

CREDIT OPINION

27 November 2023

Update



RATINGS

Zuercher Kantonalbank

Domicile	Zurich, Switzerland
Long Term CRR	Aaa
Type	LT Counterparty Risk Rating - Fgn Curr
Outlook	Not Assigned
Long Term Debt	Withdrawn
Type	Senior Unsecured - Dom Curr
Outlook	Rating(s) WithDrawn
Long Term Deposit	Not Assigned

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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Zuercher Kantonalbank

Update to credit analysis

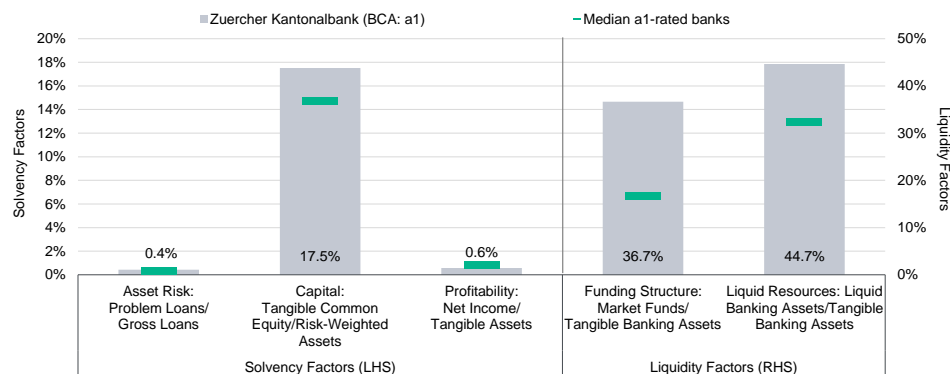
Summary

[Zuercher Kantonalbank's](#) (ZKB) Aaa backed deposit ratings reflect its a1 BCA, three notches of rating uplift from affiliate support derived from the maintenance guarantee provided by the bank's sole owner, the Canton of Zurich, and the application of our Advanced Loss Given Failure (LGF) analysis to its liabilities, which indicates an extremely low loss given failure and results in one notch (rather than three notches) of rating uplift because of the Aaa rating ceiling. We consider ZKB as a domestic systemically important bank and assume that sovereign government support would be forthcoming in case of need, which however does not result in rating uplift from the bank's Aaa rating level.

ZKB's a1 BCA reflects the bank's favourable liquidity position, comprising a high proportion of cash and central bank deposits, its solid capitalisation and only moderate asset risk, despite being concentrated in the dynamic Zurich real estate market. The BCA further takes account of the bank's meaningful exposure to confidence-sensitive market funding mitigated by low funding costs and continued market access even in a more stressed environment because of the canton's deficiency guarantee.

Exhibit 1

Rating Scorecard Zuercher Kantonalbank - Key financial ratios



Source: Moody's Investors Service and company filings

Credit strengths

- » The Canton of Zurich provides a maintenance guarantee and a deficiency guarantee (fully guaranteeing all of the bank's senior liabilities)
- » Strong capitalisation and further improved profitability metrics
- » Very solid liquidity and strong market access because of the deficiency guarantee balance ZKB's market funding dependence

Credit challenges

- » Growth in the bank's residential mortgage loan portfolio
- » Managing operational risks inherent in the bank's customer-driven trading activities and litigation risks stemming from its significant wealth and asset management operations

Outlook

- » The stable outlook reflects our expectation that the key credit metrics of ZKB, including its liability structure, will remain broadly unchanged. We also do not expect any change in the guarantee framework the canton provides to ZKB.

Factors that could lead to an upgrade

- » ZKB's Aaa backed ratings are already positioned at the highest possible level and cannot be upgraded.
- » While upward pressure on ZKB's standalone creditworthiness is highly unlikely with the a1 BCA being positioned at the high-end of the bank's peer group, a BCA upgrade could result from a combination of materially reduced concentration risks, significantly higher profitability and an outsized shift in funding towards granular deposits.

Factors that could lead to a downgrade

- » Downward pressure could be exerted on ZKB's backed issuer and deposit ratings if the Canton of Zurich's credit profile were to deteriorate or if the guarantee framework the canton provides to ZKB were altered. In addition, a lower result from our Advanced LGF analysis could result in downward pressure on the bank's issuer ratings.
- » The bank's BCA could be downgraded if its asset risk, predominantly from its real estate lending book, would increase as reflected in sustainably higher problem loans, combined with lower cushions from its capital ratios and depressed profitability. Furthermore, a deteriorating liquidity profile could exert downward rating pressure.

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 2

Zuercher Kantonalbank (Consolidated Financials) [1]

