

## CREDIT OPINION

18 June 2021

### Update

✓ Rate this Research

#### RATINGS

##### Zuercher Kantonalbank

Domicile	Zurich, Switzerland
Long Term CRR	Aaa
Type	BACKED LT Counterparty Risk Rating
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

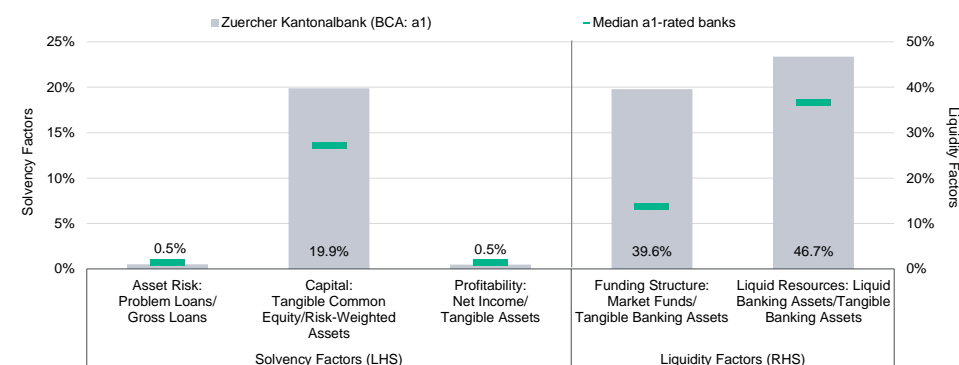
We assign Aaa(stable)/P-1 backed deposit and issuer ratings to [Zuercher Kantonalbank](#) (ZKB). We also assign a Baa1(hyb) preferred stock non-cumulative rating (assigned to the bank's high-trigger AT1 instruments), an a1 Baseline Credit Assessment (BCA), and a aa1 Adjusted BCA to ZKB.

ZKB's 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 strong capitalization 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 - Key financial ratios



Source: Moody's Financial Metrics

## Credit strengths

- » The Canton of Zurich provides a maintenance guarantee and a deficiency guarantee (fully guaranteeing all the bank's senior liabilities)
- » Strong capitalization
- » Resilient profitability metrics, despite the low interest rate environment
- » Very solid liquidity, with strong market access because of the deficiency guarantee, which balances its 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 the bank's standalone creditworthiness is highly unlikely, given the expected strain from the coronavirus crisis and the a1 BCA being positioned at the high-end of its peer group, a BCA upgrade could result from a combination of materially reduced concentrations 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 was 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, were to increase, resulting in sustainably higher problem loans, combined with lower buffer 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 ratings tab on the issuer/entity page on [www.moody's.com](http://www.moody's.com) for the most updated credit rating action information and rating history.

## Key indicators

Exhibit 2

### Zuercher Kantonalbank (Consolidated Financials) [1]

	12-20 <sup>2</sup>	12-19 <sup>2</sup>	12-18 <sup>2</sup>	12-17 <sup>2</sup>	12-16 <sup>2</sup>	CAGR/Avg. <sup>3</sup>
Total Assets (CHF Billion)	188.4	167.1	169.4	163.9	158.0	4.5 <sup>4</sup>
Total Assets (USD Billion)	213.1	172.5	171.8	168.2	155.4	8.2 <sup>4</sup>
Tangible Common Equity (CHF Billion)	13.6	13.0	12.5	11.8	11.2	5.0 <sup>4</sup>
Tangible Common Equity (USD Billion)	15.4	13.4	12.6	12.1	11.0	8.7 <sup>4</sup>
Problem Loans / Gross Loans (%)	0.5	0.5	0.6	0.7	0.7	0.6 <sup>5</sup>
Tangible Common Equity / Risk Weighted Assets (%)	19.9	20.0	19.9	18.5	17.0	19.0 <sup>6</sup>
Problem Loans / (Tangible Common Equity + Loan Loss Reserve) (%)	3.6	3.3	4.0	5.1	5.2	4.3 <sup>5</sup>
Net Interest Margin (%)	0.7	0.7	0.8	0.8	0.8	0.8 <sup>5</sup>
PPI / Average RWA (%)	1.3	1.3	1.1	1.2	1.1	1.2 <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 (%)	64.7	65.0	70.1	66.6	69.8	67.2 <sup>5</sup>
Market Funds / Tangible Banking Assets (%)	39.6	37.1	38.1	38.6	37.2	38.1 <sup>5</sup>
Liquid Banking Assets / Tangible Banking Assets (%)	46.7	42.2	45.4	44.7	43.6	44.5 <sup>5</sup>
Gross Loans / Due to Customers (%)	104.7	109.5	104.9	106.8	104.7	106.1 <sup>5</sup>

