit of production. The larger the figure, the less productive the capital invested. China's ICOR currently stands at 8, with an ICOR of between 4 and 5 being considered an issue.
(4) The IMF notably used the terms "complex" and "opaque" in this context. See P. Wingender (2018), «Intergovernmental Fiscal Reform in China», IMF, *Working Paper* No. 2018/088.
(5) See in particular the Annual Report of the Chinese Ministry of Finance, published for the fifth session of the 14th National People's Congress on 5 March 2023.

regional levels of government[6] are responsible for providing general public services (90% of total national expenditure for public services) and funding for education and the social security budget (over 90% of total national expenditure for education, healthcare, environmental protection and the social security benefits, see Chart 1).

**Chart 1: Expenditure structure (national general budget)**




*Source: Chinese Ministry of Finance.*

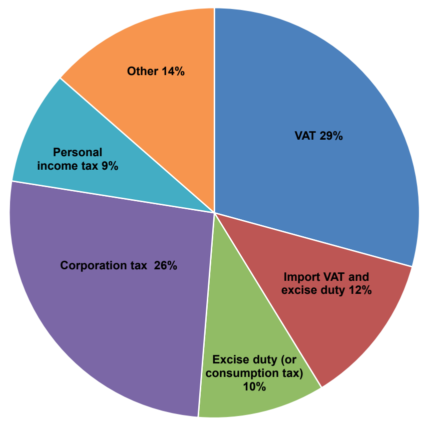
Note: This is the expenditure of the first public account, which does not factor in, for example, infrastructure investments. The "Other" category includes expenditure on agriculture, urban and rural affairs, transport, environmental protection and diplomacy.

Meanwhile the central government incurs expenditure in strategic sectors where economies of scale play a major role and coordination is an imperative e.g. defence and national security, diplomacy, major infrastructure expenditure and science and technology. Most notably, national defence accounted for 40.7% of central government expenditure in 2022, excluding any transfers to local levels.

These transactions are recorded in the first public account, which combines local and central government levels (see Chart 1). In 2022, 82% of direct revenue in this account – which itself accounts for 16.8% of GDP – was generated from tax revenue (see Chart 2). 2022 was a stand-out year for non-tax revenue (which was up 24%), generated from the sale of public assets, capital income and fines. In addition, in 2022, transfers to the first public account (from fiscal stabilisation funds, the second public account's governmental funds and government capital operations i.e. from the third public account, see below) accounted for around 9% of total revenue in the first public account.

These transactions are recorded in the first public account, which combines local and central government levels (see Chart 1). In 2022, 82% of direct revenue in this account – which itself accounts for 16.8% of GDP – was generated from tax revenue (see Chart 2). 2022 was an unusual year for non-tax revenue (which was up 24% YoY), generated from the sale of public assets, capital income and fines. In addition, in 2022, transfers to the first public account (from fiscal stabilisation funds, the second public account's governmental funds and government capital operations i.e. from the third public account, see below) accounted for around 9% of total revenue in the first public account.

**Chart 2: Breakdown of national tax revenue (first public account) in 2022**




*Source: Chinese Ministry of Finance.*

Note: This is the revenue of the first public account. The account's limited scope means that comparisons cannot be made internationally with the total tax revenue of other countries.

The official balance of the general budget is the balance of the first public account. It therefore does not reflect the consolidated balance of all public accounts, which the Chinese Ministry of Finance does not disclose. The official balance includes transfers from other accounts, thus ensuring that the target deficit set every year is systematically achieved. In 2022, the official public deficit stood at 2.8% of GDP. The central government and local authorities meet their official financing needs (after transfers and adjustments) on the national bond markets by issuing "general bonds" that fund the general budget equal to the official general deficit forecast at the start of the year.

- **Second public account: government funds**

The second public account comprises government funds, managed outside the scope of the general public budget (first public account). Over 80% of the second public account is composed of local funds

(6) To wit, the provincial level and lower levels, with prefectures and counties being responsible for two thirds of local government expenditure.

