

Euro Bond Markets

A Research Publication by DZ BANK AG

Strategy



2018 – Slightly bedraggled Goldilocks

- » The economy is in a Goldilocks scenario of stable growth and low inflation – not just in Europe, but also in the US and Asia. This positive backdrop should be maintained in 2018.
- » Politics will be the main uncertainty in 2018. The ever-present geopolitical risks, the Brexit negotiations, upcoming elections in Italy and indeed the unclear political situation in Germany could prompt uncertainty on the markets.
- » While we expect the Fed to raise interest rates again in December 2017 and hike by a further 50 basis points in 2018, higher policy rates are not yet on the agenda in the eurozone next year. In line with its declared sequencing, the ECB will continue the asset purchases at the reduced pace of EUR 30 billion per month until September before tapering them to zero. From the turn of the year 2018/19 we expect the central bank to only reinvest maturing bonds.
- » Yields should not rise by much in this environment. Modestly higher yields are likely in both the US and the eurozone due to a less accommodative monetary environment. Continued strong demand for safe and liquid assets together with a limited supply of this paper should prevent a sharper rise in yields.
- » The environment also remains positive for the spread markets. We expect stable to slightly falling spreads overall. However, particularly due to political uncertainties, for example in connection with the Italian elections, we are also likely to see temporary bouts of spread widening.

BONDS

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STRATEGY OVERVIEW

| Segment | Strategy |
|---|--|
| Overall market strategy | Strong economic momentum, positive rating outlooks and accommodative monetary policy: we are focusing on carry and sticking with our offensive strategy We are overweight EM and corporate bonds, neutral on bank and sovereign bonds and underweight in covered bonds |
| Rate development and yield curve strategy | Solid economic growth and moderate inflation should ensure continuity in US monetary policy under a new Fed chairman Jerome Powell Eurozone: robust and homogenous economic growth with low inflation support the ECB's policy stance: no move in rates expected until 2019 Gradual bearish steepening of the bund curve expected both in the short term and over the course of 2018 Keep duration below benchmark – sawtooth pattern may offer occasional opportunities |
| Interest rate derivatives and structured products | Short 3m10y payer swaption, short 5y floor, long 1y2y risk reversal Long volatility, Basis-Plus bond a bet on long-term stimulative monetary policy |
| EMU sovereigns | Selected peripheral bonds first choice for 2018 Outperformers: Greece ⁽¹⁰⁾ , Portugal ⁽¹¹⁾ , Spain ⁽¹¹⁾ Marketperformers: Belgium ^(10,11) , Austria ^(10,11) , France ⁽¹¹⁾ , Ireland ⁽¹¹⁾ Underperformers: Germany ^(10,11) , Italy ⁽¹¹⁾ , Netherlands ^(10,11) , Finland ⁽¹¹⁾ |
| Covered bonds | Little change expected in covered bond environment in 2018 Spread "hump" at beginning of year, then sideways trend Moving to a more offensive weighting strategy early in the New Year could be a good idea |
| Financials | Credit spreads have narrowed considerably in 2017. Next year also looks set to be positive overall despite certain key risk events We are sticking with our defensive positioning until the Italian parliamentary elections have been held, after which we advise a more aggressive stance |
| Corporates | New all-time high in issuance of corporate bonds in 2017 With the economy in Goldilocks mode and ECB monetary policy remaining accommodative, we are adjusting our spread forecast downwards We have revised a number of sector recommendations in the light of expected spread movements in 2018 |
| Emerging markets | The emerging markets are cocooned in a comfortable framework General outlook is moderately positive, but advisable to keep a close watch on political risks |
| Asset-backed securities | At just under EUR 191.3 billion for the first eleven months of 2017, new issuance on the European ABS primary market is around EUR 43 billion short of the full-year figure for 2016. However, the high marketing ratio (58%) and significant spread compression across all asset classes mean that 2017 was still a good year for ABS. In 2018 we favour Spanish STS securitisations from the RMBS segment from a relative value perspective and also European CLOs. Certain niches beyond the mainstream also look appealing in our view. |

Source: DZ BANK Research

EDITORIAL

2018 – Politically tousled Goldilocks

The picture is actually pretty rosy. The eurozone economy is growing more rapidly than at any time since 2007. The German Ifo index is hitting new highs month after month, China has stabilised relative to a year ago and the oil price has settled at a comfortable level. Fears of deflation have evaporated and inflation is edging back towards its target. Moreover, credit conditions have continually improved and interest rates remain low. Equity markets are also still trending upwards. In summary we could say that the eurozone is in Goldilocks mode.

So far even President Trump has not managed to undermine the recovery within the single currency area with his seemingly irrational policies. The same goes for other world leaders such as Presidents Kim Jong-un, Putin, Erdogan and Xi Jinping. Apart from short-term reactions, the economy and financial markets have remained largely unruffled by geopolitical tensions and troublespots. The key question for 2018 is therefore this: can we expect the Goldilocks scenario to continue next year and what factors could potentially jeopardise the rosy environment of robust economic growth and low inflation?

World economy

Global leading indicators, commodity prices and the continued easy monetary policy of most central banks suggest that the global economic recovery will continue. While global GDP growth was languishing at little more than 3% until a year ago, there has been a significant change in the picture in 2017. The world economy should have grown by around 3.5% this year; we see growth quickening to 3.8% in 2018, at which point it will begin to approach the rates we saw before the financial crisis, when 5% was not unusual. Inflation should also remain under control globally and the increasingly tight labour markets are not (or not yet) feeding through into upward pressure on inflation. Oil prices are expected to fluctuate between USD 50 and 60 per barrel, a level that neither leaves room for deflation fears nor can be expected to push inflation rates up markedly.

The situation in China has stabilised compared with the picture at the beginning of 2016. Admittedly official growth rates have barely moved compared with previous years. However, in contrast to 2016, when expectations for the coming years were cut significantly, the outlook has now improved again. It now looks as if actual – and not just reported – growth has settled at between 6.5 and 7%. The imbalances on the credit and property markets are still growing, but the resultant risks should remain manageable.

United States

We expect a slight acceleration in US economic growth next year. However, the strengthening of the US economy is not so much a result of the policies of the US president, even though the Trump administration's planned tax reform could give the economy a boost in the short term. The much-vaunted tax reform is very unlikely to turn out to be the bold historic step that awakens the sleeping giant and unshackles new forces of growth in the US economy. The main reason why we have marked up our forecasts for US growth slightly is the continuing recovery in the global growth outlook.

Eurozone: real economy and politics

The economic recovery in the eurozone is broadening ever more. While growth was initially driven primarily by the reform countries Spain and Ireland and secondly by

Eurozone benefiting from a favourable economic backdrop

Economy and capital markets unperturbed by political risks

Economic growth expected to gather momentum globally

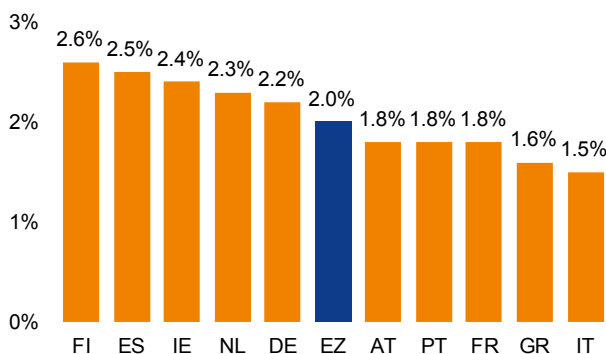
Chinese economy stable

US economic growth driven more by the global economy, less by tax policies

Economic recovery in the eurozone broadening

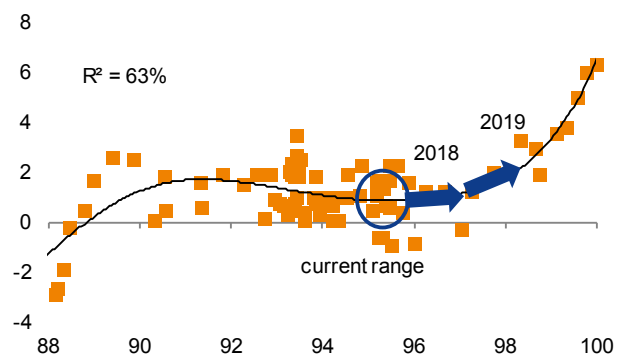
Germany, the economic situation has improved even in what have to date been the notoriously reform-averse countries of France and Italy. Growth is therefore at last beginning to reach respectable rates in the second- and third-biggest economies in the eurozone. While France is benefiting from the sense of a new beginning following the election of Emmanuel Macron, nothing of the kind has happened in Italy. Nonetheless, the state of the Italian economy has improved as the positive environment has spilled over to the country, which is putting a slightly more positive gloss on what is still a precarious situation. A glance at the leading indicators for the eurozone suggests that the growth momentum will carry over into next year given the consumption-boosting recovery on the labour market and the global economic upswing. We expect a similarly positive picture for Germany – there is every reason to believe the healthy pace of growth in the second half of this year will continue in 2018. Furthermore, exports and consumption are no longer the sole pillars of growth. Unlike in recent years, when German GDP growth was stuck at around 1.7% on average, investment is now picking up again. After growth of 3.1% in 2016 and an estimated 3.8% in 2017, we are forecasting an increase in investment spending of 3.6% next year. German GDP growth is expected to reach 2.2% in 2018.

THE ENTIRE EUROZONE IS NOW PARTICIPATING IN THE ECONOMIC RECOVERY
GDP GROWTH FORECAST FOR 2018 IN PERCENT



Source: DZ BANK Research

EURO AREA: WEAK WAGE PRESSURE EXPECTED IN SPITE OF THE STRONG ECONOMY, LABOUR MARKET STILL HAS SPARE CAPACITY
X AXIS: LABOUR MARKET UTILISATION* +12 MONTHS (1996-2016)
Y AXIS: UNIT LABOUR COSTS (% YOY; 1997-2007)



Source: DZ BANK Research, Datastream; * current working hours/maximum working hours (in 2008)

Although the election year of 2017 is now almost over, political issues may continue to play a significant role in Europe. At the time of writing in early December it is still in the lap of the gods whether, and if so when, Germany will have a stable government. With France having done its bit by electing a pro-reform, pro-European government, the other half of the Franco-German engine needed to drive the European agenda forward has gone missing. So for now it looks as if we have to be content if Europe's day-to-day business is being managed competently. New pioneering initiatives should probably not be expected for the time being.

Political uncertainty in Germany blocking the eurozone reform process

The issue of Italy should not be underestimated either. Spillover effects from the robust economic growth in other parts of Europe mean Italy is now benefiting from the recovery, albeit by less than in other countries, even without having carried out the necessary reforms. Sluggish growth is taking some pressure off the country's welfare budgets and is also improving the outlook for Italy's troubled banking sector. But there are risks from Italian politics. A general election is due to be held in the spring, and judging by current appearances it would almost be a surprise if a stable, pro-reform and pro-European government were to emerge after these elections. On

Investors need to keep an eye on the Italian elections

¹⁾⁻¹²⁾ Wichtig: Bitte lesen Sie die Hinweise zu möglichen Interessenkonflikten und die rechtlichen Hinweise am Ende dieser Studie

top of this, shrill populist voices are likely to make themselves heard during the election campaign, which may well unsettle the financial markets at least temporarily.

We expect inflation to remain subdued in the eurozone. The days when the European Central Bank was able to point to deflation risks to justify its ultra-loose monetary policy are over for now. However, the upturn in inflation will not be enough to push the rate back up to 2% as early as next year. As long as the price of a barrel of oil does not break through USD 60 on a sustained basis, the gradual upturn in inflation in the eurozone is unlikely to accelerate significantly. The behaviour of wages is also likely to play a key role. If we assumed the traditional relationship between wages and unemployment, the fall in the eurozone unemployment rate that has now been underway for four years would already lead us to expect upward pressure on wages. However, developments in the United States show that the past relationships can no longer be directly extrapolated to the present. There are a variety of reasons for this. Demographic factors, a persistent sense of job insecurity following the financial crisis and the arrival on the labour markets of generation Y, for whom non-monetary factors play a greater role in compensation than for their predecessors – all of this is contributing to keeping wage rises on a tight leash. Whether this trend will continue even in increasingly tightening labour markets remains to be seen. However, the classic cycle of a recovery leading to rising wages, inflation and ultimately an overreaction by the central bank may no longer be valid.

Upward pressure on inflation from rising wages still some way off

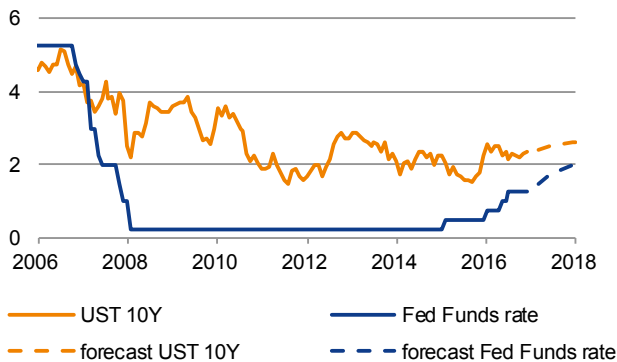
Central banks and spreads

The Federal Reserve is leading the way among the major central banks in normalising monetary policy. It is now four years since the Fed set about scaling back its bond purchases. Due to the US monetary guardians' policy of only reinvesting redemptions from maturing QE holdings, the Fed has kept the size of its balance sheet broadly stable since late 2014. The third phase of unwinding QE commenced in October this year. The Fed's balance sheet is now being slimmed down, with the pace picking up slightly every three months, until eventually bonds worth EUR 50 billion will be offloaded every month, either via maturities or – if redemption volumes are insufficient – active sales on the market. Meanwhile the US central bank continues with its cautious key rate hikes. Following the move to 1.5% that we expect to be announced on 13 December, two further hikes are on the cards in 2018. We believe the Fed will reaffirm its circumspect approach by continuing to raise interest rates less sharply and more gradually than in previous rate hike cycles. This will come as little surprise to the US bond market. In principle, the Fed's measured shrinkage of its balance sheet and the ongoing key rate hikes point to rising yields. But unless there is a sharper upturn in inflation, yield increases look set to be on a tight leash. By the end of 2018, we see the yield on 10-year US Treasuries at 2.6% and therefore expect the yield curve to be somewhat flatter than at present (see left-hand chart below).

Fed continues to err on the side of caution – two further rate hikes expected in 2018 after a move this December

US: YIELD CURVE LIKELY TO FLATTEN FURTHER IN 2018 FOLLOWING THE FED'S LATEST RATE HIKES

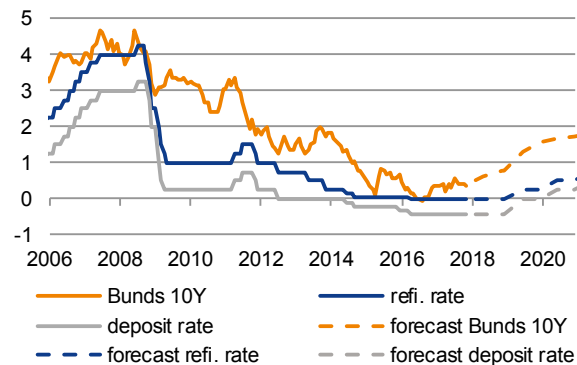
IN %



Source: DZ BANK Research, Datastream

EUROZONE: NO MONETARY POLICY NORMALISATION EXPECTED IN 2018 EITHER

IN %



Source: DZ BANK Research, Datastream

The European Central Bank lags a long way behind its US counterpart. In his recent comments Mario Draghi has repeatedly stressed that most members of the ECB Governing Council are in favour of taking their time before embarking on monetary policy normalisation. The constant mantra is that with inflation currently standing at around 1.5%, the monetary guardians' target of "below, but close to 2%" has still not been reached. Furthermore, as this target has been undershot for many years now, there are occasional hints that the ECB may be willing to close the resultant "inflation gap" by allowing inflation to exceed the 2% mark temporarily. If this policy were adopted, the process of monetary policy normalisation would probably drag on for another five or ten years, even if conditions remained positive.

Normalisation of ECB monetary policy still a distant prospect

We already have clarity from the ECB on its monetary policy for the first nine months of next year. At the end of October the central bank announced that its bond purchases would be cut to EUR 30 billion per month from January 2018 and remain at this level until September. We expect an update from the monetary policymakers in early summer as to what happens after that. In our view, this will probably entail a further reduction in monthly purchases. As a result, we do not expect there to be any further increase in the ECB's bond holdings from the start of 2019 onwards, after which the central bank would only be reinvesting the – by no means inconsiderable – maturing bonds. As far as key interest rates are concerned, we do not anticipate any changes in 2018. The ECB has made the sequencing of its exit from unconventional policy very clear: the central bankers will not consider rate hikes until the asset purchase programme has been concluded. While a one-off increase in the deposit rate or the introduction of a limited individual deposit facility at an interest rate of zero might have theoretical appeal, the central bank does not seem to be seriously considering these options at present. In fact, the ECB appears unwilling even to discuss them in public.

Net bond purchases unlikely from the start of 2019 onwards – key rates to remain unchanged in 2018

Turning to bund yields, we believe the levels hit in summer 2016, when the 10-year benchmark yield briefly hovered around minus 20 basis points, mark the lows for now. We do not expect a return to these levels over the coming year. While we certainly see the possibility of a temporary slide towards 0.2%, the overall trend looks set to be skewed modestly to the upside. We therefore expect the benchmark yield to initially approach the 0.5% mark once again. In the second half of 2018, against the backdrop of economic fundamentals in Europe that are expected to remain robust, a moderate increase in US yields and the potential prospect of a first ECB rate hike in 2019, we believe there will be a breakout from the range witnessed this

Modest uptrend in bund yields – yield curve set to steepen

¹⁾⁻¹²⁾ Wichtig: Bitte lesen Sie die Hinweise zu möglichen Interessenkonflikten und die rechtlichen Hinweise am Ende dieser Studie

year. By the end of 2018, we expect 10-year bunds to be yielding 0.8%, with 10-year swap rates trading at 1.1%. The bund yield curve therefore looks set to steepen.

Spread markets

The spread markets turned in another positive performance in 2017, though the lows recorded were not sustained everywhere. On the whole, we see the positive environment being maintained in 2018. Against the backdrop of the forthcoming general election in Italy, political newsflow may well cause spreads to widen temporarily in the spring. However, any such spread increases are unlikely to persist across the board. The ECB's tapering of its bond purchases should not have any sustained negative impact on spreads as we think the continued expansion of the central bank's bond portfolio will be more relevant to spreads than the lower net purchase volumes. Broadly speaking, we initially anticipate modest spread widening across all segments in 2018. We then expect spreads to narrow somewhat in the second half. On balance, spreads look set to be at or slightly below their current levels as next year draws to a close. That said, the trend may vary considerably depending on the segment or issuer. We believe that issuer-specific factors will become more significant again in 2018 than has been the case in recent years.

On balance, spreads likely to be at or slightly below their current levels by the end of 2018

Risks

One economic risk to our scenario is the fact that the upturn has now entered a mature phase, and not just in the United States. If clearer signs were to emerge that the strong economic trend is running out of steam, this would inevitably have a serious impact on the capital markets. This could send yields south and spreads in the opposite direction once again.

Could the economic upswing flag?

Conversely, it is also conceivable that growing wage pressure could lead to more tangible inflationary risks. If central banks indicated they would not stand idly by in this scenario, this would have significant implications for the bond markets, resulting in higher yields and the possibility that spreads would also widen.

Sudden inflationary pressure forces central bankers into action

The markets may also start paying closer attention to the Brexit negotiations than they have to date. If the prospect of substantive agreements between the UK and the European Union became even more distant over the course of 2018, this could greatly unsettle the markets and prompt a resumption of classic safe haven trades.

Fears of a hard Brexit return to haunt the markets

Overvalued asset markets are another potential cause for concern. A broad-based correction on the property markets could hit bonds, as could pronounced falls in equity prices.

Asset market bubbles

Last but not least, we have those ever-present geopolitical risks. While forecasters acknowledge these dangers, such considerations rarely – if ever – form the basis for their projections. Examples might include North Korea, the tensions between Iran and Saudi Arabia and the situation in the Middle East in general, alongside autocrats such as Putin, Erdogan and co., not to mention the possibility of a renewed escalation in Islamist terror. Of course, this list is by no means exhaustive.

