Rating Report
Volkswagen AG

DBRS Morningstar
August 22, 2022

Contents

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Ratings

Debt	Rating Action	Rating	Trend
Volkswagen AG—Issuer Rating	A (low)	Confirmed	Stable
VW Credit Canada, Inc.—Senior Unsecured Debt*	A (low)	Confirmed	Stable
VW Credit Canada, Inc.—Commercial Paper*	R-1 (low)	Confirmed	Stable

* Guaranteed by Volkswagen AG.

Rating Update

On August 10, 2022, DBRS Limited (DBRS Morningstar) confirmed Volkswagen AG's (VW or the Company) Issuer Rating at A (low) with a Stable trend. DBRS Morningstar also confirmed the Senior Unsecured Debt and Commercial Paper ratings of VW Credit Canada, Inc. at A (low) and R-1 (low), respectively, both with Stable trends. The rating confirmations reflect the Company's ongoing solid financial performance notwithstanding extended disruptions in automotive production and volumes, initially attributable to the global progression of Coronavirus Disease (COVID-19) and, subsequently, to the semiconductor shortage. Despite emerging headwinds across certain markets and sizable investment requirements for the foreseeable future, DBRS Morningstar expects VW's financial risk assessment (FRA) to remain strong in the context of the currently assigned ratings, which remain supported by the Company's solid business risk assessment as a major automotive original equipment manufacturer (OEM) of substantial scale with a highly diversified brand portfolio. Notwithstanding the above, DBRS Morningstar notes that certain environmental, social, and governance (ESG) risk factors continue to negatively affect the ratings.

The 2021 financial performance of VW's Automotive division improved considerably following 2020 results that were weakened because of the coronavirus. While volumes remained significantly curtailed as a result of the semiconductor shortage (and other supply base challenges), this was more than offset by firmer product mix (that reflected the deliberate allocation of available semiconductors to the production of higher-margin vehicles) and strong pricing (facilitated by sizable pent-up demand); higher product development costs and other cost increases represented additional partial offsets. Moreover, the profitability of the Company's Financial Services business attained record levels amid reduced provisions for credit losses and very favourable residual value performance (reflecting strong used car values given the ongoing scarcity of available vehicles). As a result, VW's 2021 annual consolidated profit effectively doubled year over year (YOY), exceeding EUR 19 billion; earnings continued to trend positively in H1 2022 with the underlying factors cited above remaining essentially constant. For the 2022 full year, amid an anticipated moderation of the semiconductor shortage, VW is projecting consolidated revenues to be higher in the range of 8% to 13% YOY, with the operating margin likely in the range of 7.0% to 8.5% (absent special items). DBRS Morningstar deems the Company's outlook to be attainable. While DBRS Morningstar acknowledges various impending headwinds, including softening consumer sentiment stemming from inflationary pressures, rising interest rates, and increased geopolitical uncertainty, these are estimated to be more than offset by the sizable pent-up demand resulting from the protracted disruptions in automotive supply that have now spanned more than two years.

Going forward, reflecting tightening emissions legislation worldwide (albeit most notably in Europe and in China), the Company is targeting a leadership position in the automotive industry's transition away from internal combustion engines (ICEs) and toward battery electric vehicles (BEVs). Additionally, VW is seeking to further transform itself into a major provider of new mobility services. While these objectives are projected to entail substantial financial outlays over the next several years in the form of requisite capital spending and anticipated merger and acquisition (M&A) activity, DBRS Morningstar expects these to be sufficiently covered by the Company's legacy ICE business' ongoing free cash flow generation; VW benefits further from its strong presence in the premium automotive segment, which is projected to outgrow the automotive industry as a whole while typically generating considerably stronger margins relative to mainstream brands. DBRS Morningstar also notes that the possible initial public offering (IPO) of a partial stake in Porsche AG would provide the Company with considerable additional flexibility in this regard.

Consistent with the Stable trends, DBRS Morningstar expects the ratings to remain constant over the near to medium term, and DBRS Morningstar notes that VW's FRA provides some cushion against unexpected challenges at the current rating level, rendering a downgrade rather unlikely. Conversely, an upgrade is not anticipated over the aforementioned time horizon given the cost headwinds facing the automotive industry amid the substantial financial outlays projected to be incurred by the Company in pursuit of its strategic objectives.

Financial Information

	6 mos. to June 30		12 mos. to June 30	For the year ended December 31				
(EUR millions)	**2022**	**2021**	**2022**	**2021**	**2020**	**2019**	**2018**	**2017**
Revenue[1]	109,066	107,027	208,276	206,237	182,106	212,473	201,067	195,817
Core net income	10,519	8,104	17,724	15,309	8,911	14,794	13,802	13,177
Adjusted interest coverage—EBITDA[1]	25.0	21.2	24.2	22.3	16.9	22.9	22.7	18.4
Adjusted debt/EBITDA[1]	0.9	0.8	1.1	1.0	1.0	0.8	0.9	0.6
Adjusted % gross debt in capital structure[1]	18.8	17.9	18.8	19.8	17.8	18.0	20.8	16.1

Note: Certain figures in this and subsequent tables are subject to adjustments made by DBRS Morningstar. 1 Excludes Financial Services division.

Issuer Description

VW is the largest auto manufacturer in Europe and ranks second globally in sales volumes (according to 2021 data). The Company has an extended portfolio of brands that includes Volkswagen, Volkswagen Commercial Vehicles, Porsche, Audi, Skoda, SEAT, Bentley, and Lamborghini, among others. VW's Commercial Vehicles/Truck business, Traton SE (Traton), features the Scania, MAN, and Navistar brands.

