

thyssenkrupp AG

The ratings reflect thyssenkrupp AG's (TK) considerable liquidity position, which was boosted by the sale of its elevator business and put the company in a net cash position, and its strong underlying business-diversification profile. These are offset by the considerable cash burn from underperforming businesses and high execution risk pertaining to restructuring. While Fitch Ratings expects the company to reduce this in the short term, it remains a restraining factor on the ratings.

Fitch believes that the company's restructuring measures, along with an expected recovery in key end-markets, should gradually curb the cash outflow in the short-to-medium term and the company's cash flow profile will return to a sustainable level that is commensurate with its rating.

Key Rating Drivers

Cash Burn Expected to Ease: Funds from operations (FFO) and free cash flow (FCF) both were weak in recent years due to weak end-markets, exacerbated by the coronavirus pandemic and underperforming businesses, leading to a considerable cash drain.

Fitch expects the cash drain to ease from 2021, supported by stronger end-markets and restructuring, with the cash flow profile gradually recovering to levels commensurate with the rating. This includes an FFO margin of above 5% and sustainable positive FCF, both of which we expect from the financial year to end-September 2024 (FY24). A quick divestment of its Multi Tracks units would remove a material cash outflow.

Cash Deployment Key to Rating: Fitch does not expect TK to keep the presently large cash pile (reported cash of EUR10.6 billion at end-December 2020) in the long term. The company's cash deployment strategy will become an increasingly important rating driver once the present cash drain and restructuring requirements subside.

Fitch expects the company to take a balanced approach between internal investment needs, pension plan top-ups, debt repayment and shareholder distributions, under which it will maintain a conservative capital structure while investing in growth.

Pandemic Intensifies Restructuring Execution Risk: Large restructuring plans, such as TK's, typically carry considerable execution risk, which has been heightened by the pandemic. Demand volatility in certain key markets has become more severe in the past 12 months, making it hard for the company to plan for the appropriate cost footprint, and this is likely to continue in 2021. Furthermore, market uncertainty may have slowed its asset disposals, which are key to the company regaining focus on its core competencies and strengthening its rating profile.

The company is in a three-year restructuring process, which includes the streamlining of many of its units (including asset disposals), a headcount reduction of around 11,000, and changing the group's conglomerate structure. The management expects these measures to cost in the mid-hundreds of million euros in FY21 with expected annual savings in the mid-to-high hundreds of million euros.

Disposal Boosts Liquidity, Capital Structure: The disposal in July 2020 of the profitable elevator business for a net debt effect of around EUR15 billion resulted in a considerable boost to TK's capital structure and liquidity profile. It also provides the company with ample financial flexibility for its restructuring, and should make the remaining loss-making businesses sustainably profitable. At end-1Q21 (December 2020), the company had reduced its Fitch-

Ratings

Rating Type	Rating	Outlook	Last Rating Action
Long-Term IDR	BB-	Stable	Affirmed 1 Mar 2021
Short-Term IDR	B		Affirmed 1 Mar 2021

[Click here for full list of ratings](#)

Applicable Criteria

[Corporate Rating Criteria \(December 2020\)](#)
[Sector Navigators - Addendum to the Corporate Rating Criteria \(December 2020\)](#)
[Corporates Notching and Recovery Ratings Criteria \(October 2019\)](#)

Related Research

[Fitch Ratings 2021 Outlook: EMEA Diversified Industrials & Capital Goods \(December 2020\)](#)

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calculated gross debt by around EUR3.3 billion compared with FY19 and had a net cash position of around EUR5.1 billion, from a net debt of EUR7.1 billion at end-FY19.

We expect the company to reduce the remaining debt as it matures. We also expect TK to partially fund its pension liability once the market normalises which should significantly alleviate the sizeable related annual cash outflow.

Weakening Business Diversification: The elevator business disposal has made TK's business profile less diversified. TK is now more exposed to the lower margins and more cyclical nature of the materials and automotive businesses, while its geographic diversification has reduced with western Europe accounting for more than half of total sales. Nevertheless, the overall business profile remains broadly sound, in our view, and continues to act as a supporting factor for the rating.

Steel Decision Could Affect Ratings: TK's management is assessing whether to spin off or to develop and restructure the steel business, following the end of sale talks in February 2021. The final decision could have a material impact on the group's rating. Fitch expects the steel business to remain FCF negative and requires significant investment in the medium term, thus a separation would provide material relief to the group's cash flow. Offsetting this is the considerable loss of business diversification were the separation to be completed.

Improving Steel Market Sentiment: Tight global steel supply coupled with strong demand have resulted in strong steel price dynamics recently. This supply-and-demand imbalance should help TK's operating performance, at least in the near term. However, we would expect the steel market to correct itself soon as steel capacity restarts from idled facilities.

In automotive, TK's largest end-market, a combination of stimulus measures, incentives around electric vehicles (EVs), and a shift towards private transportation have recently boosted sales. Uncertainties surrounding lockdowns, production/demand disruptions remain a risk.

ESG Influence: We have revised TK's ESG Relevance Score for Management Strategy to '4' from '3'. TK faces considerable risk pertaining to its restructuring measures, which, because of their scale, may result in greater-than-expected costs and delays. This has a negative impact on its credit profile, and is relevant to the rating in conjunction with other factors as it reflects potentially lower profitability in the future.

