MOODY'S INVESTORS SERVICE

CREDIT OPINION

PRIVATE MONITORED RATING

28 June 2023

Pfandbriefzentrale der schweizerischen Kantonalbanken AG

First time assignment of Aa1/P-1 deposit ratings

Contacts

Andrea Wehmeier — Frankfurt
Vice President – Senior Analyst

Michael Rohr — Frankfurt
Senior Vice President

Summary

On 02 September 2022, we assigned first-time private monitored long-term and short-term Aa1/P-1 bank deposit ratings to Pfandbriefzentrale der schweizerischen Katonalbanken AG (Pfandbriefzentrale). We further assigned an a2 Adjusted BCA and Aa1(cr)/P-1(cr) Counterparty Risk Assessments (CR Assessments) to Pfandbriefzentrale. The outlook on the long-term deposit ratings is stable.

Pfandbriefzentrale's Aa1 deposit rating and Aa1(cr) Counterparty Risk (CR) Assessment reflect its a2 Adjusted BCA; our assessment of the likelihood that the member banks will support Pfandbriefzentrale in case of need and takes into account the balance of the legal and statutory framework and other incentives to provide support in the absence of a joint and several guarantee framework; and the results of our Advanced Loss Given Failure (LGF) analysis, which results in two notches of ratings uplift for Pfandbriefzentrale's deposit ratingsThe rating further reflect two notches of rating uplift from government support because of Pfandbriefzentrale's 17% share in the domestic Swiss bond market market as well as its systemic importance to the refinancing of the Swiss cantonal banks, additionally supported by Switzerland's dedicated legal framework for the issuance of Pfandbriefe under the remits of the Pfandbrief Act.

We consider Pfandbriefzentrale a highly integrated entity (HIE) with multiple parents the latter represented by the 24 member banks, Swiss cantonal banks. In absence of a joint and several guarantee towards Pfandbriefzantrale, we derive the ratings and assessments for Pfandbriefzentrale from the average creditworthiness of its member banks. This approach reflects our expectation that a default of a member bank will not necessarily lead to a cross-default on Pfandbriefzentrale, given the legal and statutory framework in place and additional additional capital, liquidity and interest payment cover held at Pfandbriefzentrale.

Our view on the member banks' credit profiles includes their good capitalisation and generally sound asset quality and solid liquidity metrics , but also takes into account concentration risks in the Swiss real-estate markets.. Further, the ratings reflect the guarantees provided to member banks by several of the Swiss cantons, including the our view on potential support provided by the cantons for those member banks that do not benefit from direct and explicit guarantees by their cantons.

Credit strengths

- Pfandbriefzentrale member banks' strong stand-alone creditworthiness, displaying an overall good capitalisation, low non-performing loans and good liquidity
- Guarantees provided by the the majority of the respective Swiss cantons, the ultimate owners of the member banks, further reduce the probability of default of Pfandbriefzentrale's member banks
- Strong legal and statutory framework, as defined by a dedicated law supporting and limiting the issuance of Swiss Pfandbriefe to two institutions
- Additional funds as well as discretionary control measures at the level of Pfandbriefzentrale provide further investor protection

Credit challenges

- Lack of a joint and several support mechanism among the member banks and lack of an explicit guarantee by the member banks towards Pfandbriefzentrale
- High concentration of the individual member banks in the Swiss real estate market

Rating outlook

The stable outlook reflects our expectation of an overall stable development in the key financial ratios and the credit profiles of the Pfandbriefzentrale member banks over the next 12-18 months.

Factors that could lead to an upgrade

Pfandbriefzentrale's deposit rating could be upgraded as a result of improved credit profiles of its member banks or stronger credit profiles of the supporting Swiss cantons. Moreover, the rating could be upgraded through a strengthening of the member banks' legal commitments protecting Pfandbriefzentrale.

Upwards pressure on the cantonal banks' credit profiles could result from a combination of reduced concentration risks, sustained stronger profitability and a meaningful improvement in liquidity metrics.

