BASF SE
Germany, Integrated Chemicals

A STABLE

Corporate profile

BASF SE is a chemicals company which also operates in related areas such as agriculture, nutrition, and the exploration and production of oil and natural gas. The company is organised into five business segments: Chemicals, Performance Products, Functional Materials & Solutions, Agricultural Solutions, and Oil & Gas. About half of the company's revenues are generated by specialty chemicals while the remainder comes from commodity chemicals and the Oil & Gas segment.

Key metrics

		Scope estimates		
Scope credit ratios[1]	2017	2018F	2019F	2020F
EBITDA/interest cover (x)	19x	15x	14x	14x
Scope-adjusted debt (SaD)/EBITDA	1.3x	1.6x	1.5x	1.5x
Scope-adjusted FFO/SaD	62%	47%	51%	54%
FOCF/SaD	38%	29%	29%	33%

Rating rationale

On September 27, 2018 BASF and LetterOne signed an agreement to merge its Oil & Gas segment with DEA. The formation of the joint venture and completion of the transaction is subject to customary regulatory approvals and closing is expected in the first half 2019. Scope assess the risk that no regulatory approval will be granted as low. Following the closing of the transaction, BASF expects to account for its stake in the Wintershall DEA joint venture under the at-equity method.

On September 12, 2017 Scope affirmed the corporate credit rating of A for Germany-based chemicals company BASF SE and its financing subsidiary BASF Finance Europe N.V. Senior unsecured debt issued by either BASF SE or BASF Finance Europe N.V. is rated A. The short-term rating is S-1. The Outlooks are Stable.

The BASF's corporate credit rating of A primarily reflects our view of the company's strong position in the global chemical market, its high degree of diversification in broad geographical markets and operations along the chemical value chain. BASF's strong focus on a wide-ranging portfolio of specialty chemicals, which are less cyclical than base chemicals as well as having low substitution risk, is of particular importance. The rating is also underpinned by our expectation that solid free cash flow generation and the management's commitment to a conservative financial policy will continue.

This publication does not constitute a credit rating action.

[1] The rating case for 2018 and subsequent years includes respective effects of the transaction, based on estimates by Scope. In contrast to BASF's financial reporting, we have not retroactively adjusted historically reported ratios to reflect the treatment of Wintershall as discontinued operations.

Ratings & Outlook

Corporate ratings	A/Stable
Short-term rating	S-1
Senior unsecured rating	A

Analysts

Werner Stäblein
+49 69 6677389 12
w.staeblein@scoperatings.com

Klaus Kobold
+49 69 6677389 23
k.kobold@scoperatings.com

Related Research

BASF SE Updated forecasts based on full-year 2017 results, March 2018

BASF SE Corporate and Instrument Rating, September 2017

BASF SE Corporate and Instrument Rating, September 2016

Scope Ratings GmbH

Neue Mainzer Straße 66-68
60311 Frankfurt am Main

Tel. +49 69 6677389 0

Headquarters

Lennéstraße 5
10785 Berlin

Tel. +49 30 27891 0
Fax +49 30 27891 100

info@scoperatings.com
www.scoperatings.com

Bloomberg: SCOP

Scope considers BASF's business risk profile to be better than its financial risk profile. The company's business risk profile is supported by:

i) BASF's large share of business in different speciality chemical end markets, representing approximately half of operating income (EBIT); ii) its global geographical reach; iii) high customer diversification; iv) strong market position (BASF is ranked among the top three in about 70% of its business); and v) cost advantages in its upstream chemicals business resulting from the integrated 'Verbund' strategy. Over the past decade, BASF has made a number of acquisitions in specialty chemicals, divested its base chemical assets and will exit from the Oil & Gas business. The company has consolidated the market position of its Agricultural Solutions segment through the acquisition of Bayer's seed treatments and research on wheat hybrids, herbicides, digital farming and the vegetable seeds business. By acquiring Solvay's polyamide business, the company enhanced its position in engineered plastics. The Closing of this transaction is expected in H1 2019, as the European Commission has set a deadline of December 18, 2018 to decide whether to approve the proposed purchase. Acquisitions have improved the company's share of customised products and functionalised materials, eventually leading to greater protection against cyclicality risks and an improved share of business generated in emerging markets. BASF's business risk profile is constrained by its dependence on highly cyclical end markets such as the automotive, construction and electronics markets; ii) the strong correlation between global chemical markets, GDP and industrial production; and iii) risks related to volatile feedstock and energy prices in its segment Chemicals.

