

## CREDIT OPINION

16 January 2023

### Update



Send Your Feedback

### RATINGS

#### Zuercher Kantonalbank

Domicile	Zurich, Switzerland
Long Term CRR	Aaa
Type	BACKED LT Counterparty Risk Rating - Fgn Curr
Outlook	Not Assigned
Long Term Debt	Aaa
Type	BACKED LT Issuer Rating
Outlook	Stable
Long Term Deposit	Aaa
Type	BACKED LT Bank Deposits
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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## Zuercher Kantonalbank

### Update to credit analysis

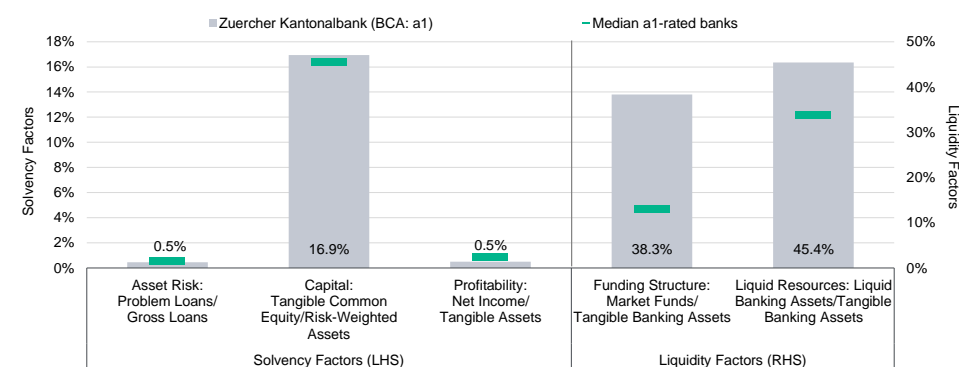
#### Summary

[Zuercher Kantonalbank's](#) (ZKB) Aaa backed deposit and issuer 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, 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, data as of 30 June 2022

## Credit strengths

- » The Canton of Zurich provides a maintenance guarantee and a deficiency guarantee (fully guaranteeing all of the bank's senior liabilities)
- » Solid capitalisation
- » Resilient profitability metrics, despite the low interest-rate environment in recent years
- » Very solid liquidity and strong market access because of the deficiency guarantee balance ZKB's market funding dependence

## Credit challenges

- » Continuous need to meet increasing gone concern capital requirements as a domestic systemically important financial institution
- » Growth in the bank's residential mortgage loan portfolio

## 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 quality, predominantly within its real estate lending book, were to deteriorate, resulting in sustainably higher problem loans. Furthermore, the BCA could be lowered if the bank's capital ratios were to decline or if its profitability were to weaken substantially. Finally, 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]

	06-22 <sup>2</sup>	12-21 <sup>2</sup>	12-20 <sup>2</sup>	12-19 <sup>2</sup>	12-18 <sup>2</sup>	CAGR/Avg. <sup>3</sup>
Total Assets (CHF Billion)	198.0	192.1	188.4	167.1	169.4	4.6 <sup>4</sup>
Total Assets (USD Billion)	206.8	210.2	213.1	172.5	171.8	5.4 <sup>4</sup>
Tangible Common Equity (CHF Billion)	12.8	12.6	12.6	13.0	12.5	0.7 <sup>4</sup>
Tangible Common Equity (USD Billion)	13.3	13.8	14.2	13.4	12.6	1.5 <sup>4</sup>
Problem Loans / Gross Loans (%)	--	0.4	0.5	0.5	0.6	0.5 <sup>5</sup>
Tangible Common Equity / Risk Weighted Assets (%)	16.9	17.6	18.3	20.0	19.9	18.6 <sup>6</sup>
Problem Loans / (Tangible Common Equity + Loan Loss Reserve) (%)	--	3.2	3.9	3.3	4.0	3.6 <sup>5</sup>
Net Interest Margin (%)	0.7	0.7	0.7	0.7	0.8	0.7 <sup>5</sup>
PPI / Average RWA (%)	1.5	1.4	1.3	1.3	1.1	1.3 <sup>6</sup>
Net Income / Tangible Assets (%)	0.5	0.5	0.4	0.5	0.4	0.5 <sup>5</sup>
Cost / Income Ratio (%)	60.7	63.2	65.2	65.0	70.1	64.8 <sup>5</sup>
Market Funds / Tangible Banking Assets (%)	38.6	38.3	39.5	37.1	38.1	38.3 <sup>5</sup>
Liquid Banking Assets / Tangible Banking Assets (%)	44.0	45.4	46.7	42.2	45.4	44.7 <sup>5</sup>
Gross Loans / Due to Customers (%)	109.2	105.6	104.7	109.5	104.9	106.8 <sup>5</sup>

