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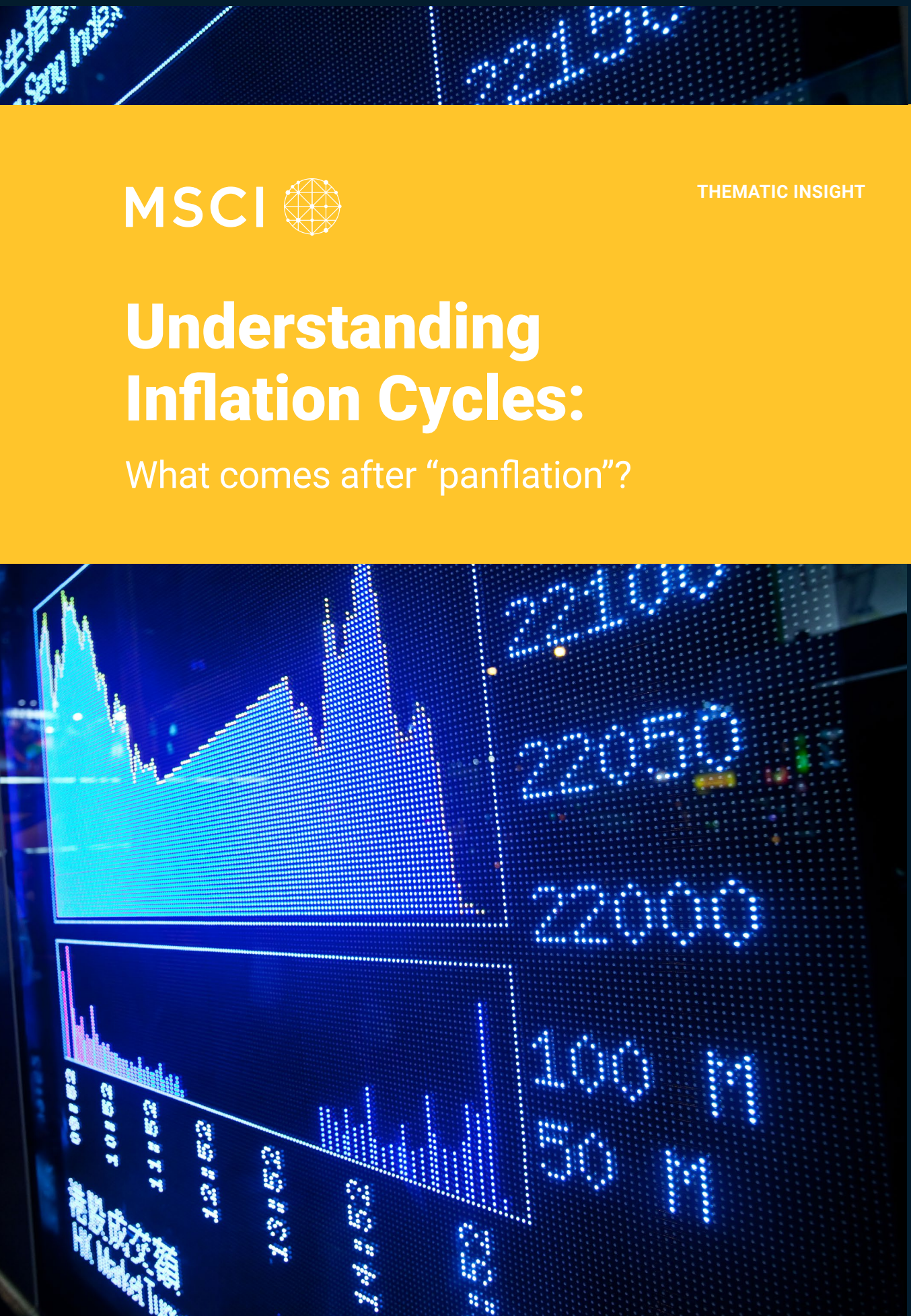
THEMATIC INSIGHT

Understanding Inflation Cycles:

What comes after “panflation”?