Geopolitical risks

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STRATEGY

Overall market strategy

- » Strong economic momentum, positive rating outlooks and accommodative monetary policy: we are focusing on carry and sticking with our offensive strategy
- » We are overweight EM and corporate bonds, neutral on bank and sovereign bonds and underweight in covered bonds

Overall the performance of the European bond market has exceeded what was expected at the start of this year, even though yields have remained persistently low. However, there are marked differences in performance between the individual segments. Emerging market bonds have been the undisputed top performers in the year to date, making gains of around 5.5%. With a year-to-date performance of approximately 2%, corporate and bank bonds are vying closely for second place. In contrast, neither the covered bonds segment nor euro sovereign bonds have even managed to add 1%.

We expect the positive economic backdrop in the eurozone to continue well into the New Year. Monetary policy will also remain accommodative in 2018. The rating agencies have taken the improved economic situation as a cue to revise up their ratings and/or rating outlooks across almost all segments. We broadly see this positive trend being maintained in 2018. That said, spring may well see some unsettling newsflow relating to the forthcoming general election in Italy in our view. However, any spike in risk aversion in this context is unlikely to persist, which means that potential spread widening should be no more than temporary and will probably only affect individual issuers.

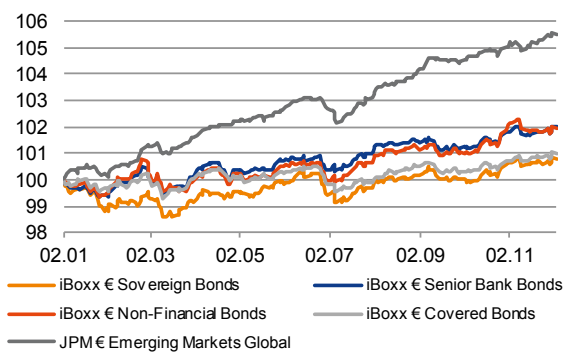
Turning to the ECB's ongoing asset purchase programme, we do not expect the tapering of monthly bond-buying from January onwards to have any sustained negative impact on spreads in the near term. The ECB decided at its last Governing Council meeting to continue buying bonds and so remain active on the bond market next year. Although total net new investments will be limited to EUR 30 billion monthly from January, the key issue is that the ECB is continuing to make purchases. Attention will now centre on reinvestments of maturing paper. With a portfolio totalling well over EUR 2 trillion, this means that the ECB looks set to remain a very active player on the bond market – not just in 2018, but in the subsequent

EM bonds the top performers in 2017

Market environment set to remain positive

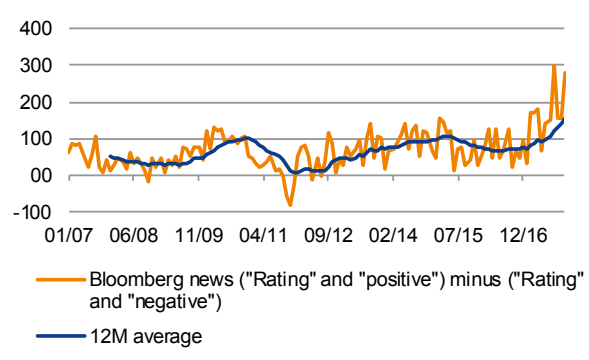
Loose ECB policy to continue in 2018

EMERGING MARKETS THE TOP PERFORMERS BY SOME DISTANCE
 INDEX 31 DECEMBER 2016 =100



Source: Bloomberg, DZ BANK Research

INCREASING NUMBER OF REPORTS ON POSITIVE RATING MOVES
 NUMBER OF REPORTS



Source: DZ BANK Research

¹⁾⁻¹²⁾ Wichtig: Bitte lesen Sie die Hinweise zu möglichen Interessenkonflikten und die rechtlichen Hinweise am Ende dieser Studie

years as well. As far as the composition of the bond purchases is concerned, the ECB is considering a shift in net new investments in favour of the three private sector programmes, the CSPP, ABSPP and CBPP. According to statements by the central bank, purchases under these programmes are set to remain substantial.

Our strategic stance is therefore unchanged and we are overweight emerging market and corporate bonds. We remain neutral on bank and sovereign bonds. In the current environment our only underweight is in covered bonds. In general we anticipate modest spread widening on the back of political newsflow in the first few months of 2018. We then expect spreads to narrow somewhat in the second half against a backdrop of strengthening economic growth. That said, the trend may vary considerably depending on the segment or issuer. We expect idiosyncratic factors to be more significant next year than they have been in 2017. With spread levels already pretty low across all segments and with a view to offsetting the risk of rising yields, carry is now playing a more central part in our allocation recommendations.

Issuer-specific risks are likely to become more and more significant in the emerging markets segment. While good economic data readings are stabilising spreads in the emerging markets, next year's elections in Mexico and Brazil harbour fresh uncertainties.

Strong fundamentals and the anticipated shift in bond purchases in favour of corporate bonds will probably lead to slightly narrower spreads in the corporates segment on a short-term horizon.

Spreads in the banking sector might be exposed to some ill winds from Italy in the first half of next year. The forthcoming general election could lead to relatively high spread volatility. The sovereign bonds segment is also likely to take a hit from mounting risk aversion against the backdrop of the election campaign. Nevertheless, we do not expect this to escalate to the wider eurozone.

In our view, the covered bond segment will probably see slight spread widening due to new issuance at the start of next year. However, this widening trend is likely to have faded by the end of the year.

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Focus on carry

Idiosyncratic risks in the emerging markets

Corporate bonds: chance of modest spread compression in the near term

Italy poses risks to bank and sovereign bonds

Slight increase in covered bond spreads expected in early 2018

RECOMMENDED RELATIVE BOND SEGMENT WEIGHTINGS

| Segment | Recommendation |
|-----------------------|----------------|
| Sovereign bonds | Neutral |
| Covered bonds | Underweight |
| Bank bonds | Neutral |
| Corporate bonds | Overweight |
| Emerging market bonds | Overweight |

Source: Bloomberg, DZ BANK Research

STRONG GROWTH MOMENTUM IN ALMOST ALL COUNTRIES PURCHASING MANAGERS' INDICES IN PERCENTAGE POINTS

| | 11/16 | 12/16 | 01/17 | 02/17 | 03/17 | 04/17 | 05/17 | 06/17 | 07/17 | 08/17 | 09/17 | 10/17 | 11/17 |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| EC Industrie | 53.7 | 54.9 | 55.2 | 55.4 | 56.2 | 56.7 | 57.0 | 57.4 | 56.6 | 57.4 | 58.1 | 58.5 | 60.1 |
| EC service | 53.8 | 53.7 | 53.7 | 55.5 | 56.0 | 56.4 | 56.3 | 55.4 | 55.4 | 54.7 | 55.8 | 55.0 | 56.2 |
| DE Industrie | 54.3 | 55.6 | 56.4 | 56.8 | 58.3 | 58.2 | 59.5 | 59.6 | 58.1 | 59.3 | 60.6 | 60.6 | 62.5 |
| DE Dienstleistungen | 55.1 | 54.3 | 53.4 | 54.4 | 55.6 | 55.4 | 55.4 | 54.0 | 53.1 | 53.5 | 55.6 | 54.7 | 54.3 |
| FR Industrie | 51.7 | 53.5 | 53.6 | 52.2 | 53.3 | 55.1 | 53.8 | 54.8 | 54.9 | 55.8 | 56.1 | 56.1 | 57.7 |
| FR Dienstleistungen | 51.6 | 52.9 | 54.1 | 56.4 | 57.5 | 56.7 | 57.2 | 56.9 | 56.0 | 54.9 | 57.0 | 57.3 | 60.4 |
| IT Industrie | 52.2 | 53.2 | 53.0 | 55.0 | 55.7 | 56.2 | 55.1 | 55.2 | 55.1 | 56.3 | 56.3 | 57.8 | 58.3 |
| IT Dienstleistungen | 53.3 | 52.3 | 52.4 | 54.1 | 52.9 | 56.2 | 55.1 | 53.6 | 56.3 | 55.1 | 53.2 | 52.1 | 54.7 |
| SP Industrie | 54.5 | 55.3 | 55.6 | 54.8 | 53.9 | 54.5 | 55.4 | 54.7 | 54.0 | 52.4 | 54.3 | 55.8 | 56.1 |
| SP Dienstleistungen | 55.1 | 55.0 | 54.2 | 57.7 | 57.4 | 57.8 | 57.3 | 58.3 | 57.6 | 56.0 | 56.7 | 54.6 | 54.4 |
| NL Industrie | 57.0 | 57.3 | 56.5 | 58.3 | 57.8 | 57.8 | 57.6 | 58.6 | 58.9 | 59.7 | 60.0 | 60.4 | 62.4 |
| UK Industrie | 53.4 | 55.8 | 55.4 | 54.6 | 54.3 | 57.0 | 56.4 | 54.2 | 55.3 | 56.8 | 56.3 | 56.6 | 58.2 |
| UK Dienstleistungen | 55.2 | 56.2 | 54.5 | 53.3 | 55.0 | 55.8 | 53.8 | 53.4 | 53.8 | 53.2 | 53.6 | 55.6 | 53.8 |
| BR Industrie | 46.2 | 45.2 | 44.0 | 46.9 | 49.6 | 50.1 | 52.0 | 50.5 | 50.0 | 50.9 | 50.9 | 51.2 | 53.5 |
| BR Dienstleistungen | 44.4 | 45.1 | 45.1 | 46.4 | 47.7 | 50.3 | 49.2 | 47.4 | 48.8 | 49.0 | 50.7 | 48.8 | 46.9 |
| RU Industrie | 53.6 | 53.7 | 54.7 | 52.5 | 52.4 | 50.8 | 52.4 | 50.3 | 52.7 | 51.6 | 51.9 | 51.1 | 51.5 |
| RU Dienstleistungen | 54.7 | 56.5 | 58.4 | 55.5 | 56.6 | 56.1 | 56.3 | 55.5 | 52.6 | 54.2 | 55.2 | 53.9 | 57.4 |
| CN Industrie | 50.9 | 51.9 | 51.0 | 51.7 | 51.2 | 50.3 | 49.6 | 50.4 | 51.1 | 51.6 | 51.0 | 51.0 | 50.8 |
| CN Dienstleistungen | 53.1 | 53.4 | 53.1 | 52.6 | 52.2 | 51.5 | 52.8 | 51.6 | 51.5 | 52.7 | 50.6 | 51.2 | 51.9 |
| JP Industrie | 51.3 | 52.4 | 52.7 | 53.3 | 52.4 | 52.7 | 53.1 | 52.4 | 52.1 | 52.2 | 52.9 | 52.8 | 53.6 |
| JP Dienstleistungen | 51.8 | 52.3 | 51.9 | 51.3 | 52.9 | 52.2 | 53.0 | 53.3 | 52.0 | 51.6 | 51.0 | 53.4 | 51.2 |

Source: Markit, DZ BANK Research

Interest rates

- » Solid economic growth and moderate inflation should ensure continuity in US monetary policy under a new Fed chairman Jerome Powell
- » Eurozone: robust and homogenous economic growth with low inflation support the ECB's policy stance: no move in rates expected until 2019

US: robust economy and moderate inflation

The leading indicators in the US suggest that economic growth will remain at its current solid pace into next year. The latest reading of the ISM services index was 60.1, an exceptionally high level that has only been reached on three occasions in the last 20 years (1997, 2004 and 2005). The ISM manufacturing index is also comfortably in the growth zone at 58.7. Although the index fell slightly last month, it remains high. Sentiment towards the US economy was last at similar levels in 2010, 2003-2004, 1994 and at the end of the 1980s. The ISM index is an extremely accurate predictor of US economic growth in the following six months (see left-hand chart below). We expect the US economy to have chalked up output growth of 2.2% in 2017. Moreover, see the pace of growth picking up further next year. We are forecasting real GDP growth of 2.5% in the world's biggest economy in 2018 and 2.6% in 2019.

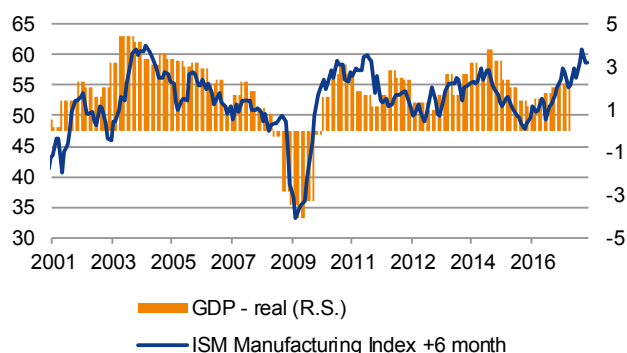
The ISM sub-index on employment in manufacturing industry has hovered at around 60 since August. These are the highest levels since June 2011. The ISM Institute itself interprets this as pointing to a significant rise in employment and/or the demand for labour in the coming months. Due to the already high employment levels in the US economy – the unemployment rate stood at 4.1% in October – this robust demand for labour could lead to rising pressure on wages and in time also to somewhat higher inflation. Unit labour costs react to a rise in the ISM employment index with a significant lag (see right-hand chart below). The economic data therefore suggests that wage growth will pick up a little in the coming year, which should tend to push up inflation as well.

US growth strengthening further

Demand for labour likely to rise in the US and push up earnings growth

ISM INDICATOR POINTS TO SIGNIFICANT ACCELERATION IN US ECONOMIC GROWTH

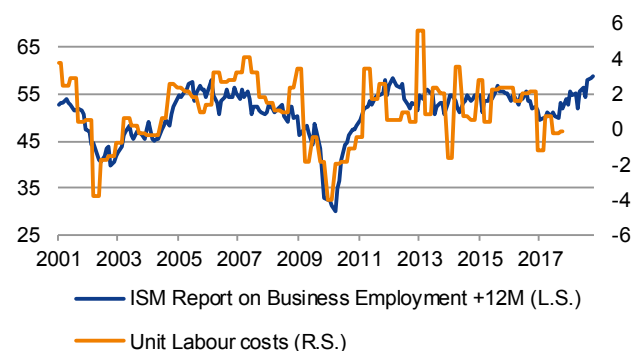
L.S.: ISM MANUFACTURING INDEX IN PERCENTAGE POINTS
R.S.: REAL GROSS DOMESTIC PRODUCT IN PERCENT (YOY)



Source: Bloomberg, DZ BANK

WAGE GROWTH LIKELY TO PICK UP SOMEWHAT ON THE LABOUR MARKET OVER THE NEXT YEAR

L.S.: ISM EMPLOYMENT INDEX (AVERAGE OF MANUFACTURING INDUSTRY AND SERVICES) IN PERCENTAGE POINTS
R.S.: UNIT LABOUR COSTS IN PERCENT (YOY)



Source: Bloomberg, DZ BANK

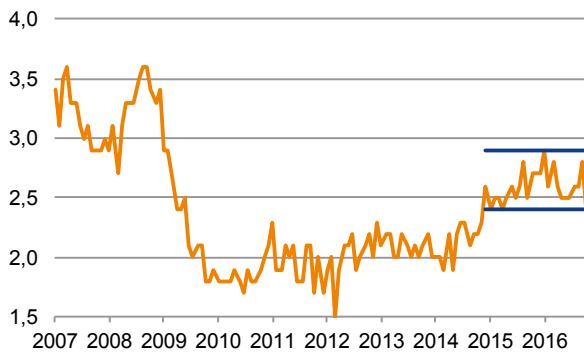
The supply of labour is already constrained by the high capacity utilisation levels in the US economy. This has already led to a modest upturn in wage growth, as hourly earnings have been growing at an annual rate of between 2.4% and 2.9% over the last two years (see left-hand chart on next page). Among qualified staff in

Higher wage pressure should push inflation above 2%

¹⁾⁻¹²⁾ Wichtig: Bitte lesen Sie die Hinweise zu möglichen Interessenkonflikten und die rechtlichen Hinweise am Ende dieser Studie

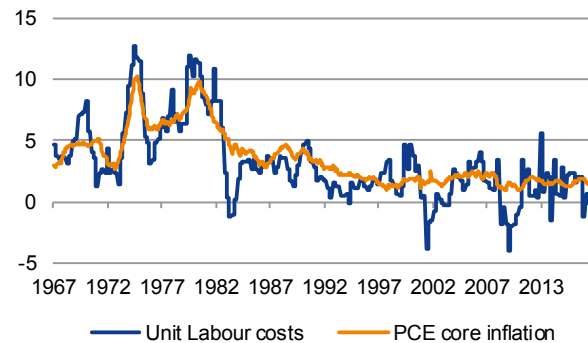
manufacturing industry wage growth is even stronger. Nonetheless, we are forecasting average consumer price inflation of 2.2% in 2018, as lower energy price inflation than this year is ultimately expected to keep inflation almost unchanged compared to this year.

US HOURLY EARNINGS GROWTH HAS BEEN STABLE AT OVER 2.4% YOY SINCE THE END OF 2015
AVERAGE HOURLY EARNINGS (IN PERCENT YOY)



Source: Bloomberg, DZ BANK Research

CLOSE LONG-TERM RELATIONSHIP BETWEEN UNIT LABOUR COSTS AND INFLATION
IN PERCENT YOY



Source: Bloomberg, DZ BANK Research

Continuity in US monetary policy under new Fed chairman

With the end of Janet Yellen's tenure at the beginning of February, the chairmanship of the US Federal Reserve will in all likelihood (the US Senate still has to approve the nomination) pass to the lawyer Jerome Powell. Janet Yellen herself has announced that she will leave the Federal Reserve altogether after stepping down as chair once Powell is sworn in. Powell, who is currently a member of the Fed's Board of Governors, is regarded as neutral on monetary policy. During his time at the central bank he has supported Mrs Yellen's cautious approach to raising interest rates and the gradual downsizing of the Fed's balance sheet. To date he has never voted against an interest rate decision. Against this backdrop we expect Jerome Powell to largely continue Janet Yellen's approach to monetary policy. Other Federal Reserve governors have made comments to this effect. The president of the Federal Reserve Bank of Dallas Robert Kaplan has been quoted as saying that Jerome Powell stands for continuity as the successor to Janet Yellen. Powell himself has already said in a number of speeches that he wants to continue on the path of gradual rate hikes, as long as the economic data is supportive.

The deregulation of the banking sector being sought by President Trump is certainly possible under a Powell chairmanship. However, whether Powell will really fulfil Trump's hopes in the medium term is less certain. There is a consensus among many central bankers and financial market players that highly accommodative monetary policy can only be implemented against a backdrop of stricter financial market regulation, as the regulation holds the market's tendency to irrational exuberance in check. If regulation was to be loosened now, continued easy monetary policy could pose a threat to financial stability. In a less strictly regulated environment the central banks might have to shift to a less accommodative or even restrictive monetary policy much more quickly. Many central bankers argue for countering financial market risks with sector-specific regulation rather than hitting the economy as a whole with changes in interest rates that inevitably have a much broader impact.

Jerome Powell following in Yellen's footsteps as new Fed chairman

Will Trump succeed in his drive for looser regulation and low interest rates?

Although Powell can naturally exert considerable influence as chairman of the FOMC, policy decisions are ultimately taken by a broad-based committee after wide-ranging debate. The direction of monetary policy will also depend on whom the president appoints as Powell's vice-chairman after the resignation of William Dudley. According to press reports Mohamed El-Erian, a well-known economic advisor and former head of a large investment manager, is being touted as one of the favourites for this post. However, there are a number of other candidates in the running too.

Position of vice-chairman still up for grabs

Assuming that the economic situation does not change markedly in the coming quarters, we expect the Fed to stick to its current monetary trajectory. At the moment there is no pressing reason to change tack in monetary policy. The only thing that could give rise to some uncertainty is if there was an unexpectedly sharp rise in inflation and/or a significant acceleration in economic growth, for example following a wide-ranging tax reform. How the Fed would respond to such a development under the new Fed chairman-designate will, however, only become clear in the course of the coming years.