(the main contribution to which is provided by revenue from the sale of land use rights), which are destined to fund investments in particular for infrastructure projects (total public investment in infrastructure is not published on a consolidated basis). There are also national sector-specific funds such as national funds for railway construction and civil aviation development.

In 2022, the consolidated revenue of this account accounted for 11% of GDP (i.e. €1,900bn), which breaks down as follows:

- revenue from the sale of land use rights, representing approximately half of total revenue (including transfers and bond issues);
- local authorities' own resources, such as various taxes and levies (e.g. on modes of transport and lotteries), accounting for approximately 8.5% of revenue;
- transfers of the profits generated by State-owned enterprises, representing 14% of total revenue. This item was unusually high in 2022 so as to cope with revenue churn relating to the sale of land use rights, which fell 23% that year;
- issues of special purpose bonds (SPB), carried out by local authorities and regulated by an annual quota set by the Chinese authorities, accounting for 25% of the total revenue of the second public account.

- **Third public account: government capital operations**

Third public account includes government capital operations. Its main source of funding is a portion of the profits generated by State-owned enterprises at central and local levels. This account only represents a small amount of the consolidated budget of the four public accounts (1.5% of the total in 2022).

- **Fourth public account: social security fund**

The last public account covers transactions relating to the social welfare system (e.g. pension insurance, health insurance, unemployment insurance). In 2022, the revenue of this account accounted for 8.4% of GDP, primarily comprising insurance premiums (72% of the total) and government grants (23%). Expenditure from this account constituted 7.6% of GDP, nearly all of which was incurred by local governments. The fourth public account is therefore in surplus. The lack of detail in the data means that there could very well be an overlap with social welfare expenditure recorded in the first public account.

### Box 1: Transfers and organising fiscal federalism

A number of transfers are carried out between the central government and local authorities. In 2022, these transfers represented a total of 8% of GDP and accounted for 45% of all local government resources. The total amount of these transfers has increased more than tenfold over the course of twenty years. The transfers system, deeply rooted in the structural imbalance of the division of revenue and expenditure, increases the local governments' reliance on the central government and the uncertainty surrounding the amounts allocated to them. The system also contributes significantly to making the analysis of China's public accounts more complex.

From a technical standpoint, the Chinese Ministry of Finance makes a distinction between:

- General transfers (6.7% of GDP), carried out so as to ensure resource equalisation, fund certain obligations (social security, salaries of civil servants, education) and compensate for revenue losses resulting from the 1994 and 2001 tax reforms[a].
- Special transfers (1.3% of GDP), the funds of which are earmarked for a specific usage (e.g. infrastructure, transport, housing, employment).

a. These reforms have overhauled China's tax organisation and favoured central government with an increase in the revenue allocated to it.

## 2.2 This four-account structure does not include off-balance sheet commitments, a potential threat to financial stability

The debt of local authorities is supervised at national level, its distinctive feature being a ban on excessive use of debt. Before 2014, local public authorities were formally prohibited from incurring debt. However, since then, the budget law has been amended to allow for bond issue (with "general" bonds, which are distinct from special purpose bonds that fund infrastructure and are recorded differently), within a strict framework, under the supervision of the Chinese Ministry of Finance.

However, in addition to these official budgets, the recurrent imbalance between the expenditure and resources of local governments and their actual role in policy implementation have led them to introduce new methods for funding their missions, by assigning them

## Box 2: LGFV liabilities

Tolerated since the late 1990s and later encouraged during the 2009 recovery plan, there are estimated to be over 10,000 LGFVs in China.[a] They cover a wide variety of specific situations based on their proximity with local governments and on their activities. Some LGFVs have been involved in the implementation of the public service mandates assigned to local governments, while others have been involved in strategies to diversify beyond the original missions. Their legal status is still poorly defined: for instance, a 2017 directive[b] from the Chinese Ministry of Finance, the central bank (People's Bank of China) and regulators made the registration of LGFVs under the ambiguous label "independent full-fledged State-owned enterprise" mandatory, without the implementation of a centralised oversight of LGFVs nationwide.

