



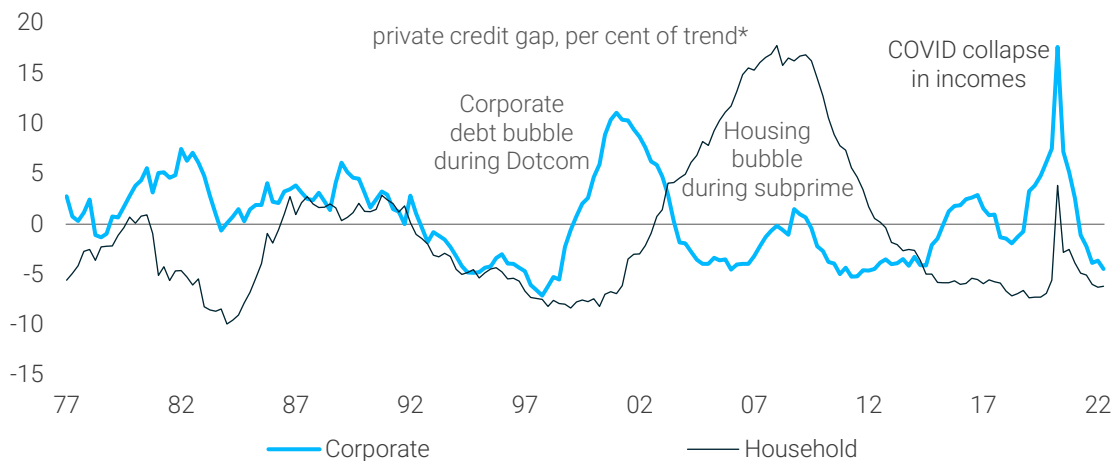
Macro Picture

# APPROACHING 'BREAKING POINT'

Dario Perkins

With central banks raising interest rates aggressively (still), there are signs we could soon reach "breaking point" for the global economy. Property markets look especially vulnerable and are the likeliest recession trigger. Yet talk of a new financial crisis seems overdone. Over time, the global economy should be able to tolerate secularly higher interest rates.

Chart 1: Recession perhaps, but another credit bust seems unlikely



Sources: TS Lombard estimates, BIS data, \*Detrended using the BIS approach based on HP filter of credit ratio

## THE BEATINGS CONTINUE

So far, financial markets have absorbed central banks' rapid monetary tightening surprisingly well. But there are signs we are approaching "breaking point" for the financial system. Liquidity has deteriorated and various market spasms have appeared. Global property markets, the most rate-sensitive part of the economy, are becoming a critical vulnerability.

## HOUSING \*IS\* THE RECESSION

Higher interest rates have already reduced housing demand. This is now the likeliest source of a new recession. Plunging home sales could impact construction activity and spending on consumer durables, causing major job losses. Given the scale of the COVID boom, it might be difficult to avoid a notable decline in nominal house prices. Sentiment would deteriorate further.

## ANOTHER DEBT CRISIS?

While a housing-led recession is possible, the next downturn will have a very different vibe from the subprime crash. Despite high debt levels, our analysis suggests most economies could tolerate current "terminal interest rates", without widespread financial distress. Over time, faster income growth means even the property sector would be able to absorb higher borrowing costs.

## APPROACHING 'BREAKING POINT'

The world's central banks have already engineered one of the broadest and most rapid episodes of monetary tightening in history. So far, financial markets have absorbed this policy shock surprisingly well. Despite several bouts of disturbing volatility and sustained pressure on a range of asset prices, we have not yet seen the sort of precipitous collapse many investors would have imagined given the magnitude of monetary tightening. Unfortunately, this is not a good time for complacency. Inflation is still running at levels central banks are not willing to tolerate; and as they continue to raise interest rates at a rapid pace – typically in 50-75bps increments – we are now entering the realms of genuinely contractionary monetary policy (as opposed to mere “normalization”, their objective earlier in the year). Certainly, among investors, there is a definite sense that we are reaching the point where “something could break”. Liquidity is deteriorating across a range of financial markets, and there are even the first signs of stress in credit markets. In the UK, the Bank of England has already had to intervene to avert a serious calamity. While the BoE was responding to specific domestic issues, it is possible that the spasm in UK markets is indicative of a wider set of international problems. Some commentators, including the always erudite Adam Tooze, believe the world is on the brink of a dangerous financial crisis.

As the recent UK intervention has shown, central banks will always be able to restore market functioning in the face of short-term liquidity issues. But, in order to restrain inflation, the authorities will want to continue to guide interest rates higher and maintain their squeeze on the financial sector. So, the question for investors is whether the world economy can, in fact, tolerate the level of interest rates that is being repriced into financial markets. Naturally, much of the attention is now on property markets. The real estate sector is both systemically important and acutely sensitive to the cost of borrowing. Most investors remember what happened in 2008, the last time there was a global property crash. Unfortunately, the risk of a housing-induced recession is not something we can dismiss. Home sales have already plunged, as higher mortgage rates have seriously undermined the housing affordability of potential buyers. We should now expect significant knock-on effects to the rest of the economy, including weaker construction activity, a decline in residential investment and even reduced demand for consumer durables (such as home furnishings). Some economies will also experience job losses in housing-related sectors, though direct exposures are generally modest compared with the situation in the early 2000s.

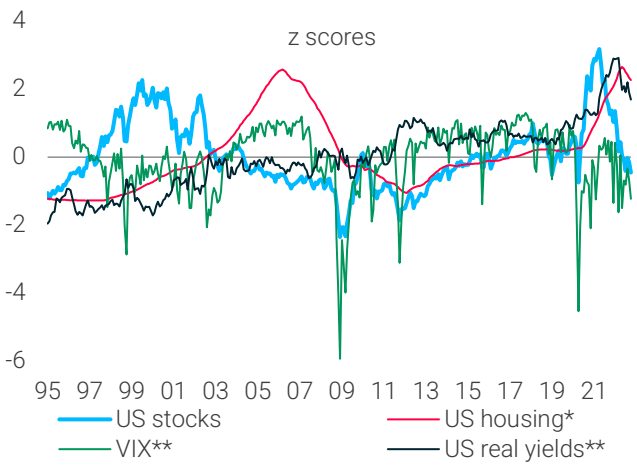
Given their sensitivity to interest rates, global property markets are likely to be the part of the economy that “breaks” first if central banks continue on their current path. It is important to point out, however, that in most cases we are not talking about a situation where a plunge in housing demand threatens to spark broad financial distress or trigger another banking crisis. The recent housing boom looks fundamentally different from what happened during the early 2000s.

Mortgage lending has been subdued and house prices could fall significantly before “negative equity” becomes a widespread problem. The countries that face the most acute problems are those that already had high levels of debt before the pandemic (Canada, Australia, etc.) and those with a heavy reliance on adjustable-rate mortgages (such as the UK). More generally, we can assess the interest-rate vulnerability of the major economies by comparing debt-servicing costs (household and business) given the monetary tightening currently priced into market “terminal rates”. Our analysis confirms that a significant economic squeeze is coming. The next 12 months could be ugly. But with debt-servicing ratios set to stay in line with historical averages, there is no reason to fear anything worse than a “normal” recession (worst case). And if we enter a regime of higher inflation and nominal income growth, most economies can tolerate secularly higher borrowing costs. The medium-term outlook is not as grim at it seems, even for property markets.

# 1. THE BEATINGS CONTINUE

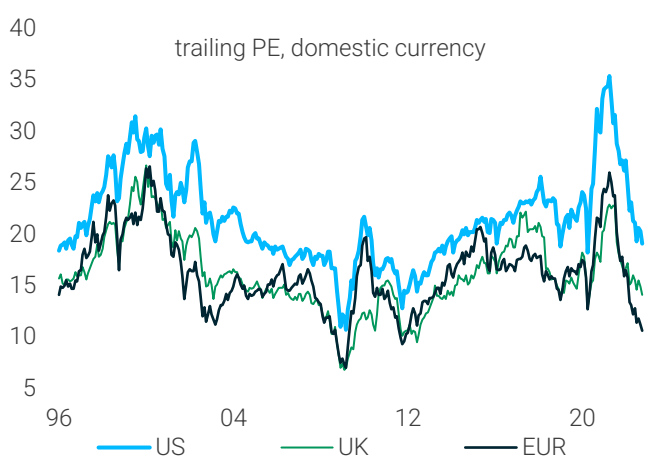
The macro environment for investors has been horrible in 2022 – inflation has hit 40-year highs, economic growth has slumped and central banks have delivered one of the fastest episodes of monetary tightening in history. With both bonds and equities losing value simultaneously, there have been few places to hide. So far, however, the destruction in financial markets has been surprisingly orderly. Despite several wobbles, we have not seen the sort of precipitous crash investors might have anticipated given the magnitude of the shock to global interest rates. Yet there is now a definite feeling among investors that we are entering a shakier period for the global financial system, where “things could start to break”. Liquidity has disappeared, market functioning has deteriorated and some central banks – most notably the Bank of England – have already had to intervene (several times) to prevent a disorderly plunge in asset prices. And the UK’s problems are not entirely idiosyncratic; they are also indicative of a broader global theme. Some commentators, most notably Adam Tooze, warn we are on the brink of a serious financial calamity, perhaps a “polycrisis”, where various vulnerabilities begin to compound one another.