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Contents

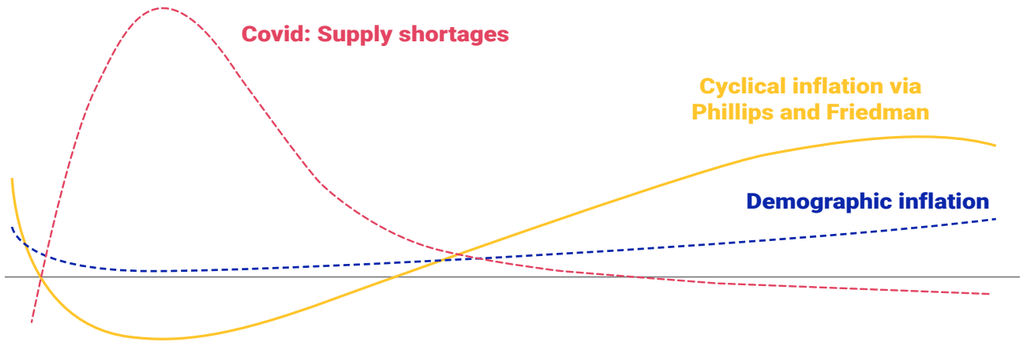
Introduction

Inflation is a dominant topic for financial markets currently but to understand potential future scenarios, it is important to appreciate that there are three inflation cycles in play in the world, not one (Exhibit 1). Too often it seems that it is only the first one -- the most immediate and prominent of the three – that is on the radar of financial markets and mentioned in central bank statements.[1] The other two, while potent, seem to be both misunderstood and marginalized.

Much of the inflation spike observable globally today can be attributed to the effects of the pandemic.[2] We dub this 'pan-flation': the result of a collision between consumption patterns that shifted from services to goods, and of supply chains that were unable to keep up. To this, we now have to add the effects from the tragic events in Ukraine that will create a stagflationary impact through a higher oil price and impede the supply chain further. For example, Russia's 10% share of global nickel exports is critical for electric vehicle production, and a sharp rise in price and lower availability of nickel will hurt auto production just as supply chains were beginning to recover somewhat.

Exhibit 1:
The three inflation cycles playing out in most economies today

Source: Talking Heads Macro



If pan-flation were the whole story then it would be rational to remain relatively relaxed: central banks should be able to act and, in time, likely deliver low and stable inflation. However, the other two inflation cycles have yet to fully materialize. Cyclically-induced inflation that can materialize in overheating economies; and structurally higher inflation resulting from demographic trends seem likely to raise their heads over time. Understanding where, why and when such inflation trends may materialize is critical. We begin with the "easy part": inflation as we know it today and a key component in the cost-of-living crisis in many countries.

1 The Federal Reserve's January Statement only refers to "supply and demand imbalances related to the pandemic" when it discusses the main drivers of inflation.

2 IMF, "Addressing inflation pressures amid an enduring pandemic, December 2021

Pan-flation... the easy part of the inflation puzzle

This is the most synchronized global expansion that many seem likely to see in our lifetimes[3]. Every economy in the world, with the notable exception of China, started the economic recovery process in or close to June 2020 as lockdown restrictions were first eased. Two key characteristics of the recovery have been drivers of pan-flation.

First, many uneven recoveries have combined to make one big global rebound. Even today, many activities in the services sector remain below its pre-pandemic level[4]. In isolation, and particularly since the services sector dominates activity in advanced economies, such a two-track recovery would not usually have led to inflation. However, if an uneven recovery in every economy progresses at the same time, then the aggregate global recovery can be strong. Second, the uneven nature of the recovery shifted global consumption away from services and towards goods at a pace that supply was unable (or unwilling) to keep up with.

