

CREDIT OPINION

30 June 2022

Update



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RATINGS

Volkswagen Financial Services AG

Domicile	Braunschweig, Germany
Long Term Rating	A3
Type	LT Issuer Rating - Fgn Curr
Outlook	Stable

Please see the [ratings section](#) 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

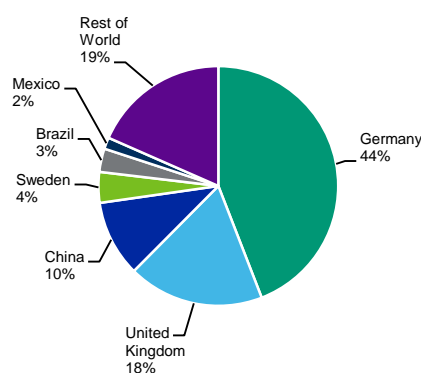
Summary

[Volkswagen Financial Services AG's](#) (VW FS AG) A3 senior unsecured debt and issuer ratings reflect the company's ba2 standalone assessment and strategic importance to its parent [Volkswagen Aktiengesellschaft](#) (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 solid profitability and sufficient capitalisation; and geographically diversified and balanced funding mix, which relies significantly on secured (asset-backed) and wholesale market funding.

Exhibit 1

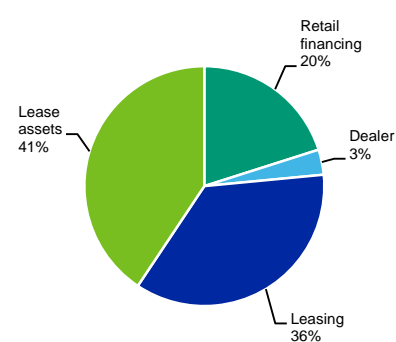
Gross customer loans and leases by country as of December 2021



Source: Company annual financial report (2021)

Exhibit 2

Gross customer loans and leases by business line as of December 2021



Source: Company annual financial report (2021)

Credit strengths

- » Improved profitability
- » Proven access to parental support to strengthen capital and liquidity, if needed
- » Sound asset quality

- » Good leverage ratio, even in the light of expected further portfolio growth

Credit challenges

- » The continued reshaping of the automobile industry towards low-emission, alternative-fuel vehicles could eventually hurt VW FS' sound asset quality and profitability in the current volatile economic and geopolitical environment.
- » VW FS AG's asset and business volume growth could be strained by prolonged supply shortages, which have lowered the production of new cars.
- » Management of residual value (RV¹) risk in its leasing portfolio is generally challenged by macroeconomic and socioeconomic uncertainties, particularly surrounding 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 reflects the stable outlook on Volkswagen's long-term issuer rating.

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 [Credit Opinion of Volkswagen](#) 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 portfolio; maintains its solid asset-quality and asset-performance indicators in the still-uncertain macroeconomic and geopolitical 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 stability in its business while its parent manages the long-term challenges of carbon transition, 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 because they are aligned with Volkswagen'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 a significantly lower than expected residual value 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 internal controls and governance issues at Volkswagen are also a concern for VW FS AG.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the issuer/deal page on <https://ratings.moody's.com> for the most updated credit rating action information and rating history.

Key indicators

Exhibit 3

Volkswagen Financial Services AG (Consolidated Financials) [1]

	12-21 ²	12-20 ²	12-19 ²	12-18 ²	12-17 ²	CAGR/Avg. ³
Total managed assets (EUR Million)	124,590.0	117,834.0	112,444.0	80,462.0	68,953.0	15.9 ⁴
Total managed assets (USD Million)	141,173.7	144,176.5	126,218.2	91,979.7	82,798.6	14.3 ⁴
Net Income / Average Managed Assets (%)	1.8	0.7	0.9	0.7	0.5	0.9 ⁵
Tangible Common Equity (Finance) / Tangible Managed Assets (%)	11.6	10.9	10.7	10.0	11.1	10.8 ⁵
Problem Loans / Gross Loans (Finance) (%)	1.6	1.8	1.5	2.0	2.3	1.9 ⁵
Net Charge-offs / Average Gross Loans and Leases (%)	0.2	0.9	0.5	0.5	0.6	0.5 ⁵
Secured Debt / Gross Tangible Assets (%)	22.3	22.3	23.1	16.1	19.4	20.6 ⁵