**Chart 2: The ‘Everything’ bubble starts to deflate**



Sources: Datastream, TS Lombard, \*HP vs rent, \*\*inverted

**Chart 3: Orderly deflation in stock prices (so far)**

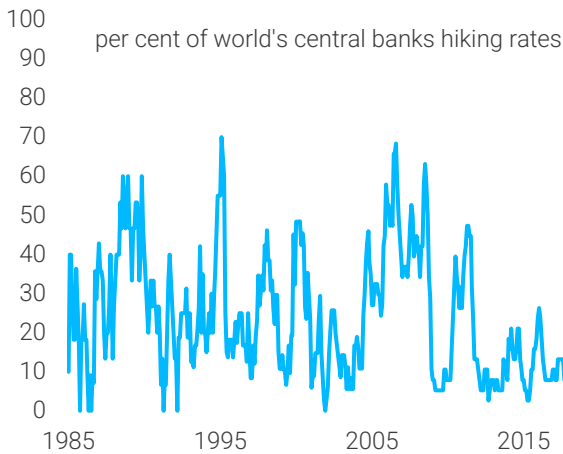


Sources: Datastream, TS Lombard.

## An ‘orderly’ squeeze – so far

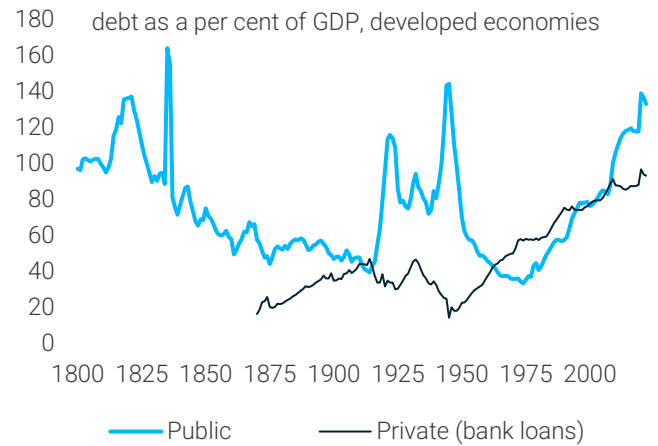
There are two reasons why the tightening in financial conditions has been relatively orderly so far, and neither of these explanations provides much comfort looking ahead. First, a big part of the deterioration in global growth in 2022 has been “artificial”, the result of lingering distortions associated with the pandemic and the war in Ukraine. Leading indicators, especially from the manufacturing sector, have seriously exaggerated the severity of the economic slowdown, which means investors were correct to “look through” these effects. The global economy has been far more resilient than it seemed, with labour markets and service-sector activity providing crucial areas of strength. The second reason why we have not seen a disorderly plunge in asset values is the unusual nature of the current tightening cycle. Investors understood that central banks were pursuing a rapid “normalization” in monetary policy rather than genuine “tightening”. The authorities raised interest rates unusually rapidly, but these moves were analogous to the “stop-start” reopening of the global economy after COVID-19. This was no ordinary tightening cycle, in large part because this was no ordinary business cycle. Given the extreme starting point and the fact that central banks had fallen behind the curve, there was every reason to think the global economy would be able withstand the normalization of monetary policy, however rapid.

**Chart 4: Broadest tightening cycle for decades**



Sources: BIS, TS Lombard estimates.

**Chart 5: Global debt at historical highs**

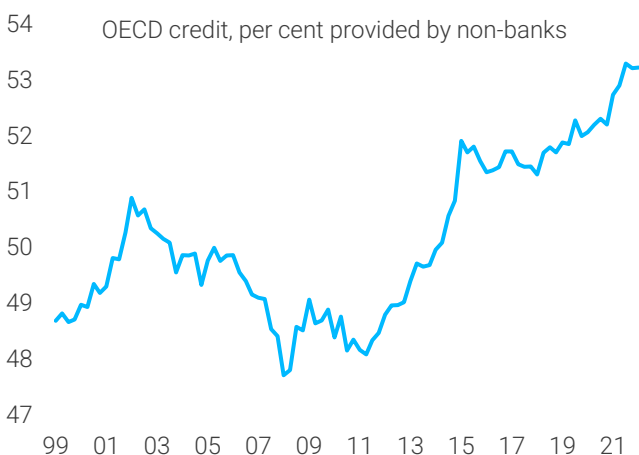


Sources: MacroHistory, TS Lombard.

**Beyond normalization**

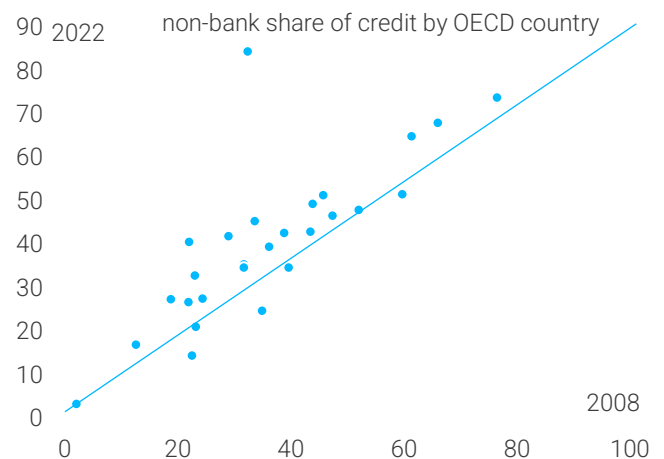
While “normalization” can describe central banks’ actions so far, it is clear we are now entering a new phase of the policy cycle, where interest rates are becoming genuinely “restrictive”. Inflation has proved far higher and more persistent than the authorities anticipated, and the banks are now raising interest rates above “neutral” with the deliberate intention of reducing economic activity and forcing the CPI onto a lower trajectory. This shift is important because, unlikely the temporary factors that have reduced economic growth in 2022 – namely, the decline in real incomes and the bullwhip recession in manufacturing – higher interest rates are a source of genuine demand destruction. And central banks look set to maintain their squeeze on the economy, even as those temporary forces unwind. Put another way, tight monetary policy is now the likeliest trigger for a global recession, particularly if CPIs do not improve quickly, which would encourage central banks to continue to raise interest rates in outsized instalments. We are on a dangerous path.

**Chart 6: The shadow banking system took over**



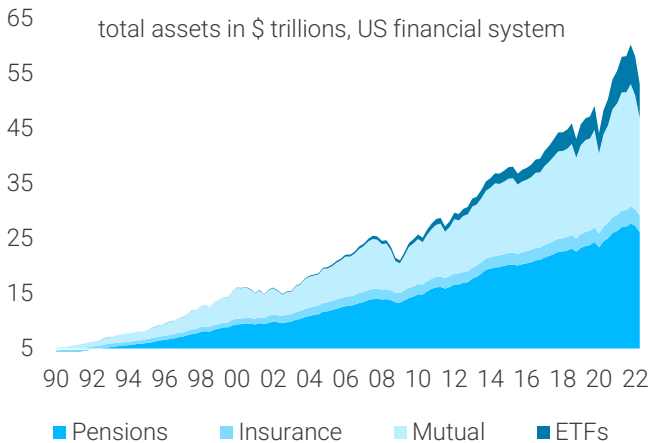
Source: BIS, TS Lombard estimates

**Chart 7: The credit system shifted everywhere**



Sources: BIS, TS Lombard.

**Chart 8: The Buyside bubble**



Sources: Federal Reserve, TS Lombard.

**Chart 9: The Bullwhip manufacturing recession**

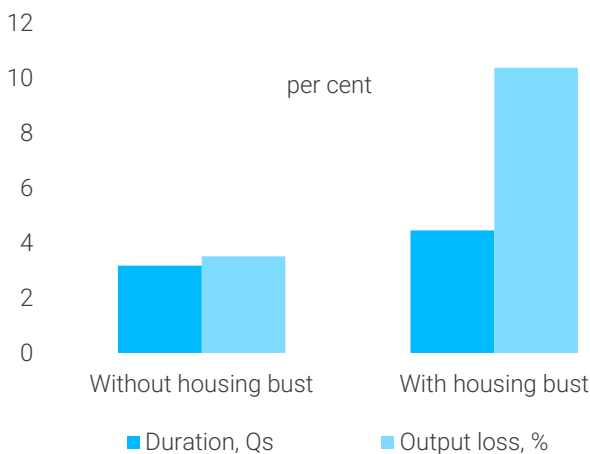


Sources: Markit, TS Lombard.

