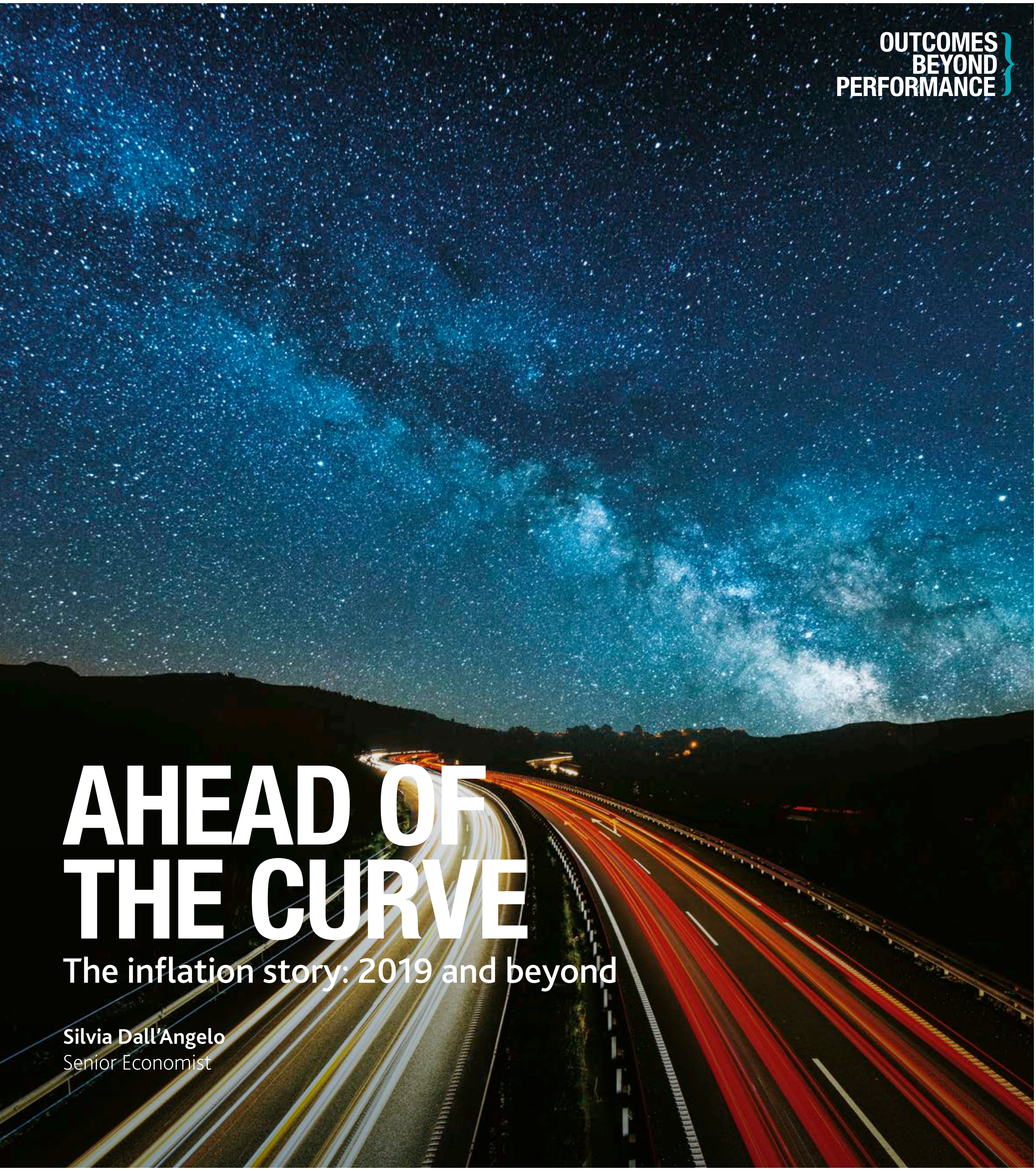
OUTCOMES BEYOND PERFORMANCE



AHEAD OF THE CURVE

The inflation story: 2019 and beyond

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KEY POINTS

- US inflation has remained contained in recent years despite a strong economic performance.
- Following the US Federal Reserve's (Fed's) dovish pivot last month, a significant pick-up in inflation is probably the only development that could justify a resumption of tightening.
- Our analysis suggests that inflationary pressures will build up modestly in 2019, reflecting the ongoing tightening of the labour market, but they will likely remain contained.
- In the eurozone, inflation is still running well below the European Central Bank's (ECB's) target of 2%.
- Our analysis, based on a Phillips curve-like model, suggests that eurozone core inflation should grind higher over 2019 and 2020, yet remaining well below target.
- Medium-term prospects for eurozone inflation have deteriorated recently as external demand turned less supportive and economic data disappointed. It is therefore possible that the ECB could miss a tightening cycle.
- Our base case is that inflation will remain well contained in the next few years, for both structural and cyclical reasons. In addition, weaker oil prices will weigh on headline inflation in the short term.

Inflation is a key driver of monetary policy: it typically defines central banks' mandates. And at this late stage of the economic cycle, it is particularly crucial.

A late-cycle is characterised by an economy that is operating above potential and has a tight labour market. Indeed, once an economy rolls into the late-cycle stage, signs of overheating become apparent and inflationary pressures begin to build, which should prompt the central bank to hit the brakes on raising interest rates to contain financial stability risks.

So far in this cycle, however, inflation has failed to materialise, raising questions about the Phillips curve framework – the traditional relationship between slack in the labour market and prices.

Indeed, it is possible that the Phillips curve has flattened, indicating that wages are no longer responsive to variations in labour market slack. However, as we contended in our January 2018 edition of *Ahead of the Curve*, the economic law underpinning the Phillips curve framework is still valid.

