

## **CREDIT OPINION**

28 June 2021

# **Update**



#### RATINGS

#### Volkswagen Financial Services AG

| Domicile         | Braunschweig, Germany          |
|------------------|--------------------------------|
| Long Term Rating | A3                             |
| Туре             | LT Issuer Rating - Fgn<br>Curr |
| Outlook          | Stable                         |

Please see the <u>ratings section</u> at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

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# Volkswagen Financial Services AG

Update to credit analysis

## **Summary**

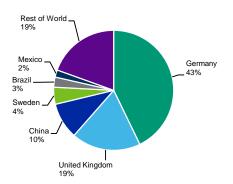
We assign A3 senior unsecured debt and issuer ratings with a stable outlook to <u>Volkswagen Financial Services AG</u> (VW FS AG).

VW FS AG's ratings reflect the company's ba2 standalone assessment and strategic importance to its parent <u>Volkswagen Aktiengesellschaft</u> (Volkswagen, A3 stable). VW FS AG supports the sale of its parent's products as a provider of leasing, financing and mobility services, and has strong contractual and economic links with its parent, such as a long-term control and profit-and-loss transfer agreement, all of which warrant the alignment of the company's long-term ratings with Volkswagen's A3 issuer rating.

VW FS AG's ba2 standalone assessment incorporates the company's narrow focus on enhancing its parent's vehicle sales, which drives strong portfolio growth and results in asset-class concentration risk; adequate financial profile, characterised by stable profitability and sufficient capitalisation; and geographically diversified and balanced funding mix, which relies significantly on secured (asset-backed) and wholesale market funding.

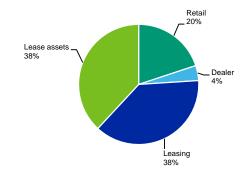
Exhibit 1

Gross customer loans and leases by country as of year-end 2020



Includes current as well as noncurrent lease assets. Source: Company annual financial report (2020)

Exhibit 2
Gross customer loans by business line as of year-end 2020



Includes current as well as noncurrent lease assets. Source: Company annual financial report (2020)

# **Credit strengths**

- » Proven access to parental support to strengthen capital and liquidity, if needed
- » Sound asset quality, with limited signs of deterioration
- » Good leverage ratio, also in the light of expected portfolio growth

## Credit challenges

- » VW FS AG's asset quality could be strained by time-lagging consequences of a prolonged coronavirus pandemic, which might weaken consumer demand for cars, and be further exacerbated by the continued reshaping of the automobile industry towards low-emission vehicles.
- » The company needs to manage the residual value (RV¹) risk in its leasing portfolio amid significant macroeconomic and socioeconomic difficulties, particularly surrounding the pandemic and the ongoing transition to alternative-fuel or battery-electric vehicles
- » The company relies significantly on wholesale and secured (asset-backed) funding sources.

#### Outlook

The rating outlook is stable. Based on the support from the ultimate parent Volkswagen, the outlook on VW FS AG's ratings follows the stable outlook on Volkswagen's long-term issuer rating.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.

# Factors that could lead to an upgrade

» An upgrade of VW FS AG's ratings could likely follow an upgrade of Volkswagen's rating. Please refer to the <u>Credit Opinion of Volkswagen</u> for a discussion of the carmaker's rating drivers.

- » VW FS AG's ba2 standalone assessment could improve if the company strengthens its capital ratios, offsetting the strain on its capital adequacy from its strongly growing lending portfolio; maintains its asset-quality and asset-performance indicators in the current uncertain macroeconomic environment, thereby safeguarding its profitability and capital adequacy metrics; significantly reduces its reliance on secured (asset-backed) debt issuance, thereby decreasing the relatively high encumbrance of its asset base; and maintains resilience in its business while its parent manages long-term challenges, including increasing environmental standards, stricter emissions regulation and electrification.
- » However, a higher standalone assessment would not result in an upgrade of the company's ratings.

