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RECORD DEBT, ROCKETING RATES AND UNKNOWN FRAGILITIES

Winter 2022

For professional investors only.
All investments involve risk,
including possible loss of capital.

"History is littered with examples of rate hiking cycles where central banks keep going in their desire to bring inflation down. But they're very conscious of these unknown unknowns which seem to pop up with alarming regularity. Think about the central banks that were tightening in '07/'08 (before the Global Financial Crisis) and how surprised they were then by what popped up."

DR. SUSHIL WADHWANI

Chief Investment Officer, PGIM Wadhwani

INTRODUCTION

Total global debt reached a record high of $306 trillion in the first quarter of 2022, led by a surge in several emerging markets, as well as China and the United States, according to the Institute for International Finance. By the third quarter, it had dropped to $290 trillion, but this remains a very high level. When debt reaches extreme levels, vulnerability to financial crises rises.

Debt has accumulated at a rate exceeding GDP growth for much of the last decade. When this happens, it can be a warning sign of financial crises to come. As the U.S. Federal Reserve has ratcheted up rates at the fastest pace in 40 years to quell inflation, the dangers of a crack-up in financial markets have risen. But it's in the nature of financial crises that it's hard to anticipate in advance.

$306 TN

2022'S RECORD GLOBAL DEBT

Source: Institute of International Finance

RISING DEBT, INFLATING BUBBLES

CHAPTER 1

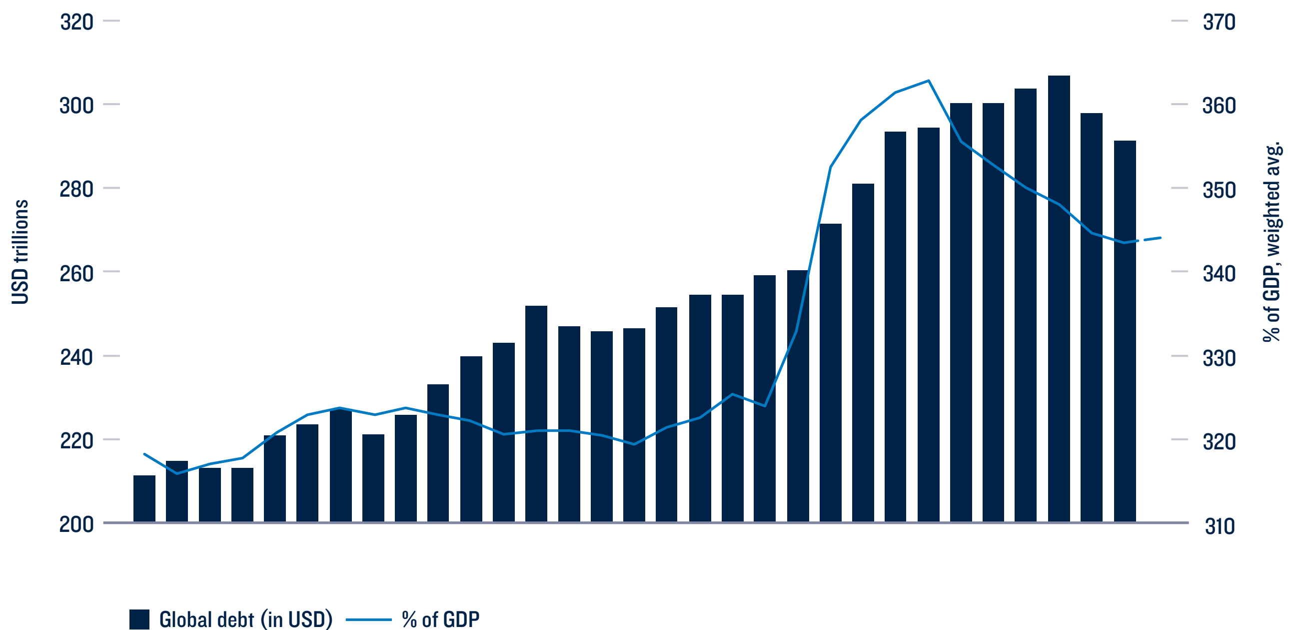
RISING DEBT, INFLATING BUBBLES

2022's record debt is a danger that was decades in the making.

Debt levels started to rise before the GFC of 2007-2008, as new labor from developing economies such as China and eastern Europe suppressed inflation and interest rates. Their rise accelerated afterward, as both public and private sector debt rose during the "lower-for-longer" decade from 2010 to 2020, ahead of a final blowout during the pandemic.