[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 EU and North America; and additional activities, including mobility services and the insurance business. As of 31 December 2021, VW FS AG employed 11,021 people worldwide, and its total assets amounted to €125 billion (2020: €118 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 [reorganisation](#) of the finance operations within Volkswagen, which led to the separation of VW FS AG's EU banking operations and their subsequent transfer to [Volkswagen Bank GmbH](#) (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 [VW Credit, Inc.](#) (P-2 stable⁴). Over the next two to three years, we expect most of the company's future asset growth to be organic, supported by Volkswagen's leading role in alternative-fuel vehicles, and a more prominent role of mobility services and used cars within the Volkswagen group's overall value chain.

Detailed credit considerations

Supply shortages result in lower sales growth expectations

Global auto sales had begun to recover in 2021; however, global sales forecasts have been [repeatedly corrected downward for 2022 to 0.7%](#) from [6.2%](#), because of supply chain disruptions caused by chip shortage and Russia's invasion of Ukraine and the pandemic-related lockdowns in China.

Furthermore, [the vote of the European Union's parliament to support a target of zero emissions for new passenger cars and light commercial vehicles across the bloc by 2035](#) will add pressure to shift the production towards electric and alternative fuel vehicles. Our 2022 outlooks for global automotive manufacturers remain [stable](#) because we expect the manufacturers to mitigate lower supply by strong pricing and shifting the sales mix towards more profitable brands as long as demand still exceeds supply.

Asset quality remains exposed to car market cyclicality

We assign a weighted average Asset Risk score of Baa2 to VW FS AG, three notches below the initial score of A2. We raised the assigned score for Net charge-offs/Average Gross Loans by two notches to A1 from A3 to reflect the progress made in reducing charge-offs. We continue to make negative adjustments to two components of the Asset Risk subfactor: a three-notch negative adjustment to the Problem Loan score, which reflects reduced economic growth forecasts and our three-notch negative adjustment for net charge-offs, which takes into account VW FS AG's policy to also book depreciation on lease assets, which form a part of value adjustments and losses otherwise booked as loan loss provisions or charge-offs against customer loans. With this adjustment, we aim to capture the remaining RV risks and historical real losses through lease depreciations, against a more difficult macroeconomic backdrop.

The Baa2 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 2021, VW FS AG's asset base continued to grow despite the pandemic, particularly driven by lease asset growth (15% in 2021, 41% since 2019). The growth reflects VW FS AG's business expansion and a continuous shift towards leasing. VW FS AG's net charge-off rates/gross loans improved in 2021 to 0.2% from 0.9% (excluding lease depreciations) in the year-earlier period, and provisions for credit risks decreased in 2021 to €122 million from the pandemic-induced increase to €610 million in 2020.

The future sales performance of cars in general appears significantly less certain and predictable as a result of shifting consumer preferences, tightening disposable incomes and the carbon transition. The ongoing legislation process in the EU on zero emission targets adds to the RV risks in Europe. The difficulty for VW FS AG lies in the unpredictable speed of vehicle depreciation because of the uncertainty surrounding 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 has started to increase its penetration into 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 rate⁵, we expect the resulting asset growth to further expose VW FS AG to RV risk for each newly leased or financed vehicle.

In addition, another risk factor to VW FS AG is the potentially 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 [Germany](#) (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 Q1 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 €16.3 billion), which also includes returnable cars under personal contract purchases and operating lease assets⁶, makes VW FS AG's results potentially more sensitive to car return rates and value fluctuations in the UK used car market.

Leverage ratio remains solid but might decline

We assign a Capital score of Ba3 to VW FS AG, two notches below its initial score of Ba1 in 2021. We retain the negative adjustment because we expect further portfolio growth, driven by stronger growth in the leasing business segment. Therefore, we expect VW FS AG's tangible common equity/tangible managed assets (TCE/TMA, our equivalent of the leverage ratio for finance companies) to somewhat decrease over time to 9%-10% from 11.6% in December 2021 in the absence of capital strengthening measures.