Financial Summary

thyssenkrupp AG

(EURm)	Sep 18	Sep 19	Sep 20	Sep 21F	Sep 22F	Sep 23F
Operating EBITDA margin (%)	4.8	1.8	-4.3	3.3	4.3	5.7
Funds flow from operations	1,084	64	-2,061	678	977	1,329
FCF	-559	-1,280	-3,300	-1,010	-843	-260
FFO leverage (x)	5.5	30.4	-3.4	7.3	3.8	2.1
FFO net leverage (x)	3.7	20.0	2.5	-5.1	-2.8	-1.9

F – Forecast

Source: Fitch Ratings, Fitch Solutions

Rating Derivation Relative to Peers

TK's rating reflects its relatively strong business profile with a more diversified operations than steel-focused peers – in particular closest peer ArcelorMittal S.A. (BB+/Negative) – stemming from TK's capital goods businesses, which provide more earnings stability. ArcelorMittal is larger and more geographically diversified, is vertically integrated into raw materials (iron ore) and has stronger credit metrics, notably a more resilient FCF margin and FFO gross leverage.

Conversely, TK has greater exposure to volatile steel earnings, a greater fixed cost base and lower production flexibility than capital goods peers, including KION GROUP AG (BBB-/Stable) and Atlas Copco AB (A+/Stable). These peers also have a greater proportion of total group sales derived from stable servicing and maintenance.

Rating Sensitivities

Factors that Could, Individually or Collectively, Lead to Positive Rating

Action/Upgrade:

- Improvement and stabilisation of cash generation on restructuring and markets recovery, leading to FFO and FCF margins above 6% and 1%, respectively, on a sustainable basis
- FFO gross leverage below 3.5x on a sustained basis

Factors that Could, Individually or Collectively, Lead to Negative Rating

Action/Downgrade:

- FFO margin below 3% on a sustainable basis
- Lack of tangible progress in improving the FCF generation capacity, resulting in negative FCF on a regular basis
- Failed restructuring measures resulting in FFO gross leverage above 4.5x on a sustained basis
- Material deterioration in the company's liquidity position

The change in the positive and negative leverage sensitivities reflect Fitch's approach to lease adjustments as well as high execution risk and rising business risk profile of the company.

Liquidity and Debt Structure

Strong Liquidity: As of end-December 2020, TK had around EUR12.1 billion of liquidity, consisting of about EUR10.6 billion of readily available cash and around EUR1.5 billion of undrawn long-term committed credit lines. The company's EUR3 billion commercial paper programme and the group's history of tapping the capital markets on a regular basis also support liquidity. Although current liquidity is robust, we expect negative FCF will continue to burden TK's liquidity until FY23.

ESG Considerations

We have revised TK's ESG Relevance Score for Management Strategy to '4' from '3' due to considerable risk pertaining to its restructuring measures. This has a negative impact on its credit profile, and is relevant to the rating in conjunction with other factors.

Unless otherwise disclosed in this section, the highest level of ESG credit relevance is a score of '3'. This means ESG issues are credit-neutral or have only a minimal credit impact on the entity, either due to their nature or the way in which they are being managed by the entity. For more information on Fitch's ESG Relevance Scores, visit www.fitchratings.com/esg.

Liquidity and Debt Maturity Scenario with No Refinancing

thyssenkrupp AG – Liquidity Analysis

(EURm)	2021F	2022F	2023F
Available liquidity			
Beginning cash balance	11,047	8,464	6,125
Rating-case FCF after acquisitions and divestitures	-1,010	-843	-260
Total available liquidity (A)	10,037	7,621	5,865
Liquidity uses			
Debt maturities	-1,573	-1,496	-1,028
Total liquidity uses (B)	-1,573	-1,496	-1,028
Liquidity calculation			
Ending cash balance (A+B)	8,464	6,125	4,837
Revolver availability	1,510	1,510	1,510
Ending liquidity	9,974	7,635	6,347
Liquidity score (x)	7.3	6.1	7.2

F – Forecast

Source: Fitch Ratings, Fitch Solutions, thyssenkrupp AG

Scheduled debt maturities (EURm)	Original 30 September 2020
2021	1,573
2022	1,496
2023	1,028
2024	1,518
2025	617
Thereafter	123
Total	6,355

Source: Fitch Ratings, Fitch Solutions, thyssenkrupp AG

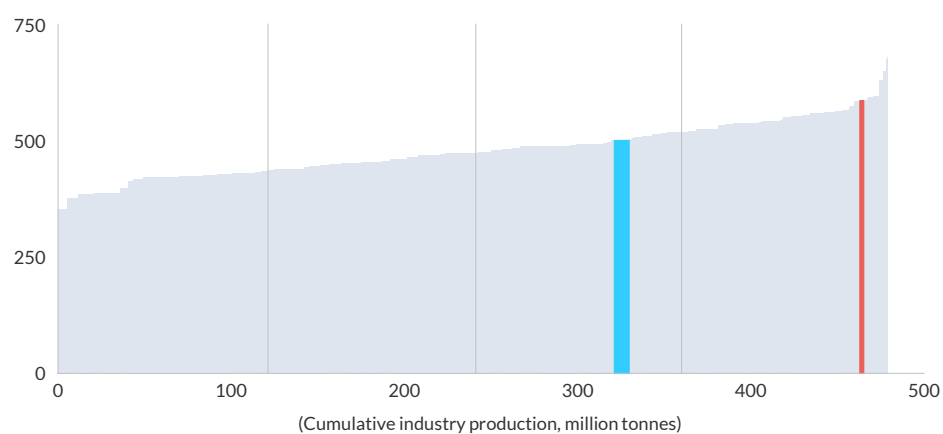


CRU Industry Cost Curve

Position of thyssenkrupp's Plants on Steel HRC Cost Curve

■ Duisburg ■ Duisburg (HKM) ■ Other

(USD/t; HRC site costs on an ex-works basis 2022)