VW also has a sizable Financial Services business and operates VW Credit Canada, Inc., its wholly owned subsidiary.

Rating Considerations

Strengths

1. Size provides economies of scale

VW is among the largest automobile manufacturers in the world and the leader in Europe. VW has the size and critical mass to attain the economies of scale necessary to be cost-competitive.

2. Above-average financial strength

The Company has above-average credit metrics and a strong liquidity position. The Company's Automotive operations (excluding Financial Services) had a net cash position of EUR 7.1 billion (as calculated by DBRS Morningstar) as at June 30, 2022.

3. Market leader in Western Europe; globally diversified

Notwithstanding VW's diesel issue (the Diesel Issue) and amid ongoing competition across markets worldwide, the Company's competitive position in terms of market share has held essentially firm. VW's worldwide market share in 2021 stood at 11.7% (compared with 12.9% in 2020). In North America, the Company's share increased slightly albeit remained low at 4.9% (compared with 4.6% in 2020). In Western Europe, VW's market share held essentially constant at 23.5% (from a level of 23.7.% in 2020), with the Company remaining the region's market leader. VW's market share in Central and Eastern Europe in 2021 was at a level of 20.5% (from a level of 22.0% in 2020).

4. Financial Services earnings smooth profitability

VW's Financial Services business has provided a stable and meaningful source of earnings, with annual operating profit totalling EUR 6.0 billion in 2021 (although this reflected unusually high residual value gains given very strong used vehicle prices). Financial Services earnings help to reduce the volatility of earnings associated with the Company's Automotive operations.

Challenges

1. Earnings volatility from cyclical automotive industry conditions

VW's operating performance is largely dependent on its Automotive business conditions, which fluctuate generally in line with economic cycles.

2. Significant production in Germany

DBRS Morningstar notes that Germany, a relatively high-cost jurisdiction, continues to represent a material (albeit declining) source of production for the Company (the country having accounted for approximately 18.9% of VW Group production in H1 2022). VW is seeking to improve its productivity through greater application of modular architectures, which will make it easier to build a wider variety of cars in future factories. Moreover, VW's existing labour agreement cites specific objectives of the Volkswagen and Audi brands as well as the German production facilities, targeting savings and efficiency improvements and projected declines in head count (primarily through attrition taking into consideration the demographic curve of its labour force).

3. Corporate/product governance challenges

DBRS Morningstar considers VW's corporate governance framework suboptimal as indicated by the following characteristics:

A. VW's supervisory board is composed primarily of shareholders and worker representatives, with only a nominal proportion of independent members;
B. The Diesel Issue highlighted the lack of oversight and accountability from VW's management board;
C. External investors have few voting rights as the majority of voting shares are held by a small group of shareholders (as of year-end 2021, Porsche Automobil Holding SE, Stuttgart owns 53.3% of voting shares, the State of Lower Saxony owns 20.0%, and Qatar Holding LLC owns 17.0%). Overall, the challenges in VW's corporate governance, in combination with other ESG risk factors, have resulted in a downward adjustment of the Company's ratings.

4. Modest U.S. presence

VW has a modest presence in the United States, which is among the largest automotive markets in the world.

Earnings and Outlook

	6 mos. to June 30		12 mos. to June 30	For the year ended December 31				
(EUR millions, where applicable)	**2022**	**2021**	**2022**	**2021**	**2020**	**2019**	**2018**	**2017**
Sales[1]	109,066	107,027	208,276	206,237	182,106	212,473	201,067	195,817
Operating profit[1]	10,086	8,841	15,226	13,981	7,595	16,083	14,311	14,368
Operating profit—Financial Services	3,102	2,517	6,630	6,045	3,012	3,212	2,793	2,673
Equity earnings (i.e., China)	1,075	899	2,497	2,321	2,756	3,349	3,369	3,482
Net income before nonrecurring items	10,519	8,104	17,724	15,309	8,911	14,794	13,802	13,177
Reported net income	10,296	8,104	17,035	14,843	8,334	13,346	11,827	11,179
Return on equity (%)	14.8	14.9	14.6	12.1	7.7	13.2	13.0	13.9
Return on capital (%)	9.1	8.8	9.0	7.1	4.6	7.7	7.8	8.3

1 Excludes Financial Services division and nonrecurring items.

Summary

VW's financial performance improved significantly in 2021 following 2020 results that were weakened primarily as a result of the coronavirus. This notwithstanding, total annual vehicle sales declined for the second consecutive year, with volumes adversely affected by the global semiconductor shortage and other supply chain constraints.

Annual revenues for the Automotive operations in 2021 increased by 13% YOY, with firmer product and pricing gains more than offsetting ongoing volume constraints and negative foreign exchange effects. Absent special items, the Automotive division's operating profit in 2021 increased considerably to EUR 14.0 billion (from EUR 7.6 billion in 2020). Contributing factors consisted of the aforementioned gains in product mix and pricing, partly offset by higher product development costs and other cost increases. Special items, substantially consisting of ongoing risks related to the Diesel Issue, persisted in 2021 albeit declined slightly to EUR 0.8 billion (from a level of EUR 0.9 billion in 2020).

VW continued to achieve solid results in China (accounted for using the equity method), although the local market's recovery somewhat lagged that of other regions. Deliveries in 2021 decreased by 14% YOY to 3.3 million units. Proportionate operating profit in turn moderately declined to EUR 3.0 billion (compared with EUR 3.6 billion in 2020), with dividends paid to VW decreasing slightly to EUR 3.0 billion (compared with EUR 3.1 billion in 2020).

