

Euro Credit Pilot Strategy



Macro Research
Strategy Research
Credit Research

“ Credit Outlook 2019 ”

11
2018

Contents

- 4 Top Story**
 - 4 Prepare for considerable spread widening
 - 7 Credit Drivers**
 - 7 Macro: a slowdown ahead, more pronounced in 2020
 - 9 Micro: reasonable earnings growth and sound profiles
 - 11 Debt-Equity Linkage: a volatile year ahead in risky assets
 - 12 Credit Quality Trend: US companies are more vulnerable
 - 13 Valuation & Timing**
 - 13 Spread forecast table
 - 14 Sector Allocation & Recommendation Overview**
-

Published on 20 November 2018

Cover picture @ Prajukpant - Fotolia.com

Slower economic and earnings growth will weigh on European credit markets, which will likely experience more-pronounced spread widening in 2019. However, given their more-stable debt trajectory over the last few years, as well as the ECB's delayed tightening relative to the Fed, European companies are less vulnerable to credit concerns than their US peers. The anticipated decline in issuance volumes compared to previous years should offset substantially reduced demand from the CSPP, under which reinvestment volume will be low in 2019.

- **Macro Outlook:** We forecast that growth in the eurozone will be slightly above trend through most of 2019. We expect 2019 to show a small slowdown, to 1.7%, from 2.0% this year. However, GDP growth in the eurozone will likely suffer a loss of momentum in the latter part of next year, and this loss of momentum will likely intensify over the course of 2020 as the US heads towards a recession.
- **Micro Fundamentals:** As global growth concerns have increased on the back of trade tensions, spreads have experienced widening pressure in addition to the technical repricing from a fading CSPP.
- **Debt-Equity Linkage:** Equity markets will likely feel some pressure next year, as earnings expectations seem far too optimistic. In a potential risk scenario, a 20% drawdown in both Europe and the US seems realistic.
- **Credit Quality Trend:** As the average net debt of US non-financial companies has increased tremendously over the last few years, while the average net debt of European corporates has remained more stable, key indicators of credit quality have shown diverging trend; credit quality indicators for European corporates have improved, while those pertaining to US companies have deteriorated.
- **Valuation & Timing:** We expect considerable spread widening in 2019, with IG non-financials spreads widening to 90bp (from 60bp currently) and HY spreads widening to 450bp (from 360bp).
- **Sector Allocation & Recommendation Overview:** We are keeping our underweight recommendations in Technology, Chemicals and Food & Beverages. We change Automobiles & Parts to overweight from marketweight and Industrial Goods & Services to marketweight from underweight.

Dr. Philip Gisdakis,
Co-Head of Strategy Research & Head of Credit Strategy Research
(UniCredit Bank, Munich)
+49 89 378-13228
philip.gisdakis@unicredit.de

Dr. Christian Weber, CFA,
Deputy Head of Credit Strategy Research
(UniCredit Bank, Munich)
+49 89 378-12250
christian.weber@unicredit.de

Dr. Stefan Kolek,
EEMEA Corporate Credit Strategist
(UniCredit Bank, Munich)
+49 89 378-12495
stefan.kolek@unicredit.de

Top Story

Prepare for considerable spread widening

Slower economic and earnings growth will weigh on European credit markets, which will likely experience more-pronounced spread widening in 2019. However, given their more-stable debt trajectory over the last few years, as well as the ECB's delayed tightening relative to the Fed, European companies are less vulnerable to credit concerns than their US peers. The anticipated decline in issuance volumes compared to previous years should offset substantially reduced demand from the CSPP, under which reinvestment volume will be low in 2019.

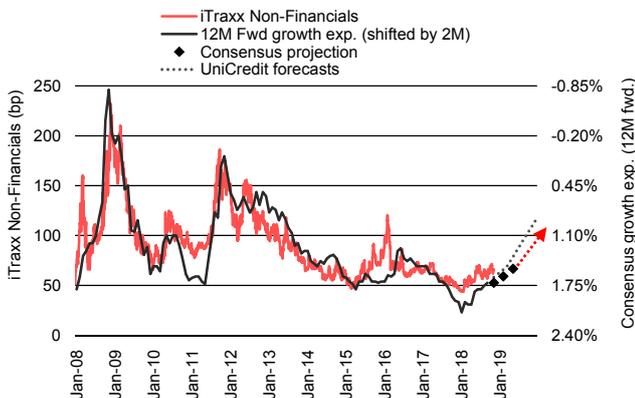
Economic slowdown will become the dominant driver of credit in 2019

As growth slows, the macroeconomic environment will become the dominant driver of credit markets over the next year. European credit spreads are likely to come under severe widening pressure. Moreover, technical tightening pressure from the ECB's CSPP will fade as the rollover of maturing bonds from the existing CSPP portfolio will have only a comparatively small impact, given that projected maturities will remain limited in 2019.

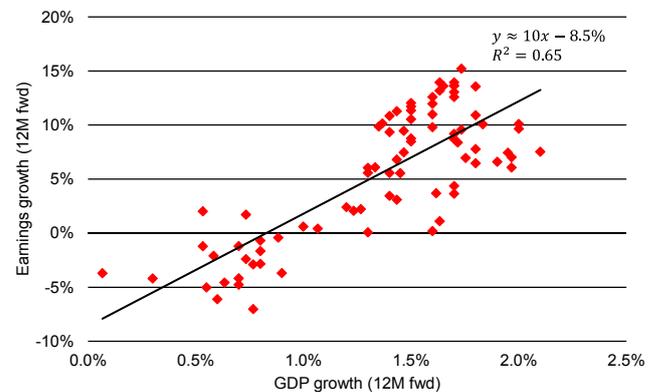
We used our macro-credit model to assess the impact of the economic slowdown ahead. Our macro-credit model is based on the quite-stable dependency between 12M forward consensus growth expectations and corporate credit spreads, as shown in the left chart below. The chart shows Bloomberg consensus growth expectations (the values having been inverted), with the y-axis adjusted according to dependency on a specific time series. Moreover, we shifted growth expectations by two months, which is approximately the lead spreads seem to have over consensus expectations. Despite spreads having led growth expectations on average, we feel comfortable deriving longer-term spread projections from growth expectations, given the fundamental relationship between growth and credit-risk premiums.

MACRO-CREDIT MODEL

Credit spreads versus 12M fwd consensus growth expectations



Dependency of GDP growth and earnings growth expectations



Source: Bloomberg, UniCredit Research

Our macro-credit model suggests material spread widening lies ahead

We added the projections of how 12M expectations would move forward based on forecasts for consensus expectations extending to 2020 (black dots) and for our own expectations (dotted line). While consensus projections show a more moderate deceleration, our own projections see a considerable slowdown towards a projected pace of expansion of below 1% (4Q20 versus 4Q19) in the eurozone. At face value, the results indicate that an average spread of 110bp in investment grade and 540bp in high yield are commensurate with such an economic environment.

Year-end 2019 spread forecast:
investment grade 90bp;
high yield 450bp

However, some important technical factors will likely prevent such dramatic widening. First, credit products, particularly those that make up the safer (IG) part of the sample, will likely continue to benefit from investor demand as yields on risk-free bonds remain subdued and growth remains positive (against the backdrop of sound credit quality). Second, the supply of new bonds is likely to be only moderate next year. As a result, we expect spreads to settle slightly below our macro-credit-model results, at 90bp for IG-rated non-financials, and 450bp for high-yield bonds. In IG, the iBoxx Non-Financials Senior index, which is still being compressed by the CSPP, is currently trading at 60bp, while the iTraxx Non-Financials index is trading at nearly 70bp. In HY, the iBoxx HY is trading at 350bp, while the iTraxx Crossover, which has a different structure, is trading at 300bp. Hence, if by year-end, IG credit spreads settle around 70bp and HY spreads settle at 350bp, the year-end 2019 targets of 90bp for IG and 450bp for HY would show the same relative spread increase (about 30%), and the HY/IG ratio of 5x would also remain unchanged.

US companies are more vulnerable to credit concerns than European companies

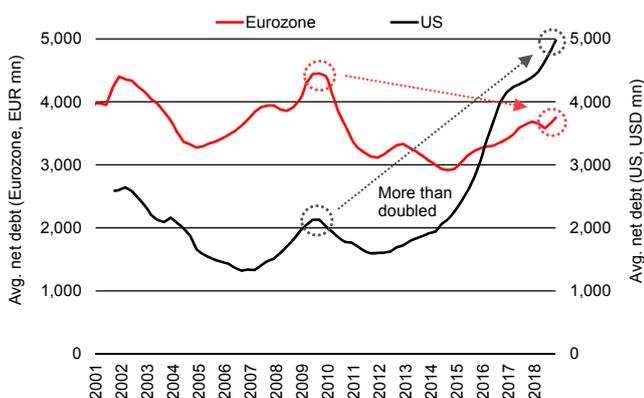
However, spread widening will not be uniformly spread across sectors and regions. Credit with more pronounced exposure to a slowdown in earnings will experience greater spread-widening pressure. On a sector-by-sector basis, this will impact cyclical industries (we will publish a more-detailed analysis, in this respect, in our upcoming *Euro Credit Pilot*). However, at the current point in time, there is a clear regional difference with respect to the stage of the credit cycle. US companies, having enjoyed years of benign economic and financial conditions, have increased indebtedness considerably over the last few years (see left chart below, which depicts the average net debt for non-financials in the Euro STOXX and the S&P 500). This has resulted in a substantial increase in leverage and is also reflected in the increase in BBB rated US corporate debt as highlighted in the US economics section, This leaves companies with higher indebtedness exposed in the event of an earnings slowdown, resulting in the necessity to quickly reduce debt.

US companies increased indebtedness as they distributed high amounts of cash to shareholders

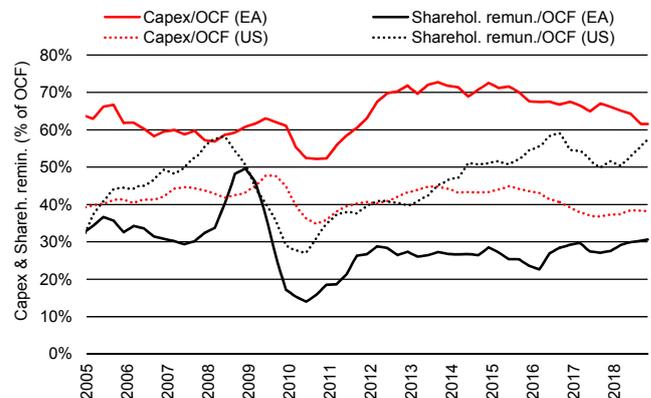
Moreover, US companies have used the cheap financing conditions over the last few years mainly to boost cash flows to shareholders. The right chart below shows capex spending and shareholder remuneration (dividend payments and share buybacks) as a percentage of cash from operations (also known as operating cash flow [OCF]) of the non-financials in the two mentioned benchmark indices. US companies distribute about 50-60% of their operating cash flow to shareholders (mainly through share buybacks) and invest only 30-40% in their business via capex. Eurozone companies, in contrast, invest 60-70% of their cash in capex and distribute only 30% to shareholders. In other words, the leveraging up of balance sheets of US companies has been accompanied by high cash payments to shareholders, with the latter driving share valuations (i.e. price/earnings ratios) to cyclical highs.

EUROZONE AND US NON-FINANCIALS IN COMPARISON

Average net debt for Eurozone and US corporates



Capex and shareholder remuneration as % of OCF



Source: UniCredit Research

The vulnerability of balance sheets with respect to a slowdown in earnings and/or rising financing costs could pressure company management to cut leverage by redirecting future funds from shareholders to debtholders. While such a development would be clearly welcome from a credit-investor perspective, it would likely impact stock prices. In any case, such a scenario would very likely be accompanied by high volatility in credit and equity.

