

APOLLO

Outlook for China:
Slowing exports, housing deflating, and demographics deteriorating

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Apollo Global Management

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Unless otherwise noted, information as of December 2023.

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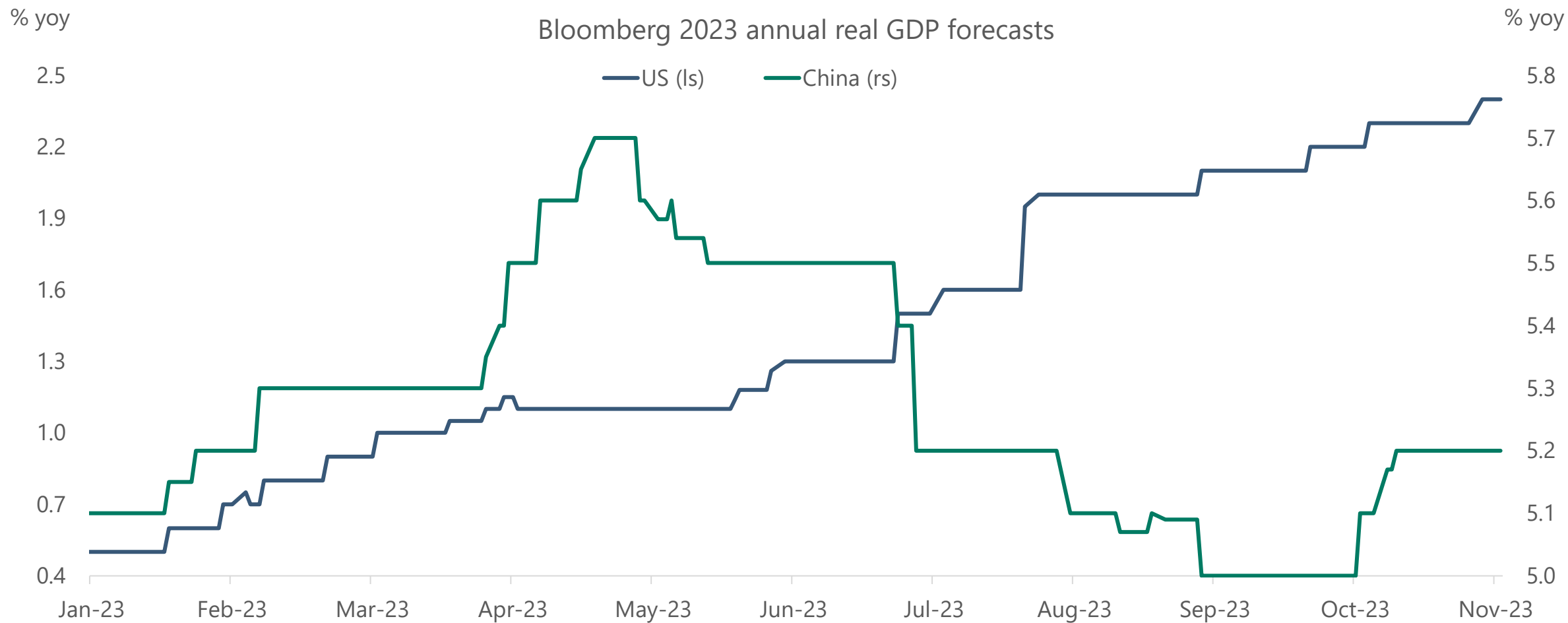
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China: Overview

Diverging growth trends in the US and China



China: Exports are slowing

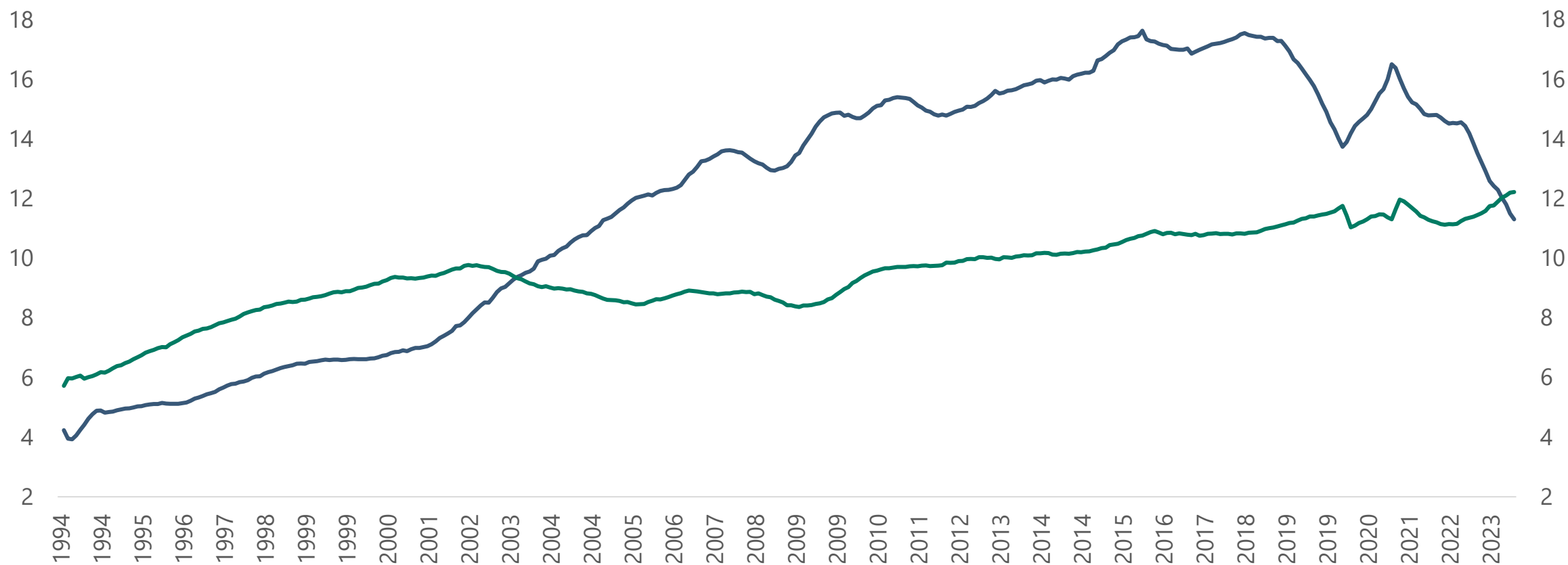


US importing more from Mexico than China

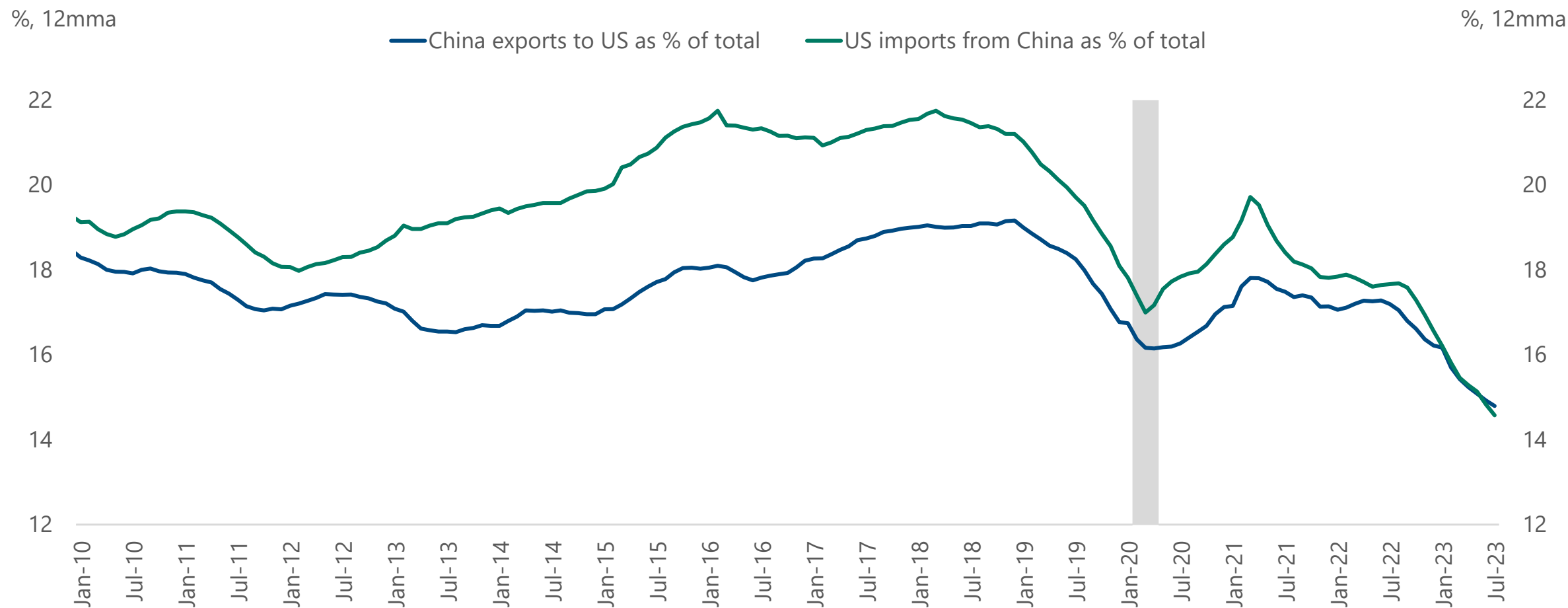
% of US imports, 12mma

% of US imports, 12mma

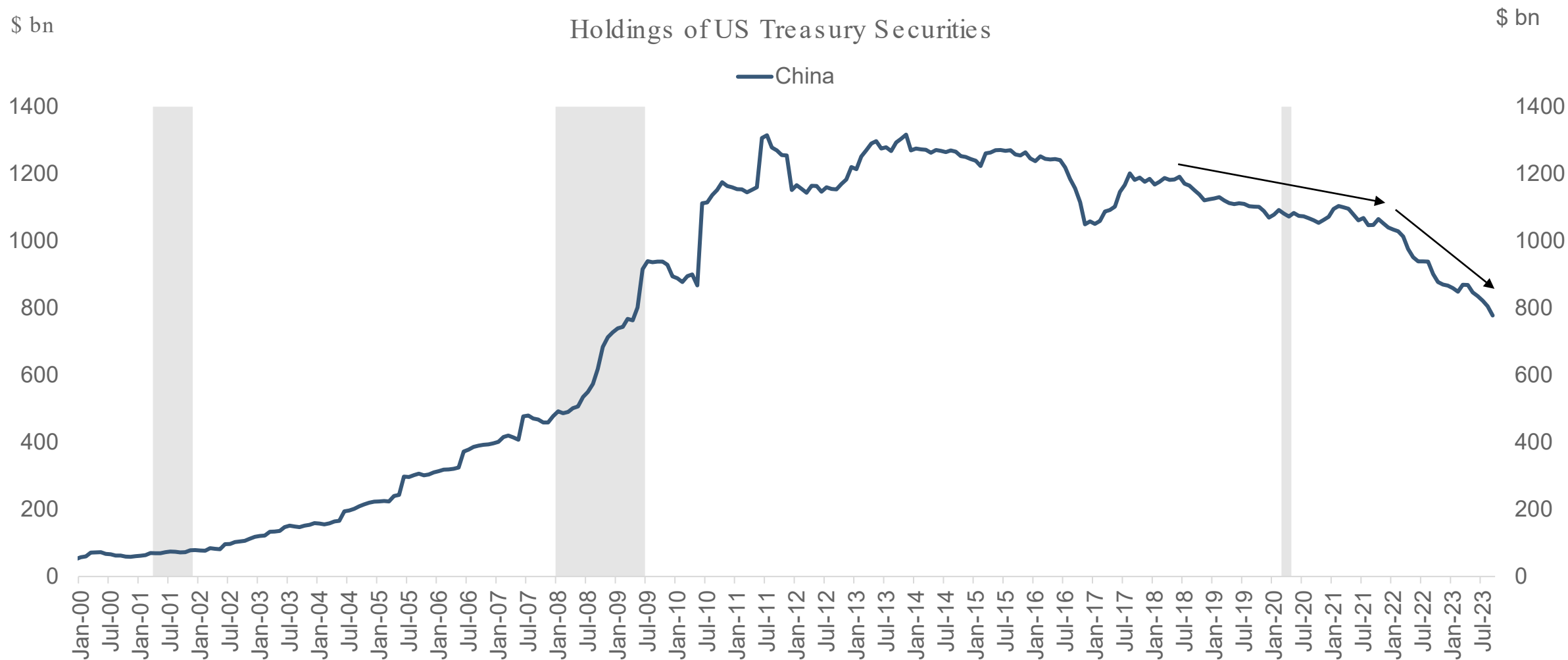
— China — Mexico



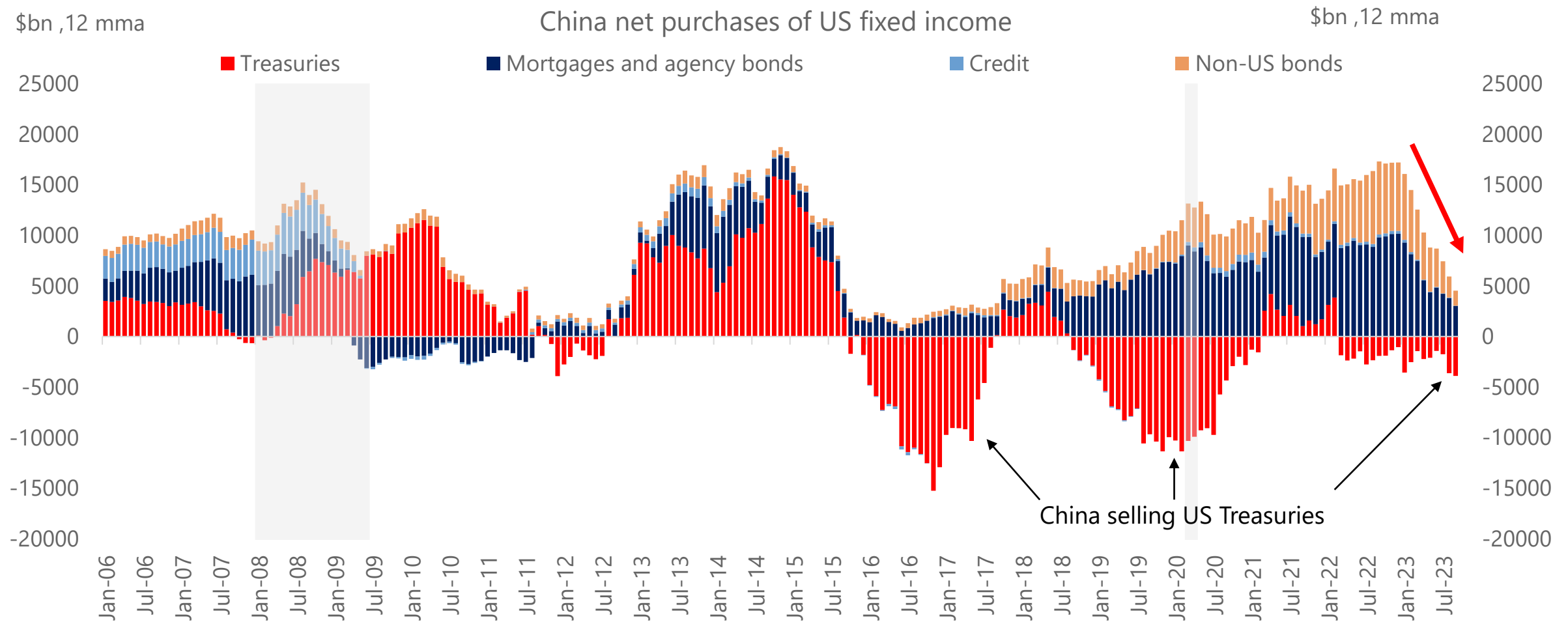
US and China less dependent on each other for trade



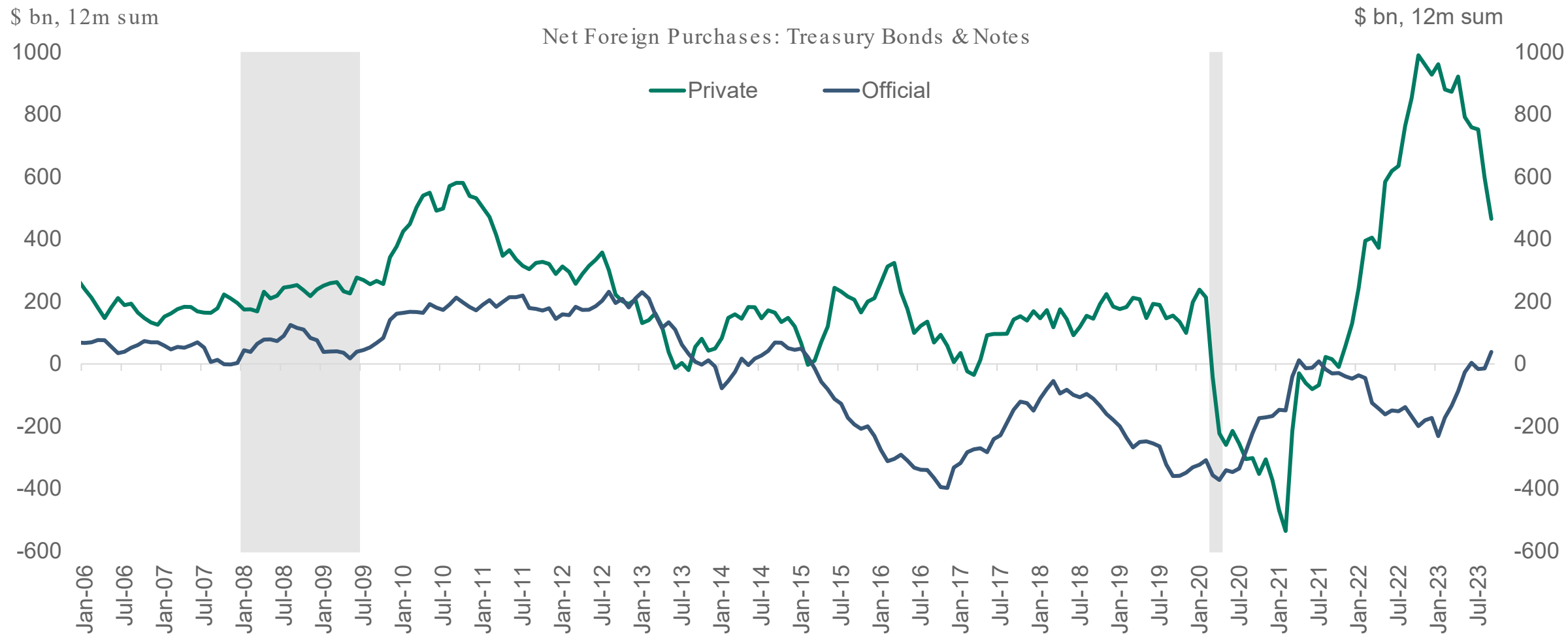
China holding \$300 billion less in US Treasuries than in 2021



