Merck KGaA
Germany, Pharmaceuticals, Chemicals, Life Science, Medical equipment

A- POSITIVE

Corporate profile

Merck KGaA was founded in 1668 with the opening of a Merck pharmacy in Darmstadt, Germany, where the group is still based. The Merck family holds 70% of the voting rights with the remainder in public ownership. After several acquisitions and divestments, the group is now strongly diversified, consisting of three divisions: Healthcare, Life Science and Electronics (formerly Performance Materials, specialty chemicals). In 2015, Merck acquired the US-based life science company Sigma Aldrich for USD 17bn, becoming an industry consolidator. In pharmaceuticals, it is a medium-sized producer of specialised drugs, relying on two blockbuster products, Erbitux and Rebif, but has developed a new focus on immuno-oncological products, mainly represented by its antibody avelumab, already marketed as Bavencio. At the end of 2014, US big pharma company Pfizer acquired partial ownership of the molecule as well as US distribution rights for USD 850m. In 2019, Merck bought US electronic materials producer Versum Materials Inc for about EUR 6bn to strengthen its Electronics division.

Key metrics

			Scope estimates	
Scope credit ratios	**2019**	**2020**	**2021E**	**2022E**
EBITDA/interest cover	11x	13x	20x	20x
Scope-adjusted debt (SaD)/EBITDA	3.0x	2.4x	1.7x	1.5x
Scope-adjusted funds from operations/SaD	23%	32%	46%	51%
Free operating cash flow/SaD	17%	22%	27%	25%
Liquidity (internal and external)	>200%	>100%	>200%	>200%

Rating rationale

Scope Ratings GmbH (Scope) has affirmed the A- issuer ratings of Merck KGaA and its financing subsidiaries Merck Financial Services GmbH and EMD Finance LLC and changed the Outlook to Positive from Stable. The senior unsecured debt has been affirmed at A- and contractually subordinated debt (hybrid) affirmed at BBB. The short-term rating has also been affirmed at S-1.

The Positive Outlook reflects our view of the strong likelihood that Merck's credit metrics will continue to improve in the next few years, based on the strong growth anticipated for Life Science and the pharma pipeline delivering. The issuer rating benefits from the portfolio realignment over recent years, which resulted in the growth of semiconductors and organic light-emitting diode (OLED) products replacing the declining volumes in liquid crystals, as well as from newly approved pharma products, mainly Mavenclad and Bavencio. Merck increased its guidance for 2021 while setting growth targets until 2025, showing outperformance of its three divisions. We thus expects leverage as expressed by Scope-adjusted debt (SaD) to EBITDA to improve to below 2x by the end of 2021 and towards 1.5x in 2022, assuming no large M&A. While we do not expect new management to deviate from the conservative financial policy, the rating case leaves some cushion for medium-sized deals from 2022.

Ratings & Outlook

Corporate ratings	A-/Positive
Short-term rating	S-1
Senior unsecured rating	A-
Subordinated (hybrid)	BBB

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Related Methodology

Corporate Rating Methodology: July 2021

Rating Methodology: European Pharmaceuticals January 2021

Rating Methodology: Chemical Corporates April 2021

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Bloomberg: RESP SCOP

The business risk profile assessed at A continues to benefit the rating, which mostly consists of the three stable, cash-generative divisions. We also continue to see the group's structure as reflecting the owning family's philosophy to achieve a strong diversified group. The Healthcare division still somewhat depends on the stability provided by its mature products, although its pharma pipeline has started to deliver. Management expects newly approved drugs to add EUR 1.6bn-1.8bn of revenues into the medium term, compared with EUR 2bn assumed before the Covid crisis hit.

Demand for Life Science products accelerated significantly during the past 15 months, driven not only by the successful integration of Sigma Aldrich (acquired in 2015) but also by two very positive operational trends. The first relates to the Covid crisis, which increased demand for laboratory testing equipment and led to high R&D demands being placed on the industry. The second relates to strong activity to develop monoclonal antibodies and biosimilars for the fast-growing areas of oncology and immunology.

