# Macro Theme

## Inflation at an inflection point 2.0

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The lack of inflation has been a defining factor for advanced economies in recent years. A mix of cyclical and structural factors have kept wage and price pressures at bay. Central banks have gone from fighting against inflation to fighting for inflation. In April, we concluded that we were at an inflation inflection point at which cyclical wage growth should start to pick up, in both the US and the Euro area, and that global structural downward inflation pressure could start to abate. In this follow-up report, we continue to believe that wage growth will rise further. The Phillips curve is very much alive and kicking. We also look into the relationship between wages and inflation and the possible inflation effects of an intensified trade war. The conclusion is that there are many upward inflation risks for the coming years. Market consequences include bond yields continuing their gradually rising trend, a possible turn higher for the EUR/USD next year and downside risks for equity markets.

### The Phillips curve is alive and kicking

In our report "Inflation at an inflection point, volume I" in April, we concluded that the rumours of the death of the Phillips curve were exaggerated. Since then, our conviction has been strengthened. Not only has wage growth in the US been picking up further, we now see clear evidence of wage growth picking up in the Euro area too. As a result, we are now less humble: the Phillips curve is alive and kicking.

### From wages to inflation

We find the link between rising wage growth and higher core inflation to be fairly solid and use it to conclude that wage growth in the Euro area of around 2.5% will be enough to return core inflation to levels consistent with the ECB's inflation target. At the same time, US wage growth exceeding 3.5% would push core inflation above levels consistent with the Fed's inflation target.

### Tariffs driving prices up

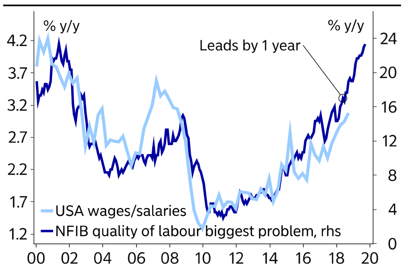
Trade disputes have intensified, especially between the US and China, and we do not see a quick solution to the situation. Although the tariffs implemented so far will only have a marginal impact on inflation, there is a risk of much larger effects should the trade war continue to escalate. The major impacts are expected to be seen in the US.

### Market implications

Markets have moved in line with our expectations in "Inflation at an inflection point" from April. We stick to our view of US interest rates grinding higher to 3.6% by mid-2019. Rising core inflation usually leads to a flatter yield curve, but massive bond supply should balance that effect. The ECB waking up to higher inflation should lead to a similar trend in EUR rates and trigger a rising EUR/USD in 2019.

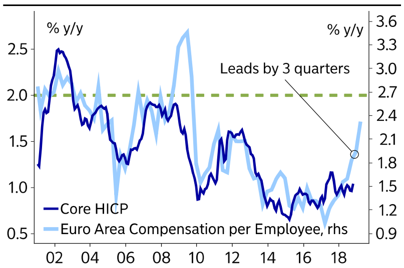
Equity markets should see more downside next year as a consequence of increased wage costs leading to profit margin expectations being lowered. Also, valuations will likely be challenged by a higher cost of capital. Higher interest rates should lead to P/E contraction and compression (greater valuation contraction for more expensive stocks) owing to the exponential relationship between growth and cost of capital.

**US: LACK OF QUALIFIED LABOUR**



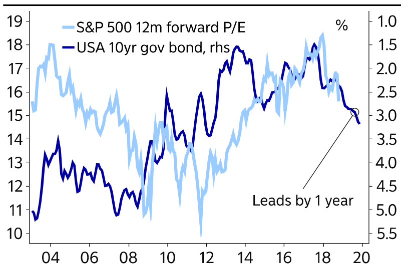

Source: Macrobond and Nordea

**EURO AREA: WAGES AND INFLATION**




Source: Macrobond and Nordea

**INTEREST RATES AND FORWARD P/E**




Source: Macrobond and Nordea

# The Phillips curve is alive and kicking

In our "Inflation at an inflection point, volume I" report from April, we concluded that rumours about the death of the Phillips curve were exaggerated. Since then, our conviction has been strengthened. Not only has wage growth in the US picked up further, in line with the predictions of 'our' Phillips curve, but we now also find clear evidence of wage growth accelerating in the Euro area. Thus, this time around we are less humble – the Phillips curve is alive and kicking.

Both central banks and the markets have been doubtful about the survival of the Phillips curve

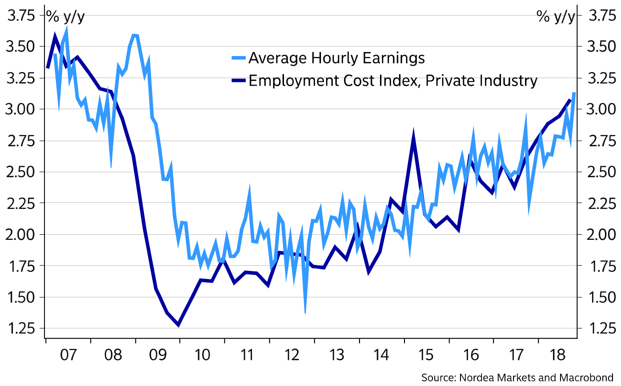
We think it is fair to say that both central banks and the markets have been doubtful about the survival of the Phillips curve. Furthermore, we believe such views have been the main reason why at least some central banks are probably starting to feel that they are behind the curve, even though they would not publicly admit it (see our report "Return to your rules, please"). Certainly, in the US, these views have been instrumental in forming market expectations, which have consistently undershot the actual Fed policy rate since the tightening cycle truly started two years ago.

### Watch for rising wage costs in the US – revisited

While there has been some volatility, hourly earnings growth accelerated in October to 3.1 % y/y, its highest level since 2009 (see figure below). The upward trend in wage growth has been confirmed by the private sector employment cost index (ECI), which is a broader and more relevant measure of wage costs.

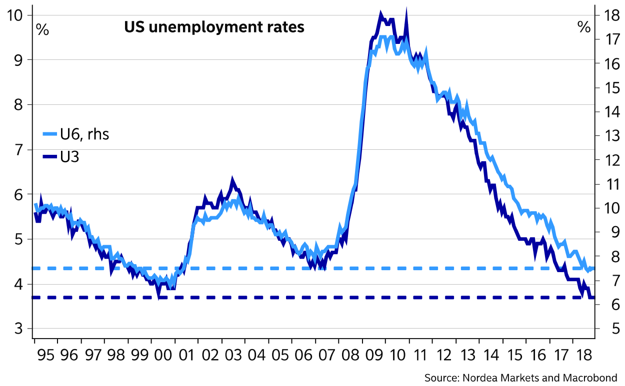
Even though wage growth accelerated materially, most would have expected even higher numbers given the historically low unemployment rates in the US. However, the official U3 unemployment rate figures probably overstate the pressure in the labour market. While the U3 unemployment rate is already beneath the lows last seen in the early 2000s – the lowest levels seen in 50 years – the broader U6[1] measure of unemployment is still well above what we saw in the early 2000s.

