ALLIANZ RESEARCH

US & EMU CORPORATE SPREADS: THERE IS ONLY SO MUCH QE CAN DO

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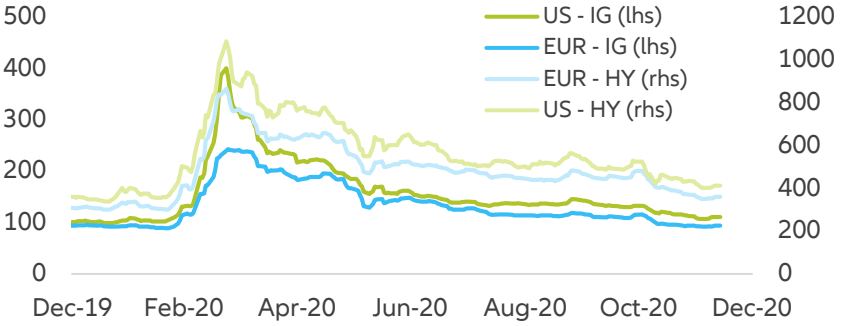
After the initial market trough and reversal in March, corporate spreads have been moving sideways for many months. However, two recent events have cleared the way for a **second wave of spread tightening, leading them closer to their pre-pandemic levels**. (Figure 1): 1) the resolution of the US presidential elections and 2) the positive news around the vaccines timeline and availability. Historically, such an improving growth outlook aided by prevailing monetary stimulus tends to be favorable for credit investors.

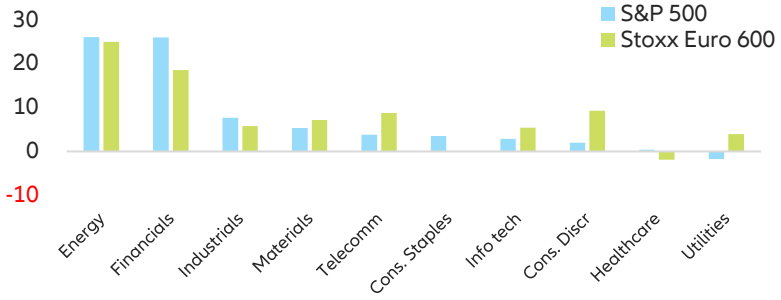
Figure 1: US & Eurozone corporate credit spreads (bps)



Sources: BofA, Refinitiv, Allianz Research ; IG: Investment Grade; HY: High Yield

The clearance of these two major impediments has led investors to turn their focus into hopes of a quick economic recovery and, consequently, rapidly improving fundamentals. This trend reversal has been particularly apparent in the major equity strategy reversal in which market participants have started to sell the top to buy the bottom. That is to say, sell growth stocks (the recovery leaders to date) to buy value and cyclical stocks (the most punished to date, see Figure 2).

Figure 2: US & Eurozone equity markets sector rotation (% return from 06 November)



Sources: S&P, Stoxx, Refinitiv, Allianz Research

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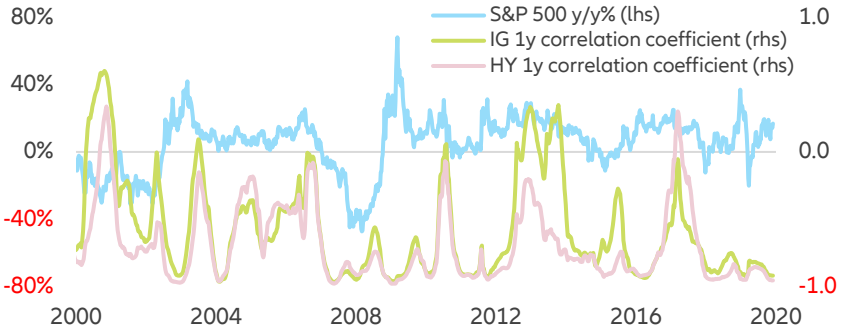
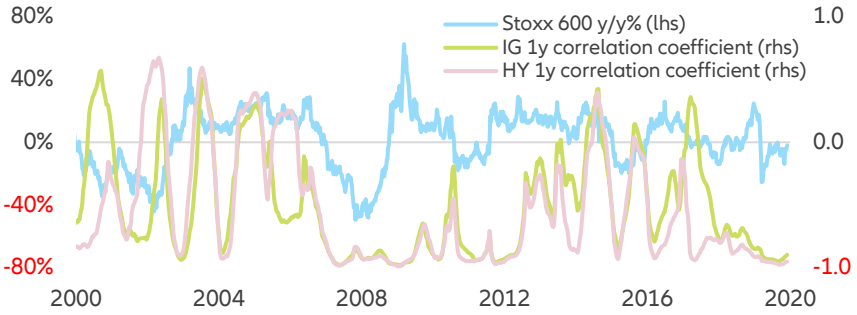
This equity strategy reversal is of particular interest for corporate credit as spreads are, in principle, negatively correlated to equity market movements (when equity prices rise, corporate spreads tend to compress). This strong relationship becomes especially relevant in extremely volatile periods, as is currently the case. In other words, **correlations between equity and corporate credit spreads tend to be ~ -1 in periods of high equity volatility, adding close to no diversification benefits during market peaks** (Figures 3 & 4). This market alleged diversification benefit only seems to prove true in sideways trading periods. Interestingly, this inverse relationship works in both ends of the risk spectrum, meaning that the relationship between equity and corporate credit spreads also approaches ~ -1 in periods of extreme equity frothiness, as is currently the case. However, it is important to acknowledge that, even if the correlation is close to -1, the sensitivity is far different as corporate performance is far less volatile than that of equities.

