INSIGHT

QUARTERLY MARKET REVIEW

Q3 2023

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PODCAST

OVERVIEW

The search for a new balance

EUROZONE

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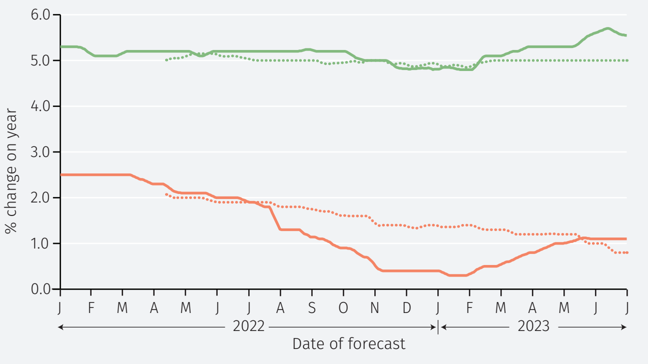
OVERVIEW

The search for a new equilibrium will, we think, be a key theme for the remainder of 2023. In economies, that search relates to growth and inflation. In financial markets, it entails finding sustainable bond yields.

Growth: the search for stability
Pre-Covid, the pattern of global growth was relatively stable. Certainly, after the Covid-era gyrations, that is how it seems in retrospect. In the five years 2015-2019, global growth was around 4% p.a. China (with a rate around 6-6.5% p.a.) led the developing economies; the US (around 2-2.5% p.a.) led the advanced economies. In both, however, demographic and productivity trends argued for some steady slowing of growth in the future. If that is a reasonable view of the long-term picture, consensus forecasts for this year and next (see Figure 1) suggest we may be close to those equilibrium levels.

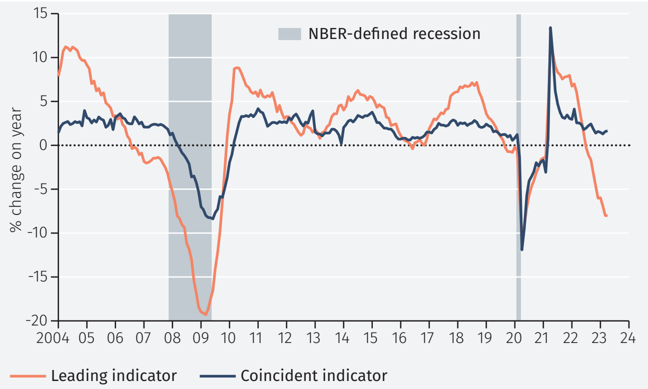
1. US and China: consensus forecasts for GDP growth



Source: Bloomberg. Data as at 1 July 2023.

But there are reasons for doubt. In the US, coincident indicators still show strength in the economy but leading indicators (see Figure 2) suggest weakness. In particular, the inverted yield curve signals a recession may well materialise later this year. Across all advanced economies, core inflation remains sticky and the lagged effects of higher interest rates are yet to be fully seen.

2. US: coincident and leading indicators



Source: The Conference Board, NBER and EFGAM calculations. Data as at 1 July 2023.

In China, doubts around growth surround the fact that short-term indicators – retail sales, industrial production and those relating to housing – are softer than hoped for earlier in the year. The youth unemployment rate has risen to 20% - a development redolent of the eurozone peripheral economies in their crises ten years ago. More policy stimulus in China will, we expect, be forthcoming. But if there is one lesson from the Global Financial Crisis that is relevant to China it is that cutting interest rates and easing monetary conditions are less effective when the banking system is not functioning properly and the private sector has borrowed heavily. That, unfortunately, seems to be the picture in the Chinese economy. Adding to those concerns are adverse demographics, poor relations with the US and questions over the conduct of policy (especially after the rapid retreat from zero Covid). Some see this combination as so adverse that China is 'uninvestable'. The obvious corollary is that it is still a strongly growing economy, with undoubtedly high competitiveness in many sectors and an equity market that is not expensively valued. That tension between the key issues is not likely to be resolved this year or next.

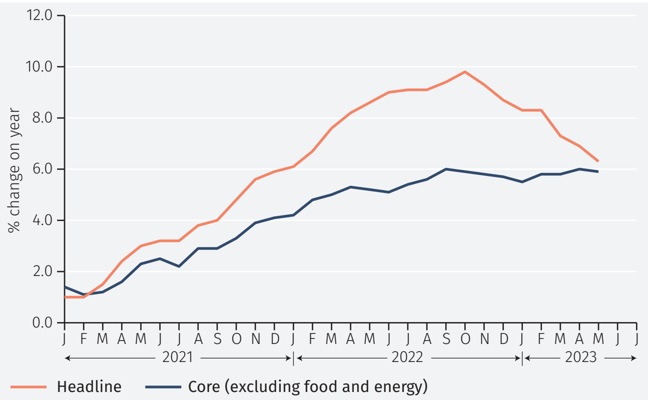
US-China; advanced-developing worlds
The position of the US and China as leaders of their respective advanced and developing economy universes is also in question. Japan's economic and corporate renaissance continues; Europe's strengths (in technology and innovation) are most likely underappreciated; and the peripheral eurozone economies are a source of dynamism. US dominance can be questioned.

In the emerging economies, India has overtaken China as the world's most populous economy. It has a younger demographic profile and is clearly providing an alternative to China as a manufacturing centre, building on its strength in business services. The Gulf economies have the financial resources for substantial green infrastructure development. Economies in Africa and Latin America are able to provide the raw materials for that transition and several are strong in their own right: Chile as a leader in clean energy, for example. This potential for a multi-decade transformation of the global economic landscape is huge.

Across the developed and emerging markets, however, the near-term attention is still on inflation and policy.