To escape depression, central banks introduced ultra-low and negative interest rate policies along with QE.The result: a world of debt-dependent growth. The chart below shows how global debt spiked as a percentage of GDP in the pandemic.

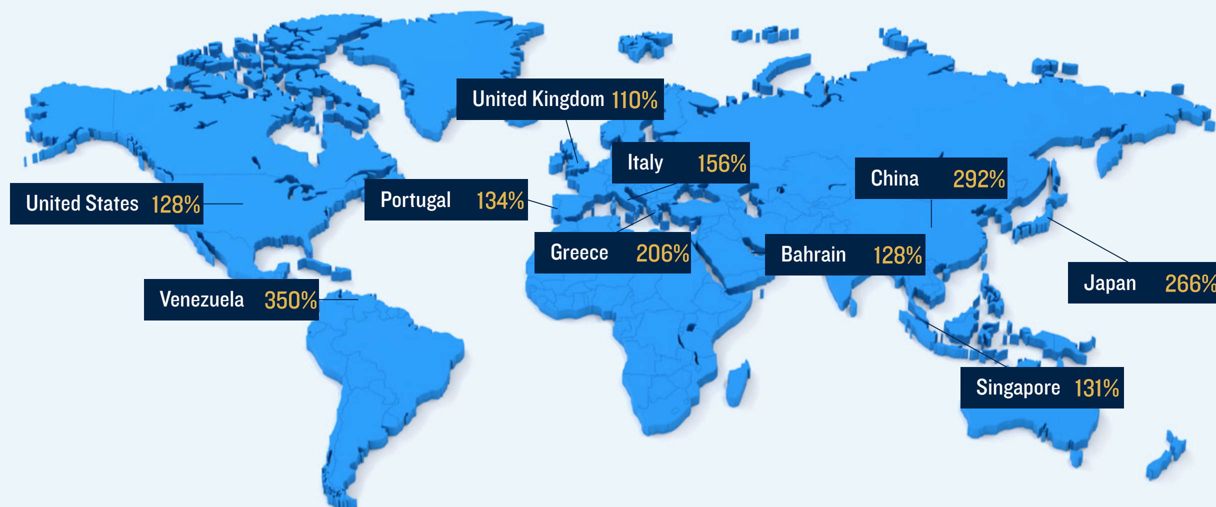
Total Global Debt Surpassed $300 Trillion in 2021



Source: Institute of International Finance + Reuters

Today, a range of developed and developing countries have elevated debt levels. This may well indicate where some of the greater risks of financial crises lie.

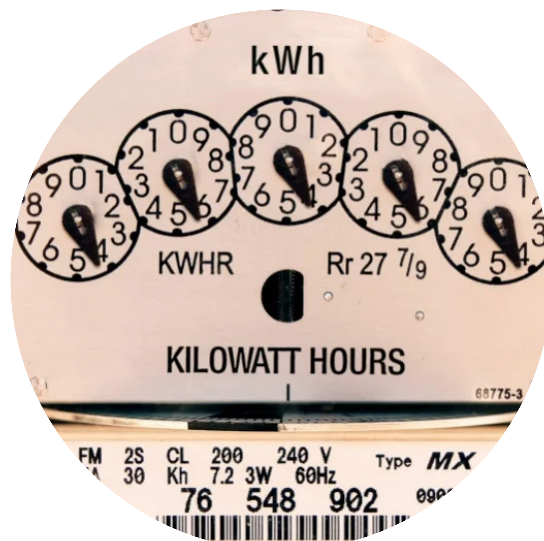
Notable Indebted Countries Debt-to-GDP ratios (%)



Sources: World Population Review, UK Office of National Statistics (October 2022), Bank of International Settlements (Q2 2022)

Energy Costs Fuel Debt

Even now, pressures on debt are rising due to the expense of energy bills in Europe's winter. In Germany, the cost of the energy support package intended to protect residents from soaring gas and electricity prices has been reported at €200 billion, while the UK support package is expected to cost tens of billions of pounds.