Figure 3: US equity & corporate credit correlation (y/y changes)



Sources: S&P, Refinitiv, Allianz Research ; IG: Investment Grade; HY: High Yield

Figure 4: EUR equity & corporate credit correlation (y/y changes)

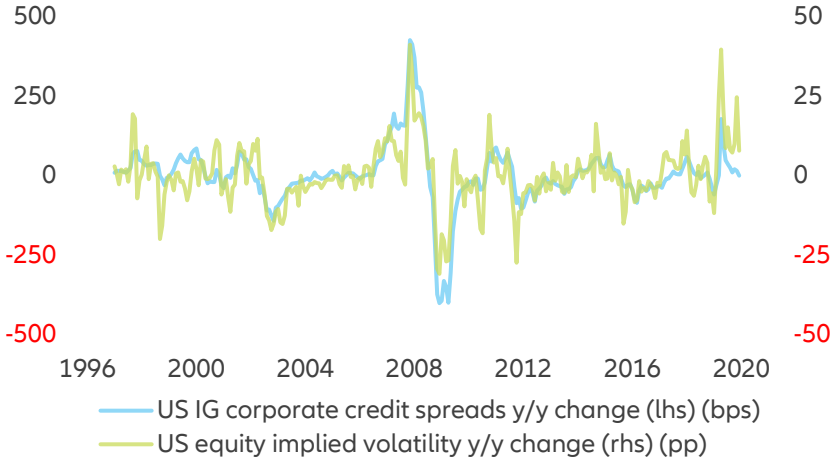


Sources: Stoxx, Refinitiv, Allianz Research ; IG: Investment Grade; HY: High Yield

But how do we account for this interdependent relationship between equity and credit spreads while acknowledging the exacerbated dependence in periods of high volatility? In order to accomplish that, we use two equity implied volatility indicators (VIX for the US and Vstoxx for the Eurozone) to capture this somehow permanent dependency in periods of high uncertainty (Figure 5 & 6). Of course, it is necessary to acknowledge that we are using an implied volatility estimate to proxy realized volatility. This is important as implied volatility is structurally higher than realized volatility and also more sensitive to erratic market moves. Lastly, it is worth noting that literature has already approximated this direct relationship as is the case for Merton's credit risk model, which explains corporate credit spreads as a function of the volatility of the assets owned by a company.[1]

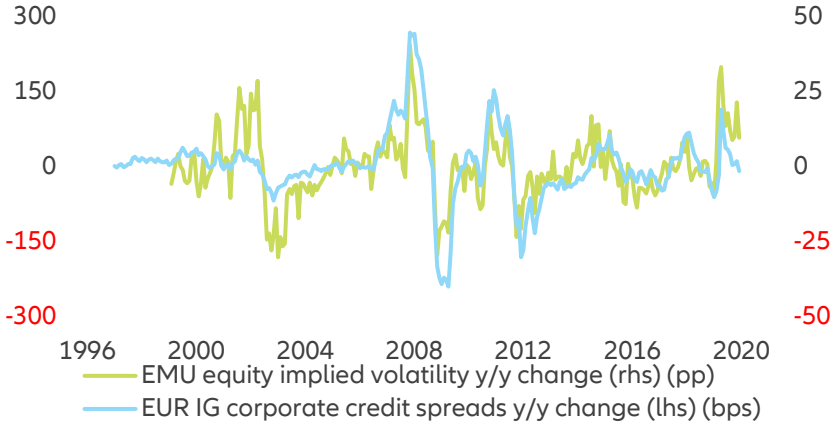
[1] See: On the pricing of corporate debt: The risk structure of interest rates , Robert C. Merton (May 1974)