	06-23 ²	12-22 ²	12-21 ²	12-20 ²	12-19 ²	CAGR/Avg. ³
Total Assets (CHF Billion)	202.9	199.8	192.1	188.4	167.1	5.7 ⁴
Total Assets (USD Billion)	226.8	215.9	210.2	213.1	172.5	8.1 ⁴
Tangible Common Equity (CHF Billion)	13.6	13.3	12.6	12.6	13.0	1.4 ⁴
Tangible Common Equity (USD Billion)	15.2	14.4	13.8	14.2	13.4	3.8 ⁴
Problem Loans / Gross Loans (%)	--	0.4	0.4	0.5	0.5	0.4 ⁵
Tangible Common Equity / Risk Weighted Assets (%)	17.5	17.4	17.6	18.3	20.0	18.2 ⁶
Problem Loans / (Tangible Common Equity + Loan Loss Reserve) (%)	--	3.1	3.2	3.9	3.3	3.4 ⁵
Net Interest Margin (%)	0.9	0.7	0.7	0.7	0.7	0.8 ⁵
PPI / Average RWA (%)	2.1	1.4	1.4	1.3	1.3	1.5 ⁶
Net Income / Tangible Assets (%)	0.8	0.5	0.5	0.4	0.5	0.6 ⁵
Cost / Income Ratio (%)	51.8	61.7	63.2	65.2	65.0	61.4 ⁵
Market Funds / Tangible Banking Assets (%)	35.8	36.7	38.3	39.5	37.1	37.5 ⁵
Liquid Banking Assets / Tangible Banking Assets (%)	43.5	44.7	45.4	46.7	42.2	44.5 ⁵
Gross Loans / Due to Customers (%)	105.8	104.3	105.6	104.7	109.5	106.0 ⁵

[–] Further to the publication of our revised methodology in July 2021, only ratios from annual 2020 onwards included in this report reflect the change in analytical treatment of the "high-trigger" Additional Tier 1 instruments. [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 Investors Service and company filings

Profile

ZKB is Switzerland's largest cantonal bank, measured by its total assets of CHF202.9 billion as of 30 June 2023. The bank was established in 1870 by the Canton of Zurich, which is still its sole owner and extends to ZKB a maintenance guarantee, according to article 109 of the cantonal constitution. The maintenance guarantee requires the canton to inject capital into ZKB, in case of need, until the canton defaults itself. In addition, the Canton of Zurich provides a deficiency guarantee on the bank's unsubordinated obligations, as stipulated in the Cantonal Banking Act.

ZKB operates on a universal banking model, providing financial services to retail, corporate, and institutional clients in the Canton of Zurich, including financing, investment and asset management, trading and capital markets services, payment transactions, and debit and credit cards. The bank has a very strong position in the Canton of Zurich, yielding it a 7.7% share of Swiss domestic client deposits, a 8.1% share of Swiss domestic loans and a 8.8% share of total Swiss domestic banking assets as of 30 June 2023. As of the same date, ZKB operated through a network of 53 banking outlets, including branches of Zuercher Kantonalbank Österreich AG in Salzburg and Vienna. The bank also distributes its products and services through representative offices in China, India, Singapore, and Brazil. Employing more than 5,300 staff, ZKB was classified a domestic systemically important institution by the Swiss National Bank (SNB) in November 2013.

For more information, please see ZKB's [Issuer Profile](#) and our [Swiss Banking System Profile](#).

Weighted Macro Profile of Strong (+)

ZKB is focused on the Swiss market and its Weighted Macro Profile is therefore Strong (+), in line with the [Macro Profile](#) of Switzerland. The bank also has limited operations in the EU and other countries.

Detailed credit considerations

ZKB's asset quality is strong, although growth in its residential mortgage loan portfolio poses risks

We assign an a2 Asset Risk score, positioned four notches below the aa1 initial score. The assigned score captures ZKB's strong asset quality, as reflected in its low level of nonperforming loans, as well as operational risks inherent in its customer-driven trading activities and litigation risks stemming from its significant wealth and asset management operations.

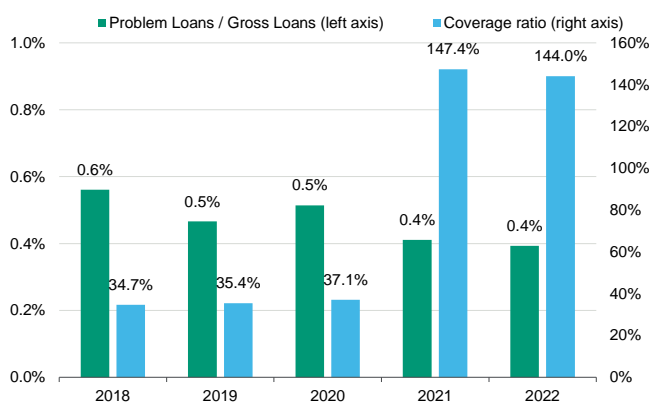
As of 30 June 2023, ZKB's residential and commercial mortgage book stood at CHF98.9 billion (49% of the bank's total assets), rendering the bank susceptible to a significant slowdown in the Zurich and Swiss housing markets or a prolonged period of weaker economic growth in Switzerland. The risks related to a potential slowdown are mitigated by the bank's solid capital buffers and a very low problem loan ratio of 0.4% as of year-end 2022 (2021: 0.4%), comparing favourably with those of its Swiss banking peers. In addition, the bank's coverage ratio improved materially to 144% in 2022 from 37% in 2020 following the 2021 establishment of loan loss provisions on an expected credit loss basis for its performing balance sheet as well as off-balance sheet exposures (an approach similar to IFRS9). Finally, the bank's loan book is highly granular and has limited exposure to the high-end luxury segments within the retail residential mortgage market (for further insights please refer to our publication [Swiss cantonal banks can absorb house price shock](#)).

ZKB has positioned itself as one of the larger providers of wealth and asset management offerings, both nationally and internationally. The bank had total client assets under management of CHF430 billion as of 30 June 2023, up 7.6% from CHF400 billion as of year-end 2022, reflecting CHF19.3 billion of net new money inflows, which benefited from client inflows following the failure of Credit Suisse Group, and CHF11.8 billion of positive market and FX performance in the first half of 2023 (1H 2023). ZKB's private banking operations will continue to be accompanied by certain execution and reputational risks, despite the [US agreement](#) having resolved issues related to its US customers' alleged tax evasion¹.