Note: Site costs include raw materials costs plus conversion costs. HRC = hot-rolled coil.
Source: CRU 2020 Steel Cost Model

Information on this page was provided by CRU. Fitch Ratings has partnered with CRU, including their analysis of cost, prices and market developments, to enhance research and analytics in the metals and mining sector. Fitch develops forecasts and assumptions for certain variables (for example, prices) for the purposes of its rating analysis that may differ from CRU forecasts in this report. For more information on CRU and the CRU information specifically included in this report, visit www.crugroup.com.

Europe Steel Sheet Market Analysis – CRU January 2021

Germany and the UK are in lockdown until at least mid-February. Other European countries are likely to take similar action. European sheet prices remained firm in the first week of January 2021, with all sheet prices increasing week on week. Italian sheet prices have increased more sharply, narrowing the hot-rolled coil (HRC) price gap – EUR23/tonnes (t) – between northern and southern Europe. Mills in Germany are considering buyers' bids and CRU expects more activity in the coming weeks. German long product prices have risen since early December as the surge in scrap prices continues to drive up mill costs. Producers have broadly returned from their holidays and are attempting to recover margins by further raising their prices. Plate prices in Germany and Italy increased at end-2020 due to the higher cost of raw materials (iron ore, scrap, and slab). CRU expects strong prices in 2021 albeit with a brief, sharp fall towards the end of 1Q21 as supply returns and demand stabilises.

Selected Europe CRU Steel Sheet Price and Market Forecasts

Prices	2019	2020	2021F	2022F	2023F	2024F
Germany HRC price ^a (EUR/t)	482	467	529	485	475	465
Germany CRC ^b price ^a (EUR/t)	571	551	617	575	565	555
Steel sheet demand (m tonnes)						
Demand ^c	81.4	73.7	80.6	85.0	87.2	88.7
Net exports	-8.1	-9.3	-9.5	-9.6	-10.0	-10.4
Production ^d	78.9	69.5	76.1	80.7	82.3	83.6

^a Nominal prices, from parity point. ^b Cold-rolled coil. ^c Apparent net consumption. ^d Gross production of HRC. Source: CRU

Selected Steel Demand Forecasts

Steel sheet demand (m tonnes)	2019	2020	2021F	2022F	2023F	2024F
HRC ^a	32.6	29.2	32.5	34.0	34.9	35.4
CRC ^a	13.7	13.1	13.6	14.2	14.5	14.8
Galvanised sheet ^b	31.4	27.7	30.6	32.8	33.8	34.5

^a Apparent net consumption. ^b Apparent gross consumption including hot-dipped galvanised (HDG) and electro-galvanised (EG) steel. Source: CRU

Selected CRU Steel Cost Inflation Indicators

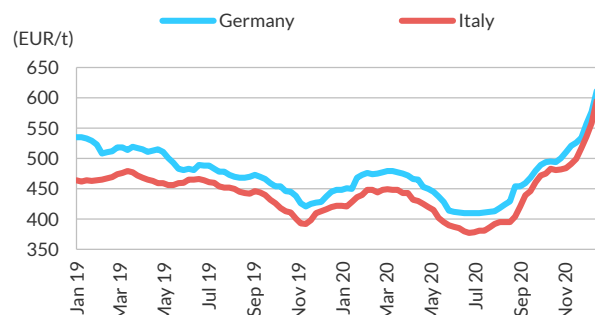
	Metallurgical equipment YoY change (%)	Iron ore ^a YoY change (%)	Metallurgical coal ^b YoY change (%)	Scrap ^c YoY change (%)	Brent crude oil USD/bbl	Panamax shipping USD/day
2019	2.3	34.8	-13.8	-17.8	64	12,017
2020	1.5	14.0	-29.8	-0.4	42	10,899
2021F	1.5	8.5	8.1	21.9	51	11,021

^a 62% fines, CFR China. ^b Hard coking coal, FOB Australia. ^c No.1HMS, FOB Rotterdam. Source: CRU

CRU

Europe: Steel and Raw Material Prices Continue to Rise Amid New Lockdowns

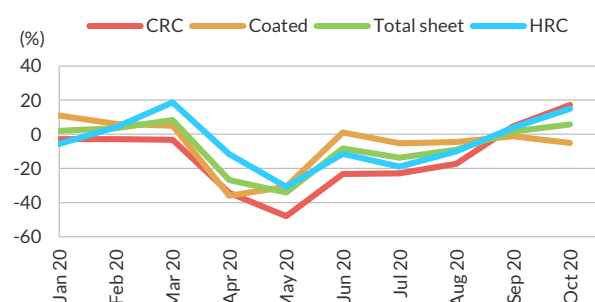
HRC Prices Are Surging



Source: CRU

Orders Are Recovering from Spring Lockdowns

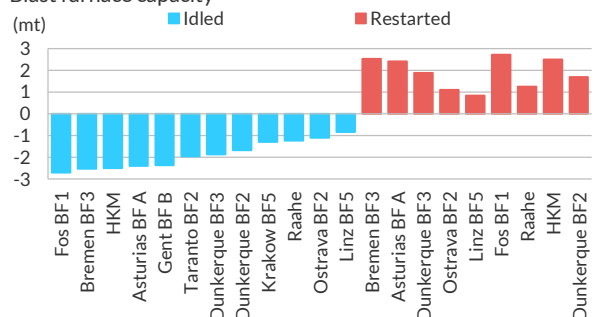
Shipments by German stockholders, yoy change