**Breaking point**

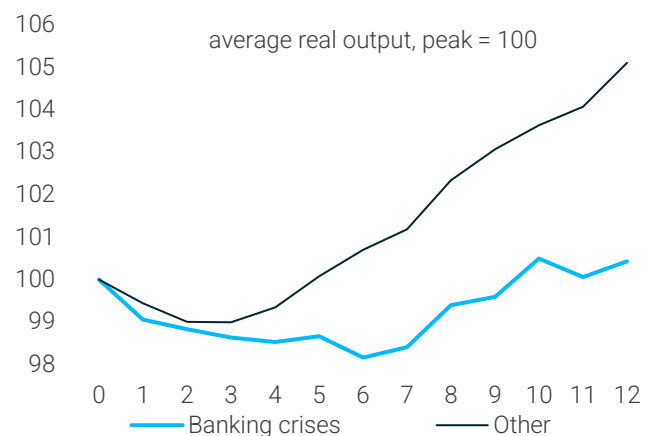
As central banks move monetary policy into genuinely restrictive territory, the chance of something “breaking” obviously increases. Of course, it is hard to anticipate the exact breaking point or identify the first market ruptures. Few people correctly forecast [the recent doom loop in UK pension funds](#), which produced powerful margin calls and fire sales in UK financial securities. The UK’s “mini-budget” was certainly ill-conceived, perhaps even “moronic”, but the market reaction was much fiercer than anyone expected, a reminder that these sorts of event are often “non-linear” and highly reflexive. Financial markets can be explosive, rather self-equilibrating. It is entirely possible that we will see similar events elsewhere, perhaps among European pension funds and insurance companies. The shadow (“non-bank”) banking system, which includes large institutional investors, is inherently prone to these sorts of dynamics, as we saw during the early stages of the COVID-19 crisis. And after a decade in which low interest rates fuelled a relentless surge for yield ([the Buyside bubble](#)), asset markets could deflate in unpredictable ways. But the lesson from the UK is that policymakers will always step in quickly; and if they are prepared to backstop the system, they can prevent a disorderly crash. Ironically, the non-bank credit system has strengthened the authorities’ power as a lender of last resort, rather than diluting it.

**Chart 10: Recessions worse with housing crashes**



Source: IMF Global Financial Stability Report (April 2011)

**Chart 11: Financial recessions are the worst**

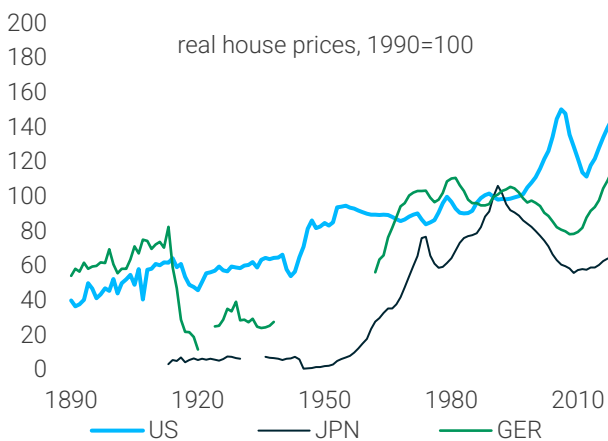


Sources: IMF, TS Lombard.

### The 'real' vulnerability

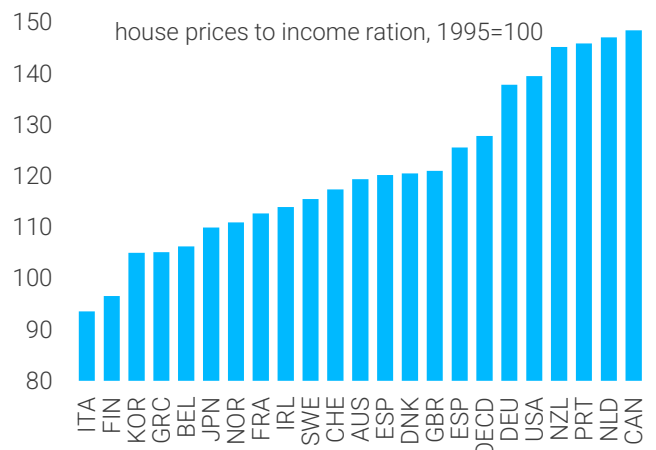
While central banks can (and probably will) intervene to maintain orderly markets and provide lender-of-last-resort facilities, they will want to preserve their current monetary squeeze. Even the BoE, which has recently been buying government bonds, will continue raising interest rates. (Though its plan to conduct QT looks increasingly fanciful.) This combination of QE and rate hikes seems contradictory, but it clearly falls short of the “monetary pivot” investors have been hoping for. Instead, we have a situation where the Bank of England is, in effect, trying to guide interest rates higher, without something breaking in the financial sector. It is “capping” bond yields but allowing that cap to move higher over time in an effort to reduce inflation. And it is possible we will see other central banks do something similar, especially if there are more bouts of volatility or a further deterioration in market liquidity. The deeper question is whether the real economy can, in fact, cope with the degree of monetary tightening that is now being priced in. After all, there is no point securing the wheels onto the car just to drive the vehicle into a wall (or over a ravine). And when it comes to identifying problems in the real economy, it is clear where the greatest vulnerability lies – in housing markets. Real estate is always the most rate-sensitive part of the economy, which means it is the sector that is likely to “break” first.

**Chart 12: The historical house-price boom**



Sources: MacroHistory, TS Lombard.

**Chart 13: Global housing is expensive**

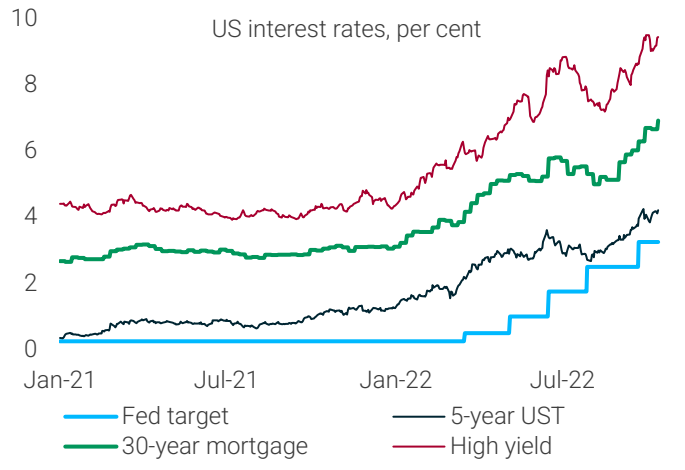


Source: OECD.

## 2. HOUSING \*IS\* THE RECESSION

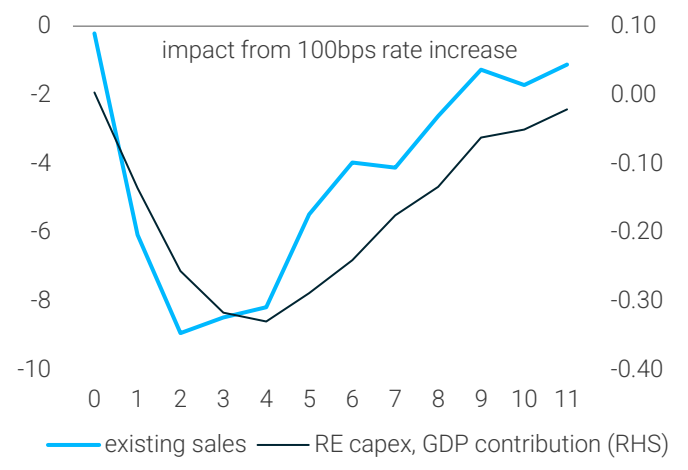
Global property markets – which have boomed over the past three years – are already responding to tighter monetary policy. Housing demand has plunged, and this will surely reduce broad economic activity in 2023 (and possibly beyond). Real estate investment and the construction sector will suffer most, potentially leading to job losses and financial spillovers. If there is a recession during the next 12 months, global property markets are the obvious catalyst. Yet, conditioned by what happened in the early 2000s, most of the analysis about what might happen in the property sector seems wildly bearish. There are some parts of the world that look shaky; but overall, it should be possible to have an ordinary “garden-variety recession” in the housing market without it leading to widespread financial distress and a banking crisis. And, over time, even the property sector can absorb the impact of secularly higher interest rates – particularly if inflation and nominal-income growth are higher than in the recent past, too.

**Chart 14: US interest-rate transmission**



Sources: DataStream, FRED.