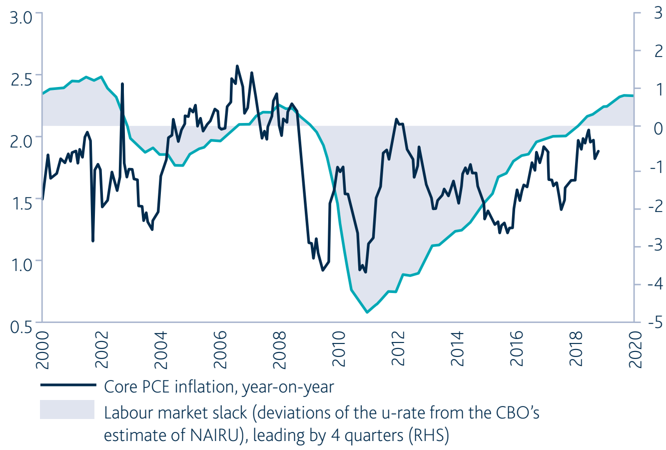
But there are several possible explanations for its apparent disappearance, including poorly estimated inputs (for example, there may be more slack in the labour market than suggested by headline indicators, such as the unemployment rate) or external factors, which could be masking the relationship between labour market slack and prices. In particular, productivity growth may have weighed on wage inflation. Moreover, automation and globalisation[1] may have led to structural changes in the labour market, and thereby persistent restrictions on wages. Other factors – notably, the impact of market concentration – have been the subject of recent research on inflation.

PUZZLINGLY LOW INFLATION IN THE US

The Fed is still gripped by the issue of puzzlingly low inflation.

In recent years, the US economy has been operating above potential and the labour market has tightened. But despite this strong performance, inflation remained well contained. In particular, core personal consumption expenditures (PCE) inflation – the Fed's preferred gauge of underlying inflation – briefly touched the central bank's 2% target in mid-2018. However, it quickly resumed a downward trend, ending the year at 1.9% – the average rate of core PCE inflation for 2018 (see Chart 1).

Chart 1. Core PCE inflation has been muted despite improvements in the labour market



Source: US Bureau of Economic Analysis, US Bureau of Labour Statistics, Reuters Datastream and US Congressional Budget Office as at January 2019.

Last month, the Fed signalled a stark dovish turn in its policy statement, and well contained inflation was a key contributory factor to chair Jerome Powell's pivot. He acknowledged that the traditional case for rate increases is "to protect the economy from risks that arise when rates are too low for long, particularly the risk of too-high inflation". However, he added: "over the past few months that risk appears to have diminished. Inflation readings have been muted, and the recent drop in oil prices is likely to push headline inflation lower still in coming months."