[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 CHF188 billion as of year-end 2020. 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 an 8.2% share of the domestic mortgage market and around 6.9% of deposits as of year-end 2020. As of the same date, ZKB operated through a network of 60 banking outlets, including branches of Zürcher 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.

## Recent Developments

The coronavirus pandemic has caused an unprecedented shock to the global economy and the strength of the economic recovery will vary across countries. We expect [real GDP in all G-20 economies](#) will collectively grow by 5.3% in 2021 and by 4.5% in 2022, after a 3.3% contraction in 2020. Economic activity in the second half of 2020 surprised to the upside. Nevertheless, the recovery will remain uneven and incomplete in 2021 as activity in contact-intensive sectors such as travel and tourism remains limited.

The Swiss economy has weathered the coronavirus crisis better than most other advanced economies. Real GDP contracted by just 3.0% in 2020. For 2021 and 2022, we forecast GDP growth of 2.8% and 2.9%, respectively. This sets the economy on track to surpass

its pre-pandemic level in 2022. The softer downturn and quick rebound reflect the country's competitive and well diversified economy, high household wealth and a strong social security safety net.

[Banks in Switzerland](#) entered the coronavirus crisis with very low problem loans, strong capital ratios and adequate profitability. All three metrics proved resilient in 2020 and will remain unaffected by ongoing pandemic-related disruptions over the outlook period as the economy recovers while government measures will be phased out but continue to support borrowers.

Lockdown measures were also less stringent than in other countries and sizeable government stimuli of CHF74 billion during the first wave of the pandemic and more than CHF23 billion in the second and third wave provided further support.

## 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 to ZKB, positioned three notches below its aa2 initial score. The assigned score captures the bank's strong asset-risk profile as reflected in its low level of nonperforming loans, as well as some operational risk related to its customer-driven trading activities and litigation risks stemming from its significant wealth and asset management operations.

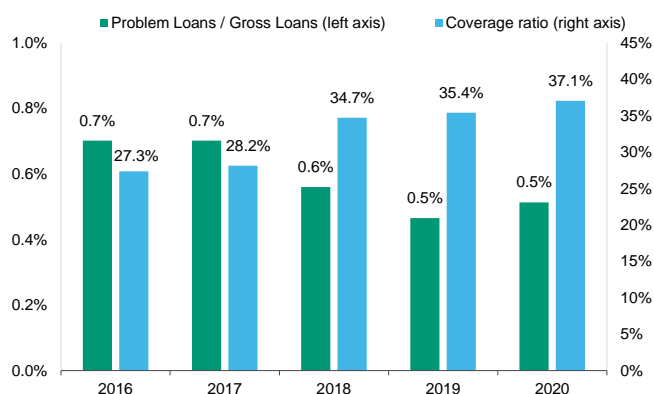
As of year-end 2020, ZKB's residential and commercial mortgage book stood at CHF87.7 billion (47% of the bank's total assets), incorporating some susceptibility to a significant slowdown in the Zurich and Swiss housing markets or a prolonged period of weaker economic growth in Switzerland. The risks related to a potential slowdown are mitigated by the bank's solid capital buffers and a very low problem loan ratio of 0.5% as of year-end 2020 (2019: 0.5%), comparing favourably with those of its banking peers. Furthermore, 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 CHF362 billion as of year-end 2020, up 8.5% from CHF333 billion as of year-end 2019. ZKB's private banking operations will continue to be accompanied by certain execution and reputational risks, despite the [US agreement](#) that is likely to resolve issues related to its US customers' alleged tax evasion. ZKB agreed to pay \$98.5 million, which equals 12.4% of its peak US assets under management in August 2018. The agreement removed the uncertainty around a potential negative effect on the bank's credit profile, although a tail risk around the criminal charges will persist until the US government officially confirms the case's closure, likely in 2021.