Inflation: the sticky core
In the US, as in other advanced economies, headline inflation rates have declined but core inflation remains sticky (see Figure 3). One common reason for higher core inflation is stronger wage growth. But when the messaging around

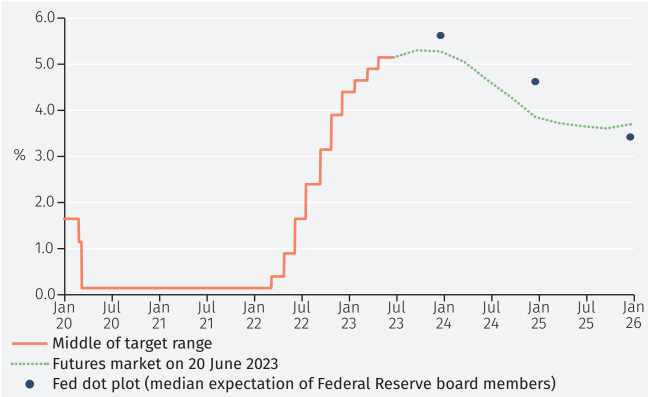
3. Advanced economies: falling headline, sticky core inflation



Source: Refinitiv and EFGAM calculations. Data as at 1 July 2023.

for example, a US recession starts to seem more likely but the Fed continues on a path of higher rates (the 'dot plot' shown in Figure 5) market dislocation could result.

5. Fed Funds rate: actual and expected paths

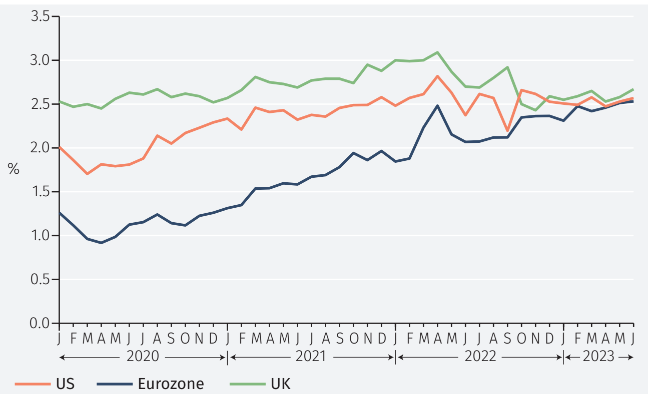


Sources: Refinitiv and US Federal Reserve. Data as at 1 July 2023.

inflation control starts to emphasise wage restraint, the former technocratic success of central bank inflation targeting enters a messier political arena.

The good news is that longer-term inflation expectations (see Figure 4) have stabilised – suggesting that some new equilibrium has been found. And in the US, we seem to be nearing the peak in policy interest rates. There, and to some extent elsewhere, there is some acceptance of the case for waiting to assess the lagged effects of previous tightening. China should not be forgotten in this respect. It has no inflation problem – the headline and core inflation rates are close to zero. For many years it was the exporter of deflation to the rest of world. The 'China price' was the global phenomenon moderating global inflation. That may well happen again.

4. Expected inflation rates (5-year average, 5 years ahead)



Source: Refinitiv. Data as at 1 July 2023.

Policy rate games

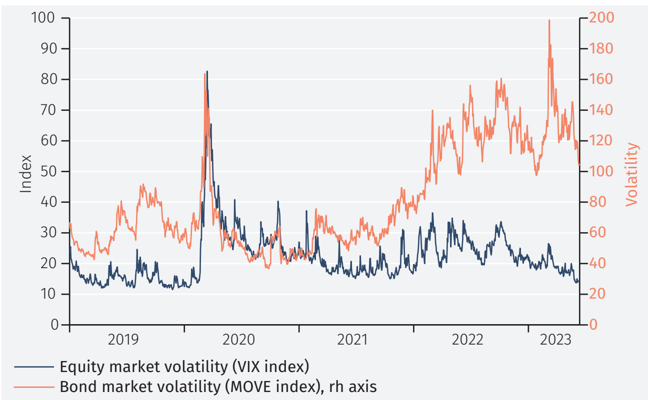
The interaction of market expectations and actual policy rate changes will remain a central feature in the rest of the year. If,

Calm equities, more nervous bonds

Having said that, some element of calm has returned to markets since the upheavals brought about by the banking sector problems earlier in the year. Lower volatility has been a particular feature of the equity market (see Figure 6) where the market's 'fear gauge' – the VIX index of implied volatility – has returned to pre-pandemic lows. A similar measure for the bond market is still elevated but has recently trended lower.

These trends could, of course, be the calm before another storm. But we are cautiously optimistic that a new form of balance and equilibrium can be found in economies and markets over the rest of the year and into 2024.

6. Volatility receding



Source: Refinitiv. Data as at 1 July 2023.

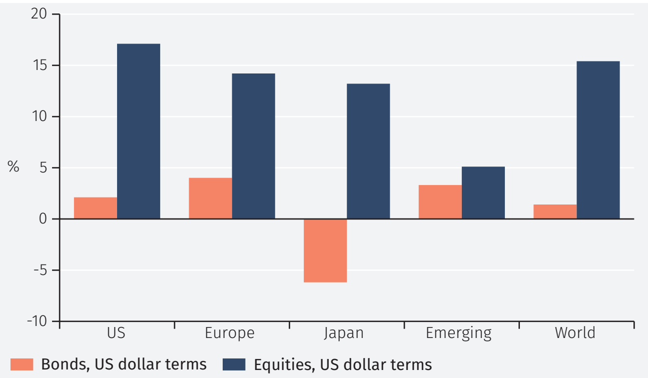
ASSET MARKET PERFORMANCE

The first half of 2023 saw solid gains in equity markets. Concerns about inflation and interest rates weighed on bonds, but returns were still mainly positive. The US dollar weakened against European currencies but rose against the yen.

