

CREDIT OPINION

10 November 2020

Update



Rate this Research

RATINGS

Aareal Bank AG

| Domicile | Wiesbaden, Germany |
|-------------------|---|
| Long Term CRR | A3 |
| Туре | LT Counterparty Risk Rating - Fgn Curr |
| Outlook | Not Assigned |
| Long Term Debt | Withdrawn |
| Туре | Senior Unsecured MTN - Fgn Curr |
| Outlook | Not Assigned |
| Long Term Deposit | A3 |
| Туре | LT Bank Deposits - Fgn Curr |
| Outlook | Negative |

Please see the <u>ratings section</u> 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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Aareal Bank AG

Update to credit analysis

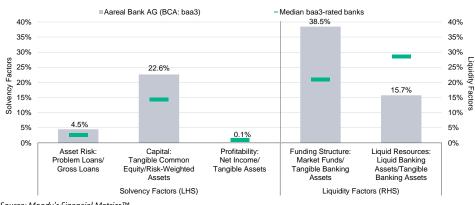
Summary

We assign A3 deposit and issuer ratings with a negative outlook to <u>Aareal Bank AG</u>. We further assign A3/P-2 Counterparty Risk Ratings (CRRs), as well as baa3 Baseline Credit Assessment (BCA) and Adjusted BCA to the bank.

Aareal's A3 deposit and issuer ratings reflect its baa3 Baseline Credit Assessment (BCA) and Adjusted BCA; and the application of our Advanced Loss Given Failure (LGF) analysis to its liabilities, which results in an extremely low loss-given-failure. Aareal's ratings do not benefit from government support uplift because of its small size in the context of the German banking sector.

The assigned baa3 BCA reflects Aareal's resilient intrinsic financial strength, even in a more deteriorating operating environment resulting from the coronavirus outbreak in Europe. The bank's strong capitalization largely mitigates its limited diversification benefits from other businesses and elevated asset risks, enabling the bank to cope with a deterioration in its asset quality. The BCA also reflects a sound track record of low through-the-cycle credit losses. Aareal Bank's sound liquidity management and funding profile are additional risk mitigant. Our view on the bank's BCA could change if the coronavirus-related credit shock led to a sustained erosion of its solvency strengths.

Rating Scorecard - Key financial ratios



Source: Moody's Financial Metrics™

Credit strengths

- » Strong and high-quality capitalisation
- » Sound liquidity metrics and stable funding from the housing industry sector
- » Low loan losses through the cycle

Credit challenges

- » High and concentrated exposures to commercial real estate (CRE) lending, which may exert pressure on the bank's asset quality during a global property downturn
- » Significant exposures to hotel and retail CRE portfolios that are severely affected by the coronavirus-induced economic downturn
- » Above-average nonperforming loans
- » Limited diversification benefits from other businesses (monoliners)
- » Moderate dependence on wholesale funding

Outlook

The negative outlook on Aareal's long-term issuer and deposit ratings reflects the downward pressure on the bank's BCA from the deteriorating operating environment as a result of the global coronavirus pandemic.

Factors that could lead to an upgrade

- » As indicated by the negative outlook, upward pressure on the ratings is currently unlikely.
- » An upgrade of Aareal's ratings could follow an upgrade of its BCA, which would require a substantially more diversified business model, such that it eliminates the existing high concentration risks in its CRE lending.

Factors that could lead to a downgrade

- » Aareal's ratings could be downgraded as result of a downgrade of its BCA or if its loss-absorbing liabilities decline significantly and beyond our expectations, thereby resulting in fewer notches of rating uplift from our LGF analysis.
- » Downward pressure on Aareal's BCA could develop as a result of a material deterioration in its asset quality, a significant and sustained drop in its profitability, or an overall weakening of the bank's combined liquidity profile.