Revenues for the Automotive operations in H1 2022 increased slightly to EUR 109.1 billion (compared with EUR 107.0 billion in H1 2021). Contributing factors included gains in product mix and pricing, partly offset by adverse foreign exchange effects and ongoing volume constraints (attributable to the coronavirus, the global semiconductor shortage, and the Russia-Ukraine conflict). The Automotive segment's profitability improved to EUR 10.1 billion (from EUR 8.8 billion in H1 2021) in line with the above-cited factors, with higher product development costs and other cost increases representing additional negative factors.

Outlook

For 2022, VW has projected that consolidated revenues will be higher in the range of 8% to 13% YOY, with the consolidated operating margin likely in the range of 7.0% to 8.5% (absent special items). Regarding the Financial Services division, VW projects that revenues will likely increase noticeably compared with 2021, with operating profit anticipated to be approximately EUR 5 billion.

Over the long term, VW is seeking to increase its consolidated operating margin to a target range between 8.0% and 9.0% by 2025, despite meaningful industry headwinds in the form of cost increases attributable to tightening emission requirements and the requisite development of BEVs. The Company is looking to more than offset such headwinds through (among other things) firmer product mix and pricing, complexity reduction, and attained purchasing and productivity efficiencies. Moreover, as with several other OEMs, VW is also looking at emerging businesses (notably in mobility services and solutions) to ultimately represent a meaningful proportion of revenues and earnings.

Segmented Data

Key Figures by Brand	6 mos. to June 30		12 mos. to June 30	As at December 31				
Unit Vehicle Sales	**2022**	**2021**	**2022**	**2021**	**2020**	**2019**	**2018**	**2017**
VW passenger cars	1,218	1,552	2,385	2,719	2,835	3,677	3,715	3,573
Audi	513	609	928	1,024	1,028	1,212	1,477	1,541
Skoda	447	463	768	784	849	1,062	957	937
SEAT	236	310	420	494	484	667	608	595
Porsche	149	152	294	297	265	277	253	248
VW commercial vehicles	153	188	291	326	345	456	469	498
Traton comm. vehicles	138	127	253	242	191	244	234	206
VW China	1,431	1,522	2,951	3,042	3,577	4,048	4,101	4,020
Other Automotive	-277	-263	-367	-353	-418	-685	-912	-840
Total	**4,006**	**4,660**	**7,922**	**8,576**	**9,157**	**10,956**	**10,900**	**10,777**
Revenue (EUR millions)								
VW passenger cars	33,322	35,819	73,630	76,127	71,076	88,407	84,585	79,186
Audi	29,869	30,536	55,246	55,913	52,022	57,772	60,796	61,632
Skoda	10,223	10,199	17,767	17,743	17,081	19,806	17,293	16,559
SEAT	5,377	5,656	3,335	3,614	9,198	11,496	10,202	9,892
Porsche	16,425	15,107	31,607	30,289	26,086	26,060	23,668	21,674
VW commercial vehicles	5,046	5,298	9,657	9,909	9,358	11,473	11,875	11,909
Traton comm. vehicles	17,613	13,404	31,136	26,927	22,359	26,597	25,085	27,159
Other Automotive	-7,533	-7,906	-17,612	-17,985	-22,933	-26,934	-30,421	-30,288
Total	**110,342**	**108,113**	**204,766**	**202,537**	**184,247**	**214,675**	**203,085**	**197,724**
Operating Profit* (EUR millions)								
VW passenger cars	1,860	1,202	3,161	2,503	454	3,785	3,239	3,301
Audi	4,965	3,291	7,609	5,935	2,759	4,574	4,417	5,113
Skoda	676	974	785	1,083	756	1,660	1,377	1,611
SEAT	-97	-26	-304	-233	-339	445	254	191
Porsche	3,261	2,660	5,607	5,006	4,021	4,210	4,110	4,003
VW commercial vehicles	187	87	173	73	-454	510	780	853
Traton comm. vehicles	617	355	889	627	117	1,908	1,539	1,844
Other Automotive	-1,264	476	-2,379	-639	491	-758	-1,225	-2,335
Total	**10,205**	**9,019**	**15,541**	**14,354**	**7,804**	**16,336**	**14,492**	**14,581**

Note: Revenue and operating profit exclude VW China data, as this is accounted for using the equity method. Audi includes Lamborghini and Bentley. In 2019, power engineering sold intragroup to passenger cars; 2018 figures restated. * Before special items.

The core Volkswagen brand's 2021 sales and delivery performance remained constrained by production disruptions. Reported sales slightly declined to 2.7 million units (this figure excludes sales of VW's Chinese joint ventures (JVs), which are not attributed to the VW passenger cars brand companies). Global deliveries for 2020 were at 4.9 million units, representing a YOY decrease of 8.1%. Regarding major models, demand for the T-Roc, T-Cross, and Atlas models was strong, with the ID.3 and ID.4 (a newly launched sport-utility vehicle) electric vehicles proving popular. VW brand revenues in 2021 increased YOY, with the operating profit (before special items) strengthening substantially to EUR 2.5 billion. Special items attributable to the Diesel Issue persisted in 2021, though they declined slightly to EUR 0.7 billion (from EUR 0.8 billion in 2020). The premium Audi brand's 2021 volumes were also limited because of production difficulties, with total global deliveries amounting to 1.7 million units (including Chinese JV volumes) and reported sales at 1.0 million units. Audi's earnings in 2021, however, effectively doubled YOY, benefitting from favourable product mix and pricing, with remeasurement of commodities, positive exchange rate effects, and fixed-cost discipline representing additional contributing factors. Audi's special items attributable to the Diesel Issue contracted from the prior-year level of EUR 0.2 billion. Porsche's 2021 sales volumes increased materially YOY, with revenues correspondingly increasing to EUR 30.3 billion. Moreover, the brand's operating margin also improved and was at a very strong level of 16.5%. Skoda's performance in 2021 improved YOY despite lower unit sales, with revenues increasing by 3.9% YOY to EUR 17.7 billion. Operating profit improved accordingly to EUR 1.1 billion (from EUR 800 billion the prior year), with Skoda's operating margin increasing to 6.1% (compared with 4.4% in 2020). With respect to SEAT, the brand's operating loss narrowed to EUR 233 million (from EUR 339 million in 2020) amid revenue growth of 4.5% YOY. Bentley's 2021 performance improved YOY in line with gains in volume and pricing, with the brand's operating margin increasing sharply to 13.7% (from 1% in 2020).