Furthermore, the bank's largely client-oriented trading and foreign exchange activities contributed 18% to the bank's operating revenue in 2020 (up from 13% in 2019), although trading assets of CHF10.9 billion remain limited compared with the bank's total assets of CHF188 billion as of year-end 2020. The potential earnings volatility stemming from those positions are reflected in our Asset Risk assessment.

Exhibit 3

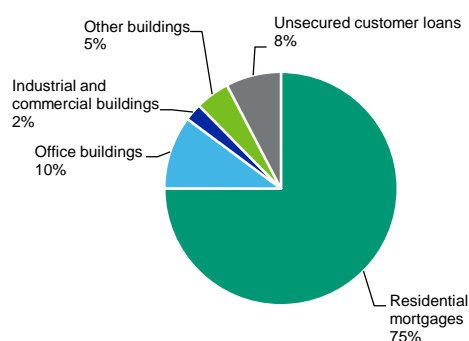
**ZKB's problem loan ratio remained very low, while its coverage ratio increased**



Source: Company reports, Moody's Investors Service

Exhibit 4

**ZKB's loan book largely consists of residential mortgages**  
Total loan book: CHF97.1bn as of year-end 2020



Source: Company reports, Moody's Investors Service

### ZKB's high capitalization provides a strong buffer against adverse developments

Our aa2 assigned Capital score, in line with the initial score, reflects ZKB's strong capitalization 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.

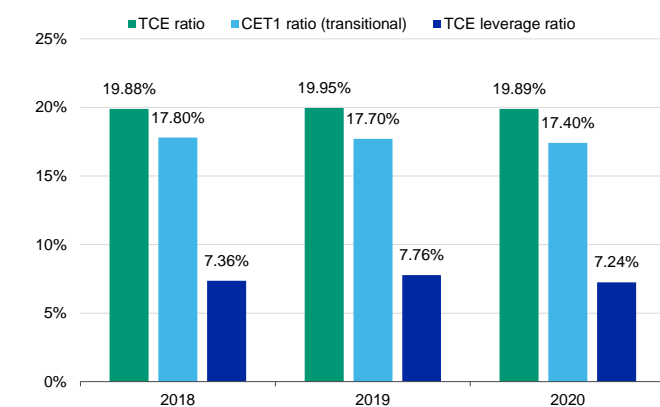
As the bank's sole owner, the Canton of Zurich provides a dotation capital frame, which was increased by CHF425 million to CHF3.425 billion in November 2020 to continue to meet regulatory gone-concern requirements. Of this capital frame, CHF2.425 billion has been drawn by ZKB and the remaining dotation 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 recalled 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. The bank is not allowed by law to issue participation certificates to raise capital. To meet rising capital requirements and to restore its capital buffers, following its classification as a domestic systemically important institution by the SNB in November 2013, the bank has taken and will take alternative measures.

ZKB's tangible common equity (TCE) ratio stood at 19.9% as of year-end 2020, virtually unchanged from 20.0% as of year-end 2019. The slight decline was driven by 5.4% higher risk-weighted assets (RWA) because of balance sheet growth, while TCE increased by 5.1% year-over-year. As of the same date, the bank's regulatory Common Equity Tier 1 (CET1) capital ratio stood at 17.4% (17.7% as of year-end 2019)<sup>1</sup>, while its total capital ratio stood at 18.9% (20.0% as of year-end 2019), thereby meeting the going-concern capital requirements for Swiss domestic systemically important institutions, which stipulate a 12.86% total capital ratio. No longer included in these requirements is the countercyclical buffer requirement for residential mortgage exposures, which was revoked by the SNB and FINMA in March 2020 and which had resulted in a 0.7% add-on for ZKB in 2019.

The bank's solid capitalization levels reflect rising regulatory requirements, largely driven by ZKB's classification as a domestic systemically important institution by decree of the SNB. 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 year-end 2020, the transitional gone-concern add-on stood at 2.0% 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 billion dotation capital reserve mentioned above. 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 EUR500 million of low-trigger Tier 2 capital in 2015; 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.