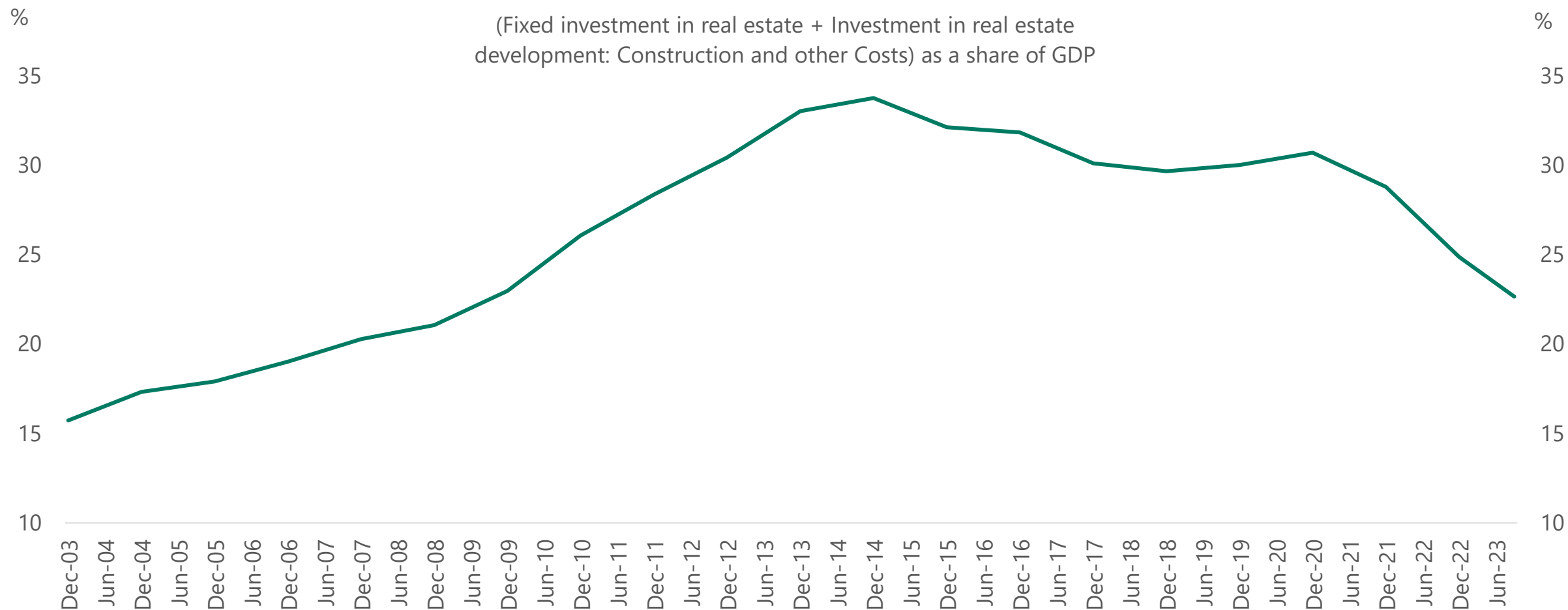
China is selling Treasuries and buying fewer mortgages and fewer non-US bonds



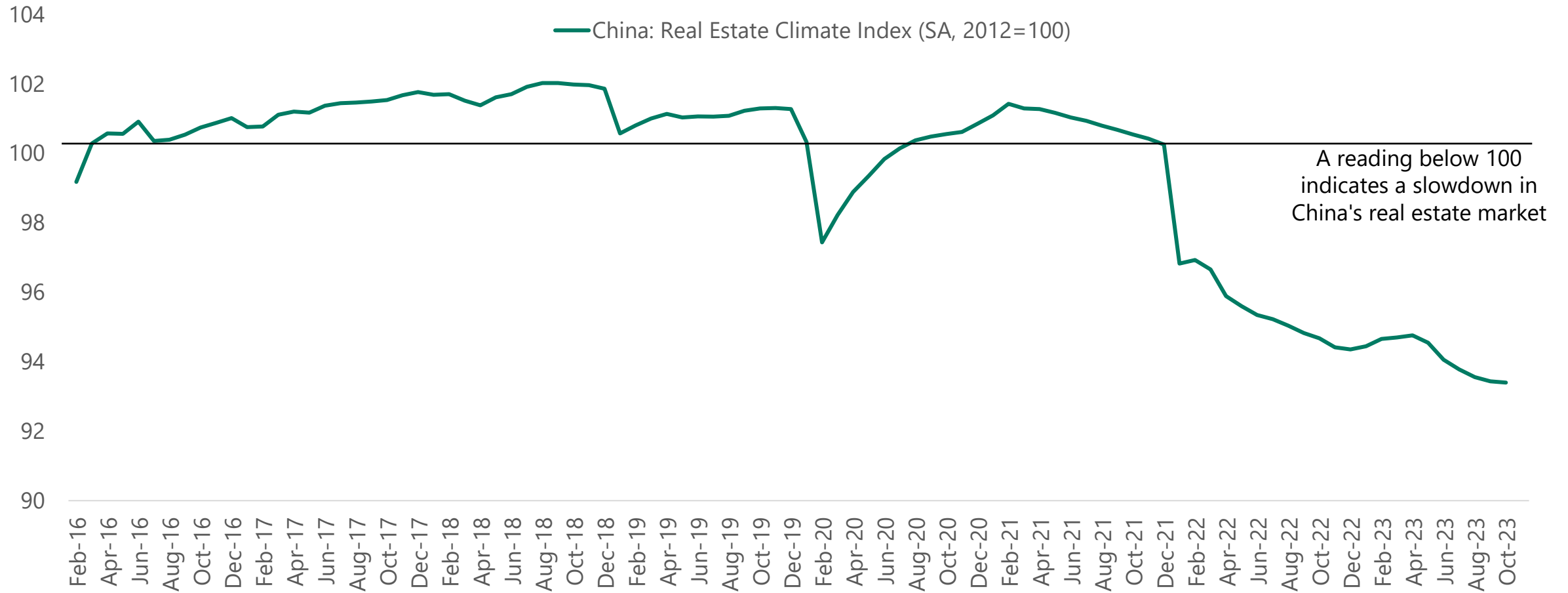
Foreign private sector is slowing its purchases of US Treasuries



China: Housing makes up 23% of GDP



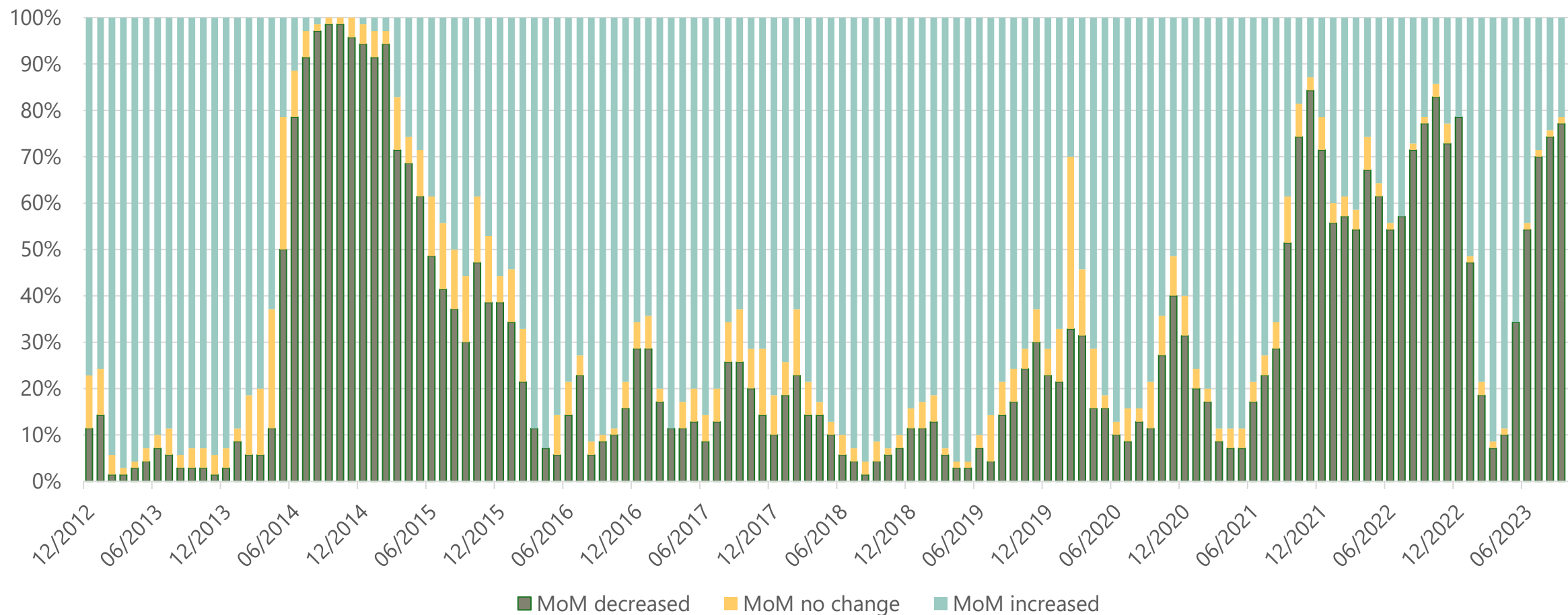
China real estate index in deep recession territory



Source: NBS, Haver, Apollo Chief Economist. Note: A reading above 100 indicates economic growth and a reading below 100 indicates a slowdown in China's real estate market.

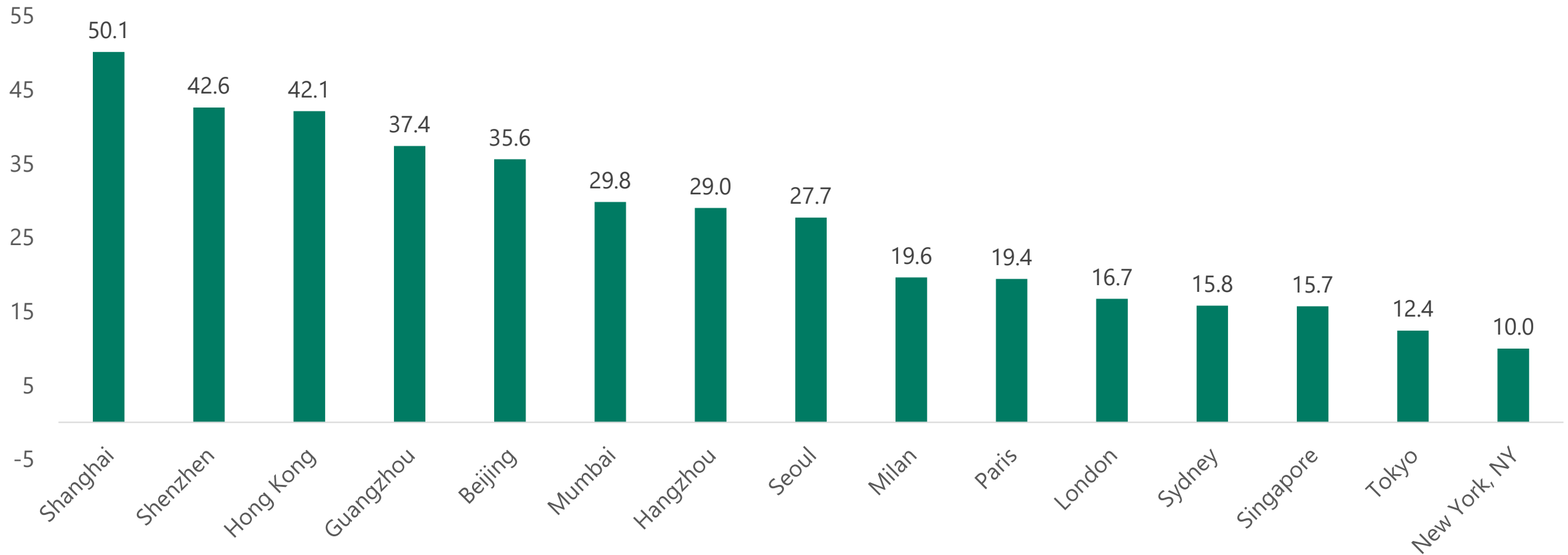
Housing market cooling down in China

Price changes in 70 major cities (new residential properties)



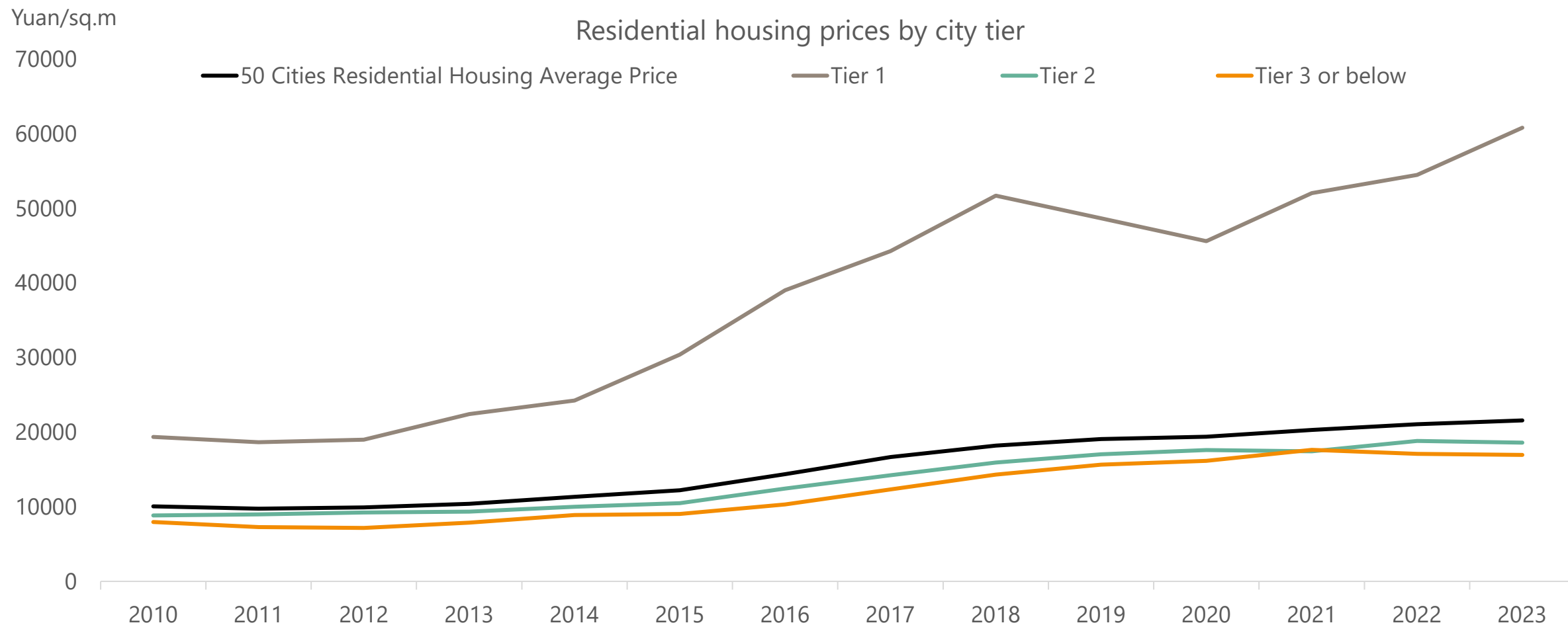
Home price-to-income ratio five times higher in Shanghai than in New York

Home Price-to-income Ratios in the World's Major Cities (Mid-year 2023)



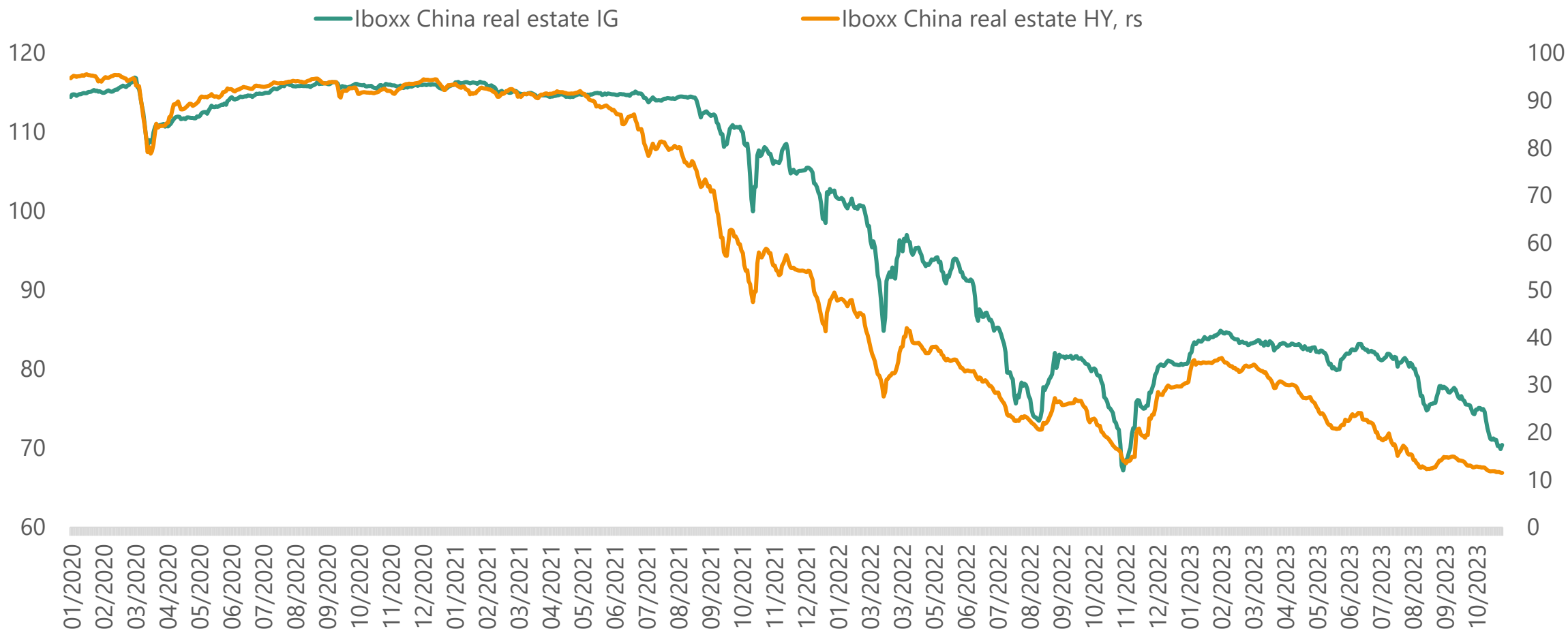
Source: Numbeo, Apollo Chief Economist (<https://www.numbeo.com/property-investment/rankings.jsp?title=2021-mid>) Note: *Price to Income Ratio* is the basic measure for apartment purchase affordability. It is generally calculated as the ratio of median apartment prices to median family disposable income, expressed as years of income.