CSPP rollover volumes will only be limited in 2019

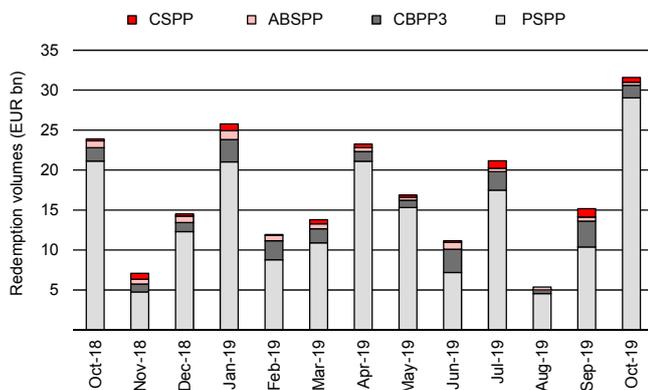
From a market-technical perspective, the dominant driver of IG-rated credit, the CSPP, will cease to be an important source of support. The ECB will continue to purchase bonds in 2019 as it plans to reinvest redemptions in the market, but corresponding volumes in the corporate sector should be low in the coming year. The left chart below shows redemption volumes in the APP over the next 12 months by asset class and as scheduled by the ECB. If the ECB reinvests these funds only in their respective programs, CSPP purchases will be quite low. At the same time, PSPP reinvestment will remain a dominant part of the market environment, and scheduled redemptions in the covered-bond and ABS universe will also remain sizable.

A slowdown in issuance will partly offset declining demand from the CSPP

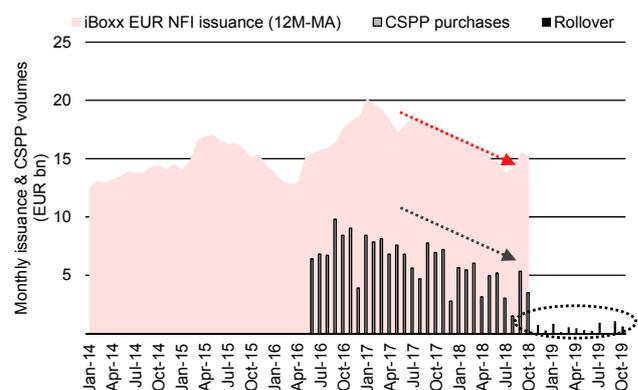
The right chart below shows how small monthly reinvestment volumes in the corporate-bond universe will be compared to volumes purchased so far. While the corresponding decline in demand will have to be taken into account, its effect will likely be offset to some extent by declining supply. The data in the right chart suggest a fairly extensive parallel decline in issuance volumes (we used rolling 12-month averages of iBoxx issuance volumes as a proxy) so far. We expect this slowdown in supply to broadly continue in 2019 given the anticipated slowdown in economic activity (which will prevent large-scale debt-financed investment and M&A activity) and the fact that companies will have used the benign financing conditions of the past to address future funding needs ahead of time as much as possible.

MARKET TECHNICAL DRIVERS

Scheduled APP reinvestment volumes by months and programs



Monthly issuance (12M-MA) versus CSPP volumes



Source: ECB, iBoxx, Bloomberg, UniCredit Research

Credit and total-return projection

From a total-return perspective, we assume spreads will have widened to 90bp by the end of 2019, from a current spread of 60bp (this figure will likely be higher at year-end 2018). Multiplying the corresponding 30bp by average duration of 5 results in a mark-to-market loss of 150bp. Adding a carry component of 60bp (for 13.5 months from the current point in time) and a spread curve roll-down of 15bp (times an average duration of 4.5 over this period) offsets about 135bp and results in a credit loss of about 15bp. For HY markets, the corresponding calculation results in a positive credit return of about 100bp, given the higher carry to start with and shorter duration in HY compared to IG. However, the more attractive credit-return projection for HY has to be weighed against the greater downside risk present in this market.

Credit Drivers

Macro: a slowdown ahead, more pronounced in 2020

Our expectations for the upcoming growth environment in the eurozone...

We forecast that growth in the eurozone will be slightly above trend through most of 2019. We expect 2019 to show a small slowdown, to 1.7%, from 2.0% this year. However, GDP growth in the eurozone will likely suffer a loss of momentum in the latter part of next year, and this loss of momentum will likely intensify over the course of 2020 as the US heads towards a recession. Hence, the window of opportunity for the ECB to normalize policy rates is likely to close fast. We think it will just manage to raise the deposit rate (in two steps, starting in September 2019) back to zero early in 2020. There is a risk that there may be even less removal of accommodation.

...the US...

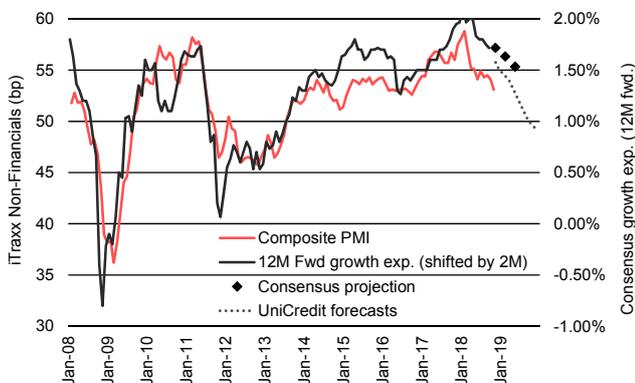
In the US, the current expansion will likely, in 2019, become the country's longest recovery on record. However, any celebrating should be muted, as we predict the economy will begin to lose momentum in 2H19 and then head towards a mild (and brief) recession around mid-2020 (probably not that dissimilar from the 2001 recession). Several factors are likely to contribute to such a slowdown, including tightening financial conditions and the petering out of fiscal stimulus at a time when wage pressure is building and corporate balance sheets are becoming stretched. In this base-case forecast, we foresee the Fed hiking rates through the second quarter of next year before first pausing and then starting to reverse course in 2020 with three rate cuts.

...and globally

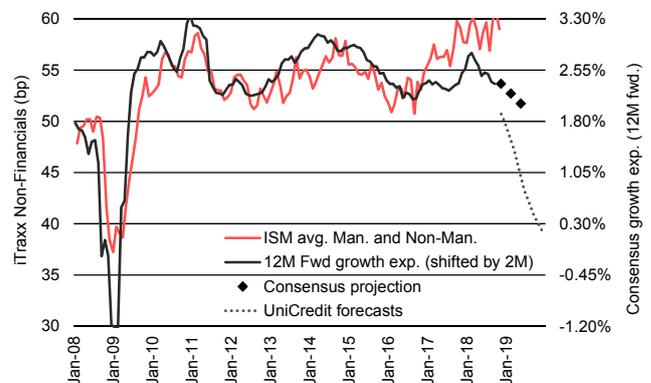
With respect to the global economic environment, we expect GDP growth to ease modestly, from 3.6% this year to about 3.4% in 2019, followed by a more-pronounced deceleration in 2020 to 2.7%. The drivers of such a slowdown are likely to include tighter financial conditions, fading US fiscal stimulus and an ongoing slowdown in China – we expect China's GDP growth to decelerate from 6.6% this year to 6.2% in 2019 and 5.9% in 2020 – as well as generally deteriorating sentiment (not least because of continuing trade tensions). Late next year and into 2020, the downturn will most likely be led by the US. We foresee emerging markets generally cooling as well as the forecast cyclical slowdown in advanced economies plays out. Importantly, we are forecasting a cyclically driven global slowdown (and a possible brief and shallow recession) but not a crisis per se. That said, the combination of slower growth and tighter financial conditions will likely spell the end of the long bull market. For more details with respect to our views regarding the macro and broader market conditions in 2019, see our *Macro & Markets Outlook 2019-20*.

12M FORWARD CONSENSUS GROWTH EXPECTATIONS VERSUS ECONOMIC SENTIMENT INDICATORS

Eurozone versus composite PMI



US growth versus ISM (avg. Manufacturing and Non-Manufacturing)



Source: Bloomberg, UniCredit Research

How our forecasts compare with consensus expectations

A comparison of our macro-economic forecasts with consensus expectations shows that our estimates are less optimistic than consensus expectations. The two charts above depict rolling 12M forward consensus growth expectations for the eurozone (left) and the US (right). We added the composite PMI index's readings for the eurozone and the average of the ISM Manufacturing and Non-Manufacturing Indices for the US. The dots in the charts show how 12M forward growth expectations are projected to evolve over the coming months, as implied by available data. At the current point in time, the 12M forward period shows a comparison of projected 4Q19 GDP growth to that of 4Q18 (expressed here as 4Q19 over 4Q18, etc.). Moreover, we also compared 2Q20 growth projections to 2Q19 growth projections (depicted by the last dot in the chart), which are the most forward-looking projections for which consensus data are available on Bloomberg. Furthermore, we also added corresponding expectations based on our own numbers (dotted lines). For the eurozone, current 12M forward consensus expectations of growth (4Q19 over 4Q18) are at 1.7%, while our projections are lower, at 1.6%. For 2Q20-over-2Q19 growth, consensus expectations project a deceleration to 1.5%, while we foresee a deceleration to 1.2%. From that period on, we expect the slowdown to become more pronounced, to a 4Q20-over-4Q19 growth rate of 0.8% (no Bloomberg consensus data for this period were available). With regard to the US, the deviations between consensus and our projections are bigger: 4Q19-over-4Q18 growth is expected to be at 2.4% by consensus and at 1.9% by us, 2Q20-over-2Q19 growth is projected to be at 2% by consensus and at 1% by us, while 4Q20-over-4Q19 growth will likely slow to 0.2% in our view.

Comparison on a country-by-country basis

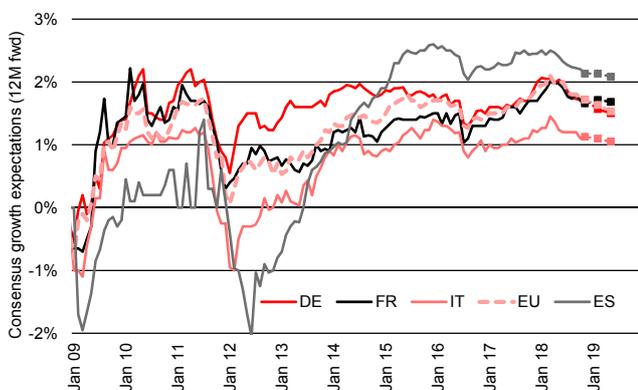
On a country-by-country basis, consensus expectations project that growth in major eurozone countries will also mildly decelerate: 4Q19-over-4Q18 GDP growth in Germany and France is expected to be about 1.7%, that for Spain is expected to be 2.1% while the same figure for Italy is projected to be at 1.1%. Our own projections with regard to 4Q19-over-4Q18 GDP growth are 1.4% for Germany, 1.2% for France, 2.0% for Spain and 0.9% for Italy. In our view, this will slow. We estimate that 4Q20-over-4Q19 growth will be 1.0% in Germany, 0.8% in France, 1.4% in Spain and 0.2% in Italy.

Revisions to consensus growth expectations

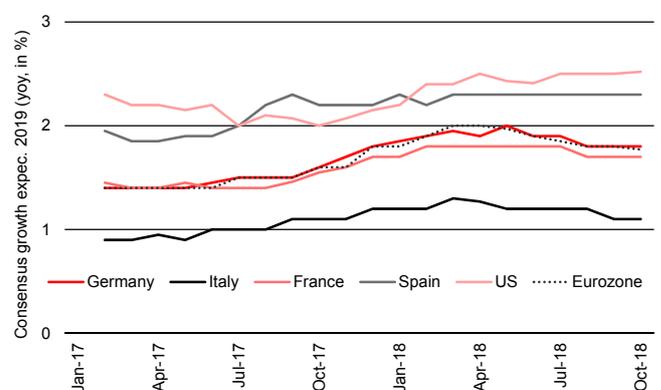
In order to quantify how consensus expectations have been revised recently, we looked at consensus expectations for full-year 2019 (see right chart below). The chart shows that, over the course of the last six months, consensus growth expectations for Germany, France and the eurozone have changed only moderately, by about 0.2pp, to roughly 1.8%. For Italy, growth expectations have also been revised down by 0.2pp, to 1.1%, while for Spain, expectations have remained unchanged, at 2.3%. For the US, expectations have remained stable, at about 2.5%.

GROWTH ENVIRONMENT IN THE EUROZONE

12M fwd consensus growth expect. for the eurozone, by country



Consensus growth expectations for 2019, by country



Source: Bloomberg, UniCredit Research

Micro: reasonable earnings growth and sound profiles

As global growth concerns have increased on the back of trade tensions, spreads have experienced widening pressure in addition to the technical repricing from the fading CSPP. Given earnings growth remains reasonable and credit profiles sound, we do not expect a dramatic widening.

