III. Real Estate Vulnerabilities and Financial Stability in China[4]

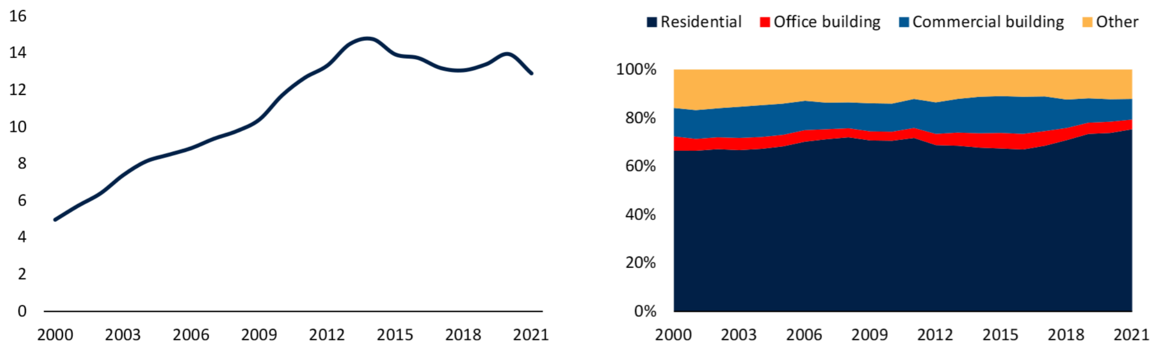
Growth and importance of the real estate sector

For over two decades, China's real estate sector grew at a remarkable pace. Total real estate investment rose from around 3 percent of GDP in 2000 to a peak of 14.8 percent in 2014 and stood at 12.9 percent of GDP at end-2021, compared to an average of around 5 percent in OECD countries (Figure 27.A)[5]. Investment in residential real estate is the primary driver of trends in the sector, consistently accounting for almost 70 percent of total real estate investment (Figure 27.B)[6].

Figure 27. Real estate investment has grown remarkably

A. Real estate investment
(Percent of GDP)

B. Composition of real estate investment
(Percent of total real estate investment)



Source: China National Bureau of Statistics (NBS), World Bank.

But the importance of the sector goes beyond direct investment numbers given its strong upstream and downstream linkages. Around 30 percent of China's GDP comes from real estate and various activities along its supply chain, including the use of inputs such as steel, cement and glass, plus the use of labor in construction, maintenance and upgrades. The growth of residential housing also influences the demand for household appliances and furniture. In addition, the sector receives financing from financial institutions and markets and is an important source of revenue for local governments through land sales. Further, evidence indicates that a significant proportion of household and corporate loans is secured by real estate. Lastly, according to some estimates,

[4] This note was prepared by Abayomi Alawode (Lead Financial Sector Specialist, FCI), Radu Tatucu (Senior Financial Sector Specialist, FCI) and Jun Ge (Short-Term Consultant, MTI). The authors are grateful to Martin Raiser, Hassan Zaman, Sebastian Eckardt, Ibrahim Saeed Chowdhury, Zafer Mustafaoglu, Yusha Li, and Yan Yi for their helpful comments as well as Zhenyang Xu and Deyun Ou for their excellent research assistance.

[5] Please note that this is a comparison of fixed asset investments and does not include consumption spending on housing services.

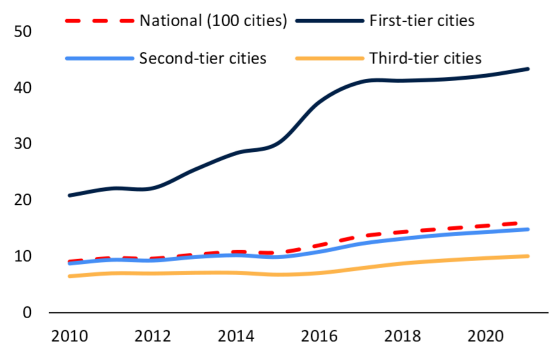
[6] This chapter will therefore focus more on residential real estate although there will be occasional references to commercial real estate.

real estate and construction account for about 20 percent of total urban, non-private employment (Rogoff and Yang, 2020).

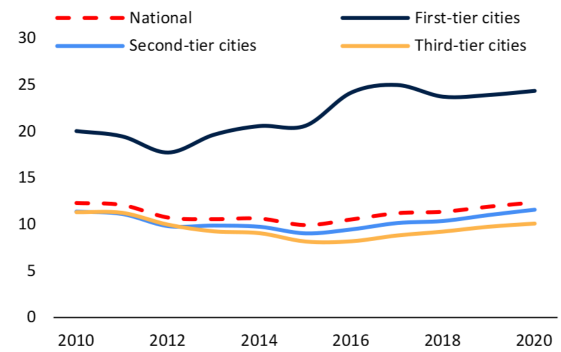
The boom in the real estate sector was most evident in price trends. Available data on average prices across 100 major Chinese cities show that residential housing prices in Tier 1 cities[7] rose from around RMB 20,000 per square meter in 2010 to roughly RMB 43,000 per square meter in 2021 (Figure 28.A). Prices in Tier 2 cities were much lower but still rose from around RMB 8,000 per square meter to RMB 14,000 per square meter over the same period. The growth of house prices has outpaced income growth as shown by high home price-to-income ratios across all city-tiers (Figure 28.B). Indeed, with prices at 24 times annual income, houses in China's Tier 1 cities are among the most expensive in the world (Figure 28.C and D).

Figure 28. Housing prices have risen sharply in Tier 1 cities

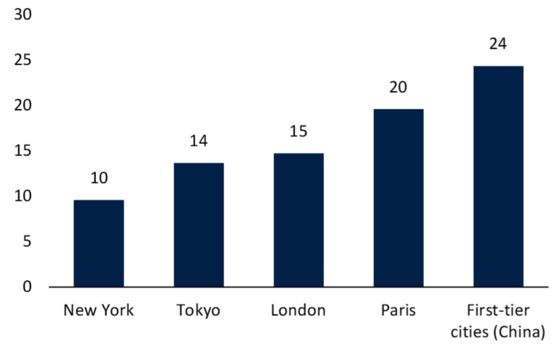
A. Residential prices
(Thousand RMB per square meter)



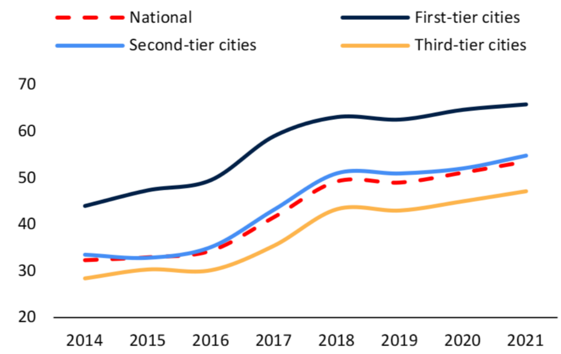
B. Home price to income ratios for city tiers
(Ratio)



C. Home price to income ratios for major cities
(Ratio, 2021)



D. Home price to rent ratios
(Ratio)



Source: NBS; Numbeo, World Bank.

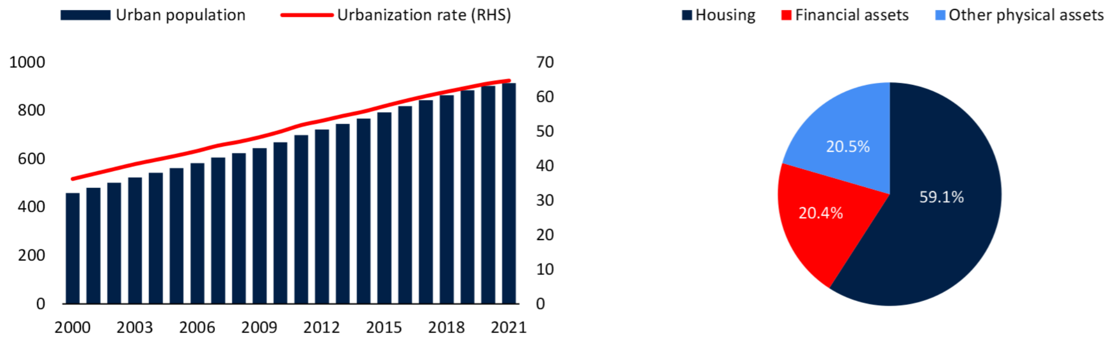
[7] Tier 1 cities are those with a population of 15 million or more (Beijing, Shanghai, Guangzhou and Shenzhen), while Tier 2 cities have populations greater than 3 million but less than 15 million (e.g., Changsha, Chengdu, Chongqing, etc). Tier 3 cities have populations of between 150,000 and 3 million (e.g., Yangzhou, Guilin, Hohhot, Nanyang, etc.).