[–] 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 CHF198.0 billion as of 30 June 2022. 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 7.0% share of Swiss domestic client deposits, a 7.9% share of Swiss domestic loans and a 8.2% share of total Swiss domestic banking assets as of 30 June 2022. As of the same date, ZKB operated through a network of 55 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 5,100 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 aa2 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.

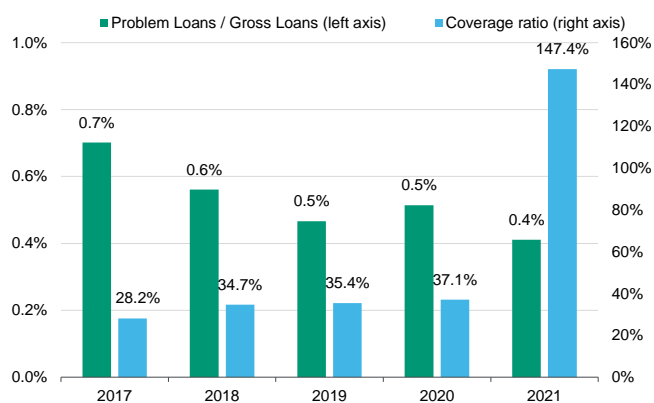
As of 30 June 2022, ZKB's residential and commercial mortgage book stood at CHF94.1 billion (48% of the bank's total assets), incorporating some susceptibility to a significant slowdown in the Zurich and Swiss housing markets or a prolonged period of weaker economic growth in Switzerland. The risks related 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 2021 (2020: 0.5%), comparing favourably with those of its banking peers. In addition, the bank's coverage ratio improved materially to 147% from 37% in 2021 because ZKB for the first time established loan loss provisions for the expected credit loss on its performing balance sheet and off-balance sheet exposures (following an approach similar to IFRS 9). 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 CHF388.1 billion as of 30 June 2022, down 5.1% from CHF409.2 billion as of year-end 2021, reflecting CHF17.8 billion of net new money inflows and CHF38.9 billion of negative market and FX performance in the first half of 2022 (1H 2022). ZKB's private banking operations will continue to be accompanied by certain execution and reputational risks, despite the [US agreement](#), which resolved issues related to its US customers' alleged tax evasion. 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.

Furthermore, the bank's largely client-oriented trading and foreign exchange activities contributed 15% to the bank's operating revenue in 1H 2022, although trading assets of CHF12.7 billion remain limited compared with the bank's total assets of CHF198.0 billion as of 30 June 2022. The potential earnings volatility stemming from those positions are reflected in our Asset Risk assessment.

Exhibit 3

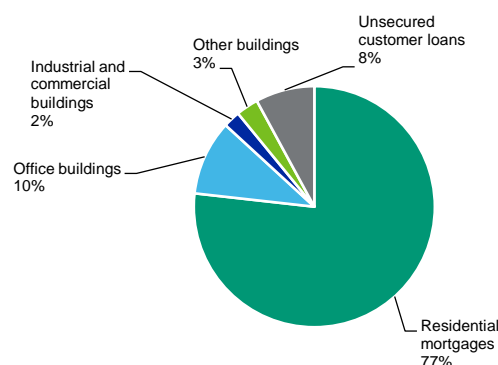
#### ZKB's problem loan ratio remained very low, while its coverage ratio increased