# Factors that could lead to a downgrade

- » VW FS AG's ratings could be downgraded if Volkswagen's ratings were to be downgraded.
- » Although unlikely at present, a downgrade of VW FS AG's ratings could also be triggered if Volkswagen were to loosen its ties with its financial services subsidiary. This loosening could lead to a lowering of our support assumption for VW FS AG and a downgrade of the company's ratings to a level below the parent's issuer ratings.
- » VW FS AG's ba2 standalone assessment may deteriorate following an erosion of the company's capital base beyond our current expectations; a significant decline in the company's asset quality, particularly if associated with the significantly lower residual car values of its lease assets, leading to additional loan loss charges and lease asset depreciation; a higher-than-expected increase in the volume of confidence-sensitive wholesale funding, particularly if the funding no longer matches the maturity of the company's lease and lending assets; any signs that the company's earnings have become, to a substantial degree, dependent on the support and subsidies provided by Volkswagen; or any signs that the serious internal controls and governance issues at Volkswagen are also a concern for VW FS AG.

# **Key indicators**

Exhibit 3
Volkswagen Financial Services AG (Consolidated Financials) [1]

|  | 12-20 <sup>2</sup> | 12-19 <sup>2</sup> | 12-18 <sup>2</sup> | 12-17 <sup>2</sup> | 12-16 <sup>2</sup> | CAGR/Avg. <sup>3</sup> |
|--|--------------------|--------------------|--------------------|--------------------|--------------------|------------------------|
| Total managed assets (EUR Million)                             | 117,845.0          | 112,444.0          | 80,462.0           | 68,953.0           | 130,248.0          | (2.5)4                 |
| Total managed assets (USD Million)                             | 144,189.9          | 126,218.2          | 91,979.7           | 82,798.6           | 137,379.4          | 1.24                   |
| Net Income / Average Managed Assets (%)                        | 0.7                | 0.9                | 0.7                | 0.5                | 0.9                | 0.75                   |
| Tangible Common Equity (Finance) / Tangible Managed Assets (%) | 10.9               | 10.7               | 10.0               | 11.1               | 12.9               | 11.1 <sup>5</sup>      |
| Problem Loans / Gross Loans (Finance) (%)                      | 1.7                | 1.5                | 2.0                | 2.3                | 2.5                | 2.0 <sup>5</sup>       |
| Net Charge-offs / Average Gross Loans and Leases (%)           | 0.9                | 0.5                | 0.5                | 0.6                | 0.6                | 0.65                   |
| Secured Debt / Gross Tangible Assets (%)                       | 22.2               | 23.1               | 16.1               | 19.4               | 15.5               | 19.3 <sup>5</sup>      |
|  |                    |                    |                    |                    |                    |                        |

[1] All figures and ratios are adjusted using Moody's standard adjustments. [2] IFRS [3] May include rounding differences because of the scale of reported amounts. [4] Compound annual growth rate (%) based on the periods for the latest accounting regime. [5] Simple average of periods for the latest accounting regime.

Sources: Moody's Investors Service and company filings

#### **Profile**

Volkswagen Financial Services AG (VW FS AG) is Volkswagen's captive finance subsidiary, which hosts most of the carmaker's non-banking operations outside North America, that is, mostly its European leasing business; the group's banking activities outside the European Union (EU) in North America and Asia; and additional activities, including mobility services and the insurance business. As of 31 December 2020, VW FS AG employed 10,880 people worldwide, and its total assets amounted to €118 billion (2019: €112 billion).

VW FS AG's activities are targeted towards Volkswagen's automotive clients and dealer network, and follow the sales strategy of the carmaker. Customarily, the loan and lease products offered by VW FS AG benefit from the subsidies related to the marketing budgets of the Volkswagen brands. These subsidies are granted to make monthly instalments more accessible to clients than if the products were priced purely on a risk-adjusted basis by the captive.

Following the 2017 <u>reorganisation</u> of the finance operations within Volkswagen, which led to the separation of VW FS AG's EU banking operations and their subsequent transfer to <u>Volkswagen Bank GmbH</u> (VW Bank, A1/A1 stable, baa2²), VW FS AG oversees most of the group's worldwide non-banking operations³, except for those entities directly owned by Volkswagen, such as <u>VW Credit, Inc.</u> ((P)A3 stable. Over the next two to three years, we expect most of the company's future asset growth to be organic, supported by financing operations and a more prominent role of mobility services within the Volkswagen group's overall value chain.

