CREDIT OPINION
5 November 2024

Update

Send Your Feedback

RATINGS

Santander Consumer Bank AG

Domicile	Germany
Long Term CRR	A1
Type	LT Counterparty Risk Rating - Fgn Curr
Outlook	Not Assigned
Long Term Debt	A1
Type	Senior Unsecured - Dom Curr
Outlook	Stable
Long Term Deposit	A1
Type	LT Bank Deposits - 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.

Analyst Contacts

Michael Rohr +49.69.70730.901
Senior Vice President
michael.rohr@moodys.com

Niclas Gossmann +49.69.86790.2162
Ratings Associate
niclas.gossmann@moodys.com

Kathleen Gamper +49.69.86790.2159
AVP-Analyst
kathleen.gamper@moodys.com

Alexander Hendricks, CFA +49.69.70730.779
Associate Managing Director
alexander.hendricks@moodys.com

Santander Consumer Bank AG

Update following ratings upgrade

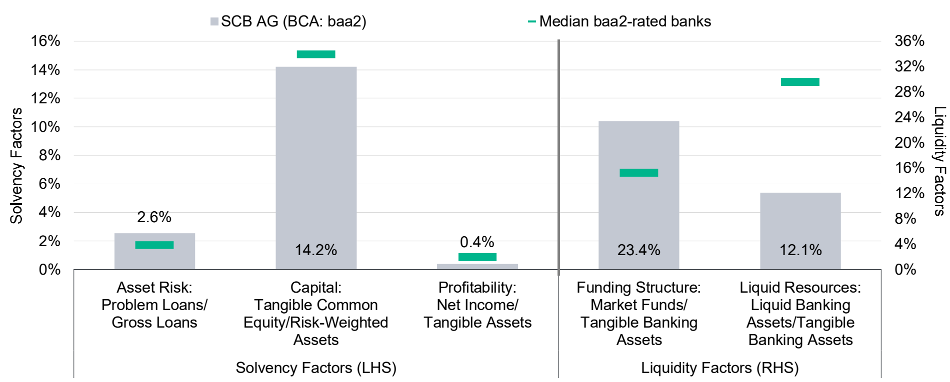
Summary

SCB's A1 deposit, issuer and senior unsecured debt ratings reflect the bank's baa2 BCA, one notch of rating uplift from its role as a core subsidiary of Santander Consumer Finance S.A. (SCF, A2 positive/A2 positive, baa2/baa1)[1], and the application of our Advanced Loss Given Failure (LGF) analysis to its liabilities, which now results in three notches of rating uplift for SCB's deposit, issuer and senior unsecured debt ratings. SCB's ratings do not benefit from government support uplift because of its small size in the context of the German banking sector.

SCB's baa2 BCA reflects its continued sound, albeit recently deteriorating, asset quality and solid capitalisation. The BCA also incorporates the bank's more tightly managed liquid resources, in part offset by continued strong access to various funding channels, primarily driven by granular retail deposits and complemented for by asset-backed securities and a growing proportion of intragroup funding.

The BCA continues to incorporate a one-notch negative adjustment for business diversification in SCB's baa2 BCA, owing to the bank's concentration risks in the car finance and consumer lending businesses. This strong focus on a single product and the resulting lack in earnings diversification qualifies SCB as a monoline business model.

Exhibit 1
Rating Scorecard - Santander Consumer Bank AG - Key financial ratios



Source: Moody's Ratings

Credit strengths

- Satisfactory capacity to absorb shocks, as displayed by good profitability compared with that of its domestic peers, despite the temporary setback in 2023
- Solid capitalisation
- Agreed framework for capital increases and subscription of debt instruments by its parent will help absorb risk-weighted assets (RWA) and balance-sheet growth
- Granular deposit franchise mitigates moderate reliance on market funds

Credit challenges

- High concentration risks in auto loans and stock financing for car dealers relative to capital implies vulnerability to sector-related stress and product-specific risks
- Rising cost of credit needs to be contained in light of the weakening operating environment
- Lower level of unencumbered liquid assets is a relative weakness following the repayment of the remaining proportion of the European Central Bank's (ECB) targeted longer-term refinancing operation (TLTRO) during 2024

Outlook

- The stable rating outlook reflects our expectation that SCB and its ultimate parent Banco Santander S.A. (Spain) (Santander, A2 positive/A2 positive, baa1[2]) will be able to sustain their respective financial profiles and liability structure over the next 12 months.

Factors that could lead to an upgrade

- SCB's ratings could be upgraded if its Adjusted BCA was to be upgraded, which would require an upgrade of its ultimate parent, Santander.
- SCB's baa2 BCA could be upgraded following a successful diversification of revenue and profit to reduce its reliance on its main lines of business; or by a significant and combined improvement in solvency and liquidity metrics.An upgrade of SCB's ratings could be prompted by a higher Adjusted BCA, which would require an upgrade of the BCA of its ultimate parent Santander.

