

# BOFIT Policy Brief 2021 No. 13

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China's real estate sector and the impacts of  
its possible disorder on Chinese economy and  
the euro area



Bank of Finland, BOFIT  
Bank of Finland Institute for Emerging  
Economies

BOFIT Policy Brief  
Editor-in-Chief Mikko Mäkinen

BOFIT Policy Brief 13/2021  
16 December 2021

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ISSN 2342-205X (online)

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Juuso Kaaresvirta, Eeva Kerola and Riikka Nuutilainen

## China's real estate sector and the impacts of its possible disorder on Chinese economy and the euro area

### Abstract

China's real estate and construction sector has served as a major engine of economic growth in recent decades and the sector now plays an oversized role in the economy. Much of that growth has been debt-fuelled, with the indebtedness of developers climbing to unprecedented levels. After officials turned off the money spigot last year, housing markets cooled and a wave of financial difficulties washed over builders during autumn 2021. The entire sector found itself under heavy stress, and in December two major developers, Evergrande and Kaisa, defaulted on their offshore debt. In this brief, we consider the current conditions in China's real estate and construction sector and how a possible sectoral crisis could spread to the national economy and the euro area. While the direct financial impacts on the euro area's financial sector is likely to be minor, China's real estate sector problems could spill over widely into the domestic real economy and thereby increase uncertainty internationally. In such case, the indirect impacts on the euro area could be severe.

Keywords: China, risks, real estate sector, construction, economy, economic growth

# 1. Introduction

The significance of real estate and construction sector in China's economy has risen sharply over the past decade. The economy had become largely export-driven prior to the global financial crisis in 2008. In response to the subsequent collapse in global demand, China turned to domestic stimulus packages that showcased huge construction projects financed mostly through bank loans. The contributions of the real estate and construction sector to economic output soared – as did China's debt-to-GDP ratio. In 2012, China set the overly ambitious goal of doubling its 2010 real GDP by 2020. Construction and real estate sector played a major role when officials tried to spur the growth towards the target. China's real estate and construction sector today accounts for a huge component of economic activity. At the same time, however, the sector and Chinese economy as a whole have been rapidly piling on debt, exacerbating the risks associated with the sector.

China's massive construction and related rapid growth of indebtedness has raised global concerns for a long time, especially as the viability of many projects have been called into doubt. Empty apartments, entire residential buildings, even ghost cities, are not uncommon. Too often the sole purpose of building seems to have been hitting the short-sighted political goals of annual economic growth targets and career advancement aims of local government leaders. Other countries in the past that quickly amass debt have faced subsequent economic difficulties, and even crisis in the final act. Despite the saving grace that much of China's debt is domestic, many international observers worry about the implications of China's debt spree. Real estate prices in biggest Chinese cities have climbed to levels that are astronomical compared to median wages, and fears of a major price correction have only grown in recent years.

The Chinese government last year began to intervene aggressively in dealing with the debt risks of the real estate and construction sector. Official efforts to discipline the market, however, have driven some of China's largest builders to the brink of collapse. Moreover, real estate sales and construction began to experience an ominous slowdown in autumn 2021 and housing prices fell. While the authorities have tried to calm the situation with assurances that the problems of couple of builders do not pose systemic risk, it now appears that the entire sector is under heavy stress.

In this brief, we survey the economic importance of China's real estate and construction sector, the current situation and how a possible descent into crisis might affect China's economy and the euro area. Sections 2 and 3 explore the real estate and construction sector's role in the Chinese economy and the implications of the "three red line" guard rails recently imposed on the sector. After that a box highlights the financial situation of developers and their most recent payment difficulties. Section 4 considers how problems in China's real estate and construction sector might spread to the real economy. Section 5 examines possible spill-over effects to the euro area and the rest of the world. Section 6 concludes.