Homes cost three to four times more in Tier 1 cities than in Tier 2 and Tier 3 cities

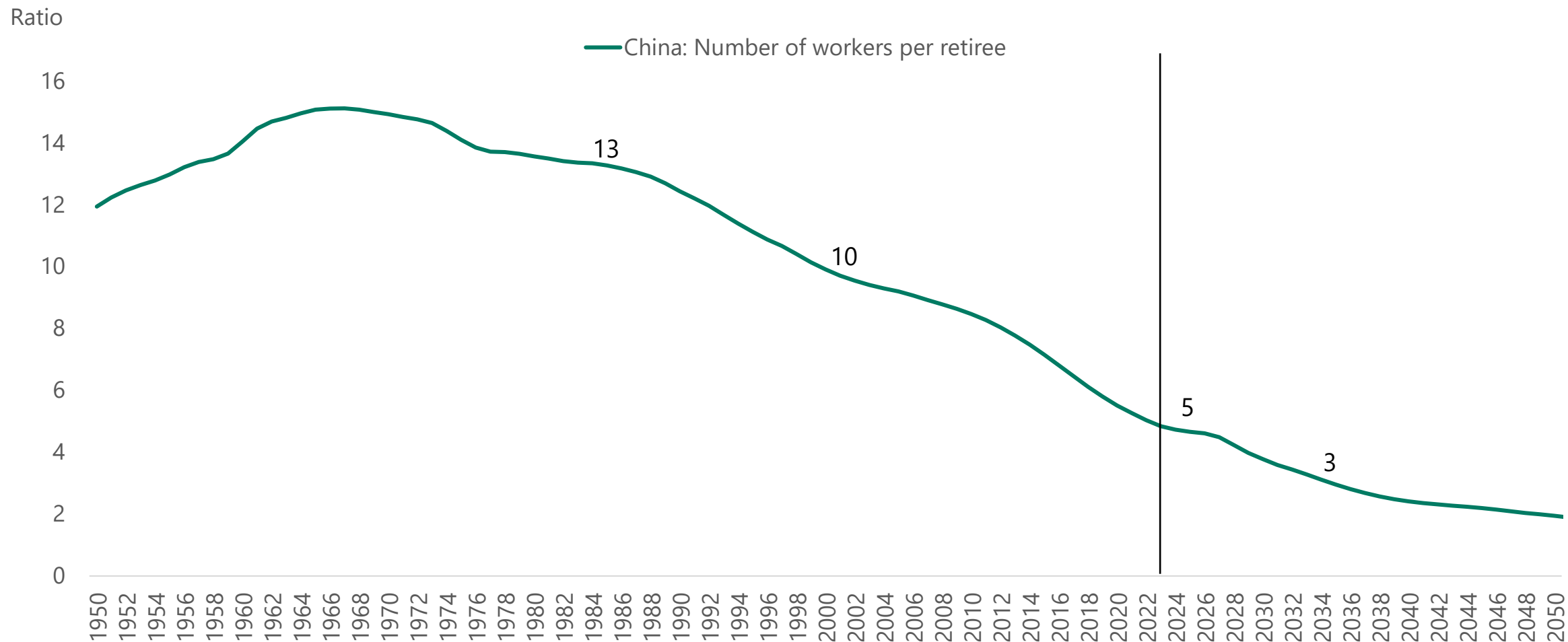


Source: Bloomberg, Apollo Chief Economist (Note: 2023 is till June)

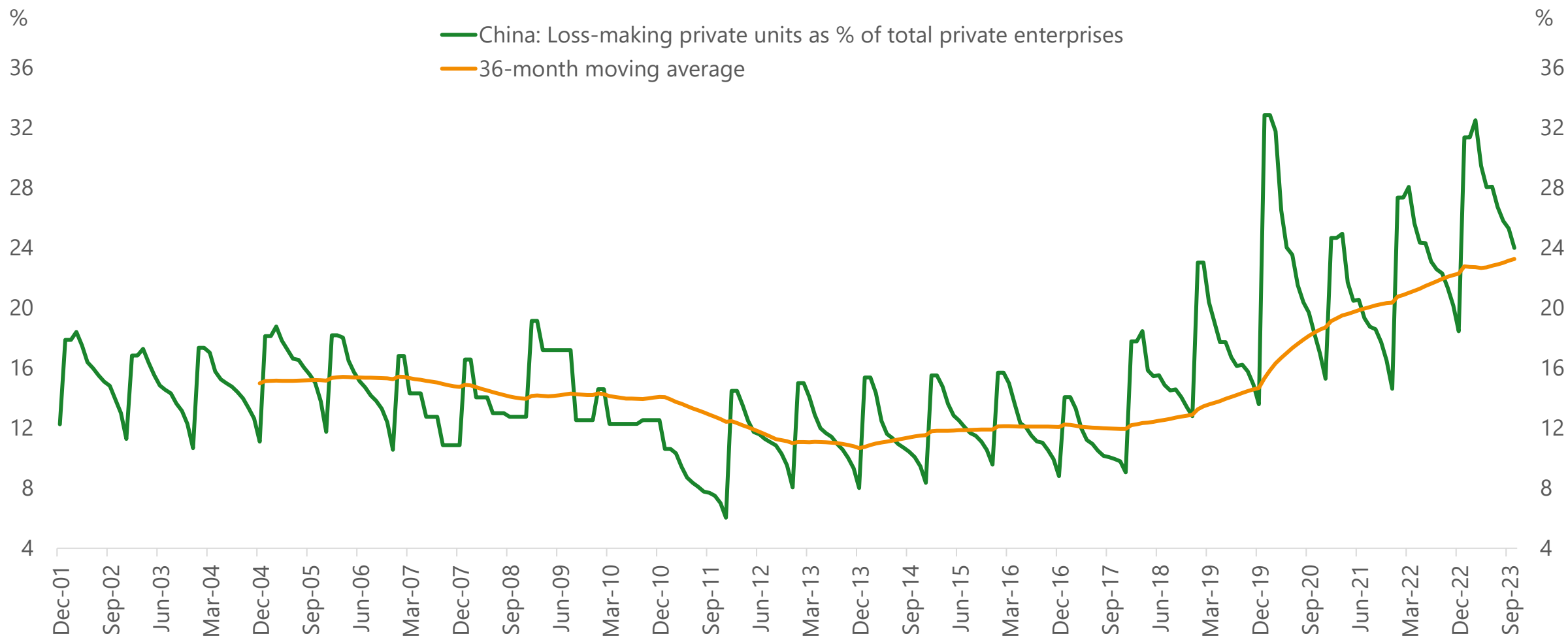
China IG and HY credit: Developers have been hit hard



China: In 2000 there were 10 workers per retiree. Today there are 5.

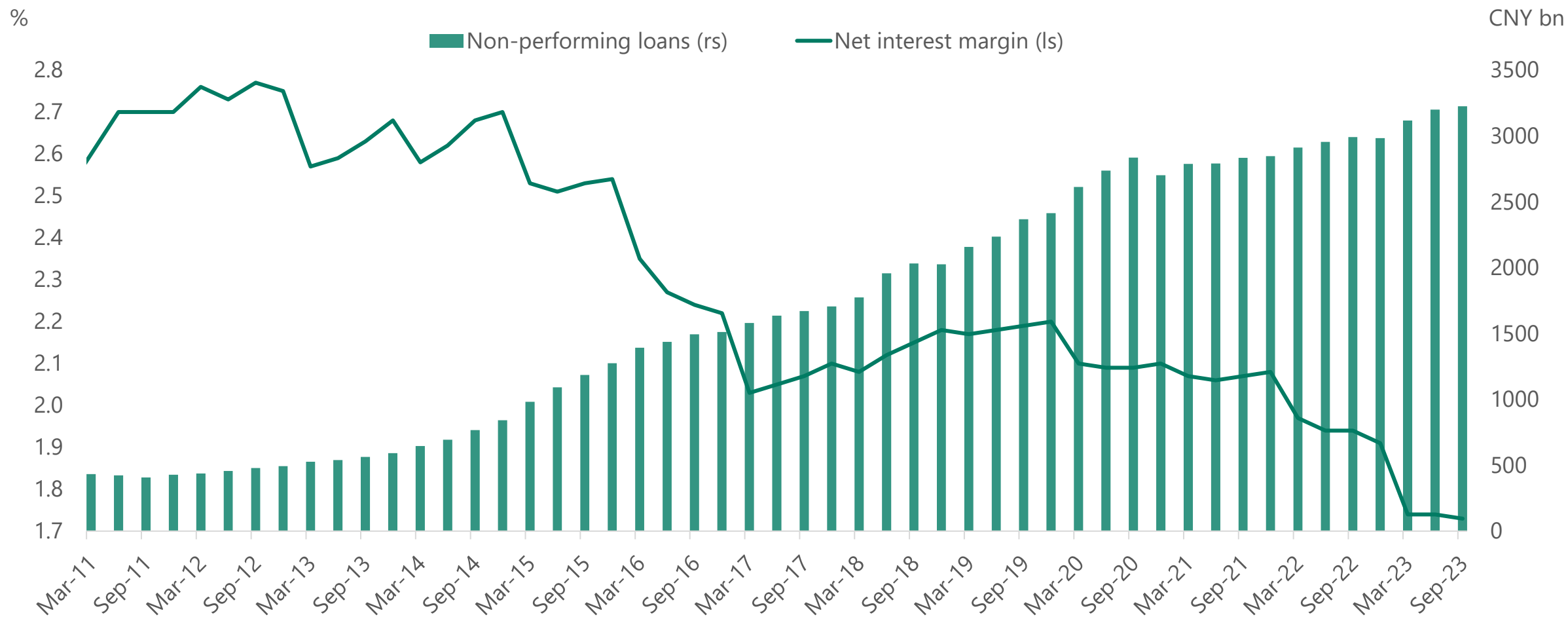


A trend increase in the share of Chinese private firms that are loss-making



Source: Bloomberg, Apollo Chief Economist (Note: CNBUPRTD Index, CNLBPRTD Index)

