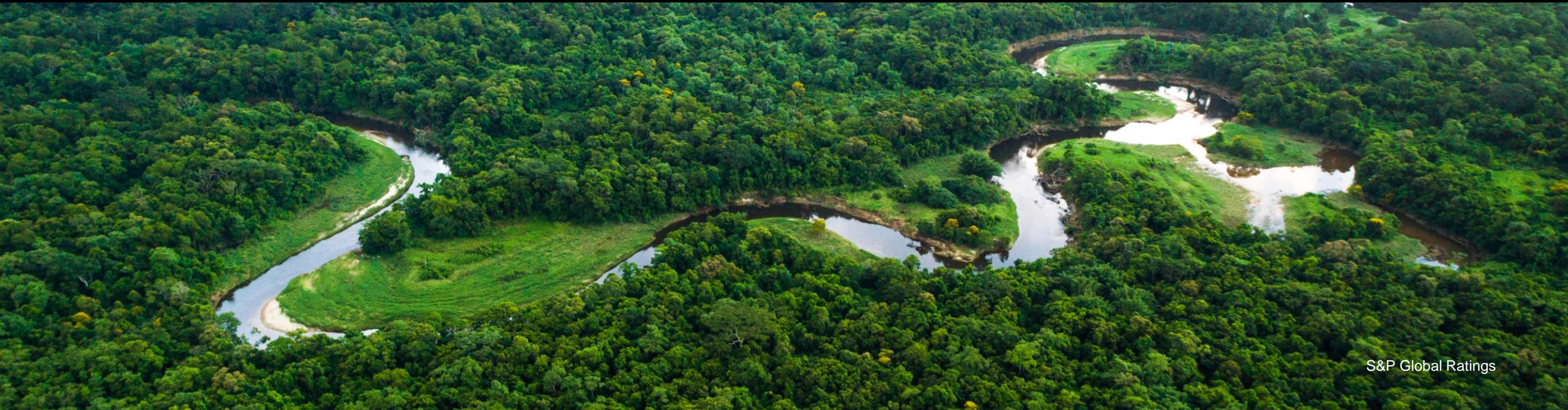


Who Is More Resilient To Rising Interest Rates And Inflation?

Tobias Mock, Managing Director,
Country Head Germany, Sector
Lead DACH Corporates

November 3, 2022



Recession Ahead And Inflation To Stay In 2023

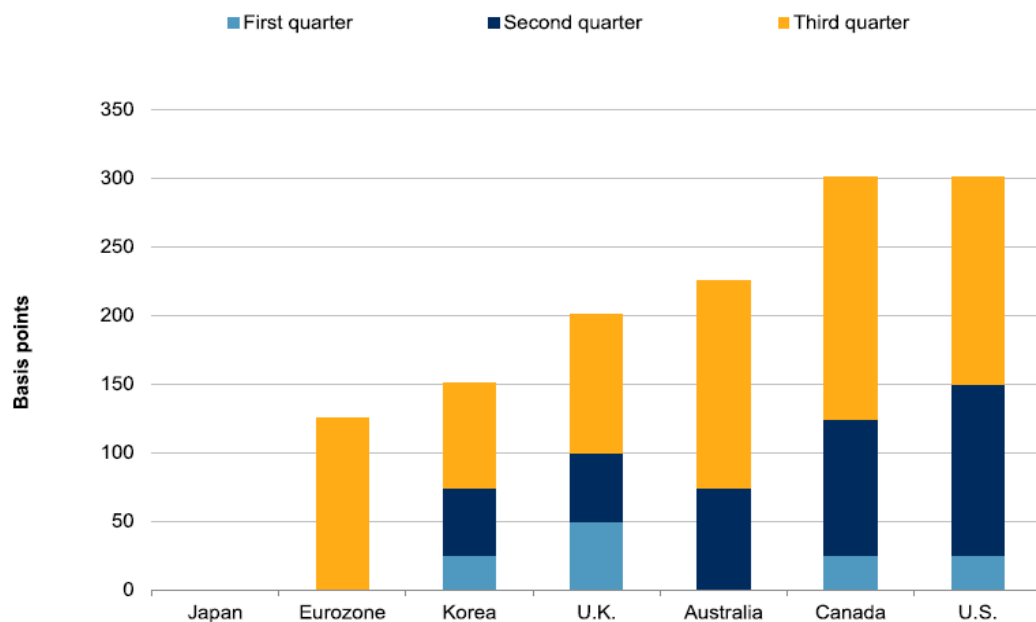
Challenging Macro Environment For Corporates Will Likely Erode Profit Margins

S&P Global Ratings European Economic Forecasts (September 2022)

	Germany	France	Italy	Spain	Netherlands	Belgium	Eurozone	Switzerland
GDP								
2020	-4.1	-7.9	-9.1	-10.8	-3.9	-5.7	-6.5	-2.5
2021	2.6	6.8	6.6	5.1	4.9	6.2	4.96	3.7
2022	1.5	2.4	3.4	4.5	4.3	2.4	3.1	2.4
2023	-0.3	0.2	-0.1	1.1	0.2	0.4	0.3	1.1
2024	1.2	1.8	1.5	2.1	2.1	1.7	1.8	1.6
2025	1.3	1.5	1.1	2.6	1.8	1.9	1.7	1.4
CPI inflation								
2020	0.4	0.5	-0.1	-0.3	1.1	0.4	0.3	-0.7
2021	3.2	2.1	1.9	3.0	2.8	3.2	2.6	0.6
2022	8.4	6.1	7.8	10.1	11.1	10.2	8.2	3.1
2023	7.0	3.3	4.3	5.6	5.4	4.9	5.2	2.6
2024	2.2	1.9	1.9	1.3	1.1	2.0	2.2	1.5
2025	1.6	1.9	1.8	1.5	1.2	1.9	1.7	1.0
Unemployment rate								
2020	3.7	8.0	9.3	15.5	4.9	5.8	8.0	4.8
2021	3.6	7.9	9.5	14.8	4.2	6.3	7.7	5.1
2024	3.6	7.6	8.4	13.1	4.1	6.0	6.9	3.9
2025	3.5	7.5	8.3	13.0	3.8	5.9	6.8	4.0

Central Bank Policy Rate Hikes Of Developed Markets Within The G20

Year-to-date, by quarter



G20--Group of 20, a forum comprising 20 large economies, including the E.U. Source: Central bank websites, S&P Global Ratings Economics.

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Further increase expected, but majority is done:
 FED by end of Q1 2023 +100bp to 4-4.25%
 ECB by end of Q1 2023 +50bp to 2%
 BOE by Feb. 2023 + 100bp to 3.25%

No Easing In Sight On The Risk Side But Unemployment Rates Look Solid And Government Support Continues To Increase

Top European Risks

Russian threats to escalate and broaden out the conflict in Ukraine

Risk level Moderate Elevated **High** Very high **Risk trend** Improving Unchanged **Worsening**

Russia appears to be set on an escalation of its military and economic conflict with Ukraine and the West, though key Russian allies China and India may yet intervene. While direct NATO military engagement in the conflict is not our base case, the risk is not insignificant particularly should Russia use unconventional weapons or otherwise causes Article 5 to be invoked. The asymmetric nature of these risks only acts to exacerbate existing shocks reverberating through the global economy. More broadly, the conflict illustrates a deeper geopolitical schism between autocratic and democratic blocs that could undermine decades of economic cooperation and development, with widespread implications for global security, trade, supply chains, communications, the environment, and global health.

Financing conditions become overly restrictive as European central banks front-load monetary policy tightening

Risk level Moderate Elevated **High** Very high **Risk trend** Improving Unchanged **Worsening**

Persistently above-target European inflation has galvanized central banks (including the ECB) to accelerate the transition to a tighter monetary policy stance. While energy subsidies may limit further increases in headline inflation over the near term, the possibility of renewed fiscal stimulus across most economies in Europe, and very tight labor markets, argues for a continued robust central bank response. In this environment financing conditions have a lot further to tighten with the risk that, as growth slows, fragilities in creditworthiness will crystallize, mainly where debt burdens are high and/or refinancing requirements are significant. This is particularly pertinent for European corporates given the still high (around 30%) of speculative-grade companies (rated 'B-' and lower) that we view as vulnerable, especially those unable to generate positive cash flow even if debt maturities remain distant. But it is also relevant to European sovereigns if progress on budget consolidation or structural reforms slip. The key test will be how government bond yields perform once the ECB ends reinvestment of maturing government bonds in its portfolio, but doesn't target that until the end of 2024.

Recession risks rising as a protracted war, energy scarcity, and slowing growth in U.S. and China take their toll in Europe

Risk level Moderate Elevated **High** Very high **Risk trend** Improving Unchanged **Worsening**

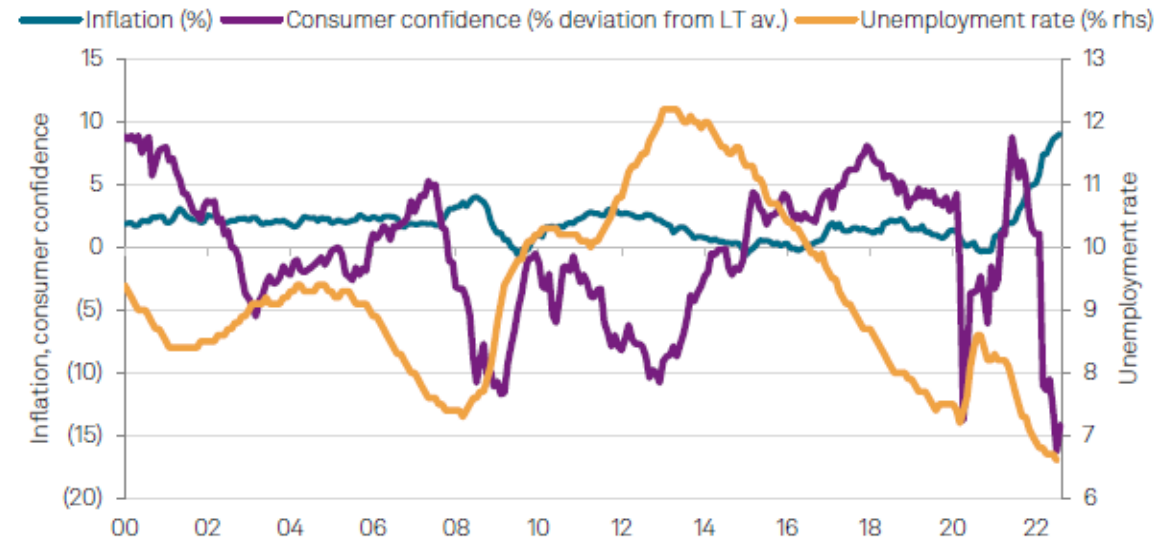
The European economy, already dealing with record highs in natural gas prices as Russia cuts pipeline supplies, faces further energy supply risks that could derail our base case as EU sanctions on Russian oil shipments start to take effect from Dec. 5, as well as the threat of curtailment of Russian oil supply to any G-7 countries that impose a mooted oil price cap. The risk of further Russian reprisals, including cuts to residual gas flows to Europe via Ukraine and TurkStream, is also increasing as the war shifts in Ukraine's favor ahead of the approach of winter. Combined with a weaker growth outlook in the U.S. and China, we view a high risk of this geopolitical and energy-related crisis resulting in a deeper and longer recession in Europe.

