

## CREDIT OPINION

28 May 2019

### New Issue

 Rate this Research

### RATINGS

#### Bausparkasse Schwaebisch Hall AG

Domicile	Germany
Long Term CRR	Aa1
Type	LT Counterparty Risk Rating - Fgn Curr
Long Term Deposit	Aa1
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

Bernhard Held, CFA +49.69.70730.973  
 VP-Sr Credit Officer  
[bernhard.held@moodys.com](mailto:bernhard.held@moodys.com)

Alexander Hendricks, +49.69.70730.779  
 CFA  
 Associate Managing Director  
[alexander.hendricks@moodys.com](mailto:alexander.hendricks@moodys.com)

### CLIENT SERVICES

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

## Bausparkasse Schwaebisch Hall AG

### Credit analysis following rating assignment

#### Summary

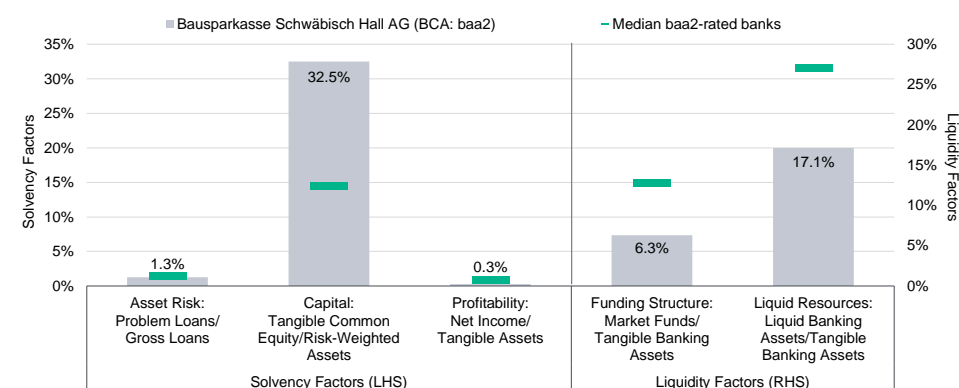
We assign Aa1(stable)/P-1 deposit and issuer ratings to [Bausparkasse Schwaebisch Hall AG](#) (BSH). We further assign a baa2 Baseline Credit Assessment (BCA) and an a2 Adjusted BCA to BSH, along with Aa1/P-1 Counterparty Risk Ratings (CRRs) and a Aa1(cr)/P-1(cr) Counterparty Risk (CR) Assessment.

BSH's ratings reflect (1) its baa2 BCA; (2) its a2 Adjusted BCA, which includes three notches of affiliate support uplift, reflecting the assumption of very high support from the cooperative sector's institutional protection scheme, in case of need; (3) the results of our Advanced Loss Given Failure (LGF) analysis, which lead to three notches of uplift to the bank's issuer and deposit ratings; and (4) a moderate probability of government support, yielding one notch of rating uplift because of its status as a member of the German cooperative banks sector, which we consider a domestically relevant group of financial institutions.

Because BSH displays strong ties with its parent [DZ BANK AG](#) (DZ BANK, Aa1/Aa1 stable, baa2)<sup>1</sup>, including a profit-and-loss transfer agreement and sizeable investments in DZ BANK's liabilities, we cap its BCA at the baa2 level of DZ BANK's BCA. BSH's unconstrained assessment is two notches higher, despite a one-notch negative qualitative adjustment for its monoline business model, reflecting its very strong solvency and liquidity metrics.

Exhibit 1

#### Rating scorecard - Key financial ratios



The profitability and asset risk ratios reflect the averages for 2016-18.

Source: Moody's Financial Metrics

## Credit strengths

- » Exceptionally strong and high-quality risk-weighted capitalisation
- » Low-risk granular residential mortgage lending portfolio, with clear focus on Germany
- » High-quality, long-term retail deposit funding profile, with very limited use of market funding

## Credit challenges

- » Exposure to the low interest rate environment requires material adjustments to the traditional building and loan association business model.
- » Expensive fixed-rate deposit funding weighs on profit in the low interest rate environment
- » Limited earnings diversification, resulting from its narrow business focus within the specific building and loan association legal framework

## Outlook

Our outlook on BSH's ratings is stable, reflecting our expectation of stability in the key financial ratios and credit profiles of both BSH and its parent over the next 12-18 months.

## Factors that could lead to an upgrade

- » Upward pressure on BSH's ratings could develop following a two-notch upgrade of its parent's BCA, which currently caps BSH's BCA. A one-notch upgrade of DZ BANK's BCA would result in a one-notch upgrade of BSH's BCA, but this will likely be offset by lower affiliate support uplift.
- » An upgrade of DZ BANK's BCA could be prompted by a reduction in its concentration of higher-risk assets compared with capital or a further improvement in its absolute capital levels. Also, the realisation of targeted cost synergies and an improved liquidity profile could trigger a BCA upgrade. A multi-notch upgrade would require a material and material simultaneous improvement in all of these factors.
- » Under our Advanced LGF analysis, BSH's deposit and issuer ratings already benefit from the highest possible LGF results, with three notches of rating uplift to its Adjusted BCA.