Asset market performance

Global bond and equity market returns were both positive in the first half of 2023. Returns from bonds were 1.4% and from equities 15.4% in US dollar terms (see Figure 7).[1] Rising inflation and actual and expected increases in policy interest rates pushed up bond yields, with a consequent fall in prices. The US dollar declined around 2% on its exchange rate index, predominantly because of weakness against the major European currencies but it strengthened against the yen.

7. Asset market performance



Sources: Barclays Bloomberg (bonds); MSCI (equities). Data for year to date as at 1 July 2023.
Past performance is not necessarily a guide to the future.

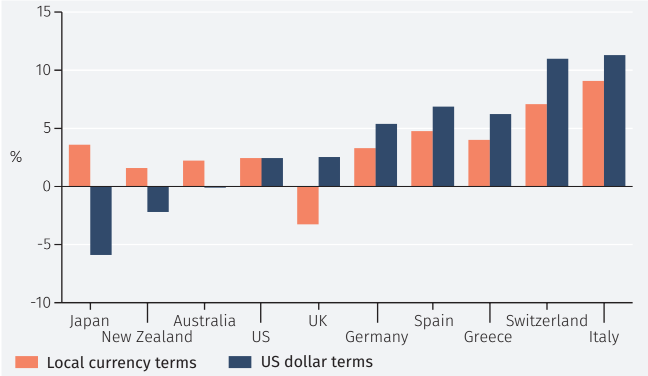
Bond markets

The marked volatility in bond markets in the first quarter of the year gave way to more settled conditions in the second quarter. Local currency returns from 10-year government bonds (see Figure 8) were positive in all markets except the UK, where renewed concerns about inflation weighed on the market.

The strength of the major European currencies (including sterling) against the US dollar meant that returns in US dollar terms were positive, with strong returns in Italy, Greece and Switzerland, in particular. The benchmark US 10-year bond yield reached a peak of over 4% in early March but fell back to 3.8% by the end of the first half. 10-year yields rose in all markets apart from Switzerland, where there was a modest decline.

The yen's renewed weakness was a notable feature of the first half of the year. Against the US dollar, it declined by 9%.

8. Bond market returns

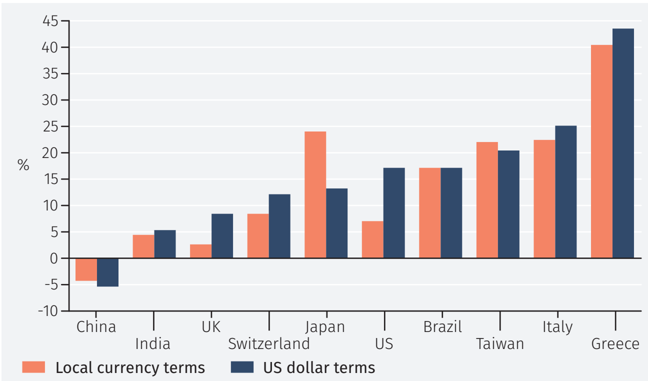


Source: Refinitiv. 10-year benchmark bond total returns. Data for year to date as at 1 July 2023.
Past performance is not necessarily a guide to the future.

Equity markets

The overall 17.1% returns from the US equity market (see Figure 9) in the period owed much to the renewed strength of large cap, particularly technology, stocks after poor performance in 2022. The strength of technology stocks was also behind the strong gains from the Taiwanese market. Although local currency returns in Japan were strong, at 24%, these were undermined in US dollar terms by the yen's weakness. In Brazil, 7% local currency returns were augmented by the Brazilian real's strength, to give 17% returns in US dollar terms (see page 10). Concerns about the relatively muted recovery in China's economy weighed on that market. Two European markets – Greece and Italy – produced strong returns. Ten years after the eurozone crisis, there has been a reappraisal of those economies (see Page 7).

9. Equity market returns



Source: MSCI. Data for year to date as at 1 July 2023.
Past performance is not necessarily a guide to the future.

[1] Global bond returns are measured by the Bloomberg Barclays Global Aggregate Bond Index, which comprises government and investment grade corporate debt from developed and emerging markets issuers in 24 countries. Global equity returns are measured by the MSCI World Index which represents large and mid-cap equities across 23 developed markets.

Prospects for US economic growth look stable, according to consensus expectations. Yet recession risk is widely cited. How this situation evolves will be a closely-watched feature of the second half of the year.

Stability or recession? Perhaps both

Consensus forecasts for US economic growth in 2023 have improved since the start of the year (from 0.3% to 1.1%). A slightly slower rate is expected in 2024 (see Figure 10). While that may seem inconsistent with a recession (two quarters of negative growth) it is feasible that we could see both. A modest quarter-on-quarter contraction in GDP in the final quarter of 2023 and first quarter of 2024 could still leave growth in both years (measured by the annual average) positive. If that is accompanied by a return to modest levels of inflation, as generally expected (see Figure 11), then the outlook is a benign one.

10. US consensus forecast for GDP growth

Source: Bloomberg. Data as at 1 July 2023.

11. US consensus forecasts for inflation

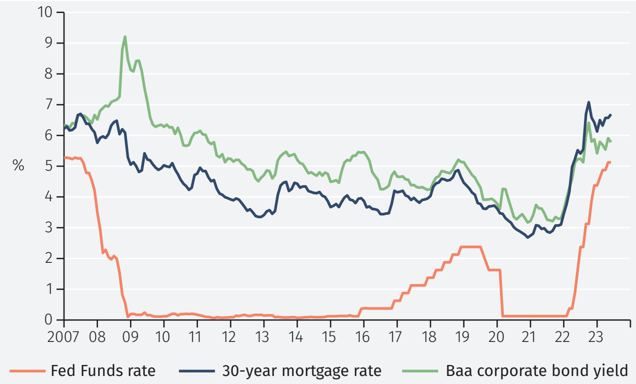
Source: Bloomberg. Data as at 1 July 2023.