Source: Moody's Investors Service and company filings

Exhibit 4

#### ZKB's loan book largely consists of residential mortgages Total loan book: CHF101.7 billion as of year-end 2021



Source: Moody's Investors Service and company filings

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

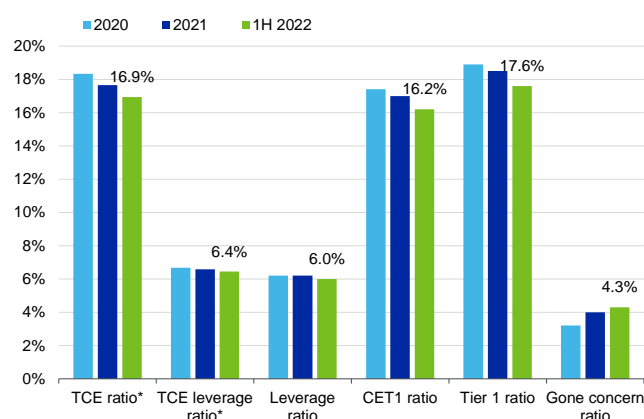
Our aa2 assigned Capital score, in line with the initial score, reflects ZKB's solid capitalisation levels as well as our expectation of broadly stable capital ratios in the future, as increases in risk-weighted assets are expected to be offset by retained earnings.

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 16.9% as of 30 June 2022, down from 17.6% as of year-end 2021.<sup>1</sup> The decline was driven by 5.2% higher risk-weighted assets (RWA) because of balance sheet growth, while TCE only advanced by 1.0% from year-end 2021 as ZKB paid out a CHF431 million dividend. As of the same date, the bank's regulatory Common Equity Tier 1 (CET1) capital ratio stood at 16.2%, its Tier 1 capital ratio was 17.6%, while its gone concern capital ratio reached 4.3%, thereby meeting the going and gone concern capital requirements for Swiss domestic systemically important institutions. The leverage ratio remained at 6.0%, well above the 4.5% requirement for systemically important banks.<sup>2</sup> 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.

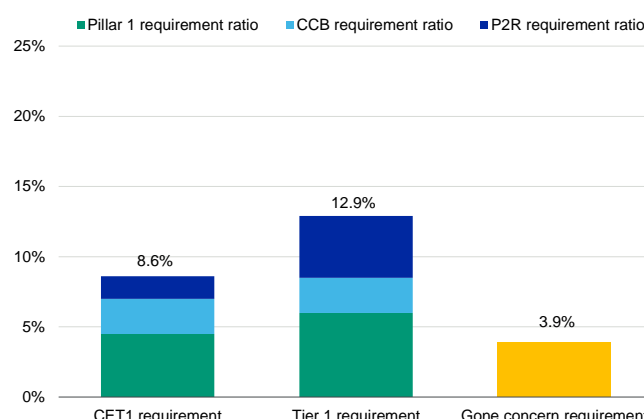
Exhibit 5

**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 2022**

The Swiss countercyclical capital buffer was revoked in March 2020 yet was reinstated at a level of 2.5% on banks' domestic residential real estate loans effective 30 September 2022. The reinstatement will have increased ZKB's CET1 and Tier 1 ratio requirements by about one percentage point again.

Source: Moody's Investors Service and company filings

**ZKB's diversified earnings support its capital generation capacity**

Our ba1 assigned Profitability score, in line with the initial score, reflects our expectation that ZKB's diversified earnings stream and higher interest rates will mitigate most of the risks stemming from the current geopolitical uncertainties.

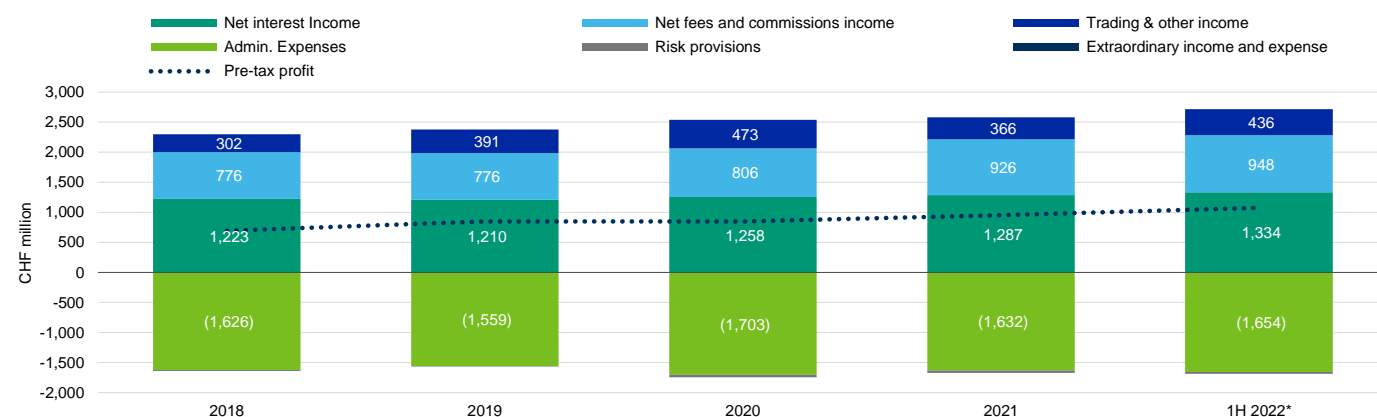
Despite the currently extremely uncertain macroeconomic outlook, we expect ZKB's profitability metrics to remain broadly stable over a three-year horizon. This assessment includes the potential risks stemming from higher loan loss provisions and market dislocations because of the current geopolitical crisis. 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, we expect net interest margins to expand following the recent increase in interest rates in Switzerland, which, in combination with continued loan growth, will result in growth of net interest income, ZKB's largest revenue driver.