Through bundling its Oil & Gas segment in a JV with LetterOne, Scope sees the volatility risks for BASF's profitability reduced, as this segment is subject to earnings and cash flow volatility due to changes in price of oil and natural gas.

Our assessment of BASF's financial risk profile reflects the management's stated financial policy and credible track record of maintaining moderate leverage. Credit ratios such as Scope-adjusted debt (SaD)/EBITDA have been kept below 2.0x over the past six years, with the exception of 2016 when SaD/EBITDA was 2.0x due to the conclusion of the Chemetall transaction. For the current year, we expect a deterioration of SaD/EBITDA to 1.6x caused by acquisitions in the Agricultural Solutions segment. With regard to updated projections for 2019, Scope expects the company's credit metrics to slightly improve. For instance, SaD/EBITDA is expected to strengthen to about 1.5x in 2019, benefiting from the full-year consolidation of acquisitions completed in 2018 combined with ongoing global economic growth. Further, expected strength of credit metrics includes the merger of Wintershall and DEA and its effects, such as the switch to the at-equity treatment of BASF's currently consolidated Oil & Gas segement, reduction of debt, pension obligations and operating lease liabilities. Scope rating case for 2019 also includes first time consolidation of Solvay's polyamide business as well as payment of purchase price.

As we expect BASF to maintain its M&A strategy pursued in the past, our model includes EUR 500m of bolt-on acquisitions in each of 2019 and 2020. The rating and outlook would accommodate M&A-related cash outlays of this magnitude. For 2018 and 2019, our forecasts with estimated SaD/EBITDA of 1.5x in 2019 and 2020 would numerically viewed suggest that an outlook change could be warranted. We do, however, believe, that BASF will use some of its financial headroom to complete larger bolt-on acquisitions above and beyond the level that we have already captured in our base case (EUR 500m in each of 2019 and 2020). By nature, any such larger-sized but conceivable bolt-ons are difficult to predict but we believe that any such reasonably to be expected transactions could lead to a weakening of credit ratios once these transactions materialise.

Further details of BASF' strategy for upcoming years will be presented at its capital market day held at November 20, 2018.

Outlook

The Outlook is Stable and incorporates our expectation that BASF should achieve debt protection measures such as SaD/EBITDA of about 2.0x and funds from operations (FFO)/SaD of 40% in the medium term. A positive rating action would be warranted if BASF were to significantly increase its share in the speciality chemicals business, thus considerably improving its business risk profile. We consider this scenario unlikely in the medium term given the company's stated acquisition policy and financial targets.

For 2018 and 2019, our forecast suggests increasing room to manoeuvre within the current rating but insufficient to justify a change in outlook, notably because we believe that BASF will use some of its financial headroom to complete larger bolt-on acquisitions.

A rating upgrade may also be considered if BASF were to improve its debt protection measures (SaD/EBITDA, FFO/SaD) sustainably to levels of about 1.5x and 50% respectively. A negative rating action could result if the company's financial risk profile were to weaken to levels of roughly 2.5x (SaD/EBITDA) and 30% (FFO/SaD).

Rating drivers

Positive rating drivers	Negative rating drivers
• Strong market position, holding between first and third position for about 70% of its business	• Heavy dependence on general economic environment and on economic developments in emerging markets in particular
• Large share of specialty chemicals that are less subject to cyclicality risks and changing feedstock prices	• Risks of sudden negative changes in feedstock prices and exposure to changes in global commodities and food prices
• Broad and globally diversified business; one of the largest integrated chemical companies globally; diversification benefits from presence in agrochemicals, bulk and specialty chemicals	• Still some overrepresentation of business in Europe, a region that is projected to show lower growth rates for chemicals
• History of solid, resilient free cash flow generation, great financial flexibility and proven management commitment to a solid 'A' rating	• Exposure to very cyclical end markets, such as transportation (automotive) and construction, in the Functional Materials & Solutions segment
• Benefits from large integrated sites worldwide providing higher product yields ('Verbund' concept)	• Chemicals segment (mainly base chemicals) contributes about 16% to EBITDA and is highly cyclical, great sensitivity to oil price development, limited pricing power
• Substantial coverage of future pension payments with accumulated pension plan assets covering payments for far more than a decade	
• Joint venture with DEA significantly reduces company dependency on highly cyclical oil and natural gas exploration and production business	
• Continuous strong spending on R&D, compared to integrated chemicals sector peers. This translates into high innovation power	

