

CREDIT OPINION

23 August 2019

Update

✓ Rate this Research

RATINGS

Deutsche Hypothekbank (Actien-Gesellschaft)

Domicile	Germany
Long Term CRR	Baa2 , Possible Upgrade
Type	LT Counterparty Risk Rating - Fgn Curr
Outlook	Not Assigned
Long Term Debt	Baa2 , Possible Upgrade
Type	Senior Unsecured - Dom Curr
Outlook	Rating(s) Under Review
Long Term Deposit	Baa2 , Possible Upgrade
Type	LT Bank Deposits - Fgn Curr
Outlook	Rating(s) Under Review

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

Swen Metzler, CFA +49.69.70730.762
VP-Sr Credit Officer
swen.metzler@moodys.com

Alexander Hendricks, +49.69.70730.779
CFA
Associate Managing Director
alexander.hendricks@moodys.com

Deutsche Hypothekbank AG

Update to credit analysis

Summary

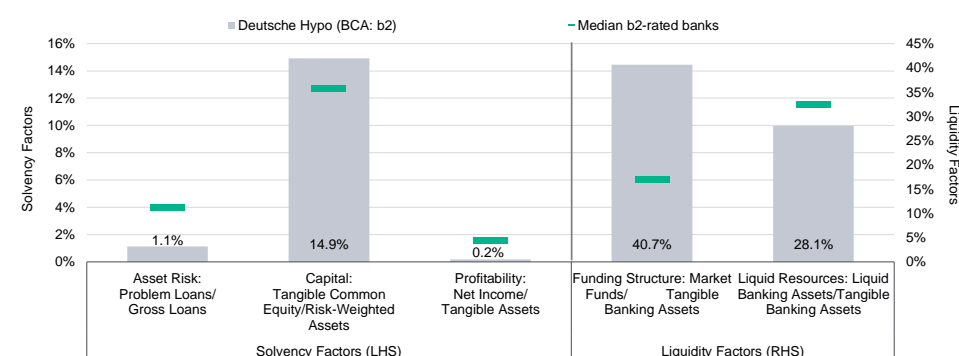
[Deutsche Hypothekbank \(Actien-Gesellschaft\)](#)'s (Deutsche Hypo) long-term Baa2 deposit and senior unsecured debt ratings are on review for upgrade. We further assign a b2 baseline credit assessment (BCA) and ba3 Adjusted BCA to the bank, which are also on review for upgrade.

Deutsche Hypo's ratings reflect (1) its b2 BCA; (2) its ba3 Adjusted BCA, incorporating our assessment that the bank will benefit from affiliate backing from its sole owner, NORD/LB, in case of need; (3) the result of the application of our Loss Given Failure (LGF) analysis, which provides three notches of uplift for the deposit and senior unsecured debt ratings; and (4) our assumption of moderate government support for the bank's deposit and senior unsecured debt ratings, equivalent to one notch of rating uplift.

Deutsche Hypo's BCA of b2 is capped at the level of the BCA of its parent NORD/LB, reflecting the close interlinks between the two banks. Deutsche Hypo's financial profile is principally superior to that of NORD/LB Group, given the fact that the bank has sound asset quality and lower vulnerability to market shocks. That said, Deutsche Hypo's BCA is constrained by its high concentration in the commercial real estate (CRE) market, high leverage and modest earnings capacity. In addition, the bank's monoline business model implies limited earnings diversification.

Exhibit 1

Rating Scorecard - Key financial ratios



Source: Moody's Financial Metrics

Credit strengths

- » Sound asset quality, balanced by Deutsche Hypo's exclusive focus on CRE markets, which may render the bank vulnerable in a stressed scenario
- » Sound but declining liquidity, as asset share of CRE loans increases
- » Senior creditors to benefit from low loss severity because we expect Deutsche Hypo to form part of NORD/LB group's wider resolution perimeter

Credit challenges

- » Deutsche Hypo's close integration into NORD/LB, underpinned by a regulatory capital waiver and transfer agreement, which weighs on our assessment of its solvency
- » Deutsche Hypo's focus on CRE lending, which constrains its credit profile
- » Very high market-funding dependence, balanced by a well-established covered bond franchise, which has good access to German investors

Outlook

- » Deutsche Hypo's long-term debt and deposit ratings are on review for upgrade, mirroring the upgrade potential of the b2 BCA of its parent, NORD/LB, which reflects, in turn, the fact that NORD/LB's poor asset quality, inadequate provisioning of distressed assets and weak capital ratios have good prospects of being addressed in the next few quarters through a capital injection, other non-cash capital measures and realignment of the bank's risk profile.