Factors that could lead to a downgrade

Pfandbriefzentrale's deposit rating could be downgraded as a result of a deterioration in the credit profiles of its member banks and the Swiss cantons. Further, a weakening support from the Swiss cantons, as evidenced by the withdrawal of existing guarantees could result in downward rating pressure. In addition, a lower notching uplift as a result of our Advanced LGF analysis could result in downward pressure.

Downward pressure on the cantonal banks' credit profiles could result from a meaningful deterioration in asset quality, in particular if caused by an adverse development on the Swiss real estate markets to which the banks' loan books are predominantly exposed, leading to sustainably higher problem loans; a meaningfully lower capitalisation and profitability; or a sustainable increase in confidence-sensitive market funding reliance without a corresponding increase in liquidity.

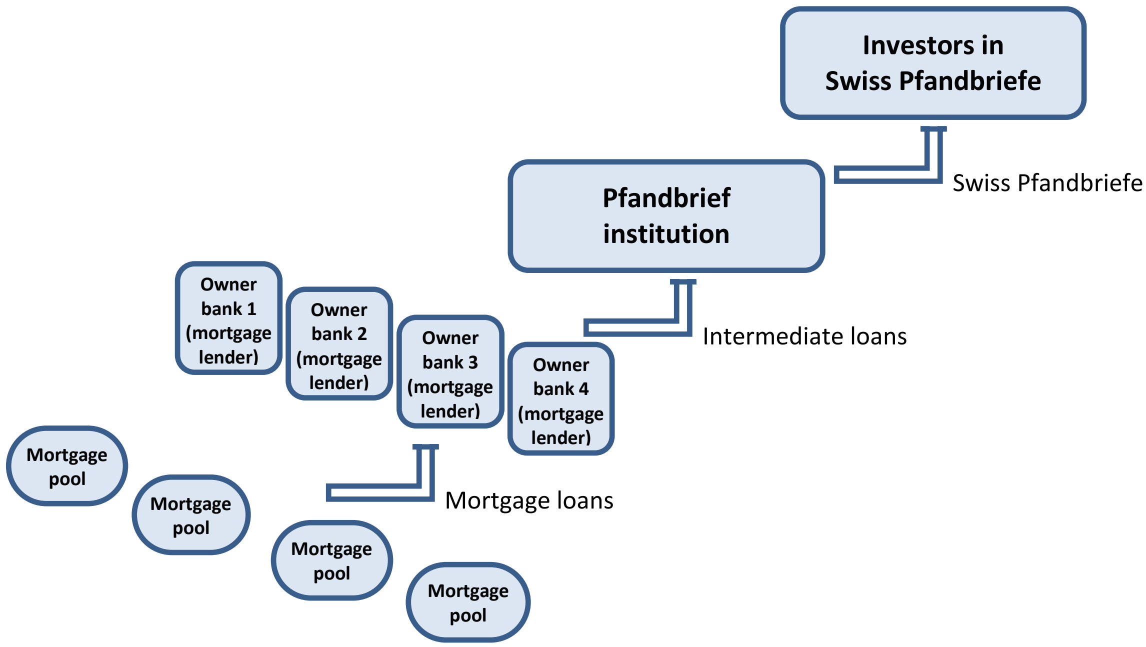
Profile

Pfandbriefzentrale is a funding vehicle designed to solely issue covered bonds or Pfandbriefe on the Swiss capital market for its 24 member banks, the Swiss cantonal banks. Its role is prescribed in Switzerland's dedicated legal framework and law, the Pfandbrief Act. The Act limits the issuance of covered bonds to solely two Pfandbrief institutions in Switzerland, of which Pfandbriefzentrale is one, providing its member banks with a strong incentive to support the entity. The Pfandbrief institutions issue covered bonds to refinance their member banks' Swiss mortgage business through loans issued to them, secured by the member banks' pledged mortgage portfolios.