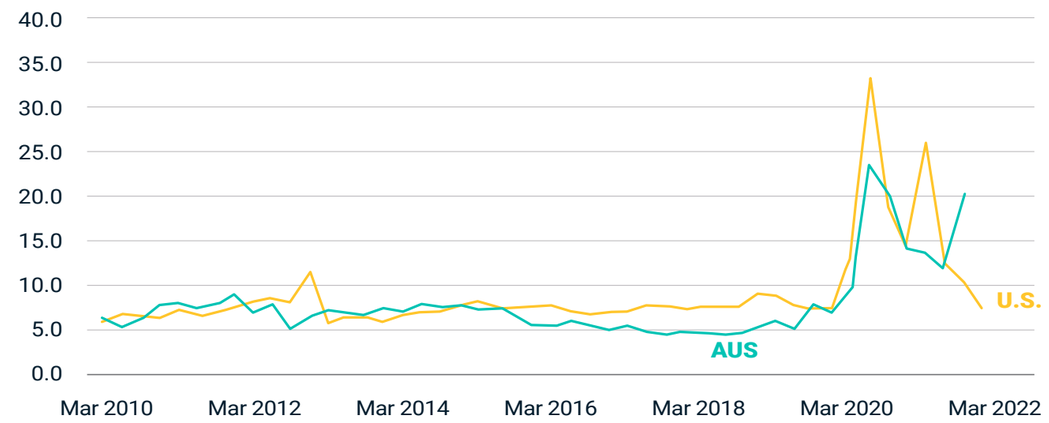
On the demand side of the equation, steady aggregate disposable income and staying home created 'forced savings'. Exhibit 2 illustrates the spikes in household savings coinciding in the initial lockdown, but asynchronous second spikes reflecting the earlier second wave in the US and a later second lockdown in Australia. Lockdowns effectively create an income and substitution effect. The new (lockdown) consumption basket, lighter than usual on services, leaves the households with more savings in the bank (an 'income effect'), and yields a much greater ability to consume goods (a 'substitution effect' that internet retailers and the manufacturing sector have benefitted from). Forced savings were transformed into stronger consumption, particularly of goods.

3 Kansas City Fed research shows the advanced economies recovering from the Great Financial Crisis over different months over 2008, with the global recovery commencing in February 2008. See Fushing et al, "A Chronology of International Business Cycles Through Non-Parametric Decoding", Research Working Paper 11-12, October 2010. By contrast, the pandemic created a very short recession which ended across most advanced economies over June and July 2020.

4 Brookings, Sep 2021, "11 Facts on the Economic Recovery From the Covid-19 Pandemic"

Exhibit 2:
US vs Australia savings rate surged during lockdowns

Source: Australia Bureau of Statistics, FRED St. Louis



On the supply side, capacity has seemed unable (and partly, through caution or logistics, unwilling) to keep up with any surge in demand. Producers may be naturally 'looking through' the surge in demand and increasing production capacity far more modestly than today's demand needs. The mismatch between the surge in the demand for goods, and the inability/ unwillingness of supply to respond has created the pan-flation: the covid-related inflation in the price of energy needed to produce goods, and the price of goods themselves (Exhibit 3).

Exhibit 3:
US inflation fuelled by manufactured goods in the post-pandemic recovery

