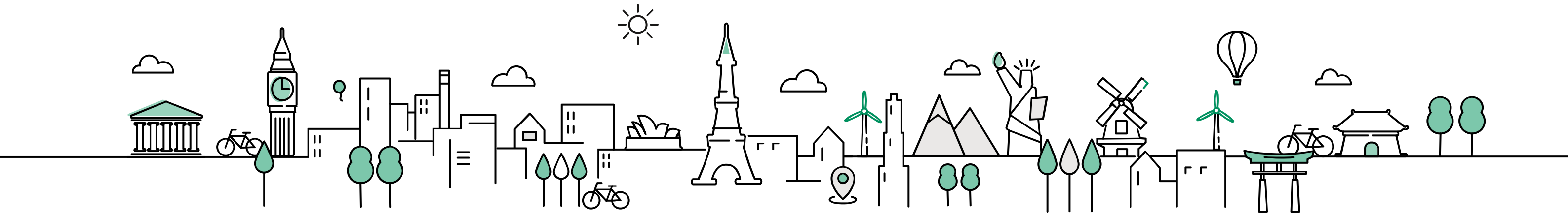


Inflation-Linked Bond Outlook March 2019 – For Professional Investors

United States

TIPS[1] Market Developments

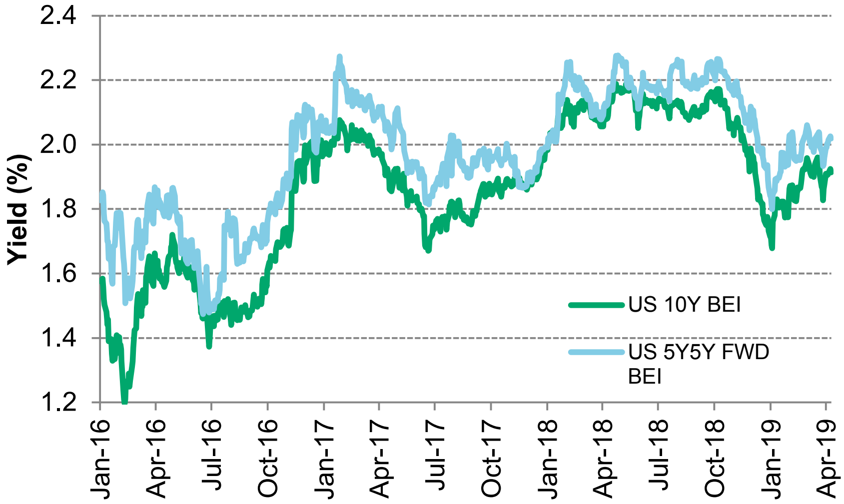
In the last quarter of 2018, investor concerns about the combination of moderating global growth data and the FOMC's (Federal Open Market Committee) apparent determination to keep tightening monetary policy led to a sudden tightening of financial conditions, as equities fell sharply and credit spreads widened. From early October, equities came under pressure, retreating by 10 percent from their local highs, seemingly on concerns about softening global growth, moderating commodity prices and tightening financial conditions. In late December, poor signaling from the Federal Reserve (Fed) prompted further selling of risk assets, taking US equities into a 20% decline.

The US TIPS market was not left untouched. Breakeven inflation (BEI) rates tend to have a positive correlation to the performance of risk assets (such as equities, or corporate spreads), positive correlation with energy, and negative correlation to measures of volatility. Correspondingly, the 10-year BEI narrowed sharply from 2.15% in early October to a low of 1.68% by early January. At the same time, the onset of negative carry arising from a mix of Consumer Price Index (CPI) seasonality and tumbling gasoline prices meant that front-dated BEIs underperformed BEIs at longer maturities. On the TIPS yield curve, this was reflected in a 5s / 30s real yield flattening move.

In mid-January, risk assets turned, as the Fed adjusted its communication. Having indicated on December 19 that it would proceed with "some further gradual adjustment" in policy rates, then in January the FOMC removed that phrase from the statement, and indicated that it would remain on hold. At its March meeting, the FOMC members then lowered their rate projections. In addition, several senior policy makers indicated that the Fed was likely to overhaul its policy framework in coming months, to counter a decline in inflation expectations. The switch to a more accommodative stance helped drive 10-year Treasury yields below 2.40%, which helped widen 10-year BEIs back out to 1.90%. At the same time, the prospect of policy rates staying "lower for longer" drove TIPS real yields lower, while simultaneously steepening the nominal yield curve.

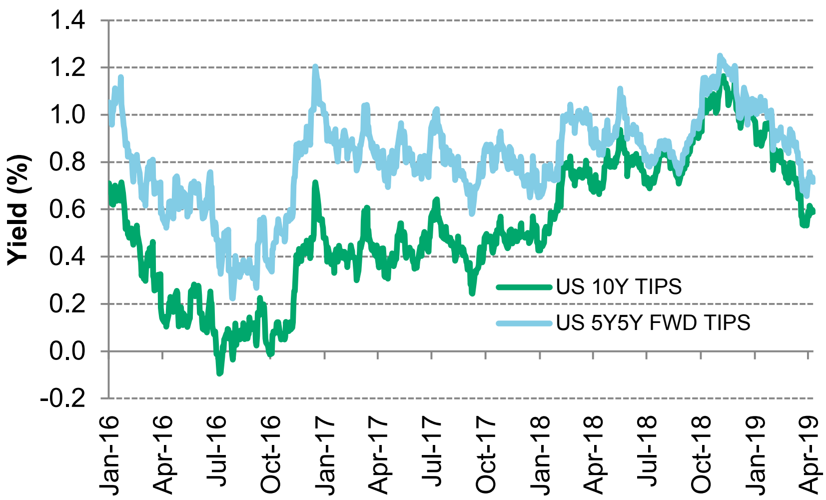
[1] *Treasury Inflation Protected Securities*

10- and 5-Year 5-Year Forward TIPS BEIs



Source: Bloomberg, April 8, 2019

10-Year and 5-Year 5-Year Forward TIPS Yields



Source: Bloomberg, April 8, 2019

Growth Developments & Outlook

Developments since our last quarterly review confirm that the US economy is transitioning from a (temporary) above-trend growth phase in which growth was super-charged by fiscal stimulus, lower corporate tax rates and deregulation - to a more sustainable growth phase - as fiscal stimulus wanes. Our forecast is that US growth will slow from 2.9% in 2018 to around 2.25% in 2019. Though growth slowed to 2.2% annualized in the fourth quarter, and seems set to print 1.5% in the first quarter, we anticipate to see signs of stabilization and economic green shoots in the second quarter data.

The moderation in US growth reflects the influence of both international and domestic factors. On the domestic side, interest rate sensitive sectors of the economy, such as housing and business investment, have shown signs of softening. Mortgage rates, which peaked in November, have begun to depress both residential purchases and construction (as evidenced in existing home sales, and building permits), despite the robustness of the labor market.

However, the renewed drop in mortgage rates in recent weeks should provide support, and we have recently seen a bounce in the National Association of Home Builders (NAHB) index, as well as volume of home purchases.

On the business investment side, a softening of business sentiment surveys in the fourth quarter led to a pullback in business investment. Business confidence surveys, such as the Institute for Supply Management's (ISM) regional Purchasing Managers' Indices (PMIs), have retreated from the euphoric levels reached after the Trump corporate tax cuts, although they generally continue to indicate expansion. The moderation in business confidence in the fourth quarter reflected the softening in global growth prospects, amid heightened risks around international trade policy and the threat of tighter monetary policy. The most recent numbers, however, suggest stabilization.

The Trump administration's threats to (i) expand punitive tariffs on Chinese imports if China does not amend its practices on intellectual property and market access, and (ii) impose tariffs on European auto imports increased uncertainty for both foreign and domestic businesses in the fourth quarter. However, the Trump administration's decision to push back the initial March 1 deadline suggests a willingness to negotiate, and BNPP AM's view is that the US will ultimately reach an accommodation with China, before turning its attention to the European Union (EU). The bottom line, however, is that on trade policy the administration's bark is likely to be worse than its bark, and that once the uncertainty diminishes the net impact of trade policy on the economy should be modest.

On the monetary policy side, meanwhile, it is clear that the FOMC changed its policy tack in January, which has fully reversed the tightening in financial conditions that we witnessed in late fourth quarter. The FOMC's newfound determination to hold off on further tightening until stronger core inflation emerges, promises a significant pause in the tightening cycle that reduces the threat of an unintended slowdown in growth that is ultimately supportive for business investment.

