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Banks – Germany

Pandemic accelerates structural changes for CRE lenders and increases loss potential

Pandemic impacts German Commercial Real Estate (CRE) market at late point in cycle. CRE is one of the more volatile and highly cyclical asset classes to which banks are exposed. Given the size, the cyclicality and the interconnectedness of the CRE market with the financial sector and the real economy, significant risks arise from these exposures.

Most vulnerable CRE subsectors are hotel, non-food retail and office space. The coronavirus-related lockdown resulted in a sharp drop in economic activity, affecting all sectors, but not equally. The most severely impacted CRE exposures are related to travel/leisure and offline shopping, whereas residential real estate has shown stronger resilience. Demand for office space could suffer going forward from increased adoption of remote work. Regional effects are also not balanced. Compared with the Euro area average and the United States, CRE price contractions for Germany have been less pronounced during recessions.

German banks are most exposed among European peers. They hold 27% of total CRE lending in the European Union. German banks' lending to CRE almost equals their capital, a high level compared with other European banking systems. In particular, the strong growth during the past three years exposes German banks to the late cycle risk in CRE lending, imposing increased downside risks for these unseasoned exposures. A few lenders in Germany stand out due to their business model specialisation. While some focus on domestic property and residential housing resulted in better credit quality prior to the coronavirus outbreak and softens negative effects, we expect payment deferrals, defaults and declining collateral values to result in deteriorating asset quality, profitability and capitalisation**.**

Among the German banks, the specialised CRE lenders stand out. Aareal Bank AG (Aareal, A3/A3 negative, baa3[1]), Berlin Hyp AG (Berlin Hyp, Aa2/Aa2 stable, ba1), Deutsche Hypotheken Bank (Actien-Gesellschaft) (Deutsche Hypo, A3/A3 stable, ba3) and Deutsche Pfandbriefbank AG (pbb, Aa1[2]) hold significant concentrations in CRE that represent more than nine times their tangible common equity. Strong solvency profiles mitigate these concentration risks to some degree. Additionally, government support measures in response to the coronavirus will soften the impact on the banks' credit profiles but the concentration risk remains a key vulnerability in a dynamic environment.

Pandemic impacts German commercial real estate market at late point in cycle

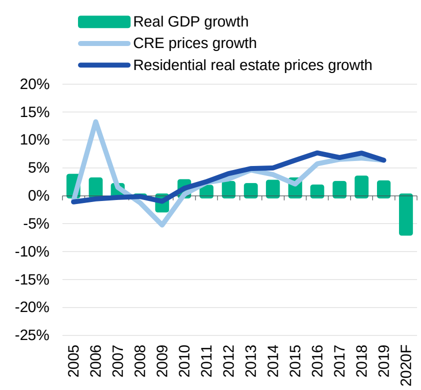
CRE exposures are more volatile and riskier than other bank exposures

CRE is one of the more volatile and highly cyclical asset classes to which banks are exposed, and consequently, will be more affected by the current economic downturn than the market for residential mortgages given the direct link between commercial real estate and business activity. As pandemic-related shutdowns across the globe rapidly drive up economic costs of the coronavirus, we expect an economic contraction of 6.7% in real GDP in Germany this year and growth of 5.4% in 2021. This compares to a contraction of 8.5% this year and growth of 6.2% next year in the Euro area and a contraction of 5.7% and growth of 4.5% in the US. Historical GDP and CRE price growth are strongly interconnected in all three regions, but price reductions in Germany have been less pronounced than in the Euro area and US on average during past economic contractions (Exhibit 1-3).

Exhibit 1

CRE market is more cyclical than residential real estate in Germany

Year-on-year changes in real GDP, commercial and residential real estate prices, Germany

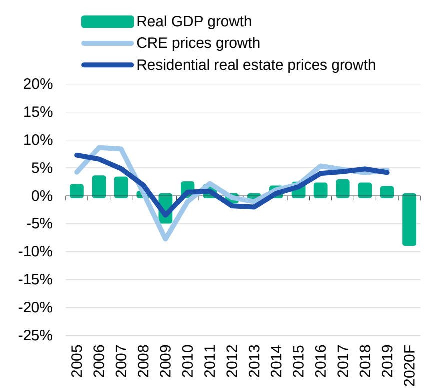


Source: Deutsche Bundesbank, World Bank, Moody's Investors Service

Exhibit 2

Increase in real estate prices has been more subdued in the Euro Area

Year-on-year changes in real GDP, commercial and residential real estate prices, Euro Area

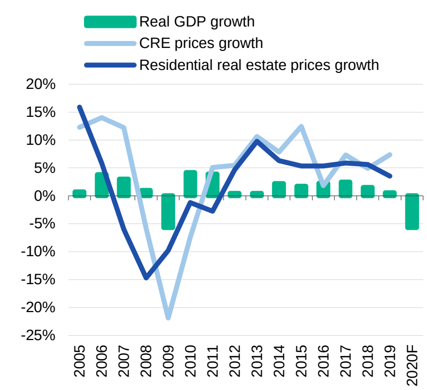


Source: Bank for International Settlements, World Bank, Moody's Investors Service

Exhibit 3

Volatility in real estate prices is significantly higher in the US

Year-on-year changes in real GDP, commercial and residential real estate prices, United States



Source: Bank for International Settlements, World Bank, Moody's Investors Service

Given the size, cyclicality and the interconnectedness of the CRE market with the financial sector and the real economy, significant risks may arise from CRE activity that are amplified during economic downturns. During an economic upswing the demand for additional retail space, business and leisure travel, logistics properties and offices increases and construction usually lags, resulting in an oversupply during a subsequent economic downturn. In the current cycle, however, construction activity has been less speculative in the office and logistics subsectors than in previous cycles. Supply and demand are therefore likely to be more balanced, as was also suggested in vacancy rates that were well below their 10-year historical average prior to the coronavirus outbreak.[3]

Hotel and non-food retail are particularly exposed to the coronavirus impact

Each subsector within CRE has its own risk characteristics and growth drivers. We focus on the subsectors we consider to be more strongly impacted by the pandemic consequences and which will therefore pose higher risks to CRE lenders. We expect that loan performance of subsectors such as hotel, retail and office properties will be more heavily affected by the economic contraction given extreme business disruptions for retail and hotel businesses in many countries around the globe. In addition to downside risks to the economy and shorter-term challenges from coronavirus-driven lockdowns, some CRE subsectors are experiencing significant structural changes such as a changing consumer habits, notably, growth in online shopping, and the growing prevalence of remote and coworking arrangements.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.