In H1 2022, reflecting parts supply shortages, the Volkswagen brand's revenues decreased by 7% (compared with H1 2021) to EUR 33.3 billion, although models such as the T-Cross and the ID family of vehicles remained popular. The Volkswagen brand's operating profit nonetheless improved considerably to EUR 1.9 billion as a function of firmer product mix and pricing, partly offset by higher commodity costs. Audi's unit sales in H1 2022 decreased by 16% compared with H1 2021, although Audi's operating profit also strengthened to EUR 5.0 billion (from EUR 3.1 billion in H1 2021), representing an operating margin of 16.6%. Porsche continued to perform well despite a moderate contraction in sales volumes, with revenues nonetheless increasing to EUR 16.4 billion (from EUR 15.1 billion in H1 2021) and the associated margin being very strong at 19.9%. The Skoda brand also reported a slight contraction in volumes, with operating earnings in H1 2022 being adversely affected by product development costs and softening to EUR 700 million. Finally, SEAT's H1 2022 volumes decreased by 23.9% compared with H1 2021, with the brand's operating loss for the period increasing to EUR 97 million.

Unit Sales/Revenues by Market	6 mos. to June 30		12 mos. to June 30	As at December 31				
Unit Vehicle Sales	**2022**	**2021**	**2022**	**2021**	**2020**	**2019**	**2018**	**2017**
Europe/Remaining Markets	1,715	2,175	3,267	3,727	3,929	4,856	4,739	4,731
North America	417	447	775	805	744	956	925	992
South America	200	260	443	503	471	607	596	526
Asia-Pacific	1,674	1,779	3,435	3,540	4,012	4,538	4,640	4,527
Total	**4,005**	**4,660**	**7,921**	**8,576**	**9,157**	**10,956**	**10,900**	**10,777**
Revenue (EUR millions)								
Europe/Remaining Markets	74,327	77,552	142,345	145,570	133,499	153,999	143,089	142,753
North America	27,680	22,038	50,947	45,305	36,810	43,351	37,656	37,686
South America	6,564	5,065	12,538	11,039	8,632	11,297	10,405	9,988
Asia-Pacific	24,650	25,036	48,286	48,672	44,288	43,974	43,166	39,123
Total	**132,285**	**129,669**	**252,816**	**250,200**	**222,884**	**252,632**	**235,849**	**229,550**

Note: Revenue by market includes Financial Services division revenue.
Revenue and operating profit excludes VW China data, as this is accounted for using the equity method.
2018 and subsequent total revenue data includes hedges on sales revenue (not geographically allocated).

With respect to geographic performance, the Company's global unit sales in 2021 contracted YOY, reflecting the semiconductor shortage and other supply base challenges. Volume decreases in Europe and Asia-Pacific were partly offset by slight gains in North and South America. The Company's global market share decreased to 11.7% in 2021 from 12.9% in 2020.

In Asia-Pacific, 2021 sales volumes, including those attributable to JVs in China, decreased to 3.5 million units (from 4.0 million units in 2020).

For 2021, sales levels in the Europe/Remaining Markets segment declined to 3.7 million units (from 3.9 million in 2020), although VW's market share in Western Europe remained essentially constant at 23.5% (from 23.7% in 2020). VW's results in North America improved moderately, with the Company's regional market share in 2021 increasing to 4.9% (compared with the 2020 level of 4.6%).

During H1 2022, the Company's global volumes remained constrained by ongoing production difficulties and decreased significantly compared with the similar prior-year period, in line with declines across all regional segments. VW's global market share declined to 10.7% (compared with 12.5% in H1 2021).

Financial Profile

Automotive Operations	6 mos. to June 30		12 mos. to June 30	For the year ended December 31				
	2022	**2021**	**2022**	**2021**	**2020**	**2019**	**2018**	**2017**
EBITDA	19,315	17,652	34,022	32,359	25,393	32,041	29,892	29,316
Earnings after taxes	10,861	8,454	18,301	15,894	9,401	15,477	14,128	13,461
Depreciation	9,229	8,811	18,796	18,378	17,798	15,958	15,581	14,948
Other items (derivatives, other gains/losses)	(4,458)	2,024	(9,977)	(3,495)	(929)	1,151	(1,325)	309
Cash flow from operations	15,632	19,289	27,120	30,777	26,270	32,586	28,384	28,718
Less: capital expenditure	8,851	7,488	19,702	18,339	17,538	19,178	18,452	17,891
Less: dividends	4,258	501	6,779	3,022	2,952	2,899	2,375	1,332
Free cash flow pre-working capital	2,523	11,300	639	9,416	5,780	10,509	7,557	9,495
Changes in working capital	(971)	528	1,555	3,054	1,313	43	(4,344)	(553)
Free cash flow	1,552	11,828	2,194	12,470	7,093	10,552	3,213	8,942
Net debt (cash) position	(7,085)	(20,371)	(7,085)	(9,689)	(16,313)	(8,108)	(15,833)	(13,854)
% net debt in capital structure	-4.8	-18.7	-4.8	-7.7	-16.2	-7.6	-16.9	-15.7
Adjusted % debt in capital structure	18.8	17.9	18.8	19.8	17.8	18.0	20.8	16.1
Adjusted gross interest—EBITDA	25.0	21.2	24.2	22.3	16.9	22.9	22.7	18.4
Adjusted cash flow/total debt	0.9	1.4	0.7	0.9	1.0	1.3	1.0	1.5

Note: 2017 and subsequent figures adjusted to exclude effects of the Diesel Issue.