Bull Markets Turn to Bear

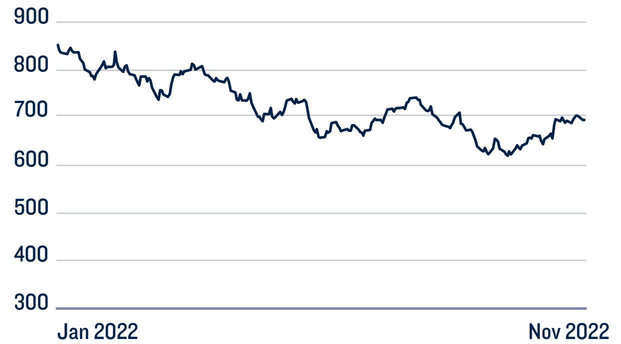
In the 2010-2020 decade of cheap money, asset prices surged. There was a bull market in bonds, equities and real estate. Since the Federal Reserve made clear that it was determined to conquer inflation by raising rates at the end of 2021, though, the bull market has turned to bear. Unusually, all asset prices are falling together.

Equities rise for a decade…

FTSE Global All Cap Index rise
Jan 1 2010 – Dec 31 2021

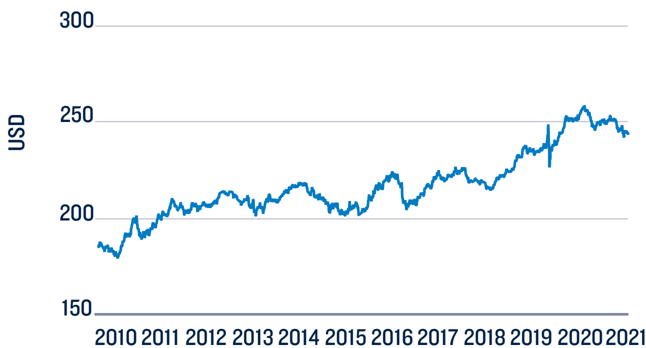
Stagnation follows in 2022

FTSE Global All Cap Index
2022 YTD



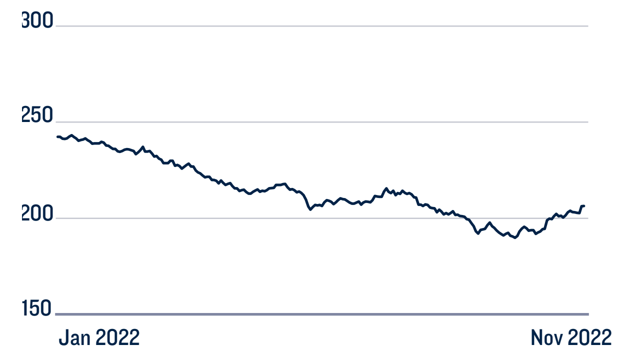
Bonds and the long bull market…

FTSE World Broad Investment-Grade Bond Index
Jan 1 2010 – Dec 31 2021



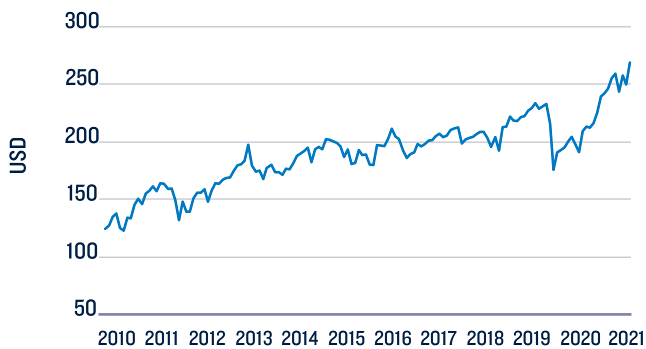
Bonds' relentless 2022 decline

FTSE World Broad Investment-Grade Bond Index
2022 YTD



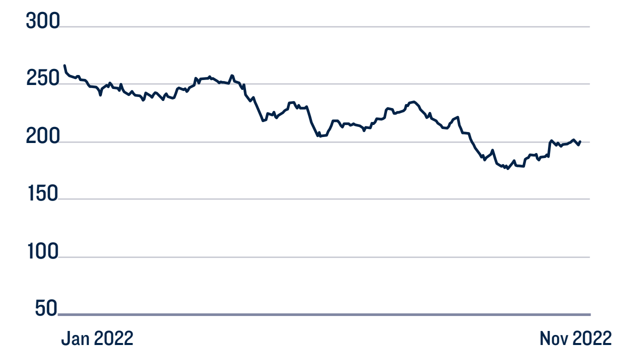
Real estate's rise from 2010 to 2021

MSCI World Real Estate
Jan 1 2010 – Dec 31 2021



2022's correction

MSCI World Real Estate