**Chart 15: Rate impact on housing transactions**

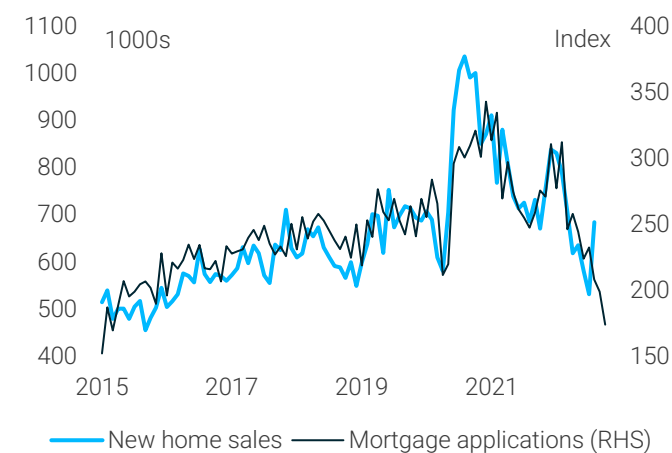


Source: NY Fed estimates.

**Housing IS the business cycle**

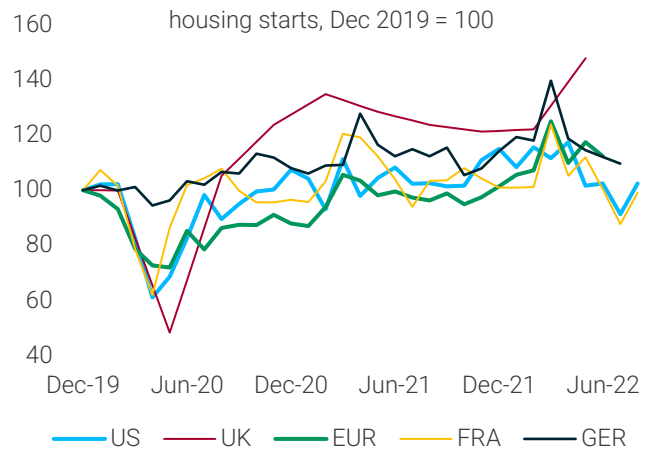
Housing markets provided the first clue that the 2020 plunge in economic activity was not a regular recession – and that the economic fallout from COVID-19 would not resemble any previous pandemic. Not only was the recovery in the property sector “V-shaped”; it turned into a genuine boom, one that was truly international in scale. This seemed odd. According to the official stats, millions of people had lost their jobs (or were on state furlough schemes) and businesses everywhere were closed, with the consensus predicting a wave of bankruptcies. Housing markets had not performed like this in previous pandemics, which, as historical records tell us, usually inflicted widespread economic pain and long-term “scarring” (see, for example, [the impact of the cholera outbreaks in 19th century Paris](#) or [the plague in 17th century Amsterdam](#)). But with hindsight, it is clear that the authorities should have been paying more attention to what the global property sector was telling them about the unusual nature of the COVID-19 “recession”, including its implications for inflation. After all, as Edward Leamer famously put it, [“housing IS the business cycle”](#). And the durability of global property markets in the face of higher interest rates could say a great deal about the resilience/trajectory of the global economy in the 2020s.

**Chart 16: US housing demand has plunged**



Sources: BEA, DataStream, TS Lombard.

**Chart 17: Other housing markets to follow?**

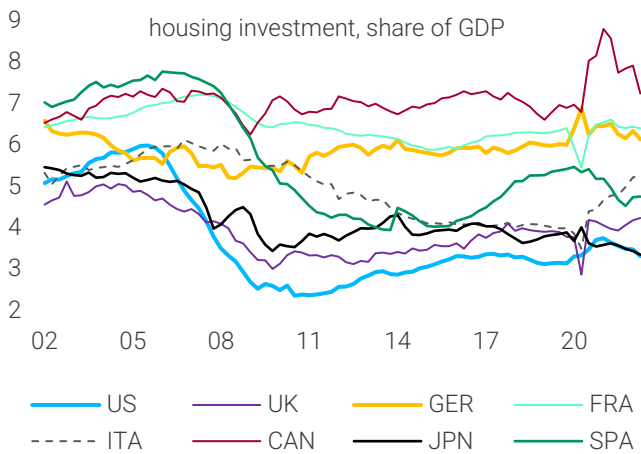


Sources: Datastream, national sources, TS Lombard.

## Housing demand has plunged

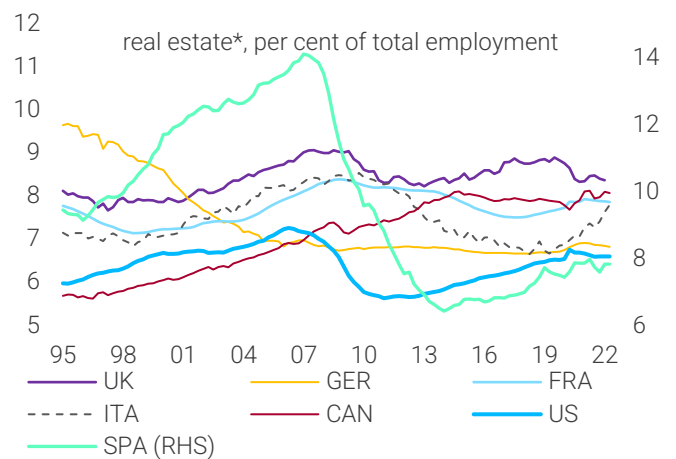
There are good reasons why housing demand boomed during the pandemic. As people spent more times in their homes because of lockdowns and shifting work patterns (more regular WFH), most people wanted better living conditions and more space. There was also significant migration from high- to low-density population centres, which made housing more affordable for many first-time buyers (because they no longer had to live within short commuting distances). These are structural shifts that are likely to continue, even as the pandemic loses its immediate grip on our lives. Yet, according to [recent analysis from the San Francisco Fed](#) (based on US data), these secular themes can explain only around 60% of the COVID-19 boom. And it is the other 40% we need to worry about – particularly as low interest rates and fiscal stimulus probably accounted for most of that “non-secular” demand. Now that interest rates have increased and government have withdrawn their fiscal support, the property sector is starting to crack. Housing demand has plunged and house prices have already stopped rising. They may soon start to fall.

Chart 18: GDP exposure to housing investment



Sources: OECD, TS Lombard.

Chart 19: Labour market exposure to real estate



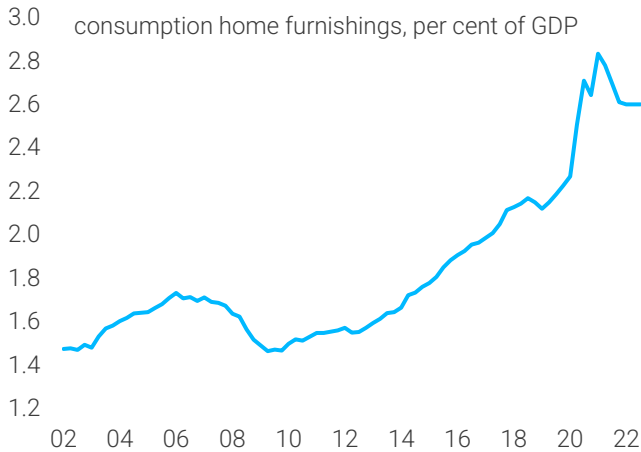
Sources: OECD, TS Lombard. \*Construction and real-estate services

## Anatomy of a housing recession

The property sector is clearly “systemic”. [At US\\$330 trillion, global real estate is by far the most important asset class](#) – a total capitalization 40% larger than equities, government bonds and corporate credit combined. When something goes wrong in this part of the economy, it is certain to have significant knock-on effects. We are already starting to see the first-round impact of demand destruction, which is the most direct effect of the monetary tightening that has taken place in 2022. As mortgages rates have surged, property sales and transactions in the housing market have evaporated. This is going to become a significant drag on GDP for many parts of the world. Construction activity will deteriorate and residential investment will collapse. According to estimates by the New York Fed, every 100bps increase in mortgages rates reduces housing investment by around 10%, which shaves around 0.3%pts from US GDP. We should expect similar effects in other economies, especially countries where housing supply is “elastic”. And with long-term interest rates up 200-300bps everywhere, this is a powerful shock to global GDP.

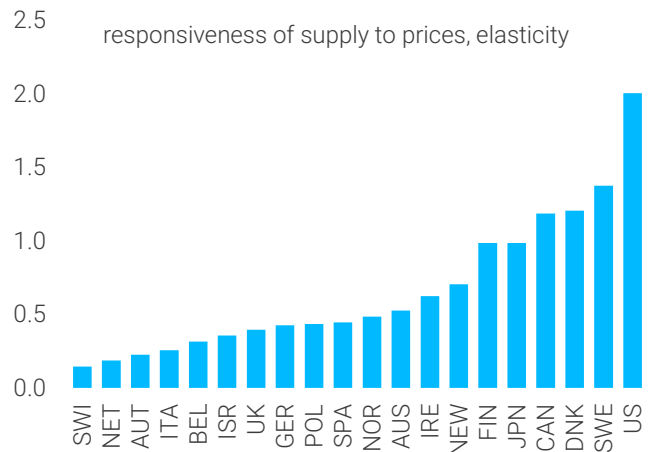


Chart 20: Second-order effect on consumption



Sources: BEA, TS Lombard.