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

Key indicators

Exhibit 2

Aareal Bank AG (Consolidated Financials) [1]

| - | 06-20 ² | 12-19 ² | 12-18 ² | 12-17 ² | 12-16 ² | CAGR/Avg. ³ |
|--|--------------------|--------------------|--------------------|--------------------|--------------------|------------------------|
| Total Assets (EUR Billion) | 43.3 | 40.1 | 41.6 | 40.8 | 43.8 | (0.3) ⁴ |
| Total Assets (USD Billion) | 48.7 | 45.0 | 47.6 | 49.0 | 46.2 | 1.54 |
| Tangible Common Equity (EUR Billion) | 2.6 | 2.7 | 2.7 | 2.8 | 2.7 | (0.8)4 |
| Tangible Common Equity (USD Billion) | 3.0 | 3.0 | 3.1 | 3.3 | 2.9 | 1.04 |
| Problem Loans / Gross Loans (%) | 3.8 | 3.6 | 5.8 | 4.6 | 4.8 | 4.5 ⁵ |
| Tangible Common Equity / Risk Weighted Assets (%) | 22.6 | 24.1 | 21.0 | 23.4 | 18.7 | 22.0 ⁶ |
| Problem Loans / (Tangible Common Equity + Loan Loss Reserve) (%) | 31.4 | 30.4 | 47.2 | 37.0 | 45.7 | 38.3 ⁵ |
| Net Interest Margin (%) | 1.2 | 1.3 | 1.3 | 1.4 | 1.5 | 1.4 ⁵ |
| PPI / Average RWA (%) | 2.1 | 2.8 | 3.0 | 3.1 | 2.9 | 2.8 ⁶ |
| Net Income / Tangible Assets (%) | 0.1 | 0.4 | 0.4 | 0.5 | 0.5 | 0.4 ⁵ |
| Cost / Income Ratio (%) | 69.6 | 60.6 | 61.0 | 59.3 | 57.8 | 61.7 ⁵ |
| Market Funds / Tangible Banking Assets (%) | 44.8 | 38.5 | 37.9 | 37.1 | 39.1 | 39.5 ⁵ |
| Liquid Banking Assets / Tangible Banking Assets (%) | 25.1 | 15.7 | 16.2 | 20.2 | 18.5 | 19.1 ⁵ |
| Gross Loans / Due to Customers (%) | 195.0 | 193.7 | 187.7 | 188.2 | 227.8 | 198.5 ⁵ |

[1] All figures and ratios are adjusted using Moody's standard adjustments. [2] Basel III - fully loaded or transitional phase-in; IFRS. [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

Aareal, headquartered in Wiesbaden, Germany, is a CRE lending specialist, active in Europe, North America and, to a limited degree, in Asia. The bank focuses on corporate real estate clients, with no direct retail business either in its lending or funding activities.

Additionally, the group offers consultancy, IT/digital services and transaction banking activities to clients in the housing and commercial property industries. As of June 2020, the group's reported total assets amounted to €43.3 billion and it employed around 2900 persons.

Weighted Macro Profile of Strong +

Because of Aareal's international CRE finance activities, the bank's assigned Strong + Weighted Macro Profile is reflective of its worldwide activities, primarily focused on the <u>United States of America</u> (Aaa stable), which displays a Very Strong - Macro Profile, as well as other countries with a less benign operating environment, in particular the <u>United Kingdom</u> (Aa3 stable) and <u>Italy</u> (Baa3 stable).

Recent developments

The coronavirus crisis is causing an unprecedented shock to the global economy. The full extent of the economic downswing will be unclear for some time; however, G-20 economies will contract in 2020. In Europe, the coronavirus pandemic adds to late-cycle risks for European banks. The recession in 2020 will weigh on banks' asset quality and profitability. We expect fiscal policy measures, as already announced by a variety of euro-area governments, to mitigate the economic contraction caused by the pandemic. In the current coronavirus-induced recession and its aftermath, capital levels will be a key differentiator of credit profiles among banks. Generally, banks are facing a sharp deterioration in asset quality and reductions in profitability from already low levels, while central banks are providing extraordinary levels of liquidity and governments have strong incentives to support banking systems to foster an eventual recovery. Thus, when comparing a bank with its peers, the <u>level of capital</u> with which it entered this recession and its ability to retain capital throughout the next several years take on particular importance.

