Central bank rate hikes pose more risk to mortgage borrowers in Japan than in US

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Executive Summary

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Conventions around residential mortgage lending/borrowing differ across geographies. Long-term fixed-rate mortgages are preferred in the US while ARMs are the norm in Japan. Such differences mean mortgage borrowers' exposure to interest-rate risk differs internationally. In Japan, this risk may manifest once the BOJ embarks on a rate hike cycle.

Conventions around residential mortgages vary widely across geographies

In modern society, a home is the biggest purchase most people make in their lifetimes. However, given today's home prices, people usually take out a loan to buy a home instead of paying all cash.

While borrowing to buy a home is thus something many people experience at least once, international differences in mortgage lending/borrowing conventions, including preferences with respect to not only mortgage rate structures but even self-amortizing versus interest-only loans[1], are not widely recognized. The most popular interest-rate structure, for example, is the adjustable-rate mortgage (ARM) in Japan but the 30-year fixed-rate mortgage in the US.

A recent Japan Housing Finance Agency (JHFA) survey[2] reported that 72.3% of all JHFA borrowers between October 2022 and March 2023 chose ARMs, 18.3% chose hybrid ARMs (loans that convert from fixed to adjustable rate after the first, e.g., two or five years) and only 9.3% chose fixed-rate mortgages. Of Japan's stock of residential mortgages outstanding as of March 2022, ARMs accounted for 65.7%, fixed-rate loans for 23.0%, per Ministry of Land, Infrastructure, Transport and Tourism survey[3] data. In the US, 30- and 15-year fixed-rate mortgages respectively account for 85.2% and 10.0% of all outstanding residential mortgages as of year-end 2022 per Federal Housing Finance Agency data[4]. ARMs account for a mere few percent of US residential mortgages.

Central banks throughout much of the world ex Japan and China are currently tightening monetary policy through rate hikes and/or unwinding of QE. However,

NOTE

1) In the Netherlands, for example, interest-only loans account for 40% of residential mortgages outstanding according to "Mortgage Finance across OECD Countries" (OECD, December 2021).

2) April 2023 JHFA survey of residential mortgage borrowers (30 June 2023).

3) FY2022 Ministry of Land, Infrastructure, Transport and Tourism survey on private mortgage loans

4) Federal Housing Finance Agency, "National MortgageDatabase (NMDB) Aggregate Statistics"

the international differences in mortgage rate structures' prevalence discussed above imply that monetary tightening's impact on households and the real economy through the residential mortgage channel should naturally differ internationally.

Long-term fixed-rate mortgages insulate US households against interest-rate risk

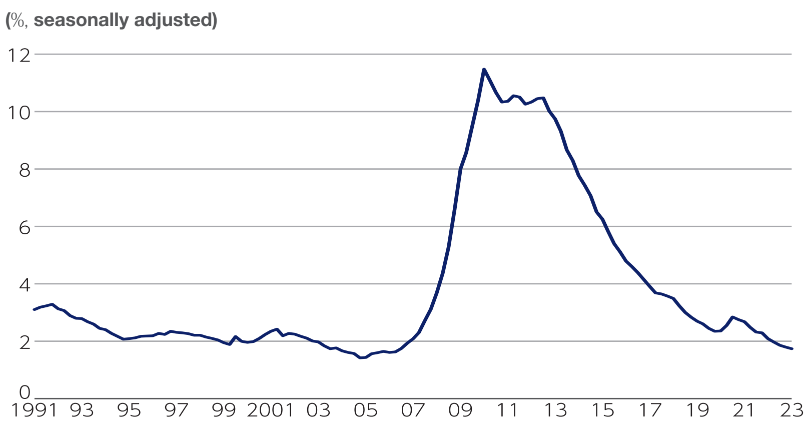
In the US, the FOMC refrained from raising its policy rate at its 14 June meeting for the first time since its rate hike cycle began in March 2022, but the dot plot in its June Summary of Economic Projections signaled that two more 25bp rate hikes may be in the offing in 2023. If so, the Fed's policy rate would end the year 550bps above its level preceding the initial rate hike in March 2022.