Exhibit 4
Baseline scenario poses higher risk for hotel and non-food retail
Magnitude of coronavirus impact in baseline scenario

Source: Moody's Investors Service

Hotel and retail sectors have been directly and severely exposed to coronavirus containment measures such as shutdowns, travel restrictions and social distancing. Consumer demand has also declined due to increasing economic uncertainty. In particular, hotels have experienced a severe decline in revenue in the first half of 2020, a loss that cannot be offset in the remainder of the year when domestic travel is expected to recover. According to STR,[4] revenue per available room fell by 88% in May 2020 compared with the same month in 2019. Sales losses in the first and second quarter will be additionally aggravated by a slow recovery of business-related travel, especially for group and meetings segments.

Large parts of the retail sector have seen severe business disruptions and amplified structural shifts toward online retail. For many brick-and-mortar retailers already experiencing a decline in foot traffic and sales, the pandemic has intensified the effects as seen in insolvency cases of shopping center owners like intu properties plc and the German retail shopping group Galeria Karstadt Kaufhof GmbH. This poses immediate risks to CRE lenders. Increasing store closures and insolvencies will result in lower store occupancy rates, exacerbated by the fact that vacancies will also be more difficult to fill in an economic downturn.

Prolonged social distancing measures and intensifying pressure from online and multichannel retail will constrain traditional retailers' ability to restore revenue and profit margins and increase pressure to review their business strategies and cost structures. Retailers are facing challenges in attracting customers back into stores while managing additional safety and cleaning costs on the one hand and elevated levels of seasonal inventory on the other. As one potential cost-cutting measure, retailers will likely renegotiate leases. Moreover, they may want greater turnover-based components in their lease agreements rather than 100% fixed rental price schemes, thus resulting in less stable rental income streams.

Office space demand faces more medium-term structural shifts

We consider office real estate to be less vulnerable in the short-term given that leasing contracts are mainly medium to long-term. As a consequence of social distancing measures, the office sector may initially even have potential for temporarily higher demand for office space per employee, in particular in major urban areas with high floor space densities. However, this effect will likely be outweighed in the medium term by demand reduction from a cyclical economic decline and the structural shift toward remote working.

Government aid measures for corporates in response to the coronavirus in Germany have also had a mitigating effect, thus we anticipate only insignificant reductions in rent payments in the first half of 2020. However, the pandemic has forced office workers into home offices and has triggered discussions around permanent or increased remote working environment solutions. Should there be prolonged social distancing measures, employers will require more office space per employee to ensure safety requirements can be met or prolong remote working. Despite the current shift to digital communication, the physical office still plays a central role in enabling interaction and collaboration. It is too early to make reliable predictions about the office space required in the future as it will depend on the duration and severity of social and economic implications of the pandemic. Should large tenants decide to put workers on remote assignment permanently, occupancy and net effective rent for office buildings would likely decline significantly.

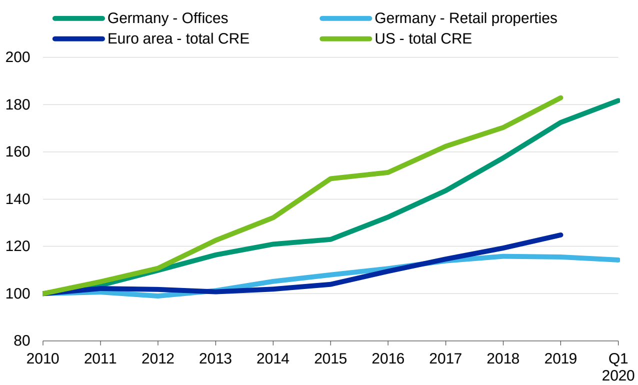
Reduced development pipelines compared with the financial crisis of 2008-09 will partially mitigate the decline in demand. Furthermore, vacancy rates are lower in many towns and cities than before the previous crisis. According to Cushman & Wakefield, the average European office vacancy was 6.6% at the end of the first quarter of 2020, or 270 basis points below the 10-year historical average. In line with the European trend, German vacancy rates are at the lowest point since 2010.

Bank exposures are particularly vulnerable to a deterioration in real estate prices

Since the end of the 2008 financial crisis, real estate prices in Germany have been rising steadily, with office prices leading the way and still on the rise in the first quarter of 2020, resulting in high market valuations. Compared to the Euro area average, prices for office properties in Germany have strongly increased, driven in particular by price increases in seven major cities. These price increases have pressured the returns for investors, as seen in the lower yields that these investments return. The price development in the US has been above the Euro area and German retail and office subsectors, indicating even stronger potential risks for the US CRE market.

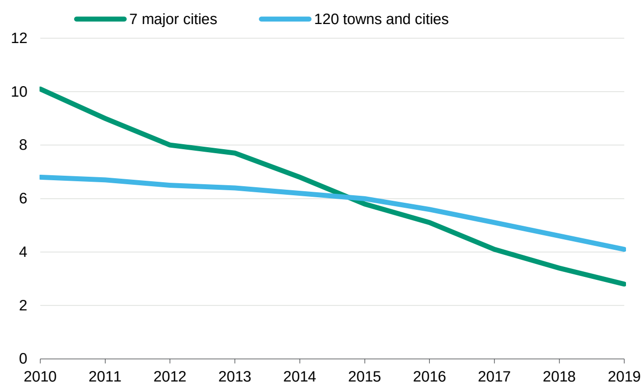
Although the retail prices in the first quarter 2020 do not yet fully reflect the impact of the coronavirus, there is already a slight drop in prices for retail properties as a result of both competition with online shops and the accelerated structural shift toward online retail.