Summary

Automotive cash flow from operations in 2021 increased YOY in line with considerably improved earnings.

Capital expenditures (capex) in 2021 increased moderately YOY and amounted to EUR 18.4 billion, with investments primarily allocated to VW's production facilities and models slated to launch in 2021 or 2022. These include the Company's ID family of electric vehicles, reflecting the increasing environmental focus across its product range and the ongoing development of modular toolkits, digitalization, and electric powertrains. Dividend payments in 2021 amounted to EUR 3.0 billion and remained essentially constant YOY.

As a function of the above, gross free cash flow (i.e., before working capital items) in 2021 was higher YOY and substantially positive at EUR 9.4 billion. Working capital represented a meaningful source of cash in the amount of EUR 3.4 billion, reflecting higher payables. Accordingly, net free cash flow (i.e., after working capital items) for 2021 increased considerably YOY and amounted to EUR 12.5 billion.

DBRS Morningstar notes that the above amount was reduced by cash outflows associated with the Diesel Issue of roughly EUR 1.0 billion, which represents a considerably lower amount YOY, with the significant majority of financial outlays associated with the Diesel Issue now likely behind the Company.

Total dividend payments amounted to EUR 3.0 billion, of which EUR 2.4 billion was made to VW shareholders. The redemption of hybrid notes (originally issued in 2014) in March 2021 resulted in a cash outflow of approximately EUR 1.2 billion.

Through the first half of 2022, Automotive cash flow from operations was lower compared with the prior-year period, with slightly higher earnings and firmer depreciation levels being more than offset by other noncash items (primarily consisting of provision changes). Capex increased moderately compared with H1 2021 and totalled EUR 8.9 billion. Dividend payments were substantially higher (compared with H1 2021) and totalled EUR 4.3 billion. Gross free cash flow was accordingly considerably lower but remained significantly positive at a level of EUR 2.5 billion. Working capital represented a moderate use of cash, reflecting higher inventories, with net free cash flow therefore amounting to EUR 1.6 billion.

Payments associated with the Diesel Issue in H1 2022 amounted to EUR 0.9 billion. Additionally, M&A activities resulted in an outflow of EUR 2.7 billion in the period. Finally, the issuance of two hybrid notes in March 2022 in the amount of EUR 2.25 billion, netted with the redemption of a hybrid note repaid in March 2022 in the amount of EUR 1.1 billion, resulted in a cash inflow of EUR 1.15 billion.

Outlook

VW’s cash flow from operations in 2022 is estimated to remain sizable, with the Company projecting its Automotive operations to generate adjusted net free cash flow (as defined by VW; i.e., including working capital effects while excluding dividends, M&A, and outflows associated with the Diesel Issue) in the approximate range of EUR 13 billion to EUR 15 billion (i.e., slightly lower YOY). Capex levels for 2022 are estimated to moderately increase YOY, with dividends also estimated to be higher. As a function of the above, DBRS Morningstar estimates that the Company’s gross free cash flow in 2022 will be moderately lower relative to 2021 but remain substantially positive.

Going forward, cash flow from operations is projected to moderately increase over the medium term in line with progressively firmer earnings. Capex is likely to be subject to meaningful increases as a function of additional investments into the progressive electrification of VW's product portfolio as well as additional new mobility business initiatives. Dividends may also progressively increase amid the ongoing growth in earnings. This notwithstanding, the Company's projected free cash flow generation is estimated to remain sufficient to absorb potentially sizable M&A activities in connection with VW's ongoing new mobility business initiatives. DBRS Morningstar notes further that the potential IPO of a stake in Porsche AG would provide the Company with considerable additional flexibility in this regard.

Debt and Liquidity

Despite substantial prior outlays in connection with the Diesel Issue and amid projected sizable investments associated with the electrification of the product portfolio and significant M&A activity, VW’s liquidity position remains strong.

As of June 30, 2022, the Company's Automotive operations had a gross liquidity position (as defined by VW) of EUR 40.9 billion, which included EUR 23.7 billion in cash and cash equivalents and EUR 17.3 billion in securities, loans, and time deposits.

Additionally, the Company has a EUR 10.0 billion syndicated credit facility that matures in December 2026. While this facility was fully drawn in early 2020 because of projected liquidity challenges stemming from the coronavirus, all drawn amounts were repaid within the year, and the facility was unused as of June 30, 2022.

In 2016 through 2021, VW's Automotive liquidity was meaningfully depleted by approximately EUR 30 billion in cash outflows related to the Diesel Issue. However, this was considerably offset by solid net free cash flow generation of roughly EUR 47 billion (absent effects of the Diesel Issue) over this time period, in addition to combined net proceeds of approximately EUR 8 billion from the Company's hybrid bond issuances.

