

CREDIT OPINION

24 November 2020

Update

✓ Rate this Research

RATINGS

Bluestep Bank AB (publ)

Domicile	Sweden
Long Term CRR	A2
Type	LT Counterparty Risk Rating - Fgn Curr
Outlook	Not Assigned
Long Term Debt	Not Assigned
Long Term Deposit	A3
Type	LT Bank Deposits - Fgn Curr
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.

Contacts

Niclas Boheman +46.8.5179.6561
VP-Senior Analyst
niclas.boheman@moodys.com

Emma Jonasson +46.8.5179.1283
Associate Analyst
emma.jonasson@moodys.com

Simon James Robin +44.20.7772.5347
Ainsworth
Associate Managing Director
simon.ainsworth@moodys.com

Sean Marion +44.20.7772.1056
MD-Financial Institutions
sean.marion@moodys.com

Bluestep Bank AB (publ)

Update to credit analysis

Summary

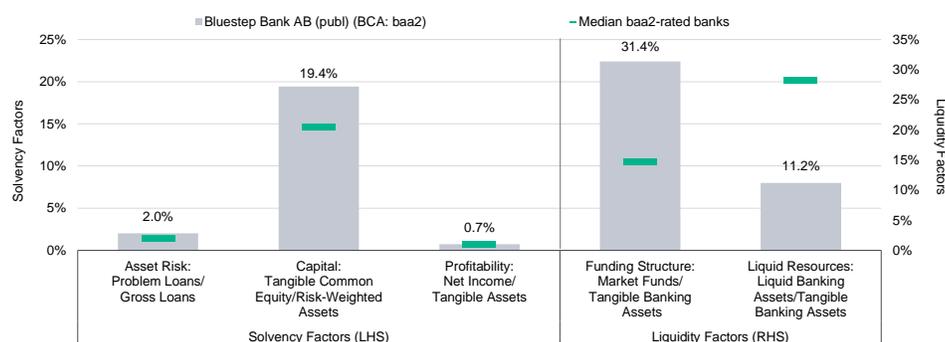
[Bluestep Bank AB \(publ\)](#)'s (Bluestep) A3/P-2 deposit rating incorporates the bank's baa2 Baseline Credit Assessment (BCA) and two notches of uplift as indicated by our Advanced Loss Given Failure (LGF) analysis, capturing the large volumes of loss-absorbing obligations protecting depositors in case of failure.

The BCA reflects the bank's strong capitalisation, which we expect to remain resilient to a moderate deterioration in asset quality and profitability resulting from the contraction in the Swedish and Norwegian economies during 2020 and our expectation of fragile recoveries in 2021. While its asset risk is higher than that of other Nordic mortgage lenders, Bluestep benefits from the overall strong performance of Nordic mortgages and historical low losses. These strengths are balanced against its reliance on wholesale funding, although issuance of covered bonds diversifies funding, and weak efficiency because of Bluestep's largely manual underwriting process.

While losses from the bank's legacy unsecured loan portfolio could increase during 2020, we expect the coronavirus pandemic-related losses from the bank's residential mortgage portfolio to be low, given the government's support measures to help households to continue to repay their mortgages, and large amounts of over-collateralisation, reflecting low loan-to-values (LTVs) at origination.

Exhibit 1

Rating Scorecard - Key financial ratios



These represent our [Banks Methodology](#) scorecard ratios, whereby asset risk and profitability reflect the weaker of either the latest reported or the average of the last three year-end and latest reported ratios. Capital is the latest reported figure. Funding structure and liquid resources ratios reflect the latest year-end figures.

Source: Moody's Investors Service

Credit strengths

- » Strong capitalisation
- » High repayment rates supported by generous governmental unemployment benefits and state run collection agencies
- » Strong profitability, with a large market share within the niche non-prime Swedish and Norwegian mortgage markets

Credit challenges

- » Elevated asset risk, through lending to non prime borrowers
- » Legacy book of riskier unsecured lending, though now in run-off
- » Reliance on wholesale funding, although increasingly focussed on more stable covered bonds
- » Weak efficiency, which stems from Bluestep's largely manual underwriting process and its frequent personal interactions with customers and applicants

Outlook

- » The stable outlook on the deposit ratings reflects our expectations that Bluestep's capitalisation will remain stable despite the deteriorating operating environment. The bank will continue to generate internal capital because of its strong core earnings, offsetting increases in risk-weighted assets because of asset risk deterioration.