Chart 21: More elastic – greater hit to construction

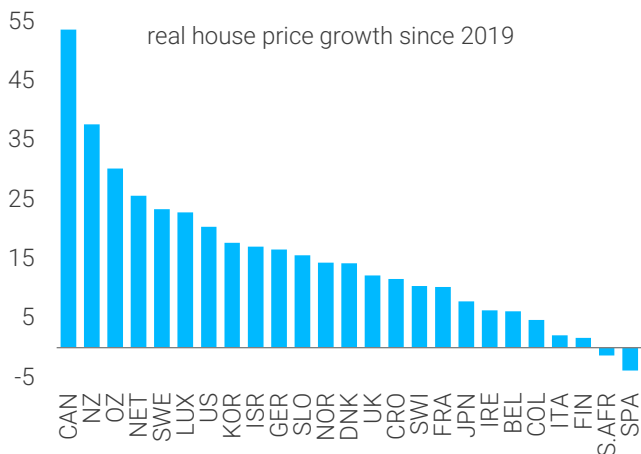


Source: OECD

### Second-round effects

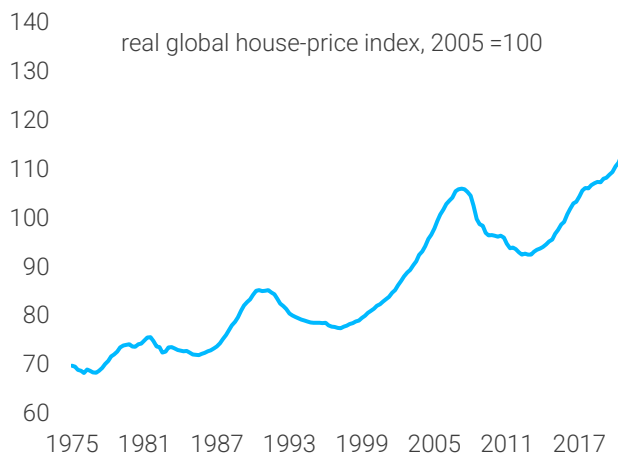
Beyond the immediate impact on construction activity, a plunge in housing demand could unleash various second-round effects. Consumer spending could suffer, particularly in areas closely tied to developments in the housing market – such as DIY, consumer durables and home furnishings. We could see significant job losses in those sectors, which would create additional economic spillovers. The construction and real estate sectors typically account for around 6-8% of employment, so a large drop in activity in these areas would have a notable impact on the labour market. The good news, however, is that the COVID-19 “bubble” – if that is even the right word – happened so quickly that there was no time for a large supply-side response. This makes the current situation very different from what happened during the early 2000s. By the time the previous bubble burst, after a boom lasting more than a decade, many economies had accumulated large direct exposures to the property sector. In Spain, for example, real-estate activity was responsible for at least a third of annual GDP growth. Apart from China – which does face very serious problems – no other major economy has that level of exposure today.

Chart 22: The COVID housing boom



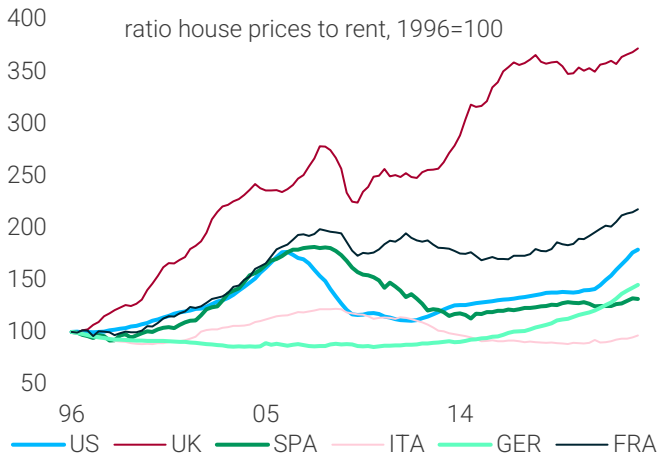
Sources: Dallas Fed, TS Lombard.

Chart 23: Global prices hit record high



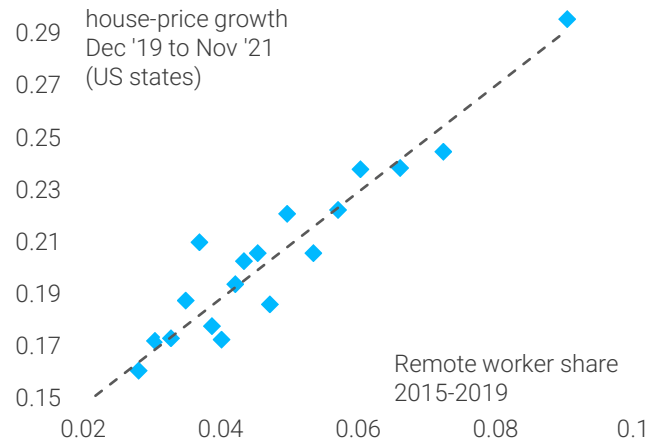
Sources: Dallas Fed, TS Lombard.

**Chart 24: Valuations on the rise again**



Sources: National sources, TS Lombard.

**Chart 25: Secular shifts part of the story**



Sources: Housing Demand and RemoteWork, [NBER paper](#).

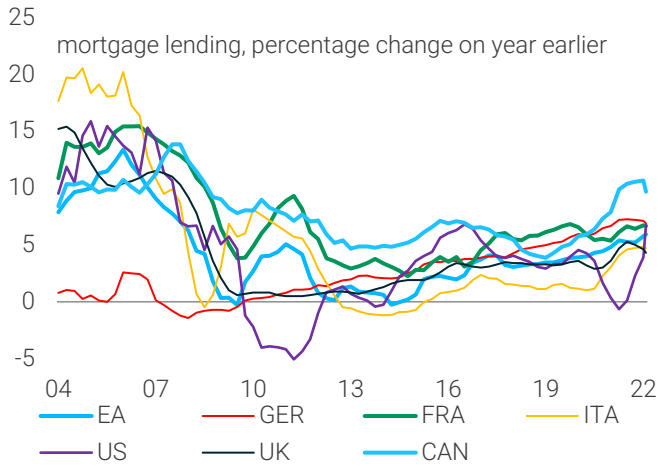
**Housing recession is likely, but...**

By making the comparison with the early 2000s, we are not trying to downplay the risks to the global property sector. The outlook for the next 6-12 months is extremely negative, and this is by far the most likely catalyst for a genuine recession. Given how far property prices have risen over the past three years, we would not rule out a significant decline in prices – and lower prices would damage balance sheets and further undermine confidence (including via “wealth effects”). But most of the pain is likely to be confined to those sectors directly exposed to falling home sales and construction activity, rather than the triggering a broad-based financial catastrophe. In contrast with what happened after the subprime bubble burst, the risk would appear to be a fairly normal recession, rather than a crisis and a long period of financial “deleveraging”. And, as we will demonstrate in Section 3 below, once the adjustment in nominal rates is complete, most economies (but not all) can probably cope with secularly higher interest rates, without something truly “breaking” in the financial system. A “squeeze” is coming, that’s for sure, but it won’t necessarily be a “crash”.

**3. ANOTHER DEBT CRISIS?**

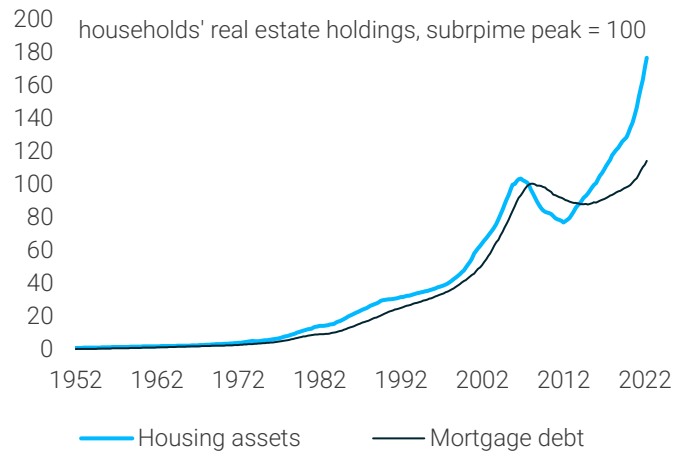
Recessions that start in the housing market are typically worse than “average”. Analysis from the IMF found that they tend to be twice as deep and last 40% longer. There are good reasons for this. House purchases are highly leveraged (with debt that is fixed in nominal terms), so when property values decline, the result is a major deterioration in balance sheets, financial distress and even defaults. Mortgage lenders that made these loans will suffer losses, which, in turn, can lead to asset sales and an economy-wide credit crunch. The subprime crash was a particularly vicious example of these dynamics, because the quality of the loans was especially poor and the global banking system had leveraged itself up to extreme levels based on opaque mortgage-back securities as its main form of collateral. When the subprime bubble burst, the impact on the financial system and the world economy was truly devastating and lingered for many years. The situation today is radically different, and the threat to macro stability is much less pronounced.