2022 YTD



Source: Refinitiv

CHAPTER 2

MARKETS BEGIN TO CRACK

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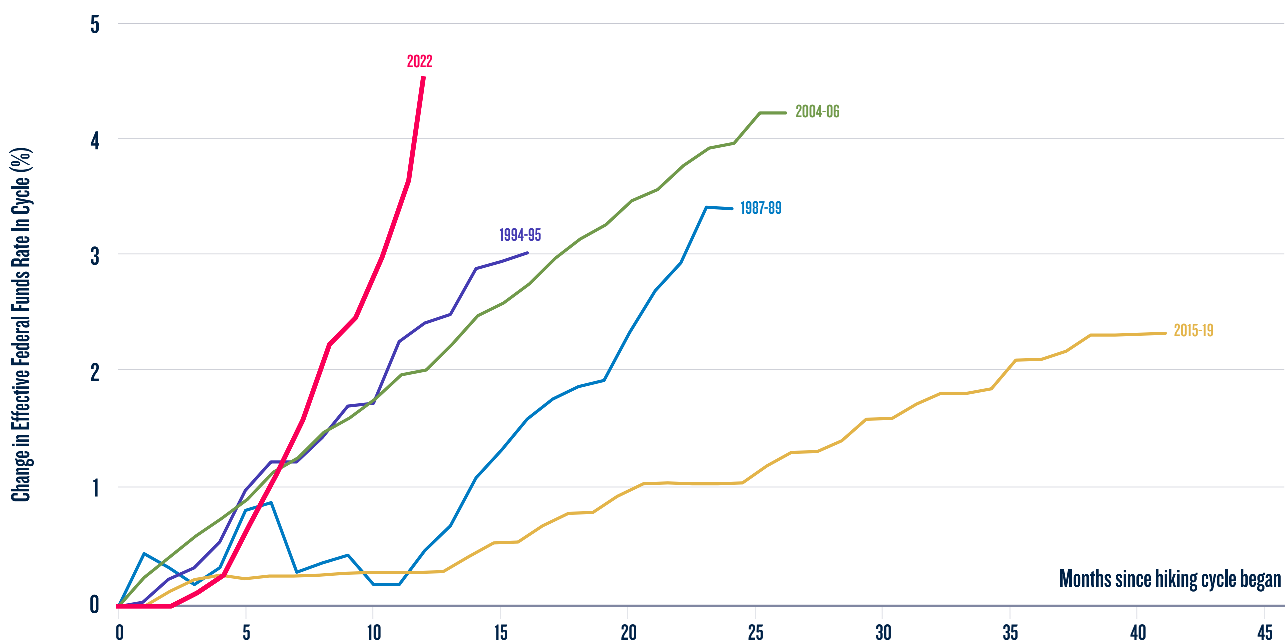
When stress in indebted financial systems rises, the risk of a liquidity crack-up mounts.

At its root is usually a mismatch between the terms of lending or investing and the ability to repay. Financial crises can be triggered by large economic shocks or interest rate rises.

The U.S. Fed's Reserve's Open Markets Committee is ratcheting up the pressure on markets as it raises the fed funds rate at the fastest rate since 1981. In December, the Fed implemented another increase of 0.5%, hoisting its target range to between 4.25% and 4.5%. The range was near zero as recently as March.

The Fed is Hiking Further and Faster Than Any Time In Modern History



Source: Federal Reserve Economic Data

Rising Rates With More To Come?

A recent Reuters poll of economists predicts that the range will reach 4.75%-5% in early 2023 signaling further pressure to come.[1]