No urgent reason for rapid and/or substantial change of course

Rate hike to have very little impact on 10-year US yields

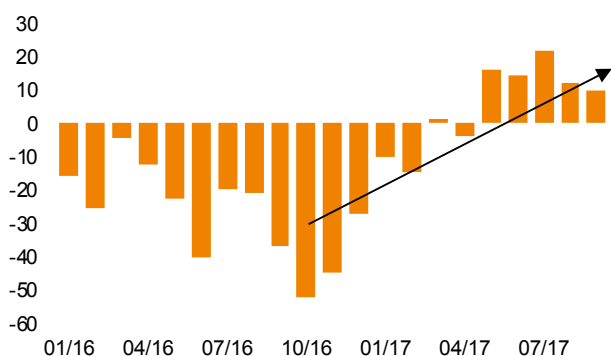
The majority of FOMC members expect three rate hikes in 2018. Judging by the fed funds futures, however, the market is currently only expecting one or two moves. Our forecast is for two rate increases in 2018, although we expect the FOMC to have raised the fed funds target to 1.25% - 1.50% beforehand at the upcoming meeting in December. The normalisation of the balance sheet is on autopilot and is likely to continue next year in line with the FOMC's already published plans.

Two further rate hikes in 2018

We expect the rate increases over the next year to have very little impact on the long end of the US yield curve. Looking ahead one year we are forecasting 10-year US yields rising only modestly to 2.60%. The US yield curve will therefore increasingly flatten in response to further increases in short-term interest rates. The recovery in foreign demand for US Treasuries that has been observable in 2017 should continue next year (see chart below). Combined with a moderate outlook for inflation this should prevent yields at the long end from rising too sharply. As it already has this year, the US yield curve will continue to flatten in 2018. Since the beginning of 2017 the US Treasury 2/10 spread has fallen from around 120 to 60 basis points. By the end of next year we are expecting this yield differential to shrink further to around 40 basis points.

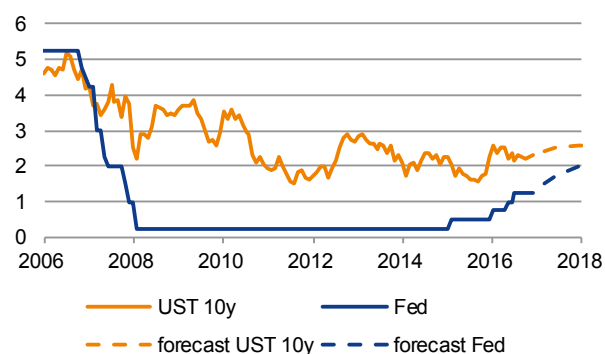
Moderate inflation and stronger international demand for US treasuries preventing sharp rise in yields

INTERNATIONAL INVESTORS BUYING MORE US TREASURIES AGAIN
NET PURCHASES OF US TREASURIES BY FOREIGNERS IN USD BILLION



Source: Datastream, DZ BANK Research

RECENT FED RATE HIKES HAVE SO FAR LED TO A FLATTER YIELD CURVE
IN PERCENT



Source: Bloomberg, DZ BANK Research

Eurozone: Strong and homogenous economic growth expected in 2018

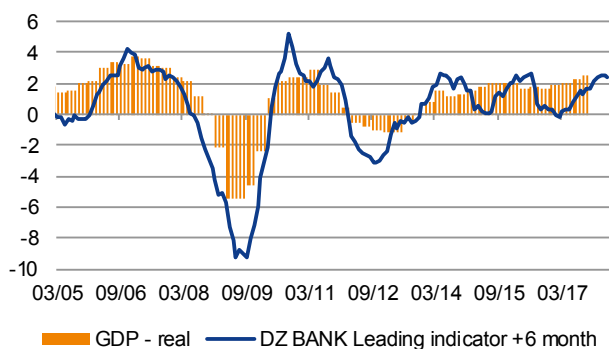
The eurozone is currently in a broad-based economic recovery. Judging by the leading indicators, growth is likely to remain strong in the coming months. The optimism of the euro area purchasing managers surveyed by the market research company Markit seems to be reaching ever new highs. The composite index for the euro area rose from 56 in October to a 7-year high of 57.5. This was due largely to the very strong survey score of 60 in manufacturing industry. Other leading indicators are also pointing to robust economic growth. Germany's Ifo index is at a record high of 117.5 and the DZ BANK leading indicator for the eurozone is close to its all-time high from 2007. Irrespective of whether the forthcoming hard economic data for November and December shows an acceleration in economic growth, the recovery in the euro area is expected to broaden further next year.

Based on the recent indicators we expect the eurozone to carry over the positive momentum from 2017 (2.3% GDP growth) into the New Year. We are forecasting real GDP growth of 2.0% in 2018 and 2.1% in 2019. It is also important to note that it is not just the eurozone as a whole that should enjoy strong growth rates, but the breakdown within the euro area countries it is also fairly homogenous. Even the growth laggard Italy is expected to grow at above potential with growth of 1.5% (see right-hand chart below).

Leading indicators point to solid economic growth in the eurozone

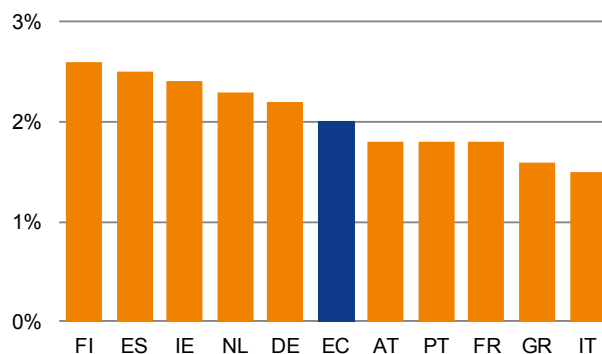
Growth fairly homogenous across the entire eurozone

DZ BANK LEADING INDICATOR POINTING TO SOLID GROWTH AT THE BEGINNING OF 2018
IN PERCENT YOY



Source: Bloomberg, DZ BANK Research

HOMOGENOUS GDP GROWTH EXPECTED IN THE EUROZONE IN 2018
GDP GROWTH IN PERCENT YOY



Source: Datastream, DZ BANK Research

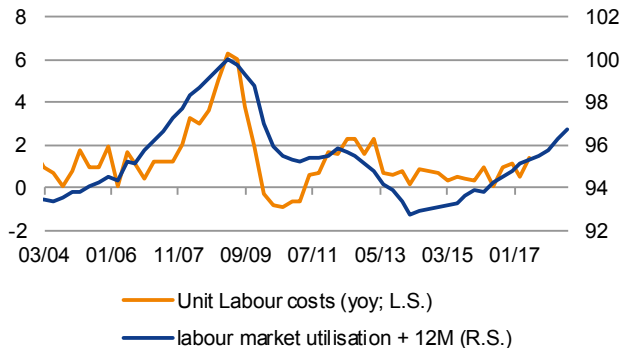
Inflation expected to remain low next year

In spite of the robust recovery wage pressure should remain moderate in the coming year. Although the euro area's unemployment rate has fallen by more than one percentage point since the beginning of 2017 and is now back to 2006 levels, we are still some way short of what might be described as full employment. To gain a fuller picture of current levels of labour market utilisation we constructed a time series comparing working hours with their last cyclical peak in the first quarter of 2008. Our analysis suggests there is a 12-month lag between labour market utilisation levels and a significant impact on wages. In other words, labour market utilisation must be very high for some time before this translates into wage pressure and a rise in unit labour costs. We are currently still in the "neutral" zone. Based on the past relationship wage pressure should not pick up significantly until 2019 (see charts below).

Weak wage pressure holding down inflation

WAGES RESPOND TO CHANGES ON THE LABOUR MARKET WITH A LAG

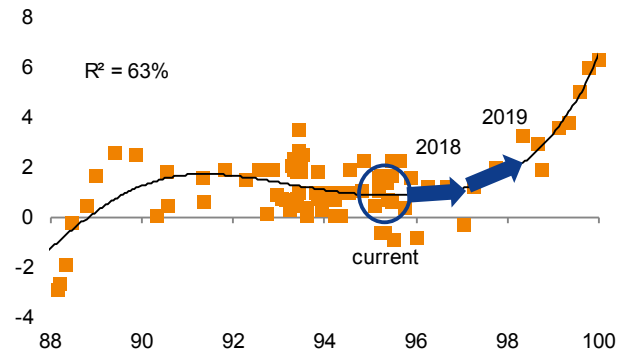
LABOUR MARKET UTILISATION* AND UNIT LABOUR COSTS IN PERCENT



Source: Datastream, DZ BANK Research

WE ONLY EXPECT WEAK WAGE PRESSURE IN SPITE OF THE STRONG ECONOMY – LABOUR MARKET STILL HAS SPARE CAPACITY

X AXIS: LABOUR MARKET UTILISATION* +12 MONTHS (1996-2016)
Y AXIS: UNIT LABOUR COSTS (% YOY; 1997-2017)



Source: Datastream, DZ BANK Research

*Current working hours/maximum working hours (in 2008);

Given the continued absence of inflation pressure, even ECB council members have recently expressed concern about possible changes in the inflation process. They have agreed to keep a watchful eye on whether this development is structural or only transitory. We expect the ECB to fall short of its inflation target of 2% both next year and in 2019; we are forecasting average inflation of 1.2% in 2018 and 1.5% in 2019. Moreover, headline inflation is likely to be partly boosted next year by higher energy costs resulting from the higher oil price in a year-on-year comparison. Core inflation is expected to remain very weak at just 0.9% in 2018. Only in 2019 do we see core inflation rising more substantially to 1.4%.

ECB concerned about possible changes in the inflation process

ECB remains accommodative – no rate hike expected until 2019

Given low inflation the ECB is not yet under acute pressure to change its policy stance in spite of strong economic growth. With the commitment to buying a further EUR 270 billion of bonds from January 2018 and the additional reinvestment of maturing paper, monetary policy remains loose. The ECB will continue buying bonds until September and the monetary policymakers have deliberately left open what will happen at the end of this period. By the summer of 2018 at the latest the market will begin to speculate about the ECB's next move. We expect the monetary guardians to announce at this point how they propose to continue the asset purchase programme. It is conceivable that the Governing Council will decide to gradually wind down the net bond purchases to zero by the end of 2018.

ECB to remain accommodative in spite of a strong economy

As was stated in the minutes of the last ECB meeting, the public sector purchase program (PSPP), i.e. government bonds, will bear the brunt of the reduction in bond buying from January 2018. The monetary guardians are probably quietly pleased with the success of the corporate sector purchase program (CSPP). This is suggested by a number of factors. In addition to the narrowing of credit spreads in the corporate bond segment, there have also been spillover benefits to the real economy. After a drastic fall in 2015, expected capital spending by listed companies in the eurozone has recently begun to rise again modestly (see chart on next page). Lending by European banks also seems to be recovering gradually.

Asset purchases will concentrate more on the CSPP

10-year bund yields: upward trend in a sawtooth pattern

With inflation remaining low, a continued accommodative monetary policy and a robust economic environment we expect bund yields to only rise gradually over the

10-year bund yield expected to rise gently in the medium to long term

¹⁾⁻¹²⁾ Wichtig: Bitte lesen Sie die Hinweise zu möglichen Interessenkonflikten und die rechtlichen Hinweise am Ende dieser Studie

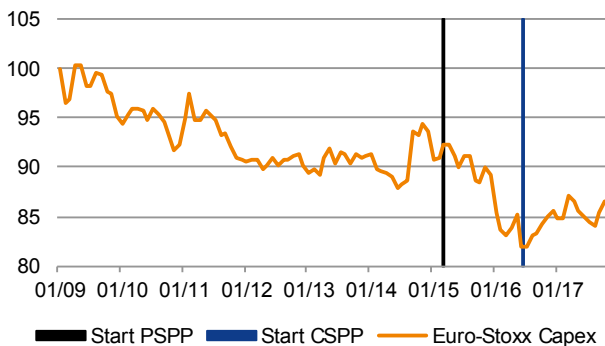
coming year. Our 12-month forecast for 10-year bund yields is 0.8%. However, the path there will probably not go in a straight line, but continue to be punctuated as in recent months by numerous upward and downward cycles. The Italian parliamentary elections in the spring of 2018, for example, will probably lead to a short-term upsurge in risk aversion and so prompt stronger demand for bunds. We do not expect a sustained impact, however. In the summer the bond market’s focus is likely to be on speculation about the ECB’s next steps, leading to higher volatility. However, by the end of the year higher rates of inflation year-on-year and a less accommodative stance on the part of the ECB could act as a trigger for higher bund yields.

We expect the ECB to leave rates unchanged at the short end. Due to the clear communication about its policy sequencing – the ECB will end its asset purchases first before raising interest rates – we are not expecting the first changes to the deposit rate until sometime in 2019 at the earliest. The bund curve should therefore steepen from the long end and we see the 2/10 spread widening to 135 basis points by the end of 2018. Two-year bund yields are only likely to rise when there is a clear upturn in rate hike expectations. This is unlikely to happen until the beginning of 2019.

Hike in deposit rate unlikely until 2019 or later: bund curve to steepen until then

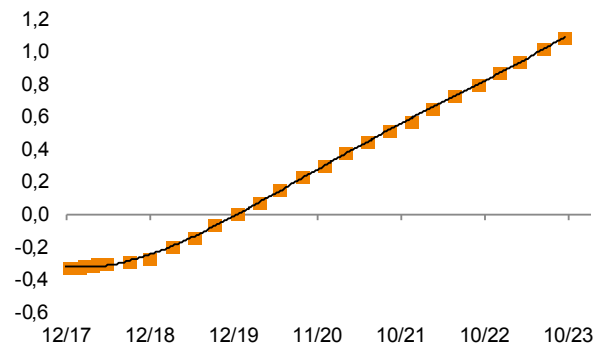
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CSPP HAS LED TO A MODEST RISE IN THE INVESTMENT PROPENSITY OF LISTED COMPANIES
INDEX: 100= 31.01.2009



Source: Bloomberg, DZ BANK Research

MARKET NOT EXPECTING FIRST RATE HIKE UNTIL 2019 AT THE EARLIEST
EURIBOR FORWARD RATES IN PERCENT



Source: Bloomberg, DZ BANK Research

¹⁾⁻¹²⁾ Wichtig: Bitte lesen Sie die Hinweise zu möglichen Interessenkonflikten und die rechtlichen Hinweise am Ende dieser Studie

Yield curve strategy

- » Gradual bearish steepening of the bund curve expected both in the short term and over the course of 2018
- » Keep duration below benchmark – sawtooth pattern may offer occasional opportunities

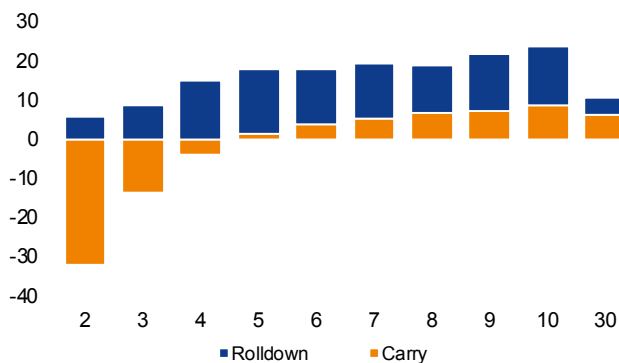
The core views underlying our yield curve strategy are largely unchanged since the last edition of this publication. This consistency is a reflection both of an almost unchanged interest rate forecast and a yield curve that has hardly moved over the past month. As a result the main curve slope indicators, such as the 2/10-year spread, have not moved out of their low-volatility sideways channels (see right-hand chart below). In spite of the imminent halving of the APP volume, the ECB has therefore been successful in holding investors in check and convincing them of the very cautious nature of the gradual monetary normalisation.

There should be little change to this relatively tranquil environment in the near term. Particularly in short-dated bonds we are not expecting any movement over our 3-month forecast horizon – the yield on the 2-year Schatz should remain at -70 basis points (bp). Only in longer maturities are we forecasting a modest rise in yields (to 50 bp in 10-year bunds), which therefore implies a bearish steepening regime overall. However, as in the past this move is unlikely to go in a straight line – the sawtooth pattern will in all likelihood continue in future, with volatility rising and falling along the way. Investors should keep an eye on the Italian general election, and particularly the run-up to the elections, as a potential driver of a risk-off, yield-lowering move. March is being talked about as a possible election date, which roughly coincides with the end of our tactical forecast horizon. If this event therefore leads to a fall in yields in the short term, this should be used to reduce duration further.

Market little changed since ECB meeting at the end of October

Short end expected to remain unchanged for now – Italian elections could hold back rise in yields at the long end

SHORT END AN EXPENSIVE SAFE HAVEN
IN BP (12-MONTH HORIZON)



Source: DZ BANK Research, Bloomberg

2/10-YEAR SPREAD TO REMAIN DOMINATED BY THE LONG END
IN % (L.S.), IN BP (R.S.)



Source: DZ BANK Research, Bloomberg

As of today a similar pattern is expected for the year as a whole. The forecast rise in the Schatz yield to -55 bp by the end of 2018 is expected to be more than matched by a larger rise in yields at the long end (to 80 bp in 10-year bunds), which therefore implies that the bearish steepening trend should also be dominant from a strategic perspective. The unattractive total return outlook resulting from the rise in yields can only be partly mitigated by switching into the short end. Although the capital losses are lower than at the long end on account of the smaller forecast rise in yields and shorter duration, at the same time the highly negative carry reduces the attractiveness of short-dated bonds as a refuge from rising interest rates. A classic

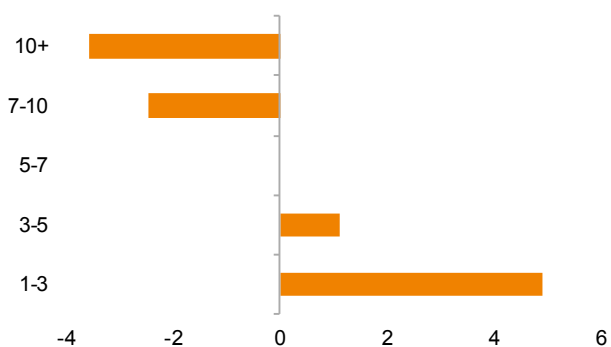
Matching strategic and tactical picture: bearish steepening with brief interruptions during 2018

buy-and-hold strategy is therefore unlikely to be a successful yield curve strategy on the bund curve, even in the long term. As an alternative we recommend taking advantage of the expected market spikes in both directions within the ongoing sawtooth pattern to generate additional tactical return. Active management will therefore remain crucial in 2018 in a difficult investment environment, as interest rates rise from exceptionally low levels.

We continue to recommend holding duration below our benchmark, the iBoxx Germany Sovereign Index, which currently has a duration of 7.33 years. This applies both to our tactical forecast horizon of three months and the year 2018 as a whole.

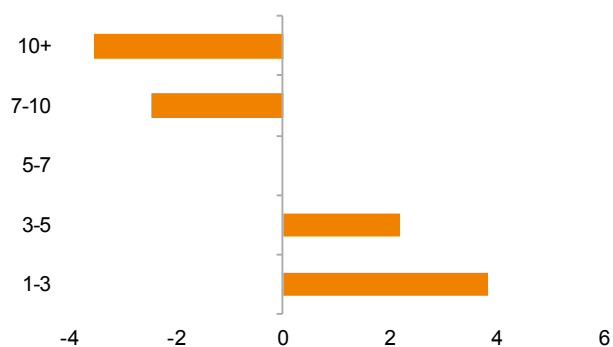
Maintain duration well below the benchmark

AVOID THE LONG END BOTH TACTICALLY* ...
POSITIONING RELATIVE TO BENCHMARK IN PERCENTAGE POINTS



Source: DZ BANK Research, Bloomberg; *forecast horizon: 3 months

... AND STRATEGICALLY*
POSITIONING RELATIVE TO BENCHMARK IN PERCENTAGE POINTS



Source: DZ BANK Research, Bloomberg; *forecast horizon: 31.12.2018

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¹⁾⁻¹²⁾ Wichtig: Bitte lesen Sie die Hinweise zu möglichen Interessenkonflikten und die rechtlichen Hinweise am Ende dieser Studie

Swap spreads

- » International demand leading to higher (less negative) UST-swap spreads – ECB portfolio effect should maintain stable bund-swap spreads for now

The European Central Bank has built up a bond portfolio of well over EUR 2 trillion through its various bond-buying programmes. Next year it will add a further EUR 270 billion of bonds to this. Due to the capital key German bonds, and so mostly bunds, have been the biggest component of these programmes to date. In order to assess the impact of the ECB's bond holdings on bund-swap spreads, we compared the previous monthly bond purchases with the supply of liquid bonds on the market. Bunds are many central banks' first choice for their euro currency reserves. However, currency reserves are largely strategic portfolios and are thus normally not available to the bond market as immediate liquidity. We assumed a ratio of 50% of the euro portfolios of international central banks as an approximation of the market of rapidly tradable and liquid bunds and used this to calculate the effect of the ECB's bond portfolio on bund-swap spreads.