Figure 5: US corporate credit spreads and equity volatility (y/y change)



Sources: BofA, CBOE, Refinitiv, Allianz Research

Figure 6: EUR corporate credit spreads and equity volatility (y/y change)

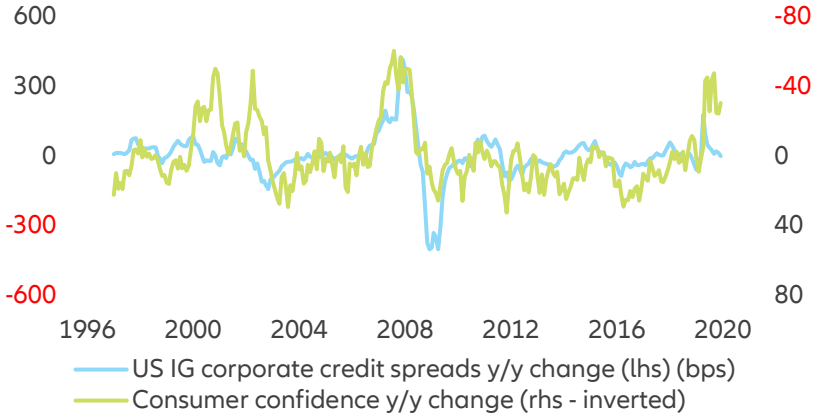


Sources: BofA, Stoxx, Refinitiv, Allianz Research

Following this premise, a simple comparison between those two time series shows that changes in equity volatility tend to coincide with regime changes in corporate credit spreads. This is especially true for high-yield spreads as their higher underlying risk profile makes the asset class more equity alike. Bearing this in mind, it is worth noting that in the recent past, both US and Eurozone implied equity volatilities have suffered a substantial increase (yet to be reverted) triggered by the Covid-19 impact. This structural widening has not prevented corporate spreads from compressing back to pre-Covid-19 levels on the back of investor frothiness. Historically, this divergence tends to be short-lived due to decreasing implied volatility (2001 and 2009) or widening corporate spreads (2014 and 2015).

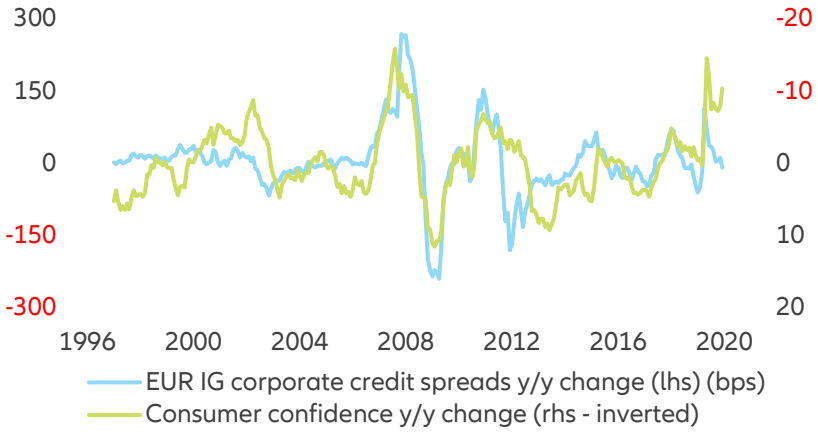
But is equity implied volatility the single driver of corporate credit performance? Hopefully not! Digging deeper into the determinants of corporate credit spreads it is expected to find a structural dependence between corporate credit spread trends and business cycle indicators. With that in mind, we find that this relationship can be measured using an economic coincident indicator, the consumer confidence index. As displayed in the charts below (Figures 7 & 8), **consumer confidence indices seem to be a relatively good proxy for corporate spread trends, especially in uncertain times.**