Source: FRED

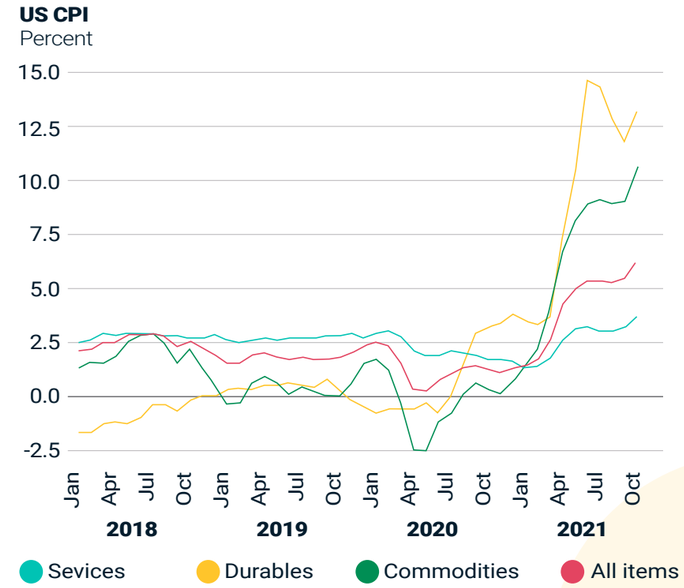
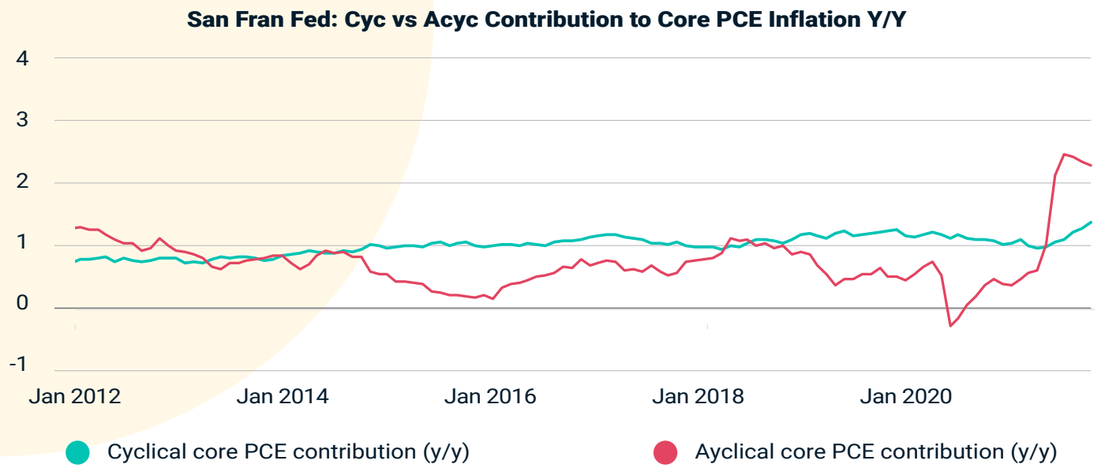


Exhibit 4:
Covid-related 'acyclical' inflation has spiked relative to core inflation

Source: Federal Reserve Bank of San Francisco



Consistent with this, the San Francisco Fed has estimated that the contribution of pan-flation, which it captures as 'acyclical' inflation, to overall inflation has risen sharply (Exhibit 4).

There have been a few notable exceptions: Sweden among the advanced economies and South Africa in emerging markets have both displayed persistently low inflation until very recently. But this divergence is more about economic structure than policy. Sweden uses little gas for energy and so has skirted the effects of high gas prices. South Africa has an unusually high share of services (60% vs 25-40% for most emerging markets) and services inflation has remained low in most countries (though, as we will see, that has the potential to change over time).

The most recent shock to inflation has come from the sharp increase in oil prices following the Russian invasion of Ukraine. This creates quite a dilemma for central banks, particularly the Federal Reserve. Thus far, faced with excess demand and high inflation, raising policy rates was a natural response with aim of bringing both to more manageable levels. Now, high oil prices will push prices higher but hurt growth and recovery. It is likely that advanced economy central banks will not be able to fight inflation as aggressively as they otherwise would have. The result is that conditions could remain more accommodating for inflation to stay elevated even over the medium term.

The risks from inflation don't stop with pan-flation. If anything, the latest oil shock exacerbates the medium-term threat of inflation.

Demography, China and an end of a 35-year disinflationary anchor?

