Credit Benchmark

Q3 2022 Credit Review

Inflation and Credit Risk: Close to Boiling Point

October 2022

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Inflation dominated Q3 financial news, and the resulting short rate squeeze is biting while credit volatility is rising and the COVID recovery is running out of steam.

Risk indicators are especially high in the UK, with its protracted political uncertainty and pension fund rate hedging problems.

In North America, weaker credit trends are appearing in Tech, Healthcare and some REITs. While rate hikes are expected to peak in early 2023, geopolitics may delay that. The food price impact of war is driving growing regional credit disparities, while global oil credit quality is lagging the price recovery with concerns about windfall taxes.

Oil and gas price volatility has brought havoc to energy derivative trading in Europe, raising systemic risk issues. More broadly, Governments are resorting to intervention, support, bailouts and even nationalisation to maintain economic stability – pushing public debt and yield curves higher. Tighter credit supply has hit private and illiquid asset values. This all points to higher credit defaults in 2023.

About Credit Benchmark

Credit Benchmark produces a comprehensive view of credit risk by creating Credit Consensus Ratings ("CCRs") and analytics on the credit quality of companies, financial institutions, sovereigns, and funds.

The data is sourced from more than 40 global financial institutions, representing the work of over 20,000 analysts and is also used by regulators to monitor Basel rules on capital adequacy.

Credit Benchmark collects a specific measure of credit risk: a one-year, forward-looking Probability of Default (PD) and forward-looking senior unsecured Loss Given Default (LGD).

The underlying inputs are subject to a rigorous data quality approval process and derived from models that are approved by regulatory authorities. The resultant accuracy of each PD and LGD leads to a credible market view of credit risk for each given entity.

After being anonymized and aggregated, the contributed risk estimates are mapped to the appropriate credit category on the Credit Benchmark Consensus scale, which is calibrated periodically and can be used as a comparison to the scales published by the rating agencies.

Credit Benchmark produces regular data updates with history going back to 2015.

Introduction

Inflation has been the major issue in Q3 2022. There are glimmers of hope in the Ukraine war, but energy and food price aftershocks will continue to strain fragile supply chains, not helped by China enforcing continued COVID lockdowns. The IMF now project inflation of over 7% in major economies this year and above 4% in 2023, and global growth is expected to be around 2.5%.

With some monthly G7 inflation prints hovering close to double digits, Central Banks have responded with aggressive short rate hikes. The most optimistic projections show US rates peaking at 4%- 5% in early 2023; but so far this year, 10-year Treasury bond yields have already moved from 1.5% to over 4%. War and rate increases have cut support for global equities, with the FTSE All-World Local 23% lower YTD, and High Yield spreads for Dollar debt have spiked from around 3% to more than 5%.

Governments and Central Banks are increasingly turning to intervention, support, bailouts and even nationalisation. So, in addition to inflation, higher yield curve levels also reflect rising global public debt. Rising long rates have uncovered some major issues in pension fund liability hedging in the UK, while energy price volatility has revealed some major derivative-driven strains in the European energy sector.

Tighter credit supply has hit private and illiquid and asset values, with IPOs drying up, house prices under pressure, and various specialised financial vehicles struggling to find investors. All of this points to higher credit defaults in 2023.

Believe it or not, there are some bright spots. Russian aggression has pushed major economies to focus on secure alternative energy sources. Airlines continue to flourish, build-to-rent is booming, and weak currencies in Japan and the UK are attracting Dollar investors. This report elaborates on some of these trends and shows where credit could be headed next.

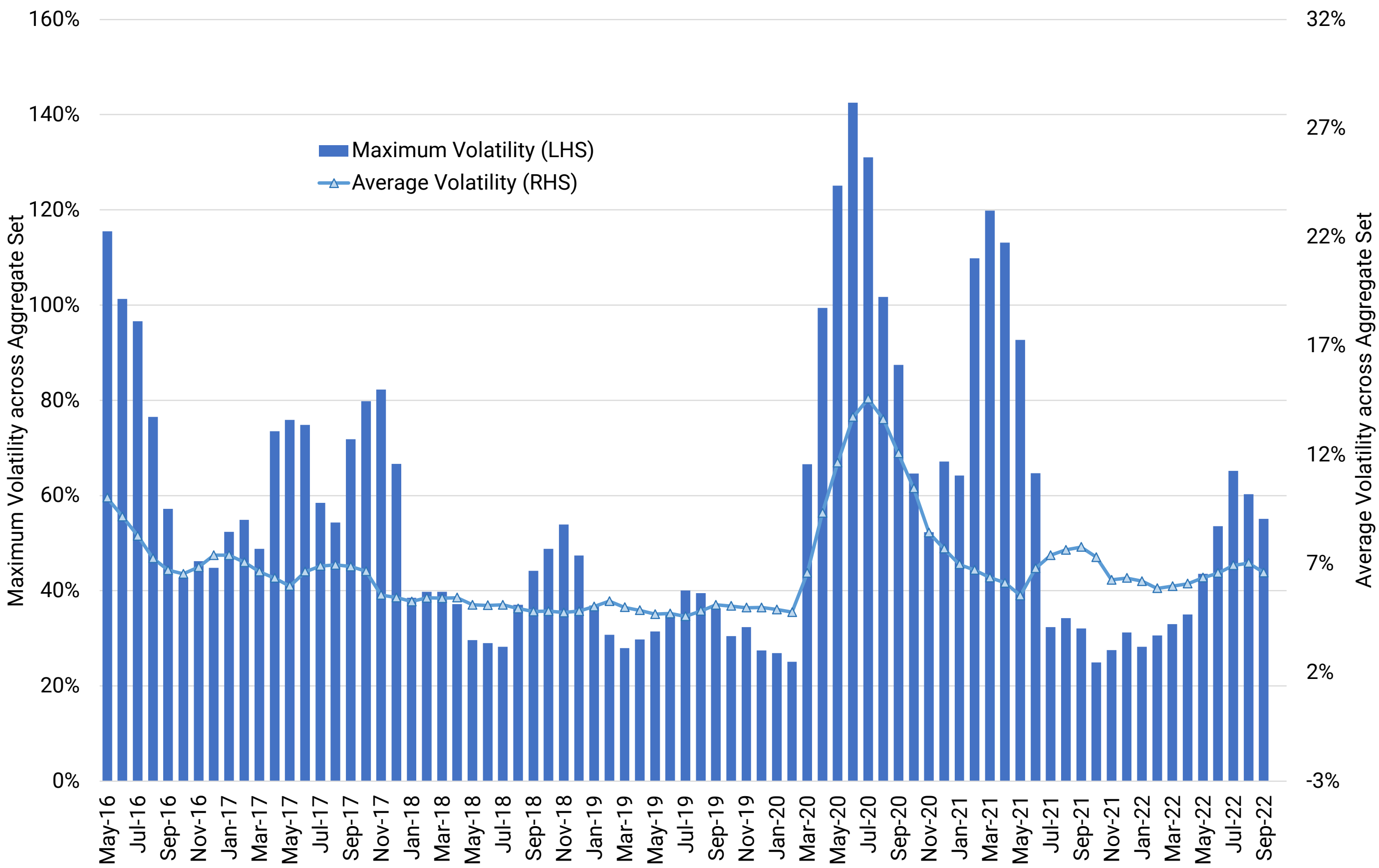
1. Credit Volatility: Defaults Set to Rise, Africa and UK at Risk

Many credit portfolio managers expect default rates – currently around 2% - to be sharply higher in 2023, but the scale of the increase is still a major unknown – pessimistic estimates range as high as 7.8% for US Corporates. The overall global observed rate across all credit grades has rarely been above 4% in the past 40 years.

A useful metric to anticipate rising defaults is credit volatility, measured by monthly percentage changes in default probability. If this trends higher, credit category transition rates will increase, including transitions into default.

Figure 1.1 shows various measures of credit volatility, calculated from more than 800 aggregates derived from bank consensus credit ratings.