Furthermore, the bank's largely client-oriented trading and foreign exchange activities contributed 15% to the bank's operating revenue in 1H 2023, although trading assets of CHF13.4 billion remain limited compared with the bank's total assets of CHF202.9 billion as of 30 June 2023. The potential earnings volatility stemming from those positions are reflected in our Asset Risk assessment.

Exhibit 3

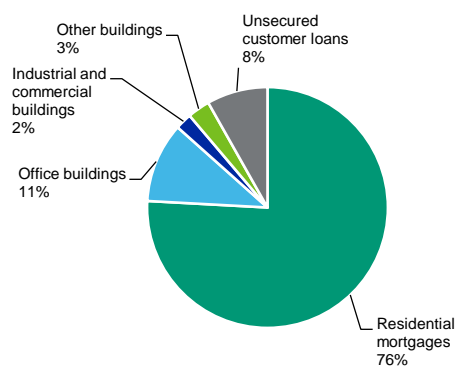
ZKB's problem loan ratio remained very low, while its coverage ratio increased



Source: Moody's Investors Service and company filings

Exhibit 4

ZKB's loan book largely consists of residential mortgages Total loan book: CHF108 billion as of year-end 2022



Source: Moody's Investors Service and company filings

ZKB's solid capitalisation provides a strong buffer against adverse developments

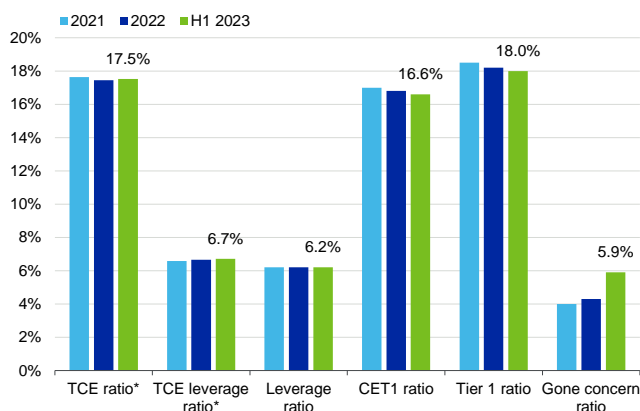
Our aa2 assigned Capital score, in line with the initial score, reflects ZKB's solid capitalisation levels as well as our expectation of broadly stable capital ratios in the future, as increases in risk-weighted assets are expected to be offset by retained earnings.

As the bank's sole owner, the Canton of Zurich provides a dotation capital frame, which was increased by CHF425 million to CHF3.425 billion in November 2020 to continue to meet regulatory gone concern requirements. Of this capital frame, CHF2.425 billion has been drawn by ZKB and the remaining dotation capital of CHF1.0 billion is dedicated in full to the emergency planning of the bank, making

the dotation capital reserve eligible as gone concern capital. As a consequence, the related amount can only be called by order of the Swiss Financial Market Supervisory Authority (FINMA) or by a person in charge of the restructuring designated by FINMA. Furthermore, we expect the canton to provide further capital support in the unlikely scenario that the bank's solvability is significantly strained.

ZKB's capitalisation remains solid with a tangible common equity (TCE) ratio of 17.5% as of 30 June 2023, up from 17.4% as of year-end 2022. The slight improvement reflected 2.2% higher risk-weighted assets (RWA) because of balance sheet growth, while TCE advanced by 2.6% from year-end 2022 as net income of CHF677 million and a CHF150 million addition to the reserve for general banking risks more than offset the CHF491 million dividend ZKB paid out to the canton. As of 30 June 2023, the bank's regulatory Common Equity Tier 1 (CET1) capital ratio stood at 16.6%, its Tier 1 capital ratio was 18.0%, while its gone concern capital ratio reached 5.9%, thereby meeting the going and gone concern capital requirements for Swiss domestic systemically important institutions.² As of the same date, ZKB's regulatory leverage ratio stood at 6.2%, well above the 4.5% requirement for systemically important banks. The bank's solid capitalisation levels reflect rising regulatory requirements, largely driven by ZKB's classification as a domestic systemically important institution by decree of the SNB. Furthermore, ZKB's capital requirements include again a countercyclical capital buffer (CCyB) requirement for residential mortgage exposures, which was revoked by the SNB and the Swiss Financial Market Supervisory Authority (FINMA) in March 2020 at the start of the pandemic, but was [reinstated](#) at 2.5% of banks' RWA backed by domestic residential real estate in September 2022. As of 30 June 2023, this resulted in a 0.9% CCyB requirement for ZKB.