Transmission from the inverted yield curve

Certainly, the inverted US yield curve suggests the likelihood of a recession around year end. The yield curve became inverted (three-month Treasury bill rates moved above 10-year bond yields) in December 2022. With the average lag between inversion and recession of around one year, and inversion preceding every recession since 1960, the risk is clear.

However, an important note of caution comes from the housing market. Although housing investment accounts for only a small proportion of the overall level of GDP, a downturn in such spending has been the proximate cause of all previous recessions. Indeed, one argument is that the business cycle is the housing cycle.[2] The sharp rise in 30-year mortgage rates (see Figure 12) clearly affects the affordability of those taking out increased mortgages. But this effect is generally slow-acting.

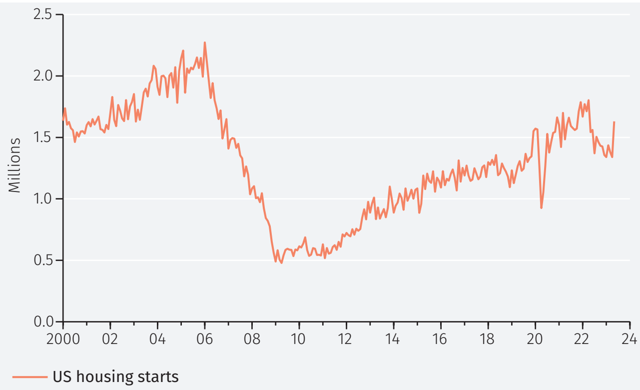
12. US Fed Funds, mortgage and corporate bond rates



Source: Refinitiv and FRED. Data as at 1 July 2023.

In response to higher mortgage rates, it may be that transactions just slow, rather than prices fall. At the same time, the US has had, for some time, a shortage of new housing. That has been accentuated by a change in the structure of housing demand as a result of changed working practices. Housing starts have recently shown a sharp rebound (See Figure 13). So, although the business cycle may well have been the housing cycle in the past, there is no doubt that this time the two cycles look different.

13. US housing starts



Source: Refinitiv. Data as at 1 July 2023.

[2] Edward E. Leamer, 'Housing is the business cycle', *NBER Working Paper 13428*. http://www.nber.org/papers/w13428

The Bank of England is committed to returning inflation to target but progress is slower than hoped. We doubt that the new approach of moral suasion will be effective.

Getting back to target

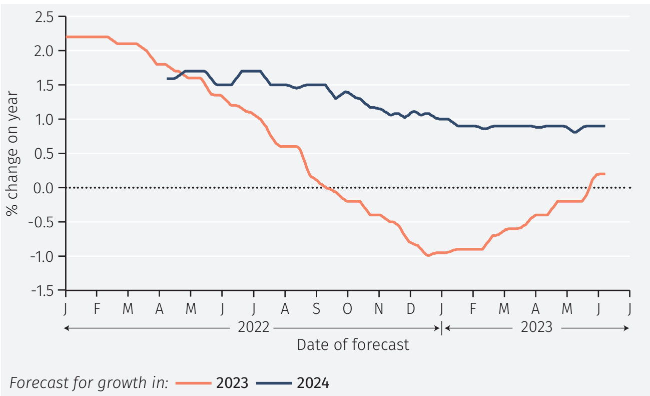
"We will get inflation back to its target. To do that…we cannot continue to have the current level of wage increases and we can't have companies seeking to rebuild profit margins".

14. UK inflation: still stuck

Source: Refinitiv. Data as at 1 July 2023.

So said Bank of England governor Andrew Bailey after the decision to raise the Bank's policy interest rate to 5% on 22 June, shortly after disappointing inflation data (see Figure 14). It is not at all clear that moral suasion of this kind will work. It has echoes of the failed prices and wages policies the UK (and others) attempted in the 1970s.[3] For now, higher interest rates have not notably damped economic prospects (see Figure 15). If the principle of "if it's not hurting it's not working" is employed, more tightening may be needed.

15. UK consensus forecast for GDP growth



Source: Bloomberg. Data as at 1 July 2023.

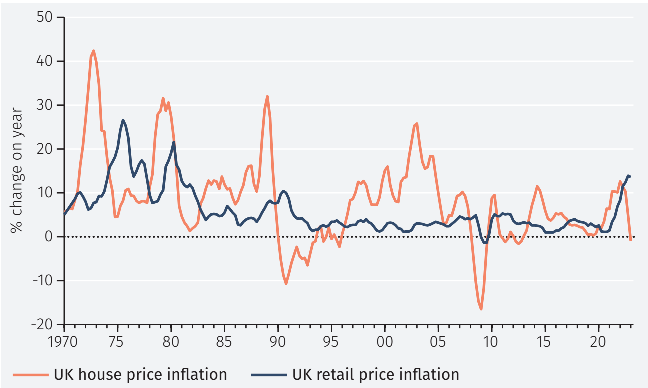
Hurting and working

That is also the conclusion from the Bank of England's own 1999 work.[4] That found that inflation was not particularly sensitive to interest rate changes: a 100 basis point increase in bank rate sustained for a year would cut the inflation rate by 0.3% after three years. That implies the increase in rates so far would cut inflation by only around 1.5% by 2025.