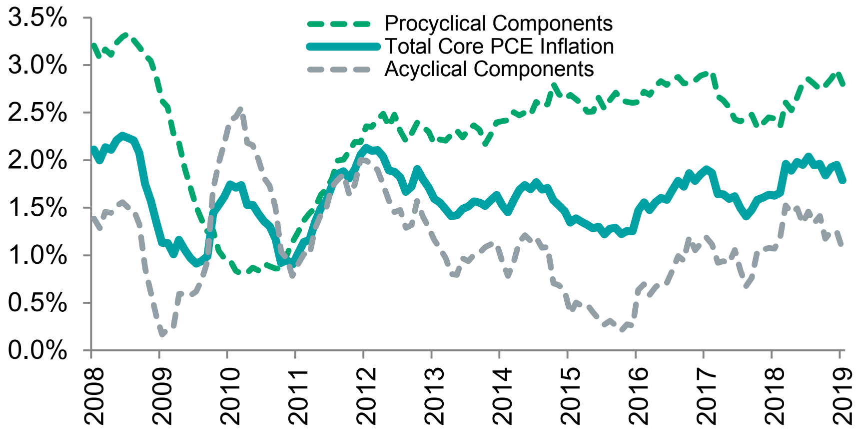
In conclusion, a slowing in growth in 2019 has been our base case for some time given the fading of fiscal thrust and tightening of monetary policy. Furthermore, the moderation of growth is both welcome and inevitable since the economy has likely been growing faster than potential. Looking forward, the downside risks to the outlook emanating from trade and policy tightening that we worried about in the fourth quarter appear to have now receded, which should keep growth modestly above trend in 2019, and push back the likely timing of the next recession.

Furthermore, at least in the US, we do not see large imbalances in the economy such as inflationary overheating in the labor market, or credit-driven asset bubbles. Indeed, both households and non-financial corporate sectors are running financial surpluses. The risk, of course, is that corporate debt levels remain elevated and earnings could falter, US / China trade negotiations could hit the rocks, and the fiscal and monetary policy headroom to deal with a shock remain very limited. As a result, should a slowdown turn into a recession, populist administrations could opt for more radical policy responses.

Developments and Prospects for Inflation

From the perspective of TIPS investors, CPI inflation has continued to disappoint in the first quarter.
The commodity price declines seen in the fourth quarter have partly retraced, of course, helping to support headline inflation. But core inflation measures have remained muted, with the year-over-year core CPI actually retreating slightly to 2.1% in the last data release (for February). So the inflation picture remains one where core inflation sits just below target, supported mostly by robust shelter inflation, while core goods price inflation hovers around zero (despite the imposition of 10% tariffs on some Chinese imports) and the cyclical components of the CPI remain muted despite evidence of pipeline pressures and a tightening labor market.

Procyclical Versus Non-Cyclical Inflation



Source: BEA, BNP Paribas Asset Management Macro Research Tea, March.31st, 2019

The limited sensitivity of procyclical-component inflation to changes in labor market slack remains a puzzle – and as much to the Fed as to investors. Suggestions that companies do not have pricing power and must therefore absorb higher costs into margins are at odds with evidence of margins being high in many industries. An alternative explanation may be that productivity, after many years of stagnation, is now growing faster than official measures suggest, which may be keeping unit labor costs contained.

Developments in Federal Reserve Policy

In the fourth quarter, we laid the blame for much of the volatility in financial markets at the door of the FOMC), whose communications on policy were frustratingly inconsistent.

In October, Chairman Jerome Powell had described policy rates (then at 2.00-2.25%) as being “far from neutral”, implying that the Fed would proceed with “further gradual rate increases”. In November, however, he then characterized rates as “close to the neutral range” (which had earlier been specified as 2.50% – 3.50%), omitted any mention of further rate hikes, and emphasized that policy was not on a pre-set course. By the December FOMC meeting, deteriorating data meant the fixed income market had priced out all additional rate hikes in 2019 and 2020, and so investor expectations were set for a dovish statement from the Fed. As expected, the committee raised rates, but the policy statement called for “some further gradual” rate increases even as many had speculated the phrase would be withdrawn altogether. At the same time, Chairman Powell noted that he “did not see us changing balance sheet policy”, indicating that the balance sheet normalization was on autopilot. Although there were some dovish elements to the communication, the message was that the Committee would deliver higher policy rates and a smaller balance sheet, despite the indication provided in November that policy was already “very close to the neutral range”. The impression given was of an inflexible Chairman, not sufficiently appreciative of market concerns on global growth and the tightening in financial conditions. The impact on markets was immediate, prompting a plunge in equities, a sharp steepening rally in Treasury yields, narrower BEIs, widening credit spreads and outperformance of safe haven currencies.

Since the December FOMC meeting, a number of Fed officials have taken steps to adjust the message. The December FOMC communications had sent a decidedly mixed message, with both dovish and hawkish elements, but the market reaction and commentary suggested a general market view that the FOMC was not moving sufficiently to data dependence and was not fully incorporating growing downside risks. Chairman Powell also struggled in the press briefing to defend the decision to continue tightening policy even as the Committee has failed for years to achieve its inflation objective. Chairman Powell also under-appreciated market concerns with the Fed’s normalization plans for the balance sheet.

Communications from Chairman Powell and other Committee members since the December meeting have emphasized that the Committee is indeed in full data-dependent mode, that muted inflation allows the Committee to be "*patient*", and that the Committee would be "prepared to adjust policy *quickly* and *flexibly* and to use all of our tools to support the economy" (our emphasis). Chairman Powell also stated that the balance sheet normalization plan was not set in stone and that the Committee would not hesitate to change it if needed.

This message of patience and flexibility was repeated at both the January and March FOMC meetings, at which policy rates were left unchanged. The March Summary of Economic Projections also showed a much lower (median) projection for the policy rate path, suggesting that the Fed would likely be on hold for at least several more months as it exercised patience.

The other major development in US monetary policy over the quarter was the revelation from a several FOMC members that the Committee is assessing potential changes to the monetary policy framework. In several key speeches, NY Fed President John Williams, and Governors Richard Clarida and Lael Brainard, outlined that years of inflation undershoot (versus the 2.0% Personal Consumption Expenditure (PCE) inflation target), in the context of low equilibrium rates and the zero lower bound had jeopardized the FOMC's inflation credibility. As such, there is an argument for the monetary authority to engage in so-called "make-up" strategies that would involve the central bank tolerating a period of inflation overshoot to compensate for prior periods of undershoot, such that "average inflation" would come in on target.

The investment implication of a more accommodative policy stance, and (even more importantly) a framework change that refocuses on the inflation component of the dual mandate, is that the Fed would keep rates low for longer and financial conditions easy. The implication is lower real yields, a steeper curve and potentially wider breakeven inflation rates. Clearly, this would be quite a change from the FOMC's fourth quarter projections that it would keep tightening policy in anticipation of higher inflation. We cannot dismiss the possibility that the FOMC may once again change its approach, but our view is that the coordinated messaging from key FOMC members, followed by changes to policy rate forecasts, means that the FOMC are serious about a change in the monetary policy reaction function.

First Quarter Investment Performance and Strategy

The first quarter was a better quarter for the strategy than the prior quarter.

The primary active investment positions over the quarter were:

- An overweight in BEIs, on the view that (i) 10-year BEIs offer value below 2.00%, and (ii) the anticipated shift by the FOMC to average-inflation targeting should support the CPI and eventually raise the market price of inflation compensation

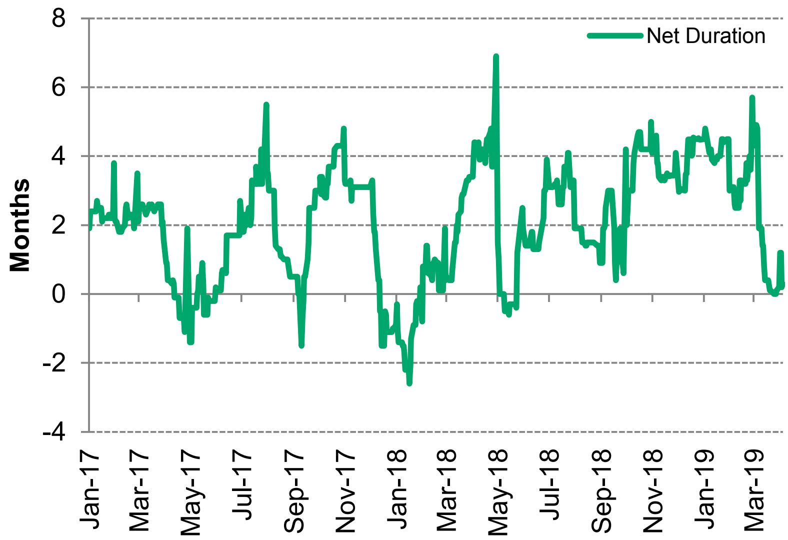
- An overweight in TIPS real yields, on the view that the FOMC's adoption of a more accommodative monetary stance should drive real yields lower. Once 5-year, 5-year forward real yields reached 70 bps, we took profit on the position