Factors that could lead to an upgrade

- » The BCA could be upgraded if a higher proportion of the bank's lending is focussed on prime customers, alongside a sustained reduction in the level of nonperforming loans. An upgrade of its BCA would result in the deposit ratings being upgraded.

Factors that could lead to a downgrade

- » The deposit ratings could be downgraded in case of a lower BCA or lower volume of loss absorbing liabilities protecting depositors in case of failure. The BCA could be downgraded if the bank experiences a significant deterioration in asset risk, including the proportion of problem loans to gross loans rising above 4%, or the volume of Stage 2 loans increasing rapidly; or that tangible common equity (TCE) ratio declines and remains below 16% of risk-weighted assets.

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

Key indicators

Exhibit 2

Bluestep Bank AB (publ) (Consolidated Financials) [1]

	06-20 ²	12-19 ²	12-18 ²	12-17 ²	12-16 ²	CAGR/Avg. ³
Total Assets (SEK Million)	20,021.2	19,253.5	17,496.4	16,600.2	14,117.0	10.5 ⁴
Total Assets (USD Million)	2,149.0	2,056.8	1,973.5	2,027.5	1,553.9	9.7 ⁴
Tangible Common Equity (SEK Million)	1,532.5	1,497.9	1,399.1	1,048.0	868.4	17.6 ⁴
Tangible Common Equity (USD Million)	164.5	160.0	157.8	128.0	95.6	16.8 ⁴
Problem Loans / Gross Loans (%)	2.0	1.9	1.6	1.5	1.3	1.7 ⁵
Tangible Common Equity / Risk Weighted Assets (%)	19.4	18.2	18.7	14.8	14.2	17.1 ⁶
Problem Loans / (Tangible Common Equity + Loan Loss Reserve) (%)	20.3	20.1	16.4	18.8	17.7	18.7 ⁵
Net Interest Margin (%)	4.3	4.5	4.2	4.2	3.9	4.2 ⁵
PPI / Average RWA (%)	3.6	4.2	3.9	4.3	3.9	4.0 ⁶
Net Income / Tangible Assets (%)	0.7	0.8	0.9	1.2	1.2	0.9 ⁵
Cost / Income Ratio (%)	66.4	60.6	61.9	57.9	59.0	61.2 ⁵
Market Funds / Tangible Banking Assets (%)	19.5	31.4	31.4	29.6	24.8	27.3 ⁵
Liquid Banking Assets / Tangible Banking Assets (%)	16.7	11.2	11.6	12.6	11.9	12.8 ⁵
Gross Loans / Due to Customers (%)	120.7	141.5	140.0	130.9	127.2	132.0 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

Bluestep Bank AB (publ) (Bluestep) is wholly owned by Bluestep Holding AB and is the parent of the Bluestep Bank Group, which includes five subsidiaries that operate in Sweden and Norway. Bluestep held SEK20 billion of assets as of the end of June 2020. Bluestep Bank is the regulated entity of the group, with a banking license since 2016, and is under the supervision of the Swedish Financial Supervisory Authority.

Bluestep was established in 2004 in Sweden and expanded into Norway in 2010. The bank specialises in mortgages to customers with a limited or more adverse credit history. The bank has stopped its personal unsecured lending business and is unwinding its existing portfolio of about SEK1 billion in loans, or 6% of the loan portfolio. Since 2017 Bluestep has been owned by EQT VII, a private equity fund established by the investment firm EQT Group, with €5.2 billion of assets under management and total investments of €10.3 billion as of June 2020.

Bluestep has been gathering retail deposits in Sweden since 2008 and in Norway since 2010.

Recent developments

We [expect](#) advanced economies collectively to contract in 2020, followed by growth in 2021. An economic recovery is underway, but its continuation will be closely tied to containment of the virus. However, pandemic fears will continue to hinder complete recovery. Even with a gradual recovery, we expect 2021 real GDP in advanced economies to be below pre-coronavirus levels.

