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CREDIT OPINION
18 December 2020

Update

Rate this Research

RATINGS

Deutsche Hypothekenbank (Actien-Gesellschaft)

Domicile	Hannover, Germany
Long Term CRR	A3
Type	LT Counterparty Risk Rating - Fgn Curr
Outlook	Not Assigned
Long Term Debt	A3
Type	Senior Unsecured - Dom Curr
Outlook	Stable
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.

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Deutsche Hypothekenbank (Actien-Gesellschaft)

Update to credit analysis

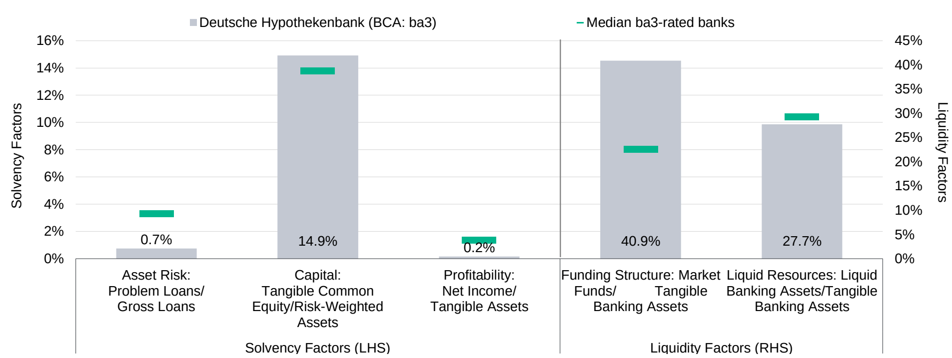
Summary

We assign A3(stable)/P-2 deposit and senior unsecured debt ratings to Deutsche Hypothekenbank (Actien-Gesellschaft) (Deutsche Hypo). We also assign a Baseline Credit Assessment (BCA) of ba3 and an Adjusted BCA of ba1 to Deutsche Hypo.

Deutsche Hypo's ratings reflect its ba3 BCA, two notches of rating uplift from affiliate-backing by its sole owner, Norddeutsche Landesbank GZ (NORD/LB, A3 stable/A3 stable, ba3[1]), and its membership in the institutional protection scheme of Sparkassen-Finanzgruppe (S-Finanzgruppe, Aa2 negative, a2[2]), the result of the application of our Loss Given Failure (LGF) analysis and its inclusion in the resolution perimeter of NORD/LB, as well as one notch of government support because of Deutsche Hypo's membership in systemically relevant S-Finanzgruppe.

Deutsche Hypo's ba3 BCA is capped at the level of the BCA of its parent NORD/LB, reflecting the close interlinks between the two banks. The bank's BCA also takes into account sound asset quality, high leverage and modest earnings capacity of Deutsche Hypo. In addition, the bank's BCA remains constrained by its monoline business model, resulting from high concentration in the commercial real estate lending, and 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 the CRE market

» High dependence on market funding, balanced by a well-established covered bond franchise with good access to German investors, including Landesbanks and savings banks

» Senior unsecured creditors benefit from low loss severity, because we expect Deutsche Hypo to form part of the NORD/LB group's resolution perimeter

Credit challenges

» Close integration with NORD/LB, underpinned by a regulatory capital waiver and a profit-and-loss transfer agreement, which weighs on Deutsche Hypo's standalone credit profile

» Monoline business model focused on CRE lending, which constrains its earnings to a single lending activity

» Declining liquidity as the share of CRE loans increases

Outlook

The stable outlook on Deutsche Hypo's long-term debt and deposit ratings mirrors the stable outlook on the ratings of its parent, NORD/LB.

Factors that could lead to an upgrade

» An upgrade of Deutsche Hypo's ratings would be subject to an upgrade of NORD/LB's ratings.

» We may consider upgrading NORD/LB's ratings if the bank successfully executes the planned measures under its transformation programme, leading to a significantly smaller and de-risked balance sheet, including the disposal of the remaining loans related to shipping finance; stable or higher capitalization; and profitability restored to a moderate level.

Factors that could lead to a downgrade

» We could downgrade Deutsche Hypo's ratings if NORD/LB's ratings are downgraded.

» We could downgrade Deutsche Hypo's BCA if its financial profile were to weaken significantly. If we were to downgrade Deutsche Hypo's BCA, we do not expect this to translate into lower long-term ratings, unless its Adjusted BCA was also lowered as a result of a downgrade of its parent's BCA.

» We could downgrade the long-term ratings of Deutsche Hypo if there is an increase in the expected loss severity at the level of NORD/LB because of changes in NORD/LB's liability structure, which could result in fewer notches of rating uplift based on our Advanced LGF analysis.