Exhibit 1

Swiss Pfandbrief Structure

Two Pfandbrief institutions act as refinancing vehicles for the Swiss banking system



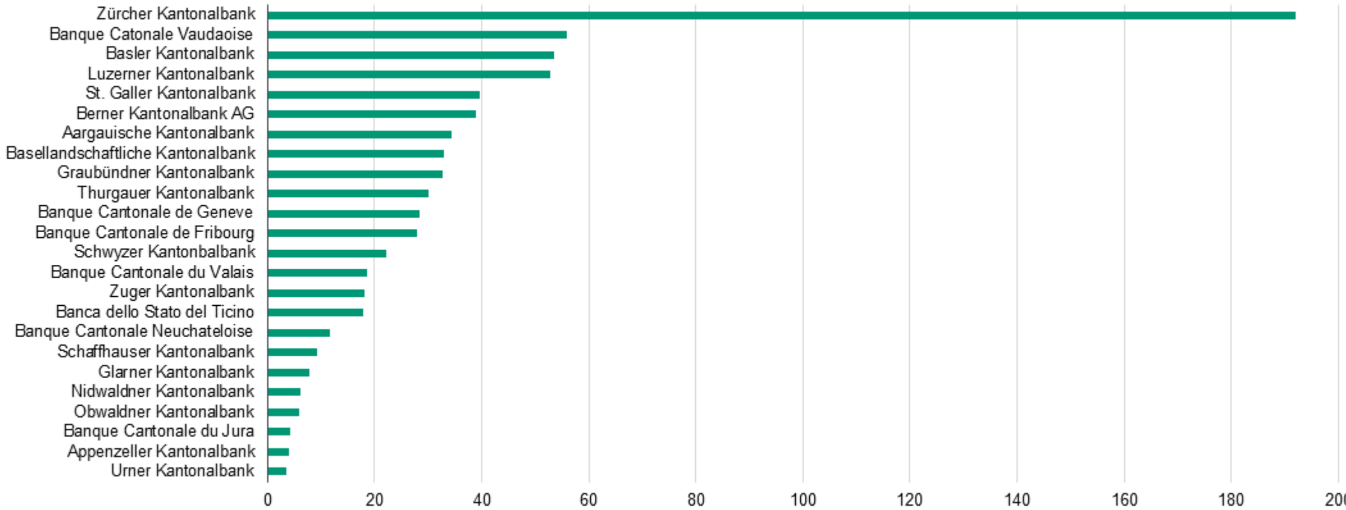
Source: Moody's Investors Service, company reports

The 24 Swiss cantonal banks are also Pfandbriefzentrale's owners holding an equity stake in the institution, with Zuercher Kantonbalbank AG (ZKB, Aaa/Aaa stable, a1[1]; 17.8% share), Banque Cantonale Vaudoise (BCV[2]; A1 stable, a2; 13.6% share) and Berner Kantonalbank (Berner KB, Aa2/A2 stable, a2[3]; 10.7% share) being its largest shareholders. Pfandbriefzentrale's total assets stood at CHF74.1 billion as of 30 June 2022, thereof CHF73.4 billion in loans towards its member banks, fully refinanced by the issued covered bonds.

[1] The ratings shown are the bank's deposit and issuer ratings and outlook, and its BCA.
[2] The ratings shown are the bank's deposit ratings and outlook, and its BCA
[3] The ratings shown are the bank's deposit and senior unsecured ratings and outlook, and its BCA

Exhibit 2

Pfandbriefzentrale's member banks' total assets as of year—end 2021 in CHF billion



Source: Moody's Investors Service, company reports

Detailed credit considerations

Source of facts and figures cited in this report

The data presented in the Exhibits and discussed in the text refer to the ratios of the individual member banks and owners of Pfandbriefzentrale. The credit profiles of the banks that own Pfandbriefzentrale form the starting point for the vehicle's ratings.

Pfandbriefzentrale's's member banks' creditworthiness and liability structure drive our credit assessment

We consider Pfandbriefzentrale a highly integrated entity (HIE) with multiple parents, the latter comprised ofits 24 member banks, the Swiss cantonal banks. In absence of a joint and several liability scheme, we derive the ratings and assessments for Pfandbriefzentrale from the average creditworthiness of its member banks..