# **Recent developments**

#### The pandemic-induced downturn will take longer to recover

The automotive sector has been one of the sectors most significantly affected by the pandemic, given its sensitivity to consumer demand and sentiment. The pandemic resulted in a precipitous drop in auto sales, with global sales falling 16% during 2020. However, global auto sales have begun to recover. Our 2021 outlooks for global automotive manufacturers, North American and European auto parts suppliers are <a href="stable">stable</a>, driven by our expectations of a partial recovery in global auto unit sales after the pandemic led to production shutdowns and a collapse in demand. However, the recovery will be <a href="regionally uneven">regionally uneven</a> and threatened by the <a href="shortage of semiconductors">shortage of semiconductors</a>.

## **Detailed credit considerations**

## Asset quality remains exposed to car market cyclicality

We assign a weighted-average Asset Risk score of Baa3 to VW FS AG, three notches below the initial score of A3 as a result of negative adjustments to two components of the Asset Risk subfactor: a three-notch negative adjustment to the Problem Loan score, which reflects our expectation of a rise in nonperforming loans following a decade-long benign for credit risks, further exacerbated by the lagging negative effects of the pandemic; and our three-notch negative adjustment for net charge-offs, which takes into account VW FS AG's policy to also book depreciations on lease assets, which, in our view, form a part of value adjustments and losses otherwise booked as loan loss provisions or charge-offs against customer loans. By adjusting, we aim to capture the remaining RV risks and historical real losses through lease depreciations, against a more difficult macroeconomic backdrop.

The Baa3 weighted-average Asset Risk score further reflects the close correlation among VW FS AG's asset growth over time, the company's stable credit performance and Volkswagen's car sales growth. While these trends are mutually supportive in a strong car market, the close relationship among these factors may also prove self-reinforcing in a downward trend.

In 2020, VW FS AG's asset base continued to grow despite the pandemic, particularly driven by lease asset growth (+20% since 2019). The growth reflects VW FS AG's business expansion and a noticeable shift towards leasing.

The future sales performance of cars in general appears significantly less certain and predictable as a result of the pandemic. Lockdowns aimed at containing the spread of the pandemic have led to production stops globally, and sales of new cars fell drastically in 2020, because of reduced client traffic as dealerships were repeatedly forced to close. The ongoing debate on regulations and tax levels for traditional combustion engines and fuel, accompanied by the beginning of a shift in consumer preferences towards alternative-fuel vehicles, adds pressure on RV risks in Europe.

However, the uncertainties surrounding the future value of and demand for cars have not yet translated into any noticeable rise in asset-loss rates. The difficulty for VW FS AG lies in the unpredictable speed of vehicle depreciation because of the uncertainty surrounding any macroeconomic recovery following the pandemic and future technology development, such as the speed of the rollout

of battery-electric vehicles or alternative-fuel vehicles. In addition, new government policies, such as favourable taxes or high sales incentives for the purchase of new electric vehicles, could accelerate RV deterioration for traditional combustion engines.

To mitigate these risks, VW FS AG plans to further increase its penetration into and gain further access to the used cars market through various channels, supported by subsidised vehicle sales and attractive financing/lease packages, all with the aim of safeguarding affordability (and, therefore, its asset quality) for its customer base. At the same time, because Volkswagen plans to involve its captive operations even more intensely in its vehicle distribution approach by raising its used car penetration rate<sup>4</sup>, we expect the resulting asset growth to further expose VW FS AG to RV risk for each newly leased or financed vehicle.

In addition, for VW FS AG, any RV risk is — to a large degree — an indirect risk because the main exposure to the risk is for car dealers. The main downstream risk to VW FS AG is the deteriorating creditworthiness of car dealers because Volkswagen's financial services arm also provides day-to-day financing to Volkswagen's vehicle dealers.

Because of the importance of the dealer network to the broader group's value chain, the carmaker has supported car dealers in the past, for example, with a €200 million support package for its car dealers in <u>Germany</u> (Aaa stable) in May 2021, and will likely continue to provide support in case of need, thereby alleviating potential asset-quality and RV risks at the level of its captive finance subsidiary.

For VW FS AG, the RV risk — before any likely support from the carmaker — is the highest in the large German and UK leasing markets. VW FS AG acquired the UK leasing business from VW Bank at the end of the first quarter of 2019 as a part of the reorganisation of the carmaker's captive finance operations. Therefore, VW FS AG will be exposed to the RV risk of this and other affected subsidiaries' leasing operations. In particular, the British captive finance segment of Volkswagen (with a business volume of €15.3 billion), which also includes returnable cars under personal contract purchases and operating lease assets <sup>5</sup>, makes VW FS AG's future results potentially more sensitive to car return rates and value fluctuations in the UK used car market.