Figure 7: US corporate credit spreads and consumer confidence



Sources: BofA, Refinitiv, Allianz Research

Figure 8: EUR corporate credit spreads and consumer confidence



Sources: BofA, Refinitiv, Allianz Research

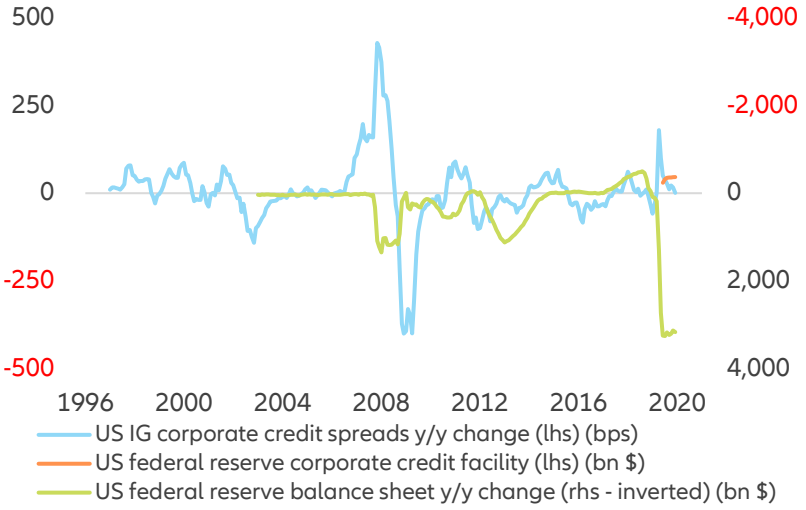
Similar to the implied volatility case, looking at the latest behavior of corporate credit spreads relative to this business cycle indicator we find that there has been a substantial trend divergence between both in the recent past. Additionally, from a historical perspective, this structural divergence between both indicators appears rare and, somehow, unsustainable. This means that **there is not enough historical evidence to justify a substantial and persistent corporate credit spread detachment from its fundamental economic drivers for prolonged periods of time,** meaning that markets should either have to price in improving economic conditions easing the current upside pressures on spreads or spreads should have to move higher so to reflect the economic underlying conditions.

Taking this fundamental detachment into account, be it in the case of equity volatility or in the case of economic expectations, there seems to exist an exogenous factor that has artificially led corporate credit spreads to a full-fledged recompression to beginning of the year levels. This exogenous factor has, as of today, actively counteracted any fundamental widening pressure on corporate spreads.

But what exogenous factor is responsible for this divergence? According to our model, the most important candidate has been monetary policy measures. **These exceptional measures, being more or less aggressive and more or less active, have effectively put a cap on corporate credit**

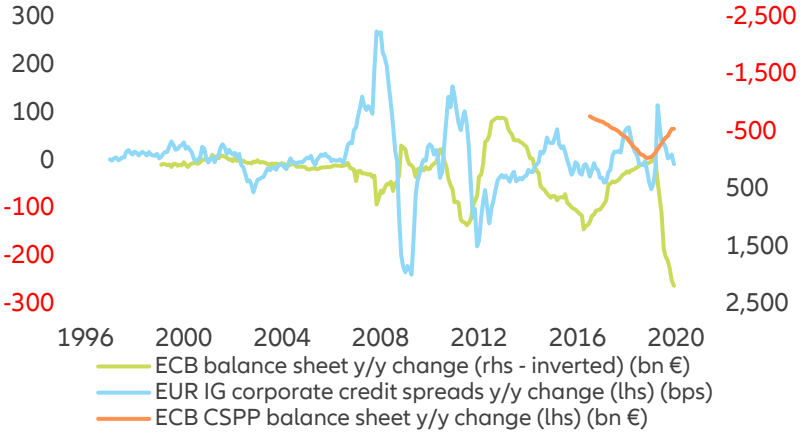
risk as both central banks and treasuries have taken the role of lender of last resort, implicitly wiping out traditional credit risk measurements. Additionally, as shown in previous corporate credit publications, central banks and treasury departments have been actively aided by market participants as the official announcements managed market expectations in such an efficient manner that it has led to massive capital inflows into the asset class and a subsequent recompression of corporate spreads. Because of that, when we talk about QE components in this paper, we entail both active central banks' / treasuries' actions and also the consequential exacerbated investors flows (Figure 9 & 10).