Source: CRU

Europe's Domestic Supply Is Returning

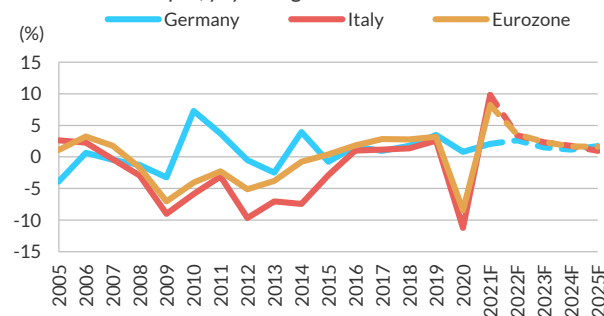
Blast furnace capacity



Source: CRU

Construction to Recover Strongly in 2021

Construction output, yoy change



Source: CRU

Information on this page was provided by CRU. For more information on CRU visit www.crugroup.com.

- European steel sheet prices continue to rise sharply, in a historic surge.
- Orders have picked up after recent lockdowns, especially in automotive and white goods. The inventory supply pipeline is empty for some supply chains and imports remain low.
- Domestic supply is being reactivated amid renewed lockdowns. A restart in Taranto is planned for early 1Q21 and maintenance in Gent is due to be completed.
- Mill spot margins have returned to boom-time levels but restocking continues to outpace end-use demand. CRU expects the restocking cycle to be completed by the end of 1Q21.
- CRU does not expect auto production to regain to 4Q19 levels until early 2022 for the big five markets (Germany, France, Italy, UK, Spain). However, there is upside risk in consumer mobility behaviour. CRU expects European construction to recover strongly in 2021.
- CRU expects strong prices in 2021, albeit with a sharp fall in late 1Q21.

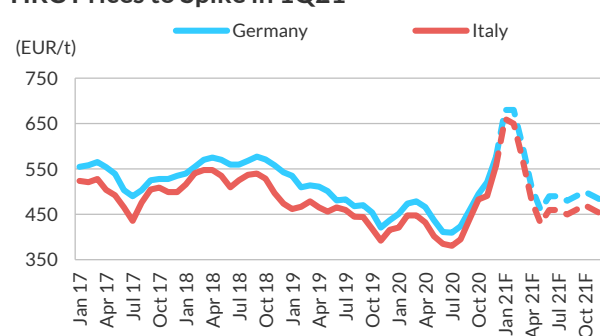
Mill Spot Margins Are Rising

Modelled spot EBITDA margin on domestic HRC sales, representative German mill



Source: CRU

HRC Prices to Spike in 1Q21



Source: CRU

Key Assumptions

Fitch's Key Assumptions Within its Rating Case for the Issuer

- EBITDA margins (excluding Multi Tracks units) of around 3% in FY21, increasing to around 4% in FY22 supported by restructuring efforts and macroeconomic support
- Capex as guided by the company
- Divestment of Multi Tracks units by end-2023
- Debt reduction throughout the rating horizon, in line with debt maturity schedule
- No dividend payments until FY24