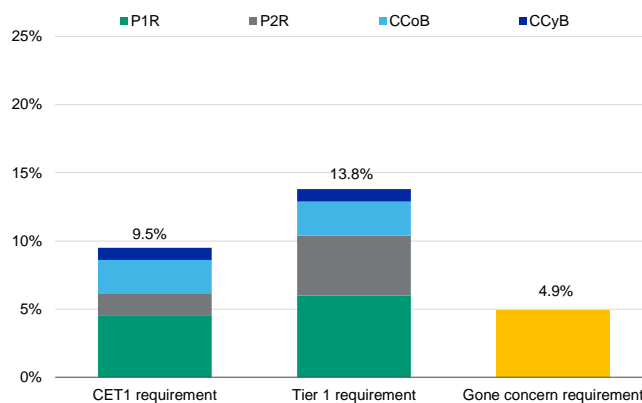
Exhibit 5

ZKB comfortably exceeds its capital requirements

TCE = Tangible Common Equity (Moody's calculation; excludes high-trigger Additional Tier 1 instruments for all periods); CET1 = Common Equity Tier 1

Source: Moody's Investors Service and company filings

Exhibit 6

ZKB's capital requirements as a percentage of RWA as of 30 June 2023

P1R = Pillar 1 requirement; P2R = Pillar 2 requirement; CCoB = Capital conservation buffer requirement; CCyB = Countercyclical capital buffer requirement

Source: Moody's Investors Service and company filings

ZKB's diversified earnings support its capital generation capacity

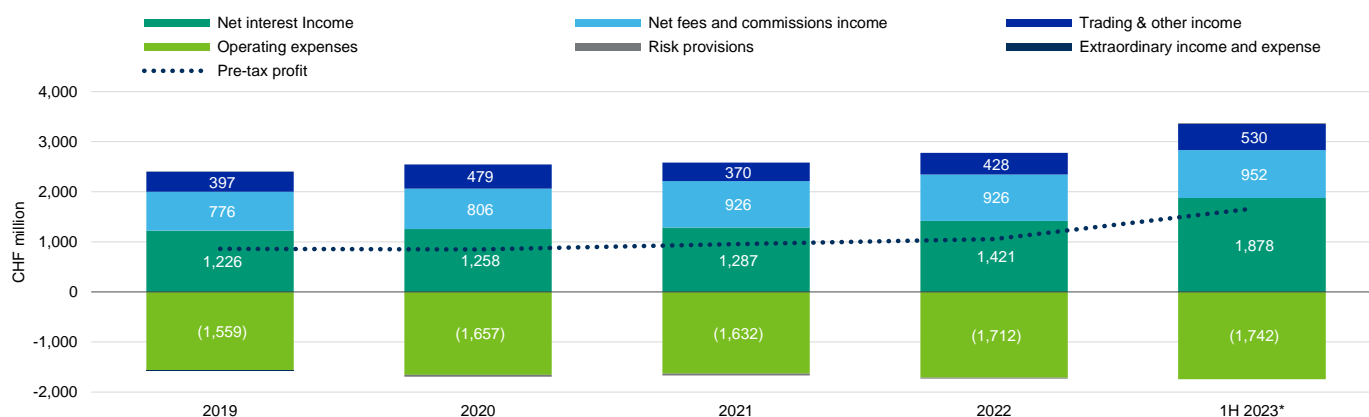
We assign a baa2 Profitability score, in line with the initial score, reflecting the bank's 0.6% average net income to tangible assets ratio during the 2020 to 1H 2023 period. While the return on assets has improved to 0.8% in 1H 2023, we expect that in 2024 and beyond, profitability might soften again.

In 1H 2023, profitability ticked up, aided by the higher interest rate environment, and we expect strong earnings generation to continue for the full year. However, in 2024 and potentially beyond, the bank's profitability and, hence, its return on assets might soften again, mainly owing to deposits potentially repricing faster than the aggregate loan book, thereby exerting strain on net interest income; the SNB carry trade income declining (see the Funding Structure section for more detail); and markets potentially being less constructive due to rising geopolitical risks. These risks are at least partially offset by the positive effects the acquisition of asset manager Swisscanto has had on ZKB's revenue mix, lifting the bank's proportion of fee and commission income. Furthermore, while the onboarding of new clients following the failure of Credit Suisse did not have a material impact on the H1 2023 results of ZKB yet, the additional client assets might support the bank's earnings in the future.

ZKB reported a Moody's-adjusted net profit of CHF827.0 million in H1 2023, up 54.8% from CHF534.2 million generated in the corresponding 2022 period. The stronger net profit was mainly driven by the improved interest rate environment, resulting in net interest income of CHF939 million, a 40.8% increase year-on-year. Trading income also rose by 19.4% to CHF252 million on the back of higher income from bond, foreign exchange, money market, and repo trading. Furthermore, net fee and commission income remained broadly stable at CHF476 million, reflecting lower transaction and wealth management fees, which was offset by higher commission income from lending activities and other services as well as lower commission expenses. Overall, ZKB's revenues increased by 23.3% to CHF1,680 million, while the bank's operating expenses only rose by 5.3% to CHF871 million due to inflation and higher headcount, resulting in a cost-income ratio of 51.8% in H1 2023 compared to 60.7% in H1 2022. Finally, the bank's strong earnings were supported by loan loss reversals of CHF7 million in H1 2023 compared to loan loss provisions of CHF17 million in H1 2022.