Figure 1.1 Credit Aggregates: Maximum and Average 6m Trailing Volatility



The average and maximum trailing volatility is increasing, although it is nowhere near the peaks seen at the during the main pandemic waves. But it implies more frequent credit transitions; and if increasing volatility is biased to higher risk estimates, it suggests that downgrades and defaults will also rise in coming months. This will be a critical metric in 2023.

Figure 1.2 shows a list of consensus-based aggregates chosen according to three risk factors:

(1) proportion of constituents in credit categories **b** and **c**
(2) percent change in default risk in the past month
(3) percent change in the 6m trailing volatility of the aggregate average PD.

These are normalised[1] and summed. The 50 aggregates with the highest score are shown in Figure 1.2.

Figure 1.2 Top 50 Aggregates Ranked by Combined Risk Indicator

Aggregate	Risk Score
Turkey Financials	12.0
Turkey Banks	11.8
Nigeria Financials	11.1
Africa Food Producers	8.7
Africa Specialty Retailers	7.6
South Africa Transportation Services	6.9
Africa Sovereign Government	6.8
United Kingdom Multi-utilities	6.5
Africa Support Services	6.4
Africa Transportation Services	6.3
Africa Sovereign & Central Banks	6.2
Africa Oil & Gas	6.2
South Africa Industrial Transportation	6.1
Africa Food Products	5.9
Africa Industrial Transportation	5.7
Africa Banks	5.4
North America Health Care Providers	5.2
Africa Farming, Fishing & Plantations	4.8
South Africa Industrials	4.5
United States Health Care Providers	4.5
Africa Oil & Gas Producers	4.4
Europe Gambling	4.3
United Kingdom Railroads	4.2
Africa Industrial Machinery	4.2
Africa Industrials	3.9

Aggregate	Risk Score
South Africa General Retailers	3.8
Africa Consumer Goods	3.7
Europe Trucking	3.7
United States Industrial & Office REITs	3.5
North America Industrial & Office REITs	3.5
India Banks	3.5
Global Commodity Chemicals	3.4
United States Computer Services	3.4
United States Basic Materials	3.3
South Africa Consumer Goods	3.3
Africa General Retailers	3.3
Europe Railroads	3.2
North America Computer Services	3.2
Europe Financials	3.1
North America Software & Computer Services	3.1
United Kingdom Automobiles & Parts	3.1
United States Electrical Components & Equipment	3.0
United Kingdom Telecommunications	2.9
United Kingdom Diversified Industrials	2.9
United Kingdom Publishing	2.9
North America Financial Administration	2.7
United States Electronic & Electrical Equipment	2.7
United Kingdom Fixed Line Telecommunications	2.6
United Kingdom Electricity	2.6
United Kingdom Large Telecommunications	2.6

The list is headed by Turkish Financials, and the upper half is dominated by African aggregates, including the Sovereign / Central Bank aggregates.

UK, US and North American aggregates appear in the top half, including UK Utilities, North American Health Care, US Industrial & Office REITs.

Europe aggregates (which include UK) on the list include Gambling, Trucking and Railroads.

The UK features heavily in the lower half of the list, including Autos, Industrials, Publishing, Telecoms and Electricity.

The sectors on this list are the key ones to watch in coming months – these aggregates contain a high proportion of very high yield names, the aggregate is becoming more volatile, and the average risk level is rising.

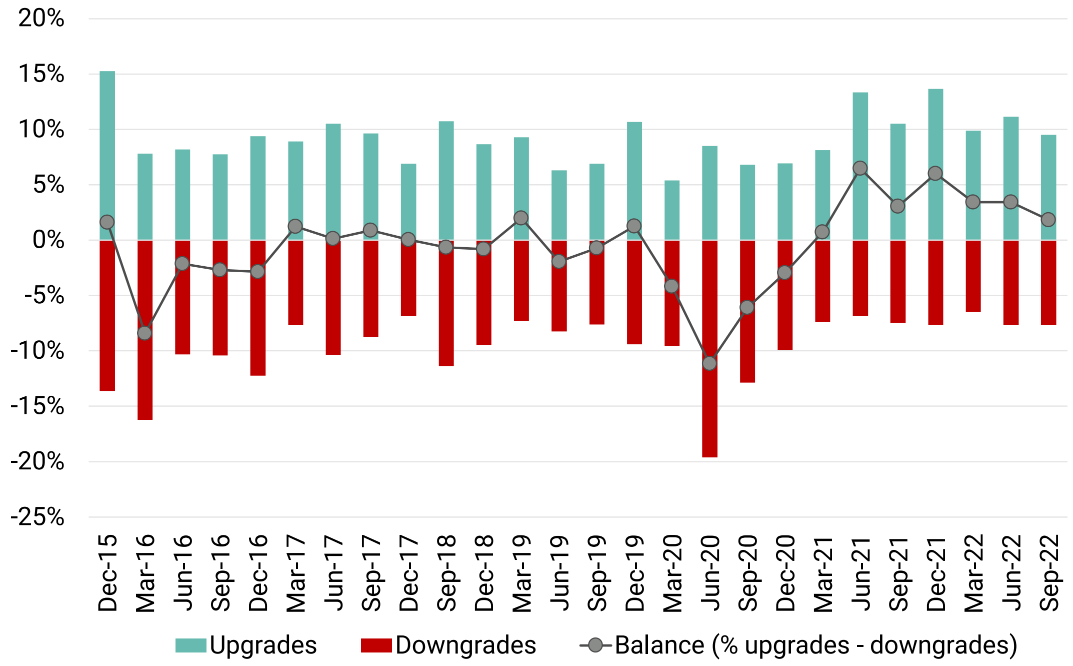
[1] *As z-scores i.e. (x(i) – mean(x))/stdev(x)*

2. COVID Recovery: Running Out of Steam

The COVID outbreak led to widespread and rapid credit deterioration across multiple sectors; the subsequent recovery has been slower but has reversed much of the decline as economies have re-opened.

Figure 2.1 shows the balance of upgrades and downgrades for Global Corporates.

Figure 2.1 Global Corporates: Upgrades vs. Downgrades

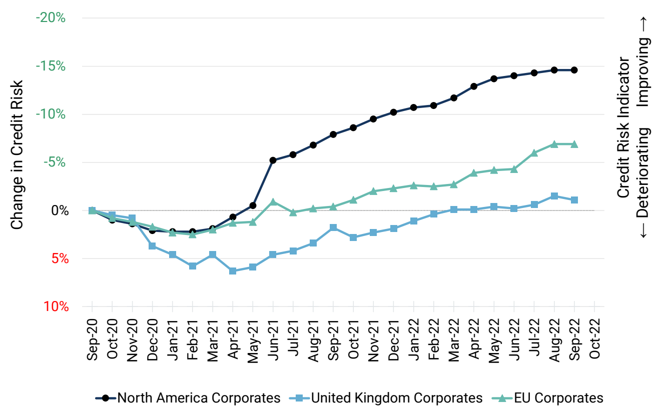


The COVID impact is clear, with a large negative balance in June 2020 below 40 (downgrades heavily outnumbering upgrades) before rebounding to its recent peak in June 2021. But while the Global Corporates balance between upgrades and downgrades remains positive, it has moved closer to balance in recent months. War, supply shocks, inflation and rising rates have stalled the improvement across multiple sectors and a growing number of them are turning down again.

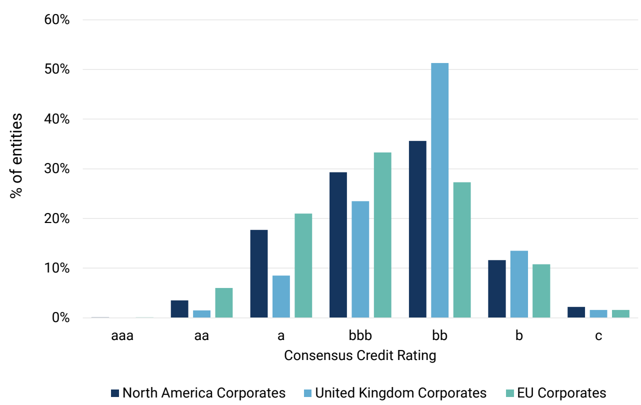
Figure 2.2 shows the detailed credit trend for corporates by region.