Key indicators

Exhibit 2
Deutsche Hypothekenbank (Actien-Gesellschaft) (Consolidated Financials) [1]

	06-20[2]	12-19[2]	12-18[2]	12-17[2]	12-16[2]	CAGR/Avg.[3]
Total Assets (EUR Billion)	19.4	20.5	21.0	23.7	25.2	(7.1)[4]
Total Assets (USD Billion)	21.8	23.0	24.0	28.4	26.5	(5.5)[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	1.0	1.0	0.9	1.8[4]
Problem Loans / Gross Loans (%)	0.5	0.5	0.8	1.2	1.4	0.9[5]
Tangible Common Equity / Risk Weighted Assets (%)	14.9	14.9	14.9	15.4	13.6	14.8[6]
Problem Loans / (Tangible Common Equity + Loan Loss Reserve) (%)	7.6	7.6	13.8	20.6	24.6	14.8[5]
Net Interest Margin (%)	0.8	0.9	0.8	0.8	0.8	0.8[5]
PPI / Average RWA (%)	1.2	1.8	1.5	1.9	2.0	1.7[6]
Net Income / Tangible Assets (%)	0.2	0.2	0.2	0.2	0.2	0.2[5]
Cost / Income Ratio (%)	59.6	46.8	52.2	46.6	39.4	48.9[5]
Market Funds / Tangible Banking Assets (%)	37.6	40.9	40.7	43.3	48.4	42.2[5]
Liquid Banking Assets / Tangible Banking Assets (%)	27.1	27.7	28.1	32.7	32.9	29.7[5]
Gross Loans / Due to Customers (%)	198.3	213.7	202.8	192.9	229.3	207.4[5]

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

Deutsche Hypothekenbank (Actien-Gesellschaft) (Deutsche Hypo) is a German covered bond bank as defined by the Pfandbrief Act[3]. Since 2008, the bank is wholly owned by NORD/LB, a German Landesbank, and acts as NORD/LB's centre of competence for CRE financing. Deutsche Hypo's business segments comprise CRE finance, and capital markets business and other business. As of 30 June 2020, Deutsche Hypo reported assets of €19.4 billion.

Although Deutsche Hypo operates mainly in Germany, it also conducts business in the UK, Spain, France, the Benelux countries[4], Poland and Austria. Deutsche Hypo provides 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. Over the last couple of years, Deutsche Hypo has reduced its exposure to the public sector, which is the main driver for the decreasing importance of its capital market business segment.

Deutsche Hypo's Macro Profile is in line with Germany's Strong+ Macro Profile

Deutsche Hypo's assigned Strong+ weighted Macro Profile reflects its focus on lending activities in Germany (see Germany's Strong+ Macro Profile) and also takes into account its moderate activities in other, mainly European, markets.

Recent developments

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

The European Central Bank (ECB) announced a series of measures to help European Union (EU) economies weather the widening effects of the pandemic, temporarily increasing banks' liquidity provisions, as well as lowering regulatory capital and liquidity requirements. As part of these temporary measures, the ECB increased its targeted long-term refinancing operations (TLTRO III) under more favourable terms and its financial asset purchase programme, while refraining from lowering the ultralow interest rates further. The temporary suspension of buffer requirements for regulatory capital and the liquidity coverage ratio (LCR) gives banks greater flexibility and additional leeway to absorb the economic impact, such as asset-quality declines. Overall, the package aims to help banks continue to finance corporates and small and medium-sized businesses suffering from the effects of the pandemic. The ECB's measures will provide limited relief for banks and their borrowers, and significant fiscal policy measures by the EU and its member states will be required to avert higher default rates in banks' lending books.

Germany has launched a large stimulus package and the government's support is crucial for corporate borrowers in industries immediately hurt by the pandemic such as airlines, tourism, retail and the shipping sector, as well as smaller companies experiencing weak liquidity and high leverage. The scale of the support package is unprecedented and is far larger than the support provided during the 2008 financial crisis. At the same time, the government made it easier to access its short-work scheme “Kurzarbeit” and extended it to a broader pool of workers, which will limit the spike in unemployment and the fall in domestic consumption. The measures, which are adapted according to the evolution of the economic effects of the pandemic, add to Germany's already expansionary fiscal policy stance and to the automatic stabilisers that support household incomes when unemployment increases.

On 14 December 2020, Deutsche Hypo's parent NORD/LB announced its intention to fully integrate and to merge its subsidiary Deutsche Hypo into the parent entity as part of its transformation program. The merger shall become effective in July 2021.