**US WAGE GROWTH ON AN UPWARD TREND**




Source: Nordea Markets and Macrobond

**U3 OVERSTATES THE LABOUR MARKET PRESSURES**




Source: Nordea Markets and Macrobond

In the US, developments since April have been in line with what 'our' Phillips curve model predicted

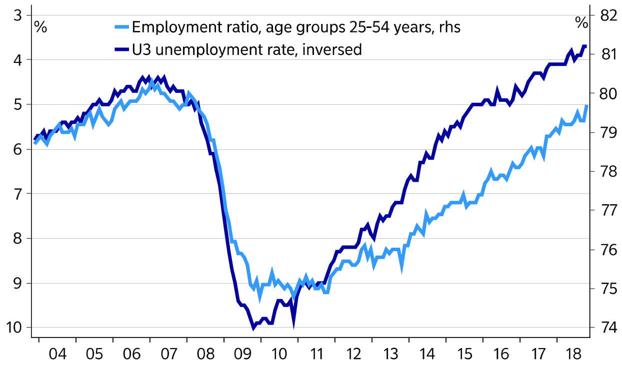
The employment ratio of core age groups also indicates that there are more resources available in the labour market than what the U3 unemployment figures indicate.

In our April report, we found that **the US Phillips curve seemed to hold up quite well when using the U6 measure of unemployment.** Moreover, given the continued expansion of the US economy with further strengthening of the labour market, **we had good reasons to believe that wage growth would continue to accelerate ahead.**

**Developments since April have been in line with what 'our' Phillips curve model predicted** and therefore confirmed our view.

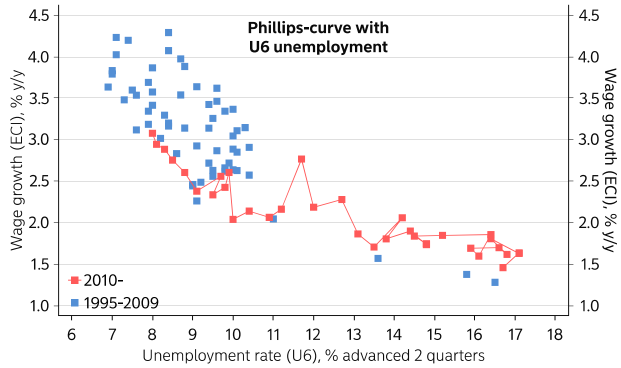
1: U6 unemployment also includes part-time workers that want to work more for economic reasons, discouraged workers and marginally attached workers.

**U3 OVERSTATES LABOUR MARKET PRESSURES**




Source: Nordea Markets and Macrobond

**PHILLIPS CURVE WITH U6 UNEMPLOYMENT IN THE US**



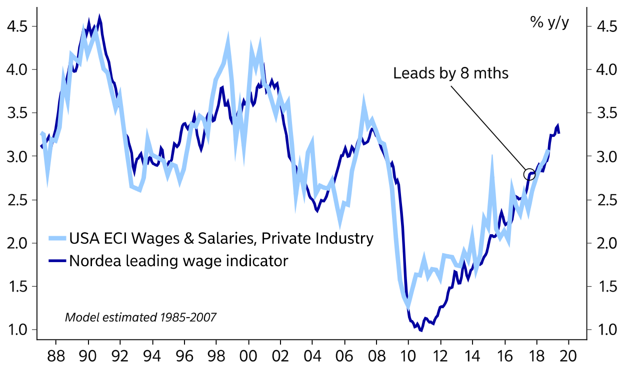

Source: Nordea Markets and Macrobond

Risk to wage growth in the US lies on the upside

Taking account of the normal lags between the buildup of pressures and wage growth, and the fact that the US economy appears set to continue booming for quite a while, we expect that unemployment should continue to drop and that wage growth should further accelerate ahead. History also suggests that as the labour market continues to tighten, wage growth could accelerate. **Accordingly, we argue that the risk to wage growth in the US still lies on the upside.**

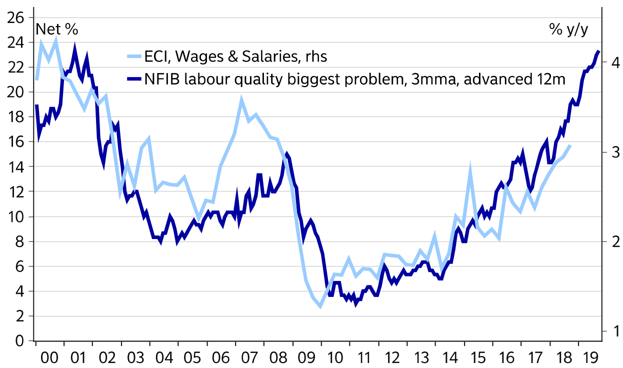
If we add other factors that affect wage growth over time, such as inflation expectations and workers' convictions in the strength of the labour market, the confidence in our argument of higher wage growth ahead is strengthened. Alternative measures of labour market tightness – such as the net percentage of the NFIB surveyed companies that say a lack of labour quality is a big problem – also point in the same direction (see figure below).

**NORDEA'S LEADING US WAGE INDICATOR**




Source: Macrobond and Nordea

**INCREASING LACK OF QUALIFIED LABOUR IN THE US**




Source: Nordea Markets and Macrobond

## Wage growth also picking up in the Euro area

Wage growth in the Euro area has picked up significantly

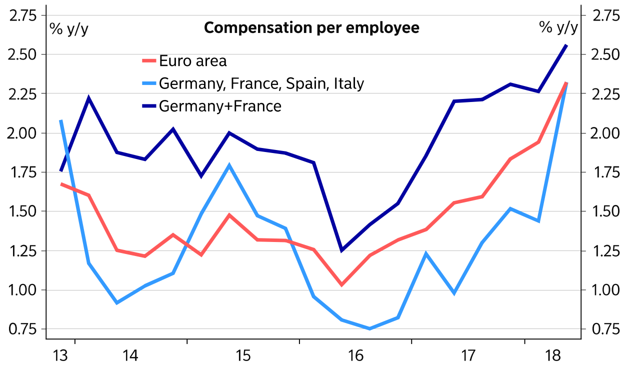
In late September at the European Parliament, the ECB's Mario Draghi talked about "a relatively vigorous pickup in underlying inflation" in the Euro area. With core inflation still lacklustre, many saw such stronger rhetoric as merely a reflection of the audience to which he was catering. **Something has changed – wage growth in the Euro area has picked up significantly.** For many years, compensation per employee gradually edged down, with growth reaching a record low of 1.0 % y/y in 2016. In Q2 2018, compensation per employee showed growth of 2.3 % y/y, the highest since 2009, and the trend is pointing sharply upwards.

The levels of wage growth are higher for the countries furthest along in the business cycle, such as Germany. Furthermore, some of the spike in the Q2 wage data is due to a one-off hike in public sector wages in Italy. Nevertheless, the upward momentum in wage growth is on a broader base.

