

Has low-for-long run its course?

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Earlier this year Fathom reviewed the inflation outlook from three different perspectives. This note discusses the key findings from each of those pieces and outlines implications for monetary policy. In Fathom's view, the risks to inflation are skewed to the upside and, more likely than not, higher inflation will persist for longer than many expect.

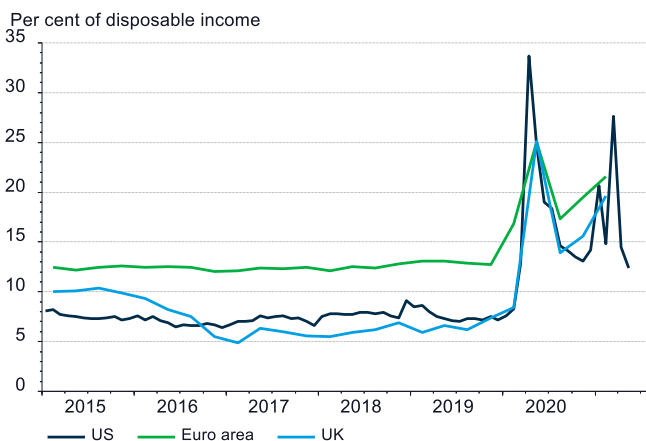
Cyclical pressures

The first article explored inflation from a New Keynesian perspective. Most large-scale macroeconomic models have at their heart a New Keynesian Phillips curve (or NKPC), which relates current inflation to expected future inflation and a measure of the cost pressures faced by firms:

$$\pi_t = \beta E_t \pi_{t+1} + \theta \widehat{mc}_t^r$$

The above equation¹ makes two important points. First, it says that inflation today is closely related to production costs (that, in turn, are closely related to the current level of output relative to potential — i.e., the degree of economic slack). Second, it says that inflation today depends in part on expected inflation tomorrow. The link between current and expected inflation² is important as it implies that the mere belief that inflation might rise can make it do so. This creates a clear role for credible monetary policy in keeping a lid on inflation expectations, and therefore inflation.

Household savings



1. In the above equation, π_t denotes the inflation rate, $E_t(\pi_{t+1})$ denotes expected future inflation, and \widehat{mc}_t^r denotes the current real marginal cost of production relative to its long-run average. θ and β are parameters denoting the sensitivity to the changes in marginal costs and inflation expectations respectively.
2. This link can be derived from fundamental principles and is driven by an assumption that wages and prices can only be changed at discrete intervals.





Typically, post-crisis recoveries are characterised by deficient demand and downward pressure on inflation. But this time will be different. Owing to unprecedented levels of fiscal support, households in developed markets are emerging from this crisis with an abundance of cash. Survey data, including those provided by both the Federal Reserve and the Bank of England, suggest that around 25% of pandemic savings could be spent within the next twelve months. If this occurs, then a sustained period of above-target inflation is likely to follow.

To read the full piece, please follow this [link](#).

Monetary pressures

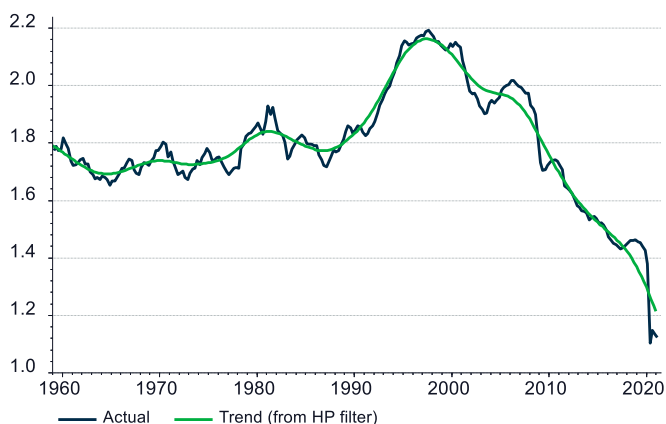
In the second article, Fathom examined monetarist theory which, in its purest form, asserts that (other things equal) an increase in an economy's money supply translates directly into higher prices. This stems from an identity stating that the value of all expenditures in an economy is equal to the stock of money multiplied by how quickly that money is spent. Formally:

$$V_t M_t \equiv P_t Q_t$$

As an identity³ this statement is not controversial among economists. However, debate exists over how to interpret it and, in particular, from the monetarist assertion that the velocity of money is predictable as a function of various (slow moving) asset returns. If this is true, and if we assume no long-run impact on real expenditures, then the price level and the money supply are inextricably linked. As the chart below shows, the implied velocity of money tends not to deviate too far from trend, so we cannot so readily dismiss monetarist theory.

US implied velocity of money

Ratio of nominal GDP to M2



Source: Refinitiv Datastream / Fathom Consulting

So, what does this approach say about the inflation outlook? Historically, deviations in the velocity of money from trend typically narrow by about 10% per quarter. If the 'velocity gap' closes at that rate, money supply grows at 5% per annum, and real GDP grows in line with Fathom's central forecast, then the identity outlined above suggests that US inflation could reach double digits.