Inflation and the housing market

Higher house price inflation has, in the past, been a leading indicator of more general inflation (see Figure 16), a relationship which seems to have reasserted itself in recent years. The underlying reason seems to be that easier credit conditions are readily transmitted to house prices.

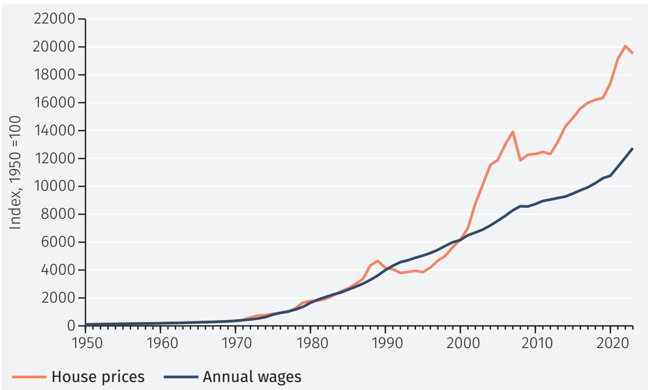
16. UK house prices and inflation



Source: Refinitiv and EFGAM calculations. Data as at 1 July 2023.

It is no surprise, therefore that tighter conditions are now being reflected in house price falls. Longer-term, however, house prices do rise along with average earnings (see Figure 17). That is one aspect of the UK's inflation-prone economy which has brought many winners (home-owning baby boomers) but a frustrated younger generation.

17. UK house prices and average wages



Source: Bank of England Millennium of data database and Refinitiv. Data as at 1 July 2023.

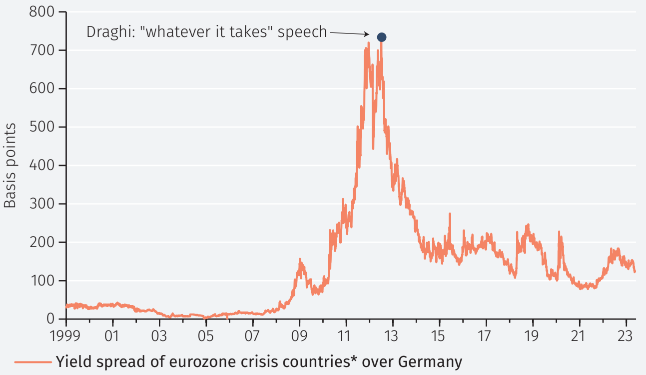
[3] For a summary of the case for, and history of, such controls, see *We need to talk about inflation*, Stephen King (Yale, 2023) Chapter 5.
[4] *The transmission mechanism of monetary policy*, Bank of England, https://tinyurl.com/5eny8mst

Ten years after the most intense phase of the eurozone crisis, several member states are in a much stronger position. Italy's progress has, however, been disappointing.

Anniversaries

On the 25th anniversary of the establishment of the ECB, a euro break-up risk is seen as close to zero and many of the crisis countries are doing well. A sharp widening of the spreads between government bond yields of five countries and Germany (see Figure 18) was the defining measure of the eurozone crisis. In 2012, many thought the euro would break up[5] and despite Mario Draghi's commitment to save the euro, the crisis continued for several more years.

18. Eurozone crisis countries: spreads over Germany



*Greece, Ireland, Italy, Spain and Portugal (10-year yields, GDP-weighted).
Sources: Refinitiv and EFGAM calculations. Data as at 1 July 2023.

Fiscal and structural reforms

Whenever tough reforms are needed in an economy, there is inevitably a loss of output. For the crisis countries, which enjoyed much stronger growth than the core economies in the early years of the euro, that was certainly the case (see Figure 19). Most have recovered that loss but it is notable that Greece and Italy have not. At the other extreme, Ireland, where admittedly GDP measures are distorted,[6] is way ahead of its pre-crisis peak.

19. Eurozone GDP: crisis and core countries

*Greece, Ireland, Italy, Spain and Portugal. **Austria, Belgium, France, Germany and the Netherlands.
Sources: Refinitiv and EFGAM calculations. Data as at 1 July 2023.

Debt and deficits

As a group, the crisis countries have higher government debt levels than the core countries (see Figure 20). But that is entirely because of Italy's high debt level: at 145% of GDP it is above its level a decade ago. All other crisis countries have lower debt levels than in 2012-2013. At 40% of GDP, Ireland seems to be better categorised as a core eurozone member; and Greece's debt reduction is progressing faster than set out in its (final) 2018 support programme. Government deficits (see Figure 21) are now no higher in the crisis countries than in the core.

20. Eurozone government debt: crisis and core countries

*Greece, Ireland, Italy, Spain and Portugal. **Austria, Belgium, France, Germany and the Netherlands.
Sources: Refinitiv and EFGAM calculations. Data as at 1 July 2023.

Italy has also made much less progress with structural reforms than other crisis countries. That is why we think the yield differential between Italian and German government bonds (150 basis points), wider than the equivalent Greek differential (120 basis points), is justified.

21. Government financial balances: crisis and core countries

*Greece, Ireland, Italy, Spain and Portugal. **Austria, Belgium, France, Germany and the Netherlands.
Sources: Refinitiv and EFGAM calculations. Data as at 1 July 2023.