The sustained boom in the sector is attributable to multiple factors. Aside from the housing market reforms of the late 1990s and the deliberate government policy to make housing an engine of growth, the rapid urbanization in China created strong demand for residential housing (Figure 29.A) while the limited availability of other investment options has made real estate the most important asset class for Chinese households, amounting to about 59.1 percent of urban household assets in 2019 (Figure 29.B).

Figure 29. Urbanization created strong housing demand

A. Urbanization trends in China
(Million persons; percent)

B. Household assets in urban areas
(Share of total, 2019)



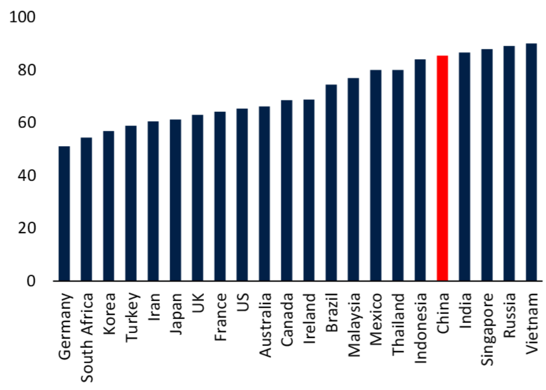
Source: NBS; People's Bank of China (PBC); World Bank.
Note: Figure B. Other phyiscal assets include automobile, stores, factories and equipment, etc.

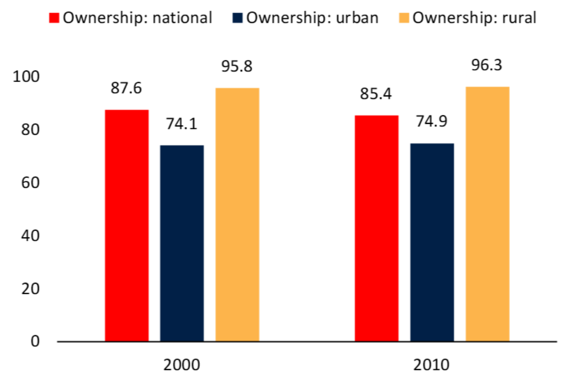
China has one of the highest homeownership rates in the world (Figure 30.A). According to the 2010 census data, over 85 percent of Chinese own their homes with higher rates of ownership in rural areas (Figure 30.B). A more recent survey of 31,000 urban households carried out by the PBC in 2019 indicated that 96 percent of respondents already owned at least one house, with high levels of multiple home ownership, which is suggestive of speculative purchases by homebuyers. Available data for 2018 show that average floor space owned reached close to 40 square meters per person in urban areas and almost 50 square meters in rural areas, up from 20 and 24 square meters, respectively in 2000 (Figure 30.C). Smaller cities tend to have larger living space per capita with average residential space ranging from 34.6 square meters per person in Tier 1 cities to 43.5 square meters per person in Tier 3 cities (Figure 30.D).

Figure 30. China has high homeownership rate

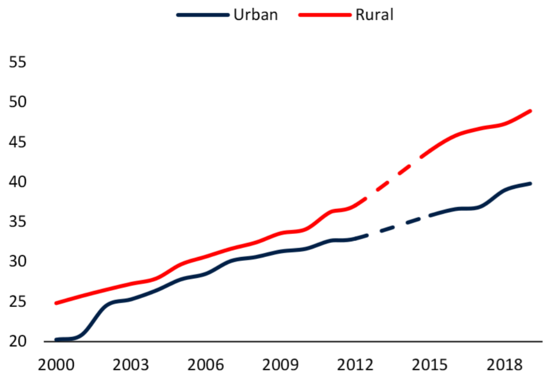
A. Cross-country homeownership rates
(Percent)

B. China homeownership rates
(Percent)

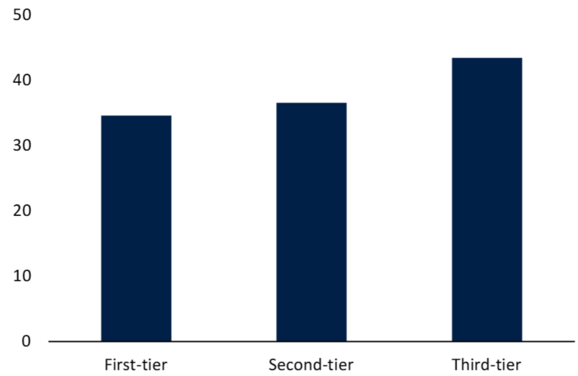




C. Residential space owned
(Square meter per capita)



D. Urban residential space across cities
(Square meter per capita)



Source: Statista, Chinese Census (2000, 2010), NBS, World Bank.
Note: Figure A is based on latest available data between 2018 and 2021. Figure B, numbers for the 2020 census are not yet available. In Figure C, dotted lines refer to missing data in 2013 and 2014.

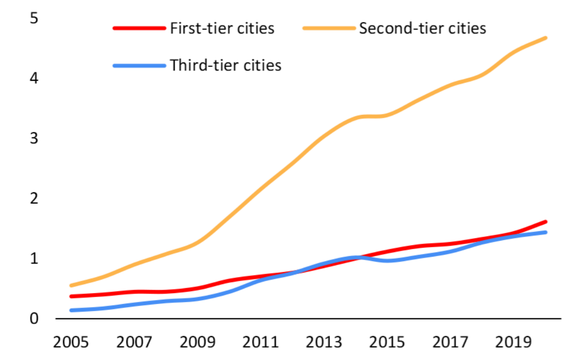
China's property market is heterogeneous with variations in key features across regions and cities. Although four Tier 1 cities have higher average prices per floor space and higher price-to-income ratios, the bulk of real estate investments takes place in Tier 2 cities (Figure 28.D and Figure 31.A). On a geographical basis, China's relatively more developed eastern region is dominant in terms of total investment value, but the growth patterns are broadly synchronized across regions (Figure 31.B and C). The volume of pre-sold but uncompleted housing is substantial across provinces, especially in those with relatively low income (e.g. Guizhou, Guangxi and Yunnan) (Figure 31.D).

Figure 31. Investment in real estate varies across cities

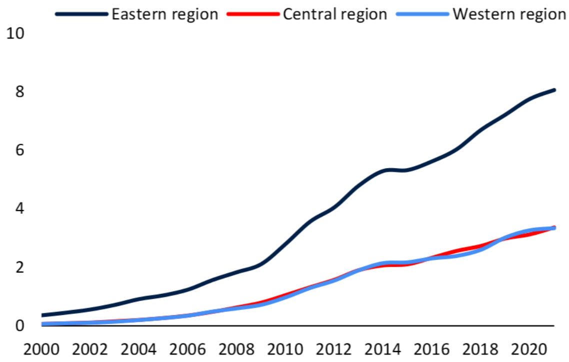
A. Total real estate investment by cities

B. Total real estate investment by region

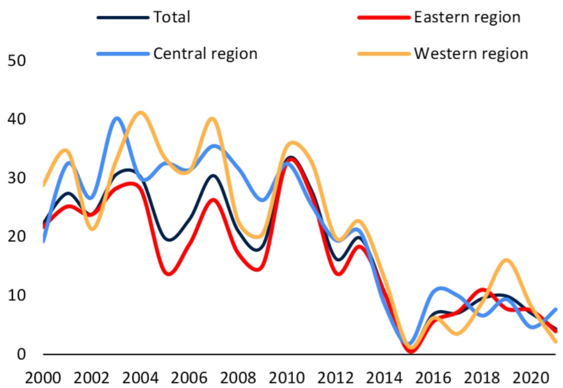
(Trillion RMB)