Financial Data

thyssenkrupp AG

(EURm)	Historical			Forecast		
	Sep 2018	Sep 2019	Sep 2020	Sep 2021	Sep 2022	Sep 2023
Summary income statement						
Gross revenue	41,534	34,036	28,899	30,681	30,213	29,133
Revenue growth (%)	0.2	-18.1	-15.1	6.2	-1.5	-3.6
Operating EBITDA (before income from associates)	1,997	603	-1,248	1,015	1,304	1,665
Operating EBITDA margin (%)	4.8	1.8	-4.3	3.3	4.3	5.7
Operating EBITDAR	2,212	821	-1,081	1,192	1,479	1,833
Operating EBITDAR margin (%)	5.3	2.4	-3.7	3.9	4.9	6.3
Operating EBIT	879	-560	-5,283	-35	254	615
Operating EBIT margin (%)	2.1	-1.6	-18.3	-0.1	0.8	2.1
Gross interest expense	-212	-171	-181	-176	-121	-91
Pretax income (including associate income/loss)	561	-856	-5,593	-66	242	614
Summary balance sheet						
Readily available cash and equivalents	2,506	3,206	11,047	8,964	6,625	5,337
Total debt with equity credit	7,425	9,424	6,355	5,282	3,786	2,758
Total adjusted debt with equity credit	9,144	11,166	7,691	6,700	5,183	4,105
Net debt	4,919	6,218	-4,692	-3,682	-2,839	-2,579
Summary cash flow statement						
Operating EBITDA	1,997	603	-1,248	1,015	1,304	1,665
Cash interest paid	-296	-269	-215	-176	-121	-91
Cash tax	-365	-147	-130	-80	-90	-110
Dividends received less dividends paid to minorities (inflow/outflow)	-2	-36	-25	-16	-16	-16
Other items before FFO	-287	-110	-459	-200	-200	-200
Funds flow from operations	1,084	64	-2,061	678	977	1,329
FFO margin (%)	2.6	0.2	-7.1	2.2	3.2	4.6
Change in working capital	-174	-781	-803	375	-12	-17
Cash flow from operations (Fitch defined)	910	-717	-2,864	1,053	964	1,312
Total non-operating/non-recurring cash flow	0	736	898			
Capital expenditure	-1,376	-1,206	-1,334			
Capital intensity (capex/revenue) (%)	3.3	3.5	4.6			
Common dividends	-93	-93	0			
Free cash flow	-559	-1,280	-3,300			
Net acquisitions and divestitures	51	99	14,779			
Other investing and financing cash flow items	-145	-200	-1,393	0	0	0
Net debt proceeds	-1,633	2,080	-3,095	-1,073	-1,496	-1,028
Net equity proceeds	0	0	0	0	0	0
Total change in cash	-2,286	699	6,991	-2,083	-2,339	-1,288
Leverage ratios						
Total net debt with equity credit/operating EBITDA (x)	2.5	11.0	3.7	-3.7	-2.2	-1.6
Total adjusted debt/operating EBITDAR (x)	4.1	14.2	-7.0	5.7	3.5	2.3
Total adjusted net debt/operating EBITDAR (x)	3.0	10.1	3.0	-1.9	-1.0	-0.7
Total debt with equity credit/operating EBITDA (x)	3.7	16.6	-5.0	5.3	2.9	1.7
FFO adjusted leverage (x)	5.9	21.1	-4.5	7.5	4.4	2.7
FFO adjusted net leverage (x)	4.3	15.1	2.0	-2.5	-1.2	-0.8
FFO leverage (x)	5.5	30.4	-3.4	7.3	3.8	2.1
FFO net leverage (x)	3.7	20.0	2.5	-5.1	-2.8	-1.9
Calculations for forecast publication						
Capex, dividends, acquisitions and other items before FCF	-1,418	-464	14,343	-2,063	-1,807	-1,572
Free cash flow after acquisitions and divestitures	-508	-1,181	11,479	-1,010	-843	-260
Free cash flow margin (after net acquisitions) (%)	-1.2	-3.5	39.7	-3.3	-2.8	-0.9
Coverage ratios						
FFO interest coverage (x)	4.5	1.2	-8.7	4.1	8.2	14.7
FFO fixed-charge coverage (x)	3.0	1.1	-4.4	2.5	4.0	5.8
Operating EBITDAR/interest paid + rents (x)	4.3	1.6	-2.9	3.3	4.9	7.0
Operating EBITDA/interest paid (x)	6.7	2.1	-5.9	5.7	10.6	18.2
Additional metrics						
CFO-capex/total debt with equity credit (%)	-6.3	-20.4	-66.1	-9.7	-14.3	-4.5
CFO-capex/total net debt with equity credit (%)	-9.5	-30.9	89.5	13.8	19.1	4.9

Source: Fitch Ratings, Fitch Solutions.

How to Interpret the Forecast Presented

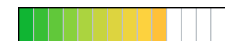
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Ratings Navigator