VW faces meaningful industry headwinds over the next several years amid sizable investment requirements in line with the increasing electrification of its product portfolio. The Company is also targeting additional investments into new mobility businesses. However, DBRS Morningstar estimates that VW's liquidity position will remain robust amid these challenges given its consistent free cash flow generation; DBRS Morningstar notes further that the Company maintains several additional options to further bolster its liquidity position, including the possible IPO of a partial stake in Porsche AG, the sale of an additional equity stake in Traton, and other potential divestitures of noncore assets.

Industrial debt is a relatively small component of total consolidated debt (i.e., less than 10%).

The Company's consolidated debt maturity schedule (industrial maturity schedule not available) as at December 31, 2021, is outlined in the table immediately below in percentage terms.

< 1 year	**1 to 5 years**	**> 5 years**
37%	51%	12%

The debt breakdown (in EUR millions) of the above is as follows:

Bonds	98,038
Commercial paper and notes	37,578
Loans	38,691
Direct banking deposits	26,831
Other	9,064

Financial Services Division

	For the year ended December 31				
(EUR millions)	**2021**	**2020**	**2019**	**2018**	**2017**
Revenue	43,963	40,778	40,160	34,782	33,733
Operating profit	6,045	3,012	3,212	2,793	2,673
Debt: equity	5.3	5.9	6.2	6.3	5.7
Receivable portfolio	141,452	140,571	145,588	132,909	126,395
Penetration level (%)	35.8	35.2	34.2	33.7	33.4

The Financial Services business' results in 2021 strengthened substantially YOY (following 2020 results that were adversely affected by the coronavirus pandemic) with the segment remaining a significant contributor to consolidated earnings.

Segment revenues for 2021 increased by 7.8% YOY to EUR 44.0 billion. Operating profit effectively doubled YOY to a record level of EUR 6.0 billion as a function of lower provisions for credit losses and very favourable residual value performance, with used car prices remaining at very firm levels.

As of June 30, 2022, the total number of contracts was 24.5 million.

Credit risk within the wholesale portfolio and the retail/fleet portfolio remains at low levels and readily covered by incurred provisions.

Leverage as of December 31, 2021, was moderately lower YOY and remained well within historical levels and commensurate with industry standards.

VW's Financial Services business has a strong global presence and was active in 47 markets as of December 31, 2021.

Penetration rates as of H1 2022 were at an aggregate level of 33.1%. This segment is continuously looking to increase its penetration rate through further product offerings, such as extended warranty programs and short- and long-term vehicle rentals as well as car sharing (i.e., very short-term vehicle rentals). Integrated products are also being launched (i.e., combination of finance, insurance, and service contracts). Additionally, VW is seeking to create additional digital touchpoints with the aim of increasing interaction with existing and prospective customers.

For 2022, the Company projects the Financial Services business' revenues to be noticeably higher relative to 2021. Operating profit is estimated to moderate from inordinately high levels in 2021 but nonetheless remain solid at approximately EUR 5 billion amid ongoing business growth, with credit risk and residual value performance anticipated to remain favourable (albeit likely moderating somewhat relative to recent strong levels).

Funding sources are well diversified and include, among others, bond issuances (29% as of December 31, 2021), asset-backed securitization transactions (24%), customer deposits (15%), credit lines (15%), intercompany financing (13%), and commercial paper (4%).

Rating Support

The ratings of VW Credit Canada, Inc. are supported by VW through a Guarantee. Per *DBRS Morningstar Criteria: Guarantees and Other Forms of Support* (April 4, 2022), the Guarantee, in combination with DBRS Morningstar's assessment of additional implicit support considerations, including (but not limited to) business, reputational, and financial factors that are deemed likely to motivate a parent or affiliated company to support its subsidiary issuer, result in a flow-through of VW's ratings to VW Credit Canada, Inc.

ESG Checklist

ESG Factor	ESG Credit Consideration Potentially Applicable to the Credit Analysis:	Y/N**	Extent of the Effect on the ESG Factor on the Credit Analysis: None (N), Relevant (R) or Significant (S)*
Environmental	**Overall:**	**Y**	**R**
Emissions, Effluents, and Waste	Do we consider the costs or risks result, or could result in changes to an issuer's financial, operational, and/or reputational standing?	N	N
Carbon and GHG Costs	Does the issuer face increased regulatory pressure relating to the carbon impact of its or its clients' operations resulting in additional costs?	Y	R
Resource and Energy Management	Does the scarcity of sourcing key resources hinder the production or operations of the issuer, resulting in lower productivity and therefore revenues?		
Land Impact and Biodiversity	Is there a financial risk to the issuer for failing to effectively manage land conversion, rehabilitation, land impact, or biodiversity activities?		
Climate and Weather Risks	Will climate change and adverse weather events potentially disrupt issuer or client operations, causing a negative financial impact?		
Social	**Overall:**	**N**	**N**
Social Impact of Products and Services	Do we consider that the social impact of the issuer's products and services could pose a financial or regulatory risk to the issuer?	N	N
Human Capital and Human Rights	Is the issuer exposed to staffing risks, such as the scarcity of skilled labour, uncompetitive wages, or frequent labour relations conflicts that could result in a material financial or operational impact?	N	N
Human Capital and Human Rights	Do violations of rights create a potential liability that could negatively affect the issuer's financial wellbeing or reputation?	N	N
Human Capital and	**Human Capital and Human Rights:**	**N**	**N**
Product Governance	Does failure in delivering quality products and services cause damage to customers and expose the issuer to financial and legal liability?	Y	S
Data Privacy and Security	Has misuse or negligence in maintaining private client or stakeholder data resulted, or could result, in financial penalties or client attrition to the issuer?	N	N
Occupational Health and Safety	Would the failure to address workplace hazards have a negative financial impact on the issuer?		
Community Relations	Does engagement, or lack of engagement, with local communities pose a financial or reputational risk to the issuer?		
Access to Basic Services	Does a failure to provide or protect with respect to essential products or services have the potential to result in any significant negative financial impact on the issuer?		
Governance	**Overall:**	**N**	**N**
Bribery, Corruption, and Political Risks	Do alleged or actual illicit payments pose a financial or reputational risk to the issuer?	N	N
	Are there any political risks that could impact the issuer's financial position or its reputation?	N	N
Bribery, Corruption, and	**Bribery, Corruption, and Political Risks:**	**N**	**N**
Business Ethics	Do general professional ethics pose a financial or reputational risk to the issuer?	N	N
Corporate / Transaction Governance	Does the issuer's corporate structure limit appropriate board and audit independence?	Y	R
Corporate / Transaction Governance	Have there been significant governance failures that could negatively affect the issuer's financial wellbeing or reputation?	N	N
Corporate / Transaction	**Corporate / Transaction Governance:**	**N**	**N**
Institutional Strength, Governance, and Transparency	Compared with other governments, do institutional arrangements provide a similar degree of accountability, transparency, and effectiveness?		
	Are regulatory and oversight bodies protected from inappropriate political influence?		
	Are government officials exposed to public scrutiny and held to high ethical standards of conduct?		
	Institutional Strength, Governance, and Transparency:		
	Consolidated ESG Criteria Output:	**Y**	**S**