Our analysis shows that the level of bund-swap spreads is correlated with the ECB's monthly purchases as a proportion of the liquid bonds available on the market (see left-hand chart). The ECB holds around 25% of purchasable German bonds in its portfolio, but around 50% of the liquid paper. Since the ECB controls half the market, the halving of monthly purchases to EUR 30 billion from January 2018 still means the purchases will have a similar effect on bund-swap spreads as bond purchases of EUR 60 billion at the beginning of the PSPP in 2015. Against this backdrop we expect bund-swap spreads to move sideways in the coming months. Only after a renewed downsizing of ECB purchases in the fourth quarter of 2018 are bund-swap spreads likely to fall more significantly.

In the US an upturn in international demand for US Treasuries has led to a recovery in UST-swap spreads lately (right-hand chart). Among other factors, the continued low yields in Europe and Japan have led to a shift in demand towards US Treasuries this year. We expect this situation to continue in the coming months and see the 10-year UST-swap stabilising at zero in a year's time.

Portfolio effect will dilute the impact of the ECB's lower net monthly purchases

DZ BANK SWAPSPREADS: FORECASTS

| | current | + 3 months | + 12 months |
|------------------|---------|------------|-------------|
| 2yr USA | 19 | 20 | 25 |
| 10yr USA | 0 | -5 | 0 |
| 2yr Euro area | 52 | 50 | 40 |
| 3yr Euro area | 55 | 51 | 38 |
| 5yr Euro area | 52 | 50 | 35 |
| 7yr Euro area | 51 | 51 | 35 |
| 10yr Euro area | 45 | 45 | 30 |
| 30yr Euro area | 34 | 30 | 25 |
| slope 2/10 | -7 | -5 | -10 |
| curvature 2/5/10 | 7 | 5 | 0 |

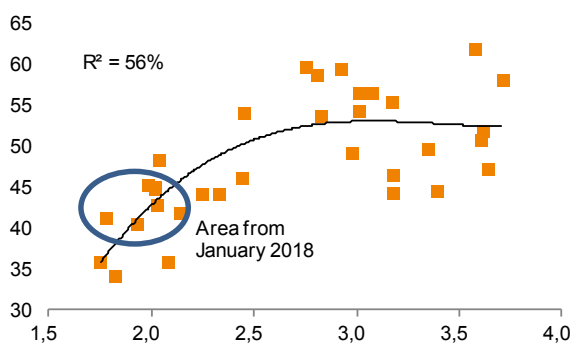
source: DZ BANK Research, Bloomberg

10y UST spread back around zero again

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PORTFOLIO EFFECT IN BUNDS: LOWER MONTHLY PURCHASES, BUT SAME EFFECT ON THE BOND MARKET

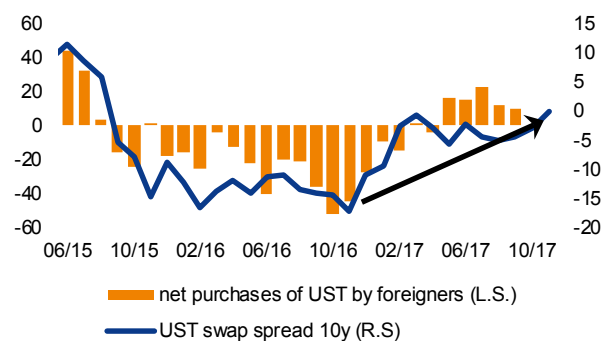
X AXIS: ECB MONTHLY PURCHASES AS % OF LIQUID BONDS
Y AXIS: 10Y BUND-SWAP-SPREAD



Source: Bloomberg, DZ BANK Research

HIGHER INTERNATIONAL DEMAND LEADS TO HIGHER UST-SWAP SPREADS

L.S.: IN USD BILLION
R.S.: IN BASIS POINTS



Source: Bloomberg, DZ BANK Research

Interest rate derivatives and structured products

- » Short 3m10y payer swaption, short 5y floor, long 1y2y risk reversal
- » Long volatility, Basis-Plus bond a bet on long-term stimulative monetary policy

Taking their foot off the monetary gas pedal without triggering market turmoil was an important milestone for the ECB on the road to a less stimulative monetary policy. With the Eurozone bond markets having reached very high valuations as a result of the ECB’s unconventional monetary policies, a large and rapid rise in yields could have posed a risk to financial stability in the euro area. The monetary guardians were therefore very cautious and did not set an end date for the monthly APP purchases. In response, rates fell on the EUR swap curve, the curve flattened and implied volatilities receded. These three key parameters of the interest rate environment in the euro area are currently either at the bottom end of their six-month trading range or close to a multi-year low. This is in keeping with expectations of continued loose monetary policy, with the inflation environment in the euro area still too weak at the start of the New Year. It is, however, out of line with the fundamental picture. Growth is not only gathering momentum in the Eurozone, but also at a global level, and the leading indicators suggest this will continue in 2018.

The risk of an adjustment to the ECB’s forward guidance is therefore rising in the medium term. The central bank may therefore return in future to steering its monetary policies more through traditional instruments such as liquidity tenders and changes in interest rates. Comments to this effect following the last ECB meeting have already led to a rise in interest rates on the money market and in medium maturities on the EUR swap curve. This is reflected, for example, in the current high for the 2/5/10 butterfly (see left-hand chart below). This theme may gather strength in the coming months if growth keeps pace with expectations. In our view this points to selling the risk of falling interest rates in shorter maturities, for example by selling five-year floors. A risk-reversal strategy is possible too: by selling a 1y2y OTM receiver swaption and simultaneously buying an OTM payer swaption an investor is positioned for generally rising money market rates.

We expect these effects to take hold along the EUR swap curve and lead to structurally higher EUR swaps in the medium term. However, before we get there investors are still focused on the long end of the EUR swap curve. For now the positive economic outlook will probably not be enough to prompt a breakout from the recent very tight trading range. Risks of rising rates, however, currently derive from

ECB reaches a milestone

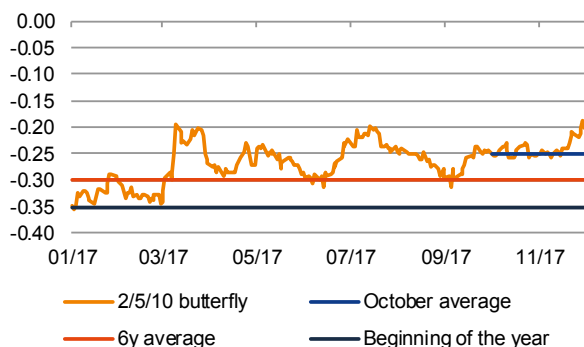
Accommodative policy firmly anchored, but gathering global economic growth momentum a risk

Traditional central bank tools to play a more central role again

Sell risks of falling interest rates on the money market

Attention focused on the long end for now

2/5/10 BUTTERFLY DISCOUNTING THE CREEPING SHIFT OF ECB PRIORITIES IN PERCENT



SAWTOOTH PATTERN WITH UPWARD DRIFT – RATE RISE PRESSURE GROWING AT THE LOWER END OF THE TRADING RANGE IN PERCENT



Source: DZ BANK Research, Bloomberg

Source: DZ BANK Research, Bloomberg

¹⁾⁻¹²⁾Wichtig: Bitte lesen Sie die Hinweise zu möglichen Interessenkonflikten und die rechtlichen Hinweise am Ende dieser Studie

the possible US tax reform, rising inflation expectations and the approaching end of the asset purchase programme. We therefore expect the familiar sawtooth pattern under which EUR swaps have drifted upwards in recent months to continue (see right-hand chart on previous page). Tactically 2/10 bear steepeners look attractive, but more as a mean-reversion strategy – the ECB has the tools at its disposal to counter any pronounced upward pressure on rates. Selling the short-term risk of rising rates with a 3m10y OTM payer swaptions therefore looks an attractive trade.

US tax reform, APP tapering and rising inflation expectations create a risk of rising rates

Volatility stabilising at a low level – outlook pointing upwards

Implied volatilities declined sharply in 2017 (see left-hand chart below). Short expiries in particular were dragged down by expectations that the low interest rate environment would remain anchored for longer in the Eurozone. This process went to such an extreme at one point that there was no longer any difference between implied and realised volatility. However, this was a wake-up call to market participants. At first vega volatilities for swaptions with longer expiries began pricing in the positive growth outlook. Gamma volatilities have now followed suit and have reversed at least part of their most recent decline.

Implied vols fell sharply in 2017, more recently signs of stabilisation

Without any new impetus from the ECB, implied volatilities are likely to end the old year more or less unchanged. However, it remains to be seen if the New Year begins in a similar low-key manner with the reduction in APP purchases. The resulting uncertainties make vega volatilities the prime candidate for a rise in the New Year. This upward pressure should be transmitted to shorter expiries later in the year, as a debate about the ECB’s forward guidance gets underway. The current low volatility levels suggest this is a good time to take out cheap conditional hedges against rising interest rates.

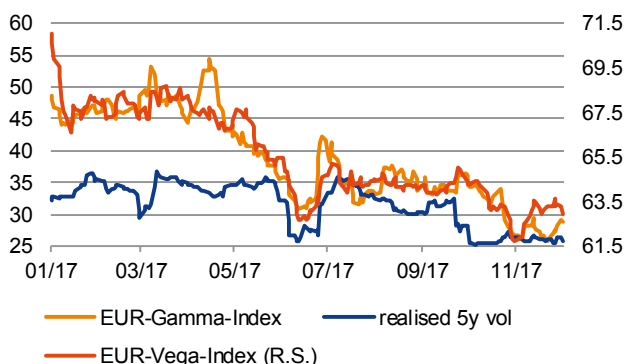
Change in trend taking time, vega vols leading the way

On the assumption that, irrespective of any minor adjustments, monetary policy will remain accommodative in the euro area in the long term, barrier structures look attractive. An indicative 10y Basis-Plus bond pays a coupon of 1.30% if 12-month Euribor is below the barrier of 1.25% on the fixing date, otherwise 0.5%. The breakeven versus 10y EUR swaps would be reached after just four periods.

Basis-Plus bond attractive if monetary policy remains accommodative in the long term

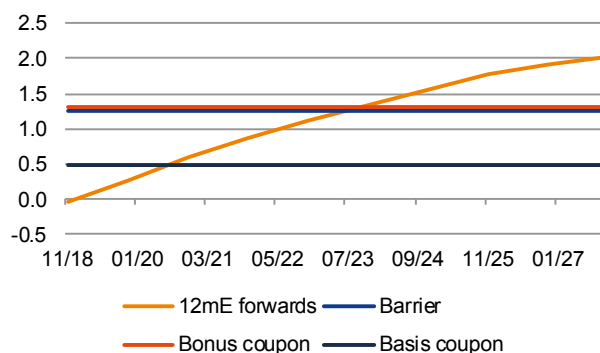
René Albrecht, ANALYST, +49 69 7447 92 123

IMPLIED VOLATILITIES DRAGGED DOWN BY LACK OF MOVEMENT IN INTEREST RATES IN 2017
IN BASIS POINTS



Source: DZ BANK Research, Bloomberg

INDICATIVE BASIS-PLUS BOND PAYS YIELD PICKUP IF MONEY MARKET RATES RISE IN LINE WITH THE FORWARD CURVE
IN PERCENT



Source: DZ BANK Research, Bloomberg

¹⁾⁻¹²⁾ Wichtig: Bitte lesen Sie die Hinweise zu möglichen Interessenkonflikten und die rechtlichen Hinweise am Ende dieser Studie

EMU sovereigns

- » Selected peripheral bonds first choice for 2018
- » Outperformers: **Greece**¹⁰⁾, **Portugal**¹¹⁾, **Spain**¹¹⁾
- » Market performers: **Belgium**^{10,11)}, **Austria**^{10,11)}, **France**¹¹⁾, **Ireland**¹¹⁾,
- » Underperformers: **Germany**^{10,11)}, **Italy**¹¹⁾, **Netherlands**^{10,11)}, **Finland**¹¹⁾

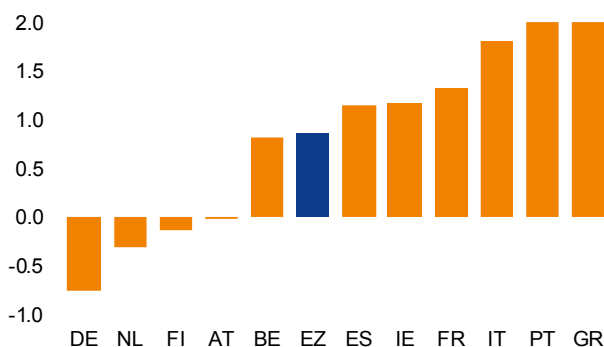
The peripheral countries were the clear winners in the eurozone government bond segment in 2017. Portugal and Greece both produced a total return in the double digit percentages, but Italy, France, Ireland and Spain also delivered above-average performance (see chart below). Propping up the bottom of the scale are Germany, the Netherlands and Finland – in Germany's case the total return was an uninspiring -0.8%. The reasons for this large divergence in performance are not hard to find: bund yields rose slightly along the entire yield curve over the course of 2017. In the core segment the carry was insufficient to compensate for the rise in yields on bunds. In the semi-core and even more in the peripheral segment, the negative performance impact of rising bund yields was more than outweighed by a higher carry and lower spreads. In view of the widespread uncertainty in the first half of the year, particularly ahead of the presidential election in France, there were few signs initially that a clear outperformance by the periphery was on the cards. But at the latest by midyear the exceptionally strong economic backdrop became the dominant theme on the markets, which then led to a significant fall in government bond spreads.

Periphery the clear outperformer in 2017

The excellent economic environment should be maintained in 2018 and even 2019. The reform policies of a number of eurozone countries continue to bear fruit, while countries will mostly not tighten their belts even further. Moderate wage settlements and the ECB's stimulative monetary policy are also favourable influences. Moreover, the full impact of the robust economic backdrop has probably not even been felt yet. Unemployment could begin to fall more rapidly than it has so far in many euro area countries and sovereign credit quality should continue to improve. We therefore expect this year's positive rating trend in the eurozone to continue in 2018. The fundamental conditions for further spread narrowing should thus be met. However, while credit risks are declining, against the backdrop of our forecast of a modest rise in bund yields there are rising interest rate and duration risks.

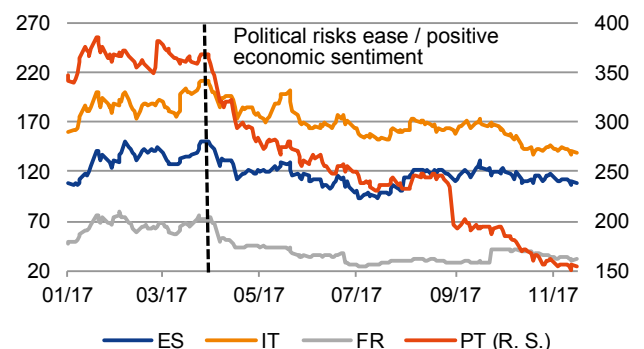
Positive economic backdrop suggests maintaining a largely offensive strategy

PERIPHERY BEATS THE CORE SEGMENT HANDS DOWN
IBOXX TOTAL RETURN (SINCE 01/17)



Source: DZ BANK Research, Bloomberg

SIGNIFICANT SPREAD NARROWING SINCE THE FRENCH ELECTION
10-YEAR BUND SPREADS IN BASIS POINTS



Source: DZ BANK Research, Bloomberg

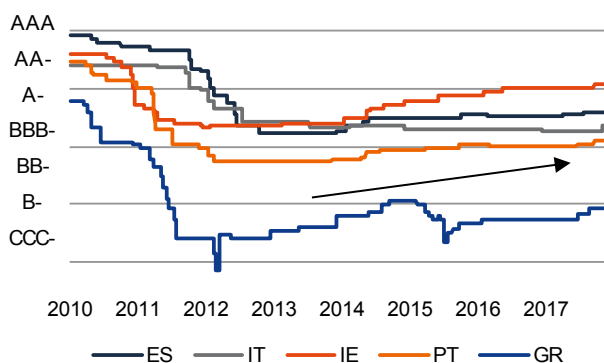
Many more investors than this year are likely to switch into bonds with higher spreads to reduce their exposure to the interest rate risk we have highlighted. However, this means investors will be forced to shift a higher proportion of their portfolios into countries with weaker credit ratings. While semi-core bonds still have potential for outperformance this year, we expect at best an average market performance in France, Belgium and Ireland in 2018 given their already much reduced spread levels. At least the slightly higher carry in these markets means that the total return prospects in the semi-core segment are better than in Germany, the Netherlands and Finland, which we expect to underperform across the board. The peripheral countries offer much better total return prospects, and we therefore see Greece, Spain and Portugal as outperformers. Portugal could also benefit from further rating upgrades, which could lead to its inclusion in the iBoxx index for EMU sovereigns.

Italy is the only peripheral country we rate as an underperformer. Although BTPs offer a high carry, the political risks remain considerable and could lead to significant spread widening, particularly in the run-up to the general election that must be held by the spring. According to current polls, the right-leaning parties Forza Italia und Lega Nord, who are planning to form an electoral alliance to secure a larger number of seats, are currently in the lead. The left-wing populist Five Star movement would win the second-highest number of seats according to current polls, while the governing Social Democrats (PD) would be relegated to third place. Moreover, the party of Prime Minister Gentiloni is divided and the PD could even split in the worst-case scenario. As none of the parties or alliances is likely to win an absolute majority of seats, there will be difficult coalition negotiations after the elections. Moreover, the parties are competing against one another with promises of tax cuts, which is a problem for the country's credit sustainability. With a cyclical recovery in progress, the difficult political situation is coming at a time of improved growth data and the first positive signs from the banking sector. As it currently looks as if a new government would probably not consist solely of populist political forces, at least the risk that a new Italian government would reconsider the country's membership of the single currency is limited in our view. This should in turn reassure the market and we therefore do not necessarily expect the spreads of the eurozone government bond market as a whole to be adversely impacted by the political situation in Italy on a sustained basis. Nonetheless, investors should be prepared for short-term upheaval on the markets.

Peripheral investments as protection against risk of rising interest rates

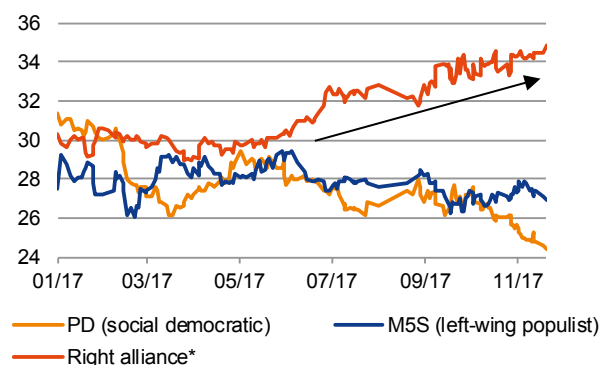
High political risks in Italy, but limited risk of spillover to the entire eurozone

POSITIVE RATING TREND CONTINUES IN THE PERIPHERY
AVERAGE RATING (S&P, MOODY'S, FITCH)



Source: DZ BANK Research, S&P, Moody's, Fitch

ITALY: BEST PROSPECTS FOR ALLIANCE OF RIGHT-WING PARTIES
VOTING INTENTIONS IN % (ROLLING 5-DAY AVERAGE)



Source: DZ BANK Research, various polling organisations; *) Forza Italia (centre-right), Lega Nord (right-wing populist) and Brothers of Italy (nationalist)

The Brexit negotiations are another risk factor for the EMU sovereigns segment. If, albeit contrary to expectations, the EU and the UK fail to agree on an orderly departure for Britain as well as post-Brexit arrangements, this will increase economic risks for the eurozone – and by extension spread risks – on account of the close trading ties, above all with Ireland (see left-hand chart below). In contrast, we believe that if, as anticipated, the ECB winds down its public sector purchase programme (PSPP) by the end of next year, this will not pose any great risk to EMU sovereign bonds. Although the ECB's balance sheet will not be expanded any further in this scenario, not only will maturing bonds be reinvested, it is likely that subsequent rate hikes will be implemented slowly. When seen through the prism of the good economic situation, monetary policy therefore looks set to remain accommodative.