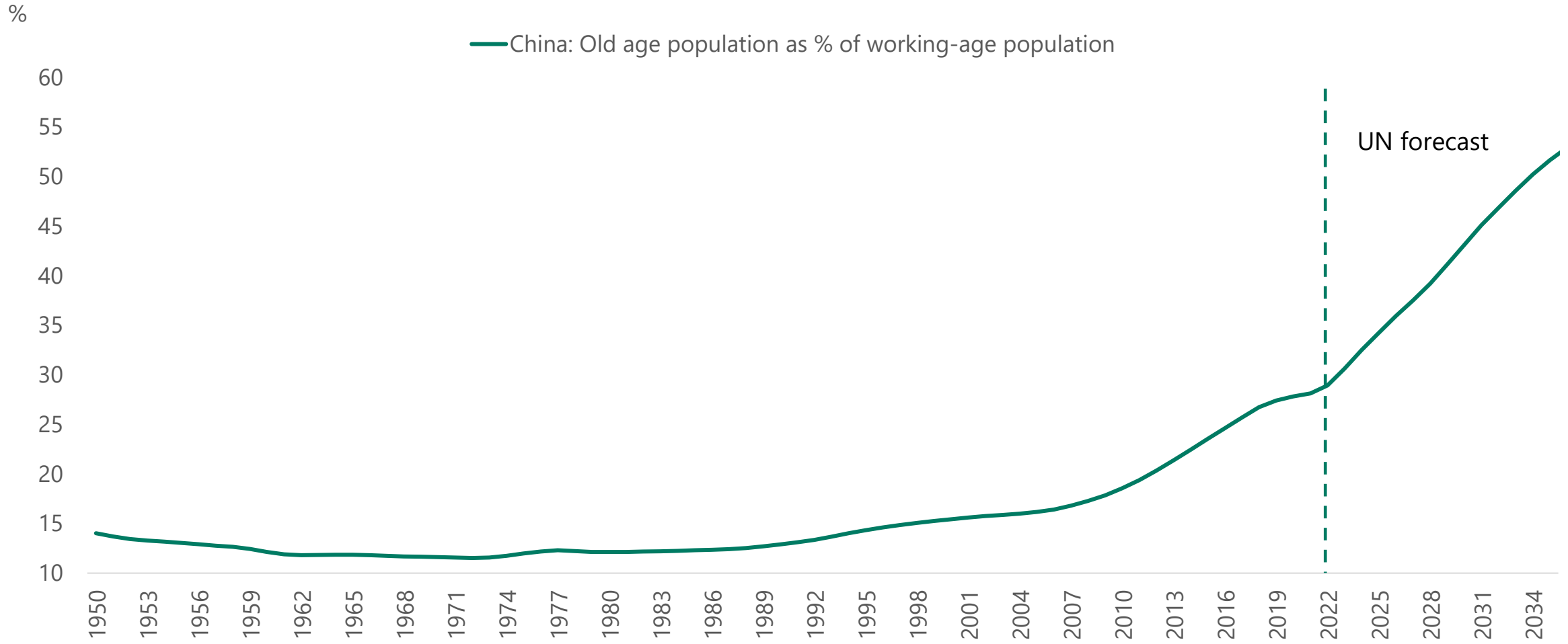
China banks: NPL has been rising



Source: China Banking Regulatory Commission, Bloomberg, Apollo Chief Economist

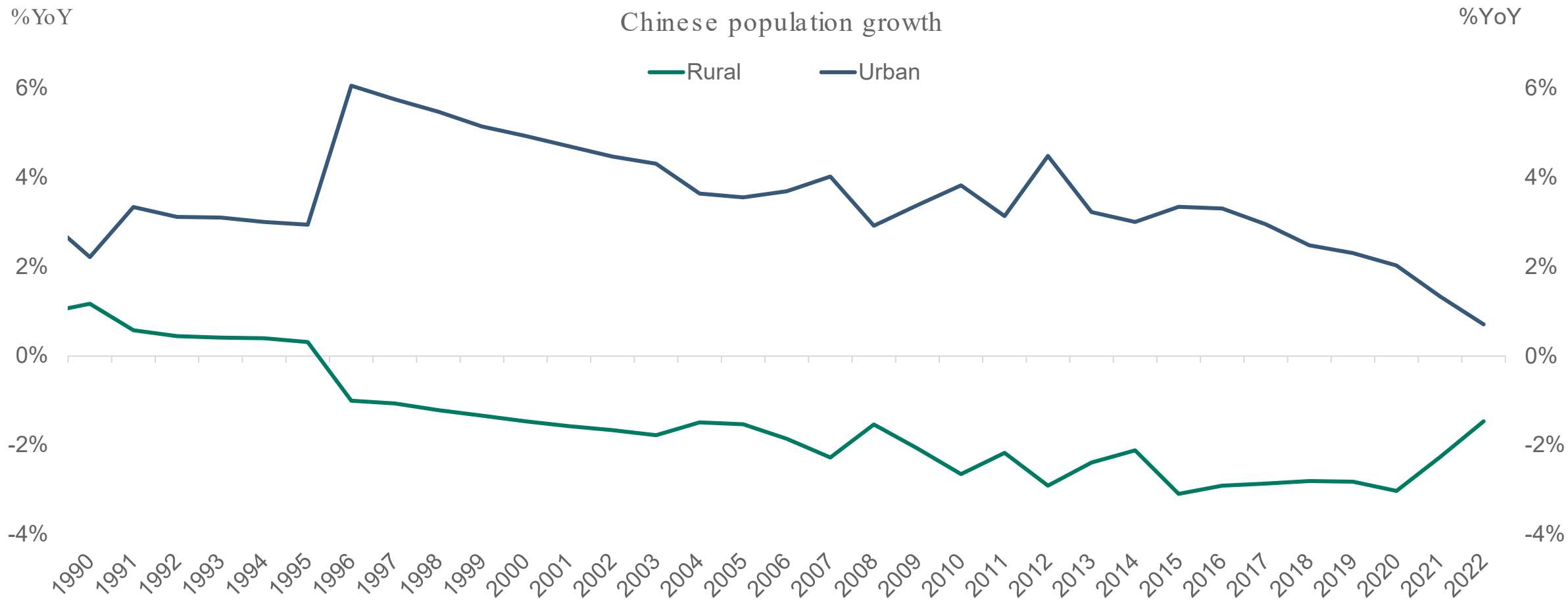
China: Demographics

China: Dependency ratio approaching 50% over the coming decade

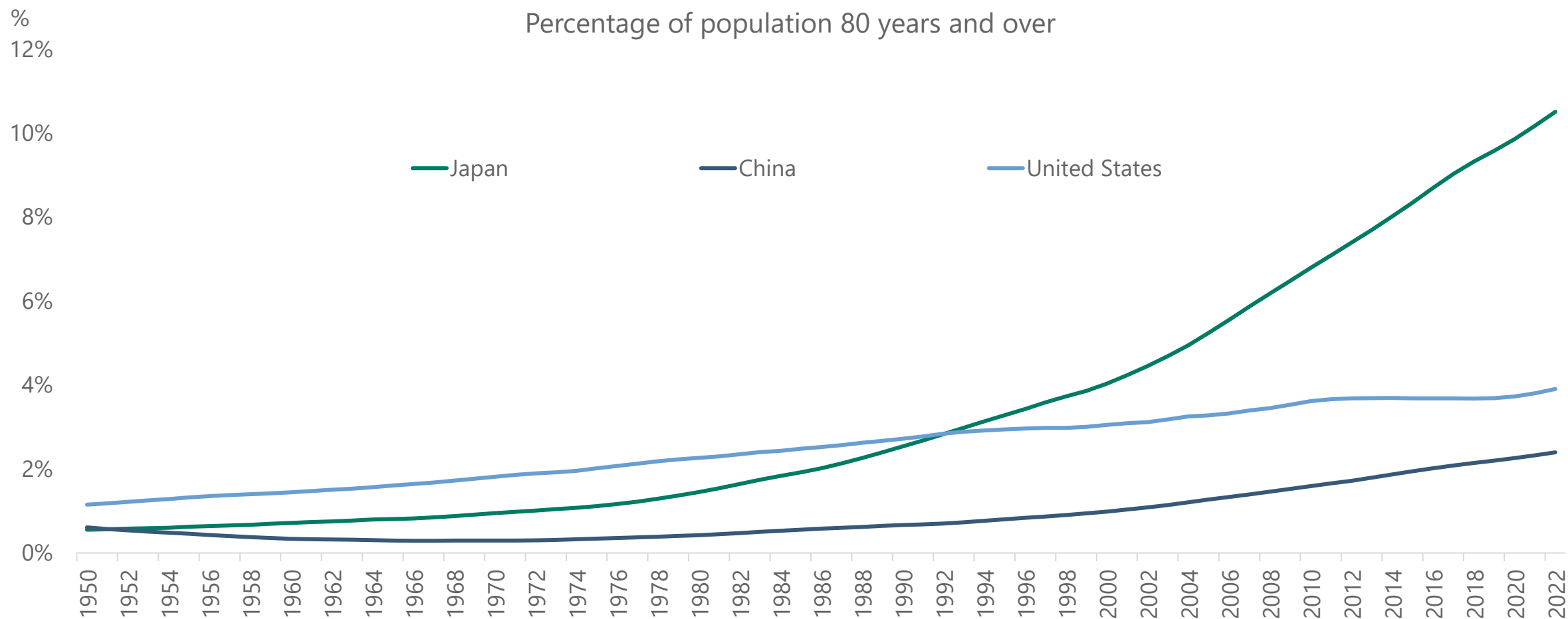


Source: UN, Haver Analytics, Apollo Chief Economist (Old age = 60 years and over; working-age = 15-59 years old)

Population growth declining

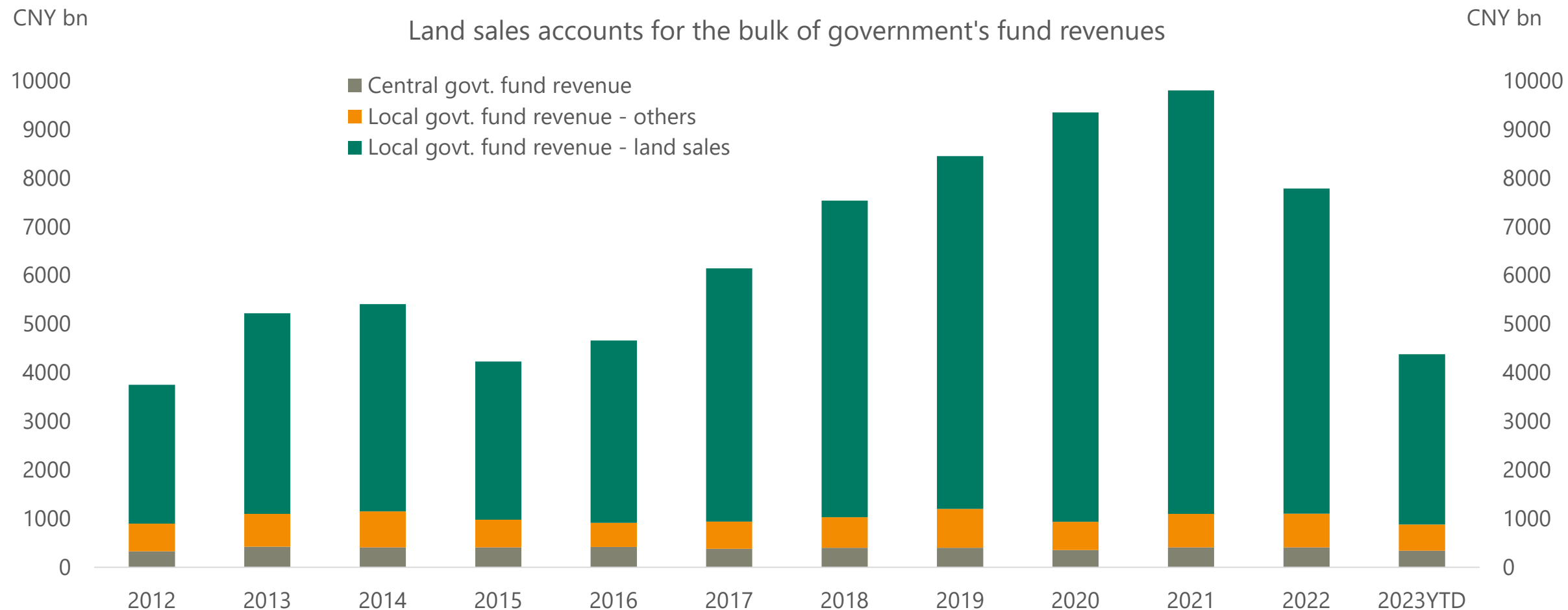


China demographics not similar to Japan



Real estate playing a key role in the Chinese economy

Land sales are a crucial source of local government revenue

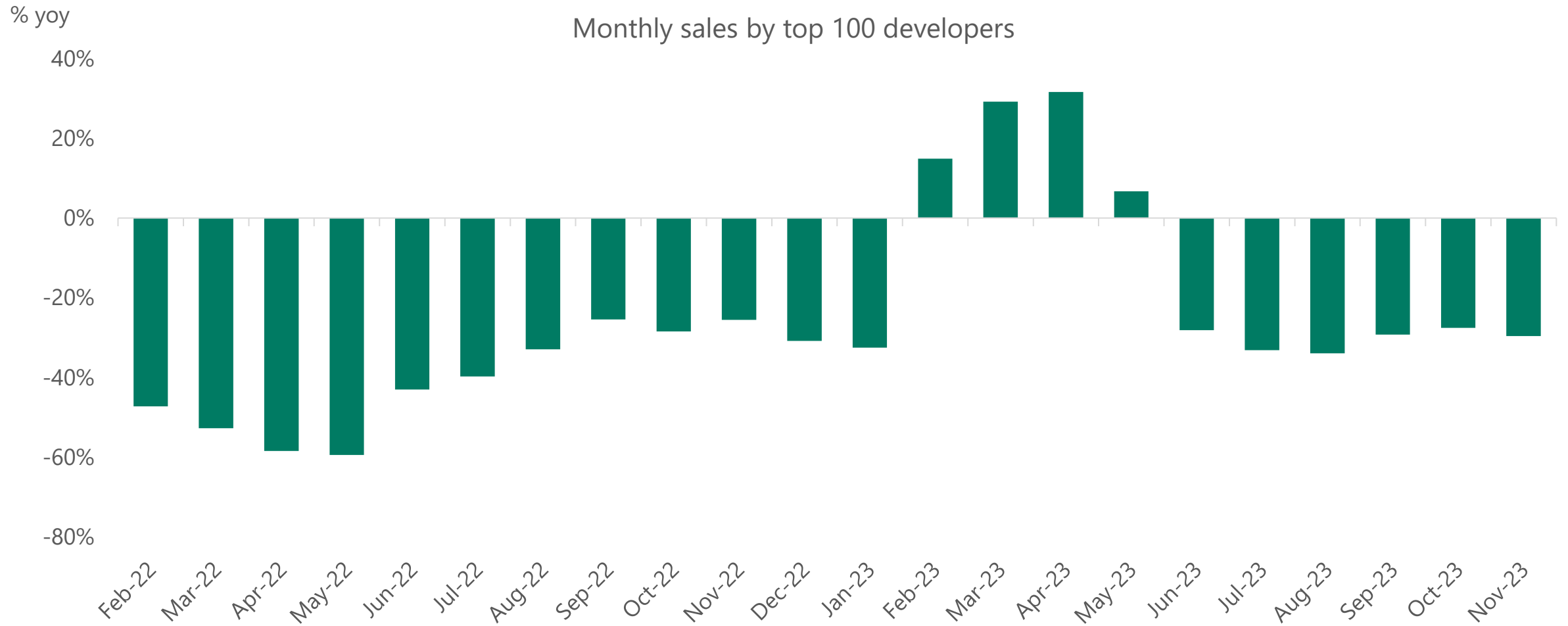


Source: Ministry of Finance of the People's Republic of China, Bloomberg, Apollo Chief Economist

Home sales slowing in Tier 1 and Tier 2 cities



The value of new home sales among the 100 biggest real estate companies continue to decline

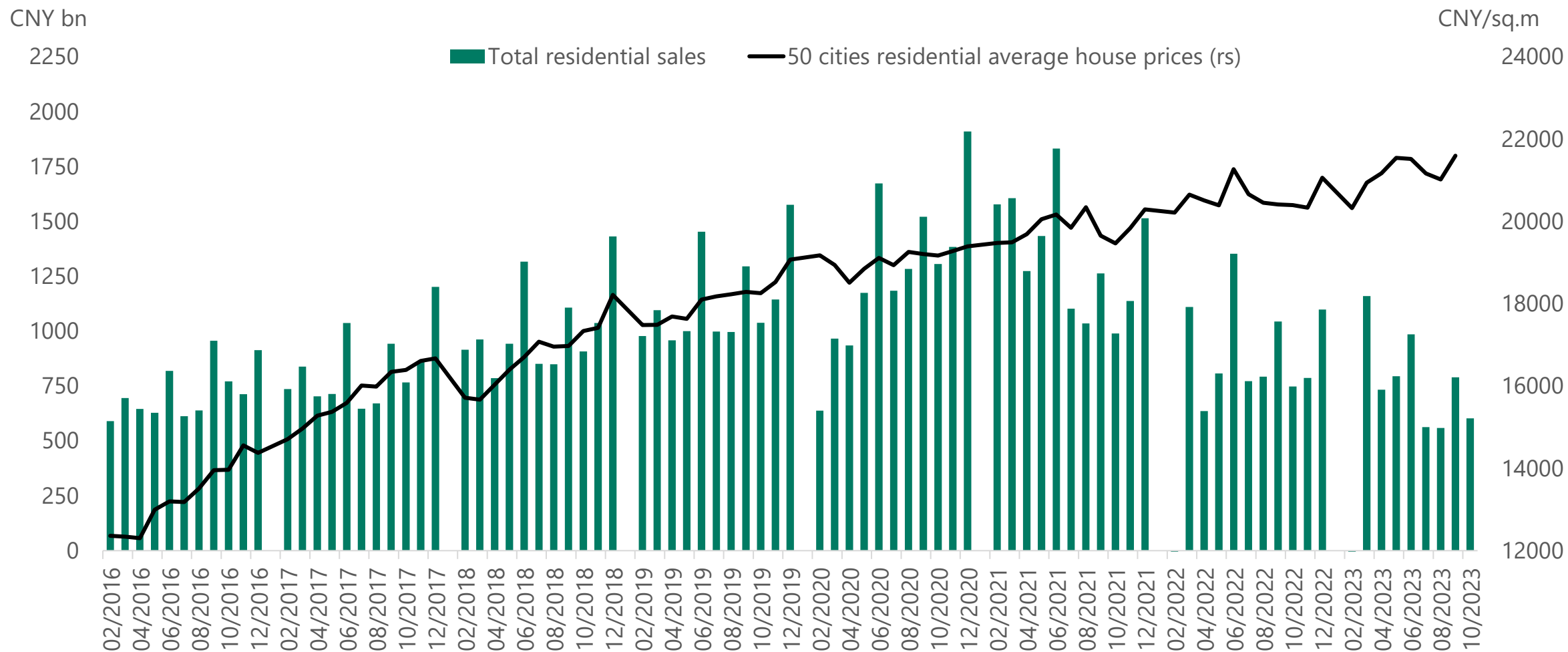


Source: China Real Estate Information Corp, Bloomberg, Apollo Chief Economist

Housing market cooling down in China: Home prices falling month-over-month



Housing market cooling down in China; Home sales declining

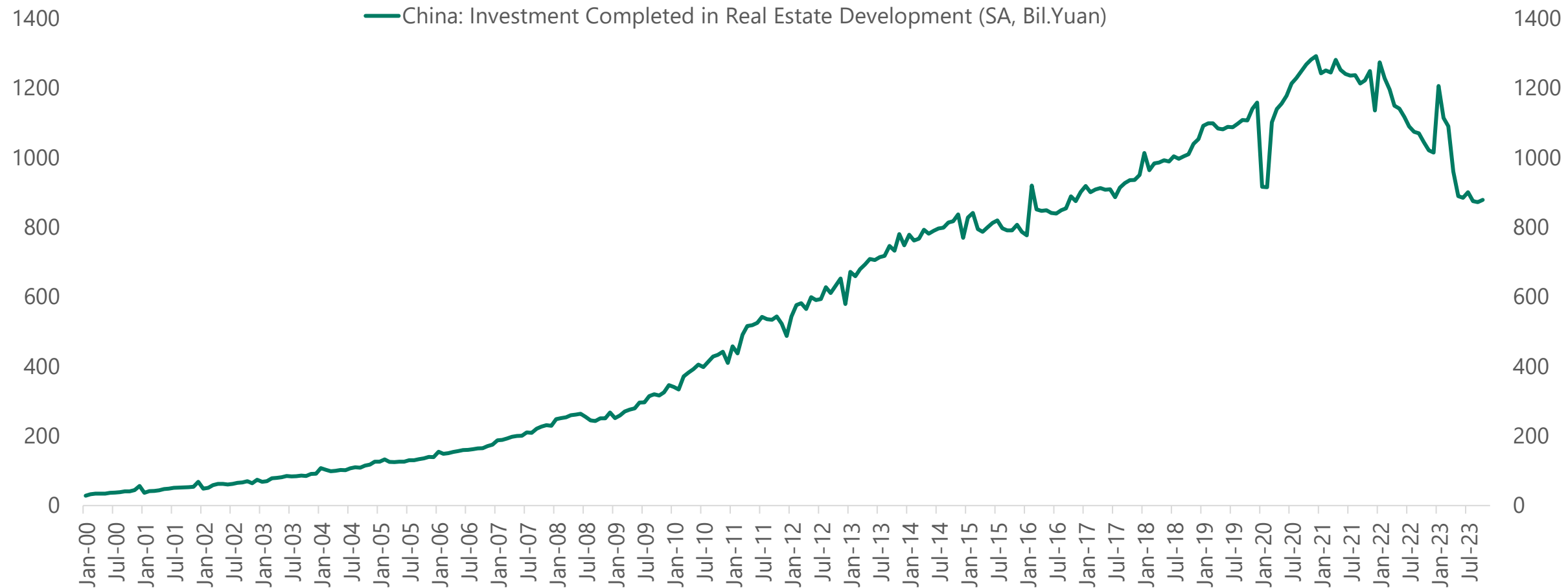


Source: CRIC, Bloomberg, Apollo Chief Economist

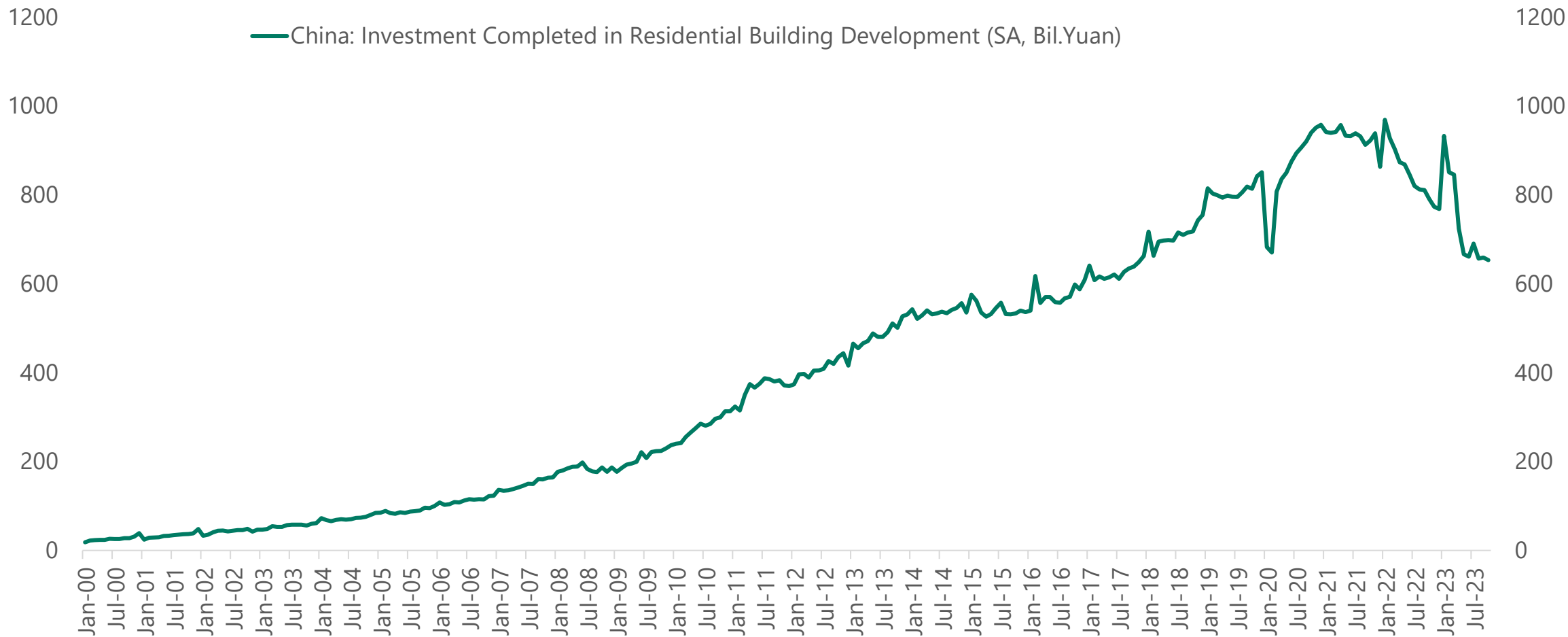
Beijing home price inflation slowing down