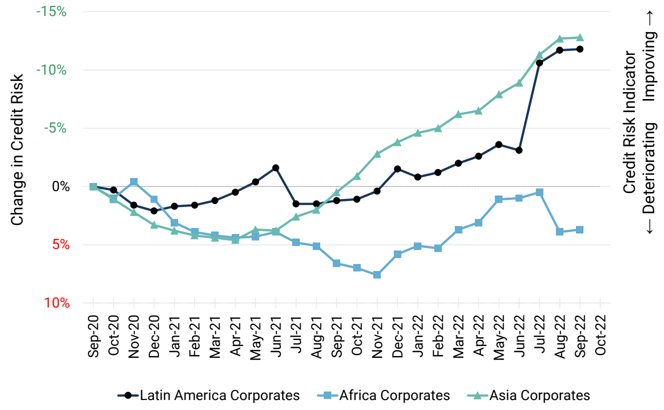
Figure 2.2 Regional Corporates

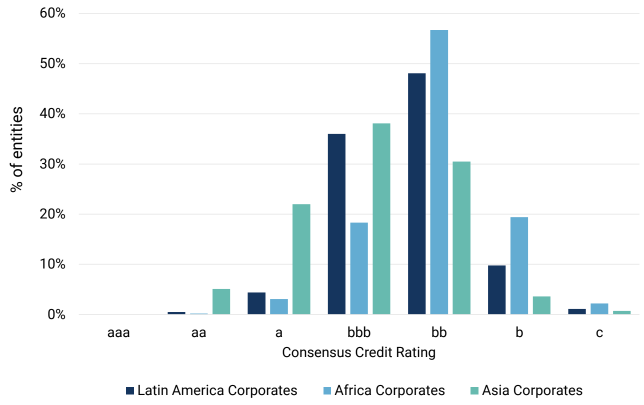
Credit Trend



Credit Distribution





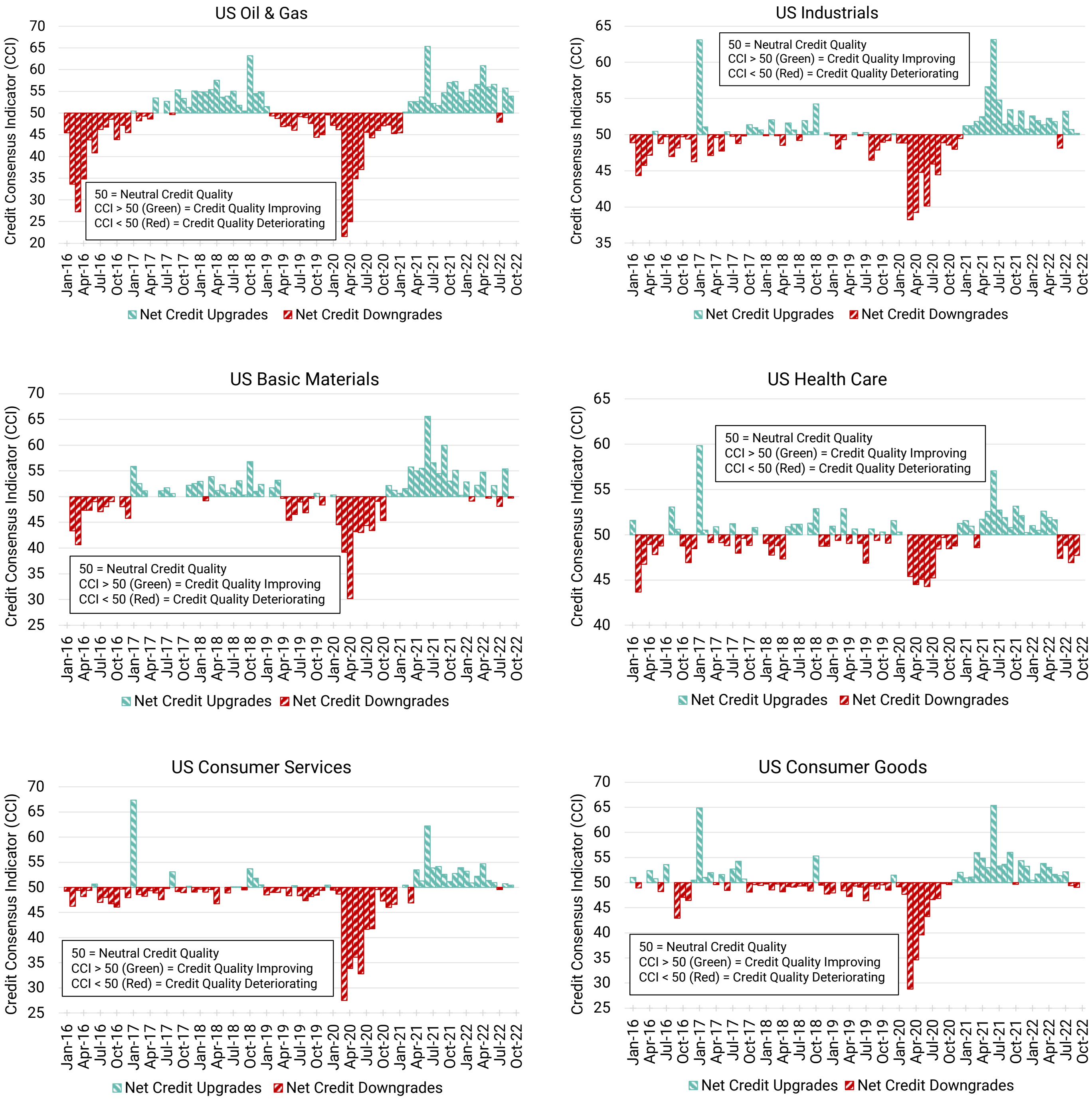


Corporates credit is only just still improving, with Americas and Asia leading the pack, however it is slowing down and reaching a turning point.

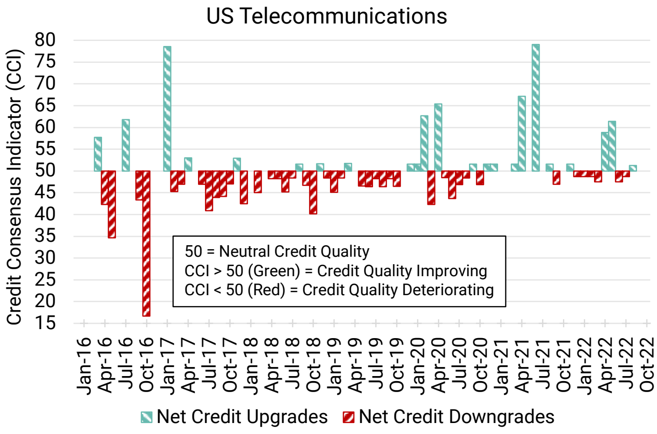
3. US Industry Trends: Tech and Healthcare Show Most Downward Momentum

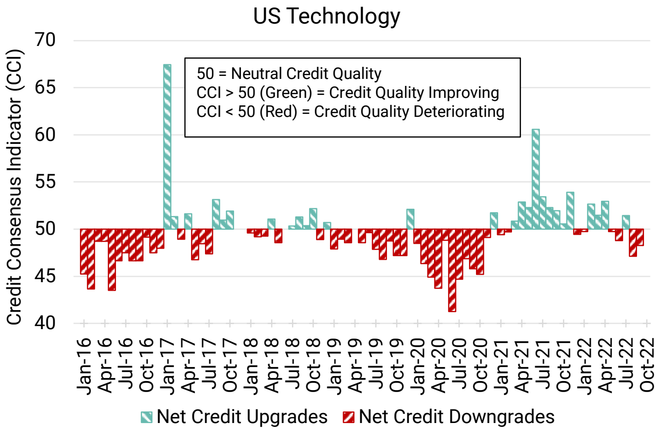
Figure 3.1 shows Credit Consensus Indicators[2] for US Industries.