As downside risks from adverse external developments and volatility in financial markets are elevated, the Fed now faces a tough hurdle to resume its hiking cycle. A significant pick-up in inflation is probably the only development that could justify a resumption of tightening.

[1] A recent study by Federal Reserve staff confirmed that increased international trade and migration have put downward pressure on prices, explaining a large share of the recent flattening of the Phillips curve. See paper: "Trade exposure and the Evolution of Inflation Dynamics", by Gilchrist and Zakrajsek published in January 2019.

Modest inflationary pressure is building in the US

Our analysis suggests that inflationary pressures will build up modestly in 2019, reflecting the ongoing tightening of the labour market, but they will likely remain contained.

From a top-down perspective, a Phillips curve-like model suggests that core PCE inflation will probably edge up to 2% this year, from 1.9% in 2018. Meanwhile, core consumer price index (CPI) inflation – which usually runs a few tenths above its analogue PCE measure – will probably increase to 2.3% on average over the year, up from 2.1% in 2018.

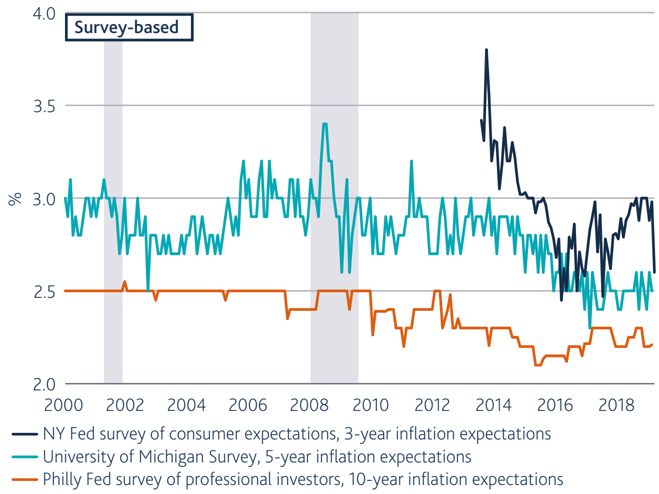
Importantly, the coefficient for the output gap – an estimate based on data starting from 1991 – is quite small, suggesting that while the relationship between resource utilisation and prices is still valid, the sensitivity of prices has weakened.

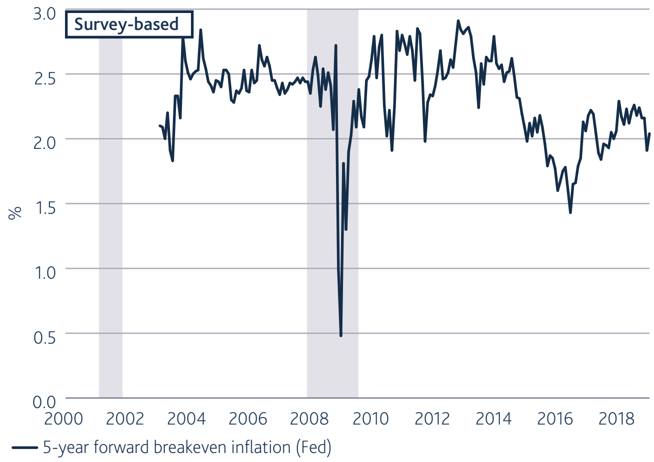
The Federal Reserve Bank of San Francisco, meanwhile, went further: in a recent paper, it suggested that inflation has not sustainably reached the central bank's 2% target[2]. The analysis showed that most of the increase in PCE inflation towards the Fed's target can be attributed to acyclical factors – types of changes in prices that do not necessarily move with overall economic conductions – and are not due to a strengthening economy.

In addition, inflation expectations appear to have stabilised at somewhat lower levels since the global financial crisis. This trend is reflected in all of the main indicators, both survey- and market-based (see Chart 2). And although it is not easy to map indications from surveys and markets into numerical implications for actual consumer inflation, lower inflation expectations imply a weaker pull towards the 2% target.

Indeed, this is also reflected in our model, which includes 10-year inflation expectations from the Federal Reserve Bank of Philadelphia's Survey of Professional Forecasters. The index – based on a survey of professional forecasters from academia, think tanks and businesses – declined to an average of 2.25% after the global financial crisis, from a pre-crisis level of 2.5%.