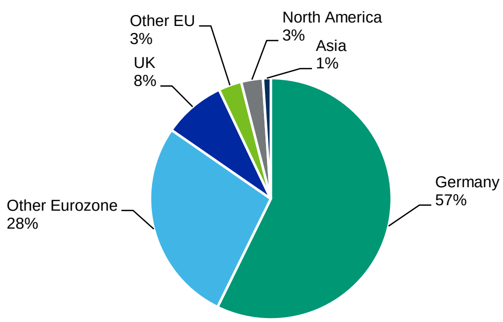
Detailed credit considerations

Deutsche Hypo entered the pandemic with sound asset quality, but high concentration risks from CRE lending remain

We assign a baa3 Asset Risk score to Deutsche Hypo, seven notches below the aa2 initial score. The negative adjustment reflects the high concentration risks arising from the bank's sizeable exposure to CRE financing, representing around 14.4x its equity, which may render the bank vulnerable in a stressed economic scenario.

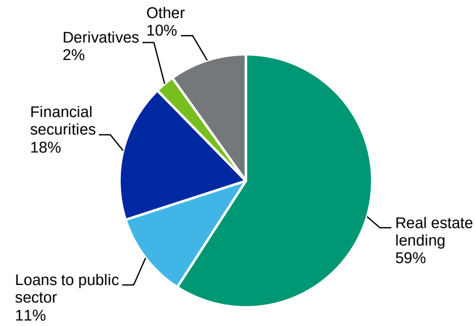
As of year-end 2019, around 85% of Deutsche Hypo's €22.8 billion credit exposures (2018: €23.5 billion) related to Germany (57% of the total) and other eurozone countries. Lending to real estate and the public sector accounted for a combined 70% of the bank's total credit exposure. Deutsche Hypo's real estate loans of around €12.2 billion as of 31 December 2019 (2018: €13.5 billion) were largely geared towards the German property market (53% of the total), followed by Benelux (around 18%), the UK (around 14%), France (around 8%) and Poland (around 4%). Most of the loans are for office buildings (37%), followed by the retail sector (31%), residential properties (18%) and hotels (around 8%).

Exhibit 3
Deutsche Hypo's exposure at default by region
Data in percentage terms, as of year-end 2019



Sources: Company reports and Moody's Financial Metrics

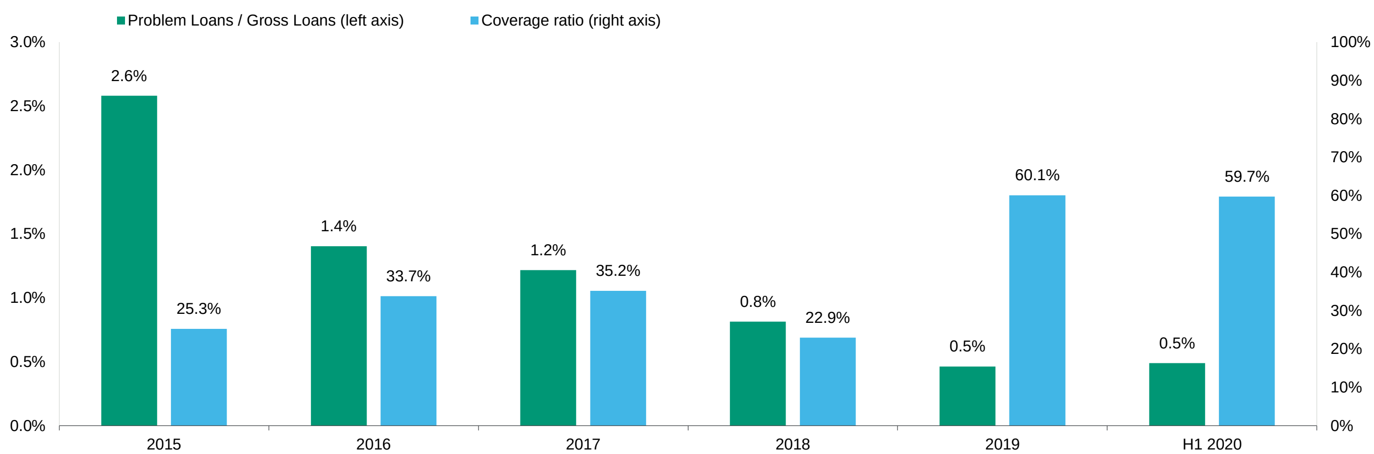
Exhibit 4
Deutsche Hypo's exposure by type/customer
Data in percentage terms, as of year-end 2019



Sources: Company reports and Moody's Financial Metrics

Supported by the benign credit environment across its core markets and its prudent underwriting before the outbreak of the pandemic, Deutsche Hypo benefited from improvement in asset quality. Since 2015, the bank's problem loan ratio declined to 0.5% at the end of June 2020 from 2.6% as of year-end 2015. Over the same period, nonperforming loans decreased from €432 million to €68 million, and the bank reduced its loan-loss reserves from €109 million to €41 million[5] while maintaining an adequate coverage ratio of around 60%.