Initially, LGFVs were largely funded by banks, in particular the China Development Bank (CDB) and local banks, before gradually shifting to financing obtained from both shadow banking[c] and the bond market[d] LGFV issues on the bond market were especially subscribed by funds channelled from wealth management products (WMP).

Land provided by local governments and then used as collaterals to secure loans continue to be the traditional financing arrangement for LGFVs. This factor, in addition to the close ties between LGFVs and local governments that allow these vehicles to benefit from an implicit guarantee, secures them very low-cost financing. While the guarantee is often not explicit, the narrow rate spread between bonds issued by LGFVs and Chinese sovereign bonds highlights the scale of this phenomenon.

The total of LGFV liabilities is unknown, with the last estimate published officially by the National Audit Office dating back to December 2013. At the time, the off-balance sheet debt of local governments was estimated to be 12% of GDP. In 2022, the IMF estimated that the debt of LGFVs and other funds recognisable by local governments stood at 58% of GDP which is twice the amount of their official debt (29% of GDP). The IMF estimates that if this trend is followed, the off-balance-sheet debt will represent 81% of GDP in 2027.

Shortly after the official 2013 audit that acknowledged that it was in fact local governments that were liable for a portion of the debt borne by para-public entities, a part of these liabilities was recorded in the public accounts. A swaps programme took place between 2015 and 2018 during which LGFV loans were repaid with the issue of new local government bonds. This bailout is said to have totalled RMB 14,000bn[g] roughly 20% of the 2015 GDP figure.

a. Y. Huang, C. Bosler (2014), "China's Debt Dilemma: Deleveraging While Generating Growth", *Carnegie Endowment for International Peace*.
b. "Supplementary rules on funding and borrowing activities of local governments", April 2017.
c. C. Zhuo, H. Zhinguo, L. Chun (2017). "The financing of local government in China: stimulus loan wanes and shadow banking waxes", *NBER* No. 23598; B. Chong-En, H. Chang-Tai & M. S. Zheng (2016). "The Long Shadow of a Fiscal Expansion", *NBER* No. 22801.
d. Particularly with the easing of restrictions on LGFV bond issues on the Chinese interbank market in 2014 ("Guiding principle for the healthy development of capital markets", State Council, May 2014).
e. A. Ang, J. Bai, H. Zhou (2016). "The Great Wall of Debt: Real Estate, Political Risk, and Chinese Local Government Credit Spreads"; D. Clarke, F. Lu (2016), "The Law of China's Local Government Debt Crisis: Local Government Financing Vehicles and Their Bonds", George Washington University Law School, *GWU Legal Studies Research Paper* No. 2016-31.
f. D. Law, S. K. Roache (2015). "Assessing Default Risks for Chinese Firms: A Lost Cause?", IMF, *Working Paper* No. 2015/140.
g. H. Hoyle & P. Jeasakul, IMF, IMF Country Report No. 22/22: People's Republic of China, Selected Issues, Local Government Financing Vehicles Revisited.

to various kinds of public entities. These entities include funds such as local government financing vehicles (LGFV), government-guided funds (GGF) – which invest in businesses in strategic sectors particularly – and special construction funds (SCF). These funds can incur debt without the sums concerned appearing in the official accounts. A comprehensive calculation of the public deficit or debt therefore would need to include an extra-budgetary balance primarily relating to the funding needs of LGFVs. The 2014 law did not put an end to this practice, as the cap on bond issues set by the Chinese Ministry of Finance continues to be insufficient given local government spending.