**Chart 26: No 2000s-style mortgage boom**



Sources: National sources, TS Lombard.

**Chart 27: Equity buffer before debt bites**

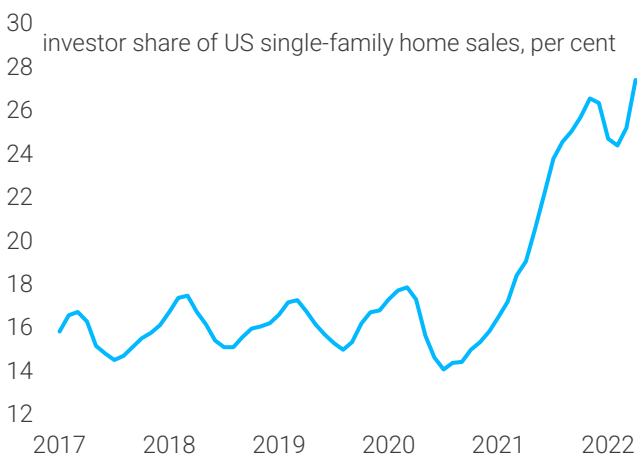


Sources: Federal Reserve, TS Lombard,

**Anatomy of a debt crisis**

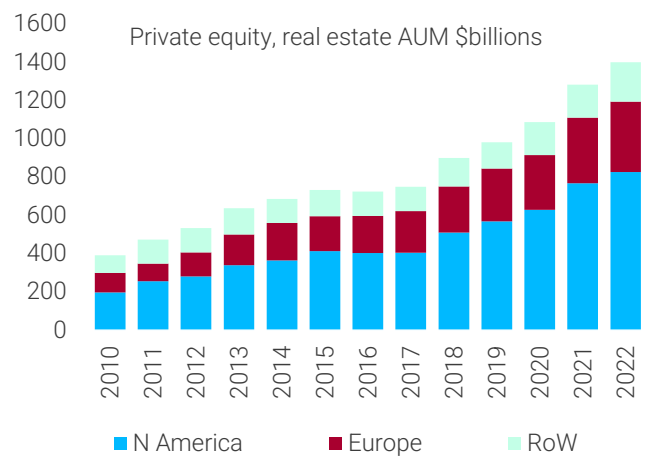
In many ways, the 2000s housing boom shared many of the features of the classic Minsky cycle. House prices increased rapidly, supported by a rapid expansion in mortgage loans. And the quality of the loans deteriorated over time, to the point where many homeowners were given access to homes they would never be able to afford (the clue was in the “subprime” epitaph). A large proportion of the mortgages granted during the period included variable/adjustable interest rates, which gave the illusion of affordability but instead created a ticking timebomb that would explode when central banks raised interest rates. Remember the whole basis of the “Big Short” on the US property market was to identify the point at which these mortgages “reset”. As soon as the various “teaser rates” expired and mortgage costs surged, many homeowners could no longer afford their home loans and immediately defaulted. The combination of low-quality loans, adjustable-rate mortgages and tighter monetary policy was a disaster waiting to happen. The complexity of securitization and global banking exposures put the whole world economy at risk.

**Chart 28: Did investors drive the pandemic boom?**



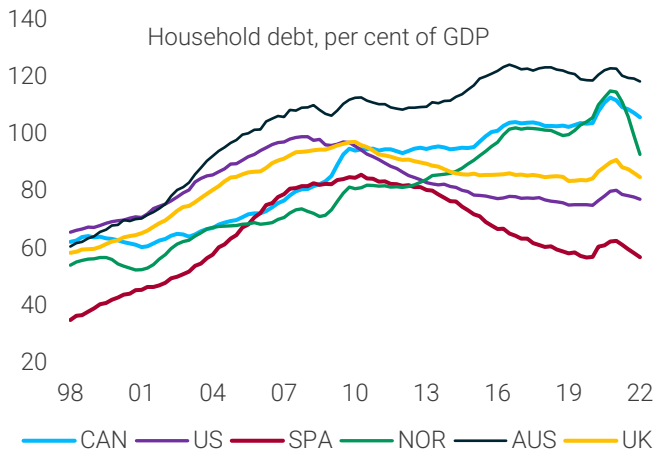
Source: JCHS, Core Logic, TS Lombard

**Chart 29: Private equity bubble?**



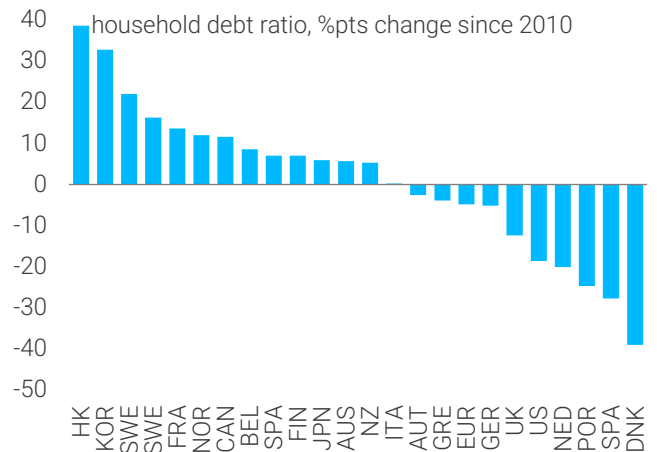
Sources: Financial Times, TS Lombard.

Chart 30: Some countries deleveraged after 2008



Source: BIS, TS Lombard estimates

Chart 31: Household exposure to mortgage debt

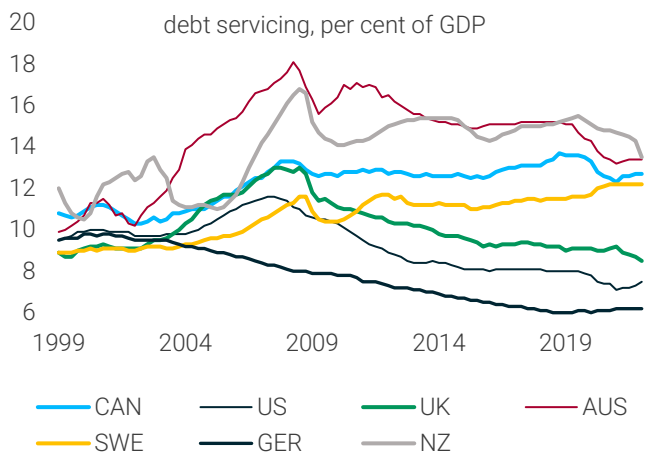


Sources: BIS, TS Lombard estimates

This time IS different

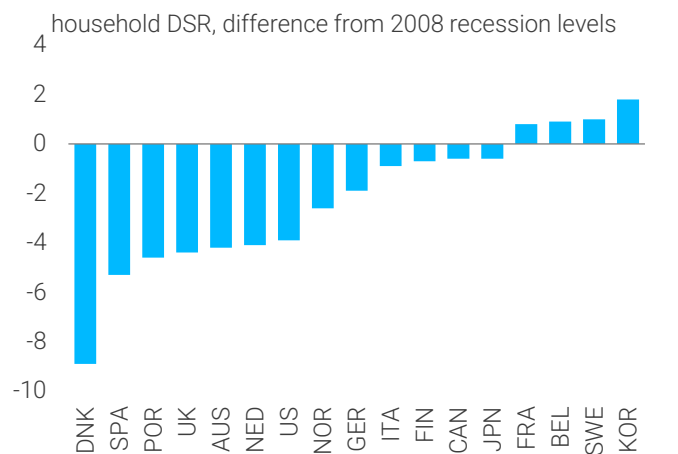
The recent housing boom has been different in every regard. First, despite a rapid runup in house prices, we have not seen a 2000s-style explosion in mortgage lending. Loan growth has been subdued, even during the extremely “hot” pandemic property market. One reason for this is that people were generally moving out of high-priced cities to lower-priced suburbs, which meant they were able to secure larger properties without necessarily taking on huge debts. It is also likely that institutional investors have played a significant role, particularly private equity, though it is hard to find comprehensive data on this. We do know, however, that institutional investors were responsible for around a quarter of single-family home purchases in 2020-21, which was a significant increase compared with their pre-COVID share (Chart 28). And that the entire real estate holdings of private equity are worth around US\$1.5 trillion (Chart 29). The second difference with the early 2000s is that the quality of the loans created during the pandemic were much higher. In no sense was this “subprime” debt. And third, the vast majority of these mortgages – both in the US and elsewhere – came with fixed interest rates. This means there is no ticking timebomb of defaults waiting to explode. There is no Big Short 2.0.

Chart 32: The household debt burden



Sources: BIS, TS Lombard estimates.

Chart 33: Patterns have diverged since 2008



Sources: BIS, TS Lombard estimates.