Brexit issue harbours economic risks for the eurozone

Turning to other individual sovereigns, Germany is likely to remain in the political spotlight as we head into 2018. Following the failure of negotiations to form a “Jamaica coalition” comprising the centre-right Christian Democrats, Greens and the liberal FDP, the Christian Democrats are now holding tortuous discussions with the social democratic SPD on reviving their previous “grand coalition”, or at least forming a minority government that would rely on the SPD for certain votes. The latter option would be new political territory for Germany, harbouring risks of growing political instability. Despite all this, the market has taken a sanguine view of this saga as no urgent political decisions need to be taken in Germany at present and the country is not facing a pressing backlog of reforms. However, an enduring political vacuum in Berlin does pose risks on the European stage, as key decisions on the future of the single currency area and the EU itself – not to mention the Brexit negotiations – are on the agenda in the coming weeks and months.

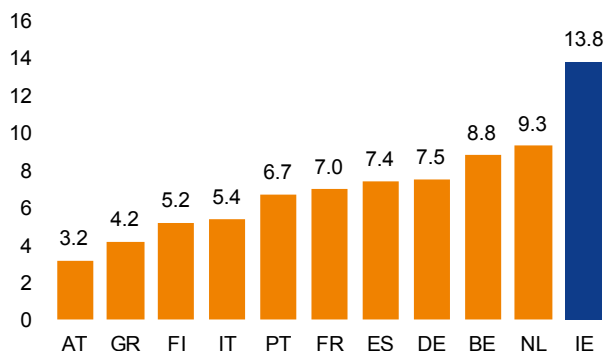
Extended political vacuum in Germany unwelcome from the European perspective

The negotiations between Greece and its international creditors will be another major talking point next year. The country has made substantial progress in meeting its reform conditions, and this could be enough for it to pass the third review of compliance with the current bailout programme as early as the start of 2018. Greece will primarily be pressing for debt relief to improve its prospects of independently raising funds on the capital markets. The Hellenic Republic will have to issue new bonds as the ESM will not be providing any new funding from mid-2018 onwards. Greece successfully came through a dress rehearsal thanks to strong take-up of its recent bond swap. The GGB curve is now more liquid and may therefore appeal to institutional investors in particular.

Key talks looming for Greece

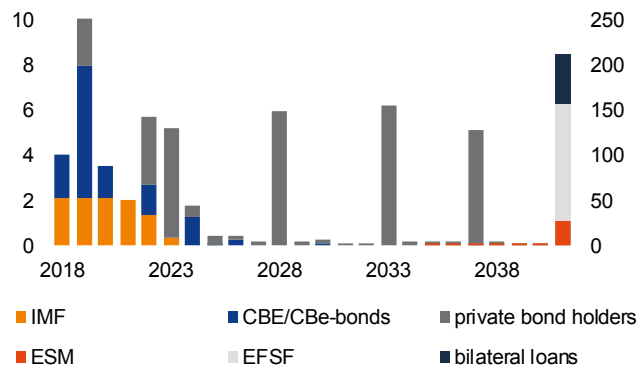
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ECONOMIC RISKS DUE TO CLOSE TRADING TIES WITH THE UK – ESPECIALLY FOR IRELAND
EXPORTS TO THE UK AS A PROPORTION OF TOTAL EXPORTS, IN %



Source: DZ BANK Research, Datastream

GREECE: ONCE THE ESM BAILOUT PAYMENTS END, MATURING DEBT WILL HAVE TO BE REFINANCED BY NEW BOND ISSUES
L. S.: MATURITIES UP TO 2040 IN EUR BILLION;
R. S.: TOTAL OF ALL MATURITIES AFTER 2040 IN EUR BILLION



Source: DZ BANK Research, Bloomberg, ESM, IMF

¹⁾⁻¹²⁾Wichtig: Bitte lesen Sie die Hinweise zu möglichen Interessenkonflikten und die rechtlichen Hinweise am Ende dieser Studie

Covered bonds

- » Little change expected in covered bond environment in 2018
- » Spread “hump” at beginning of year, then sideways trend
- » Moving to a more offensive weighting strategy early in the New Year could be a good idea

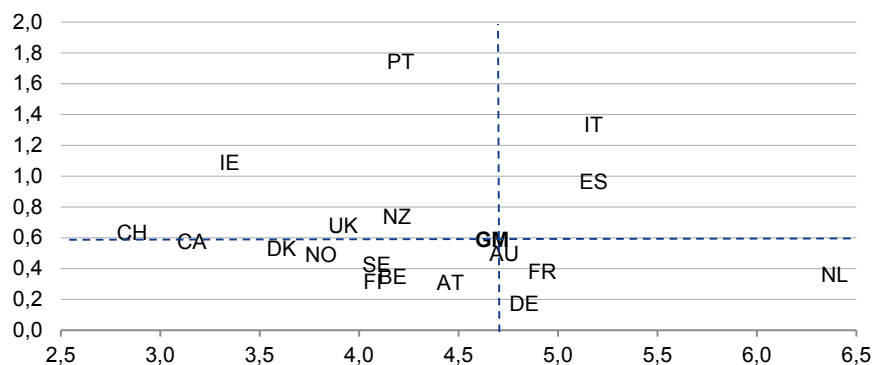
The final verdict on 2017 is very likely to be a positive one. The asset swap spread of the iBoxx € Covered Index was trading at around 16 basis points at the beginning of the year, but has since fallen to over minus four basis points, which marks a 10-year low. In an environment of generally falling spreads it is not surprising that the covered bank bonds of issuers from the peripheral countries of the eurozone have notched up the highest total return. Firstly, their spreads have narrowed the most. Secondly, peripheral covered bonds continue to offer the highest carry in the covered bond segment. In the chart below we have depicted the total returns by country in 2017 relative to a measure of risk (Sharpe ratio calculation, the higher the ratio, the higher the risk-adjusted return). We have plotted this against the duration of each country segment.

Positive verdict on 2017

RISK/RETURN PERFORMANCE IN 2017: EUROZONE PERIPHERAL COUNTRIES AMONG THE BEST-PERFORMING COVERED BOND INVESTMENTS

Y AXIS: SHARPE RATIO OF IBOXX € COVERED COUNTRY INDICES

X AXIS: DURATION OF IBOXX € COVERED COUNTRY INDICES (IN YEARS)



Source: Markit; calculation and presentation DZ BANK Research

AT= Austria, AU= Australia, BE= Belgium, CA= Canada, CH= Switzerland, DE= Germany, DK= Denmark, ES= Spain, FI= Finland, FR= France, GM= Global Market, IE= Ireland, IT= Italy, NL= Netherlands, NO= Norway, NZ= New Zealand, PT=Portugal, SE= Sweden, UK= United Kingdom; data up to 15 November 2017

The critical question for next year is whether the market for covered bank bonds will be able to maintain the current very low spread levels throughout the year. The relationship between supply and demand is naturally the main determinant of a market’s spread performance. A truism perhaps, but one that is nevertheless important to keep in mind.

Outlook for 2018

On the supply side we are expecting new issuance of EUR 110 billion in the euro benchmark covered bond segment in 2018. This would be comparable to 2017’s issuance levels and sufficient to exceed maturities of EUR 89 billion next year. In addition to the modest quantity of maturing bonds, the regulatory requirements for TLAC and MREL applying from 2019 will in our view also have a dampening impact on new supply. On the other hand, the absence of a new TLTRO and the expectation of an end to the CBPP3 could bring more issuers back to the primary market. They should include a number of first-time issuers. In a positive economic environment it

New issuance of EUR 110 billion of euro benchmark covered bonds expected next year

may be particularly attractive for smaller issuers to use covered bonds as a funding source, leading to a fall in average transaction volumes.

We do not expect demand for covered bonds to weaken significantly next year. On our calculations the ECB will buy an average of around EUR 3.5 billion of covered bank bonds per month in the first nine months in 2018 under the CBPP3 programme in a combination of net new purchases of covered bonds and reinvestments of maturing bonds. The central bank's investments will not fall abruptly to zero in the final quarter of 2018 either. Nor is the current very low spread level on the covered bond market holding private investors back from investing in the market. On the contrary, the proportion of new euro benchmark issues whose order books were oversubscribed by a factor of 1.5 or more rose in 2017 compared with the last three years.

Demand should not be weaker than this year

Alongside supply and demand, political and other one-off events also have the potential to impact on the spread performance of the covered bond market. However, the events currently on the agenda for 2018, the Italian elections and the Brexit negotiations, are unlikely to have a lasting impact on the general spread trend on the covered bond market. The covered bond segment has proved to be remarkably resilient to political risks in recent quarters. The spreads of Italian covered bonds are a good example, as their spreads have tightened in spite of a government and banking crisis. The same applies to UK covered bank bonds, even though the Brexit negotiations are going anything but swimmingly.

One-off factors unlikely to affect the covered bond market

The factors listed above, together with an economic backdrop and interest rate outlook that should be little changed in 2018 from this year lead us to the following forecast for general spread movements next year. At the beginning of the year we are expecting spreads to move out a little due to the flood of new covered bank bonds that are traditionally issued in the first few weeks of the year. We are therefore retaining our current defensive weighting strategy for now.

Some widening of spreads expected in the New Year

Investors should use the rise in spreads we anticipate at the beginning of 2018 to switch to a more offensive weighting strategy. We expect the general spread narrowing trend on the covered bond market to resume as early as February. Thereafter we envisage a sideways trend with low volatility at generally low spreads close to current levels. It is possible that the sideways trend in spreads will continue until the end of next year; even if the ECB tapers its asset purchases again in the last quarter of the year, this should not come as a major surprise to the market. This offensive weighting strategy means that we recommend overweighting covered bank bonds trading at relatively high spreads. The issuers of these bonds are usually based in the peripheral countries of the eurozone.

Moving to a more offensive weighting strategy early in the New Year could be a good idea

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Financials

- » Credit spreads have narrowed considerably in 2017. Next year also looks set to be positive overall despite certain key risk events.
- » We are sticking with our defensive positioning until the Italian parliamentary elections have been held, after which we advise a more aggressive stance

The secondary market in bank bonds has performed positively in 2017, with the spread of the iBoxx Banks Senior Index, for example, tumbling from around 55 to its current level of 30 basis points (see left-hand chart below). Other than a brief widening phase in early summer on fears that the general election in Italy might be brought forward to the autumn amidst growing support for eurosceptic parties, which was followed by a period of stagnation that dragged on until around mid-October, spreads have fallen continuously this year. This has also been reflected in the performance of individual bonds. Few securities in the iBoxx Banks Senior Index have widened overall in the year to date, with most bonds seeing spread narrowing. Italian bank bonds have performed very well. A more robust economic environment and initial progress in scaling back high NPL volumes appear to have mattered more than either the risks inherent in a banking sector that remains fundamentally weak or Italy's endemic political instability.

The market environment for bank bonds looks benign at present. However, we are initially maintaining our defensive positioning, primarily in view of the forthcoming parliamentary elections in Italy, which have to be held no later than 20 May 2018. The vote is likely to unsettle participants on the bank bond market during the first quarter of 2018, with spreads set to widen as a result. Market unease will probably be stoked by eurosceptic voices from within Italy's fragmented party political landscape and an election campaign likely to be fought amidst widespread populism. In this environment, we are therefore sticking with our defensive strategy for the time being and recommend bonds issued by banks with strong credit ratings from the Nordics or the Netherlands, for example. In addition, Austrian banks are in much better shape than they were several quarters ago thanks to the improving economic situation, particularly in Central and Eastern Europe. Austrian lenders should therefore outperform in an environment dominated by uncertainty. The senior bonds issued by the holding companies of UK and Swiss banks also look attractive. But when it comes to Italian bank bonds in particular, we advise caution ahead of the elections. This also applies to paper issued by the big French banks given their comparatively large exposure to Italy.

The surge in issuance of senior non-preferred bonds (SNPs) at the start of the year in particular could also weigh on spreads. As the year begins European banks will be notified of their individual MREL requirements. There is not much time to meet the TLAC ratio targets either. As a result, we can expect higher issuance volumes of bonds eligible for MREL and TLAC purposes. Furthermore, in those countries which have yet to establish a statutory basis for issuing SNPs, which include Italy, Sweden and the Netherlands, the relevant laws are likely to be passed in the near future. This will enable banks that have so far not been permitted to issue this paper to come to the market as well. However, the pressure on spreads will not stem from higher new issuance volumes in absolute terms, as for the most part banks will replace maturing "old" senior bonds by issuing new SNPs. Instead, SNPs will have to be offered at higher spreads in view of the higher risks they entail.

Ultimately, however, neither the expected new issues nor the general election in Italy should lead to persistently high or even rising spreads on bank bonds. Firstly, the

Substantial spread compression over the course of 2017

Defensive positioning at first in light of Italy's political risks

Increased issuance of SNPs at the start of the year could also heighten pressure on spreads

But spreads expected to narrow after the Italian polls

¹⁾⁻¹²⁾ Wichtig: Bitte lesen Sie die Hinweise zu möglichen Interessenkonflikten und die rechtlichen Hinweise am Ende dieser Studie

loss ratio of SNPs will improve as issuance of these bonds increases, and the conventional senior debt segment will become "safer". Secondly, the generally positive market environment will probably boost sentiment on the bond markets, resulting in lower spreads in general. This is also true of Italy. Even if as a result of the country's complex political situation the election fails to produce a clear winner, which may also make it impossible to form a new government quickly, spreads should recover from the potential turmoil relatively swiftly after the vote thanks to the substantial improvement in the economic environment and the fact that the Italian banking sector has now stabilised somewhat.

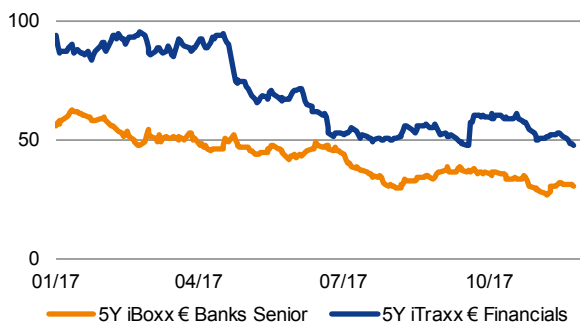
As the year progresses, we therefore expect spreads to narrow. In our view, the spread of the iBoxx Banks Senior Index could stand at 25 basis points by the end of 2018. We would then adopt a more offensive positioning, favouring bank bonds offering higher spreads than the market average (as measured by the iBoxx Banks Senior Index) and therefore more attractive yields.

The standout driver of this anticipated spread compression is economic activity in Europe, which remains buoyant. The robust economy should significantly mitigate the impact of various potential risk factors, including the possible adverse effects of the introduction of MiFID II on commission income, which for many banks has offset the fall in net interest income until now, or what may be more stringent requirements on provisions for non-performing loans due either to pressure from the ECB or the introduction of IFRS 9. Next year's bank stress tests conducted by the ECB and the EBA, the results of which are scheduled for publication in November 2018, could produce a surprise or two in the case of individual banks. This may trigger specific targets for cutting NPLs or stricter capital requirements under pillar 2. But the positive market setting means there should be no deterioration in sentiment towards bank debt in general.

Robust economy a key factor for an upbeat bank bond market

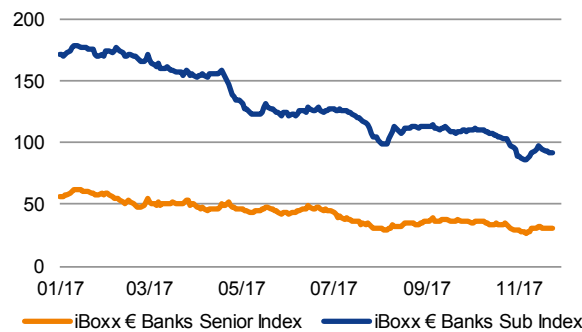
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2017: SUBSTANTIAL SPREAD COMPRESSION IN SENIOR BONDS AND CDS
ASW IN BASIS POINTS



Source: Markit, DZ BANK Research

EVEN GREATER NARROWING IN THE SUBORDINATED SEGMENT
ASW IN BASIS POINTS



Source: Markit, DZ BANK Research

Corporates

- » New all-time high in issuance of corporate bonds in 2017
- » With the economy in Goldilocks mode and ECB monetary policy remaining accommodative, we are adjusting our spread forecast downwards
- » We have revised a number of sector recommendations in the light of expected spread movements in 2018

Since the ECB began buying corporate bonds on a grand scale within the CSPP programme in mid-2016, there has been no stopping the market. In 2016 the market already comfortably outstripped previous highs for new issuance. The current year will end with another record – that much has been clear since the middle of November. Up to the end of November 2017 new issuance was already 6.6% above the figure for the whole of 2016 at EUR 369 billion (see left-hand chart below).

Looking at issuance volume by sector in 2017, auto issuers have placed the highest volume of eurobonds (totalling around EUR 60 billion). This puts them some distance ahead of the next biggest sectors and reflects the high issuance by the sector heavyweight Volkswagen. In 2016 the sector was only in third place. Telecoms and utilities are close together in second and third positions in the issuance rankings since the beginning of 2017. After the one-off effects in 2016, the traditional big three have therefore lead the way on the corporate bond market again this year (see right-hand chart below).

Outlook for the year ahead and spread forecast

The world economy is growing robustly. Average GDP growth is expected to strengthen further in 2018 compared to this year. Moreover, the recovery is broad-based. A similarly positive picture can be painted for the economic conditions the corporate sector will be facing next year. This should generally support corporate spreads.

Given the solid growth outlook and dwindling deflation fears, the central banks worldwide are beginning to gradually roll back the monetary support programmes put in place after the financial crisis. Nonetheless, the impact of accommodative monetary policy on the asset class will only decline modestly in our view. We

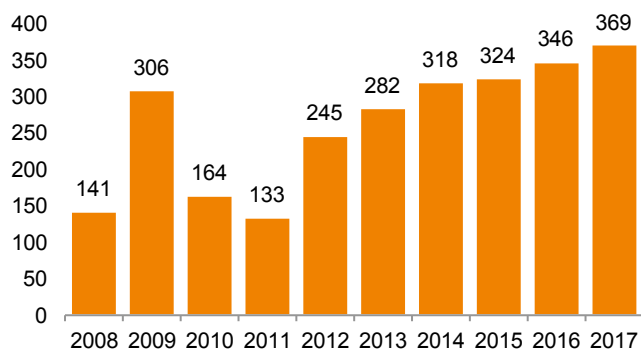
New all-time high in 2017

Auto sector with highest issuance ahead of telecoms and utilities

Economic outlook: Goldilocks

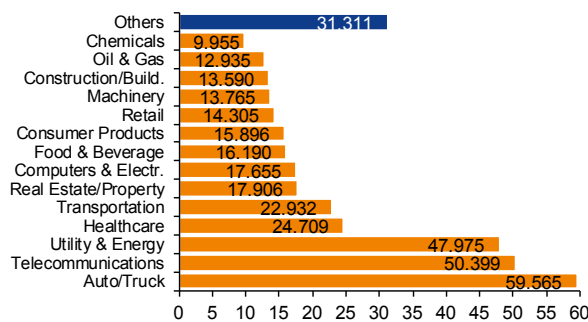
Monetary policy: stock rather than flow effect to dominate

RISING NEW ISSUANCE OF CORPORATES SINCE 2012
NEW ISSUANCE IN EUR BILLION



Source: DZ BANK Research, data from Dealogic, data as at 30.11.2017

AUTO SECTOR TOPS THE ISSUANCE RANKINGS IN 2017 WELL AHEAD OF TELECOMS AND UTILITIES
NEW ISSUANCE IN EUR MILLION



Source: DZ BANK Research, own calculations, data from Dealogic

¹⁾⁻¹²⁾ Wichtig: Bitte lesen Sie die Hinweise zu möglichen Interessenkonflikten und die rechtlichen Hinweise am Ende dieser Studie

do not expect the reduction in the ECB's bond purchases to have a sustained negative effect on spreads as we believe the continued expansion of the central bank's overall bond portfolio will be more relevant to spreads than the lower net purchase volumes.