## 2. The importance of the real estate sector for China's economy

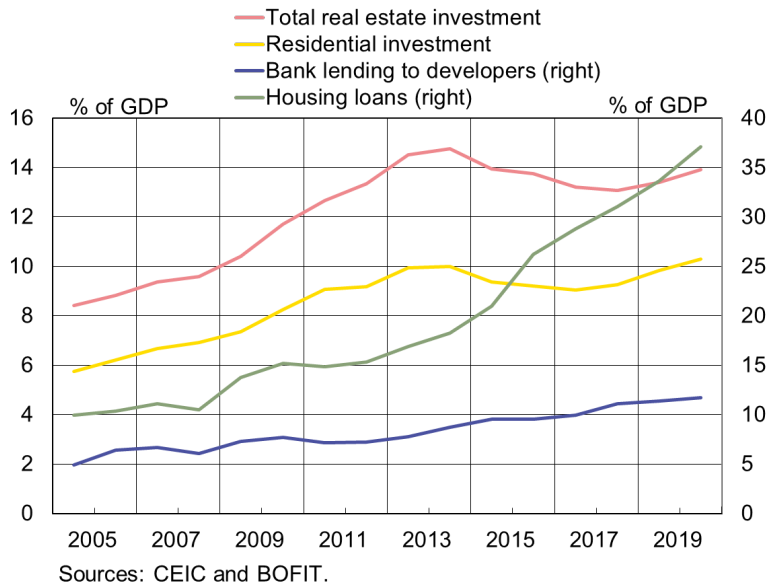
The number of firms operating in the real estate sector quadrupled between 2000 and 2019 and the sector's significance as an employer increased. According to Rogoff and Yang (2021)<sup>1</sup>, China's real estate and construction sectors employed about 18 % of the urban labour force in 2017. Fixed

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<sup>1</sup> Rogoff, K. & Yang, Y. (2021). Has China's Housing Production Peaked? *China & World Economy* 29, 1-31.

investment of firms operating in the real estate sector peaked in 2014 at nearly 15 % of GDP (Figure 1). That share last year was still around 14 % and nearly three-quarters of all real estate sector investment went to residential housing. Depending on the measure used, the real estate and construction sector in China generates somewhere between 15 % and 30 % of GDP. Loans to developers and housing loans make up roughly 30 % of total bank loans. Their combined share of GDP has increased to nearly 50 %.

Figure 1. Relative shares of real estate sector investment and bank lending to GDP.



Spending on housing has risen from 10 % of household consumption to 25 % in just two decades. Over 90 % of city-dwellers live in apartments they own and about 80 % of household assets are tied up in real estate. The lack of investment opportunities and absence of social safety nets has herded households into investing in housing, long perceived a safe bet. Indeed, 66 % of new apartment buyers in 2018 already owned one apartment and 22 % of buyers already owned two or more apartments (Rogoff and Yang, 2021).

Cheap money has allowed developers to borrow aggressively for years. The biggest revenue stream for developers is downpayment from buyers of apartments under construction. Some developers also raise funds by selling asset-management products, particularly to small investors and their own workers, and have expanded their operations to field well outside the scope of the real estate sector.

China's real estate sector is directly tied to local government activities. For example, the sale of land use rights in recent years has sometimes accounted for as much as a third of local government revenues. The high GDP growth targets set by party officials have motivated local government leaders to prefer massive real estate development projects as way to both spur economic growth and secure their own career advancement. The central government for years has sought to get a handle on the incessant rise in housing prices and the real estate sector's ever-increasing indebtedness. Over the years, politicians have introduced measures to deal with the problem. The policy goal in reshaping the structure of the economy would shift the emphasis from construction and fixed investment to consumption and services. However, any moves in this direction have so far failed as soon as they were perceived as threats to short-term economic growth.

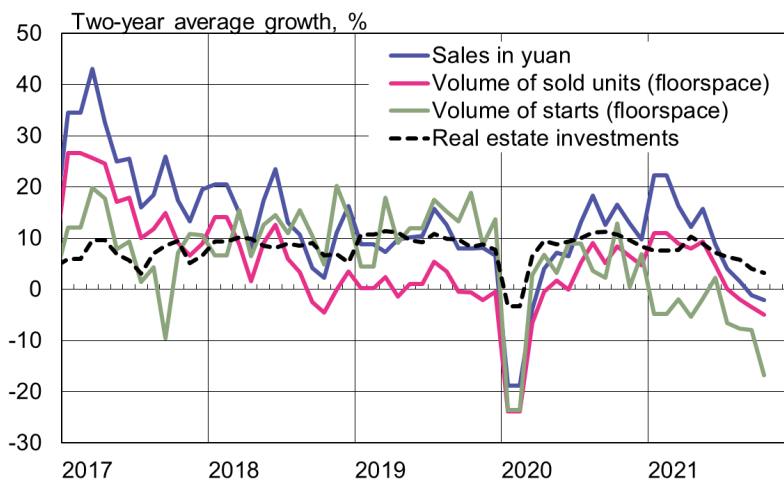
### 3. Restrictions on borrowing expose real estate sector woes