Factors that could lead to a downgrade

- SCB's ratings could be downgraded if its BCA was to be downgraded, if we were to lower our assumption of parental support being provided, or if Santander's BCA was to be downgraded. In addition, a shift in SCB's liability structure towards more senior ranking obligations could result in a downgrade.
- SCB's BCA could be downgraded if its combined liquidity profile gets permanently weakened as a result of sustained narrower liquidity buffers or a meaningful increase in market funding reliance. The bank's BCA could also be downgraded if its asset quality deteriorates meaningfully and cannot be offset by sustained higher capital or profitability levels.

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.moodys.com for the most updated credit rating action information and rating history.

Key indicators

Exhibit 2

Santander Consumer Bank AG (Unconsolidated Financials) [1]

	12-23[2]	12-22[2]	12-21[2]	12-20[2]	12-19[2]	CAGR/Avg.[3]
Total Assets (EUR Billion)	48.5	45.1	45.3	39.9	36.6	7.3[4]
Total Assets (USD Billion)	53.6	48.1	51.4	48.8	41.1	6.9[4]
Tangible Common Equity (EUR Billion)	3.2	3.1	3.1	3.1	2.8	3.2[4]
Tangible Common Equity (USD Billion)	3.5	3.3	3.5	3.8	3.2	2.8[4]
Problem Loans / Gross Loans (%)	2.6	2.4	2.2	1.9	2.0	2.2[5]
Tangible Common Equity / Risk Weighted Assets (%)	14.2	13.9	15.9	15.6	14.1	14.7[6]
Problem Loans / (Tangible Common Equity + Loan Loss Reserve) (%)	19.4	17.6	15.4	13.8	16.0	16.5[5]
Net Interest Margin (%)	2.0	2.3	2.5	2.7	2.9	2.5[5]
PPI / Average RWA (%)	1.9	2.0	2.7	2.2	2.3	2.2[6]
Net Income / Tangible Assets (%)	0.4	0.7	0.8	0.7	0.8	0.7[5]
Cost / Income Ratio (%)	64.2	65.4	59.4	63.8	64.7	63.5[5]
Market Funds / Tangible Banking Assets (%)	23.4	28.2	32.7	29.7	24.4	27.7[5]
Liquid Banking Assets / Tangible Banking Assets (%)	12.1	10.1	26.3	16.6	9.8	15.0[5]
Gross Loans / Due to Customers (%)	114.5	122.2	119.0	127.1	124.6	121.5[5]

[1] All figures and ratios are adjusted using Moody's standard adjustments. [2] Basel III - fully loaded or transitional phase-in; LOCAL GAAP. [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. [6] Simple average of Basel III periods.

Sources: Moody's Ratings and company filings

Profile

Santander Consumer Bank AG (SCB) is a fully owned subsidiary of Santander Consumer Finance S.A., Spain (SCF) and is ultimately owned by Banco Santander S.A. (Spain). With total assets of €48.5 billion as of 31 December 2023 (excluding retained securitisations), SCB is one of the largest dedicated German consumer lenders with a clear focus on retail auto financing and a strong market position within the non-captive automotive finance space as Germany's second-largest auto finance company (largest manufacturer-independent). Headquartered in Moenchengladbach in Germany, SCB had around 3,000 employees and operated through almost 200 branches as of the end of 2023.

Macro Profile of Strong +

SCB is focused on the German market, and the bank's assigned Strong+ Weighted Macro Profile is at the same level as the Strong+ Macro Profile of Germany.

Detailed credit considerations

Asset quality declined only moderately in reaction to macroeconomic challenges

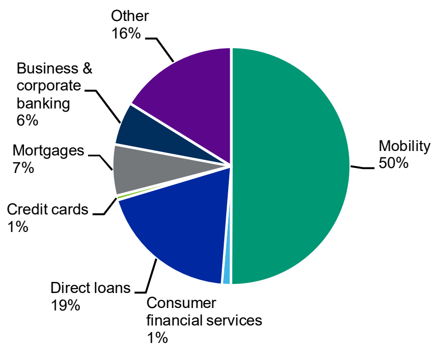
SCB's sound asset quality is reflected in its baa2 Asset Risk score, which includes a three-notch downward adjustment from the a2 initial score. The adjustment considers concentration risks from the bank's high exposure to the automotive industry (see Exhibit below; Segment 'Mobility') and legal risks in the context of consumer-friendly court rulings, for example, on the scope of fees and charges on current accounts. In addition, the assigned score reflects our expectation of a moderate deterioration in asset quality owing to Germany's weakening operating environment.

Over the next 12 to 18 months, we continue to expect a slight increase in problem loans as a result of input price inflation and related strain on disposable income as well as higher interest rates weighing on the debt-service capacity of existing customers. In 2023, SCB's problem loans increased slightly to 2.6% of gross loans from 2.4% as of year-end 2022 (excluding related-party exposures from the denominator). The historically good metrics benefit from SCB's strong receivables collection management and from occasional problem loan sales.