The European Central Bank (ECB) announced <u>a series of measures</u> to help European Union (EU) economies weather the widening effects of the coronavirus pandemic, temporarily increasing banks' liquidity provisions, as well as lowering regulatory capital and liquidity requirements. As part of these temporary measures, the ECB increased its targeted long-term refinancing operations (TLTRO III) under more favourable terms as well as its financial asset purchase programme, while refraining from lowering the ultralow interest rates further. The temporary suspension of buffer requirements for regulatory capital and the liquidity coverage ratio (LCR) gives banks

greater flexibility and additional leeway to absorb the economic impacts, such as asset-quality declines. Overall, the package aims to help the banks continue to finance corporates and small and medium-sized businesses affected by the coronavirus pandemic. We believe the ECB's measures will provide limited relief for banks and their borrowers, and that it will require meaningful fiscal policy measures by the EU and its member states to avert higher default rates in banks' lending books.

Germany launched a large stimulus package, and the government's support is crucial for corporate borrowers in industries immediately hurt by the pandemic like airlines, tourism, retail and the shipping sector, as well as smaller companies experiencing weak liquidity and high leverage. The scale of the support package is unprecedented and far larger than the support provided during the financial crisis. At the same time, the government made it easier to access its short-work scheme ("Kurzarbeit") and extended it to a broader pool of workers, which will limit the spike in unemployment and the fall in domestic consumption. The measures, which are adapted according to the evolution of the economic effects of the pandemic, add to Germany's already expansionary fiscal policy stance, as well as to automatic stabilisers that support household incomes when unemployment increases.

On 14 August 2020, Aareal <u>announced the sale of a 30% minority stake in its IT and service subsidiary Aareon AG</u> to Advent International for roughly €260 million. The deal was closed on 30 October 2020. The linked capital gain of €180 million will increase the bank's capital buffers, a credit positive in the current adverse economic environment and in light of its exposure to the higher-risk CRE sector.

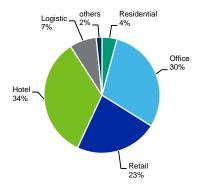
Detailed credit considerations

High and concentrated exposures to CRE lending may strain the bank's asset quality amid the coronavirus crisis, particularly with risks related to tourism and nonfood retail sectors

We position Aareal's ba2 Asset Risk score four notches below our baa1 initial score, taking into account the bank's high sector, single-name and single-location concentration risks. The bank's €25.6 billion CRE lending book is particularly exposed to high-risk subsectors identified to be most affected by economic contraction in response to the coronavirus, with 34% of its loan book invested in hotel, 23% in retail and 30% in the office sector as of half-year 2020¹.

Exhibit 3

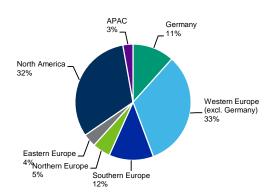
Aareal's CRE portfolio by subsegment
As of June 2020



Sources: Company reports and Moody's Investors Service

Exhibit 4

Aareal's CRE portfolio by country
As of June 2020



Sources: Company reports and Moody's Investors Service

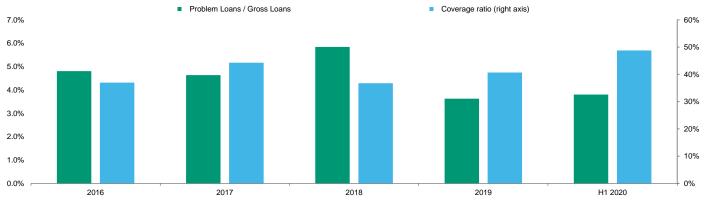
Consequently, Aareal's sound history of relatively low credit losses will be challenged as non-performing loans (NPL) will rise, despite the bank's efforts on the work-out of existing NPLs and its diversified portfolio. We currently see less value in regional diversification, as the pandemic has synchronised the decline in economic activity across the globe, producing a significant and simultaneous impact.