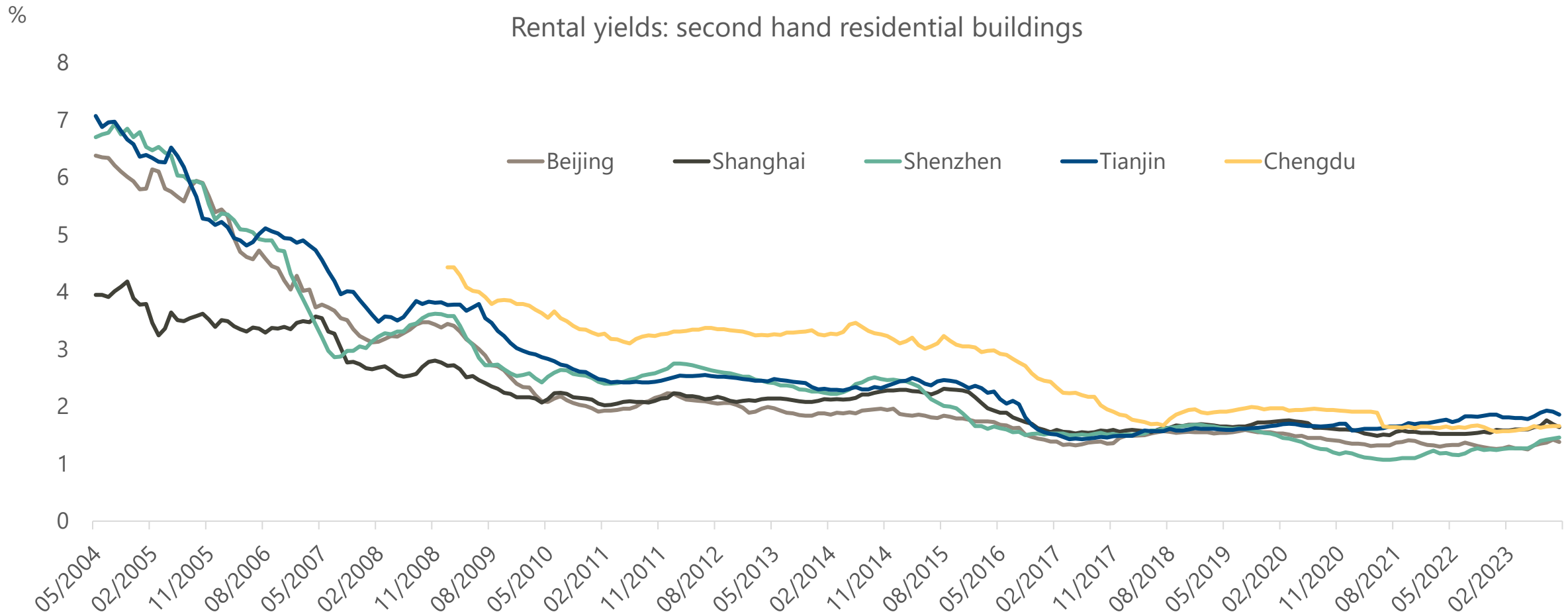
China: Real estate investment slowing



Residential real estate investment slowing



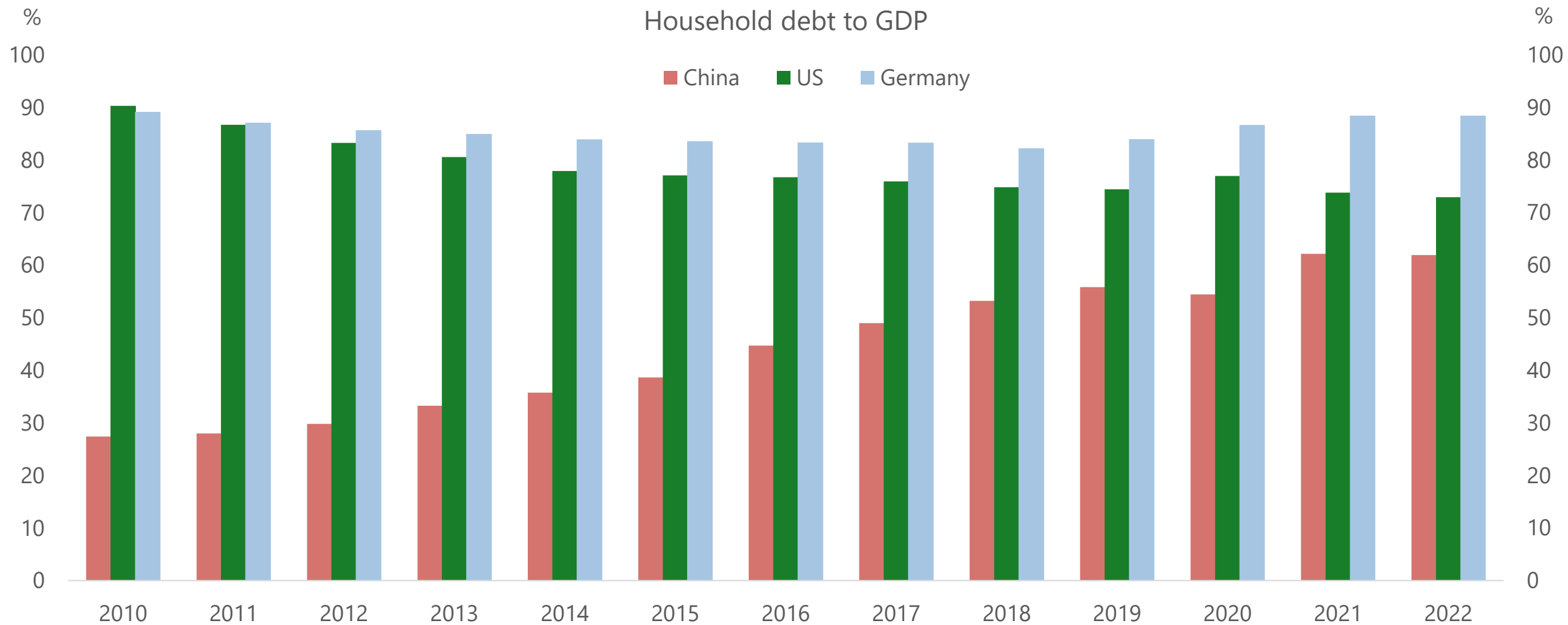
Rental yields at second hand residential buildings in major cities



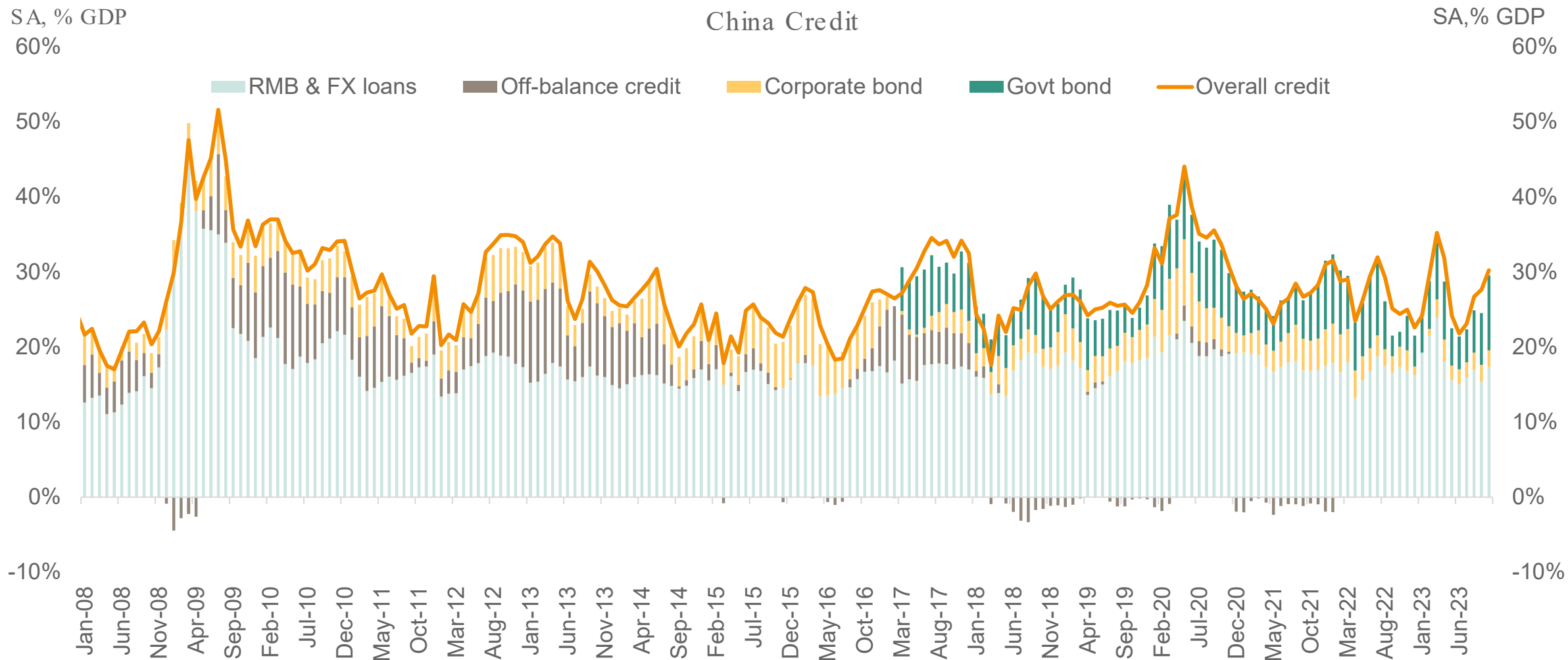
Source: Bloomberg, Apollo Chief Economist (Note: Rental yield is the rental income as a percentage of the property's value)

China: Debt and financing

Household debt to GDP has increased steadily in China

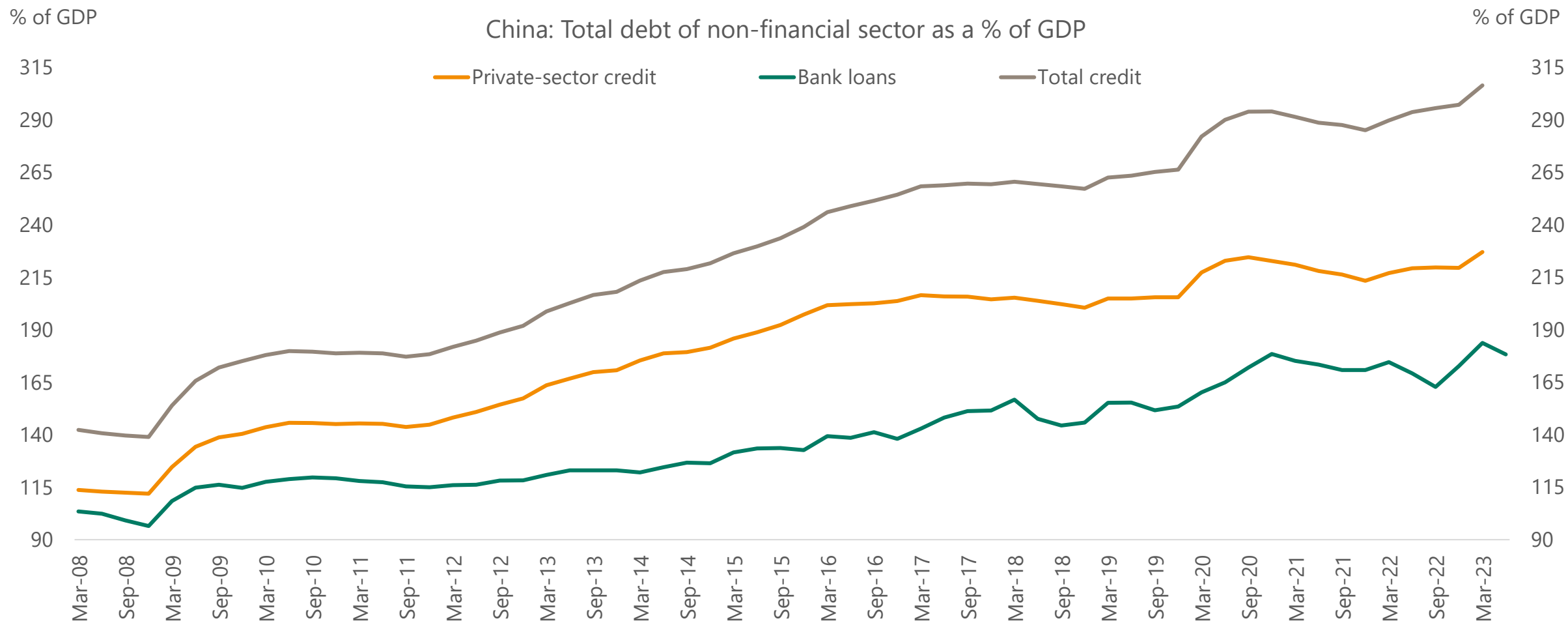


China credit growth

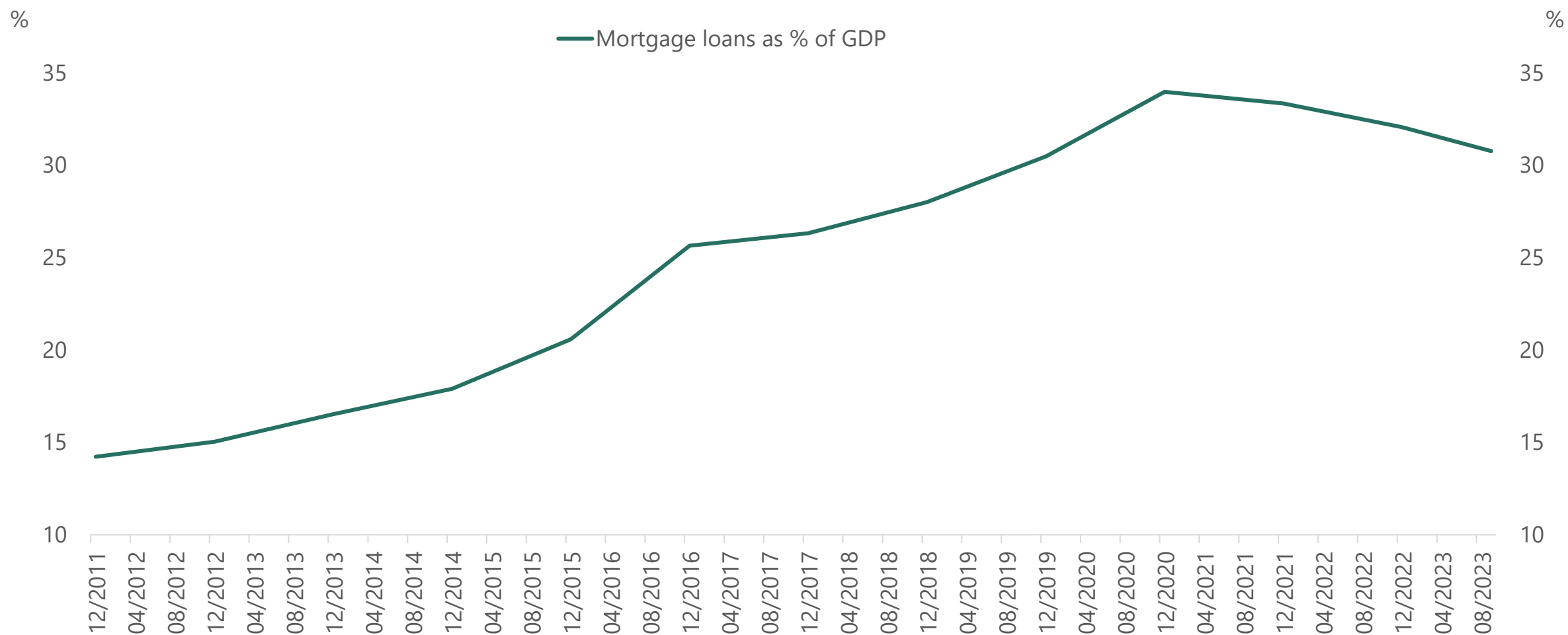


Source: PBoC, Haver Analytics, Apollo Chief Economist. Note: Off-balance Credit includes Entrusted Loans, Trust loans, Undiscounted Bankers' Acceptances, Deposit Taking Fin Institutions Asset Backed Securities, Loan write-Offs

