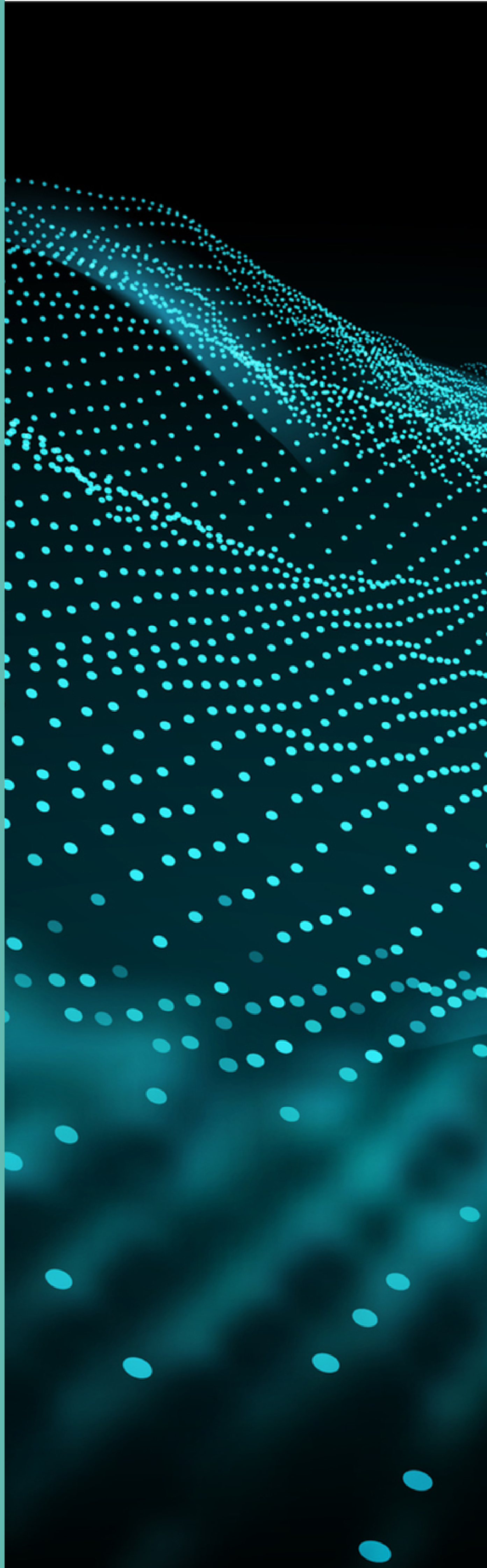
Credit Benchmark



Whitepaper

Review of 2019 Credit Trends

January 2020

Executive Summary

- Both real world consensus and market implied measures show a significant divergence in the lowest credit quality categories. Most categories – real world and market – improved in 2019.
- Financials are outperforming Corporates in the US, UK, and EU ex UK.
- Leveraged Loan credit risks are deteriorating, especially Private Equity owned firms which are also on average of lower credit quality.
- Credit risk for major German equity issuers show a marked deterioration vs. major French equity issuers, resulting in a clear gap (the two normally track each other quite closely).
- Basic Materials in the US have shown a sharp improvement while Industrials have stalled.
- Basic Materials and Industrials are both showing negative trends outside the US.
- US Large quoted companies (similar to the S&P500) show a dramatic improvement vs the broader group (similar to the Russell 2000).
- Integrated US Oil & Gas are stable, but E&P and Pipelines are deteriorating.
- Airlines show a volatile global decline.
- Companies with poor ESG scores are typically of lower credit quality although the two groups show a similar credit performance for most of 2019.
- US General Retailers are stabilizing but UK and EU ex UK continue to deteriorate.

If 2019 were a television series, the past year provided a dramatic season of viewing and ended on a veritable cliff-hanger, leaving onlookers wondering whether 2020 will bring resolution to a number of world issues or whether the stage has been set for renewed theatrics.

The United States played a starring role as the rest of the world watched the President become the third leader in history to be impeached by the House in December. Our chief protagonist kept investors guessing by prolonging the ongoing US-China trade wars while simultaneously applying a slew of tariffs across Europe, South America, and elsewhere in Asia. With New Year's celebrations overshadowed by renewed US-Iran tensions and as bushfires ravage large swathes of Australia, geopolitics and climate change have emerged as key themes for the coming year and decade.

One story arc that delighted investors was the rise and rise of bond and equity markets in 2019. In the US, bulls stampeded through Wall Street, with US 10-year Treasury yields falling from 2.6% to below 2%, and the Federal Reserve indicating that rate hikes are unlikely in 2020. US corporate bond spreads were generally stable (except CCC – see page 4), and the S&P500 equity index rose by a staggering 25%. But such giddy heights have their limitations, and this pace of growth will inevitably slow in 2020 according to investor forecasts.

Amidst market speculation, where can we look to find real-world 'spoilers' for 2020? This report uses bank-sourced credit risk assessments to show how 2019 unfolded in some key geographies and industries – assessments which, crucially, are based on actual expected default frequencies. Compared with market implied views – such as bond yields and CDS spreads – real world data provides "pure" credit risk estimates from lenders with direct exposures. By reviewing the year that was in credit risk, we can grasp some clues as to how the 2020 narrative may play out.

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1. Introduction

As we enter a new year, 2019 has by no means gone quietly into the night. Air strikes, fires, earthquakes and a plane crash have all made news in the opening week of the year, and with major events from both this year and last having an immediate impact on credit risk, it is worth reflecting on 2019 credit trends and how these may change. Credit risk was rarely out of the news in 2019, with gloomy forecasts from credit bears contrasting with continued robust performances from bond and equity markets.

Taking a look at US corporate bond spreads, the below charts demonstrate variance between market spread movement and real world data. Figure 1.1 plots the time series of US Corporate bond spreads for all sub-investment categories.