## Factors that could lead to a downgrade

- » A downgrade of BSH's issuer and deposit ratings could arise (1) from a downgrade of its BCA, which would highly likely only be a result of a downgrade of its parent's BCA; or (2) in the unlikely event that the cooperative sector's financial strength deteriorates or the sector's commitment to support its members shows signs of deterioration.
- » BSH's ratings could further be downgraded if DZ BANK displays a liability structure with a materially lower volume of senior debt, including junior senior unsecured liabilities, compared with the group's total banking assets.
- » DZ BANK's BCA could be downgraded if substantial unexpected risks were to emerge from its commercial banking activities or if the group's loss-absorption capacity decreased materially.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on [www.moody's.com](http://www.moody's.com) for the most updated credit rating action information and rating history.

## Key indicators

Exhibit 2

### Bausparkasse Schwaebisch Hall AG (Consolidated Financials) [1]

	12-18 <sup>2</sup>	12-17 <sup>2</sup>	12-16 <sup>2</sup>	12-15 <sup>2</sup>	12-14 <sup>2</sup>	CAGR/Avg. <sup>3</sup>
Total Assets (EUR Billion)	71.7	68.3	65.9	61.2	57.6	5.6 <sup>4</sup>
Total Assets (USD Billion)	81.9	82.1	69.5	66.5	69.8	4.1 <sup>4</sup>
Tangible Common Equity (EUR Billion)	4.7	4.6	3.9	3.5	3.3	9.0 <sup>4</sup>
Tangible Common Equity (USD Billion)	5.3	5.5	4.1	3.8	4.0	7.5 <sup>4</sup>
Problem Loans / Gross Loans (%)	1.1	1.2	1.5	1.8	1.5	1.4 <sup>5</sup>
Tangible Common Equity / Risk Weighted Assets (%)	32.5	34.0	28.3	29.5	39.2	32.7 <sup>6</sup>
Problem Loans / (Tangible Common Equity + Loan Loss Reserve) (%)	10.9	11.0	15.0	17.8	14.8	13.9 <sup>5</sup>
Net Interest Margin (%)	1.1	1.2	1.0	1.5	1.6	1.3 <sup>5</sup>
PPI / Average RWA (%)	2.2	2.4	1.3	3.6	4.4	2.8 <sup>6</sup>
Net Income / Tangible Assets (%)	0.3	0.4	0.2	0.4	0.5	0.3 <sup>5</sup>
Cost / Income Ratio (%)	61.5	59.0	73.3	54.9	57.1	61.1 <sup>5</sup>
Market Funds / Tangible Banking Assets (%)	6.3	6.6	7.4	5.7	4.7	6.1 <sup>5</sup>
Liquid Banking Assets / Tangible Banking Assets (%)	17.1	21.9	23.0	24.6	42.0	25.7 <sup>5</sup>
Gross Loans / Due to Customers (%)	79.6	76.9	74.0	71.2	68.1	74.0 <sup>5</sup>

[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 due to scale of reported amounts. [4] Compound Annual Growth Rate (%) based on time period presented for the latest accounting regime. [5] Simple average of periods presented for the latest accounting regime. [6] Simple average of Basel III periods presented.

Source: Moody's Investors Service; Company Filings

## Profile

Bausparkasse Schwaebisch Hall AG (BSH) is Germany's largest building and loan association (Bausparkasse), with a market share of around 30% and additional Bauspar activities in Central and Eastern Europe and China through joint ventures. DZ BANK owns 96.9% of BSH. The remaining shares are mostly held by primary banks in the German cooperative sector. BSH is a member of the German cooperative sector's institutional protection scheme.

As of year-end 2018, BSH had more than 10 million clients, and it managed 8.3 million Bauspar contracts with a total volume of €306 billion in Germany and 3.4 million contracts with €62 billion volume outside of Germany. As of year-end 2018, BSH's mortgage finance lending volume stood at €43.8 billion (December 2017: €39.5 billion) in Germany and €10.7 billion (December 2017: €10.4 billion) outside Germany. BSH had around 6,500 employees as of year-end 2018, of which about half constitute its direct sales force.

Since its foundation in 1931, BSH's growth has been focused on organic expansion and supported by successful cross-selling to the cooperative banks' client base under an integrated sales approach in collaboration with the primary banks of the sector.

In April 2019, BSH announced the sale of its 45% share in its building and loan association joint venture in the Czech Republic to [Ceskoslovenska Obchodni Banka, a.s.](#) (CSOB, A1 stable, a3)<sup>2</sup>, the Czech division of [KBC Group N.V.](#) (Baa1 positive)<sup>3</sup>.