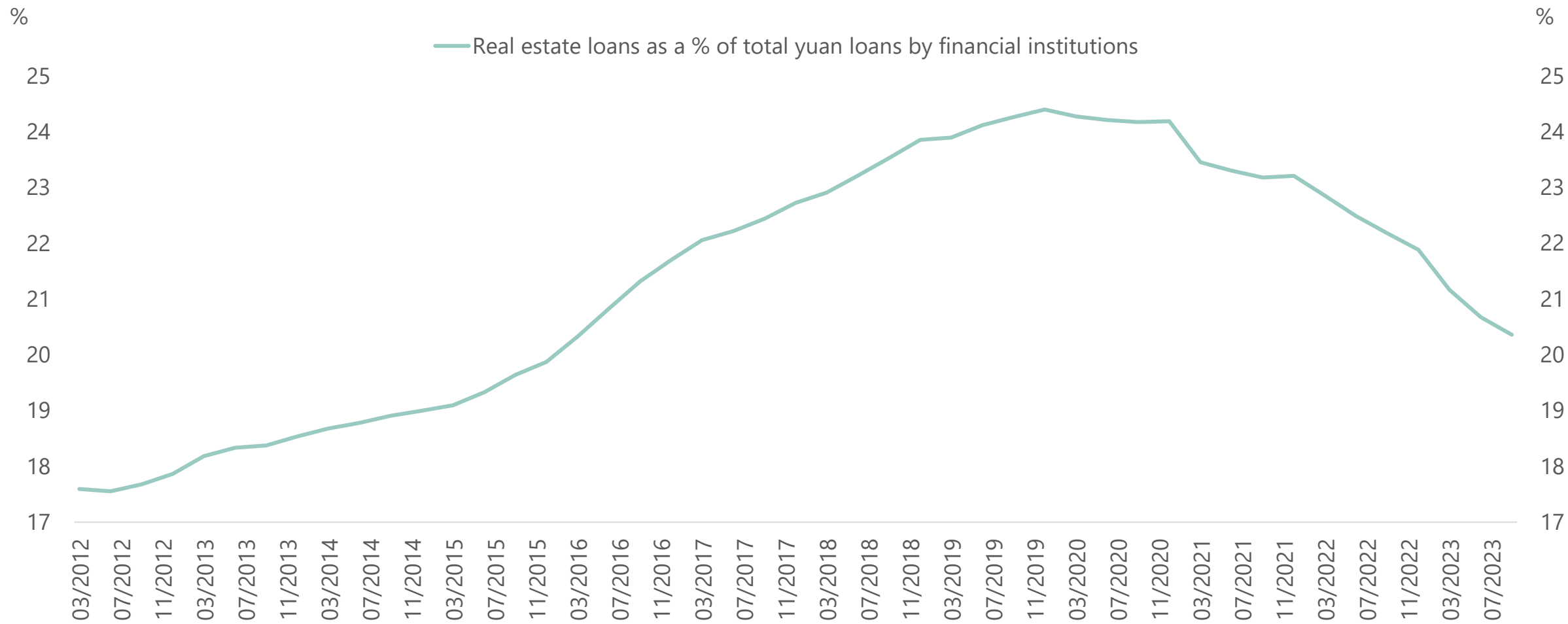
China: Debt levels have increased in the private sector



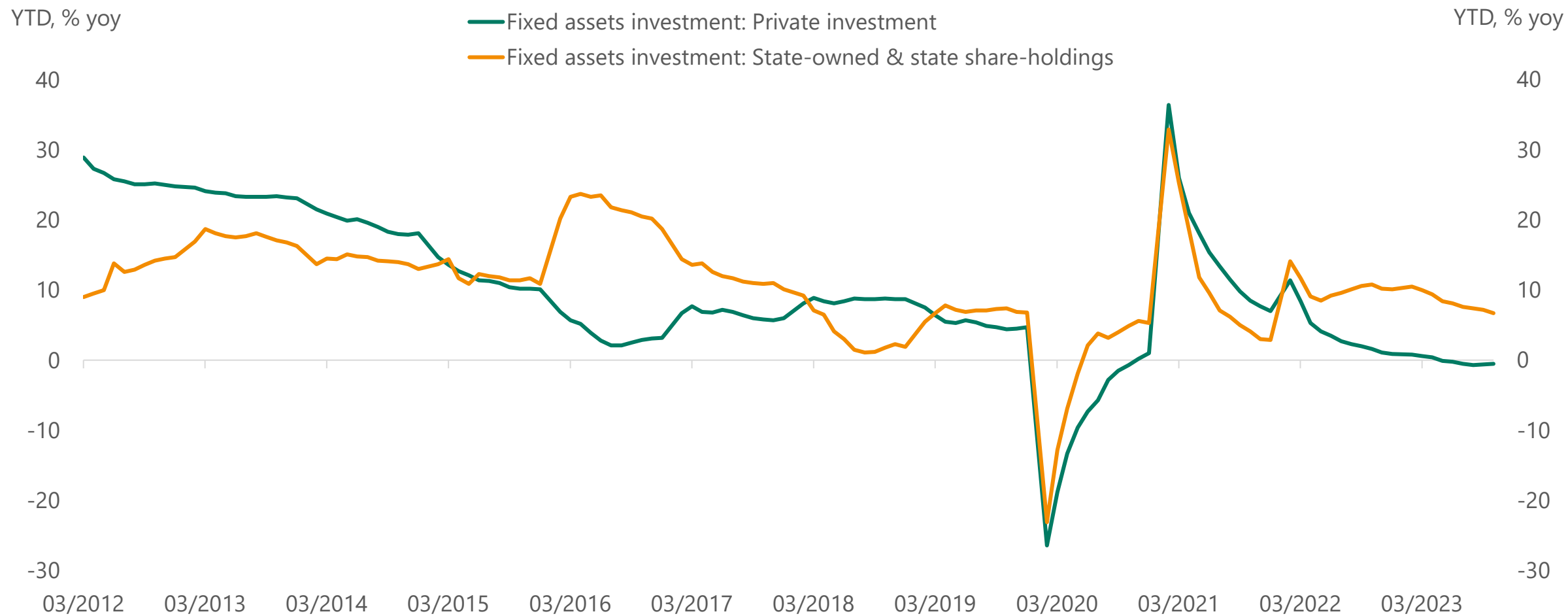
China's mortgage liabilities as a share of GDP



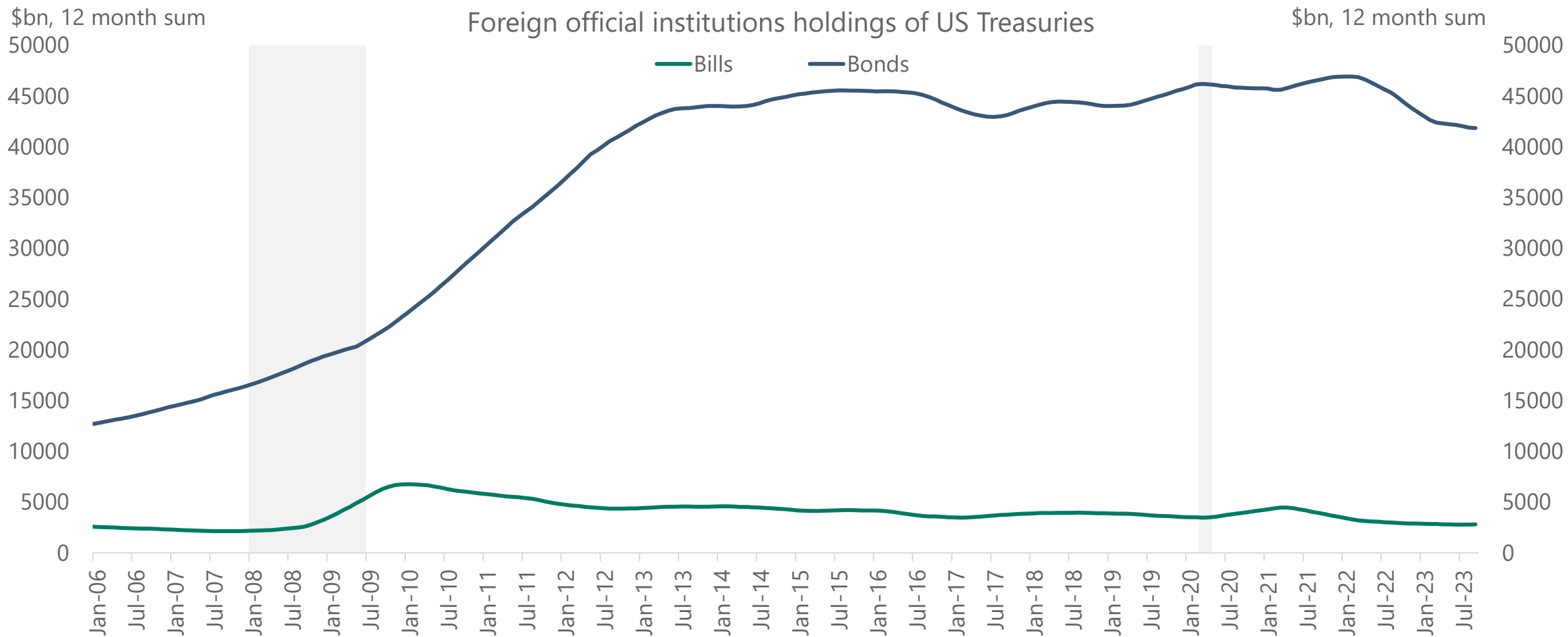
Real estate loans making up a smaller part of total lending by financial institutions



China: Private investment growth is declining



Foreign official holdings of US bonds is falling

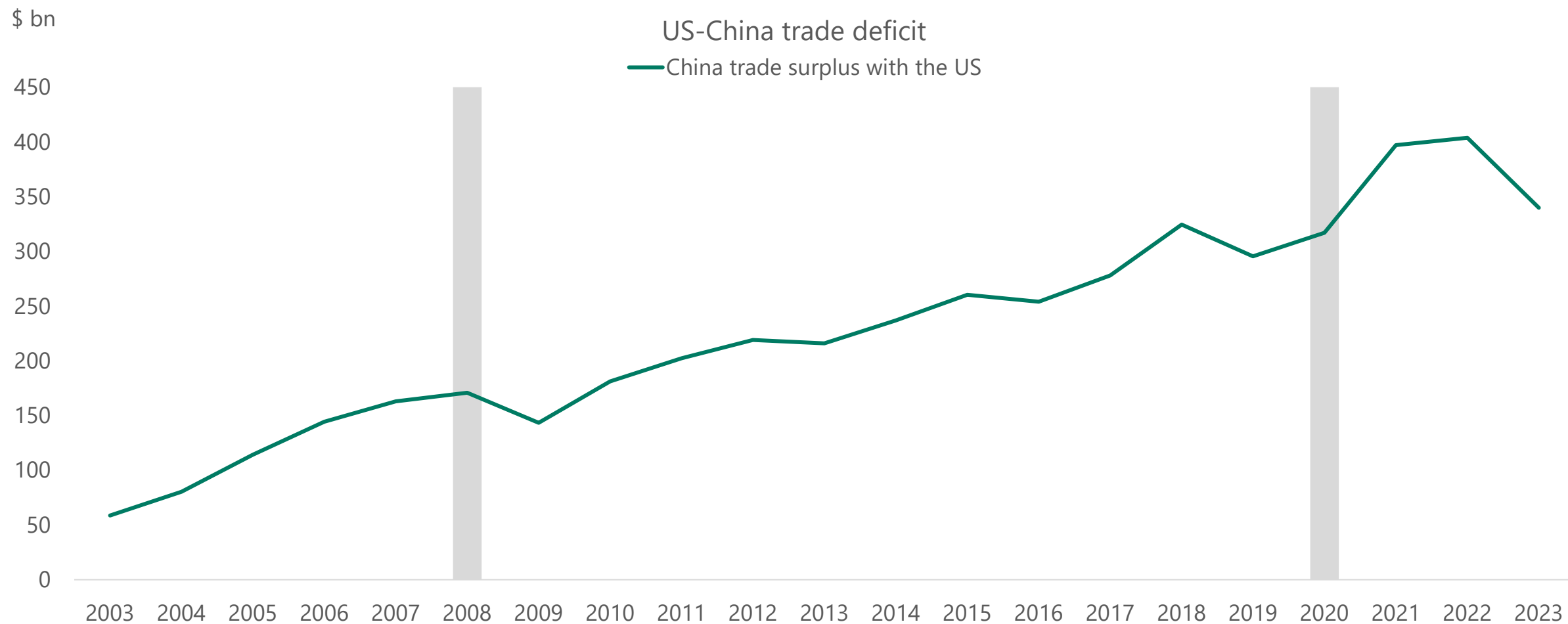


Chinese trade with the US

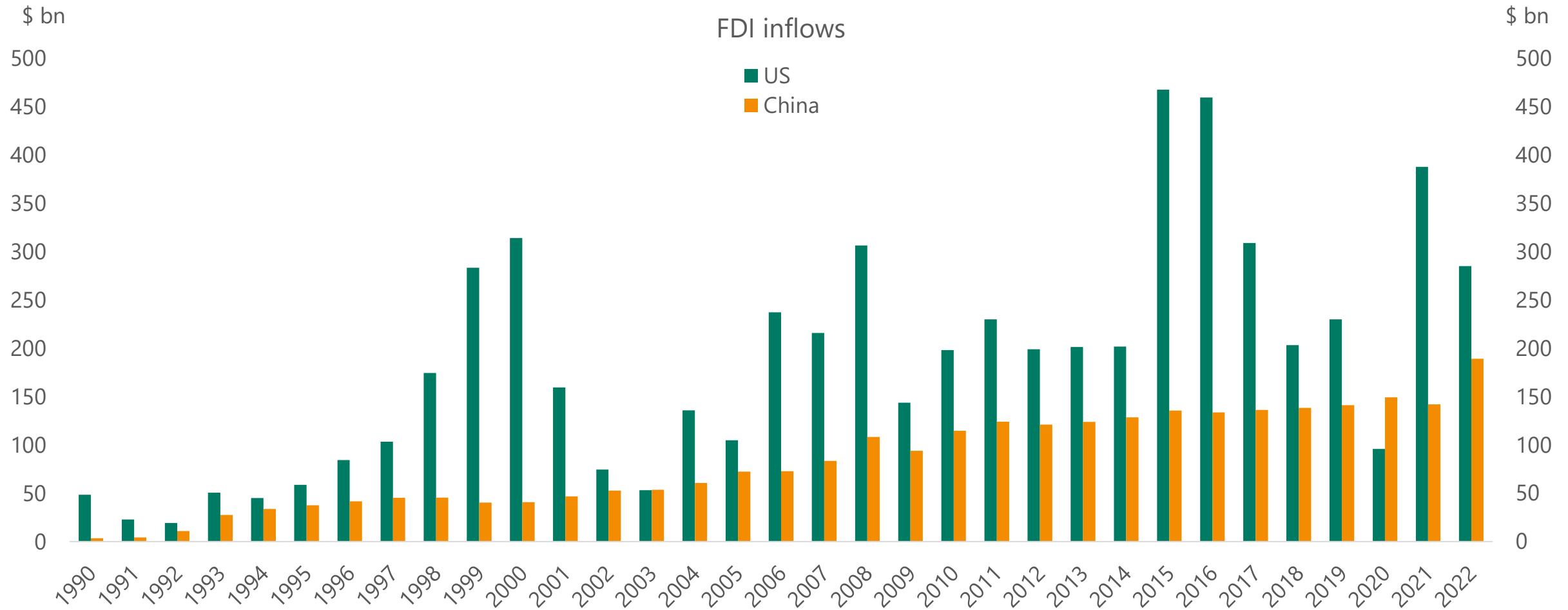
Chinese share of exports to US, EU, and Japan declining



US-China trade deficit



China and US: Comparing foreign direct investment



China IG and HY

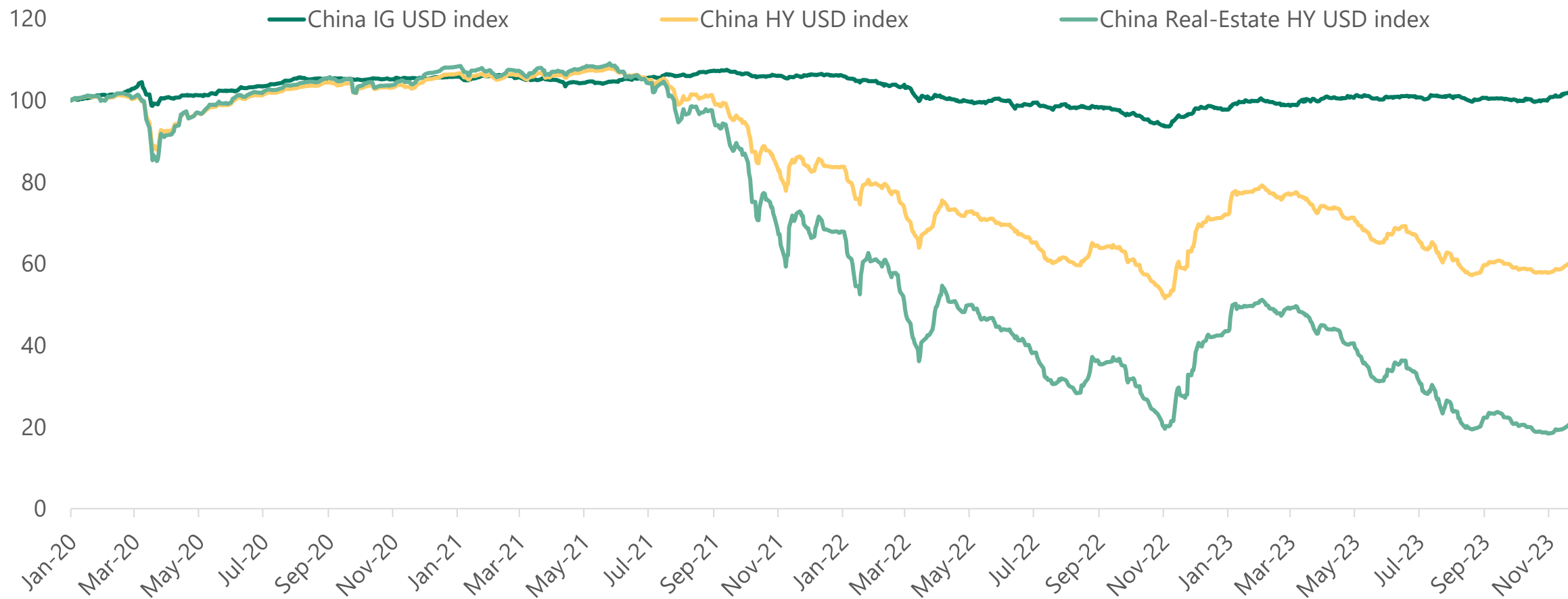
China's real estate sector under pressure