Figure 1.1 US Corporate Bond Spreads

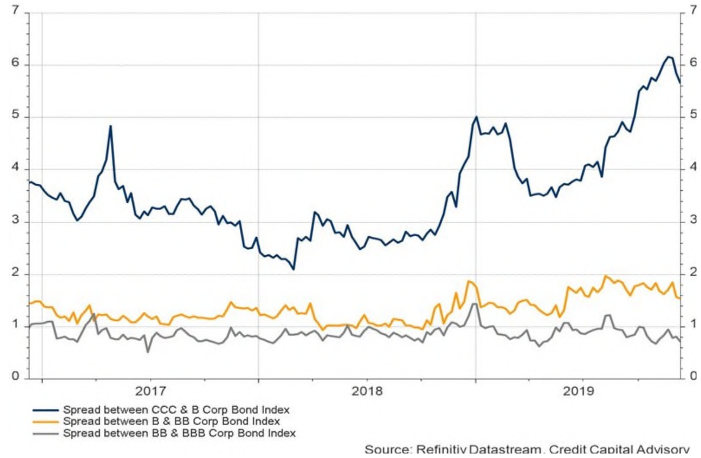
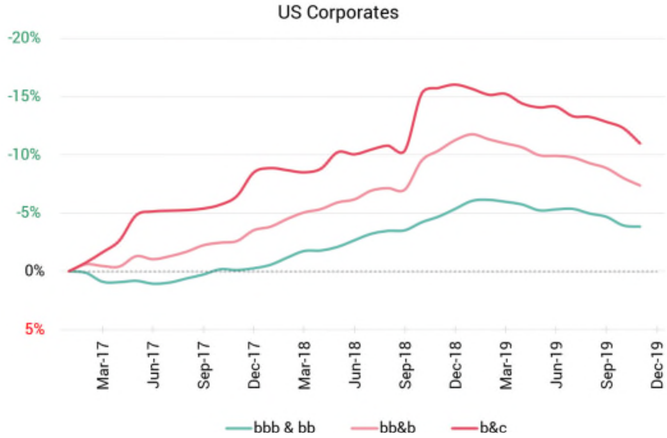


Figure 1.2 US Corporate Real World Credit Categories



This shows that migration from BBB to BB currently adds about 1% to funding costs, equivalent to an approximate capital loss of about 3.5% for a 5-year bond holder – painful, but manageable. A downgrade from BB to B would add a further 1.5% - 2% to the yield. But the CCC spread is more ominous – it represents an additional cost of about 5.5% over the B bonds, and this has risen by about 2% since the middle of the year. The CCC category is small, but if spreads continue to rise, there is scope for contagion into the B and BB categories. The Real World data in Figure 1.2 shows similar patterns in the **bbb/bb** and **bb/b** categories. The **b/c** category is aligned with these, in contrast with the market spread movement. This suggests a rising market credit risk premium in the lowest quality bonds.

Further in this report, we analyze real-world credit risk data to frame some of the key issues in 2019:

Trade tensions: These were a major credit driver in 2019. China and the US continue to veer between either imposing fresh waves of tariffs on each other, interspersed with talk of possible deals; with the result that various other economies are suffering collateral damage and disruption to supply chains. The EU (including the UK) – already grappling with sluggish growth – has also been hit by US tariffs. And the UK Corporate sector has had the added uncertainty of Brexit. A further complication: the WTO is currently not functioning due to the US block on approving new judges.

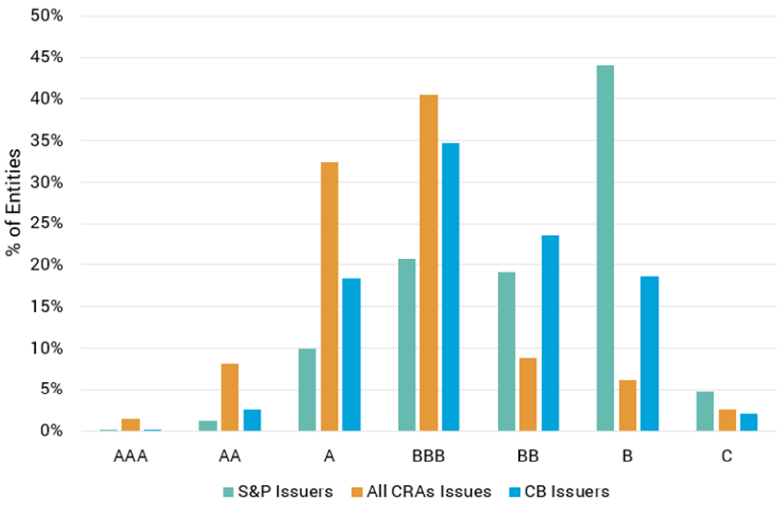
Sovereign risk and geopolitics: Hong Kong, Argentina, Chile, Colombia, France, Iran, Lebanon; a growing list of countries have seen major street protests in 2019. In most cases there has been a specific and local trigger, such as transport cost increases or extradition law changes; but this year, a number of local protests have widened to encompass multiple issues.

Climate change: A high profile focus for direct political action, this is now also a mainstream economic issue with far-reaching credit implications, ranging from the impact of extreme weather events (hurricanes in the Bahamas, fires in Australia and floods in Europe) to serious questions about the future of fossil fuel producer and consumer industries. Related environmental concerns are a major factor in ESG frameworks, the latest addition to the regulatory landscape that is beginning to have a significant influence on investment and lending decisions.

Leveraged loans: The annual IMF Financial Stability report* showed leveraged loan† issuance more than doubling from $600bn in 2012 to $1.4trn in 2018. In the past year, growth in leveraged buyout loans has significantly outstripped growth in loans for M&A. There are some signs that default rates in that sector (measured by value) have risen from record lows of 0.93% to 1.48%‡.

BBB credit migration: The "BBB Cliff" was a major source of concern during the year, referring to the obvious disparity between the high proportions of BBB-rated bond issuers compared with the abnormally low number in the sub-investment grade BB category (see Figure 1.3). While the fear is of a pent-up wave of BBB bond migration to BB, rating agencies are unlikely to take such decisions lightly; mainly because downgrades to junk status could trigger enormous investment outflows, with a major widening in bond spreads.

Figure 1.3 Credit distributions for US Corporate Bonds and Borrowers



This shows that at the beginning of 2019, the distribution of consensus credit risk – based on issuers of loans - was fairly symmetric. The distribution of issuer risks assessed by S&P shows a large concentration in the B category; while the distribution of issues, across all major agencies shows the famous "BBB cliff".

Sources: *S&P, Bloomberg, Citigroup, Credit Benchmark*

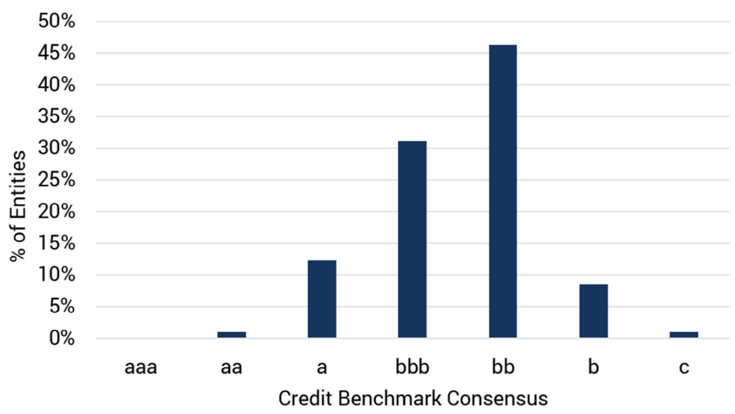
* https://www.imf.org/en/Publications/GFSR/Issues/2019/10/01/global-financial-stability-report-october-2019

† Concentrated in BB, B and CCC categories

‡https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/55929866 By issuer count, the rate is stable at about 1.64%.