Exhibit 5

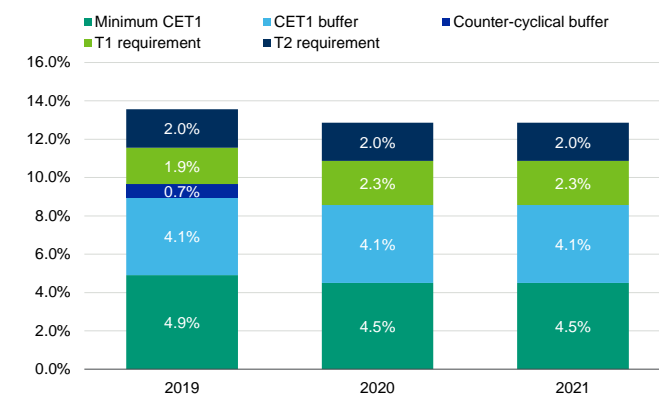
#### ZKB comfortably exceeds its capital requirements



TCE = Tangible Common Equity (Moody's calculation); CET1 = Common Equity Tier 1.  
Source: Company reports, Moody's Investors Service

Exhibit 6

#### ZKB's CET1 capital requirements



The counter-cyclical buffer was revoked in March 2020.

Source: Company reports

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

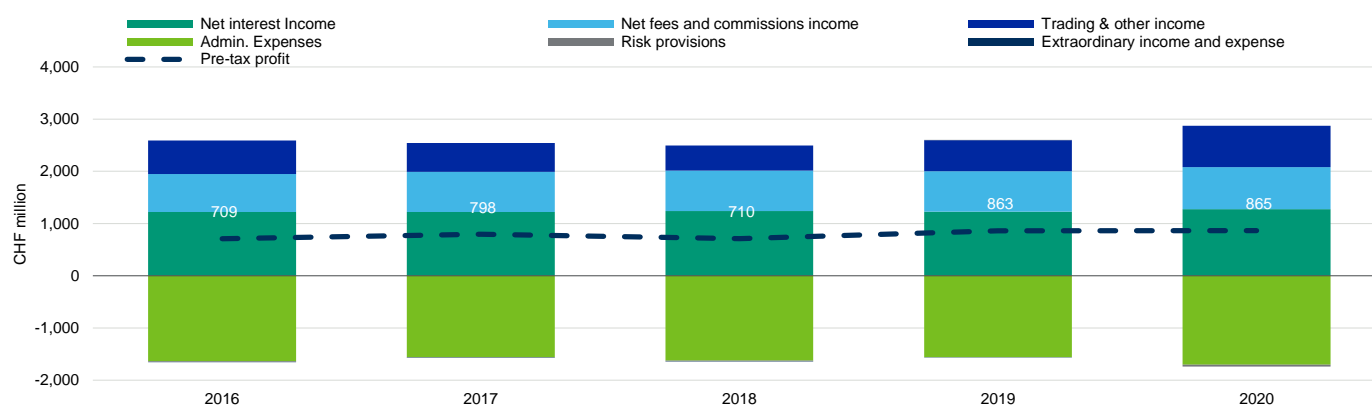
Our ba1 assigned Profitability score, in line with the initial score, captures the somewhat cloudy earnings outlook because of the coronavirus outbreak and the bank's relatively high proportion of earnings from potentially more volatile capital market activities. ZKB's more diversified earnings stream, on the other hand, provides a stabilising factor.

We expect ZKB's profitability metrics to decline slightly. This assessment includes the potential risks or impact of (1) a lower-for-longer interest rate environment; (2) intense competition and continued challenges in the bank's private banking franchise; and (3) potentially higher risk costs because of the coronavirus outbreak. These risks are at least partially offset by the positive effects that the acquisition of the asset manager Swisscanto in 2015 has had on ZKB's revenue mix, lowering the bank's dependence on net interest income and, thereby, stabilising its earnings. In addition, lending volume growth should offset at least some of the net interest margin pressure.