Exhibit 5
Prices for retail properties were already under pressure in Q1 2020
Development for CRE price index by type of property (2010=100)



Source: Deutsche Bundesbank, Verband Deutscher Pfandbriefbanken (VdP), Bank for International Settlements

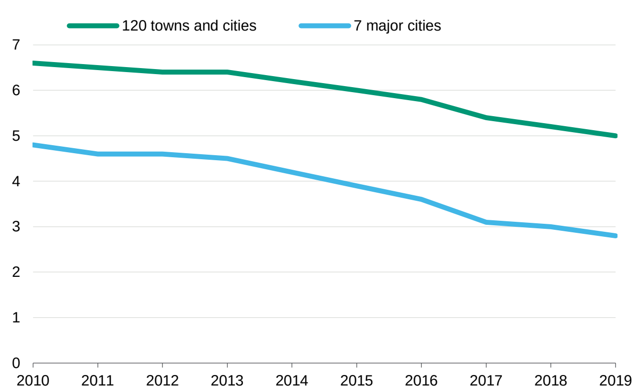
Exhibit 6
Vacancy rates are at historical lows
In %



Source: Deutsche Bundesbank

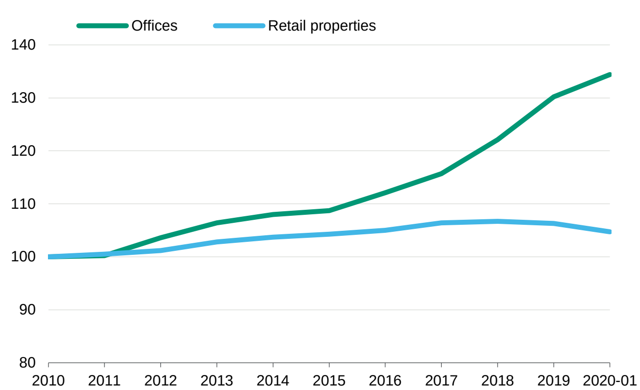
A drop in commercial property prices in the most vulnerable subsectors will affect collateral and loan-to-value (LTV) ratios in the banks' portfolios. Depending on the length of the crisis, we expect payment deferrals, defaults and declining collateral values to result in deteriorating asset quality, increasing nonperforming loans and provisioning needs, as well as reduced earnings.

Exhibit 7
Yields for CRE have fallen to their lowest level in a decade in the seven major cities in Germany
In %



Source: Deutsche Bundesbank

Exhibit 8
Rents for retail properties already show a drop in the first quarter of 2020
Index rents for new lettings for offices and retail properties (2010=100)



Source: Deutsche Bundesbank, vdp

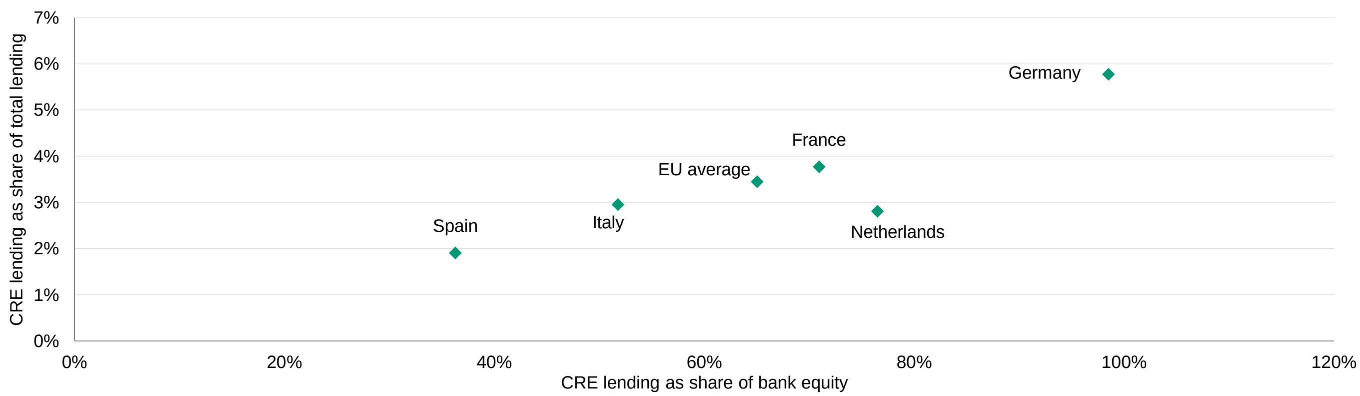
Growing CRE volumes make German banks more exposed than European peers

German banks are more exposed to risks from CRE lending than European peers

The total volume of CRE lending in the European Union is reported as €1.6 trillion as of 2019[5], with Germany as one of the key markets, accounting for 27%[6] of the total. If we compare the German banking system with other major European systems, CRE leverage is among the highest in Europe. While Italian and Spanish banks hold only 52% and 36% respectively, German banks stand out with 99% of CRE lending relative to equity. Also CRE lending as percentage of total lending shows the highest exposure for the German banking system compared with other large EU banking systems.

Exhibit 9

German banks' CRE leverage and share of total lending is higher than for other major European banking systems



Data as of year-end 2019.
Source: European Central Bank, Moody's Investors Service

In Germany, most CRE companies and CRE investors finance their projects directly through banks while in countries like Spain, for example, companies active in CRE have increasingly diversified their funding mix toward unsecured real estate finance since the 2008 financial crisis. This partially explains the higher share of CRE lending activities as a percentage of total lending of German banks compared with other European countries.

Another main difference of the German CRE market is the existence of banks that are purely specialised in CRE lending activities, while in other European countries, CRE lending activities are mostly financed by the large universal banks in the system (e.g. in Spain or in the Netherlands). In Germany, banks' CRE lending activities range from a very limited role of the largest banks – like Deutsche Bank AG (DB, A3/A3 negative, ba1) and Commerzbank AG (Commerzbank, A1/A1 stable, baa2) – to an almost pure CRE focus of some specialised lenders. The existence of specialised lenders in Germany results from historical covered bond regulation which changed in 2005[7]. Thus, the risk appetite for CRE lending varies widely among the individual banks in Germany.

