Corporate and Instrument Rating
BASF SE
Germany, Specialty Chemicals

SCOPE

A STABLE
Corporate Rating

Corporate profile

BASF SE is active in chemistry and related areas such as agriculture, nutrition, and the extraction and production of oil and natural gas. The company is organised in five business segments: chemicals, performance products, functional materials and solutions, agricultural solutions, and oil and gas. The five business segments include 13 divisions organised around sectors or products with over 300 production sites worldwide. About half of the group's revenues is generated by specialty chemicals while the remainder comes from the commodity chemicals, agricultural, and oil and gas segments.

Ratings

Corporate Rating:	A
Outlook:	Stable
Senior Unsecured Debt Rating:	A/Stable
Short-Term Rating:	S-1
Sector:	Specialty Chemicals
Monitoring:	monitored

Analysts

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Rating rationale

Scope Ratings assigns a Corporate Issuer Credit Rating (CICR) of A to the Germany-based chemicals company BASF SE. Senior unsecured debt is rated A. The short-term rating is S-1. The rating Outlooks are Stable.

The CICR of A assigned to BASF primarily reflects our view of the group's strong position in the global chemical market, its high degree of diversification into different end-markets, notably in the specialty chemical segment, as well as our expectation for a continuation of free cash flow (FOCF) generation and the management's commitment to a conservative financial policy. In Scope's view, the business risk profile (BRP) of BASF is better than its financial risk profile. The BRP is supported by BASF's high share of business in different specialty chemical end-markets, representing more than half of operating income (EBIT); broad geographical reach; high customer diversification; strong market positions; and cost advantages in its upstream chemicals business resulting from the integrated 'Verbund' strategy. The BRP is also supported by diversification benefits from the economically resilient agricultural chemicals division. Over the past decade, BASF made a number of acquisitions in specialty chemicals and divested commodity chemicals assets. The portfolio shift has improved the share of customised products and functionalised materials, eventually leading to a better resilience of the group against cyclicality risks and an improved share of business generated in emerging markets. The BRP is constrained by the dependence on very cyclical end-markets such as automotive, construction, and electronics; the strong correlation of global chemical markets with GDP and industrial production; and risks of volatile feedstock and energy prices. In view of the shift of global chemical consumption towards Asia, we view BASF's currently high presence in the rather stagnant European market as a constraint. The oil and gas business is subject to earnings and cash flow volatility due to changes in oil price.

Our assessment of the financial risk profile reflects our perception of the management's stated financial policy and credible track record of maintaining a moderate leverage, as evidenced, for instance, by credit ratios such as a Scope-adjusted debt (SaD)/EBITDA of significantly below 2.0x over the past five years.

For 2016, we expect the key debt protection measures, SaD/EBITDA and funds from operations (FFO)/SaD, to be respectively slightly lower than 40% and about 2.0x. Credit ratios in 2016 are slightly weaker than those in preceding years. This results from the expected closing of the Chemetall transaction at year-end 2016 with the full effect on SaD but the full consolidation of the target's cash flows and operating profit only from the closing of the transaction. Our forecast for 2017 includes the full effect of the Chemetall transaction and points to an improvement of credit metrics to slightly above 40% (FFO/SaD) and slightly below 2.0x (SaD/EBITDA). In view of the projected FOCF generation and expected dividend payments, we see only minimal potential for further significant deleveraging.

Outlook

The Outlook is Stable and incorporates our expectation that BASF should achieve debt protection measures such as a SaD/EBITDA of about 2.0x and a FFO/SaD of 40% in the medium term. In view of the expected closing of the Chemetall transaction at year-end 2016, both credit metrics are likely to be lower than these levels on a reported basis given that the target's cash flows and operating profit will only be consolidated from the closing of the transaction.

A positive rating action would be warranted if BASF were to significantly increase its share in the specialty chemicals business – a scenario that we consider unlikely to materialise in the medium term given the company's stated acquisition policy and financial targets. A rating upgrade could also occur if BASF were to improve its debt protection measures (SaD/EBITDA, FFO/SaD) to levels of respectively about 1.5x and 50%. In view of our base case – expected FOCF is largely used for dividend payments – we do not envisage any such improvement and deleveraging to materialise over the two-year outlook horizon. A negative rating action could occur if the financial risk profile were to weaken to levels of about 2.5x (SaD/EBITDA) and 30% (FFO/SaD).