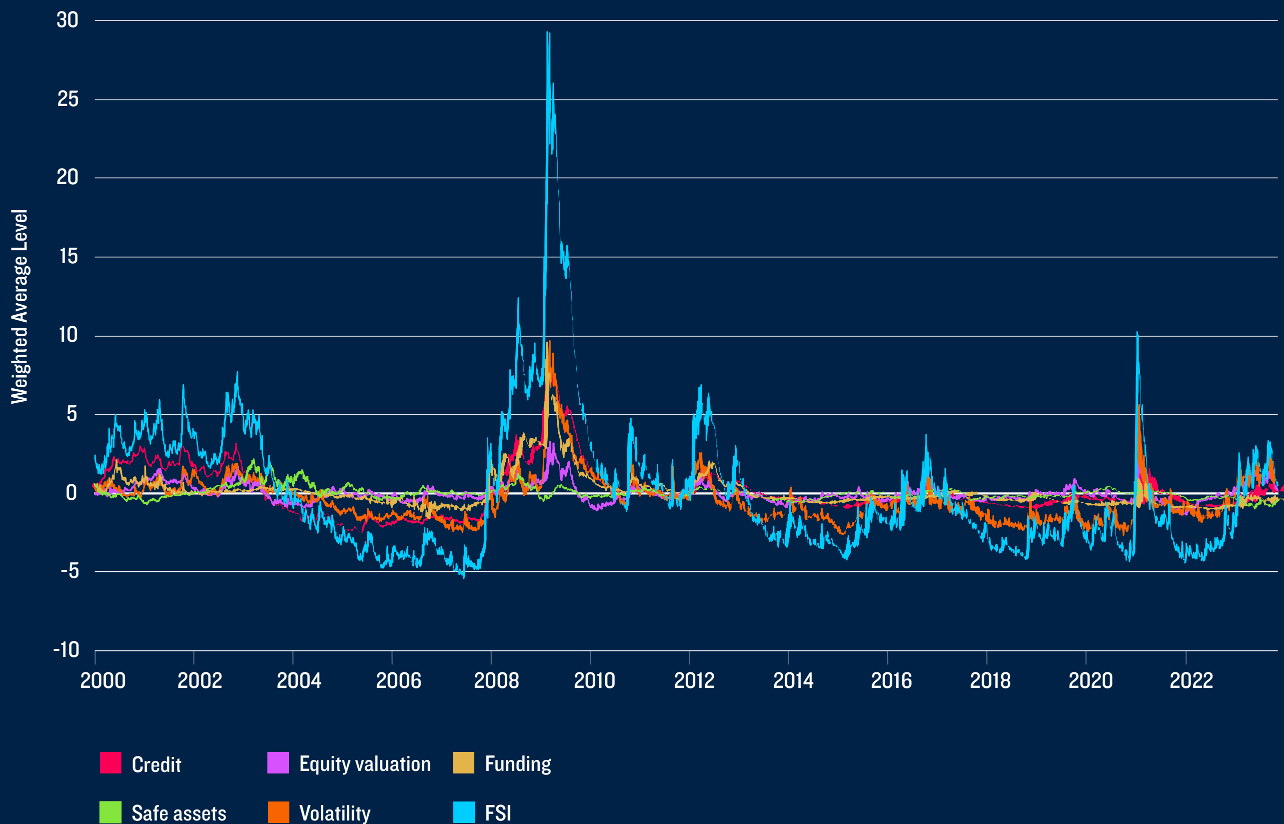
The OFR Financial Stress Index, a widely followed gauge of stress in financial markets, is rising although not to levels of previous crises. The index measures systemic financial stress – disruptions to the normal functioning of financial markets. When the index is zero it indicates that stress levels are normal. But a positive index such as today's indicates that stress is above average.

4.75-5%

PREDICTED HIKE RANGE OF FED FUNDS RATE IN 2023.[2]

Source: Reuters

OFR Financial Stress Index



Source: Office of Financial Research

1 Ghosh, I. (2022) *Fed to take rates higher than previously expected; More pain ahead: Reuters poll*. Reuters. Available at: https://www.reuters.com/markets/us/poll-fed-take-rates-higher-than-previously-expected-more-pain-ahead-2022-09-28/ (Accessed: 2022).

2 Schneider, H. and Saphir, A. (2022) *Fed delivers another big rate hike; Powell vows to 'keep at it', Reuters.* Reuters. Available at: https://www.reuters.com/markets/europe/fed-set-big-rate-hike-waters-get-choppy-worlds-central-banks-2022-09-21/ (Accessed: 2022).

UK Gilts Crisis

The UK's gilt market crisis, triggered by the government's "mini-budget" of September 23, signalled the fragility in markets. They fell and their yields soared as investors sold alarmed by the scale of unfunded tax cuts. The selling pressure was compounded as UK defined benefit pensions' liability-driven investment (LDI) funds struggling with liquidity sold further gilts to meet margin calls. 30-year gilt yields rose from under 3.5% before the announcement to over 5%.