Aareal's average loan-to-value ratio of 57% as of June 2020, indicates a solid structure of the total CRE lending book and provides a buffer for potential property price decreases, which have started to materialize at least for retail properties. The pressures within the loan-book are further reflected in a significant yield-on-debt ²deterioration for the hotel portfolio, declining to 4.5% for the half-year 2020, from 9.6% as of year-end 2019, reflecting the decline in income generation of the underlying assets.

The bank's problem loan ratio of 3.8% as of June 2020 remained high compared with that of its closest domestic peers. Most of the bank's total problem loan exposures stem from its legacy exposures to Italy, followed by the UK. Aareal's initiated measures to effectively and meaningfully reduce the risks resulting from these exposures finally did lead to an improvement in nonperforming loans in late 2019; however, the downside risks for the economy have risen to unprecedented levels in the meantime, although we expect those to be mitigated by the bank's strong capitalisation metrics.

Exhibit 5

Aareal's problem loan ratio has improved after a portfolio cleanup



Sources: Company reports and Moody's Investors Service

Strong and high-quality capitalisation is a key risk mitigant

We assign a Capital score of a1 to Aareal, reflecting our expectation that the bank will maintain its strong capitalisation metrics, despite the expected strain from the impact of the coronavirus crisis and the upcoming revisions to the Basel framework for measuring credit risks (the so-called constrained internal ratings-based approach). We have captured the expected decline in the bank's capital ratio, in particular our tangible common equity (TCE) ratio, by positioning the bank's Capital score three notches below the aa1 initial score.

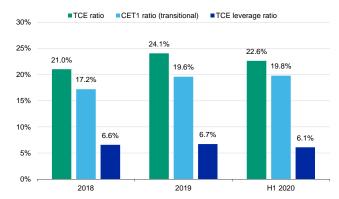
Aareal reported a strong TCE ratio of 22.6% and a fully loaded Tier 1 leverage ratio of 6.3% as of 30 June 2020, significantly higher than those of its closest peers. TCE comprises the bank's Common Equity Tier 1 (CET1) capital plus €300 million in high-trigger Additional Tier 1 (AT1) instruments.

Consequently, we believe that Aareal is well prepared to digest both potential risk-weighted assets (RWA) increases because of a deterioration in asset quality following the economic downswing underway and a larger increase in regulatory RWA. We expect the bank to be able to maintain and retain a capital ratio of close to 14% despite the aforementioned strain, and taking into account high future dividend payouts, with a communicated medium-term target payout ratio of 70%-80%. For 2020, however, management already decided to refrain from calling its €300 million high-trigger AT1 instrument and postponed a decision on the dividend payout because of the economic crisis. Both factors and the bank's closed sale of its Aareon minority stake that will have a €180 million capital effect will support the bank's capital position in the short term.

However, Aareal's risk density, that is, the bank's RWA calculated as a percentage of total assets, amounted to only 27% as of June 2020. In light of the revisions to the Basel framework and because Aareal calculates its RWA according to the advanced internal ratings-based approach for most of its exposures, we expect its risk density to continue to rise significantly, leading to a meaningful increase in RWA from the current levels. As of June 2020, the bank's CET1 ratio increased again to 19.8% (total capital 29.5%), more than 2x its requirement as outlined in the ECB's Supervisory Review and Evaluation Process (SREP) of 8.28% for CET1 and its 12.8% total capital requirement.

Previously, growth in TCE was achieved by a combination of retained earnings and the issuance of €300 million of high-trigger AT1 instruments in 2014, as well as by the acquisitions of Corealcredit Bank AG in 2014, Westdeutsche Immobilien Bank AG in 2015 and Duesseldorfer Hypothekenbank AG in 2018, all at prices significantly below their book values.