DBRS Morningstar considered that the environmental factor related to carbon and greenhouse gas costs represents a relevant negative factor as VW, consistent with its automotive peers, is facing a fundamental transformation process in line with the implementation of ever more stringent emission and fuel consumption regulations across several jurisdictions. Accordingly, the Company is undergoing substantial investments associated with the electrification of its model portfolio, including the further development of modular toolkits for its volume, premium, and sports brands. Similarly, VW is investing in the gradual conversion of its locations for the production of electric vehicles and in the creation of battery manufacturing capacity with the aim of establishing a battery supply chain under its own control.

DBRS Morningstar considered that the social factor related to product governance represents a significant negative factor in connection with VW's diesel issue, which dates back to 2015 and initially spanned 482,000 vehicles in the United States, only to quickly increase to 11 million units globally. Associated costs in the form of vehicle refits, fines, and provisions for legal clams have exceeded EUR 30 billion. While this likely represents the majority of such charges, DBRS Morningstar notes that there may yet be additional increases pending further developments, litigation, and regulatory sanctions.

DBRS Morningstar considered that the governance factor related to corporate/transaction governance, specifically with respect to VW's shareholder structure and distribution of voting rights, represents a relevant negative factor. As of 2021 year-end, Porsche Automobil Holding SE, Stuttgart held 53.3% of voting rights. The State of Lower Saxony (the second-largest shareholder) held 20.0% of the voting rights, with Qatar Holding LLC holding 17.0% of voting rights. Accordingly, external shareholders have very few voting rights; these amounted to 9.7% as of 2021 year-end. Similarly, VW's supervisory board is composed primarily of shareholders and worker representatives, with only a nominal proportion of independent members; this potentially limits the board's ability to oversee risks.

The combination of the ESG factors cited above negatively affects the ratings.

Volkswagen AG

(Financial Services business on an equity basis)

Balance Sheet							
(EUR millions)	June 30	As at December 31			June 30	As at December 31	
Assets	**2022**	**2021**	**2020**	**Liabilities & Equity**	**2022**	**2021**	**2020**
Cash & deposits	42,817	43,165	41,725	Accounts payable	25,120	20,977	19,539
Accounts receivable	21,159	17,339	16,455	Short-term debt	(13,316)	(10,237)	(2,806)
Inventories	45,999	40,361	39,055	Other current liabs.	58,646	53,244	47,107
Other assets	332	674	-	**Total Current Liabs.**	**70,449**	**63,984**	**63,840**
Total Current Assets	**110,307**	**101,539**	**97,236**	Long-term debt	35,732	33,477	15,637
Net fixed assets	61,712	62,684	62,807	Pension provision	27,219	40,769	44,207
Intangibles	80,209	77,290	67,781	Other liabilities	36,783	33,515	33,680
Fin. Services equity	40,212	37,131	32,050	Minority interest	1,908	1,705	1,734
Other assets	34,259	30,417	26,272	Shareholders' equity	154,608	135,612	127,049
Total Assets	**326,699**	**309,061**	**286,147**	**Total Liabilities**	**326,699**	**309,061**	**286,147**

Balance Sheet Ratios	6 mos. to June 30		12 mos. to June 30	For the year ended December 31				
	2022	**2021**	**2022**	**2020**	**2020**	**2019**	**2018**	**2017**
Current ratio	1.6	1.6	1.6	1.6	1.5	1.5	1.3	1.2
Inventory turnover (days)	91	77	88	86	98	89	88	82
Receivable turnover (days)	34	33	33	30	34	25	26	31
Accounts payable/inventory	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6
Adj. Total Debt-to-Capital (%)	**18.8**	**17.9**	**18.8**	**19.8**	**17.8**	**18.0**	**20.8**	**16.1**
Net debt-to-capital (%)	-4.8	-18.7	-4.8	-7.7	-16.2	-7.6	-16.9	-15.7
Debt/EBITDA	0.94	0.80	1.06	1.03	1.00	0.78	0.73	0.46
Adj. Debt/EBITDA	**0.94**	**0.80**	**1.07**	**1.03**	**1.00**	**0.78**	**0.93**	**0.65**
EBITDA coverage	24.5	21.2	24.2	22.3	16.9	22.9	30.7	22.5
Adj. EBITDA Coverage	**24.5**	**21.2**	**24.0**	**22.3**	**16.9**	**22.9**	**22.7**	**18.4**
EBIT coverage	12.6	10.6	10.7	9.6	5.1	11.5	14.7	11.0
Cash flow/total debt	0.9	1.4	0.8	0.9	1.0	1.3	1.3	2.1
Adj. Cash Flow/Total Debt	**0.9**	**1.4**	**0.7**	**0.9**	**1.0**	**1.3**	**1.0**	**1.5**
Cash flow/capex	1.8	2.6	1.4	1.7	1.5	1.7	1.5	1.6