- A nominal 5s / 30s curve steepener exposure, on the view that a "lower for longer" path for rates will keep front-dated yields contained, even as longer-dated yields rise on prospects of higher inflation

- An overweight in off-the-run aged 10-year issues versus benchmark issues in the 5- and 10-year sectors, to capture an attractive liquidity discount

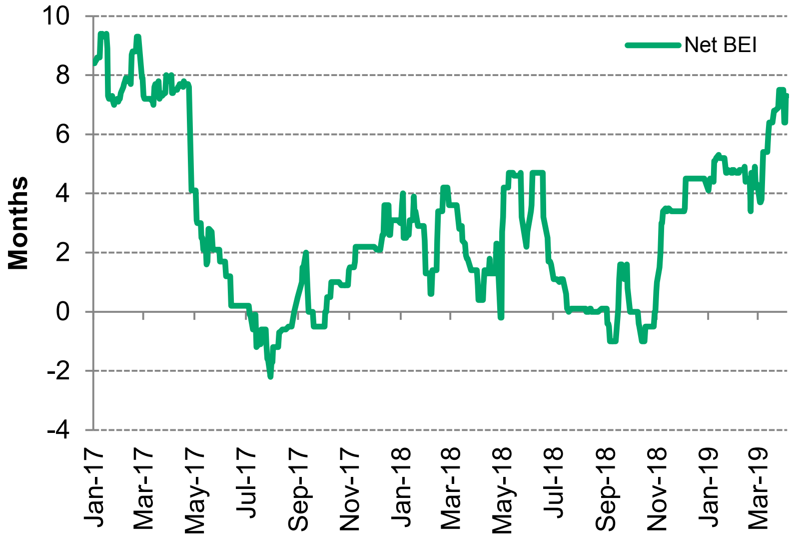
Our active TIPS duration and breakeven inflation exposures are represented in the charts below:

Active TIPS duration exposure since Jan 2017



Source: BNPPAM, as of April 8, 2019

Active Breakeven inflation exposure since January 2017



Source: BNPPAM, as of April 8, 2019

The outperformance accrued entirely in January, when the Federal Reserve's policy shift meant all of our active exposures contributed. The Fed's message of patience and flexibility led to lower real yields, wider BEIs and a steeper nominal curve. A pullback in BEIs in March led to modest underperformance.

At time of writing, the representative portfolio has the following positions:

Breakeven inflation: The portfolio is overweight approximately 7 months of BEI exposure, with the longs concentrated in 7- and 30-yr sectors. The position is currently unhedged, meaning there is no offsetting duration exposure to protect it. In the short term, the long BEI position should be supported by positive inflation accrual. From a valuation perspective, the shift in FOMC policy stance and eventual adoption of average-inflation targeting, plus the recovery in equities and energy prices suggest to us that BEIs should widen back towards 2.20% in the next 3 months. However, with core CPI only running at 2.1% year- over-year, we concede that investors will wish to see actual increases in core inflation before BEIs can push beyond that 2.20% level. We look to reduce our position when January /2029 BEIs reach 2.10%.

Duration: Given the Fed's pivot to a 'patient' and 'flexible' approach that suggests an extended pause for policy rates, as well as potential changes to the policy framework, we have concluded that TIPS real yields should remain contained. Accordingly, we maintained an overweight position in TIPS duration in the first quarter. When 5-year 5-year forward real yields fell from 1.20% in January to 0.65% in late March, we took profit on the position. We are currently broadly flat duration overall. We would underweight TIPS yields if 5-year, 5-year forward real yields fell below 0.50%. We note, however, that signs of economic green shoots could prompt us to establish a duration short position before then.

Yield curve: Again, the prospects of a Fed rate pause and increased emphasis on ensuring a pick-up in core inflation provide a strong argument for a nominal curve steepener. Accordingly, the portfolio is positioned with approximately 6 months of 5s / 30s curve steepening via US Treasury futures. We target 100 bps on the generic 5s / 30s curve.

Eurozone

The growth deceleration narrative extended into 2019

The macroeconomic development in the Euro area so far remains disappointing, and the growth deceleration narrative is extending into 2019. External support to growth remains a headwind, as slowing global manufacturing activity in an environment of high and rising political and policy uncertainties, bodes poorly for the manufacturing sector in the Eurozone. Indeed, the March PMI survey pointed to more bad news in the manufacturing sector, with the PMI Manufacturing index dipping from 50.5 in January to contractionary levels of 49.3 and 47.6 in February and March, respectively. Turning to the forward-looking aspect of the data, we find new orders unchanged on the month at the symbolic 50.0 “no change” point. But once again, the sectoral split shows that weakness in the manufacturing sector is evident – both the manufacturing new orders and new export orders slumped to below 45.

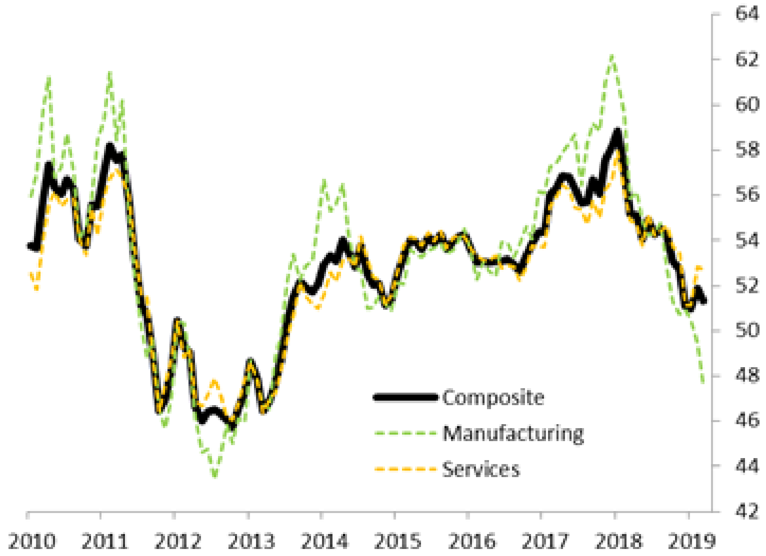
News regarding development of the hard data flow, although lagging, pointed to a less pessimistic picture. The January industrial production data pointed to a 1.4% m.o.m., leaving the level of activity 0.4% above the average for the previous quarter. The indicator for new passenger car registrations posted its fourth consecutive increase in January 2019, therefore confirming previous expectations for normalization in car registrations following the disruption caused by the implementation of new car emission standards. Although there are signs of undeniable accumulation of external risks to growth in the manufacturing sector, it remains to be seen whether the hard data will reflect the same scale of contraction in manufacturing activities as implied by the PMI surveys.

On a positive note, the Euro area’s service sector is showing signs of resilience. The PMI Services index bounced from a recent low of 51.2 in January to 52.8 and 52.7 in February and March, respectively. New business balance for services improved to 52.1 in March – the highest level since November last year. Latest economic indicators are also pointing to steady growth in private consumption. Most Euro area countries saw broad-based increases in employment across sectors in Q4 2018. The cumulative growth in employment, coupled with rising wages and recent decline in energy prices, implies steady growth in households’ real disposable income and should continue to support consumer spending. Indeed, consumer confidence increased for a second consecutive month in February, halting the declining trend observed throughout most of 2018, and is consistent with ongoing steady growth in private consumption.

Overall, economic data releases over the past quarter painted a lackluster picture of the underlying Euro area growth, where the manufacturing sector was severely challenged by external factors, yet domestic demand remained healthy on the back of rising real wage growth and fiscal stimulus.