## Detailed credit considerations

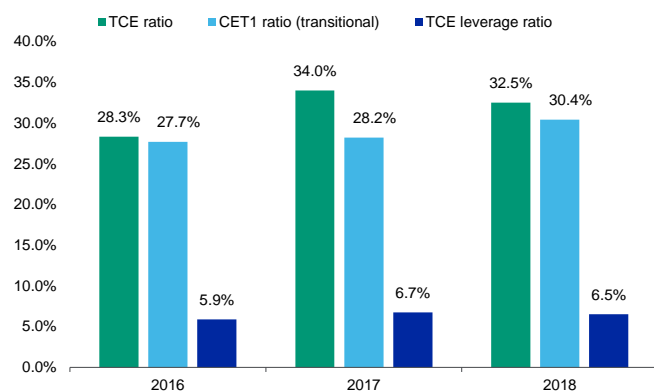
### Building and loan association benefits from strong capital levels

We assign BSH an aa2 Capital score, one notch below the aa1 initial score. The assigned score reflects the bank's very strong coverage of its risk-weighted assets by the regulatory Common Equity Tier 1 capital and tangible common equity (TCE), our central metrics for assessing capital strength. The adjustment also reflects BSH's limited ability to retain earnings amid the low interest rate environment and under its earnings transfer agreement with DZ BANK, which we expect to lead to a moderate decline in its TCE ratio if its total and risk-weighted assets grow as planned.

BSH's very strong TCE ratio of 32.5% as of December 2018 (down from 34.0% as of December 2017) benefits from the low risk weights assigned to its low-risk German residential mortgage portfolio under the internal ratings-based approach that it employs. In absolute terms, BSH's TCE still translated into a leverage ratio for its tangible banking assets of 6.5% as of year-end 2018, down from 6.7% a year earlier.

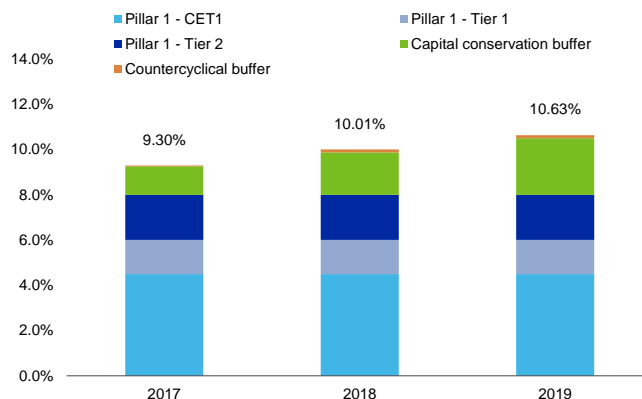
Our TCE metric excludes a €278 million technical security reserve that BSH treats as retained earnings in its IFRS accounts but which is also excluded from regulatory capital. Following a change in the German special law for building and loan associations in 2015, building and loan associations have been allowed to use this reserve more flexibly to offset net interest margin pressure, with the result that among Germany's building and loan associations, a significant portion of such reserves have been converted into Common Equity Tier 1-eligible capital components. This supported BSH's TCE increase in 2017, when it reduced its technical security reserve from €703 million as of year-end 2016 to build additional core capital.

Exhibit 3

**BSH's capital ratios clearly exceed regulatory requirements**

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

Exhibit 4

**BSH's total capital requirements in detail**

For 2019 a constant countercyclical buffer is assumed  
Source: Company reports

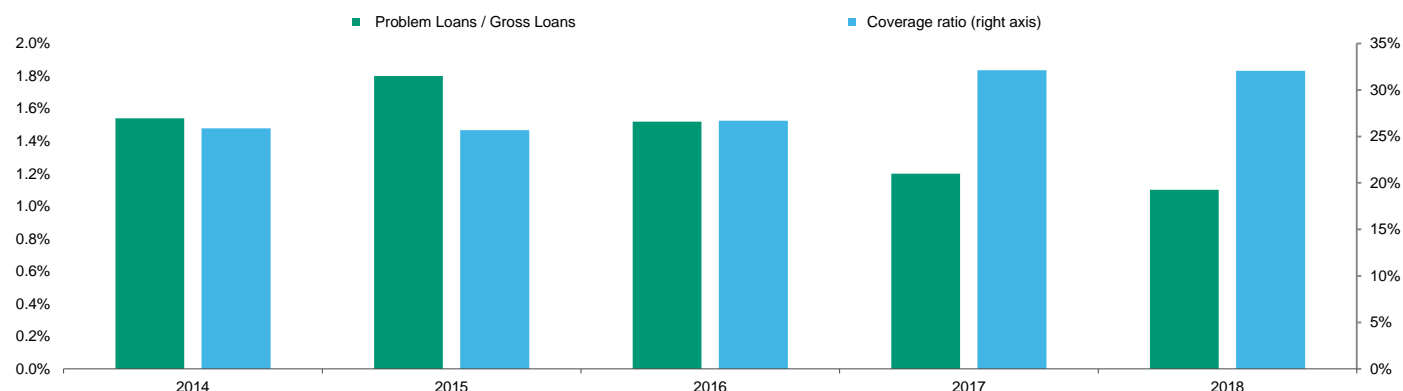
**Low-risk residential mortgage lending limits asset risks**

We assign BSH an a1 Asset Risk score, two notches below the aa2 initial score. The assigned score reflects a very low level of problem loans, even as BSH applies a conservative approach to record such problem loans. At the same time, the score incorporates a negative adjustment driven by BSH's sensitivity to future interest rates, primarily the pressure that an extended period of low rates would exert on its business model and returns.