### WAGE GROWTH IS PICKING UP IN THE EURO AREA TOO


Source: Nordea Markets and Macrobond

### THE PICKUP IS BROAD-BASED




Source: Nordea Markets and Macrobond

Draghi's shift in rhetoric is significant

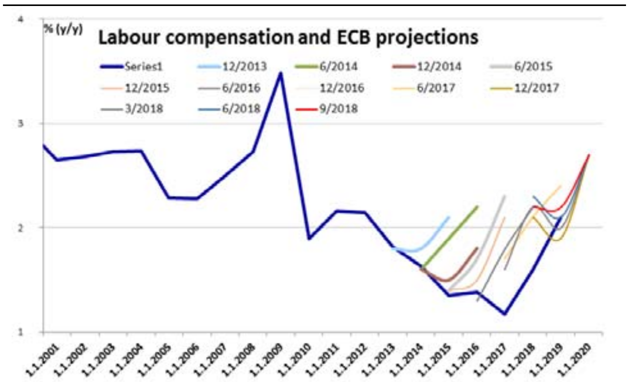
Draghi's shift in rhetoric is significant. For many years, the ECB itself has questioned whether wages and prices are still reacting to the business cycle as they previously did. The ECB has consistently overestimated wage growth (see figure below).

To us, developments in the US suggested that it was just a matter of time before wage growth would accelerate. The business cycle in the Euro area usually lags that of the US by 1½-2 years. Therefore, in April, we concluded:

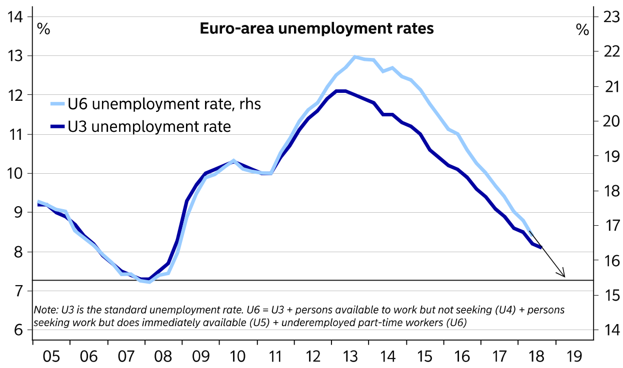
"A weak labour market situation is indeed the most important explanation behind the low inflation in the Euro area. **But this may be about to change.** Inflationary pressures are not imminent, but gradually building. Labour shortages are increasingly apparent and suggest that pressure has started to build in the Euro area and especially in the countries that are furthest in the business cycle".

As for the US, the official unemployment rate probably has overstated pressures in the labour market. Compared with the lows before the financial crisis, in relative terms, the broader U6 measure has consistently been above the U3 measure of unemployment. Lately though, the U6 measure has dropped at a faster pace than the U3 measure, and even though it is still around 1 pp above the pre-crisis low, pressures in the labour market are starting to build. If the current pace persists, we would expect both of these unemployment measures to drop to pre-crisis lows next summer.

### LABOUR COMPENSATION AND ECB PROJECTIONS




### UNEMPLOYMENT APPROACHING PRE-CRISIS LOWS

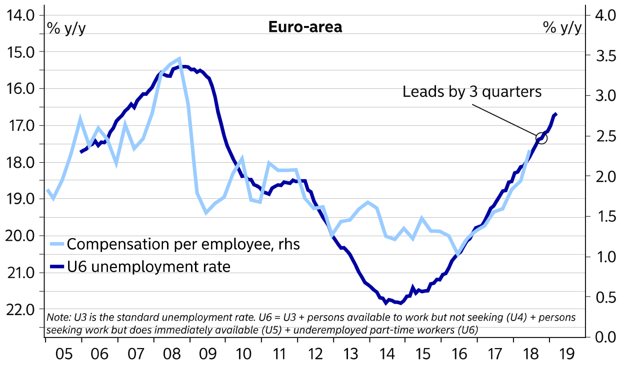



Source: Nordea Markets and Macrobond

The Phillips curve is very much alive in the Euro area

We only have U6 unemployment data for the Euro area from 2005. However, when using this measure instead of the U3 unemployment rate, and given the recent wage data at hand, we see no major change in the historical relationship between labour market pressures and wage growth. **Recent wage data point to the link between unemployment and wage growth, the Phillips curve, as being very much alive in the Euro area.**

**CLEAR LINK BETWEEN UNEMPLOYMENT AND WAGE GROWTH**




Source: Nordea Markets and Macrobond

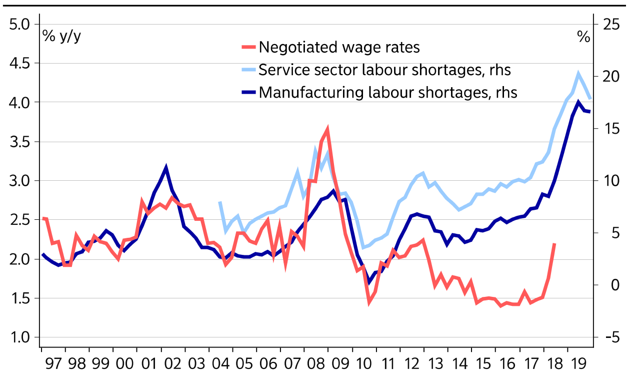
**PHILLIPS CURVE ALIVE IN THE EURO AREA TOO**


Source: Nordea Markets and Macrobond

Wage growth in the Euro area should further accelerate ahead

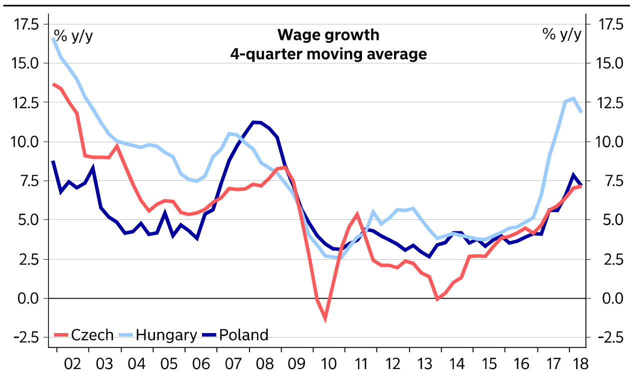
Much like the US, we believe that wage growth in the Euro area should further accelerate ahead. The Euro area is expected to post above-potential growth in the years ahead, and unemployment should continue to drop as a consequence. When accounting for a lag of around three quarters between unemployment rates and wage growth – and using history as a guide – we would expect wage growth of around 2.5% next summer. This is only a slight increase from the current level of 2.3%, but this number probably overstates "underlying" wage growth due to the one-off increase in public sector wages in Italy. However, if unemployment returns to pre-crisis lows by next summer, we should see a more significant pickup in wage growth in the latter half of 2019 and into 2020. For us, increasingly apparent labour shortages strengthen such a view (see figure below). Flexible labour markets have held back wage growth in Europe, but available resources are becoming scarce across the EU. Improved conditions and increased wages in Central and Eastern Europe could deter workers from leaving these regions, or even lure expats back home, thereby decreasing the labour supply and buoying wages in the rest of Europe. On top of this, the working-age population is peaking.