Imagine inflation as a helium balloon held down by a mass of weights. Over time, the helium escapes and the weights pull the balloon back to earth. Helium is the upward pressure of an overheating economy, while the (disinflationary) weights have been, in large part, the structural forces of demography embodied in China's disinflationary economy. That has been the story of inflationary episodes in business cycle over the last 35 years. However, those forces may be set to reverse as the world ages. If China's disinflationary influence period is behind us then whose weights can hold down the balloon?

In their 2020 book "The Great Demographic Reversal"[5], Goodhart and Pradhan step beyond the "China is no longer deflationary" argument to make a wider structural case for long-term higher inflation transmitted via three key channels. First, labour shortages that push wages higher; second, an inter-generational friction that raises wages; and finally, so-called 'debt-flation'.

The first element is already reflected in many labour markets globally. Firms may partly offset the impact of higher wages by investing in capital, but inflation will still be prone to rise as firms push through the higher costs.

The second point is a political economy narrative that results from the need to finance ageing-related spending by taxing the incomes of workers. Workers will likely be more powerful as their numbers dwindle, even in the face of trends of automation, and hence will seek to protect their after-tax incomes. This will again pressure wage growth higher.

The last piece acts through a structural increase in debt: an increase that needs inflation to make it seem sustainable. What can't be financed by taxation (which is politically challenging) has necessarily to be supported by borrowing.

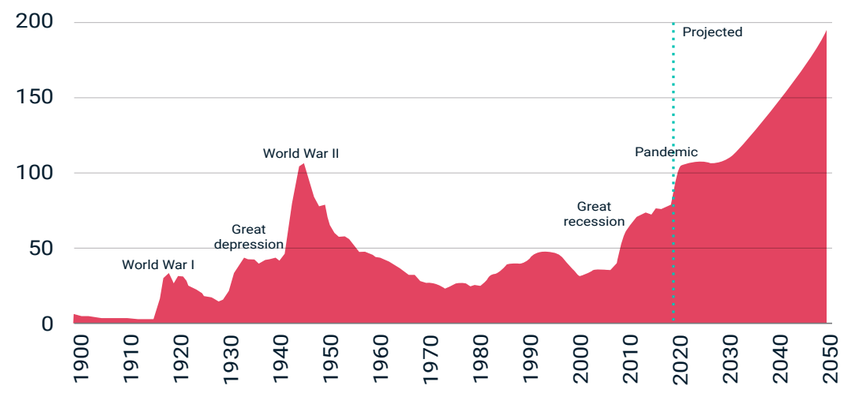
5 Charles Goodhart and Manoj Pradhan, "The Great Demographic Reversal: Ageing Societies, Waning Inequality, and an Inflation Revival", 2020, Palgrave Macmillan

Inflation is the most likely candidate for reducing the real burden of debt. If the US Congressional Budget Office estimates indicated in Exhibit 5 are taken as a guide, then the increase in debt from the pandemic will be dwarfed by the increase in the US debt/GDP ratio over the next three decades. That risks sustained inflation.

Over the last couple of decades, inflation has been cited very often as a 'solution' to debt. Inflation, however, has just not materialized. Why would it this time?

Exhibit 5:
The CBO projects US debt/GDP to rise substantially for decades

Source: Congressional Budget Office, US



In CBO's projections, federal debt held by the public surpasses its historical high of 106 percent of GDP in 2023 and continues to climb in most years thereafter. In 2050, debt as a percentage of GDP is nearly 2.5 times what it was at the end of last year.

The return of cyclical inflation?

"If you put it in a murder mystery framework – "Who Killed The Phillips Curve?"– it was the Fed that killed the Phillips curve." FOMC member James Bullard, in an interview with NPR, October 2018.[6]

The Phillips curve relationship - where high growth or low unemployment leads to higher inflation – seems to have been dormant in the US and most advanced economies for the better part of the last three decades, and particularly in the most recent business cycles.[7] To be specific, inflation has fallen persistently whether growth has been strong or weak. That track record has substantially weakened market expectations for inflation to rise substantially in the future because the economy is currently operating above its potential (i.e., if the 'output gap' is positive). Is that a mistake?