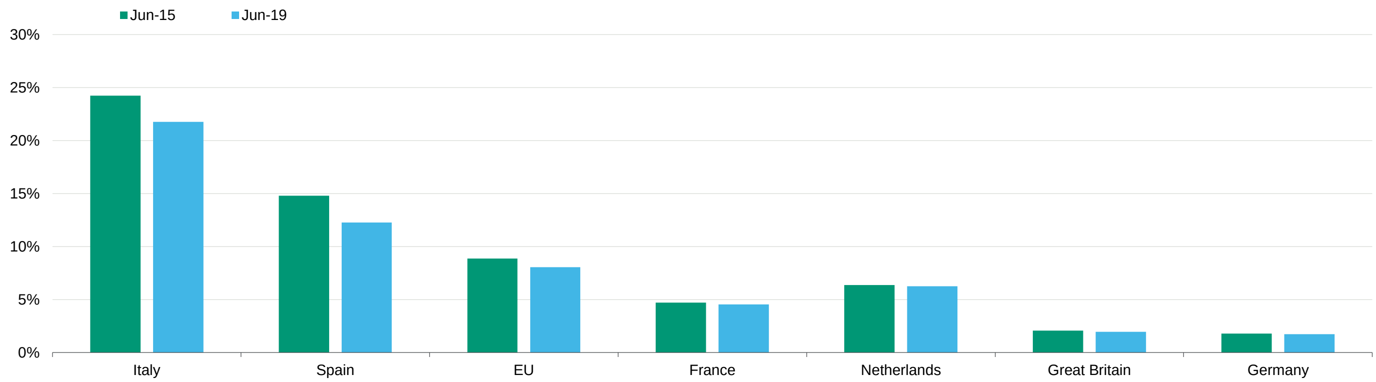
But German banks benefit from better asset quality than other European banks

A comparison of nonperforming loan (NPL) ratios of European banks by sector highlights higher risks of CRE exposures compared to other sectors. Despite a decrease in NPLs in the CRE sector from June 2015 to June 2019, CRE NPLs volumes still represent one of the largest and thus riskier sub-segments together with SME loans for European banks.

Exhibit 10

German banks' asset quality in CRE lending is better than European peers

NPL ratios development as of June 2019 and 2015



Source: European Banking Authority

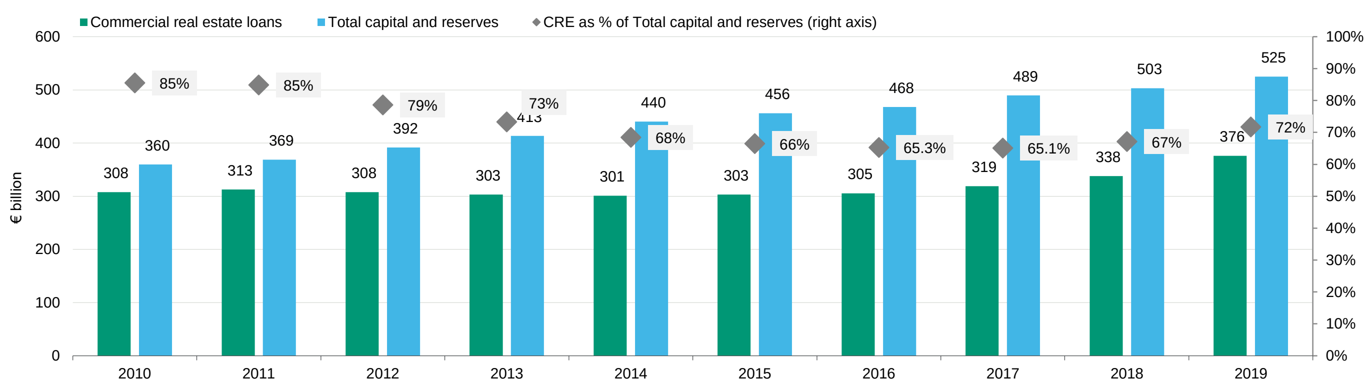
For European banks, the NPL ratio for CRE stood at 8.1% as of June 2019, down from 8.9% as of June 2015, according to the European Banking Authority (EBA). This ratio is relatively high compared with NPL ratios of German CRE lenders. The main driver of the NPL ratio of European banks, according to EBA data, is elevated NPL ratio of CRE lending in certain countries like Italy and Spain, while the ratio for German banks on average has never reached 8.9% of gross loans within the last four years. As of June 2019, German banks' NPL ratio for CRE lending stood at 1.7% down from 1.8% four years earlier. The sound asset quality of the CRE lending of German banks compared with European peers indicates lower risks of domestic CRE lending compared with international exposures.

German banks have grown absolute CRE exposure while leverage has declined in the last decade

As of year-end 2019, CRE exposure of the German banks accounts for 6% of total loans or €376 billion[8]. After a period of stable outstanding CRE volumes of around €300 billion for the German banking sector from 2010 to 2016, levels have come up in the past three years, particularly in 2017 to 2019. In 2019, outstanding CRE peaked at €376 billion, up from €319 billion in 2017. At the same time, CRE concentration risks relative to capital as reflected by CRE exposure have increased again to 72% of total capital of German banks as of year-end 2019 compared with 65% in 2017.

Exhibit 11

After a decrease of CRE loans as percentage total capital to 65% in 2016, exposures have increased again within the last three years



Source: Deutsche Bundesbank, Moody's Investors Service

The latest increase in lending – particularly combined with the fact of high market valuations and lower yields for investors – exposes German banks to the late stage of the CRE cycle, imposing increased downside risks for these unseasoned exposures. Potential downward price corrections resulting in increasing LTVs will have stronger negative impact on these exposures.

The increase in CRE volumes, however, is accompanied by improved capitalisation, which has increased to €525 billion from €360 billion within the last decade. Compared to the financial crisis in 2008-09, these higher buffers provide the banks with a better cushion at the outset of the crisis to mitigate adverse developments.

German banks' focus is on domestic CRE market

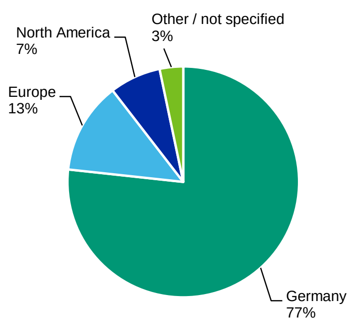
German CRE lenders do not only focus on domestic projects but also engage in international markets. The most popular international markets for German banks are the UK, France, and the US. Data from our rated banks show that the vast majority of German banks' CRE exposure is still located in Germany at around 77% of total, followed by Europe (including a strong presence in the UK and France) with around 13%, and the remainder in North America (around 7%) and the rest of the world (3%)[9].