Exhibit 5
Problem loans have decreased significantly since 2015
Data in percentage terms



Problem loans in accordance with Moody's definition. The coverage ratio compares loan-loss reserves to problem loans.
Sources: Company reports and Moody's Financial Metrics

In the context of the UK's (Aa2 stable) exit from the EU, Deutsche Hypo may be exposed to increased credit and loan-extension risks because 11.9% of its CRE loans as of the end of June 2020 related to UK properties (2019: 13.9%). Although the relatively unseasoned exposures underwritten before the Brexit vote may expose the bank to increased risks, the bank's focus on the prime locations in London and the prudent loan-to-value ratios will partially mitigate the risks stemming from these exposures. In H1 2020, Deutsche Hypo reduced its UK-related new business volume to around 7% from around 10% in the year-earlier period.

Deutsche Hypo's Capital score is aligned with that of its parent

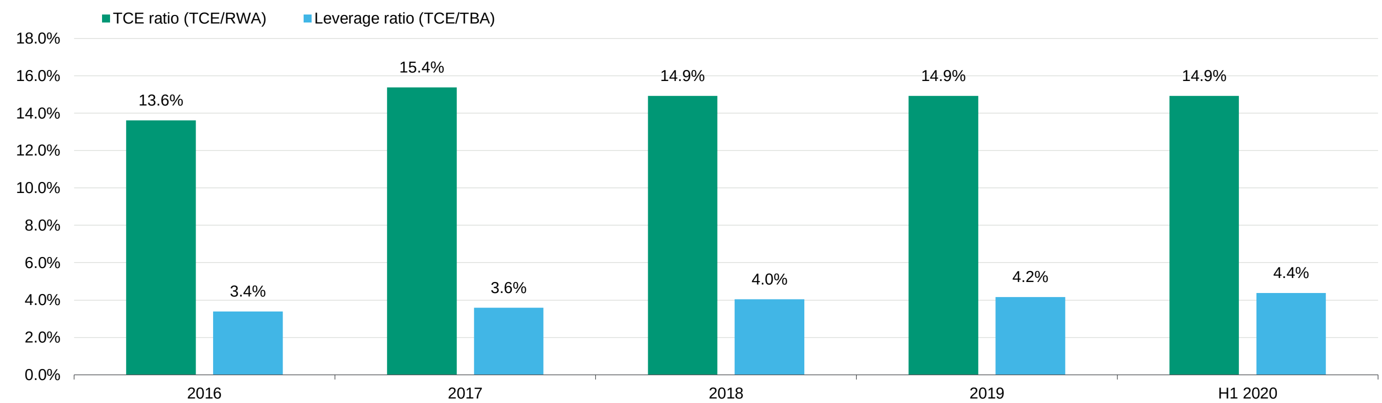
We assign Deutsche Hypo a baa1 Capital score, in line with the Capital score of NORD/LB. Our assessment reflects the capital waiver under which Deutsche Hypo is not obliged to meet the regulatory minima as a standalone entity.

Since 2013, Deutsche Hypo has been exempted 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 ECB. 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.

Exhibit 6

Although exempt from reporting standalone capital ratios, Deutsche Hypo's solvency benefits from low risk-weighted assets compared with total assets, at around 29% as of the end of June 2020

Data in percentage terms



TCE = Tangible common equity, RWA = Risk-weighted assets, TBA = Tangible banking assets.
Sources: Company reports and Moody's Financial Metrics

For details on the group's capitalisation, please refer to our Credit Opinion on NORD/LB.

Modest profitability, which is upstreamed to NORD/LB under a profit-and-loss transfer agreement