Factors that could lead to an upgrade

- » An upgrade of Deutsche Hypo's ratings would be conditional upon an upgrade of NORD/LB's BCA and Adjusted BCA during the review period.
- » A BCA upgrade of NORD/LB will likely be prompted as and when (1) the bank and its (new) owners successfully execute the measures that have been agreed upon, specifically the recapitalisation that needs to be sufficiently sized to yield a Common Equity Tier 1 (CET1) capital ratio of around 14%, and the selling of all nonperforming loans (NPLs) relating to ship finance; and (2) the most important regulatory approval is obtained, in particular that of DG Comp.
- » The result of our Advanced LGF analysis already yields the best possible outcome for Deutsche Hypo's senior ratings and bears no further upside for deposits and senior unsecured debt.

Factors that could lead to a downgrade

- » We may downgrade the ratings of Deutsche Hypo if NORD/LB's ratings are downgraded during the review period.
- » We may also downgrade Deutsche Hypo's BCA if its financial profile were to weaken significantly. However, we do not expect a downgrade of Deutsche Hypo's BCA to translate into lower long-term ratings, unless its Adjusted BCA is also lowered as a result of a BCA downgrade of its parent.
- » In addition, we may downgrade the long-term ratings of Deutsche Hypo because of an increase in the expected loss severity at the level of its parent, NORD/LB, because of the changes in the bank's liability structure, which could result in fewer notches of rating uplift as a result of our Advanced LGF analysis.

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

Deutsche Hypothekenbank (Actien-Gesellschaft) (Consolidated Financials) [1]

	12-18 ²	12-17 ²	12-16 ²	12-15 ²	12-14 ²	CAGR/Avg ³
Total Assets (EUR Billion)	21.0	23.7	25.2	26.9	30.0	(8.5) ⁴
Total Assets (USD Billion)	24.0	28.4	26.5	29.2	36.3	(9.8) ⁴
Tangible Common Equity (EUR Billion)	0.9	0.9	0.9	0.9	0.9	(0.0) ⁴
Tangible Common Equity (USD Billion)	1.0	1.0	0.9	0.9	1.0	(1.4) ⁴
Problem Loans / Gross Loans (%)	0.8	1.2	1.4	2.6	1.8	1.6 ⁵
Tangible Common Equity / Risk Weighted Assets (%)	14.9	15.4	13.6	13.5	11.6	13.8 ⁶
Problem Loans / (Tangible Common Equity + Loan Loss Reserve) (%)	13.8	20.6	24.6	44.9	32.6	27.3 ⁵
Net Interest Margin (%)	0.8	0.8	0.8	0.8	0.7	0.8 ⁵
PPI / Average RWA (%)	1.5	1.9	2.0	2.1	2.0	1.9 ⁶
Net Income / Tangible Assets (%)	0.2	0.2	0.2	0.2	0.1	0.2 ⁵
Cost / Income Ratio (%)	52.2	46.6	39.4	38.7	36.5	42.7 ⁵
Market Funds / Tangible Banking Assets (%)	40.7	43.3	48.4	45.1	48.0	45.1 ⁵
Liquid Banking Assets / Tangible Banking Assets (%)	28.1	32.7	32.9	35.7	38.3	33.5 ⁵
Gross Loans / Due to Customers (%)	202.8	192.9	229.3	191.7	194.2	202.2 ⁵

[1] All figures and ratios are adjusted using Moody's standard adjustments. [2] Compound Annual Growth Rate (%) based on time period presented for the latest accounting regime. [3] Simple average of periods presented for the latest accounting regime. [4] Simple average of Basel III periods presented.

Sources: Moody's Investors Service, company filings

Profile

Deutsche Hypothekenbank (Actien-Gesellschaft) (Deutsche Hypo) is a German covered bond bank as defined by the Pfandbrief Act ¹. Since 2008, the bank has been a wholly owned subsidiary of NORD/LB, a commercial bank in northern Germany, and acting as NORD/LB's centre of competence for the CRE finance business. Its two business segments comprise "commercial real estate finance" and "capital markets business and other business". As of December 2018, Deutsche Hypo reported assets of €21.1 billion.

Although Deutsche Hypo operates mainly in Germany, it also conducts business in the UK, Spain, France, the Benelux countries² and Poland. The bank provides a range of banking products and services primarily related to real estate finance, including project development finance, leasing, acquisition finance, structuring and syndications. The bank's CRE lending is largely funded through the issuance of mortgage covered bonds. Deutsche Hypo maintains a public-sector finance portfolio, which it seeks to run down because it is no longer part of its core business.