Exhibit 3

Lending for vehicle purchases and dealers, and consumer loans dominate SCB's asset pool

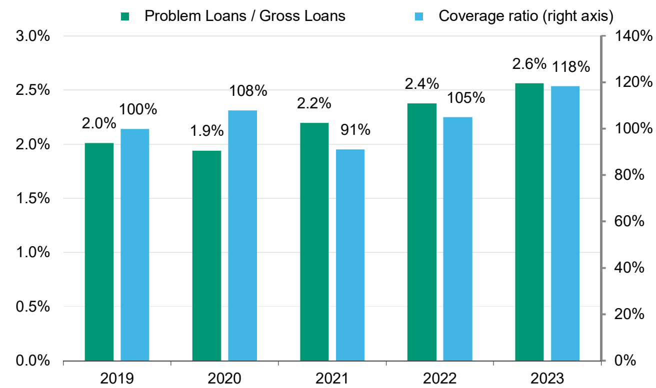
Loan split by lending type as of year-end 2023



Source: Company data and Moody's Ratings

Exhibit 4

SCB's problem loan ratio deteriorated further in 2023, mitigated by already high coverage ratio increase



The problem loan ratio is in accordance with our definition. The coverage ratio compares total loan loss reserves with problem loans.
Source: Company reports and Moody's Ratings

However, in prior years, the bank's asset quality was supported by unusually high used car prices, which stabilized auto loan collateral values. Weaker macroeconomic activity as well as uncertainties surrounding used car prices may, therefore, weigh on the bank's asset quality over time. In particular, SCB has grown its exposure to auto leasing through its joint ventures and subsidiaries held at equity over the past few years, and has witnessed an increasing share of alternative fuel vehicles (battery-electric, plug-in hybrids) within the combined new businesses, lifting its exposure to residual value risk inherent in its leasing contracts, albeit the bank has party entered into risk-sharing agreements with key manufacturers.

Regulatory capitalisation has decreased due to loan growth

SCB's capitalisation is reflected in the a3 Capital score, which has been assigned two notches below the a1 initial score, reflecting the potential for some RWA increases in light of the highly uncertain macroeconomic environment and potential related asset quality deterioration.

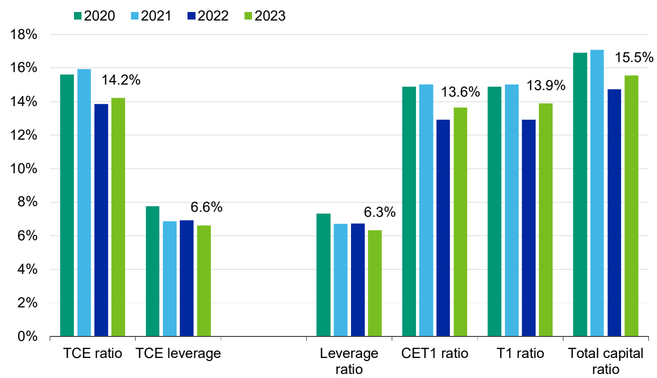
SCB's tangible common equity (TCE) ratio of 14.2% as of the end of 2023 (2022: 13.9%) is in line with the bank's multi-year capital planning. SCB also has a good degree of control over RWA growth because the bank has repeatedly accessed securitisation markets for capital management and relief in case of need. Further, and despite the automatic upstreaming of its profit to the German holding company under its profit and loss transfer agreement, SCB has sufficient leeway to decide on the retention of suitable portions of its profit and agrees to any retention or reinvestment of profit by the parent as part of the group's 36-month rolling capital planning.

SCB also reported a sound and stable regulatory Tier 1 leverage ratio of 6.3% as of the end of December 2023, which is in line with our TCE/tangible assets ratio of 6.6% (2022: 6.9%). SCB uses the Internal Ratings-Based Approach (IRBA) for about half of its total exposures.

Exhibit 5

SCB's capital ratios rebounded in 2023 after model changes drove RWA higher in 2022

As a percentage of RWA



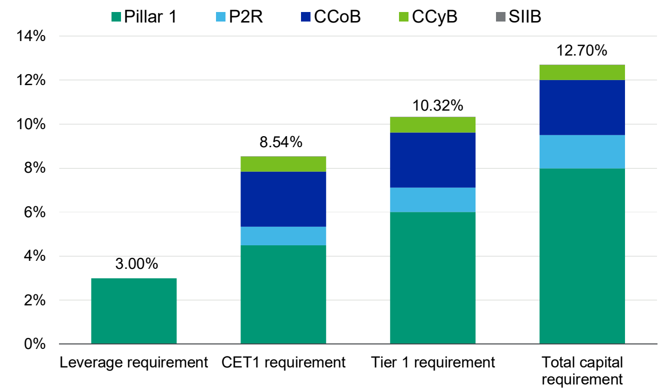
TCE = Tangible common equity (Moody's-calculated); CET1 = Common Equity Tier 1 capital; T1 = Tier 1 capital; the TCE leverage ratio compares TCE with tangible banking assets.