Figure 9: US corporate credit spreads and QE



Sources: BofA, US Federal Reserve, Refinitiv, Allianz Research

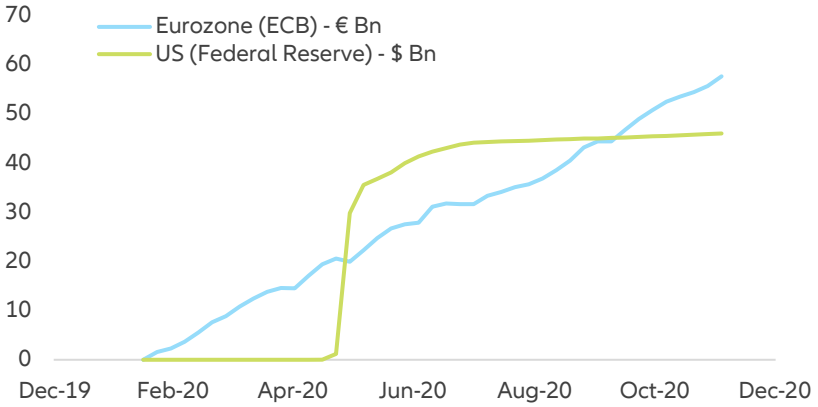
Figure 10: EUR corporate credit spreads and QE



Sources: BofA, ECB, Refinitiv, Allianz Research

All in all, the existence of this sort of exogenous shock is not unknown to capital markets as they have previously experienced a similar market derailing during the great financial crisis and the Euro crisis. Nevertheless, the certainly overused "this time is different" mantra can be applied in this situation as the US Federal Reserve has actively tapped into credit markets for the first time in history (Figure 11). Additionally, it is important to bear in mind that the ECB has previously purchased corporates merely to ease broad financing conditions whereas capping spreads has now been the declared objective. Despite that, the current central bank policies are directly benefiting spread tightening, which is a new event.

Figure 11: US Fed & ECB corporate credit purchases (0 = Jan 2020)



Sources: US Federal Reserve, ECB, Refinitiv, Allianz Research

But is this situation sustainable? And, most importantly, will central banks artificially compress spreads perpetually? Hopefully not as investors do want to earn fair risk premium that compensate risks. Overall, by combining this melting pot of corporate spread underlying determinants and using a simple, but self-explanatory, multivariate regression we are able to decompose corporate spread movements. Specifically, focusing on the 2020 behavior, we can derive that in both US and Eurozone equity markets, volatility was to be blamed for the initial spread widening back in March and has kept adding widening pressures ever since. Alongside volatility, the sharp economic and sentiment deterioration increasingly contributed to this sudden widening and has remained adding upside pressure since March. Nevertheless, all this fundamental widening pressures have been, to date, capped by aggressive monetary and fiscal policies combined with an extreme investor frothiness.

When it comes to the QE effect, it is important to bear in mind that, as we argued in our previous report[2], keeping this expansionary support *ad eternum* would undoubtedly encourage the surge of a subgroup of zombie companies whose cash flows would be unable to cover its debt commitments and, consequently, would entirely depend on the monetary and/or fiscal policy support to subsist. Of course, such persisting support would depress default rates and spread volatility, leading to a strong credit performance while cheering credit investors for quite some time. However, the mid- to long-term economic consequences of these actions would, most probably be extremely negative. Because of that, and with a reminder of what happened and is happening in Japan, **it is important for central banks and treasuries to start thinking about a comprehensive exit plan to let market dynamics slowly stand on their own. However, because of the current Covid-19 context, we do not expect this to happen in the near future** or, at least, until economies have gone back on track and markets can stand the support-withdrawal effect.

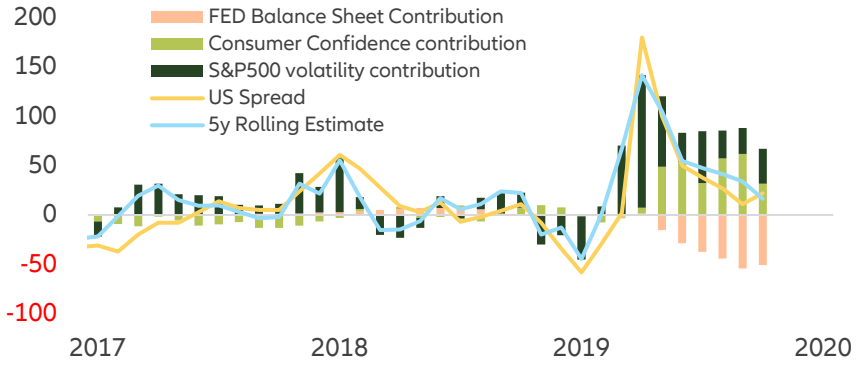
How has all this translated into corporate spreads? In the specific case of **US Investment grade** corporates, the rapid monetary policy reaction by the Federal Reserve was fundamental to counteract the initial corporate spread widening. According to our model, **the central bank intervention has been able to structurally subtract ~ -50bps of widening effects** (assuming the economic outlook remains near as bleak as in Q2-Q3 with