For more information, please see Deutsche Hypo's [Issuer profile](#) and our German [Banking System Profile](#).

Weighted Macro Profile of Strong (+)

Although Deutsche Hypo is focused on the German market, the bank's assigned Strong (+) Weighted Macro Profile is set one notch below the Very Strong (-) [Macro Profile of Germany](#), reflecting the issuer's activities in other markets with a less benign operating environment.

Recent developments

On 4 April 2019, NORD/LB and its owners announced the details of the agreed capital plan and the new business model, which include the following factors:

1. The €2.35 billion net loss for 2018, in accordance with International Financial Reporting Standards, caused by €1.9 billion net loan loss provisions for impaired loans, almost exclusively relate to ship lending.
2. The sale of €2.6 billion impaired ship loans during the first quarter of 2019. The transaction will be reflected in NORD/LB's financial results of Q2 2019.

3. Fresh capital of €2.835 billion for NORD/LB, of which €1.7 billion will be injected by the States of Lower Saxony and Saxony-Anhalt. The rest will be borne by the three groups of new shareholders that form part of the German savings banks sector and will inject a combined €1.135 billion, specifically, (1) the regional savings banks that already are among the bank's owners, (2) the group of German Landesbanken, and (3) the nationwide group of savings banks. Additional capital-relieving measures, which include risk shields via asset guarantees, equivalent to around €800 million, are planned by the State of Lower Saxony. These measures will result in a cumulative capital increase of €3.6 billion and are subject to approvals by the bank's supervisory authorities and the European Union (EU) Commission.
4. The intermittent fall in NORD/LB's CET1 ratio to 6.7% as of the end of March 2019 (2018: 6.8%) and beyond, that is, until planned capital measures are implemented. Subject to regulatory approval of these measure, we expect the capital injections during Q4 2019, as announced by NORD/LB on 22 August.
5. Reduction of the balance sheet to around €95 billion through withdrawal from shipping business, possible separation of development business and public shareholdings as well as through downsizing of other business segments. The bank expects to report a net loss for 2019 because of high restructuring costs.

Detailed credit considerations

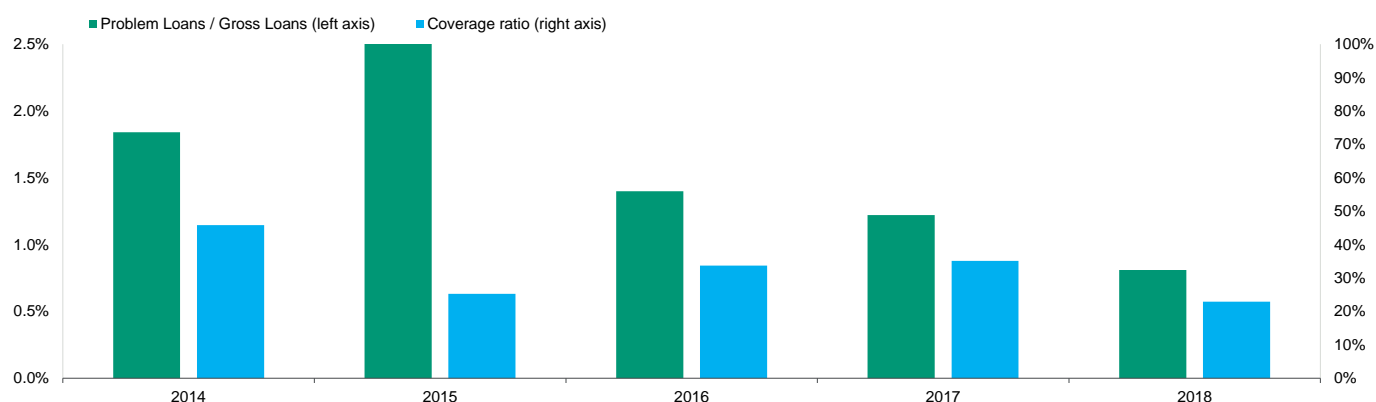
Sound asset quality, balanced by Deutsche Hypo's exclusive focus on CRE markets, which may render the bank vulnerable in stressed scenarios

We assign Deutsche Hypo a baa3 Asset Risk score, six notches below the aa3 initial score. The negative adjustment reflects the concentration risk related to Deutsche Hypo's almost exclusive focus on the cyclical CRE market, to which it had an exposure of €13.5 billion as of 31 December 2018. The portfolio is focused on the German market, which comprises 56% of the total CRE exposure. The bank's CRE exposure represents 16x its €853 million balance-sheet capital.