In response, the Bank of England stepped in to buy gilts to avoid the funds collapsing. The Bank also forced LDI funds to build up their liquidity defenses, stating publicly that more "stresses" could emerge as global financial markets adjust to the rapid rise in interest rates, with the "weak" points primarily in non-bank financial institutions like leverage funds.[3]

UK Long-Term Borrowing Costs Swing

Source: Refinitiv

3 Jones, H. (2022) *Bank of England says LDI crisis shows non-banks need stronger rules, Reuters*. Reuters. Available at: https://www.reuters.com/world/uk/bank-england-says-ldi-crisis-shows-non-banks-need-stronger-rules-2022-10-19/ (Accessed: December, 2022).

Japanese Yen Fragility

UK government bonds are not the only sign of fragility in financial markets. At the end of November, the yen had lost more than 15% of its value against the dollar in 2022, as Japan's zero interest rate policy radically contrasted with the US Federal Reserve's rapid tightening.

Extreme dislocations in markets such as this can put pressure on debt-funded positions and spark liquidity crises.

Yen's Decline vs. Dollar Year-to-Date

Source: Refinitiv

WHERE ARE TODAY'S UNKNOWN FRAGILITIES?

CHAPTER 3

WHERE ARE TODAY'S UNKNOWN FRAGILITIES?

An unintended consequence of the regulation of banks that followed the GFC is that leverage has shifted to non-bank financial institutions that are harder to monitor.

In 2000, non-banks held $51 trillion of financial assets, compared with banks' $58 trillion, according to the Financial Stability Board. Its latest data shows that non-banks held $227 trillion in financial assets at the end of 2020 – far greater than banks at $180 trillion. That means no one knows exactly where leverage is and where financial risks might be lurking.

Here are five areas where liquidity could suddenly disappear:

1. **Government bond markets**
2. **Housing finance**
3. **Emerging markets**
4. **Leveraged finance**
5. **Japan's Next Move**

1. GOVERNMENT BOND MARKETS

An unintended consequence of the regulation of banks that followed the GFC is that leverage has shifted to non-bank financial institutions that are harder to monitor.

Government bond markets are finding that liquidity increasingly tends to evaporate at moments of stress.

One reason is that big banks no longer act as market makers, due to tighter regulatory controls. Apart from 2022's gilts crisis, this illiquidity sparked a near-disaster in treasuries in March 2020 and some observers fear that a so-called "volatility vortex" in U.S. markets could happen again. An index of market liquidity recently descended to the lows not seen since March 2020.

ICE BofA U.S. Treasury Index

Source: Refinitiv

Markets are in a much more fragile place, with terribly liquidity. The way I think about fragile market function is that the odds of a financial market accident are just higher."

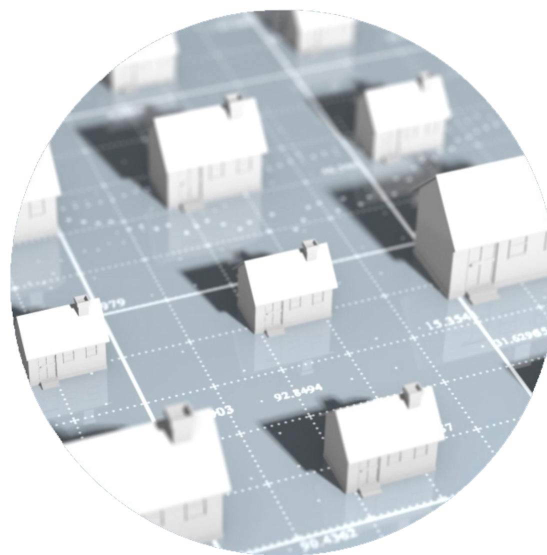
GREGORY PETERS

Managing Director and Co-Chief investment Officer of PGIM Fixed Income

2. HOUSING FINANCE

A surge in mortgage rates across much of the rich world will almost certainly cause house prices to fall.

Much depends on how far house prices have risen or whether homeowners have borrowed with long-term fixed rate mortgages or floating rate mortgages that are highly sensitive to movements in interest rates. These could feed through into losses for non-bank financial institutions. Sweden and Norway are thought particularly vulnerable due to the high level of households with variable rate mortgages.