Chart 2. US inflation expectations have stabilised at lower levels compared to pre-crisis norms



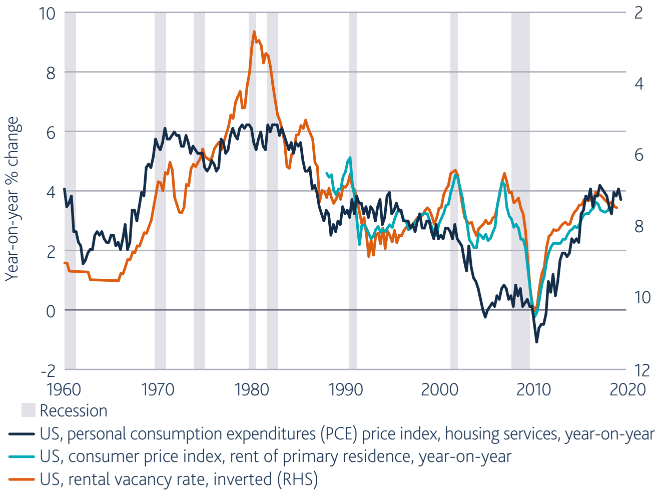


Source: University of Michigan Survey of Consumers, NY Fed Survey of Consumer Expectations, Philadelphia Fed Survey of Professional Forecasters, Reuters Datastream and the Federal Reserve Bank of St Louis as at February 2019.

A bottom-up analysis largely confirms the message from our top-down approach: there will be a limited build-up in inflationary pressures, stemming from the recent small increase in wage inflation and the impact from higher tariffs on some categories of goods (notably, recreation). That said, housing inflation – which has a large weight in both core CPI and PCE – has moderated recently, while forward looking indicators – notably, rental vacancy rates – point to a stabilisation in rent inflation, at best (see Chart 3).

[2] "Has inflation sustainably reached target," published by the Federal Reserve Bank of San Francisco in November 2018.

Chart 3. Rental vacancy rates point to stabilisation in housing inflation



Source: Bureau of Labor Statistics, Bureau of Economic Analysis, Reuters Datastream and the US Census Bureau as at February 2019.

Thus far, our analysis has focused on core inflation – that is, inflation that excludes the most volatile components (energy and food items). After all, it is the more persistent component of inflation and over time, headline inflation tends to converge to core inflation (indeed, past core inflation is a better predictor of future headline inflation than past headline inflation).

The Fed's target, however, is defined in terms of headline inflation. By adding energy and food to our analysis, the inflation picture for this year becomes even more contained. In particular, oil prices fell sharply in the fourth quarter of 2018 and the forward curve for oil implies only modest variations to Brent prices at about $60-65 per barrel over the balance of the year.

By taking account of the oil curve, our forecasts point to an average rate of US headline PCE inflation of 1.6% in 2019 (corresponding to headline CPI at 1.8%). Of course, oil prices can swing quite wildly, and a resurgence of geopolitical risk – notably, concerning Iran – or a policy shift by the Organisation of the Petroleum Exporting Countries (OPEC) could lead to very different outcomes.

US inflation prospects: a benign picture

Beyond 2019, cyclical and structural factors point to a benign inflation picture in the US.

From a cyclical perspective, we expect that US growth will slow over 2019 to 2% on average, down from almost 3% last year. In addition, recession probability models suggest that there is about a 30% chance of a recession in the next 12 months – the highest level since the global financial crisis. Amid growing risks and higher vulnerabilities, a downturn in 2020 looks likely. In this scenario, capacity constraints would likely loosen, implying weaker inflationary pressures.

On a structural level, we have long argued that structural changes in the labour market may explain the current environment of low inflation. Factors such as technology (automation), globalisation and increased market concentration have probably all contributed to those changes.

In the medium to long term, technology has probably some way to go to influence inflationary dynamics via its impact on the labour and product markets. Indeed, automation and artificial intelligence (AI) have the potential to cause deep and long-lasting disruption to the labour market, and a gradual transition to a new equilibrium would probably feature significant dislocation and replacement of the labour force. Such technological disruptions will probably have disinflationary effects, at least during the initial adjustment phase.

For now though, it's too early to say how things will pan out. After all, the so-called Fourth Industrial revolution is still in its infancy.