Spread repricing due to fading technical support and growth concerns

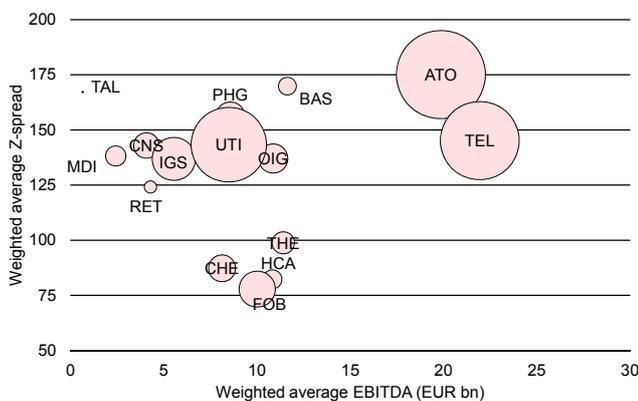
Credit spreads have moved materially wider this year, the iBoxx NFI spread has more than doubled (ASW from 35bp to 77bp, +119% YTD). A large degree of this repricing was anticipated and took place on the back of the fading effect of the ECB's CSPP, net purchases of which are set to terminate at the end of the year. For most of the year, the softening in risk premiums has been fairly uniform across sectors as the technical push wider from fading purchases has provided little need for investors to differentiate. More recently, however, increasing signs of a cooling global economy, coupled with persisting trade concerns amid ongoing political headline risks, have begun to weigh on some sectors to a larger degree. While still incremental from a historical perspective, iBoxx NFI sectors are now tentatively beginning to show diverging widening momentum. Among the sectors that widened most, Technology (+205%), Automobiles (+183%), and Construction (+172%) have been under pressure most and all widened at least 50% more than the index. At the same time, the most resilient sectors have repriced about 40% less than the iBoxx NFI. Interestingly, the traditional high-beta sector Basic Resources (+85%) is among the least affected sectors, alongside Travel & Leisure (+69%) and Telecoms (+77%). The higher stability in Basic Resources could reflect the more resilient growth outlook that persists in the eurozone, as well as the improved credit profile of the sector, which was a result of the commodity price crisis in late 2015.

Revenue and earnings growth still supportive

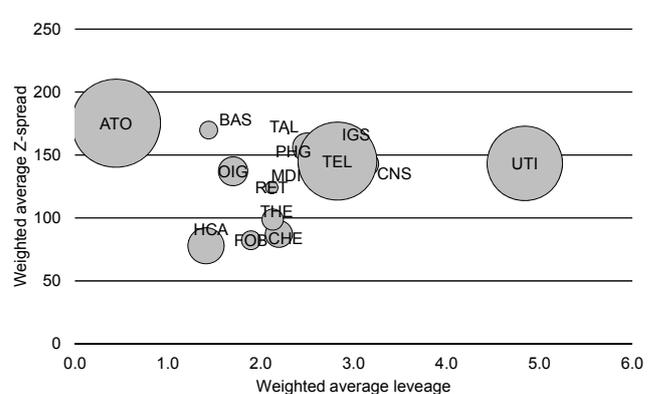
Basic Resources is also well-supported in terms of earnings growth, as it has posted the third-highest growth in net income (7.9%) among non-financials, after Oil & Gas (53.4%) and Health Care (9.1%). The strong recovery in Oil & Gas earnings is also driving up the growth in index earnings, in the Euro STOXX, income grew by 8.8% in 3Q18 compared to the previous year. Among the laggards with respect to earnings growth are Utilities (-5.1%), Consumer Goods (-7.1%) and Consumer Services (-9.9%), which are the only sectors that experienced declining income in 3Q18 compared to a year earlier. The earnings decline in Utilities came on the back of lower revenues (-3%), the only other non-financial sector for which sales fell is Telecoms (-1.1%). Across sectors, revenues have risen by 3.1% on average in the Euro STOXX, with sectors varying between 1% and 7%, except for Oil & Gas (+23.7%), which benefitted from the recovery in oil prices.

WEIGHTED AVERAGE EBITDA AND LEVERAGE ACROSS IBOXX NFI SECTORS

iBoxx NFI sector EBITDA to Z-spread



iBoxx NFI sector leverage to Z-spread



Source: Markit, UniCredit Research

12M forward sales and earnings projected to grow

Automobiles, Telecoms, and Basic Resources are the iBoxx NFI sectors with the highest average EBITDA (left chart above). Telecoms (EUR 22.9bn) and Automobiles (EUR 19.8bn) particularly stand out, while Basic Resources (EUR 11.6bn) shows slightly higher weighted average EBITDA levels than Technology (EUR 11.4bn) and Oil & Gas (EUR 10.8 bn). Both Automobiles (0.4x) and Basic Resources (1.4x) also are among sectors with the lowest leverage (right chart above), matched only by Health Care (1.4x), while Telecoms leverage is somewhat above-average at 2.8x, close to the weighted average leverage of Industrial Goods & Services (2.7x) and Media (2.6x). Construction (3.1x) and Utilities (4.8x) companies employ the highest leverage in the iBoxx NFI. Looking ahead, earnings expectations remain sound, given the decelerating, but positive growth trajectory our economist expect in the next twelve months. For the Euro STOXX, 12M forward consensus estimates currently show expected earnings growth of 12.5% (EPS) and EBITDA growth of 4.5%.

Orderly repricing of spreads, although volatility could increase further

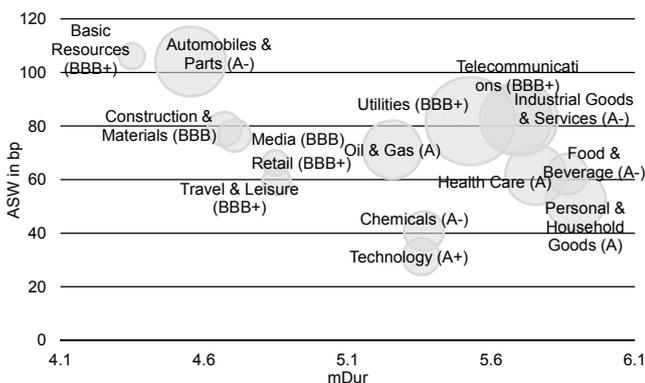
Given the fairly sound fundamentals, we are not overly concerned about significant additional spread widening pressure beyond an adjustment that is still necessary to reflect the end of CSPP and lower growth rates in the eurozone. Nevertheless, volatility may increase time and again as uncertainty over the growth trajectory becomes widespread, especially as political headline risk will likely remain elevated. With respect to the latter, the ongoing trade dispute between the US and China could exert pressure due to negative effects on global trade. In addition, the risk profile of the iBoxx NFI has shifted slightly as opportunistic issuance from US companies has increased their share to more than 20% of the index, leaving it more sensitive to a downturn in the US, in particular as the US issuers in the iBoxx NFI tend to be a combination of low spread and long duration (right chart below). Moreover, political headline risks remain within the eurozone, which contributed to significant underperformance in parts of the periphery. Italian issuers in the iBoxx NFI currently stand out with the by far the highest risk premium as a country cluster, even higher than that of CEE issuers, which are rated lower on average.

Remain constructive despite growing cautiousness

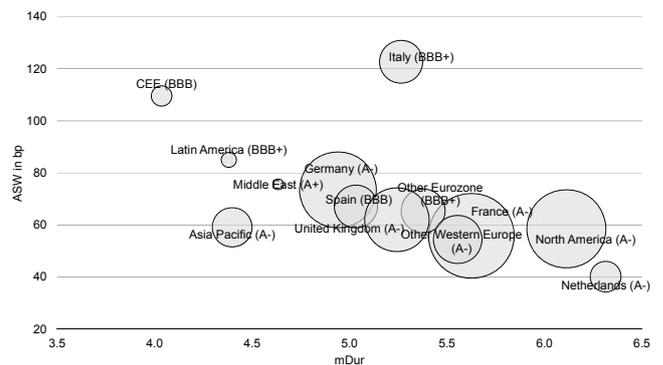
The change in growth momentum and the high uncertainty related to political headline risk will likely continue to make further adjustments to risk premiums necessary. However, at the same time it is not necessary to expect a crisis-like deterioration with a jump in the default rate. Consequently, volatility may provide opportunities amid a still credit friendly growth trajectory.

DISTRIBUTION OF IBOXX NFI SECTORS ACROSS SPREAD AND COUNTRY OF RISK

iBoxx NFI sectors by spread and duration



iBoxx HY NFI by country of risk and duration



Source: Markit, UniCredit Research

Debt-Equity Linkage: a volatile year ahead in risky assets

Equity markets will likely feel some pressure next year as earnings expectations seem far too optimistic

In a potential risk scenario, 20% drawdown in both Europe and the US seems realistic

A volatile year ahead

Stronger impact on credit spreads than on equities

Like credit markets, equities will also be impacted by the slowing global growth environment, which will weigh on earnings growth. A slowing earnings environment will also leave its mark on equities, since consensus estimates still assume considerable growth in earnings. For the Euro STOXX 50, for example, consensus estimates sees earnings growth of 8% this year, 11% in 2019 and 9% in 2020. For the S&P 500, consensus estimates are 24% growth this year (driven by the tax cuts), 9% in 2019 and 10% in 2020. Given our expectations of a slowing GDP growth environment, such earnings growth rates are likely far too optimistic. UniCredit Equity Strategist Christian Stocker expects earnings growth rates in the order of 3-4% in 2019, i.e. about half of what consensus expects. In a baseline scenario, P/E valuations for the Euro STOXX 50 in the order of 12, which is also the current level, offer good support to European stock markets. If that support were to remain broadly intact, the yoy performance potential is in the order of earnings growth, i.e. 3-4%.

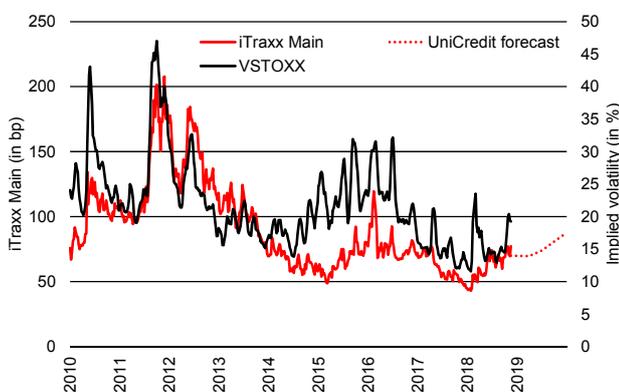
In a potential risk scenario, with a more pronounced economic slowdown in the eurozone and the US, a P/E ratio of around 10 has to be expected for the Euro STOXX 50. Such a scenario would imply negative price potential of about 20%, corresponding with a Euro STOXX 50 level of 2700 index points. For the S&P 500, a P/E valuation of 13 has to be expected in such a risk scenario (corresponding to an index level of 2275, which is about 20% below the current index level). Experience shows that in an environment of slowing economic growth, which we expect in 2019, and political uncertainty, equity markets test the lower bounds of potential risk scenarios in any correction phase that occurs.

Historical evidence suggests that in an environment of slowing economic growth rates (which is, as a result, accompanied by decreasing growth of company earnings), implied volatilities in equity markets increase (see left chart). Moreover, in 2019 risks will be further fueled by political uncertainties. Against this background, we see a high probability that the low-volatility environment of 2017/18 will come to an end. Our two charts below suggest there is quite a close correlation between credit spreads, implied volatilities and equity valuations.

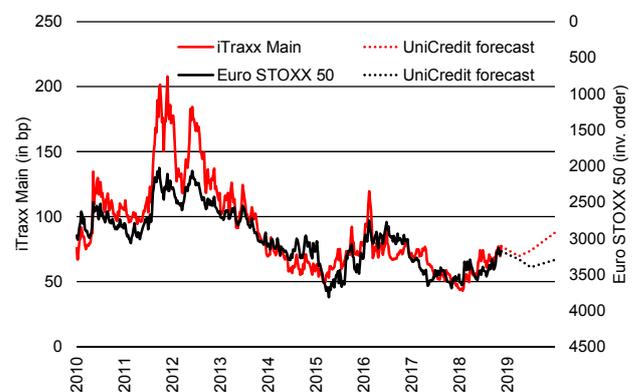
In the right chart below we have added our corresponding index forecasts (see dotted lines). We expect a relatively stronger impact on credit spreads than on equities, taking into account that credit markets tend to temporarily overreact. However, while our baseline scenario for equities is slightly less bearish than that for credit, drawdown risk in equities is material. We would not be surprised to see drawdown in the order of 20%. Such a development, however, should also feed into the risk-off cycle that typically affects credit and equities synchronously. Hence, we can probably look forward to a volatile year ahead.

DEBT-EQUITY DEPENDENCIES

Spreads versus implied volatility ...