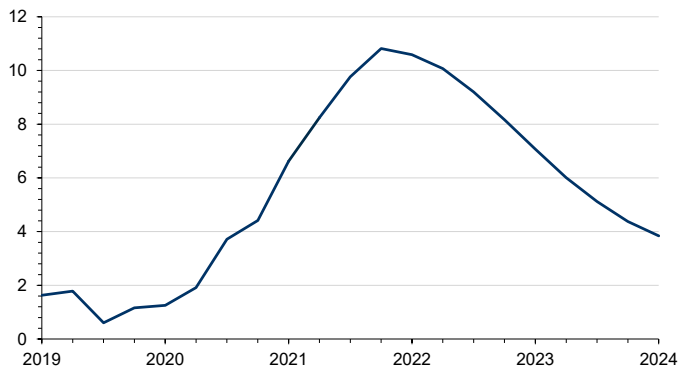
3. In the above identity, V_t represents the velocity of money, M_t represents the money supply; Q_t represents to the quantity of all goods purchased (i.e. real GDP) and P_t represents the price level in the economy.





US GDP deflator

Four-quarter percentage changes, including simulation*



*Assuming velocity gap closes at its normal rate, GDP grows in line with Fathom's central forecast and money supply grows in line with its pre-crisis trends

Source: Fathom Consulting

The signals from the monetarist arithmetic are worrying and, given their magnitude, it seems foolish to ignore them completely. However, monetarist theory can be an unreliable friend in forecasting the evolution of prices. There is no guarantee, for example, that the velocity of money will revert to its prior trend. Moreover, even if it were to, the price level is not the only variable that could adjust to the new equilibrium; it could just as easily be the money supply, or real GDP. In other words, the monetarist approach often has limited forecasting ability and there is a reason why central banks (and Fathom) tend not to rely on such frameworks.

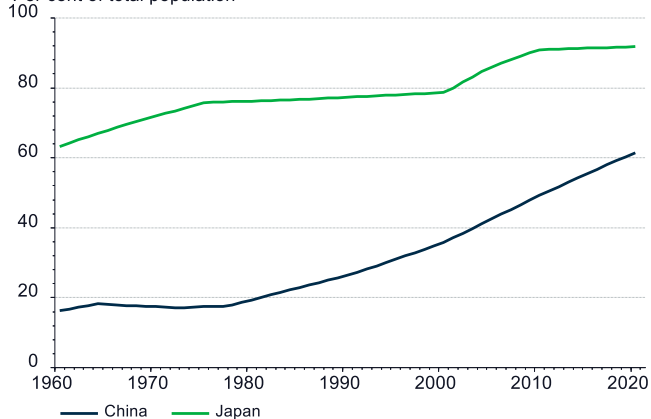
To read the full piece, please follow this [link](#).

China — the Lewis turning point

China has been a source of disinflationary pressure across the world since its accession to the WTO. Whether this will continue hinges on whether it has passed the Lewis turning point (LTP) — the point where industrialising countries exhaust their pool of cheap rural labour and wage pressures start to rise. If China passes the LTP, simulations from Fathom's Global Economic and Strategic Allocation Model, conducted as part of a previous consultancy project, suggest that global inflation could rise by 0.6 percentage points on a sustained basis.

China and Japan urban population

Per cent of total population



Source: Refinitiv Datastream / Fathom Consulting





Some metrics suggest that China could be nearing the traditionally measured LTP. For instance, China's urbanisation rate is now close to the level where Japan hit its own LTP in the mid-1960s and migration has slowed over the previous decade. And yet, the traditional hallmarks of a country that has passed this point (a sharp rise in rural and then urban wages, a narrowing of the gap between salaries at state-owned enterprises and private wages) are not yet visible.

So, what makes China different? One factor is the dramatic rise in the number of under-employed in the Chinese workforce, which would tend to lessen the already modest bargaining power of workers. Fathom has long argued that the headline unemployment rate significantly understates the amount of slack in the labour market, and our proprietary China Urban Under-employment Indicator points to a significant rise in underemployment over the previous decade. It is for this reason that the traditional LTP may not be relevant when analysing China and thus Fathom does not, for now, see China as likely to become a major source of inflation: though it may no longer be the disinflationary force it once was.

To read the full piece, please follow this [link](#).

Implications for monetary policy

Prior to the crisis, the FOMC's projections were consistent with it expecting to follow a Taylor rule. That ended as the pandemic took hold. In its latest projections, the FOMC expects inflation back at target and the economy to be operating at full employment by the end of next year. And yet it also expects the Fed Funds rate to remain close to zero. US policymakers are relying on their hard-won credibility to do the heavy lifting. In these circumstances, and given the build-up in pandemic-related savings, Fathom sees a 60% chance that inflation expectations slip their anchor. If that happens, the Fed must choose whether to deal with it (and induce a recession) or roll with it (and opportunistically raise the inflation target).

Fed funds rate forecast, two-years ahead



The costs of dealing with it are significant, with asset prices — including those of government bonds — underpinned by an expectation that policy rates will remain close to zero. Should the Fed raise rates, the risk of a market correction would be high. That is why Fathom sees rolling with it as a more likely scenario. In such a world, policymakers might respond to higher inflation by moving the goalposts and opportunistically raising the inflation target.⁴ Even so, it seems more likely than not that nominal rates will eventually go up and that 'lower for longer' will finally come to an end.

4. In the early 1990s, former Fed governor Laurence Meyer coined the phrase 'opportunistic disinflation' to describe how policymakers looking to get inflation lower might wait until circumstances, such as a negative demand shock or a positive supply shock, deliver lower inflation before ratcheting the target down to that new, lower rate. A policy of opportunistic inflation would be the mirror of this.





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