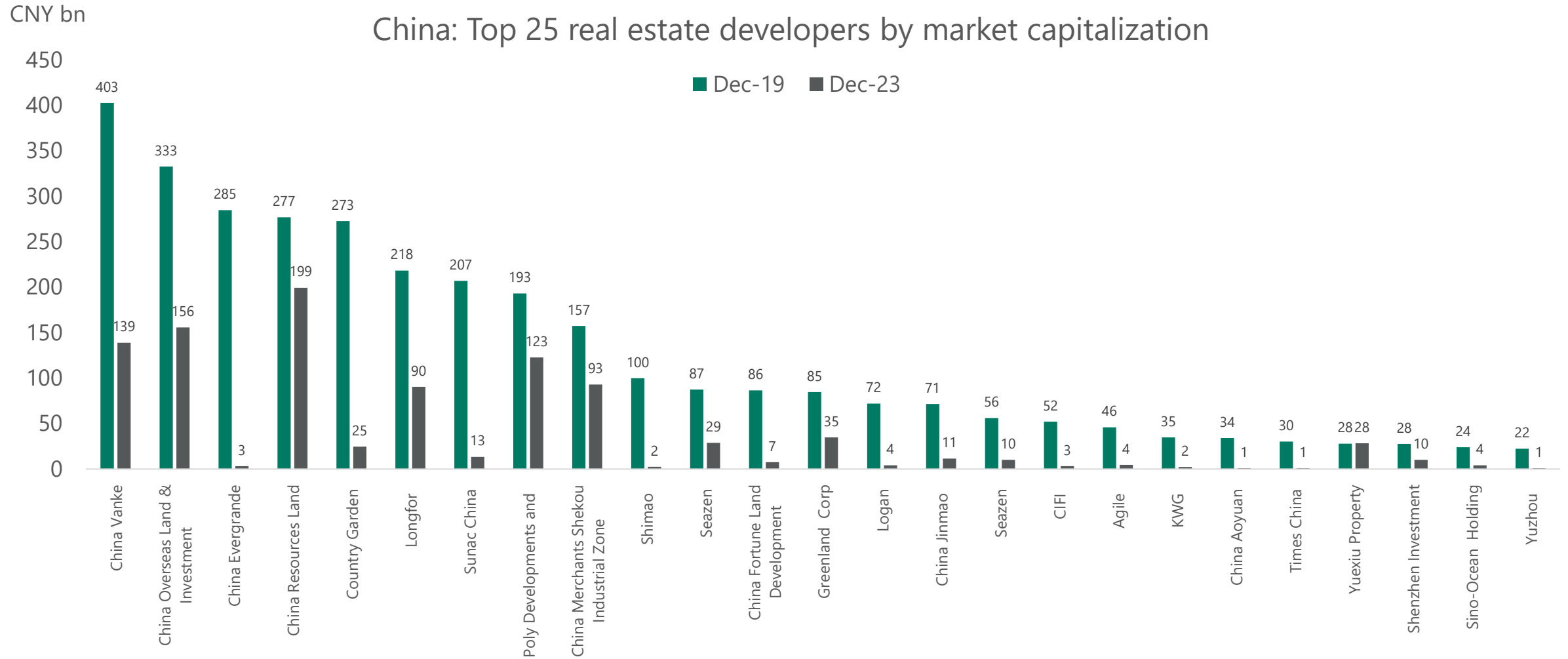
Source: Bloomberg, Apollo Chief Economist.

China: Within high yield, the real estate sector remains under pressure

Index, Jan 2020 = 100



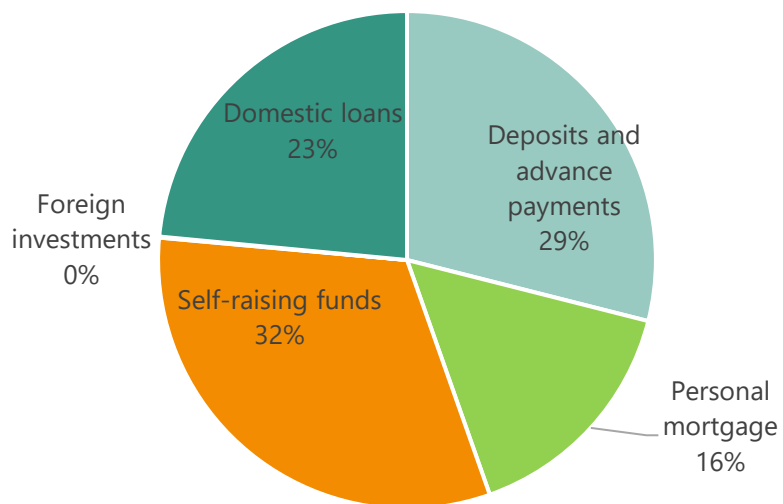
China: Market capitalization of real estate developers has declined significantly



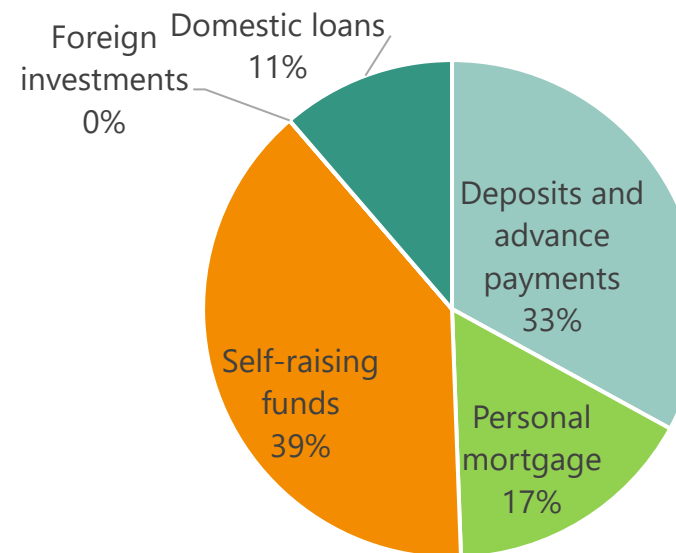
Source: Bloomberg, Apollo Chief Economist. (Dec 23 as of 4th Dec)

China: Sources of funds for real estate developers

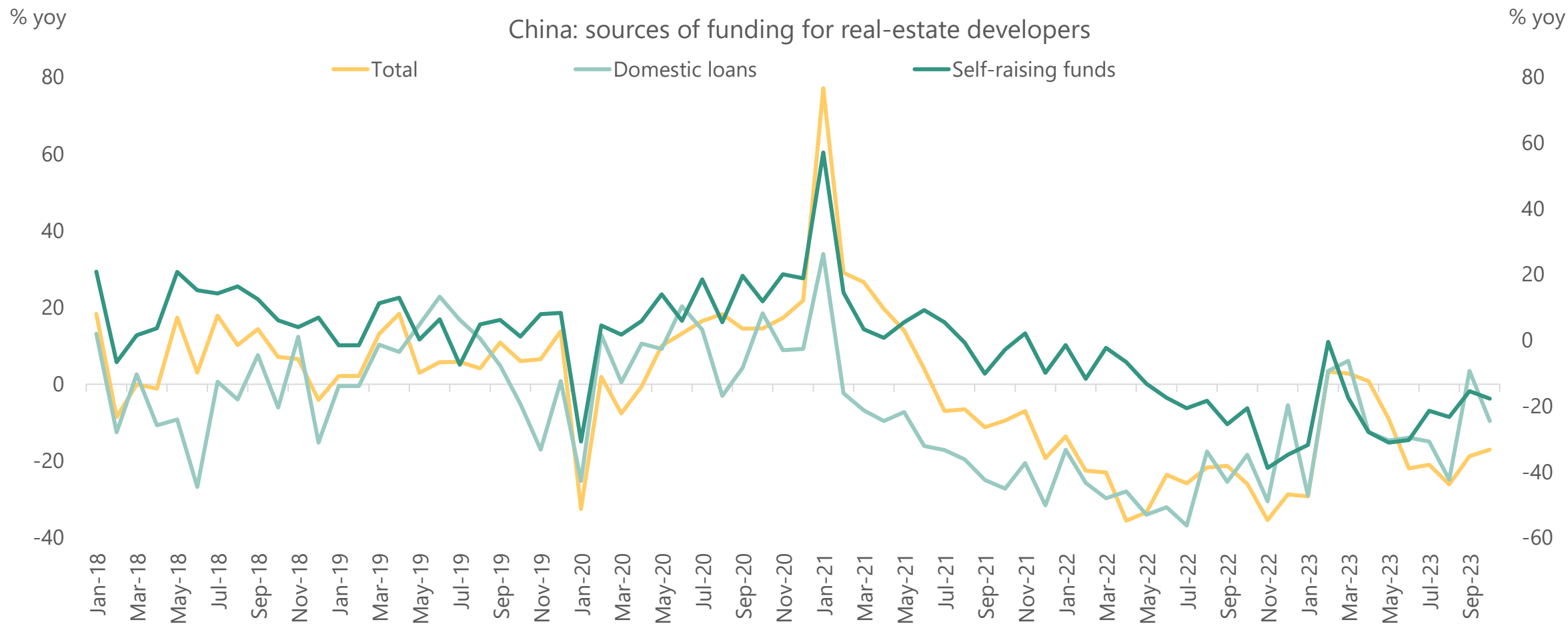
January 2020



October 2023

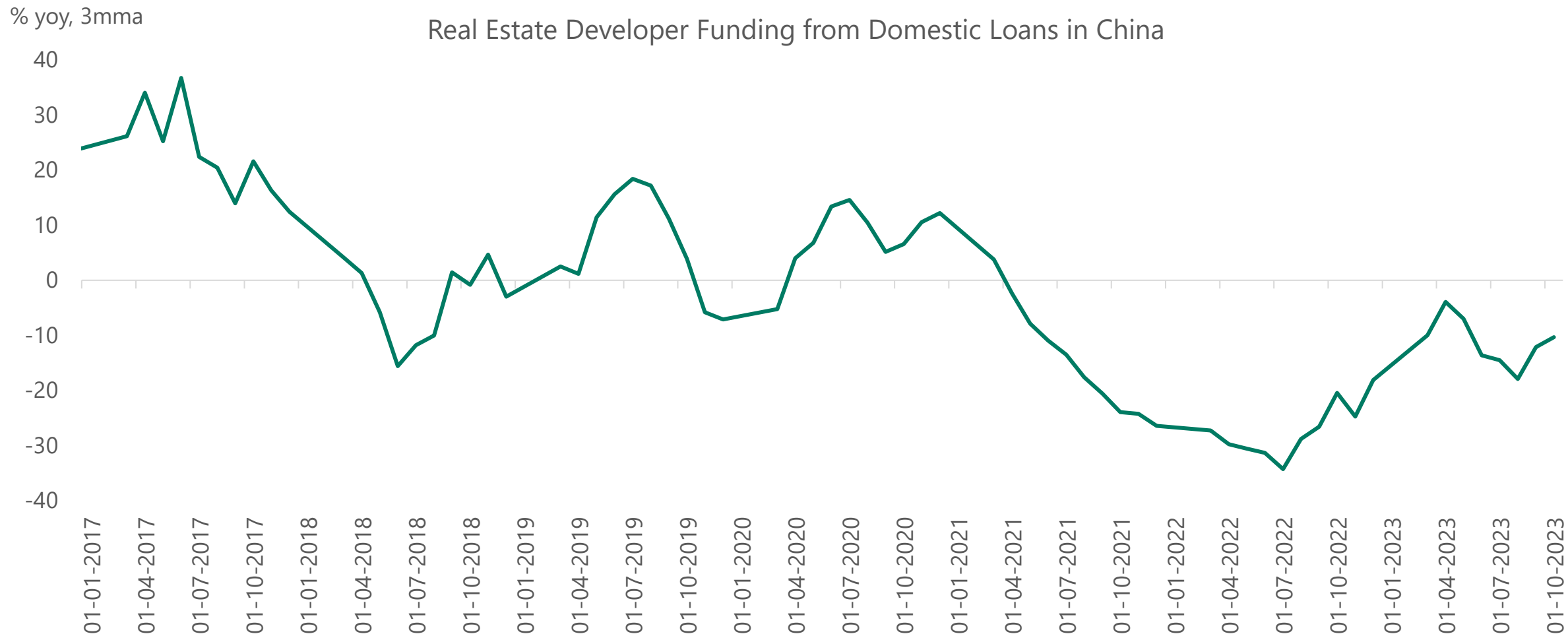


China: All types of funding declined



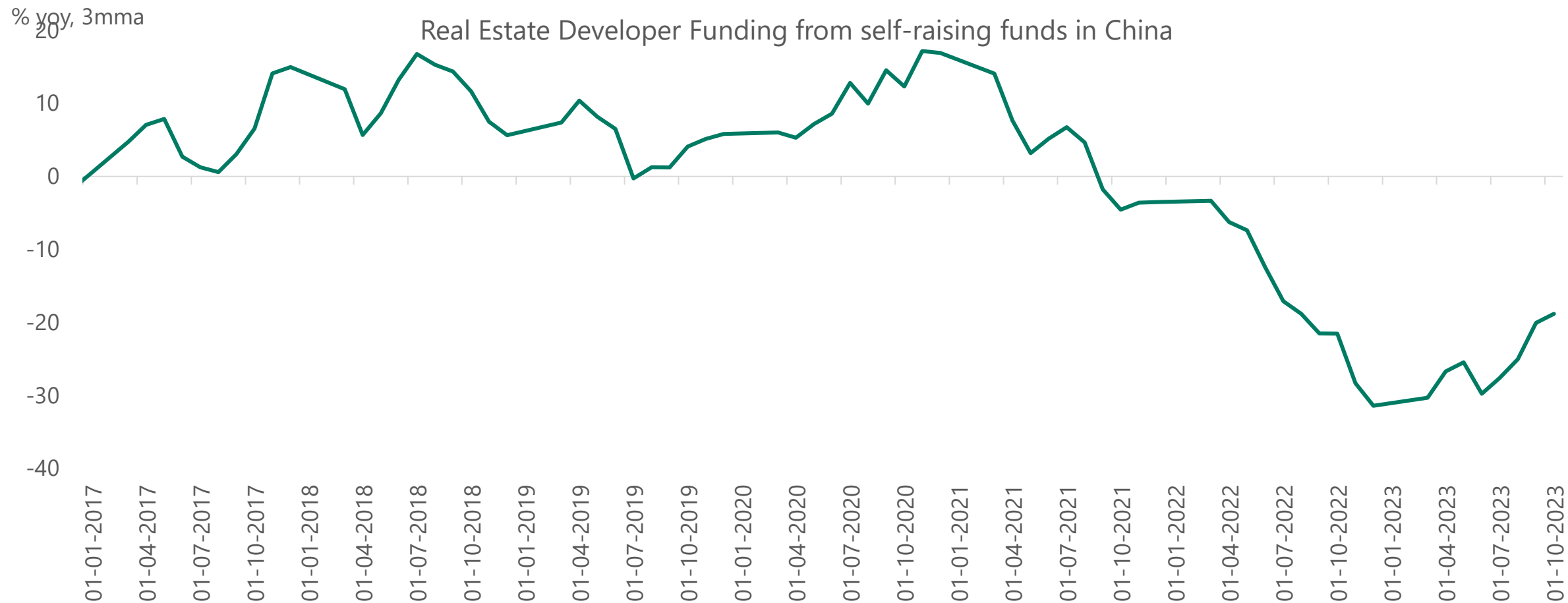
Sources: China National Bureau of Statistics, NBS, Haver, Apollo Chief Economist

China: Domestic funding conditions have deteriorated



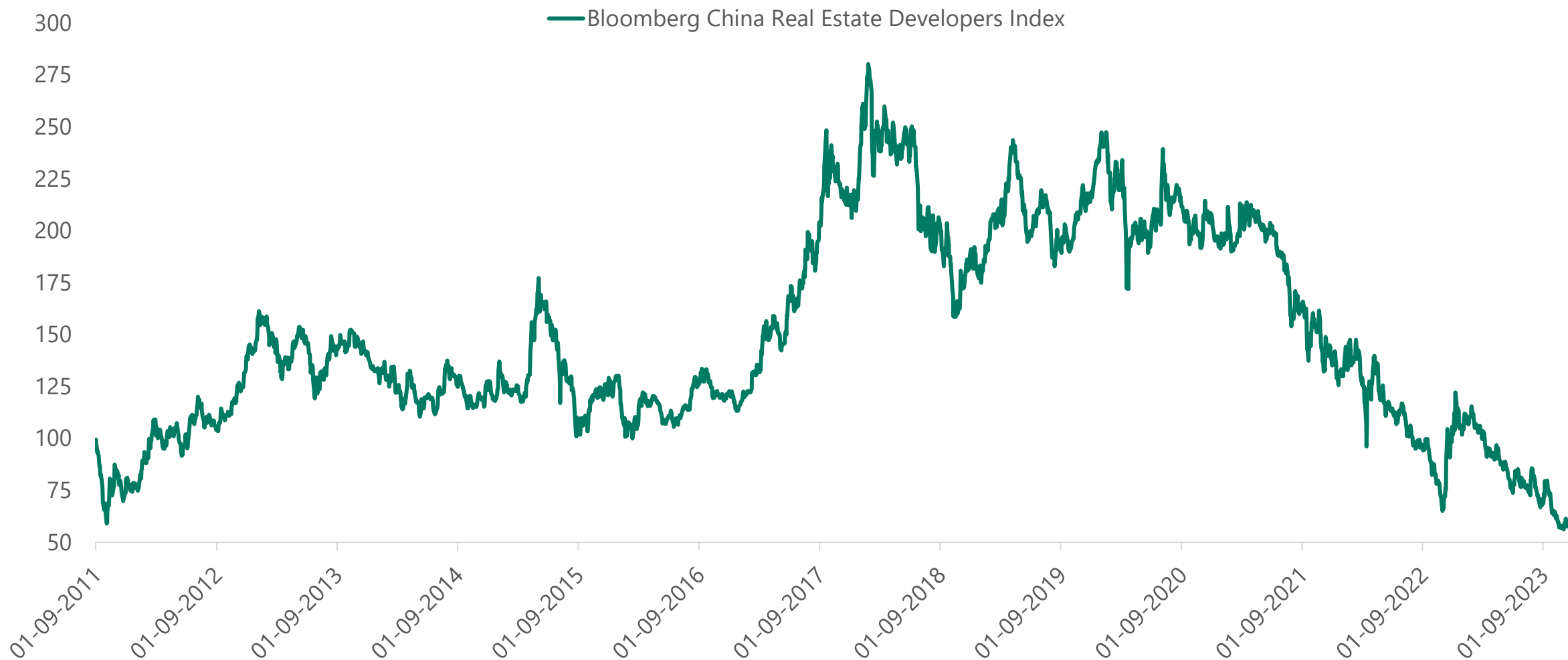
Source: Bloomberg, Apollo Chief Economist.