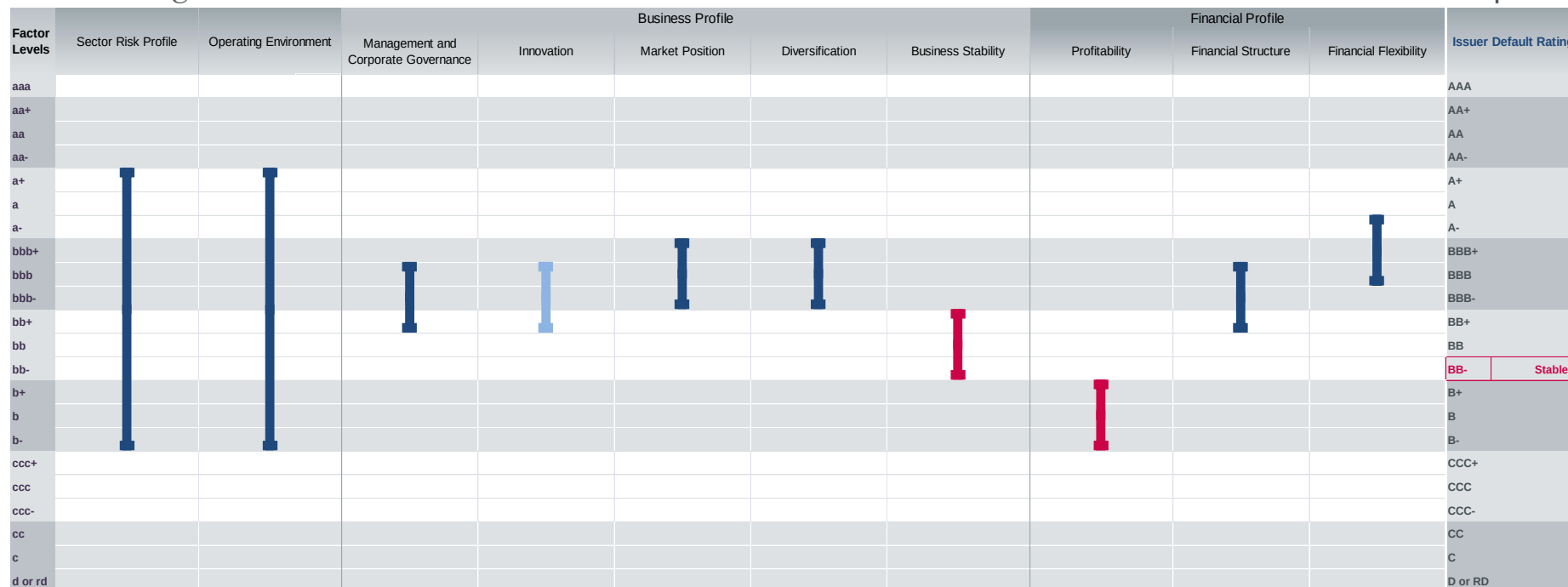
FitchRatings

thyssenkrupp AG

ESG Relevance:



Corporates Ratings Navigator
Div. Industrials & Cap. Goods



Bar Chart Legend:

Vertical Bars = Range of Rating Factor		Bar Arrows = Rating Factor Outlook	
Bar Colours = Relative Importance		↑	Positive
■	Higher Importance	↓	Negative
■	Average Importance	↕	Evolving
■	Lower Importance	□	Stable

Operating Environment

aa-	Economic Environment	a	Strong combination of countries where economic value is created and where assets are located.
a+	Financial Access	a	Strong combination of issuer specific funding characteristics and of the strength of the relevant local financial market.
	Systemic Governance	aa	Systemic governance (eg rule of law, corruption; government effectiveness) of the issuer's country of incorporation consistent with 'aa'.
b-			
ccc+			

Innovation

bbb+	Technology Content	bbb	Medium technology content in products and services.
bbb	Barriers to Entry	bbb	Moderate entry barriers.
bbb-	Innovation	bb	Limited commitment to innovation (eg R&D/sales <3%). Note: R&D includes externally funded R&D.
bb+			
bb			

Diversification

a-	Product Range	bbb	Good range of products, covering several technologies and/or end-markets.
bbb+	Geographic Diversification	bbb	Good diversification across many countries with some concentration in certain countries.
bbb	Mix of End-Markets	bbb	Limited presence in certain industries or applications.
bbb-	Customers and Suppliers	a	No reliance on any one customer or supplier.
bb+			

Profitability

bb-	FFO Margin	b	above 4%
b+	EBIT Margin	b	above 4%
b	FCF Margin	b	Minimal
b-			
ccc+			

Financial Flexibility

a	Financial Discipline	a	Clear commitment to maintain a conservative policy with only modest deviations allowed.
a-	Liquidity	a	Very comfortable liquidity. No need to use external funding in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb+	FFO Interest Coverage	bbb	6.0x
bbb	FX Exposure	bbb	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bbb-			

How to Read This Page: The left column shows the three-notch band assessment for the overall Factor, illustrated by a bar. The right column breaks down the Factor into Sub-Factors, with a description appropriate for each Sub-Factor and its corresponding category.

Management and Corporate Governance

bbb+	Management Strategy	bb	Strategy generally coherent but some evidence of weak implementation.
bbb	Governance Structure	bbb	Good CG track record but effectiveness/independence of board less obvious. No evidence of abuse of power even with ownership concentration.
bbb-	Group Structure	bbb	Some group complexity leading to somewhat less transparent accounting statements. No significant related-party transactions.
bb+	Financial Transparency		
bb			

Market Position

a-	Market Position	bbb	Top-five player in broad range of markets or top-three in few markets.
bbb+	Growth	bbb	Modest exposure to markets with long-term structural growth.
bbb			
bbb-			
bb+			

Business Stability

bbb-	Cyclicality	bb	Somewhat high exposure to cyclical end-markets.
bb+	Operating Leverage	bb	Limited cost flexibility and ability to reduce costs.
bb	Services and Aftermarket Revenue	bb	Services and aftermarket revenue 10%-25%.
bb-			
b+			

Financial Structure

bbb+	FFO Leverage	bb	4.5x
bbb	FFO Net Leverage	a	1.5x
bbb-	(CFO-Capex)/Total Net Debt With Equity Credit	aa	>30%
bb+	Total Debt With Equity Credit/Op. EBITDA	b	4.5x
bb	FCF/Total Debt With Equity Credit	ccc	Negative

Credit-Relevant ESG Derivation

				Overall ESG	
thyssenkrupp AG has 1 ESG rating driver and 7 ESG potential rating drivers					
key driver	0	issues	5		
driver	1	issues	4		
potential driver	7	issues	3		
not a rating driver	4	issues	2		
	2	issues	1		

Showing top 6 issues

For further details on Credit-Relevant ESG scoring, see page 3.

Credit-Relevant ESG Derivation

thyssenkrupp AG has 1 ESG rating driver and 7 ESG potential rating drivers

- thyssenkrupp AG has exposure to strategic risk which, in combination with other factors, impacts the rating.
- thyssenkrupp AG has exposure to emissions regulatory risk but this has very low impact on the rating.
- thyssenkrupp AG has exposure to waste & impact management risk but this has very low impact on the rating.
- thyssenkrupp AG has exposure to product quality & safety risk but this has very low impact on the rating.
- thyssenkrupp AG has exposure to labor relations & practices risk but this has very low impact on the rating.
- thyssenkrupp AG has exposure to board independence risk but this has very low impact on the rating.