Rating drivers

Positive	Negative
Strong market position, holding between first and third position for about 70% of its business	High dependence on general economic environment and in particular on economic development in emerging markets
High 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 resilient and solid free cash flow generation, high financial flexibility and proven management commitment to rating	Exposure to very cyclical end-markets, such as transportation (automotive) and construction, in the functional materials and solutions division
Benefits from large integrated sites worldwide providing benefit of higher product yields (‘Verbund’ concept)	Dependence on oil-price changes for highly cash generative oil and gas division; oil and gas operations not fully controlled and subject to political risks
Substantial coverage of future pension payments with accumulated pension plan assets covering payments for far more than a decade	

Rating-change drivers

Positive	Negative
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 of debt protection measures
Substantial increase in share of specialty or agrochemicals and reduction of oil-production exposure – we view this as unlikely to materialise	Risks of build-up of global oversupply of commodity chemicals, leading to price pressure and margin squeeze in chemicals division
	Deterioration of credit protection measures such as SaD/EBITDA to levels of about 2.5x and FFO/SaD of about 30%

Financial overview

		Scope estimates		
Scope credit ratios	**2015**	**2016F**	**2017F**	**2018F**
EBITDA/interest cover (x)	12x	11x	12x	12x
SaD/EBITDA	1.7x	2.1x	1.8x	1.7x
Scope-adjusted FFO/SaD	45%	38%	42%	51%
FOCF/SaD	29%	20%	23%	26%

		Scope estimates		
Scope-adjusted EBITDA in EUR m	**2015**	**2016F**	**2017F**	**2018F**
EBITDA	10,445	9,638	10,349	10,645
Operating lease payment in respective year	471	413	413	413
less: disposal gains fixed assets included in EBITDA	-525	-500	-500	-500
Scope-adjusted EBITDA	**10,391**	**9,551**	**10,262**	**10,558**

		Scope estimates		
Scope funds from operations in EUR m	**2015**	**2016F**	**2017F**	**2018F**
EBITDA	**10,445**	**9,638**	**10,349**	**10,645**
less: (net) cash interest as per cash flow statement	-458	-425	-435	-445
less: cash tax paid as per cash flow statement	-1,550	-1,306	-1,492	-1,551
less: pension interest	-199	-195	-195	-195
add: depreciation component operating leases	405	347	347	347
add: dividends received from equity	219	219	219	219
less: disposal gains fixed assets included in EBITDA	-525	-500	-500	-500
less: capitalised interest	-149	-150	-150	-150
Change in provisions	-221	-200	-200	-200
Scope funds from operations	**7,967**	**7,428**	**7,943**	**8,170**

		Scope estimates		
Scope-adjusted debt in EUR m	**2015**	**2016F**	**2017F**	**2018F**
Reported gross financial debt	15,197	17,197	17,697	17,837
deduct: cash, cash equivalents	-2,262	-2,247	-3,587	-5,025
Cash not accessible	400	400	400	600
add: pension adjustment	2,121	2,121	2,121	2,121
add: operating lease obligation	1,316	1,316	1,316	1,316
add: asset retirement obligations	950	950	950	950
Scope-adjusted debt	**17,721**	**19,737**	**18,896**	**17,798**

Business risk profile

Two broad categories with 4% growth historically

The global chemical industry (excluding pharmaceuticals) has a size of about EUR 3,500bn and can be split into two broad categories:

(i) 'Commodity chemicals' (base chemicals or upstream chemicals) such as petrochemicals, fertilisers, and inorganics. Commodity chemicals represent about a quarter of the global market and are sold on the basis of their chemical composition. Commodity chemicals are readily interchangeable and have limited options for differentiation.

(ii) 'Specialty chemicals' (downstream chemicals). Specialty chemicals are sold on the basis of their function and performance and require investments in R&D, special knowledge and innovation.

Historically, the global chemical market has shown annual growth rates of 4%, slightly higher than GDP growth.

Some cyclicality risks through end-markets

Demand for specialty chemicals is closely correlated to the general economic environment, industrial production, regulatory requirements, and rising living standards, notably in emerging markets. The market is not homogeneous and specialty chemicals are produced for a variety of different end-markets. The largest segment (automotive) is prone to substantial cyclicality risks. Further cyclical end-markets of substantial size are construction and electronics. Cyclicality can also be affected by supply-demand imbalances that result from capacity additions in the industry. Cyclicality risks are mitigated by lower price competition vis-à-vis the commodity chemicals industry given the differentiated nature of the product (versus interchangeable commodities) and ability of most players to pass on changes in raw materials costs through price-escalation clauses. Raw materials and energy account for a high share of operating expenses in the specialty chemicals industry and price fluctuations of input factors can have adverse effects on players in the industry.