Econometric models of the Phillips curve examine the relationship between unemployment (or output gaps) and inflation. In most advanced economies, inflation didn't rise even when the output gap was positive, or unemployment was very low. The Phillips curve relationship seemed to be dead. However, if the demographic analysis is right, then the persistent lack of inflation was because of China's disinflationary influence rather than the death of the Philips curve.

6 "Is It Time For The Fed To Say Goodbye To The Phillips Curve Theory?" NPR, 2018 https://www.npr.org/2018/10/29/661879814/is-it-time-for-the-fed-to-say-goodbye-to-the-phillips-curve-theory?t=1646169309282

7 Forbes, Gagnon, Collins, 2020, "Low Inflation Bends the Phillips Curve Around the World

Moreover, the pandemic has created two specific channels for inflation that did not exist before. A sharp decline and only gradual recovery in the labour market participation rate in many economies is one, and the strong early-cycle house price boom across several advanced and emerging economies is the other (exhibit 8).

Labour shortages have emerged widely in the wake of the pandemic. Much has been written about the 'Great Resignation' in the US but participation rates have been very low not just in many advanced economies, but in some emerging ones as well. While one may think that the participation rate in the US and the UK might be recovering slowly because of government transfers,[8] even Brazil has seen its participation rate fall dramatically. A year after the onset of the crisis, Brazil's participation rate had only modestly recovered from a low of 55 to 57, some way short of its pre-pandemic participation rate of 62 (Exhibit 6).

Where the shortages are most extensive, wages have risen, e.g., wage growth is strong for young workers, women, job-switchers, and those working in hospitality and manufacturing (Exhibit 7). However, recently the BIS showed that many "high contact" sectors have shown wage growth but lower employment.[9] The product of the two could translate into lower labour costs for the firm in question.

To incentivize the return of reluctant workers, wages may have to remain high. Moreover, as employment slowly recovers, the product of high wage levels and rising employment will then translate into higher labour costs. While demand is strong, firms will tend to pass these higher costs on to consumers. That amounts to a wage-price spiral, an extremely unwelcome dynamic that is making its presence felt already.[10]

8 A government transfer is a government redistribution with nothing directly received in return. Examples would include welfare payments, social security and subsidies.

9 Boissay et al "Labour markets and inflation in the wake of the pandemic", BIS, October 2021. https://www.bis.org/publ/bisbull47.pdf

10 Hilsenrath, WSJ, "Echoes of the Wage Price Spiral of the 1970s" LINK: Echoes of the Wage-Price Spiral of the 1970s - WSJ

Exhibit 6:
Brazil's participation rate has fallen sharply, despite meagre government transfers

Source: IMF (Brazil Article IV, September 2021)