In 2017, president Xi Jinping declared that “housing should be for living in, not for speculation.” As the Chinese economy rapidly bounced back from the Covid Recession in the first half of 2020, it seemed to China's leadership that the moment to confront the issue of real estate sector debt had finally arrived. Apartment prices, particularly those in China's biggest cities, had soared to the highest levels in the world relative to Chinese wage levels. Real household income growth had also faltered during the pandemic. Moreover, the quest for moderation in housing costs lined up with president Xi's recent calls for common prosperity.<sup>2</sup>

In August 2020, the government imposed three debt rules on developers. According to the “three red lines,” a 100 % cap on net debt to equity; a 70 % ceiling on liabilities to assets, excluding advance proceeds from projects sold on contract; and a cash to short-term borrowing ratio of at least one. Any developer crossing these red lines would see its access to funding curtailed. In January 2021, restrictions were similarly imposed on the banking sector, limiting the share of real estate and housing loans of the loan stock. The maximum share permitted to each bank depends on the bank's size. Up to 40 % of the lending of the giant state-owned banks could go to the real estate sector, while housing loans could constitute around 30 % of their loan stock. In contrast, the lending ratios of small rural banks are much smaller, 12.5 % and 7.5 % respectively. The restricted access to financing has increased developers' reliance on sales income.

With China's housing market cooling and the number of apartments sold declining, some developers delayed their payments to subcontractors and their workforce, as well as suspended construction projects in progress. In the first ten months of 2021, the volume of new residential housing construction, measured in terms of floorspace, was down by nearly 8 % y-o-y and 10 % from the same period in 2019. In October, the volume of real estate sales measured by floorspace declined by 22 % y-o-y and by 5 % for the two-year annualized growth (Figure 2).

Figure 2. New construction starts and sales of finished apartments have declined in recent years.



Sources: NBS, CEIC and BOFIT.

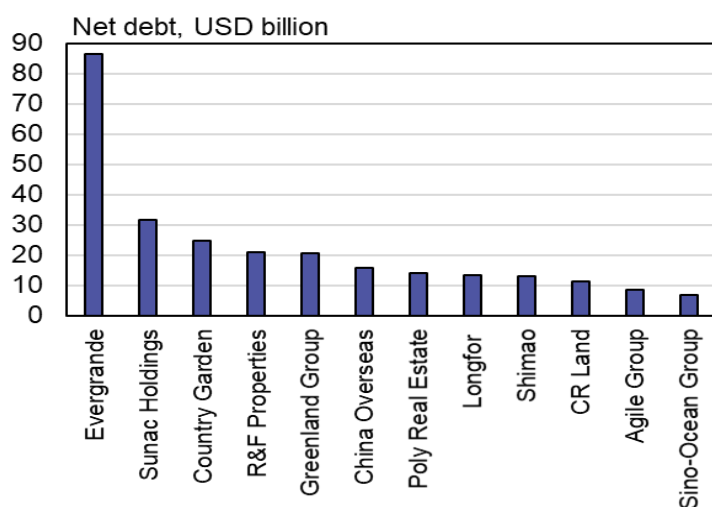
<sup>2</sup> China's real estate sector is not the only part of the economy subject to government intervention. The government has also turned its attention to sectors dominated by large privately-held corporations, notably those in the technology and financial sectors.

## Box. The debt struggles of Evergrande and other developers

The problems of China's real estate sector began to appear widely in international headlines when Evergrande failed to pay offshore bond interest payments due in September 2021. Evergrande last year was China's largest and most indebted developer (Figure 3), controlling about 4 % of the market. The company's problems worsened after the government laid down "three red lines" guidance that restricted its access to financing. Evergrande, a privately owned firm listed on the Hong Kong stock exchange, is an extreme example of a developer that has enjoyed high growth on borrowed money. It even diversified into businesses outside the construction sector, including manufacture of electric vehicles, healthcare, insurance and the Guangzhou Football Club.

Evergrande's total liabilities exceed 2 trillion yuan (\$300 billion), of which interest-bearing debt amounts to roughly 570 billion yuan (\$86 billion, less than 0.4 % of China's domestic bank lending stock). The credit rating agency Standard & Poor's (S&P) estimated domestic banks' direct and indirect exposure to Evergrande in June at around 400 billion yuan (\$60 billion). These liabilities do not appear to be highly concentrated with a particular bank or group of banks. Small Shengjing Bank, which is listed in Hong Kong and partly owned by Evergrande, is among the banks most at risk as it has financed its owner. During August and September, Evergrande divested its shares in the bank to Shenyang's local government. More disconcerting than Evergrande's bank loan risk are its trust loans.<sup>3</sup> Multiple sources indicate that 40–45 % of the company's interest-bearing debt consists of trust loans, considerably more than the share of debt in the form of bank loans (around 25 %).