The decline in TCE/TMA 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 on 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 improved in 2021

We raised the assigned score for Profitability by one notch and assigned a score of Baa3 to VW FS AG, in line with its improved initial score of Baa3 in 2021. VW FS AG's net income from leasing transactions increased by 55% year over year to €3,136 million (2020:

€2,027 million), driven by strong demand and lower supply of new cars. Net income from service contracts declined to €205 million from €454 million a year earlier, while the insurance business was stable at €155 million, same as in the previous year. VW FS AG has also benefited from lower funding costs and lower risk provisions. Provisions for credit risk of €122 million in 2021 were significantly below the pandemic-driven higher risk provisions in 2020. As a result, the company reported overall record high operating profit of €2,987 million in 2021 (2020: €1,210 million).

We expect VW FS AG's net income/average managed assets to lie in the 1.00%-1.50% range for 2022, commensurate with the lower range of the Baa category. Strong demand momentum and the ability to pass on increasing commodity pricing to consumers will help maintain improved margins. However, margins might come under pressure if disposable household incomes remain strained by inflation and higher interest rates.

High reliance on wholesale and secured funding

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 in 2017, 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 (€34.8 billion as of December 2021) and intragroup funding (€21.3 billion), followed by asset-backed securities (€27.9 billion) and liabilities to banks (€13.9 billion). In the asset-backed securities category, the company benefits from the established market presence, for example, 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 €33 million in 2021 from €47 million in 2020 and €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 [United Kingdom](#) (Aa3 stable), [China](#) (A1 stable) and [Brazil](#) (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. The overall Home Country Operating Environment score is 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. A growing proportion of leases is underwritten at the point of sale, as reflected by rising new and used car penetration rates. Banks in Germany have been slowly building competitive leasing offers, but competition remains limited. In view of this relatively limited 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 [environmental risk heat map](#)⁷ and as "Moderate" risk in our [social risk heat map](#)⁸. 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 exert 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 its consequences for 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. Governance⁹ 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 by 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 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 2021, 26.7% 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 61.4%. 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.

Methodology and scorecard

The methodologies we use in rating VW FS AG are the [Finance Companies Methodology](#), published in November 2019, and the [Captive Finance Subsidiaries of Nonfinancial Corporations](#) rating methodology, published in August 2019.

Exhibit 4

Volkswagen Financial Services AG**Volkswagen Financial Services AG**

Financial Profile	Factor Weights	Historic Ratio	Initial Score	Assigned Score	Key driver #1	Key driver #2
Profitability						
Net Income / Average Managed Assets (%)	10%	1.13%	Baa3	Baa3	Expected trend	
Capital Adequacy and Leverage						
Tangible Common Equity / Tangible Managed Assets (%)	25%	11.56%	Ba1	Ba3	Expected trend	
Asset Quality						
Problem Loans / Gross Loans (%)	10%	1.64%	Baa3	Ba3	Pro-forma adjustments	Expected trend
Net Charge-Offs / Average Gross Loans (%)	10%	0.53%	Aa1	A1	Differences in accounting and reporting	Expected trend
Weighted Average Asset Risk Score			A2	Baa2		
Cash Flow and Liquidity						
Debt Maturities Coverage (%)	10%	-	-	B2	Pro-forma adjustments	Near-to-medium term maturities
FFO / Total Debt (%)	15%	9.19%	B2	B2	Pro-forma adjustments	Expected trend
Secured Debt / Gross Tangible Assets (%)	20%	22.34%	Baa2	Baa2	Expected trend	Other adjustments
Weighted Average Cash Flow and Liquidity Score			-	Ba2		
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			
Operating Environment Score	0%			Score	Comment	
				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 Franchise Positioning				0		
Opacity and Complexity				0		
Corporate Behavior / Risk Management				0		
Liquidity Management				0		
Total Business Profile and Financial Policy Adjustments				Ba2		
Sovereign or parent constraint				Aaa	Comment	
Standalone Assessment Scorecard-indicated Range				ba1 - ba3		
Assigned Standalone Assessment				ba2		

Source: Moody's Investors Service

Ratings

Exhibit 5

Category	Moody's Rating
VOLKSWAGEN FINANCIAL SERVICES AG	
Outlook	Stable
Issuer Rating	A3
Senior Unsecured	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

Source: Moody's Investors Service

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 pre-agreed 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 The rating shown is VW Credit's backed commercial paper rating.
- 5 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 2021, VW FS AG's new car penetration rate was 26.7%.
- 6 VW FS UK primarily grants leasing and balloon loan products known as personal contract purchases.
- 7 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.
- 8 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.
- 9 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. The financial expertise of the Audit Committee, 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 quality. 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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