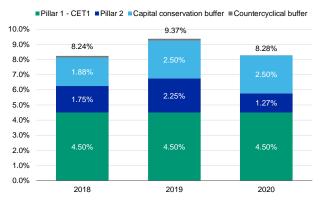
Exhibit 6
Aareal comfortably exceeds its CET1 requirements



TCE = TCE (Moody's calculation), CET1 = Common Equity Tier 1 capital. Sources: Company reports and Moody's Investors Service

Exhibit 7

Aareal's CET1 requirements



Source: Company reports

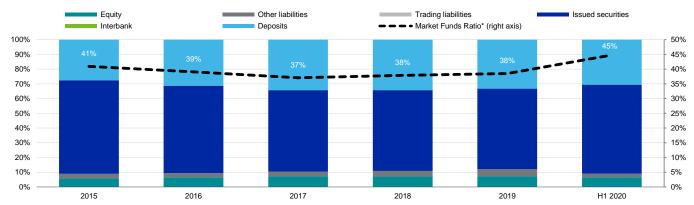
Stable funding from the housing industry sector mitigates the bank's remaining wholesale funding dependence

We assign a ba1 Funding Structure score to Aareal, one notch above its initial score, reflecting its favourable term structure, and limited refinancing and interest rate risks. The bank's funding structure comprises less confidence-sensitive covered bonds (Pfandbriefe, €11.4 billion as of June 2020), a sizeable amount of corporate and housing industry deposits (€13.2 billion), senior unsecured debt of €1.7 billion, junior senior debt of €5.0 billion and subordinated debt (€0.9 billion). Within its unsecured debt proportion, Aareal is a strong issuer of smaller promissory note loans to the market, benefitting from its strong and proven access to the institutional private placement market.

The bank's funding composition is further supported by its two-pillar business model, attracting sizeable and rather sticky housing industry deposits (€10.3 billion as of June 2020) because of its IT and banking services (of around 60%), which it provides to the German housing industry. Most of these deposits are either tenant security deposits or operating deposits of the respective housing companies, constituting a reliable and stable source of funding, which is a key credit strength compared with that of the bank's other wholesale-funded CRE lending peers. In addition, Aareal's senior debt and covered bond investor base is diversified, granular and largely driven by a domestic private placement backbone, providing further funding stability.

Exhibit 8

Aareal's funding mix is well diversified



*Market funding ratio = Market funds/tangible banking assets. Sources: Company reports and Moody's Investors Service

Sound liquidity metrics

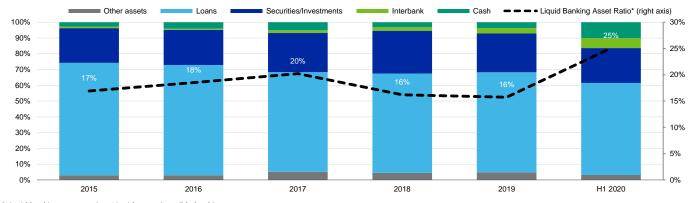
We capture Aareal's balanced liquidity profile in its baa2 Liquid Resources score, in line with its baa2 initial score. The score reflects the bank's cash position and liquid interbank assets (€4.4 billion as of June 2020), as well as its high-quality treasury portfolio (€7.2 billion), which mainly consists of public-sector debtors and covered bonds, all of which are investment grade.

Moreover, additional liquidity could be generated through the issuance of covered bonds. As of June 2020, and based on an outstanding issuance of €10.6 billion, the over-collateralisation in <u>Aareal's mortgage cover pool</u> was 13.2% on an unstressed present value basis. Because the minimum over-collateralisation level, consistent with a Aaa covered bond rating, was 12.0% as of the same date, Aareal has some leeway for using its existing cover pool to generate fresh liquidity through the issuance of covered bonds.