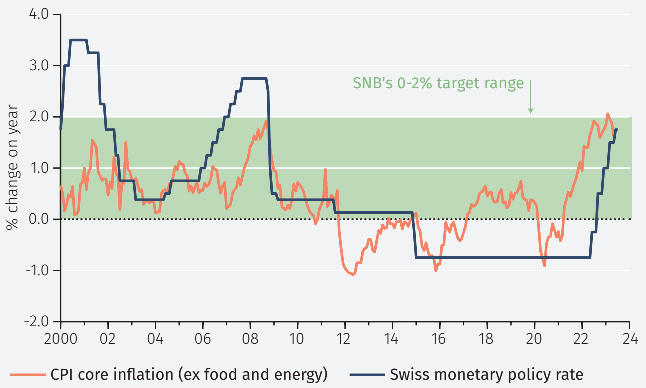
[5] A survey by Sentix in July 2012 found 73% of financial market participants expected the euro to break up in the next 12 months. See www.sentix.de
[6] For a description of the difficulties of using the GDP measure for Ireland see https://tinyurl.com/mhdn7mjf

The Swiss National Bank (SNB) has raised its policy interest rate to 1.75% and a further increase seems likely, given continued concerns about underlying inflation trends.

The SNB signals more rate increases are possible

On 22 June the SNB increased its the policy rate by 0.25%, a smaller step than at previous meetings, bringing it to 1.75% (see Figure 22). Core inflation (excluding food and energy) is, on the basis of our measure, just below 2%.[7]

22. Switzerland: core inflation and policy rate



Sources: SNB, Refinitiv and EFGAM calculations. Data as at 1 July 2023.

The smaller size of the rate adjustment seems to acknowledge that the peak in rates may now be close. However, another 0.25% rate increase in September is a possibility. The SNB has said again that additional rate rises "cannot be ruled out". Furthermore, the central bank remains "willing" to sell foreign currency to strengthen the Swiss franc and limit imported inflation.

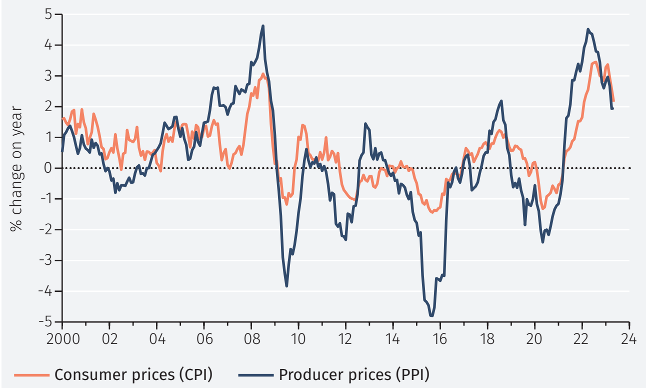
The tightening bias of the SNB reflects the fact that the new conditional inflation forecast for 2024 and beyond is higher than in March despite lower expected inflation in 2023. The end point of the inflation projection remains at 2.1%, only slightly above the 0-2% target range.

Interestingly, the SNB linked the upward revision of inflation to "second round effects, higher electricity prices and rents" and higher inflation abroad. However, the rise in electricity prices announced for January 2024 is not due to increased demand and will eventually be a drag on GDP growth.

Vicious circle

Furthermore, rents, that represent about a fifth of the Swiss CPI basket, will rise because of the indexation to mortgage rates, which have risen following the SNB's policy tightening. The rent indexation mechanism risks creating a vicious circle whereby the SNB increases rates to lower inflation, but inflation remains high, if not higher, due to rising rents. To limit such risk, the SNB could also monitor price developments net of rents. That is the approach used by the Swedish Riksbank (in Sweden rents are also indexed to interest rates). On a more optimistic note, producer price inflation already points to inflationary pressures retreating (see Figure 23).

23. Switzerland: inflation rates



Source: Refinitiv. Data as at 1 July 2023.

Risks to growth?

It is legitimate to ask if, under these circumstances, higher interest rates are appropriate to tame inflation and whether higher rates may be too much of a burden on economic growth, which is expected to be relatively modest in 2023 (see Figure 24).

24. Switzerland consensus forecast for GDP growth

Source: Bloomberg. Data as at 1 July 2023.

The Swiss authorities clearly face issues in addressing higher inflation. But compared to the problems in other advanced economies, their problems do not look particularly burdensome.

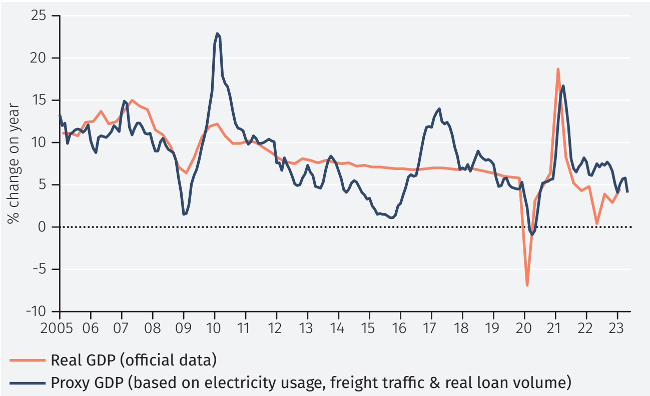
[7] Our measure of core inflation excludes all food and energy prices and is designed to be comparable with the measures used in other advanced economies. The national Swiss measure excludes just fresh foods from the calculation.

China's re-opening has not brought as much strength to the economy as many envisaged. Cyclical and structural forces weigh on growth. There are useful parallels with Japan.

China's stuttering recovery

China's re-opening in early January seems to have brought a relatively short-lived boost to growth. Indicators such as retail sales and industrial production have softened after an initial surge. The proxy measure of GDP growth in Figure 25 indicates a slower trend, although the year-on-year rate will be inflated in the second quarter because of the Shanghai lockdowns last year. This slowing reflects two key trends. First, pent-up demand, fuelled by accumulated pandemic-era savings, has not been as strong as expected. Domestic travel spending is below pre-pandemic levels. Car sales are lower than a year ago. Most importantly, home sales remain weak, indicative of cyclical weakness and longer-term structural issues.