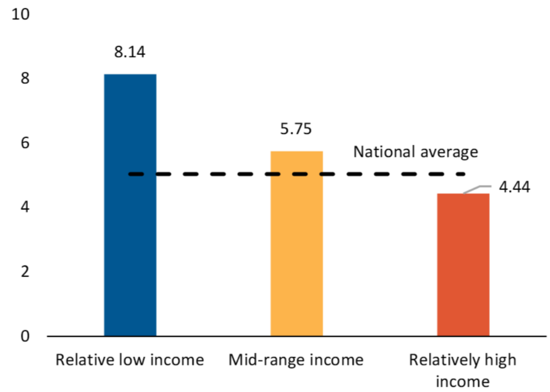
(Trillion RMB)



C. Total real estate investment by region
(y/y percent)



D. Pre-sold but not completed residential housing across provinces, 2021
(Ratio of pre-sold but not completed to completed)

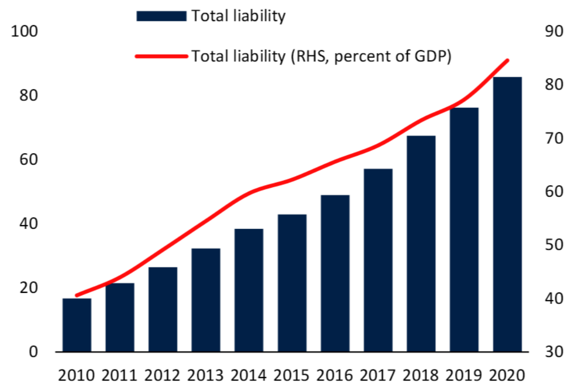


Source: NBS; World Bank.
Note: Ratio of pre-sold but not completed to completed is calculated as the cumulative floor space pre-sold but not yet complete in 2021 divided by the floor space completed in 2021. Relative low-income provinces include Guizhou, Guangxi, Yunnan, Qinghai, Hebei, Tibet, Henan, Gansu, Jilin, Xinjiang, and Heilongjiang. Mid-range income provinces include Sichuan, Shaanxi, Jiangxi, Hunan, Hainan, Anhui, Liaoning, Shandong, Shanxi, and Ningxia. Relative high-income provinces include Hubei, Guangdong, Fujian, Chongqing, Zhejiang, Jiangsu, Inner Mongolia, Shanghai, Tianjin, and Beijing.

Distress of property developers has triggered property market downturn

Figure 32. Growth in property market is fueled by developers' borrowing
(Trillion RMB; percent of GDP)

The rapid growth of the Chinese property market in recent years has been fueled by high levels of borrowing by developers. As total liabilities of developers rose rapidly to reach nearly 84.6 percent of GDP in 2020 (Figure 32), the authorities introduced the so-called “three red lines” policy to force deleveraging in the sector with future access to borrowing depending on a company meeting the following criteria: (i) liabilities to asset ratio of less than 70 percent; (ii) net debt to equity ratio of less than 100 percent; (iii) ratio of short-term debt to cash of less than 100 percent. This was supplemented with ceilings on banks’ property and mortgage loans in a bid to also contain their overall exposure to the property market (i.e., the so-called “two red lines”)[8].



Source: NBS; World Bank.

[8] The ratio of property-related loans to total loans was capped at 40 percent for large banks, 27.5 percent for medium-sized banks and 22.5 percent for small banks.

Table 3. Three red lines policy for property developers

Color code	*Number of lines breached*	*Allowable annual debt growth*
Green	0	15%
Yellow	1	10%
Orange	2	5%
Red	3	0%

Source: PBC; Ministry of Housing and Urban-Rural Development.

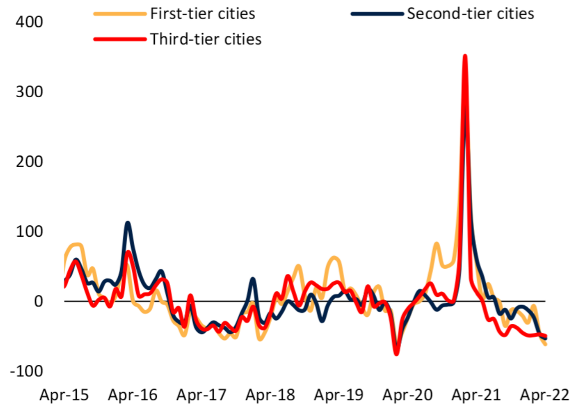
These restrictions triggered a liquidity crisis in several large developers during the second half of 2021. The largest, *Evergrande Group* with reported total liabilities amounting to over US$300 billion (on-shore and off-shore) missed several bond payments before eventually formally defaulting on December 9, 2021. Other developers such as *Sunac*, *Kaisa, Fantasia Holdings Group, Modern Land (China) Co.* and *Xinyuan Real Estate Co.* also missed payments or defaulted. Several developers experienced significant credit rating downgrades in domestic market and were forced into fire sale of assets to repay creditors, including heavily discounting prices of properties for sale. The impact rippled through the supply chain as these developers also owed money to suppliers, contractors, advertisers, and homebuyers.

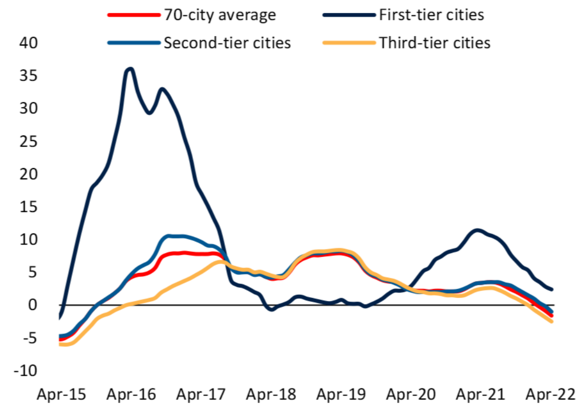
The distress of developers created negative sentiments and downward pressures on the property markets which intensified on the back of recent COVID outbreaks. Given the concerns of homebuyers on the financial condition of developers and the impacts of COVID-related mobility restrictions, new home sales have fallen dramatically in both value and volume terms nationwide since Omicron outbreak started in March (Figure 19.A and Figure 33.A). The growth of housing prices for new and second-hand housing also decelerated sharply, turning negative in early 2022 (Figure 19.B and Figure 33.B). As developers wrestled with liquidity challenges, there was a substantial fall in land sales across city-tiers and a decline in new residential construction starts (Figure 33.C and D). Although the recent finetuning of policies helped to stabilize the property markets in the first two months of 2022, homebuyer confidence remained weak in the face of recent COVID-related lockdowns in March and April.

Figure 33. Property market currently struggles with multiple headwinds

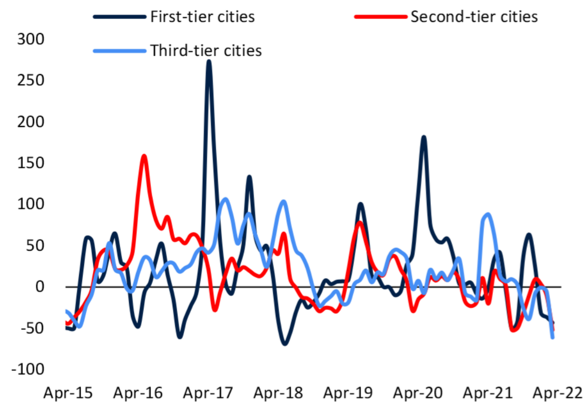
A. New home sales
(Floor space, y/y percent)

B. Second-hand housing price inflation
(y/y percent)

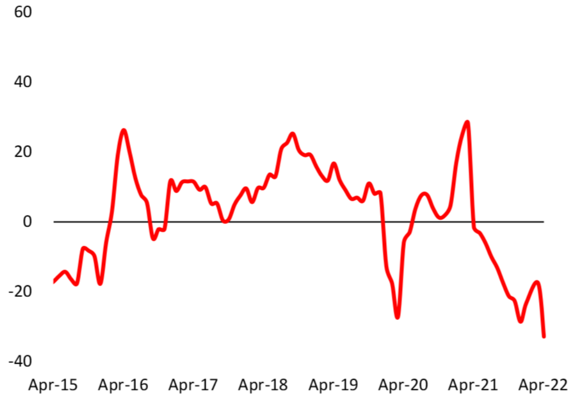




C. Land sale values
(y/y percent, 3mma)



D. New housing starts
(y/y percent, 3mma)



Source: NBS; World Bank.
Note: 3mma refers to three-month moving average.