Rating-change drivers

Positive rating-change drivers	Negative rating-change drivers
• Sustainable improvement of debt protection measures to levels of about 1.5x (SaD/EBITDA) and 50% (FFO/SaD)	• Sizeable debt-funded acquisitions leading to a material deterioration in debt protection measures
• Substantial increase in share of specialty chemicals or agrochemicals and reduction in oil production exposure	• Risks of global oversupply of commodity chemicals, leading to price pressure and margin squeeze in Chemicals segment
	• Deterioration in credit protection measures such as SaD/EBITDA to levels of about 2.5x and FFO/SaD of roughly 30%

Financial overview[2]

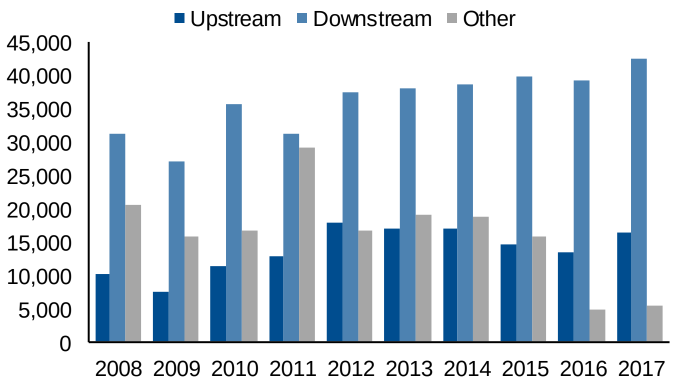
		Scope estimates		
Scope credit ratios	**2017**	**2018F**	**2019F**	**2020F**
EBITDA/interest cover (x)	19x	15x	14x	14x
SaD/EBITDA	1.3x	1.6x	1.5x	1.5x
Scope-adjusted FFO/SaD	62%	47%	51%	54%
FOCF/SaD	38%	29%	29%	33%
Scope-adjusted EBITDA in EUR m	**2017**	**2018F**	**2019F**	**2020F**
EBITDA	12,164	12,840	12,046	11,191
Operating lease payment in respective year	448	362	308	308
less: disposal gains fixed assets included in EBITDA	-359	-350	-350	-350
Scope-adjusted EBITDA	12,253	12,852	12,004	11,149
Scope-adjusted FFO in EUR m	**2017**	**2018F**	**2019F**	**2020F**
EBITDA	12,164	12,840	12,046	11,191
less: (net) cash interest as per cash flow statement	-459	-409	-460	-459
less: cash tax paid as per cash flow statement	-1,495	-2,147	-1,937	-1,816
less: pension interest	-190	-176	-180	-180
add: depreciation component operating leases	381	386	302	253
less: disposal gains fixed assets included in EBITDA	-667	-359	-500	-500
less: capitalised interest	-92	-68	-150	-150
Dividends received from at-equity and change in provisions	683	75	90	740
Scope-adjusted FFO	10,074	9,990	9,284	9,232
Scope-adjusted debt in EUR m	**2017**	**2018F**	**2019F**	**2020F**
Reported gross financial debt	18,032	20,032	17,032	17,032
less: cash and cash equivalents	-6,547	-3,567	-3,046	-4,356
Cash not accessible	400	400	400	401
add: pension adjustment	2,119	2,133	1,933	1,933
add: operating lease obligations	1,193	1,193	1,014	1,014
add: asset retirement obligations	972	972	972	972
Scope-adjusted debt	16,169	21,164	18,306	16,996

[2] The rating case for 2018 and subsequent years includes respective effects of the transaction, based on estimates by Scope. In contrast to BASF's financial reporting, we have not retroactively adjusted historically reported ratios to reflect the treatment of Wintershall as discontinued operations.