25. China: real and proxy GDP growth

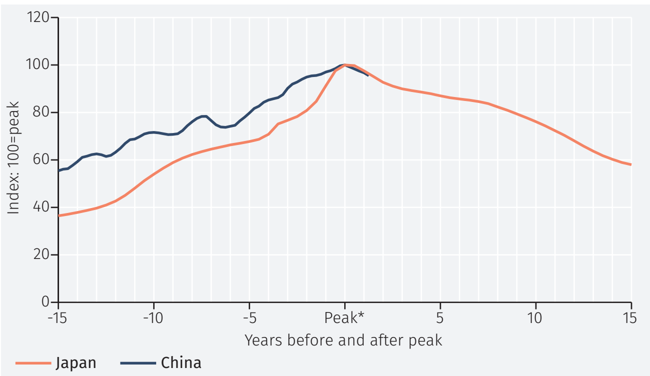


Source: Refinitiv and EFGAM calculations. Data as at 1 July 2023.

House prices and credit: parallels with Japan

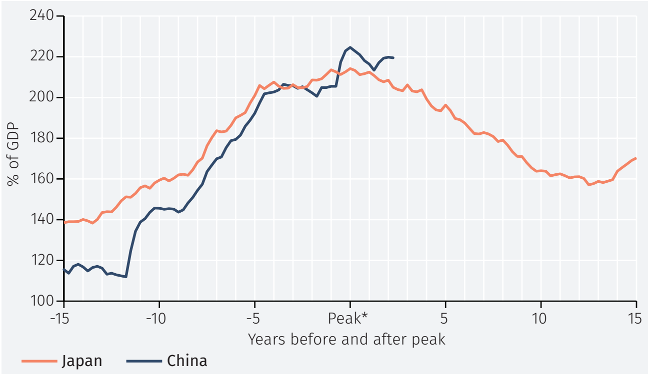
House prices in China's Tier 1 cities[8] doubled in the ten years up to the outbreak of Covid. Although such an increase is not unusual by western standards, there are two concerns. First, Chinese house prices are very high relative to incomes

26. House prices: Japan and China



*Peak is Q1 1991 in Japan and Q3 2021 in China
Source: BIS Residential Property Price indices. Data as at 1 July 2023.

27. Credit to the private non-financial sector, % of GDP



*Peak is Q4 1994 in Japan and Q3 2020 in China. Source: BIS. Data as at 1 July 2023.

– much higher than in well-known expensive locations in the rest of the world.[9] Second, the boom in house prices has been accompanied by a surge in credit to the private sector.

Parallels with Japan's experience of the 1980s can be drawn (see Figures 26 and 27). There, house prices and credit expansion boomed together in the 1980s before reaching a peak in the early 1990s. That was followed by a long period of downward adjustment in house prices and the level of credit provision. Restructuring of the banking system was hesitant and slow. All of those Japanese developments find resonance in the concerns about China now.

But there is one big difference. Japan's credit and house price boom was accompanied by a massive surge in the equity market and valuations. That has notably not happened in China (see Figure 28). But with concerns about the investability of the market remaining, that position is unlikely to change quickly.

28. China equity market

Source: Datastream Total Market Indices. Data as at 1 July 2023.

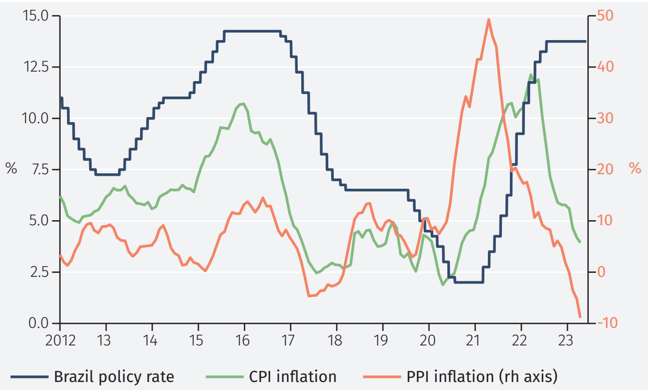
[8] Originally, Beijing, Shanghai, Shenzhen and Guangzhou but the definition has now been broadened to include 15 more cities.
[9] Over 40 times income in the 4 main Tier cities compared to 11 times income, on average, in London, Melbourne, Tokyo and New York. Source: Numbeo, 1 January 2023.

Brazil's early monetary tightening is proving effective in reducing inflation. It provides a test case for the rest of the world. Chile, meanwhile, sets an example in clean energy generation.

Brazil: a test centre for the rest of the world

In a sense Brazil acts as a test centre for monetary tightening. Its experience can guide the rest of the world. The central bank of Brazil started to raise interest rates in March 2021 (see Figure 29), a year before the US Fed first raised rates. That rate increase was in response to a doubling of the consumer price inflation rate (from 3% to 6%) over the previous six months and concerns (justified, as events materialised) about further inflationary pressures. In particular, producer prices were more than 40% above year-earlier levels. There were subsequently eleven further rate increases, with the most frequent step size being 100 basis points. It is too early to declare victory in the fight against inflation but the signs are encouraging. Consumer price inflation fell to just under 4% in May. Producer price inflation is substantially negative, partly helped by the appreciation of the Brazilian real. Consensus forecasts are for inflation to stay around 4% in 2024. If that is the case, then pressures to curb the actions of the central bank – which was only given its independence in 2021 – should recede.