Figure 3.1 US Credit Consensus Indicators



[2] *The CCI tracks the total number of upgrades and downgrades made each month by credit analysts to chart the long-term trend in analyst sentiment. A monthly CCI score of 50 indicates neutral credit quality, with an equal number of upgrades and downgrades made over the course of a month. Scores above 50 indicate that credit quality is improving. Scores below 50 indicate that credit quality is deteriorating.*





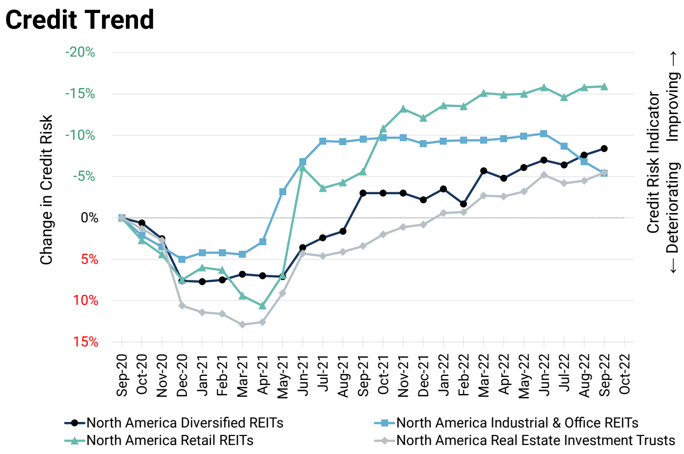
Some industries remain in positive territory, but the trend is clearly down for most of them; only Oil & Gas, Telecommunications and Consumer Services appear to still favour upgrades. Technology and Healthcare show the most downward momentum.

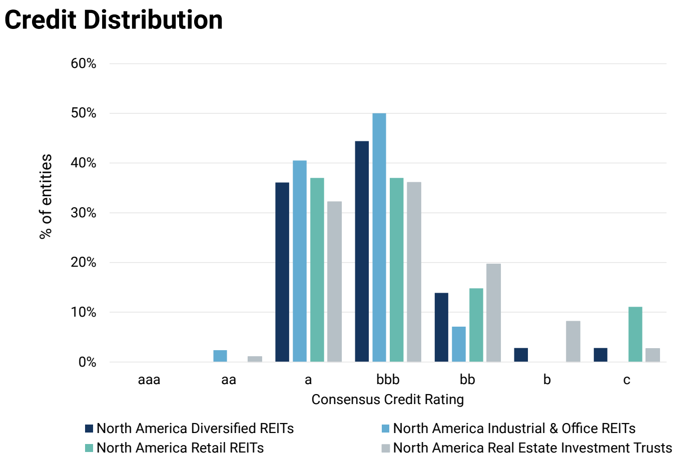
4. North American REITs: Industrial & Office Deteriorating

Global property is at a crossroads. For example, the build-to-rent sector is strong as urban rents spike around the world; and with general price levels rising at close to double digits, there is renewed interest in property as an inflation-proof real asset. But rising mortgage rates are hitting starter and family home markets globally.

Figure 4.1 shows credit trends for North American REITs, split by segment.

Figure 4.1 North American REITs, Past 24 months





North American REITs have improved overall since early 2021, but Industrial & Office has plateaued and now shows signs of turning down, as the new hybrid working model persists.

The UK is a special case, with Goldman Sachs warning of a darker outlook for UK Commercial Real Estate. Consensus credit ratings for both British Land and Hammerson are at least one notch below their agency ratings. Some UK property funds have temporarily suspended withdrawals in recent weeks. But Sterling weakness is attracting foreign buyers into prime residential locations, where effective prices has almost halved due to Covid impacts and currency weakness.

Broader property credit trends in 2023 will show how the positive value of property as an inflation hedge versus the negatives of higher mortgage rates and credit scarcity is balancing out.

5. European Energy: Lehman Moment Averted – For Now?

In September European Governments pledged hundreds of billions of Euros in financial aid to power generators and distributors, plus varying levels of support for consumers facing massive energy price hikes. At the same time, an even larger issue surfaced in European energy trading, with the FT reporting sector margin requirements as high as €1trillion – vastly in excess of sector liquidity.

Even before the Nordstream 2 sabotage, Putin's decision to suspend all oil and gas supplies to Europe forced some power companies to buy energy on the open market at any price to meet physical delivery contracts[3]. With banks understandably reluctant to provide unlimited finance, Governments face the difficult choice of acting as insurer of last resort (adding to post-Covid debt piles) or letting them collapse. The latter has huge systemic risk implications; not just for exchanges (ICE for oil and gas, Nasdaq and EEX for electricity) but also for CCPs and their members, and even for apparently well-capitalised energy firms who have potentially insolvent counterparts.

Germany's nationalisation of Uniper may have gone some way to averting what was being described as a "Lehman moment" for the sector; and there are some parallels with the 2008 financial crisis: positions may improve over time but there is a need for a short-term lifeboat. Iberdrola subsidiary Scottish Power has proposed amortizing the support costs over multiple years, and the EU is still discussing a "power bank": firms with windfall gains could finance those in distress until prices and volumes stabilise.

Figure 5.1 shows consensus ratings for the main energy companies.

Figure 5.1: Consensus Ratings and Equity Performance of Major European Energy Firms

Company	Consensus Credit Rating Now	Consensus Credit Rating Jan 22	Country	Govt. Majority Stake
CEZ	a	a	Czechia	Y
Orsted A/S	a	a	Denmark	Y
SSE PLC	a	a	UK	
Iberdrola SA	a-	a-	Spain	
Engie SA	a-	a	France	
Veolia Environnement SA	a-	a-	France	
E ON SE	bbb+	bbb+	Germany	
National Grid PLC	bbb+	bbb+	UK	
Eni	bbb+	bbb+	Italy	Y <50%
RWE AG	bbb+	bbb+	Germany	
Fortum	bbb+	a-	Finland	Y
EDF	bbb+	a	France	Y
Enel SpA	bbb+	bbb+	Italy	
A2A	bbb	bbb	Italy	
Centrica	bbb	bbb	UK	
Uniper	bb- / NA	bbb-	Germany	Y 100%

Credit is generally strong and has been stable, with the exception of Engie, Fortum, EDF and now nationalised Uniper. Engie's gas business is not directly dependent on Russian pipelines, but they are having to compete in the open market for increasingly limited LNG supplies. EDF's credit rating suffered due to complete suspension of their nuclear facilities for maintenance; a government bailout has rescued shareholders and covered hedging obligations pending nuclear output coming back onstream in Q4.

Italy and Germany are large importers of Russian gas; Uniper, Fortum, Enel, A2A, Veolia and E On have all seen their share prices suffer this year; Uniper bond and equity holders have now been wiped out by nationalisation. RWE shares have held up possibly due to large coal and nuclear exposure, both of which are back in favour to fill the gap left by the Russian supply squeeze. Iberdrola and its subsidiaries are heavily focused on renewables and its consensus rating is stable.

Clear double winners may emerge – those with little exposure to Russian fossil fuel supplies and windfall profits from price spikes, either due to limited hedging of output or effective hedging of inputs. But the losers will include those that over-hedged and now face a price and liquidity squeeze. If counterparty risk becomes a problem, the equity and credit picture could change; and this sector has a large number of smaller firms, many of them very exposed at the moment and generally classed as non-investment grade.

[3] Primary energy producers – oil companies, coal and uranium miners[3], hydro schemes, solar and wind farms – are mainly concerned with achieving a minimum selling price, so they are typically natural sellers of energy futures. Power generators can control their output provided they have access to raw energy supplies – but many do not own these outright. So the latter may hedge inputs and outputs, but need to make physical delivery. Power distributors are one step further along the power supply chain, even more vulnerable to input-output price and volume mismatches – including the risk that consumers cannot pay for usage. Duration risk, basis risk and delivery risk are all live issues for the sector. Via exchanges and bilateral OTC deals, companies across the power supply chain went into the crisis holding extensive[3] (up to five times the end user demand) long and short positions. Many firms have sold future output at prices that have been overtaken by war and market volatility, leaving them vulnerable to margin calls as their short positions are squeezed. For some, those short positions are covered by physical production that should materialise in the future, so their current challenge is a liquidity issue that need not become a solvency issue with help from their bankers or their governments.