**EU LABOUR SHORTAGES AT A RECORD HIGH**




Source: Nordea Markets and Macrobond

**INCREASED WAGES IN CENTRAL AND EASTERN EUROPE**




Source: Nordea Markets and Macrobond

# From wage growth to inflation

In this section, we take a closer look at the link between wage growth and core inflation. We find that wage growth of above 3.5% would take US core PCE inflation to above-comfortable levels for the Fed, while wage growth of around 2.5% is needed to bring core inflation in the Euro area sustainably back to the ECB's inflation target.

Wage growth around 2.5% would return Euro-area inflation to target

**In the Euro area**, broad unemployment has now reached a level that is consistent with the inflation target, but due to lags it will take three quarters before wage growth reaches 2.5% y/y and then another three to four quarters before core inflation returns to levels of just below 2%. This outlook is roughly in line with our earlier assessment that the Euro area lags the US by around 1½-2 years and supports the ECB's newfound determination to normalise monetary policy.

Wage growth above 3.5% would push US inflation too high

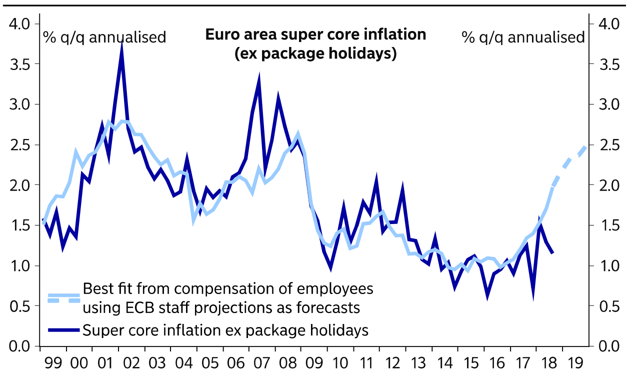
**In the US**, core PCE inflation is back around levels consistent with the Fed's inflation target, allowing a gradual return of the policy rate to its neutral level. Some FOMC members worry that core inflation will pick up as falling unemployment pushes wage growth higher, thereby forcing the Fed to continue hiking beyond the neutral rate. Indeed, broad unemployment is already at levels that would normally foster wage growth of 3.5% with a two quarters' lag and, in turn, adds significantly to the risks that core PCE inflation will rise to uncomfortable levels for the Fed.

In the following, we look at the link between wage growth and core inflation without taking productivity into account. Measurement issues around productivity would be a theme of its own and productivity growth has been weak after the financial crisis. Moreover, we find relatively strong links between wages and inflation.

### Relatively strong link between wages and Euro-area core inflation

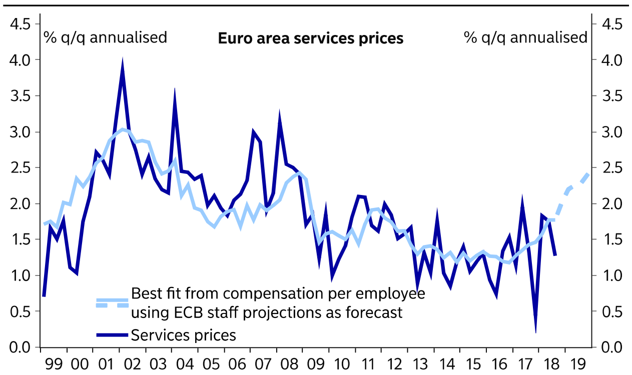
So when will core inflation be back to normal? In the Euro area, it takes three to four quarters for wage growth (compensation per employee) to reach full impact on core inflation, and the relationship is rather strong, as shown in the charts below. Super core inflation – the part of core inflation that responds to changes in the business cycle – has historically responded strongly to wage growth and should show strong momentum over the coming year. The same goes for services prices, although to a slightly lesser extent.

STRONG LINK BETWEEN WAGES AND SUPER CORE...




Source: Nordea and Macrobond

...AND SERVICES PRICES



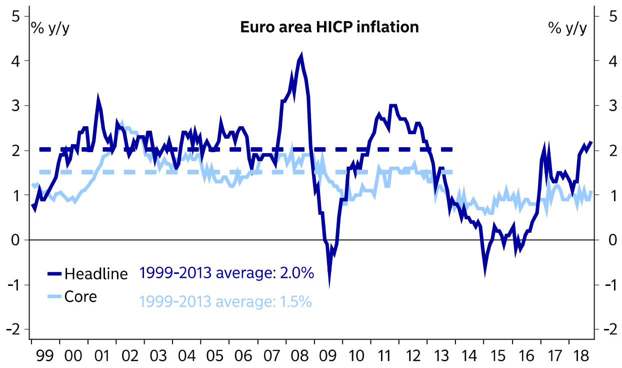

Source: Nordea and Macrobond

### Sustainable core inflation in the Euro area

1.5-1.9% core inflation requires wage growth in the range of 2.25-2.75%

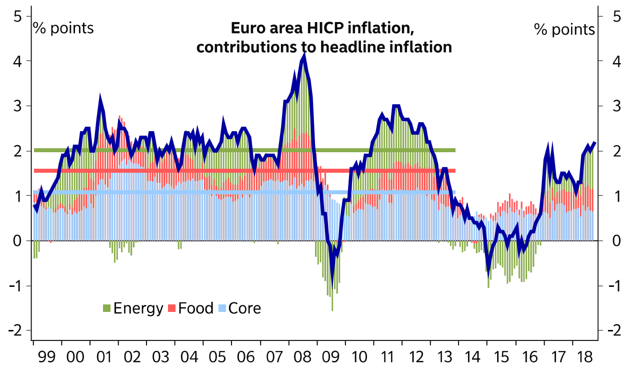
We believe the ECB would consider a core inflation rate in the range of 1.5-1.9% to be consistent with a sustainable return of inflation to the target. At the lower end of the range, 1.5% was the average core inflation rate in the period from 1999 to 2013, where average HICP inflation was 2% – spot on the ECB's target, enabling firmly anchored inflation expectations. Looking ahead, it might be on the low side because food and energy prices were punching way above their weights during that particular period of history and the ECB staff projections for the coming year point to food and energy contributions of almost zero. From that perspective, core inflation at around target, say at 1.9%, looks more consistent with a sustainable return of headline inflation to target even if core inflation has rarely been that high in the past. Leaving the other parts of core inflation as they are and using the models in the charts above, wage growth in the range of 2.25-2.75% would be consistent with the core inflation in the range of 1.5-1.9% after three to four quarters.