Sources: Company reports and Moody's Ratings

Exhibit 6

SCB's regulatory total capital requirements for 2023

As a percentage of RWA



Sources: Company and Moody's Ratings

Profitability is sound, but suffered from slower repricing of assets during 2023

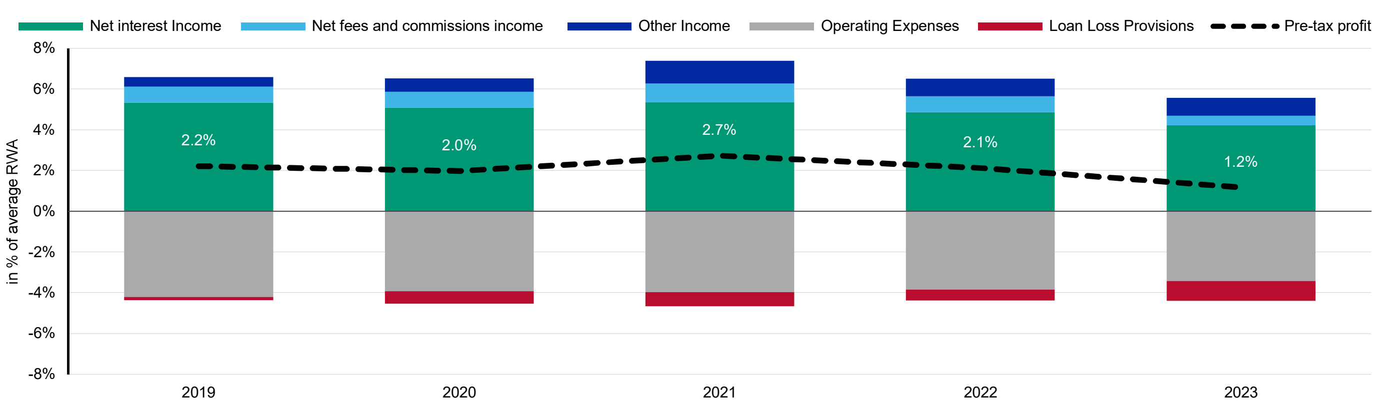
The baa3 assigned score for Profitability is one notch above the initial score of ba1. It incorporates our expectation that SCB will be able to grow its return on assets towards prior-year levels following the expected setback in 2023 and following pricing measured implemented late last year.

In 2023, SCB's local GAAP pretax income was hurt by a decrease in net interest and net fee and commission income to €945 million and €107 million, from €1,015 million and €163 million in 2022, respectively. The decline was mostly driven by the higher interest the bank had to almost immediately pay to its customers for funding its lending business, while its fixed-rate loans only repriced at a slower speed. Operating expenses increased only moderately while loan loss provisions of €217 million stood significantly above the previous year (2022: €112 million), mainly owing to a lack of recovery for instalment loans as well as additions to specific allowances in the corporate client business.

Exhibit 7

Profitability will likely rebound to above the average of German banks, despite the 2023 setback

In € million, German GAAP



Operating expenses include personnel and administrative expenses, and depreciation and amortisation.

Sources: Company reports and Moody's Ratings

Modest dependence on market funds, despite recent diversification of funding sources

SCB's sound funding profile is reflected in its baa2 Funding Structure score, which has been assigned one notch below the initial score of baa1. The assigned score reflects the bank's relatively low dependence on market funds and its access to diversified funding channels.

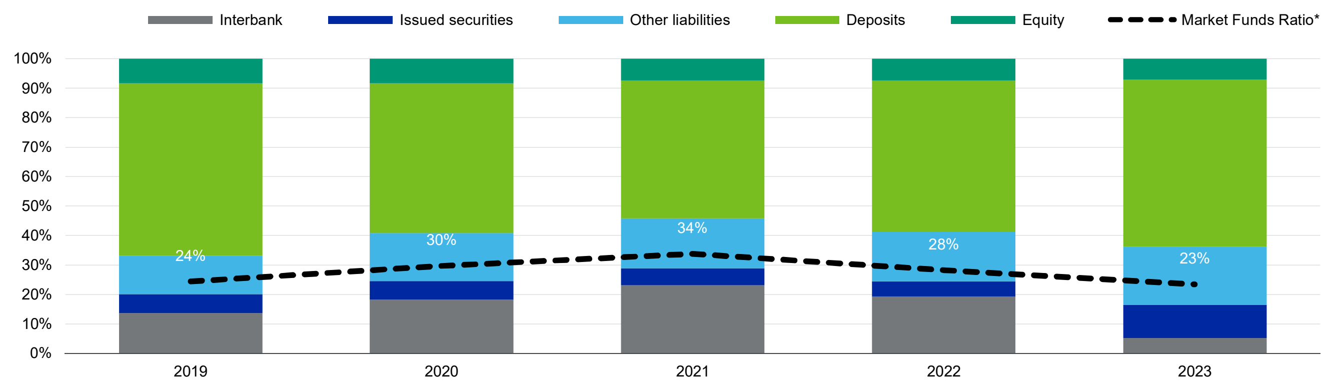
SCB's lending activities are predominantly funded by €27.5 billion of client deposits. This fairly stable, diversified and granular funding channel is complemented by asset-backed securities and a decent proportion of covered bonds and senior unsecured bonds, all of which will help the bank to continue gradually grow its loan book.