Property markets pose threats to financial stability

Chinese banks have substantial exposures to the real estate sector but are strong enough to withstand immediate shocks. As at end-2021, mortgage loans totaled RMB 40.2 trillion, representing 20 percent of total bank loans, while direct loans to property developers amounted to 6 percent of total loans (Figure 34.A and B). The exposure of banks on mortgages is mitigated by relatively high down payments as on average, first time home buyers are required to put up 30 percent with much higher levels required for mortgages on second homes (Figure 34.C and D). In theory, this represents an important layer of protection against potential default since such significant "skin-in-the-game" makes the idea of defaulting on mortgage payments unappealing to borrowers. Property-related non-performing loans (NPLs) are relatively low but are higher than overall NPL ratios for state-owned banks, city commercial banks and joint stock banks (Table 4).[9] But at this juncture, Chinese banks appear to have sufficient buffers with capital levels above

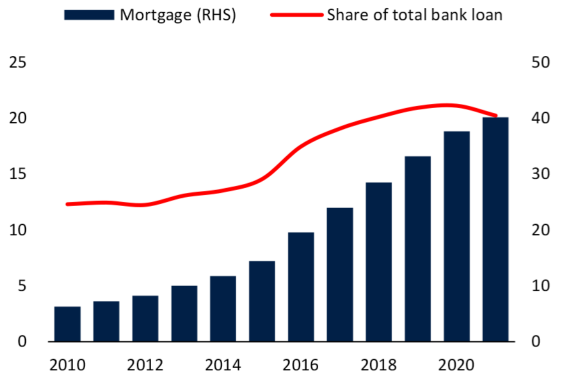
[9] These NPL figures may be understated due to ongoing pandemic-related regulatory forbearance on recognition of NPLs.

regulatory requirements and provision coverage ratios averaging 196.9 percent at the end of 2021[10]. Nonetheless, regulators should watch closely the potential balance sheet pressures for some individual banks with relatively large exposures to key property developers.

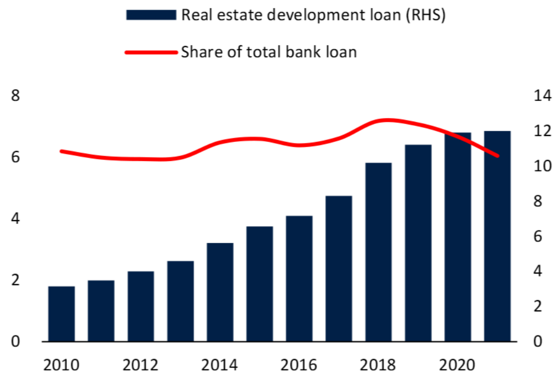
[10] Regulators have pushed banks to increase provisions in anticipation of pandemic related NPLs.

Figure 34. Banks' exposure to real estate sector is substantial

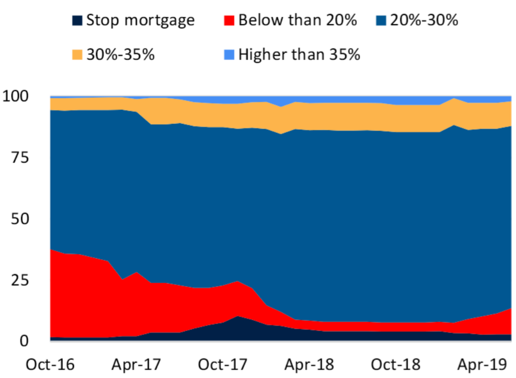
A. Mortgage loans as share of total bank loans
(Trillion RMB; percent)



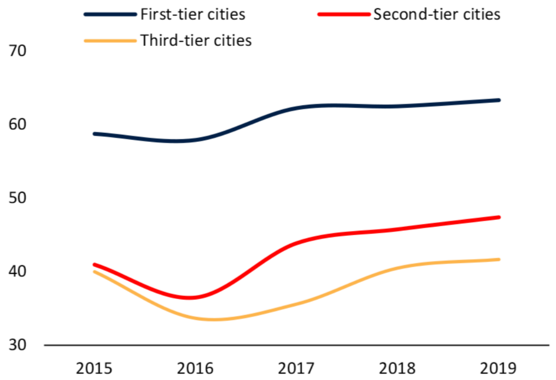
B. Developer loans as share of total bank loans
(Trillion RMB; percent)



C. Proportion of banks requiring different down payment ratios
(Percent)



D. Average down payment on second properties
(Percent of property value)



Source: Wind Information Database; World Bank.
Note: Figure D. Data are the average down payment ratios of 4 first-tier cities, 26 second-tier cities and 5 third-tier cities.

Table 4. Property-related NPL ratios by banking group

Type of Bank	*Property-related NPL ratio*	*Overall NPL ratio*
Rural commercial banks	1.0%	3.6%
Large state-owned banks	2.3%	1.4%
City Commercial banks	3.2%	1.9%
Joint stock banks	2.7%	1.4%

Source: Wind Information Database; World Bank.
Note: Data ends in December 2021. Overall NPL ratio is calculated as the share of NPL in total loans. Property-related NPL ratio is computed as the share of property-related NPL in total loans to the real estate sector.

The latest downturn in the property markets has therefore raised concerns about potential threats to financial stability if there is a generalized collapse of prices. The outsized contribution of the property sector to GDP growth and its close links to the balance sheets of households, local governments, firms and the financial system create a scenario where a prolonged downturn in the market can destabilize the financial sector and negatively impact economic growth. Despite the limited immediate risks to banks, a significant decline in collateral values may trigger a credit crunch**.** If loans collateralized by land or property are added to mortgages and real estate development loans, total banking sector exposure to the real estate sector may be as high as 40-50 percent of total banking loans. Should the value of collateral deteriorate significantly, banks could be forced to curtail lending.[11]

There are multiple sources of property-related risks and vulnerabilities:

(a) Overhang of uncompleted housing plus weakening demand

The large stock of uncompleted housing combined with weakening demand from homebuyers is concerning. There are numerous pre-sold housing projects currently underway that run the risk of never being completed as more developers run into liquidity problems. Estimates by the IMF indicate that the current backlog of uncompleted pre-sold housing across the country will take five years to complete, assuming no new housing starts (IMF 2022, Figure 31.D). Meanwhile, some of the fundamentals underpinning China's property boom are weakening. In the first place, the era of double-digit economic growth is over, as China reaches the limits of its capital-intensive growth path. A slowdown in the growth of personal disposable income is therefore projected in the coming years, in addition to ongoing demographic changes such as lower birth rates, a decline in new marriages, and slowing urbanization (Figure 35). China's working age population is declining as China's population is aging, with the number of the elderly projected to reach 20 percent of the population by 2025 (Mao et al. 2020). A combination of these factors could produce a structural downward shift in the demand curve for housing.