BSH's problem loans stood at €528 million as of 31 December 2018, compared with €523 million as of year-end 2017. We understand that BSH's criteria for loan impairment are strict compared with the European Banking Authority's harmonised definition, which may lead to an improvement from the level of its reported nonperforming loans once the European Banking Authority's criteria are implemented. We consider BSH's unchanged (from that as of December 2017) nonperforming loan coverage by loan-loss reserves of 32.1% as adequate in light of the tight loan-to-value (LTV) limits set by the German special law for building and loan associations, which previously limited sector entities' capacity of taking LTV on their books at no higher than 80%. Since late 2015, the sector has been allowed to raise the lending-value-based LTV limit to 100% for owner-occupied homes only, and this has had no visible negative impact on BSH's asset quality to date.

While BSH's exposure to interest rate risk in its banking book is moderate and it does not run a trading book, its business model's key sensitivity is to future interest rate levels and client behaviour which is highly dependent on these. An aggravated and extended period of negative interest rates in Germany would incentivise Bauspar clients to extend the savings periods for their fixed-rate deposits and increase deposit balances further, while BSH and its peers would be challenged to reinvest such additional funds at a profit. Conversely, unexpectedly rapid and pronounced rate increases would expose the sector to deposit outflow and rising demand for loans at previously agreed fixed interest rates under the Bauspar product.

Exhibit 5

**BSH's problem loan ratio remains at very low levels**

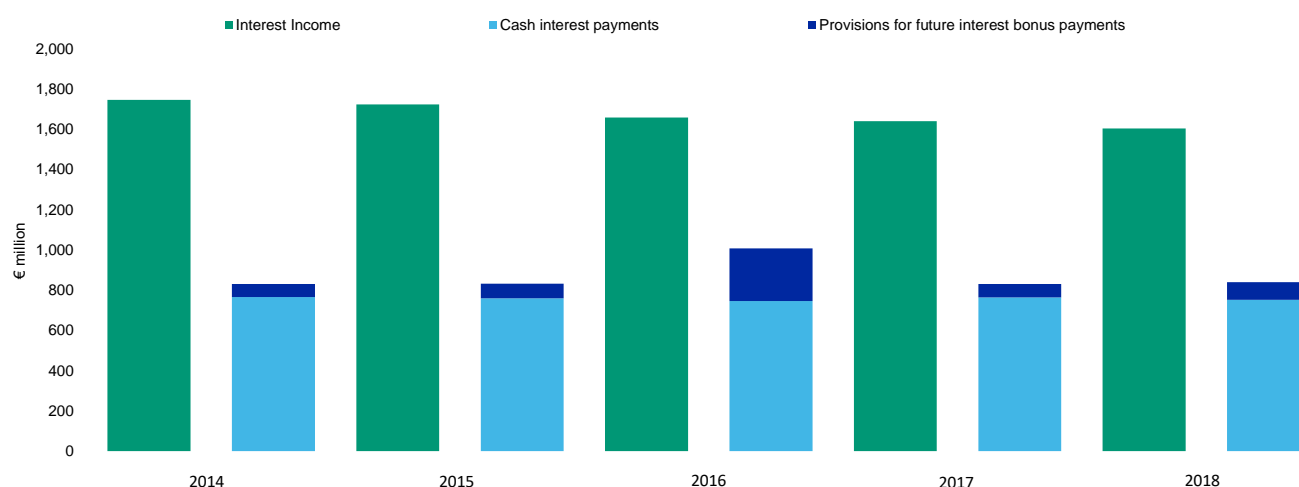
Problem loan ratio is in accordance with our definition; since 2018, according to IFRS 9 reporting standards

Source: Company reports, Moody's Investors Service

**Profit remains strained as a result of a declining net interest margin**

We assign BSH a b2 Profitability score, three notches below the ba2 initial score. The downward adjustment reflects the likelihood of continued pressure on BSH's net interest income, as shown in exhibit 6, as well as our expectation that administrative costs will be burdened by the investment needed to implement the bank's digitalisation strategy.