EU and U.K. energy market interventions necessary but costly and complex to implement on a timely basis

Risk level Moderate **Elevated** High Very high **Risk trend** Improving Unchanged **Worsening**

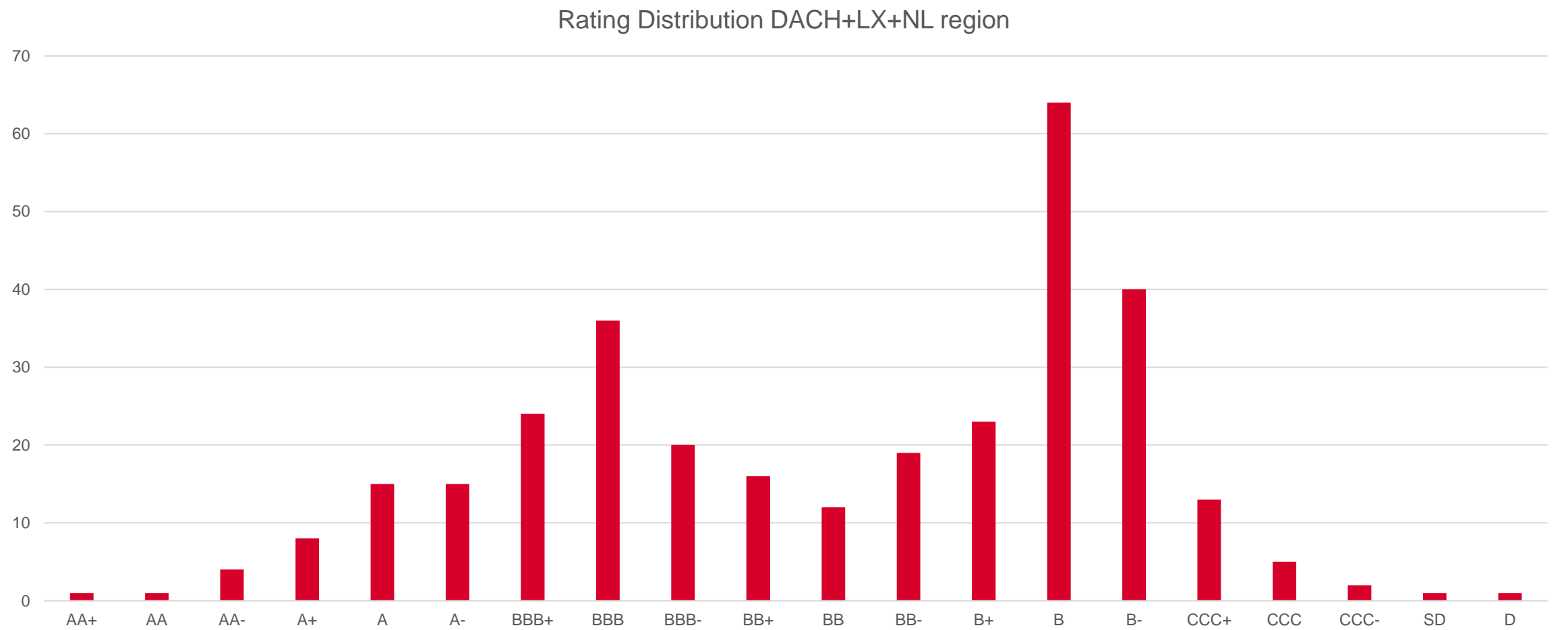
Excessive price volatility and continued exorbitant prices in European gas and power markets threaten market stability as well as the competitiveness of many energy-intensive industries. While the proposed market interventions announced by the EC on Sept. 15 will be beneficial, reaching consensus across EU member states and implementing the measures on a timely basis ahead of winter could prove challenging. Notably the design and implementation of any power price caps and equitable redistribution of related infra-marginal rent on power that will vary significantly across member states. Price caps on Russian oil and possibly on gas also risk further supply curtailment from Russia. Even extending the eligible collateral-backing margin calls that secures the solvency of the commodity clearing houses needs to be undertaken thoughtfully to limit the risk of unintended consequences. More broadly, the emergency government support for consumers and households across Europe comes at huge cost for governments - on average around 3% GDP on a net basis for EU countries at present prices, and potentially up to 6% GDP over the next two years in the U.K., based on recent proposals. The concern for the gilts market is that nearly all of that 6% of GDP will be funded via new debt, during a period when the BOE is shrinking its balance sheet, and sterling depreciation is adding to inflationary pressures.

Consumer Confidence Has Collapsed As Inflation Skyrockets Despite Unemployment Falling



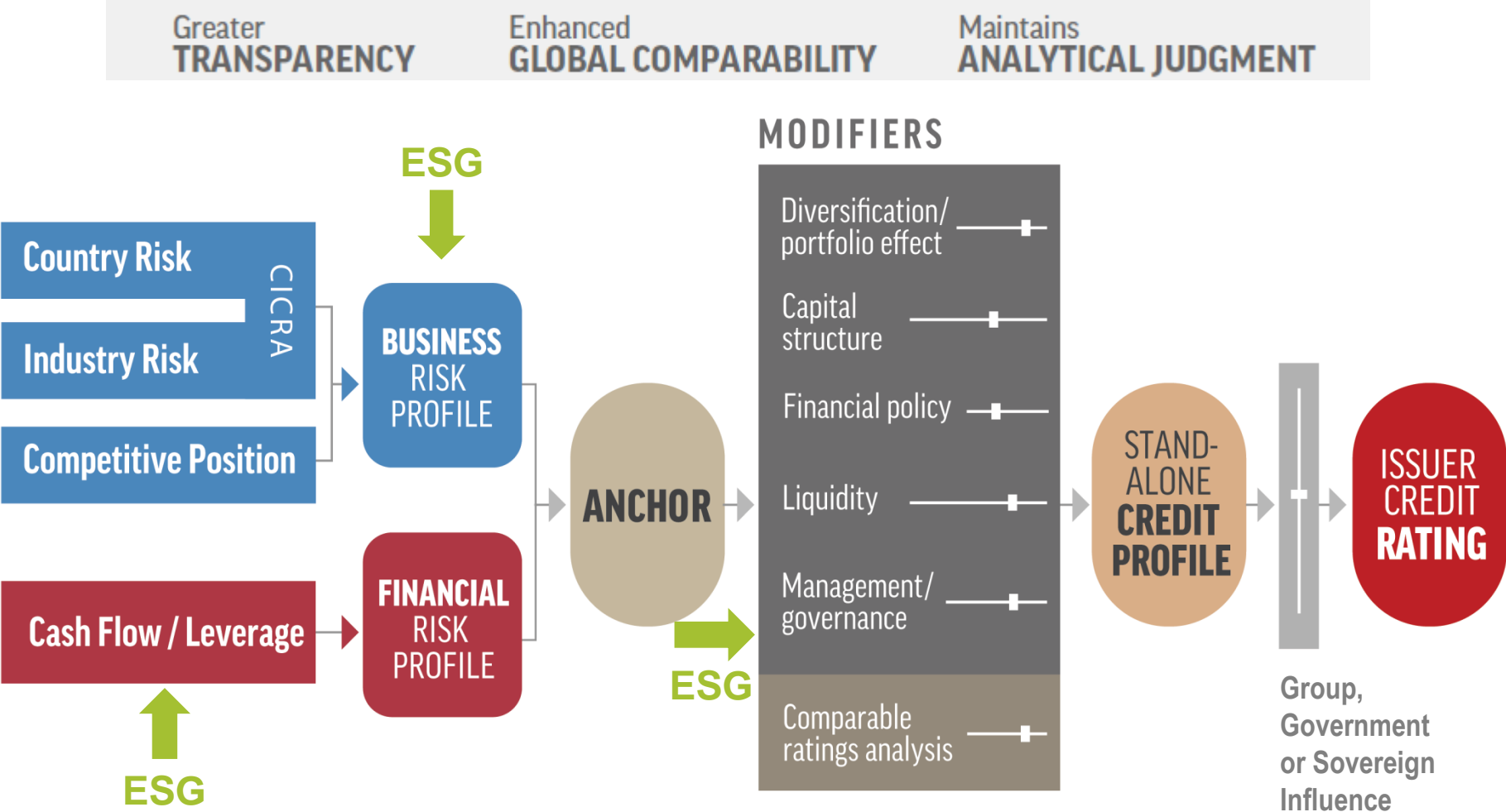
Source: S&P Global Ratings.

Rating Distribution Shows A Large Number Of B Credits Where Refinancing Will Be Much More Expensive If It Comes Up

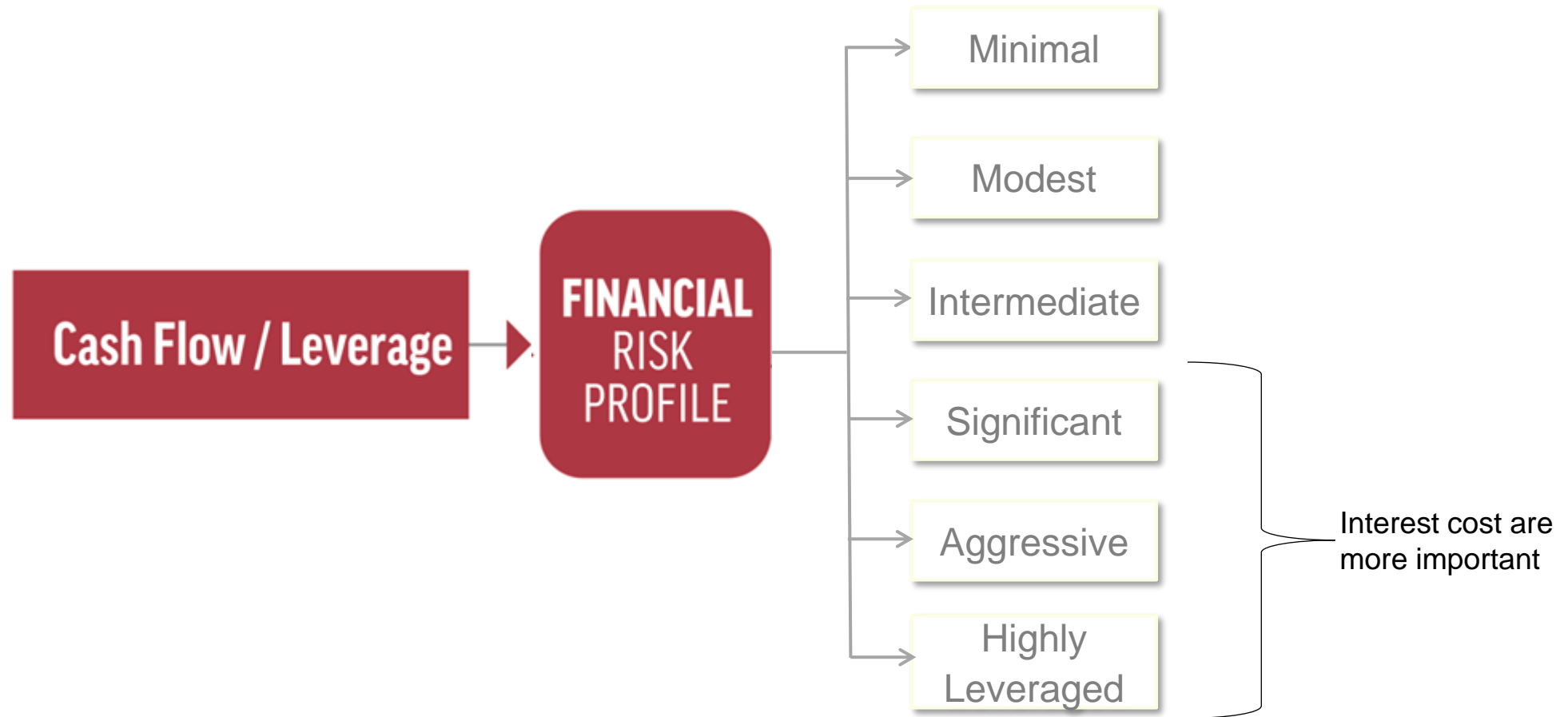


How Do Interest Rates And Inflation Impact Credit Ratings?