[2] See US & Eurozone sectors: Hunting for the weak links

no material improvement in sight). This heterodox monetary tool has allowed central banks to keep spreads at manageable levels for companies to be able to finance the sudden halt in activity.

Nevertheless, is this sufficient to keep markets calm in the mid- to long run? If history is of any guide, the answer is no. The reason being that this sort of policy tools is effective when used as a temporary bandage but starts to be ineffective and even detrimental for the whole economy as it tends to create massive fiscal and capital imbalances in the mid to long run. However, monetary policy can enable the smoothing of credit markets until the risk (VIX) and economic environment (consumer confidence) have recovered enough to take over but, of course, getting the timing right will prove to be extremely difficult. (Figure 12)

Figure 12. US IG Spread decomposition. VIX, Confidence & QE

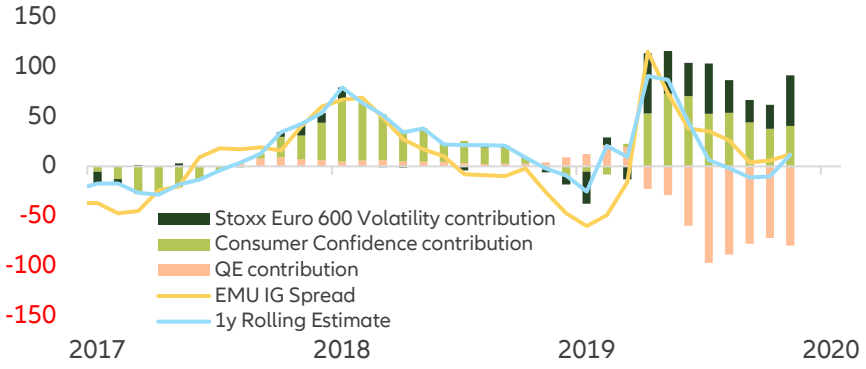


Sources: BofA, Refinitiv, Allianz Research

As in the case of the US, the same pattern can be observed in the Eurozone. **With an effect of ~ -100 bps, the ECB has managed to offset the high volatility and fall in economic confidence**. When it comes to policy tools, if the case of the Fed could be described as a bazooka shot, the ECB has carried up a tap-type strategy, in which the flood of money has been more or less constant over time. Nevertheless, despite the diverging monetary strategies, the market effect remains quite similar in both cases.

Yet, the devil is in the details and looking at the size of the widening pressures it seems that **the ECB will have a harsher time disconnecting from markets as its current compression effect is 2x that of the Fed in US credit markets**. This stronger compression can partially be explained by the fact that the ECB is a larger buyer of corporate bonds than the Fed, which has barely tapped into its program. This is amplified by the smaller size of the EUR corporate market vs. its USD peer and results in the ECB holding about 1/5 of the corporate bonds outstanding, explaining the larger implicit impact. (Figure 13)

Figure 13. EMU IG Spread decomposition. Vstoxx, Confidence & QE.