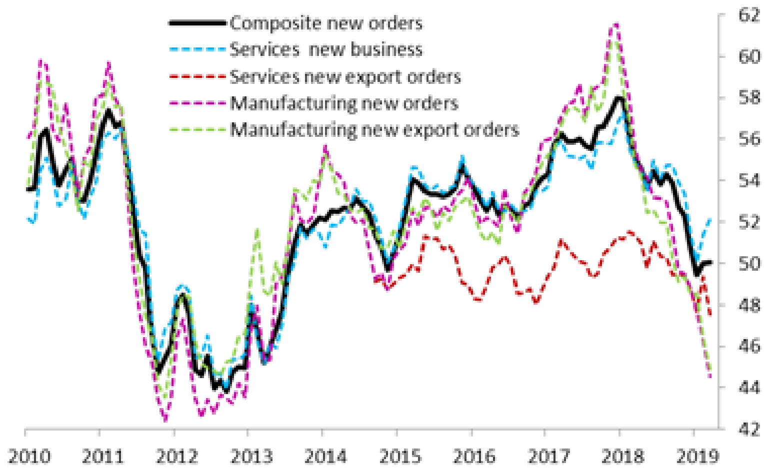
Looking ahead, while the resilience in domestic growth is comforting and will likely act as an economic shock absorber in the near term, a deeper-than-expected slowdown could eventually lead to deterioration in the labor market outlook and cause consumer consumption to slow. Therefore, improvement in external factors will be needed to break the economic momentum out of its current slowing trend. We see increasing likelihood for the uncertainty shocks that have hit the global economy and markets in recent months to fade. First, stimulus efforts initiated by the Chinese authorities should help Chinese growth to bottom out. Second, the trade truce and an emerging trade deal between the US and China should help to halt the slowdown and disruption in global trades, although the timing and magnitude of a trade deal remains uncertain. Third, while Brexit development remains fluid, the removal of an immediate threat of a disorderly Brexit should help to reduce the level of economic uncertainty in the Eurozone in the near term.

Euro Area PMI Fell Further in Q1



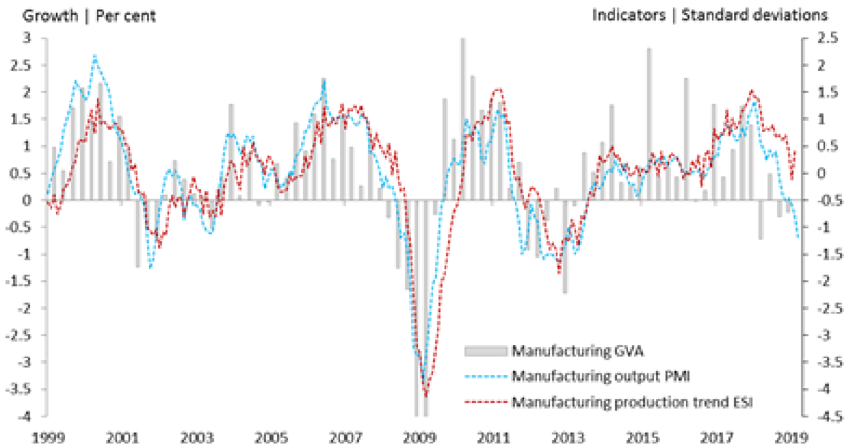
Source: Haver, as of March 2019

Forward Looking PMI New Orders



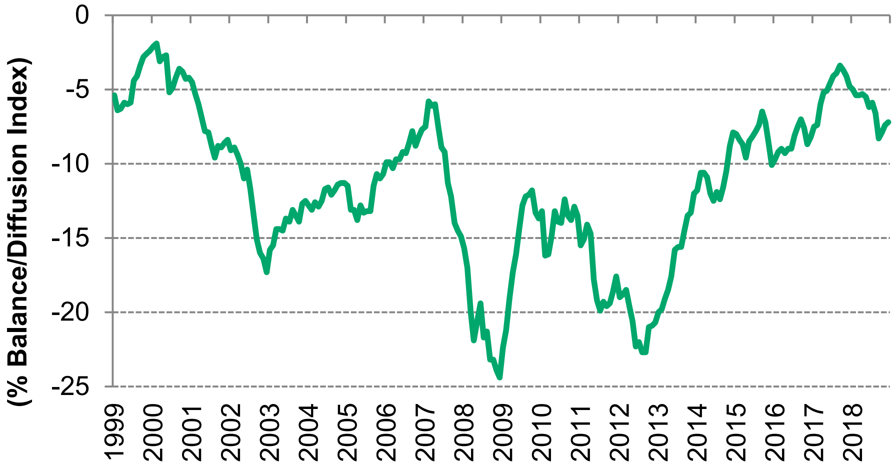
Source: Haver, as of March 2019

Hard Data Versus Soft Data for Manufacturing Sector



Source: Haver, as of March 2019

Remains above its Historical Average



Source: Bloomberg, March 2019

The ECB turned more dovish in the March meeting

The tone of the March ECB meeting was more dovish than most market participants had anticipated. There were three key pieces of new information that grabbed the markets' attention:

- Change in forward guidance on interest rates: the Governing Council explicitly ruled out rate hikes before 2020
- A new Targeted Longer-Term Refinancing Operation (TLTRO-III) was announced to support bank lending conditions, though some of the details remain unclear
- These moves came in the face of slowing growth, stagnant inflation, and political risks, all of which were reflected in larger-than-expected downgrades to the ECB's growth and inflation projections

Although the March ECB meeting was perceived as dovish, as the above announcements were either unexpected in terms of scale or timing, the impact of these announced policies will unlikely meaningfully ease financial conditions in the Euro area.

First, the change in the forward guidance on interest rates from keeping rates unchanged “at least through the summer of 2019” to “at least through the end of 2019” was modest. One can argue that this extension of forward guidance is simply playing catch-up with market expectations, as market pricing has already pushed back expectations for the first rate hike into 2020 prior to the March ECB meeting. In fact, several members of the Governing Council presented the option of changing the calendar date of the forward guidance to March 2020, however this option was met with sufficient resistance in the March meeting, due to concerns about consequences of a protracted period of negative rates and the associated implications for banks.

Second, the announcement of TLTRO-III was a little short in details. The new series of refinancing operations will be launched starting in September 2019 and ending in March 2021, each with a maturity of two years. The rate of TLTRO-III will be indexed to the interest rate on the main refinancing operations over the life of each operation. ECB President Mario Draghi furthermore announced that there will be built-in incentives for credit conditions to remain favorable, but the precise terms have not yet been communicated. With the last tranche of TLTRO-III to be originated as late as March 2021, this ensures that bank lending conditions will remain favorable until March 2022, when the residual maturity of these loans falls below one year. But compared with previous vintages of TLTRO of fixed rate loans for three to four years of duration, TLTRO-III is less generous and does not send as powerful a signal about the future path of policy rates. The difficulty surrounding the TLTRO message is that bank funding conditions for the Euro area as a whole remain favorable by historical standards, but heterogeneity across countries is considerable. Given that Italian banks still rely heavily on TLTRO funding and the need for the ECB to avoid the perception that it is selectively helping an individual country, there may be resistance to offering big subsidies to banks through TLTRO-III, and therefore its terms by definition will be less generous than previous vintages.

Lastly, the ECB staff economic projections were markedly less optimistic than those forecasted in December 2018. Calendar year growth for 2019 was revised down from 1.7% to 1.1%. Looking into the quarter by quarter projections, while it is not surprising to assume weak growth during the first half of 2019 given recent data releases, real GDP growth is projected to remain low in the second half of the year, at around 0.25% q.o.q. in both Q3 and Q4, roughly half the rate estimated in the December forecasts. Many investors seem to think that the downward revisions in the ECB staff forecasts send a dovish message, in the sense that it signals more easing in the pipeline. We think the correct interpretation could be more nuanced, particularly when the central bank has taken action alongside those weak forecasts in the March meeting. The March economic projections establish a new economic baseline against which data outturns can be evaluated, and policymakers may argue that they need to see weakness relative to that new baseline in order to be convinced to do more.

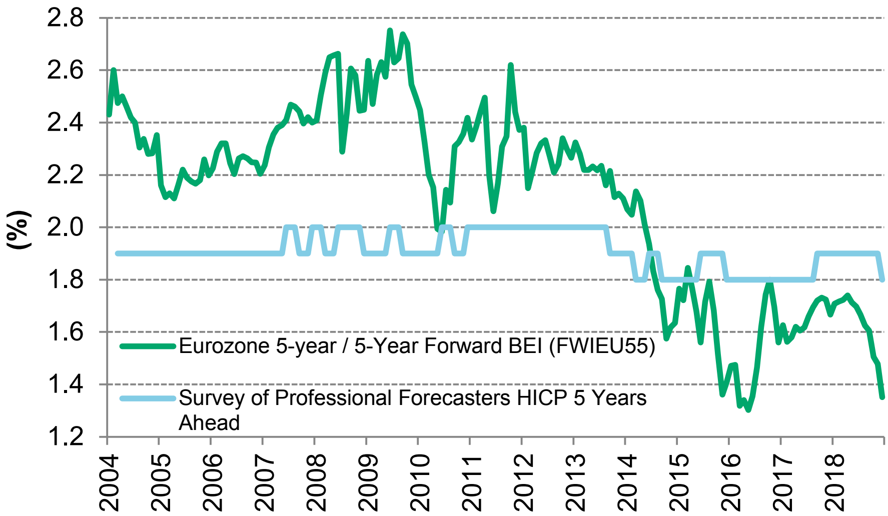
Indeed, one can argue that in the good old days, the Governing Council would have cut interest rates when presented with markedly weaker economic forecasts. The fact that further cuts in interest rates to deeper negative levels, or a resumption of the quantitative easing program, were not even discussed in the March meeting suggest that the Governing Council is holding a relatively sanguine view about the current state of the economy, which contrasts sharply to the Federal Reserve’s pivot over the past quarter.