Exhibit 7

ZKB's large share of fee and commission income diversifies its earnings stream



*annualised

Source: Moody's Investors Service and company filings

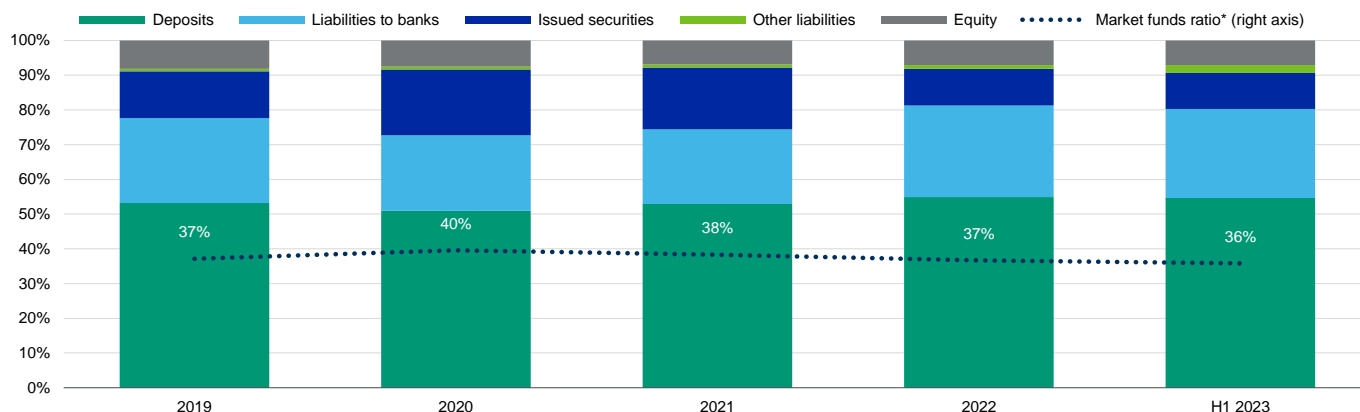
ZKB's exposure to wholesale funding sources is high, but mitigated by the guarantee

The assigned a1 Funding Structure score, seven notches above the ba2 initial score, reflects the guarantee provided by the canton on ZKB's senior obligations, which results in the bank being regarded as a safe haven in times of market turmoil.

ZKB's market funding dependence had risen since 2019 because of the increase in the amount of sight deposits that banks could hold at 0% interest at the SNB, which have been refinanced by market funding sources at negative rates in order to generate carry income. With the increase in interest rates starting in 2022, this carry trade opportunity has declined but not disappeared because the SNB continued to remunerate banks' sight deposits at rates that remained above market funding rates. On 30 October 2023, however, the [SNB communicated](#) that as of 1 December 2023, it will no longer remunerate sight deposits up to the level of the minimum reserve requirement (minus cash holdings), and that the amount of sight deposits above that level that will be remunerated at the SNB policy rate will be lowered to 25 times the minimum reserve requirement from 28 times previously. Any sight deposits beyond that will be remunerated at the SNB policy rate minus a discount of 0.5 percentage points. Hence, the aforementioned carry trade opportunity will decline further in the future, which might also lead to a further reduction in the market funds ratio at ZKB.

With repo and interbank liabilities of CHF49.1 billion as of 30 June 2023, ZKB is a net borrower in the interbank market and is a frequent bond issuer. Both the bank's interbank liability structure and its market funding benefit from the guarantee provided by the canton. As of the same date, ZKB's market funding also consisted of CHF7.8 billion of senior unsecured bond issuances, CHF12.0 billion of covered bonds (sourced via the Pfandbriefzentrale of the Swiss cantonal banks), CHF4.3 billion of structured notes, CHF4.6 billion of trading and derivative liabilities, and CHF0.9 billion of newly issued bail-in bonds, which is junior senior unsecured debt that counts towards the bank's gone concern capital requirement. However, the primary funding source for ZKB was its CHF104.7 billion customer deposit base, which increased by 1.1 billion from year-end 2022, resulting in a loan-to-deposit ratio of 106% as of 30 June 2023.

Exhibit 8

ZKB's market funding reliance remains elevated, but is mostly mitigated by the deficiency guarantee

Market funds ratio = Market funds/tangible banking assets.

Source: Moody's Investors Service and company filings

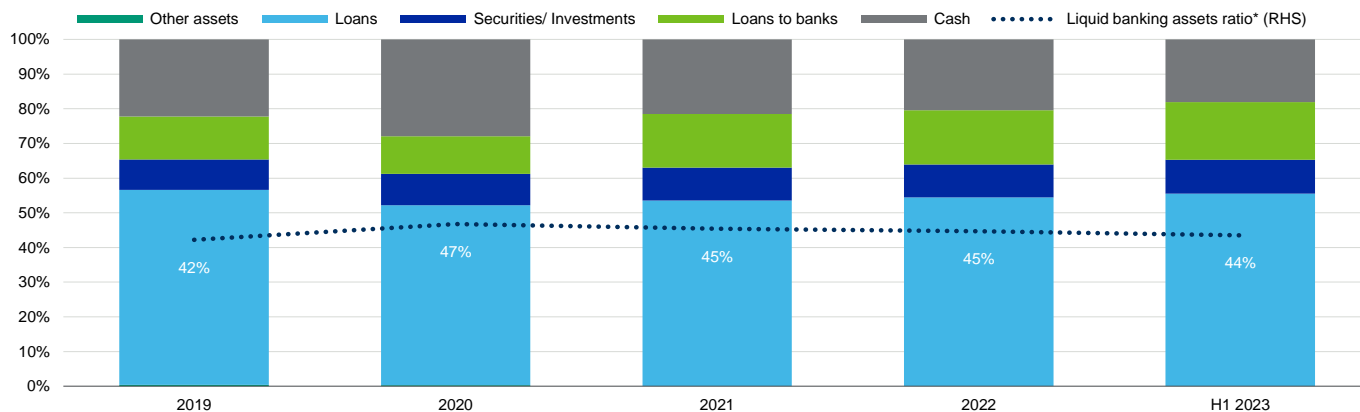
ZKB benefits from a highly liquid balance sheet

Our aa2 assigned Liquid Resources score, one notch above the aa3 initial score, takes into account ZKB's highly liquid balance sheet, but also the bank's conservative liquidity management in the context of its high share of wholesale funding displaying moderate outflow risks. In addition, the bank has leeway to issue additional covered bonds at short notice to source additional liquidity from the SNB if required.