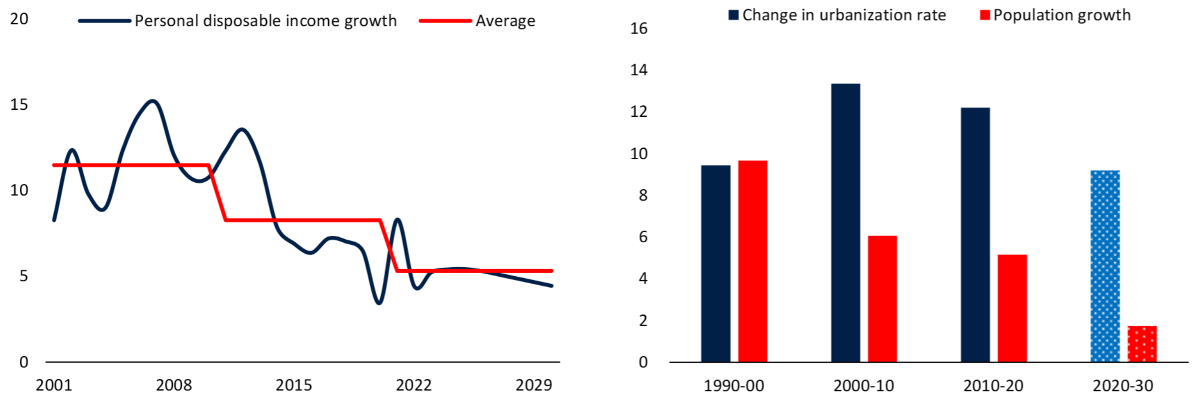
Figure 35. Demand for housing is trending downwards

A. Personal disposable income growth projections
(Percent)

B. Population growth and urbanization rate
(Percent)

[11] A property market correction will also impact shadow banking products that are exposed to the property market (e.g., trust loans).

EMBARGOED: NOT FOR PUBLICATION, BROADCAST, OR TRANSMISSION UNTIL 9:00 AM, WEDNESDAY, JUNE 8, 2022 BEIJING TIME



Source: NBS; United Nations; World Bank.
Note: Figure B. Data for 2020-30 are forecast.

The distress of developers and recent COVID outbreaks have also reduced the demand for housing. Many potential homebuyers have become risk averse as they realized that developers can go out of business and leave housing projects uncompleted. Although the current efforts by the authorities to ease financing constraints on developers and stabilize the market could help to restore homebuyer confidence, the trend in presales is not expected to return to the levels observed in previous years. As China experiences another wave of COVID-19 outbreaks, property sales are still weak and may remain depressed well into the second half of 2022. However, the increased supply of low-income housing—with some estimates suggesting China may add as many as 2.4 million units in 2022 (three times as much as in 2021)—could cushion some of the impact on the construction industry.

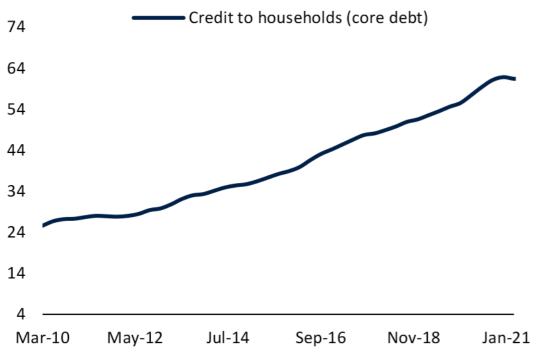
(b) Pressures on household balance sheets

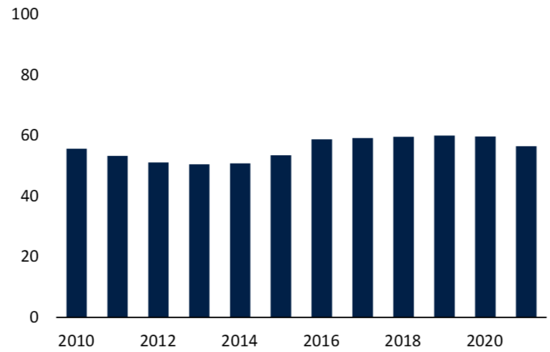
There are signs that household balance sheets are coming under increasing pressure which may threaten households' ability to service mortgage loans. First, total household debt has been rising consistently, increasing from 27.3 percent of GDP in 2010 to an estimated 61.4 percent of GDP by 2022Q1 (Figure 36.A). About 56 percent of household debt is in the form of mortgages (Figure 36.B). Increasing household indebtedness and slowing growth of disposable income, when combined with the fact that many homebuyers are buying properties valued at multiples of their annual incomes, could lead to a scenario where the ability of some households to meet their mortgage obligations is compromised.

Figure 36. Mortgages have driven up household debt

A. Household debt to GDP ratio
(Percent)

B. Mortgage loans as share of household debt
(Percent)





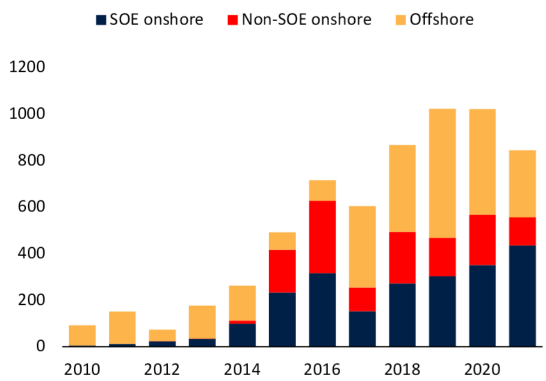
Source: BIS (Bank for International Settlements); PBC; World Bank.

(c) Ongoing distress of property developers

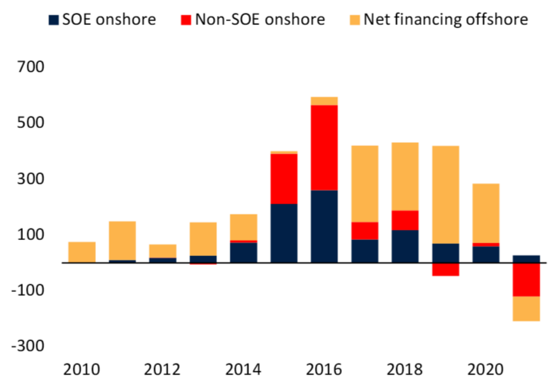
Property developers continue to face increasing costs and harder access to financing from onshore and offshore markets. Both onshore and offshore bond issuances were down in 2021 and net financing through both markets has turned negative (Figure 37.A and B). Yields on developers' offshore bonds remain elevated, while the yield spread for developers' onshore bonds stayed above the industrial average (Figure 19.D and Figure 40.C). With 53 percent of developer financing coming from customer funds in 2021, the increasing reluctance of potential homebuyers to engage in pre-sale transactions and the contraction of financing from trust companies have put additional pressures on developers' cash flows (Figure 40.B and Figure 37.D). The turbulence has opened a clear demarcation in access to financing between state-owned enterprise (SOE) and non-SOE developers. In the first four months of 2022, SOE developers issued RMB 158 billion in onshore bonds compared to RMB 23.9 billion for non-SOE developers (Figure 19.C). SOE developers were also able to maintain a net positive financing overall.

Figure 37. Property developers are facing financing difficulties

A. Total bond issuances of developers
(Trillion RMB)

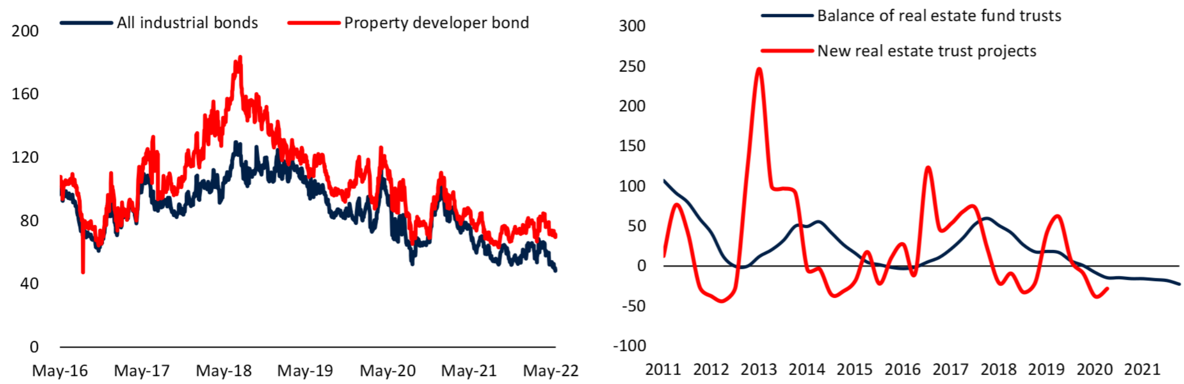


B. Net financing of developers
(Billion RMB)



C. Onshore bond yields spread for developers
(Basis points)

D. Real estate trusts
(y/y percent)

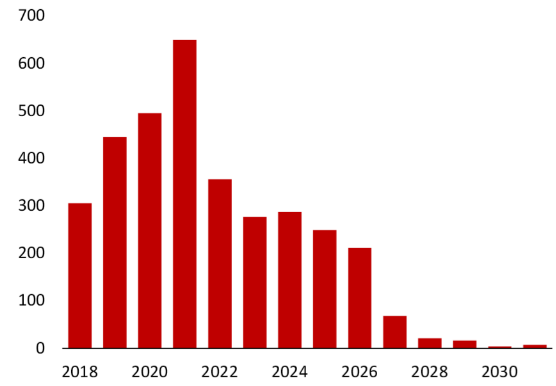


Source: Wind Information Database; China Trustee Association; World Bank.