Electronics (formerly Performance Materials) showed a stabilised top line and operating profitability. This was attributed to cost measures at Liquid Crystals (division now maintained to generate cash and has limited growth potential going forward) and the increased semiconductor exposure (chiefly through the acquisition of Versum at the end of 2019) that compensates for the weak performance in liquid crystals. Together with OLED activity, semiconductor services are providing growth potential for Electronics.

We upgraded the financial risk profile assessment to A- from BBB based on the good deleveraging progress following the Versum acquisition in 2019. Efforts are strengthened by the supportive financial policy and the improving operational background, especially with the adequate operating cash flows in Life Science and Healthcare. Leverage as measured by SaD/EBITDA was down to 2.4x in 2020 from 3x in 2019. In 2021, deleveraging even accelerated in the first half through the stellar performance of Life Science due to strong demand for biopharmaceutical products and laboratory equipment, with the latter induced by the pandemic. Reinforced by management's strong ratings commitment (cost control, no large acquisitions, no dividend increase), credit metrics improved in the first half of 2021 on a rolling 12-month basis. Assuming that the Life Science developments are permanent and newly approved drugs expand pharma sales (which is likely), we believe SaD/EBITDA will fall below 2x by the end of this year. For 2022, the ratio may even go towards 1.5x, based on the recently announced medium-term guidance with no big acquisitions while opting for bolt-on acquisitions.

Outlook and rating-change drivers

The Positive Outlook reflects our expectation of a SaD/EBITDA trending towards 1.5x, bolstered by the strong growth in Merck's major business divisions and the strengthening of its balance sheet through cash accruals after capex and discretionary spending.

A positive rating action is possible upon a SaD/EBITDA sustained at around 1.5x.

A negative rating action, such as the return to a Stable Outlook, could result from a more aggressive financial policy related to larger debt-funded acquisitions that again weigh on leverage, resulting in a SaD/EBITDA of significantly above 1.5x.

Rating drivers

Positive rating drivers	Negative rating drivers
• Diversified group structure with positive effects on internal risk balancing • Among the leading companies in life science • Potential pharma blockbuster in development • Significant free cash flow generation • Conservative financial policy	• Healthcare division in transition • High regulatory and reputational risk in pharmaceutical segment (ESG-factor)

Rating-change drivers

Positive rating-change drivers	Negative rating-change drivers
• Leverage sustained around 1.5x	• Leverage significantly above 1.5x

Financial overview

			Scope estimates	
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EBITDA/interest cover	11x	13x	20x	20x
Scope-adjusted debt (SaD)/EBITDA	3.0x	2.4x	1.7x	1.5x
Scope-adjusted funds from operations/SaD	23%	32%	46%	51%
Free operating cash flow/SaD	17%	22%	27%	25%
Scope-adjusted EBITDA in EUR m	**2019**	**2020**	**2021E**	**2022E**
EBITDA	4,064	4,499	5,551	5,884
Operating lease payments in respective year	0	0	0	0
Other	0	0	0	0
Scope-adjusted EBITDA	4,064	4,499	5,551	5,884
Scope-adjusted funds from operations in EUR m	**2019**	**2020**	**2021E**	**2022E**
EBITDA	4,064	4,499	5,551	5,884
less: (net) cash interest as per cash flow statement	-370	-317	-285	-300
less: cash tax paid as per cash flow statement	-850	-637	-900	-1000
add: depreciation component, operating leases	0	0	0	0
Scope-adjusted funds from operations	2,844	3,545	4,366	4,584
Scope-adjusted debt in EUR m	**2019**	**2020**	**2021E**	**2022E**
Reported gross financial debt	13,194	12,142	11,785	10,285
less: hybrid bonds	-1,493	-1,494	-1,494	-1,494
less: cash and cash equivalents	-781	-1,355	-2,311	-1,695
add: cash not accessible	300	300	300	300
add: pension adjustment	1,206	1,452	1,425	1,625
add: operating lease obligations	0	0	0	0
Other	-75	-102	-100	0
Scope-adjusted debt	12,351	10,943	9,606	9,022