Moreover, banks have varying concentrations when it comes to types of CRE properties, ranging from a large share of less cyclical residential housing to higher risk sectors such as tourism and leisure, retail or office properties. We estimate that around 42% of the CRE exposure of our rated banks relates to housing associations or other companies active in development of multi-household dwellings, which we consider lower risk. Exposures to more cyclical CRE sectors like retail, hotel or office buildings are significant, and together make up another 40% of total CRE loans based on the disclosures as of year-end 2019. However, individual banks have above-average exposures to these more cyclical sectors.

Exhibit 12

German banks' CRE exposure by region

As % of total exposure, as of year-end 2019

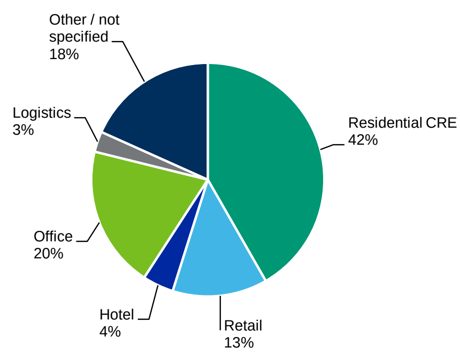


Source: Company data, Moody's estimates

Exhibit 13

German banks' CRE exposure by type of property

As % of total exposure, as of year-end 2019



Residential CRE includes exposure to housing associations and multi-household dwellings
Source: Company data, Moody's estimates

Specialised CRE lenders are the most vulnerable to economic downturn

CRE projects are capital intensive and require high financing volumes, a large part of which is usually financed by banks, at least in Germany. The main risks for banks active in CRE lending result directly from loan defaults. Indirectly, risks come from the decline in new business when demand for construction declines during economic downturns and from a loosening in underwriting standards for new transactions during economic upswings. Following the coronavirus driven lockdown of retail and hotel businesses, many landlords may receive less or no rental income, and we expect increasing store closures and insolvencies this year. This will put repayments of loans in those sectors at risk. If borrowers are unable to service their debt as a result of the lack of rental income, banks would likely increase provisioning and register an increase in nonperforming loans in 2020 and beyond.

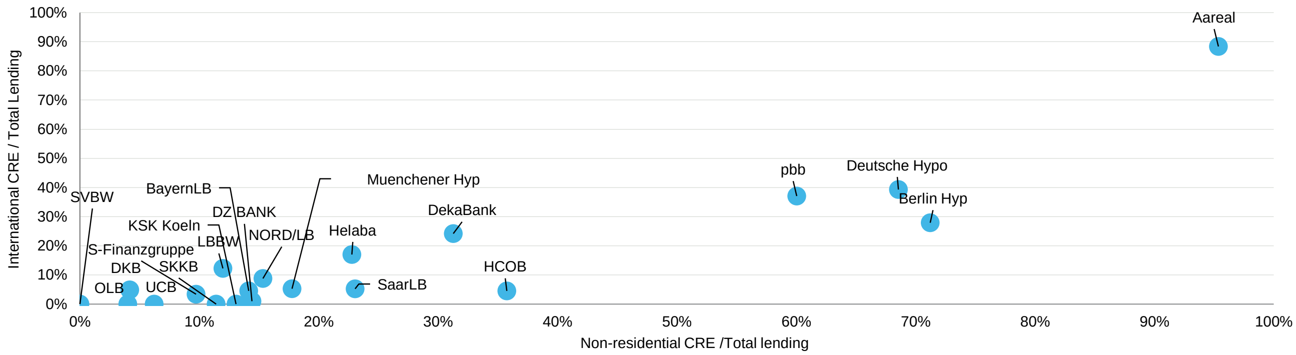
Nonetheless, German CRE lenders have several key strengths. They are competitive, they have readily available refinancing options, and many banks are members of institutional protection schemes that further provide banks with indirect access to the cooperative and savings banks' sector deposits. Although many German banks with larger CRE exposes are either members of the savings bank association (Sparkassen-Finanzgruppe, Aa2 negative, a2[10]) or of the cooperative banking association (Bundesverband der Deutschen Volksbanken und Raiffeisenbanken), there are also specialised commercial banks with strong focus on CRE lending such as Aareal and pbb that do not belong to one of the major banking groups in Germany. The CRE lenders additionally benefit from excellent access to the covered bonds market, allowing them to fund mortgage exposures at internationally competitive funding costs.

The CRE exposure as percentage of total lending of German banks varies widely among the individual banks. Besides the four specialised lenders having the highest concentrations in CRE lending with more than 25% international CRE and more than 60% of the lending book in nonresidential CRE, Hamburg Commercial Bank (HCOB, Baa2/Baa2 stable, ba2) and DekaBank Deutsche Girozentrale (DekaBank, Aa2/Aa2 stable, baa2) hold more than 30% of their lending book in nonresidential CRE. Among the specialised lenders, pbb's loans are the least concentrated in CRE activities since the bank is also active in public investment finance while Aareal's lending book is purely focused on CRE activities.

Exhibit 14

Specialised lenders are most exposed to CRE risks in their loan books

Exposure of German banks to nonresidential (x) and international CRE (y) in % of total lending, as of year-end 2019



Banks shown in the exhibit: Aareal, Bayerische Landesbank (BayernLB, Aa3/Aa3 stable, baa2), Berlin Hyp, DekaBank, Deutsche Hypo, Deutsche Kreditbank AG (DKB, A1/A1 stable, baa2), pbb, DZ BANK AG (DZ BANK, Aa1/Aa1 negative, baa2), HCOB, Kreissparkasse Koeln (KSK Koeln, Aa3/Aa3 negative, a3), Landesbank Baden-Wuerttemberg (LBBW, Aa3/Aa3 stable, baa2), Landesbank Hessen-Thueringen GZ (Helaba, Aa3/Aa3 stable, baa2), Landesbank Saar (SaarLB, A1/A1 stable, ba1), Muenchener Hypothekenbank eG (Muenchener Hyp, Aa3/Aa3 negative, ba1), Norddeutsche Landesbank Girozentrale, (NORD/LB, A3/A3 stable, ba3), Oldenburgische Landesbank (OLB, Baa2/Baa2 stable, baa3), Sparkassen-Finanzgruppe (S-Finanzgruppe), Sparkasse KoelnBonn (SKKB, A1 stable, baa2), Sparkassenverband Baden-Wuerttemberg (SVBW, Aa2 negative[11]), UniCredit Bank AG (UCB, A2/A2 negative, baa2). Data as of year-end 2019. Only banks with disclosed CRE exposure shown here; Split for DekaBank, OLB, SVBW and S-Finanzgruppe based on Moody's assumptions. Split for LBBW, SaarLB and UCB based on data of the banks' mortgage covered bonds reporting; Split for DZ BANK based on disclosures of DZ Hyp AG.