In terms of market issuances, SCB has been using a diversified set of funding channels. It has issued two benchmark-size senior debt instruments now amounting to €1.756 billion as of the end of 2023. SCB has further been building up loss-absorption buffers in the form of Tier 2-eligible debt and junior senior unsecured debt subscribed by its direct parent in recent years. SCB has also been using its commercial paper programme and its Aaa-rated mortgage covered bond programme, under which SCB had €1,025 million of liabilities outstanding as of year-end 2023.

Exhibit 8

Decrease in SCB's market funding is due to the reduction of funding obtained under the TLTRO III programme; deposits remain the dominant refinancing tool

Market Funding as a percentage of tangible banking assets



*Market Funds Ratio = Market funds/tangible banking assets.
Sources: Company reports and Moody's Ratings

SCB has limited liquidity buffers to cover larger deposit outflows

The bank's assigned Liquid Resources score is baa3, one notch above the ba1 initial score. This reflects our expectation that SCB's on-balance-sheet liquid resources have troughed in 2022 and will grow towards a more sustainable level in 2024 and 2025. We expect the bank to further build on its liquidity buffers by raising additional deposits via its proven and well-managed online and branch channels as well as its established ABS programmes and other market-funding channels, allowing it to maintain higher unencumbered liquidity buffers going forward. SCB also has the possibility to generate additional liquidity via intragroup funding.

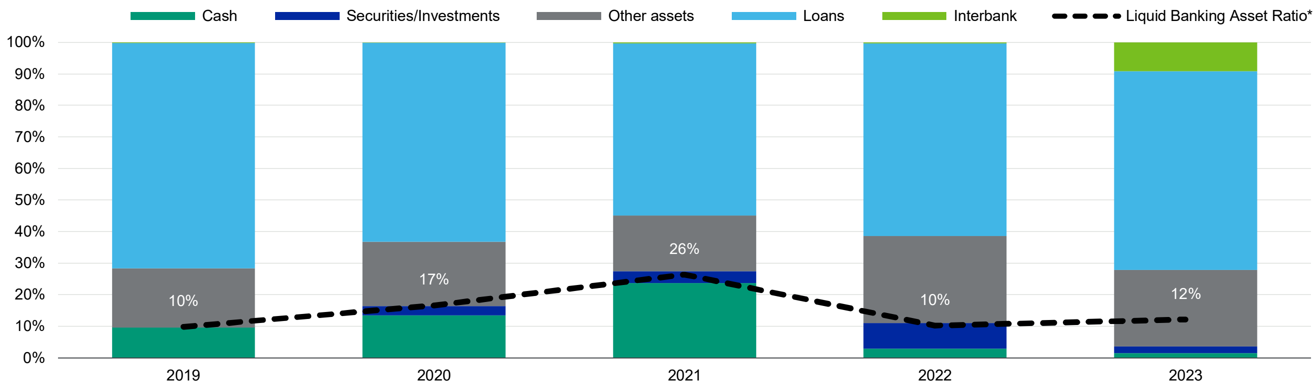
Maintaining higher liquidity buffers is important to withstand potentially larger and unexpected outflows within the bank's deposit franchise, in particular from online deposits where already stiff competition is increasing and online customers are more willing to move money for higher interest rates elsewhere.

In our analytical assessment, we exclude from liquid assets the part of SCB's interbank assets that effectively represent term deposits with affiliates. These claims refinance the respective affiliate's assets, including, for instance, lease assets held by SCL. These assets are, therefore, not freely available at short notice and may need to be increased if funding needs at the affiliates increase.

Exhibit 9

SCB liquidity buffers will likely grow following TLTRO repayments

Liquid Resources as a percentage of tangible banking assets



*Liquid banking assets ratio = Liquid assets/tangible banking assets.

Sources: Company reports and Moody's Ratings

Lack of business diversification constrains the BCA

SCB's BCA incorporates a one-notch negative adjustment for business diversification, owing to the bank's concentration risks in the car finance and consumer lending businesses. This strong focus on a single product and the resulting lack in earnings diversification qualifies SCB as a monoline business model according to our approach for business diversification.

Business diversification is an important gauge of a bank's sensitivity to stress in a single business line. Business diversification is related to earnings stability in the sense that earnings diversification across distinct and relatively uncorrelated lines of business increases the reliability of a bank's earnings streams and its potential to absorb shocks affecting a business line.