Business risk profile

Risk-balanced group structure

Based on a long-term commitment to a diversified healthcare and chemicals exposure, Merck has built its group structure around three sizeable divisions that hold, in part, significant market shares. These divisions are called Healthcare, Life Science and Electronics (formerly Performance Materials,). The 2015 acquisition of US-based Sigma Aldrich for the Life Science division positioned Merck as a global top three producer of laboratory equipment and related products. The liquid crystals business (under Electronics) continues to hold strong global market positions despite recently impaired profitability. The Electronics division was rebalanced mainly via the Versum acquisition (semiconductor solutions). Merck's healthcare division is a medium-sized drug producer, which has only recently been able to gain approval for novel pipeline projects, ending years of no innovation.

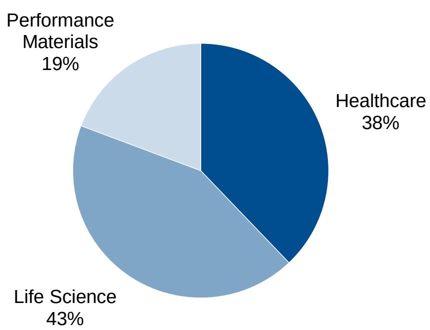
Solid and resilient business risk profile

We believe Merck's group structure can protect cash generation in the event of a recession or a pharmaceutical downturn caused by patent expiry. This is based on our view of the low cyclicality and high cash flow of Life Science as well as the liquid crystals and semiconductors industries. The pharmaceutical industry is generally less exposed to macroeconomic downturns. Cyclicality risk for the industry is of a more long-term nature, defined by product lifecycles and the pipeline replacement of patent-expired products.

In accordance with our corporate ratings methodology, each division is assessed with a different business risk profile, taking the different characteristics into account. By applying weights related to each division's contribution to group profits (see Figure 1), we have determined that Merck's group business risk profile falls within the A category.

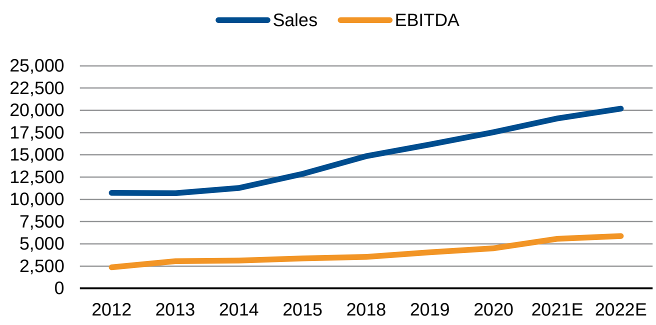
Merck's mix of industries is very credit-supportive. All are only very faintly exposed to macroeconomic cycles. Demand in the Life Science and Healthcare divisions is driven by ageing societies and unhealthy lifestyles, as well as innovation. The Electronics division generally supplies specialty products for many industrial applications, making a sharply negative cyclical impact less likely for the overall division. The weak liquid crystals performance, which is unlikely to recover, has been effectively addressed by management's focus on semiconductors via the Versum acquisition.

Figure 1: Expected breakdown of sales for 2021 in %



Source: Scope estimates

Figure 2: Acceleration of performance in EUR m



Source: Merck, Scope estimates

We also believe that barriers to entry are high in pharmaceuticals (R&D, marketing expertise) as well as in liquid crystals and OLED technologies (technical concentration in the industry). While the group's other divisions, pigments and electronics, are slightly positive for our assessment of entry barrier risk, we view Life Science as well protected by medium barriers to entry due to its specialty focus on medical equipment and the increasing network requirements.