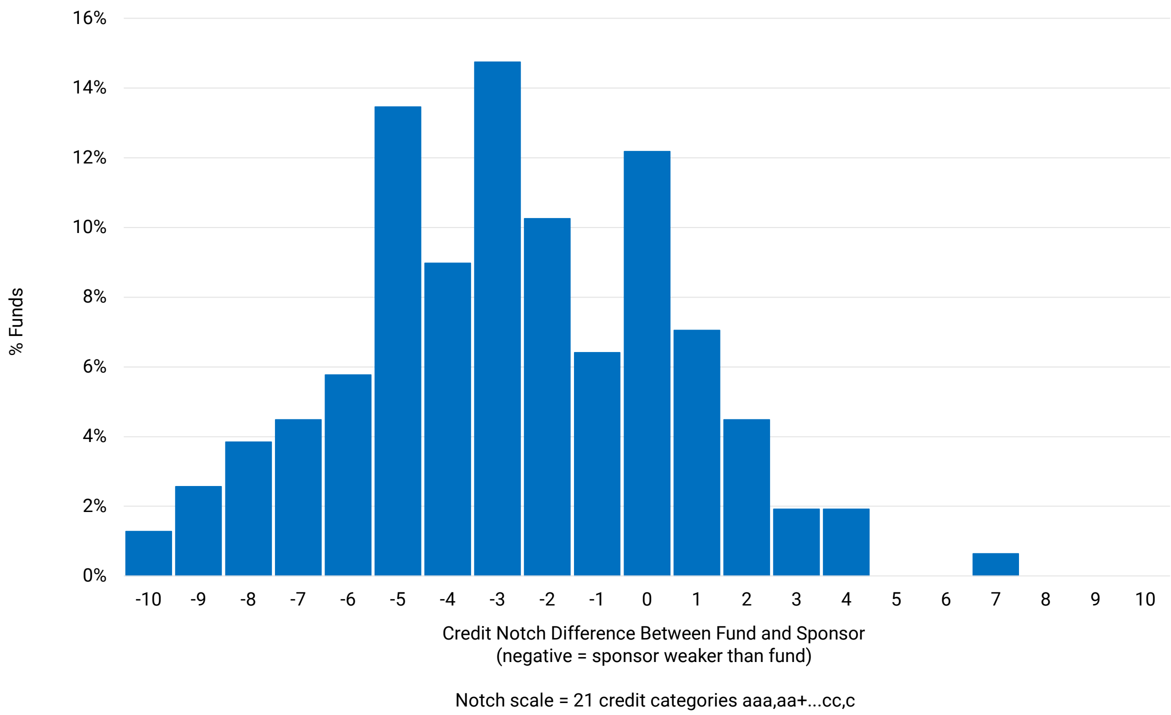
6. UK LDI Crisis: Pension Funds Cannot Rely on Sponsors

The UK pension industry has been grappling with the combined challenges of increasing life expectancy and unnaturally low interest rates. The spike in energy costs and Covid disruption to supply chains means that the global interest rate cycle appears to have turned to have turned. This has had a particularly acute impact in the UK, where DB and DC schemes had turned to LDI strategies to avoid notional funding deficits.

The LDI approach spawned an asset management boom in target date funds, which in some cases used leverage to convert 30-year bonds into longer duration hedges. Rising gilt yields have led to margin calls – with many funds holding insufficient cash to make immediate payment. Those funds do have other assets – bonds, equities, property; and ironically, they also have an improved long term funding position due to a drop in liability values following the rate increase.

In the short term, however, they need to sell assets, or ask their sponsor for a cash injection – or reduce their swap exposure. Figure 6.1 shows the relative credit standing of about 150 UK DB schemes compared with the credit risk of their sponsor.

Figure 6.1 UK DB Schemes Credit Risk vs. Sponsor Credit Risk



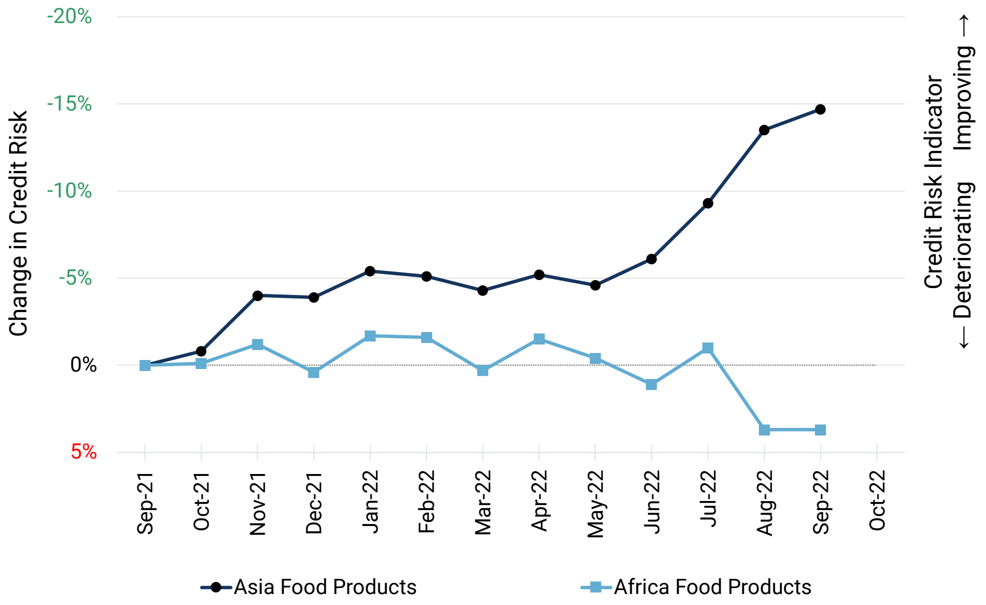
Pension funds are traditionally well capitalised and bank consensus ratings usually show them as investment grade. Many of the companies that sponsor those funds are weaker credits, and a significant number are non-investment grade. This means that most DB pension funds in this sample – some of the largest in the UK – cannot rely on their sponsors for cash support to meet margin calls. This leaves them with the options of a rapid reduction in swap positions (leaving their liabilities unhedged if long rates start to fall again) or forced asset sales, skewing their asset allocation and potentially compromising their long-term funding. Ironically, higher long rates are good for funding as liabilities drop. The challenge is to monetise that improvement to meet margin calls.

7. Food Products: Africa and Asia Diverge

Food security is now a major global issue, with widespread summer droughts and severe winter floods, while the Ukraine war has had a devastating impact on grain supplies and fertilizer production.

Figure 7.1 shows credit trends for this sector in Africa and Asia.

Figure 7.1 Credit Trend, Food Products, Africa and Asia, past 12 months



A major gap has opened up in recent months, with Asia improving by 15% in the past year and Africa deteriorating by about 4%.