ZKB reported a Moody's-adjusted net profit of CHF861 million in 2020, broadly unchanged from the CHF858 million generated in 2019. The stable net profit was the result of a 7% growth in revenue that was mostly offset by a 6% growth in operating expenses and higher loan loss provisions. The growth in revenue was primarily driven by a substantial increase in trading and foreign exchange income, which rose 44% year-over-year because of the sharp increase in trading volumes and client activity since the onset of the coronavirus crisis. Revenue were also supported by improved net interest income and net fee and commission income, which both improved 4% year-over-year in 2020. Net interest income was bolstered by loan growth, the passing on of negative interest rates to major clients, as well as carry gains related to the higher negative interest exemption threshold at the SNB<sup>2</sup>. Net fee and commission income, on the other hand, was supported by higher brokerage and stock exchange fees during the period of market turbulence, as well as higher wealth and asset management fees. Operating costs, meanwhile, accelerated because of somewhat higher headcount, increased variable compensation, higher IT costs because of product innovation, as well as pandemic-related costs. Finally, loan loss provisions reached CHF39 million in 2020 following a net release of CHF6 million in 2019, reflecting the weakened credit environment.

Exhibit 7

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



Source: Company reports, Moody's Financial Metrics, Moody's Investors Service estimates

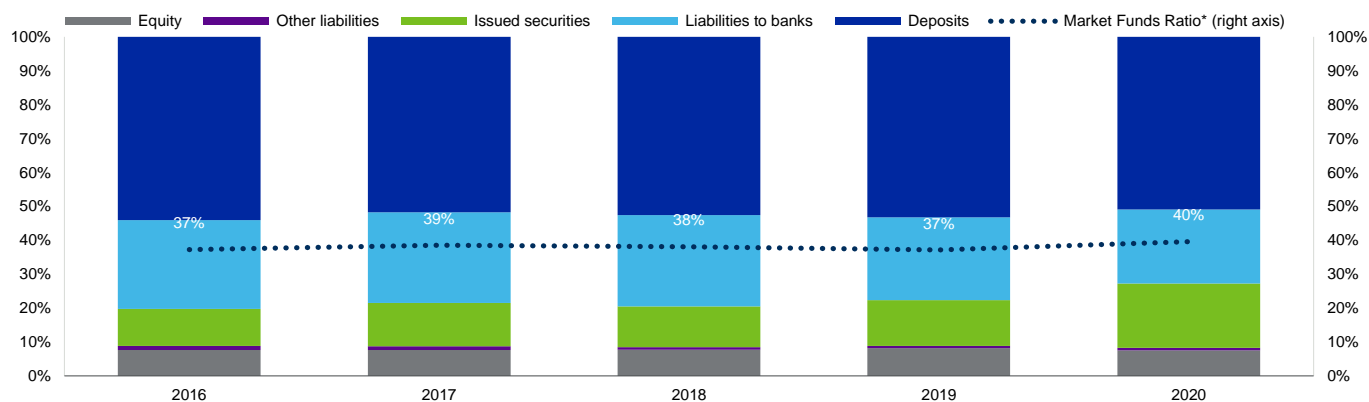
### ZKB's exposure to wholesale funding sources is high, but mitigated by the guarantee

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 interbank liabilities of CHF34.8 billion as of year-end 2020, 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 year-end 2020, ZKB's market funding also consisted of CHF23.8 billion of unsecured bond issuances, CHF10.7 billion of covered bonds (sourced via the Pfandbriefzentrale of the Swiss cantonal banks), CHF3.5 billion of structured notes and CHF7.1 billion of repo, trading and derivative liabilities. However, the primary funding source for ZKB was its CHF92.6 billion customer deposit base, resulting in a loan-to-deposit ratio of 105% as of year-end 2020.

Exhibit 8

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

\*Market funding ratio = Market funds/tangible banking assets.