S&P Global Corporate Ratings Methodology At A Glance



Financial Risk Profile



Diverse Set Of Credit Ratios – In Focus Interest Cover Ratios...

Business Risk
Profile

Financial Risk
Profile

Anchor

Modifiers

Group
Methodology

Cash Flow/Leverage Analysis Ratios--Standard Volatility

	--Core ratios--		--Supplementary coverage ratios--		--Supplementary payback ratios--		
	FFO/debt (%)	Debt/EBITDA (x)	FFO/cash interest(x)	EBITDA/interest (x)	CFO/debt (%)	FOCF/debt (%)	DCF/debt (%)
Minimal	60+	Less than 1.5	More than 13	More than 15	More than 50	40+	25+
Modest	45-60	1.5-2	9-13	10-15	35-50	25-40	15-25
Intermediate	30-45	2-3	6-9	6-10	25-35	15-25	10-15
Significant	20-30	3-4	4-6	3-6	15-25	10-15	5-10
Aggressive	12-20	4-5	2-4	2-3	10-15	5-10	2-5
Highly leveraged	Less than 12	Greater than 5	Less than 2	Less than 2	Less than 10	Less than 5	Less than 2

Real Estate Industry--Core And Supplemental Ratios For Assessing Cash Flow/Leverage

Core ratios

	Debt/EBITDA (x)	EBITDA/interest (x)	Fixed-charge coverage (x)*
Minimal	Less than 2.5	Greater than 4.5	Greater than 3.7
Modest	>= 2.5-4.5	> 3.8-4.5	> 3.1-3.7
Intermediate	> 4.5-7.5	> 2.4-3.8	> 2.1-3.1
Significant	> 7.5-9.5	> 1.8-2.4	> 1.7-2.1
Aggressive	> 9.5-13	>= 1.3-1.8	>= 1.3-1.7
Highly Leveraged	Greater than 13	Less than 1.3	Less than 1.3

Debt/Debt + Equity (fair value basis) (%)§

Less than 25

>= 25-35

> 35-50

> 50-60

> 60-65

Greater than 65

Cash Flow/Leverage (CFL)

Business Risk
Profile

Financial Risk
Profile

Anchor

Modifiers

Group
Methodology

Core Ratios

FFO/Debt
Debt/EBITDA

FFO Definition

EBITDA less net interest expense less current tax expense, subject to our analytical adjustments

EBITDA Definition

Revenue less operating expenses plus D&A expenses, subject to our analytical adjustments

Supplemental Ratios

If preliminary score is **Intermediate** or **stronger**:

- CFO/Debt
 - FOCF/Debt
 - DCF/Debt
- } Greater importance when preliminary assessment is minimal to intermediate

If preliminary score is **Significant** or **weaker**:

- EBITDA/Interest
 - (FFO + Interest)/Cash Interest
- } Greater importance when preliminary assessment is significant to highly leveraged

Industry Key Credit Factor commentaries may identify additional supplemental ratio(s)

Assessment of supplemental ratios may either **CONFIRM** or **ADJUST** the preliminary score.

Ratios are weighted averages of typical 2 historical and 3 forward looking years.

Liquidity

Business Risk
Profile

Financial Risk
Profile

Anchor

Modifiers

Group
Methodology

MODIFIERS

Diversification/
portfolio effect

Capital
structure

Financial policy

Liquidity

Management/
governance

Comparable
ratings analysis

Liquidity is an independent characteristic of a company measured on an absolute basis, and the assessment is not relative to industry peers or other companies in the same rating category.

Liquidity descriptors:

Exceptional

Strong

Adequate

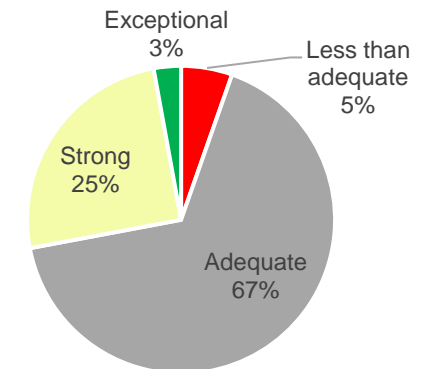
Less than adequate

Weak

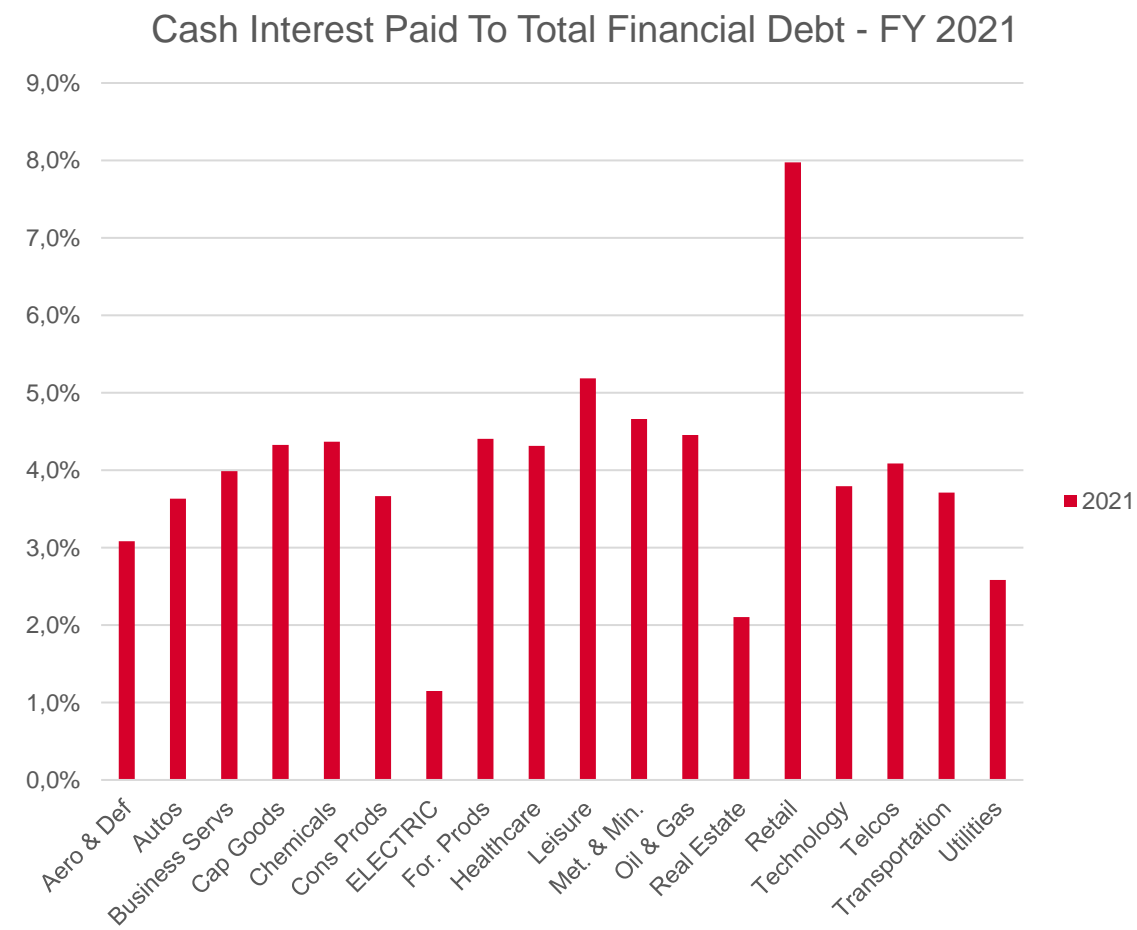
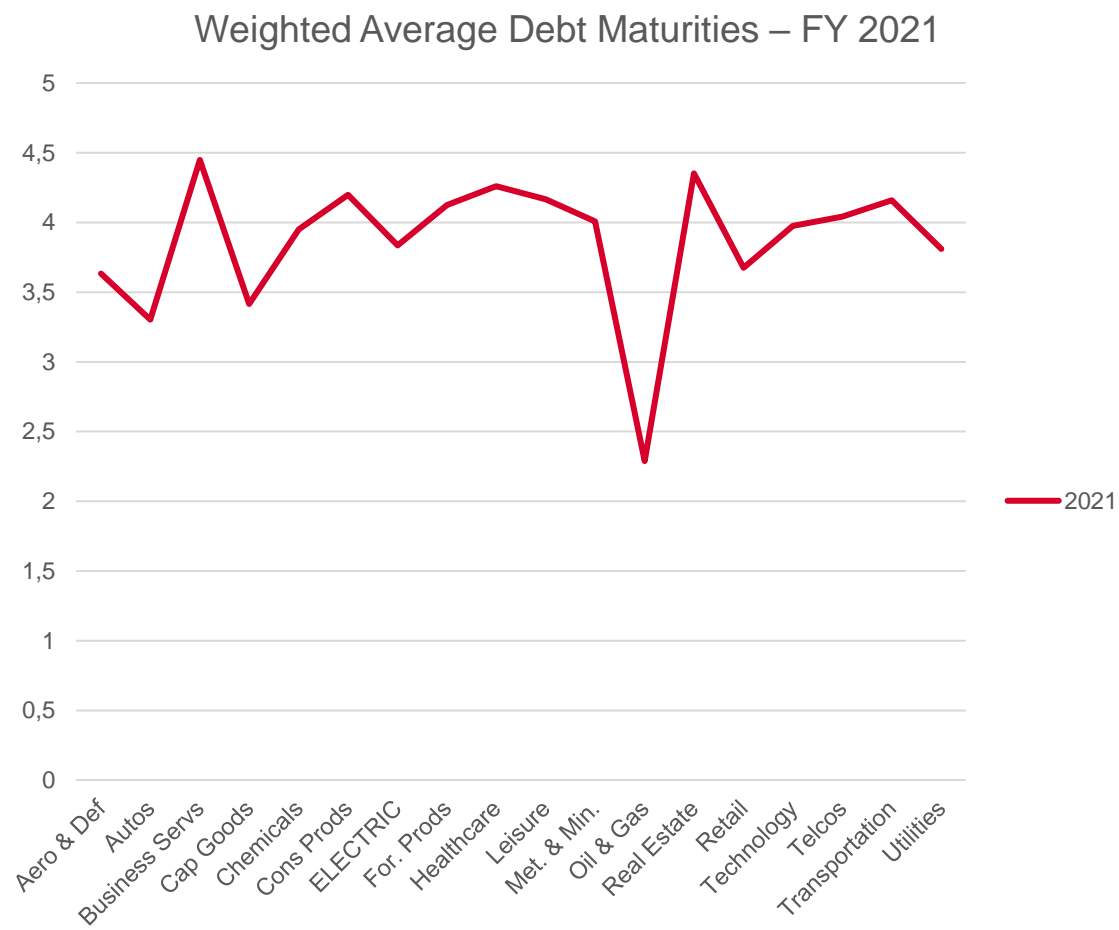
ICR < BBB-