VW FS AG's net charge-off rates/gross loans somewhat deteriorated in 2020 to 0.9% from 0.5% (excluding lease depreciations), and provisions for credit risks doubled in 2020 to €600 million from €294 million in 2019. However, the ratio remains within our expectations and continues to be supported by ultralow interest rates, which, combined with manufacturer subsidies (such as extended warranties and cheap financing packages for used cars), have kept monthly instalments affordable for most clients, thereby safeguarding VW FS AG's asset performance so far.

#### Leverage ratio is good but will decline

We assign a Capital score of Ba3 to VW FS AG, two notches below its improved initial score of Ba1. We retain the negative adjustment because we consider the improvement temporary and expect further portfolio growth. Therefore, we expect VW FS AG's tangible common equity/tangible managed assets (TCE/TMA, our equivalent of leverage ratio for finance companies) to decrease over time to 9%-10% from 10.9% in December 2020, excluding the potential effects of the pandemic on VW FS AG's balance-sheet size and composition.

The decline of the TCE/TMA ratio will be commensurate with the assigned Ba3 score and the level recorded for most of the company's international peers in terms of TCE/TMA. The assigned score further captures the remaining RV risk from lease contracts, which could, in a highly adverse scenario, lead to larger losses at VW FS AG, temporarily weakening its leverage ratio. However, the profit and loss agreement with Volkswagen serves as a mitigating factor in this adverse scenario.

VW FS AG's leverage ratio could also decline because of a further increase in total assets as a result of the transfer of the remaining leasing and other operations from VW Bank to VW FS AG, although most of the planned business transfers already took place in 2019 and 2020.

## Profitability is likely be strained by rising loan loss charges

In 2020, VW FS AG's net income from leasing transactions (+4.6%) and service contracts (increased to €454 million from €190 million) was higher than those in the previous year. However, overall, the company's profitability decreased because of higher credit risk provisions and higher impairment losses on lease assets than those in 2019. Therefore, the company reported overall stable operating profit of €1.2 billion in 2020, despite business expansion and an increase in leasing and fee related income in 2020.

We expect VW FS AG's net income/average managed assets to remain within the 0.5%-0.75% range over the next two years, despite higher loan losses resulting from the negative effects of the pandemic. As a result, the assigned Ba2 Profitability score is in line with the initial 2020 score of 0.7%.

Prolonged consequences of the pandemic or a new wave might weaken Volkswagen's manufacturing operations, in case production facilities have to close, and global car production and demand decline. These developments would also hamper the asset quality of the captive's leasing and lending books. If a more severe recession leads to significantly higher unemployment rates in VW FS AG's countries of operation, it would also hurt the car leases extended to its international retail clientele, and potentially result in an increase in payment deferrals and defaults on financial obligations. Support measures of the government and VW FS AG (together with group brands) will help soften the negative effects of the pandemic on credit risk of VW FS AG and profitability but may not fully mitigate these effects.

## Increased reliance on wholesale and secured funding following the reorganisation

We assign a weighted-average Cash Flow and Liquidity Score of Ba2 to VW FS AG. The assigned score captures VW FS AG's substantial reliance on secured and wholesale funding following the reorganisation, and our expectation of a further moderate increase in confidence-sensitive funding sources as a result of the group's strategic funding plan.

Like most finance companies, VW FS AG relies on confidence-sensitive wholesale funding sources, which renders the company vulnerable to market disruptions and illiquidity. However, because of VW FS AG's strategic importance to its parent, we expect the company to continue to exercise good discipline in the management of its liquidity risks.

Following the deconsolidation of the deposit-rich VW Bank in 2017, VW FS AG's dependence on wholesale funding sources has risen. However, VW FS AG has been able to maintain access to a diversified range of funding sources, including senior unsecured debt (€30.8 billion as of December 2020) and intragroup funding (€22.6 billion), followed by asset-backed securities (€26.3 billion) and liabilities to banks (€14.7 billion). In the asset-backed securities category, the company benefits from the established market presence, e.g. of its VCL Master Netherlands B.V. lease asset-backed security programme and the non-EU driver auto-loan programmes, which can help fill liquidity or funding gaps in more adverse market conditions.

