

Credit risk of global real estate developers heightens due to threat of rampant inflation and rate hikes by Raghav Mathur

- Stress tests, in conjunction with the Forward PD, conducted for the US real estate sector suggest that the current credit risk outlook is in line with those witnessed under an adverse economic climate
- European developers, that operate in the most-at-risk housing markets, are threatened by a
 potential burst in housing market bubble as rate hikes become inefficient in slowing demand
- Diverging trends across developed APAC, with New Zealand and Australia most at risk of a house price correction, leaves credit outlook of these developers relatively stable
- Although the Chinese real estate sector remains largely insulated from the inflationary headwinds faced by its global counterparts, the widespread contagion linked to its property sector debt crisis continues to hamper its access to financing and cashflow generating abilities

As global markets focus on the pressure felt by central banks to raise rates worldwide to combat rampant inflation levels, rising borrowing costs for household mortgages are hindering further growth in the housing market, which is potentially showing signs of cooling after years of aggressive growth catalyzed by the multi-fold effects of the pandemic. With the expectations of a potential recession rising sharply over the coming few quarters, a cooling housing market with depressing housing value, in conjunction with low economic growth and consumer spending, could lead to heightened credit risk for corporates in the real estate sector. This week's issue of the NUS-CRI Weekly Credit Brief is going to assess the impact of the incumbent, and short-term forward-looking, economic climate on the real estate sector of major economies around the globe.

The United States

Mortgage rates in the United States have substantially increased since the beginning of 2022 due to increasing expectations of rising inflation and the resultant monetary tightening by the Fed, reducing the demand of new houses and increasing the premium demanded by lending institutions to extend credit. According to Freddie Mac, 30-year mortgage rates have increased to 5.51% as of Jul-13, 2022, approximately double the levels seen at the start of 2022 and last seen during the 2008 financial crisis. The increasing mortgage costs and cooling house prices put pressure on the real estate industry, especially for home builders, as the value of ongoing construction projects reduces, impacting the asset value held by the builders. Value of houses built in some of the most expensive cities in the country finally retreated MoM in Jun-2022, after 3 consecutive months of marginal growth of less than 1%. The decline could be a possible early indicator of potential downward pressure on house prices in the near future, especially given how inflated these prices have been during the pandemic in both dollar terms and relative to household income (price to income ratio for US households stood at 135.9% at the start of the year). Using the Bottom-Up Default Analysis toolkit (BuDA) developed by NUS-CRI, stress tests can be conducted to simulate PD over the next 12 months to gauge the impact on the credit risk for US-domiciled real estate firms under a worsening economic environment where a potential housing bubble continues to form with HPI, interest rate, and inflation levels increasing. As seen in Figure 1, the credit risk outlook as suggested by the NUS-CRI Aggregate (Agg) (Median) Forward 1-year PD (Forward PD1) for US real estate firms is closer to the adverse scenario than the improving scenario, where a potential correction in housing prices, in tandem with a reduction in inflation and interest rates, alleviates investor worries regarding the erosion of asset values.

¹ The Forward PD estimates the credit risk of a company in a future period, which can be interpreted similarly to a forward interest rate. For example, the 6-month Forward 1-year PD is the probability that the firm defaults during the period from 6 months onwards to 18 months – this is conditional on the firm's survival in the next 6 months.

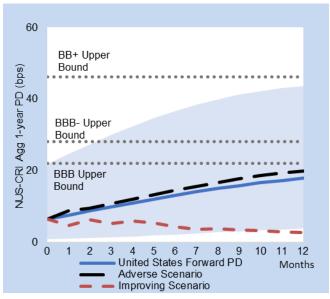


Figure 1: NUS-CRI Agg Forward 1-year PD and its interquartile range for US-domiciled real estate sector as of Jul-2022 with reference to PDiR2.0 bounds, in conjunction with stress tests conducted on the same sample under an adverse and improving scenario. *Source:* NUS-CRI, BuDA

Despite speculation at the end of last year that a deficit in the supply of houses could prop up their value for the foreseeable future, housing inventory in major metropolises across the country is returning close to pre-pandemic levels, thus rendering a scenario of price elevation driven by scarcity unfeasible. For the real estate industry, an increase in inventory reduces the negotiating power of homebuilders, which are already slashing prices to increase turnover and gain cash flows for working capital needs. Access to capital for these homebuilders is also likely to be constrained should the current increase in inflation continue to impact prices, in conjunction with an economic slowdown². Should the Fed continue to hike rates over the next couple of quarters, consumers would continue to be disincentivized from taking on mortgages, causing a further slowdown in the turnover and the top-line of major real estate companies as suggested by the Forward PD in Figure 1.

