MOODY'S RATINGS

CREDIT OPINION
2 September 2024

Update

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RATINGS

Berlin, Land of

Domicile	Germany
Long Term Rating	Aa1
Type	LT Issuer Rating
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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Land of Berlin (Germany)

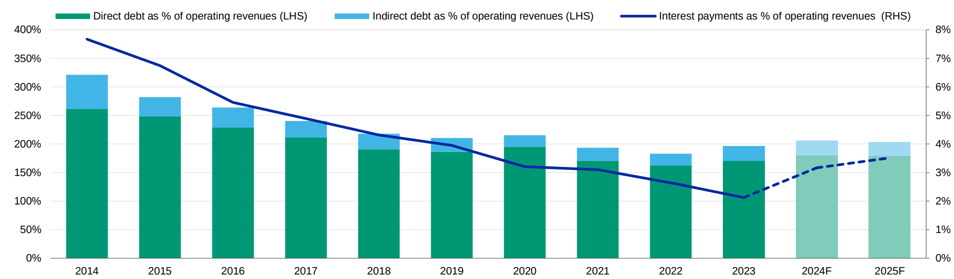
Update following methodology update

Summary

The credit profile of the Land of Berlin (Berlin, Aa1 stable) reflects its dynamic economy, its solid institutional framework, as well as the supportive financial equalisation system in Germany (Aaa stable). Also, the city's favourable demographics reduce the social risks arising from its ageing population with rising pension costs and labour shortages. These positives are counterbalanced by Berlin's high debt levels and financial deficits expected in 2024 and 2025, limited financial flexibility as well as increasing social and infrastructure related expenses. Additionally, the commitment to affordable housing by its subsidiary housing entities carries social risks along with associated costs. The credit profile also reflects our assessment of a very high likelihood that the Government of Germany would provide support in case of acute liquidity stress.

Exhibit 1

The continuous decline in Berlin's debt has been temporarily reversed; debt affordability will decrease going forward



2024-25F: Moody's forecast.
Sources: Issuer, German Statistics Office, German Ministry of Finance and Moody's Ratings

Credit strengths

» Supportive institutional framework, including federal transfers and revenue predictability

» Solid economic fundamentals and favourable demographics

» Excellent market access and debt management

Credit challenges

» Expense pressure from multiple sources will affect the city's budget

» High debt levels and related increasing interest expenses

» Limited financial flexibility

Rating outlook

The rating outlook is stable, reflecting Berlin management's capacity to contain current budgetary pressure during 2024 and 2025, and to return to a structurally balanced fiscal position afterwards, along with a resulting structural reduction of debt.

Factors that could lead to an upgrade

Berlin's rating could be upgraded if there is any significant improvement in its financial performance, including a substantial reduction in its debt burden, combined with a sustained track record of balanced financial budgets.

Factors that could lead to a downgrade

A significant and prolonged deterioration in Berlin's fiscal metrics leading to a substantial increase in its debt levels; any changes in the fundamental support structure of the Länder (regional governments) sector, although it is not likely; or a downgrade of Germany's sovereign rating could lead to a downgrade of Berlin's rating.

Key indicators

Exhibit 2

Land of Berlin

Berlin, Land of	2020	2021	2022	2023	2024F	2025F
Cash and cash equivalents as % of operating revenues	29.0	26.0	25.6	27.1	26.7	25.5
Primary operating balance (POB) as % of operating revenues	3.3	8.7	12.5	6.4	0.0	5.2
Interest payments as % of operating revenues	3.2	3.1	2.6	2.1	3.2	3.5
Capital expenses (Capex) as % of total expenses	6.9	8.2	10.1	10.8	9.9	9.9
Financing result (surplus or deficit) as % of total revenues	-4.4	-0.3	2.0	-4.8	-11.5	-7.0
Net direct and indirect debt (NDID) as % of operating revenues	215.4	193.4	183.1	196.1	205.4	203.3

2024-25F: Moody's forecast.
Sources: Issuer, German Statistics Office, German Ministry of Finance and Moody's Ratings

Detailed credit considerations

The credit profile of Berlin, as illustrated by its Aa1 (stable) rating, combines a BCA of aa3 and a very high likelihood of extraordinary support from the German federal government in the event that Berlin faces acute liquidity stress.