As a share of tangible banking assets, ZKB's liquid banking assets stood at 43.5% as of 30 June 2023, exceeding the bank's market funding ratio of 35.8%. Hence, we do regard the bank's liquid resources as adequate, also in light of the term structure of the market funding and the available guarantees, both limiting refinancing risks.

As of 30 June 2023, ZKB's CHF88.3 billion of liquid banking assets were comprised of CHF35.9 billion of cash and central bank deposits, CHF33.3 billion of interbank and other financial institution assets, CHF13.4 billion of trading assets, and CHF5.6 billion of repo-eligible liquid securities as of 30 June 2023. With the SNB carry trade opportunity declining from December 2023, the bank's liquid resources are expected to reduce slightly in the future. This could also have a limited impact on the bank's Liquidity Coverage Ratio (LCR), which stood at 147% on average during the second quarter of 2023, reflecting stricter liquidity requirements for systemically important banks in Switzerland that came into effect on 1 January 2021. Furthermore, ZKB's Net Stable Funding Ratio (NSFR) reached 121% as of 30 June 2023.

Exhibit 9

ZKB's balance sheet remains highly liquid

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

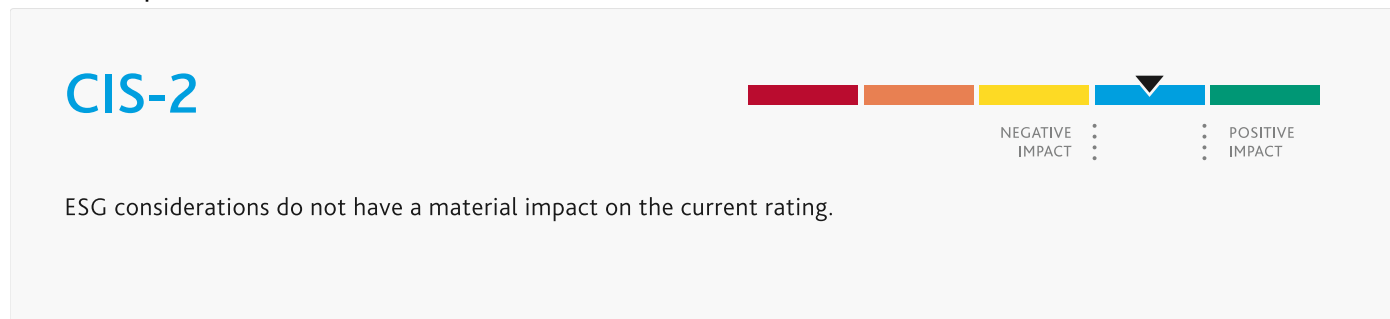
Source: Moody's Investors Service and company filings

ESG considerations

ZKB's ESG Credit Impact Score is Neutral-to-Low CIS-2

Exhibit 10

ESG credit impact score

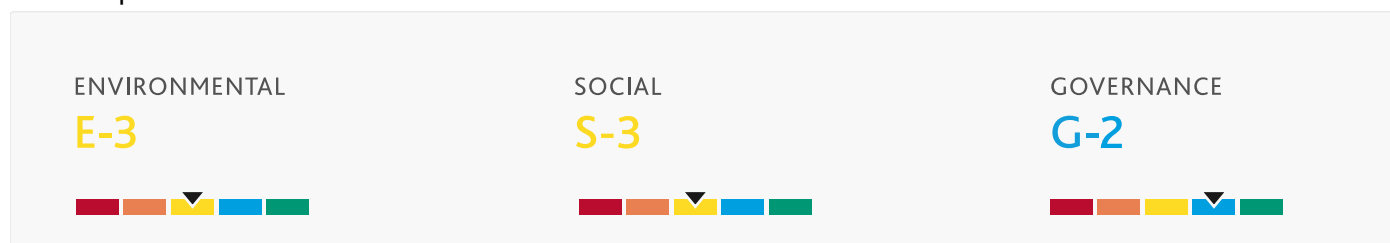


Source: Moody's Investors Service

ZKB's CIS-2 indicates that ESG considerations do not have a material impact on the current rating.

Exhibit 11

ESG issuer profile scores



Source: Moody's Investors Service

Environmental

ZKB faces moderate exposure to environmental risks primarily because of its portfolio exposure to carbon transition risk as a mostly regional banking group. In line with its peers, ZKB is facing mounting business risks and stakeholder pressure to meet broader carbon transition goals. Carbon transition risks relate mostly to its corporate loan book, which represents about a quarter of the bank's lending portfolio, with the remainder comprising residential real estate.

Social

ZKB faces moderate social risks related to customer relations and associated regulatory risks, litigation exposure, and high compliance standards. These risk exposures emerge primarily from its retail as well as its wealth and asset management operations and they are mitigated by the bank's developed policies and procedures. Furthermore, the bank's long track record of handling sensitive customer data as well as technology solutions and organizational measures to prevent data breaches and business disruption help to manage high cyber and personal data risks.