The approach reflects the expectation that a default of a member bank will not necessarily lead to a cross-default at the level of Pfandbriefzentrale, given the legal and statutory framework in place as well as additional capital, liquidity and interest payment cover held at Pfandbriefzentrale. Moreover, our assessment further takes into consideration that - in a stressed scenario - member banks could prioritize the timely repayment of their own obligation over the repayment of the loan sourced from Pfrandbriefbank.

Nevertheless, and in absence of an explicit commitment to support Pfandbriefzentrale in case of need, the following measures should help safegard the entity from losses in case member banks face financial difficulty (1) Pfandbriefzentrale limits the loans granted to an individual member bank to 35% to its respective mortgage loan stock, effectively limiting concentration risks in its cover pool and limiting encumbrance at the level of the member bank; (2) Pfandbriefzentrale applies strict lending criteria for mortgages to qualify as eligible collateral backing a loan to a member bank. Those include a loan-to-value (LTV) ratio limit; individual overcollaterialisation requirements; and an obliation to replace non-performing mortgages on an ongoing basis to ensure the quality of the loan pools generating the cash-flows serving the respective loans (and, ultimately, the covered bonds) granted. These measures come in addition to capital and liquidity held at the level of Pfandbriefzentrale.

The Swiss legal framework provides meaningful additional protection because loans provided by Pfandbriefzentrale to its member banks are exempt from bail-in measures in case a member bank defaults. Further, the Swiss Financial Market Authority (FINMA) is empowered to appoint a separate insolvency administrator tasked with ensuring timely access to the pledged mortgages' cash flow in case a member bank fails, including transferring or selling pledged mortgage assets to a third party to help recover the loan from Pfandbriefzentrale.

Determining the member banks' and, thereby, Pfandbriefzentrale's credit profile, we examine three key components: (1) the individual member banks' stand-alone creditworthiness, as established by their respective geographic areas of operations, financial characteristics and any relevant qualitative factors; (2) potential going-concern support available from the Swiss cantons; (3) the application of our Advanced LGF analysis on the individual members' liability structures in order to assess the extent to which junior debt classes could cushion the impact of any regulatory "bail-in" of the member banks' creditors, including Pfandbriefzentrale; and (4) in selected cases, government support.

The member banks display generally strong financial fundamentals, with limited variations in overall credit quality amongst members, given the comparable business models for many, albeit not all cantonal banks. Furthermore, investor protection is available through guarantees provided by the Swiss cantons for 21 out of the 24 member banks. Pfandbriefzentrale's member banks benefit from operating in an open, well-diversified and highly stable environment characterised by a very high degree of economic, institutional and governance strength, and very low susceptibility to event risk. Strong financial regulation and the country's long-standing sociopolitical stability provide further support.

Sound asset quality with concentration risks in Swiss real estate sector

Our assessment of the Pfandbriefzentrale member banks' asset risk considers their sound asset quality as reflected by problem loans ratios ranging from a very low 0.4% to a low 1.8%. Our asset risk assessment also takes account of many member banks' sizeable concentrations to Switzerland's real estate sector through the banks' mortgage lending activities and significant geographical concentrations at the level of of the individual banks, which could lead to larger losses in case of shocks to the Swiss residential real-estate market. This risk is reflected in our assessment of the member banks' financial profiles.

During the pandemic, the banks' problem loans remained broadly unchanged as government measures like furlough schemes and ample unemployment benefits shielded most households from the coronavirus-related downturn, and continue to support retail asset quality in 2023. Moreover, the banks have little exposure to unsecured consumer loans, and ample equity collateral protects them from loss in the event of mortgage defaults.

In particular, the loan-to-value ratios for mortgage portfolios pledged to Pfandbriefzentrale cannot exceed 66%, providing a sturdy buffer against asset price deterioration. These buffers are further bolstered through additional overcollateralization requirements and the obligation of member banks to substitute pledged mortgage collateral should their performance deteriorate or their LTV increase to more than the pre-defined limit for the acceptance of loans for Pfandbriefzentrale's cover pool. Ineligible assets or non-performing loans need to be replaced and the interest generated by the pledged mortgages need to exceed Pfandbriefzentrale interest costs by 10%.