Baseline credit assessment

Supportive institutional framework, including federal transfers and revenue predictability

The institutional framework, which encompasses a legislative background and financial flexibility, is reflected in the arrangements determining intergovernmental relations at all levels, and jurisdictional powers and responsibilities. The framework is mature and highly developed, with minor changes occurring at a measured pace and in a transparent manner.

Germany has one of the strongest equalisation systems worldwide. The German federal constitution guarantees appropriate levels of funding for its Länder and prescribes high fiscal homogeneity among them. Under the financial equalisation system, Berlin benefits from supplementary transfers, because of its status as a city. With amendments made to the financial equalisation scheme in 2020 the Länder sector has benefited financially, at the expense of the federal government, from a higher share of value-added tax revenue, general federal transfers and supplementary transfers. Federal transfers constitute almost a quarter of Berlin's revenue.

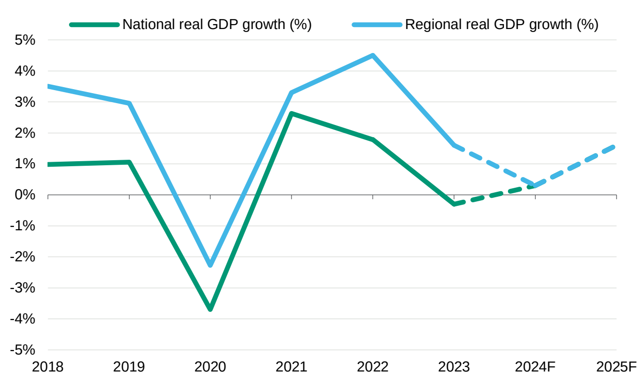
Another institutional factor that ensures budgetary discipline of the Länder is a constitutional requirement, known as the debt-brake mechanism, that mandates that each region maintain structurally balanced budgets from 2020. The federal government suspended the constitutional requirement in 2020-2022 (by applying one of the allowed exemption clauses), which allowed for funding measures to alleviate the economic and social impact of the pandemic as it was considered an extraordinary emergency situation.

Solid economic fundamentals and favourable demographics

Berlin, with nearly 3.8 million inhabitants, is the capital of Germany, and its overall population continues to grow faster than that of the country. We expect this trend to continue because Berlin's sound economic trajectory and diverse cultural scene are likely to lead to continued mainly international migration into the city. The city's favourable demographics compared with that of the rest of Germany are credit positive as the immigration of a younger population helps mitigate the risks associated with an ageing population and could mitigate labour shortages and avoid increase in pension and social costs. Still, skillset do not always fit requirements, reflected in the land's unemployment rate of 9.1% as of December 2023 (8.8% in 2022), which continues to be higher than the national average of 5.7% as of December 2023. This is also reflected in the land´s significant social expenses, and subdues the positive demographic opportunity. In fact, Berlin´ social aid spending remains overproportionate compared to other large cities and other German regions also due to social support above national standard and above national average. Alongside this, affordable housing is a challenge for Berlin, because the city's population is growing and at the same time the population's socio-economic profile is weakening, leading to social pressures, particularly in terms of lower housing affordability.

Exhibit 3

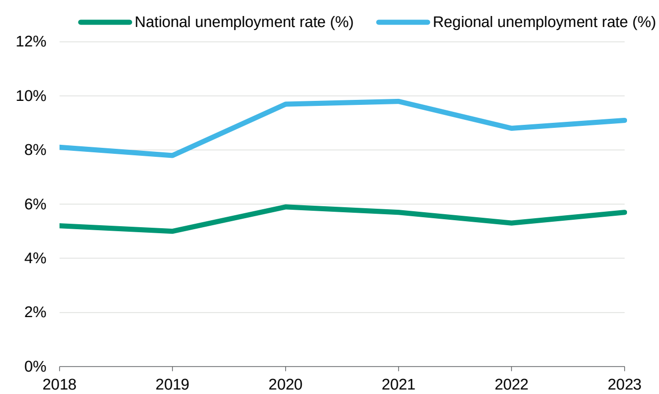
Berlin's GDP growth remains above the national average ...