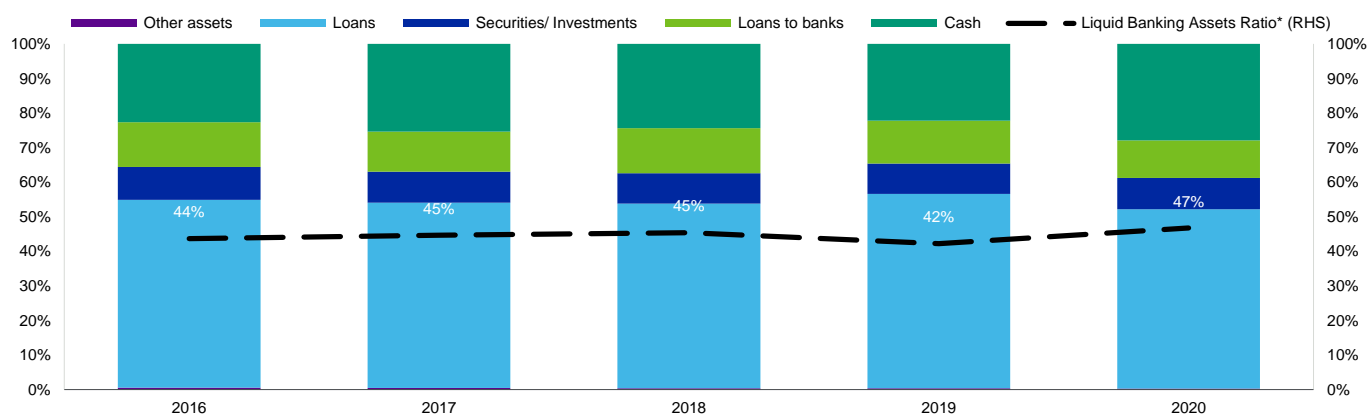
Source: Company reports, Moody's Investors Service

**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 outflow. 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 CHF52.2 billion of cash as of year-end 2020, along with around CHF4.6 billion of repo-eligible financial investments and CHF20.3 billion of interbank and other financial institution assets. The bank's Liquidity Coverage Ratio (LCR) stood at 160% as of year-end 2020, which the bank gradually increased from 123% as of year-end 2019, 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 asset ratio = Liquid assets/tangible banking assets.

Source: Company reports, Moody's Investors Service



## Environmental, social and governance (ESG) considerations

In line with our general view on the banking sector, ZKB has a low exposure to environmental risks (see our [Environmental risks heat map](#)<sup>3</sup> for further information).

For social risks, we also place ZKB in line with our general view for the banking sector, which indicates a moderate exposure (see our [Social risk heat map](#)<sup>4</sup>). This includes considerations in relation to the coronavirus outbreak, given the substantial implications for public health and safety and the severe and extensive credit shock the pandemic has caused across many sectors, regions and markets.

Governance is highly relevant for ZKB, as it is to all participants in the banking industry. Governance risks are largely internal rather than externally driven, and for ZKB, we do not have any particular governance concerns<sup>5</sup>. Nonetheless, corporate governance remains a key credit consideration and requires ongoing monitoring.

## 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.

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, counterparty risk liabilities and ZKB's issuer ratings from the bank's aa1 Adjusted BCA, resulting in aaa Preliminary Rating Assessments.

### 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 AT1 securities

The Baa1(hyb) rating assigned to the high-trigger undated, deeply subordinated AT1 notes issued by ZKB incorporates several considerations, including the output of its model-based outcome, the determination of the rating level of a non-viability security for ZKB (because the high-trigger AT1 securities incorporate a pre-failure trigger breach risk and cannot be rated above a non-viability security), and possible actions by FINMA prior to any defined trigger breach. As such, the Baa1(hyb) rating reflects that FINMA can force the write-down of the high-trigger securities, once ZKB receives extraordinary support from the Canton of Zurich to avoid insolvency, which could happen prior to a contractual trigger breach.

### Counterparty Risk Ratings

Counterparty Risk Ratings (CRR) are opinions of the ability of entities to honour the uncollateralised portion of non-debt counterparty financial liabilities (CRR liabilities) and also reflect the expected financial losses in the event such liabilities are not honoured. CRR are



distinct from ratings assigned to senior unsecured debt instruments and from issuer ratings because they reflect that, in a resolution, CRR liabilities might benefit from preferential treatment compared with senior unsecured debt. Examples of CRR liabilities include the uncollateralised portion of payables arising from derivatives transactions and the uncollateralised portion of liabilities under sale and repurchase agreements.