Exhibit 3

Deutsche Hypo's sound asset quality reflects the benign operating environment

Data in %



Problem loan ratio as per Moody's definition.

Sources: Company reports, Moody's Investors Service

Even when compared with its strong historical data, Deutsche Hypo's problem loans and associated risk costs remained very low in 2018. Supported by a benign credit environment across its core markets and the bank's quality-focused lending policies, Deutsche Hypo's NPLs declined further to €121 million as of year-end 2018, compared with €189 million in 2017.

In the context of the [United Kingdom's](#) (UK, Aa2 stable) planned exit from the EU, Deutsche Hypo may be exposed to increased credit and loan extension risks because around 7.5% of its total credit exposure is related to the UK as of year-end 2018 (2017: 6.5%). In 2018, Deutsche Hypo had underwritten around 12% of its new business volume to properties in the UK, unchanged to 2017. Although the relatively unseasoned exposures underwritten before the Brexit vote may expose the bank to increased risks, the bank's focus on the primary locations in London, its prudent loan-to-value ratios and the resulting adequate stress tolerance of this portfolio duly

mitigate the risks stemming from the UK market. The bank has its fifth-largest city concentration in London, after Hamburg, Berlin, Amsterdam and Paris.

Deutsche Hypo does not have to comply with regulatory capital requirements

We assign Deutsche Hypo a b3 Capital score, in line with the capital score of its parent NORD/LB. Our assessment reflects the capital waiver, under which Deutsche Hypo is not obliged to meet the regulatory minima as a standalone entity.

Since 2013, Deutsche Hypo is exempt from complying with the regulatory solvency requirements, reflecting a waiver granted initially by the German Federal Financial Supervisory Authority (BaFin), which was confirmed by the European Central Bank. The capital waiver is the most important of several links connecting Deutsche Hypo with NORD/LB, which led us to align the mortgage bank's BCA and ratings with those of its parent bank. For details on the group's capitalisation, please refer to the latest published [Credit Opinion on NORD/LB](#).

Moderate profits, which are upstreamed to NORD/LB under a transfer agreement, balanced by ability to build additional reserves in accordance with local GAAP

We assign Deutsche Hypo a b1 Profitability score, which is in line with the initial score. Our assessment reflects the bank's modest and stable profitability at around 0.2% of its assets³, and also takes into account Deutsche Hypo's limited ability to retain profit because of the profit-and-loss transfer agreement with NORD/LB, which also transfers Deutsch Hypo's taxation to group level. These observations are balanced by Deutsche Hypo's ability to build reserves according to §340f local GAAP, which provide an additional buffer to compensate for rising credit costs, if needed.

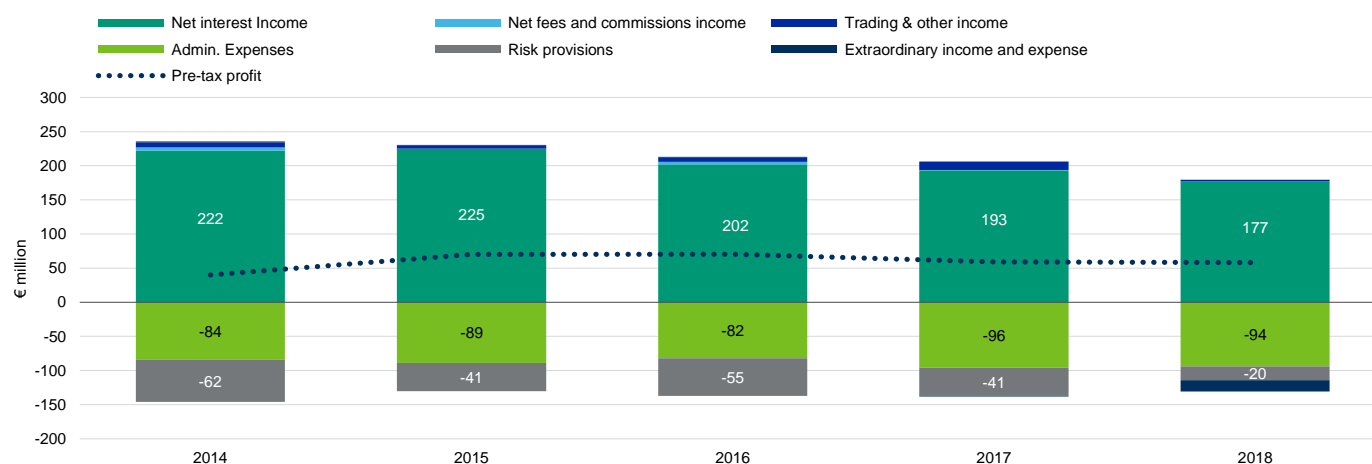
During the ongoing realignment of NORD/LB's business model, including the processing of the announced capital measures and targeted balance-sheet cleanup of distressed assets, we expect sound operating performance from Deutsche Hypo, adding a level of stability to NORD/LB group's financial results.