Europe

Close to two-thirds of economies amongst the top 30 most-at-risk real estate³ sectors in the world are European countries. Rather unsurprisingly, the United Kingdom is one of the economies that has been worse hit. The UK's real estate sector has been dealing with the effects of rampant inflation since Q4 2021, and with the Bank of England hiking interest rates for the fifth time since Dec-2021 and possibly even further, the demand for housing is poised to drop⁴. The resultant loss in revenue may potentially thwart the profitability of the sector, though a greater headwind may be its decreased access to cheap funding. Stress tests conducted by NUS-CRI last month suggested a similar fate for the sector, where even with a correction in the rampant home prices that would increase demand across the country's housing market, the credit risk of UK homebuilders rose. Credit extended

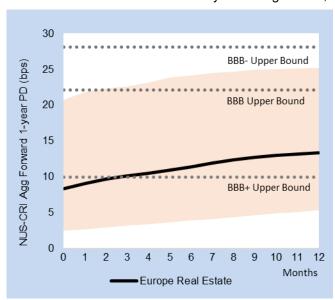


Figure 2: NUS-CRI Agg Forward 1-year PD and its interquartile range as of Jul-2022 for Europe-domiciled real estate sector with reference to PDiR2.0 bounds. *Source: NUS-CRI*

for mortgages has already begun to show signs of decline since Apr-2022, with the approval of new home loans reaching a two-year low as the effective interest rate on new mortgages rose to 1.82%, the highest level since Aug-2021. For the real estate sector, this suggests that, not unlike their trans-Atlantic counterparts, a cooling housing market may prove to drag the profitability and leverage taken on by the sector, especially as key policies that helped buoy demand during the pandemic (such as the HTB scheme and tax breaks for new house purchases) come to an end.

On a more holistic level, the wider European Union may be facing a contrasting situation, where the housing market shows little sign of slowing down. Countries in Eastern Europe such as the Czech Republic and Hungary (ranked 2 and 3 in the top 30 most-at-risk economies respectively) have had home prices surge by close to 26% since Dec-2021. Though the central banks in the Euro system have hiked rates to control these prices, inflation remains rampant

² Investors are already pulling money away from the industry with the S&P Supercomposite Homebuilding index tumbling <u>42%</u> since the start of the year.

³ Rankings are obtained by taking an average of the z-score of five metrics: Price-to-Rent ratio, Price-to-income ratio, Real Price Growth (%), Nominal Price Growth (%), Credit Growth (%). A higher rank suggests that the market is more susceptible to a price correction.

Signs of falling demand for housing are already starting to show in the market.

suggesting that the decline in demand resulting from the rate hikes might not be sufficient to decrease house prices. For the real estate sectors in such economies, it is likely that their short-term earnings are going to inflate as they benefit from higher prices, though their access to financing may be hindered as the market anticipates the 'housing bubble' bursting soon. As seen in Figure 2 above, the Forward PD trend for the whole industry increase in tandem with the median.

Developed Asia-Pacific

New Zealand's real estate sector has been at the forefront in its battle against high and rising inflation levels. The country leads the way in being one of the economies at the greatest risk of facing a housing crisis. In response, the Reserve Bank of New Zealand (RBNZ) raised its cash rate to 2%, with further rate hikes anticipated in the near future. With demand for housing continuously increasing over the last two years, the sector has been stockpiling construction material, which, on top of the potentially reduced demand in the near future, could substantially impact the industry's working capital position and profitability. Nonetheless, given that the sector has low credit risk currently, with the NUS-CRI Agg (Median) PD well within the AA range when referenced to PDiR2.0 bounds⁶, the sector is more than likely able to weather the worsening macroeconomic scenario. A similar scenario is threatening the real estate market in Australia, where Sydney and Melbourne, two of Australia's biggest housing markets, witnessed a fall in home values in Jun-2022.