China: Self-financing for real estate developers

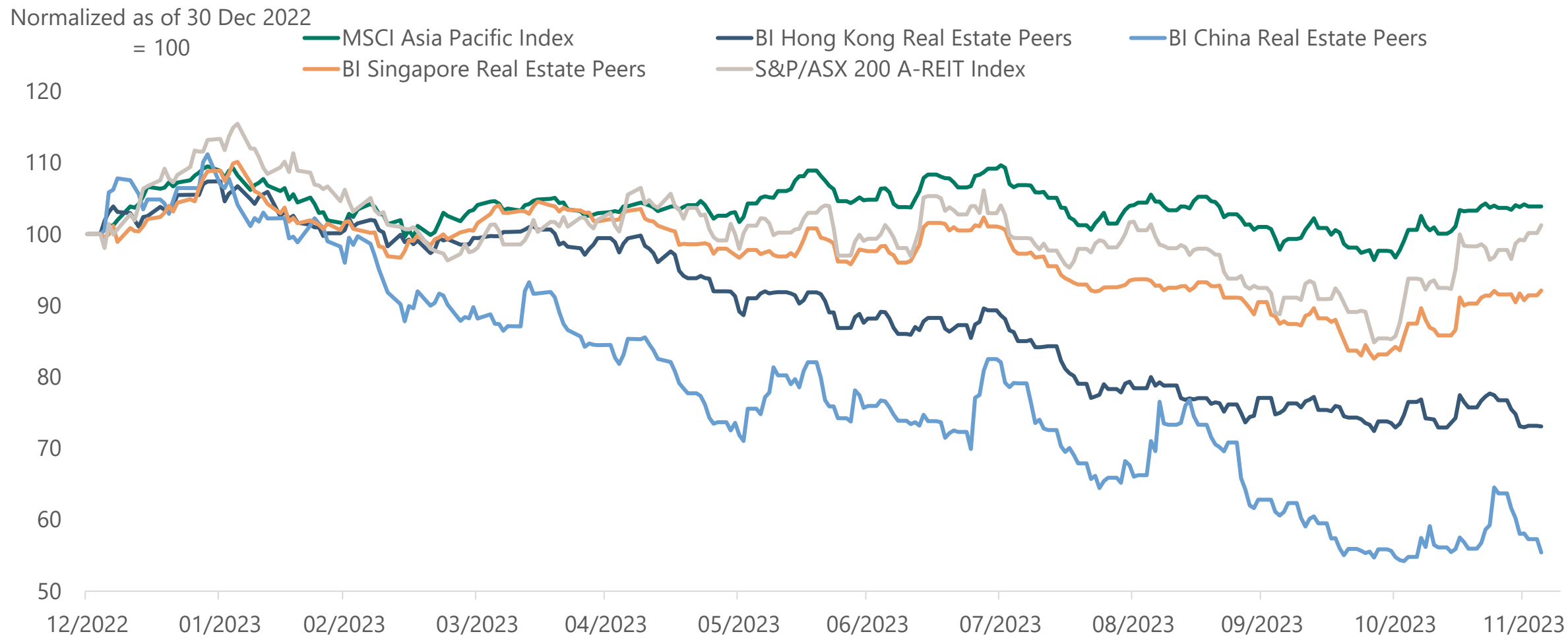


Source: Bloomberg, Apollo Chief Economist.

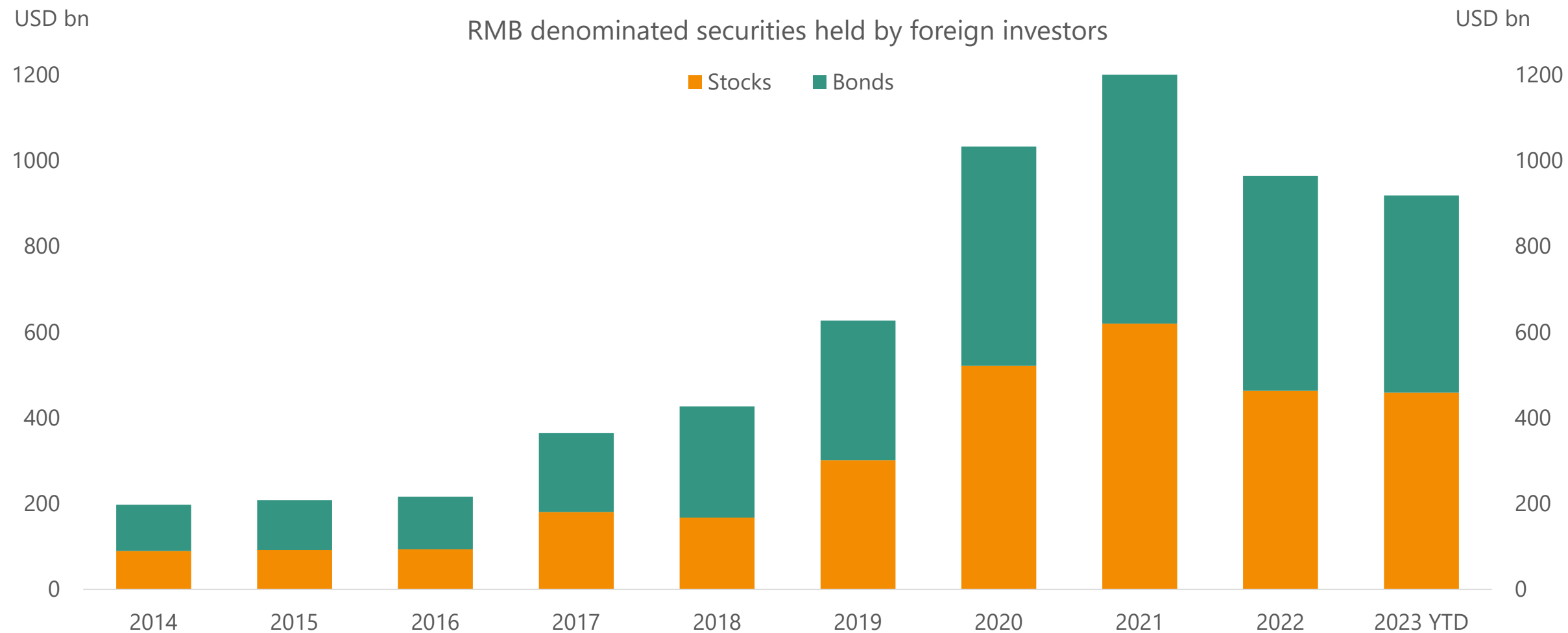
China: Stock prices of real estate developers



China real estate sector performance compared to other Asian countries

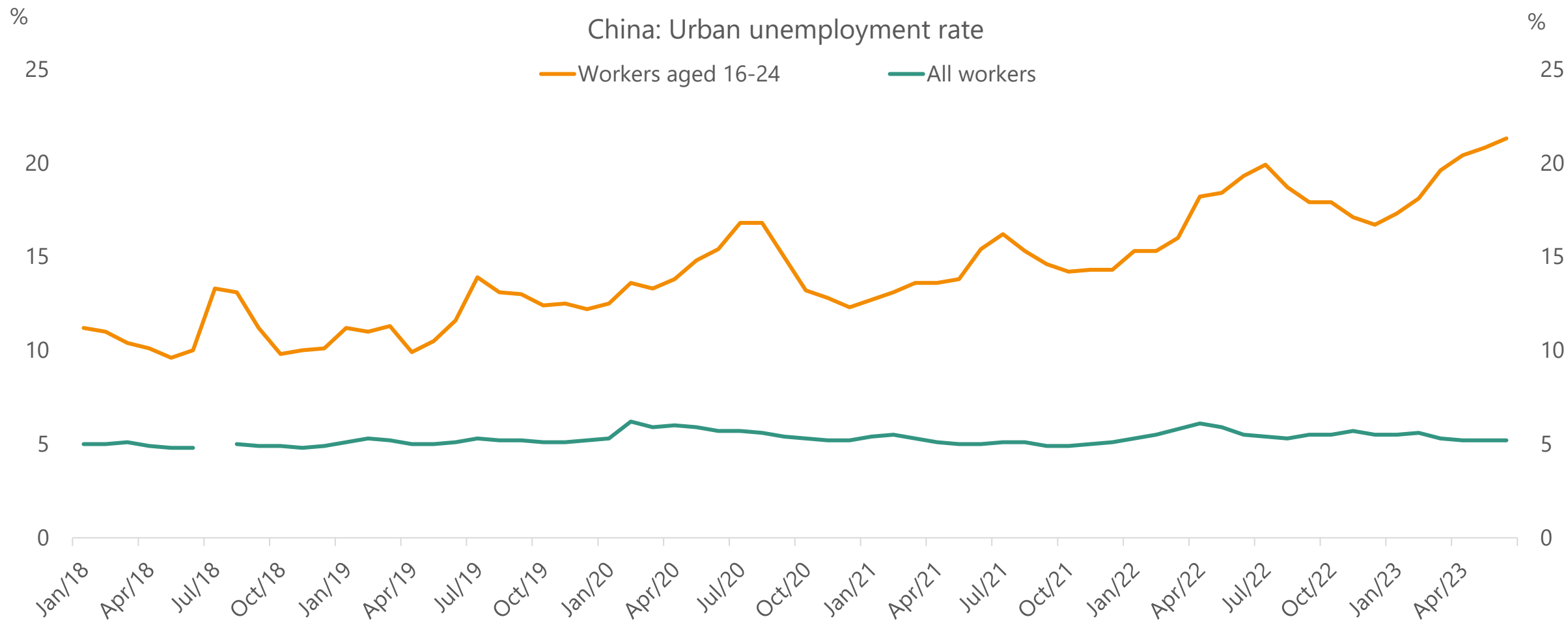


Global holdings of Chinese stocks and bonds



Source: The PBoC, Bloomberg, Apollo Chief Economist (as of September 2023)

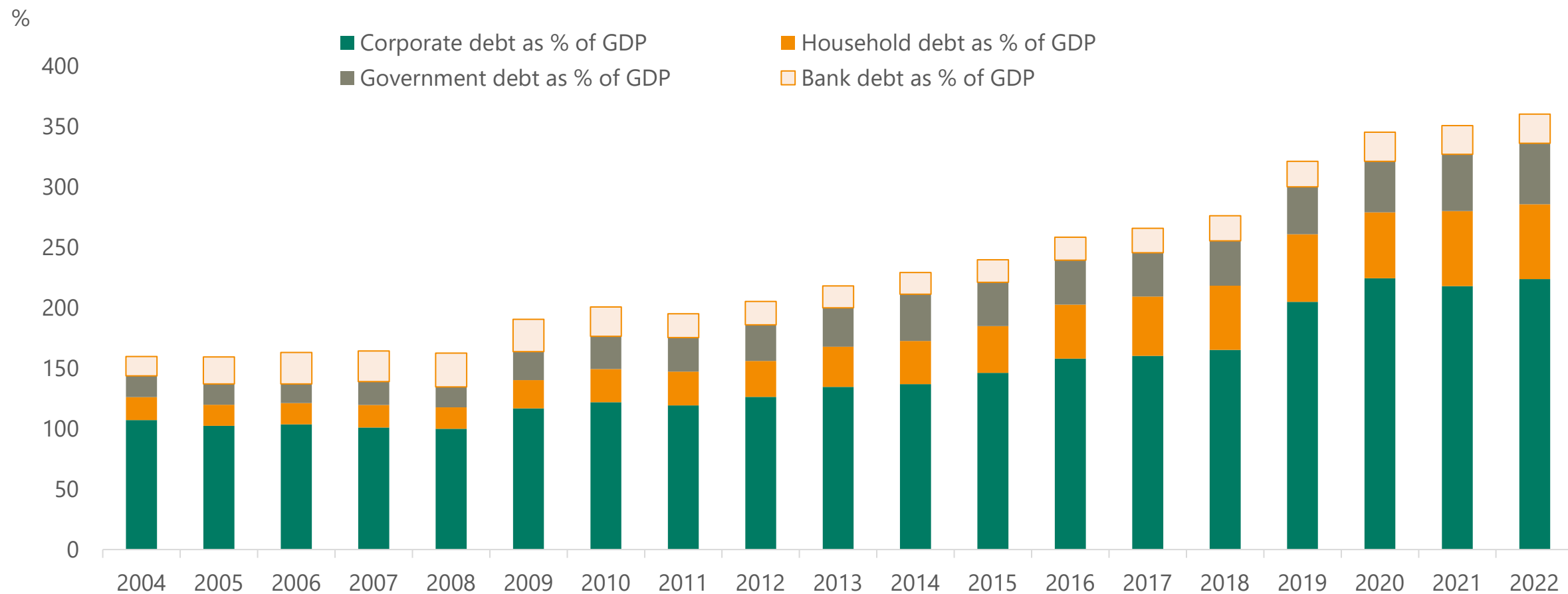
High and rising youth unemployment in China



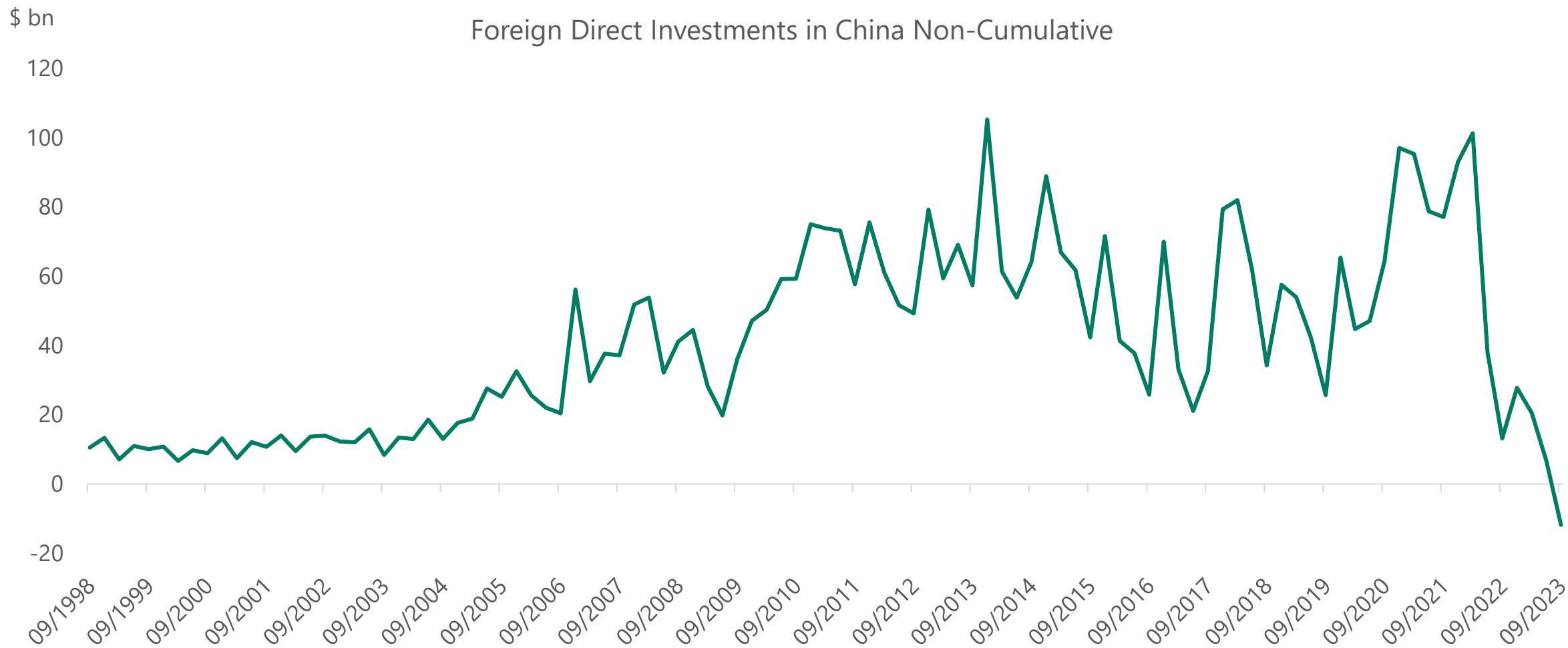
China: Consumer confidence is down



China: High debt levels



China: Negative FDI



China: Outstanding aggregate social financing





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Torsten Slok joined Apollo in August 2020 as Chief Economist and he leads Apollo's macroeconomic and market analysis across the platform.

Prior to joining, Mr. Slok worked for 15 years as Chief Economist at Deutsche Bank where his team was top ranked in the annual Institutional Investor survey for a decade. Prior to joining Deutsche Bank Mr. Slok worked at the IMF in Washington, DC and at the OECD in Paris.

Mr. Slok has a Ph.D in Economics and has studied at the University of Copenhagen and Princeton University.