Figure 3. China's most indebted developers.



Sources: Reuters based on Refinitiv data and BOFIT. Situation as of September 2021.

Evergrande has managed to sell off some holdings, but not nearly enough to remedy its financial distress. Provincial administrations have taken an active role in completing construction projects so that residents who have paid up front for their new apartments would not be left homeless and subcontractors without payments. The restructuring of corporate assets and debt, along with the divestment of assets, are taking place mostly behind closed doors and only little information has been announced publicly.

<sup>3</sup> A trust loan in China is issued and administered by a trust corporation, and its capital is usually intermediated by a commercial bank and originates from private individuals and firms. Trust loans are typical banking sector off-balance sheet financing instruments.



Evergrande defaulted on its international debt in December when it failed to make the \$83 million in coupon payments of its subsidiary due on November 6 within the 30-day grace period. Fitch was the first of the international rating agencies to downgrade the company to restricted default, even as the firm itself did not officially announce the default during the first days after the missed payment. In November, the firm still managed to avoid an official default by making coupon payments due September and October on its foreign debt before the 30-day grace period expired. Evergrande and its two subsidiaries owe a total of about \$19 billion to international lenders. The December default could trigger a cross-default on all of Evergrande's offshore bonds. After the default, the company said it had established a risk management committee to assess and manage its financial situation. Many of the committee members are officials from state entities.

The crackdown on onshore financing has also affected other indebted developers and the market turmoil has stalled their ability to issue offshore debt. The research company Capital Economics calculates that the bulk of developer debt still exists in the form of domestic bank loans. They represent about two-thirds of all developer debt (amounting to about 11 % of Chinese GDP, see Figure 1). After domestic bank loans, the second largest debt categories are onshore bonds and trust loans (each equivalent to nearly 2 % of GDP). Offshore bonds accounted for about 9 % of developers' total debt in the third quarter of 2021 (an amount equal to about 1 % of GDP).

Bloomberg reports that, as of end October, Chinese developers had issued a total of \$207 billion in dollar-denominated bonds, or about a quarter of all the dollar bonds issued by Chinese firms. Most dollar bonds of developers are classified as high yield or junk. They are mostly held by large investment funds. S&P reports that 64 % of bonds issued between 2019 and October 2021 went to fund managers, 16 % to commercial banks and 12 % to private banks.

Payment defaults of Chinese builders on their dollar bonds have increased recently. Bloomberg estimates that the value of defaults this year is about \$3.7 billion, or over a third of all Chinese offshore payment defaults. Offshore defaults increased in October, including a default on \$226 million by China Properties Group, \$206 million by Fantasia Holdings, \$246 million by Sinic Holdings and \$250 million by Modern Land. Xinyuan Real Estate Co. rolled over \$205 million in bonds maturing in October for new bonds that mature in 2023. In November, Yango Group rolled over \$670 million in maturing bonds to avoid its own default. Aoyuan extended \$235 million of its maturing payments, but was still downgraded to selective default by S&P in December. At the beginning of December, Sunshine 100 joined the growing group of firms defaulting on their foreign bond obligations by missing a \$179 million payment.

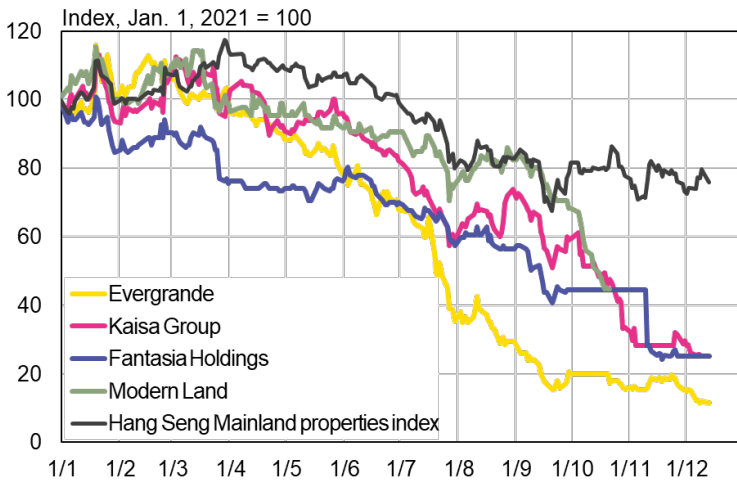
In December, Kaisa failed to pay \$400 million on its maturing bonds and was downgraded to restricted default by Fitch. Kaisa had earlier proposed to its investors that they swap the maturing bonds for bonds maturing in 2023 as a way to get through the current lack of solvency. The investors rejected this proposal, and with no extension agreed on the payments, it appears that Kaisa has also cross-defaulted on its foreign debt.