Source: Company data, Moody's estimates

To assess the risk of CRE lending activities to our rated banks' solvency profiles, we measure the CRE exposure as a percentage of Tangible Common Equity (TCE). Even though we deem the whole volume of CRE exposure to bear material risks for banks, we especially look at the nonresidential part of banks' portfolios as an indication of risk concentrations, because we consider exposure related to housing associations or companies involved in the development of multi-household dwellings as less cyclical and thus less risky.

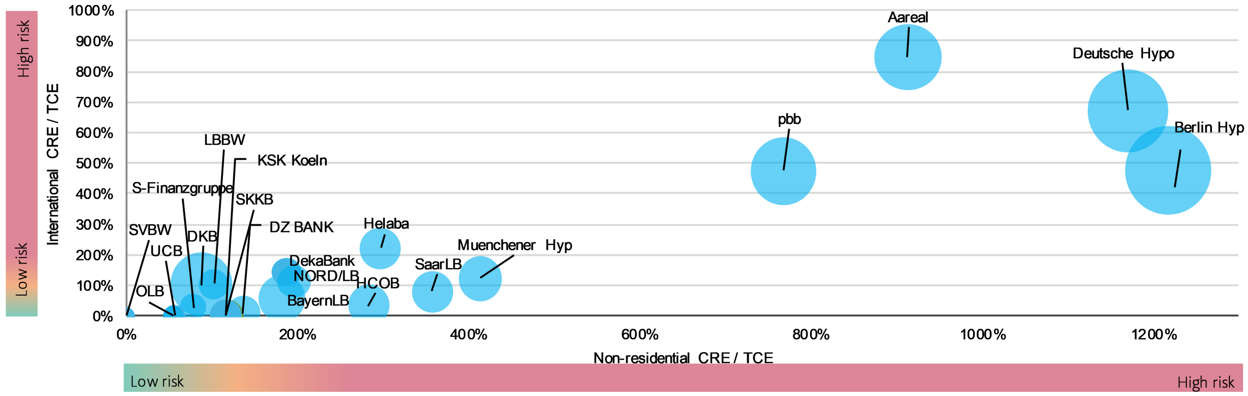
Under normal conditions, there is a general advantage in regional diversification of CRE exposures because weaker growth in some countries is balanced by stronger growth in others. However, the pandemic has synchronised the decline in economic activity across the globe, producing a significant and simultaneous impact. Therefore, we currently see less value in regional diversification and consider the focus on more resilient property markets (e.g. Germany) to be an advantage.

Although most German banks have less than 200% of TCE invested in the CRE sector, most of the Landesbanks have invested between 200% and 400% of their TCE in CRE, which already indicates higher risks in the banks' asset profile. However, the four specialised CRE lenders stand out with more than 700% TCE invested in nonresidential CRE and more than 400% in international exposure. Consequently, they will be the most vulnerable during an economic downturn.

Exhibit 15

Specialised lenders are most exposed to CRE risks in relation to capital

Exposure of German banks to nonresidential (x) and international CRE (y) in % of TCE, as of year-end 2019



Note: Bubble size reflects total CRE lending as percentage of TCE; data as of year-end 2019; only banks with disclosed CRE exposure shown here; Split for DekaBank, OLB, SVBW and S-Finanzgruppe based on Moody's assumptions; Split for LBBW, SaarLB and UCB based on data of the banks' mortgage covered bonds reporting; Split for DZ BANK based on disclosures of DZ Hyp AG; For S-Finanzgruppe we use Tier 1 capital based on year-end 2018 as a proxy for TCE.
Source: Company data, Moody's estimates

Specialised German lenders are most exposed to CRE risks

Specialised lenders hold significant exposure in higher risk subsectors

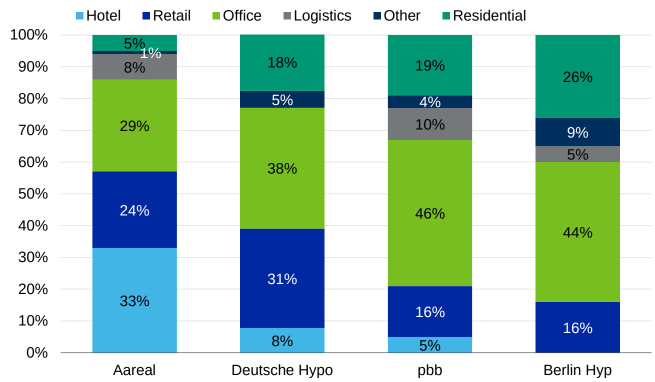
Germany's specialized lenders – including Aareal, Berlin Hyp, Deutsche Hypo and pbb – are more vulnerable to risks from their highly concentrated CRE lending books than other German banks with broadly diversified loan books. The main risks for the quality of the CRE portfolio are delinquencies caused by the coronavirus lockdown, especially for retail and hotel properties. We expect that these specialised lenders will face elevated loan losses over the coming years, which will weigh on their profitability and solvency.

Among the specialised banks, Aareal's sector breakdown is the most diversified among CRE subsectors. However, it is particularly exposed to high-risk subsectors identified to be most affected by economic contraction in response to the coronavirus, with 33% of its loan book invested in hotel, 24% in retail and 29% in the office sector as of year-end 2019. Deutsche Hypo's CRE book shows similar exposures in retail with 31%, only 8% in hotel and 37% in the office sector. While pbb still has 5% of its CRE book invested in hotel, 16% in retail and 46% in the office sector, Berlin Hyp has 16% in retail and 44% in the office sector and hardly any hotel exposure, making it the least exposed of the specialised lenders to high-risk CRE subsectors. However, we cannot rule out that residential CRE exposures will also be negatively affected by economic contractions even though there is less cyclicality than for other CRE subsectors.