VW FS AG operates with only limited liquid resources on hand and in the form of securities holdings, with high short-term cash inflow under its lease and loan contracts. In light of the constant portfolio growth at Volkswagen's captives, cash inflow has historically been outweighed by payouts under new loan and lease contracts or renewals. VW FS AG's cash reserve decreased to €47 million in 2020 from €106 million in 2019. However, in case of need, the company has access to additional funding sources, including a multibillion euro committed standby liquidity facility from its parent.

## **Operating environment**

We assign a Baa3 weighted Operating Environment score to VW FS AG, based on the industry and macro-level risks at its global car financing and leasing operations. The score benefits from VW FS AG's activities in Germany, where the company has most of its total lending and leasing exposures, and to which we assign a Baa2 Operating Environment score.

The Baa3 weighted Operating Environment score is constrained by VW FS AG's exposures to the <u>UK</u> (Aa3 stable), <u>China</u> (A1 stable) and <u>Brazil</u> (Ba2 stable), all of which have lower Operating Environment scores. However, this has no bearing on VW FS AG's overall Ba2 Financial Profile score.

#### Macro-level and industry risk indicators for the home market

VW FS AG's exposures primarily relate to the German car financing and leasing markets. The Aa2 German Macro-Level Indicator score reflects the country's very high degree of economic and institutional financial strength, with a low susceptibility to event risk (baa). Both scores have weakened by one notch since the update in June 2020, driven by the expected weakening in Germany's fiscal metrics because of the 4.8% GDP deficit in 2020, the highest since 1995, and the risks related to the banking sector. However, these changes have no negative effect on the overall Home Country Operating Environment score of Baa2.

We assign a Baa Industry Risk score for German car finance and leasing companies. Companies in this sector benefit from relatively high barriers to entry and pricing power. Although auto lending is indirect, a growing proportion of leases is underwritten at the point of sale, as reflected by rising new and used car penetration rates. In addition, banks in Germany have been slowly building competitive

leasing offers. Amid this relatively slight competition, VW FS AG has expanded its market penetration and improved manufacturer loyalty.

VW FS AG further benefits from exclusive subvention programmes from its parent, Volkswagen, which provide access to loan and lease origination volumes, bolstering the car financier's franchise. Moreover, VW FS AG's diversified and long-standing product suite has a strong track record of low net charge-offs and low net losses.

#### **ESG** considerations

Banks and finance companies have been classified as "Low" risk in our <u>environmental risk heat map</u><sup>5</sup> and as "Moderate" risk in our <u>social risk heat map</u><sup>7</sup>. However, considering the close links between VW FS AG and its car-manufacturing parent, we assess the exposure of VW FS AG to environmental risks as equivalent to the risk levels of automotive manufacturers and, hence, classify as "Elevated - Emerging". The value of vehicles that back the company's auto loans and leases may be hurt by a more pronounced change in carbon and air pollution regulations in the countries where VW FS AG operates and, consequently, increase its RV risk. In addition, the change in environmental regulations and the need to meet the requirements of the Paris Agreement put pressure on Volkswagen to make larger investments for greater efficiency and electrification of its vehicle fleet to remain compliant and avoid fines or additional costs.

In line with our general view of the finance companies sector, we assess VW FS AG's social risks as "Moderate". The most relevant social risks for automobile lenders arise from the way they interact with their customers, such as fines and reputational damage, for instance, because of product mis-selling. So far, these types of social risks have not had any significant implications for VW FS AG. This assessment also takes account of our expectation that VW FS AG will be able to deal with the changing customer preferences and gradual shift towards electric and hybrid cars, as well as the development of self-driving technologies and the consequences this might have on its product portfolio and, potentially, margins. Further, we regard the pandemic as a social risk under our environmental, social and governance (ESG) framework, given the substantial implications for public health and safety (please refer to the "Recent developments" section).

We do not have any particular governance concerns for VW FS AG. Governance<sup>8</sup> is highly relevant for VW FS AG, as it is to all finance companies, in part because of the complexity of its multinational operations. VW FS AG remains further exposed to reputational and financial risks potentially stemming from the ongoing diesel emissions scandal and the related unsatisfactory governance practices observed at its parent. In an effort to shield itself from any undue contagion risks, VW FS AG recently strengthened its governance principles, and installed and added processes, which will help safeguard its governance and control processes against unwanted behaviour. Nonetheless, corporate governance remains a key credit consideration and continues to be a subject of our ongoing monitoring.