**ECB LIKELY TO BE CONTENT WITH 1.5-1.9% CORE INFLATION**




Source: Nordea and Macrobond

**UNCERTAIN FUTURE FOOD AND ENERGY CONTRIBUTIONS**




Source: Nordea and Macrobond

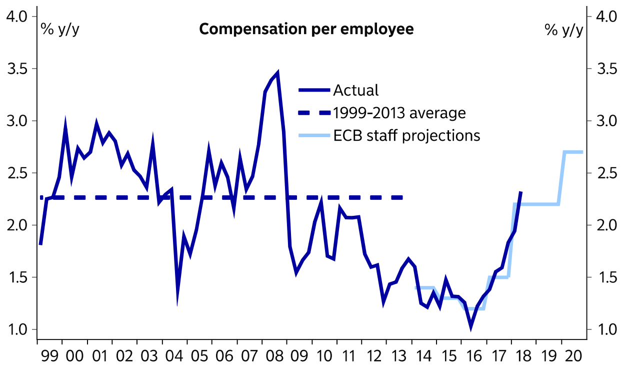
## Wage growth is back already

Sustained wage growth at 2.5% should take a few more quarters to materialise

Surprising as it may sound, wage growth returned to its average 1999-2013 rate in the second quarter this year, driven not only by Germany and one-off public sector wage increases in Italy, but also by general normalisation of wage growth in the rest of the Euro area. Sustained wage growth at around the current level would thus already be enough to bring core inflation to 1.5%, but one-offs in Italy contributed almost half a percentage point to wage growth in Q2. Even if the speed of improvement in the periphery is rather impressive in general, it will take a few more quarters for a sustained return of wage growth to a range that is consistent with the ECB's inflation target.

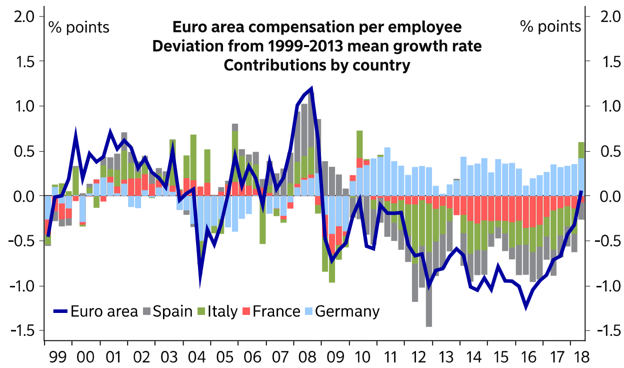
The ECB staff projections support our findings with wage growth projected at 2.2% for 2019 and at 2.7% for 2020, and especially as the ECB also expects core inflation of 1.9% for 2020.

**WAGE GROWTH IS BACK...**




Source: Nordea and Macrobond

**...DRIVEN BY GERMANY, ONE-OFFS AND NORMALISATION**




Source: Nordea and Macrobond

Euro-area core inflation en route to return to target

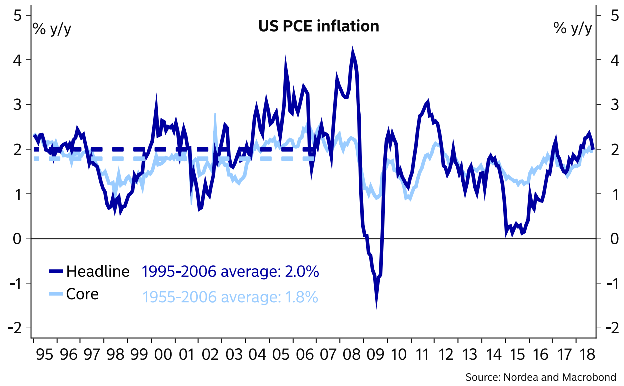
ECB to continue normalising monetary policy

All in all, we conclude that sustained wage growth of around 2.5% is consistent with the ECB's price stability target. The Phillips curve says that 2.5% wage growth is roughly consistent with a broad unemployment rate at the current level, implying that we are just waiting for the lagged effects of current fundamentals to take core inflation sustainably back to levels consistent with the ECB's inflation target. The ECB will continue normalising with this outlook in mind, despite disappointing core inflation readings in recent months.

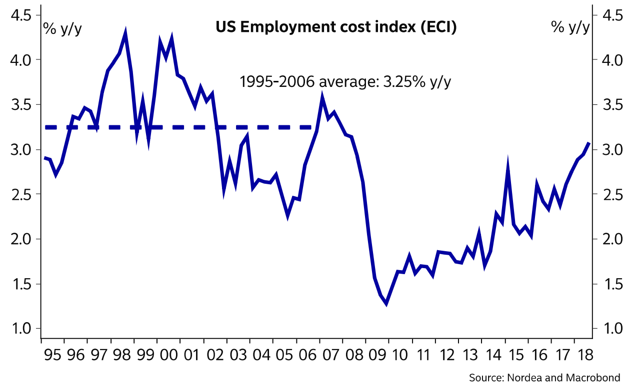
## US overheating risks

The story is different in the US, with core PCE inflation already at target. But what will it take for inflation to become a serious concern for the Fed? If history is any guide, the Fed needs core PCE inflation to be sustained at around 1.8% to be consistent with the current 2% target for headline PCE inflation. Core PCE inflation has been hovering around that level since March, allowing the Fed to continue hiking its policy rate towards the neutral level. The FOMC members' own projections have core PCE inflation at 2.0% in the long run, implying that the Fed expects less help from food and energy prices to reach its target going forward. Still, even in the US, where the inflation target is supposed to be symmetric, core PCE inflation has not been significantly above the inflation target many times in the last two decades. Only in the run-up to the financial crisis did core PCE inflation consistently come in above target. We therefore believe that any persistent upside surprises to the current FOMC projections of core PCE inflation at 2.1% for 2019 and 2020 would and should be taken as a sign of increased overheating risks by the Fed.

CORE PCE INFLATION ALREADY AT NORMAL LEVELS




WAGE GROWTH ALMOST AT PRE-CRISIS AVERAGE




## Wage growth posing serious threats

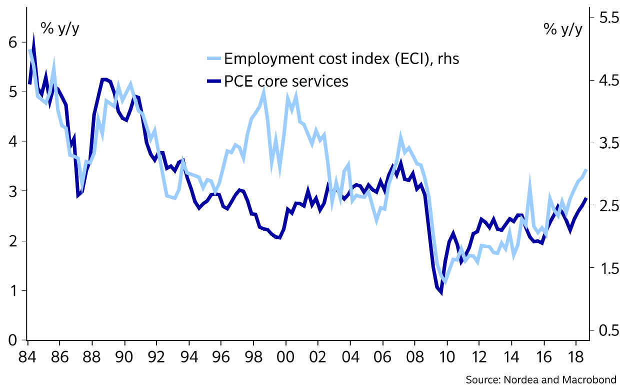
Wage growth above 3.5% would be too high for the Fed

Wage growth has returned to 3%, and even higher wage growth is in the making, according to the Phillips curve, which basically translates the current broad unemployment rate to 3.5% y/y wage growth in just two quarters. Moreover, with growth still much higher than its potential, broad unemployment is likely to continue lower for at least a few more quarters, adding even more upside pressure on wage growth.