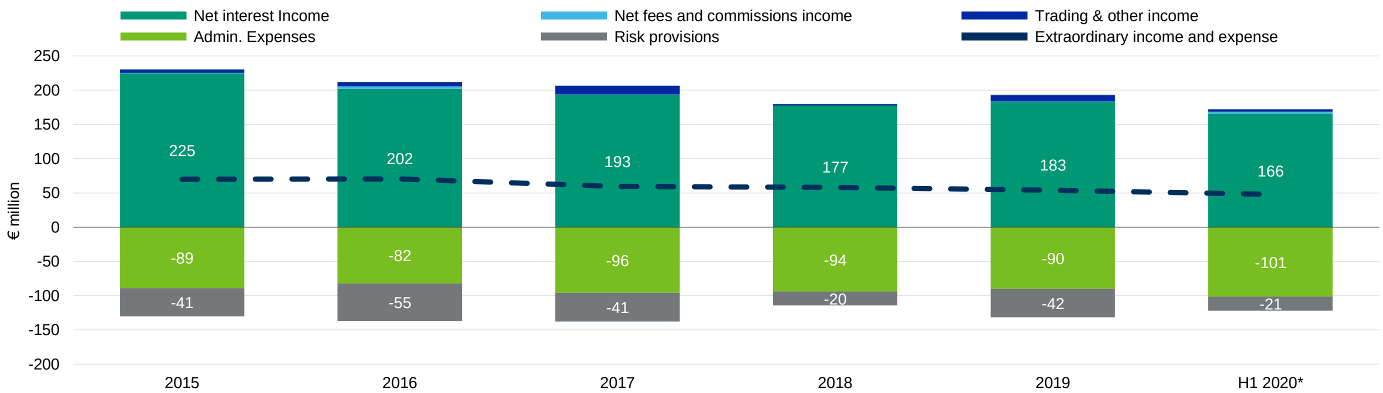
We assign Deutsche Hypo a b1 Profitability score, which is in line with the initial score. Our assessment reflects the bank's modest and stable profitability, at around 0.23% of its assets in H1 2020[6]. The assessment also takes into account Deutsche Hypo's limited ability to retain profit because of the profit-and-loss transfer agreement with NORD/LB, which also transfers Deutsche Hypo's taxation to the group level. These factors are balanced by Deutsche Hypo's ability to build reserves according to §340f local GAAP, which provides an additional buffer to compensate for rising credit costs, if needed.

In H1 2020, the bank's total revenue decreased to €85 million from €96 million in H1 2019. A moderately lower net interest income of €83 million (H1 2019: €87 million) and reduced operating expenses of €51 million (H1 2019: €53 million) contributed to a lower but positive reported pretax profit of €24 million, compared with €33 million in H1 2019. Credit risk provisions increased to €10.3 million during H1 2020 (H1 2019: -€9.1 million). The risk result benefited from a risk reversal of €8.9 million in the bank's capital markets segment, while risk provisions in the CRE segment accounted for €19.2 million.

Exhibit 7

Deutsche Hypo's revenue is strained by low interest rates, but pretax profit is supported by declining operating expenses and modest risk provisions

Data in € million



*H1 2020 data reflects annualised figures. Annualised administrative expenses in H1 2020 include the annual bank levy of €10.4 million.

Sources: Company reports and Moody's Financial Metrics

We expect that Deutsche Hypo, with its sound operating performance, will continue to add some level of stability to NORD/LB's consolidated profit under the recently announced full integration plans.

Well-established covered bond franchise with good access to German investors, mitigating Deutsche Hypo's high dependence on market funding

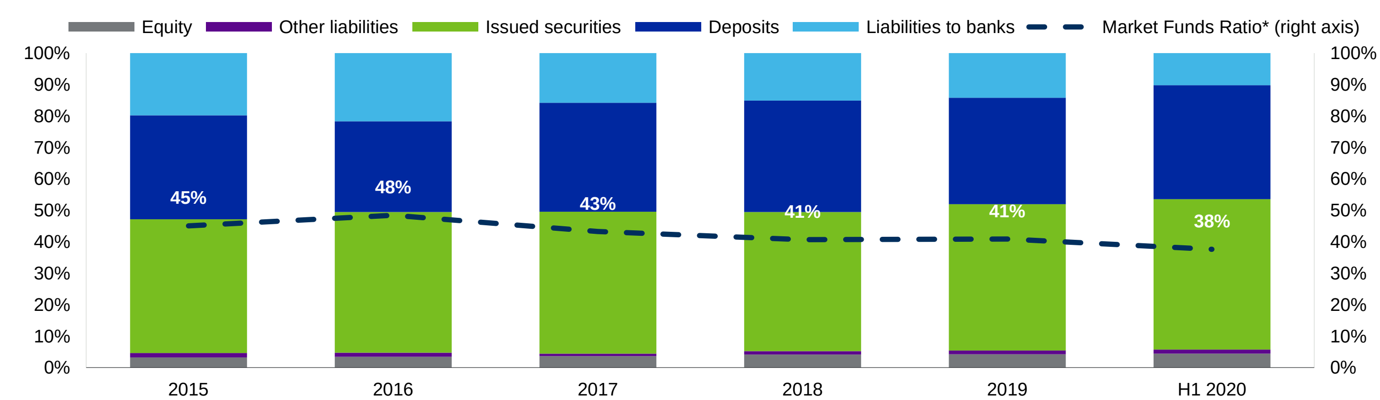
Deutsche Hypo's Funding Structure score is ba3, one notch above the b1 initial score. Our assessment reflects the bank's high dependence on wholesale funding, which is balanced by several mitigating factors. These mitigants are the bank's strong and independent covered bond and green bond franchise, its good access to funding from Germany's savings banks, and its largely matched funded assets and liabilities.