...and versus index levels (incl. UniCredit forecasts)



Source: Bloomberg, UniCredit Research

Credit Quality Trend: US companies are more vulnerable

As we highlighted above, the average net debt of US non-financial companies has increased tremendously over the last few years, while the average net debt of European corporates has remained more stable. As shown in this analysis, these different net-debt trajectories have different implications for key indicators of credit quality; those applied to European corporates have improved, while those pertaining to US companies have deteriorated.

Key credit indicators: leverage and interest-coverage ratio

We use two key credit indicators to assess the impact of rising net debt: leverage, which is defined as the ratio of net debt to EBITDA (declining leverage indicates improvement), and the interest coverage ratio, which is the proportion of EBIT to interest expenses (a rising interest-coverage ratio indicates improvement).

When applied to US companies, key credit indicators deteriorated during periods marked by a rapid rise in net debt, while these indicators, when applied to European companies, have improved as of late

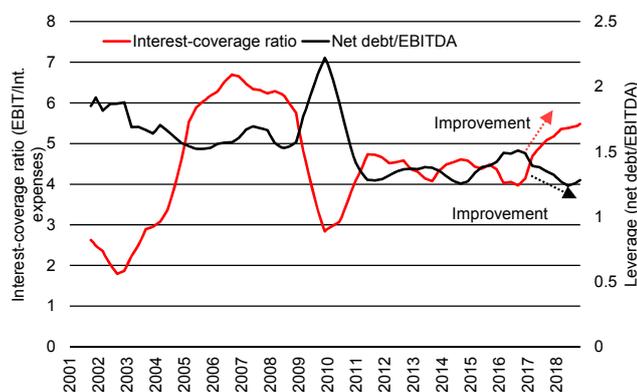
While both of these credit indicators, when applied to European non-financial companies, have improved as of late, when these indicators are applied to US non-financial firms, both show a deterioration during periods marked by a rapid increase in net debt, i.e. between 2015 and 2017. This means that the substantial increase in net debt among US non-financial firms has more than outweighed the increase in earnings generation and decline in financing costs that accompanied it. It should be noted that, although USD swap rates started to rise in 2016, average financing costs continued to decline during that period, as companies replaced outstanding higher-coupon debt with new debt with lower coupons. In the eurozone, the moderate rise in net debt has been accompanied by a decline in financing costs, and as of late, a rise in earnings has helped to improve both of the aforementioned credit indicators.

US companies appear to be more vulnerable to a slowdown in earnings and to rising financing costs compared to eurozone companies

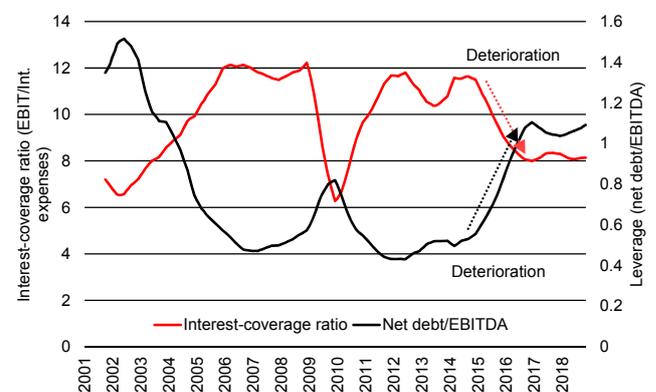
However, the two sets of companies in our eurozone and US samples vary significantly. Hence, the absolute levels of both indicators cannot be compared across the regions. In the eurozone, for example, large companies operate predominantly according to business models that involve high levels of absolute debt (such as industrials and telecoms). In the US, on the other hand, large tech companies dominate our sample. These usually do not have much debt. Many of these companies have limited debt levels. Such a structural difference affects the credit indicators cited in this analysis, as we refer to average figures across a set of companies. When median values (instead of averages) are analyzed (which involves focusing on the middle part of the data sample), leverage among US companies is higher than it is for eurozone companies. This suggests that the middle part of our US corporate sample is more highly leveraged than the corresponding segment in our eurozone sample, while among the larger companies in our samples, this is reversed. This comparison highlights the vulnerability of a large part of the US corporate sector to a moderation in earnings and rising financing costs, while European companies appear to be more resilient in this regard.

KEY CREDIT INDICATORS (LEVERAGE AND INTEREST-COVERAGE RATIO) FOR EUROPEAN AND US NON-FINANCIALS

Non-financials in Euro STOXX



Non-financials in S&P 500



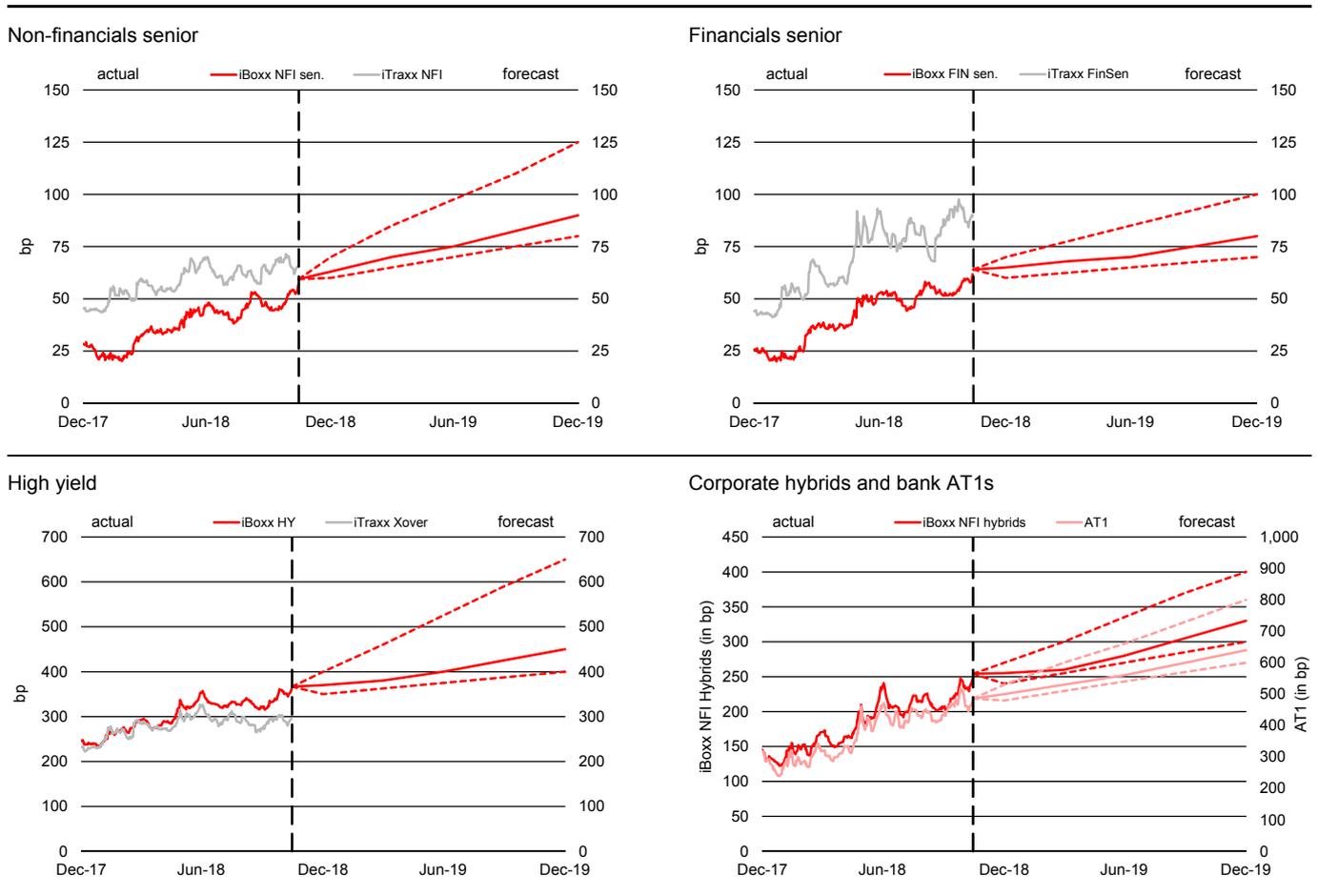
Source: Bloomberg, UniCredit Research

Valuation & Timing

As mentioned above, we assume there will be considerable spread widening on the back of an economic slowdown over the coming two years. Our macro-credit model, which is based on the historical dependency between credit spreads and 12M forward consensus growth expectations (which take our own forecasts into account), suggests non-financials will widen toward 110bp (and HY to 540bp). Nevertheless, we see reason to believe that the real spread trajectory will involve somewhat less widening. Among those drivers are the more-stable debt trajectory of European corporates over the last few years as well as the ECB's delayed tightening relative to the Fed – this has rendered European companies less vulnerable to credit concerns than their US peers. Moreover, the anticipated decline in issuance volumes compared to previous years should offset substantially reduced demand from the CSPP, under which there will be only low reinvestment volume in 2019. Taking these effects into account, we forecast that IG non-financials' spreads will be at 90bp (from their 60bp currently) and that HY spreads will be at 450bp (from 3,670bp) at the end of 2019. Senior financials should widen less than non-financials, to 80bp (from 65bp). For corporate hybrids, we see a widening potential to 330bp (from 255bp) and for AT1 to 640bp (from 485bp).

Spread forecast table

SPREAD FORECAST 2018 (BP)



Source: iBoxx, Bloomberg, UniCredit Research

Sector Allocation & Recommendation Overview

While credit fundamentals have remained healthy, risk premiums have been pushed wider, driven by political headlines and ongoing growth moderation amid global trade uncertainty. Following the predominantly technical and uniform repricing that has occurred as a result of the upcoming end of the CSPP, a tentative differentiation across sectors has also started to kick in. During the summer, nine out of 15 NFI sectors traded within 10bp of the iBoxx NFI spread. This number has since shrunk to six, although the index has widened comparatively less since the summer, compared to 1H. Among the underperformers since the start of the year is Technology, which has widened materially (+205%) and still does not have much appeal, in our view. It remains tight compared to the index and entails significant US-growth exposure. Hence, we are keeping our underweight recommendation on the sector. We recommend underweighting Chemicals due to rising cyclical risk, which is not reflected in spreads as the sector remains among the tightest non-financial sectors. We also remain underweight with regard to Food & Beverage. Although this is a defensive sector, which is less sensitive to growth moderation, it appears too early to become overly defensive, especially since Food & Beverage is trading about a third of the way inside the index spread. Following the YTD underperformance by Industrial Goods & Services, we are raising our recommendation from underweight to marketweight. This sector has seen significant repricing, partly triggered by single-name stories, and although growth moderation will likely weigh on the sector, its negative momentum is likely to slow. We are changing our recommendation on Automobiles & Parts, which has underperformed significantly in recent months. Since Automobiles & Parts has a short duration profile, high average EBITDA and low average leverage, the current spread pickup warrants an overweight recommendation (from marketweight). Nevertheless, we remain slightly underweight with regard to Non-Financials and favor overweighting Financials due to the latter's gradual increase in yields and positive structural changes.

CREDIT ALLOCATION

| As of 19 November 2018 | | Current recommendation | iBoxx weight | YTD spread change | Current spread level |
|-------------------------------|-----|------------------------|--------------|-------------------|----------------------|
| Macro allocation | | | | | |
| Sovereigns | | | 58.9% | +35.8 | 39.6 |
| Sub-Sovereigns | | MW | 13.6% | +15.2 | -3.2 |
| Covered Bonds | | MW | 8.3% | +15.4 | 5.3 |
| Financials | | OW | 7.8% | +59.2 | 101.0 |
| Non-Financials | | UW | 11.5% | +41.6 | 76.7 |
| Sector allocation NFI | | | | | |
| Telecommunications | TEL | MW | 12.3% | +36.7 | 84.3 |
| Media | MDI | MW | 2.5% | +36.3 | 77.0 |
| Technology | THE | UW | 3.2% | +23.1 | 34.3 |
| Automobiles & Parts | ATO | OW | 11.1% | +69.4 | 107.4 |
| Utilities | UTI | MW | 18.7% | +42.8 | 83.3 |
| Oil & Gas | OIG | MW | 8.1% | +43.1 | 73.9 |
| Industrial Goods & Services | IGS | MW | 12.1% | +50.8 | 82.9 |
| Basic Resources | BAS | MW | 1.6% | +50.0 | 109.2 |
| Chemicals | CHE | UW | 3.6% | +23.3 | 42.3 |
| Construction & Materials | CNS | MW | 2.8% | +49.2 | 77.8 |
| Health Care | HCA | MW | 8.6% | +30.7 | 62.4 |
| Personal & Household Goods | PHG | MW | 3.9% | +29.2 | 62.2 |
| Food & Beverage | FOB | UW | 8.2% | +27.9 | 54.6 |
| Travel & Leisure | TAL | MW | 1.9% | +24.9 | 60.8 |
| Retail | RET | MW | 1.6% | +40.3 | 67.0 |
| Quality allocation NFI | | | | | |
| AAA | | UW | 0.8% | +12.2 | 13.4 |
| AA | | UW | 9.0% | +15.9 | 21.8 |
| A | | MW | 33.1% | +30.3 | 51.8 |
| BBB | | MW | 57.1% | +53.6 | 100.7 |

Source: iBoxx, UniCredit Research

The table below contains an aggregated sum of recommendations across sectors.