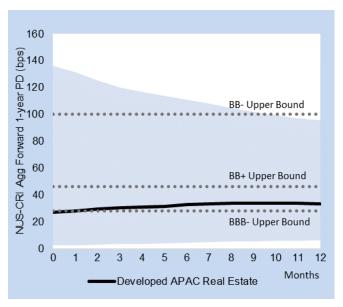


Figure 3: NUS-CRI Agg Forward 1-year PD and its interquartile range as of Jul-2022 for Developed APAC-domiciled real estate sector with reference to PDiR2.0 bounds. *Source: NUS-CRI*

On the other hand, other members of the Developed APAC region are not necessarily facing the same trajectory in price pressures as New Zealand. For example, Japan, which has been on the opposite end of the monetary policy spectrum with sustained ultralow interest rates, has seen an inflow of capital from foreign investors that want to take advantage of a weaker yen. With the dollar strengthening as the Fed raises rates, stronger international demand for property in Japan bodes well for the profitability of its developers. Other countries, such as Singapore, have had a relatively stable housing market, with the movement in house prices in tandem with the movement in domestic income. As seen in Figure 3, the trend of the Forward PD suggests a convergence in the long-term outlook between the riskiest and the safest (tightening of the interquartile spread in Forward PD) of the real estate sector in this region, with the median outlook remaining relatively stable amidst a short term increase in credit risk.

⁵ <u>Price to income ratios</u> of most European countries' real estate sector is above 100%, with the Czech republic and Hungary having ratios in excess of 130%.

⁶ The Probability of Default implied Rating version 2.0 (PDiR2.0) provides a more familiar interpretation through mapping the NUS-CRI 1-year PDs to the S&P letter grades. The method targets S&P's historical credit rating migration experience exhibited by its global corporate rating pool instead of relying solely on the reported default rates.

China

Though rising inflation and interest rate hikes by the PBOC are not of immediate concern to Chinese property developers, China has been dealing with a property crisis like no other it has faced in its history. Since the beginning of the COVID-19 pandemic, as well as due to the government's widespread efforts to maintain leverage within the debt-laden industry, the Chinese property sector has witnessed a plethora of high-profile defaults that have rocked the markets and led to a widespread contagion impact which saw the credit risk associated with even the more robust property developers deteriorate drastically. Now, the sector faces one of its latest woes, in the form of households boycotting mortgage payments, which if left untreated, could pose a severe risk to property sector and the country's wider financial network.

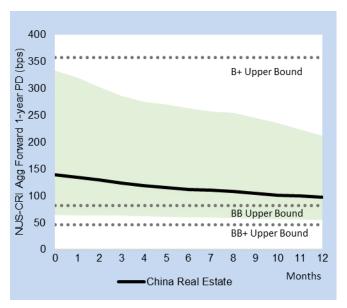


Figure 4: NUS-CRI Agg Forward 1-year PD and its interquartile range as of Jul-2022 for Developed China-domiciled real estate sector with reference to PDiR2.0 bounds. *Source: NUS-CRI*

With overall confidence in the real estate sector decreasing⁷ access to financing, especially the refinancing of the sector's foreign-denominated debentures, has become increasingly difficult with the average yield for China-domiciled junk dollar debt rising to 26%. The elevated yields underline the higher risk borne by the foreign investors, particularly in the face of perceived preference towards onshore creditors during restructuring processes should Chinese developers default. However, developers such as Evergrande now also possibly failing to repay onshore debt, domestic financiers might need to price in the additional risk, further increasing the sector's cost of borrowing. The government, in an effort to contain the growing distrust towards the property sector, has also intervened in the market to provide confidence to market participants by urging banks to extend credit to the cash-strapped property sector, primarily so that unfinished projects can be completed. Though the country is not facing imminent rate hikes as domestic inflation levels remain relatively stable compared to those witnessed in the west, the inherent stress on the

sector's revenue-generating capabilities, ability to meet working capital needs, and difficulty in raising funds for financing and completing new projects are all headwinds that are unlikely to subside without a large influx of cash. Regardless, further regulatory easing to ensure that the sector has a stronger capital position to weather the volatilities stemming from short-term market uncertainty could help in partially alleviating the short-term burden felt by developers. As suggested by Figure 4, the Forward PD, though decreasing, remains well elevated above the BB Upper bound when referenced to PDiR2.0 bounds. Interestingly, with the lower quartile Forward PD remaining relatively stable, an improvement in the credit risk outlook for the most vulnerable firms in the sector may suggest that, should they be able to weather the incumbent storm, their credit risk is likely to converge closer to the industry median over the next 12 months.