ICR < B

Current Liquidity Score Distribution in % - DACH region

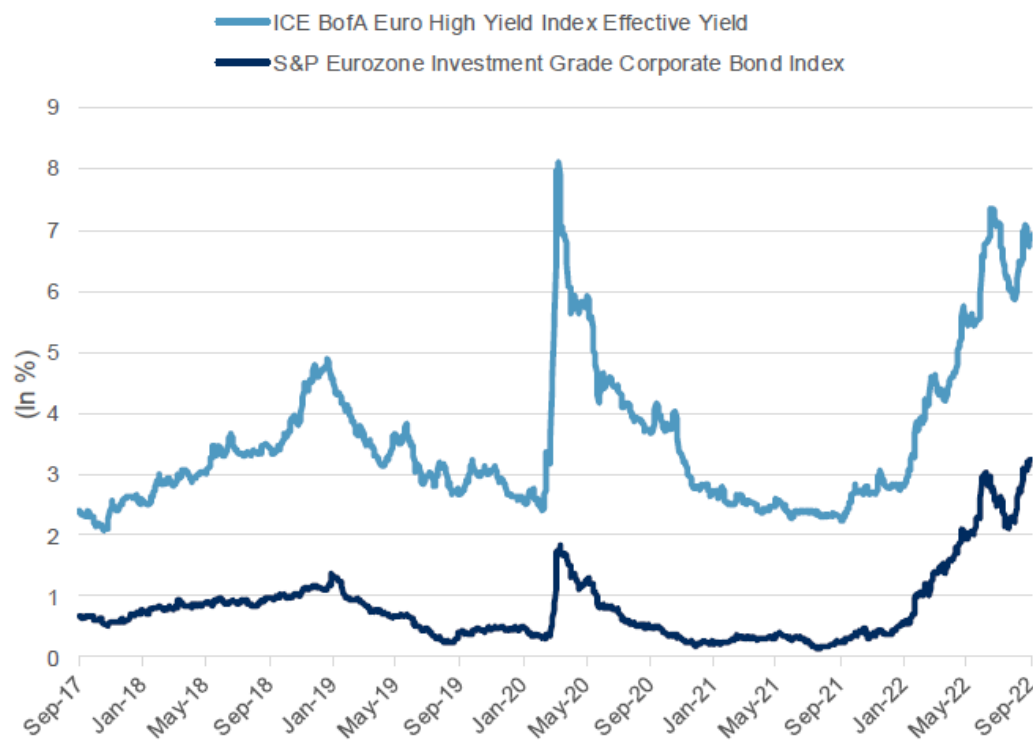


Interest Rate Increase Will Take Time To Show Full Impact – Duration About 4 Years



Financing Costs Are Rising Significantly But Mostly Bear A Risk For High Yield – IG Credits Benefit From Typical 5-8 Years Duration On Their Debt Maturity Profile

Corporate yields expected to rise further



Data as of Sept 20, 2022. Source: S&P Global CapitalIQ.

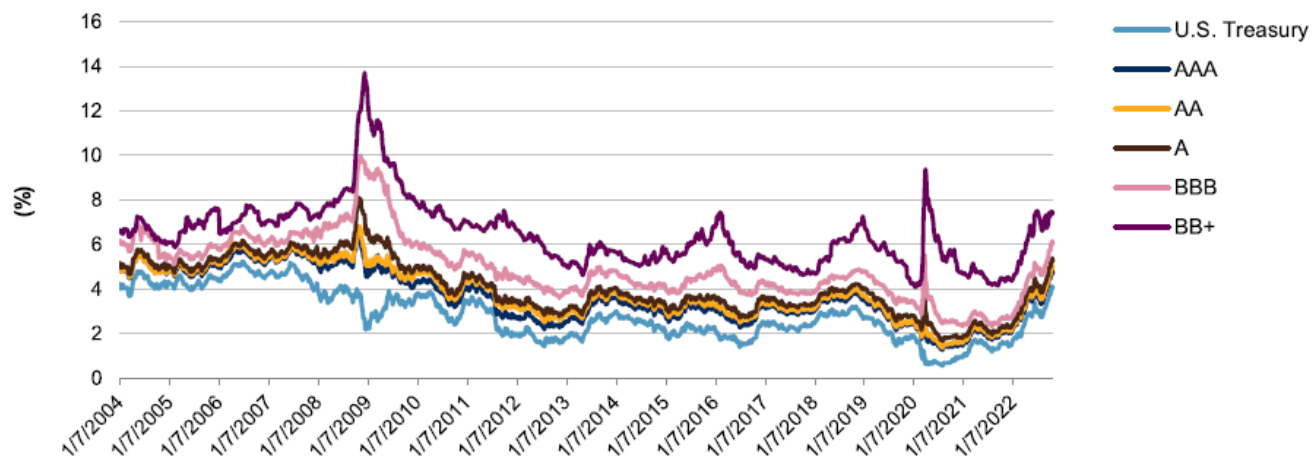
Snapshot of current pricing

Pricing date	Name	Amount (€)	Tenor (yrs.)	Yield (%)	Green/SLB
12-Sep-22	Fresenius Medical Care	750m	5	3.957	
19-May-20	Fresenius Medical Care	500m	6	1.103	
12-Sep-22	A2A	650m	8	4.549	Green
9-Mar-22	A2A	500m	6	1.622	SLB
12-Sep-22	Volvo Treasury	700m	3	2.726	
11-May-22	Volvo Treasury	500m	3.3	1.723	
9-Sep-22	Air Liquide	600m	10	2.982	
26-Mar-22	Air Liquide	500m	10	1.47	
1-Mar-17	Air Liquide	600m	10	1.116	
7-Sep-22	SKF	400m	6	3.257	Green
5-Sep-17	SKF	300m	7	1.338	

Source: CapitalIQ.

Strong Increase In Corporate Bond-Yields Reduced Issuance In Europe Significantly

Historical Corporate Bond Yields--10-Year Maturity



Data as of Oct. 26, 2022. S&P Global Ratings Research

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European Issuance Declines Exacerbated By Dollar Strength

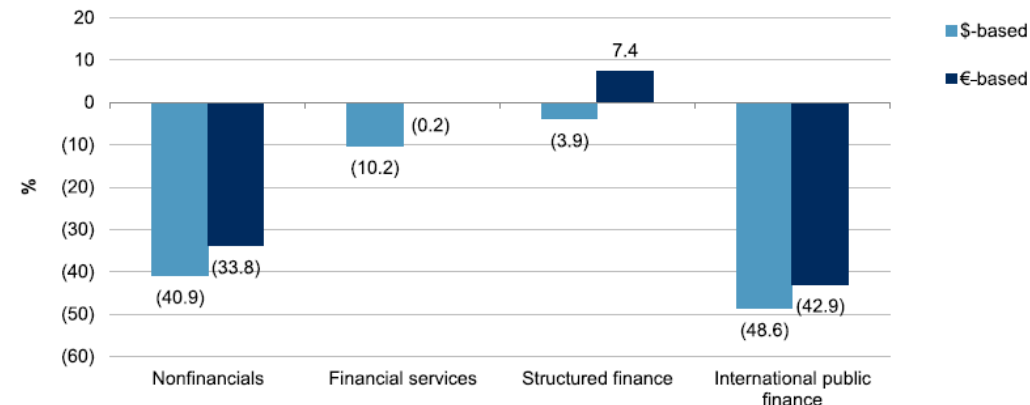


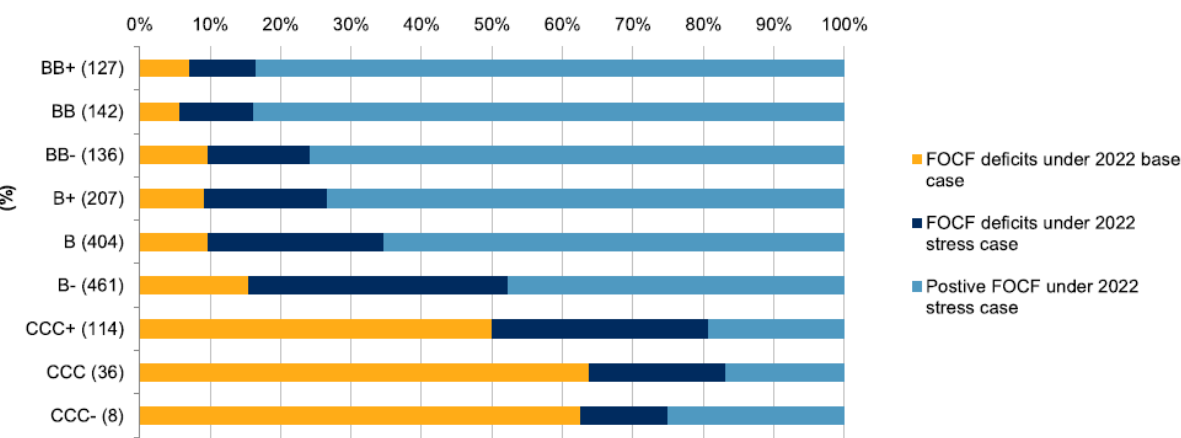
Chart shows year-to-date declines through Sept. 30 for euro-denominated European bond issuance.

Sources: Refinitiv; Green Street Advisors; and S&P Global Ratings Credit Research & Insights.

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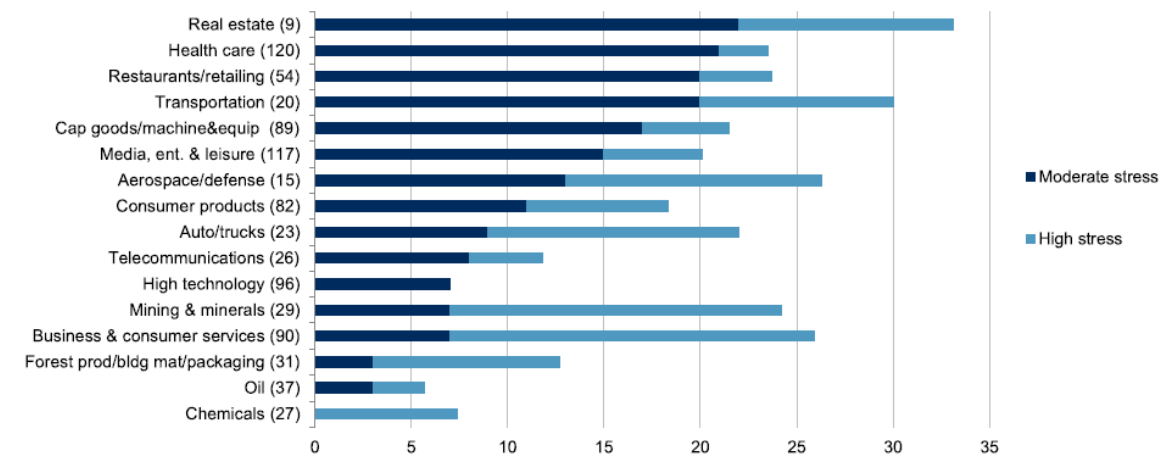
Stress Case Scenario On US HY Corporates With Interest Rates At 3.5% And 15% EBITDA Decline Shows A Leverage Increase Of 0.9x And 39% Being FOCF neg.