For Norway and Sweden, we expect the operating environment to remain weak in 2021, following the pandemic-induced disruption in 2020. Although support measures by authorities designed to counterbalance the slowdown have mitigated the immediate economic and financial restrictions, we expect a rise in business closures and unemployment, as some measures end. In the Nordic countries, we expect asset quality and profitability to decline in 2021, albeit from a strong starting point and despite the expected recovery in economic growth. The most affected sectors are leisure and accommodation, while mortgage impairments are expected to only rise marginally, if at all.

Our [outlook](#) for the Swedish banking system remains stable.

As of June 2020, Bluestep has started offering mortgages in Finland. Bluestep is planning to gradually substitute maturing RMBS with covered bonds and senior unsecured debt. Since December 2018, Bluestep has issued SEK2 billion of senior unsecured debt.

Furthermore, Bluestep issued its first covered bond in April 2020 and had SEK2.9 billion outstanding covered bonds as of the end of October 2020.

Detailed credit considerations

Bluestep's portfolio of loans in Sweden and Norway will likely deteriorate following the contraction in Nordic economies and as extra ordinary support measures are unwound

While the disruption, following the coronavirus pandemic has led to a deterioration in Swedish and Norwegian economies and higher levels of unemployment, the large support packages to households and business from the Norwegian and Swedish governments has so far mitigated the risk of sharp deterioration in asset quality. However, we expect asset quality to weaken in 2021, given a lag from the economic decline impacting on repayments and as authorities support measures are being phased out. We therefore expect the non-performing loan ratio on Bluestep's largely non-prime mortgages to increase up to 3% in 2021 from 1.9% as of year-end 2019.

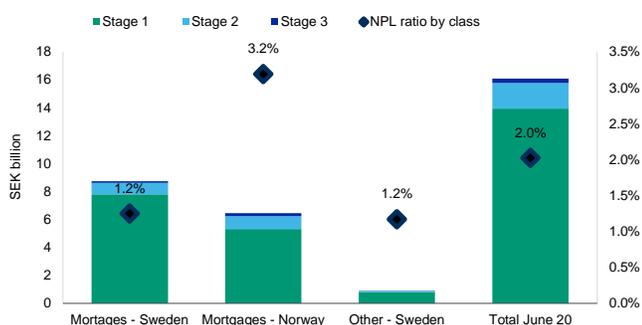
Swedish and Norwegian mortgages accounted for 54% and 40% of gross loans, respectively, as of the end of June 2020. Swedish unsecured personal loans accounted for the remaining 6%, but this proportion will gradually decrease because Bluestep plans to completely focus on residential mortgages and has stopped offering private unsecured loans since February 2020.

Bluestep's problem loans/gross loans of 2.0% is higher than that of its Nordic peers, but remains low by international standards. Coverage is low, and even though 94% of Bluestep's loan portfolio has mortgage collateral (see Exhibit 4), we regard its 22.1% loan-loss reserves/problem loans to be low. However, the bank's problem loans/TCE and loan-loss reserves ratio was a relatively strong 20.3% as of the end of June 2020. The weighted average LTV ratio is 71% in Sweden and 65% in Norway, which is higher than that of many of the company's Nordic peers because of the quicker turnover in its portfolio. On the other hand, Bluestep's average loan size is relatively small in the Nordic context. This helps maintain loan affordability even if unemployment increases.

Although the bank's loan growth has been high for many years, regulatory reforms (including amortisation requirements) and a slowdown in the housing market have moderated the pace of expansion in recent years. Gross loans decreased 0.4% in the first six months of 2020, with the volumes affected by a weaker Norwegian krona and unwinding of the unsecured portfolio. Bluestep follows the current regulations that stipulate that a mortgage cannot exceed an 85% LTV ratio at origination.

Exhibit 3

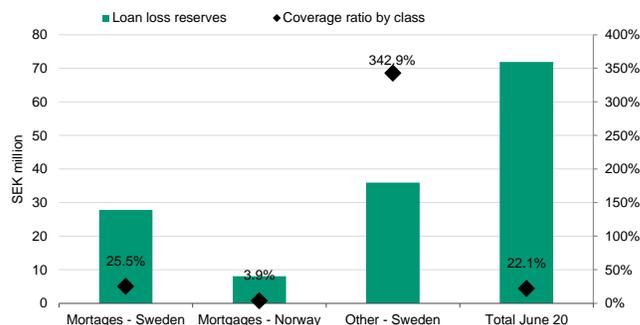
Level of problem loans, illustrated by Stage 3 exposures, are higher than that of its Nordic peers, but low in an international context