Showing top 6 issues

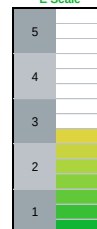
Overall ESG Scale

key driver	0	issues	5	
driver	1	issues	4	
potential driver	7	issues	3	
not a rating driver	4	issues	2	
	2	issues	1	

Environmental (E)

General Issues	E Score	Sector-Specific Issues	Reference
GHG Emissions & Air Quality	3	Emissions control standards for products	Technology Leadership; Market Position and Size; Profitability
Energy Management	2	Energy and fuel consumption in manufacturing and of product	Technology Leadership; Market Position and Size; Profitability
Water & Wastewater Management	2	Water usage in manufacturing and of product	Technology Leadership; Market Position and Size; Profitability
Waste & Hazardous Materials Management; Ecological Impacts	3	Waste management (including asbestos liabilities)	Profitability; Financial Flexibility
Exposure to Environmental Impacts	2	Impact of climate change on critical materials sourcing	Profitability; Financial Flexibility

E Scale



How to Read This Page

ESG scores range from 1 to 5 based on a 15-level color gradation. Red (5) is most relevant and green (1) is least relevant.

The **Environmental (E), Social (S) and Governance (G)** tables break out the individual components of the scale. The right-hand box shows the aggregate E, S, or G score. General Issues are relevant across all markets with Sector-Specific Issues unique to a particular industry group. Scores are assigned to each sector-specific issue. These scores signify the credit-relevance of the sector-specific issues to the issuing entity's overall credit rating. The Reference box highlights the factor(s) within which the corresponding ESG issues are captured in Fitch's credit analysis.

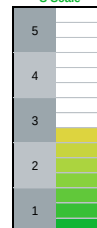
The **Credit-Relevant ESG Derivation** table shows the overall ESG score. This score signifies the credit relevance of combined E, S and G issues to the entity's credit rating. The three columns to the left of the overall ESG score summarize the issuing entity's sub-component ESG scores. The box on the far left identifies the some of the main ESG issues that are drivers or potential drivers of the issuing entity's credit rating (corresponding with scores of 3, 4 or 5) and provides a brief explanation for the score.

Classification of ESG issues has been developed from Fitch's sector ratings criteria. The General Issues and Sector-Specific Issues draw on the classification standards published by the United Nations Principles for Responsible Investing (PRI) and the Sustainability Accounting Standards Board (SASB).

Social (S)

General Issues	S Score	Sector-Specific Issues	Reference
Human Rights, Community Relations, Access & Affordability	1	n.a.	n.a.
Customer Welfare - Fair Messaging, Privacy & Data Security	3	Product quality and safety	Management and Corporate Governance; Profitability; Financial Flexibility
Labor Relations & Practices	3	Impact of labor negotiations and employee (dis)satisfaction	Management and Corporate Governance; Profitability; Financial Flexibility
Employee Wellbeing	1	n.a.	n.a.
Exposure to Social Impacts	2	Shift in consumer preferences	Management and Corporate Governance; Market Position and Size; Profitability; Financial Structure; Financial Flexibility

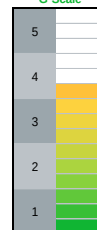
S Scale



Governance (G)

General Issues	G Score	Sector-Specific Issues	Reference
Management Strategy	4	Strategy development and implementation	Management and Corporate Governance
Governance Structure	3	Board independence and effectiveness; ownership concentration	Management and Corporate Governance
Group Structure	3	Complexity, transparency and related-party transactions	Management and Corporate Governance
Financial Transparency	3	Quality and timing of financial disclosure	Management and Corporate Governance

G Scale

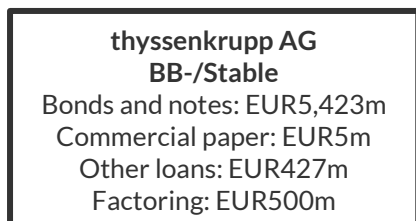


CREDIT-RELEVANT ESG SCALE

How relevant are E, S and G issues to the overall credit rating?

5	Highly relevant, a key rating driver that has a significant impact on the rating on an individual basis. Equivalent to "higher" relative importance within Navigator.
4	Relevant to rating, not a key rating driver but has an impact on the rating in combination with other factors. Equivalent to "moderate" relative importance within Navigator.
3	Minimally relevant to rating, either very low impact or actively managed in a way that results in no impact on the entity rating. Equivalent to "lower" relative importance within Navigator.
2	Irrelevant to the entity rating but relevant to the sector.
1	Irrelevant to the entity rating and irrelevant to the sector.

