



- Markets have been spooked by fears of a "Japanification" of China, which would mean a period low growth, inflation, and depressed interest rates, as happened in Japan caused by a balance sheet recession in the 1990s.
- Similarities are eye-catching, including a troubled real estate sector after a prolonged rise in prices, strong and fast re-leveraging, adverse demographics, deflation risks and correcting stock prices.
- Yet, Chinese property prices have increased less strongly than formerly in Japan, and its stock market is less
 overvalued. Estimated bad debt in the property sector looks more digestible for banks. Most importantly, the
 institutional settings differ, with China exerting much more control over property prices, developers, banks and
 thus deleveraging needs.
- Idiosyncratic risks notwithstanding, a systemic banking crisis is less probable, and the stock market is already
 largely discounting the various headwinds. However, China's recovery is likely to be L-shaped, keeping inflation
 subdued. Monetary policy will remain structurally accommodative, while stock markets face elevated volatility
 over the medium term. We recommend a slight overweight until there are clear signs of recovery.

Markets have recently been spooked by similarities between China and Japan's economy around the burst of the stock and real estate bubbles in 1990. The implosion of these bubbles led to Japan's "lost" decades, a fate that could be repeated by China (Japanification). Some similarities – at least at face value – can be noticed on various themes:

- First, real estate markets are under renewed pressure. Real estate investment and property sales have contracted markedly. Moreover, some developers could not meet their obligations (in time). Vague links to China's shadow banking/trust sector added to worries.
- Second, BIS data show that China's private nonfinancial sector debt-to-GDP ratio hast reached about

- 220% of GDP by end-2022 (total debt is 297%), already a bit higher than Japan's private debt in 1990 (202% of GDP). China's private debt has increased by about 106 pp since the Great Financial Crisis (GFC) in 2008.
- Third, China's CPI inflation dropped to -0.3% yoy in July (but recovered in August), which had been interpreted as a possible starting point resembling Japan's long lasting deflation problem.
- Fourth, demographics also look similar. The share of people aged over 65 was 12.7% in Japan in 1991, similar to China today. China also faces a rapid diminishing of its working age population (growing "old" before growing "rich").

Last, the external environment also shows some parallels to the 80s. Japan's (but also other countries, esp. Germany) high trade surpluses initiated a political conflict with the US. The Plaza Accord signed in 1985 attempted to reduce the US trade deficit. The following appreciation of the yen led to capital inflows (not least into the stock and real estate markets), while the negative real demand shock (esp. for the export sector) induced mitigating expansionary policies which also added to the building of the bubbles (see here). This all resembles the US-China tariff "war" amid rising geopolitical conflicts.

Japanification is driven by a balance sheet recession

Before delving deeper into these comparisons, we will examine what we see as the fundamental cause of Japan's lost decades. It is frequently referred to as "balance sheet recession", a notion to our knowledge coined by Koo (and basically a Keynesian paradox of thrift). This concept focuses on the period following the bursting of debt-financed asset bubbles, such as the TOPIX and real estate markets (esp. in Tokyo) in 1990.



After such a burst, businesses and/or households find themselves in possession of assets bought at high prices while their "reselling", underlying value has collapsed. Nevertheless, the liabilities incurred to buy these assets are still on the books at nominal value, i.e. the "balance sheet" is deeply in the red. Consequently, individuals must deleverage and use incoming cash flows to reduce obligations. However, while this rationale may hold on an individual level, it results in a fallacy of composition on the macro level. Newly acquired savings which are directed towards debt reduction are not transformed into investments or consumption anymore. Consequently, a demand gap emerges in total, thereby causing reduced growth and a deflationary output gap, which in turn generates additional deflation, exacerbating a negative feedback loop. Monetary policy is scarcely effective since economic agents are constrained by absolute levels of debt rather than interest rates. Unfavourable demographics could exacerbate the

situation, prolonging the time required to overcome the problem.

In Japan, the destruction of wealth and the "worthless" real estate collateral induced a systemic financial crisis by 1997-98 (seven year after the burst). Major banks and insurance companies went bankrupt. A huge deleveraging took place, with aggregate bank lending diminishing by about 30% from the end of 1997 until mid-2005. This drove Japan into a five-year period of deflation. While first the government faced fierce resistance to bail out the "speculators", the Diet finally passed the Financial Revitalization Act (bankruptcy procedure for banks) and Bank Recapitalization Act in October 1998, including large amounts of public money. It is estimated that banks had to dispose bad loans worth 17% of 2002 GDP. Deflationary tendencies repeated several times. General government debt in Japan has risen from about 80% in 1997 to almost 230% of late, thus the public coffers have been wrecked by absorbing private, inflated debt and by trying to lastingly stimulate the economy. Monetary policy has remained rather helpless.

China's real estate sector debt looks more manageable

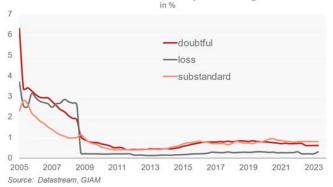
Against this background, we assess whether China had a stock market or housing market bubble, how debt levels (from real estate and other sources) have evolved and whether a systemic banking crisis looks likely.