2. Types of chart used in this report

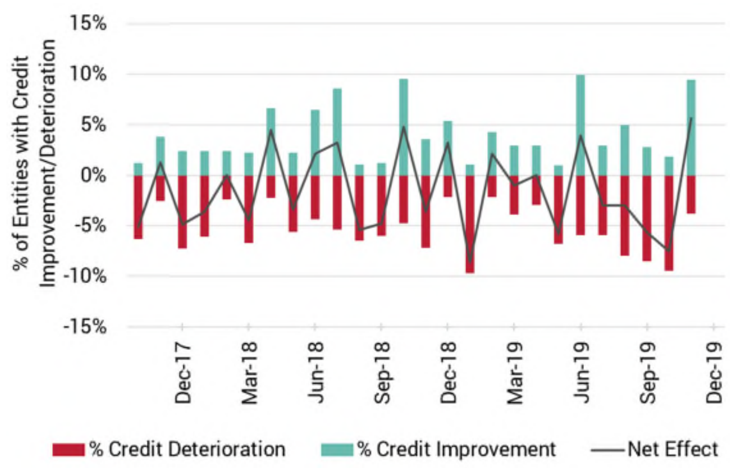
Credit Distribution Chart



These show the distribution of credit estimates for a chosen group of borrowers as percentages across seven credit categories. (**aaa**, **aa**, **a**, **bbb**, **bb**, **b**, and **c**).

These distributions typically take the form of an approximate bell shape, with the largest credit exposures typically in the **bbb** or **bb** categories.

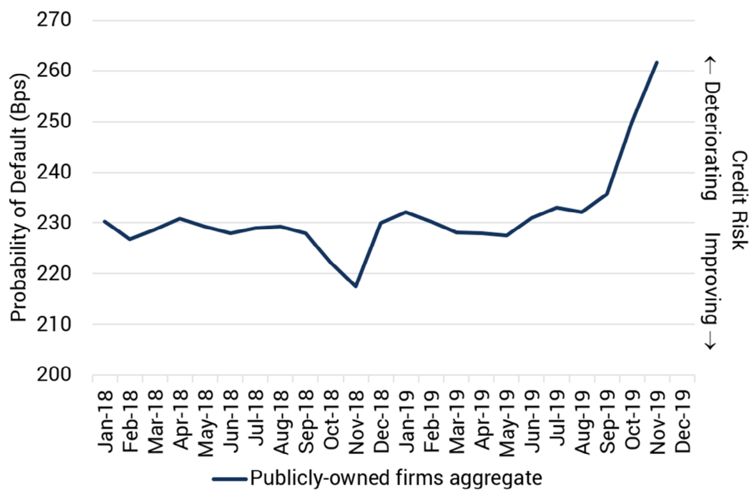
Credit Activity Chart



These plot the pattern of monthly improvements and deteriorations. Green bars show the percentage of borrowers where credit has improved by at least 10% in that month. Red bars show the percentage that have deteriorated.

The black line is the net effect. If the black line is above the zero bar it can provide an advance indication that average credit is improving; if it is below then average credit is likely to deteriorate. Months where there are large numbers of both upgrades and downgrades may reflect major credit model recalibrations.

Credit Level Chart



These show the average credit risk on a Probability of Default (PD) y-axis; a **rising** line indicates that credit is deteriorating.

The credit risk average shown on the chart is based on average default risk for a series of quarterly baskets of borrowers. These are chain linked to provide a single, rebased series, anchored using the latest month of data.

Credit Trend Chart

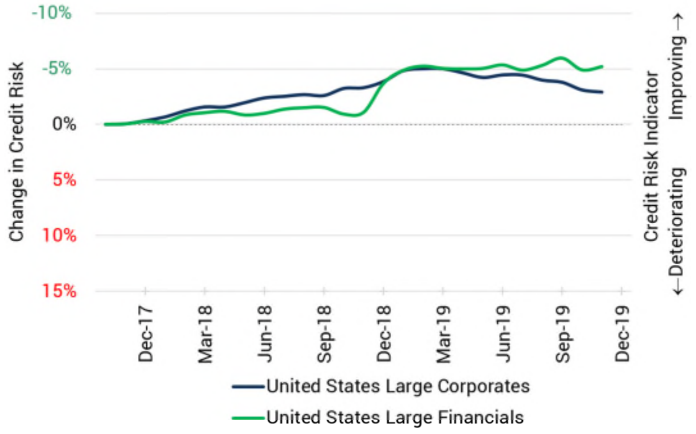
The Credit Risk Indicator ("CRI") shows the cumulative change in average credit risk since the date shown at the far left of the x-axis. A rising line indicates that credit is improving; if it is above the zero bar then there has been a cumulative improvement since the start date.

This allows easy comparisons of credit risk trends for multiple sectors even if those sectors have very different initial average credit risk levels.

The CRI is calculated using the data shown in the "Credit Level Chart".

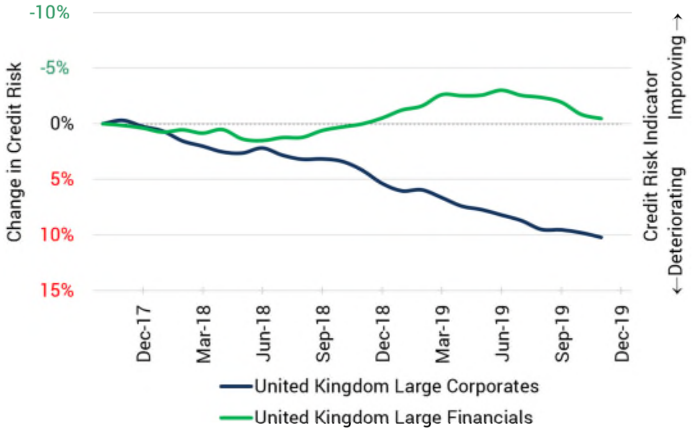
3. Financials vs Corporates

Figure 2.1 Credit Trends of Large Corporates and Financials



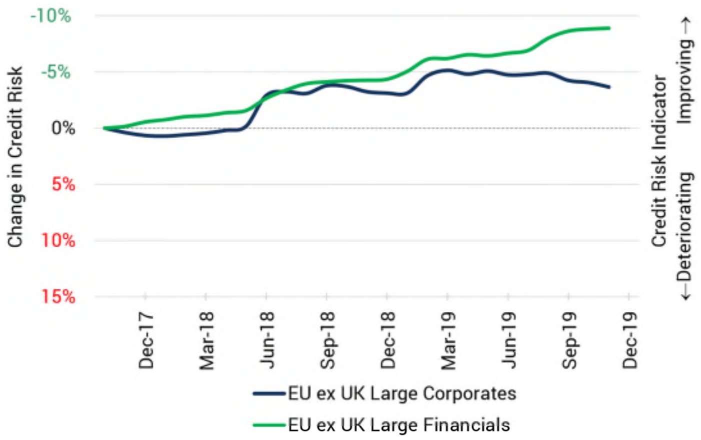
After an initial 5% improvement, US Corporate credit risk started to increase in February 2019 – since then it has deteriorated by 2.2%, not helped by the still ongoing US-China trade war.