The path of inflation returning to target delayed not derailed?

Overall, President Draghi’s description of the outlook remains one where growth weakness and downside risks stem mainly from the external environment, with limited signs of spillovers into domestic demand so far, and the path of sustained convergence of inflation to the target has been delayed rather than derailed.

The inflation markets seem to think differently. Having spent much of 2018 gyrating between 1.6% and 1.8% range, the 5-year/5-year forward BEI rate started to fall precipitously in Q4 2018 and has reached a low of around 1.3% in March 2019, just several basis points above its all-time low seen in mid-2016. The decline in BEI is large by historical standards, and reflects not only the expectations that Eurozone inflation will continue to stay low, but also skepticism of the ECB’s inflation credibility. So far, Draghi has dismissed the narrative of inflation expectations being unanchored by referring to the stable survey-based measures, while pointing to negative inflation risk premium for driving market-based expectations.

Market-Based Vs. Analysts Inflation Expectations in 5 Years



Source: Bloomberg, March 2019

It is reasonable for investors to worry about the ECB being late to ease and/or that they may be running out of ammunition. The political hurdles for the ECB to return to unconventional monetary easing is high, and the process of reaching consensus on the need for stimulus and then calibrating is time consuming. We know that the ECB can ease more if there is a need to do so, but how much pain it might take to force the ECB into action remains a question, particularly when the ECB's leadership is about to change with Draghi stepping down in the fall of this year.

Signs of the ECB preparing to do more, if necessary

Fortunately, there are signs that the ECB is preparing to do more if weakness in external factors spill over more significantly into domestic demand. First, the Governing Council retained the downside skew on the growth outlook in the March ECB meeting, which should be understood as a signal that the Council is not done easing. More recently, the discussion on deposit rate tiering is coming back into focus. At the ECB Watchers conference held in late March, Draghi hinted that the ECB will reflect on possible measures that can preserve the favorable implications of negative rates for the economy while mitigating the side effects of hurting banks' profitability. ECB Executive Board member, Peter Praet, later acknowledged that a "lower-for-longer" environment had triggered the discussion of a tiering system. "ECB sources" also revealed that technical committees are working on analyzing options for a tiering system.

While it is too early to suggest that the ECB will be shifting its policy stance significantly, an adoption of a tiering mechanism to mitigate the adverse effects of negative rates would send a dovish signal. Tiering would probably be adopted alongside a "lower-for-longer" policy, and it would also lend credibility to threats of further rate cuts.

Peripheral markets are well supported for now, but political risks remain

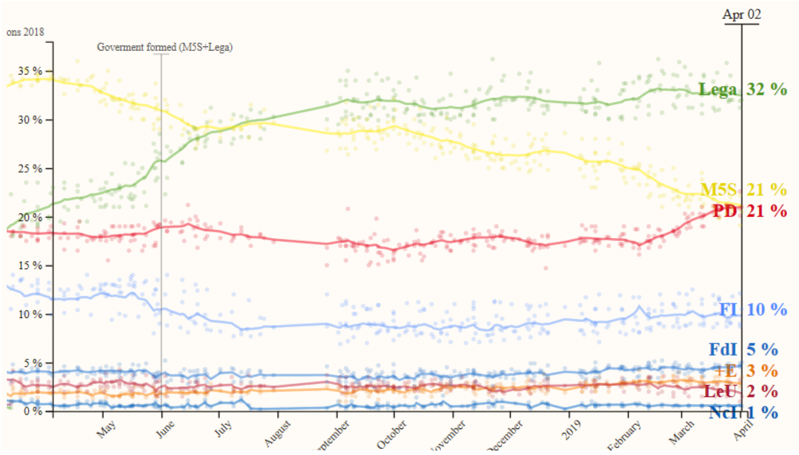
Despite concerns about slowing global and Eurozone growth, low inflation and dovish rhetoric from major central banks created an environment for continued "search for yield" which has so far been supportive for peripheral government bonds. Spreads between 10-year Italian and German government bonds initially pushed wider to just below 300bps early in the quarter after the preliminary Q4 GDP data (released at the end of January) confirmed that the Italian economy has been in a technical recession, but the yield spreads stayed between 235bps and 275bps for the rest of the quarter. Spanish bonds were well supported as well, with 10-year Spanish versus German government bond yield spread moving within a relatively narrow range of 95 to 125bps over the quarter.

The stability in the Spanish government bond market is justified. Despite political fragmentation and minimal economic policy implementation over the last three years, economic growth in Spain remains largely unscathed by the slowdown in the rest of the Eurozone. Its banking sector is in good shape with non-performing loan ratios falling back to 2010 levels. Fiscal deficit fell to 2.6% of GDP in 2018, while a little short from the deficit target of 2.2% agreed with the European Commission, Spain had made significant progress in bringing the deficit to below 3% and achieved a close to flat primary balance. More importantly, none of the political parties in Spain, including the nationalist Vox and far-left Podemos, are openly against the EU or the euro. This, and given the progress that has been made on the fiscal front, makes Spain far less likely to get into confrontational situations with EU authorities with regards to its budget in the near term. But of course, the Catalan issue remains unresolved. And if the April 28th general elections fail to deliver a majority coalition government, the secessionist parties could gain more influence, halting fiscal consolidation and structural reform plans, and potentially bringing back the contentious Catalan separatism back onto investors' radar.

In Italy, however, longer-term fiscal health concerns and political risks remain. While the European Commission decided against opening an Excessive Deficit Procedure with Italy in December, the Italian budget agreement remains far from ideal. The deficit targets set in Italy's budget plan remain challenging given the country's fiscal loosening plans and lack of economic growth. Aggressive fiscal loosening in the form of universal income for the poor and the reversal of pension reforms were simply delayed and the funding sources for these programs remain unclear. The reduction in deficit targets for 2020 and 2021 relies heavily on "safeguard clauses", in which a VAT hike is supposed to kick in automatically if no alternative fiscal measures can be found. The credibility of the current government's fiscal discipline is low, and the Italian economy continues to face meaningful headwinds.

On the political front, since the coalition government between radical parties Five Star Movement (M5S) and the League was formed in mid-2018, support for M5S has fallen while the popularity of the League has risen. In recent regional elections in the center and south of Italy, the League, as part of the center-right coalition, has performed very well. The League is also now the dominant force within the center-right coalition, garnering roughly 32% of the support in the opinion polls versus 10% for Forza Italia. At the national level, differences in M5S and the League's stances on the issues of (i) the high speed rail link between Turin and Lyon, (ii) devolution of fiscal powers from the center to the north, (iii) the tactics on migration policy, and (iv) joining China's Belt and Road Initiative have led to a rise in tensions between the two governing parties. Given the rise in popularity that the League has been enjoying, and its increased friction with M5S, there have been speculations that it's only a matter of time before Matteo Salvini from the League will want to break up the coalition, call fresh elections, and secure a clear mandate to pursue the League's agenda. In the coming months, we see very little appetite for a snap election to take place in Italy. Announcing an early election at this stage would mean asking the people to vote more or less at the same time when the European Parliamentary elections are also taking place. The two voting systems are quite different, requiring different coalitions, and the divergent expression of preferences would likely confuse the voters and potentially corrupt the results of one or both elections. It is also unlikely for Italian general elections to happen over the summer, as traditionally Italy has not held national elections passed June. Political risks in Italy will likely retake the center stage in the second half of 2019, particularly if Salvini does well in the European elections and sees it as evidence of his electoral advantage. In such a scenario, the League would likely become the senior partner in a government reshuffle or in new center-right coalition government. Market participants will likely perceive such an outcome as market-friendly, with the expectations that some of the expensive fiscal agenda from M5S can then be dropped, and that the League in a center-right coalition setting would represent some sort of return to political normality. However, it is important to remember the anti-euro and anti-EU rhetoric from Italian politicians over the last couple of years were actually coming from Salvini's party. And regardless of who is in charge of the government, the budget discussion for 2020, which will also take place in the second half of this year, will likely be challenging once again given Italy's current fiscal health and the lack of progress in structural reforms.