High Stress (Scenario 3): Percentage of U.S. Speculative-Grade Issuers By Rating Expected To Report FOCF Deficits



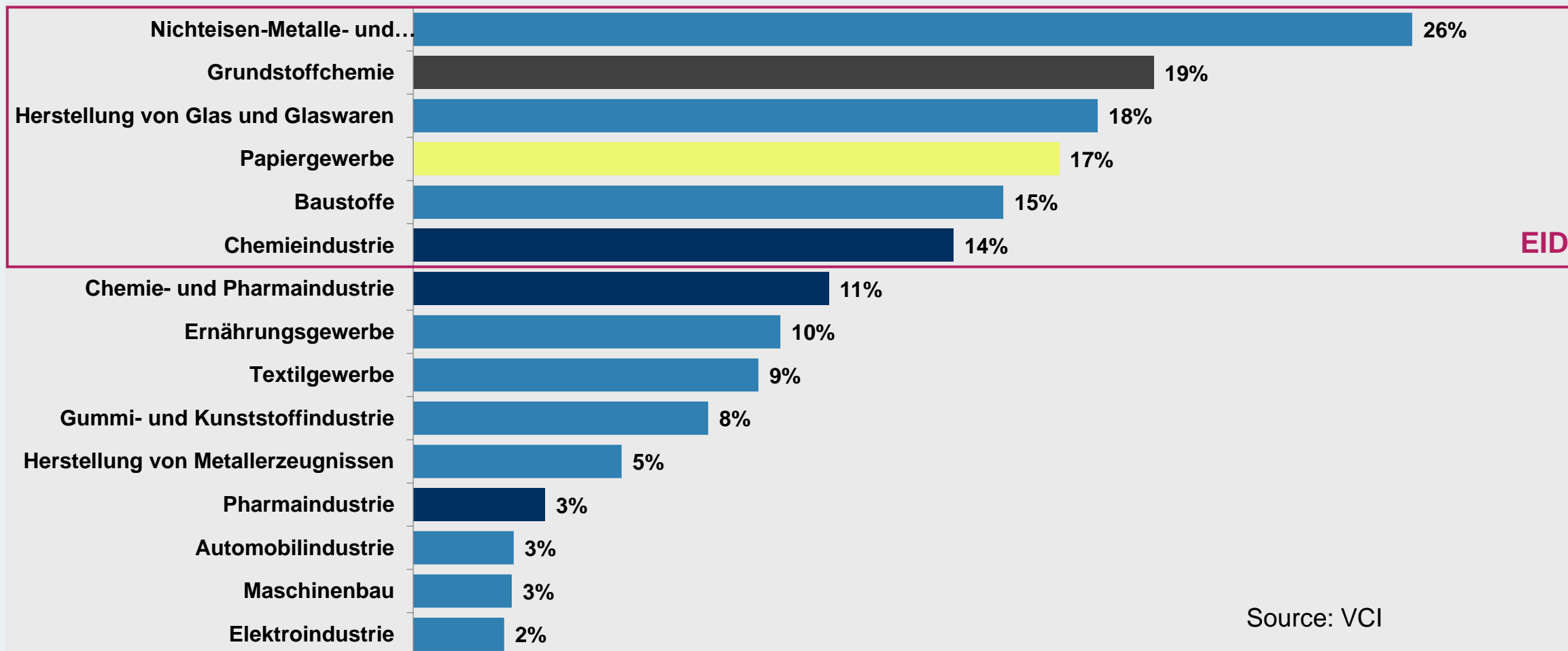
Based on median estimates. Data as of April 22, 2022, and Median Forecast as of November 2021. The number in parentheses reflects the total number of issuers. Scenario 2 (moderate stress) increased cash interest costs by 1.5% and reduced 2022 forecasted EBITDA margins by 5%. Scenario 3 (high stress) increases cash interest costs by 2% and reduces 2022 forecasted EBITDA margins by 15%. Copyright © 2022 by Standard & Poor's Financial Services LLC. All rights reserved.

At-Risk 'B' Or "B-" Issuers By Sector With FOCF-To-Debt Deficits Under Moderate And High Stress

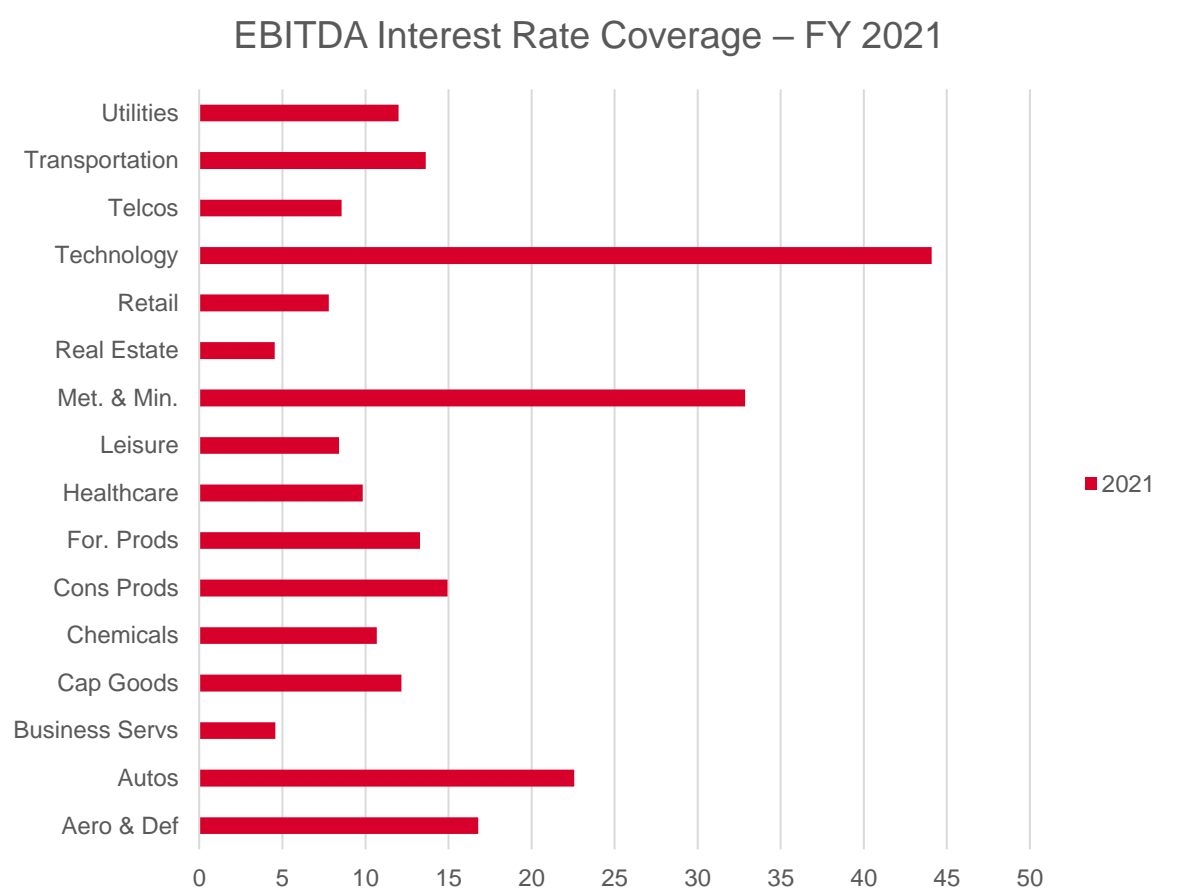
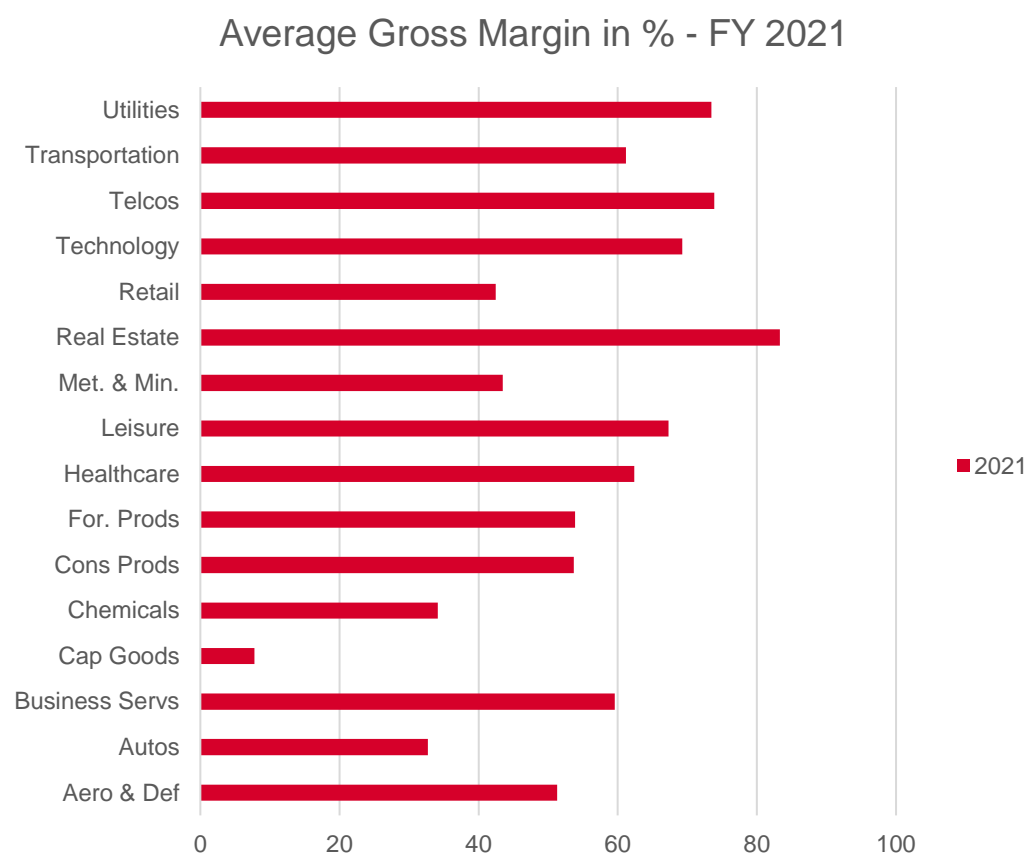


Based on median estimates. Data through April 22, 2022. The number in parentheses is the number of 'B' and 'B-' issuers in the respective sector. Moderate(Scenario 2) increased cash interest costs by 1.5% and reduced 2022 forecasted EBITDA margins by 5%. High (Scenario 3) increases cash interest costs by 2% and reduces 2022 forecasted EBITDA margins by 15%. At-Risk defined as 'B-' or 'B-' issuers with FOCF deficits that are more than three times current cash balances. Copyright © 2022 by Standard & Poor's Financial Services LLC. All rights reserved.