Despite such an aggressive Fed rate-hike campaign, the delinquency rate on US single-family residential mortgages remains quite low by historical standards at 1.73% as of 1Q 2023 (see chart). The low delinquency rate partly reflects a minuscule unemployment rate and still-robust wage growth. Another major contributing factor is that no matter how high the Fed raises its policy rate, the monthly mortgage payments of US homeowners with fixed-rate mortgages predating the Fed's current tightening cycle will not be affected. Such homeowners account for a vast majority of US home mortgages.

In the mid-2000s, by contrast, ARMs accounted for 35% of residential mortgage applications even in the US[5]. At the time, many mortgage borrowers were subprime credits. When the Fed raised its policy rate a cumulative 400bps

5) Between 2004 and 2005, ARMs' share of total residential mortgage applications reached 35% according to the US Mortgage Bankers Association's 20 May 2022 MBA Chart of the Week, "ARM Loan Trends."

US single-family residential mortgage delinquency rate



Source: Board of Governors of Federal Reserve System over the two years through mid-2006, its rate hikes precipitated a spike in the mortgage delinquency rate, leading to the US housing bubble's demise.

The Fed's current rate-hike cycle may impact the housing market by, e.g., prompting first-time home buyers to defer home purchases and dampening household relocation and mortgage refinancing activity. In fact, the Fed's May Beige Book reported that recent monetary tightening has disincentivized homeowners with mortgages originated when rates were at or near historic lows from selling their current homes and moving[6].

6) Board of Governors of Federal Reserve System, "The Beige Book" May 31, 2023.

Meanwhile, to the extent that financial institutions own low-rate residential mortgages or RMBS, they have lost out on the opportunity to earn additional interest income by virtue of the rise in rates in the wake of the Fed's aggressive rate hikes. Moreover, they are incurring growing unrealized losses on fixed-rate residential mortgages and RMBS holdings. The resultant deterioration in financial institutions' balance sheets contributed to this spring's US financial system tremors triggered by a string of regional bank failures.

Japanese households face risk of prospectively higher interest rates

In Japan, unlike the US, most residential mortgages are ARMs or hybrid ARMs as already mentioned. Given ARMs' prevalence, any major change in the JGB yield curve's shape due to, e.g., BOJ rate hikes would increase the probability of higher monthly mortgage payments when ARM rates reset[7]. Japanese households are much more exposed to the risk of increased mortgage rates than their US counterparts. The large number of them that have chosen to finance their homes with ARMs have assumed interest-rate risk in exchange for initially lower mortgage payments.

7) Standard fixed-payment ARMs' monthly payments reset only once every five years, though the interest rate resets every six months. Even when interest payable increases as a result of an upward interest rate reset, the monthly payment amount remains unchanged; only the monthly payment's split between principal and interest changes. Even when the payment resets at five-year intervals, payment increases are limited to a maximum of 25%. Depending on how much the interest rate rises, the reset monthly payment could hypothetically be insufficient to cover total interest and principal, in which case the accrued interest would be added to the principal balance.

Amid the ongoing global monetary tightening cycle, the BOJ, unlike other central banks, has yet to make any changes to its accommodative policy settings aside from widening its trading band for the 10-year JGB yield. Indeed, newly installed BOJ Governor Ueda has clearly indicated that he is in no rush to raise rates until consumer price inflation has gained sufficient momentum. At his 16 June press conference, however, Ueda said wage- and price-setting behavior appears to be changing somewhat even in Japan. If such developments lead to sustained wage and price inflation, the BOJ may embark on a full-fledged rate hike cycle for the first time in decades.

In such an event, growth in households' mortgage payments may weigh on housing investment and overall consumption. Additionally, financial institutions may face rising mortgage delinquencies. Of particular concern is that Japan has become habituated to ultra-low interest rates for far longer than any other DM economy. The extent of ARM resets' economic impact bears close monitoring.

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