US Financials has remained mainly stable, with the exception of a 4% improvement between November 2018 and February 2019.



UK Financials started to deteriorate in June 2019, after continuous improvement in 2018Q3 to 2019Q2. This is likely to be related to Brexit and the associated political disruption.

Longer term, UK Corporate credit risk has deteriorated by 10% since October 2017 – the only one of the three geographical corporate aggregates discussed here to show an overall deterioration.



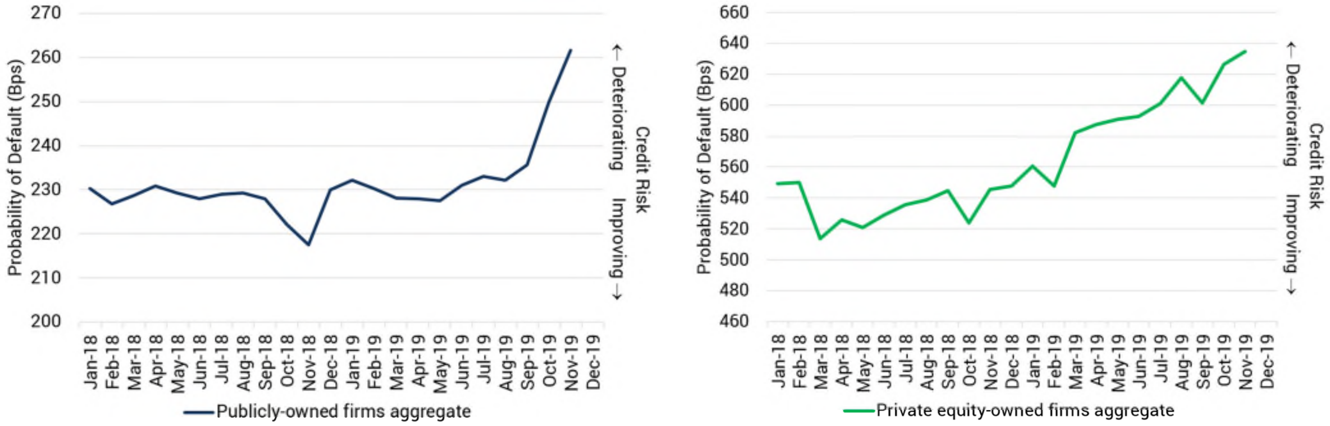
Both EU ex UK Corporates and Financials have shown an overall improvement in the last two years, with EU ex UK Financials improving by just under 10%.

While EU ex UK Financials show an improving trend, Corporates have been stable for most of 2019. However, the latest three months show a deterioration, resulting in a 1% increase in credit risk.

4. Leverage Loans: Private vs Public

Leverage Loan issuance has reached new record levels, more than doubling from $600bn in 2012 to $1.4trn in 2018.

Figure 3.1 Credit Levels of Public and Private Leverage Loan Issuers



The average probability of default of private equity owned leveraged loan issuers is over 600 Bps (corresponding to a consensus rating of **b**), compared with 262 Bps for publicly listed firms (**b+**).

So the credit risk of private equity owned leveraged loan issuers is 2.4 times greater than publicly owned issuers; equivalent to a 1-notch consensus rating difference.

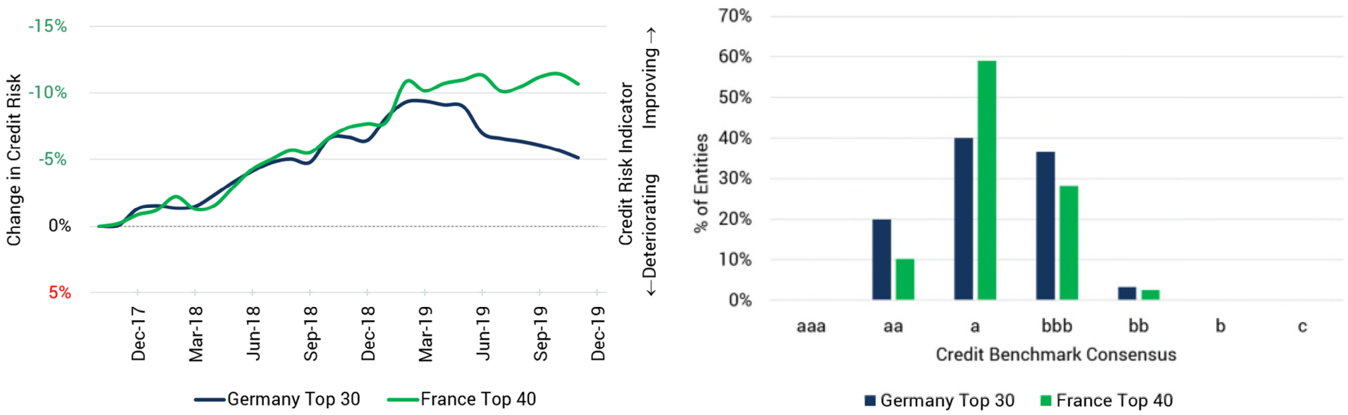
In addition, private equity owned issuer credit risk has deteriorated by 21% since the low of October 2018. Public companies on the other hand have seen a rise in default risk of 18% over the same period.

There are some plausible reasons for these differences. Private firms are subject to less scrutiny, and investors cannot take short positions in the equity of private firms. Both of these factors imply fewer constraints on the debt levels in private firms.

If the credit cycle enters a downturn, then the correlation between the default risks of private equity owned firms is likely to increase.

5. Germany Top 30 vs France Top 40

Figure 4.1 Credit Trends and Distributions of the Germany Top 30 and France Top 40



French economic growth for the first three quarters was 0.3% per quarter. By contrast, Germany narrowly avoided a technical recession with a 0.1% growth in 2019 Q3.

Consensus credit data for the Germany Top 30 and France Top 40 aggregates (mirroring the constituents of the main equity indices) shows that both were improving at a similar rate until April 2019, with credit risk decreasing by 10% since October 2019. Since April 2019, the France Top 40 has been stable while the Germany Top 30 has deteriorated by nearly 4%.

The majority of both sets of companies have a Credit Benchmark Consensus of **a**, which accounts for 43% of the Germany Top 30 and 59% of the France Top 40. The Germany Top 30 has more entities with a Credit Benchmark Consensus of **aa**.