As of the end of June 2020, around 59% of Deutsche Hypo's assets were funded through covered bonds, a ratio which has remained largely unchanged since 2015. The importance of mortgage covered bonds, which accounted for €8.3 billion or around 43% of assets, for Deutsche Hypo's funding is gradually increasing, underpinned by this debt class' share of 35% in 2017 and 31% in 2015. In contrast, the percentage of assets funded through public sector covered bonds is gradually declining, representing around 16% of assets as of the end of June 2020 (2017: 19%; 2015: 26%), which reflects the fact that this segment is no longer part of Deutsche Hypo's strategic focus.

Exhibit 8

The ability to issue covered bonds mitigates Deutsche Hypo's high market funding dependence

Data as a percentage of tangible banking assets



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

Sources: Company reports and Moody's Financial Metrics

Not all funding needs at Deutsche Hypo can be met through the issuance of covered bonds. The need to issue senior unsecured debt is manageable for Deutsche Hypo, reflecting its proximity to NORD/LB, the savings bank sector, and considering the fact that the bank can issue this debt in the form of private placements with comparatively short maturities. As of the end of June 2020, around €1.5 billion or 7.8% of assets (2019: 8.1%) were funded through senior unsecured bonds.

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 Landesbanks, 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 issuances.

Sound, but declining, liquidity as the share of CRE loans increases

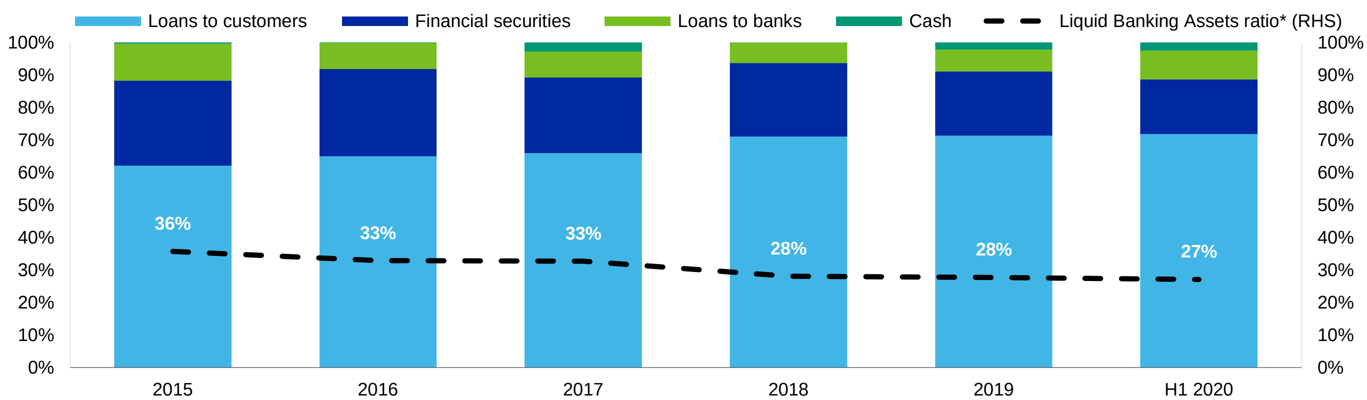
Deutsche Hypo's Liquid Resources score is baa2, which is two notches below the initial score of a3. Our adjustment reflects the fact that Deutsche Hypo has pledged as collateral some financial securities against the issued covered bonds. However, because of its long-dated loans and, therefore, modest maturities and cash outflow, we consider Deutsche Hypo's liquid resources adequate, at 27.1% of tangible assets as of 30 June 2020 (2019: 27.7%). Our view is further underpinned by Deutsche Hypo's solid LCR of 365% as of 30 June 2020 (2019: 396%).

During recent years, Deutsche Hypo has further strengthened its focus on CRE lending, which has triggered a rising share of CRE loans. As of the end of June 2020, around 71% of the bank's assets were represented by loans, compared with 58% in 2014. The shift reflects Deutsche Hypo's strategic decision to reduce public sector lending activities. However, the shift has triggered a reduction in the bank's financial securities, its prime source of liquidity.