House prices: According to BIS data, Japan's residential (nominal) property prices rose by about 154% during the 15 years prior to the implosion of the bubble (48% in real terms), compared to China with an increase by 54% (14% in real terms) since 2008 (the year of the Great Financial Crisis (GFC)). Of course, the local development of house prices greatly vary, especially in Tokyo (282% 1975 to 1990) and tier 1 cities in China (e.g. Beijing with about 290% from 2008 to 2021). China has long followed the official policy "housing is for living in and not for speculation". Downpayments for first-time home buyers have long been at least 30%, for second home buyers at 40-50%, if not prohibited (down-payments have been lowered recently to stimulate sales). Moreover, China imposed in part administrative controls on new home prices to keep affordability in check. Estimates show affordability has (re-)improved, but nevertheless it took about 17 year (10 resp 6 years) for tier-1 (tier-2 resp tier-3 cities) to income-finance a home. Thus, this looks less excessive than in Japan but is often considered an early stage of a bubble.

Structural Issues: That said, China's housing market suffers from structural problems. Developers appeared to be over-leveraged, prompting the government to introduce the 3-red-lines approach in 2020 (i.e. criteria that developers must fulfil to take on more debt) to de-risk the sector. Indeed, developer and mortgage debt has decreased

since then. De-risking has also taken place in the shadow banking sector whose share in total social financing has diminished from about 16% in 2015 to 4.8% of late. Nevertheless, China's housing market is important in terms of GDP. Depending on which upstream, downstream or related services are included, it accounts for 19-30% of GDP. Property sales fell by 24% yoy in July (30% from peak). Property investment (-12.2% yoy ytd) is currently a major drag for GDP growth. Moreover, property supply has to adapt to a decreasing longer-term demand, given demographics and a possibly slowing urbanisation rate (the argument is controversial as the Covid impact is unclear). However, urbanisation is not "dead". China's urbanization ratio was 65% in 2022. Excluding migrant workers (without "hukou" local residence permission) it was only 47%. By comparison, in Japan urbanization exceeded 77% in 1988.

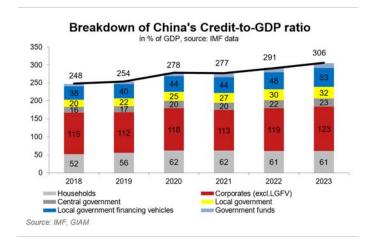




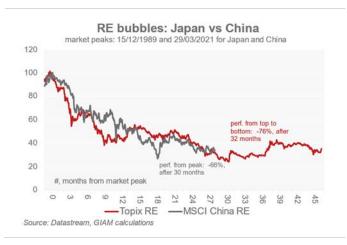
Property debt: We see the main reason for the current stress of some developers (e.g. Country Garden) in the sharp decline in property sales which translates into diminishing prepayments from customers and thus a restrained selffinancing. Whether this can morph into a banking crisis largely depends how much bad debt is hidden in the system. Commercial banks' direct exposure to the property sector was about 20% of their total assets as of end-2022, i.e. about RMB 58 tr (48% GDP, coming down from 54% in 2020). A further breakdown largely depends on estimates which slightly differ among brokers. Two thirds of this property debt are mortgages (RMB 38 tr), which are widely considered rather safe, thanks to the low loan-to-value ratios (reflecting the high down payments) and the government's support on project completion, which has helped reducing the "mortgage strike". Risks are likely concentrated in developers' debt (RMB 19.1 = 16% GDP), which is estimated to consist of about 70% bank loans (ca RMB 14 tr), and about each 16% bonds and shadow credit. In a scenario where losses amount to 10% of developers' debt (10% *19 tr = 1.9 tr =1.5% of GDP, with variations within the credit classes) the amount would well be within banks' risk buffers of estimated RMB 9.4 tr. The banking sector's NPL ratio is currently at low levels

(1.62%), and it would need a stress scenario with 8% NPL ratio to exceed the risk buffer by RMB 1.24 tr. Last years' bank profits amounted to RMB 2.3 tr. Thus theoretically, losses could be largely absorbed without (much) recapitalisation from the government. Of course, this does not rule out incidents with (likely) smaller banks or wealth management companies. We continue to see credit at risk. According to brokers, more than two-thirds of offshore China property bonds (USD166bn) have defaulted. Country Garden delayed bond coupon payments. A number of trust products that invested in property debt failed to pay investors.

LGFV debt: Unfortunately, property developers' debt is not the only source of risk. The implicit debt of local governments is still an even bigger problem. The IMF forecasts the amount of implicit local government debt to balloon to 53% of GDP for 2023. However, China has been trying to manage the fallout from the big 2008 GFC fiscal package for more than a decade without a systemic crisis. The July Politburo meeting signalled more government support.



Stock market: China's property "bubble" peaked in 2021, most visibly with the crisis at Evergrande - China's second largest property developer at the time. Since then, the sector and the MSCI China have lost 66% and 44%, respectively. The market collapse looks very similar to that of the Japanese stock market at the time of the real estate crisis in Japan at the end of 1989. The bottom (-76%) in the



Japan's real estate sector was reached after 32 months, only two months longer than the duration of the current Chinese real estate crisis.