- **Volume OW:** nominal volume of bonds in the iBoxx NFI, where the issuer is currently OW
- **Volume MW:** nominal volume of bonds in the iBoxx NFI, where the issuer is currently MW
- **Volume UW:** nominal volume of bonds in the iBoxx NFI, where the issuer is currently UW
- **Volume NR:** nominal volume of bonds in the iBoxx NFI, where we do not provide a recommendation
- **wAverage:** (sum of nominal value of OW bonds – sum nominal value of UW bonds) / (sum of nominal values of OW, MW, UW bonds)
- **Directional:** (sum of nominal values of OW bonds + sum of nominal values of UW bonds) / sum of nominal values of OW, MW, UW bonds

AGGREGATED SINGLE-NAME RECOMMENDATIONS

| | Volume OW 146 | Volume MW 563 | Volume UW 71 | Volume NR 289 | wAverage 0.10 | directional 28% |
|-----|------------------|------------------|-----------------|------------------|------------------|--------------------|
| ATO | 33 | 71 | 12 | 4 | 0.18 | 39% |
| BAS | 6 | 8 | 2 | 1 | 0.22 | 50% |
| CHE | 9 | 16 | 6 | 10 | 0.10 | 49% |
| CNS | 5 | 20 | | 6 | 0.18 | 18% |
| FOB | 5 | 48 | 6 | 26 | -0.02 | 19% |
| HCA | 5 | 50 | 3 | 35 | 0.04 | 14% |
| IGS | 11 | 39 | 13 | 75 | -0.03 | 38% |
| MDI | 5 | 12 | 7 | 3 | -0.09 | 48% |
| OIG | 16 | 53 | 1 | 11 | 0.21 | 25% |
| PHG | 13 | 15 | 1 | 16 | 0.44 | 49% |
| RET | | 6 | 3 | 9 | -0.30 | 30% |
| TAL | | 8 | | 13 | 0.00 | |
| TEL | 32 | 80 | 9 | 8 | 0.19 | 34% |
| THE | | 13 | 7 | 16 | -0.37 | 37% |
| UTI | 7 | 124 | 2 | 56 | 0.04 | 6% |

Source: iBoxx, UniCredit Research

The weighted averages of the sum of single-name recommendations broadly match our sector recommendations, except for the following:

- **PHG (Personal & Households Goods):** While we have a marketweight recommendation on this sector, its weighted average sum of recommendations is somewhat positive. This is due to overweight recommendations in the sector being relatively large. The tobacco sector is part of the PHG sector and we have overweight recommendations on some large issuers.

Disclaimer

Our recommendations are based on information obtained from, or are based upon public information sources that we consider to be reliable but for the completeness and accuracy of which we assume no liability. All estimates and opinions and projections and forecasts included in the report represent the independent judgment of the analysts as of the date of the issue unless stated otherwise. This report may contain links to websites of third parties, the content of which is not controlled by UniCredit Bank. No liability is assumed for the content of these third-party websites. We reserve the right to modify the views expressed herein at any time without notice. Moreover, we reserve the right not to update this information or to discontinue it altogether without notice.

This analysis is for information purposes only and (i) does not constitute or form part of any offer for sale or subscription of or solicitation of any offer to buy or subscribe for any financial, money market or investment instrument or any security, (ii) is neither intended as such an offer for sale or subscription of or solicitation of an offer to buy or subscribe for any financial, money market or investment instrument or any security nor (iii) as an advertisement thereof. The investment possibilities discussed in this report may not be suitable for certain investors depending on their specific investment objectives and time horizon or in the context of their overall financial situation. The investments discussed may fluctuate in price or value. Investors may get back less than they invested. Changes in rates of exchange may have an adverse effect on the value of investments. Furthermore, past performance is not necessarily indicative of future results. In particular, the risks associated with an investment in the financial, money market or investment instrument or security under discussion are not explained in their entirety.

This information is given without any warranty on an "as is" basis and should not be regarded as a substitute for obtaining individual advice. Investors must make their own determination of the appropriateness of an investment in any instruments referred to herein based on the merits and risks involved, their own investment strategy and their legal, fiscal and financial position. As this document does not qualify as an investment recommendation or as a direct investment recommendation, neither this document nor any part of it shall form the basis of, or be relied on in connection with or act as an inducement to enter into, any contract or commitment whatsoever. Investors are urged to contact their bank's investment advisor for individual explanations and advice.

Neither UniCredit Bank AG, UniCredit Bank AG London Branch, UniCredit Bank AG Milan Branch, UniCredit Bank AG Vienna Branch, UniCredit Bank Austria AG, UniCredit Bulbank, Zagrebačka banka d.d., UniCredit Bank Czech Republic and Slovakia, ZAO UniCredit Bank Russia, UniCredit Bank Czech Republic and Slovakia Slovakia Branch, UniCredit Bank Romania, UniCredit Bank AG New York Branch nor any of their respective directors, officers or employees nor any other person accepts any liability whatsoever (in negligence or otherwise) for any loss howsoever arising from any use of this document or its contents or otherwise arising in connection therewith.

This analysis is being distributed by electronic and ordinary mail to professional investors, who are expected to make their own investment decisions without undue reliance on this publication, and may not be redistributed, reproduced or published in whole or in part for any purpose.

Responsibility for the content of this publication lies with:

UniCredit Group and its subsidiaries are subject to regulation by the European Central Bank

a) UniCredit Bank AG (UniCredit Bank, Munich or Frankfurt), Arabellastraße 12, 81925 Munich, Germany, (also responsible for the distribution pursuant to §34b WpHG). The company belongs to UniCredit Group.

Regulatory authority: "BaFin" – Bundesanstalt für Finanzdienstleistungsaufsicht, Marie-Curie-Str. 24-28, 60439 Frankfurt, Germany.

b) UniCredit Bank AG London Branch (UniCredit Bank, London), Moor House, 120 London Wall, London EC2Y 5ET, United Kingdom.

Regulatory authority: "BaFin" – Bundesanstalt für Finanzdienstleistungsaufsicht, Marie-Curie-Str. 24-28, 60439 Frankfurt, Germany and subject to limited regulation by the Financial Conduct Authority, 12 Endeavour Square, London E20 1JN, United Kingdom and Prudential Regulation Authority 20 Moorgate, London, EC2R 6DA, United Kingdom. Further details regarding our regulatory status are available on request.

POTENTIAL CONFLICTS OF INTERESTS

3M Company 8a; A2A 3, 8a; ABB 8a; AbbVie 8a; Abertis 8a; ABN Amro Bank 3; Accor 3, 8a; Acea 3, 8a; Adecco 8a; Aegon 8a; Aeroporti di Roma 8a; Ahold 3, 8a; Air Liquide 8a; Airbus 3, 8a; Akzo Nobel 3, 8a; Alfa Laval 8a; Allergan 8a; Allianz 8a; Alstom 8a; Amadeus IT 8a; Amgen 3, 8a; Amphenol 8a; Anglo American 8a; Anheuser-Busch InBev 8a; Apple 8a; Aptiv 8a; ArcelorMittal 3, 8a; Archer-Daniels-Midland 8a; Arkema 8a; ASML 8a; ASR Nederland 8a; Assicurazioni Generali 3, 8a; AstraZeneca 8a; AT&T 3, 8a; Atlantia 3, 8a; Aust. & NZ. Banking Group 3, 8a; Aviva 8a; AXA 8a; Banco de Sabadell 3, 8a; Banco Popular Espanol 3; Banco Santander 8a; Bank of America 3, 8a; Bank of China 8a; Bank of Montreal 3, 8a; Bank of Nova Scotia 8a; Barclays 3, 8a; BASF 8a; BAT 8a; Baxter International 8a; Bayer 2, 3, 8a; BBVA 3, 8a; Becton, Dickinson and Company 8a; BHP Billiton 8a; BMW 3, 8a; BNP Paribas 8a; Booking.com 8a; BorgWarner 8a; Bouygues 8a; BP 8a; Brenntag 8a; Bristol-Myers Squibb 8a; BT 8a; Bunge 8a; Buzzi Unicem 3, 8a; CaixaBank 8a; Cap Gemini 3, 8a; Carlsberg 8a; Carnival 8a; Carrefour 8a; CDP Reti 3; Centrica 8a; CEZ 8a; China Construction Bank 8a; Chubb 8a; Citigroup 3, 8a; CNH Industrial 8a; CNP Assurances 8a; Commerzbank 8a; Commonwealth Bank of Australia 8a; Compass Group 8a; Continental 3, 8a; Covestro 8a; Crédit Agricole 8a; Credit Suisse 8a; CRH 8a; Daimler 3, 8a; Danaher 8a; Danone 8a; Danske Bank 3, 8a; Deere & Co. 8a; Deutsche Bank 3, 8a; Deutsche Post DHL 8a; Deutsche Telekom 8a; Deutsche Wohnen 8a; Diageo 8a; DNB 3, 8a; DS Smith 8a; DSM 8a; E.ON 3, 8a; easyJet 8a; Edenred 8a; EDF 8a; EDP 3, 8a; Enagas 8a; EnBW 8a; Enel 3, 8a; Engie 3, 8a; ENI 3, 8a; Equinor 8a; Essilor 8a; European Investment Bank 3; European Union 3; Eutelsat 8a; Evonik 8a; Expedia 8a; FCE Bank 3; FedEx 8a; Ferrovial 8a; FMC 8a; Fortum Oyi 8a; Fresenius 8a; G4S 8a; Gazprom 3; General Electric 3, 8a; General Mills 8a; Givaudan 8a; GlaxoSmithKline 8a; Glencore 8a; Goldman Sachs 3, 8a; Great-West Lifeco 8a; HeidelbergCement 8a; Heineken 8a; Hella 8a; Henkel 8a; Hera 3, 8a; HOCHTIEF 8a; Honda 8a; Honeywell 8a; HSBC 3, 8a; Iberdrola 3, 8a; IBM 8a; Imerys 8a; Imperial Brands 8a; Infineon 8a; Informa 8a; ING 8a; Inmobiliaria Colonial 8a; Intesa Sanpaolo 3, 8a; Iren 3, 8a; Italgas 8a; ITW 8a; Japan Tobacco 8a; JCDecaux 8a; Johnson & Johnson 8a; JPMorgan Chase 8a; Kellogg 8a; Kering 3, 8a; Kojamo 8a; KPN 3, 8a; Kreditanstalt für Wiederaufbau 3; LafargeHolcim 8a; Landesbank Berlin 3; Lanxess 8a; Legrand 8a; Linde 8a; Lloyds Banking Group 3, 8a; Luxottica 3, 8a; LVMH 3, 8a; LyondellBasell 8a; Mapfre 8a; McKesson 8a; Mediobanca 1a, 3, 6a, 8a; Merck & Co. 8a; Merck KGaA 8a; METRO 8a; Michelin 8a; MOL 1a, 8a; Molson Coors 8a; Mondelez 8a; Morgan Stanley 8a; MUFJ 8a; Munich Re 8a; National Australia Bank 8a; National Grid 8a; Natyrgy 8a; Nestlé 8a; Novartis 3, 8a; OMV 3, 8a; Orange 8a; Orsted 8a; Paris Airport 8a; PepsiCo 8a; Pfizer 3, 8a; Philip Morris 8a; Philips 3, 8a; Phoenix Group 8a; PKN Orlen 8a; PKO Bank Polski 8a; Procter & Gamble 3, 8a; Proximus 8a; Publicis 8a; Raiffeisen Bank Int. 3, 8a; RELX Group 8a; REN 8a; Renault 8a; Repsol 3, 8a; Richemont 8a; Roche 8a; Saint-Gobain 3, 8a; Sanofi 3, 8a; Santander Bank Polska 8a; SAP 3, 8a; Schneider Electric 8a; SCOR 8a; SEB 3, 8a; Shell 8a; Siemens 3, 8a; SKF 8a; Snam 3, 8a; Société Générale 8a; Sodexo 8a; Solvay 8a; SSE 8a; Standard Chartered 8a; Südzucker 8a; Suez 8a; Sumitomo Mitsui 8a; Svenska Handelsbanken 3, 8a; Swedbank 3, 8a; Swiss Life 8a; Swisscom 8a; Sydbank 8a; Sysco 8a; Tauron Polska Energia 8a; Telefonica 8a; Telekom Austria 3, 8a; Telenor 8a; Telia Company 8a; Telstra 8a; Terna 3, 8a; Time Warner 3; Toronto-Dominion Bank 8a; Total 8a; Toyota Motor Corp 8a; UBI Banca 3, 8a; Unibail-Rodamco 8a; UniCredit 2, 3, 8a; Unilever 3, 8a; UNIQA 8a; United Technologies 8a; United Utilities Water 8a; UPS 8a; Vale 8a; Veolia Environnement 8a; Verbund 3, 8a; Verizon Communications 8a; VF Corporation 8a; Vienna Insurance Group 8a; Vinci 8a; Vivendi 3, 8a; Vodafone 3, 8a; Volkswagen 3, 8a; Volvo 8a; Walgreens Boots Alliance 8a; WalMart 8a; Wells Fargo & Co 3, 8a; Wesfarmers 8a; Westpac 8a; Whirlpool 8a; Wolters Kluwer 8a; WPP 8a; Xylem 8a; ZFS 8a; Zimmer Biomet 8a;

Key 1a: UniCredit Bank AG and/or any related legal person owns at least 2% of the capital stock of the analyzed company.