## Debt-servicing ratios

It is always difficult to get a precise handle on default risk, particularly for a housing market that has started to crack only recently. But we can get an idea of cross-country vulnerabilities by comparing debt servicing ratios (DSR) – the proportion of income households spend on servicing their debt. The BIS provides time series data for most developed economies, starting from 1999. The evolution of debt-servicing ratios depends on three main factors: (i) the absolute amount of debt, (ii) the average level of interest rates and (iii) the type of mortgages people hold (i.e., fixed or adjustable rates, and how often households refinance them). Ahead of the latest round of monetary tightening, DSRs in most countries had fallen to historic lows. Low interest rates were a big part of this story, but it is important to also remember that the DM household sector – on average – had deleveraged during the 2010s, especially in those countries that had suffered a banking crisis (e.g., the US, the UK, and much of the EMU periphery). Now that interest rates are moving higher, debt servicing ratios will increase – particularly in countries with lots of variable-rate debt – but the low starting point means default risk is further away than it was in 2008.

**Table 1: Debt servicing ratios at current market ‘terminal rates’**

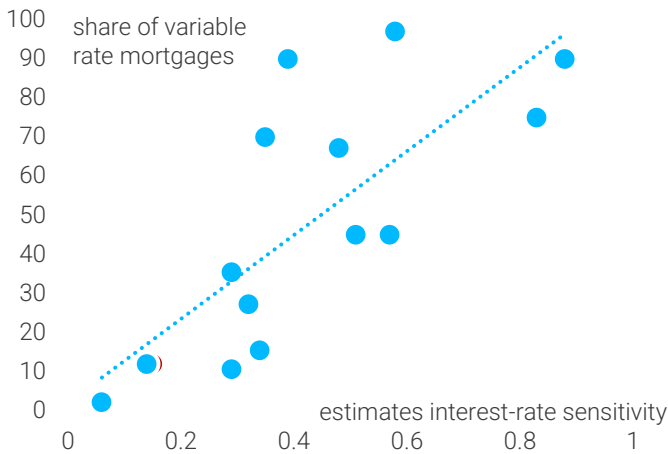
|             | Sensitivity to short or long-term rates* | Sensitivity** | Income Hit (% of disp. income) | Current DSR | Average DSR 2000s | DSR at the terminal rate |
|-------------|--|---------------|--------------------------------|-------------|-------------------|--------------------------|
| <b>US</b>   | LT                                       | 0.15          | 0.4                            | 7.5         | 10.3              | 7.9                      |
| <b>UK</b>   | ST                                       | 0.51          | 2.6                            | 8.5         | 10.4              | 11.1                     |
| <b>CAN</b>  | ST                                       | 0.32          | 1.2                            | 12.7        | 11.2              | 13.9                     |
| <b>FRA</b>  | LT                                       | 0.14          | 0.4                            | 6.6         | 4.9               | 7.0                      |
| <b>ITA</b>  | ST                                       | 0.29          | 0.8                            | 4.3         | 3.9               | 5.1                      |
| <b>GER</b>  | LT                                       | 0.29          | 0.9                            | 6.2         | 9.2               | 7.1                      |
| <b>SPA</b>  | ST                                       | 0.48          | 1.4                            | 6           | 7.4               | 7.4                      |
| <b>NED</b>  | LT                                       | 0.34          | 1.0                            | 13.5        | 15.7              | 14.5                     |
| <b>SWE</b>  | ST                                       | 0.35          | 0.9                            | 12.2        | 9.5               | 13.1                     |
| <b>DNK*</b> | ST                                       | 0.83          | 2.0                            | 12.9        | 17.9              | 14.9                     |
| <b>JPN</b>  | LT                                       | 0.57          | 0.1                            | 7.2         | 8.6               | 7.3                      |
| <b>OZ</b>   | ST                                       | 0.88          | 1.2                            | 13.4        | 13.0              | 14.6                     |
| <b>NOR</b>  | ST                                       | 0.39          | 1.1                            | 13.5        | 12.2              | 14.6                     |
| <b>BEL</b>  | LT                                       | 0.06          | 0.2                            | 7.2         | 5.8               | 7.4                      |
| <b>FIN</b>  | ST                                       | 0.58          | 1.7                            | 7.3         | 5.6               | 9.0                      |

Sources: BIS, TS Lombard estimates \*we let the data decide, \*\*%pts rise in DSR for 1%pts rise in interest rates

## The big squeeze

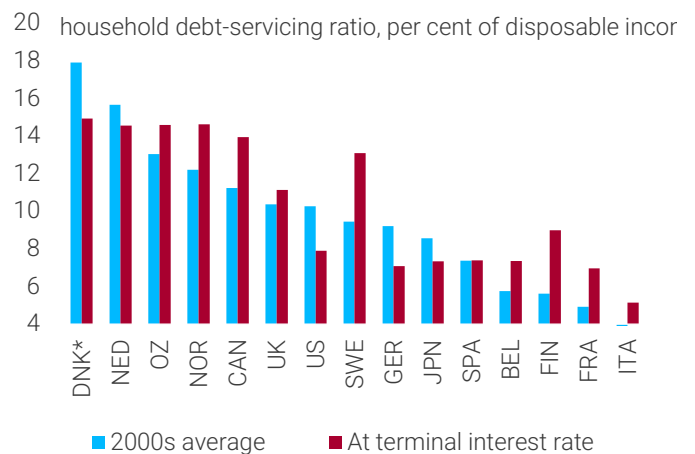
To get a sense of where the main debt vulnerabilities lie, we have run some simple regression analysis of debt-servicing ratios on the level of debt and the average interest rate. Table 1 and Chart 35 show the results for the household sector. As we might expect, the sensitivity of DSRs to interest rates varies significantly across countries. For the household sector, this is largely about the share of mortgages that have variable rates (Chart 34). US households, for example, are much less vulnerable to rising borrowing costs than UK households. Whereas 90% of US mortgages are fixed at 30-year interest horizons, most UK mortgages include adjustable interest rates or relatively short (less than three-year) fixes. Looking at the results overall, it is clear that higher interest rates will exert a significant squeeze on household spending. To see how much, we can project SDRs forwards based on the “terminal” interest rates priced into domestic bond markets. In most cases, we are talking about a significant reduction in household discretionary income. This adds to the recession risk from the construction sector. So, first we have an immediate reduction in home building; then, over time, another squeeze on household incomes.

**Chart 34: Rate sensitivity reflects mortgage types**



Source: BIS, TS Lombard estimates

**Chart 35: DSRs at market terminal rates**

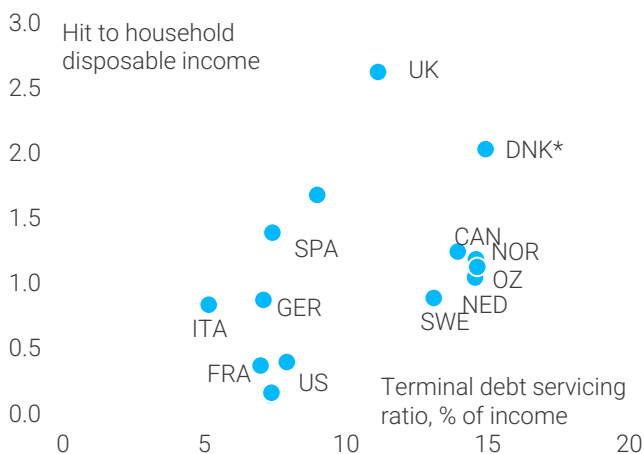


Sources: BIS, TS Lombard estimates.\*not statistically significant

**Default risks**

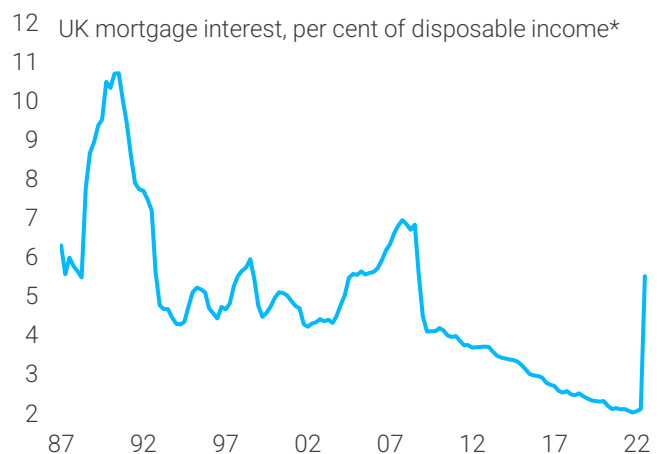
Higher interest rates will squeeze households' finances and force them to reduce their spending. This should not be a surprise – it is the very reason central banks are tightening policy. In some countries, notably the UK, the squeeze is likely to be significant, especially with household budgets already under severe pressure from high energy costs. This does not mean, however, that we are going to see widespread defaults and financial distress. Whereas the “squeeze” depends on the change in interest rates, the risk of default ultimately depends on the final level of the debt-servicing ratio. And when we plug current terminal interest rates into our econometric analysis to produce projections for interest expense, we are still looking at DSRs that – in most cases – are in line with their historical averages. The main exceptions are those countries that did not experience a banking crisis during the 2010s, because they are starting with SDRs that are already at historically high levels. Canada stands out as particularly troublesome. Not only has household debt been growing rapidly, reaching new historical highs, but the recent housing boom – the largest in the OECD – has seen homebuyers shift into variable-rate mortgages. For most countries, however, there is no reason to expect financial distress unless labour markets crack and millions of people lose their jobs. Given current staff shortages, this seems unlikely.