Italian Election Polls



Source: Poll of Polls, April 2019

Eurozone inflation-linked bond market outlook and exposures

Over the first quarter of the year, we held the view that the slowdown in the Eurozone's economic growth was largely driven by external weakness, and that fears of further external shocks should gradually ease given dovish responses from major central banks around the world, along with easing measures provided by Chinese authorities and the de-escalation in US-China trade tensions. At the same time, favorable financial conditions, continued improvement in employment and wage growth, as well as a more expansionary fiscal stance in major member states, should continue to support private consumption in the Eurozone. With our base case assumption that the Eurozone economy should continue to grow at slightly above trend, albeit at levels lower than those seen in 2017, and our expectations that worst fears of economic slowdown would not materialize, the portfolio was positioned with a modest duration underweight and long BEI position to capture a potential recovery in risk sentiment. However, despite some early signs of recovery in Eurozone's economic activities, the magnitude of improvement in Q1 was too modest to reassure investors of meaningful economic reacceleration ahead, given lingering economic risks from external factors and Brexit uncertainty. At the same time, inflation developments remain lackluster, and revisions in Germany's inflation data due to a methodology change, has led to an unfavorable one-off impact on the unrevised Eurozone Harmonised Index of Consumer Prices (HICP) ex-tobacco to which inflation-linked bonds are referenced. Our Eurozone active positions suffered as a result, and detracted slightly from performance.

Looking ahead, recent incoming data has reinforced our view that we have probably already seen the trough in global growth. PMI surveys are showing early signs of a bounce back in Chinese economic growth, and we expect easing measures announced by the Chinese authorities to continue to pass through to the real economy and keep economic growth in the right direction. In the Eurozone while the manufacturing sector is still slow to recover, there are signs of more green shoots across member states. Recent Eurozone services PMI surveys also confirmed our view that private consumption remains resilient.

In breakeven inflation, having spent much of 2018 gyrating between 1.6% and 1.8% range, the 5-year/5-year forward BEI rate started to fall precipitously in November and has reached a low of around 1.3% in March 2019. The decline in BEI is large by historical standards, and reflects the deceleration in global and the Eurozone's economic growth, expectations that Eurozone inflation will continue to stay low, and skepticism of the ECB's ability to deliver its inflation target given its constrained policy tools. The inflation picture will likely remain murky in the near term, as volatility seasonal moves of holiday package prices around the timing of the Easter holiday will make inflation prints difficult to read. The recent growth worries may also slow the process of higher wages passing through to inflation. Our near term view is that Eurozone BEI rates offer some tactical value, as we remain optimistic that economic activities will recover in the coming months. We also see the ECB's discussion about "tiering" as a sign of preparing for potential further easing should economic growth disappoint further, and such action may ease investors' concerns about the ECB running out of ammunition somewhat. We expect the combination of economic green shoots, an ECB more prepared to ease, and positive inflation carry seasonals to help BEI rates to recover in the near term. Over the longer-term, however, if the growth momentum continues to stall and if disinflationary shock intensifies, we see increasing risks of market pricing in higher probability of adverse scenarios, such as deflation, given that policy rates will likely still be close to the "effective lower bound" and the political difficulties in returning to sizable quantitative easing programs.

In duration, we held a modest tactical underweight in duration early in the year, as we saw asymmetric risk-reward tipped in favor of higher yields in front of the wall of government supply scheduled for January. However, we were quick to stop out of the position at a small loss, as we saw new issuance being well absorbed by the market, and German Bund yields continued to hover at the lows given the lack of economic recovery. More recently, we have started to re-establish a modest duration underweight in core countries, motivated by the dissipating fear of a manufacturing slump and external weakness dragging domestic activity down, and the diminishing probability of a disorderly hard Brexit. Over the longer-term, however, we see the backdrop of low inflation, lingering threats of US auto tariffs on German car exports, and unresolved political and fiscal issues in Italy to limit the extent of a potential rise in core government bond yields.

In core yield curves, we have gradually moved our inflation-linked bond holdings from the intermediate sector to the shorter-end of the real yield curve to capture the turn to a more favorable inflation carry seasonals in the coming couple of months. In peripheral yield curves, we held a modest flattening exposure to express our defensive view. While some of the major risk events like the rating agency decisions and the budget fight are behind us, we expect the Italian bond market to continue to be clouded by uncertainty and volatility. Recent macroeconomic developments are not encouraging – real GDP growth has slowed, inflation remained subdued, and consumer confidence remains soft. Italy's low potential trend growth and the related structural weakness remained unresolved. We also see a disconnect between the optimism of the new European Parliament being more fiscal friendly and Italy's fiscal reality, and see a high likelihood of volatility returning to the Italian government bond market.

UK

Brexit update

May's withdrawal deal has been defeated three times

In the UK, Brexit developments remain front and center on UK investors' radar, and over the past quarter, the Brexit drama took even more dramatic twists and turns. Prime Minister Theresa May's Withdrawal Agreement (WA) and Political Declaration agreed with the European Union (EU) were defeated in Parliament thrice – first by 230 votes on January 15, then by 149 votes on March 12, and lastly by 58 votes on March 29.

Parliament failed to find majority support for an alternative

In an attempt to break the impasse, Members of Parliament (MPs) agreed to take control of parliamentary business to hold indicative votes to test the will of the House of Commons on various alternative options for Brexit. The first round of indicative votes happened on March 27, where MPs voted on 8 alternative non-binding Brexit options:

- No deal exit (defeated 160 to 400)
- Common market 2.0 (defeated 188 to 283)
- European Economic Area (EEA) / European Free Trade Association (EFTA) membership without customs union (defeated 64 to 377)
- Customs union (defeated 265 to 271)
- Labour Party's plan for a close economic relationship with the EU (defeated 237 to 307)
- Revoke Article 50 (defeated 184 to 293)
- Confirmatory public vote (defeated 268 to 295)
- Contingent preferential arrangements (defeated 139 to 422)

While these votes did not reveal an option commanding the support of a majority of MPs, they did give an indication of where current parliamentary support opinion lies. A second round of indicative votes was held on April 1 with a goal to narrow the options further. Options which received a significant amount of "no" votes were excluded from the ballot paper. However, MPs once again failed to reach a majority for any Brexit option, and none of the options earned more than the 286 "yes" votes received by May's withdrawal agreement (on March 29).

- Customs union (defeated 273 to 276)
- Confirmatory public vote (defeated 280 to 292)
- Common market 2.0 (defeated 261 to 282)
- Letting parliament decide the way forward (defeated 191 to 292)

PM May asking for a second extension of Article 50

The March 29 deadline for the UK to depart the EU was extended – if the UK finds a way to accept the current Brexit terms, then the country will have until May 22 to get all the legislative procedures in place to leave the EU. If May cannot persuade lawmakers to agree to a deal, then the UK will have until April 12 to figure out the next steps. If no deal can be agreed upon by April 12, then the UK will have the option to request a longer extension, on the condition that the UK participates in the upcoming European Parliamentary Elections in mid-May. Alternatively, the UK can also choose to leave without a deal, or to revoke Article 50.

At the time of writing, the UK Government and Parliament are still unable to find majority support for May's deal or an alternative deal. On April 2, the day after the second round of indicative votes, PM May announced that she would seek talks with the Labour Party to find a common position on Brexit. And if those talks fail, the government would be prepared to implement a compromise based on binding indicative votes to be held in the House of Commons. PM May also made clear that while there might be room for changes in the Political Declaration on the future relationship with the EU, the EU is unlikely to reopen the Withdrawal Agreement for renegotiations, which means the Irish backstop will remain. Talks with the Labour Party's leader, Jeremy Corbyn, were initially described as constructive, but it remains difficult for the two parties to reach a compromise.

By the end of the same week on April 5, PM May wrote a letter to Donald Tusk, the President of the European Council, to ask for another short extension of Article 50. PM May's intention is to delay the Brexit date further to June 30 to buy more time for her battle to win cross-party agreement on a way forward. At the time of writing, Donald Tusk, is instead suggesting a year-long "flextension" which would allow the UK to find a way out of the Brexit deadlock until April 2020, but would offer the UK a clause to leave early if a deal is struck before then. The final form of extension will be discussed in the EU summit on April 10, and any plan to delay the UK's departure will once again require unanimous agreement among the 27 EU member states.