Income Statement	6 mos. to June 30		12 mos. to June 30	For the year ended December 31				
(EUR millions)	**2022**	**2021**	**2022**	**2021**	**2020**	**2019**	**2018**	**2017**
Sales—Automotive	109,066	107,027	208,276	206,237	182,106	212,473	201,067	195,817
Cost of sales	78,215	77,499	149,983	149,267	132,709	154,519	145,717	143,586
Depreciation	9,229	8,811	18,796	18,378	17,798	15,958	15,581	14,948
Other expenses	11,536	11,876	24,271	24,611	24,005	25,912	25,457	22,916
Operating profit—Automotive[1]	10,086	8,841	15,226	12,827	(10,149)	37,960	4,677	9,063
Net interest income (expense)	(368)	(440)	(567)	(639)	(711)	(497)	(24)	(466)
Other income (expense)	499	(664)	332	(831)	(54)	(1,456)	(1,622)	(3,162)
Fin. Services division income	3,102	2,517	6,630	6,045	3,012	3,212	2,793	2,673
Income before taxes	13,319	10,254	21,621	18,556	9,842	17,342	15,458	13,413
Income taxes	3,533	2,699	5,817	4,983	3,197	5,214	4,699	3,434
Income before noncontrolling interest	9,786	7,555	15,804	13,573	6,645	12,128	10,759	9,979
Net income before nonrecurring items	10,519	8,104	17,724	15,493	8,381	14,394	13,425	13,022
Net income	10,296	8,104	17,035	15,027	7,916	13,817	11,977	11,047

1 Excludes nonrecurring items.

Cash Flow—Automotive Division	6 mos. to June 30		12 mos. to June 30	For the year ended December 31				
(EUR millions)	**2022**	**2021**	**2022**	**2021**	**2020**	**2019**	**2018**	**2017**
Earnings after tax	10,861	8,454	18,301	15,894	9,401	15,477	14,128	13,461
Depreciation	9,229	8,811	18,796	18,378	17,798	15,958	15,581	14,948
Other items	(4,458)	2,024	(9,977)	(3,495)	(929)	1,151	(1,325)	309
Cash flow from operations	15,632	19,289	27,120	30,777	26,270	32,586	28,384	28,718
Less: capex	8,851	7,488	19,702	18,339	17,538	19,178	18,452	17,891
Less: dividend	4,258	501	6,779	3,022	2,952	2,899	2,375	1,332
Free cash flow before working capital	2,523	11,300	639	9,416	5,780	10,509	7,557	9,495
Changes in working capital	(971)	528	1,555	3,054	1,313	43	(4,344)	(553)
Free cash flow	1,552	11,828	2,194	12,470	7,093	10,552	3,213	8,942

Profitability Ratios (%)								
EBITDA margin[1, 2]	17.7	16.5	16.3	15.7	13.9	15.1	14.9	15.0
Operating margin[1, 2]	9.2	8.3	7.3	6.8	4.2	7.6	7.1	7.3
Net margin[1]	9.6	7.6	8.5	7.4	4.9	7.0	6.9	6.7
Return on equity[1]	14.8	14.9	14.6	12.1	7.7	13.2	13.0	13.9
Return on capital[1]	9.1	8.8	9.0	7.1	4.6	7.7	7.8	8.3

Note: Certain figures subject to DBRS Morningstar adjustments.
1 Excludes nonrecurring items.
2 Financial Services excluded.

Rating History

	Current	**2021**	**2020**	**2019**	**2018**	**2017**
Volkswagen AG—Issuer Rating	A (low)	A (low)	A (low)	A (low)	BBB (high)	BBB (high)
VW Credit Canada, Inc.—Senior Unsecured Debt	A (low)	A (low)	A (low)	A (low)	BBB (high)	BBB (high)
VW Credit Canada, Inc.—Commercial Paper	R-1 (low)	R-1 (low)	R-1 (low)	R-1 (low)	R-2 (high)	R-2 (high)

Previous Action

- "DBRS Morningstar Changes Trend on Volkswagen AG to Stable From Negative, Confirms Ratings at A (low) and R-1 (low)," August 10, 2021.

Commercial Paper Limit

- CAD 1 billion.

Previous Report

- Volkswagen AG: Rating Report, August 17, 2021.

About DBRS Morningstar

DBRS Morningstar is a full-service global credit ratings business with approximately 700 employees around the world. We're a market leader in Canada, and in multiple asset classes across the U.S. and Europe.

We rate more than 3,000 issuers and nearly 60,000 securities worldwide, providing independent credit ratings for financial institutions, corporate and sovereign entities, and structured finance products and instruments. Market innovators choose to work with us because of our agility, transparency, and tech-forward approach.

DBRS Morningstar is empowering investor success as the go-to source for independent credit ratings. And we are bringing transparency, responsiveness, and leading-edge technology to the industry.

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