Source: Company reports

Exhibit 4

Loan-loss reserves and coverage ratio are adequate, given the large amount of collateral



Source: Company reports

Bluestep's unsecured personal loans, accounting for 6% of gross loans, are amortised over a maximum period of 15 years. To mitigate the higher risk of this portfolio, the bank has put in place a forward flow contract under which it sells problem loans. Although Bluestep is no longer originating new unsecured loans as of February 2020, existing private unsecured loans will be unaffected. As the unsecured loan portfolio is unwound, the asset-risk profile of the bank will improve, diminishing the amount of unsecured lending in the portfolio.

The assigned Asset Risk score of baa2 is three notches below the Macro-Adjusted score to reflect the focus on nonconforming loans and high growth.

Capitalisation will remain strong

Bluestep's capitalisation will remain strong despite the deteriorating environment, with TCE/risk-weighted assets of 19.4% as of the end of June 2020 and TCE/tangible banking assets ratio of 7.7%. The bank is using the standardised approach in its models, which means that capital is less likely to deteriorate significantly if borrowers with repayment difficulties increase.

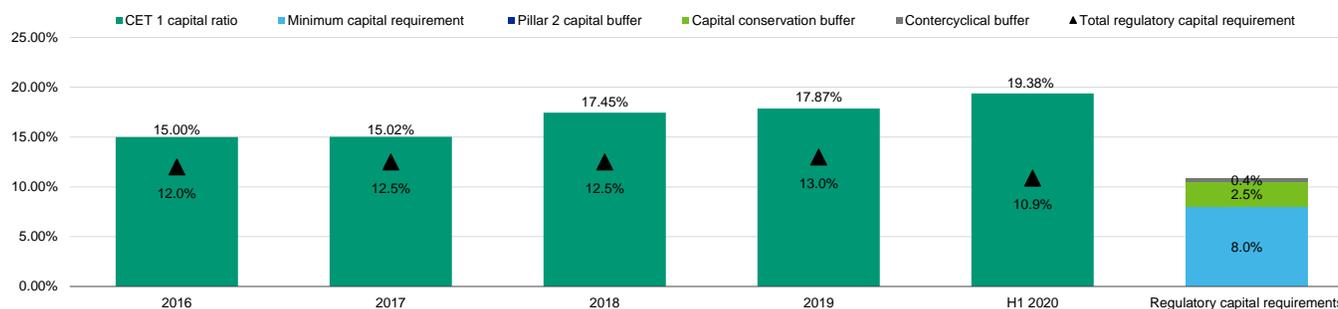
Bluestep's board has set a Common Equity Tier 1 (CET1) capital ratio target of 16%, supported by the bank's owner, represented by EQT Group, which is sufficiently above the regulatory requirement of 10.9% as of June 2020 (see Exhibit 5). However, there is limited transparency regarding access to additional capital in case of need. Bluestep's shares are held as one investment of many within one of the funding vehicles of EQT Group.

The Swedish Financial Supervisory Authority (FSA) lowered the countercyclical capital buffer to 0% from 2.5% in March 2020 to ensure banks continue to lend to companies and households. In our view, this does not cause a significant restriction on Bluestep's ability to extend further lending because of its existing large buffer of surplus capital above requirements with a CET1 ratio of 19.38% as of the end of June 2020.

We apply a one-notch negative adjustment in our assessment of Bluestep's capitalisation of aa3, given the limited transparency regarding the access to capital in case of need.

Exhibit 5

Capitalisation has strengthened, with a good buffer over regulatory requirements



Source: Company reports

Profitability under pressure from pandemic effects and launch of mortgage operations in Finland

During 2020 and 2021, profitability will be under pressure from higher credit costs and investments in the launch of their Finnish operations. However, Bluestep's recurring profitability is strong, driven by the relatively high interest rates on its mortgages, ranging from around 3% to above 10%, compared with an average of around 1.7% for traditional banks. This resulted in a very strong net interest rate margin of 4.26% for the first half of 2020. Net interest income is Bluestep's main source of income, accounting for 96% of revenue in H1 2020.