With European corporates having earned plaudits for a cautious financial approach in recent years, the corporate sector looks financially healthier than even just a few years ago. The expected growth in earnings will give companies more financial leeway again. Although we expect companies to take advantage of this leeway to introduce more free-spending financial policies, overall we expect stable credit metrics and therefore no upward pressure on spreads from this angle.

Given the strong fundamentals, the outlook for ratings next year is positive, which should be supportive of spreads. This is underlined by the recent upward trend in the rating drift, the increasingly positive distribution of outlooks and the expectation of a continued decline in default rates.

The primary market is likely to remain in record-breaking territory again next year. Firstly, there will be a considerable increase in maturities in 2018 and therefore also a higher funding requirement. Secondly, raising debt to implement more generous financial policies will tend to boost new issuance. This implies supply pressure, at least at times, and therefore a temporary risk of spread widening.

In summary, the positives outweigh the negatives in 2018 and the question is whether this is compatible with further spread narrowing potential in corporate bonds. This is unlikely in our view given the past spread performance and current valuation levels. The average spread of the iBoxx € Non-Financials is currently trading at the lowest level for around 10 years, and this is before we factor in the higher average rating and shorter index duration a decade ago. Against this backdrop spreads at present levels are in our view already discounting the positive environment in many areas.

This does not mean we expect a monotonous sideways movement in spreads. Instead we see a higher spread level in the first half of the year resulting from a combination of temporary primary market pressure and rising risk aversion in the run-up to the Italian general election. As things look at the moment, it would be a surprise if the elections in the southern European country produced a stable, pro-reform and pro-European government. Events and statements during the election campaign in particular could unsettle the markets. However, the impact will probably not be long-lasting on a broad scale. In the second half of the year the positive backdrop aside from this issue – particularly the good economic conditions – should gain the upper hand again and lead to falling spread levels. We are therefore forecasting an index spread at around current levels of 45 basis points at the end of 2018.

Financial policies: companies spending more liberally

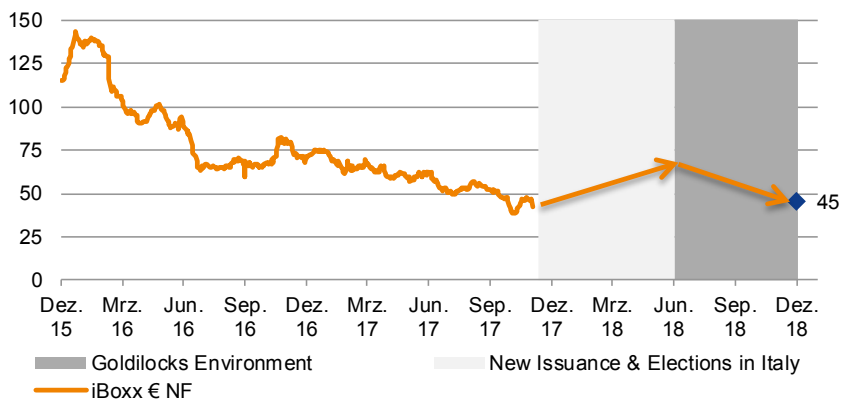
Rating trend: positive momentum to continue

Primary market: rising supply

Valuation: historically low

Spreads expected to rise, then fall

AFTER A RISK OF SPREAD WIDENING IN THE FIRST HALF OF 2018, THE GOLDILOCKS ENVIRONMENT SHOULD LEAD TO SIGNIFICANT SPREAD NARROWING THEREAFTER
SWAP SPREAD (MID) IN BASIS POINTS



Source: DZ BANK Research, historical data from Markit, own forecast

The risks to our view are firstly political. Even if it is not part of our baseline scenario, a significant escalation of any of the conflicts with a potential global impact (e.g. Iran and Saudi Arabia or North Korea and the US) could provoke a significant deterioration in the sentiment picture for the global economy. Brexit also has the potential to unsettle the markets if the parties do not move to a more constructive negotiating approach in 2018. Against the backdrop of low unemployment rates in major economies (e.g. US, Germany), rising inflation as a result of wage pressure on the labour market can be seen as the economic risk scenario. If the central banks reacted by tightening monetary policy, rising yields and possibly rising spreads at the same time would be conceivable. Furthermore, given the valuation levels that a whole range of asset classes have now reached, there is a risk of a sizeable and synchronised correction with a corresponding impact on the bond markets.

Unquantifiable risks

Sector recommendations

Our separate report “Corporate bonds – 2018 outlook” of 7 December 2017 sets out our expectations for developments at market level including the new spread forecast. As part of this analysis, we have also taken a fresh look at sector-specific trends and their impact on the individual sectors and valuation levels. In the case of four sectors this produced new forecasts for spread performance of the relevant iBoxx subsector relative to the market as a whole. We have summarised the most important points from the new sector recommendations below. Detailed information on all the sectors and issuers we cover is available in the 2018 outlook report.

Sector recommendation changed for four sectors

The automotive industry will remain torn between the technological, legal and regulatory challenges on the one hand and the positive operating environment on the other in 2018. The iBoxx Automobiles & Parts trades at a slight premium to the benchmark and we believe the risks and opportunities in the segment, which is dominated by the German manufacturers, are currently fairly priced. We therefore recommend a neutral positioning for the automotive sector for now (previously “negative”).

Auto sector: “neutral”

The chemicals sector is experiencing robust growth. The industry is benefiting from megatrends such as the growing global population, health and nutrition. The challenges for the chemicals companies include the growing intensity of competition. Overall we believe the sector is supported first and foremost by the broad-based economic recovery in Europe and accelerating economic growth in the USA. There is

Chemicals: “neutral”

¹⁾⁻¹²⁾ Wichtig: Bitte lesen Sie die Hinweise zu möglichen Interessenkonflikten und die rechtlichen Hinweise am Ende dieser Studie

an increased risk of M&A in chemicals, but this will not necessarily lead to generalised rating pressure. Even if the sector valuation looks lofty at the moment, we see no obvious reason why this should change in the foreseeable future. In view of the positive fundamental data and the sector's high valuation we have a "neutral" recommendation on the chemicals sector (previously "negative").

The integrated European oil and gas companies should post a robust profit and cash flow performance in 2018, but the credit-positive impact of this may be partly outweighed by more generous financial policies (dividends, buybacks, acquisitions). The average spread of the iBoxx oil & gas subindex (excluding hybrid bonds) is trading at significantly lower levels in both relative and absolute terms. This valuation, which is no doubt partly a reflection of the sector's above-average rating, should in our view have already priced in both the recent and expected improvements in credit quality. Against this backdrop we only have a "neutral" rating (previously "positive") on the oil and gas sector, in spite of its robust fundamentals overall. It should be borne in mind that commodity prices in general and the oil price in particular are prone to volatility, which would justify a certain safety margin.

Oil & gas: "neutral"

The healthcare market is a long-term beneficiary of global trends such as population growth and rising life expectancy. The relatively stable cash flows and high profitability of many sub-segments within the industry are also a positive feature of the healthcare sector. But after brisk M&A activity and shareholder value-friendly transactions, many companies are highly leveraged. For providers who rely heavily on the US market we also see operating risks from the recent increase in competition in the US, which could lead to spread widening. In addition the sector is highly valued. Pharma bonds in the iBoxx healthcare subindex have lower spreads than the iBoxx € NF. We therefore rate the pharmaceutical sector as "negative" (previously "neutral").

Pharma sector: "negative"

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SECTOR RECOMMENDATIONS SUMMARY

| Sector | Comments |
|--|--|
| » Automotive (⇒) | <ul style="list-style-type: none"> » In light of the economic backdrop, the global outlook for sales is positive overall. While some of the emerging markets have considerable recovery potential, US demand is likely to remain weak » High capital spending requirements on new technologies with simultaneous uncertainty about market acceptance of electric vehicles » The emissions issue and cartel allegations remain uncertainties |
| » Chemicals & agrochemicals (⇒) | <ul style="list-style-type: none"> » Support from the economic cycle. Positive volume and pricing effects leading to improving results in many cases. A trend towards specialisation points to further M&A activity; however, so far this has only led to rating pressure for individual issuers » Forecasts of earnings growth in the outlooks are often subject to uncertainty about economic developments, political risks and geopolitical tensions » Relatively high valuation: the bonds in the iBoxx chemical subindex have some of the lowest spreads of all the iBoxx sectors |
| » Retail (⇒) | <ul style="list-style-type: none"> » Continued intense price competition from discounters and rapid growth in online retailing, which is now increasingly spreading to countries and product groups that have so far been less affected (chemists, DIY, food) » Low inflation and intense competition mean there is limited potential for price hikes. However, the upturn in global economic growth provides a first chink of light » Although there are signs of a turnaround at some retailers, there is very little spread narrowing potential at sector level, as bonds from the iBoxx retail subindex trade at lower spreads than the market as a whole |
| » Food & beverages (⇒) | <ul style="list-style-type: none"> » Growing nutritional awareness (trend towards health & wellness/organic products) a challenge for the sector » Price/mix effects (premiumisation) driving organic growth; profitability well supported, particularly by increases in efficiency and cost cutting » M&A risks still exist, but many index heavyweights (iBoxx Food & Beverage) have already been active |
| » Oil & gas (⇒) | <ul style="list-style-type: none"> » The extension of the OPEC/NOPEC output cuts until the end of 2018 should stabilise oil prices and enable the oil and gas companies to generate robust cash flows in 2018 » The oil companies are likely to take advantage of their financial flexibility to implement more shareholder-friendly measures » Low spread levels reflect above-average ratings. However, further improvements in the credit indicators should be largely priced in, and therefore do not create further potential for the sector in our view |
| » Pharma & healthcare (⇓) | <ul style="list-style-type: none"> » Mostly good credit ratings mean low spread levels and low spread narrowing potential » Demand for healthcare is largely independent from cyclical variations and remains on a steady long-term growth trend. Predominantly high profitability and strong and stable free cash flows ensure solid liquidity positions » Possible rating pressure from large debt-financed M&A transactions (both current and past) and shareholder value-friendly actions; rising competition in the US will have an impact on operating performance |
| » Telecoms (⇑) | <ul style="list-style-type: none"> » Continued relatively high spreads and therefore a relatively high carry, partly due to hybrid and long-dated bonds » Operating stabilisation continuing, but CAPEX for convergence strategies weighing on cash flows and financial profiles » The bonds of the European telecom groups are big beneficiaries of the ECB's CSPP purchase programme |
| » Utilities (⇑) | <ul style="list-style-type: none"> » Significant recovery in wholesale power prices almost throughout Europe in recent months » In general the European energy sector as a whole should now be through the worst » European utility bonds are also benefiting from the ECB's asset purchase programme |

Source: DZ BANK Research

The **sector recommendation** indicates whether a sector is seen as outperforming, underperforming or performing in line with the other sectors over the next three months. Our recommendation is "positive (⇑)" if we expect a sector to outperform and "negative (⇓)" if we expect it to underperform. If we do not foresee performance differing significantly from the other sectors, we put a "neutral (⇒)" recommendation on the sector.

Emerging markets

- » The emerging markets are cocooned in a comfortable framework
- » General outlook is moderately positive, but advisable to keep a close watch on political risks

Our outlook for the emerging markets is moderately positive based on the continuing backdrop of comfortable conditions for EM economies. DZ BANK Research expects global GDP growth to pick up from 3.5% in 2017 to 3.8% next year. The pace of GDP expansion is set to remain strong in both the US and the euro area, with positive knock-on effects on the emerging markets. Moreover, we do not foresee any major setbacks in commodity prices as the economic backdrop in China is likely to remain stable. Given that the Fed and the ECB are expected to scale back their monetary stimulus gradually and on the back of corresponding guidance, there is little danger of the main central banks' decisions causing any upsets.

The regions that are pivotal to the EUR-EMBIGD are Eastern Europe, whose issuers account for 57% of the index, and Latin America with an index weight of 25%. While we expect the pace of growth in Eastern Europe to cool down slightly in 2018, albeit to a level that remains solid, the ongoing upswing in Latin America is poised to continue. Eastern Europe has benefited from the eurozone's economic recovery this year, posting an impressive growth trend that is forecast to reach 4.6%. Although the region is unlikely to sustain this pace next year, economic output should remain robust at an estimated expansion rate of 3.5%. The growth rate will probably suffer to some extent from the tapering of fiscal policy stimulus in Romania and the first tentative moves towards monetary tightening in the region. As things stand, we do not expect the cooldown to have a detrimental impact on spreads as growth momentum looks set to remain healthy in 2019.

Now that Latin America has recovered from its period of economic drought in 2015/16, a slightly stronger upswing should steer the region safely into 2018. However, the growth rates are not on the same scale as those of Eastern Europe, as the adjustment process – including at a fiscal policy level – remains all too apparent after the slump in commodity prices between 2014 and 2016. Interest rates in Latin America are also far higher in general, while a string of forthcoming elections could be preceded by spending restraint on the part of consumers and companies. Nonetheless, GDP growth in all of the Latin American countries we analyse is on course to match or exceed the rates of expansion forecast for 2017. Inflation rates in most countries except Mexico have declined sharply in 2017, leading to a corresponding easing of monetary policy. While it remains to be seen how much leeway is left to continue the policy of rate cuts in 2018, the chances of substantial monetary tightening are also slim. Moreover, capex ratios in Brazil, Chile, Colombia and Peru are expected to rise again in 2018 after some years of decline.

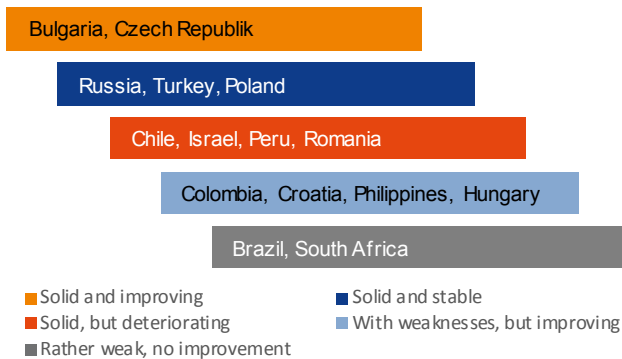
However, a positive economic backdrop does not necessarily mean that there will be a broad based improvement in the fiscal policy indicators of the emerging markets we cover. While countries with forecasts of stable to slightly improved budget positions in 2018 are moderately overweight in our coverage, only a third of the 17 issuers we analyse are expected to see a meaningful reduction in sovereign debt to GDP ratios.

Ample support from external conditions

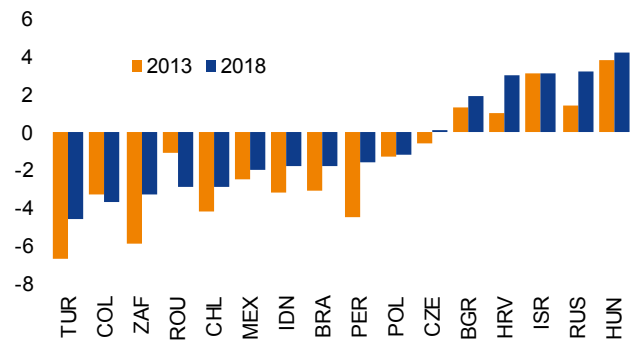
Growth in Eastern Europe remains robust, but unlikely to repeat the heights of 2017

Latin America: slightly steadier growth expected

Thoughts about the fiscal trend...

TREND IN FISCAL POSITION OF COUNTRIES IN OUR COVERAGE
 RANKING & FORECAST BASED ON SELECTED RATIOS


Source: DZ BANK Research

SELECTED EM: CURRENT ACCOUNT BALANCES 2013 VS 2018
 AS % OF GDP, FORECASTS FOR 2018


Source: DZ BANK Research, IMF

The left-hand chart above summarises the expected fiscal trend on the basis of four selected ratios. It shows that while Bulgaria and the Czech Republic are likely to improve on their already solid positions, countries such as Hungary and Croatia have upside potential. By contrast, the outlook for Brazil and South Africa is rather dismal. Looking at the external position, the 2017/18 current account balances for countries in our coverage are largely healthier than in previous years such as 2013, as the right-hand chart shows. Colombia and Romania are the only two countries whose current account deficits are forecast to be higher as a proportion of GDP than in 2013. We continue to believe that external liquidity is most likely to be a critical factor in the case of Turkey.

From our perspective, the main contenders for positive rating actions are the issuers exhibiting an improving fiscal policy trend and external positions that are at least satisfactory. The Czech Republic and Hungary fall into this category, alongside Croatia. Russia's ratios generally bode well for an upgrade, but political developments will be important. In a slight departure from the above ranking system, we also see potential for an upgrade to Indonesia's rating profile thanks to its strong GDP growth.

While the "predictable" political events should remain manageable in our baseline scenario, they will generally prevent any pronounced narrowing in spreads. Events of note include upcoming elections in Russia, Colombia, Hungary and Mexico, with the electoral campaign in the latter due to take place against the backdrop of NAFTA negotiations with the US and Canada. A collapse of the talks – although this does not form part of our baseline scenario – would be a clear setback for Mexico. In Brazil, the general election will determine the level of commitment to tackling much-needed reforms going forward if a new government takes office. Other unanswered questions include what type of policy route the ANC will take in South Africa, whether tougher sanctions will be taken against Russia – possibly affecting government bonds – and how relations between the EU and the important issuer Poland will unfold going forward.

We take a moderately optimistic view of the year ahead, especially in light of the generally favourable backdrop, and expect spreads in the EUR-EMBIGD to remain stable or narrow modestly from current levels. However, a series of underlying political event risks should keep any spread compression firmly in check.

...and the external position

Apropos ratings: any more candidates for positive actions after the upgrades for Bulgaria?

Political risks: manageable overall, but should be closely watched

All in all, the favourable framework should allow spreads to edge lower

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Asset-backed securities

- » At just under EUR 191.3 billion for the first eleven months of 2017, new issuance on the European ABS primary market is around EUR 43 billion short of the full-year figure for 2016. However, the high marketing ratio (58%) and significant spread compression across all asset classes mean that 2017 was still a good year for ABS.
- » In 2018 we favour Spanish STS securitisations from the RMBS segment from a relative value perspective and also European CLOs. Certain niches beyond the mainstream also look appealing in our view.

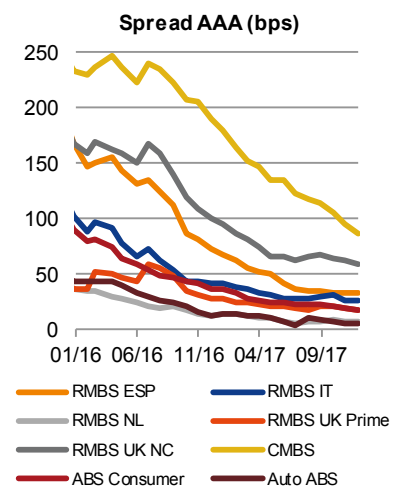
October was a very solid month on the primary market with 26 new issues. This amounted to an issuance volume of EUR 18 billion, which meant that October was not only ahead of September's issuance by EUR 3.6 billion, but also surpassed the figure for October 2016 by EUR 1 billion. The marketing ratio was a healthy 66.3%. The market was also active in November, with a total of 25 transactions launched. However, new issuance of EUR 13.2 billion was down on October and was also well below the comparator of EUR 20.2 billion in November 2016. At around 57%, November's marketing ratio was also around nine percentage points lower than in October. New issuance for the year to 30 November 2017 stands at EUR 191.3 billion, down EUR 43 billion on the figure for the whole of last year. Assuming there are no surprise large-volume transactions or a multitude of top-ups between now and the year-end, 2017's new issuance should end up below the prior-year level, as we had anticipated. The marketing ratio, currently just under 58%, is likely to remain at this level and so comfortably exceeds last year's ratio of 40%.