In 2015, Kaisa became the first Chinese developer to default on its foreign debt. There have been about two dozen defaults on dollar bonds by Chinese developers with international credit ratings. Around half have occurred this year. Evergrande, which accounts for 2 % of all offshore dollar bonds issued by Chinese corporations, as well as the struggling state-backed bad debt manager Huarong, holds most of the offshore bond debt issued by Chinese firms. Among all developers, Kaisa has the second largest dollar-denominated debt (\$12 billion). Fitch reports that over half of the interest-bearing debt of Kaisa and Fantasia Holdings is foreign.

Bond and share prices of troubled developers have plunged this year, especially in Hong Kong, where many Chinese developers are listed (Figure 4). The real estate sector stock indices in mainland China have shown smaller declines. International credit rating agencies have actively lowered the credit ratings of these firms and have also withdrawn the ratings of many firms.

Foreign investors are worried that struggling Chinese firms will give higher priority to their domestic borrowing commitments as keeping the money spigots in mainland China open is more important to them than keeping creditors in offshore markets happy.<sup>4</sup> After Evergrande's default, the central bank governor Yi Gang gave assurance that creditors' rights will be "fully respected in accordance on their legal seniorities." Nonetheless, international bondholders must assume lengthy restructurings lie ahead.

Figure 4. The share prices of Hong Kong-listed developers have fallen steadily over the past year.



Sources: Macrobond and BOFIT.

The situation is not as dire for all developers. The average situation of large developers has improved from last year based on company financial statements. They suggest that the number of firms that violate the government's "three red lines" has declined since last year (Figure 5).

<sup>4</sup> Another question mark is the "keepwell" arrangement that Chinese firms often use to issue offshore dollar bonds. Under a keepwell arrangement, an offshore subsidiary, often registered in a tax haven, acts as the bond issuer rather than the parent company in mainland China. The parent then vouches to assure the solvency of the offshore firm by providing a keepwell provision, but does not directly guarantee payments to bondholders. It is unclear what would happen when a parent company went belly up. Evergrande has issued dollar bonds in its own name and in the name of Tianji Holding Ltd. and Scenery Journey Ltd., which each have only keepwell support from Evergrande's subsidiary Hengda Real Estate Group.

Figure 5. The most indebted developers have managed to improve their situation with respect to the “three red lines” (number of violations).

	1H2020	1H2021
1 Evergrande	3	3
2 Country Garden	1	0
3 Vanke	1	0
4 Greenland Group	3	1
5 Poly RE	0	0
6 Sunac	3	0
7 Longfor	0	0
8 CR Land	0	0
9 China Overseas	0	0
10 Seazen	1	0
11 Shimao	1	0
12 Fortune Land	3	2
13 Greentown	1	0
14 Gemdale	0	0
15 CIFI	1	0
16 Jinmao	2	0
17 Guangzhou R&F	3	2
18 Aoyuan Group	1	1
19 Agile Group	1	1
20 Kaisa Group	2	0
<b>At least one violation, sum</b>	<b>15</b>	<b>6</b>

Sources: DBS Bank, Capital Economics and BOFIT.

## 4. The real estate sector's problems could be reflected broadly in Chinese economic growth

How might the real estate sector's troubles affect Chinese economic growth overall? Roughly speaking, the channels of influence are: 1) direct impacts on financial markets, 2) direct impacts on the real economy and 3) increased uncertainty.

Direct impacts on financial markets would emerge among real estate sector actors facing rising financing costs and declining market values. In the worst case, investor skittishness would spread to other sectors, or in the case of foreign investors, taint all Chinese firms. Higher interest rates and shrinking collateral valuations would further limit the access of firms to needed financing and deepen their distress. Last summer, the People's Bank of China published the results of a banking sector stress test in which even a substantial increase in the real estate sector's non-performing loan stock posed no systemic threat to the banking sector – even if certain small banks might face significant challenges.

Real estate sector problems could also directly impact the real economy. The real estate and construction sector is a major employer and relies on massive subcontractor chains. In the worst case, there could be huge impacts on employment and income trends that cause domestic demand to contract significantly. In addition, a reduction in demand and prices of land use rights would cause a collapse in local government revenue streams.