Part of the discrepancy between the two major Eurozone economies may be driven by Germany's reliance on export-driven demand, making it more vulnerable to the US-China trade war and Brexit-related uncertainty.[§]

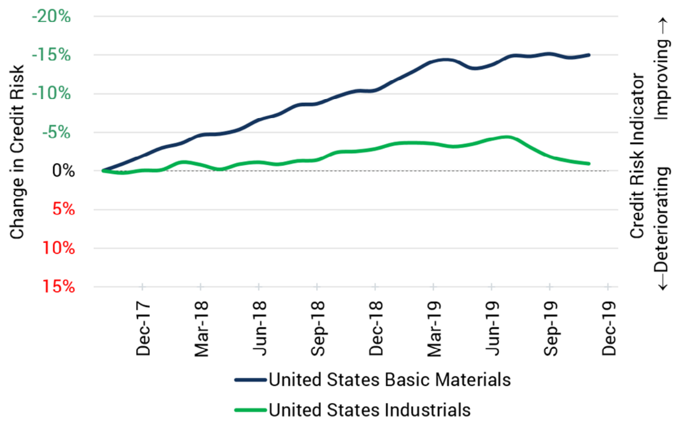
The French economy is mainly driven by internal consumer demand. French growth was boosted by President Macron's €10bn package of tax cuts and other stimulus measures last year, which boosted benefits for minimum wage earners.

However, even with France improving and Germany stagnant, it still has some way to go before it can economically challenge Germany. Unemployment is higher (albeit falling) and France's costly public sector is a hindrance with proposed changes causing significant political unrest.

[§] https://www.southeusummit.com/europe/france/is-france-replacing-germany-as-europes-main-engine-of-growth/

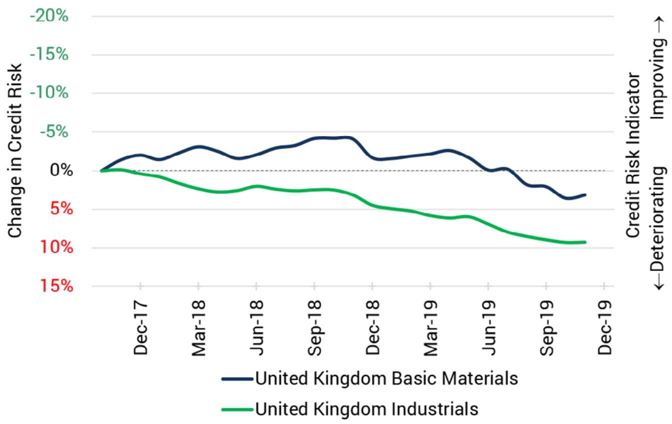
6. Basic Materials vs Industrials

Figure 5.1 - Credit Trends of Basic Materials and Industrials



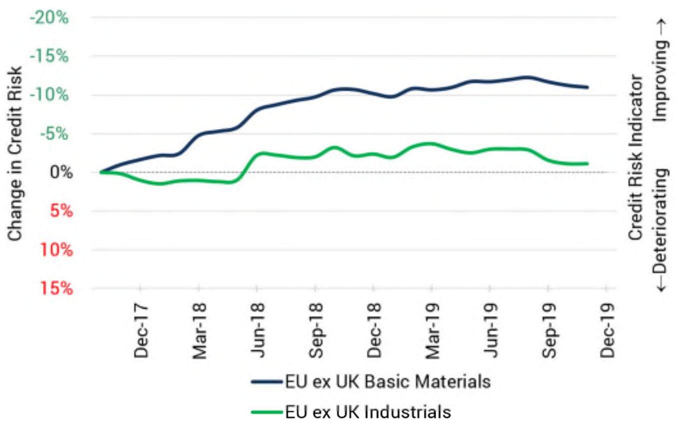
US Basic Materials had the fastest rate of improvement of the three geographies – improving by 15% between October 2017 and July 2019. Since then, the credit risk of US Basic Materials has remained stable.

US Industrials also improved, but at a third of the rate of Basic Materials. The industry reached its lowest credit risk level in July 2019, and has since deteriorated by 3.6%.



UK Industrial credit risk has continuously deteriorated for the past two years, by nearly 10% since October 2017.

UK Basic Materials improved by nearly 5% until November 2018, but has since deteriorated, exceeding the October 2017 credit risk level in June 2019.

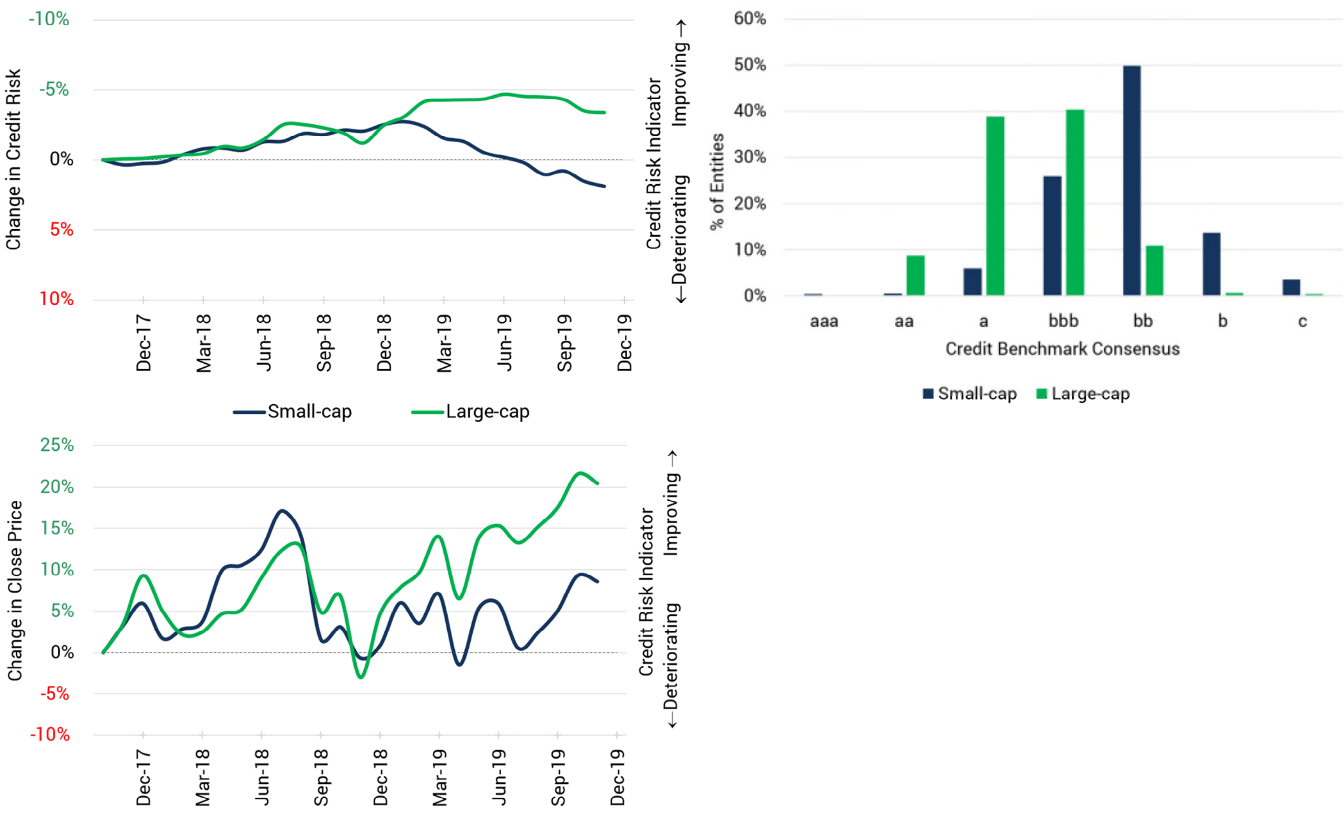


Similar to the US, EU ex UK Basic Materials showed improving credit risk for the majority of the time horizon. EU ex UK Industrials stayed relatively stable.