Governance

ZKB faces low governance risks, and its risk management, policies and procedures are in line with industry practices, and commensurate with its universal banking model. Also, despite the fact that the bank is fully owned by the Canton of Zurich, all the members of its board of directors are considered independent.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moody's.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

ZKB benefits from parental support from the Canton of Zurich. Parental support materially reduces the probability of default, as it would be available to stabilise a distressed bank and not just compensate for losses in resolution.

We consider an "affiliate-backed" level of support, given the maintenance guarantee the Canton of Zurich extends to ZKB. The maintenance guarantee requires the canton to inject capital into ZKB, in case of need, until the canton defaults itself. Parental support provides three notches of rating uplift from the a1 BCA, leading to an aa1 Adjusted BCA.

Loss Given Failure analysis

ZKB is subject to Swiss banking regulations, which we consider an operational resolution regime. We therefore apply our Advanced LGF analysis, which takes into consideration the risks faced by the different debt and deposit classes across the liability structure at failure. In our Advanced LGF analysis, we assign a 100% probability to deposits being preferred to senior unsecured debt, thereby reflecting depositor preference by law in Switzerland.

We further assume residual tangible common equity of 3% and losses post-failure of 8% of tangible banking assets. In addition, we assume a 26% share of deposits being "junior" wholesale deposits, for which we factor in a 25% run-off prior to failure, while we assume a 5% run-off in preferred deposits. These ratios are in line with our standard assumptions.

ZKB's senior unsecured debt includes structured products, which are a potentially more volatile funding source. The amount incorporated in our Advanced LGF analysis is the lower of the last reported or three-and-a-half-year average structured product volume and we assume a 50% run-off prior to failure. Structured products issued by Zuercher Kantonalbank Finance (Guernsey) Ltd. are out of scope for our Advanced LGF analysis, since we believe that the Swiss regulator FINMA would have no bail-in powers over this entity. The results of our Advanced LGF analysis are:

- » For junior deposits, our Advanced LGF analysis indicates an extremely low loss given failure, leading to one notch (rather than three notches) of rating uplift (because of the Aaa rating ceiling) from the bank's aa1 Adjusted BCA, resulting in a aaa Preliminary Rating Assessment.
- » For CRR liabilities, our Advanced LGF analysis indicates a very low loss given failure, leading to one notch (rather than two notches) of rating uplift (because of the Aaa rating ceiling) from the bank's aa1 Adjusted BCA, resulting in a aaa Preliminary Rating Assessment.
- » For senior unsecured debt, from which ZKB's backed issuer ratings are derived, our Advanced LGF analysis indicates a low loss given failure, leading to one notch of rating uplift from the bank's aa1 Adjusted BCA, resulting in a aaa Preliminary Rating Assessment.
- » For junior senior unsecured and subordinated debt, our Advanced LGF analysis indicates a high loss given failure, leading us to position their Preliminary Rating Assessments at aa2, one notch below the aa1 Adjusted BCA.

Government support

We assess the probability of sovereign support for ZKB's senior obligations in a stress scenario to be moderate because of the bank's high national market shares in key banking products and its relative importance to Switzerland's banking system. However, since the Canton of Zurich must provide support to ZKB prior to failure because of the maintenance guarantee and given the uplift provided by our Advanced LGF analysis for the bank's senior obligations, ZKB's senior ratings do not benefit from further sovereign government support.

High-trigger Additional Tier 1 (AT1) securities

The A1(hyb) rating assigned to ZKB's high-trigger AT1 instruments is positioned three notches below the bank's aa1 Adjusted BCA. One notch reflects the high loss given failure that these securities are likely to face in a resolution scenario because of their deep subordination, small volume and limited protection from residual equity. Our rating for non-viability securities incorporates two additional notches to reflect the higher risk associated with the non-cumulative coupon skip and contractual write-down mechanisms at a 7% CET1 ratio, which could take effect before the issuer reaches the point of non-viability.

ZKB's AT1 securities also carry a point of non-viability (PONV) loss absorption feature. The PONV can be declared by FINMA if ZKB receives extraordinary support from the Canton of Zurich, with extraordinary support being defined as support that is necessary to prevent an insolvency of the bank. However, we deem the risk of FINMA declaring such support being extraordinary as remote, because we expect support from the canton to flow early enough and well above the bank's minimum capital requirements, which ZKB is comfortably exceeding at present. Hence, we notch the instruments off the Adjusted BCA, which incorporates the cantonal support we expect to be forthcoming due to the maintenance guarantee.

Aaa/P-1 Counterparty Risk Ratings (CRRs)

The backed CRRs are positioned one notch above the aa1 Adjusted BCA because of uplift provided by our Advanced LGF analysis.

Aaa(cr)/P-1(cr) Counterparty Risk (CR) Assessment

The backed CR Assessment is positioned one notch above the aa1 Adjusted BCA because of uplift provided by our Advanced LGF analysis.

Because the CR Assessment captures the probability of default on certain senior operational obligations, rather than expected loss, we focus purely on subordination and take no account of the volume of the instrument class.

Methodology and scorecard

Methodology

The principal methodology we used in rating ZKB was our [Banks Methodology](#), published in July 2021.