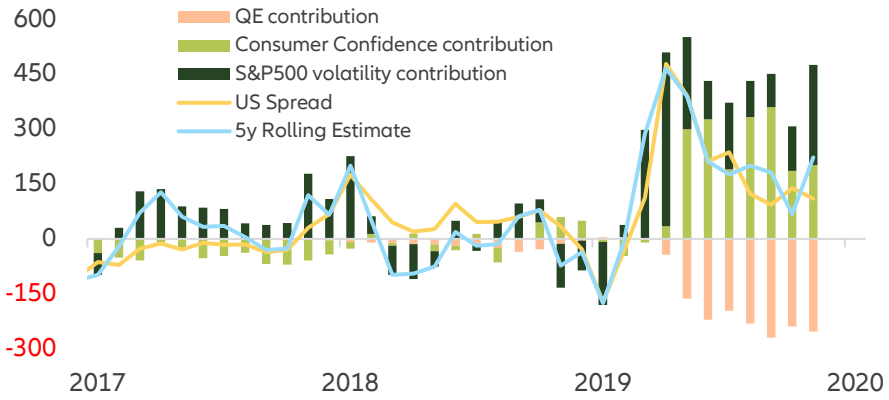


Sources: BofA, Refinitiv, Allianz Research

Going down the risk-rating spectrum into sub-investment grade corporates, the spike that took place in the **US high yield** environment between February and March was much more acute, with spreads dangerously approaching the 500bps mark. Nevertheless, despite the fact that the Fed's supportive measures were not directly targeted at high yield companies (only for Covid-19 fallen angels), there were some indirect effects as they triggered a massive capital influx by, somehow, implicitely boosting investors' confidence in the riskier asset class on the back of a "whatever it takes" approach. Our model estimates **the QE effect to have shaven off ~250 bps of spread widening pressures, being able to counteract most of the initial spike.**

However, the outlook remains uncertain as widening pressures due to market volatility spikes and deteriorating economic conditions encompassed in higher high yield defaults can lead to inmense spread-widening spikes in the segment. This is especially true since, as of today, the Fed is not directly tapping into the high yield market and, in our view, it will also not do so in the near future. (Figure 14)

Figure 14. US HY Spread decomposition. VIX, Confidence & QE.

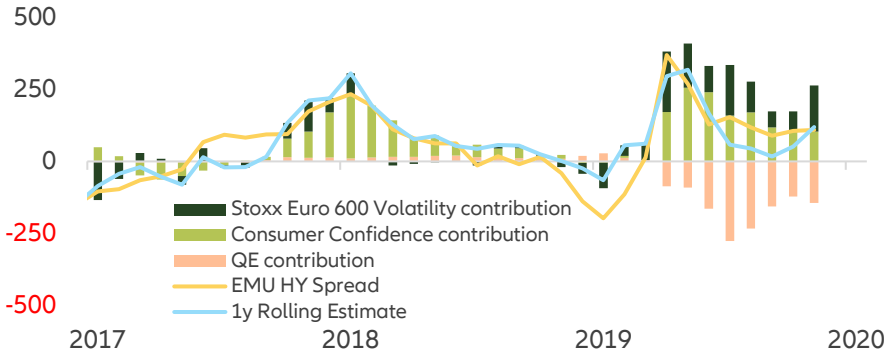


Sources: BofA, Refinitiv; AIM, Allianz Research

The pattern in the Eurozone has been similar, with a spread compressing QE effect of 100 bps at its minimum and 250 bps at its maximum. However, diverging from the investment grade case the counteracting effect of the ECB is, as of today, almost half of that of the US, making the EUR asset class, somehow, less central bank-dependent. However, as in the case of the US, the path forward remains bumpy as

widening pressures due to market volatility spikes and deteriorating economic conditions can lead to sustantial spread widening spikes. (Figure 15)

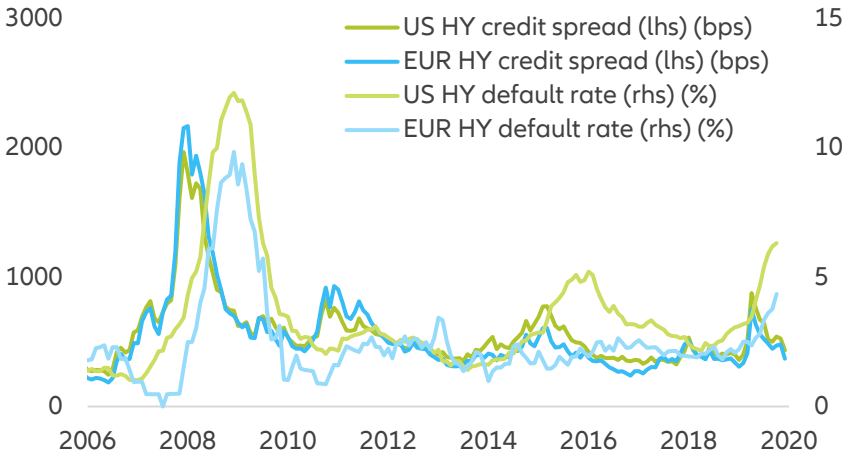
Figure 15. EMU HY Spread decomposition. Vstoxx, Confidence & QE.