ZKB reported a Moody's-adjusted net profit of CHF534 million in 1H 2022, up 9.9% from CHF486 million generated in the corresponding 2021 period. The stronger net profit was mainly the result of CHF29 million or 4.5% higher net interest income of CHF667 million, reflecting improved results from the bank's interbank business and asset/liability management, as well as the increase in US dollar interest rates and balance sheet growth, which more than offset continued margin pressures. Furthermore, net fee and commission income advanced by CHF24 million or 5.3% to CHF473 million due to higher income from securities trading as well as higher asset and wealth management fees on the back of strong net new money inflows in 1H 2022 and in 2021. Finally, the bank's

foreign exchange and trading income of CHF211 million in 1H 2022 remained flat year-on-year, while loan loss provisions declined by CHF21 million to CHF17 million. These positive developments were partly offset by a CHF34 million or 4.3% higher cost base of CHF827 million, mostly reflecting higher performance-related personnel expenses.

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

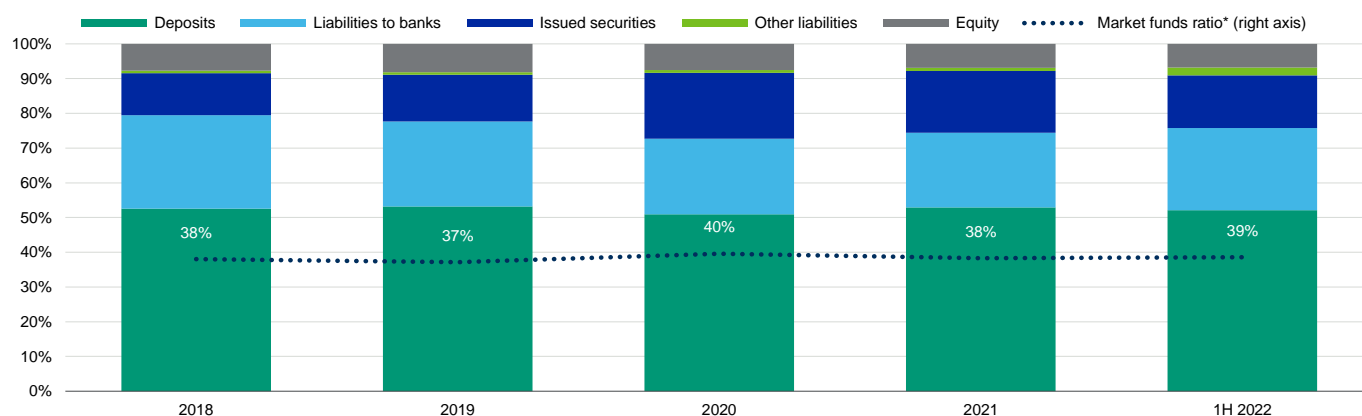
The assigned a1 Funding Structure score, seven notches above the ba2 initial score, reflects the guarantee provided by the canton on ZKB's senior obligations, which results in the bank being regarded as a safe haven in times of market turmoil.