Exhibit 16

Aareal is most exposed to hotel and retail sectors

Comparison of CRE exposure of specialised lenders by type of property as of year-end 2019

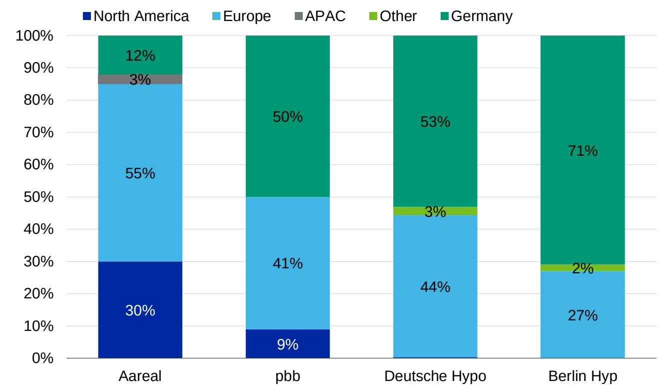


Source: Company data, Moody's Investors Service

Exhibit 17

Aareal's CRE exposure is highly dependent on developments in international markets

Comparison of CRE exposure of specialised lenders by region as of year-end 2019



Source: Company data, Moody's Investors Service

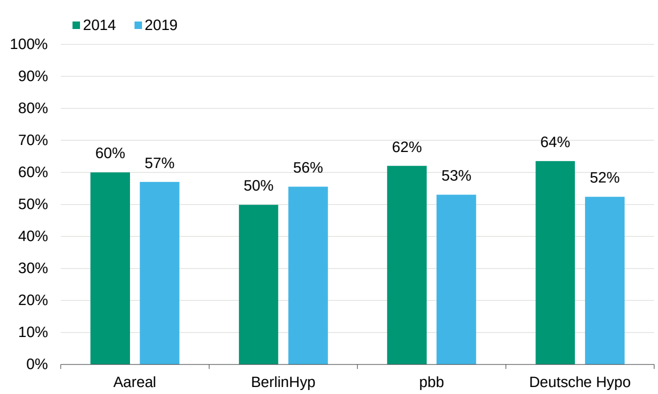
Because the macroeconomic forecasts and credit quality of CRE exposure differ by country, the regional breakdown of the assets will also have implications for the asset quality and profitability of the banks. While we currently expect a 6.7% contraction of GDP in Germany and 5.7% for the United States in 2020, the expected contractions for the Euro area with 8.5% and the UK with 10.1% are even stronger. Although the German CRE market seems to have been more resilient during past recessions than other regions, a geographical diversification of exposures reduces risks as the economic development varies in impact and timing. As of year-end 2019, Aareal is most exposed to economic contractions outside Germany, with 30% of its CRE exposure in North America and 55% in Europe (excluding Germany). Pbb, Deutsche Hypo and Berlin Hyp operate at least 50% in the domestic market and more than 70% of Berlin Hyp's exposure is based in Germany, thus resulting in less exposure from international CRE markets.

Pre-pandemic market-value based LTVs as of year-end 2019 are low, ranging between 50% and 60%, though market prices have risen in recent years. However, if prices for CRE properties drop, the currently favourable LTVs will increase. Increased LTVs will drive up the banks' Loss Given Default and may increase their capital requirements and could limit new lending activities. Looking at the LTV levels of the individual CRE companies, we have seen a declining trend in the level in Germany and other countries over the last five years, so banks enter the current crisis on a stronger footing.

Exhibit 18

Market-value based LTVs remained broadly stable for specialised lenders over the last five years

Weighted average market-value LTV of selected German CRE lenders

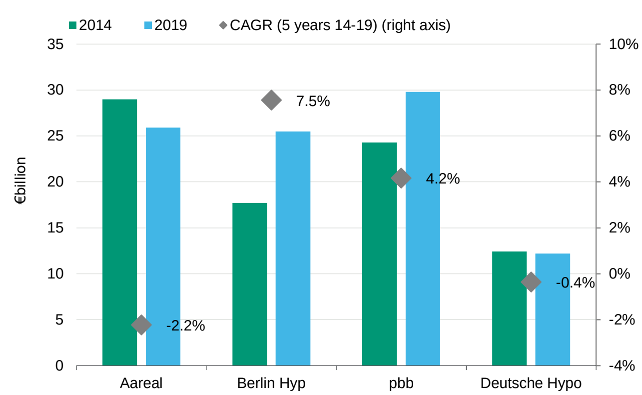


Source: Company data

Exhibit 19

CRE lending volumes of Berlin Hyp grew strongest within the last five years

In € billion, CAGR in % (right axis)



CAGR = Compound annual growth rate

Source: Company data, Moody's Investors Service

While there are no detailed disclosures for the peers available, in case of Aareal, 96% of the performing CRE portfolio displays LTVs lower than 60% and the remaining 4% in the 60%-80% LTV range, which indicates a solid structure of the total CRE lending book. Despite the strong increase in CRE lending in Germany since 2016, with a CAGR of approximately 7% per year, the four specialised lenders show rather stable or only moderately growing loan growth within the last five years. The exception is Berlin Hyp, which has increased its exposure by 7.5% per year. The rather stable trend in annual growth of the specialised CRE lenders shows that the portfolio is more seasoned and less exposed to recent price increases and that other lenders, in particular the savings and cooperative banks, have contributed to the lending volume increase.[12]

Strong solvency profiles of German specialised lenders mitigate risks to some degree

German CRE lenders benefit from having sound capital levels, low leverage and good asset quality at the outset of the crisis, which provide a buffer to mitigate adverse developments to a certain degree and which is a key difference compared to the financial crisis of 2008-09.

As of year-end 2019, nonperforming loans (NPL) as a percentage of gross loans are low – on average below 2% — and cost of risk ranges between 0 and 30 basis points, also lower compared with historical cost of risk as of year-end 2009. For pbb, historical cost of risk as of year-end 2009 has peaked at 340 basis points following the financial crisis, and are down at 16 basis points as of year-end 2019. Berlin Hyp historic cost of risk was relatively low with 40 basis points at the same time, the historic reported peak in cost of risk with 285 basis points dates back to 2000.

Berlin Hyp and Deutsche Hypo are less invested in high risk subsectors and benefit from very low NPL ratios below 1% of gross loans but have higher CRE leverage compared to Aareal and pbb. Even though Aareal is the most exposed bank to higher risk subsectors and has the highest NPL ratio with 3.6% and texas ratio[13] of 30% compared to its peers, its strong capitalisation as represented by a 19.6% Common Equity Tier 1 ratio and a higher pre-provision income provide for a significant buffer against increasing cost of risk and impairments following the coronavirus.