2024-25F: Moody's forecast.
Sources: German Statistics Office and Moody's Ratings

Exhibit 4

... while unemployment is higher
Unemployment rate, national concept



Yearly average.
Sources: Federal Employment Agency and Moody's Ratings

The potential of the city still remains very high, due to changes in the city's economic structure becoming evident in the past decade, leading in part to a very dynamic economy. The public and manufacturing sectors have become less significant in terms of their economic output, while the IT, financial, trade, transport and value-added service sectors such as software development have become more prominent. The city continues to attract foreign direct investment, with services being the largest beneficiary because many multinational corporations have sought to set up their representative offices in or relocate their European headquarters to the capital. Further, Berlin has become very popular among start-up companies especially within the IT-related sectors, benefitting from its young and international population. As a sign of sustained innovation, the city remains among the top European hubs for patent filings. Berlin has also become a leading cultural and tourist destination in Europe.

For 2024 and 2025, we expect Berlin's GDP to grow similar or above the national average, as it has in the past (we forecast Germany's real GDP will grow 0.3% in 2024 and 1.6% in 2025).

Excellent market access, debt management and strong liquidity levels

The city has excellent access to capital markets because of its sophisticated state treasury and excellent liquidity management. In addition, in the money markets, if needed, Berlin has access to the German state financing agency (BRD Finanzagentur GmbH); the inter-Länder liquidity pool, whereby individual Länder offer their surplus cash to other Länder; and a (uncommitted) credit facility with a commercial bank to meet intraday needs. Despite considerable refinancing needs, Berlin benefits from low borrowing costs. This reflects investors' willingness to fund the German Länder because of their perceived status as safe havens, comparable with the German sovereign. Berlin, as a long-established issuer, has the particular advantage of a broad investor base.

Finally, Berlin has strong levels of liquidity available upon request on short notice. As of year-end 2023, Berlin had significant cash or cash equivalents that represent 27.1% of operating revenues, a similar figure compared to the 25.6% from the year before.

Expense pressure from multiple sources will affect the city's budget

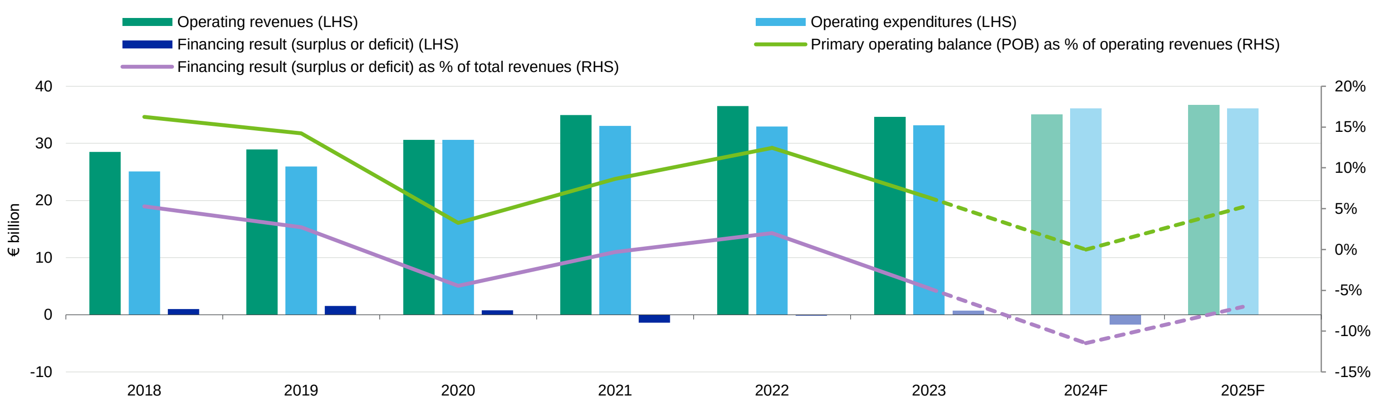
For 2024 and 2025, we anticipate modest primary operating margins (primary operating revenue as a percentage of total operating revenue), remaining below 2%. While these margins are expected to be positive, they are inadequate to fully fund the projected capital expenditures, leading to a financial deficit. This reflects multiple severe expense pressures, which even increasing tax revenues and other operating revenues cannot compensate. In 2023, Berlin´s primary operating margin stood at 6.4% (2022: 12.5%). Berlin had established significant financial reserves and liquidity that it has drawn on, providing some flexibility. The - to a large extend - structural increase of expenses is due to various reasons, such as increase in wages for personnel costs (e.g. salary increases as well as nominal increase of staff), infrastructure related expenses due to maintenance and growing population needs, green transition related and social support expenses, mainly due to immigration related costs, e.g. affordable housing, and other integration costs related to for example education. We expect social expenses to increase further in coming years.