About Moody's Bank Scorecard

Our Bank Scorecard is designed to capture, express and explain in summary form our Rating Committee's judgment. When read in conjunction with our research, a fulsome presentation of our judgment 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

Zuercher Kantonalbank

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	0.4%	aa1	↔	a2	Quality of assets	Market risk	
Capital							
Tangible Common Equity / Risk Weighted Assets (Basel III - transitional phase-in)	17.5%	aa2	↔	aa2	Expected trend	Risk-weighted capitalisation	
Profitability							
Net Income / Tangible Assets	0.6%	baa2	↔	baa2	Return on assets	Expected trend	
Combined Solvency Score		aa3		a2			
Liquidity							
Funding Structure							
Market Funds / Tangible Banking Assets	36.7%	ba2	↔	a1	Extent of market funding reliance	Market funding quality	
Liquid Resources							
Liquid Banking Assets / Tangible Banking Assets	44.7%	aa3	↔	aa2	Additional liquidity resources	Quality of liquid assets	
Combined Liquidity Score		baa2		aa3			
Financial Profile							
				a1			
Qualitative Adjustments				Adjustment			
Business Diversification				0			
Opacity and Complexity				0			
Corporate Behavior				0			
Total Qualitative Adjustments				0			
Sovereign or Affiliate constraint				Aaa			
BCA Scorecard-indicated Outcome - Range				aa3 - a2			
Assigned BCA				a1			
Affiliate Support notching				-			
Adjusted BCA				aa1			
BALANCE SHEET		IN-SCOPE (CHF MILLION)	% IN-SCOPE	AT-FAILURE (CHF MILLION)	% AT-FAILURE		
Other liabilities		77,077	38.3%	88,268	43.9%		
Deposits		103,091	51.2%	92,576	46.0%		
Preferred deposits		76,287	37.9%	72,473	36.0%		
Junior deposits		26,804	13.3%	20,103	10.0%		
Senior unsecured bank debt		12,509	6.2%	11,196	5.6%		
Junior senior unsecured bank debt		913	0.5%	1,551	0.8%		
Dated subordinated bank debt		488	0.2%	488	0.2%		
Preference shares (bank)		1,065	0.5%	1,065	0.5%		
Equity		6,035	3.0%	6,035	3.0%		
Total Tangible Banking Assets		201,179	100.0%	201,179	100.0%		

DEBT CLASS	DE JURE WATERFALL		DE FACTO WATERFALL		NOTCHING		LGF NOTCHING 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	10.1%	10.1%	10.1%	10.1%	2	2	1	1	0	aaa
Counterparty Risk Assessment	10.1%	10.1%	10.1%	10.1%	3	3	1	1	0	aaa (cr)
Deposits	20.1%	10.1%	20.1%	10.1%	3	3	1	1	0	aaa
Senior unsecured bank debt	10.1%	4.5%	10.1%	4.5%	1	1	1	1	0	aaa
Junior senior unsecured bank debt	4.5%	3.8%	4.5%	3.8%	-1	-1	-1	-1	0	aa2
Dated subordinated bank debt	3.8%	3.5%	3.8%	3.5%	-1	-1	-1	-1	0	aa2
Non-cumulative bank preference shares	3.5%	3.0%	3.5%	3.0%	-1	-1	-1	-1	-2	a1

INSTRUMENT CLASS	LOSS GIVEN	ADDITIONAL	PRELIMINARY	GOVERNMENT	LOCAL CURRENCY	FOREIGN
	FAILURE NOTCHING	NOTCHING	RATING ASSESSMENT	SUPPORT NOTCHING	RATING	CURRENCY RATING
Counterparty Risk Rating	1	0	aaa	0	Aaa	Aaa
Counterparty Risk Assessment	1	0	aaa (cr)	0	Aaa(cr)	
Deposits	1	0	aaa	0	Aaa	Aaa
Senior unsecured bank debt	1	0	aaa	0	Aaa	Aaa
Junior senior unsecured bank debt	-1	0	aa2	0	Aa2	Aa2
Dated subordinated bank debt	-1	0	aa2	0		Aa2
Non-cumulative bank preference shares	-1	-2	a1	0	A1 (hyb)	

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

Source: Moody's Investors Service

Ratings

Exhibit 13

Category	Moody's Rating
ZUERCHER KANTONALBANK	
Outlook	Stable
Bkd Bank Deposits	Aaa/P-1
Baseline Credit Assessment	a1
Adjusted Baseline Credit Assessment	aa1
Bkd Issuer Rating	Aaa
Junior Senior Unsecured	Aa2
Subordinate	Aa2
Pref. Stock Non-cumulative -Dom Curr	A1 (hyb)
Bkd Counterparty Risk Rating	Aaa/P-1
Bkd Counterparty Risk Assessment	Aaa(cr)/P-1(cr)

Source: Moody's Investors Service

Endnotes

- ZKB agreed to pay \$98.5 million, which equaled 12.4% of its peak US assets under management in August 2018, and entered into a three-year deferred prosecution agreement, which was closed on 3 September 2021 by the US government following full compliance with the agreement by ZKB.
- As of January 2019, new gone concern capital requirements, equal to 40% of the going concern capital requirements for domestic systemically important banks such as ZKB came into effect, phasing in until January 2026. Moreover, in September 2019, FINMA levied additional gone concern capital requirements on ZKB, which will also phase in and result in a total gone concern capital requirement of 7.9% of RWA in 2026. As of 30 June 2023, the transitional gone concern add-on stood at 4.9% of RWA, covered by Tier 2 capital instruments, bail-in bonds, and the explicit guarantee of the Canton of Zurich, which can account for 50% of the gone concern capital requirements and includes the CHF1.0 billion dotation capital reserve mentioned above.

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