Inflation: High Value-Added Industries Are Meaningfully Mitigating The Impact On Energy Prices For Corporates In EMEA – But This Is Not True For All Industries



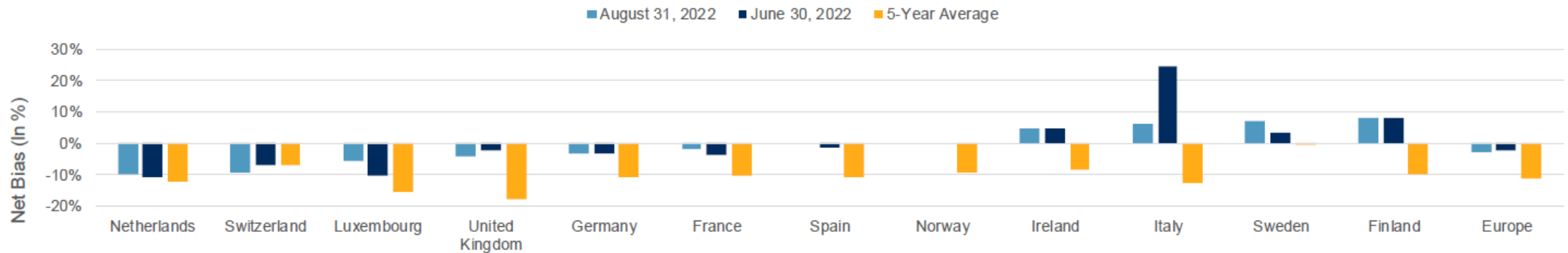
Inflation: Pricing Power Will Decide If Margins Decline – Companies With Low Gross Margins Are Likely To Be More Impacted Than Those With High Gross Margins



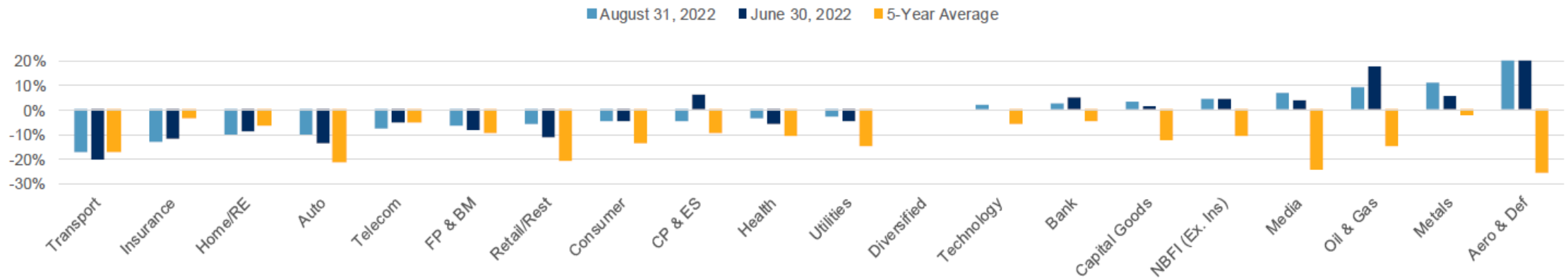
What Is The Outlook For Credit Ratings In The DACH Region?

Net Bias - Still Solid But Future Indicators Suggest A More Negative Outlook

Pressure building in the Netherlands, UK & Germany while the Nordics outperform

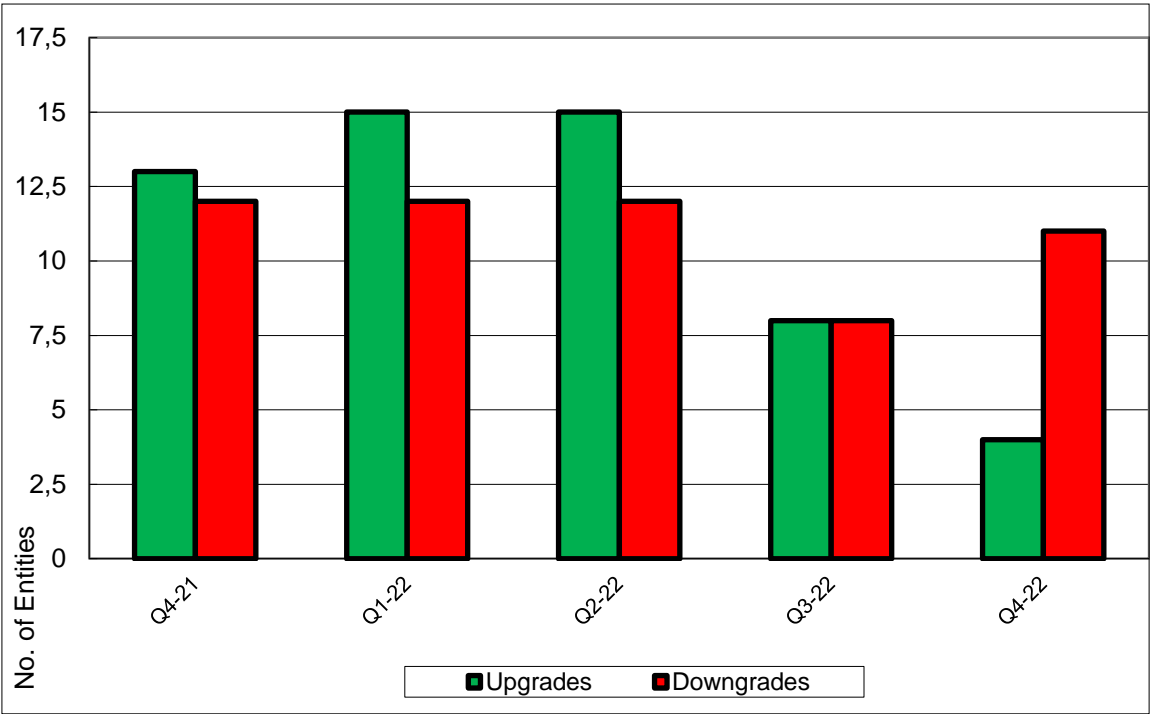
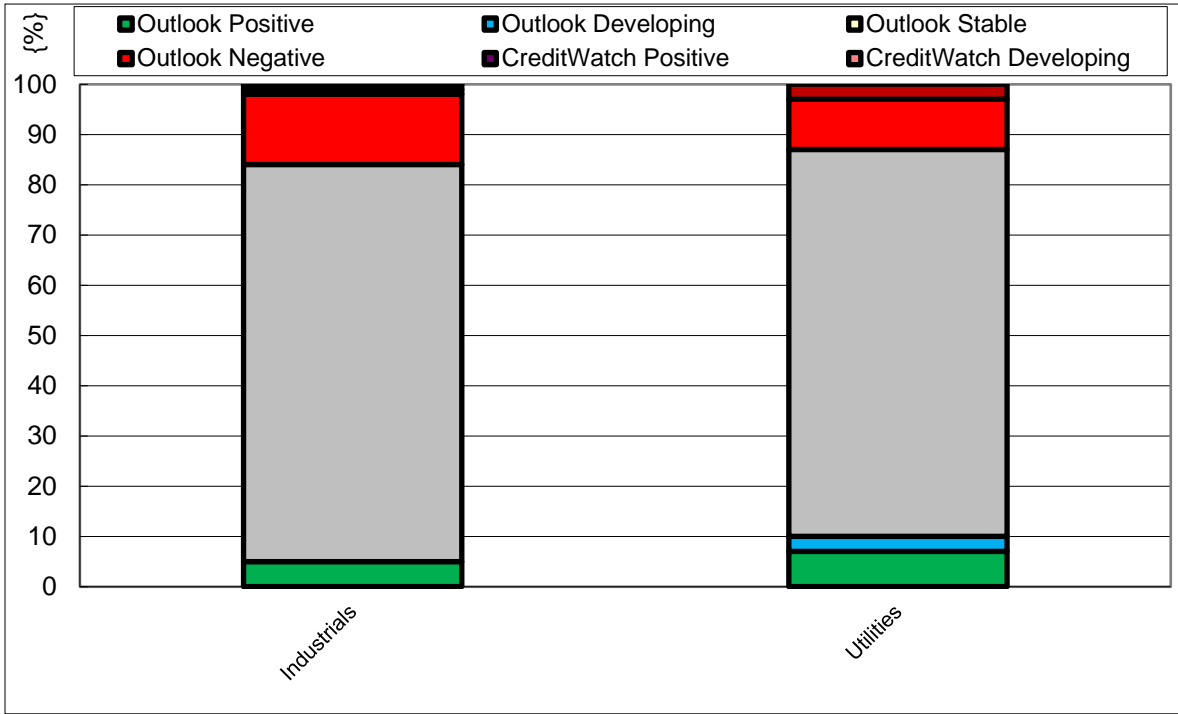


Insurance, Home/RE, Telecom and Transport Net Neg Bias > 10%



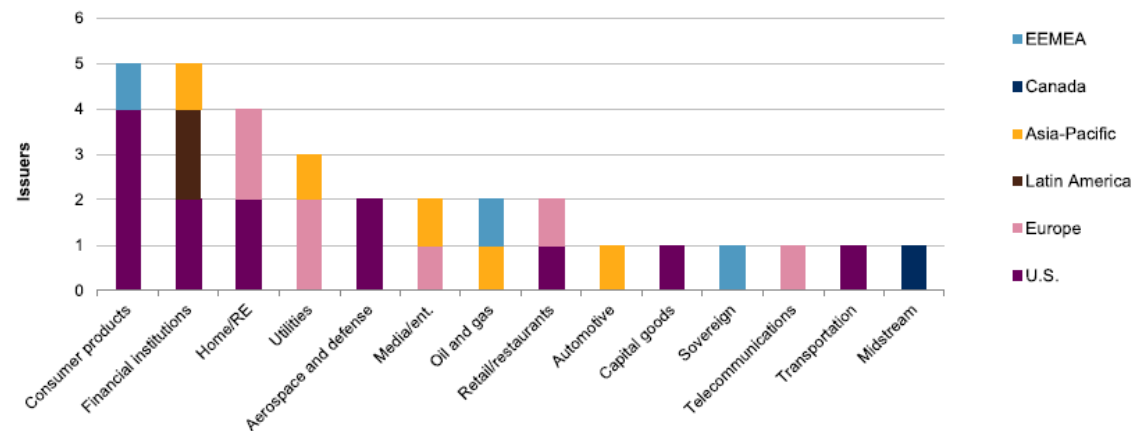
Data as of Aug 31, 2022 . Source : S&P Global Ratings Research. Only considered countries with 20 or more issuers. Excludes sovereigns.