Spread levels only tightened marginally in November by an average of one basis point compared with the previous month. At eight basis points, CMBS head the rankings in absolute terms (from a higher starting point), while owing to their low spread levels Dutch RMBS saw the highest relative spread tightening of 12%, even though their spreads fell by just one basis point. The other asset classes were almost unchanged in a month-on-month comparison. The best performers so far this year have been lease ABS with spread narrowing of 10 basis points or over 59%. They are followed in second place by auto ABS, which tightened by 9 basis points or almost 57%. As a further safe haven, Dutch RMBS narrowed by 8 basis points or 50%, more than the average for all asset classes. The market's average spread narrowing was significant at 48% and 2017 can go down in history as a good year for asset-backed securities. However, the average absolute spread narrowing of around 28 basis points mostly occurred in the first half of the year, with only 6 basis points notched up in the second half. In the EU periphery the Spanish RMBS recommended by us outperformed their Italian counterparts in both absolute and relative terms with spreads falling by 51% on average (or just under 35 basis points) compared to around 35% (15 basis points). Alongside Italian RMBS, UK non-conforming RMBS and UK prime RMBS were also relative underperformers with spread narrowing of around 37% (35 basis points) and 34% (around 10 basis points) respectively. CMBS, on the other hand, were the outperformers in absolute terms with spread narrowing of approximately 93 basis points, or over 51%. We expect this year's spread narrowing trend to continue in the first half of 2018.

While geopolitical tensions have increased again recently and are expected to remain in the spotlight throughout 2018, our economists' macroeconomic forecasts are positive across the board both for the eurozone and at a global level. Property prices in Europe should also remain stable or rise slightly, so that recovery rates should support positive MBS performance. In this generally positive environment the

In spite of a high-transaction fourth quarter, issuance likely to be down on the prior-year level in 2017

Considerable spread compression across all asset classes means 2017 was a good year for ABS



Source: DZ BANK

All in the mix in the securitisation market in 2018: "Goldilocks", political risks, geopolitical tensions, ECB policy and new regulation

Republic of Italy remains the eurozone's problem child both economically and politically. The Italian general election must be held by 20 May 2018 at the latest. Several different parties are basically advocating an Italian exit from the euro in a number of different ways. Depending on the election outcome or ultimate governing coalition this could lead to a widening of spreads on Italian securitisations and a revival of the euro crisis. Were this to occur, we would expect greater differentiation between peripheral investments and therefore prefer Spanish paper to Italian, as we already did in 2017. We are taking a similar approach to the UK. The ongoing Brexit negotiations in 2018 could lead to periodic political crises and UK economic growth is also expected to lag well behind the eurozone in 2018. Moreover, our currency analysts expect the euro to rise by 8% against the pound sterling by the end of 2018, which would wipe out positive returns from UK securitisations when converted back into euros. At the latest in the second half of 2018 the amended EU securitisation regulation, which applies from 1 January 2019, could begin to cast a shadow over the market. This could lead to spread widening, particularly in non-STS securitisations, which represent the overwhelming majority of the market. A possible ECB announcement on phasing out the APP, which has been extended until 30 September 2018 for now, could also prompt higher spread levels on the ABS market.

By the same token, if demand is concentrated on STS securitisations, this could mean significant spread narrowing in this segment. In auto and lease ABS the trend towards negative yields that was already in evidence at times in 2017 could therefore be reinforced in 2018. Among STS bonds we would favour Spanish STS securitisations from the RMBS segment from a relative value perspective. European CLOs also remain relatively attractive as an asset class in 2018, as they continue to offer attractive spreads in the current securitisation environment. Although collateral performance deteriorated marginally in 2017, overcollateralisation levels have risen due to amortisation, which has resulted in a positive rating performance overall. Moreover, Moody's is forecasting a stable performance and low default rates for EU CLOs in 2018. A number of market niches outside the mainstream also look appealing to us in 2018. These include, for example, insurance-linked securities (ILS) which in our view offer attractive yields in both absolute and relative terms that are moreover largely independent of capital market conditions. Individual MPL securitisations or NPL ABS could also be of interest for more risk-tolerant investors, as could credit card securitisations outside the UK. We expect further issuance in growth segments in 2018 (MPLs, Green ABS etc.) as well as a comeback by old ABS segments (NPL ABS, Student Loans ABS etc.). Investors will be best placed if they can respond flexibly to new asset types. To benefit fully, more broadly-defined investment guidelines, rapid decision-making processes and internal credit expertise will therefore be critical to success.

Investment recommendations

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ECONOMIC FORECASTS

EUROZONE

| | 2016 | 2017 | 2018 | 2019 |
|---|------|------|------|------|
| GDP | 1.8 | 2.3 | 2.0 | 2.1 |
| Private consumption | 2.0 | 1.7 | 1.7 | 1.8 |
| Government consumption | 1.7 | 1.2 | 1.3 | 1.6 |
| Investment | 4.5 | 3.8 | 3.3 | 3.0 |
| Export | 3.3 | 4.6 | 3.9 | 3.8 |
| Import | 4.7 | 4.6 | 4.1 | 3.8 |
| Other Indicators | | | | |
| Inflation | 0.2 | 1.5 | 1.2 | 1.5 |
| Unemployment rate | 10.0 | 9.2 | 8.9 | 8.6 |
| Balance of current account (in % of GDP) | 3.3 | 3.2 | 3.2 | 3.3 |
| Budget balance (in % of GDP) | -1.5 | -1.2 | -1.2 | -0.9 |
| Individual country GDP | | | | |
| Germany | 1.9 | 2.2 | 2.2 | 2.0 |
| France | 1.1 | 1.8 | 1.8 | 2.1 |
| Italy | 1.1 | 1.6 | 1.5 | 1.5 |
| Netherlands | 2.1 | 3.1 | 2.3 | 2.3 |
| Spain | 3.3 | 3.1 | 2.5 | 2.7 |
| Inflation rate individual countries (HICP) | | | | |
| Germany | 0.4 | 1.7 | 1.4 | 1.7 |
| France | 0.3 | 1.2 | 1.0 | 1.5 |
| Italy | -0.1 | 1.3 | 1.2 | 1.3 |
| Netherlands | 0.1 | 1.3 | 1.2 | 1.4 |
| Spain | -0.3 | 2.0 | 1.3 | 1.5 |

| | 2017 | | | | 2018 | | | | 2019 | | | |
|-----------------------|------|-----|-----|-----|------|-----|-----|-----|------|-----|-----|-----|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| GDP | | | | | | | | | | | | |
| Y/Y (in %) | 2.0 | 2.3 | 2.5 | 2.3 | 2.2 | 2.0 | 1.9 | 1.9 | 2.0 | 2.1 | 2.1 | 2.2 |
| Q/Q annualized (in %) | 2.2 | 2.6 | 2.5 | 1.9 | 1.8 | 1.9 | 1.9 | 2.0 | 2.2 | 2.2 | 2.2 | 2.2 |
| Inflation | 1.8 | 1.5 | 1.5 | 1.5 | 1.2 | 1.2 | 1.2 | 1.2 | 1.4 | 1.5 | 1.6 | 1.6 |

UNITED STATES

| | 2016 | 2017 | 2018 | 2019 | | | | | | | | |
|----------------------------|------|------|------|------|------|-----|-----|-----|------|-----|-----|-----|
| GDP | 1.5 | 2.2 | 2.5 | 2.6 | | | | | | | | |
| Inflation | 1.3 | 2.2 | 2.2 | 2.4 | | | | | | | | |
| Quarterly breakdown | | | | | | | | | | | | |
| | 2017 | | | | 2018 | | | | 2019 | | | |
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| GDP | | | | | | | | | | | | |
| Y/Y (in %) | 2.0 | 2.2 | 2.1 | 2.4 | 2.5 | 2.5 | 2.6 | 2.3 | 2.4 | 2.6 | 2.6 | 2.6 |
| Q/Q annualized (in %) | 1.2 | 3.1 | 3.0 | 2.6 | 1.5 | 2.9 | 2.7 | 2.3 | 1.6 | 3.8 | 2.8 | 2.3 |
| Inflation | 2.5 | 1.9 | 2.0 | 2.3 | 2.0 | 2.2 | 2.4 | 2.4 | 2.5 | 2.4 | 2.4 | 2.4 |

Source: DZ BANK Research

DZ BANK FORECASTS

BUND YIELDS

| | Current | +3 months | + 6 months | +12 months | 31.12.2018 |
|---------------------|--------------|--------------|--------------|--------------|--------------|
| refi rate | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| prior value | | 0.00 | 0.00 | 0.00 | 0.00 |
| deposit rate | -0.40 | -0.40 | -0.40 | -0.40 | -0.40 |
| prior value | | -0.40 | -0.40 | -0.40 | -0.25 |
| 1 year | -0.76 | -0.76 | -0.74 | -0.66 | -0.66 |
| 2 years | -0.74 | -0.70 | -0.65 | -0.55 | -0.55 |
| 3 years | -0.66 | -0.58 | -0.51 | -0.39 | -0.39 |
| 4 years | -0.54 | -0.44 | -0.35 | -0.22 | -0.22 |
| 5 years | -0.38 | -0.30 | -0.20 | -0.05 | -0.05 |
| 6 years | -0.26 | -0.15 | -0.05 | 0.12 | 0.12 |
| 7 years | -0.12 | 0.02 | 0.12 | 0.31 | 0.31 |
| 8 years | 0.01 | 0.20 | 0.30 | 0.50 | 0.50 |
| 9 years | 0.15 | 0.37 | 0.46 | 0.67 | 0.67 |
| 10 years | 0.31 | 0.50 | 0.60 | 0.80 | 0.80 |
| prior value | | 0.50 | 0.60 | 0.75 | 0.80 |
| 30 years | 1.13 | 1.30 | 1.40 | 1.50 | 1.50 |

UNITED STATES

| | | | | | |
|----------------------------|-------------|-------------|-------------|-------------|-------------|
| upper Fed rate | 1.25 | 1.50 | 1.75 | 2.00 | 2.00 |
| prior value | | 1.50 | 1.50 | 1.75 | 2.00 |
| lower Fed rate | 1.00 | 1.25 | 1.50 | 1.75 | 1.75 |
| prior value | | 1.25 | 1.25 | 1.50 | 1.75 |
| 3-Monats-Libor | 1.52 | 1.55 | 1.75 | 2.05 | 2.05 |
| 10 Jahre Treasuries | 2.34 | 2.40 | 2.50 | 2.60 | 2.60 |
| prior value | | 2.40 | 2.40 | 2.60 | 2.60 |

Source: DZ BANK Research; Bloomberg

SWAPS

| | Current | +3 months | + 6 months | +12 months | 31.12.2018 |
|------------------------|--------------|--------------|--------------|--------------|--------------|
| 1 month Euribor | -0.37 | -0.35 | -0.35 | -0.35 | -0.35 |
| 3 month Euribor | -0.33 | -0.35 | -0.35 | -0.35 | -0.35 |
| 6 month Euribor | -0.27 | -0.25 | -0.25 | -0.20 | -0.20 |
| 12 month Euribor | -0.19 | -0.20 | -0.20 | -0.15 | -0.15 |
| 1 year | -0.26 | -0.28 | -0.28 | -0.23 | -0.23 |
| 2 years | -0.19 | -0.20 | -0.20 | -0.15 | -0.15 |
| 3 years | -0.07 | -0.07 | -0.06 | -0.01 | -0.01 |
| 4 years | 0.07 | 0.06 | 0.10 | 0.15 | 0.15 |
| 5 years | 0.20 | 0.20 | 0.25 | 0.30 | 0.30 |
| 6 years | 0.33 | 0.35 | 0.40 | 0.47 | 0.47 |
| 7 years | 0.46 | 0.53 | 0.58 | 0.66 | 0.66 |
| 8 years | 0.58 | 0.70 | 0.75 | 0.85 | 0.85 |
| 9 years | 0.70 | 0.85 | 0.90 | 1.01 | 1.01 |
| 10 years | 0.80 | 0.95 | 1.00 | 1.10 | 1.10 |
| prior value | | 0.90 | 1.00 | 1.05 | 1.10 |
| 30 years | 1.45 | 1.60 | 1.70 | 1.75 | 1.75 |

Source: DZ BANK Research. Bloomberg

I. IMPRINT

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II. MANDATORY DISCLOSURES FOR FINANCIAL ANALYSES AND FURTHER REMARKS

1. Mandatory Disclosures for Financial Analyses and further Remarks

1. Responsible Company

1.1 This **Financial Analysis** has been prepared by **DZ BANK AG Deutsche Zentral-Genossenschaftsbank, Frankfurt am Main (DZ BANK)** as an investment firm.

Financial analyses are **independent client information** containing **generic investment recommendations** regarding **specific issuers** or **specific financial instruments**, but they do not make allowance for any individual investment criteria.

1.2 The **mandatory disclosures** for **Research Publications** (Financial Analyses and Other Research Information) as well as **further remarks**, especially the **Conflicts of Interest Policy of DZ BANK Research**, regarding **used methods, procedures, and statistics**, can be **read and downloaded free-of-charge** under www.dzbank.com/disclosures.

2. Competent Supervisory Authorities

DZ BANK is supervised as a credit institution and as an investment firm by:

– **European Central Bank** - www.ecb.europa.eu

Sonnemannstraße 20 in 60314 Frankfurt / Main and

– **Federal Financial Supervisory Authority (BaFin)** - www.bafin.de

Marie-Curie-Straße 24 - 28 in 60349 Frankfurt / Main

Regarding Research Publications (Financial Analyses and Other Research Information) the DZ BANK linked **local cooperative banks** are supervised by:

– **Federal Financial Supervisory Authority (BaFin)** - www.bafin.de

Marie-Curie-Straße 24 - 28 in 60349 Frankfurt / Main

3. Independent Analysts

3.1 The **Research Publications** (Financial Analyses and Other Research Information) of DZ BANK are independently prepared by its employed analysts or by competent analysts commissioned in a given case on the basis of the binding **Conflicts of Interest Policy**.

3.2 Each analyst involved in the preparation of the contents of this Research Publication confirms that

- this Research Publication represents his independent specialist evaluation of the analysed object in compliance with the Conflicts of Interest Policy of DZ BANK and
- his compensation depends neither in full nor in part, neither directly nor indirectly, on an opinion expressed in this Research Publication.

4. Definitions of the Categories for Investment Recommendations in Financial Analyses
The **categories** for **investment recommendations** in **Financial Analyses** of DZ BANK are defined as follows:

4.1 Shares:

- Fundamental Analysis:

"**Buy**" means that the absolute appreciation expected in the next twelve months is greater than 10%.

"**Sell**" means that the absolute depreciation expected in the next twelve months is greater than 10%.

"**Hold**" means that the absolute *price* volatility expected in the next twelve months lies between +10% and -10%.

- Technical (Chart) Analysis (tertiary trend):

The short term technical estimate refers to the short tertiary move of the share:

„**Positive**“ means that an absolute appreciation could be expected during the next week.

"**Negative**" means that an absolute depreciation could be expected during the next week.

"**Neutral**" means that no absolute change of price could be expected during the next week.

- Technical (chart) Analysis (secondary trend):

The longer term technical estimate refers to the shorter secondary move of the share:

„**Positive**“ means that an absolute appreciation greater than 10% could be expected during the next six months.

"**Negative**" means that an absolute depreciation greater than 10% could be expected during the six months.

"**Neutral**" means that an absolute change of price between +10% to -10% could be expected during the next six months.

4.2 Fixed Income Instruments:

The prevailing factor for an investment recommendation regarding an **issuer** is whether, according to the estimate of DZ BANK, this issuer's bonds are able to perform better, worse or in tandem with the bonds of comparable issuers in the next six months. The below defined recommendation categories apply to 'senior unsecured bonds' denominated in Euro and in case of Emerging Markets issuers in individual cases also in US-Dollar as well as to 'covered bonds issued by credit institutions' in Euro:

"**Outperformer**" means that a better performance is expected for the issuer's bonds than for the bonds of comparable issuers.

"**Underperformer**" means that a worse performance is expected for the issuer's bonds than for the bonds of comparable issuers.

"**Market performer**" means that the performance of the issuer's bonds is not expected to materially differ from the bonds of comparable issuers.

4.3 Categories for isolated statements without investment recommendation
Statements on the **isolated evaluation of specific aspects** that **precede an investment recommendation** on a financial instrument and / or an issuer - especially according to the **sustainability criteria** defined by DZ BANK, its defined **value approach**, its defined **asset allocation** (DZ BANK Sample Portfolio), its defined sector strategy Euro-Stoxx (**DZ BANK Sector Favorites**), its defined valuation of payments to beneficiaries (**DZ BANK Dividend Aristocrats**) , its **country weightings for covered bonds** and its **CRESTA-SCORE MODEL** - are **not investment categories** and therefore **do not contain any investment recommendations**.

These isolated statements **alone** are **not sufficient** to form the basis of an investment decision. Reference is made to the explanation of the used relevant methods.

5. Scheduled Updates and Validity Periods of Investment Recommendations

5.1 The frequency of **updates of Financial Analyses** depends in particular on the underlying macroeconomic conditions, current developments on the relevant markets, the current development of the analyzed companies,

¹⁾⁻¹²⁾ Wichtig: Bitte lesen Sie die Hinweise zu möglichen Interessenkonflikten und die rechtlichen Hinweise am Ende dieser Studie