However, the bank's efficiency is relatively weak, with a cost-to-income ratio of 66% as of the end of June 2020, compared with 50% or lower for most of its Nordic peers. This is because of Bluestep's largely manual underwriting process. Furthermore, Bluestep suffers from higher early repayment levels as customers leave, on average, after three years, following improvements in their credit scores. This compares with the average seven-year duration of mortgage loans at traditional banks. Reflecting strong margins but a high cost base, Bluestep's net income/tangible assets ratio was strong at 0.73% as of the end of June 2020, down from 1.13% in the year-earlier period. The bank's profitability for the first half of 2020 has also been negatively affected by the weak Norwegian krona.

In 2020, Bluestep launched its operations in Finland, which will initially constrain improvements in cost efficiency. We also expect profitability to be strained from lower business activity and higher loan losses relating to the spread of the pandemic and the deterioration in the economy. The bank's Profitability score of baa2 reflects the expected level of profitability during the outlook period.

Funding and liquidity analysis - lower reliance on RMBS a credit positive

Bluestep has a high reliance on market funding, but has shifted away from RMBS, with the majority of funding now provided from covered bonds and senior unsecured funding. In 2019, the bank established itself as an issuer in the Swedish senior unsecured bond market, with SEK2 billion outstanding as of year-end 2019. The bank issued its first covered bond in April 2020 and had SEK2.9 billion outstanding covered bonds by the end of October 2020. Bluestep still had SEK1.4 billion in outstanding RMBS (of which SEK934 million held by investors) as of June 2020, with a call date in May 2022, .

Bluestep's issuances of covered bonds has helped the bank attract more domestic investors, who we consider less likely to sell in a stressed market scenario compared with foreign investors. Compared to RMBS, covered bonds are also a more stable source of funding, due to their perceived lower risk and higher liquidity in the market. Covered bonds allows investors to have claims on the cover pool assets and the bank, and are also repo eligible with the central bank. Bluestep is the first covered bond issuer within the non-prime segment, and the liquidity of these instruments is yet to be tested, but overall demand has been strong. The most recent covered bond had a 5 year maturity. The senior bonds have shorter maturities of two and three years, and are therefore associated with more frequent refinancing. As the bank continues to tap the covered bond market, we expect that the term structure will be managed to avoid larger refinancing hurdles.

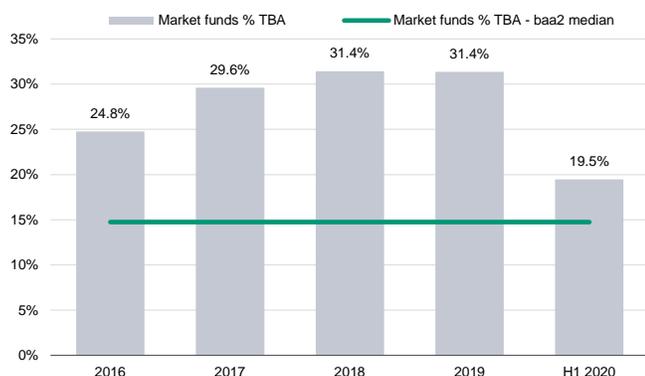
The loans to deposit ratio was stable at 121% at the end of June 2020 compared to 120% at the end of 2019.

The Funding score of baa2 reflects the improved funding profile of the bank, with a larger share of covered bond funding and lower amounts of RMBS.

Bluestep holds adequate liquid reserves of high-quality assets and cash at banks, with a target of 19% of deposits, and has increased its liquidity reserves during the year to be able to manage eventual market volatility due to the pandemic. The group's liquid assets amounted to SEK3,315 million as of the end of June 2020, corresponding to liquid assets/tangible banking assets of 16.7%.

Exhibit 6

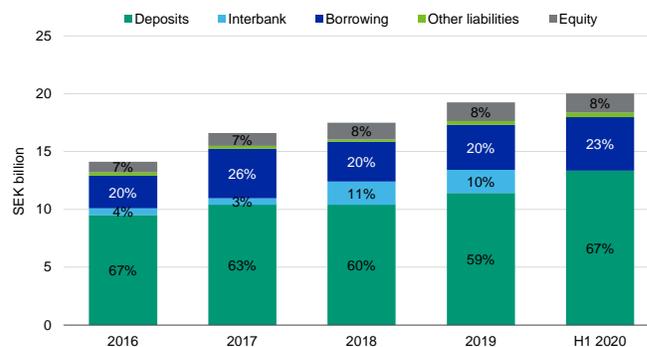
High reliance on market funding



Source: Company reports and Moody's Investors Service

Exhibit 7

Issued securities will gradually grow as the bank issues covered bonds when the RMBS mature



Source: Company reports

Monoline business increases reliance on a single source of revenue

Because Bluestep derives most of its income from its mortgage customers, primarily in the form of net interest income, the BCA includes a one-notch negative adjustment to reflect its monoline business model, similar to other mortgage banks.