## Support and structural considerations

#### Affiliate support

VW FS AG's default probability and expected loss are closely linked with those of its parent, Volkswagen. The globally active carmaker has a strong economic incentive to support VW FS AG because of the latter's important role as a leasing and financing provider that supports the carmaker's sales. In 2020, 27.6% of Volkswagen's new car deliveries in countries where VW FS AG operates were accompanied by a financing or leasing contract of the company. In the core market of Germany, this ratio was as high as 55.1%. At the same time, a long-term control and profit-and-loss transfer agreement contractually requires Volkswagen to support VW FS AG in case of losses.

#### **Government support considerations**

We continue to consider the probability of government support low for VW FS AG, which does not result in any rating uplift for government support. This assumption reflects VW FS AG's relatively small size compared with the German banking system, its insignificant market share in the domestic deposit market and its limited degree of systemic interconnectedness.

## Rating methodology and scorecard factors

The methodologies we use in rating VW FS AG are the <u>Finance Companies Methodology</u>, published in November 2019, and the <u>Captive Finance Subsidiaries of Nonfinancial Corporations methodology</u>, published in August 2019.

Exhibit 4
Rating factors

| Volkswagen Financial Services AG            |                |                  |               |                |                |                 |
|---|----------------|------------------|---------------|----------------|----------------|-----------------|
| Financial Profile                           | Factor Weights | Historic Ratio   | Initial Score | Assigned Score | Key driver #1  | Key driver #2   |
| Profitability                               | ructor weights | Thistoric Ratio  | mittat Score  | Assigned Score | Rey driver #1  | Rey dilver #2   |
| Net Income / Average Managed Assets (%)     | 10%            | 0.71%            | Ba2           | Ba2            | Expected trend |                 |
| Capital Adequacy and Leverage               | 1070           | 0.7 170          | Duz           | Duz            | Expected trend |                 |
| Tangible Common Equity / Tangible           | 25%            | 10.86%           | Ba1           | Ba3            | Expected trend |                 |
| Managed Assets (%)                          | 2370           | 10.0070          | Dai           | bas            | Expected trend |                 |
| Asset Quality                               |                |                  |               |                |                |                 |
| Problem Loans / Gross Loans (%)             | 10%            | 1.75%            | Baa3          | Ba3            | Pro-forma      | Expected trend  |
| Problem Loans / Gross Loans (70)            | 10 70          | 1.7 3 70         | Daas          | Dao            | adjustments    | Expected trend  |
| Net Charge-Offs / Average Gross Loans       | 10%            | 0.90%            | Aa3           | A3             | Differences    | Expected trend  |
| (%)   | 10 /0          | 0.90 %           | Ado           | AS             | in accounting  | Expected trend  |
| (70)  |                |                  |               |                | and reporting  |                 |
| Weighted Average Asset Risk Score           |                |                  | A3            | Baa3           | and reporting  |                 |
|   |                |                  | AS            | Ddd5           |                |                 |
| Cash Flow and Liquidity                     | 100/           |                  |               | D2             | D., f.,        | N1 4 4'         |
| Debt Maturities Coverage (%)                | 10%            | -                | -             | B2             | Pro-forma      | Near-to-mediun  |
| FFO / T +   D   + /0/)                      | 150/           | 0.070/           |               | D2             | adjustments    | term maturities |
| FFO / Total Debt (%)                        | 15%            | 8.07%            | B2            | B2             | Pro-forma      | Expected trend  |
|   |                |                  |               |                | adjustments    | 0.1             |
| Secured Debt / Gross Tangible Assets (%)    | 20%            | 22.25%           | Baa2          | Baa2           | Expected trend | Other           |
|   |                |                  |               |                |                | adjustments     |
| Weighted Average Cash Flow and              |                |                  | -             | Ba2            |                |                 |
| Liquidity Score                             |                |                  |               |                |                |                 |
| Financial Profile Score                     | 100%           |                  | Ba1           | Ba2            |                |                 |
| Operating Environment                       |                |                  |               |                |                |                 |
| Home Country                                | Factor Weights | Sub-factor Score | Score         |                |                |                 |
| Macro Level Indicator                       | 0%             |                  | Aa2           |                |                |                 |
| Economic Strength                           | 25%            | aa2              |               |                |                |                 |
| Institutions and Governance Strength        | 50%            | aa1              |               |                |                |                 |
| Susceptibility to Event Risk                | 25%            | baa              |               |                |                |                 |
| Industry Risk                               | 100%           |                  | Baa           |                |                |                 |
| Home Country Operating Environment Score    |                |                  | Baa2          |                |                |                 |
|   | Factor Weights |                  |               | Score          | Comment        |                 |
| Operating Environment Score                 | 0%             |                  |               | Baa3           |                |                 |
| ADJUSTED FINANCIAL PROFILE                  |                |                  |               | Score          |                |                 |
| Adjusted Financial Profile Score            |                |                  |               | Ba2            |                |                 |
| Financial Profile Weight                    | 100%           |                  |               |                |                |                 |
| Operating Environment Weight                | 0%             |                  |               |                |                |                 |
| Business Profile and Financial Policy       |                |                  |               | Adjustment     | Comment        |                 |
| Business Diversification, Concentration and |                |                  |               | 0              |                |                 |
| Franchise Positioning                       |                |                  |               |                |                |                 |
| Opacity and Complexity                      |                |                  |               | 0              |                |                 |
| Corporate Behavior / Risk Management        |                |                  |               | 0              |                |                 |
| Liquidity Management                        |                |                  |               | 0              |                |                 |
| Total Business Profile and Financial Policy |                |                  |               | Ba2            |                |                 |
| Adjustments                                 |                |                  |               | Duz            |                |                 |
| -   |                |                  |               |                | Comment        |                 |
| Sovereign or parent constraint              |                |                  |               | Aaa            |                |                 |
| Standalone Assessment Scorecard-            |                |                  |               | ba1 - ba3      |                |                 |
| indicated Range                             |                |                  |               | <del></del>    |                |                 |
| Assigned Standalone Assessment              |                |                  |               | ba2            |                |                 |
|   |                |                  |               | DUL            |                |                 |