Business risk profile

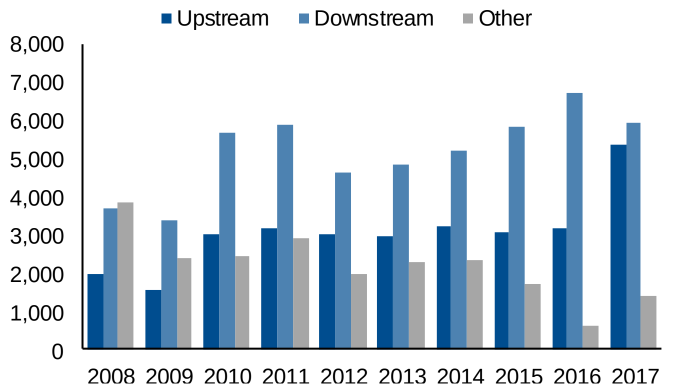
Scope considers companies acting as integrated players in the chemicals industry to face high revenue and earnings cyclicality. In particular, base chemicals and petrochemicals are highly sensitive to economic developments. However, portfolio cyclicality is partly balanced by less cyclical specialty chemicals. In addition, producers acting as integrated chemical companies are protected by high entry barriers and medium substitution risk. Furthermore, base chemicals are the backbone of many aftermarkets. Consequently, our outlook for the integrated chemicals industry is stable.

Figure 1: Revenue in EUR m by division (Other: incl. other, Oil & Gas)



Source: Scope, BASF

Figure 2: EBITDA in EUR m by division (Other: incl. other, Oil & Gas)



Source: Scope, BASF

As BASF is ranked first globally by revenues among top chemical companies, Scope considers its market position to be very strong. Our assessment is supported by the market positions held by the company's business units. According to BASF, it occupies a position between first and third on the market for about 70% of its business. Together with its wide-ranging portfolio – BASF is engaged in the production of care chemicals, construction chemicals, agricultural solutions, and coatings, among others. Despite the limited size of BASF's most recent acquisitions, Scope believes that these bolt-on acquisitions will strengthen the company's market position in the agrochemicals sector. With the bolt-on acquisitions of Bayer's seed business, crop science business, and digital farming, BASF has acquired a well-established brand portfolio (PONCHO, VOTiVO, ILeVO, and COPeO, among others) and more than 250 patent families. Strong R&D spending, together with a high number of patent applications, place the company in a position to maintain its market shares. Furthermore, BASF has strengthened its position in the growing engineering plastics market through the purchase of Solay's polyamide business, ranked third globally. The entity will be consolidated in BASF's Functional Materials and Solutions division.

Scope deems BASF's diversification to be strong. Firstly, the company has a large global footprint, currently operating in more than 80 countries. The company's business is, however, somewhat overrepresented in Europe, a region that is projected to show lower growth rates for chemicals. Secondly, BASF is active in many segments of the base chemicals and specialty chemicals sector. This translates into a broad product portfolio in a wide-ranging mix of end markets is a further positive outcome.

Figure 3: Selected market positions

Performance Products

- Dispersions: No. 2 globally for adhesives, construction chemicals, architectural coatings, paper coatings and fiber bonding materials
- Pigments: No. 1 globally, broadest portfolio of colors and effect pigments
- Resins: No. 1 globally in water-based resins for printing and packaging
- Additives: No. 1 globally in light stabilizers; broad portfolio of formulation additives
- Electronic materials: leading market position in Asia and Europe

Agricultural Solutions

- Fungicides: No. 3 globally
- Herbicides: No. 5 globally
- Insecticides: No. 5 globally

Functional Materials and Solutions

- Automotive OEM coatings: No. 2 globally
- Automotive refinish coatings: No. 3 globally
- Surface treatment: No. 2 globally
- Decorative paints: No. 1 in Brazil
- Admixture systems: No. 1 globally
- Construction systems: No. 3 globally
- Mobile emissions catalysts: No. 2 globally
- Chemical catalysts: No. 1 globally
- FCC refinery catalysts: No. 2 globally