**ZKB's backed CRR are positioned at Aaa/P-1**

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

**Counterparty Risk Assessment**

The Counterparty Risk Assessment (CR Assessment) is an opinion of how counterparty obligations are likely to be treated if a bank fails and is distinct from debt and deposit ratings in that it (1) considers only the risk of default rather than both the likelihood of default and the expected financial loss suffered in the event of default; and (2) applies to counterparty obligations and contractual commitments rather than debt or deposit instruments. The CR Assessment is an opinion of the counterparty risk related to a bank's covered bonds, contractual performance obligations (servicing), derivatives (e.g., swaps), letters of credit, guarantees and liquidity facilities.

**ZKB's backed CR Assessment is positioned at Aaa(cr)/P-1(cr)**

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

**Methodology and scorecard****Methodology**

The principal methodology we used in rating ZKB was [Banks Methodology](#), published in March 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 10

### 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%	aa2	↔	a2	Quality of assets	Market risk
Capital						
Tangible Common Equity / Risk Weighted Assets (Basel III - transitional phase-in)	19.9%	aa2	↔	aa2	Expected trend	Risk-weighted capitalisation
Profitability						
Net Income / Tangible Assets	0.5%	ba1	↔	ba1	Return on assets	Expected trend
Combined Solvency Score		a1		a2		
Liquidity						
Funding Structure						
Market Funds / Tangible Banking Assets	39.6%	ba2	↔	a1	Extent of market funding reliance	Market funding quality
Liquid Resources						
Liquid Banking Assets / Tangible Banking Assets	46.7%	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 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 + ordination subordination	Sub- ordination	Instrument volume + ordination subordination	Sub- ordination	De Jure	De Facto				
Counterparty Risk Rating	-	-	-	-	-	-	-	1	0	aaa
Counterparty Risk Assessment	-	-	-	-	-	-	-	1	0	aaa (cr)
Deposits	-	-	-	-	-	-	-	1	0	aaa
Senior unsecured bank debt	-	-	-	-	-	-	-	1	0	aaa
Non-cumulative bank preference shares	-	-	-	-	-	-	-	-1	-5	baa1

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
Non-cumulative bank preference shares	-1	-5	baa1	0	Baa1 (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 11

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
Pref. Stock Non-cumulative -Dom Curr	Baa1 (hyb)

Source: Moody's Investors Service

## Endnotes

- 1 The difference between the TCE ratio and the CET1 ratio is largely driven by the outstanding CHF1,065 million high-trigger Additional Tier 1 (AT1) instruments, which are included in TCE.
- 2 On 1 April 2020, the SNB increased the amount of sight deposits that banks can hold at 0% interest at the central bank to 30x the minimum reserve requirement from 25x previously.
- 3 Environmental risks can be defined as environmental hazards encompassing the impact of air pollution, soil/water pollution, water shortages and natural and man-made hazards (physical risks). Additionally, regulatory or policy risks, such as the impact of carbon regulation or other regulatory restrictions, including related transition risks such as policy, legal, technology and market shifts, that could impair the evaluation of assets are an important factor. Certain banks could face a higher risk from concentrated lending to individual sectors or operations exposed to the aforementioned risks.
- 4 Social risk considerations represent a broad spectrum, including customer relations, human capital, demographic and societal trends, health and safety, and responsible production. The most relevant social risks for banks arise from the way they interact with their customers. Social risks are particularly high in the area of data security and customer privacy, which is partially offset by sizeable technology investments and banks' long track record of handling sensitive client data. Fines and reputational damage because of product mis-selling or other types of misconduct is a further social risk. Societal trends are also relevant in a number of areas, such as shifting customer preferences towards digital banking services increasing information technology costs, ageing population concerns in several countries affecting the demand for financial services or socially driven policy agendas that may translate into regulations that affect banks' revenue bases.
- 5 Corporate governance is a well-established key driver for banks and related risks are typically included in our evaluation of banks' financial profiles. Corporate governance weaknesses can lead to a deterioration in a bank's credit quality, while governance strengths can benefit its credit profile. Further, factors such as specific corporate behaviour, key person risk, insider and related-party risk, strategy and management risk factors and dividend policy may be captured in individual adjustments to the BCA.

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