Exhibit 6

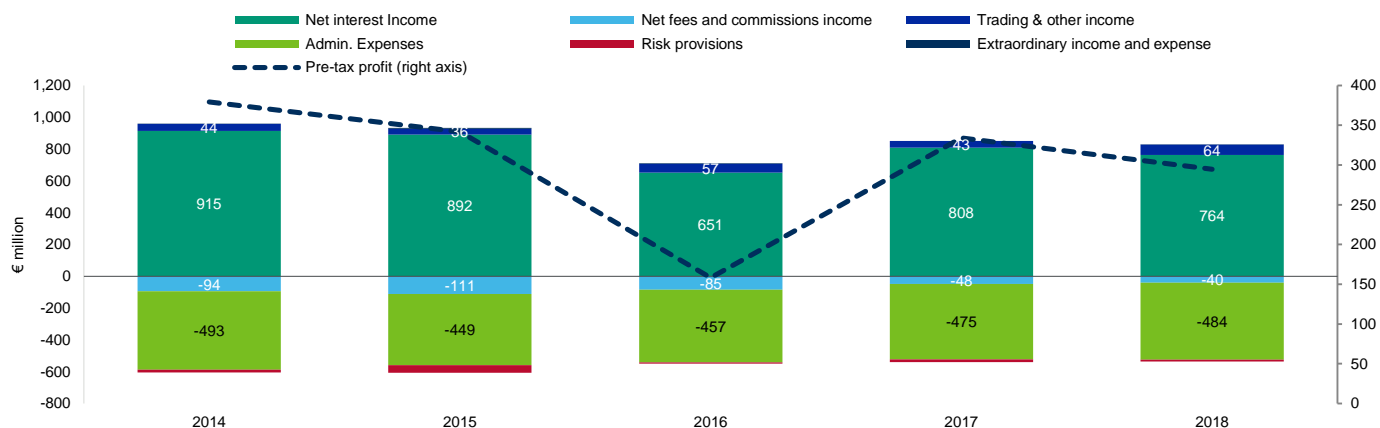
**Interest income is burdened by sticky interest expenses and provisioning for interest bonus payments**

Source: Company reports

We believe BSH's cost-to-income ratio will rise in the coming years. High IT implementation costs will accompany a declining operating income, which continues to be burdened by the limited pricing flexibility of BSH's Bauspar deposit base.

Declining net interest income has exerted pressure on BSH's moderate profitability. The recent vintage fixed-rate mortgage loans have been originated at significantly lower rates than the maturing back book, while BSH's securities portfolio was rolled over to decreasing coupons. Although BSH's overhang of high-coupon legacy Bauspar deposits is manageable overall, the fixed-rate promise and loyalty bonuses on most Bauspar deposit contracts and low conversion rates into Bauspar loans limit its ability to stabilise its net interest margin, which fell to 1.1% in 2018 from 1.6% in 2014, a trend that is likely to continue over the next 12-18 months. At the same time, BSH's net interest income will be burdened by rising annual amortisation expenses for deferred client acquisition costs booked under IFRS.

Exhibit 7

**BSH's operating income highly depends on net interest income**

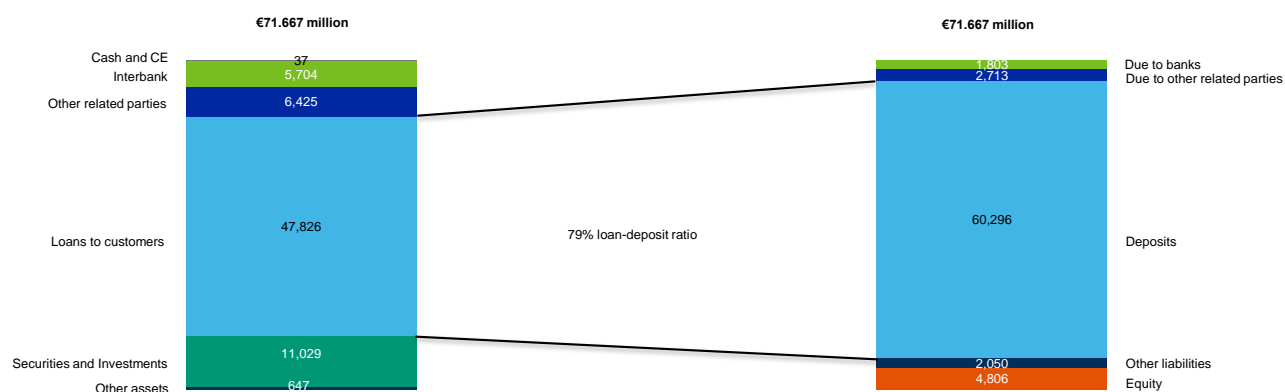
Source: Company reports, Moody's Financial Metrics, Moody's Investors Service estimates

**Planned covered bond issuance will diversify funding sources and introduce a moderate degree of market funding**

We assign BSH an aa3 Funding Structure score, one notch below the initial score. The strong score reflects its clear focus on deposit funding and the fact that most of the current intrabank funding is from the cooperative sector. The adjustment to the initial score reflects our expectation that the bank's use of market funding will rise moderately because BSH plans to roll out a covered bond issuance programme that will at least partly diversify its funding mix away from Bauspar deposits.

With a loan-to-deposit ratio of 79% as of year-end 2018 (December 2017: 77%), BSH's residential mortgage lending activities are comfortably funded through Bauspar deposits sourced from retail clients. Accordingly, intrabank funding is only sourced on a very selective basis, including funds received from sector banks during the course of normal business interaction and a very limited amount of promotional funding passed through to clients as part of residential mortgage financing solutions.