For 2018, Deutsche Hypo reported pre-tax profit of €58 million, slightly lower than the €63 million in 2017. The bank's pre-provision profit is under pressure from the low-interest-rate environment and declined to €86 million in 2018 from €98 million in 2017. Revenue decreased because net interest income, the bank's main income source, declined to €177 million from €193 million over the same period. Operating expenses remained almost stable at €94 million as of year-end 2018, compared with €96 million in 2017. Deutsche Hypo continues to benefit from the benign economic environment and recorded lower credit provisions for 2018, at €20 million (including the addition to undisclosed §340f reserves), compared with €41 million a year earlier. Further, in 2018, Deutsche Hypo booked a net non-recurring restructuring charge of €16.5 million to reflect the realignment of its business model.

Exhibit 4

Deutsche Hypo's revenue is under pressure from declining net interest income, but compensated by lower credit costs

Data in € millions



Sources: Company reports, Moody's Financial Metrics

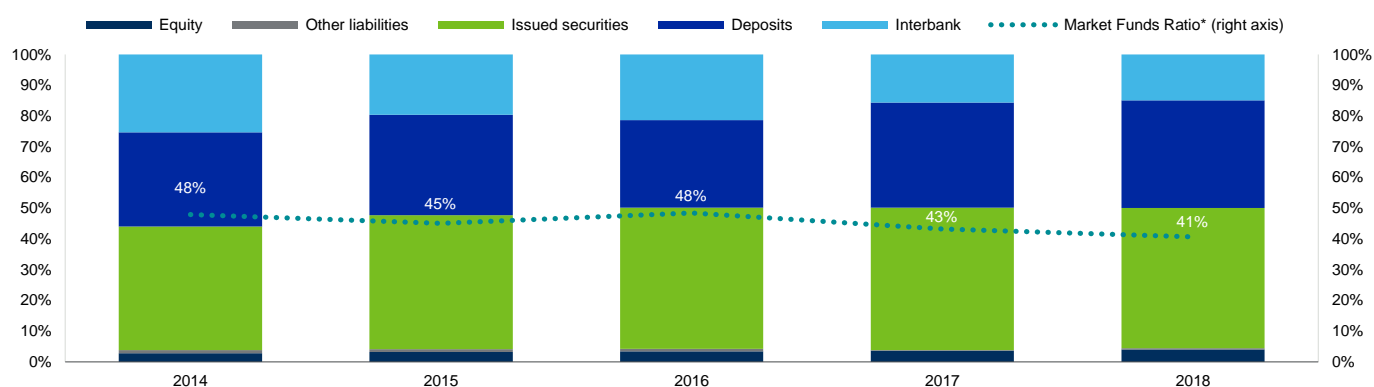
Very high market funding dependence, balanced by a well-established covered bond franchise, which has good access to German investors

Deutsche Hypo's Funding Structure score is ba2, two notches above the b1 initial score. Our assessment reflects the bank's high dependence on wholesale funding, as well as several mitigating factors, specifically its good access to funds from Germany's savings banks and strong covered bond franchise. At €1.8 billion, its senior unsecured bonds and notes outstanding as of December 2018 represented less than 8% of the total assets, which we consider a manageable amount considering the fact that the bank can issue these in the form of private placements with comparatively short maturities. The bank pursues a strategy of largely matched funding, facilitated through an independent funding franchise that is well diversified, both regionally and in terms of funding products and currencies.

Exhibit 5

Deutsche Hypo's high dependence on wholesale funding is mitigated by its standalone access to covered bonds markets

Data in % of tangible banking assets



*Market funds ratio = market funds/tangible banking assets.