# **Ratings**

#### Exhibit 5

| Category  | Moody's Rating  |
|---|---|
| VOLKSWAGEN FINANCIAL SERVICES AG  |   |
| Outlook   | Stable  |
| Issuer Rating   | A3  |
| Senior Unsecured -Dom Curr  | A3  |
| Commercial Paper -Dom Curr  | P-2   |
| PARENT: VOLKSWAGEN AKTIENGESELLSCHAFT   |   |
| Outlook   | Stable  |
| Issuer Rating   | A3  |
| Sr Unsec Bank Credit Facility -Dom Curr   | A3  |
| Senior Unsecured MTN -Dom Curr  | (P)A3   |
| Commercial Paper -Dom Curr  | P-2   |
| VOLKSWAGEN FINANCIAL SERVICES AUSTRALIA   |   |
| LTD   |   |
| Outlook   | Stable  |
| Bkd Senior Unsecured -Dom Curr  | A3  |
| Bkd Commercial Paper  | P-2   |
| Bkd Other Short Term -Dom Curr  | (P)P-2  |
| VOLKSWAGEN FINANCIAL SERVICES JAPAN LTD.  |   |
| Outlook   | Stable  |
| Bkd Senior Unsecured -Dom Curr  | A3  |
| Bkd Commercial Paper -Dom Curr  | P-2   |
| Bkd Other Short Term  | (P)P-2  |
| VOLKSWAGEN FINANCIAL SERVICES N.V.  |   |
| Outlook   | Stable  |
| Bkd Senior Unsecured  | A3  |
| Bkd Commercial Paper -Dom Curr  | P-2   |
| VOLKSWAGEN LEASING GMBH   |   |
| Outlook   | Stable  |
| Bkd Senior Unsecured -Dom Curr  | A3  |
| Bkd Commercial Paper -Dom Curr  | P-2   |
| Bkd Other Short Term -Dom Curr  | (P)P-2  |
| SKOFIN S.R.O.   |   |
| Bkd Commercial Paper -Dom Curr  | P-2   |
| VOLKSWAGEN LEASING, S.A. DE C.V.  |   |
| Outlook   | Stable  |
| Bkd Senior Unsecured -Dom Curr  | A3  |
| NSR Bkd Senior Unsecured  | Aaa.mx  |
| Bkd Other Short Term  | P-2   |
| VOLKSWAGEN BANK, S.A.   |   |
| Outlook   | Stable  |
| Bank Deposits   | Ba1/NP  |
| NSR Bank Deposits   | A1.mx/MX-1  |
| Baseline Credit Assessment  | b1  |
| Adjusted Baseline Credit Assessment   | ba1   |
| Counterparty Risk Assessment  | Baa3(cr)/P-3(cr)  |
| Bkd Senior Unsecured -Dom Curr  | A3  |
| NSR Bkd Senior Unsecured  | Aaa.mx  |
| Source: Moody's Investors Service   |   |
| Bkd Other Short Term  VOLKSWAGEN BANK, S.A.  Outlook  Bank Deposits  NSR Bank Deposits  Baseline Credit Assessment  Adjusted Baseline Credit Assessment  Counterparty Risk Assessment  Bkd Senior Unsecured -Dom Curr  NSR Bkd Senior Unsecured | P-;<br>Stabl<br>Ba1/Nl<br>A1.mx/MX-<br>b<br>ba<br>Baa3(cr)/P-3(cr<br>A: |