Downgrades Started To Exceed Upgrades In The DACH Region Since Q4 2022 And Negative Outlooks Are Growing From A Low Level



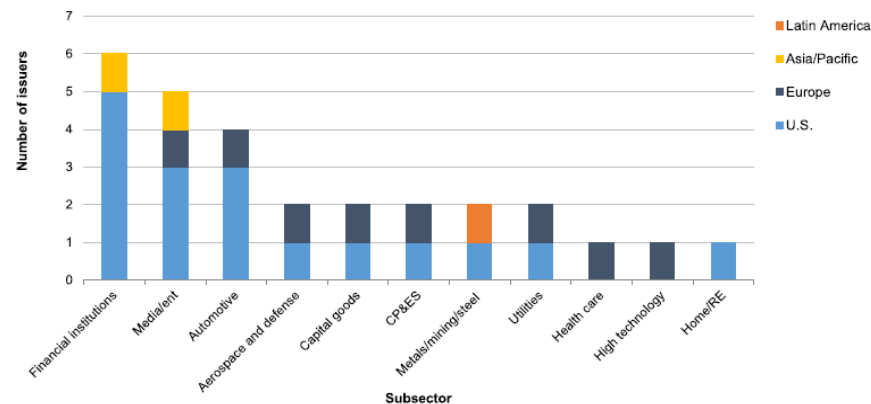
BBB Credits Expected To Remain Resilient Despite Rising Risks

Potential Fallen Angels By Subsector



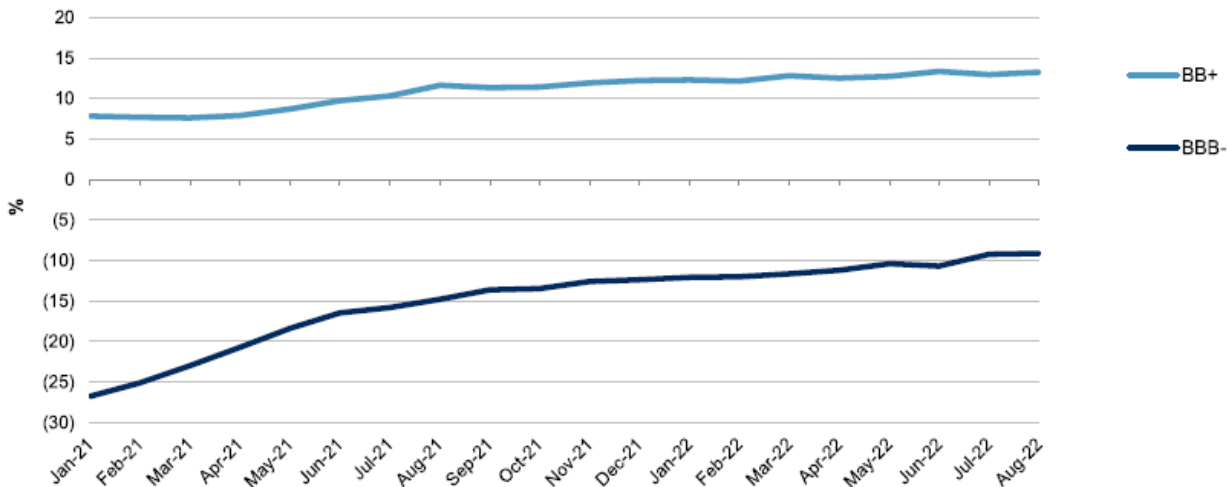
Data as of Aug. 31, 2022. EEMEA--Eastern Europe, Middle East, and Africa. Media/ent--Media and entertainment. Home/RE--Homebuilders and real estate. Source: S&P Global Ratings Research. Copyright © 2022 by Standard & Poor's Financial Services LLC. All rights reserved.

Global Potential Rising Stars By Subsector



Data as of Aug. 31, 2022. CP&ES--Chemicals, packaging, and environmental services, Media/ent--Media and entertainment. Home/RE--Homebuilders/real estate. Source: S&P Global Ratings Research.

Negative And Positive Biases Both Continue To Improve
'BBB-' negative bias versus 'BB+' positive bias



Data as of Aug. 31, 2022. Source: S&P Global Ratings Research. Copyright © 2022 by Standard & Poor's Financial Services LLC. All rights reserved.

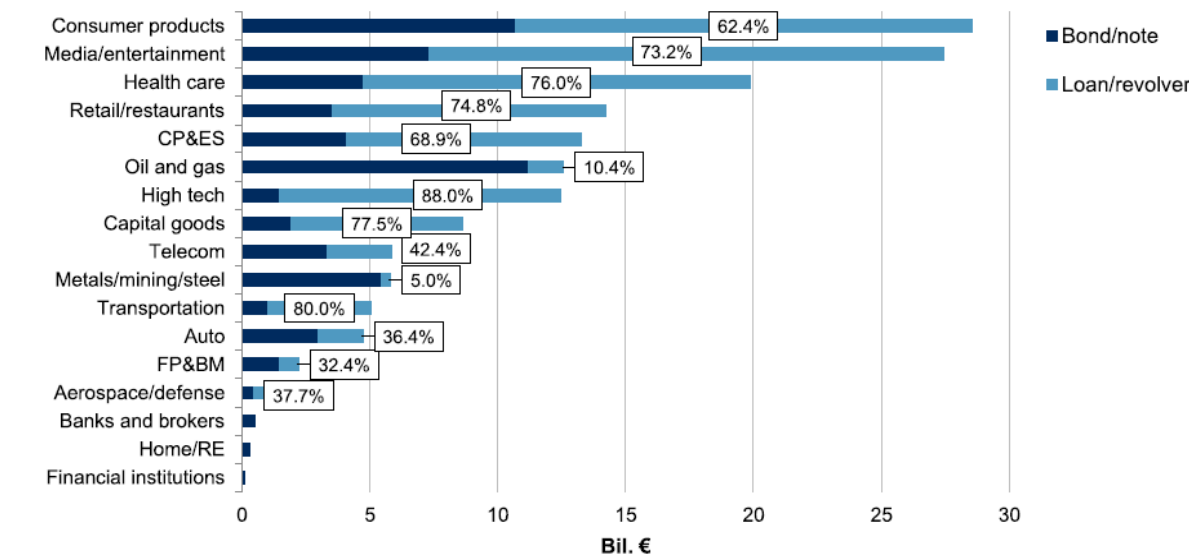
The number of potential fallen angels was steady for a third month, while potential rising stars continue to signal a relatively high number of possible upgrades into investment grade.

However, worsening economic and market conditions are likely to take a toll on positive momentum and foster increasing differences between sector and regions. Among potential fallen angels, consumer products, real estate, and utilities have so far borne the brunt of increased uncertainty in 2022.

Consumer Products Are Likely To Be Hit In 2023

Sectors will make the difference in the coming quarters

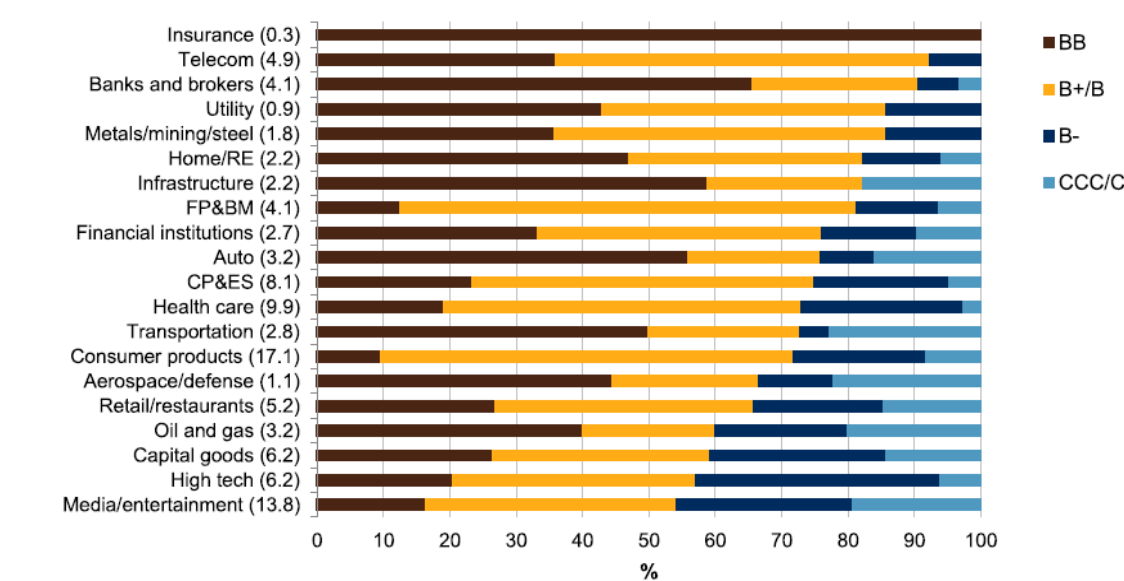
European 'B-' And Below Corporate Maturities By Sector



Notes: Data labels reflect the percentage of each sector's total attributable to loans/revolvers. Media and entertainment includes the leisure sector. Includes bonds, loans, and revolving credit facilities that are rated by S&P Global Ratings. Data as of July 1, 2022. CP&ES--Chemicals, packaging, and environmental services. FP&BM--Forest products and building materials. Home/RE--Homebuilders/real estate companies. Source: S&P Global Ratings Research.

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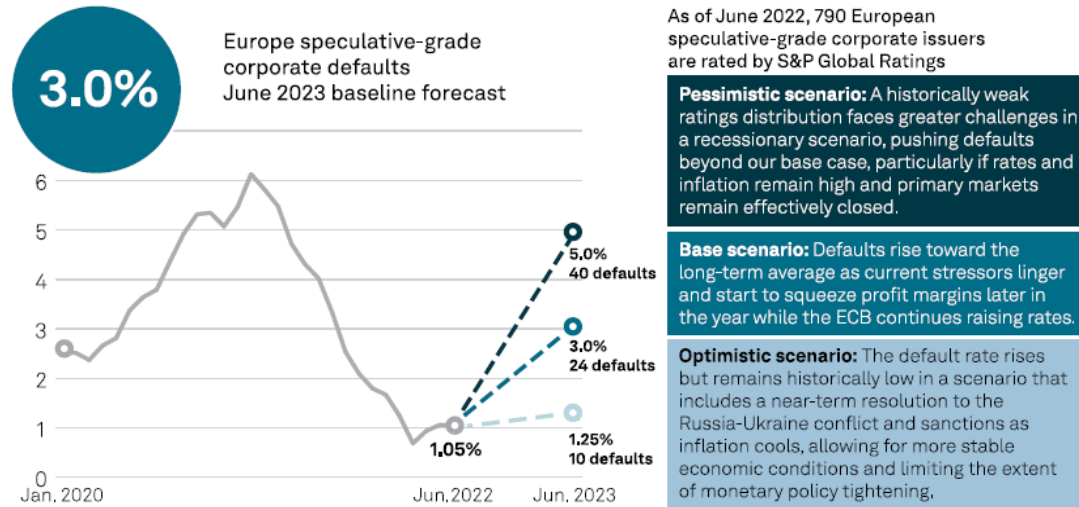
Sectoral Rating Distributions As Of June 30



Numbers in parentheses represent overall sector's proportion of the spec-grade population. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®
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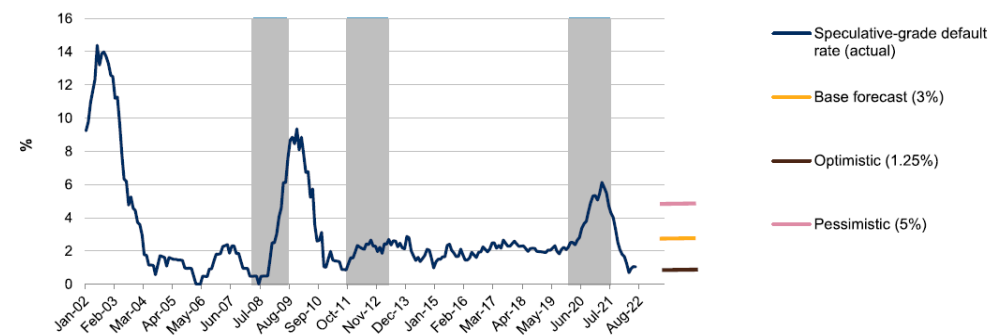
Defaults Increase, But Remain Moderate In Our Base Case

European Defaults Expected To Remain Low In 2022



Data as of June 2022. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®. Copyright © 2022 by Standard & Poor's Financial Services LLC. All rights reserved.