### 2.3 An aggregate view of China's public finances is estimated by the IMF[7]

Using an "extended" scope for public finances, the IMF has set out an aggregate panorama of all official public administrations through a consolidation of

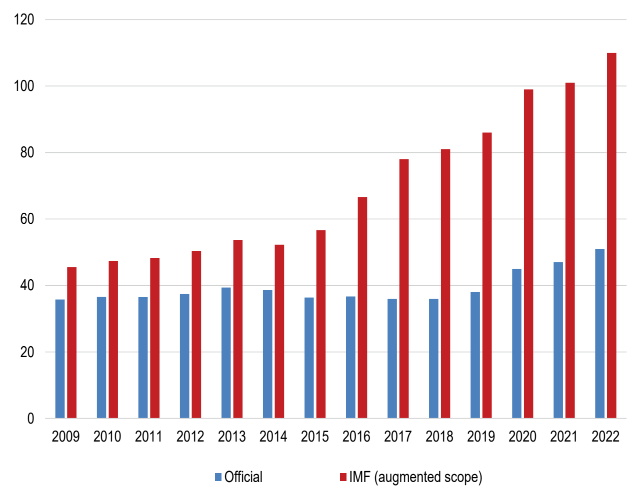
(7) Y. S. Zhang & S. Barnett (2014), "Fiscal Vulnerabilities and Risks from Local Government Finance in China", IMF, Working Paper No. 2014/004; IMF, IMF Country Report No. 23/67: People's Republic of China, Staff Report for the 2022 Article IV Consultation, Appendix III, Sovereign Risk and Debt Sustainability Analysis.

the four accounts. More than just a mere addition task, this view requires detailed and complex calculations based on methodological choices. Even though it cannot completely eliminate the risk of double counting, it provides one of the only deficit estimates available that allows for comparison on an international scale. The estimate for the "expanded" deficit (Fund definition) is 9% of GDP for 2022.

This approach, which only calculates aggregates, is however not able to provide a clear insight into expenditure by line item or accounts by administrative level. It also does not factor in off-balance sheet commitments and particularly LGFVs.

To factor in off-balance sheet financing, the IMF also estimates a so-called "augmented" deficit and debt, for which the calculation is supplemented with an estimate of the transactions carried out by LGFVs, government-guided funds and SCFs. When using this calculation method, China's public deficit is 17% of GDP (of which 7% for off-balance sheet commitments alone). Government debt would also rise from 51% (official scope) to 110% of GDP in 2022 using the augmented scope.

**Chart 3: Change in China's government debt using a given scope (% of GDP)**




*Source: Chinese Ministry of Finance.*

## 2.3 An aggregate view of China's public finances put forward by the IMF[8]

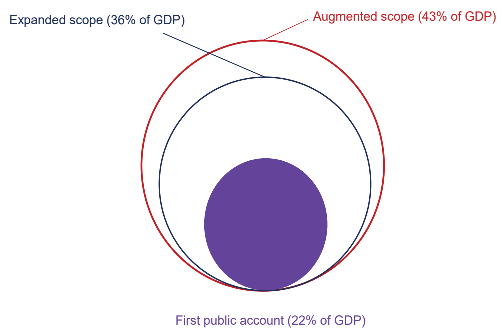
Using an "expanded" scope for public finances, the IMF has set out an aggregate panorama of all official public administrations through a consolidation of the four accounts. More than just a mere addition task, this view has required detailed and complex restatements based on methodological decisions. Even though it is unable to completely eliminate the risk of double counting, it provides one of the only deficit estimates available that allows for comparison on an international scale. The estimate for the "extended" deficit (Fund definition) is 9% of GDP for 2022.

This approach, which only calculates aggregates, is however not able to provide a clear insight into expenditure by line item or accounts by administrative level. It also does not factor in off-balance sheet commitments and particularly LGFVs.

To factor in off-balance sheet financing, the IMF also estimates a so-called "augmented" deficit and debt, for which the calculation is supplemented with an estimate of the transactions carried out by LGFVs, government-guided funds and SCFs. When using this calculation method, China's public deficit is 17% of GDP (of which 7% for off-balance sheet commitments alone). Government debt would also rise from 51% (official scope) to 110% of GDP in 2022 using the augmented scope.