Sources: Company reports, Moody's Investors Service

Deutsche Hypo's access to cost-efficient funding is a key requirement for its business model. The bank's funding structure is generally geared towards confidence-sensitive wholesale funding sources, which renders the bank susceptible to changes in investor sentiment and market risk appetite. At the same time, the bank's access to the deposit-rich savings bank sector, which includes a significant bond off-take by the German Landesbanken, has proved to be an important mitigant to funding risk. In addition, Deutsche Hypo's own institutional clients are an important investor base for both its secured and unsecured bond issues.

Sound but declining liquidity as asset share of CRE loans increases

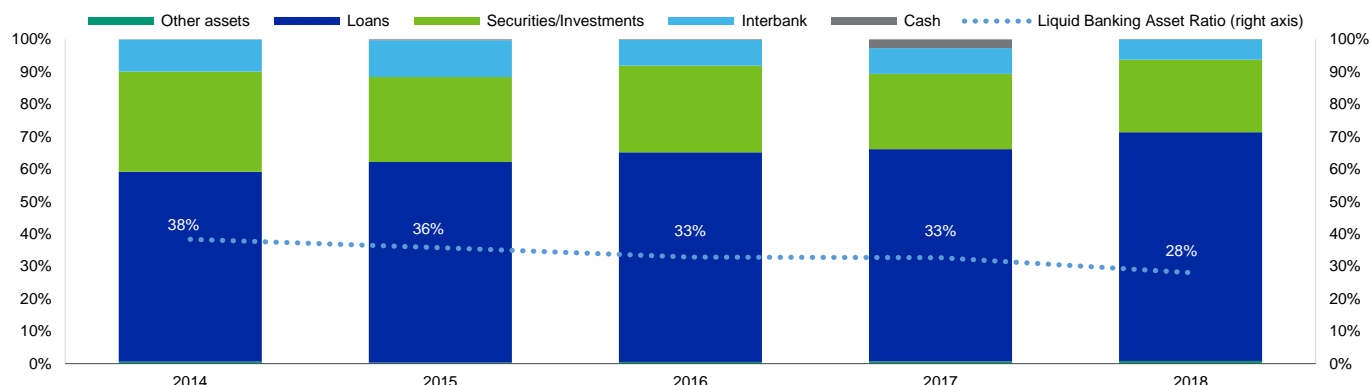
We assign Deutsche Hypo a ba1 Liquid Resources score, which is four notches below the initial score. Our adjustment takes into consideration the fact that some liquid assets are pledged against the bank's issued covered bonds. Given the bank's long-dated asset base and, therefore, modest asset maturities (and cash outflows), we consider the bank's liquid resources, at 28.1% of its tangible assets as of year-end 2018 compared with 32.7% in 2017, adequate. This view is further underpinned by Deutsche Hypo's solid liquidity coverage ratio at 264% as of year-end 2018 (2017: 346%).

Since 2014, Deutsche Hypo has increased its focus on its CRE segment, as demonstrated by its loans, which represented around 70% of its assets as of year-end 2018, compared with 65% in 2017 (2014: 58%). We believe the shift reflects higher volatility and declining yields for its capital market segment, compared with the stable environment of its CRE activities. However, the shift has triggered a reduction in the bank's financial securities, its prime source for liquidity.

Exhibit 6

Deutsche Hypo's balance sheet mix has shifted towards loans at the expense of declining volume of financial securities

Data in % of tangible banking assets



*Liquid banking assets ratio = liquid assets/tangible banking assets.

Source: Company reports, Moody's Investors Service

Under stressed conditions, we believe that Deutsche Hypo's liquidity buffer allows the bank to meet its obligations over at least the six months, without having to access capital markets. Further, given its close integration into NORD/LB group, Deutsche Hypo has access to short-term liquidity lines with its parent bank in case of need.

Deutsche Hypo's focus on CRE lending constrains its credit profile

Deutsche Hypo's business model is strongly geared to its CRE activities and thus less diversified than that of universal banks. We believe that the dominance of one type of lending constrains the bank's credit profile. We therefore limit Deutsche Hypo's BCA at b1, which is one notch below the bank's ba3 Financial Profile score. For 2018, Deutsche Hypo's CRE segment reported a pretax profit of €139 million, while the bank's capital markets and other segments incurred a pretax loss of €64 million.

Support and structural considerations**Affiliate support**

We consider Deutsche Hypo to be affiliate, backed by NORD/LB and, therefore, align its Adjusted BCA with the ba3 Adjusted BCA of NORD/LB. Our approach is based on Deutsche Hypo's high degree of integration into the NORD/LB Group, as reflected in the profit-and-loss transfer agreement between the parent and the subsidiary, and Deutsche Hypo's exemption from having to comply with regulatory capital requirements.