Together with the bank's diversified funding mix, its liquidity reserves constitute a very balanced profile, offering the bank significant flexibility in a more adverse market environment.

Exhibit 9

Aareal's balance-sheet liquidity remains comfortable



*Liquid banking assets ratio = Liquid assets/tangible banking assets. Sources: Company reports and Moody's Investors Service

Adequate level of risk-weighted profitability

We assign a ba2 Profitability score for Aareal, four notches above the initial score, and capturing the bank's capacity that is currently strained by the economic downturn. While we expect earnings to remain below the previous years levels over the next two to three years, however, earnings should improve from half-year 2020 numbers to a level that is in line with a ba2 profitability score (0.25-0.375% of tangible banking assets).

The key drivers for Aareal's substantial drop in profitability in the first half-year 2020 were risk provisions of around 80 basis points (annualised), a high level taking into account the bank's secured lending portfolio. As many peers, Aareal booked loan-loss provisions in advance of problem loans materialising, providing the bank with a cushion going forward to deal with a deteriorating economic environment, a factor that should stabilize profitability, at least partially.

Nevertheless, a more elevated level of loan-loss provisions and the persistently low interest rate environment will continue to strain Aareal's lending business margins, despite the bank's broader international presence than that of its closest Germany-focused peers, while fee and commission income remains limited, despite Aareal's efforts to leverage its service and consulting activities under the Aareon brand. The bank's cost income ratio has already been on a slightly rising trend (60.6% as of year-end 2019, up from 59.3% in 2017), and we therefore do not expect Aareal's profitability to recover to the historic 0.375%-0.49% level, in line with a ba1 initial score.

The bank reported a net profit of €16 million for H1 2020, down from €81 million in H1 2019. While net interest income declined somewhat to €245 million, net commission income, largely generated by its service and IT entity Aareon, remained stable at €111 million. Lower administrative expenses of €238 million (down from €256 million) were more than balanced by a lower derecognition gain and significantly higher loan-loss provisions (€106 million, up from €28 million for H1 2019).

Net interest Income Trading & other income Net fees and commissions income Admin. Expenses Risk provisions Extraordinary income and expense 1.500 1.000 500 € million n -500 -1,000 2013 2014 2015 2016 2017 2018 2019 H1 2020 ann

Exhibit 10
Higher provisioning strained earnings for H1 2020

Sources: Company reports, Moody's Financial Metrics™ and Moody's Investors Service estimates

Qualitative adjustment captures limited business diversification

We reduce the weighted average outcome of Aareal's assigned Financial Profile factor score by one notch to an assigned BCA of baa3. This adjustment reflects Aareal's low revenue and negligible income diversification outside of the commercial mortgage-lending businesses.

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.

Being a CRE lending specialist, Aareal is exposed to a rather volatile banking business through the cycle. We consider CRE lending highly cyclical and, therefore, a higher-risk sector exposure. The bank's position as a specialist CRE lender benefits its sector-specific risk management know-how, but at the same time, it naturally limits the potential for (earnings) diversification within the bank. Because CRE exposures can cause high losses in times of financial market stress, Aareal's high reliability on CRE-related earnings streams exposes it to unexpected shocks that are likely to hurt its income statement in an adverse scenario. As a result, we classify Aareal as a monoline bank according to our approach for business diversification.

Environmental, social and governance considerations

In line with our general view on the banking sector, Aareal has a low exposure to environmental risks (see our environmental risk heat map³ for further information).

For social risks, we also place Aareal in line with our general view for the banking sector, which indicates a moderate exposure. However, Aareal has an elevated share of lending to sectors such as tourism and non-food retail that are particularly exposed to the rapid and widening spread of the coronavirus pandemic given the substantial implications for public health and safety, and a deteriorating global economic outlook creating a severe and extensive credit shock across many sectors, regions and markets (for further information see our social risk heat map⁴).