Swings in financial markets, a correction in housing prices and impacts on employment would increase uncertainty. Loss of confidence would be most obvious in the private sector. Households would be less keen on increasing their consumption and firms would hesitate about making any new investments. Because most household wealth in China is tied up in housing, a major drop in prices would fuel household discontent. Rising social instability could have irreversible consequences. For financial markets, the loss of confidence in the current administration would cause financiers to question the existence of the implicit guarantee state-owned enterprises supposedly enjoy. For the

least profitable firms, access to financing would dry up, only adding to their woes. This loss of confidence would at minimum cause a loss of face for the Communist Party and the current leadership.

International investment banks have recently released their own estimates on the impact of a real estate sector slowdown in China. JP Morgan estimates that if real estate investment falls by 5 %, the pace of GDP growth would slow by 0.6–0.7 of a percentage point. Correspondingly, a 1 % drop in housing prices would reduce household consumption growth by two-tenths of a percentage point. In the negative Goldman Sachs scenario, sale of land use rights and new housing starts would fall by 15 %, while housing prices would decline by 5 %. This would reduce 2022 GDP growth by 1.4 percentage points.

In listing possible impacts, it is worth remembering that Chinese officials have a large toolkit at their disposal for intervening in the markets. For example, the authorities can respond directly to swings in financial markets through various purchasing programs, potential credit losses can be compensated through government actions and lending can be increased simply by ordering banks (particularly state-owned banks) to boost lending. In addition, the authorities have plenty of room to manoeuvre, especially in monetary policy. Although public sector finances have weakened during the pandemic and the IMF estimates that the public sector deficit will stay at around 15 % of GDP in coming years, most public debt is still held domestically.

Even if the government has rather considerable supply-side say, private demand is difficult to compel. Thus, the ability of authorities to convince households and private firms that uncertainty is receding is extremely important in staving off panics in the market. It is highly likely that the government would intervene if apartment buyers, goods suppliers, small investors and savers face potential losses. It is also likely that the government would not bail out the management of defaulting firms, their financiers, institutional investors or foreign creditors (at least not entirely).

## 5. Possible disorder in China's real estate sector could also impact the euro area

The direct financial threat from China's real estate sector to the euro area would materialize through developer defaults on bond payments and the resulting credit losses. Creating a full picture of ownership in China's construction sector is a non-trivial task as developers often issue bonds through their subsidiaries, some of which are domiciled in offshore tax havens. In any case, the direct investments of euro area actors in China's real estate sector appear quite modest, with most investment channelled via large investment funds.

While the lack of direct financial linkages to global markets provides a cushion against large-scale contagion, significant impacts on the euro area and rest of the world could arise if China's construction sector risks spread to its real economy and the country suffers a significant economic slowdown.

A sharp slowdown in construction would immediately affect the countries that produce raw materials, machinery, equipment and technology used in construction. Over a slightly longer horizon, the impacts would bleed into investment goods. Rising uncertainty and weaker employment conditions would cause private consumption in China to shrink, which could affect global exports of consumer goods to China. In addition of China clearly being the world's largest exporter, it is also the world's second-largest importer after the United States.

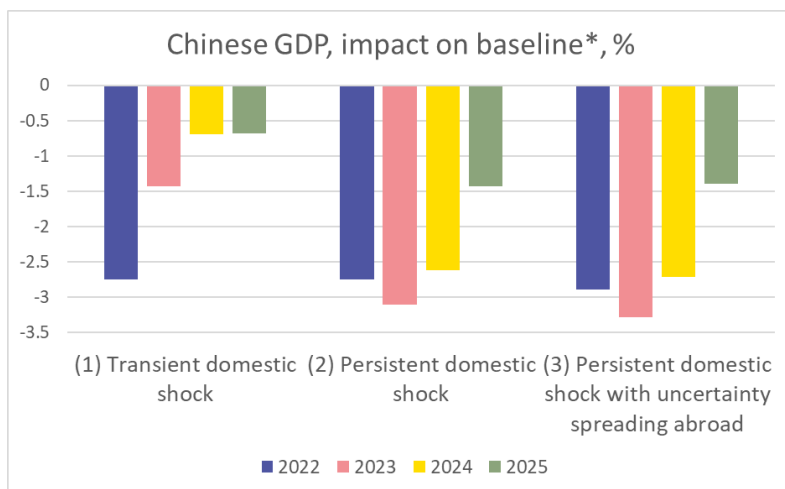
In this analysis, we use the Global Integrated Monetary and Fiscal (GIMF) model developed by the IMF. To model real estate sector risks, we exposed the Chinese economy to three kinds of