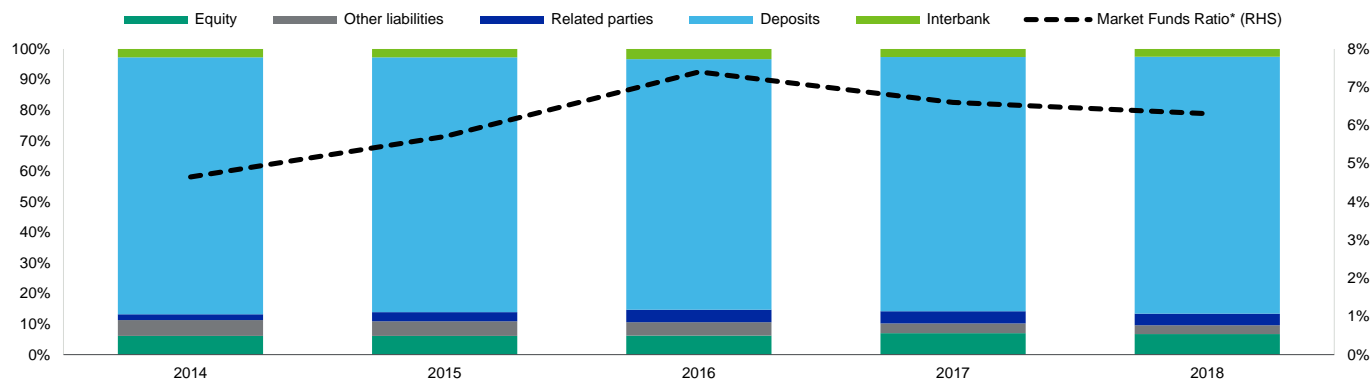
Exhibit 8

**BSH's deposit overhang dominates its liability side and is partly invested in liquid asset**

Source: Company reports, Moody's Investors Service

BSH's funding access is supported by its strong penetration of the cooperative sector's client base and its entrenched role as a mortgage specialist within the sector. BSH aims to diversify its funding sources towards mortgage covered bond issuance, which we partly (50%) include in our market funding analysis.

Exhibit 9

**BSH has a strong deposit franchise**

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

Source: Company reports, Moody's Investors Service

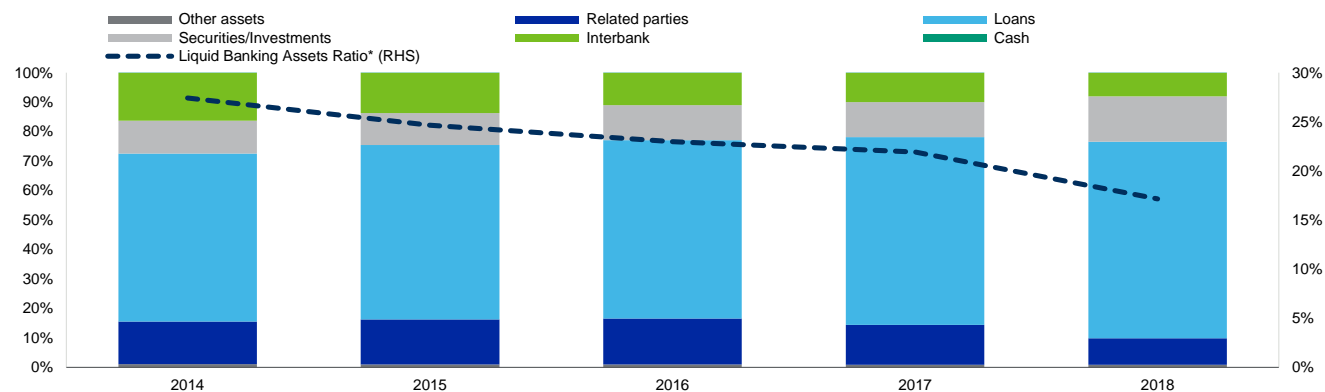
**Strong liquidity buffer provides room for business growth**

We assign BSH an a2 Liquidity score, three notches above the initial score, to reflect its comfortable buffer of liquid resources. This is supplemented by intrabank assets and securities from the cooperative banking sector.

BSH has been operating with a steady portfolio of more than €8 billion of liquid securities predominantly from issuers outside the cooperative sector. The portfolio is designed to absorb any potential liquidity stress that could arise under adverse conditions and will likely remain at least constant while BSH grows its overall business volumes. BSH also holds a sizeable portfolio of intragroup claims and bonds that could be used at least in part to cover liquidity fluctuations at short notice if needed.

BSH plans to gradually reduce the relative weight of its securities portfolio while further increasing the role of its mortgage book. We do not necessarily expect such a development to exert pressure on available liquidity buffers, because the bank will benefit from available issuance capacity under the mortgage covered bond programme it plans to establish in 2019.

Exhibit 10

**BSH's balance-sheet liquidity is declining**

\*Liquid banking assets ratio = Liquid assets/tangible banking assets

Source: Company reports, Moody's Investors Service

### Narrow business model of mortgage lending constrains the BCA

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.