Our positioning of Deutsche Hypo's Adjusted BCA includes the benefits of the bank's membership in and support from S-Finanzgruppe⁴), which effectively reduces the probability of default because this support would be available for stabilising a distressed member bank, and not just to compensate for losses in resolution. Our assumption of high cross-sector support provides two notches of rating uplift to NORD/LB's Adjusted BCA of ba3.

Loss Given Failure analysis

Deutsche Hypo is subject to the EU Bank Recovery and Resolution Directive, which we consider an operational resolution regime. We expect Deutsche Hypo to be included in the resolution perimeter of its parent entity NORD/LB, and we therefore apply our LGF analysis for NORD/LB, which considers the risks faced by the different debt and deposit classes across the liability structure at failure at the group level. We assume residual tangible common equity of 3%, post-failure losses of 8% of tangible banking assets, a 25% runoff in junior wholesale deposits and a 5% run-off in preferred deposits. These are in line with our standard assumptions.

Our Advanced LGF analysis follows the recently [revised 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 most other EU countries, where statutes do not provide full preference to deposits over senior unsecured debt. However, in our Advanced LGF analysis, we now consider not only the results of the formal legal position (*pari passu* or *de jure* scenario), to which we assign a 75% probability, but

also an alternative liability ranking, reflecting the resolution authority's discretion to prefer deposits over senior unsecured debt (full depositor preference, or de facto scenario), to which we assign a 25% probability.

- » For Deutsche Hypo's deposits and senior unsecured debt, our group-level LGF analysis indicates an extremely low loss given failure, leading to a three-notch uplift from the bank's ba3 Adjusted BCA.
- » For Deutsche Hypo's junior senior unsecured debt, our group-level LGF analysis indicates a very low loss given failure, leading to a two-notch uplift from the bank's ba3 Adjusted BCA.
- » For Deutsche Hypo's subordinated debt instruments, our group-level LGF analysis indicates a high loss given failure, leading to a B1 rating, which is one notch below the bank's ba3 Adjusted BCA.

Government support considerations

Given its size on a consolidated basis, we consider S-Finanzgruppe as domestically and systemically relevant. We, therefore, attribute a moderate probability of German government support for all members of the sector, in line with support assumptions for other systemically relevant banking groups in Europe. For Deutsche Hypo, this results in an additional one-notch government support uplift for its long-term senior unsecured debt and deposit ratings.

For junior senior unsecured debt, the [legal changes to Germany's bank insolvency rank](#) order in 2018 lowered the likelihood of the government support being available for these instruments because, legally, they rank pari passu with most of the outstanding (statutorily subordinated) senior unsecured instruments issued until 20 July 2018. As a result, we assign a low probability of government support being available for these instruments, resulting in no rating uplift.

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 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.

Deutsche Hypo's CRRs are positioned at Baa2/P-2

The CRRs, before government support, are positioned three notches above the Adjusted BCA of ba3, reflecting the extremely low loss given failure from the high volume of instruments that are subordinated to CRR liabilities. Deutsche Hypo's CRRs benefit from a one-notch rating uplift based on government support, in line with our support assumptions on deposits and senior unsecured debt.

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 (1) consider only the risk of default rather than both the likelihood of default and the expected financial loss, and (2) 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.

Deutsche Hypo's CR Assessments are positioned at Baa2(cr)/P-2(cr)

The CR Assessment, before government support, is positioned three notches above the Adjusted BCA of ba3, based on the buffer against default provided to the senior obligations represented by the CR Assessment by more subordinated instruments, including junior deposits and senior unsecured debt. Deutsche Hypo's CR Assessment benefits from a one-notch rating uplift based on government support, in line with our support assumptions on deposits and senior unsecured debt.

Methodology and scorecard

The principal methodology we use in rating Deutsche Hypo is [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 7

Deutsche Hypothekenbank (Actien-Gesellschaft)

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	1.1%	aa3	↔	baa3	Sector concentration	Unseasoned risk
Capital						
Tangible Common Equity / Risk Weighted Assets (Basel III - transitional phase-in)	14.9%	a1	↔	b3	Access to capital	Stress capital resilience
Profitability						
Net Income / Tangible Assets	0.2%	b1	↔	b1	Return on assets	Expected trend
Combined Solvency Score		a3		ba3		
Liquidity						
Funding Structure						
Market Funds / Tangible Banking Assets	40.7%	b1	↔	ba2	Extent of market funding reliance	Market funding quality
Liquid Resources						
Liquid Banking Assets / Tangible Banking Assets	28.1%	a3	↔	ba1	Asset encumbrance	Stock of liquid assets
Combined Liquidity Score		ba1		ba2		
Financial Profile				ba3		
Qualitative Adjustments				Adjustment		
Business Diversification				-1		
Opacity and Complexity				0		
Corporate Behavior				0		
Total Qualitative Adjustments				-1		
Sovereign or Affiliate constraint				B2		
Scorecard Calculated BCA range				b1 - b3		
Assigned BCA				b2		
Affiliate Support notching				2		
Adjusted BCA				ba3		