Governance is highly relevant for Aareal, as it is to all participants in the banking industry. Governance risks are largely internal rather than externally driven, and for Aareal, we do not have any particular governance concern⁵. Nonetheless, corporate governance remains a key credit consideration and requires ongoing monitoring.

Support and structural considerations

Loss given Failure (LGF) analysis

Aareal is subject to the EU Bank Recovery and Resolution Directive, which we consider an operational resolution regime. We, therefore, apply our Advanced LGF analysis, where we consider the risks faced by the different debt and deposit classes across the liability structure should the bank enter resolution.

In line with our standard assumptions, we assume that equity and asset losses stand at 3% and 8%, respectively, of tangible banking assets in a failure scenario. We also assume a 25% runoff in junior wholesale deposits and a 5% runoff in preferred deposits. Moreover, we assign a 25% probability to junior deposits being preferred to senior unsecured debt. We apply a standard assumption for European banks that 26% of deposits are junior.

For Aareal's deposit and issuer ratings, our LGF analysis indicates an extremely low loss given failure, leading to a three-notch uplift from the bank's baa3 Adjusted BCA.

Government support considerations

We do not assign any rating uplift for Aareal from government support, reflecting our unchanged assumption of a low probability of systemic support in the event of a stress scenario, given the bank's marginal importance to the domestic deposit-taking market and local payment systems.

Counterparty Risk Ratings (CRRs)

Our CRRs 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. CRRs 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.

CRRs are not applicable to funding commitments or other obligations associated with covered bonds, letters of credit, guarantees, servicer and trustee obligations, and other similar obligations that arise from a bank performing its essential operating functions.

Aareal's CRRs are positioned at A3/P-2

The bank's CRRs are positioned three notches above the baa3 Adjusted BCA, based on the high buffer against default provided by subordinated instruments to the more senior CRR liabilities.

Counterparty Risk (CR) Assessment

Our 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 (for example, swaps), letters of credit, guarantees and liquidity facilities.

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.

Aareal's CR Assessment is positioned at A3(cr)/P-2(cr)

Aareal's CR Assessment is positioned three notches above the bank's baa3 Adjusted BCA, based on the substantial buffer against default provided to the senior counterparty obligations by more junior instruments, such as senior unsecured debt and dated subordinated debt

Methodology and scorecard

Methodology

The principal rating methodology we used in rating Aareal was the Banks Methodology, published in November 2019.

About Moody's Bank Scorecard

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

Rating methodology and scorecard factors

Exhibit 11

Aareal Bank AG

| 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 | 4.5% | baa1 | \leftrightarrow | ba2 | Sector concentration | Single name concentration |
| Capital | | | | | | |
| Tangible Common Equity / Risk Weighted Assets (Basel III - transitional phase-in) | 22.6% | aa1 | \leftrightarrow | a1 | Risk-weighted capitalisation | Expected trend |
| Profitability | | | | | | |
| Net Income / Tangible Assets | 0.1% | Ь3 | \leftrightarrow | ba2 | Return on assets | Expected trend |
| Combined Solvency Score | | baa1 | | baa2 | | |
| Liquidity | | | | | | |
| Funding Structure | | | | | | |
| Market Funds / Tangible Banking Assets | 38.5% | ba2 | \leftrightarrow | ba1 | Term structure | Expected trend |
| Liquid Resources | | | | | | |
| Liquid Banking Assets / Tangible Banking Assets | 15.7% | baa2 | \leftrightarrow | baa2 | Additional liquidity resources | Stock of liquid assets |
| Combined Liquidity Score | | ba1 | | baa3 | | |
| Financial Profile | | | | baa2 | | |
| Qualitative Adjustments | | | | Adjustment | | |
| Business Diversification | | | | -1 | | |
| Opacity and Complexity | | | | 0 | | |
| Corporate Behavior | | | | 0 | | |
| Total Qualitative Adjustments | | | | -1 | | |
| Sovereign or Affiliate constraint | | | | Aaa | | |
| BCA Scorecard-indicated Outcome - Range | | | | baa2 - ba1 | | |
| Assigned BCA | | | | baa3 | | |
| Affiliate Support notching | | | | 0 | | |
| Adjusted BCA | | | | baa3 | | |
| Balance Sheet | | in-scope (EUR Million) | | % in-scope | at-failure (EUR Million) | % at-failure |
| Other liabilities | | 23,827 | | 55.2% | 22,276 | 51.6% |
| Deposits | | | ,332 | 23.9% | 11,882 | 27.5% |
| Preferred deposits | | | 646 | 17.7% | 9,302 | 21.6% |
| Junior deposits | | | 686 | 6.2% | 2,580 | 6.0% |
| Senior unsecured bank debt | | | 737 | 4.0% | 1,737 | 4.0% |
| Junior senior unsecured bank debt | | 5, | ,018 | 11.6% | 5,018 | 11.6% |
| Dated subordinated bank debt | - | | 940 | 2.2% | 940 | 2.2% |