Simplified Group Structure Diagram



Source: Fitch Ratings, Fitch Solutions, thyssenkrupp AG, as of 30 September 2020

Peer Financial Summary

Company	IDR	Financial statement date	Operating EBITDA margin (%)	Funds flow from operations (EURm)	FCF (EURm)	FFO leverage (x)	FFO net leverage (x)
thyssenkrupp AG	BB-						
	BB-	2020	-4.3	-2,061	-3,300	-3.4	2.5
	BB+	2019	1.8	64	-1,280	30.4	20.0
	BB+	2018	4.8	1,084	-559	5.5	3.7
ArcelorMittal S.A.	BB+						
	BBB-	2019	6.7	3,348	2,314	5.6	4.4
	BBB-	2018	13.5	8,461	715	2.3	2.0
	BB+	2017	12.2	6,295	1,287	2.6	2.2
KION GROUP AG	BBB-						
	BBB-	2019	11.5	841	265	2.1	1.9
	BBB-	2018	17.6	865	247	3.3	3.2
	BBB-	2017	11.8	675	257	3.1	2.9
Atlas Copco AB	A+						
	A+	2019	25.3	18,062	4,760	1.1	0.5
	A+	2018	25.6	17,183	5,472	1.1	0.4
	A	2017	25.8	20,143	10,343	1.2	0.2
KAEFER Isoliertechnik GmbH & Co. KG	BB						
	BB	2019	5.5	56	34	4.6	3.0
	BB	2018	5.5	53	-12	4.5	3.5
		2017	5.5	66	-29	3.5	3.2

Source: Fitch Ratings, Fitch Solutions

Fitch Adjusted Financials

Fitch Adjustments and Reconciliation Table for thyssenkrupp AG

(EURm)	Notes and Formulas	Reported Values	Sum of Adjustments	CORP - Lease Treatment	- CORP - Factoring	Adjusted Values
30 September 2020						
Income Statement Summary						
Revenue		28,899				28,899
Operating EBITDAR		-1081				-1081
Operating EBITDAR After Associates and Minorities	(a)	-1106				-1106
Operating Lease Expense	(b)	0	167	167		167
Operating EBITDA	(c)	-1081	-167	-167		-1248
Operating EBITDA After Associates and Minorities	(d) = (a-b)	-1106	-167	-167		-1273
Operating EBIT	(e)	-5261	-22	-22		-5283
Debt and Cash Summary						
Total Debt with Equity Credit	(f)	6,502	-147	-647	500	6,355
Lease-Equivalent Debt	(g)	0	1,336	1,336		1,336
Other Off-Balance-Sheet Debt	(h)	0				0
Total Adjusted Debt with Equity Credit	(i) = (f+g+h)	6,502	1,189	689	500	7,691
Readily Available Cash and Equivalents	(j)	11,547	-500			11,047
Not Readily Available Cash and Equivalents		0	500			500
Cash Flow Summary						
Operating EBITDA After Associates and Minorities	(d) = (a-b)	-1106	-167	-167		-1273
Preferred Dividends (Paid)	(k)	0				0
Interest Received	(l)	16				16
Interest (Paid)	(m)	-222	7	22	-15	-215
Cash Tax (Paid)		-130				-130
Other Items Before FFO		-474	15		15	-459
Funds from Operations (FFO)	(n)	-1916	-145	-145		-2061
Change in Working Capital (Fitch-Defined)		-2349	1,546		1,546	-803
Cash Flow from Operations (CFO)	(o)	-4265	1,401	-145	1,546	-2864
Non-Operating/Nonrecurring Cash Flow		898				898
Capital (Expenditures)	(p)	-1334				-1334
Common Dividends (Paid)		0				0
Free Cash Flow (FCF)		-4701	1,401	-145	1,546	-3300
Gross Leverage (x)						
Total Adjusted Debt/Operating EBITDAR ^a	(i/a)	-5.9				-7.0
FFO Adjusted Leverage	(i)/(n-m-l-k+b))	-3.8				-4.5
FFO Leverage	(i-g)/(n-m-l-k)	-3.8				-3.4
Total Debt with Equity Credit/Operating EBITDA ^a	(i-g)/d	-5.9				-5.0
(CFO-Capex)/Total Debt with Equity Credit (%)	(o+p)/(i-g)	-86.1%				-66.1%
Net Leverage (x)						
Total Adjusted Net Debt/Operating EBITDAR ^a	(i-j)/a	4.6				3.0
FFO Adjusted Net Leverage	(i-j)/(n-m-l-k+b)	3.0				2.0
FFO Net Leverage	(i-g-j)/(n-m-l-k)	3.0				2.5
Total Net Debt with Equity Credit/Operating EBITDA ^a	(i-g-j)/d	4.6				3.7
(CFO-Capex)/Total Net Debt with Equity Credit (%)	(o+p)/(i-g-j)	111.0%				89.5%
Coverage (x)						
Operating EBITDA/(Interest Paid + Lease Expense) ^a	a/(-m+b)	-5.0				-2.9
Operating EBITDA/Interest Paid ^a	d/(-m)	-5.0				-5.9
FFO Fixed-Charge Coverage	(n-l-m-k+b)/(-m-k+b)	-7.7				-4.4
FFO Interest Coverage	(n-l-m-k)/(-m-k)	-7.7				-8.7

^aEBITDA/R after dividends to associates and minorities.

Source: Fitch Ratings, Fitch Solutions, thyssenkrupp AG

CRU Research

[Aluminum](#)
[Copper](#)
[Nickel](#)
[Zinc](#)
[Coal](#)
[Steel](#)
[Gold and Precious Metals](#)
[Iron Ore \(Steelmaking/Raw Materials\)](#)
[Phosphate Fertilizers and Rock](#)
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