The impact of the potential impending crisis across global real estate markets may have profound effects on the health of their respective economies. For example, the contagion effect of the property developer crisis in China spread to its domestic financial sector, where the deterioration in asset quality of the country's largest domestic state-owned banks, which have high exposure to the real estate industry, resulted in an increase in their PD. Given that the health of the housing market and the financial sector of most developed economies are intertwined, heightened stress felt by the real estate industry should act as warning signals to global economies regarding the more pronounced threat to wider financial stability a potential housing crisis holds.

⁷ Home prices have been falling for <u>10 consecutive months</u> in 70 of the biggest cities in China.

Credit News

End of cheap money era scuppers dozens of corporate bond deals

Jul 16. The European corporate credit market has seen higher-than-usual bond issuance cancellations amid the ECB's withdrawal of its support, particularly by keeping borrowing costs low. Investors are pricing in the higher economic uncertainties and more risk into their expected returns, translating to a higher price tag for debt issuers. In such market conditions, the ECB's support would have been necessary to see transactions through. As of 1H2022, the value of new corporate bonds issued decreased by 17% compared with 2021. (FT)

Banks are likely to cut post-earnings bond sales as costs rise

Jul 14. With the cost of financing rising alongside the market's biggest borrowers being ahead of their financing schedules, issuance is likely to drag post-earnings results. Analysts predict that the largest banks will sell between USD 14bn and USD 16bn worth of bonds in July. Bank bond sales for both May and June followed historical averages when spreads were tighter – pointing to limited supply needs. (<u>Bloomberg</u>)

Bond investors bet the recession trade is just getting started

Jul 14. US expects increments in rate hikes, up to nearly a percentage point, as the FED tries to combat heightened inflation which has jumped to a four-decade high in Jun-2022. Fears of a recession have deepened, likely from slowing demand and growth resulting from interest rate hikes. As a result, investor demand has increased for long-term securities, with the yield curve inverting and the 10-year to 2-year yield spread falling to a two-decade low. (Bloomberg)

Debt-market jitters come for leveraged loans

Jul 16. The leveraged loan market, which managed to hold stable in April as government and corporate bonds experienced a fall in prices, is now experiencing difficulties as fears of a recession lower loan values and returns. An increase in the interest burden of corporates and a slowdown in economic activity which may hamper their ability to generate revenue cast a shadow over the value of these loans. Although investors don't expect a large uptick in defaults, leveraged loans are already experiencing a 49% drop in new issuances. (WSJ)

Bankers tout ESG bond bonanza amid credit market mayhem

Jul 15. The market slowdown has caused a decrease in the volume of bond issuances. However, the share of ESG-related bonds to the overall bond issue has increased from 8.8% of USD 2.5tn for FY2021 to 9.44% of USD 1tn as of Jul-2022. The rise in market interest for ESG instruments reflects the more developed appreciation of ESG among investors resulting in more pricing benefits and heightened support from regulators. The increase in ESG issuance is notable in both the investment-grade and the high-yield markets. (Bloomberg)

China property bond plunge ensnares investment-grade giant Vanke (BT)

Distressed already: more than 200 junk bonds issued last year are in trouble (Bloomberg)

South Africa's Eskom may need to borrow USD2.6 bn (Bloomberg)

Regulatory Updates

China seeks to stem mortgage boycott with developer loans

Jul 18. Chinese home buyers have resorted to mortgage payments boycotts which have significantly hurt the already impaired estate industry. To rescue the historically important industry, the China Banking and

Insurance Regulatory Commission has encouraged lenders to continue providing credit support and actively support mergers and acquisitions in the industry. The support from banks aims to speed up development projects and ultimately alleviate the credit health of the industry while reducing credit pressures on the financial institutions from the mortgage boycotts. (Bloomberg)

ECB bond tool seen having no limits as steeper rate hikes loom

Jul 15. Next week, the ECB will announce an unlimited bond buying tool. The instrument intends to help markets adjust to steeper and faster interest rate hikes. A representative from Dekabank noted that, by being deliberately vague, central bankers aim to prevent turmoil in the financial markets while making sure that the purchase of government bonds is not frequent enough to substantiate allegations of monetary financing. While the acceleration of rate hikes by the ECB is expected, economists still consider it behind the curve as the Fed kicked off monetary tightening 4 months earlier, with current considerations weighing a potential 100bps move. (Bloomberg)

Bank of Canada's shock 100-basis-point hike is most since 1998 (Bloomberg)

Bank of Korea joins jumbo hikers as inflation fight heats up (Bloomberg)

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