The IMF has highlighted two main limitations to its estimate: (i) some non-governmental activities (purely of a commercial nature) are likely to fall within the scope given the recognition of LGFV debts, and (ii) some governmental budgetary activities, such as public-private partnerships (PPP), are still not recognised. Nonetheless, these estimates are invaluable for giving a true insight into China's public finances (see Charts 3 and 4).

**Chart 4: Level of public spending in 2022 using a given scope**




*Sources: Chinese Ministry of Finance, IMF, DG Trésor calculations.*

(8) Y. S. Zhang & S. Barnett (2014). "Fiscal Vulnerabilities and Risks from Local Government Finance in China", IMF, *Working Paper* No. 2014/004; IMF, *IMF Country Report No. 23/67: People's Republic of China, Staff Report for the 2022 Article IV Consultation, Appendix III, Sovereign Risk and Debt Sustainability Analysis*.

## 3. Financial pressures are worsening while implementation of the public finance reform is floundering

### 3.1 Local finances are experiencing a high degree of pressure

China's public accounts post high deficit and debt levels. Structurally, public spending goes up in order to bolster growth (see above). As for revenue, the proportion of tax and social security revenue in relation to GDP stood at 22.1% for China in 2019, with income tax constituting 5% of tax revenue, versus the OECD average of 33.8% and 24% respectively. Items such as income tax, customs duties and social security contributions for businesses are subject to a large amount of tax expenditure and are hampered by collection issues and tax evasion/tax avoidance, all three factors being hard to quantify.

With the compound crisis of the COVID-19 pandemic and the property sector, local governments saw expenditure rise while revenue fell, with this revenue depending on the property sector at an average rate of 40%.[9] Official government debt rose by 12 percentage points between 2019 and 2022 (to 50.4% of GDP), which for the augmented scope is an increase of 24 percentage points according to IMF estimates (to 110% of GDP at end 2022). This situation has played a part in the sharp rise in transfers (the portion of which in the revenue of the first public account increased by 6 percentage points to 45% in 2022) carried out by the central government and State-owned businesses, and has prompted some local governments to lower the wages of civil servants or to extend commercial payment times.

In any case, the financial risk at local level is currently high. The legal framework introduced in 2017 to manage local government defaults has never been put to use. According to Gavekal,[10] the risks are focused in the poorest provinces, largely located in inland areas such as Guizhou, Gansu, Guangxi and Hubei, with Tianjin (a province-level municipality) also affected. As for LGFVs, while no bond default has been recorded for the time being, there were estimated to have been 166 LGFV defaults in relation to private-sector creditors in 2022.[11] A bond default would represent a factor of instability, while the stock of bonds of LGFVs apparently accounts for half of outstanding corporate bonds. There would therefore be a strong push for local government intervention, exacerbating the moral hazard in question, restricting the clean-up of the sector, and potentially increasing the risk of an eventual disorderly correction.[12]

However, the Chinese sovereign risk has been curbed, with an A+ and A1 rating from S&P and Moody's respectively since 2017 and a government debt that is largely in local currency, while only 10% of sovereign bonds are held by foreigners.[13] According to the IMF, the financial assets of the Chinese government are estimated to total 69% of GDP – $12,500bn – the largest stock in the world.[14] Local government debt is borne first and foremost by Chinese public-sector entities. The central government also has headroom to assist provinces facing difficulties, even if, in an attempt to limit the moral hazard, it regularly proclaims it will not. Systemic risk seems to be kept at bay in the short term, even if the impacts of a potential default of a province are not easy to foresee.