Balance sheet is not applicable in current credit opinion

Debt Class	De Jure waterfall		De Facto waterfall		Notching		LGF Notching Guidance vs. Adjusted BCA	Assigned LGF notching	Additional Notching	Preliminary Rating Assessment
	Instrument	Sub-volume + ordination	Instrument	Sub-volume + ordination	De Jure	De Facto				
Counterparty Risk Rating	-	-	-	-	-	-	-	3	0	baa3
Counterparty Risk Assessment	-	-	-	-	-	-	-	3	0	baa3 (cr)
Deposits	-	-	-	-	-	-	-	3	0	baa3
Senior unsecured bank debt	-	-	-	-	-	-	-	3	0	baa3
Junior senior unsecured bank debt	-	-	-	-	-	-	-	2	0	ba1
Dated subordinated bank debt	-	-	-	-	-	-	-	-1	0	b1

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	baa3	1	Baa2 RUR Possible Upgrade	Baa2 RUR Possible Upgrade
Counterparty Risk Assessment	3	0	baa3 (cr)	1	Baa2(cr) RUR Possible Upgrade	
Deposits	3	0	baa3	1	Baa2 RUR Possible Upgrade	Baa2 RUR Possible Upgrade
Senior unsecured bank debt	3	0	baa3	1	Baa2 RUR Possible Upgrade	
Junior senior unsecured bank debt	2	0	ba1	0	Ba1 RUR Possible Upgrade	
Dated subordinated bank debt	-1	0	b1	0	B1 RUR Possible Upgrade	

[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 8

Category	Moody's Rating
DEUTSCHE HYPOTHEKENBANK (ACTIEN-GESELLSCHAFT)	
Outlook	Rating(s) Under Review
Counterparty Risk Rating	Baa2/P-2 ¹
Bank Deposits	Baa2/P-2 ¹
Baseline Credit Assessment	b2 ²
Adjusted Baseline Credit Assessment	ba3 ²
Counterparty Risk Assessment	Baa2(cr)/P-2(cr) ¹
Issuer Rating	Baa2 ²
Senior Unsecured -Dom Curr	Baa2 ²
Junior Senior Unsecured -Dom Curr	Ba1 ³
Subordinate -Dom Curr	B1 ³
ST Issuer Rating	P-2
Other Short Term -Dom Curr	(P)P-2
PARENT: NORDDEUTSCHE LANDESBANK GZ	
Outlook	Rating(s) Under Review
Counterparty Risk Rating	Baa2/P-2 ¹
Bank Deposits	Baa2/P-2 ¹
Baseline Credit Assessment	b2 ²
Adjusted Baseline Credit Assessment	ba3 ²
Counterparty Risk Assessment	Baa2(cr)/P-2(cr) ¹
Issuer Rating	Baa2 ²
Senior Unsecured -Dom Curr	Baa2 ²
Junior Senior Unsecured	Ba1 ³
Junior Senior Unsecured MTN -Dom Curr	(P)Ba1 ²
Subordinate	B1 ²
Commercial Paper	P-2
Other Short Term -Dom Curr	(P)P-2

[1] Rating(s) within this class was/were placed on review on 14 February 2019 [2] Placed under review for possible upgrade on 14 February 2019 [3] Placed under review on 14 February 2019
Source: Moody's Investors Service

Endnotes

- 1 Pfandbrief Bank is the term used by the Pfandbrief Act for banks authorised to issue Pfandbriefe, which are debt securities covered by specific assets such as mortgages on property or loans to local authorities.
- 2 The Benelux countries are Belgium, the Netherlands and Luxembourg.
- 3 Considering the fact that the bank does not pay taxes at the bank level, our net income/tangible assets includes a tax adjustment to make the bank's net income ratios more comparable with those of peers.
- 4 The ratings reflect S-Finanzgruppe's corporate family rating and outlook, and its BCA.

© 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 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 657AFSL 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.

REPORT NUMBER

1184221