We, therefore, expect the residential mortgage portfolio in use for the issuance of covered bonds will be well diversified, with granular loan balances in the cover pool and further strengthened through tight acceptance criteria.

Strong capitailsation of member banks

Pfandbriefzentrale's member banks are well capitalised, (see Exhibit 3), indicating their ability to absorb significant losses before any potential impact on their creditors. The available capital cushions also allow these banks to support Pfandbriefzentrale on an on-going basis if needed.

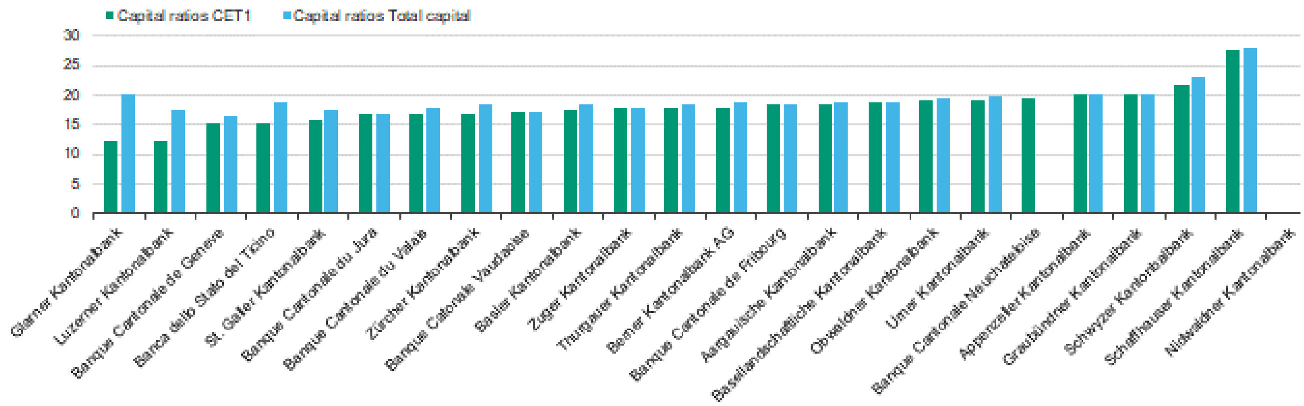
We expect capitalisation to remain strong going forward on the back of high and increasing capital requirements. Switzerland's reactivation of a 2.5% countercyclical capital buffer (CCyB) for domestic real estate loans, effective 30 September 2022, is not expected to have a meaningful effect on capitalisation levels, but will reduce the buffers against regulatory minima, though not to an extent that would imply a materially lower ability for cantonal banks to support Pfanbriefzentrale or to generate new business.

Regulatory capital requirements for the cantonal banks vary significantly, ranging from the requirements for a domestically systemically relevant financial institution (D-SIFI) like Zuercher Kantonalbank (total capital requirement of 20.7% as of 2026) to the smallest institutions classified as a Category 5 bank under the Swiss Financial Market Supervisory Authority's (FINMA) regime with a total capital requirement of 10.5%.

Pfandbriefzentrale's equity stood at 2.6% of liabilities as of half-year 2022, somewhat above the legal minimum of 2% Excess capital stood at CHF455 million as of 30 June 2022, enabling further balance sheet growth through the issuance of covered bonds and the granting of loans to its member banks while maintaining sound risk buffers.