#### **Endnotes**

1 The RV risk depicts the risk of a higher-than-expected decline in the price of the leased asset or loan collateral between a contract's conclusion and a preagreed repurchase.

- 2 The ratings shown are VW Bank's deposit and issuer ratings, together with their corresponding outlook(s), and its Baseline Credit Assessment.
- 3 Although costly for the Volkswagen group and in some areas where there is an overlap with the local regulator's supervision, the comprehensive oversight by the European Central Bank (ECB) previously ensured a coordinated central view of VW FS AG's operations, potentially enabling the ECB to initiate swift protective measures for the core lending and leasing business, if required. Following VW FS AG's exit from direct ECB supervision, under which it previously stood jointly with VW Bank, VW FS AG's creditors cannot rely on an early intervention in a crisis because of the central coordination by a sole supervisor. Accordingly, VW FS AG's creditors will face a higher severity of loss in case of default. Despite the higher loss severity, the probability of default remains unaffected based on the contractual commitment and economic incentive for Volkswagen to support its core captive operations.
- 4 This ratio measures the frequency of instances in which a used car sale is accompanied by a captive lease or loan. As of 31 December 2020, VW FS AG's new car penetration rate was 27.6%, up from 26.1% a year earlier.
- 5 As of 31 December 2018, the latest available Volkswagen Financial Services UK (VW FS UK) financial report listed a total of 874,120 units. VW FS UK primarily grants leasing and balloon loan products known as personal contract purchases.
- 6 Environmental risks can be defined as environmental hazards encompassing the impacts of air pollution, soil/water pollution, water shortages, and natural and human-made hazards (physical risks). Additionally, regulatory or policy risks, such as the impact of carbon regulations or other regulatory restrictions, including related transition risks like policy, legal, technology and market shifts, which could impair the evaluation of assets, are an important factor.

  Certain finance companies could face a higher risk from concentrated lending to individual sectors or operations exposed to the aforementioned risks.
- Z Social risk considerations represent a broad spectrum, including customer relations, human capital, demographic and societal trends, health and safety, and responsible production. The most relevant social risks for financial companies arise from the way they interact with their customers. Social risks are particularly high in the area of data security and customer privacy, which are mitigated by sizeable technology investments and finance companies' long track record of handling sensitive client data. Fines and reputational damage because of product mis-selling or other types of misconduct are further social risks. Societal trends are also relevant in a number of areas, such as shifting customer preferences towards digital services, increasing information technology costs, ageing population concerns in several countries affecting demand for financial services or socially driven policy agendas that may translate into regulations that affect finance companies' revenue bases.
- 8 Corporate governance is a well-established key driver for finance companies, and related risks are typically included in our evaluation of such companies' financial profiles. Audit Committee financial expertise, the incentives created by executive compensation packages, related-party transactions, interactions with outside auditors and ownership structure are among the areas we may consider in our assessment of how corporate governance affects the issuer's credit profile. Corporate governance weaknesses can lead to a deterioration in a company's credit quality, whereas governance strengths can benefit its credit profile. When credit quality deteriorates because of poor governance, such as a breakdown in controls resulting in financial misconduct, a recovery can take longer. Governance risks are also largely internal rather than externally driven.

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