Sources: BofA, Refinitiv; Allianz Research

Keeping our three corporate spread drivers in mind, it is worth noting that they are encompassed in historical corporate credit default rates. Thus, it is meaningful to deep dive into how default rates affect corporate spreads. However, due to its administrative and law-related natural lag, defaults and insolvencies tend to be filed in an untimely manner. This means that the default waves make it extremely complicated to establish a constant time lag (~ 1 +/- 0.5 years lag) between corporate spread spikes and default rate peaks (Figure 16 & 17). Because of this, default rates are not a suitable driver for our modelling approach but remain an important factor as they directly affect portfolios.

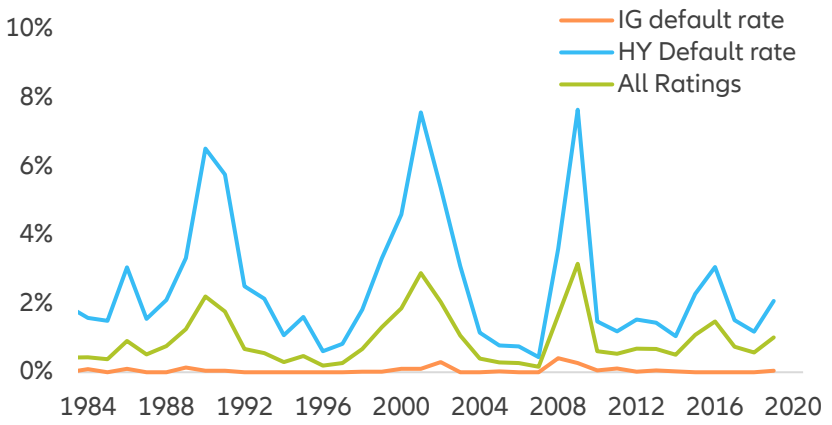
Figure 16: High yield credit spreads vs default rates



Sources: BofA, Moody's, Refinitiv, Allianz Research

Luckily, history has provided us with sufficient qualitative hints on how to read and treat default rates in relation to corporate spread movements. Firstly, credit quality plays a key role as defaults predominantly happen in speculative grade credit while investment grade credit is typically remote from insolvency. Thus, despite the fact that both investment grade and speculative grade credit react to insolvencies, the former responds less extensively compared to the latter.

Figure 17: Investment grade and high yield credit spreads vs default rates



Sources: Moody's, Refinitiv, Allianz Research

Secondly, the time-lag inconsistency between spreads and default rates does not, in any case, make **the information embedded in default rates irrelevant as a correct prediction of corporate default rates can prove sufficient to approximately forecast the direction and magnitude of future corporate spread movements.** Typically, defaults in speculative grade credit are a feature of the credit cycle, which tends to be well anticipated by credit investors. That is to say, should default rates be expected to rise, corporate spreads, particularly speculative grade spreads, should widen and such widening should take place before default waves arrive (~ one year market lead).

What do we expect moving forward? With that in mind and according to our current macroeconomic scenario, we believe that global bankruptcies and defaults have not yet peaked. Due to that, we expect spreads to remain under constant threat and to experience temporary widening episodes moving forward. From our perspective, the still to peak default rate will be managed by monetary and fiscal policies but it will take a structural toll going forward in the shape of slightly wider longer-term corporate spreads.

Our working assumption remains that monetary and fiscal policy will continue to be active in the near future, dampening most of the underlying widening pressures in place, which we believe will not disipate untill the end of 2021/beginning of 2022. In this context, we believe **investment grade corporates will remain anchored close to current levels but exhibit a moderate widening of 20 to 30 bps by the end of 2021,** stabilizing thereafter. Nevertheless, we expect the beginning of 2021 to not be free of bumps for US credit as the struggle around withdrawing policy support to corporate credit between the current US treasury secretary (Mnuchin) and the Fed is clearing the stage for spikes in credit market volatility in early 2021.

In the case of **high yield, we expect continued insolvencies to weigh on investor sentiment, driving spreads significantly wider at the beginning of the year but stabilizing at higher levels towards year-end (100 to 200bps higher than current levels).** In terms of cross regional allocation, we expected this minor but structural widening to be stronger in the Eurozone than in the US due to our forecasted higher levels of defaults in the Eurozone relative to the US.

These assessments are, as always, subject to the disclaimer provided below.

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