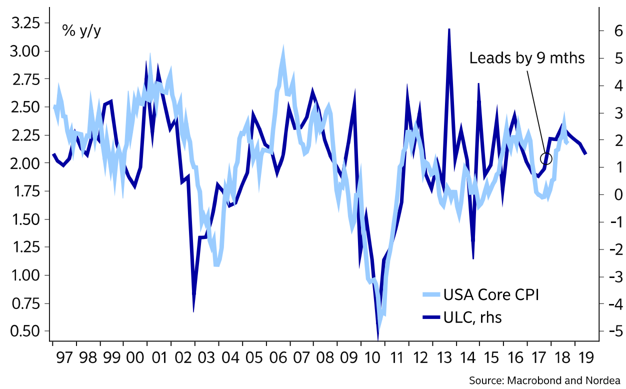
Both wages and unit labour costs matter in the US

The link between wages and core inflation is a little less strong in the US than in the Euro area, but the charts below show clear links between wages and core PCE services inflation (to the left) and between unit labour costs and core CPI inflation (to the right). Weaker unit labour costs and a strong USD point to lower core inflation in the near term, but in the medium term, wage growth of around 3% is consistent with core PCE inflation around the inflation target, and wage growth of 3.5% or above would add upside risks to the Fed's current projections. The relationship between wages and core PCE prices is instantaneous.

EMPLOYMENT COSTS AND CORE PCE SERVICES PRICES




UNIT LABOUR COSTS AND CORE CPI




Wage growth about to push US inflation too high

Fed could become more worried

All in all, the Fed could become more worried about wage growth. The current broad unemployment rate would normally point to wage growth of around 3.5% in just two quarters. While the relationship between wage growth and core inflation might not be as strong as in the Euro area, it is strong enough to translate such wage growth into significant upside risks to the FOMC members' projections for core PCE inflation slightly above target in 2019 and 2020.

# Tariffs are lifting consumer prices

One of the risks to the inflation outlook globally is the escalation of a trade war. Further accumulation of tariffs could substantially raise consumer prices in the short term, especially in the US, but worsen the economic outlook in the longer run.

Since we published "Inflation at an inflection point, volume I" in April, protectionist measures have accelerated. As we argued, the slowdown in globalisation reduces the drag on global inflation that it caused when it advanced very quickly, and higher tariffs may even bring some upside pressure to prices in the short term. Even though the tariffs implemented since last spring only directly impact around 3% of global trade and their impact on inflation is small, there is a risk of much larger effects in a case where the trade war continues to escalate.

Here, we concentrate on analysing the impact of tariffs on US inflation given that it is at the centre of trade disputes and is likely to bear the brunt of the subsequent direct impacts.

Back-of-the-envelope calculations can provide a ceiling for the impact of tariffs on inflation

A simplified back-of-the-envelope calculation indicates that the tariffs introduced so far could lift consumer prices in the US by 0.4 percentage points (see table below). This is based on an assumption that the tariffs are entirely passed through to consumer prices, even if some of the tariffs are set on imports that are investment goods or used as inputs in manufacturing. As a result, this type of calculation points to the maximum possible impact on inflation, whereas the impact in reality should be considerably smaller.

On the other hand, we think it is likely that the trade disputes are not yet at an end and that more tariffs could be on the horizon, especially along the US-China axis. If no progress is achieved in the bilateral negotiations, Trump has promised to raise the current 10% tariffs on USD 200bn worth of goods to 25% in the beginning of 2019. That would almost double the impact of tariffs on consumer prices that has occurred so far, and we cannot completely rule out a possibility of the US implementing 25% tariffs on all imports from China. In that case, the total direct impact on US consumer prices could be as high as 1.5 percentage points.

**SIMPLIFIED CALCULATIONS OF THE IMPACT OF IMPORT TARIFFS ON US CONSUMER PRICES**

| | Value of goods targeted annually, bn USD | Level of tariff | % of consumption | Impact on consumer price index, %-pt |
|---|---|---|---|---|
| **Measures implemented so far** | | | | |
| Steel | 20 | 25% | 0.2 | 0.05 |
| Aluminium | 15 | 10% | 0.1 | 0.01 |
| China tariffs I | 50 | 25% | 0.5 | 0.1 |
| China tariffs II | 200 | 10% | 2 | 0.2 |
| **Total** | **285** | **14 %** | **3** | **0.4** |
| **Measures if trade war with China escalates** | | | | |
| Tariffs on China from 10% to 25% | 200 | 15% | 2 | 0.3 |
| Tariffs on the rest of China imports | 300 | 25% | 3.3 | 0.8 |
| **Total** | **585** | **25%** | **6** | **1.5** |

*Source: Nordea and Macrobond*

A spike of that size in consumer price inflation could buoy inflation expectations, and thereby result in second-round effects. However, it is important to bear in mind that, if anything, the simple calculations likely overestimate the impact of import tariffs on inflation because there are many factors that are likely to dampen the effect in reality.

The stronger dollar compensates for higher tariffs

For example, in the case of the US, the rising risk of a trade war has probably been one of the factors strengthening the dollar. Since the beginning of 2018, the US nominal effective exchange rate has appreciated by 4.5%. That could offset the positive effect from tariffs on inflation given that the tariffs, even if higher, only apply to a small share of imports, and the negative effect from the stronger exchange rate on all trade should dominate even in the worst US-China trade war scenario. However, the pass-through of exchange rates to domestic prices, just like that of tariffs, is uncertain.

Trade disputes can lead to uncertainty, which harms economic development and decreases domestic price pressures

Another reason for expecting a smaller impact from import tariffs on inflation is that, in reality, bilateral tariffs are likely to redistribute trade to minimise the impact of tariffs. Furthermore, companies may be willing to decrease their profit margins to keep their products competitive. Lastly, but perhaps most importantly, the uncertainty related to trade disputes can harm economic development to the extent that domestic price pressures weaken so much that they actually more than compensate for the impact of import tariffs on inflation in the medium term.

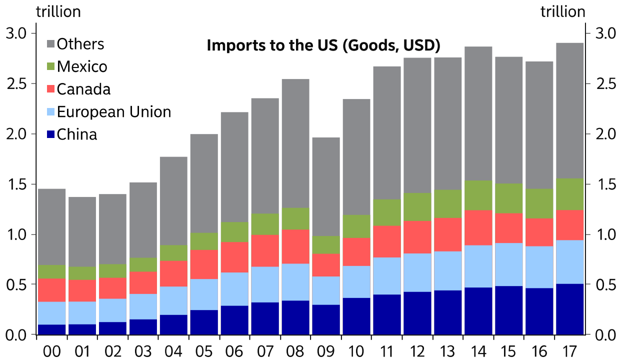
The pass-through of import tariffs to inflation is thus uncertain. A simple approach would be to assume that around 50% of the direct impact will materialise, provided that we also assume that the level of economic uncertainty will remain limited. When applying that approach, we find that the worst-case scenario for the US-China trade war would cause a spike in consumer prices of 0.7-0.8 percentage points.

Central bankers will look through tariff-based price increases as long as second-round effects remain small

From the perspective of monetary policy, that kind of rise in inflation could be comparable to a supply-side oil price shock that we observe relatively often. Central bankers are trained to ignore these types of price increases in their policymaking, as long as the second-round effects are considered to be marginal. In the case of tariffs, the Fed would probably assume that the second-round effects will remain limited – or even negative given the harm that tariffs can have on the real economy – and would thus not tighten monetary policy. However, if we are right in our analysis of the US economy (presented in the two previous sections of this report), and inflation rises to levels that are uncomfortably high for the Fed and the trade war increases inflation further, the risk of second-round effects could perhaps be reconsidered. A risk of tighter monetary policy would increase if companies were to start moving production back to the US as a response to the worsening trade relations. So far, we have not seen any signals of that type of reaction.