Exhibit 9

Deutsche Hypo's balance-sheet mix has shifted towards loans

Data as a percentage of tangible banking assets



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

Sources: Company reports and Moody's Financial Metrics

Under stressed conditions, Deutsche Hypo's liquidity buffer allows the bank to meet its obligations over at least six months, without having to access capital markets. In addition, given its close integration with NORD/LB group, Deutsche Hypo has access to short-term liquidity lines with its parent bank in case of need and can also participate in the ECB's TLTRO transactions, as it did in H1 2020.

Qualitative adjustment reflects limited business diversification

Deutsche Hypo's BCA is constrained by its monoline business model as a result of its high concentration in CRE lending and limited earnings diversification. Therefore, we lower the bank's weighted-average outcome of the assigned baa3 Financial Profile score by one notch.

Business diversification is an important measure 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 ability to the absorb shocks affecting a business line.

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

Deutsche Hypo's BCA is constrained by NORD/LB's standalone credit profile

In addition to the qualitative adjustment, Deutsche Hypo's BCA is constrained at the level of NORD/LB's ba3 BCA. Our assessment reflects Deutsche Hypo's regulatory capital waiver, the existence of a profit-and-loss transfer agreement, and the planned merger with NORD/LB in 2021, which in our view further increases the interconnectedness with the parent.

ESG considerations

Environmental considerations

Deutsche Hypo's exposure to environmental risks is low, consistent with our general assessment of the global banking sector[7]. See our environmental risks heat map for further information. Deutsche Hypo has started to issue green bonds that intend to meet the growing demand from investors for investments in environmentally sustainable projects.

Social considerations

Overall, banks face moderate social risks[8]. See our social risks heat map for further information.

Governance considerations

Governance[9] is highly relevant for Deutsche Hypo, as it is to all institutions in the banking industry. Corporate governance remains a key credit consideration and requires ongoing monitoring. For Deutsche Hypo, we do not have any particular governance concern.

Support and structural considerations

Affiliate support

Deutsche Hypo is affiliate-backed by NORD/LB and, therefore, we align its Adjusted BCA with NORD/LB's ba1 Adjusted BCA. Our assessment is supported by Deutsche Hypo's high degree of integration with the NORD/LB group, as reflected by 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 Sparkassen-Finanzgruppe, 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 Deutsche Hypo's ba3 BCA.

Loss Given Failure (LGF) analysis

Deutsche Hypo is subject to the EU Bank Recovery and Resolution Directive, which is an operational resolution regime. We expect Deutsche Hypo to be included in the resolution perimeter of its parent entity NORD/LB. Therefore, we apply our LGF analysis for NORD/LB, which takes into consideration 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% runoff in preferred deposits. These are in line with our standard assumptions.

» 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 ba1 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 ba1 Adjusted BCA.

» For Deutsche Hypo's subordinated debt instruments, our group-level LGF analysis indicates a high loss given failure, leading to a Ba2 rating, which is one notch below the bank's ba1 Adjusted BCA.

Government support considerations

Because of its size and importance to financial stability in Germany, we consider member institutions of Sparkassen-Finanzgruppe systemically significant. Therefore, we assume a moderate probability of government support for all members of the sector, in line with our support assumptions for other systemically relevant banking groups in Europe.

For Deutsche Hypo, we include one notch of uplift stemming from government support for the senior unsecured debt and deposit ratings. For the junior senior unsecured debt and subordinated debt, the potential for government support is low and these ratings do not benefit from any uplift stemming from government support.

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 A3/P-2

The CRRs, before government support, are positioned three notches above Deutsche Hypo's Adjusted BCA of ba1, 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 consider only the risk of default rather than both the likelihood of default and the expected financial 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.

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

The CR Assessment, before government support, is positioned three notches above Deutsche Hypo's Adjusted BCA of ba1, 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 used in rating Deutsche Hypo was the Banks Methodology, published in November 2019.

About Moody's Bank Scorecard

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

Rating methodology and scorecard factors

Exhibit 10

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	0.7%	aa2	↔	baa3	Sector concentration	Unseasoned risk
Capital						
Tangible Common Equity / Risk Weighted Assets (Basel III - transitional phase-in)	14.9%	a1	↔	baa1	Access to capital	Stress capital resilience
Profitability						
Net Income / Tangible Assets	0.2%	b1	↔	b1	Return on assets	Expected trend
Combined Solvency Score		a2		baa3		
Liquidity						
Funding Structure						
Market Funds / Tangible Banking Assets	40.9%	b1	↔	ba3	Extent of market funding reliance	Market funding quality
Liquid Resources						
Liquid Banking Assets / Tangible Banking Assets	27.7%	a3	↔	baa2	Asset encumbrance	Stock of liquid assets
Combined Liquidity Score		ba1		ba1		
Financial Profile				baa3		
Qualitative Adjustments				Adjustment		
Business Diversification				-1		
Opacity and Complexity				0		
Corporate Behavior				0		
Total Qualitative Adjustments				-1		
Sovereign or Affiliate constraint				Ba3		
BCA Scorecard-indicated Outcome - Range				ba2 - b1		
Assigned BCA				ba3		
Affiliate Support notching				2		
Adjusted BCA				ba1		

Balance Sheet is not applicable.