Chemicals

- Acrylic monomers: No. 1 globally
- Oxo alcohols: No. 1 globally
- Ethylene oxide and ethylene glycols: No. 2 in Europe
- Solvents: No. 2 in Europe
- Plasticizers: No. 3 in Europe
- Propylene oxide and propylene glycols: No. 3 in Europe

Source: Scope, BASF

Figure 4: Revenue by end market

>-20%	Chemicals and plastics
10-20%	Consumer goods/transportation
5-10%	Agriculture/construction/ energy & resources
<5%	Health and nutrition/electronics

Source: BASF

Scope considers BASF's profitability, compared to chemical industry peers and other integrated chemical players, as supportive. Thanks to BASF's integrated approach, strong demand and rising market prices for base chemical products have pushed the company's profitability (EBITDA margin) close to the 20% level. This development has been supported by a recovery in the earnings of BASF's Oil & Gas segment as a result of higher oil prices.

Scope acknowledges BASF's stable and resilient profitability supported by substantial specialty chemicals operations. In past downturn periods, BASF's profitability remained fairly stable. In contrast to the company's upstream operations, most of its specialty materials divisions are less dependent on raw materials as well as having the potential to exert stronger pricing power and benefit from product innovations. In general, the chemicals division is highly sensitive to fluctuations in raw material prices as well as having limited pricing power as prices for many base chemicals are transparent. Scope therefore sees some downside risk, as we believe that current margins are near the top of the cycle and benefit from certain factors (e.g. a supply shortage of isocyanates). Scope views the expected deconsolidation of BASF's Oil & Gas segment as positive from a rating point of view. In addition to significantly lower sensitivity to volatile oil prices, BASF is exposed to reduced political risk.

Financial risk profile

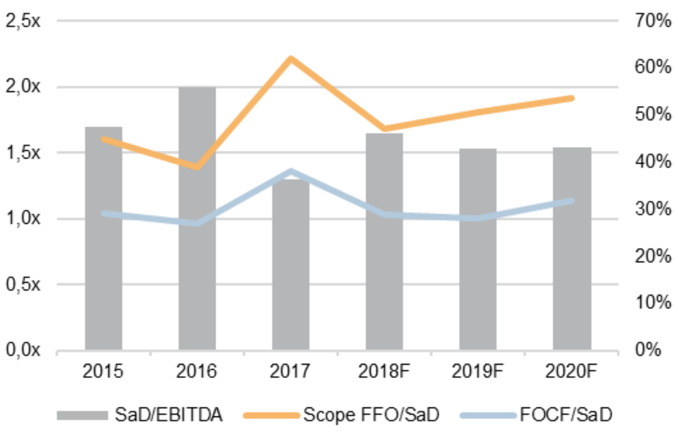
BASF achieved growth on the volume and price side driven by solid global economic growth in 2017. The company's financial results therefore topped Scope's forecast and its credit metrics were stronger than those anticipated by Scope in October 2017.

With regard to our updated forecast for 2018 and the subsequent two years, Scope expects BASF's credit metrics to remain solid. Due to the latest acquisitions (with a combined purchase price of about EUR 7.6bn), moderately weaker credit metrics are projected for the current year. Based on our rating case, Scope expects SaD/EBITDA to deteriorate to 1.6x from 1.3x in 2017. These metrics are still, however, in line with our medium-term rating case. Scope anticipates stronger credit metrics for 2019 and beyond, driven by the full-year consolidation of acquisitions completed in 2018 combined with ongoing global economic growth.

On September 27, 2018 BASF and LetterOne signed an agreement to merge its Oil & Gas segment with DEA. The formation of the joint venture and completion of the transaction is subject to customary regulatory approvals and closing is expected in the first half 2019. BASF will switch to the at-equity treatment of its currently fully consolidated Oil & Gas segment, expected from July 01, 2019. The rating case for 2018 and subsequent years includes respective effects of the transaction, based on estimates by Scope. In contrast to BASF's financial reporting, we have not retroactively adjusted historically reported ratios to reflect the treatment of Wintershall as discontinued operations. Credit metrics are supported by the expected reduction of debt, pension obligations, and operating lease liabilities which is partly offset by lower level of earnings and cashflow through the deconsolidation of Wintershall. BASF's cashflow cover (FOCF/SaD) is expected to moderately improve driven by lower capex, as Oil & Gas accounts for about EUR 1bn of total capex. Lastly, Scope acknowledges that the company's credit metrics is less sensitive to volatile oil and natural gas prices.