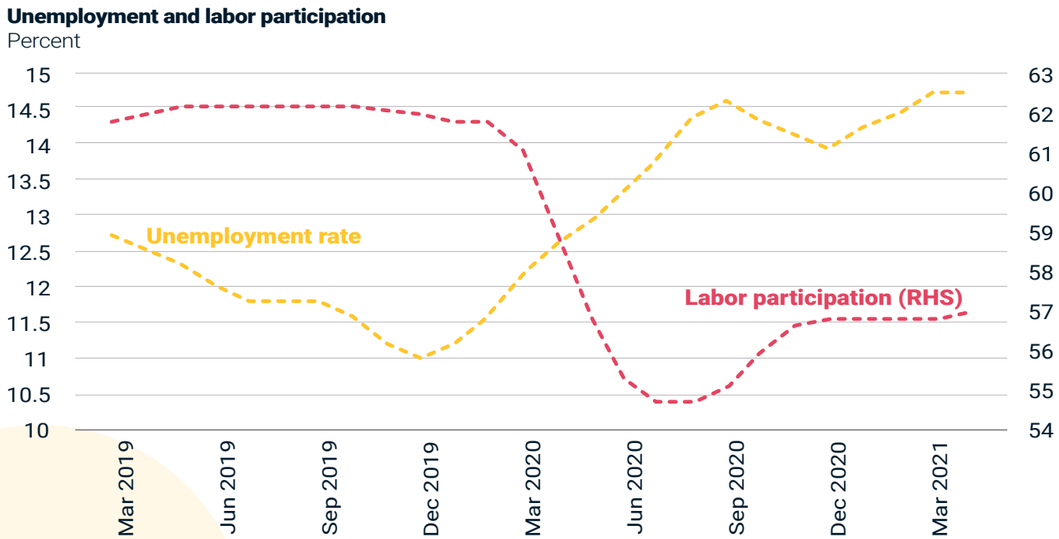


Exhibit 7:
Wage growth is strongest for the low-wage cohort of the labour force

Source: Federal Reserve Bank of Atlanta

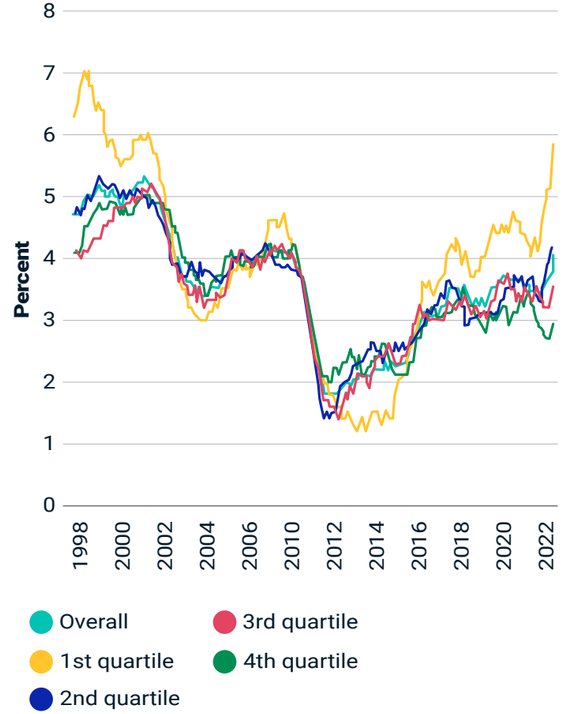
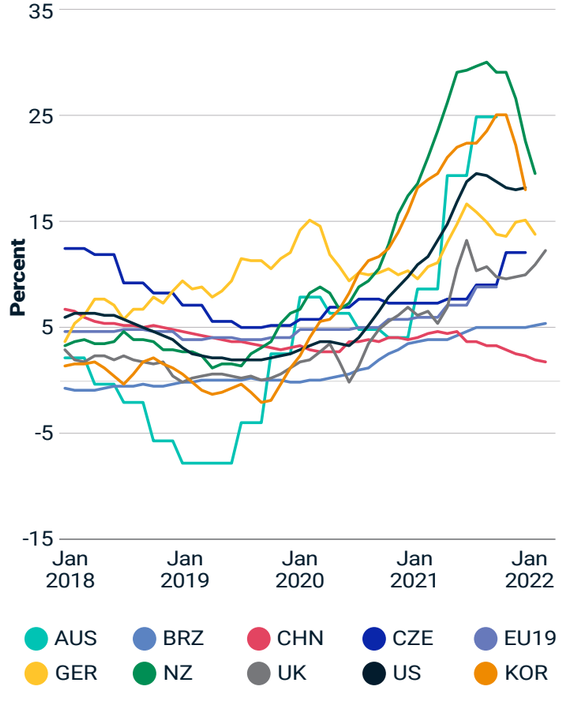