### 3.2 Reforms struggle to yield results

Aware of these worsening difficulties, the Chinese authorities have announced the rollout of structural reforms for some years now. The repetition of these announcements shows their modest success. A 2013 law on the recentralisation of public finances, the modernisation of the tax system and implicit debt management sought to improve the national budgetary system – with a partial recentralisation of

(9) T. Huang (2022), "China's looming property crisis threatens economic stability", *Peterson Institute for international Economics*.
(10) Gavekal Dragonomics, *The Next LGFV Bailouts* (February 2023).
(11) According to Wind, a provider of financial information services, as referenced by Gavekal. This data shows that the total number of defaults of this kind (particularly concerning bank loans) over the past eight years is 212, which exemplifies the sharp increase observed last year.
(12) In the Guizhou province, the situation of one of the four largest LGFVs, wholly owned by the State-owned Assets Supervision and Administration Commission of the State Council (SASAC) of the city of Zunyi (population: 2.3 million) has worsened since 2019, with property sector revenue falling. The fund received a capital injection from the Chinese government in 2021, a demonstration of the implicit guarantee provided, but, in late 2022 the company became the first LGFV to announce a comprehensive restructuring of its loans, with only interest being paid during the first ten years and the principal being repaid in the following ten-year period. While the deferral of the repayment of bank loans by LGFVs from a number of relatively poor regions is not a new move, a 20-year deferral for all loans from an LGFV is unprecedented.
(13) According to China Central Depository & Clearing Co. Ltd.
(14) R. W. Lam & M. Moreno Badia (2023), "Fiscal policy and the government balance sheet in China", IMF, *Working Paper* (to be published).

certain expenditure (education, healthcare, social insurance and R&D), clarify responsibilities between the different government levels, and enhance the transfers system from central to local government levels (particularly their transparency and the equalisation they exercise), but it is not clear which of these objectives can be considered as achieved.

Implicit guarantees of local governments to LGFVs were formally prohibited by the central authorities on several occasions – in 2010, 2012, September 2014[15] and February 2017. The hidden off-balance sheet debt was also banned on successive occasions. To give another example, up until 2021 the authorities regularly suggested introducing a property tax, which since then has been pushed back indefinitely. This tax would have helped local governments build a more stable revenue base.

The measures taken up to now have nonetheless brought greater transparency to the public accounts, with several commitments undertaken in this area by local governments. More generally speaking, they have improved management of local public debt. In 2021, following the publication of the 14th Five-Year Plan which once again sets out a stringent oversight of LGFVs, the Guangdong province reported that it had purged its balance sheet of "hidden" debt. Other provinces have announced the introduction of swaps between the hidden debt and government bonds in due and proper form with a view to making the public accounts more transparent. But outside some one-off successes, the Chinese authorities seem to be stalling when it comes to putting together a deep reform as announced in 2013, particularly in relation to the strands of expenditure recentralisation, clarification on the transfer mechanisms and modernisation of the tax system. This is the case despite the fact that once again this year, local government debt has been included in the government agenda as one of the major focus areas for economic policy.[16]

(15) *Opinions of the State Council on Strengthening the Administration of Local Government Debts*, Doc. 43, September 2014.
(16) As detailed in the Report on the Work of the Government drafted by Prime Minister Li Keqiang for the occasion the 2023 edition of the annual Two Sessions (*lianghui)* meeting (p. 36), which mentions for the first time that: "*To prevent and defuse local government debt risks, we should improve the mix of debt maturities, reduce the burden of interest payments, and prevent a build-up of new debts while working to reduce existing ones*".

**Publisher:**
Ministère de l'Économie, des Finances et de la Souveraineté industrielle et numérique
Direction générale du Trésor
139, rue de Bercy
75575 Paris CEDEX 12

**Publication manager:**
Muriel Lacoue-Labarthe

**Editor in chief:**
Jean-Luc Schneider
(01 44 87 18 51)
tresor-eco@dgtresor.gouv.fr

**English translation:**
Centre de traduction des ministères économique et financier

**Layout:**
Mimose Mellia
ISSN 1962-400X
eISSN 2417-9698

## Recent Issues in English



**https://www.tresor.economie.gouv.fr/Articles/tags/Tresor-Eco**

**Direction générale du Trésor**

**@DGTresor**

**To subscribe to** ***Trésor-Economics*****: bit.ly/Trésor-Economics**