Barriers result from R&D and customers

Entry barriers in the specialty chemicals industry are considerable. Key barriers are investments in R&D for customised specialty chemicals and, to a lesser extent, capital investments. Customised solutions and applications generally result in long-term customer relationships that are difficult for new entrants to break. Specialty chemicals account for only a small cost of the final product costs. Therefore, customer stickiness and switching costs for customers in the specialty chemicals industry are high. In addition to the commercial entry barriers, the industry is subject to tight regulation on matters such as environmental protection, safety and health. Entry barriers to the commodity chemicals industry are substantially lower, and limited to capital investments for new plants.

Outlook suggests global growth rates of 4%

We expect the global chemical industry to continue faster than projected GDP growth. In the past, various chemicals such as petrochemicals, engineering plastics, coatings, and agrochemicals have outgrown GDP growth by a factor of 1.2x to 1.5x, and we believe that market growth will continue to be driven by customised, value-added downstream chemicals such as engineering plastics or agrochemicals. Our base case includes an increase of global chemical volume consumption of 4% in the medium term. Growth will be driven by consumption in emerging markets, notably China, while volume growth in developed regions such as Western Europe, North America, and Japan is expected to be at a moderate annual rate of 2%. Growth rates for specialty chemicals in emerging markets are driven by rising consumer spending and increasing industrialisation.

Shift towards Asia expected to continue

We believe that the global chemicals business will continue its transition. The substantial growth and industrialisation of emerging markets, notably in Asia and the Middle East, have led to a shift of chemical production to these regions. Production of upstream chemicals is supported by lower feedstock costs, energy and labour costs. Asia's share of the global chemical market is expected to continue its rise in the next few years. Established players in the market have reacted accordingly and have allocated substantial future capital expenditures for the region.

Strong market position in a variety of end-markets

BASF holds a position between first and third on the market for about 70% of its business. BASF is a global market leader in construction materials, automotive catalysts, plastic additives and paper chemicals. Following the takeover of Cognis in 2010, BASF has become a market leader in personal and home care ingredients. BASF enjoys certain competitive advantages from large integrated production sites ('Verbund' strategy).

Diversification by end-markets is credit supportive

BASF is present in almost all countries. The broad and diversified business setup as one of the largest integrated chemicals companies globally is credit-supportive. Diversification is also supported by the spread of business into bulk chemicals, specialty chemicals and agrochemicals. The high share of business in the specialty chemicals segment, which is less subject to cyclicality risks or changing feedstock prices, supports our positive view on the diversification of the company.

Financial risk profile

Committed financial policy

Scope views BASF's commitment to a conservative financial policy as credible, supported by the observable track record over the past years. BASF's management has so far been cautious with regards to acquisitions and publicly commented on deals announced in the industry as having valuations that were too high, in particular in the agrochemicals industry. Scope believes that BASF is prepared to conclude further bolt-on acquisitions roughly comparable in size to the Chemetall acquisition, which would be a continuation of the portfolio realignment that has taken place over the past decade.

Credit metrics to improve slightly following Chemetall transaction

Scope believes that BASF will continue to show solid credit metrics, notably a SaD/EBITDA of about 2.0x and FFO/SaD of 40%-50%. This is roughly in line with credit metrics observed over the preceding years. We also believe that free operating cash flow (before acquisition-related pay-outs) will be sufficient to cover annual dividend payments. Credit metrics in 2016 are expected to be slightly weaker due to the immediate effect of the cash pay-out for the purchase price on the adjusted-debt figure with EBITDA and FFO of the target only consolidated from the closing date of the transaction.

Liquidity is strong

Scope views BASF's liquidity and financial flexibility as strong. BASF has strong bank relationships, as evidenced, for instance, by the broad syndication of its committed credit lines, and has good standing in public debt markets.

Liquidity is supported by:

- Unrestricted cash balances of EUR1.8bn as of 31 December 2015. BASF has about EUR 400m of cash not immediately accessible as of 31 December 2015.
- Two committed and undrawn revolving credit facilities of EUR 3.0bn, each due in 2020 and 2022. The revolving credit facilities are free of financial maintenance covenants and serve as backstop facilities for the USD 12.5bn commercial paper programme that BASE extensively uses to fund intra-year working-capital swings. Drawdowns under the commercial paper (CP) programme have been substantially lower than the notional maximum and drawdowns have always been covered by the volume of the backstop facility. We note that BASF has been able to tap the CP market during the financial market crisis in 2009.
- Expected and contracted disposal proceeds from the divestiture of the industrial coatings business to AkzoNobel of EUR 475m.
- Our projected FOCF of about EUR 3.0bn-EUR 3.5bn in 2016 and above EUR 3.5bn in 2017.