Housing Risk Indicators

Housing Risk Indicators, Selected Countries	Policy Rates %-point increase Jan 1 2021 - Dec 15 2022	House Price to Income Ratio 2015 = 0 - Q3 2022 or latest available †	House Prices % increase 2019-Q2 2022
Australia	3.1	119.53	26.7
Canada	4.25	143.06	41.7
Denmark	1.25	118.56	18.8
Finland	2	96.72	14.1
France	2	112.76	17.2
Germany	2	140.59	28.1
Ireland	2	114.66	21.8
Italy	2	92.38	9.7
Luxembourg	2	148.66	34.7
Netherlands	2	151.71	39.7
New Zealand	4.25	147.28	38.1
Norway	2.5	113.93	26.4
Portugal	2	149.41	29
Spain	2	125.06	5.3
Sweden	1.75	115.6	32.2
United States	4.5	139.65	45.3
United Kingdom	3.5	121.57	23.6

† The price to income ratio is the nominal house price index divided by the nominal disposable income per head and can be considered as a measure of affordability

Sources: Knight Frank Research, Macrobond, OECD; Refinitiv Datastream

Sources: Reuters Plus compiled statistics, Knight Frank Research Macrobond, OECD, Refinitiv, Hypostat

3. EMERGING MARKETS

Once again, emerging markets are a source of worry as outflows from the countries' stocks and bonds reach high levels.

Many developing countries are suffering from depreciating currencies and rising borrowing costs, driven by the U.S. Fed's rising rates, with the IMF recently estimating that 30% of emerging markets are at or near debt distress, as yields exceed 10% *(see 10% club chart)*.[4]

Emerging market foreign currency bonds are now trading at high premiums to U.S. Treasuries in signs of extreme stress. High reliance on short-term funding and foreign exchange borrowing leaves some emerging markets more exposed to changes in market sentiment and rising short-term dollar borrowing costs.

The 10% Club – countries with yields exceeding or close to 10%

Source: Refinitiv

4 Georgieva, K. (2022) *Facing a darkening economic outlook: How the G20 can respond, IMF.* IMF. Available at: https://www.imf.org/en/Blogs/Articles/2022/07/13/blog-how-g20-can-respond (Accessed: December 2022).

4. LEVERAGED FINANCE

European Central Bank officials have reportedly been telling banks to cut down on extending debt top highly leveraged borrowers.

The ECB has warned of "significant deficiencies" in how banks evaluate and manage risks associated with this type of credit. Risks in leveraged lending have continued to increase, with global primary issuance reaching a new record of $4 trillion in 2021 while underwriting standards fell, according to the European Central Bank.[5]

5. JAPAN'S NEXT MOVE

The possibility of a disorderly exit in Japan from its ultra-easy monetary policy is causing anxiety.

Since 2016, Japan has capped its interest rates at close to zero by buying bonds in a policy called yield curve control.

With yields rising around the world, though, pressure is rising on the central bank to exit this policy early in 2023. Should it do so, there are fears that interest rates would swiftly move significantly higher, impacting investors in assets like Japanese government bonds who have taken comfort in the cap to leverage their holdings to increase returns. They could suffer large losses and margin calls, with reverberations throughout global markets.

5 European Central Bank. (2022) *Financial Leverage and banks' risk controls, European Central Bank - Banking supervision.* Available at: https://www.bankingsupervision.europa.eu/press/interviews/date/2022/html/ssm.in220330~7ce6fc8b35.en.html (Accessed: December 2022).

CONCLUSION

As central banks prioritize price stability over financial stability, the risks of a crack-up remain even though inflation appears to be easing from its highest levels

For now, it's important to note that there's no immediate indication that a major crisis will occur. But central banks have a delicate path to tread as they strive to quell inflation at a time of high debt and evident financial vulnerability.

Across financial markets, there are dangers of hidden risks accumulated in yesterday's era of super-low interest rates. These risks may lie in the public sector where governments have borrowed hugely through the pandemic and energy crisis.

Alternatively, they could be the result of investor leverage, as positions assumed to be low risk suddenly turn out to be far higher risk when interest rates rise. If sudden risks to financial stability crystallize, the Fed and other central banks might have to pause or even halt their monetary tightening.

"Macro conditions will be very difficult over the next two or three years. I strongly suspect that this is going to elicit significant political ructions and problems in the stability of our financial system. So, you're likely to see important unknown unknowns turn up. And our portfolios therefore have to be both defensive and diversified."

DR. SUSHIL WADHWANI
Chief Investment Officer, PGIM Wadhwani

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