Exhibit 3

Capital ratios of member banks



Note: Nidwaldner Kantonalbank does not report CET1 or total capital ratios since it falls under the small banks' regime and is excempt from a number of regulatory requirements.
Source: Moody's Investors Service, company reports

Profitablity is sound

Profitability of the Pfandbriefzentrale member banks was in line with domestic peers in 2021, as reflected in their net income to total assets (NI/TA) ratio of 0.3-0.7% compared with 0.5% for Swiss rated peers. The member banks' cost-to-income ratio ranged from 40-70%. Going forward, we expect strain on net interest income to ease owing to higher interest rates and continued balance sheet growth at member banks. We also expect commission and trading income to fluctuate around the levels achieved in prior years, supported by fairly stable assets under management and continued elevated market volatility supporting healthy client activity. With operating costs and loan loss provisions expected to remain virtually unchanged over the next 12-18 months, we expect the member banks' profitability to remain largely unchanged.

Pfandbriefzentrale's own profitability is limited owing to its business purpose of serving the interests of its owners. Its own profitability is largely generated from a margin it charges for its services on the loans granted towards its member banks. Other revenue sources are of minor importance and operating expenses are very limited.

Market funding dependence is mitigated by cantonal guarantees andfurther balanced by adequate liquid resources

Pfandbriefzentrale member banks' market funding dependence is in line with the Swiss banking system at around 25% of total liabilities, although funding profiles vary significantly amongst member banks. The cantonal banks, similar to other Swiss banks, benefit from a strong domestic deposit base which limits their reliance on confidence-sensitive market funding. In addition, the guarantees provided by the Swiss cantons result in the banks being regarded as a safe haven in times of market turmoil.

For Pfandbriefzentrale, the refinancing risk of its covered bonds is very limited because of the matched maturity of the granted intermediate loans to its member banks with the issued covered bonds.. Further mitigatign cash flow risks is Pfandbriefzentrale own liquidity cushion comprised of CHF23.5 million in cash and CHF691 million in repo-eligible and highly-rated securities as of 30 June 2022. Ultimately, if a member bank or a Pfandbrief institution is at risk of failing, FINMA has broad powers to intervene early. This includes a separate insolvency administrator appointed by FINMA upon a member bank insolvency, who will be tasked to ensure full and timely repayment of all intermediate loans to Pfandbriefzentrale as well as, timely access to the cash-flow of the pledged mortgages for Pfandbriefzentrale.[4]

Swiss cantonal banks carry a high share of cash and other highly liquid assets on their balance sheets, equivalent to around 25% of their banking assets, therebysignificantly reducing their refinancing risk. Particularly cash reserves are of high relevance, as Swiss banks placed significant volumes of sight deposits at the Swiss National Bank (SNB), with conditions allowing them to generate a margin on those. The SNB also remains accessible to provide emergency liquidity assistance if required.

Strong business focus results in lack of income diversification constraining some member banks' financial profiles

Our assessment of some the member banks' financials profiles is constrained by the lack of income diversification outside of its narrowly distributed real estate lending business. For some of the member banks, revenues depend almost exclusively on its mortgage lending business line and, therefore, we classify those member banks as a monoline bank according to our approach for business diversification, leading to a one-notch negative qualitative adjustment for the lack of business diversification for these member banks.

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

ESG considerations

In line with our general view of the banking sector, Pfandbriefzentrale has low exposure to environmental risks (see our environmental risk heatmap for further information)[5].

For social risks, we also place Pfandbriefzentrale in line with our general view of the banking sector, which indicates moderate exposure (see our social risk heat map)[6].

For Pfandbriefzentrale, governance risks are largely internally rather than externally driven. We do not have any particular concerns, despite the very small management board. Pfandbriefzentrale will benefit from the regular monitoring of all 24 member banks. Corporate Governance[7] remains a key credit consideration and requires ongoing monitoring.

Structural considerations

Affiliate support

[4] Based on our assumption that the updated Pfandbrief law and the updated Banking Act will become effective as of 1 January 2023.

[5] Environmental risks can be defined as environmental hazards encompassing the impacts of air pollution, soil/water pollution, water shortages, and natural and human-made hazards (physical risks). Additionally, regulatory or policy risks, such as the effect of carbon regulation or other regulatory restrictions, including the related transition risks like policy, legal, technology and market shifts, which 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.

[6] 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 are 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 are further social risks. 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 seve

[7] Corporate governance is a well-established key driver for banks and the related risks are typically included in our evaluation of banks' financial profiles. Furthermore, 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.