Key 1b: The analyzed company owns at least 2% of the capital stock of UniCredit Bank AG and/or any related legal person.

Key 2: UniCredit Bank AG and/or any related legal person has been lead manager or co-lead manager over the previous 12 months of any publicly disclosed offer of financial instruments of the analyzed company, or in any related derivatives.

Key 3: UniCredit Bank AG and/or any related legal person administers the securities issued by the analyzed company on the stock exchange or on the market by quoting bid and ask prices (i.e. acts as a market maker or liquidity provider in the securities of the analyzed company or in any related derivatives).

Key 5: The analyzed company and UniCredit Bank AG and/or any related legal person have concluded an agreement on the preparation of analyses.

Key 6a: Employees or members of the Board of Directors of UniCredit Bank AG and/or any other employee that works for UniCredit Research (i.e. the joint research department of the UniCredit Group) and/or members of the Group Board (pursuant to relevant domestic law) are members of the Board of Directors of the analyzed company. Members of the Board of Directors of the analyzed company hold office in the Board of Directors of UniCredit Bank AG (pursuant to relevant domestic law). The application of this Key 6a is limited to persons who, although not involved in the preparation of the analysis, had or could reasonably be expected to have access to the analysis prior to its dissemination to customers or the public.

Key 6b: The analyst is on the Supervisory Board/Board of Directors of the company they cover.

Key 8a: UniCredit Bank AG and/or any related legal person hold a net long position exceeding 0.5% of the total issued share capital of the issuer.

Key 8b: UniCredit Bank AG and/or any related legal person hold a net short position exceeding 0.5% of the total issued share capital of the issuer.

UniCredit S.p.A. acts as a Specialist or a Primary Dealer in government bonds issued by the Italian or Greek Treasury, and as market maker in government bonds issued by the Spain or Portuguese Treasury. Main tasks of the Specialist are to participate with continuity and efficiency to the governments' securities auctions, to contribute to the efficiency of the secondary market through market making activity and quoting requirements and to contribute to the management of public debt and to the debt issuance policy choices, also through advisory and UniCredit Bank AG research activities. UniCredit S.p.A. Registered Office in Rome: Via Alessandro Specchi, 16 - 00186 Roma Head Office in Milan:

Piazza Gae Aulenti 3 - Tower A - 20154 Milano, Registered in the Register of Banking Groups and Parent Company of the UniCredit Banking Group, with. cod. 02008.1; Cod. ABI 02008.1 - Competent Authority: Commissione Nazionale per le Società e la Borsa (CONSOB)*.

UniCredit Bank AG acts as a Specialist or Primary Dealer in government bonds issued by the German or Austrian Treasury. Main tasks of the Specialist are to participate with continuity and efficiency to the governments' securities auctions, to contribute to the efficiency of the secondary market through market making activity and quoting requirements and to contribute to the management of public debt and to the debt issuance policy choices, also through advisory and research activities.

RECOMMENDATIONS, RATINGS AND EVALUATION METHODOLOGY

| Company | Date | Rec. | Company | Date | Rec. | Company | Date | Rec. |
|---------|------------|---------------|---------|------------|---------------|---------|------------|---------------|
| AALLN | 19/01/2018 | Underweight | ENGIFP | 12/01/2018 | Restricted | RBS | 27/02/2018 | Restricted |
| ABESM | 09/03/2018 | Marketweight | ENIIM | 13/08/2018 | Overweight | RCIBK | 30/07/2018 | Marketweight |
| ACAFP | 05/02/2018 | Marketweight | ENIIM | 10/07/2018 | Restricted | RCIBK | 29/01/2018 | Overweight |
| ACAFP | 03/01/2018 | Restricted | EOANGR | 14/03/2018 | Marketweight | RCIBK | 03/01/2018 | Restricted |
| ACEIM | 23/10/2018 | Overweight | EOANGR | 12/03/2018 | Underweight | RELLN | 08/02/2018 | Overweight |
| ACEIM | 05/03/2018 | Marketweight | ETLFP | 01/08/2018 | Marketweight | RENAUL | 28/09/2018 | Marketweight |
| ACEIM | 25/01/2018 | Restricted | EVKGR | 17/07/2018 | Overweight | RENAUL | 20/09/2018 | Restricted |
| ACHMEA | 05/04/2018 | Marketweight | EVKGR | 08/05/2018 | Marketweight | RIFP | 29/08/2018 | Overweight |
| AEGON | 05/04/2018 | Marketweight | FC | 05/03/2018 | Underweight | ROSW | 01/02/2018 | Underweight |
| AIG | 17/05/2018 | no rec. | FCABNK | 05/06/2018 | Overweight | SANFP | 18/04/2018 | Marketweight |
| AIRFP | 19/01/2018 | Overweight | FCABNK | 19/04/2018 | Restricted | SANFP | 14/03/2018 | Restricted |
| ALLRNV | 03/04/2018 | In transition | FCABNK | 29/03/2018 | Overweight | SANSCF | 12/10/2018 | Marketweight |
| ALLOFP | 16/07/2018 | Underweight | FCABNK | 14/02/2018 | Restricted | SANSCF | 25/09/2018 | Restricted |
| ALV | 12/07/2018 | Overweight | FCABNK | 29/01/2018 | Overweight | SANSCF | 08/03/2018 | Marketweight |
| AMGN | 25/04/2018 | Overweight | FCABNK | 10/01/2018 | Restricted | SANTAN | 31/01/2018 | Marketweight |
| AMSSM | 05/10/2018 | Marketweight | FIREIT | 03/04/2018 | In transition | SANTAN | 09/01/2018 | Restricted |
| AMSSM | 05/09/2018 | Restricted | FIREIT | 08/02/2018 | Overweight | SANUK | 08/03/2018 | Marketweight |
| AMSSM | 08/02/2018 | Underweight | FMEGR | 24/07/2018 | Marketweight | SAPGR | 25/04/2018 | Underweight |
| ANNGR | 18/07/2018 | Overweight | FREGR | 24/07/2018 | Overweight | SAPGR | 07/03/2018 | Restricted |
| ANNGR | 15/03/2018 | Restricted | GFSLN | 24/04/2018 | Marketweight | SCMNVX | 07/06/2018 | Marketweight |
| ANNGR | 11/12/2017 | Overweight | GFSLN | 09/03/2018 | Underweight | SCMNVX | 04/04/2018 | Restricted |
| ANZ | 08/03/2018 | no rec. | GMFIN | 27/07/2018 | Underweight | SCMNVX | 07/02/2018 | Marketweight |
| ASML | 08/02/2018 | Marketweight | GMFIN | 18/06/2018 | Marketweight | SCOR | 11/12/2017 | Marketweight |
| ATLIM | 16/08/2018 | Marketweight | GMFIN | 25/04/2018 | Underweight | SEGGFP | 27/04/2018 | Marketweight |
| ATLIM | 07/08/2018 | Overweight | GMFIN | 19/03/2018 | Restricted | SEVFP | 05/09/2018 | Restricted |
| ATLIM | 17/05/2018 | Restricted | GSK | 23/07/2018 | Marketweight | SIEGR | 08/10/2018 | Marketweight |
| AVLN | 17/05/2018 | no rec. | GYCGR | 18/07/2018 | Marketweight | SIEGR | 28/08/2018 | Restricted |
| AXASA | 25/05/2018 | Marketweight | GYCGR | 18/05/2018 | Overweight | SISIM | 15/03/2018 | Marketweight |
| AXASA | 27/04/2018 | Restricted | GYCGR | 17/04/2018 | Restricted | SISIM | 22/01/2018 | Restricted |
| AXASA | 05/04/2018 | Marketweight | HANRUE | 07/05/2018 | Marketweight | SLHNVX | 05/04/2018 | Marketweight |
| AXASA | 21/03/2018 | Restricted | HANRUE | 10/04/2018 | Restricted | SOLBBB | 03/05/2018 | Marketweight |
| AZN | 07/08/2018 | Marketweight | HEIGR | 19/01/2018 | Marketweight | SRENVX | 11/12/2017 | Marketweight |
| BABLN | 22/11/2017 | Marketweight | HERIM | 23/10/2018 | Marketweight | SRGIM | 03/10/2018 | Marketweight |
| BAC | 17/07/2018 | Marketweight | IBESM | 30/07/2018 | Marketweight | SRGIM | 11/09/2018 | Restricted |
| BAC | 20/04/2018 | Restricted | IBESM | 21/06/2018 | Restricted | STATK | 15/02/2018 | Marketweight |
| BACRED | 09/03/2018 | no rec. | IBESM | 10/01/2018 | Marketweight | SUFF | 26/07/2018 | Overweight |
| BASGR | 08/12/2017 | Marketweight | IBM | 29/10/2018 | Marketweight | SYNNVX | 06/06/2018 | Overweight |
| BATSLN | 22/01/2018 | Overweight | IBM | 08/02/2018 | Overweight | SYNNVX | 05/04/2018 | Restricted |
| BAYNGR | 22/08/2018 | Marketweight | IFXGR | 08/02/2018 | Underweight | SZUGR | 21/09/2018 | Underweight |
| BAYNGR | 04/06/2018 | Restricted | IGYGY | 14/08/2018 | Marketweight | SZUGR | 09/02/2018 | Marketweight |
| BBVASM | 25/05/2018 | Marketweight | IGYGY | 22/05/2018 | Restricted | SZUGR | 12/01/2018 | Hold |
| BBVASM | 03/05/2018 | Restricted | IGYGY | 14/03/2018 | Marketweight | SZUGR | 21/11/2017 | Restricted |
| BMW | 24/01/2018 | Marketweight | IGYGY | 12/03/2018 | Underweight | T | 08/02/2018 | Overweight |
| BMW | 03/01/2018 | Restricted | IREIM | 03/10/2018 | Overweight | TELEFO | 31/10/2018 | Marketweight |
| BNFP | 20/02/2018 | Marketweight | IREIM | 12/09/2018 | Restricted | TELEFO | 04/09/2018 | Restricted |
| BNRGR | 07/11/2018 | Marketweight | JPM | 16/07/2018 | Marketweight | TELEFO | 27/07/2018 | Overweight |
| BNRGR | 19/01/2018 | Overweight | JPM | 05/06/2018 | Restricted | TELEFO | 26/04/2018 | Marketweight |
| BRITEL | 02/11/2018 | Marketweight | KERFP | 15/11/2018 | Overweight | TELEFO | 13/03/2018 | Restricted |
| BZUIM | 12/09/2018 | Overweight | KERFP | 28/09/2018 | Restricted | TELEFO | 08/02/2018 | Marketweight |
| CAFP | 27/07/2018 | Marketweight | KERFP | 23/03/2018 | Marketweight | TELEFO | 29/11/2017 | Restricted |
| CAFP | 05/06/2018 | Restricted | KNOGR | 17/09/2018 | Restricted | TENN | 03/04/2018 | In transition |
| CAPFP | 08/02/2018 | Underweight | KNOGR | 29/06/2018 | Underweight | TKAAV | 08/02/2018 | Overweight |
| CBAAU | 08/03/2018 | no rec. | KNOGR | 06/06/2018 | Restricted | TLSAU | 20/08/2018 | Underweight |
| CCAMA | 03/09/2018 | Marketweight | LEGGH | 12/11/2018 | Marketweight | TOYOTA | 28/09/2018 | Marketweight |
| CCAMA | 05/04/2018 | Underweight | LHNVX | 19/01/2018 | Overweight | TOYOTA | 18/09/2018 | Restricted |
| CEZCP | 12/11/2018 | Restricted | LINGR | 19/01/2018 | Underweight | TOYOTA | 05/06/2018 | Marketweight |
| CEZCP | 21/03/2018 | Marketweight | LXSGR | 19/01/2018 | Marketweight | TOYOTA | 08/05/2018 | Restricted |
| CMARK | 19/04/2018 | Marketweight | MAPSM | 05/04/2018 | Marketweight | TOYOTA | 08/12/2017 | Underweight |
| CNHI | 28/09/2018 | Overweight | MEOGR | 23/04/2018 | Hold | TRNIM | 07/08/2018 | Marketweight |
| CNHI | 12/09/2018 | Restricted | MEOGR | 27/02/2018 | Restricted | TRNIM | 16/07/2018 | Restricted |
| CNHI | 30/04/2018 | Overweight | MLFP | 28/09/2018 | Marketweight | TTLINF | 03/04/2018 | In transition |
| CNPFP | 30/07/2018 | Marketweight | MTNA | 17/07/2018 | Marketweight | UBS | 01/05/2018 | Marketweight |
| CNPFP | 14/06/2018 | Restricted | MTNA | 21/11/2017 | Buy | UBS | 10/04/2018 | Restricted |
| CNPFP | 11/12/2017 | Marketweight | NAB | 08/03/2018 | no rec. | UBS | 14/12/2017 | Marketweight |
| COVEGR | 26/07/2018 | Marketweight | NESNVX | 20/11/2018 | Underweight | ULFP | 18/07/2018 | Marketweight |
| COVEGR | 19/01/2018 | Underweight | NESNVX | 20/09/2018 | Marketweight | ULFP | 02/05/2018 | Restricted |
| CPIPGR | 18/07/2018 | Overweight | NESNVX | 06/12/2017 | Underweight | VGASDE | 03/04/2018 | In transition |
| CTEFRA | 11/12/2017 | Marketweight | NGGLN | 03/04/2018 | In transition | VIEFP | 02/08/2018 | Marketweight |
| DAIGR | 25/05/2018 | Marketweight | NNGRNV | 11/12/2017 | Marketweight | VIVFP | 31/07/2018 | Underweight |
| DAIGR | 03/05/2018 | Restricted | NOVNVX | 27/03/2018 | Marketweight | VOD | 09/05/2018 | Marketweight |
| DAIGR | 24/01/2018 | Marketweight | NTGYSM | 29/01/2018 | Marketweight | VOD | 05/02/2018 | Underweight |
| DAIGR | 04/01/2018 | Restricted | NWIDE | 08/06/2018 | no rec. | VW | 17/10/2018 | Overweight |
| DAIGR | 28/11/2017 | Marketweight | ODGR | 30/10/2018 | Marketweight | VW | 09/10/2018 | Restricted |
| DGFP | 08/10/2018 | Marketweight | ODGR | 15/05/2018 | Restricted | VW | 10/07/2018 | Overweight |
| DGFP | 18/09/2018 | Restricted | OMVAV | 12/11/2018 | Marketweight | VW | 20/06/2018 | Restricted |
| DLNA | 05/04/2018 | no rec. | OMVAV | 08/02/2018 | Underweight | VW | 14/06/2018 | Overweight |
| DPWGR | 07/03/2018 | Underweight | OMVAV | 07/12/2017 | Restricted | VW | 11/04/2018 | Restricted |
| DPWGR | 06/12/2017 | Restricted | OPELFN | 04/04/2018 | Marketweight | VW | 13/03/2018 | Overweight |
| DSM | 03/01/2018 | Underweight | OPELFN | 09/02/2018 | Marketweight | VW | 23/01/2018 | Restricted |