Risk of an early election has increased

PM May's pivot towards a cross-party solution is a positive development, but by reaching out to the Labour Party, May is causing a stronger divide within the Conservative Party. While the risk of a disorderly no-deal Brexit might have decreased, the risk of an early election has increased at the same time. If a cross-party deal is reached, it will likely include some version of customs unions or confirmatory votes, and trigger more rebellion from hard-line, pro-Brexit MPs in the Conservative Party, who might then be willing to vote against the current government in a no-confidence vote. In the case of PM May's Withdrawal Agreement getting passed in the next "meaningful vote", the support to her deal will likely come from Brexiteers who in return would demand May step down as Prime Minister. Moderate Conservative MPs may leave should May be replaced by a hard Brexit candidate in the Conservative leadership contest.

At the time of writing, it remains unclear whether a deal can be reached between the Conservative government and the Labour Party, or whether a clear alternative deal will emerge in another round of indicative votes. The failure to pass a deal by the April 12 deadline means that the UK will be on course to ask for a long extension from the EU, and that in turn would require UK participation in the European Parlimentary elections. We believe that the EU will reluctantly offer the extension in return for clarity on the UK's next steps, largely out of consideration of the consequences for the Irish Republic if there is a hard Brexit. The need for the UK to participate in the European elections will be seen by the public, particularly the pro-Brexit constituency, as MP's failure to deliver Brexit, and could cause both the Conservative and Labour Parties to lose support. In fact, we have already seen a surge in support for the pro-Brexit UK Independence Party (UKIP) in a recent by-election.

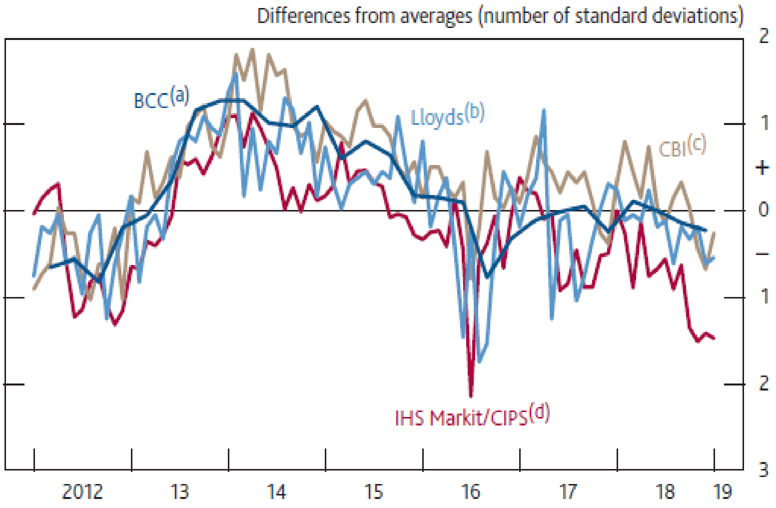
Manufacturing PMI supported by stockpiling but services PMI plunged into contractionary territory

As the level of political tensions reached new heights over the past few months, the impact of Brexit uncertainty on the economy is becoming increasingly clear.

The services Purchasing Managers' Index (PMI) disappointed heavily, falling to a contractionary level of 48.7 in March from 51.3 in the previous month. The March print represents the second worst outturn over the past decade, with the worst print being 47.4 recorded in the aftermath of the 2016 EU referendum. This significant drop in services PMI pointed to a considerable softening in overall sentiment in the service sector, with survey respondents noting "intense political uncertainty" as a reason to delay spending decisions. The more forward-looking components of the survey also highlighted some disappointing trends. New business orders registered a third consecutive print below 50, and the measure of outstanding work also stayed below 50 for the sixth consecutive month, suggesting a further slowdown in business activities.

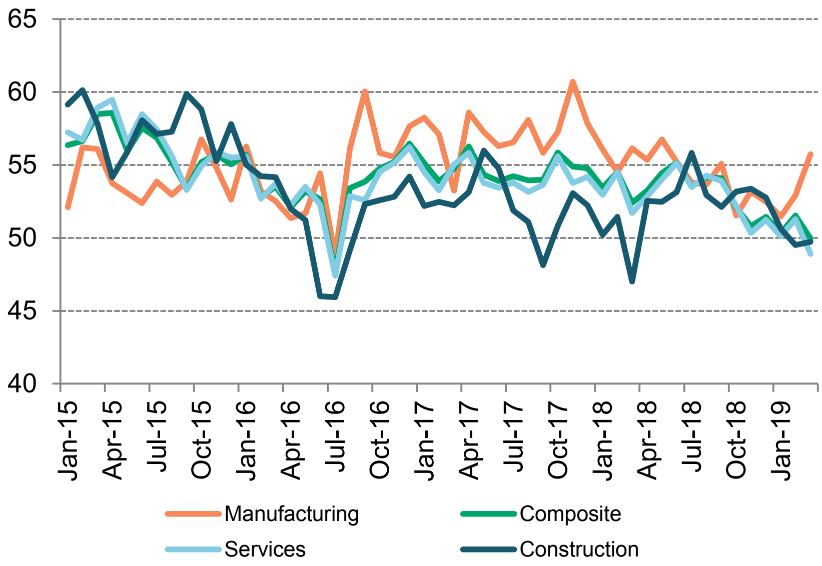
The manufacturing PMI, on the other hand, rose to 55.1 in March from 52.0 in the previous month, as the pace of stockpiling accelerated ahead of what was originally supposed to be Brexit day at the end of March. If firms were preparing for a disorderly Brexit around the original Brexit schedule, then we probably have already seen the peak of the stockpiling effects in the manufacturing sector, and we may see a "pay back" period in the coming months. A combination of inventory run-down and weaker global trade suggest that risk to the manufacturing sector is tilted to the downside in the near term.

Political Uncertainty Weighs on Business Sentiment Surveys



Source: BCC, CBI, IHS Markit, Lloyds Banking Group, Bank of England, February 2019

UK PMI Output Surveys



Source: Markit, Haver, March 2019

The House of Lords RPI Inquiry

As pointed out in our previous write-up, the House of Lords (HoL) Economic Affairs Committee launched an inquiry to assess the suitability of using the Retail Price Index (RPI), whether alternative indices are available, and the implications of altering or abolishing RPI to its current users. Public hearings were held in mid-June of last year, and written submissions of “evidence” from the public were published in early September. The Committee then published its findings in mid-January of 2019, and their conclusions were a little more aggressive than market expectations.

Here are some of the key recommendations from the HoL. First, the clothing and footwear measurement problem should be “fixed”, and if not, the UK Statistics Authority (UKSA) could be failing in its statutory duties. The HoL further recommends that the Chancellor of the Exchequer consents to the relevant changes regardless of whether the Bank of England (BoE) judges them to be materially detrimental to holders of index-linked Gilts. Second, the HoL suggests that the UKSA, after consulting with the stakeholders and technical panels, decide which index to recommend as the government’s single general measure of inflation. The HoL recommends that the government adopts the preferred candidate as its single general measure of inflation within five years. Once agreed upon, the government should begin to issue Gilts linked to that index. Lastly, the HoL suggests that the UKSA and the government should decide whether to continue to publish the RPI as a separate index for legacy measures, or whether it should set out a program of adjustments so that the RPI converges on the single general measure in the long-term.

The government is required to provide a response to the HoL’s recommendations in April. Given the increasing doubt about whether the RPI is an appropriate measure of UK inflation, the increasing preference for the Consumer Prices Index (CPI) including owner occupiers' housing costs (CPIH) as the reference inflation index for future use, and the strong words used in the HoL’s recommendations, we highly doubt that the HoL inquiry will culminate in no action being taken. At the same time, any meaningful changes to the RPI’s calculation methodology are likely to create unfair gains or losses to all stakeholders. Following the “no change” outcome of the 2012/2013 Consumer Prices Advisory Committee (CPAC) consultation, investors have been accepting a much lower level of real yields when purchasing index-linked Gilts, with a reasonable assumption that the unfavorable level of yields will be compensated by the well-known upward bias in RPI. Any attempt to reduce future returns to investors by removing the RPI-CPI wedge would be seen as a haircut or credit event and open to legal challenges, which could also damage the reputation of the Gilt market.

We believe that the UKSA and the HM Treasury will set out the next steps for RPI reform in April. Another consultation on RPI calculation methodology is possible, and the current HoL inquiry could eventually lead to some tweaks in RPI calculation methodology in the future. Issuance of CPI/CPIH-linked Gilts may also come sooner rather than later. From a market’s perspective, we believe the risks of a RPI consultation and the associated uncertainty related to RPI calculation methodology are not fully reflected in UK breakeven inflation (BEI) pricing yet.