Healthcare weighs on competitive position

Merck's pharmaceutical activities suffer from an older and smaller product portfolio than those of big pharma peers. Patents on its two mature blockbusters Erbitux (oncology) and Rebif (multiple sclerosis) are already expired in major markets. However, their sales still hold up extremely well, which is important until newly approved products can generate significant growth. While Merck's new multiple-sclerosis drug Mavenclad has performed well since gaining US approval in early 2019, it is the only sizeable revenue contributor of the recently approved drugs to date. It has generated more than EUR 500m of sales in 2020 and we believe the drug will gain blockbuster status by the end of 2022. This is a real achievement in a crowded multiple sclerosis product market, although sales generation was significantly held back by the coronavirus crisis in 2020.

Apart from the two flagship products, Merck's 'base business', consisting mostly of off-patent mature drugs including Glucophage (diabetes), Concor (hypertension) and Gonal-F (fertility), continues to be stable.

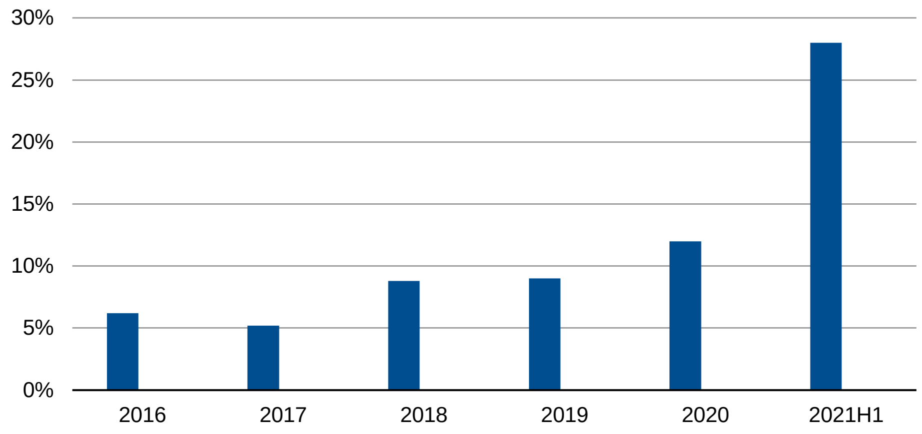
While first-indication approvals of Bavencio (avelumab), Merck's prospective anti-PDL-1 blockbuster, were positive, they have not yet resulted in significant revenue generation (sales of EUR 149m in the first half of 2021). Thus, we have not changed our overall assessment of the group's competitive position in the healthcare industry. However, the recent European approval of Bavencio (bladder cancer, first-line treatment) could be positive given its larger underlying market compared to the more niche approvals previously received (Merkel cell carcinoma, bladder-second line, renal cell carcinoma). Management had targeted peak sales of EUR 2bn cumulatively for Bavencio, Mavenclad and Tepmetko (a MET inhibitor to treat adults with metastatic non-small cell lung cancer) by the end of 2022, based on the low ramp-up of Bavencio's sales to date, management guidance went down to between EUR 1.6bn and EUR 1.8bn.

While healthcare margins are still mediocre relative to pharma peers, pipeline prospects (avelumab, tepotinib) are credit-supportive, despite the concentration on avelumab, as Merck continues to invest heavily in R&D. However, the rating is held back by the division's small market shares and high product concentration rates, with the top three expected to generate about 40% of pharmaceutical revenues in 2021 (compared with about 30% at Sanofi, for example). Also, it is now confirmed that there will be no upside on bintrafusp alfa (anti-PDL-1) in immuno-oncology from Merck's collaboration with GSK plc. The business partners had to discontinue formerly promising trials in non-small cell lung cancer (first-line) in early 2021.