BSH's high concentration in mortgage lending and the Bauspar product in particular leads us to deduct a full notch from its a2 Financial Profile score. BSH depends almost exclusively on one business line, mortgage savings and loan contracts, and we therefore classify it as a monoline bank. In terms of its assets, BSH, like its building and loan association peers, has put strong emphasis on residential mortgage loan products marketed either along with Bauspar contracts or on a standalone basis. The scope of these activities is narrowly limited by the special law applicable for German Bausparkassen under which BSH operates.

Most of BSH's funding structure rests on retail deposits sourced under Bauspar contracts. Although BSH plans to partly diversify its funding structure by issuing covered bonds starting 2019, we expect Bauspar deposits to continue to dominate its liability side.

### Support and structural considerations

#### Affiliate support

BSH's a2 Adjusted BCA benefits from the strong fundamentals of and our assessment of a very high probability of support from, the German cooperative banking association, Genossenschaftliche FinanzGruppe Volksbanken und Raiffeisenbanken. BSH's central organisation, Bundesverband der Deutschen Volksbanken und Raiffeisenbanken (BVR), provides support to all members through its institutional protection scheme.

As a member of the cooperative group of banks, BSH is highly likely to receive affiliate support in case of need. This support materially reduces the probability of default because the cooperative group's cross-sector support mechanism aims to stabilise its members by avoiding any form of loss participation by creditors or bail-ins. Our affiliate support assumptions result in three notches of rating uplift from the baa2 BCA, benefiting the bank's issuer and deposit ratings, and CRRs.

#### Loss Given Failure analysis

BSH is subject to the Bank Recovery and Resolution Directive, which we consider an operational resolution regime. Therefore, we apply our Advanced LGF analysis, under which we consider the risks faced by the different debt and deposit classes across the liability structure should the bank enter resolution. BSH is a domestic subsidiary of DZ BANK, and we include it into the resolution perimeter of the parent for the purpose of our Advanced LGF analysis, which is based on the liability structure at the DZ BANK level.

Our Advanced LGF analysis follows insolvency legislation in Germany that became effective on 21 July 2018. Following the change in law, the legal hierarchy of bank claims in Germany is now consistent with that in most other European Union countries, where statutes do not provide full preference to deposits over senior unsecured debt. The current application of our Advanced LGF analysis reflects the revised hierarchy of claims. Our LGF analysis therefore considers the results of both the formal legal position (*pari passu* or *de jure* scenario), with a 75% probability, and an alternative liability ranking reflecting resolution authority discretion (full depositor preference or *de facto* scenario), to which we assign a 25% probability.

In line with our standard assumptions, we further assume 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.

For BSH's deposits and issuer ratings, our LGF analysis indicates an extremely low loss given failure, leading to a three-notch uplift from its a2 Adjusted BCA.

#### Government support considerations

We assume one notch of uplift to our senior unsecured debt and deposit ratings for members of the cooperative banking group, reflecting our assumption of a moderate support probability.

Our government support assumptions, which are included in BSH's ratings, reflect the size and high systemic relevance at the domestic level of the group of cooperative banks. Such support would probably not be provided to the bank directly but rather to its central association, BVR, in the unlikely event that the association either cannot provide the required support or cannot provide it quickly enough, based on the sector's combined financial strength.



### 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 expected financial losses in the event that such liabilities are not honoured. CRRs are distinct from ratings assigned to senior unsecured debt instruments and issuer ratings because they reflect the fact 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.

#### **BSH'S CRRs are positioned at Aa1/P-1**

The CRRs are positioned four notches above BSH's a2 Adjusted BCA, based on (1) the extremely low loss given failure from the high volume of instruments at DZ BANK's level that are subordinated to CRR liabilities, reflected in three notches of uplift; and (2) one notch of rating uplift based on government support, in line with our support assumptions on deposits and senior unsecured debt.

### Counterparty Risk Assessment

The 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.

#### **BSH's CR Assessment is positioned at Aa1(cr)/P-1(cr)**

BSH's Aa1(cr) CR Assessment is positioned four notches above the a2 Adjusted BCA, three notches of which are based on the buffer against default provided to the senior obligations represented by the CR Assessment by more subordinated instruments, primarily senior unsecured debt. To determine the CR Assessment, we focus purely on subordination, taking no account of the volume of the instrument class.

## Methodology and scorecard

### Methodology

The principal methodology we used in rating BSH was [Banks](#), published in August 2018.