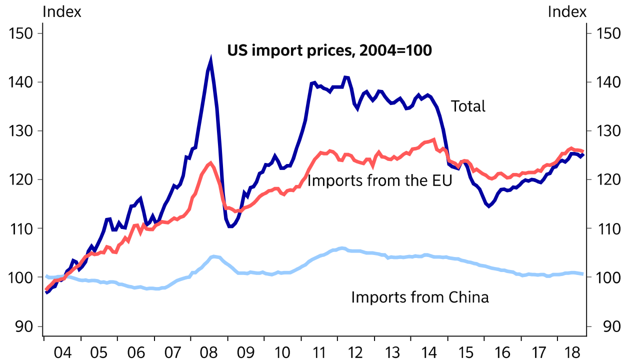
The downside risks to economic activity and thus inflation may increase if the trade war spreads more widely and uncertainty increases even more. Even though we cannot completely rule out a possibility of a trade war between the US and the EU, we consider it highly unlikely despite the wide imbalance in bilateral trade. The new USMCA trade agreement among the US, Mexico and Canada indicates that the US is willing to make deals with close allies and, in our view, hopes to build a common stance towards China.

**CHINA EMERGING AS THE LARGEST US IMPORT COUNTRY**




Source: Nordea and Macrobond

**IMPORTS FROM CHINA HAVE REMAINED COMPETITIVE**




Source: Nordea and Macrobond

# Market implications of higher wage inflation

Markets have moved in line with our expectations in our "Inflation at an inflection point" report published in April. We stick to our view of US interest rates moving higher. Rising core inflation usually leads to a flatter yield curve, but massive bond supply should balance that effect. With the ECB waking up to higher inflation, we should see a similar trend in EUR rates, triggering a rising EUR/USD in 2019. Equity markets should see more downside next year as a result of profit margin expectations being lowered and valuations being challenged by a higher cost of capital.

The market conclusions we drew in our "Inflation at an inflection point" report from April were that the US 10-year yield was heading higher, the 10s/2s curve should flatten more, a USD comeback would become even more likely and that equities should get hurt from squeezed profit margins and too-high P/E multiples. Since then, the US 10-year yield has risen 32 bp, the curve has flattened 16 bp, EUR/USD has fallen 8% and World MSCI is down 3%. Does this mean that the markets have fully priced in the rising wage/inflation story? We don't think so and so we reiterate our April conclusions.

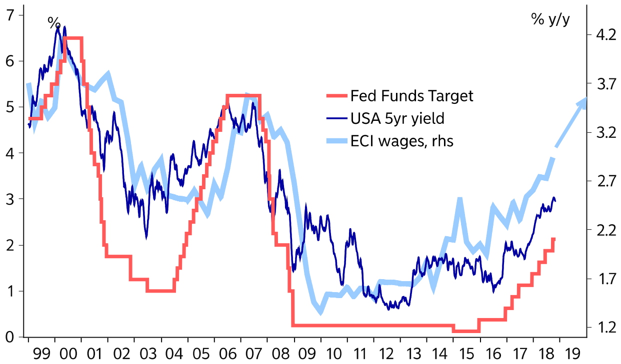
## Fixed Income

Wage increases and bond yields trend together over time

Wage increases and interest rates trend together over time. Our forecast for higher wage growth next year, together with our expectation of four rate hikes by the Fed between now and the end of 2019, should lead to higher bond yields in general. However, we expect the US economy to slow down to 1.2% GDP growth by 2020 and equity markets to continue falling, which would normally trigger lower longer-term bond yields. This time around though, we believe the Fed wants to bring asset valuations down and does not expect a slowdown in 2020 to be serious enough for it to disregard the rising underlying wage inflation pressure.

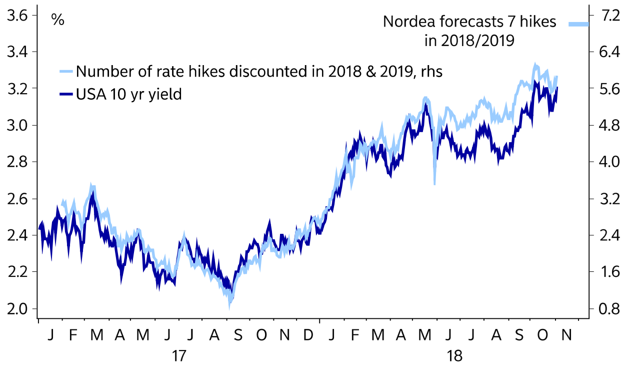
We must admit, however, that the recent core inflation numbers have been on the low side, which is probably due to effects from the USD strengthening since early 2018. The Fed should be able to look through this temporary setback, which could continue for another couple of months, because of the medium-term more important rising trend in wage increases.

WAGES AND BOND YIELDS TREND TOGETHER




Source: Macrobond and Nordea

FED OUTLOOK SPELLS HIGHER 10-YEAR YIELD



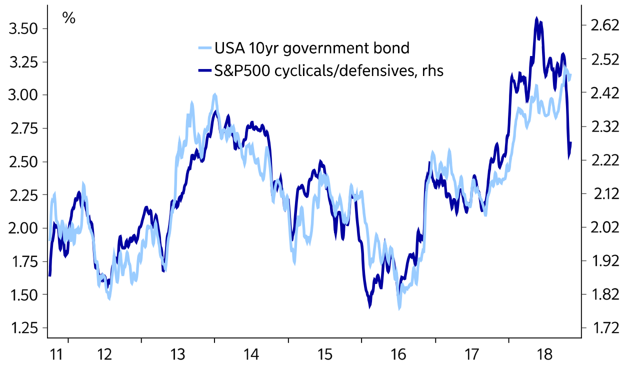

Source: Macrobond and Nordea

The Fed will likely continue to raise interest rates according to plan

Interestingly, US bond yields have so far hardly reacted at all to the recent drop in equity markets, nor the signals of a slowdown that have started to emerge. This is very different from the 2014-16 experience and signals to us that the markets understand that the Fed will follow a totally different path in 2018-19. Therefore, we still believe that interest rates will move higher, and by mid-2019, the US 10-year yield should have reached 3.6%.

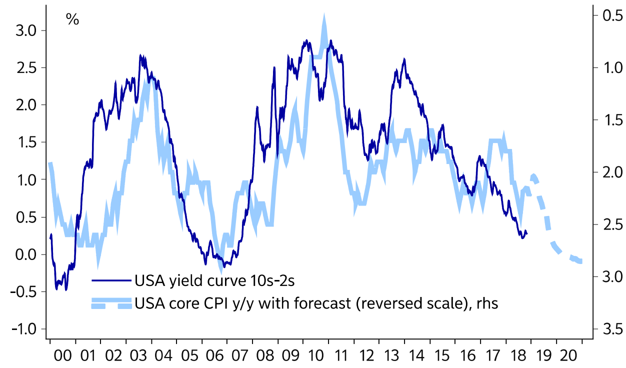
Our core inflation and growth forecasts would signal a clear risk of an even flatter 10s/2s curve than today, but partly because of an unusual pro-cyclical fiscal policy, the resulting major increase in bond supply has made us believe that the curve will move sideways during 2019 instead.