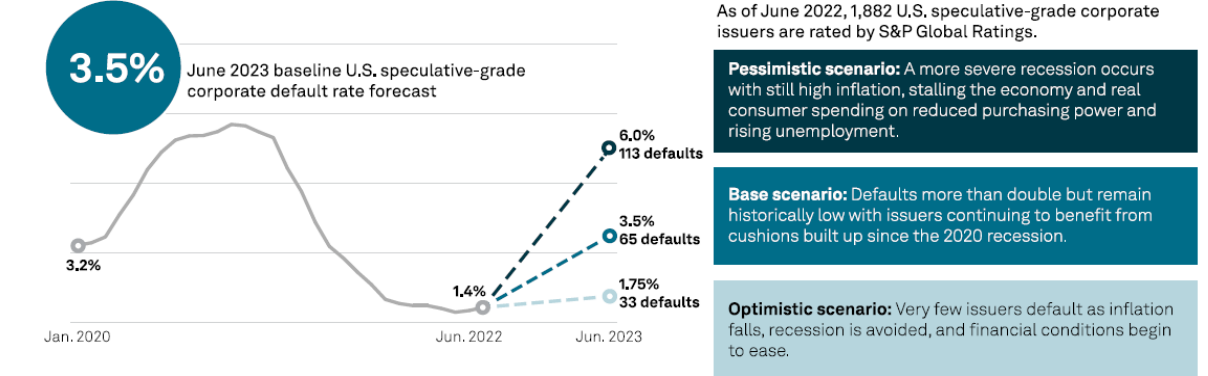
European Trailing-12-Month Speculative-Grade Default Rate And June 2023 Forecast



Shaded areas are periods of recession as defined by the Center for Economic Policy Research. Data as of June 30, 2022. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®. Copyright © 2022 by Standard & Poor's Financial Services LLC. All rights reserved.

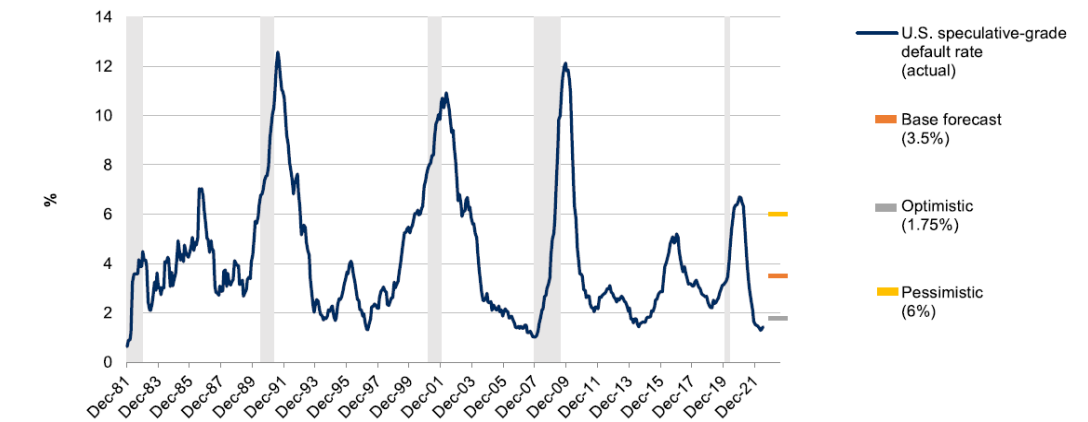
US Defaults Expected to Rise to About 3.5%

Default Rate To Rise Through Second-Quarter 2023



Data as of June 2022. Sources: S&P Global Market Intelligence's CreditPro® and S&P Global Ratings Research. Copyright © 2022 by Standard & Poor's Financial Services LLC. All rights reserved.

U.S. Trailing-12-Month Speculative-Grade Default Rate And June 2023 Forecast

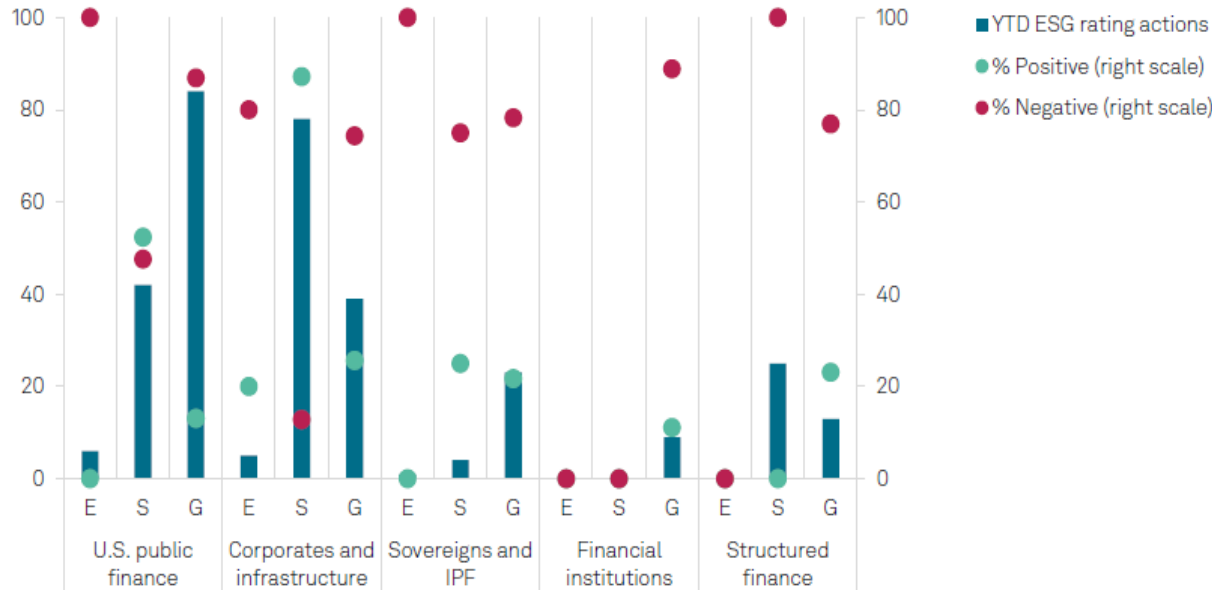


Note: Shaded areas are periods of recession as defined by the National Bureau of Economic Research. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®. Copyright © 2022 by Standard & Poor's Financial Services LLC. All rights reserved.

ESG Remains A Driver For Rating Changes In 2022 And Beyond

ESG-related credit rating actions by factor

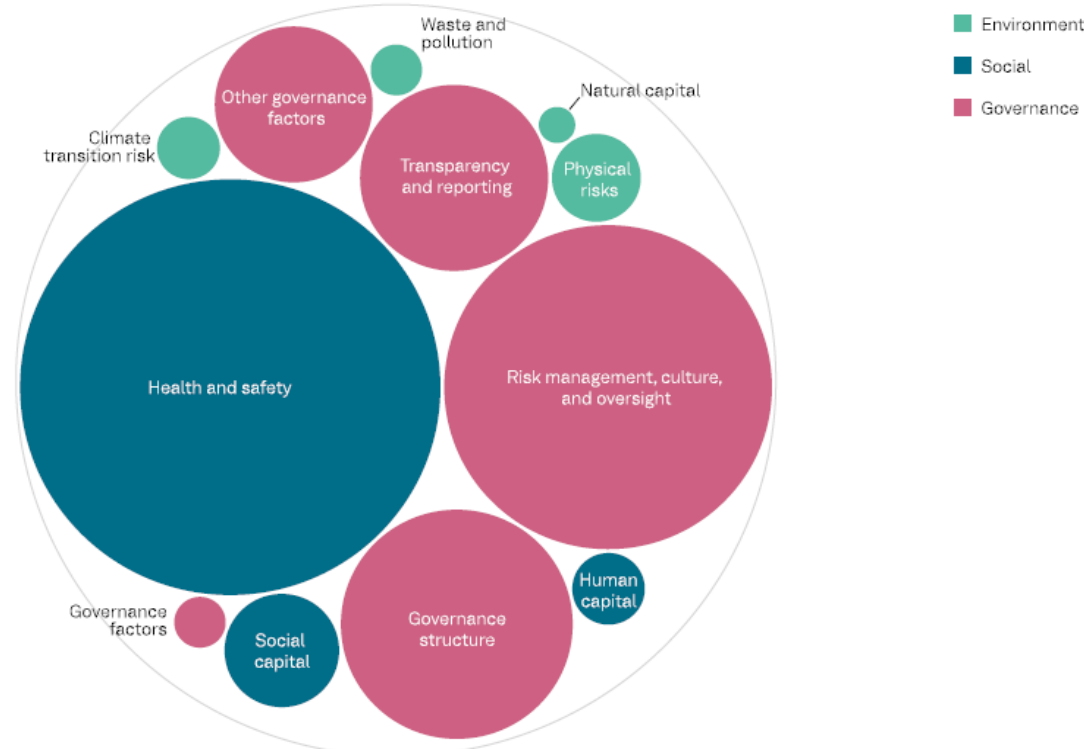
Number of actions and proportion positive/negative, year-to-date



Data as of Aug. 31, 2022. Note: Rating actions include rating, CreditWatch, and outlook changes over January-August 2022. The sum of environmental, social, and governance actions slightly exceeds total ESG-related rating actions because some actions were influenced by multiple factors. Structured finance actions relate to ESG impacts by transaction (tranche), while for other sectors the impact is measured on the issuer credit rating. CreditWatch developing excluded from the positive and negative percentages as it can represent either a positive or negative rating action. ESG--Environmental, social, and governance. IPF--International public finance. YTD--Year-to-date. Source: S&P Global Ratings.

Leading ESG factors driving credit rating actions

Year-to-date



Data as of Aug. 31, 2022. Bubble size is determined by the occurrence of factors between January and August 2022. In instances where multiple ESG factors were recorded as the main drivers of the credit rating action, each is counted for the purposes of this infographic. ESG--Environmental, social, and governance. Source: S&P Global Ratings.

Questions & Comments Are Welcome



Tobias Mock, CFA
Managing Director
Sector Lead DACH Corporates
T: +49 69 33 999 126
tobias.mock@spglobal.com

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