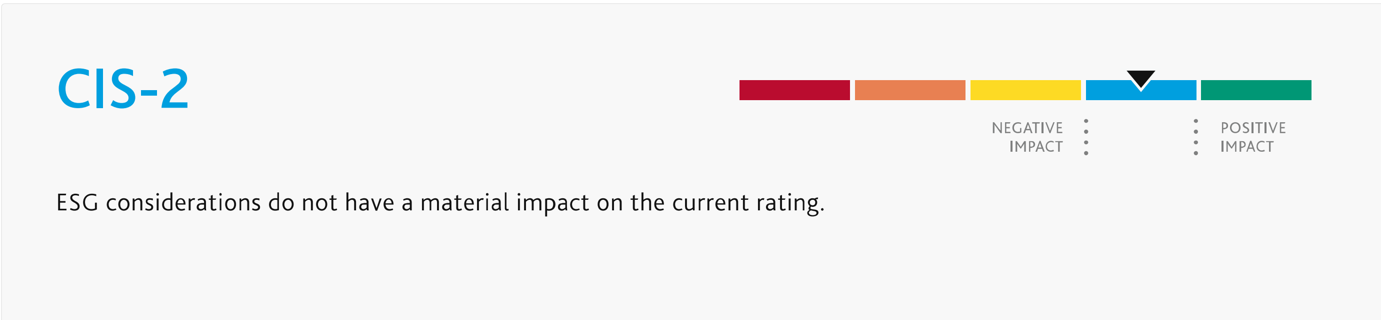
SCB's high reliance on consumer- and car finance-related earnings streams limits its potential for earnings diversification and exposes it to unexpected shocks outside its direct control. At the same time, SCB benefits from its specialist risk management know-how in managing related business cycle and operational risks.

ESG considerations

Santander Consumer Bank AG's ESG credit impact score is CIS-2

Exhibit 10

ESG credit impact score

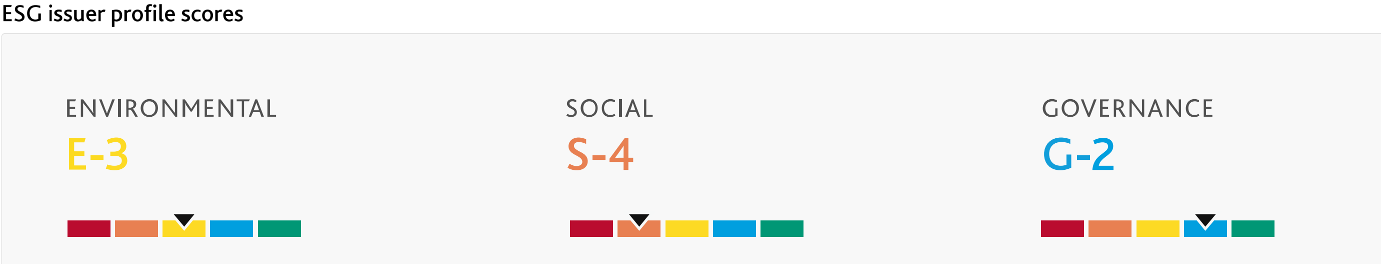


Source: Moody's Ratings

SCB's **CIS-2** indicates that ESG considerations do not have a material impact on the current rating. This reflects the limited credit impact of environmental and social factors on the rating to date and low governance risks.

Exhibit 11

ESG issuer profile scores



Source: Moody's Ratings

Environmental

SCB faces moderate environmental risks, primarily because of its portfolio exposure to carbon transition risk in its auto lending business. Such risks are associated with stricter emission regulations and the trend towards low and zero emission vehicles. The risk is somewhat mitigated by the short-term nature of the bank's loan portfolio and the bank's flexibility to finance multiple dealers and automaker franchises in response to shifting market pressures and consumer preferences towards low-emission vehicles.

Social

SCB is exposed to high industrywide social risks particularly related to customer relations risk and associated regulatory and litigation risks, requiring high compliance standards. These risks are mitigated by SCB's developed policies and procedures. SCB's high cyber and personal data risks are mitigated by the group's sound IT framework.

Governance

SCB faces low governance risks, and its risk management framework and corporate governance are in line with industry practices. Because SCB is effectively controlled by Santander Consumer Finance and - ultimately - Banco Santander through their 100% shareholding, we have aligned the subsidiary's board structure, policies and procedures score with that of its parents, given the bank's strategic importance and public affiliation with the group, the parent's oversight of its subsidiary board and the regulated nature of the entities.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moodys.com. In order to view the latest scores, please click here to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

Support and structural considerations

Affiliate support

We assume a high probability of affiliate support being provided by its ultimate parent Banco Santander, S.A. (Spain), illustrated by its high degree of involvement in the strategy and management of SCB's operations. This results in one notch of uplift for SCB's Adjusted BCA and ratings.

Loss Given Failure (LGF) analysis

SCB is subject to the EU Bank Recovery and Resolution Directive (BRRD), which is an operational resolution regime. Therefore, we apply our Advanced LGF analysis, where we consider the risks faced by the different debt and deposit classes across the liability structure should the bank enter resolution, using our standard assumptions.