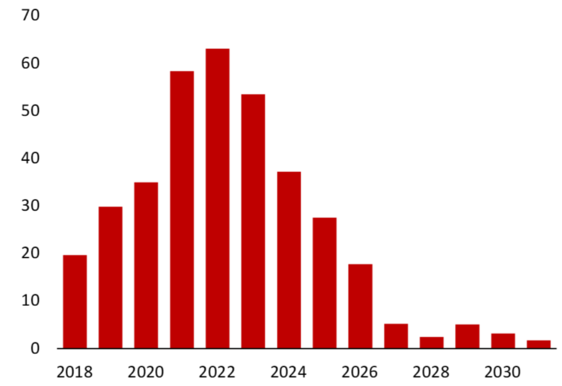
The recent default of Sunac Holdings on a US$741.6 million bond indicates that the liquidity pressures on developers will persist for a while. Large amounts of existing onshore and offshore debt come due during 2022 (RMB 355 billion and US$63 billion, respectively) and several developers may continue to struggle to make payments for the next two to three years although obligations due fall off significantly by 2027 (Figure 38.A and B).[12] As mentioned in Chapter 1, the recent weakening of the RMB will raise debt servicing costs on developers' offshore bonds and make any refinancing of their debt more expensive in RMB terms.

Figure 38. Real estate sectors are struggling with liquidity pressure

A. Payments due onshore
(Billion RMB)



B. Payments due offshore
(Billion USD)



Source: Wind Information Database; World Bank.

The distress of property developers could have significant ramifications beyond the real estate sector. Many developers are large conglomerates consisting of numerous subsidiaries. For

[12] Please note that these are obligations on existing debt, and the declining obligations do not account for possible new bond issuances.

example, aside from property development, Evergrande Group is involved in tourism and recreation, sports, automotive, entertainment, food, and agriculture, as well as financial services. Therefore, a major crisis in the property business of large developers has the potential to create significant negative spillover effects across the various subsidiaries and associated sectors.

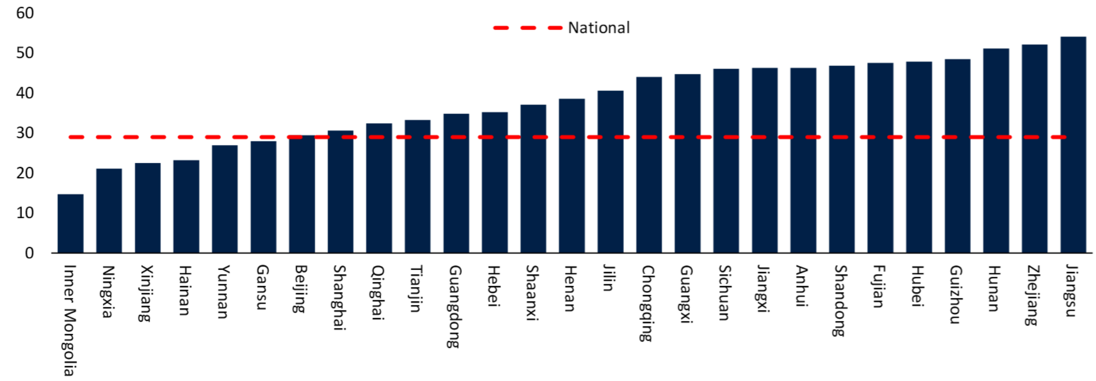
(d) Macroeconomic slowdown

The macroeconomic impact of a property market slump perhaps poses the biggest threat to financial stability. The outsized role of real estate in China's GDP means that prolonged market-wide uncertainty and loss of confidence may substantially reduce real estate sales and investment, dampen economic growth, and raise overall credit risks. A prolonged real estate slump would also have a negative impact on consumer confidence and consumption spending through the wealth effects on household balance sheets, given the fact that housing is the most important asset in household wealth and homeownership ratios are high. Further, property-related sectors, including construction, would see weaker demand and lower production. Using input-output data, Rogoff and Yang (2020) found that a 20 percent fall in real estate activity could lead to a 5-10 percent drop in GDP, even without amplification from a banking crisis or accounting for the importance of real estate as collateral.

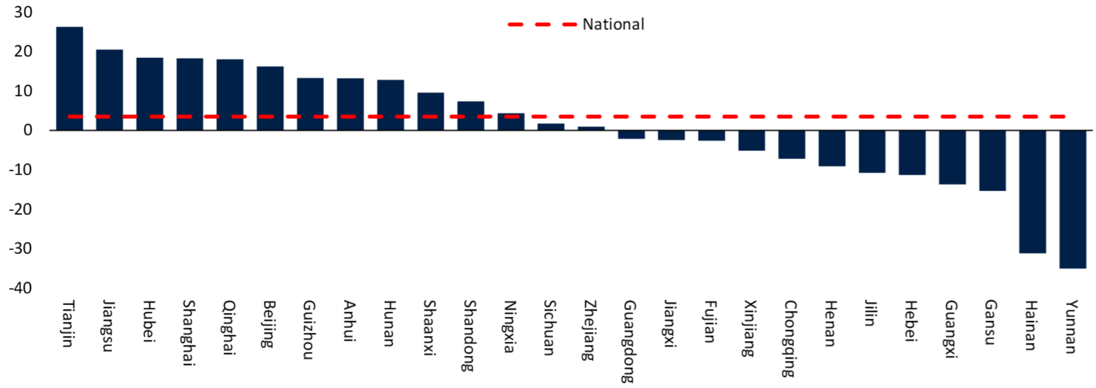
The impact of a property market downturn on local government finances is another potential source of headwinds for economic growth. Land sales are an important source of revenue for local governments in China. A look at Figure 39.A shows that in 2021, revenue from land sales averaged 29.5 percent of consolidated fiscal revenues in China, with provinces like Hunan, Jiangsu, and Zhejiang raising more than 50 percent of consolidated fiscal revenues from land sales. In addition to direct proceeds from land sales, Local Government Financing Vehicles (LGFVs) also use future land sale revenues as collateral to raise debt financing. The downturn in the sector in the second half of 2021 has resulted in a dramatic fall in the sales of land use rights across several provinces (Figure 39.B). A sustained reduction in revenue from land sales may therefore jeopardize the ability of local governments to fund infrastructure projects, a key driver of growth in the past. Other forms of local government expenditure will also be affected. This might explain why this year's budget envisages a large increase in central transfers to local governments by RMB 1.5 trillion (or 18 percent y/y), which could compensate local governments for shortfalls in land sale revenues.