BOND YIELDS DISREGARD CYCLICAL HEADWIND




Source: Macrobond and Nordea

HIGHER INFLATION NORMALLY MEANS FLATTER YIELD CURVE

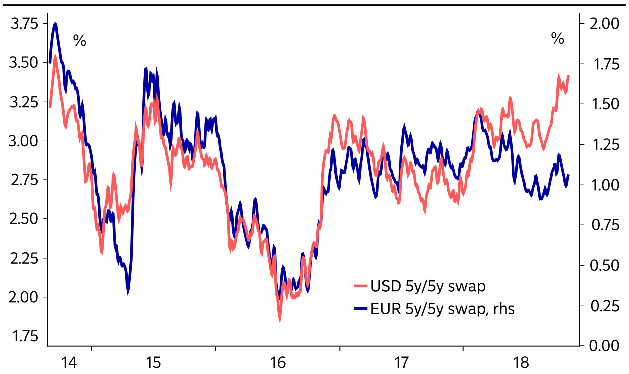



Source: Macrobond and Nordea

Euro area rates should head higher as core inflation rises

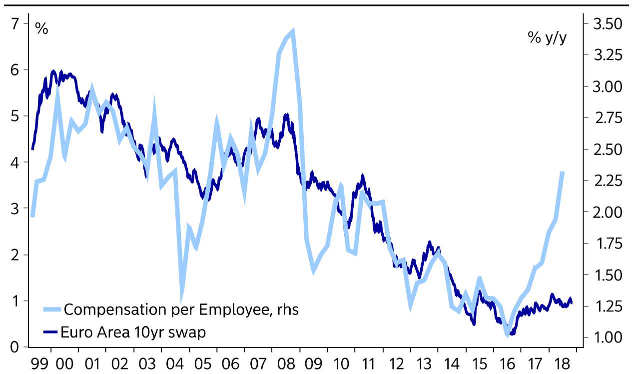
In the Euro area, interest rates have started to diverge from the rising trend in the US. There are four main reasons for this: Draghi's promise of no hike until after the summer of 2019, continued low core inflation, growth already having slowed down and the problematic Italian situation. All of these factors seem to have convinced fixed income markets that the ECB has its hands tied for now, and that once it starts raising rates in late 2019, it will be a very slow process thereafter. What we point to in this report, however, is that wage increases will continue to pick up and that core inflation will react to this. In such a scenario, markets should become more convinced about ECB rate increases, similar in some sense to what happened to US markets once the upward wage trend kicked in. Consequently, the German 10-year bond yield, currently at 0.4%, should have more than doubled by the end of 2019.

DRAGHI'S PROMISE WEIGHS ON EUR BOND YIELDS




Source: Macrobond and Nordea

WAGE PRESSURE SHOULD LEAD TO HIGHER EUR YIELDS




Source: Macrobond and Nordea

EUR/USD should rise in 2019

## FX

Inflation is, of course, only one aspect of many when discussing the outlook for FX markets. That said, there has been quite a high correlation between relative core inflation trends and the EUR/USD since 2008. All else being equal, our core inflation forecasts indicate that the USD is preferred currently but that this should change in 2019. In other words, the EUR/USD looks set for higher levels in 2019 if we exclusively use inflation as an indicator. We would also say that other factors point to the same conclusion, such as the relative growth outlook (US slowing) and potential relative central bank surprises (ECB back in play). Read more on the USD in "Dollar-o-meter still warm, but will still turn cold".

Higher wage costs would trigger negative margin surprises

## Equities

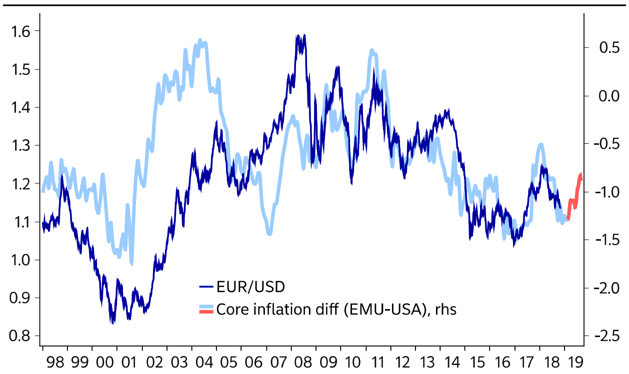
Normally equities would act as a solid inflation hedge. However, on this occasion, rising inflationary pressures can hit the equity market from two sides. First, not all companies are able to offset rising input/wage costs by increasing prices, and so profit margins are about to get squeezed. Small companies have a larger share of wage costs to total costs than large companies and it is therefore interesting to see the relatively substantial underperformance of small caps on a global level recently. This partly depends on investors moving out of less liquid assets, but rising wage costs could definitely also be a partial explanation for the new trend.

Analysts still expect record profit margins in 2019-20 in basically all corners of the world for the median company, despite companies already having started to complain about rising costs. Analysts' margin expectations should trend down over the foreseeable future.

Rising interest rates likely means P/E contraction and compression

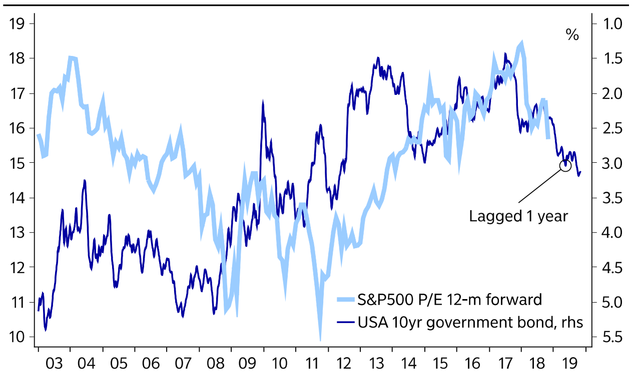
Second, the high valuation levels suggest an unusually high sensitivity to a change in direction for cost of capital, which both the sell-off in January/February and in October are clear signs of. During the long period with falling bond yields, the lower required return for equities has outweighed negative estimate revisions, ie multiples have expanded. Given a growth slowdown and higher cost pressure, and consequently much lower probability for positive earnings surprises, a move north for interest rates should lead to multiple contraction and compression (greater valuation contraction for more expensive stocks) owing to the exponential relationship between growth and cost of capital. As we have seen in the recent sell-off, expensive growth stocks in particular should struggle with higher discount rates. All in all, we believe that global equity markets will be lower in early 2019 than they are currently. Read more about the equity market outlook in "[Nordea View: The story is not over](#)".

**WE EXPECT HIGHER EUR/USD IN 2019**




Source: Macrobond and Nordea

**HIGHER BOND YIELDS SHOULD LEAD TO P/E CONTRACTION**




Source: Macrobond and Nordea

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