In addition, we assume a 10% share of wholesale deposits relative to total deposits, which is our standard assumption for banks relying mostly on retail deposits. Because we use private data provided by the bank to determine current amounts of senior unsecured and junior senior debt, as well as our future new issuance expectations, we do not disclose the underlying volumes of the liability tranches included in our Advanced LGF analysis for SCB.

For SCB's A1 deposit and senior unsecured ratings, our LGF analysis now indicates an extremely low loss given failure, leading to three notches of uplift from the bank's baa1 Adjusted BCA.

Government support considerations

German banks operate in an environment of weak prospects for financial assistance from the government. Therefore, we generally assume a “low” probability of support for banks that are not considered of global or domestic systemic relevance, including SCB. As a result, we do not apply a rating uplift for government support in our ratings for SCB.

Methodology and scorecard

Rating methodology

The principal methodology used in rating SCB was the Banks Methodology, published in March 2024.

About Moody's Bank Scorecard

Our scorecard is designed to capture, express and explain in summary form our Rating Committee's judgement. When read in conjunction with our research, a fulsome presentation of our judgement is expressed. As a result, the output of our scorecard may materially differ from that suggested by raw data alone (though it has been calibrated to avoid the frequent need for strong divergence). The scorecard output and the individual scores are discussed in rating committees and may be adjusted up or down to reflect conditions specific to each rated entity.

Rating methodology and scorecard factors

Exhibit 12

Rating Factors

Macro Factors							
Weighted Macro Profile	**Strong +**	**100%**					
Factor		**Historic Ratio**	**Initial Score**	**Expected Trend**	**Assigned Score**	**Key driver #1**	**Key driver #2**
Solvency							
Asset Risk							
Problem Loans / Gross Loans		2.6%	a2	↔	baa2	Sector concentration	Operational risk
Capital							
Tangible Common Equity / Risk Weighted Assets (Basel III - transitional phase-in)		14.2%	a1	↔	a3	Capital retention	Expected trend
Profitability							
Net Income / Tangible Assets		0.4%	ba1	↔	baa3	Expected trend	Return on assets
Combined Solvency Score			a3		baa1		
Liquidity							
Funding Structure							
Market Funds / Tangible Banking Assets		23.4%	baa1	↔	baa2	Extent of market funding reliance	Expected trend
Liquid Resources							
Liquid Banking Assets / Tangible Banking Assets		12.1%	ba1	↔	baa3	Additional liquidity resources	Stock of liquid assets
Combined Liquidity Score			baa2		baa2		
Financial Profile					baa1		
Qualitative Adjustments					Adjustment		
Business Diversification					-1		
Opacity and Complexity					0		
Corporate Behavior					0		
Total Qualitative Adjustments					-1		
Sovereign or Affiliate constraint					-		
BCA Scorecard-indicated Outcome - Range					baa1 - baa3		
Assigned BCA					baa2		
Affiliate Support notching					1		
Adjusted BCA					baa1		

Balance Sheet is not applicable.

Debt Class	De Jure waterfall		De Facto waterfall		Notching		LGF Notching Guidance vs. Adjusted BCA	Assigned LGF notching	Additional Notching	Preliminary Rating Assessment
	Instrument volume + subordination	Sub-ordination	Instrument volume + subordination	Sub-ordination	De Jure	De Facto				
Counterparty Risk Rating	-	-	-	-	-	-	-	3	0	a1
Counterparty Risk Assessment	-	-	-	-	-	-	-	3	0	a1 (cr)
Deposits	-	-	-	-	-	-	-	3	0	a1
Senior unsecured bank debt	-	-	-	-	-	-	-	3	0	a1

Instrument Class	Loss Given Failure notching	Additional notching	Preliminary Rating Assessment	Government Support notching	Local Currency Rating	Foreign Currency Rating
Counterparty Risk Rating	3	0	a1	0	A1	A1
Counterparty Risk Assessment	3	0	a1 (cr)	0	A1(cr)	
Deposits	3	0	a1	0	A1	A1
Senior unsecured bank debt	3	0	a1	0	A1	A1

[1] Where dashes are shown for a particular factor (or sub-factor), the score is based on non-public information.
Source: Moody's Ratings

Ratings

Exhibit 13

Category	Moody's Rating
SANTANDER CONSUMER BANK AG	
Outlook	Stable
Counterparty Risk Rating	A1/P-1
Bank Deposits	A1/P-1
Baseline Credit Assessment	baa2
Adjusted Baseline Credit Assessment	baa1
Counterparty Risk Assessment	A1(cr)/P-1(cr)
Issuer Rating	A1
Senior Unsecured -Dom Curr	A1
PARENT: SANTANDER CONSUMER FINANCE S.A.	
Outlook	Positive
Counterparty Risk Rating	A2/P-1
Bank Deposits -Dom Curr	A2/P-1
Baseline Credit Assessment	baa2
Adjusted Baseline Credit Assessment	baa1
Counterparty Risk Assessment	A3(cr)/P-2(cr)
Senior Unsecured	A2
Junior Senior Unsecured -Dom Curr	Baa1
Subordinate -Dom Curr	Baa2
Pref. Stock Non-cumulative -Dom Curr	Ba1 (hyb)
Commercial Paper -Dom Curr	P-1

Source: Moody's Ratings

Endnotes

1 The ratings shown in this report are the banks' deposit ratings and outlooks, senior unsecured ratings and outlooks, and BCA/Adjusted BCA.