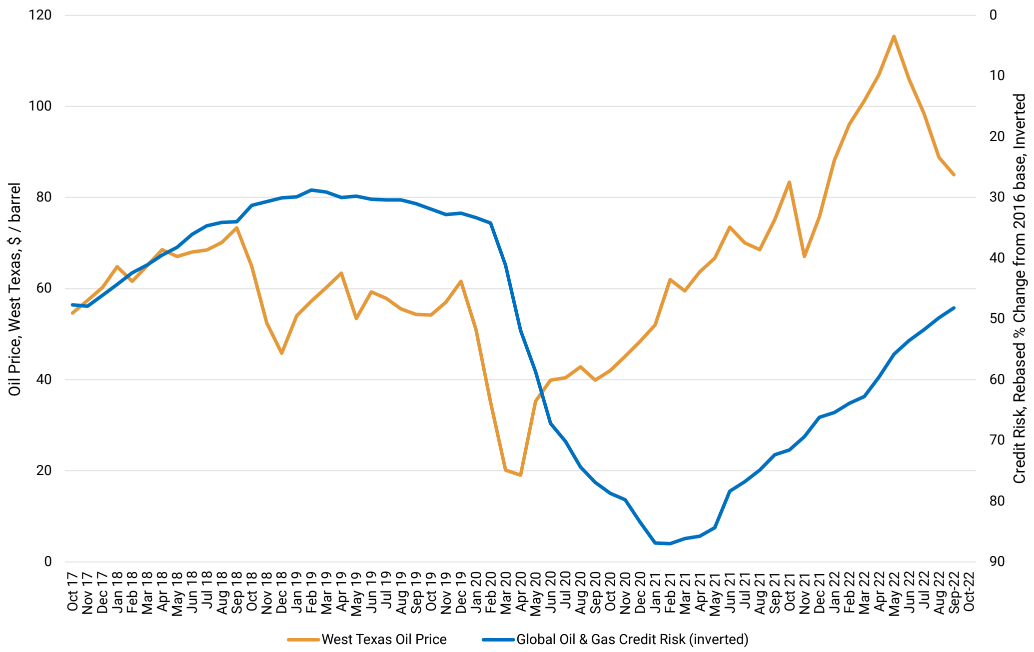
These trends seem unlikely to reverse in the near future: energy supplies are a major issue for African economies. The European embargo on ship-borne oil deliveries due in December will be enforced by Western insurance companies, who will remove cover from any Russian ships carrying fuel for export. India and China can self-insure, but smaller nations cannot afford to risk general withdrawal of trade-related insurance.

8. Global Oil & Gas: Credit Improvement Lagging Stronger Oil Price

Oil prices have been a roller coaster in recent years – in May 2020 the spot price briefly turned negative. The invasion of Ukraine pushed West Texas close to $120, but it is now below $100 as new supplies come on stream in response to the initial price shock.

Figure 8.1 plots oil prices vs. credit risk for the past 5 years.

Figure 8.1 West Texas Oil Price vs. Global Oil & Gas Credit Risk, 2017-2022



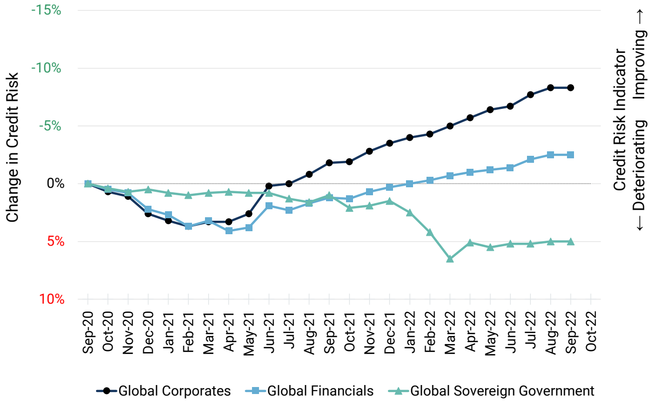
Higher prices are usually good for the industry overall, but individual companies may see major positive or negative impacts depending on their mix of business – integrated firms should have less volatile earnings, upstream and downstream can be mirror images. With such huge swings, there is scope for some companies to get their hedging wrong; those who pre-sold production at lower prices may have no financial surplus to pay looming windfall taxes.

Against this background, industry credit risk has improved but is hampered by the effect of price volatility, the risk of windfall taxes, and uncertainty about when and how the war will end. So it is probably not surprising that the recent improvement in Global Oil & Gas credit risk has lagged behind oil prices. The two series seem to be on track to cross in early 2023.

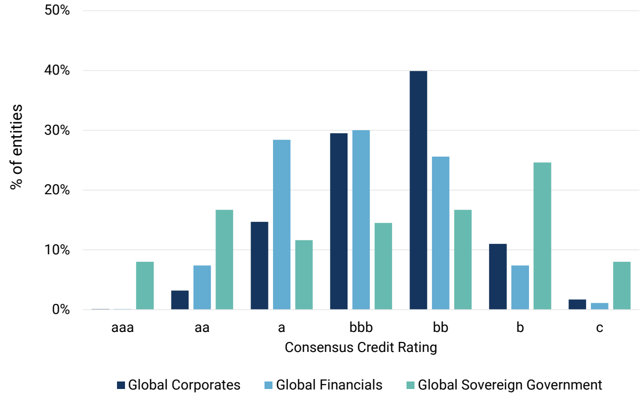
9. Appendix: Credit Trend & Credit Distribution Chartbook

Figure 9.1 Global Corporates, Financials & Sovereign Government

Credit Trend



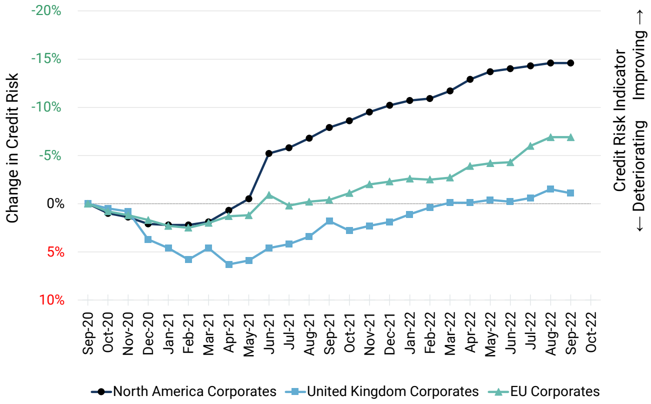
Credit Distribution



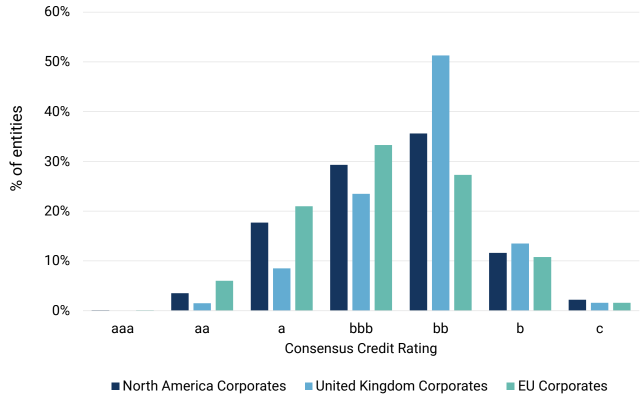
Global Corporates and Financials credit has been steadily improving all year, with Global Corporates leading Global Financials. Global Sovereign Government credit has been stagnant since a period of credit deterioration earlier this year.