The latest three months show a slight deterioration in both industries, which could be an impact of the trade war and Brexit on European trade as well as overall sluggish growth in Germany.

7. Small-cap vs Large-cap

Figure 6.1 Credit Trends and Distributions of Small Cap and Large Cap companies (vs price change in Russell2000 and S&P500)



Source: Yahoo Finance

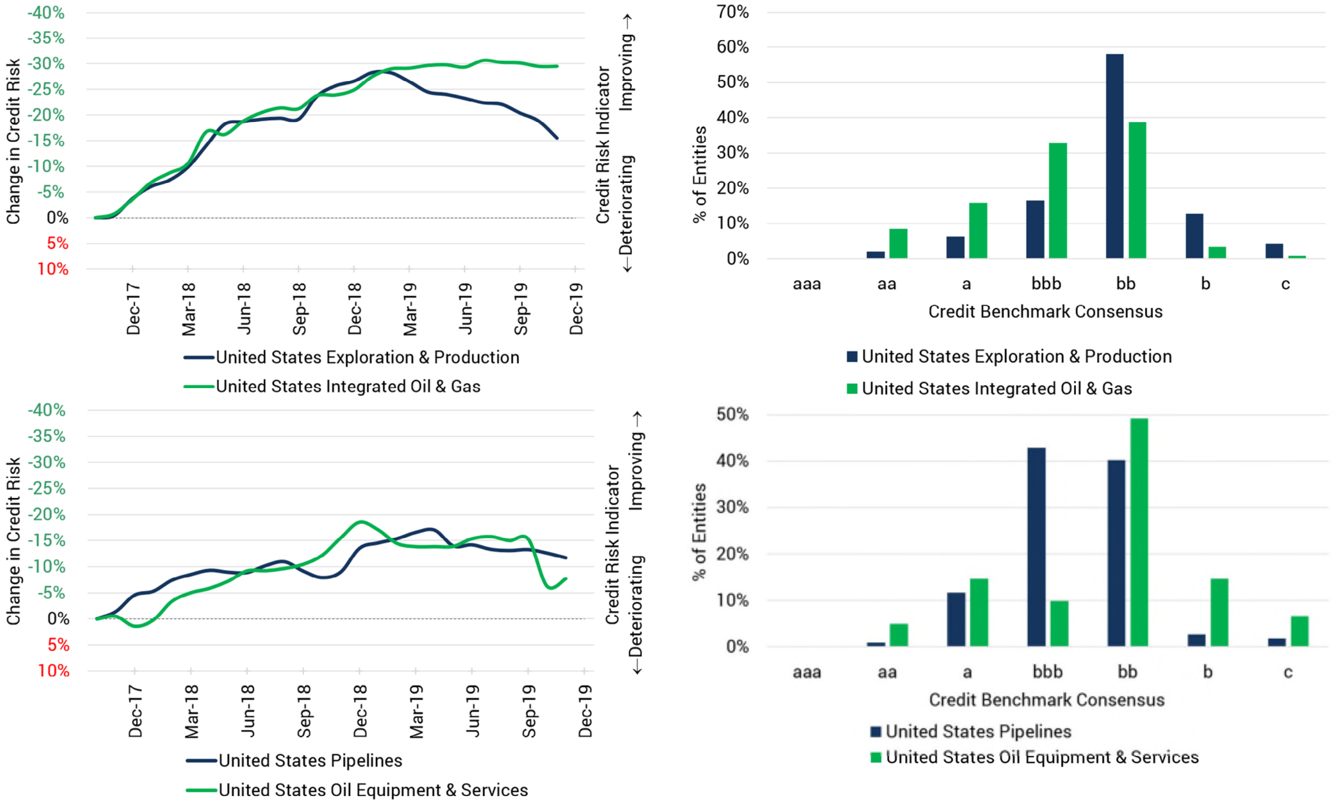
A well-known financial indicator in uncertain times is the relationship between the S&P 500 and Russell 2000 indices, and their relative performance is closely monitored by investors. Figure 6.1 shows the cumulative changes in price for the two indices since October 2017. The figure shows that the trends were very closely aligned until January 2019, since then the S&P 500 has improved by 12%, while the Russel 2000 grew by only 2.5%. With the S&P 500 representing large multinational companies, it is strongly correlated with the global economy; the smaller, more volatile businesses in the Russell 2000 are more dependent on domestic trends.

The credit risk of small-cap companies (a subset of 470 members of the S&P 500) and large-cap companies (a subset of 720 members of the Russell 2000) followed similar patterns throughout 2018. The two trends started to diverge at the beginning of 2019, with small-cap credit risk moving towards deterioration, while large-cap company credit risk stabilized. As of January 2019, small-cap companies deteriorated by 4.7%, while large-cap companies had a 0.5% improvement. However, the latest credit data of the large-cap companies shows a deterioration – which could potentially be a signal for a turning point towards decline.

The credit distributions of the two sets of companies are quite distinct, with two-thirds of small-cap companies being non-investment grade (50% are **bb**), while 90% of the large-cap companies are investment grade – quite evenly split between **a** and **bbb**.

8. United States Oil & Gas Sectors

Figure 7.1 Credit Trends and Distributions of US Oil & Gas Subsectors



The Oil industry was rarely out of the news in 2019. West Texas crude prices rallied 20% over the year, but there are concerns about the US shale boom ending, having placed the US as the world's largest oil and gas producer. If current US-Iran tensions persist, they are likely to bring major changes in the credit trends for different segments of the global oil and gas industry.

Shale dominates US production, but is spread across many smaller, independent (often currently unprofitable) producers. Despite pricing challenges, US production has remained stubbornly high, driving OPEC to successfully push for production cuts in Q4. Oil price forecasts of $70 or even higher in 2020 may be unrealistic if upward price pressures effectively bail out US shale producers.