2 The ratings shown in this report are the banks' deposit ratings and outlooks, senior unsecured ratings and outlooks, and BCAs.

© 2024 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

CREDIT RATINGS ISSUED BY MOODY'S CREDIT RATINGS AFFILIATES ARE THEIR CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MATERIALS, PRODUCTS, SERVICES AND INFORMATION PUBLISHED OR OTHERWISE MADE AVAILABLE BY MOODY'S (COLLECTIVELY, "MATERIALS") MAY INCLUDE SUCH CURRENT OPINIONS. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT OR IMPAIRMENT. SEE APPLICABLE MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S CREDIT RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS, NON-CREDIT ASSESSMENTS ("ASSESSMENTS"), AND OTHER OPINIONS INCLUDED IN MOODY'S MATERIALS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S MATERIALS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. AND/OR ITS AFFILIATES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS DO NOT COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS, ASSESSMENTS AND OTHER OPINIONS AND PUBLISHES OR OTHERWISE MAKES AVAILABLE ITS MATERIALS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS, AND MATERIALS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS OR MATERIALS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER.

ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT. FOR CLARITY, NO INFORMATION CONTAINED HEREIN MAY BE USED TO DEVELOP, IMPROVE, TRAIN OR RETRAIN ANY SOFTWARE PROGRAM OR DATABASE, INCLUDING, BUT NOT LIMITED TO, FOR ANY ARTIFICIAL INTELLIGENCE, MACHINE LEARNING OR NATURAL LANGUAGE PROCESSING SOFTWARE, ALGORITHM, METHODOLOGY AND/OR MODEL.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS ARE NOT INTENDED FOR USE BY ANY PERSON AS A BENCHMARK AS THAT TERM IS DEFINED FOR REGULATORY PURPOSES AND MUST NOT BE USED IN ANY WAY THAT COULD RESULT IN THEM BEING CONSIDERED A BENCHMARK.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the credit rating process or in preparing its Materials.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY CREDIT RATING, ASSESSMENT, OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any credit rating, agreed to pay to Moody's Investors Service, Inc. for credit ratings opinions and services rendered by it. MCO and Moody's Investors Service also maintain policies and procedures to address the independence of Moody's Investors Service credit ratings and credit rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold credit ratings from Moody's Investors Service, Inc. and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moodys.com under the heading "Investor Relations — Corporate Governance — Charter Documents - Director and Shareholder Affiliation Policy."

Moody's SF Japan K.K., Moody's Local AR Agente de Calificación de Riesgo S.A., Moody's Local BR Agência de Classificação de Risco LTDA, Moody's Local MX S.A. de C.V, I.C.V., Moody's Local PE Clasificadora de Riesgo S.A., and Moody's Local PA Calificadora de Riesgo S.A. (collectively, the "Moody's Non-NRSRO CRAs") are all indirectly wholly-owned credit rating agency subsidiaries of MCO. None of the Moody's Non-NRSRO CRAs is a Nationally Recognized Statistical Rating Organization.

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors.

Additional terms for India only: Moody's credit ratings, Assessments, other opinions and Materials are not intended to be and shall not be relied upon or used by any users located in India in relation to securities listed or proposed to be listed on Indian stock exchanges.

Additional terms with respect to Second Party Opinions (as defined in Moody's Investors Service Rating Symbols and Definitions): Please note that a Second Party Opinion ("SPO") is not a "credit rating". The issuance of SPOs is not a regulated activity in many jurisdictions, including Singapore. JAPAN: In Japan, development and provision of SPOs fall under the category of "Ancillary Businesses", not "Credit Rating Business", and are not subject to the regulations applicable to "Credit Rating Business" under the Financial Instruments and Exchange Act of Japan and its relevant regulation. PRC: Any SPO: (1) does not constitute a PRC Green Bond Assessment as defined under any relevant PRC laws or regulations; (2) cannot be included in any registration statement, offering circular, prospectus or any other documents submitted to the PRC regulatory authorities or otherwise used to satisfy any PRC regulatory disclosure requirement; and (3) cannot be used within the PRC for any regulatory purpose or for any other purpose which is not permitted under relevant PRC laws or regulations. For the purposes of this disclaimer, "PRC" refers to the mainland of the People's Republic of China, excluding Hong Kong, Macau and Taiwan.

REPORT NUMBER 1418901