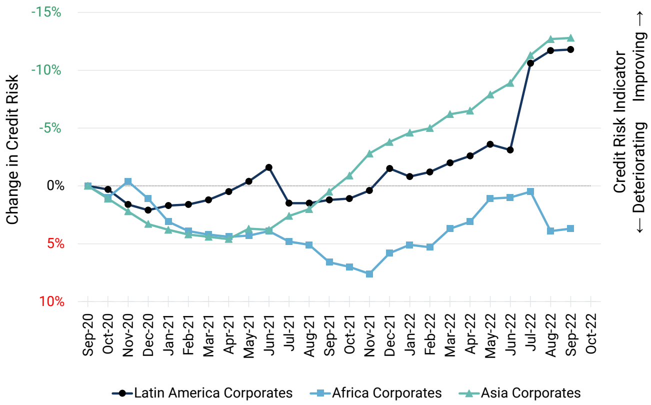
Figure 9.2 Regional Corporates

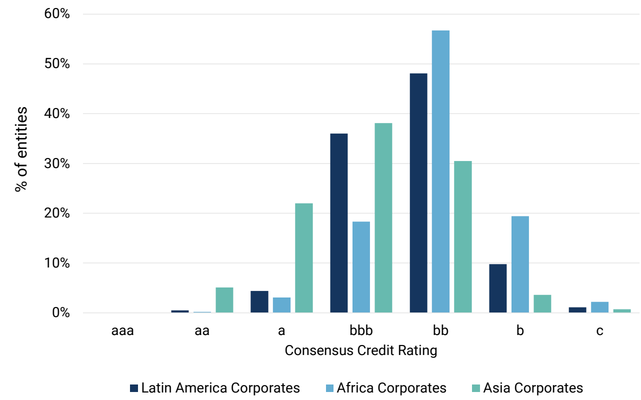
Credit Trend



Credit Distribution



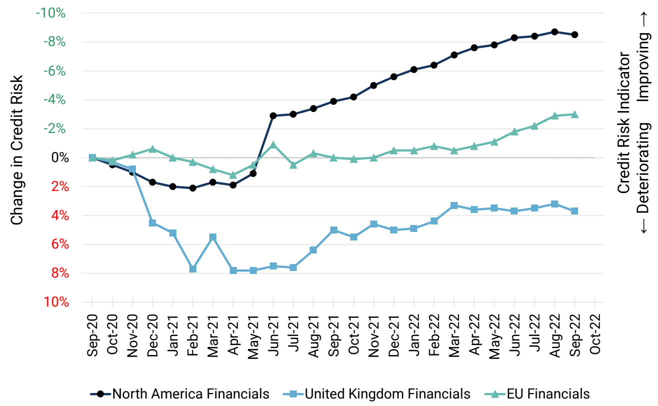




Corporates credit is still improving, with Americas and Asia leading the pack, however it is slowing down and reaching a turning point. Africa Corporate credit has experienced some recent deterioration, but the most recent month shows a turning point.

Figure 9.3 Regional Financials

Credit Trend



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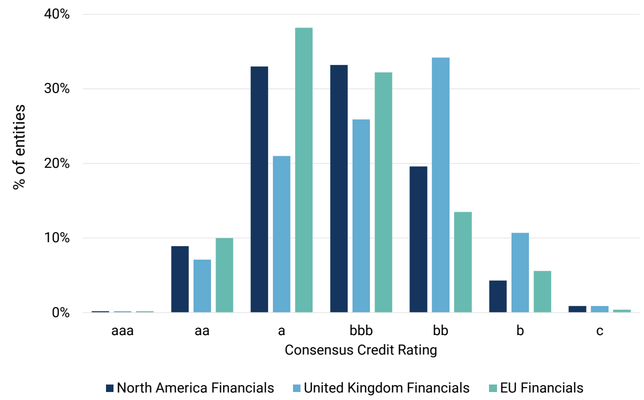
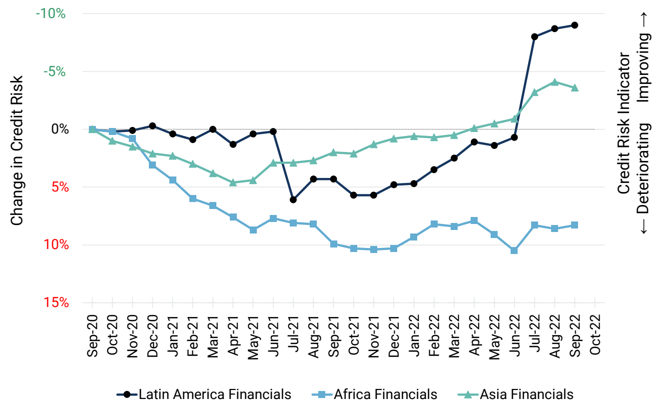
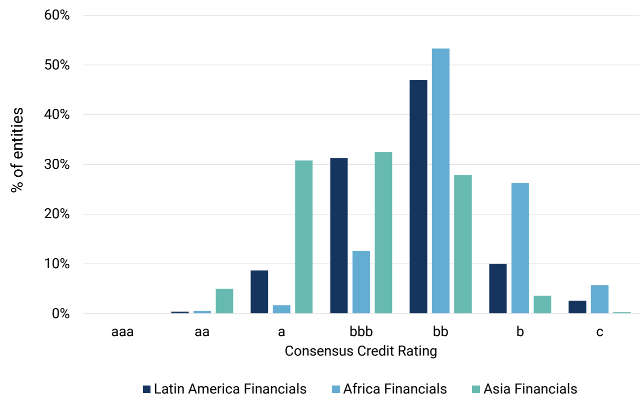


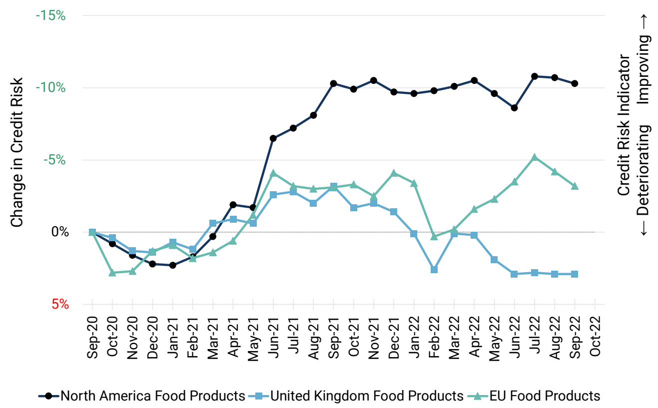




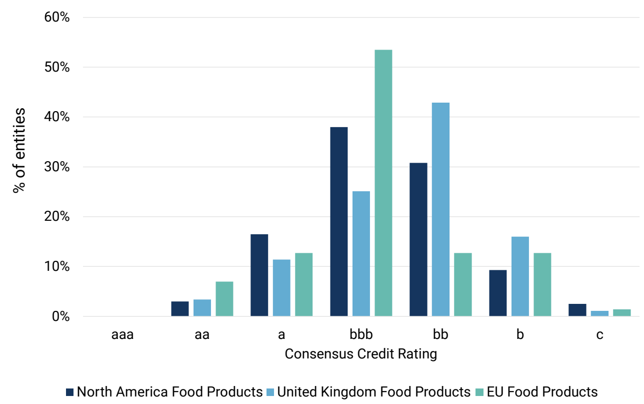
Americas leads the improvement in the Financials credit pack; however, the latest months see turning points for most regions. Africa Financial credit improves at a slow rate.