Life Science strongly accelerating

With the inclusion of Sigma Aldrich, Merck's Life Science division ranks among the top three suppliers worldwide. It covers all major product categories except for diagnostic instruments, and its market shares are significant. Diversification is therefore key to our assessment of this division's competitive position. Furthermore, the division's industry-leading EBITDA margin of 37% (first half of 2021), strong cash generation and significantly above-average and accelerating revenue growth (6%-9% in 2018 and 2019, 12% in 2020, 21% in the first half of 2021) all strongly support the rating. The division's results were excellent during the last 18 months, based on a combination of strong organic growth in biotechnology (strong increase in the number of research projects for monoclonal antibodies and biosimilars) and pandemic-related effects (vaccine testing; governments and hospitals stocking up on equipment to prepare for future health crises). While the largest activity, Process Solutions, continued to benefit from strong biological demand, especially for monoclonal antibody production, Research Solutions recovered strongly from the shutdowns of a major customer (academia) in the first half of 2020. Applied Solutions benefited from increased testing and diagnostics demand, also supported by the present crisis. In addition, management has upgraded its medium-term growth expectations for the division to 6%-9%.

Figure 3: Accelerating organic growth in Life Science in %



Source: Merck, Scope

Electronics: inclusion of Versum stabilises divisional profits

The competitive position of Merck's Electronics division has improved from a ratings point of view. It is now less dependent on its liquid crystals exposure and more balanced by the inclusion of electronics and semiconductor activities, which are approaching 60% of divisional sales. While operating margins for liquid crystals have fallen from above 45% to below 30% as a consequence of structural changes in the market (heavy price pressure and only moderate sales growth in the future), average margins in the other divisions are not much lower. This does not affect the group's overall business risk assessment. The recent change in the 'divisional mix' has balanced activities (liquid crystals exposure declining; semiconductor exposure increasing) and replaced lost liquid crystals profits with strong contributions from Versum. Merck's credit profile also benefits from demand growth in semiconductors due to increased digitalisation in many industries. This is very likely supported by the recent global shortage of semiconductors following the significant additional demand from the automotive industry (for batteries for new-generation electric cars and for navigation and entertainment). The division's prospects are also helped by significant growth potential in Merck's OLED activities, which are expected to surpass liquid crystals mid-term and support Display Materials growth.

Overall, Electronics continues to have good market shares and margins, attesting to the highly specialised nature of the products. Management's decision to acquire Versum has stopped the division's downside trend triggered by liquid crystals. In hindsight, the transaction was strategically important for two reasons: i) it immediately and effectively balanced the lost liquid crystals profits; and ii) it provided a new platform that should allow Merck to benefit from future growth provided by semiconductor solutions.

The only activity negatively affected by the coronavirus crisis was Surface Solutions, which suffered from lower demand via its exposure to the automotive and cosmetics industries. Even so, its impact is limited as it accounts for only about 10% of the total division.

Business risk profile assessed at A

Based on the above and assessing each of the three Merck divisions from a bottom-up perspective, we see Merck's business risk profile unchanged at A.