shocks: a sharp rise in corporate risk premia (risk premium shock), a drop in fixed investment (investment shock) and increased household uncertainty (preference shock). We consider three scenarios. In the first scenario, China quickly manages to resolve problems in the real estate and construction sector. The shock effects last about a year. They are transient and do not spread abroad. In the second scenario, officials take much longer to stabilize the situation. Impacts from the shock last three years, but remain confined to the Chinese economy. In the third scenario, the more-persistent three-year shock generates uncertainty that spreads to the rest of the world.<sup>5</sup> We assume in all scenarios that fixed investment in China declines by nearly 9 % from the baseline in the first year (2022), consumption drops by 4 % and the risk premium on external borrowing rises by nearly two percentage points. The size of the shocks have been selected so that China's GDP contracts in the first year by about half of the growth projected in the IMF's October 2021 World Economic Outlook (WEO), which sees GDP growth of 5.6 % for China in 2022.<sup>6</sup>

Following the transient shock of the first scenario, China's GDP recovers by 2024 to a level just 0.5 % below the baseline (Figure 6). In the second and third scenarios, officials need more time to get the situation in hand and the shock lasts longer. In such case, GDP growth would still be 2.5 % below the baseline after three years.

In considering these results, please note that the GIMF model was initially calibrated with data that preceded the 2008 global financial crisis. Since the crisis, the weighting of China in the global economy, particularly global trade, has increased significantly. For this reason, results generated with the model should be considered a sort of lower bound. Indeed, results in earlier simulations for China using the GIMF model are on the low side compared to other models.<sup>7</sup>

Figure 6. Impacts of the three shock scenarios on Chinese GDP growth.



Source: Bank of Finland calculations. \* Uses the baseline from the IMF's October 2021 WEO.

What does this mean for the euro area? In the first and second scenarios the impacts on the euro area appear to be relatively small. Even a more persistent slowdown in Chinese GDP growth (second

<sup>5</sup> We further assume that the monetary authorities in the euro area face a zero-interest bound while those in the United States and China retain room to manoeuvre. The yuan exchange rate used in the calculations is endogenous (defined by the model framework), but the results show little difference if the exchange rate is assumed to be exogenous (defined as outside the model).

<sup>6</sup> Using the estimate of Rogoff & Yang (2021), a roughly 10 % drop in real estate sector activity could cause a similar overall drop in GDP.

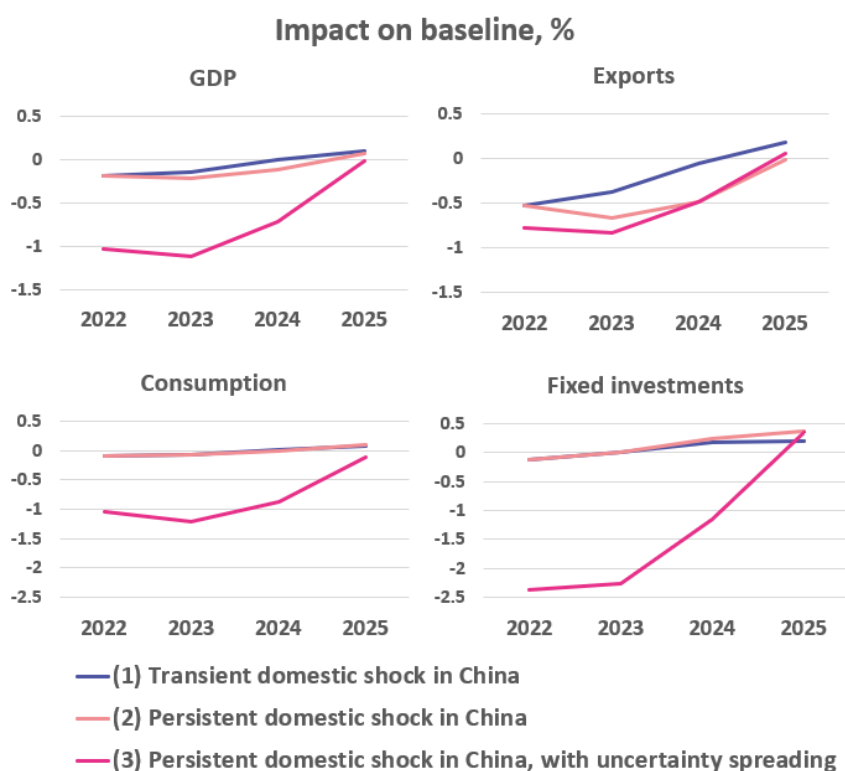
<sup>7</sup> An ECB 2018 analysis considering the impacts of a slowdown in Chinese economic growth on the euro area also compared several models. Results from the ECB's own ECB-Global semi-structural model showed nearly double the impacts on the euro area than with the GIMF model. In an empirically estimated 36-country global vector autoregressive (GVAR) model the impacts were nearly four times those of GIMF model (see [The transition of China to sustainable growth – implications for the global economy and the euro area](#), ECB Occasional Paper 206, January 2018).