With repo and interbank liabilities of CHF44.1 billion as of 30 June 2022, 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 30 June 2022, ZKB's market funding also consisted of CHF16.4 billion of senior unsecured bond issuances, CHF11.9 billion of covered bonds (sourced via the Pfandbriefzentrale of the Swiss cantonal banks), CHF3.8 billion of structured notes and CHF6.2 billion of trading and derivative liabilities. However, the primary funding source for ZKB was its CHF97.2 billion customer deposit base, which remained broadly stable compared to year-end 2021, resulting in a loan-to-deposit ratio of 109% as of 30 June 2022.

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

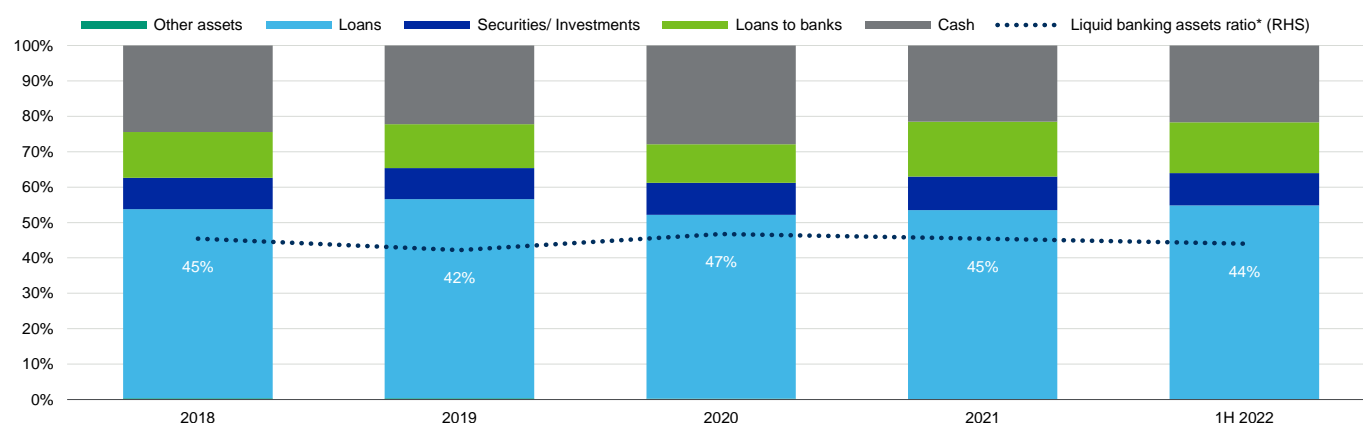
### ZKB benefits from a highly liquid balance sheet

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 high wholesale funding with moderate risk of outflows. In addition, the bank has leeway to issue additional covered bonds at short notice to source additional liquidity from the SNB if required.

The bank's market funding reliance is mitigated by its highly liquid balance sheet consisting of CHF42.0 billion of cash as of 30 June 2022, CHF27.8 billion of interbank and other financial institution assets, CHF12.7 billion of trading assets, and CHF4.7 billion of repo-eligible liquid securities. The bank's Liquidity Coverage Ratio (LCR) stood at 149% on average during the second quarter of 2022, reflecting stricter liquidity requirements for systemically important banks in Switzerland that came into effect on 1 January 2021.

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

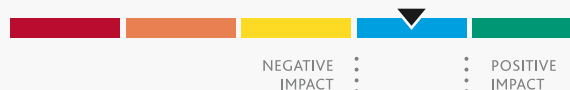
Exhibit 10

#### ESG Credit Impact Score

# CIS-2

## Neutral-to-Low

For an issuer scored CIS-2 (Neutral-to-Low), its ESG attributes are overall considered as having a neutral-to-low impact on the current rating; i.e., the overall influence of these attributes on the rating is non-material.



Source: Moody's Investors Service

ZKB's ESG Credit Impact Score is neutral-to-low (**CIS-2**), reflecting the low credit impact from environmental and social risks on the ratings to date.

Exhibit 11

#### ESG Issuer Profile Scores

ENVIRONMENTAL

# E-3

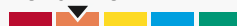
## Moderately Negative



SOCIAL

# S-4

## Highly Negative



GOVERNANCE

# G-2

## Neutral-to-Low



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 high industrywide customer relations risks primarily related to regulatory risks, litigation exposure and high compliance standards from wealth and asset management operations. High cyber and personal data risks are mitigated by technology solutions and organisational measures to prevent data breaches.

### Governance

ZKB faces neutral-to-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 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

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.