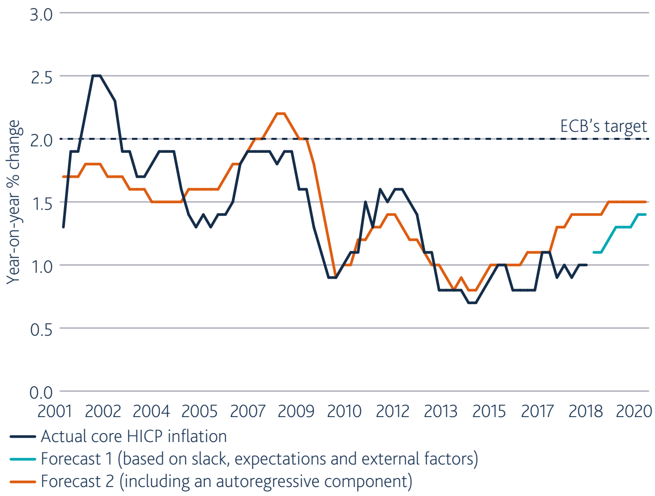
However, in the short to medium term, the main risk to our benign picture of inflation is a re-escalation of protectionist measures. That's because it could lead to higher inflation, but the unwelcome sort – that is, cost-push rather than demand-pull inflation. Thus, the Fed would probably look through it, giving more consideration to the negative income effects from higher inflation and the likely squeeze to demand that would follow.

EUROZONE INFLATION: A SOFT CORE PICTURE

In the eurozone, inflation is still running well below the ECB's target of 2%. In particular, core inflation – which excludes energy and food – has failed to show any progress in 2018. It averaged 1% last year – the same level that prevailed in 2017.

Our analysis, based on a Phillips curve-like model, suggests that core inflation – as measured by the Harmonised Index of Consumer Prices (HICP) – should grind higher over 2019 and 2020, while staying well below the ECB's 2% target. We forecast core inflation of 1.3% and 1.5% in 2019 and 2020, respectively (see Chart 4).

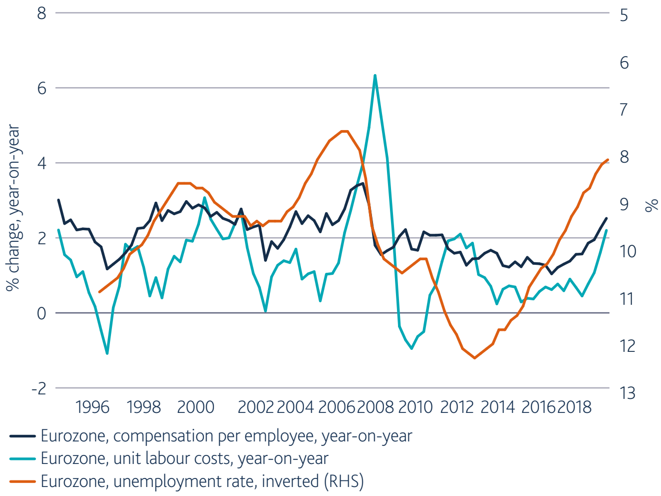
Chart 4. Phillips curve models point to a gradual increase in core inflation



Source: Hermes Investment, based on Eurostat, OECD and the ECB's Survey of Professional Forecasters, as at February 2019.

Indeed, the recent tightening of the labour market (the bloc's unemployment rate fell to a 10-year low of 7.9% in December 2018) has already manifested itself in a considerable pick-up in wage inflation. And, as productivity growth has remained subdued, unit labour cost (ULC) growth has also gained ground (see Chart 5).

Chart 5. A tighter labour market has led to higher wage inflation and ULC growth

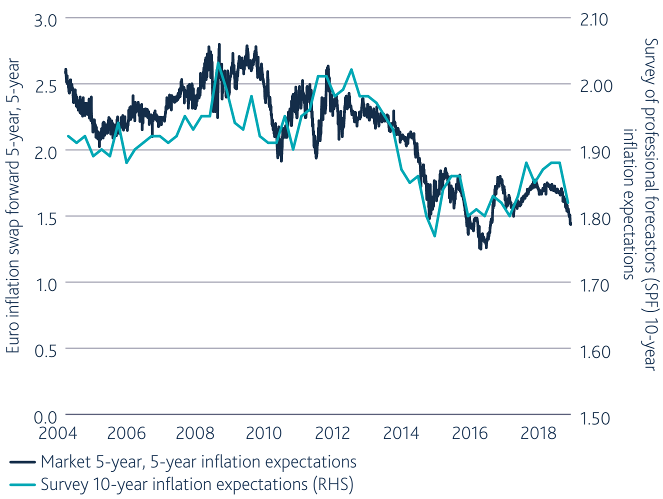


Source: Eurostat and Reuters Datastream as at February 2019.