ESG considerations

In line with our general view on the banking sector, Bluestep has low exposure to environmental risks (see our [environmental risks heat map](#) for further information).

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 are 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, including the Nordic countries, affecting the demand for financial services; or socially driven policy agendas that may translate into regulations that affect banks' revenue base. Overall, we expect banks, including Bluestep, to face moderate social risks. See our [social risks heat map](#) for further information.

The widening spread of the coronavirus pandemic, the deteriorating global economic outlook, falling oil prices, and asset price declines are creating a severe and extensive credit shock across many sectors, regions and markets. The combined credit effects of these developments are unprecedented. We further regard the pandemic as a social risk under our environmental, social and governance (ESG) framework, given the substantial implications for public health and safety.

Governance is highly relevant for Bluestep, as it is to all participants in the banking industry. Corporate governance weaknesses can lead to a deterioration in a bank's credit quality, while governance strengths can benefit its credit profile. Governance risks are largely internal rather than externally driven. We consider the probability of governance-related failures for Bluestep low. However, corporate governance remains a key credit consideration and requires ongoing monitoring.

Support and structural considerations

Loss Given Failure (LGF) analysis

We apply our Advanced LGF analysis to Bluestep because the bank is subject to the European Union Bank Recovery and Resolution Directive, which we consider an operational resolution regime. For this analysis, we assume that the equity and losses are 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. These are in line with our standard assumptions. Given the bank's focus on retail deposits, we assume that the bank's junior deposits account for 10% of total deposits, in line with those of other retail mortgage banks in Sweden.

Our LGF assessment is forward looking and incorporates the continued issuance of senior unsecured debt and expected balance-sheet growth. The deposit ratings of A3 incorporate a two-notch positive adjustment to the baa2 BCA because of the LGF analysis. The uplift reflects the large buffer of loss-absorbing liabilities protecting junior depositors in case of failure.

Counterparty Risk Ratings (CRRs)

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 that such liabilities are not honoured. CRR liabilities typically relate to transactions with unrelated parties. 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.

Bluestep's CRRs are positioned at A2/Prime-1, incorporating three notches of uplift from the LGF analysis

There is a considerable volume of loss-absorbing liabilities junior to the CRR obligations. In this case, we assume a nominal volume at failure because we are not able to accurately assess the volume of CRR liabilities at failure or the inherently more volatile nature of such liabilities as the bank approaches failure. The ratings incorporate three notches of uplift for the CRRs from the bank's Adjusted BCA of baa2.

Counterparty Risk (CR) Assessment

CR Assessments are opinions of how counterparty obligations are likely to be treated if a bank fails, and are distinct from debt and deposit ratings in that they consider only the risk of default rather than the expected loss; and apply 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.

Bluestep's CR Assessment is positioned at A2(cr)/Prime-1(cr), incorporating three notches of uplift from the LGF analysis

The main difference with our Advanced LGF approach used to determine instrument ratings is that the CR Assessment captures the probability of default on certain senior obligations rather than the expected loss. Therefore, we focus purely on subordination and take no account of the volume of the instrument class.

Government support considerations

Because of the small size of Bluestep's retail operations, we assume a low probability of government support for the bank, resulting in no uplift to any of its ratings or assessments.