- measures undertaken by the issuers, the behavior of trading participants, the competent supervisory authorities and the competent central banks as well as a wide range of other parameters. The periods of time named below therefore merely provide a **non-binding indication** of when an updated investment recommendation may be expected.
- 5.2 No obligation exists to update an investment recommendation.** If an investment recommendation is updated, this update **replaces** the previous **investment recommendation with immediate effect**. If no update is made, investment recommendations **end / lapse on expiry** of the **validity periods** named below. These periods **begin** on the **day** and at the **time** the investment recommendation is **completed**.
- 5.3 The validity periods** for investment recommendations (**financial analyses**) are as follows:
- Shares:**
- | | |
|---|------------|
| Fundamental analysis | six months |
| Technical (chart) analysis (tertiary trend) | one week |
| Technical (chart) analysis (secondary term) | six months |
- Fixed income instruments:**
- | | |
|----------------------------------|-----------------|
| Issuers (senior unsecured bonds) | six months |
| Issuers (covered bonds) | one trading day |
- 5.4 Evaluations of isolated aspects without investment recommendation** have the following validity periods:
- Sustainability analyses:** one month
- Analyses according to the **value approach:** one month
- Asset allocation analyses (**DZ BANK Sample Portfolio**): one month
- Euro Stoxx sector strategy (**DZ BANK Sector Favorites**): one month
- Dividends (**DZ BANK Dividend Aristocrats**): three months
- Credit trend issuers** twelve months
- Share indices (fundamental):** three months
- Share indices (technical / chart analysis):** one week
- Share indices (technical daily):** publicationday
- Currency areas:** six to twelve months
- Allocation of market segments** one month
- Country weightings for covered bonds:** six months
- Derivatives:**
- (Bund futures, Bobl futures, treasury futures, Buxl futures): one month
- Commodities:** one month
- 5.5** In a given case, updates of analyses may also be **temporarily suspended without prior announcement** on account of compliance with supervisory regulations.
- 5.6** If **no updates are to be made in the future** because the analysis of an object is to be discontinued, notification of this shall be made in the final publication or, if no final publication is made, the close of the analysis shall be given in a separate note.
- 6. General Overview of Investment Recommendations on Financial Instruments and Issuers**
- Each working day DZ BANK prepares a **general overview** of all **investment recommendations** on financial instruments and / or issuers disseminated in the last **twelve months**, containing all details specified by the supervisor. This list can be **read and downloaded free-of-charge** under www.dzbank.com/disclosures.
- 7. Avoiding and Managing Conflicts of Interest**
- 7.1** DZ BANK Research has a binding **Conflicts of Interest Policy** which ensures that the relevant conflicts of interest of DZ BANK, the DZ BANK Group, the analysts and employees of the Research and Economics Division and persons closely associated with them are avoided, or - if such interests are effectively unavoidable - are appropriately identified, managed, disclosed and monitored. Material aspects of this policy, which can be **read and downloaded free-of-charge** under www.dzbank.com/disclosures are summarized as follows.
- 7.2** DZ BANK organizes its Research and Economics Division as a confidentiality area and protects it against all other organizational units of DZ BANK and the DZ BANK Group by means of Chinese walls. The departments and teams of the Division that produce Financial Analyses are also protected by Chinese walls and by spatial separation, a closed doors and clean desk policy. Beyond the limits of these confidentiality areas, communication may only take place in both directions according to the need-to-know principle.
- 7.3** The Research and Economics Division does not disseminate Research Publications on issues of DZ BANK or on financial instruments issued by companies of the DZ BANK Group.
- 7.4** **In principle, employees of the Research and Economics Division and persons closely associated with them may not unrestrictedly invest in financial instruments covered by them in the form of Financial Analyses. For commodities and currencies, DZ BANK has also defined an upper limit based on the annual gross salary of each employee which, in the opinion of DZ BANK, also excludes the possibility of personal conflicts of interest among employees in the preparation of Other Research Publications.**
- 7.5** Other theoretically feasible, information-based personal conflicts of interest among employees of the Research and Economics Division and persons closely associated with them are avoided in particular by the measures explained in **sub-paragraph 7.2** and the other measures described in the policy.
- 7.6** The remuneration of employees of the Research and Economics Division depends neither in whole nor in the variable part directly or materially on the earnings from investment banking, trade in financial instruments, other securities related services and / or trade in commodities, merchandise, currencies and / or on indices of DZ BANK or the companies of the DZ BANK Group.
- 7.7** DZ BANK and companies of the DZ BANK Group issue financial instruments for trading, hedging and other investment purposes which, as underlying instruments, may refer to financial instruments, commodities, merchandise, currencies, benchmarks, indices and / or other financial ratios also covered by DZ BANK Research. Respective conflicts of interest are primarily avoided in the Research and Economics Division by means of the aforementioned organizational measures.
- 7.8** **Investment recommendations for the same financial instrument / issuer that have deviated in the last 12 months are stated in the respective current Financial Analysis together with the relevant investment recommendation category and date.**
- 7.9** The **quarterly information** on the share of the investment categories stated in **sub-paragraph 4.1** and **4.2** for **shares** and **fixed income instruments** in the total number of investment recommendations of DZ BANK and the **information** on the share of these categories relating to the issuers to whom DZ BANK has rendered services in the **past twelve months** in accordance with Appendix I Sections A and B of Directive 2014/65/EU, can be **read and downloaded free-of-charge** under www.dzbank.com/disclosures.
- 7.10** The following **definitions** explain the potential conflicts of interest (so-called **'keys'**) of DZ BANK and / or the companies of the DZ BANK Group that must be stated in accordance with supervisory regulations in respect of the issuers and / or financial instruments analyzed in a Financial Analysis:
- 1) DZ BANK owns a **net long position** exceeding 0,5% of the total issued share capital of the issuer, calculated according to Article 3 of Regulation (EU) No. 236/2012 and Chapter III and IV of Commission Delegated Regulation (EU) No. 918/2012.
 - 2) DZ BANK owns a **net short position** exceeding 0,5% of the total issued share capital of the issuer, calculated according to Article 3 of Regulation (EU) No. 236/2012 and Chapter III and IV of Commission Delegated Regulation (EU) No. 918/2012
 - 3) DZ BANK or any of its affiliates beneficially **owns 1 % or more** of any class of common equity securities of the issuer.
 - 4) The issuer holds shares of DZ BANK exceeding 5 % of its total issued share capital.
 - 5) DZ BANK, any of its affiliates or a natural or legal person involved in the preparation of the investment recommendation acting under contract, is a **market maker, designated sponsor** and / or **liquidity provider** in financial instruments of the issuer at the time of publication of this research report.
 - 6) DZ BANK, any of its affiliates or a natural or legal person involved in the preparation of the investment recommendation acting under contract, has **managed or co-managed a private and / or publicly disclosed offering** of financial instruments of the issuer in the past 12 months.
 - 7) The issuer is or has been a **client** to DZ BANK regarding **investment banking services** over the 12-month period preceding the date of publication of this research report.
 - 8) DZ BANK or any of its affiliates received **compensation** for **investment banking services** from the issuer in the past 12 months.

¹⁾⁻¹²⁾ Wichtig: Bitte lesen Sie die Hinweise zu möglichen Interessenkonflikten und die rechtlichen Hinweise am Ende dieser Studie

- 9) DZ BANK or any of its affiliates expects to receive or intends to seek **compensation for investment banking services** from the issuer in the next 3 months.
- 10) The issuer is or has been a **client** to DZ BANK, to any of its affiliates or a natural or legal person involved in the production of the investment recommendation acting under contract regarding **securities-related services** as set out in Sections A and B of Annex I of Directive 2014/65/EU, which agreement has been in effect or has given rise to the obligation to pay or receive compensation during the 12-months period preceding the date of publication of this research report.
- 11) The issuer is or has been a **client** to DZ BANK regarding **non-securities services** over the 12-month period preceding the date of publication of this research report.
- 12) DZ BANK and / or any of its affiliates have been a party to an **agreement** with the issuer relating to the **preparation of investment recommendations** concerning financial Instruments issued by him.

8. Recipients and Use of Financial Analyses

8.1 Recipients

Financial Analyses of DZ BANK are directed at **eligible counterparties** as well as **professional clients**. They are therefore **not** suitable for dissemination to **retail clients** unless (i) a financial analysis has been **explicitly** labelled by DZ BANK as suitable also for retail clients or (ii) is disseminated by an investment firm properly authorized in the European Economic Area (EEA) or Switzerland to retail clients, who evidently have the necessary knowledge and sufficient experience in order to understand and evaluate the relevant risks of the relevant investment recommendations.

Financial Analyses are authorized by DZ BANK for dissemination to the aforementioned recipients in in **Member States of the European Economic Area and Switzerland** as well as in accordance with the **provisions set forth in sub-paragraphs 8.4 and 8.5** in the therein named additional **countries**.

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The main sources of information for Research Publications are: Information and data services (e.g. Reuters, Bloomberg, VWD, FactSet, Markit), licensed rating agencies (e.g. Standard & Poors, Moody's, Fitch, DBRS), specialist publications of the sectors, the business press, the competent supervisory authorities, information of the issuers (e.g. annual reports, securities prospectuses, ad-hoc disclosures, press and analyst conferences and other publications) as well as its own specialist, micro and macro-economic research, examinations and evaluations.

8.3 No securities prospectus | no individual investment recommendation

Under no circumstances can or should a Research Publication replace a securities prospectus and / or specialist investment advice necessary for a specific investment. For this reason a Research Publication cannot be used as sole basis for an investment decision.

8.4 International Restrictions of Use outside the EEA and Switzerland

This Financial Analysis may **only** be brought into the **United States of America (USA)** and the **Republic of Singapore** by the respective company set forth in **sub-paragraph 8.5** and be used in these countries in accordance with the regulations applicable to them there.

United States of America (USA)

In the USA, DZ BANK makes use of an exemption from the registration obligation for specific foreign brokers or traders under *Part 240 - General Rules and Regulations, Rule 15a-6 of the Securities Exchange Act 1934*. According to this rule it may, depending on **certain** pre-conditions, provide Research Publications on equity instruments **exclusively to 'major U.S. institutional investors'** and may conclude transactions with them on the securities named therein.

To this end, DZ BANK has signed a cooperation agreement with Auerbach Grayson and Company LLC, 25 West 45th Street, New York, NY 10036 (Auerbach Grayson) concerning equity instruments. The aforementioned

securities transactions on equity instruments shall be concluded exclusively between **Auerbach Grayson** and the **'major U.S. institutional investors'** in accordance with Rule 15a-6 (a) (3). In particular, DZ BANK is **not** permitted to initiate or conclude transactions in equity instruments with these investors in any other way; in particular it is not permitted to contact the aforementioned or other investors in the USA or to recommend Auerbach Grayson to them in the Research Publications as partner for concluding transactions. Furthermore DZ BANK is neither allowed to provide Research Publications on debt instruments to US customers nor to conclude transactions in debt instruments with them. Thus, these Research Publications on equity instruments may only be brought into the USA by DZ BANK via Auerbach Grayson **and not by other persons**, and may only be disseminated to **'major U.S. institutional investors'** there and may only be used by them within the described limits. Research Publications on debt instruments must in no case be supplied to the USA.

This Research Publication was prepared in the Federal Republic of Germany in accordance with the law applicable there. Hence, it is a possible that not all regulations regarding the preparation of research reports applicable in the USA have been observed.

Republic of Singapore

DZ BANK Singapore Branch is exempt from holding a financial advisor's license to act as a financial advisor in Singapore under section 23(1)(a) of the Financial Advisors Act (Cap.110) (FAA).

DZ BANK makes use of the exemption for 'Foreign Research Houses' under Regulation 32C (1) of the Financial Advisors Regulations (FAR) from licensing under section 23(1)(f) of the FAA in respect of the activity of advising others by issuing or promulgating research analyses or research reports, whether in electronic, print or other form, concerning any investment.

Its Research Publications must exclusively be distributed by DZ BANK Singapore Branch. They are intended for general circulation, but **solely** to **'accredited investors'** and / or **'expert investors'**.

Dealing with **'accredited investors'** or **'expert investors'** DZ BANK is relying on the following exemptions to the Financial Advisors Act, Cap 110:

- (1) the exemption in Regulation 33 of the FAR, which exempts DZ BANK from complying with Section 25 of the FAA on disclosure of product information to clients,
- (2) the exemption set out in Regulation 34 of the FAR, which exempts DZ BANK from complying with Section 27 of the FAA on recommendations, and
- (3) the exemption set out in Regulation 35 of the FAR, which exempts DZ BANK from complying with Section 36 of the FAA on disclosure of certain interests in securities.

This Research Publication **does not take into account the specific investment objectives, financial situation or particular needs** of any particular recipient.

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8.5 Contacts of DZ BANK outside the EEA and Switzerland

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Auerbach Grayson and Company LLC., 25 West 45th Street, New York, NY 10036

Auerbach Grayson and Company LLC. is a broker and dealer registered in the USA and is an independent business partner of DZ BANK that fulfills the requirements under Part 240 - General Rules and Regulations, Rule 15a-6 (a) (3) of the Securities Exchange Act 1934.

In the Republic of Singapore:

DZ BANK AG Singapore Branch, 50 Raffles Place #43-01, Singapore Land Tower, Singapore 048623

The DZ BANK AG Singapore Branch is a legally dependent branch of DZ BANK.

9. Summary of used Methods and Procedures

¹⁾⁻¹²⁾ Wichtig: Bitte lesen Sie die Hinweise zu möglichen Interessenkonflikten und die rechtlichen Hinweise am Ende dieser Studie

Detailed information on generally recognized as well as proprietary methods and procedures used by DZ BANK Research can be read and downloaded free-of-charge under www.dzbank.com/disclosures.

10. FIXED INCOME RESEARCH: RATING CHANGES WITHIN THE LAST 12 MONTHS

| | | | | | |
|---------------------------------|------------|-----------------|-------------------------------|------------|-----------------|
| ABN Amro Bank | 07.06.2017 | Outperformer | Koninklijke KPN | 27.07.2017 | Outperformer |
| Akzo Nobel | 28.07.2017 | Marketperformer | Landesb. Baden-Württemberg | 07.06.2017 | Outperformer |
| Akzo Nobel | 09.03.2017 | Underperformer | Lanxess | 05.04.2017 | Marketperformer |
| Allied Irish Banks | 07.06.2017 | Outperformer | Lloyds Banking Group | 04.08.2017 | Outperformer |
| Allied Irish Banks | 07.03.2017 | Underperformer | Lloyds Banking Group | 02.03.2017 | Marketperformer |
| America Movil | 26.10.2017 | Marketperformer | Lufthansa | 15.08.2017 | Marketperformer |
| America Movil | 20.07.2017 | Outperformer | Lufthansa | 28.04.2017 | Outperformer |
| Anglo American plc | 22.02.2017 | Outperformer | METRO | 19.07.2017 | Marketperformer |
| Banca Monte dei Paschi di Siena | 07.06.2017 | Underperformer | Mexico | 13.10.2017 | Marketperformer |
| Banca Monte dei Paschi di Siena | 20.12.2016 | Outperformer | Mexico | 04.08.2017 | Outperformer |
| Banco Santander | 07.06.2017 | Underperformer | Mondelez International | 05.05.2017 | Underperformer |
| Bank of America | 07.06.2017 | Outperformer | Netherlands | 14.12.2016 | Underperformer |
| Bank of America | 19.04.2017 | Marketperformer | NORD/LB | 31.05.2017 | Outperformer |
| Bank of America | 16.01.2017 | Outperformer | Nordea Bank | 07.06.2017 | Outperformer |
| Bank of Ireland | 07.06.2017 | Outperformer | Novo Banco | 22.11.2017 | Outperformer |
| Bardays plc | 06.03.2017 | Marketperformer | OP Corporate Bank | 07.06.2017 | Outperformer |
| BASF | 08.03.2017 | Underperformer | Orange | 31.07.2017 | Marketperformer |
| Bayer | 27.02.2017 | Underperformer | Orange | 01.06.2017 | Outperformer |
| Bayerische Landesbank | 07.06.2017 | Outperformer | Orange | 23.02.2017 | Marketperformer |
| BBVA | 07.06.2017 | Underperformer | Petrobras | 29.08.2017 | Marketperformer |
| BBVA | 04.05.2017 | Marketperformer | Petrobras | 19.05.2017 | Underperformer |
| BBVA | 03.05.2017 | Marketperformer | Peugeot SA | 28.07.2017 | Outperformer |
| Belfius Bank | 07.06.2017 | Outperformer | Peugeot SA | 24.02.2017 | Marketperformer |
| Belgium | 14.09.2017 | Marketperformer | Portugal | 30.10.2017 | Outperformer |
| Belgium | 14.12.2016 | Outperformer | Rabobank | 07.06.2017 | Outperformer |
| Berlin Hyp | 07.06.2017 | Outperformer | Raiffeisen Bank International | 07.06.2017 | Outperformer |
| Bertelsmann | 19.07.2017 | Outperformer | Renault | 31.07.2017 | Marketperformer |
| BMW | 07.11.2017 | Underperformer | Renault | 02.05.2017 | Outperformer |
| BNP Paribas | 07.06.2017 | Underperformer | Renault | 16.03.2017 | Marketperformer |
| BNP Paribas | 10.02.2017 | Outperformer | Royal Bank of Scotland Group | 03.11.2017 | Outperformer |
| BP | 15.02.2017 | Outperformer | Royal Bank of Scotland Group | 07.06.2017 | Marketperformer |
| BPCE | 07.06.2017 | Marketperformer | Royal Bank of Scotland Group | 05.05.2017 | Outperformer |
| BPCE | 01.03.2017 | Outperformer | Royal Bank of Scotland Group | 13.03.2017 | Marketperformer |
| Brazil | 19.05.2017 | Underperformer | SEB | 07.06.2017 | Outperformer |
| Brazil | 07.04.2017 | Marketperformer | Société Générale | 07.06.2017 | Marketperformer |
| Bulgaria | 03.05.2017 | Outperformer | Société Générale | 14.02.2017 | Outperformer |
| Casino Guichard-Perrachon | 09.03.2017 | Marketperformer | South Africa | 31.03.2017 | Underperformer |
| Chile | 09.11.2017 | Outperformer | Spain | 30.10.2017 | Outperformer |
| Chile | 14.06.2017 | Marketperformer | Spain | 07.06.2017 | Marketperformer |
| Chile | 04.05.2017 | Underperformer | Südzucker | 12.10.2017 | Marketperformer |
| Colombia | 12.07.2017 | Underperformer | Südzucker | 02.06.2017 | Outperformer |
| Colombia | 09.03.2017 | Marketperformer | Südzucker | 13.01.2017 | Marketperformer |
| Colombia | 19.12.2016 | Outperformer | Svenska Handelsbanken | 07.06.2017 | Outperformer |
| Crédit Agricole | 07.06.2017 | Underperformer | Telecom Italia | 16.05.2017 | Outperformer |
| Crédit Agricole | 17.02.2017 | Outperformer | Telekom Austria | 26.07.2017 | Outperformer |
| Credit Suisse Group | 07.06.2017 | Marketperformer | Tesco | 06.10.2017 | Outperformer |
| Croatia | 02.05.2017 | Marketperformer | Tesco | 18.04.2017 | Marketperformer |
| Croatia | 13.03.2017 | Outperformer | Tesco | 27.01.2017 | Underperformer |
| Czech Republic | 04.05.2017 | Underperformer | thyssenkrupp | 26.09.2017 | Outperformer |
| Daimler | 26.07.2017 | Underperformer | thyssenkrupp | 10.02.2017 | Marketperformer |
| Danone | 20.10.2017 | Marketperformer | Turkey | 22.11.2017 | Underperformer |
| Danone | 02.08.2017 | Underperformer | Turkey | 18.04.2017 | Marketperformer |
| Danone | 16.02.2017 | Marketperformer | Unicredit | 07.06.2017 | Underperformer |
| Danske Bank | 07.06.2017 | Outperformer | Unicredit | 13.12.2016 | Outperformer |
| Deutsche Bank | 07.06.2017 | Underperformer | Vale | 27.10.2017 | Marketperformer |
| Deutsche Bank | 27.12.2016 | Outperformer | Vodafone Group | 20.03.2017 | Marketperformer |
| Deutsche Telekom | 20.09.2017 | Marketperformer | Volkswagen | 30.10.2017 | Outperformer |
| Deutsche Telekom | 07.08.2017 | Outperformer | Volkswagen | 28.07.2017 | Marketperformer |
| Deutsche Telekom | 20.02.2017 | Marketperformer | | | |
| De Volksbank | 07.06.2017 | Outperformer | | | |
| DNB Bank Group | 07.06.2017 | Outperformer | | | |
| E.ON | 07.06.2017 | Marketperformer | | | |
| EnBW | 29.03.2017 | Underperformer | | | |
| ENI | 06.11.2017 | Outperformer | | | |
| Erste Group Bank | 07.06.2017 | Outperformer | | | |
| France | 01.12.2017 | Marketperformer | | | |
| France | 14.12.2016 | Outperformer | | | |
| Fresenius SE & Co. KGaA | 02.08.2017 | Outperformer | | | |
| Fresenius SE & Co. KGaA | 26.04.2017 | Marketperformer | | | |
| Gazprom | 06.06.2017 | Outperformer | | | |
| Gazprom | 27.01.2017 | Marketperformer | | | |
| General Electric | 23.10.2017 | Underperformer | | | |
| General Electric | 10.05.2017 | Outperformer | | | |
| Germany | 14.12.2016 | Underperformer | | | |
| Greece | 14.09.2017 | Outperformer | | | |
| Heineken | 01.08.2017 | Marketperformer | | | |
| Heineken | 22.02.2017 | Outperformer | | | |
| HSBC Holdings | 07.06.2017 | Outperformer | | | |
| HSBC Holdings | 22.02.2017 | Marketperformer | | | |
| HSB Nordbank | 09.11.2017 | Outperformer | | | |
| Hungary | 04.10.2017 | Outperformer | | | |
| Iberdrola | 24.02.2017 | Marketperformer | | | |
| ING Groep | 07.06.2017 | Outperformer | | | |
| ING Groep | 30.03.2017 | Marketperformer | | | |
| innogy | 13.11.2017 | Underperformer | | | |
| innogy | 15.05.2017 | Marketperformer | | | |
| innogy | 24.03.2017 | Underperformer | | | |
| Intesa Sanpaolo | 07.06.2017 | Underperformer | | | |
| Intesa Sanpaolo | 13.12.2016 | Outperformer | | | |
| Ireland | 01.12.2017 | Marketperformer | | | |
| Ireland | 14.09.2017 | Outperformer | | | |
| Ireland | 15.03.2017 | Marketperformer | | | |
| Italy | 07.06.2017 | Underperformer | | | |
| Italy | 14.12.2016 | Marketperformer | | | |
| JPMorgan Chase & Co. | 07.06.2017 | Outperformer | | | |
| K+S | 23.12.2016 | Outperformer | | | |
| KBC Groep | 07.06.2017 | Outperformer | | | |
| KBC Groep | 16.02.2017 | Marketperformer | | | |
| Koninklijke KPN | 02.11.2017 | Marketperformer | | | |

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