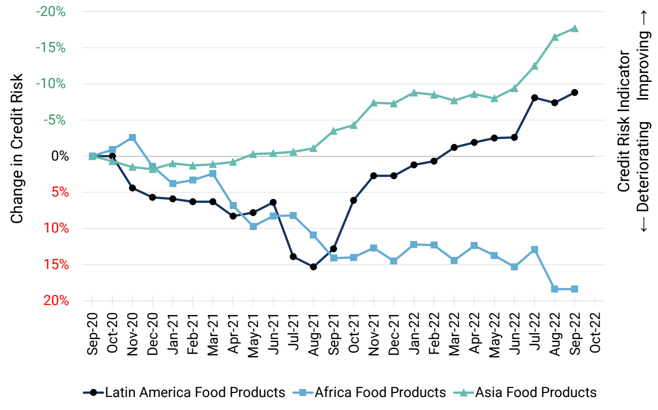
Figure 9.4 Regional Food Products

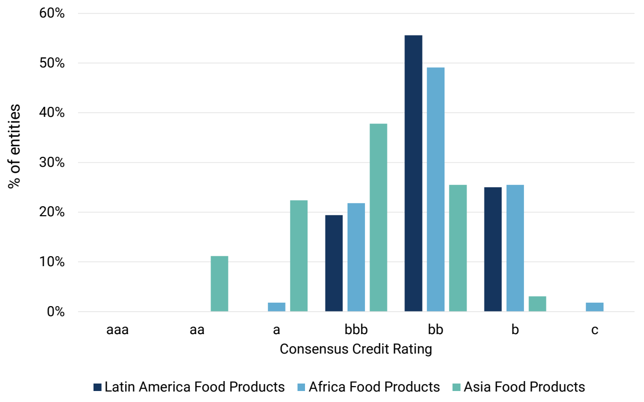
Credit Trend



Credit Distribution



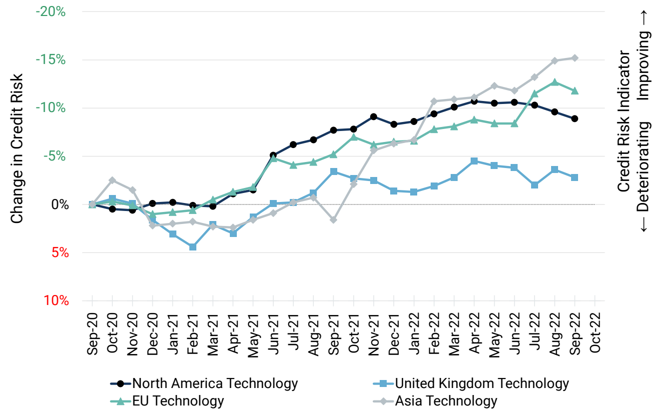




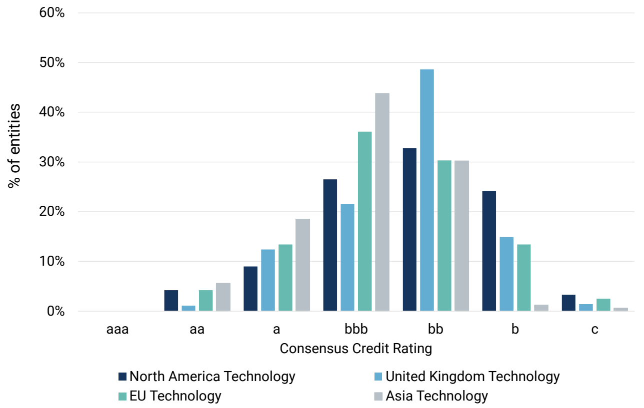
This quarter North America and United Kingdom Food Products credit has experienced turning points, with multiple months of credit deterioration recorded. In addition to this, the gap between Asia and Africa Food Products credit has widened.

Figure 9.5 Regional Technology

Credit Trend



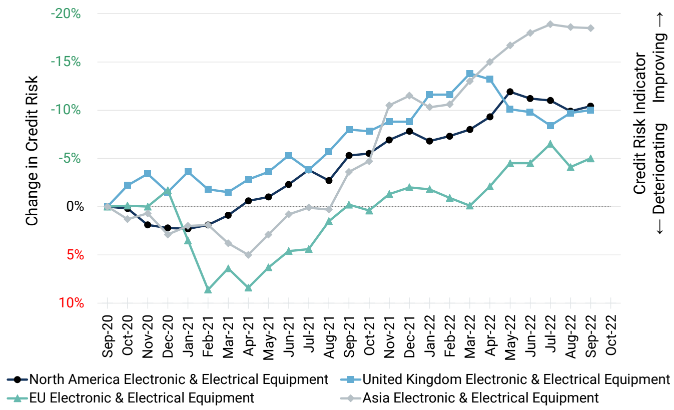
Credit Distribution



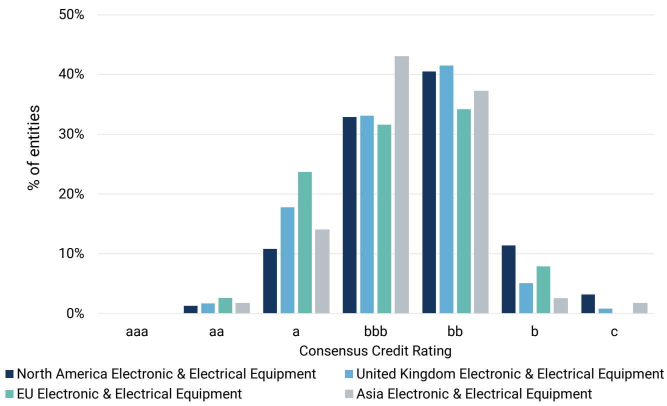
North America, United Kingdom and EU Technology are all experiencing credit deterioration in the latest month. Conversely, Asia has had 4 consecutive months of credit improvement.

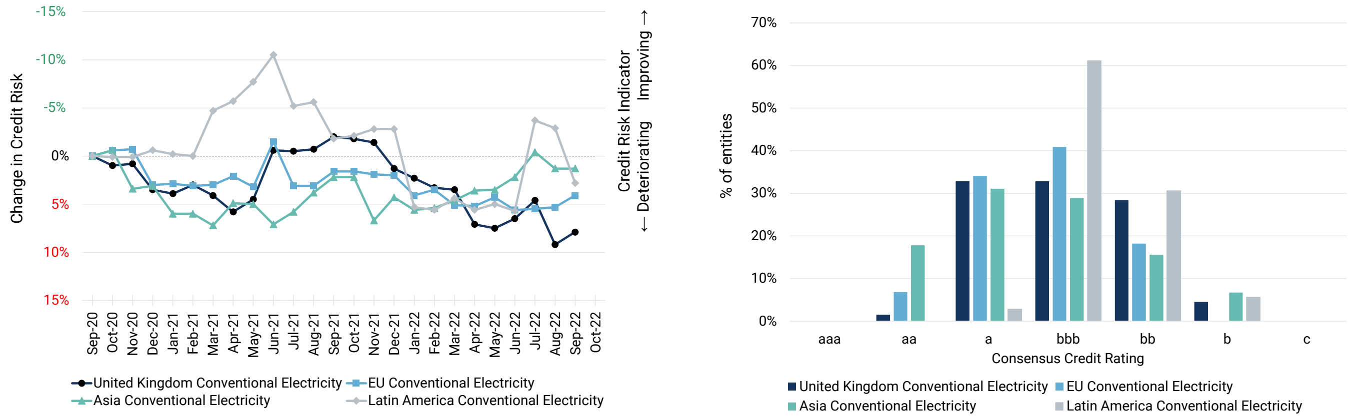
Figure 9.6 Regional Electronic & Electrical Equipment and Conventional Electricity

Credit Trend



Credit Distribution



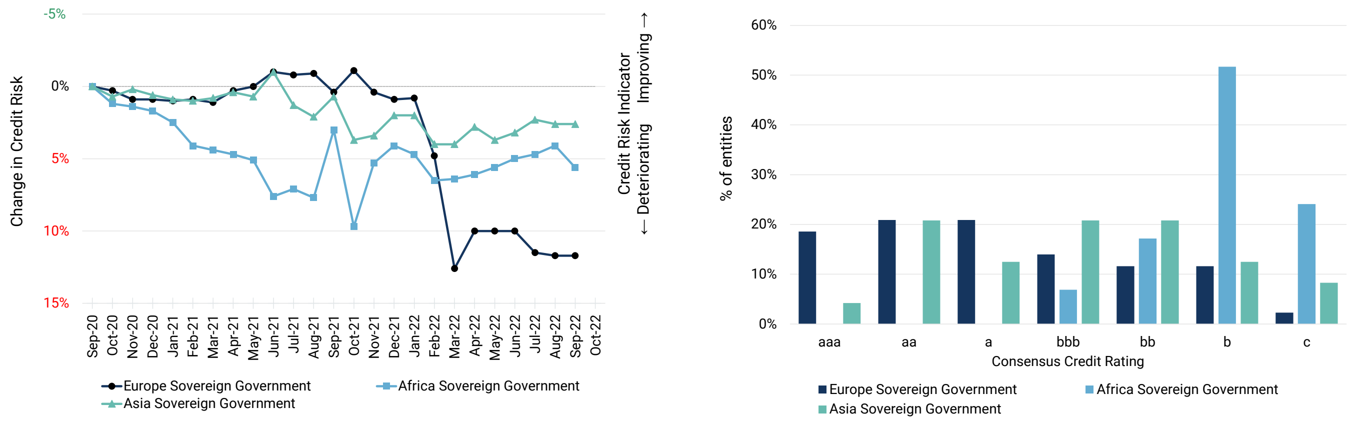


Asia has led the credit improvement in Electronic & Electrical Equipment. North America Electronic & Electrical Equipment has experienced a turning point in its credit, after 3 consecutive months of credit deterioration. Latin America Conventional Electricity experienced significant credit deterioration this month, whilst UK and EU Conventional Electricity credit is finally showing some improvement.

Figure 9.7 Regional Sovereign Government

Credit Trend

Credit Distribution



Africa Sovereign Government experienced significant credit deterioration this month, whilst Europe and Asia credit has been relatively stagnant this quarter.

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