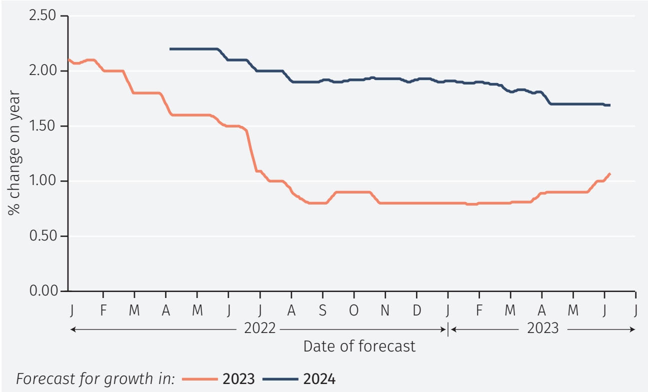
29. Brazil: inflation and policy rate



Sources: Refinitiv and EFGAM calculations. Data as at 1 July 2023.

As to be expected, such tightening brought a weakening of the economy, but so far that has been contained. There was a technical recession in 2021 (two consecutive quarters of a decline in GDP), although it was quite shallow. Furthermore, the widely-expected weakness in the first quarter of 2023 failed to materialise. Indeed, the economy rebounded strongly, mainly offsetting the weakness of the final quarter of 2022. Consensus forecasts for growth in 2023 have been revised slightly higher; and growth of close to 2% is expected in 2024 (see Figure 30).

30. Brazil: consensus forecast for GDP growth

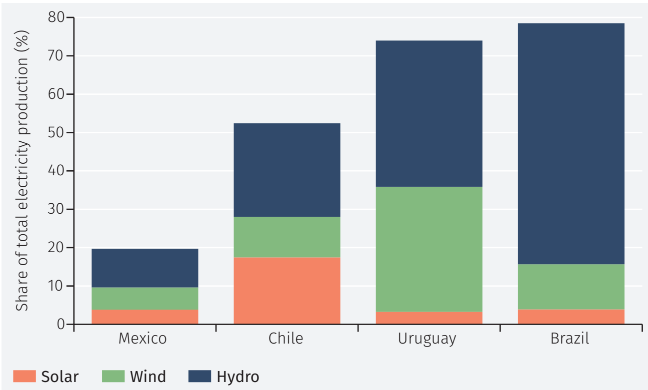


Source: Bloomberg. Data as at 1 July 2023.

Chile: a different type of test centre

Chile acts as a different type of test centre for policies in the rest of the world. It has quickly emerged as a leader in solar power, which now accounts for almost 20% of electricity generation (see Figure 31). With more generation from hydro power, Uruguay and Brazil are still ahead in total clean energy generation. But Chile is ahead in one new development: the use of generated electricity to produce hydrogen (so-called green hydrogen because it comes from clean electricity). The government's National Green Hydrogen Strategy envisages the potential for the country to be a major exporter of hydrogen. That seems a realistic prospect to us.

31. Latin America: clean energy



Source: Ember. Data as at 1 July 2023.

Artificial Intelligence (AI) has been much discussed in 2023. The opportunities and possibilities raised by it are wide-ranging. Few areas of the economy will be unaffected.[10]

OpenAI's ChatGPT became widely available around the start of the year. Many will have used it – to write poetry, help with homework or compose difficult emails. It is a part of the potential AI revolution. But how significant will AI be in shaping work and leisure in the years to come? A SWOT analysis (Strengths-Weaknesses-Opportunities-Threats) is helpful.

Strengths

One of the main strengths of AI is that it can perform complex tasks and processes with great speed and accuracy, leading to increased efficiency and productivity in various industries. In doing so, AI can handle large volumes of data, producing insights into that data and enabling better decision-making and predictive capabilities. Some see the very fact that AI is not human as a limitation but AI algorithms can personalise experiences, recommend relevant content and provide tailored solutions. Repetitive tasks can be handled well by AI, freeing up human resources to focus on more fulfilling, creative endeavours. With AI technology evolving rapidly, continuous improvements and new applications across a range of different industries are in prospect.

Weaknesses

As AI lacks human emotions and empathy, it is arguably less suitable for tasks that require emotional understanding or subjective judgment. AI is dependent on the underlying data which it uses. This data dependence makes it vulnerable to biases. In certain cases, scarce data will limit its usefulness.

AI also raises ethical questions regarding privacy, bias and the potential for job displacement. Careful regulation and responsible deployment of AI techniques will be required. AI may struggle to comprehend complex contexts, sarcasm, or abstract concepts, limiting its ability to fully grasp human communication.

Opportunities

AI presents opportunities for businesses to optimise operations, improve customer experiences and develop innovative products and services. The three stages of human communication can be revolutionised by AI processes coupled with new technology (see Figure 32).

One particular area of interest is advancement in healthcare. AI has the potential to revolutionise healthcare through enhanced diagnostics, personalised treatment plans and drug discovery.

32. Opportunities from AI

Source: EFGAM. For illustrative purposes only.

Automation of routine tasks in industries like manufacturing, logistics and customer service, increasing efficiency and reducing costs, is another opportunity stemming from AI.

AI-driven analytics can provide valuable insights and assist decision-makers in various fields, leading to more informed choices.

Threats

Perhaps the most publicised threat from AI is job displacement. As AI automation increases, there is a concern about job losses in certain sectors. That, of course, has been a threat posed by new technologies for many centuries.

AI systems can be vulnerable to cybersecurity threats, including malicious attacks or unauthorized access to sensitive data.

A lack of transparency is also a concern. Complex AI algorithms can be difficult to interpret and understand, leading to challenges in ensuring accountability and transparency in decision-making.

Finally, over-reliance on AI without proper human oversight or backup plans can lead to critical failures or errors with significant consequences.

[10] A first draft of this text was produced using ChatGPT to "Produce a SWOT analysis of AI". Several humans were involved in producing the final draft.

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