Risk density of Aareal and Deutsche Hypo is at 28%, followed by pbb with 32% and Berlin Hyp with 37%. For Aareal, the bank expects risk density to rise, from €11.5 billion in risk-weighted assets (RWA) under Basel III to €16.3 billion under Basel IV, equivalent to 20.2% of CET1 and 14.2% respectively, as simulated for the first quarter 2020.

In the first half of 2020, Aareal, Berlin Hyp and pbb reported first-half profits, despite a material increase in loan loss provisions compared with the first half of 2019 to prepare for coronavirus-induced NPLs and kept their capital buffers intact.

Exhibit 20

Sound asset quality and low cost of risk provide buffer against downside for CRE lenders

EUR million				
	2019	2019	2019	2019
Asset risk	**Aareal**	**Berlin Hyp**	**Deutsche Hypo**	**pbb**
Total Commercial Real Estate loans	25,882	21,774	12,188	29,800
CRE as % of TCE	10x	16x	14x	9x
Cost of risk (2019)	0.3%	0.0%	0.3%	0.2%
Historical high cost of risk (2009)	0.7%	0.4%	0.7%	3.4%
Coverage ratio	41%	121%	60%	25%
Gross loans	25,783	22,623	14,541	40,672
NPL ratio	3.6%	0.8%	0.5%	1.2%
Capital	**Aareal**	**Berlin Hyp**	**Deutsche Hypo**	**pbb**
Tangible Common Equity	2,693	1,323	851	3,143
TCE ratio	24.1%	13.3%	14.9%	17.7%
CET 1 ratio	19.6%	13.3%	n/a	15.2%
CET 1 capital	2,191	1,324	n/a	2,690
Risk density	28%	37%	28%	32%
Texas ratio	30%	12%	8%	15%
Profitability	**Aareal**	**Berlin Hyp**	**Deutsche Hypo**	**pbb**
Pre Provision Income	351	153	102	267
PPI / Total assets	0.9%	0.6%	0.5%	0.5%
PPI / RWA	3.1%	1.5%	1.8%	1.5%

Notes: Regulatory capital as stated in the company and disclosure reports; Deutsche Hypo does not have individual regulatory capital requirement because of the capital waiver of its parent NORD/LB; Risk density calculated as RWA as percentage of total assets, incl. non real estate segments.
Source: Company data, Moody's calculations

Coronavirus support measures will further soften impact on banks' credit profiles

To counterbalance a deterioration in asset quality due to delinquencies in repayment of debt and interest of CRE loans, the member banks of the German association of covered bond issuing entities (vdp) provide moratoriums to their customers. According to vdp, member banks could offer an amortisation moratorium from end of March until end of October 2020 to professional borrowers of loans backed by immovable properties that are more than 50% nonresidential[14]. This would provide some leeway to borrowers who are unable to generate required cash flow to amortise their debt following the lockdown. Even though supervisory authorities in the European Union (EU) have guided banks to use their judgement when categorising previously performing loans that are now subject to moratoriums in the NPL category, we expect that some of these borrowers will be unable to resume repayment when the moratoriums end, which will only delay the increase in NPLs.

Furthermore, the Government of Germany (Aaa stable) has launched a large stimulus package to help industries hurt by the coronavirus outbreak such as airlines, tourism, retail and shipping, as well as smaller companies experiencing weak liquidity and high debt in response to the coronavirus. The scale of the support package is unprecedented and is far larger than the support provided during the financial crisis. We believe that those measures will provide only partial relief for German CRE lenders since guaranteed loans that will be provided to corporates might help them to pay rents which will support cash flows for CRE properties. However, we expect the stimulus package to have rather indirect effects on CRE activities as it focuses more on tax reductions and investment projects or social security contributions and does not support CRE investors specifically. In addition to this, the latest Bank Lending Survey of Deutsche Bundesbank shows that banks intend to tighten their lending policies for all major sectors in the economy for the rest of the year.

Additionally, the ECB announced a series of measures to help EU economies weather the widening effects of the coronavirus pandemic, temporarily increasing banks' liquidity provisions, as well as lowering regulatory capital and liquidity requirements. The temporary suspension of buffer requirements for regulatory capital and the liquidity coverage ratio (LCR) gives banks greater flexibility and additional leeway to absorb the economic impacts, such as asset quality deterioration.

Moody's related publications

» Financial Institutions – Europe, German property-lending banks report first-half profits despite boosting loan loss provisions, August 2020

» Banking System Outlook Update — Germany: Growing strain of coronavirus disruption will increase pressure on German banks, March 2020

» Banking System Outlook — Germany: Slowing economy and rising profitability challenges drive our negative outlook, November 2019

» Cross-Sector – Germany, Pfandbriefe: Low interest rates raise safety but limit use of this funding tool, April 2020

» Office Real Estate – Europe, Risks to credit quality are rising as coronavirus effects deepen, June 2020

» Real estate – Europe, Limited immediate negative credit impact of coronavirus, substantial downside risk, March 2020

» Retail Real Estate – Europe Credit quality weakens as coronavirus exacerbates sector's structural challenges, April 2020

» CMBS – EMEA, Sector update – Q2 2020: Coronavirus hits commercial real estate markets, August 2020

Endnotes

1 The ratings shown in this report are the bank's deposit rating, senior unsecured debt rating or issuer rating (where available), and Baseline Credit Assessment unless detailed otherwise in a separate endnote

2 The rating shown is Deutsche Pfandbriefbank AG – Mortgage Covered Bonds's rating

3 Cushman & Wakefield

4 STR belongs to **CoStar Group, Inc.**, Baa3 stable

5 According to ECB, loans and advances to nonfinancial companies in real estate activities

6 According to ECB, loans and advances to nonfinancial companies in real estate activities

7 Source: vdp

8 Source: Deutsche Bundesbank, Financial Soundness Indicator (FSI-S650)

9 Data is from our rated banks as of 2019 year-end, or most recent available

10 The rating shown is the corporate family rating and Baseline Credit Assessment

11 The rating shown here is the bank's issuer rating.

12 Deutsche Bundesbank

13 Nonperforming loans divided by the sum of allowances of loan losses and tangible common equity

14 Interest payments are excluded from moratorium

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