scenario) does not reduce euro area GDP over the following two years more than about 0.2 % from the baseline (Figure 7). Exports contract by 0.5 % in 2022, and in the second scenario return to the baseline only in 2025. There are no significant impacts on consumption or fixed investment even if the Chinese domestic shock proves to be persistent.

However, the impacts are much larger in the third scenario in which, quite appropriately, assumes that China's economic troubles would generate uncertainty in the rest of the world. In such case, euro area GDP growth would be about 1 % below the baseline over the next two years and exports would fall by 0.8 %. When adjusted for the latest IMF forecast, euro area GDP growth falls in 2022 from 4.3 % to 3.2 % and the pace of export growth declines from 5.4 % to 4.6 %. Rising uncertainty has the greatest impact on consumption and fixed investment. Consumption over the next three years would be about 1 % below the baseline and fixed investment would be nearly 2.5 % lower over the next two years.

As a general insight, we can say that a slowdown in Chinese growth directly impacts euro area exports in all three scenarios. The modelling shows that the impact on euro area fixed investment, consumption and thus on GDP is marginal without the assumption that uncertainty spreads beyond China. If uncertainty spreads, a halving of Chinese GDP growth in 2022 reduces euro area GDP growth by about 25 %.

Figure 7. The impacts of the three scenarios on the euro area.



Source: Bank of Finland calculations.

## 6. Conclusion

Economic growth is cooling in China. In the third quarter of 2021, GDP growth fell to 0.2 % q-o-q and, exceptionally, the contribution of fixed investment to y-o-y growth was negative. Monthly figures show growth of domestic economy continued to slow in October and November. The slowdown spans several sectors, but it is the economically important real estate sector that is caught in an ever deepening tailspin since officials stepped in to deal with excessive debt. The volume of housing sales is now contracting rapidly, apartment prices are falling and the number of new housing starts is dropping.

China's official position is that the troubles of one or two developers are manageable and pose no systemic threat. On the other hand, there are clear signs that the sector's woes have spread from a few individual developers to the entire sector. This situation increases risk significantly. While officials have yet to budge on enforcement of construction sector lending under their "three red lines" guidance, they must consider the trade-offs in meeting the party's other economic goals. Indeed, the top goals of Chinese policymakers are sustained economic growth and perhaps more importantly, guaranteeing stability. Recent news reports suggest that Chinese officials are already giving state-owned developers a bit of leeway in enforcing the debt rules, while some cities have moved to support apartment sales by easing rules on those buying apartments. Nevertheless, officials have yet (at least publicly) to mention broader support measures for the sector.

While reducing the indebtedness of the real estate sector and a managed correction in housing prices are reasonable goals, bringing the current situation under control is no simple task. Unlike officials in many countries, officials have more tools to influence economic actors via China's vast government sector. Most important in this respect is the government's control over the banking sector. Ultimately, however, it boils down to whether the Chinese people have confidence that those in power are capable of dealing with these problems and lead the country. As a non-democracy, China's decisionmakers have exceptionally large incentives to prevent the situation from getting out of hand. However, as long as difficulties plague the real estate sector as a whole, the possibility of policy missteps continues to rise (e.g. officials might misjudge the situation or might mis-time their policy responses). The risk of missteps is amplified by uncertainty about the accuracy and completeness of corporate financial reporting, complex corporate arrangements and above all the quality of economic statistical data generated by state agencies. Assessing economic conditions is difficult and complicates the formulation of needed policy measures.

The possible descent of China's real estate sector into crisis would affect the domestic economy through several channels. Construction activity would contract rapidly, unemployment would rise, the stock of non-performing bank loans would increase and falling housing prices would hurt consumer demand. Uncertainty would be further heightened by a loss of confidence on officials ability to deal with economic problems. The crisis would directly impact demand for raw materials used in construction and world commodity prices. While only a small amount of financing from the euro area has made its way to firms operating in China's real estate sector, China is the world's second largest economy and an important market for European companies. China's economic slowdown reduces euro area growth most if uncertainty spreads internationally.

- 2017
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  - No 5 Heli Simola and Laura Solanko: Overview of Russia's oil and gas sector
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