However, while most measures in the US suggest that the labour market is tight, in the eurozone it is unclear whether slack in the labour market has been completely eroded following the double dip recession of 2008 and 2011-12. In particular, it looks like the unemployment rate in some countries – notably, Spain – has more scope to decline. In addition, some alternative measures of slack in the labour market are still elevated, running somewhat above their pre-crisis levels.

In addition, similar to the US, measures of inflation expectations have stabilised at lower levels compared to the pre-crisis norm in the eurozone (see Chart 6). If anything, the dis-anchoring of inflation expectations has been even more dramatic in the eurozone.

Chart 6. Inflation expectations have stabilised at lower levels since the double-dip recession



Source: ECB Survey of Professional Forecasters and Bloomberg as at February 2019.

The relationship between labour cost and price inflation

The pick-up in ULC has not been reflected in recent HICP inflation data. It is therefore not surprising that there are doubts about the relationship between labour costs and price inflation.

A recent study by the ECB, which focused on this relationship, found that the pass-through from labour costs to consumer prices is more likely in demand shocks (compared to supply shocks), but it is systematically lower in periods of low inflation (as compared to periods of high inflation).

Thus, under circumstances of predominantly demand shocks, labour cost increases will be passed on to prices. However, coming from a period of low inflation, this pass-through could be moderate, at least until inflation stably reaches a sustained path.[3]

Eurozone inflation: complicating the ECB's rate hike plan

Headline inflation defines the ECB's target. In the short term, recent developments in oil prices and base effects are likely to weigh on headline number. Based on the current oil future curve, we expect headline inflation to decline to 1.3-1.4% on average in 2019, from 1.7% in 2018.

Despite the recent and envisaged progress towards its inflation target, it is not clear whether the ECB will be able to raise interest rates this year. Indeed, medium-term prospects for inflation have deteriorated recently as external demand turned less supportive and economic data disappointed (most notably, the eurozone composite Purchasing Managers' Index (PMI) – which is at near-stagnation levels). It is therefore conceivable that the ECB will miss a tightening cycle.

And with the policy rate stuck at the effective zero lower bound, it means that the eurozone will lack monetary policy space to respond to the next downturn or crisis. In that scenario fiscal stimulus would be the only credible response. But herein lies the problem: at present, the institutional framework of the Economic and Monetary Union is incomplete, and crucially, it does not include common fiscal capacity.

[3] "The link between labor cost and price inflation in the euro area," published by the European Central Bank in February 2019.

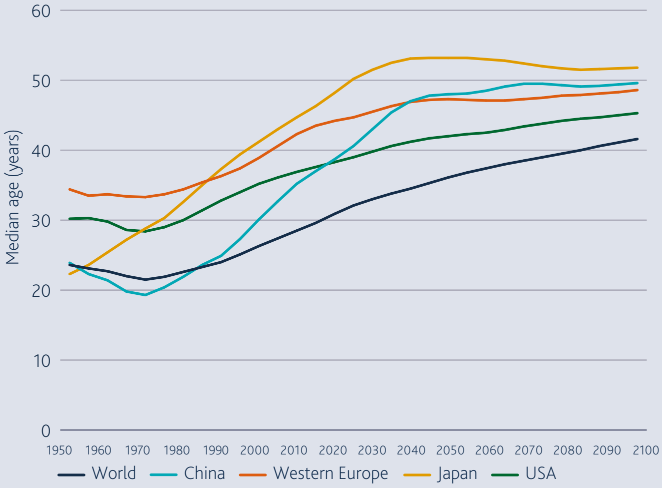
Japan and the role of demographics

Japan is experiencing a similar – but more serious – inflation situation to the eurozone.