1,294

43,148

3.0%

100.0%

1,294

43,148

Equity
Total Tangible Banking Assets

3.0%

100.0%

| Debt Class | De Jure | waterfall | | | Notching | | LGF | Assigned | Additional Preliminary | | |
|------------------------------|---------------------------------------|-----------|-------|-------|----------|----------|--|-----------------|------------------------|-------------------|--|
| | Instrumen volume + subordinatio | ordinatio | | | De Jure | De Facto | Notching Guidance vs. Adjusted BCA | LGF notching | Notching | Rating Assessment | |
| Counterparty Risk Rating | 26.8% | 26.8% | 26.8% | 26.8% | 3 | 3 | 3 | 3 | 0 | a3 | |
| Counterparty Risk Assessment | 26.8% | 26.8% | 26.8% | 26.8% | 3 | 3 | 3 | 3 | 0 | a3 (cr) | |
| Deposits | 26.8% | 16.8% | 26.8% | 20.8% | 3 | 3 | 3 | 3 | 0 | a3 | |
| Senior unsecured bank debt | 26.8% | 16.8% | 20.8% | 16.8% | 3 | 3 | 3 | 3 | 0 | a3 | |

| Instrument Class | Loss Given Failure notching | Additional notching | Preliminary Rating Assessment | Government Support notching | Local Currency Rating | Foreign Currency Rating |
|------------------------------|--------------------------------|---------------------|----------------------------------|--------------------------------|--------------------------|-------------------------------|
| Counterparty Risk Rating | 3 | 0 | a3 | 0 | A3 | A3 |
| Counterparty Risk Assessment | 3 | 0 | a3 (cr) | 0 | A3(cr) | |
| Deposits | 3 | 0 | a3 | 0 | A3 | A3 |
| Senior unsecured bank debt | 3 | 0 | a3 | 0 | A3 | A3 |

^[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 12

| Category | Moody's Rating |
|-------------------------------------|----------------|
| AAREAL BANK AG | |
| Outlook | Negative |
| Counterparty Risk Rating | A3/P-2 |
| Bank Deposits | A3/P-2 |
| Baseline Credit Assessment | baa3 |
| Adjusted Baseline Credit Assessment | baa3 |
| Counterparty Risk Assessment | A3(cr)/P-2(cr) |
| Issuer Rating | A3 |
| ST Issuer Rating | P-2 |
| Source: Moody's Investors Service | |

Endnotes

- 1 please also refer to our publication Pandemic accelerates structural changes for CRE lenders and increases loss potential
- 2 Yield-on-debt = net operating income of the relevant property/total loan amount (in %)
- 3 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, like the impact of carbon regulation or other regulatory restrictions, including the related transition risks like 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 are mitigated 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 toward digital banking services increasing information technology costs, ageing population concerns in several countries affecting 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 the banks' financial profile. Corporate governance weaknesses can lead to a deterioration in a company's credit quality, while governance strengths can benefit its credit profile. Further factors like 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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