Our Advanced LGF analysis 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) for junior deposits and counterparty risk liabilities from the bank's aa1 Adjusted BCA, resulting in aaa Preliminary Rating Assessments.

For ZKB's issuer ratings, our Advanced LGF analysis currently yields a moderate loss given failure, resulting in zero notches of rating uplift. However, we continue to assign one notch of rating uplift, reflecting our forward looking assumption that the bank will issue additional loss-absorbing debt instruments over the outlook horizon to address its rising gone concern capital requirements, thereby increasing the share of liabilities that absorb losses prior to senior unsecured debt instruments, from which the backed issuer ratings are derived. The additional issuance is an important consideration for us to continue to assume a low loss given failure for senior unsecured debt, resulting in a aaa Preliminary Rating Assessment.

Our Advanced LGF analysis indicates a high loss given failure for subordinated debt, which results in a one notch deduction from the bank's aa1 Adjusted BCA, resulting in a aa2 Preliminary Rating Assessment.

### 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	0.5%	aa1	↔	a2	Quality of assets	Market risk
Capital						
Tangible Common Equity / Risk Weighted Assets (Basel III - transitional phase-in)	16.9%	aa2	↔	aa2	Expected trend	Risk-weighted capitalisation
Profitability						
Net Income / Tangible Assets	0.5%	ba1	↔	ba1	Return on assets	Expected trend
Combined Solvency Score		aa3		a2		
Liquidity						
Funding Structure						
Market Funds / Tangible Banking Assets	38.3%	ba2	↔	a1	Extent of market funding reliance	Market funding quality
Liquid Resources						
Liquid Banking Assets / Tangible Banking Assets	45.4%	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	80,177	41.0%	91,138	46.6%
Deposits	95,309	48.8%	85,588	43.8%
Preferred deposits	70,529	36.1%	67,002	34.3%
Junior deposits	24,780	12.7%	18,585	9.5%
Senior unsecured bank debt	12,511	6.4%	11,271	5.8%
Dated subordinated bank debt	500	0.3%	500	0.3%
Preference shares (bank)	1,065	0.5%	1,065	0.5%
Equity	5,863	3.0%	5,863	3.0%
Total Tangible Banking Assets	195,425	100.0%	195,425	100.0%

Debt Class	De Jure waterfall		De Facto waterfall		Notching		LGF	Assigned	Additional	Preliminary
	Instrument	Sub-volume + ordination subordination	Instrument	Sub-volume + ordination subordination	De Jure	De Facto	Notching Guidance vs. Adjusted BCA	LGF notching	Notching	Rating Assessment
Counterparty Risk Rating	9.6%	9.6%	9.6%	9.6%	1	1	1	1	0	aaa
Counterparty Risk Assessment	9.6%	9.6%	9.6%	9.6%	2	2	1	1	0	aaa (cr)
Deposits	19.1%	9.6%	19.1%	9.6%	3	3	1	1	0	aaa
Senior unsecured bank debt	9.6%	3.8%	9.6%	3.8%	0	0	0	1	0	aaa
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 Failure notching	Additional notching	Preliminary Rating Assessment	Government Support notching	Local Currency Rating	Foreign 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
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
<b>ZUERCHER KANTONALBANK</b>	
Outlook	Stable
Bkd Bank Deposits	Aaa/P-1
Baseline Credit Assessment	a1
Adjusted Baseline Credit Assessment	aa1
Bkd Issuer Rating	Aaa
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

- Following the update of our Banks Methodology on 9 July 2021, ZKB's outstanding CHF1,065 million of high-trigger Additional Tier 1 (AT1) instruments are no longer included in TCE, but are instead incorporated in our Advanced LGF analysis.
- 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 2022, the transitional gone concern add-on stood at 3.9% of RWA, covered by Tier 2 capital instruments 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. In the past, ZKB has taken action to improve its capital buffers above and beyond the increased capital requirements through (1) the issuance of CHF750 million and CHF315 million of high-trigger Additional Tier 1 (AT1) securities in June 2017 and October 2020, respectively; (2) the successful issuance of €500 million of low-trigger Tier 2 capital in 2015 and of €500 million Tier 2 capital in 2022; and (3) a CHF500 million and CHF425 million increase in dotation capital made available by the canton in 2015 and 2020, respectively, resulting in a total commitment of CHF3.425 billion at present.

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