Ultimately, however, we are skeptical of a rapid or complete abolition of RPI. The “no change” decision out of the 2012/ 2013 CPAC consultation reflects the authorities’ reluctance to take actions which might adversely impact bondholders and pensioners. Moreover, the demand for RPI-linked instruments will likely remain robust given the large RPI-linked pension liabilities of private defined benefit (DB) pension schemes which are under ongoing regulatory pressure to close their funding gaps. We believe the government would prefer to proceed incrementally to avoid creating unfair windfall gains and losses for various stakeholders, and risking a loss of confidence in the linker market.

UK Index-Linked Gilts Market Outlook and Exposures

The political situation regarding Brexit remains highly fluid. Political events are often difficult to predict, and Brexit is particularly complicated due to the multiplicity of plausible outcomes. At the time of writing, there is plenty of evidence that Parliament has taken action to actively prevent a disorderly no- deal Brexit, and Theresa May’s government is working on a cross-party alternative to her withdrawal deal, leading to a rising chance of a softer Brexit. While the tail risk of a no-deal, cliff-edge exit has decreased substantially, the risk of a general election in the UK has increased at the same time. The stance of both monetary and fiscal policies, and also the state of the economy and the attractiveness of UK assets, all hinge on the outcome of the Brexit negotiations. Below are our thoughts on some of the key scenarios:

1. **The withdrawal agreement comes to pass**

At the time of writing, the Prime Minister's deal has already been voted down three times, and it is unlikely to come back for a fourth vote. But let us assume that somehow politicians reach some sort of cross-party compromise which allows the withdrawal agreement to come to pass, then the transition period in which the UK remains in the Single Market kicks in, and the negotiations regarding the future relationship between the UK and the EU continue. The transition period can also be extended up to December 2022 if both sides agree.

Such an outcome would probably provide the market some short term relief. But the can is simply kicked down the road for another 21 months (or longer), as details about future trade arrangements will still need to be hashed out. It is far from clear whether the UK economy will enjoy an economic bounce, or the "deal dividend" as termed by Chancellor Philip Hammond. Of course, if businesses and consumers have already braced themselves for the worst outcome, then the avoidance of a disruptive cliff-edge exit should boost sentiment. However, consumer spending behavior has not yet been meaningfully affected by worries over Brexit. If anything, stockpiling activities in preparation for Brexit disruptions have provided a temporary boost to the UK's manufacturing PMI over the past few months.

More importantly, the political wrangling and the inability of Parliament and the government to break the impasse might have already inflicted permanent damage to businesses' confidence in the UK's political system.

Nevertheless, with economic uncertainty clearing its way at least in the near term, the British pound will likely enjoy a relief rally. And with the transition period in sight, the BoE will likely follow through with its hawkish rhetoric and the market could quickly reprice front-dated UK interest rates to reflect faster rate hikes in the next couple of years. BEI spreads, particularly those at the shorter-end of the curve, will likely tighten as the market will no longer need to worry about risks of higher imported prices and/or trade tariffs in the near future.

2. **No-deal Brexit**

The chances of a no-deal Brexit through inaction still look remote. Parliament has already taken action to try to prevent such an outcome, and the UK can and would stop the Article 50 clock to avoid this situation. But having a consensus against a no-deal is not enough – there is still no consensus around an alternative course of action. And the risk of a no-deal Brexit can also be reintroduced through a second referendum, depending if there is one and how the referendum question will be framed. Hence, the risk of a no-deal scenario cannot be entirely written off yet.

In a no-deal exit, the UK will likely fall into the World Trade Organization's (WTO) most favored nation's tariff regime. But to trade under WTO law, the UK will have to establish its own schedules, which will then have to be accepted by all WTO members. The UK will also face non-tariff barriers such as EU regulation checks at the borders and trade quotas. The financial services industry will also face significant regulatory limitations and disruptions. In the BoE's scenario analysis, the economic hit in a no-deal situation would range from -4.75% to -7.75% in 5 years' time. In terms of immediate market reaction, the British pound will likely take a hit. The currency weakness, and perhaps also the potential shortage of goods, will drive inflation higher, at least in the short term, which in turn will likely push shorter-dated BEI rates higher. Gilts will likely rally as the market prices out future rate hikes and instead prices in potential rate hikes or even a resumption of the quantitative easing program (QE).

3. **A second referendum**

An increasing number of MPs seem to have concluded that it is better to ask the people to make an incredibly difficult decision for them. However, the path leading to the second referendum is uncertain. The second referendum is also unlikely to be a repeat of the first one, and the design of the questions on the ballot will not be an easy task. A conventional binary choice between (i) May's deal and remain, or (ii) May's deal and no deal, or (iii) no deal and remain could be problematic, as it could leave out the third viable option and therefore the votes that would have supported that option. Another plausible arrangement is to have a 3-way question where voters will be asked to rank the three options, or even a two-stage process – for example, a first vote to approve the negotiated deal, and if the deal is rejected, then a second vote on whether to remain or leave with no deal. The sequencing of these questions would matter a lot as it could skew the votes one way or another.

A decision to hold a second referendum will probably be market positive initially, as opinion polls suggest that remain has a better chance of being the winner this time. However, any positive market reaction will likely be contained by the prolonged uncertainty during the campaign period, and the danger that a second referendum might eventually lead to no-deal Brexit. If the public chose the no-deal option, there would be little time or patience to continue Brexit discussions.

4. **General Election**

The risk of another vote of no confidence in the government in an attempt to trigger a general election has increased. While traditionally the ruling party is unlikely to vote themselves out of the government, this time around, with May's cross-party approach as an attempt to break the political deadlock, the Brexiteers within the Conservative Party will likely be more rebellious. As support to the Conservative Party has weakened meaningfully in recent polls, markets may come to the conclusion that the probability of a Corybn-led government is rising. Labour leaders' policy agenda, which favors higher income and corporate taxes to pay for higher government spending, renationalization of utility and rail companies, abolishing tuition fees, limiting the rise in pension age, etc., is generally perceived to be fiscally expansionary and detrimental to Gilts and the British pound. Although, we believe such market moves caused by the fear of a Corbyn-led government should be faded. Recent election polls are pointing to rising political fragmentation, and it will likely be harder for a coalition government to hammer out compromises on major policy agendas.

With the low visibility in economic outlook and continued domestic political risks, our active strategies remain focused on near-term tactical opportunities. In duration, Brexit uncertainty, concerns about global growth, the recent BoE QE reinvestment flows, as well as duration demand on the back of the UK linker index extension, pushed 30-year real yields to a new low of -2%, and 10-year conventional yields to just below 1% in late March. With global growth sentiment recovering following the recent bounce in China's PMI data, PM May's moving towards a cross-party solution to break the political deadlock, and the conclusion of the BoE's reinvestment program and the linker index extension event, we believe a short duration position at current levels offer some tactical value.

In UK BEI, over the past couple of quarters, we maintained our view that the rising chance of a softer Brexit outcome would be supportive to the British pound, and in such a scenario, shorter-dated BEI rates look rich relative to the declining inflation path and lingering RPI reform risk. We also expect heightened Brexit uncertainty to increasingly weigh on UK's growth outlook and business sentiment, which in turn should also weigh on inflation expectations. The sizing of our short BEI position was modest, as we were cognizant that short UK BEI trades have been popular among investors, and such positions could be vulnerable to being stopped out if the political brinkmanship renews fear of a no-deal Brexit. Indeed, in late March, we saw a perfect storm in the UK index-linked Gilts market, where rising concerns of a disorderly Brexit, sizeable linkers demand caused by index extensions in various UK inflation-linked bond benchmarks, and low issuance in UK linkers caused a squeeze in the market, driving 30-year BEI rates up to a local high of 3.48%. Our initial modest sizing of the position allowed us to take advantage of the short-term market dislocation to add to our trade, helping the position to generate positive returns despite the squeeze in the market. Looking ahead, we believe all of the rationales for our short BEI bias remain – the Brexit premium embedded in UK BEI remains too high, RPI reform is still a risk, and economic releases have so far reinforced our view of a slowing economy. However, the risk-reward for being short UK BEI is not one-sided. From a supply-demand perspective, issuance in inflation-linked bonds will be very light in the next few months while another index extension of the 5-year and longer UK inflation linked benchmark in July will be supportive to BEI. From a political standpoint, the political situation remains fluid and another extension of the Brexit deadline cannot be taken for granted. As such, we maintain a modest short position in UK BEI, and will be looking for opportunities to add to the position.

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