Despite the significant price correction in Japan, its real estate sector traded at levels above 40 for the 12-month forward PE until almost the end of 1999. By contrast, China's real estate is currently trading at 8.8. Relative to real estate sectors of other major markets (US, EMU, and Japan), China's real estate sector looks undervalued. This is true for both the conventional PE (average Z-score of -0.6) and a more longer-term PEG measure, which is calculated as PE divided by the long-term (3-5 year) earnings growth. We further adjust this measure by the cost- to return-on-equity ratio (COE/ROE). The PEG adj. for China's real estate is 1.6, much lower than in other markets (3.0, 28.0 and 3.3 for the US, EU, and Japan, respectively). This conclusion is reinforced by the Shiller PE (index/sector price divided by 10year inflation-adjusted earnings, with an average discount of 60%), which represents a long-term measure attractiveness.

RE sectors	PE* rel. to China (Z- score)	LT eps growth	PEG adj. (trailing)	PEG adj. (12m fwd)	avg PEG adj *	real CAPE discount *
China		23.6	1.9	1.6	1.7	-95%
US	0.9	17.9	85.4	3.0	44.2	-11%
EMU	0.7	0.4	5.0	28.0	16.5	-66%
JP	0.6	5.8	4.9	3.3	4.1	-21%

* rel. PE and real CAPE analysis is based on the longer history total market indices from Datastream (since 2000). fwd PEG is 12m fwd PE divided by expected long-term EPS EPS = 12m fwd earnings. Trailing PEG = trailing PE divided by earnings growth (3-5yrs). (3yr fwd vs current year). Average PEG is the average of fwd PEG and trailing PEG. PEG adj. (higher = expensive): PEG is modified by the ratio COE/ROE which signals the ability to produce a return on capital higher than the cost of it. COE = cost of equity = 10yr gov/t bond rate + 6% mkt risk premium x country Beta versus MSCI WORLD (monthly returns over the last 10 yrs). Shiller PE: Price earnings ratio based on average inflation-adjusted earnings from the previous 10 years.

Consequences and outlook

In summary, China's property prices have increased less strongly, the stock market did not see such an overvaluation (with headwinds largely priced in), while the estimated bad debt in the property sector looks more digestible. Thus, we see an outright banking crisis and a balance sheet recession as less likely, but single smaller banks (shadow banks) and connected wealth management products may well default.

More fundamentally, China has to manage a trade-off between further de-risking (deleveraging) and its negative growth impact. The problem is exacerbated by the fact that growth needs increasingly come solely from rising total factor/capital productivity as the demography turns into a drag. We expect policy to follow a compromise. In the end, this is only possible because China's institutional framework is very different from Japan. China is able to exert much control over property prices, developers (most developers

are state-owned), banks (the most important banks are state-owned) and thus the pace of deleveraging. In addition, the capital account is largely closed, so households' savings are "trapped". We expect the government to follow a mild deleveraging path. At least, Beijing has avoided any kind of "big bang" fiscal package.

On the flip side, growth will be (moderately) burdened for years. We forecast any (cyclical) recovery of the real estate sector as L-shaped. Lower potential growth will likely keep monetary policy at a structurally easing bias as demandinduced (notwithstanding supply shocks) inflation could remain on average more subdued. As we see an outright balance sheet recession as less likely, we also do not consider China to fall into deflation. Instead, we see CPI inflation this year at 0.4% but 1.5% in the next. Notwithstanding a turn-around in fiscal policy, we expect growth at 4.8% this year and 3.8% in 2024. Long-term, real GDP growth is on a declining trend. The IMF see 2028 trend growth at about 3.4%.

China's stock market and its real estate sector in particular, is already discounting a lot of negative news. Due to the forecast L-shaped recovery and the resulting/remaining uncertainty, we expect *China's stock markets to be subject to elevated volatility in the medium term.* Geopolitical tensions are another risk factor. That said, Chinese equities should benefit from a significant undervaluation and an accommodative monetary policy for longer. We recommend a slight overweight until we see clear signs of a recovery, at which point we would upgrade Chinese equities to full overweight.

For the sovereign bond market, the outlook remains one of low yields with risks skewed to the downside. As in Japan, the structural decline in Chinese growth and demographic issues will lead to lower long-term yields. Regarding foreigners' position, we would continue to expect outflows, especially as carry becomes increasingly less attractive. These outflows would have a limited impact on yield levels given their marginal size – the foreigners' share in the sovereign market is less than 10%. As for the domestic position, unlike in Japan, the capital account is not freely open. Thus, it would limit domestic outflows that would have contributed to higher yields.

For the yuan we see some moderate further downside for the trade-weighted CNY due to the bleaker outlook and sustainably lower yields, though persistent productivity gains and government intervention will prevent a slide. Against a broadly stronger USD, this implies more downside over the coming months (USD/CNY may surpass 7.50), though the renewed USD weakness we foresee for the dear USD points for 2024 and beyond points to a subsequent stabilisation in USD/CNY.





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