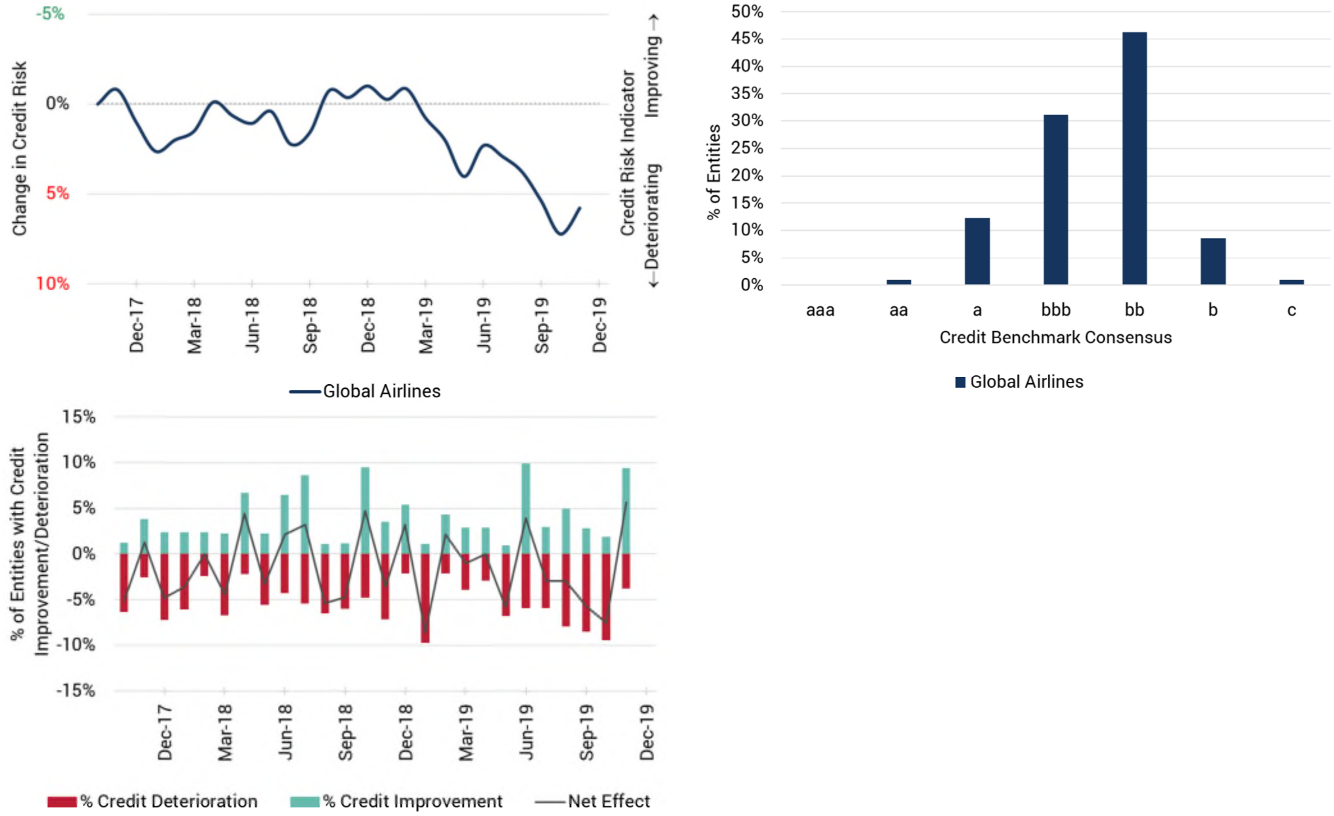
As the top left chart of Figure 7.1 shows, Integrated US producers show no dramatic changes in credit risk. But it does show some other subtle but important trend changes within the US oil industry: credit for E&P companies has been steadily deteriorating since late 2018, while Oil Equipment and Services companies have recently seen a significant dip in credit quality. If investment in exploration and new infrastructure remains on hold, there could be further bad credit news in these sub-sectors.

The Saudi Aramco IPO marketing was a success despite being restricted to the Middle East. Climate change also dominated the news, and fossil fuel industries have been widely targeted by commentators, protestors and ESG investment screens. But in practice, there are enormous technological and financial challenges in replacing carbon-based energy in the near future. And the growing demand for fossil fuel-based cars shows no sign of abating.

It is possible that the Saudi Arabian price war with US shale producers has reached a temporary stalemate – shale will not see aggressive growth, but it is not going away; and climate change concerns are taking time to make a serious impact on demand.

9. Global Airlines

Figure 8.1 Credit Trend, Distribution and Activity of Global Airlines



The Airline industry has had its share of turbulence. The Boeing 737 Max 8 was grounded in March 2019 after two serious crashes in five months. The financial impacts in the industry were immediate, with multiple airlines cancelling flights, growth plans revised and supply chains disrupted.

Multiple carriers went out of business this year, while Hong Kong Airlines had a last minute cash injection and South African Airways went into "voluntary business rescue" – (like US Chapter 11). Other major carriers have not been so lucky, including Jet Airways in India, WOW air in Iceland, and Thomas Cook in the UK.

The top left chart of Figure 8.1shows the aggregated credit data of 100 Global Airline companies – and shows that credit risk of airlines has deteriorated by 8% from January 2019 to November 2019. This is also echoed in the bottom left chart, in which the black line (Net Effect) shows the difference between the number of entities improving and the number deteriorating. It can be seen that in recent months, the Net Effect is getting increasingly more negative, showing the balance between improvements and deteriorations is getting progressively more skewed towards deteriorations. The latest month, however, shows signs of optimism with credit risk improving, and the Net Effect turning positive.

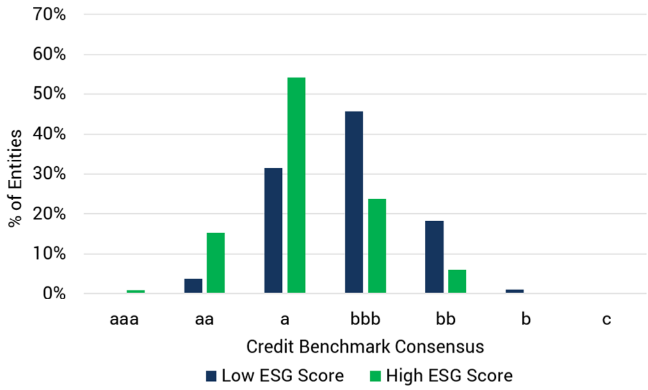
The strong price sensitivity of airline tickets, plus varying input costs from fuel to wages, as well as fleet maintenance and renewal, it is no surprise that the failure rate for a carrier – regardless of size – is higher than in almost any other sector.**

** https://www.forbes.com/sites/jamesasquith/2019/12/09/the-biggest-airlines-to-ever-go-bankrupt/#4ad0fee02820

10. ESG

Figure 9.1 Credit Trends and Distributions of High Scoring and Low Scoring ESG Companies

Source: LGIM (ESG Scores)



Source: LGIM (ESG Scores)

Environmental, Social and Governance (ESG) principles are becoming ever more important in portfolio decisions. Figure 9.1show the credit data for two groups of borrowers: 100 global companies with “Low ESG Score” (less than 20) and 120 companies with “High ESG Score” (65 or more)[††]. Companies with low ESG scores are judged to be less environmentally protective, less diverse or socially inclusive, and/or have fewer checks and balances around corporate governance.