| Company | Date | Rec. | Company | Date | Rec. | Company | Date | Rec. |
|---------|------------|--------------|---------|------------|--------------|---------|------------|--------------|
| EDPPL | 30/07/2018 | Marketweight | OPELFN | 09/02/2018 | no rec. | VZ | 08/02/2018 | Marketweight |
| EDPPL | 20/06/2018 | Restricted | ORAFP | 26/04/2018 | Overweight | WBA | 15/02/2018 | Marketweight |
| EDPPL | 08/02/2018 | Marketweight | ORAFP | 13/03/2018 | Restricted | WPPLN | 25/10/2018 | Marketweight |
| ENAPHO | 16/11/2018 | Marketweight | PBBGR | 07/03/2018 | Marketweight | WPPLN | 04/09/2018 | Overweight |
| ENEASA | 26/07/2018 | Overweight | PBBGR | 15/01/2018 | Restricted | WPPLN | 26/06/2018 | Marketweight |
| ENELIM | 15/06/2018 | Marketweight | PFE | 04/04/2018 | Marketweight | WPPLN | 01/03/2018 | Underweight |
| ENELIM | 14/05/2018 | Restricted | PKNPW | 27/04/2018 | Underweight | WSTP | 08/03/2018 | no rec. |
| ENELIM | 08/02/2018 | Marketweight | POPSM | 16/02/2018 | Marketweight | WURTH | 06/06/2018 | Marketweight |
| ENELIM | 09/01/2018 | Restricted | PROXBB | 24/07/2018 | Marketweight | WURTH | 15/05/2018 | Restricted |
| ENGIFP | 03/10/2018 | Marketweight | RBS | 12/10/2018 | Marketweight | YBS | 08/06/2018 | no rec. |
| ENGIFP | 15/06/2018 | Restricted | RBS | 28/08/2018 | Restricted | ZFFNGR | 04/04/2018 | Overweight |
| ENGIFP | 08/02/2018 | Marketweight | RBS | 04/04/2018 | Underweight | ZURNVX | 17/05/2018 | no rec. |

Overview of our ratings

You will find the history of rating regarding recommendation changes as well as an overview of the breakdown in absolute and relative terms of our investment ratings on our website http://www.disclaimer.unicreditmb.eu/credit-research-rd/Recommendations_CR_e.pdf.

Note on the evaluation basis for interest-bearing securities:

Recommendations relative to an index:

For high grade names the recommendations are relative to the "iBoxx EUR Benchmark" index family, for sub investment grade names the recommendations are relative to the "iBoxx EUR High Yield" index family.

Marketweight (MW): We recommend having the same portfolio exposure in the name as the respective iBoxx index. We expect that the average total return of the instruments of the issuer is equal to the total return of the index.

Overweight (OW) : We recommend having a higher portfolio exposure in the name as the respective iBoxx index. We expect that the average total return of the instruments of the issuer is greater than the total return of the index.

Underweight (UW): We recommend having a lower portfolio exposure in the name as the respective iBoxx index. We expect that the average total return of the instruments of the issuer is less than the total return of the index.

Outright recommendations:

Hold (H): We recommend holding the respective instrument for investors who already have exposure. We expect that the total return of the instruments of the issuer is equal to the yield.

Buy (B): We recommend buying the respective instrument for investors who already have exposure. We expect that the total return of the instruments of the issuer is greater than the yield.

Sell (S): We recommend selling the respective instrument for investors who already have exposure. We expect that the total return of the instruments of the issuer is less than the yield.

We employ three further categorizations for interest-bearing securities in our coverage:

Restricted (R): A recommendation and/or financial forecast is not disclosed owing to compliance or other regulatory considerations such as a blackout period or a conflict of interest.

Coverage in transition (T): Due to changes in the research team, the disclosure of a recommendation and/or financial information are temporarily suspended. The interest-bearing security remains in the research universe and disclosures of relevant information will be resumed in due course.

Not rated (NR): Suspension of coverage.

Trading recommendations for fixed-interest securities mostly focus on the credit spread (yield difference between the fixed-interest security and the relevant government bond or swap rate) and on the rating views and methodologies of recognized agencies (S&P, Moody's, Fitch). Depending on the type of investor, investment ratings may refer to a short period or to a 6 to 9-month horizon. Please note that the provision of securities services may be subject to restrictions in certain jurisdictions. You are required to acquaint yourself with local laws and restrictions on the usage and the availability of any services described herein. The information is not intended for distribution to or use by any person or entity in any jurisdiction where such distribution would be contrary to the applicable law or provisions.

If not otherwise stated daily price data refers to pre-day closing levels and iBoxx bond index characteristics refer to the previous month-end index characteristics.

Coverage Policy

A list of the companies covered by UniCredit Bank is available upon request.

Frequency of reports and updates

It is intended that each of these companies be covered at least once a year, in the event of key operations and/or changes in the recommendation.

SIGNIFICANT FINANCIAL INTEREST

UniCredit Bank AG and/or other related legal persons with them regularly trade shares of the analyzed company. UniCredit Bank AG and/or other related legal persons may hold significant open derivative positions on the stocks of the company which are not delta-neutral.

UniCredit Bank AG and/or other related legal persons have a significant financial interest relating to the analyzed company or may have such at any future point of time. Due to the fact that UniCredit Bank AG and/or any related legal person are entitled, subject to applicable law, to perform such actions at any future point in time which may lead to the existence of a significant financial interest, it should be assumed for the purposes of this information that UniCredit Bank AG and/or any related legal person will in fact perform such actions which may lead to the existence of a significant financial interest relating to the analyzed company.

Analyses may refer to one or several companies and to the securities issued by them. In some cases, the analyzed companies have actively supplied information for this analysis.

INVESTMENT SERVICES

The analyzed company and UniCredit Bank AG and/or any related legal person concluded an agreement on the provision of investment services in the previous 12 months, in return for which the Bank and/or such related legal person received a consideration or promise of consideration or intends to do so. Due to the fact that UniCredit Bank AG and/or any related legal person are entitled to conclude, subject to applicable law, an agreement on the provision of investment services with the analyzed company at any future point in time and may receive a consideration or promise of consideration, it should be assumed for the purposes of this information that UniCredit Bank AG and/or any related legal person will in fact conclude such agreements and will in fact receive such consideration or promise of consideration.

ANALYST DECLARATION

The author's remuneration has not been, and will not be, geared to the recommendations or views expressed in this study, neither directly nor indirectly.

ORGANIZATIONAL AND ADMINISTRATIVE ARRANGEMENTS TO AVOID AND PREVENT CONFLICTS OF INTEREST

To prevent or remedy conflicts of interest, UniCredit Bank AG, UniCredit Bank AG London Branch, UniCredit Bank AG Milan Branch, UniCredit Bank AG Vienna Branch, UniCredit Bank Austria AG, UniCredit Bulbank, Zagrebačka banka d.d., UniCredit Bank Czech Republic and Slovakia, ZAO UniCredit Bank Russia, UniCredit Bank Czech Republic and Slovakia Slovakia Branch, UniCredit Bank Romania, UniCredit Bank AG New York Branch have established the organizational arrangements required from a legal and supervisory aspect, adherence to which is monitored by its compliance department. Conflicts of interest arising are managed by legal and physical and non-physical barriers (collectively referred to as "Chinese Walls") designed to restrict the flow of information between one area/department of UniCredit Bank AG, UniCredit Bank AG London Branch, UniCredit Bank AG Milan Branch, UniCredit Bank AG Vienna Branch, UniCredit Bank Austria AG, UniCredit Bulbank, Zagrebačka banka d.d., UniCredit Bank Czech Republic and Slovakia, ZAO UniCredit Bank Russia, UniCredit Bank Czech Republic and Slovakia Slovakia Branch, UniCredit Bank Romania, UniCredit Bank AG New York Branch, and another. In particular, Investment Banking units, including corporate finance, capital market activities, financial advisory and other capital raising activities, are segregated by physical and non-physical boundaries from Markets Units, as well as the research department. In the case of equities execution by UniCredit Bank AG Milan Branch, other than as a matter of client facilitation or delta hedging of OTC and listed derivative positions, there is no proprietary trading. Disclosure of publicly available conflicts of interest and other material interests is made in the research. Analysts are supervised and managed on a day-to-day basis by line managers who do not have responsibility for Investment Banking activities, including corporate finance activities, or other activities other than the sale of securities to clients.