**Chart 36: The household hit from terminal rates**



Sources: BIS, TS Lombard estimates.

**Chart 37: UK households face huge squeeze**

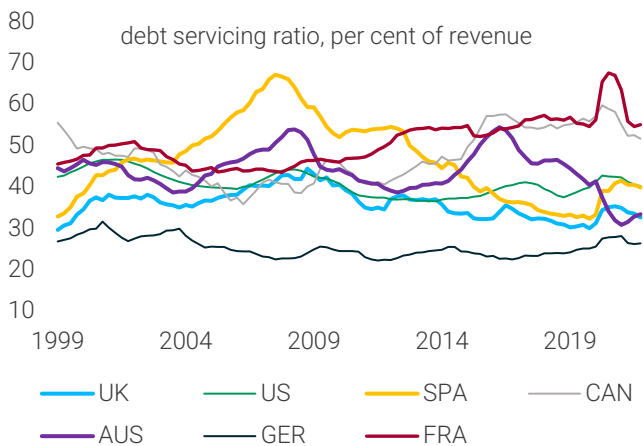


Source: BoE, TS Lombard, \*assumes instant passthrough at 5.5% rates

### Corporate debt risks

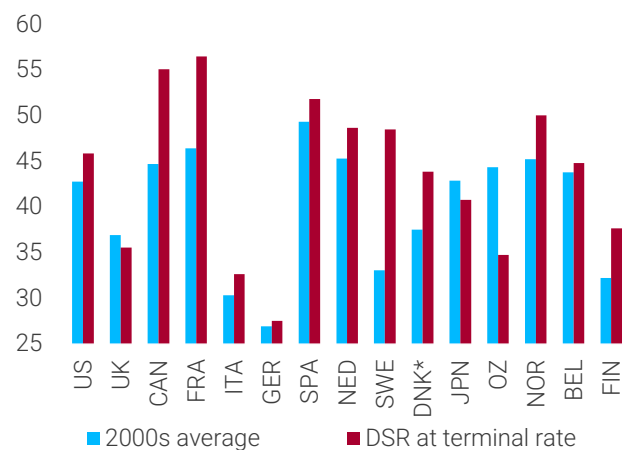
While this Macro Picture has focused on household debt – because it is systemically important for the global economy – we can use similar analysis for corporate debt. Unlike mortgage borrowing, aggregate corporate leverage has increased significantly over the past decade. And if we plug terminal interest rates into debt-servicing ratios, we see that many companies are facing an enormous squeeze from higher borrowing costs. On our estimates, DSRs will hit their highest levels in decades. There are, however, good reasons to think our analysis overstates the dangers to corporate balance sheets. For a start, the average maturity on these loans is 14 years, which means the income squeeze will be felt gradually. Second, our econometrics, estimated for a period in which interest rates trended lower (and companies were refinancing their loans), overstates the sensitivity of corporate SDRs to higher interest rates. Moreover, since 2010 corporate borrowing has generally migrated from banks to non-banks, particularly corporate bonds. As interest rates rise, the institutional investors that hold these securities will suffer significant losses. The Buyside bubble will burst. But there will be no immediate blowback to banks or corporate revenues. Some large companies may even buy back their debt at steep discounts. Naturally, this will not help smaller companies – especially SMEs – that took adjustable-rate bank loans in the 2010s. In this respect, Europe is more vulnerable than the US.

**Chart 38: Corporate debt a bigger problem?**



Sources: BIS, TS Lombard estimates.

**Chart 39: Big shock to corporate debt servicing?**



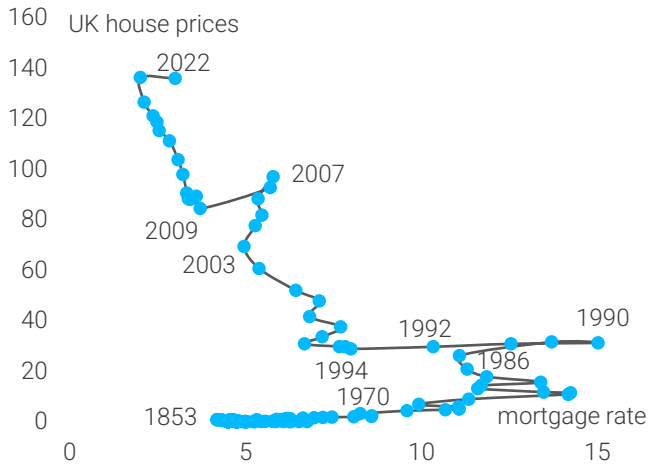
Sources: BIS, TS Lombard estimates.

### Higher nominal world

Our debt sustainability analysis compares debt-servicing costs at higher interest rates, assuming everything else remains constant. In the short term, when central banks are hiking rapidly, this is the effect that dominates: interest rates rise but incomes stay constant. Longer term, however, it is important to consider whether these assumptions are appropriate, especially if we are entering a new supercycle of higher inflation and faster nominal income. If wages and corporate revenues are set to grow faster in the 2020s, the economy should be able to cope with higher nominal borrowing costs because – in terms of standard debt arithmetic – both the “r” and the “g” in “r-g” will be higher than in the past. Over time, if we are right about the new supercycle, the global economy will eventually absorb these higher interest rates and their recessionary squeeze will fade. We think this is true, even for the global property market. While the short-term outlook for housing is obviously difficult, perhaps recessionary, the longer-term outlook is reasonably bright.

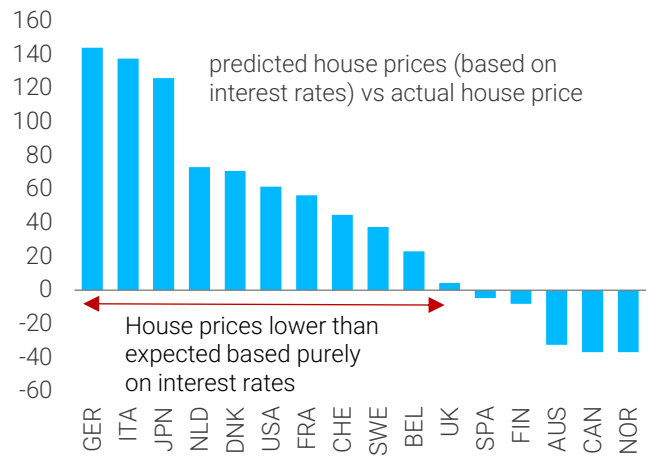
Afterall, interest rates are not the only factor that determines the performance of the real estate sector. Chart 40, based on long term UK data, which have the longest available history, shows there have been plenty of periods where house prices and interest rates have been completely uncorrelated (e.g., the 1970s, the 1980s, much of the 1990s, and even the early 2000s). And in truly reflationary episodes, housing has generally outperformed many other asset classes. Investors should not lose sight of this when they consider the outlook for the new supercycle.

**Chart 40: Housing is more than just interest rates**



Source: Bank of England, TS Lombard

**Chart 41: Low interest rates not the only factor**



Sources: Bank of England, TS Lombard.

**Bottom line**

To sum up, there is no doubt that higher interest rates will exert a significant squeeze on the global economy. In contrast with the largely “artificial” 2022 slowdown, which was driven by lingering COVID distortions and high energy prices, monetary policy is now creating genuine “demand destruction”. Central banks are raising interest rates precisely because they want to reduce aggregate spending. And the change in interest rates, which has been extremely rapid by historical standards, matters – particularly for the property market, which is the sector most exposed to rising nominal borrowing costs. Construction activity and real-estate activity have plunged, which could produce a broader recession. Yet none of this means the world is facing a new financial crisis. It is possible to have a recession without all hell breaking loose, especially when there are extreme labour shortages, which will encourage companies to hoard labour. Our analysis, moreover, suggests that the private sector should be able to cope with the “terminal interest rates” currently priced into financial markets, without broad financial distress or a wave of defaults being triggered. But given the severity of the squeeze that is coming, it would make sense for central banks to pause their tightening cycle relatively soon, before we reach a genuine “breaking point”. Fortunately, the current situation is nothing like 2008. And with inflation and nominal incomes set to grow at a faster pace during the 2020s, even the property sector should eventually be able to absorb the impact of secularly higher interest rates.