Figure 39. Land sales are essential to local government revenue

A. Share of land sales in consolidated fiscal revenue in 2021
(Percent)



B. Provincial land sales in 2021
(y/y percent)



Source: Budgetary reports from provincial finance bureaus; World Bank.
Note: Consolidated fiscal revenue is the sum of revenues from the general public budget and government-managed fund

Policy implications: Controlling financial risks without harming economic growth

The government faces a macroeconomic policy dilemma of controlling risks in the property sector without doing too much damage to economic growth (Glaeser et al. 2017; Rogoff and Yang 2020). In the short run, monetary and fiscal policy should be flexible in responding as necessary if the current uncertainties persist. This will serve to mitigate knock-on effects on consumption, employment, and economic growth. In particular, the PBC should stand ready to maintain liquidity support to ensure that financial markets continue to operate well and contain any emerging market turbulence.

The debt-fueled expansion of China's property sector threatens financial stability. The government's de-risking and deleveraging campaign is therefore necessary and should not be completely abandoned in the face of short-term financial stability and macroeconomic headwinds. Despite the difficult dilemma of balancing financial stability with maintaining reasonable growth, there are a number of policy options the authorities could consider to mitigate the trade-offs. First, the transition period for compliance with the three red lines could be extended beyond end-2023 to give developers more breathing space to adjust and transition to a more sustainable business model. In addition, there should be close monitoring of developers to ensure there is genuine progress toward deleveraging.

Measures are needed to stabilize local government finances so they can move away from land sales as a key source of revenue. The substantial revenues obtained from these sales create perverse incentives for local authorities to favor construction projects over other forms of investment, which may perpetuate overdevelopment and an excess supply of housing. While the postponement of property tax pilots may be necessary to prevent further downward pressure on the sector, the idea should not be discarded altogether, given the benefits of such a tax, including the potential to provide a more stable source of revenue for local governments. Given the usual unpopularity of property taxes, a successful introduction of recurrent property levies may require bundling them with other measures—such as a reduction in taxes on property transactions and a reform of inter-governmental finances—to reduce the gap between local governments' expenditure responsibilities and their share of total revenues (Box 4). It is notable that the 2005 property tax reform in Korea was also combined with reductions in property transaction taxes and an increase in inter-governmental grants to compensate for any reduction in revenue capacity (OECD 2021). Furthermore, wealth taxes also remain underutilized in China and could play an important role in reducing imbalances in local government budgets.

Box 4. Potential benefits and challenges of a property tax in China

Background

China does not have a recurrent tax on residential property and most of its property-related taxes pertain to levies on real estate transactions. Since 2003, the authorities have been exploring reforms to the land and property tax regime, and in 2006, six cities were selected to conduct pilot projects. Starting in 2011, the cities of Shanghai and Chongqing introduced property taxes on a pilot basis, and in October 2021, the Chinese legislature authorized the government to implement regional pilots of a property tax. However, as the recent real estate downturn deepened and concerns mounted about a prolonged impact on growth, the authorities announced in March 2022 that the planned pilots would be suspended.

Benefits of property taxes

Stabilizing local government finances. A property tax could provide a more stable source of revenue for Chinese local governments, many of which are highly indebted and under fiscal stress due to a large gap between expenditure responsibilities and revenue capacity (Man 2012). Local governments currently generate substantial amounts of revenue from land sales which can be irregular and unreliable in the long run since the supply of land is limited. The reliance on revenues from land sales has also created perverse incentives for local governments to overdevelop land for urbanization (Liu 2021).

In many countries, property taxes provide local governments with steady and reliable revenue streams. For example, across OECD countries, property taxes average 19 percent of local government revenue, with the ratio exceeding 50 percent in Canada, Israel, and the United Kingdom (OECD 2021). Indeed, if we focus on property tax as a share of tax revenues of local governments, the property tax accounts for more than half of the local tax revenue in 14 of the 38 OECD countries, with this share higher than 70 percent in Australia, Canada, Ireland, New Zealand, the United Kingdom, and the United States (OECD 2021).

In the United States, property taxes are the primary way in which local governments cover expenses for various services, including: i) police and fire protection; ii) water and sewer systems; iii) public hospitals and public health services; iv) highways, roads, and streets; v) public transit, parks, and recreation services; vi) waste collection; vii) community colleges; and viii) a mix of administrative functions such as courts, record keeping, and voting (Fischer 2021). Therefore, in a highly decentralized country like China, stable revenue from property taxes can increase the capacity of local governments to provide public services.

Reducing income and wealth inequality. Although China taxes the interest and dividends from investments in securities, most Chinese households hold their wealth in the form of real estate, which is not taxed. In addition, mortgage interests are deductible when calculating taxable income. With urban homeownership rates exceeding 90 percent, introducing a tax on residential property could help to reduce income and wealth inequalities and contribute toward a more progressive tax system (OECD 2019; OECD 2021).

Reducing speculation. With a high homeownership rate, many homebuyers have multiple properties that are purchased purely in expectation of price increases and often stay vacant. A residential property tax will increase the carrying costs of housing investments and reduce the prevalence of speculative home purchases. This could also lower the volatility of house prices especially if the taxable value of properties increases in line with market prices.

Promoting green buildings. Since the building sector is often responsible for high levels of energy consumption, solid waste generation, and greenhouse gas emissions, many countries are designing property taxes to promote green buildings (Shazmin et al. 2016). The typical approach is to provide tax relief for buildings that meet certain energy efficiency or renewable energy standards and/or grant exemptions to value increases that are due to energy efficiency investment (OECD 2021). Given China's extensive urbanization over the past two decades, greening buildings have a major potential to help the country meet its commitments under the Paris Climate Agreement and achieve carbon neutrality by 2060.

Challenges of property taxes

Timing of implementation. Property tax reforms are tricky to implement, especially if a new tax is being introduced from scratch. It is important not to make such big changes during an economic slowdown or when there is a downturn in property markets (OECD 2021). Otherwise, there is a risk that the introduction of a new tax will amplify the decline in prices and sales (Yao 2021).

Tax administration. The need to revalue properties frequently makes the administration of recurrent property taxes challenging, and it is therefore essential to have in place a robust property valuation and billing system such as the Computer Assisted Mass Appraisal (CAMA) system being used by the Shenzhen Assessment Centre—a municipal statutory agency that was established to assist the collection of taxes on real estate sales and transactions in Shenzhen (Man 2012 and OECD 2021). The CAMA, however, requires availability of data on sales transactions plus trained government officials to use the system. Infrequent revaluations may also result in sudden increases in tax obligations.

Stakeholder resistance. It is not surprising that new property taxes often invite strong opposition from many stakeholders. Property taxes tend to be unpopular and government officials sometimes worry about the potential impact on the demand for houses. This has been the case in China as well. It is therefore prudent to get more buy-in by engaging and communicating with key stakeholders, gradually phasing in the new tax, or combining it with the elimination or reduction of taxes imposed on property transactions (Brys et al. 2013). Other incentives such as allowing payment in instalments or providing tax relief for asset-rich but income-poor households could also be considered (OECD 2021).

Additional measures should be taken to enhance the resilience of housing markets. First, the authorities should maintain conservative policies on down payments, especially the higher down payments for second or third home purchases, which is a valuable macro-prudential tool for reducing speculation. Also, when the current pains in the market recede, pressuring developers to reduce leverage should continue, in addition to exploring more stable funding models (see below). Finally, there is a need to address the risks of the pre-sale housing system by ensuring that funds in escrow accounts are closely matched to specific projects and disbursed against clearly defined construction progress (Box 5).

An important component of controlling financial risks is to closely monitor the exposures of financial institutions and markets. The new Financial Stability Law contains several provisions useful for this purpose, and it also includes the establishment of a new Financial Stability Fund which will be used to deal with major episodes of financial distress, including those originating from the property markets. Notably, the law elevates the monitoring of financial risks to the State Council level under a new "National Financial Stability and Development Coordination Mechanism" as well as early warning systems to identify financial risks and take appropriate early actions. This and existing mechanisms should be deployed consistently for surveillance of emerging risks from the property market. In addition to monitoring systemic risks, the financial sector regulators should also regularly assess the exposures of individual banks to the real estate sector and direct any bank with large exposures to increase provisioning as appropriate to the level of credit risks.[13] Regular stress testing to assess resilience to shocks from the property sector is also essential.

[13] Asset Quality Reviews (AQRs) of banks and other lenders with large exposures to the property sector could be considered.