ADDITIONAL REQUIRED DISCLOSURES UNDER THE LAWS AND REGULATIONS OF JURISDICTIONS INDICATED

You will find a list of further additional required disclosures under the laws and regulations of the jurisdictions indicated on our website <http://www.cib-unicredit.com/research-disclaimer>.

Notice to Austrian investors: This publication is only for distribution to professional clients as defined in article 66 WAG (2018).

Notice to investors in Bosnia and Herzegovina: This report is intended only for clients of UniCredit in Bosnia and Herzegovina who are institutional investors (Institucionalni investitori) in accordance with Article 2 of the Law on Securities Market of the Federation of Bosnia and Herzegovina and Article 2 of the Law on Securities Markets of the Republic of Srpska, respectively, and may not be used by or distributed to any other person. This document does not constitute or form part of any offer for sale or subscription for or solicitation of any offer to buy or subscribe for any securities and neither this document nor any part of it shall form the basis of, or be relied on in connection with or act as an inducement to enter into, any contract or commitment whatsoever.

Notice to Brazilian investors: The individual analyst(s) responsible for issuing this report represent(s) that: (a) the recommendations herein reflect exclusively the personal views of the analysts and have been prepared in an independent manner, including in relation to UniCredit Group; and (b) except for the potential conflicts of interest listed under the heading "Potential Conflicts of Interest" above, the analysts are not in a position that may impact on the impartiality of this report or that may constitute a conflict of interest, including but not limited to the following: (i) the analysts do not have a relationship of any nature with any person who works for any of the companies that are the object of this report; (ii) the analysts and their respective spouses or partners do not hold, either directly or indirectly, on their behalf or for the account of third parties, securities issued by any of the companies that are the object of this report; (iii) the analysts and their respective spouses or partners are not involved, directly or indirectly, in the acquisition, sale and/or trading in the market of the securities issued by any of the companies that are the object of this report; (iv) the analysts and their respective spouses or partners do not have any financial interest in the companies that are the object of this report; and (v) the compensation of the analysts is not, directly or indirectly, affected by UniCredit's revenues arising out of its businesses and financial transactions. UniCredit represents that: except for the potential conflicts of interest listed under the heading "Potential Conflicts of Interest" above, UniCredit, its controlled companies, controlling companies or companies under common control (the "UniCredit Group") are not in a condition that may impact on the impartiality of this report or that may constitute a conflict of interest, including but not limited to the following: (i) the UniCredit Group does not hold material equity interests in the companies that are the object of this report; (ii) the companies that are the object of this report do not hold material equity interests in the UniCredit Group; (iii) the UniCredit Group does not have material financial or commercial interests in the companies or the securities that are the object of this report; (iv) the UniCredit Group is not involved in the acquisition, sale and/or trading of the securities that are the object of this report; and (v) the UniCredit Group does not receive compensation for services rendered to the companies that are the object of this report or to any related parties of such companies.

Notice to Canadian investors: This communication has been prepared by UniCredit Bank AG, which does not have a registered business presence in Canada. This communication is a general discussion of the merits and risks of a security or securities only, and is not in any way meant to be tailored to the needs and circumstances of any recipient. The contents of this communication are for information purposes only, therefore should not be construed as advice and do not constitute an offer to sell, nor a solicitation to buy any securities.

Notice to Cyprus investors: This document is directed only at clients of UniCredit Bank who are persons falling within the Second Appendix (Section 2, Professional Clients) of the law for the Provision of Investment Services, the Exercise of Investment Activities, the Operation of Regulated Markets and other Related Matters, Law 144(I)/2007 and persons to whom it may otherwise lawfully be communicated who possess the experience, knowledge and expertise to make their own investment decisions and properly assess the risks that they incur (all such persons together being referred to as "relevant persons"). This document must not be acted on or relied on by persons who are not relevant persons or relevant persons who have requested to be treated as retail clients. Any investment or investment activity to which this communication relates is available only to relevant persons and will be engaged in only with relevant persons. This document does not constitute an offer or solicitation to any person to whom it is unlawful to make such an offer or solicitation.

Notice to Hong Kong investors: This report is intended for Institutional Professional Investors as defined in paragraph (a) to (h) in Part 1 Schedule 1 of the Hong Kong Securities and Futures Ordinance ("SFO") and is distributed in Hong Kong by UniCredit Bank AG, Hong Kong branch which is a registered institution under the SFO. It may not be reproduced, or used by or further distributed to any other person, in whole or in part, for any purpose. This report does not constitute or form part of an offer or solicitation of any offer to buy or sell any securities, nor should it or any part of it form the basis of, or be relied upon in connection with, any contract or commitment whatsoever. By accepting this report, the recipient represents and warrants that it is entitled to receive such report in accordance with, and on the basis of, the restrictions set out in this "Disclaimer" section, and agrees to be bound by those restrictions.

Notice to investors in Ivory Coast: The information contained in the present report have been obtained by Unicredit Bank AG from sources believed to be reliable, however, no express or implied representation or warranty is made by Unicredit Bank AG or any other person as to the completeness or accuracy of such information. All opinions and estimates contained in the present report constitute a judgement of Unicredit Bank AG as of the date of the present report and are subject to change without notice. They are provided in good faith but without assuming legal responsibility. This report is not an offer to sell or solicitation of an offer to buy or invest in securities. Past performance is not an indicator of future performance and future returns cannot be guaranteed, and there is a risk of loss of the initial capital invested. No matter contained in this document may be reproduced or copied by any means without the prior consent of Unicredit Bank AG.

Notice to New Zealand investors: This report is intended for distribution only to persons who are "wholesale clients" within the meaning of the Financial Advisers Act 2008 ("FAA") and by receiving this report you represent and agree that (i) you are a "wholesale client" under the FAA (ii) you will not distribute this report to any other person, including (in particular) any person who is not a "wholesale client" under the FAA. This report does not constitute or form part of, in relation to any of the securities or products covered by this report, either (i) an offer of securities for subscription or sale under the Securities Act 1978 or (ii) an offer of financial products for issue or sale under the Financial Markets Conduct Act 2013.

Notice to Omani investors: This communication has been prepared by UniCredit Bank AG. UniCredit Bank AG does not have a registered business presence in Oman and does not undertake banking business or provide financial services in Oman and no advice in relation to, or subscription for, any securities, products or financial services may or will be consummated within Oman. The contents of this communication are for the information purposes of sophisticated clients, who are aware of the risks associated with investments in foreign securities and neither constitutes an offer of securities in Oman as contemplated by the Commercial Companies Law of Oman (Royal Decree 4/74) or the Capital Market Law of Oman (Royal Decree 80/98), nor does it constitute an offer to sell, or the solicitation of any offer to buy non-Omani securities in Oman as contemplated by Article 139 of the Executive Regulations to the Capital Market Law (issued vide CMA Decision 1/2009). This communication has not been approved by and UniCredit Bank AG is not regulated by either the Central Bank of Oman or Oman's Capital Market Authority.

Notice to Pakistani investors: Investment information, comments and recommendations stated herein are not within the scope of investment advisory activities as defined in sub-section 1, Section 2 of the Securities and Exchange Ordinance, 1969 of Pakistan. Investment advisory services are provided in accordance with a contract of engagement on investment advisory services concluded with brokerage houses, portfolio management companies, non-deposit banks and the clients. The distribution of this report is intended only for informational purposes for the use of professional investors and the information and opinions contained herein, or any part of it shall not form the basis of, or be relied on in connection with or act as an inducement to enter into, any contract or commitment whatsoever.

Notice to Polish investors: This document is intended solely for professional clients as defined in Art. 3.39b of the Trading in Financial Instruments Act of 29 July 2005 (as amended). The publisher and distributor of the document certifies that it has acted with due care and diligence in preparing it, however, assumes no liability for its completeness and accuracy. This document is not an advertisement. It should not be used in substitution for the exercise of independent judgment.

Notice to Serbian investors: This analysis is only for distribution to professional clients (profesionalni klijenti) as defined in article 172 of the Law on Capital Markets.

Notice to UK investors: This communication is directed only at clients of UniCredit Bank who (i) have professional experience in matters relating to investments or (ii) are persons falling within Article 49(2)(a) to (d) ("high net worth companies, unincorporated associations, etc.") of the United Kingdom Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 or (iii) to whom it may otherwise lawfully be communicated (all such persons together being referred to as "relevant persons"). This communication must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which this communication relates is available only to relevant persons and will be engaged in only with relevant persons.

CR e 18/4

UniCredit Research*

Credit & Credit Strategy Research



Erik F. Nielsen
Group Chief Economist
Global Head of CIB Research
+44 207 826-1765
erik.nielsen@unicredit.eu



Dr. Ingo Heimig
Head of Research Operations
& Regulatory Control
+49 89 378-13952
ingo.heimig@unicredit.de

Head of Credit Research

Heads of Strategy Research



Dr. Sven Kreitmair, CFA
Head of Credit Research
+49 89 378-13246
sven.kreitmair@unicredit.de



Dr. Philip Gisdakis
Co-Head of Strategy Research
+49 89 378-13228
philip.gisdakis@unicredit.de

Financials Credit Research



Franz Rudolf, CEFA
Head
Covered Bonds
+49 89 378-12449
franz.rudolf@unicredit.de



Valentina Stadler
Deputy Head
Sub-Sovereigns & Agencies, Green Bonds
+49 89 378-16296
valentina.stadler@unicredit.de



Holger Kapitzka
Securitization, Real Estate
+49 89 378-28745
holger.kapitzka@unicredit.de



Tobias Keller
Banks
tobias.keller@unicredit.de



Julian Kreipl, CFA
Covered Bonds
+49 89 378-12961
julian.kreipl@unicredit.de



Natalie Tehrani Monfared
Regulatory & Accounting Service, Insurance
+49 89 378-12242
natalie.tehrani@unicredit.de



Dr. Michael Teig
Banks
+49 89 378-12429
michael.teig@unicredit.de



Dr. Martina von Terzi
Sub-Sovereigns & Agencies, Green Bonds
+49 89 378-12004
martina.vonterzi@unicredit.de

Corporate Credit Research



Dr. Sven Kreitmair, CFA
Co-Head
Automotive & Mobility
+49 89 378-13246
sven.kreitmair@unicredit.de



Stephan Haber, CFA
Co-Head
Telecoms, Technology
+49 89 378-15192
stephan.haber@unicredit.de



Gianfranco Arcovito, CFA
Utilities, Hybrids
gianfranco.arcovito@unicredit.de



Mehmet Dere
Oil & Gas, EEMEA Energy, Consumer
+49 89 378-11294
mehmet.dere@unicredit.de



Jonathan Schroer, CFA
Media/Cable, Logistics, Business Services
+49 89 378-13212
jonathan.schroer@unicredit.de



Dr. Silke Stegemann, CEFA
Health Care & Pharma, Food & Beverage,
Personal & Household Goods
+49 89 378-18202
silke.stegemann@unicredit.de

Credit Strategy Research



Dr. Philip Gisdakis
Head
+49 89 378-13228
philip.gisdakis@unicredit.de



Dr. Christian Weber, CFA
Deputy Head
+49 89 378-12250
christian.weber@unicredit.de



Dr. Stefan Kolek
EEMEA Corporate Credits & Strategy
+49 89 378-12495
stefan.kolek@unicredit.de

UniCredit Research, Corporate & Investment Banking, UniCredit Bank AG, Am Eisbach 4, D-80538 Munich, globalresearch@unicredit.de
Bloomberg: UCCR, Internet: www.research.unicredit.eu

C/CS 18/14

*UniCredit Research is the joint research department of UniCredit Bank AG (UniCredit Bank, Munich or Frankfurt), UniCredit Bank AG London Branch (UniCredit Bank, London), UniCredit Bank AG Milan Branch (UniCredit Bank, Milan), UniCredit Bank New York (UniCredit Bank, New York), UniCredit Bank AG Vienna Branch (UniCredit Bank, Vienna), UniCredit Bank Austria AG (Bank Austria), UniCredit Bulbank, Zagrebačka banka d.d., UniCredit Bank Czech Republic and Slovakia, ZAO UniCredit Bank Russia (UniCredit Russia), UniCredit Bank Romania.