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	-	-	-	-	-	-	-	3	0	baa1
Counterparty Risk Assessment	-	-	-	-	-	-	-	3	0	baa1 (cr)
Deposits	-	-	-	-	-	-	-	3	0	baa1
Senior unsecured bank debt	-	-	-	-	-	-	-	3	0	baa1
Junior senior unsecured bank debt	-	-	-	-	-	-	-	2	0	baa2
Dated subordinated bank debt	-	-	-	-	-	-	-	-1	0	ba2

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	baa1	1	A3	A3
Counterparty Risk Assessment	3	0	baa1 (cr)	1	A3(cr)	
Deposits	3	0	baa1	1	A3	A3
Senior unsecured bank debt	3	0	baa1	1	A3	A3
Junior senior unsecured bank debt	2	0	baa2	0	Baa2	
Dated subordinated bank debt	-1	0	ba2	0	Ba2	

[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 11

Category	Moody's Rating
DEUTSCHE HYPOTHEKENBANK (ACTIEN-GESELLSCHAFT)	
Outlook	Stable
Counterparty Risk Rating	A3/P-2
Bank Deposits	A3/P-2
Baseline Credit Assessment	ba3
Adjusted Baseline Credit Assessment	ba1
Counterparty Risk Assessment	A3(cr)/P-2(cr)
Issuer Rating	A3
Senior Unsecured -Dom Curr	A3
Junior Senior Unsecured -Dom Curr	Baa2
Subordinate -Dom Curr	Ba2
ST Issuer Rating	P-2
Other Short Term -Dom Curr	(P)P-2
PARENT: NORDDEUTSCHE LANDESBANK GZ	
Outlook	Stable
Counterparty Risk Rating	A3/P-2
Bank Deposits	A3/P-2
Baseline Credit Assessment	ba3
Adjusted Baseline Credit Assessment	ba1
Counterparty Risk Assessment	A3(cr)/P-2(cr)
Issuer Rating	A3
Senior Unsecured -Dom Curr	A3
Junior Senior Unsecured	Baa2
Junior Senior Unsecured MTN -Dom Curr	(P)Baa2
Subordinate	Ba2
Commercial Paper	P-2
Other Short Term -Dom Curr	(P)P-2

Source: Moody's Investors Service

Endnotes

1 The ratings shown are NORD/LB's long-term deposit rating and outlook, its long-term senior unsecured debt rating and outlook, as well as the bank's BCA.

2 The ratings shown are the corporate family rating and outlook, and the BCA.

3 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.

4 The Benelux countries are Belgium, the Netherlands and Luxembourg.

5 Value as of year-end 2019. Semiannual value not available.

6 Taking into consideration 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 comparable with those of its peers.

7 Environmental risks can be defined as environmental hazards encompassing the impacts of air pollution, soil/water pollution, water shortages and natural and man-made hazards (physical risks). Additionally, regulatory or policy risks, like the impact of carbon regulation or other regulatory restrictions, including the related transition risks like policy, legal, technology and market shifts, that could impair the evaluation of assets are an important factor. In our environmental risks heat map, we scored 84 sectors according to their overall exposure to environmental risks.

8 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 is partly 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 further social risks. Social trends are also relevant in a number of areas, such as shifting customer preferences towards digital banking services increasing information technology cost, ageing population concerns in several countries impacting demand for financial services or socially driven policy agendas that may translate into regulation that affects banks' revenue base.

9 Corporate governance is a well-established key driver for banks and related risks are typically included in our evaluation of banks' financial profiles. Further factors like specific corporate behaviour, key-person risk, insider and related-party risk, strategy and management risk factors, and dividend policy may be captured in individual adjustments to the BCA, if deemed applicable. Corporate governance weaknesses can lead to a deterioration in a bank's credit quality, while governance strengths can benefit its credit profile. When credit quality deteriorates because of poor governance, such as a breakdown in controls resulting in financial misconduct, it can take a long time to recover. Governance risks are also largely internal rather than externally driven.

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