The credit distributions show a clear difference between high ESG and low ESG borrowers. Over half of the high ESG companies have a Credit Benchmark Consensus of **a**, with only 6% in non-investment grade categories. The majority of low scoring companies are in the **bbb** category with 19% in non-investment grade categories. There are no low ESG borrowers in the **aaa** category, and no high ESG borrowers are in the **b** or **c** categories. *Companies with high ESG scores are typically better credit risks.*

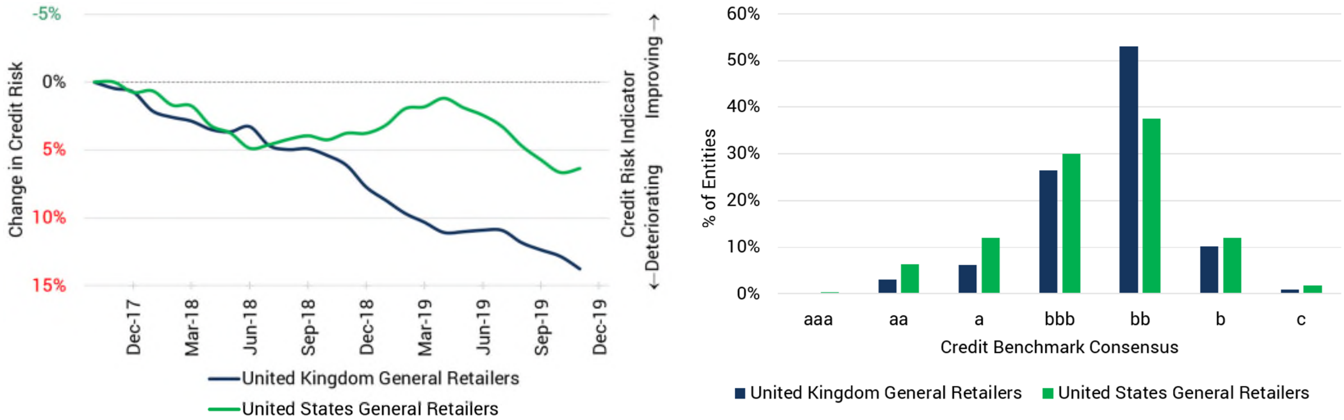
Over the last two years, both groups of borrowers have seen an improvement in credit risk, with low-scoring companies and high-scoring companies improving by 18% and 6% respectively. The credit risk for high-scoring companies has stayed relatively stable since February 2019. The overall credit trends for both groups are similar, and this synchronized movement suggested that other factors have an impact on credit risk across both groups.

The larger improvement seen in low-scoring companies, however, may be a result of increased overall corporate awareness of ESG. Low ESG companies have more room to improve; if high ESG scores improve credit ratings, and if all companies take steps to improve their scores, then the low ESG companies could see a disproportionate improvement in credit. This is a second order effect, but Climate Change protests may accelerate some company efforts in the Environmental dimension.

[††] *Source: Legal & General Investment Management Limited (“**LGIM**”), June 2019.*

11. General Retailers

Figure 10.1 Credit Trends and Distributions of US and UK General Retailers



The 'Retail Apocalypse' shows no signs of slowing down, with multiple chains, including Chico's, GAP, Bed Bath & Beyond, and Sears, planning to close hundreds of stores in 2020.

Consumer spending is still going strong and unemployment in the US is at a 50 year low. However, consumers are shifting purchases from traditional stores to online, which is a large part of the problem. In addition, there are fears that the US-China trade war could cause the price of consumer goods to rise, as well as the Brexit uncertainty impacting the UK.

UK General Retailers have been continuously deteriorating for the past two years, having so far increased in credit risk by 14%. US General Retailers deteriorated at a similar pace to UK General Retailers until July 2018, at which point the US companies started to improve. The improvement lasted until April 2019, however credit risk didn't quite recover to its original October 2017 level. Since April 2019 credit risk of US General Retailers has again been deteriorating, and has since increased by over 5%. Though, the latest month does show signs of a possible turning point.

UK and US General Retailers have 64% and 51% of entities in non-investment grade, respectively, with over 50% of UK General Retailers having a credit category of **bb**.

12. Conclusion

Despite some dire predictions in 2018, there has been no global credit crisis in 2019. But the Trump fiscal stimulus has run its course and a number of US sectors are showing modest increases in credit risk. Most UK sectors continued their relentless deterioration, but the beginning of the end of Brexit uncertainty may see some stabilization in 2020. For the EU ex UK, recession fears have had a limited impact on credit risk; mainly a reflection of stronger balance sheets in that region. There are some negative developments in global high yield sectors, especially in privately-owned Leveraged Loan issuers. Some intriguing credit divergences are opening up between French and German equity issuers, between Large and Small equity issuers in the US, and in various Oil & Gas subsectors.

Looking ahead into 2020, what clues can we draw from the real-word credit risk data to predict upcoming trends? Many of the key drivers of credit risk across the last year are likely to also dominate in 2020, with the added rumblings of fresh tensions between the US and Iran. A US-China trade reconciliation would be positive; but the US Presidential election in late 2020 will introduce uncertainty, much like the role played by the December general election amidst Brexit in the UK. On the topic of Brexit, the process is now moving into its next phase with Boris Johnson officially at the helm, and this new element of confidence is likely to see improved credit conditions across various British industries. President Lagarde, in her new ECB role, is expected to be aligned with the Federal Reserve in a relaxed monetary stance; so the "search for yield' will continue; and corporate credit spreads are only likely to see a broad-based rise if the underlying – real world – credit risk shows a sustained increase. The world of insurance and re-insurance should be braced for a "knock on effect" as climate change induced events heighten in severity. Underwriters will be sure to readjust their books as the threat of wildfire risk reaches unprecedented levels.

As we progress into 2020, we will continue to analyze bank-sourced credit data to provide detailed monthly updates on these trends.

Credit Benchmark publish consensus credit ratings on 50,000 individual borrowers. There are 21 separate rating categories ***(aaa,aa+…cc,c),*** *and 7 summary categories* ***(aaa,aa…c).*** *The 50,000 published consensus ratings are based on a broader database of 800,000+ monthly credit updates contributed by 40+ major global banks. This broader database supports the calculation of aggregates such as credit risk time series, as well as the credit transition matrices. The current history spans more than 4 years.*

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