Liquidity uses are as follows:

- Short-term debt of EUR 4.1bn as of 31 December 2015, of which EUR 1.9bn was related to CP debt. We believe that CP debt is rolled over. Financial maturities in 2017 of EUR 1.6 bn, mainly related to outstanding bonds due in that year.
- Dividend payments of about EUR 2.6bn-EUR 2.7bn in both 2016 and 2017
- Expected and contracted cash payment of EUR 2.9bn (USD 3.2bn) payable at the expected closing of the Chemetall transaction at year-end 2016. Scope believes that BASF will eventually finance the Chemetall acquisition through the issuance of long-dated bonds.

Short-term rating is S-1

Based on the facts detailed above and BASF's solid investment grade rating, Scope has assigned a short-term rating of S-1. This also reflects Scope's perception of the company's solid cash generation on a sustained basis. Short-term debt is safely covered with internal and external sources of liquidity.

Senior unsecured debt rated at same level as CICR

The senior unsecured bonds issued under BASF's EUR 20bn debt issuance programme are rated A, in line with the CICR.

Stable 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. In view of the expected closing of the Chemetall transaction at year-end 2016, both credit metrics are likely to be lower than these levels on a reported basis given that the target's cash flows and operating profit will only be consolidated from the closing of the transaction.

A positive rating action would be warranted if BASF were to significantly increase its share of business in the specialty chemicals business – a scenario that we see as unlikely to materialise in the medium term given the company's stated acquisition policy and financial targets. A rating upgrade could also occur if BASF were to improve its debt protection measures (SaD/EBITDA, FFO/SaD) to levels of respectively about 1.5x and 50%. In view of our base case – that expected FOCF is largely used for dividend payments. We do not envisage any such improvement and deleveraging to materialise over the two-year outlook horizon.

A negative rating action could occur if the financial risk profile were to weaken to levels of about 2.5x (SaD/EBITDA) and 30% (FFO/SaD).

Regulatory disclosures

Important information

Information pursuant to Regulation (EC) No 1060/2009 on credit rating agencies, as amended by Regulations (EU) No. 513/2011 and (EU) No. 462/2013

Responsibility

The party responsible for the dissemination of the financial analysis is Scope Ratings AG, Berlin, District Court for Berlin (Charlottenburg) HRB 161306 B, Chief Executive Officer: Torsten Hinrichs, Dr Stefan Bund, Dr Sven Janssen.

Rating prepared by	**Rating committee responsible for approval of the rating**
Werner Stäblein, Lead Analyst	Dr Stefan Bund, Committee Chair

The rating concerns an entity, which was evaluated for the first time by Scope Ratings AG.

The rating outlook indicates the most likely direction of the rating if the rating were to change within the next 12 to 18 months. A rating change is, however, not automatically ensured.

Information on interests and conflicts of interest

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Key sources of information for the rating

☒ Website of the rated entity	☒ Detailed information provided on request
☒ Valuation reports, other opinions	☒ Data provided by external data providers
☒ Current performance record	☒ External market reports
☒ Unaudited annual financial statements	☒ Press reports/other public information

Scope Ratings considers the quality of the available information on the evaluated company to be satisfactory. Scope ensured as far as possible that the sources are reliable before drawing upon them, but did not verify each item of information specified in the sources independently.

Methodology

The methodology applicable for this rating (Corporate Rating Methodology) is available on www.scoperatings.com. The historical default rates of Scope Ratings can be viewed on the central platform (CEREP) of the European Securities and Markets Authority (ESMA): http://cerep.esma.europa.eu/cerep-web/statistics/defaults.xhtml. A comprehensive clarification of Scope's default rating, definitions of rating notations and further information on the analysis components of a rating can be found in the documents on methodologies on the rating agency's website.

Examination of the rating by the rated entity prior to publication

Prior to publication, the rated entity was given the opportunity to examine the rating and the rating drivers, including the principal grounds on which the credit rating or rating outlook is based. The rated entity was subsequently provided with at least one full working day, to point out any factual errors, or to appeal the rating decision and deliver additional material information. Following that examination, the rating was not modified.

Conditions of use/exclusion of liability

Rating issued by

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