### 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

#### Bausparkasse Schwaebisch Hall AG

##### Macro Factors

Weighted Macro Profile		Very Strong -	100%				
Factor	Historic Ratio	Macro Adjusted Score	Credit Trend	Assigned Score	Key driver #1	Key driver #2	
Solvency							
Asset Risk							
Problem Loans / Gross Loans	1.3%	aa2	↔	a1	Interest rate risk	Collateral and provisioning coverage	
Capital							
Tangible Common Equity / Risk Weighted Assets (Basel III - transitional phase-in)	32.5%	aa1	↔	aa2	Risk-weighted capitalisation	Capital retention	
Profitability							
Net Income / Tangible Assets	0.3%	ba2	↓	b2	Return on assets	Expected trend	
Combined Solvency Score		a1		a3			
Liquidity							
Funding Structure							
Market Funds / Tangible Banking Assets	6.3%	aa2	↓	aa3	Extent of market funding reliance	Expected trend	
Liquid Resources							
Liquid Banking Assets / Tangible Banking Assets	17.1%	baa2	↔	a2	Stock of liquid assets	Asset encumbrance	
Combined Liquidity Score		a2		a1			
Financial Profile				a2			
Qualitative Adjustments				Adjustment			
Business Diversification				-1			
Opacity and Complexity				0			
Corporate Behavior				0			
Total Qualitative Adjustments				-1			
Sovereign or Affiliate constraint				Baa2			
Scorecard Calculated BCA range				baa1 - baa3			
Assigned BCA				baa2			
Affiliate Support notching				-			
Adjusted BCA				a2			
Balance Sheet		In-scope (EUR Million)	% In-scope	At failure (EUR Million)	% At failure		
Other liabilities		-	-	-	-		
Deposits		-	-	-	-		
Preferred deposits		-	-	-	-		
Junior Deposits		-	-	-	-		
Senior senior unsecured bank debt		-	-	-	-		

Senior unsecured bank debt	-	-	-	-
Junior senior unsecured bank debt	-	-	-	-
Dated subordinated bank debt	-	-	-	-
Junior subordinated bank debt	-	-	-	-
Preference shares (bank)	-	-	-	-
Senior unsecured holding company debt	-	-	-	-
Dated subordinated holding company debt	-	-	-	-
Junior subordinated holding company debt	-	-	-	-
Preference shares(holding company)	-	-	-	-
Equity	-	-	-	-
Total Tangible Banking Assets	-	na	-	na

Debt Class	De jure waterfall		De facto waterfall		Notching		LGF	Assigned	Additional	Preliminary
	Instrument	Sub-	Instrument	Sub-	De jure	De facto	notching	LGF	notching	Rating
	volume +	ordination	volume +	ordination			guidance			Assessment
	subordination		subordination				versus			
							BCA			
Counterparty Risk Rating	-	-	-	-	-	-	-	3	0	aa2
Counterparty Risk Assessment	-	-	-	-	-	-	-	3	0	aa2(cr)
Deposits	-	-	-	-	-	-	-	3	0	aa2

Instrument Class	Loss Given	Additional	Preliminary Rating	Government	Local Currency rating	Foreign
	Failure notching	notching	Assessment	Support notching		Currency rating
Counterparty Risk Rating	3	0	aa2	1	Aa1	Aa1
Counterparty Risk Assessment	3	0	aa2(cr)	1	Aa1(cr)	
Deposits	3	0	aa2	1	Aa1	Aa1

[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
<b>BAUSPARKASSE SCHWABISCH HALL AG</b>	
Outlook	Stable
Counterparty Risk Rating	Aa1/P-1
Bank Deposits	Aa1/P-1
Baseline Credit Assessment	baa2
Adjusted Baseline Credit Assessment	a2
Counterparty Risk Assessment	Aa1(cr)/P-1(cr)
Issuer Rating	Aa1
ST Issuer Rating	P-1
<b>PARENT: DZ BANK AG</b>	
Outlook	Stable
Counterparty Risk Rating	Aa1/P-1
Bank Deposits	Aa1/P-1
Baseline Credit Assessment	baa2
Adjusted Baseline Credit Assessment	a2
Counterparty Risk Assessment	Aa1(cr)/P-1(cr)
Issuer Rating	Aa1
Senior Unsecured	Aa1
Junior Senior Unsecured	A1
Junior Senior Unsecured MTN -Dom Curr	(P)A1
Subordinate	A3
Commercial Paper -Dom Curr	P-1
Other Short Term -Dom Curr	(P)P-1

Source: Moody's Investors Service

## Endnotes

<sup>1</sup> The ratings shown are DZ BANK's long-term deposit and senior unsecured ratings and outlook, and its BCA.

<sup>2</sup> The ratings shown are CSOB's deposit rating and outlook, and its BCA.

<sup>3</sup> The rating shown is KBC Group N.V.'s senior unsecured rating and outlook.

© 2019 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 ITS RATINGS AFFILIATES ("MIS") ARE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MOODY'S PUBLICATIONS MAY INCLUDE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES. MOODY'S 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 RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS AND MOODY'S 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. CREDIT RATINGS AND MOODY'S PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. NEITHER CREDIT RATINGS NOR MOODY'S PUBLICATIONS COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS AND PUBLISHES MOODY'S 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 AND MOODY'S 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 OR MOODY'S 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.

CREDIT RATINGS AND MOODY'S 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 the Moody's 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 OR 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 rating, agreed to pay to Moody's Investors Service, Inc. for ratings opinions and services rendered by it fees ranging from \$1,000 to approximately \$2,700,000. MCO and MIS also maintain policies and procedures to address the independence of MIS's ratings and rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold ratings from MIS and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at [www.moody.com](http://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 rating, agreed to pay to MJKK or MSFJ (as applicable) for 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.

## CLIENT SERVICES

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