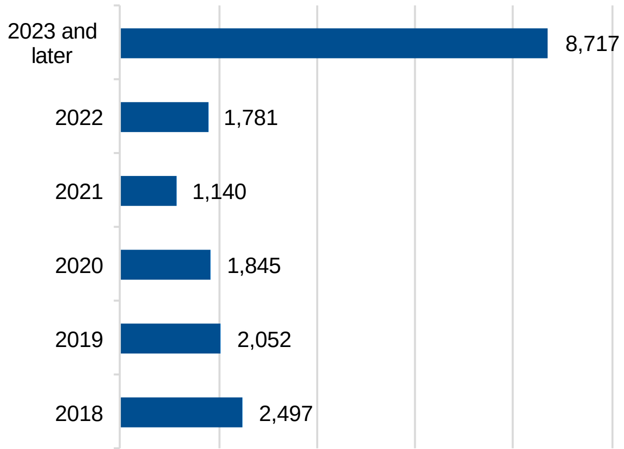
As we expect BASF to maintain its past M&A strategy, our model includes EUR 500m of bolt-on acquisitions in each of 2019 and 2020. Details of BASF' strategy for upcoming years will be presented at its capital market day held at November 20, 2018.

Figure 5: Credit metrics



Source: Scope

Figure 6: Maturity profile



Source: BASF

Solid credit metrics will continue to go hand in hand with strong liquidity. BASF has good bank relationships, as evidenced, for instance, by the broad syndication of its committed credit lines (about EUR 6bn). The company also has a solid standing in public debt markets. BASF faces minor maturity transformation risk thanks to its long-term structured maturity profile.

Supplementary rating drivers

BASF is committed to a conservative financial policy. Moreover, the company financial policy includes a strong rating commitment. Scope acknowledges BASF's selective M&A approach, avoiding heavy usage of debt. Based on public announcements by the company's management, Scope believes that BASF will maintain this approach.

Short-term rating

With regard to BASF's issuer rating of A, Scope leaves the short-term rating of S-1 unchanged. The rating reflects Scope's perception that the company's cash generation is both solid and sustainable. Short-term debt is safely covered by internal and external sources of liquidity.

Outlook

The Outlook is Stable and incorporates our expectation that BASF should achieve debt protection measures such as SaD/EBITDA of about 2.0x and FFO/SaD of 40% in the medium term. A positive rating action would be warranted if BASF were to significantly increase its share in the speciality chemicals business, thus considerably improving its business risk profile. We consider this scenario unlikely in the medium term given the company's stated acquisition policy and financial targets. For 2018 and 2019, our forecast suggests increasing room to manoeuvre within the current rating but insufficient to justify a change in outlook, notably because we believe that BASF will use some of its financial headroom to complete larger bolt-on acquisitions. A rating upgrade may also be considered if BASF were to improve its debt protection measures (SaD/EBITDA, FFO/SaD) sustainably to levels of about 1.5x and 50% respectively. A negative rating action could result if the company's financial risk profile were to weaken to levels of roughly 2.5x (SaD/EBITDA) and 30% (FFO/SaD).

Scope Ratings GmbH

Headquarters Berlin

Lennéstraße 5
D-10785 Berlin

Phone +49 30 27891 0

Frankfurt am Main

Neue Mainzer Straße 66-68
D-60311 Frankfurt am Main

Phone +49 69 66 77 389-0

Paris

33 rue La Fayette
F-75009 Paris

Phone +33 1 82885557

London

Suite 301
2 Angel Square
London EC1V 1NY

Phone +44 203-457 0 4444

Madrid

Paseo de la Castellana 95
Edificio Torre Europa
E-28046 Madrid

Phone +34 914 186 973

Milan

Via Paleocapa 7
IT-20121 Milan

Phone +39 02 30315 814

Oslo

Haakon VII's gate 6
N-0161 Oslo

Phone +47 21 62 31 42

info@scoperatings.com
www.scoperatings.com