Box 5. Vulnerabilities of China's pre-sale housing system

Chinese developers rely on a system of home pre-sales as the primary mode of financing construction projects, with homebuyers purchasing properties before they are constructed. Annual advance payments from customers have increased from only RMB 500 million in 2010 to RMB 10.6 trillion by end-2021, representing 53 percent of developers' funding (Figure 40.A and B).

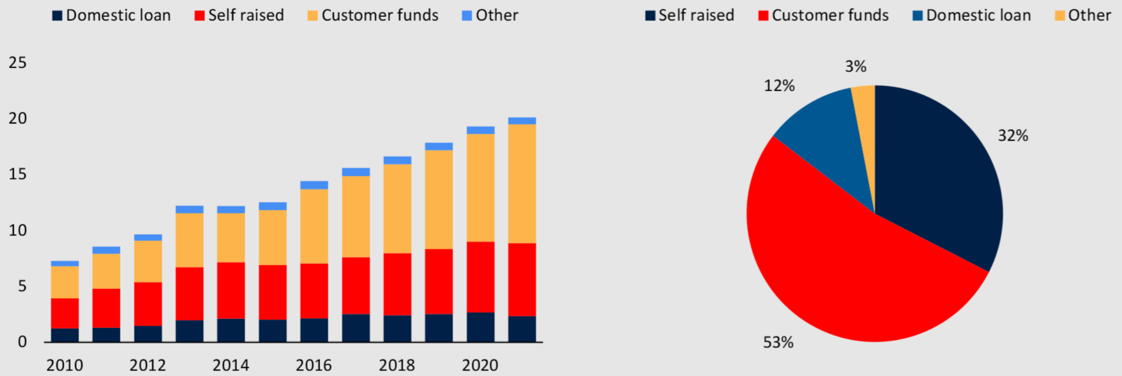
Benefits

For developers, the pre-sale model is attractive because it reduces the amount of debt they need to assume, lowers financing costs, and mitigates the risk of building properties that cannot be sold if demand changes in the time period between when construction is started and completed. They can also lock in a price for the sold units, thereby mitigating the risk of price fluctuations. For homebuyers, buying pre-sale is often cheaper since properties are usually available at substantial discounts, and they may have the option of customizing the interior design, layout, or fittings of their units.

Figure 40. Developers rely heavily on presales funding

A. Funding sources for real estate developers
(Trillion RMB)

B. Funding sources for real estate developers
(Share of total, 2021)



Source: NBS; World Bank.

Risks

Misuse of funds. The risk of developers diverting pre-sale funds to unapproved uses is well-recognized in many countries where this housing system exists. Safeguarding the funds collected through pre-sales is therefore critical, and many countries have put in place arrangements such as India's Real Estate Regulation and Development Act. Introduced in 2016, the act requires all developers' projects to get registered and approved, in addition to using escrow accounts to receive deposits. Under a law enacted in 2007, the Dubai Government made it mandatory for developers to open an escrow account for each off-plan project with advance payments disbursed to developers according to verified progress on construction.[14]

[14] Law No. (8) of 2007 Concerning Escrow Accounts for Real Estate Development in the Emirate of Dubai.

China also requires that advance payments for properties be put into escrow. Although the Ministry of Housing and Urban-Rural Development centrally administers pre-sales of commercial properties throughout the country, the *de facto* authority to regulate pre-sales is in the hands of local authorities, leading to wide variations in rules regarding how developers can use the proceeds in such accounts. There is some evidence that many developers have considerable latitude on the use of proceeds, including cases where they have used those funds to finance non-related projects (PWC 2020).

Construction and liquidity risks. In a pre-sale model, construction risks are effectively transferred to homebuyers who may not be able to bear or manage those risks. In a situation of asymmetric information, where the developer knows much more than the homebuyer about the construction project (quality, progress, etc.), homebuyers do not have the specialized knowledge or the resources to assess whether their best interests are being served (Leung et al. 2007). There have been many complaints from homebuyers of long delays in delivering units, poor quality of construction, smaller sizes than agreed upon, as well as poor fitting and finishing.[15] There is also a risk of project incompletion, as shown by the recent episodes of distress among Chinese developers which made real the likelihood of developers, going out of business before delivering promised units. Committed homebuyers have no easy recourse if a developer goes bankrupt or runs out of liquidity needed to deliver a project. Consequently, the reliance of developers on pre-sale funds raises liquidity risks if a negative shock reduces the willingness of prospective homebuyers to sign pre-sale contracts.

Policy Options

As a result of these risks to homebuyers, pre-sale housing systems require solid consumer protection arrangements. Although escrow accounts are commonly used, robust enforcement is necessary to ensure that funds are matched to specific projects, disbursed against clearly defined construction progress, and that developers cannot easily divert funds to other uses.

Following the distress of property developers in the second half of 2021, several local governments imposed strict rules on the access of developers to funds in escrow accounts, to ensure that projects are completed and homebuyers are protected. However, this had the unintended consequence of further worsening the liquidity pressures on several developers and the suspension of construction work on numerous projects. Although some local authorities have subsequently eased these controls, the Ministry of Housing and Urban-Rural Development is reportedly considering standardizing at the national level all rules regarding how pre-sale proceeds can be used by property developers.

To protect homebuyers from construction risks without creating negative liquidity shocks for developers, it is important to broaden the financing options for real estate developers through the expansion of project-based financing or the greater participation of institutional investors such as Real Estate Investment Trusts (REITs), which are oriented toward property development. China introduced infrastructure REITs in 2021, and these institutions could incorporate real estate assets into their portfolios, thereby helping to reduce the dependence on pre-sales as the dominant form of financing property development in the country.

In addition to controlling risks in the short term, the sustainable development of housing markets requires appropriate medium- to long- term policies and structural reforms.

[15] There are anecdotes of developers allegedly adopting a low-cost strategy to increase profit margins, which compromised the quality of projects.

- **Improving urban development policies:** There is substantial scope to optimize the use of land resources in China's urban areas. China is the only country in East Asia to have a declining population density in its large cities, as the expansion of urban boundaries has outpaced population inflows (Kim et al. 2021). Therefore, it is critical to encourage urban regeneration to increase the density of city centers, which will enhance livability and economic vitality. This will require measures such as upgrading public spaces, improving public transport, and enhancing the delivery of public services (World Bank and Development Research Center 2014). Stricter land use controls through spatial planning are also necessary to reduce urban sprawl. Lastly, while the recent government guidelines to lift hukou restrictions in all counties is a step in the right direction, extending hukou liberalization to China's large cities would provide additional support to urbanization as an engine of growth by creating a more productive labor force with equal access to public services.

- **Modifying the funding model for developers:** The recent liquidity distress of developers underscores the importance of broadening their financing options through the expansion of project-based financing or the greater participation of institutional investors such as Real Estate Investment Trusts (REITs), which are oriented toward property development (Box 5). This will reduce the dependence on pre-sales as the dominant form of financing property development and put the developers' funding structures on a sounder footing.

- **Strengthening the insolvency framework:** The distress of large developers has also underscored the need for a robust and predictable framework for debt resolution and corporate insolvencies. Indeed, financial risks are often exacerbated by the lack of such frameworks, especially in the face of the distress and default of large and complex firms such as Evergrande. A more robust insolvency framework would also facilitate the allocation of capital to support a more innovation-driven, private sector-led growth.

- **Expanding financial liberalization:** As mentioned earlier, real estate is the most important asset class for Chinese households. Further liberalization of the financial sector, such as opening up the banking and insurance industries and reforming pension systems, will therefore expand the range of available financial assets for household investment and help reduce households' propensity to buy and hold empty properties as investment vehicles.

- **Exploring new drivers of growth:** In the long run, the authorities need to start thinking about how to transition from property to a new engine of growth. China's commitment to decarbonization and fostering green growth offers an opportunity here as green technology and green industries could become the pillars of growth in the coming years. There is an opportunity to promote green buildings, since the building sector is often responsible for high levels of energy consumption, solid waste generation, and greenhouse gas emissions.