Methodology and scorecard**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 8

Bluestep Bank AB (publ)

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	2.0%	a2	↔	baa2	Quality of assets	Collateral and provisioning coverage	
Capital							
Tangible Common Equity / Risk Weighted Assets (Basel III - transitional phase-in)	19.4%	aa2	↔	aa3	Expected trend	Access to capital	
Profitability							
Net Income / Tangible Assets	0.7%	baa2	↔	baa2	Expected trend		
Combined Solvency Score		a2		a3			
Liquidity							
Funding Structure							
Market Funds / Tangible Banking Assets	31.4%	ba1	↑	baa2	Expected trend	Market funding quality	
Liquid Resources							
Liquid Banking Assets / Tangible Banking Assets	11.2%	ba1	↔	ba1			
Combined Liquidity Score		ba1		baa3			
Financial Profile				baa1			
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				baa1 - baa3			
Assigned BCA				baa2			
Affiliate Support notching				0			
Adjusted BCA				baa2			
Balance Sheet		in-scope (SEK Million)	% in-scope	at-failure (SEK Million)	% at-failure		
Other liabilities		3,959	19.9%	4,893	24.6%		
Deposits		13,340	67.0%	12,406	62.4%		
Preferred deposits		12,006	60.3%	11,405	57.3%		
Junior deposits		1,334	6.7%	1,000	5.0%		
Senior unsecured bank debt		2,000	10.1%	2,000	10.1%		
Equity		597	3.0%	597	3.0%		
Total Tangible Banking Assets		19,896	100.0%	19,896	100.0%		

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 + subordination	Sub-ordination	Instrument volume + subordination	Sub-ordination	De Jure	De Facto				
Counterparty Risk Rating	18.1%	18.1%	18.1%	18.1%	3	3	3	3	0	a2
Counterparty Risk Assessment	18.1%	18.1%	18.1%	18.1%	3	3	3	3	0	a2 (cr)
Deposits	18.1%	3.0%	18.1%	13.1%	2	3	2	2	0	a3

Instrument Class	Loss Given Failure notching	Additional notching	Preliminary Rating Assessment	Government Support notching	Local Currency Rating	Foreign Currency Rating
Counterparty Risk Assessment	3	0	a2 (cr)	0	A2(cr)	
Deposits	2	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 9

Category	Moody's Rating
BLUESTEP BANK AB (PUBL)	
Outlook	Stable
Counterparty Risk Rating	A2/P-1
Bank Deposits	A3/P-2
Baseline Credit Assessment	baa2
Adjusted Baseline Credit Assessment	baa2
Counterparty Risk Assessment	A2(cr)/P-1(cr)

Source: Moody's Investors Service

© 2020 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

CREDIT RATINGS ISSUED BY MOODY'S INVESTORS SERVICE, INC. AND/OR ITS CREDIT RATINGS AFFILIATES ARE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MATERIALS, PRODUCTS, SERVICES AND INFORMATION PUBLISHED BY MOODY'S (COLLECTIVELY, "PUBLICATIONS") MAY INCLUDE SUCH CURRENT OPINIONS. MOODY'S INVESTORS SERVICE DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT OR IMPAIRMENT. SEE MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S INVESTORS SERVICE CREDIT RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS, NON-CREDIT ASSESSMENTS ("ASSESSMENTS"), AND OTHER OPINIONS INCLUDED IN MOODY'S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S PUBLICATIONS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. AND/OR ITS AFFILIATES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS DO NOT COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS, ASSESSMENTS AND OTHER OPINIONS AND PUBLISHES ITS PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS, AND PUBLICATIONS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS OR PUBLICATIONS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER. ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS ARE NOT INTENDED FOR USE BY ANY PERSON AS A BENCHMARK AS THAT TERM IS DEFINED FOR REGULATORY PURPOSES AND MUST NOT BE USED IN ANY WAY THAT COULD RESULT IN THEM BEING CONSIDERED A BENCHMARK.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the rating process or in preparing its Publications.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY CREDIT RATING, ASSESSMENT, OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any credit rating, agreed to pay to Moody's Investors Service, Inc. for credit ratings opinions and services rendered by it fees ranging from \$1,000 to approximately \$2,700,000. MCO and Moody's Investors Service also maintain policies and procedures to address the independence of Moody's Investors Service credit ratings and credit rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold credit ratings from Moody's Investors Service and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moody.com under the heading "Investor Relations — Corporate Governance — Director and Shareholder Affiliation Policy."

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657 AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors.

Additional terms for Japan only: Moody's Japan K.K. ("MJKK") is a wholly-owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly-owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly-owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3 respectively.

MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any credit rating, agreed to pay to MJKK or MSFJ (as applicable) for credit ratings opinions and services rendered by it fees ranging from JPY125,000 to approximately JPY250,000,000.

MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.

REPORT NUMBER 1251220

CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454