Exhibit 8:
House prices have boomed across advanced and emerging economies

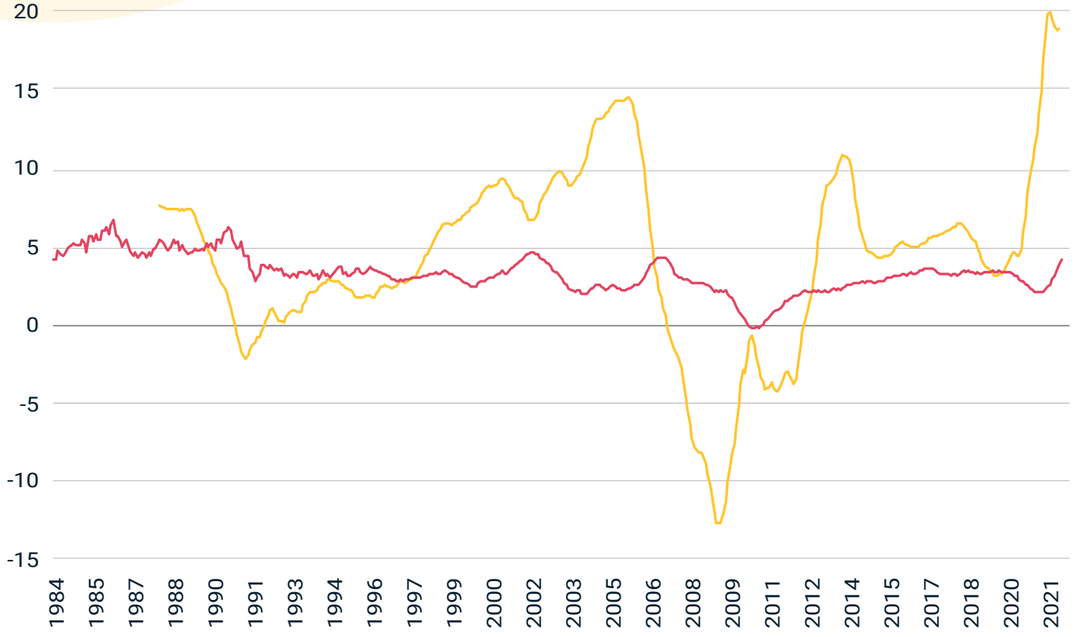
Source: Macrobond



Finally, its plausible that a house price boom could be followed by a surge in housing activity when shortages ease. It is already squeezing up rents. This is all very early cycle thanks to the pandemic. The less we commute to work and travel on holiday, the greater the 'forced savings'. But is this positive shock to our incomes is temporary or somewhat permanent. The 'Permanent Income Hypothesis' argues that households will spend that extra income if they deem the shock is permanent and save it if temporary. Housing is one asset that is part consumption and part investment. That is one reason why house prices have risen sharply in so many different economies in the world (exhibit 8). However, shortages of building supplies have actually led to slower housing activity. If those shortages ease up, we might enter a housing surge, which would continue to pull up rents (exhibit 9) and hence ultimately inflation higher.

Exhibit 9:
An earlier than usual housing expansion will pull rents up earlier too

Source: FRED



Conclusions

Market attention on inflation has focused on the persistence of pan-flation. But today paths have actually been opened for cyclical inflation that were out of reach, even in the last expansion. Inflation has exceeded 7% in the US, 5% in Germany and 10% in Brazil. From here, gauging the emerging evidence for persistent high inflation via the alternative channels described earlier will be critical in anticipating the future path of inflation.

MSCI would like to thank Manoj Pradhan, founder of Talking Head Macroeconomics, for discussions and insightful analysis of this megatrend that have facilitated the preparation of this document.

Pradhan is the co-author of the bestseller, "The Great Demographic Reversal." He founded the independent research firm Talking Head Macroeconomics in 2016 and was previously a managing director at Morgan Stanley, where he led the Global Economics team. He joined Morgan Stanley in 2005 after serving on the faculty of the George Washington University and the State University of New York. Pradhan works on thematic global macroeconomics. He has a Ph.D. in economics from the George Washington University and a master's degree in Finance from the London Business School.

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