Wage and ULC inflation have picked up significantly in the last couple of years, but core consumer inflation is still barely in positive territory. The so-called deflationary mindset – exemplified by inflation expectations that are anchored at stubbornly low levels – explains the phenomenon, at least partially.

But when it comes to growth and inflation, one issue may have been overlooked: the country's ageing population (see Chart 7). It is crucial to understand how an ageing population affects inflation, particularly as the majority of developed countries are experiencing the same trend.

Chart 7. The population has aged across major countries, with Japan leading the trend



Source: United Nations, Department of Economic and Social Affairs, Population Division (2017). World Population Prospects: The 2017 Revision, custom data acquired via website.

There are several possible channels through which an aging population might affect inflation. An ageing population might be a drag on productivity. Also, it might affect consumption, both in terms of level and composition.

However, findings on the impact of an aging population on inflation are mixed. A recent ECB paper by Bobeica et al[4] found significant deflationary effects from an increasing share of older population cohorts. However, a paper by the Bank for International Settlements published in May 2018[5], which expands on the work by Aksoy et al (2015)[6], found that by taking the age structure more fully into account an increase in the number of dependants – both young and old – is generally inflationary. Inflationary pressures rise when the share of dependants increases and, conversely, subsides when the share of the working age population increases. The authors estimate that this relationship explains about seven percentage points of US disinflation since the 1980s – and it predicts rising inflation over the coming decades.

The jury is still out. But drawing on Japan's experience so far, we are inclined to think that the impact of an ageing population is disinflationary. In addition, going forward, the higher demand for care could spur further advances in robotics, another trend which, as already hinted at, is disinflationary, in our view.

[4] ECB working paper: "Demographics and inflation," by Bobeica, Lis, Nickel and Sun, published in January 2017.
[5] BIS working paper: "The enduring link between demography and inflation" by Juselius and Takats published in May 2018.
[6] Banco de Espana working paper: "Demographic structure and macroeconomic trends" by Aksoy, Basso, Smith and Grasl published in 2015.

RISKS TO INFLATION

Our base case is that inflation will remain well contained in the next few years, for both cyclical and structural reasons. Moreover, weaker oil prices will weigh on headline inflation in the short term (and there may be second-round effects on wages and inflation expectations).

The cyclical picture has become less supportive over the last year. The global economy slowed. And amid fragilities in the eurozone, a loss of momentum in the US and widening cracks in the Chinese economy, the next downturn may be close.

The current situation must be considered in the context of a slow and uneven recovery that followed the global financial crisis. Slack in the economy has eroded at a slow pace, which has kept inflation low for a long period. That has affected inflation expectations, allowing low inflation to persist.

What's more, while the labour markets is tight and wage growth has picked up, there are doubts about the existence of hidden slack in the economy and the relationship between labour costs and consumer prices.

There are however some upside risks to our muted inflation expectations. Most notably, a re-escalation of protectionist measures would generate an unwelcomed type of inflation – cost-push rather than demand-pull inflation. Ultimately, this would be self-defeating because in the absence of significantly higher wage inflation, protectionism would squeeze real disposable incomes and in turn, consumption.

In addition, should trade tensions remain confined to the US and China, China might be tempted to offload its products to countries or regions that will not join the protectionist wave immediately, such as Europe. Thus, protectionism could lead to lower prices in some countries, at least temporarily.

Other sources of upside risk could be China – no longer viewed as a cheap outsourcing destination – and looser fiscal policies across the board.

In a medium to long term perspective, there are a number of structural reasons that could put downward pressures on prices. They include:

- Changes to labour markets, enabled by automation and globalisation, and related weakening of workers' barging/pricing power;
- The role of intangible assets;
- The impact from an aging population;
- Inflation and market power: a higher concentration of market power – that is, a higher incidence of monopolies and monopsony – could depress workers' pricing power;
- Inflation and effectiveness of monetary policy: central banks have been successful at anchoring inflation expectations near the 2% target; they have successfully offset the deviations from their inflation targets due to negative or positive output gaps[7]; and
- Low-carbon economy: the need to transition to a low-carbon economy due to the threat of climate change will likely curb oil prices.

[7] See paper: "Optimal Inflation and the Identification of the Phillips Curve" by McLeay and Tenreyro published in April 2018.

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