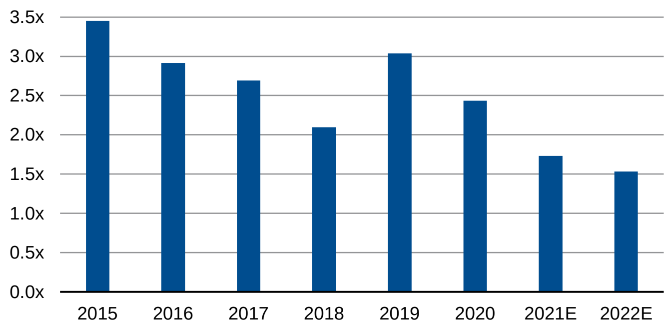
Financial risk profile

Credit metrics improving strongly

Merck's key credit metrics recovered strongly in 2020 after deteriorating in 2019 following the Versum acquisition. This was due to the supportive financial policy and the improving operational background, especially with the adequate operating cash flows in Life Science and Healthcare. In 2020, deleveraging was significant as it was the first financial year incorporating 12 months of cash flow from Versum. The leverage ratio as measured by SaD/EBITDA was down to 2.4x in 2020 from 3x in 2019, even with the weaker demand for certain products in the first half, mostly a result of Covid. Deleveraging continued in the second half of 2020, driven by recovering business trends combined with good control of working capital. Key credit metrics thus performed slightly better than our expectations for 2020. In 2021, deleveraging even accelerated in the first half through the stellar performance of Life Science resulting from strong demand for biopharmaceutical products and laboratory equipment, with the latter induced by the pandemic. Reinforced by management's strong ratings commitment (cost control, no large acquisitions, stable dividend), credit metrics improved in the first half of 2021 on a rolling 12-month basis. Assuming that Life Science developments are permanent and the newly approved drugs expand pharma sales (which is likely), we believe SaD/EBITDA will fall below 2x by the end of this year. For 2022, the ratio may even go towards 1.5x, based on the recently announced guidance for the medium term showing annual organic growth with no big acquisitions while opting for bolt-on acquisitions.

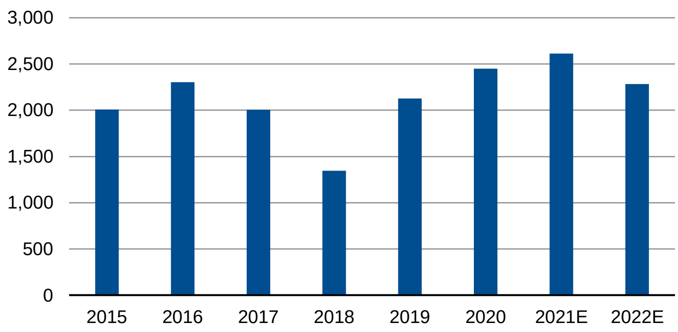
Free cash generation has been good in recent years (see Figure 5 below). The peak in 2019 was mainly due to a higher group profit and lower capital expenditure compared to the year before. Free cash flows were relatively low in the first half of 2020 after the pandemic hit revenue growth but were stronger in the second half. For the next years, we expect a slight upward trend, enabled by pharma pipeline deliveries and a consequent fall in costs on a relative basis in the respective division. The upward trend should also be supported by the additional contribution from Versum. Rising cash generation, declining relative cost positions and management's deleveraging commitment should lay the groundwork for a further improvement in credit metrics over the coming years.

Figure 4: Deleveraging achieved (in terms of SaD/EBITDA)



Source: Scope estimates

Figure 5: Free cash flow acceleration in EUR m



Source: Scope estimates

Merck continues to be very solidly financed. Short-term debt maturities remain adequately covered by a combination of internal and external liquidity sources. The group's liquidity profile benefits from continued access to its undrawn multi-year EUR 2bn syndicated bank loan as well as from ample free cash flow generation.

Financial risk profile assessed at A-

Based on the above, we raised our assessment on Merck's financial risk profile from BBB to A-.

Supplementary rating drivers

Supportive financial policy

We consider Merck's financial policy to be sound and committed, as underlined by the historical deleveraging following major acquisitions in 2012 and 2015. After the Sigma Aldrich acquisition, the group's management stated publicly that it would enter a phase of consolidation and organic growth with a focus on reducing debt quickly, not least motivated by the intention of keeping ratings stable. It has implemented the same strategy following the Versum transaction.

We also have no reason to believe new management will deviate from this position, supported by a recent management statement confirming a potential bolt-on acquisition policy. For technical reasons, we have removed the one-notch rating uplift for financial policy as it is already reflected in the improving credit metrics and our view on the improved financial risk profile.

Long-term and short-term debt ratings

Senior unsecured debt has been rated at A-, the same level as the issuer rating.

Contractually subordinated debt that qualifies as hybrid debt (deferability of coupon payments, structural subordination, perpetual duration) has been affirmed at BBB, two notches below the issuer rating.

The short-term rating of S-1 reflects Merck's sound credit quality. This is supported by adequate internal liquidity and reflects strong access to external funding through capital markets and bank debt as signalled by the frequent issuance of bonds, commercial paper and hybrid debt.

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