Cantonal banks benefit from parental support from Swiss cantons, which are either majority owners or provide the cantonal banks with guarantees. Parental support can (materially) reduce the probability of default as it would stabilize a distressed bank and not just compensate for losses in resolution. The assigned rating uplift varies depending on the creditworthiness of the canton and the related cantonal bank, the strategic role and ownership situation as well as the availability of guarantees. The assigned Adjusted BCA to Pfandbriefzentrale takes into account the weighted average affiliate support uplift available.

Loss Given Failure analysis

Pfandbriefzentrale member banks are subject to Swiss banking regulations, which we consider an operational resolution regime. Therefore, we apply our Advanced LGF analysis, considering the risks faced by the different debt and deposit classes across the liability structure at failure. The rating agency assumes a residual TCE of 3%, post-failure losses of 8% of tangible banking assets, a 25% runoff in junior wholesale deposits and a 5% runoff in preferred deposits, and we assign a 100% probability to deposits being preferred to senior unsecured debt (as reflected in the de facto case in the waterfall), thereby reflecting the depositor preference by law in Switzerland.

We consider a weighted average failure balance sheet in order to cacluate potential notching uplift for Pfandbriefzentrale. For Pfandbriefzentrale's deposit rating, our Advanced LGF analysis indicates a very low loss given failure, resulting in two notches of rating uplift from the bank's a2 Adjusted BCA. This is because the substantial volume of deposits decreases the severity of loss in the unlikely event of a failure or a resolution.

Owing to depositor preference by law in Switzerland, the junior deposit rating is an important anchor point for covered bond issuers in the country because the CR Assessment does not fully reflect the potential benefit to covered bondholders resulting from a bail-in of junior deposits compared to other jurisdictions.

Government support

We incorporate two notches of rating uplift for Pfandbriefzentrale from support by the Government of Switzerland (Aaa stable), reflecting our assumption of a high probability of systemic support in the event of a stress scenario, given the the importance of the Pfandbrief within the domestic Swiss bond market, particularly in the absence of meaningful government bond volumes outstanding.

Counterparty Risk (CR) Assessment

Pfandbriefzentrale's CR Assessment is Aa1(cr)/P-1(cr)

Pfandbriefzentrale CR Assessment is positioned at four notches above its a2 Adjusted BCA. This positioning reflects the aforementioned depositor preference in Switzerland and the resulting rank ordering of CR exposures below deposits; the high level of government support yielding in two notches of additional rating uplift; and the volume of instruments ranking below CR exposures, such as senior debt and equity, which leads to two notches of rating uplift from the Adjusted BCA. Because the CR Assessment captures the probality of default on certain senior obligations, rather than expected loss, we focus purely on subordination and take no account of the volume of the instrument class.

Rating methodology and scorecard factors

Methodology

The principal methodology used in these ratings was Banks Methodology published in July 2021 and available at https://ratings.moodys.com/api/rmc-documents/71997. Alternatively, please see the Rating Methodologies page on https://ratings.moodys.com for a copy of this methodology.

Moody's Banks Methodology (July 2021) Appendix 1 referring to Highly Integrated Entities (HIEs) was used in assigning Pfandbriefzentrale's ratings. Moody's incorporates a series of standard and non-standard adjustments on Swiss banks' financial statements in order to better reflect credit risks and implications.

Ratings

Exhibit 4

Category	Moody's Rating
Pfandbriefzentrale der schweizerischen Kantonalbanken	
Outlook	Stable
PMR - LT Bank Deposits/Outlook	Aa1/Stable
PMR - ST Bank Deposits	P-1
PMR - Baseline Credit Assessment	
PMR - Adjusted Baseline Credit Assessment	a2
PMR – LT Counterparty Risk Assessment	Aa1(cr)
PMR – ST Counterparty Risk Assessment	P-1(cr)

Sources: Moody's Investors Service

REPORT NUMBER 209343

MOODY'S
INVESTORS SERVICE