The mostly structural expense pressure experienced during 2023 is set to continue also in 2024 and 2025, to persist and potentially increase further in coming years. We recognize that certain expense items and standards are set at the federal level, or through tariffs (e.g. salary increases) where Berlin can only marginally react. However Berlin has establish certain services, policies and subsidies which are above national legal threshold and could be restated and brought in line with national standards.

Thanks to the German solid institutional framework (debt break mechanism), and pressure mounting from control instances, Berlin is currently in the process of reviewing extensively all expenses positions - aiming for thorough cuts which structurally will reduce expenses in the immediate and long term from at least 2026. While this is a key positive and crucial we remain cautious on implementation of long-term and structural effects on Berlin´s fiscal position.

Exhibit 5

Berlin will record deficits in 2024 and 2025



2024-25F: Moody's forecast.
Sources: Issuer, German Statistics Office, German Ministry of Finance and Moody's Ratings

High debt levels and related increasing interest expenses

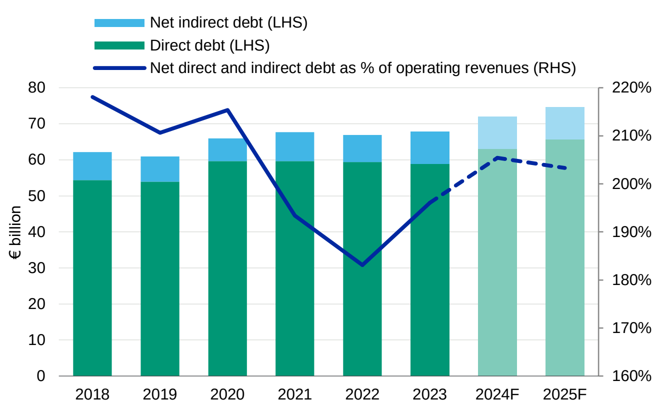
Berlin´s nominal debt will increase in 2024 and 2025, due to described deficits, also triggered by below described investments, reaching overall debt burden (net direct and indirect debt (NDID) as percentage of operating revenues) of 202% in 2024, and 200% in 2025. Berlin's 2024 financial deficits will be covered in part by reducing cash and reserves. Berlin recorded debt burden in 2023 of 196%, up from 183% in 2022. Overall, the level of direct debt is high compared with that of Berlin's international peers and other German Länder. However, as Berlin is a city-state, its debt also includes municipal debt, unlike that of its German peers that we rate.

With regard to the €7.3 billion pandemic-induced emergency loans, Berlin's self-imposed repayment schedule forecasts an annual repayment rate of €270 million up to 2049. Berlin opted for an early repayment of the two annual installments for 2024 and 2025 (€541 million) during 2023 already.

The overall net interest expenses for Berlin reached Eur 735 million in 2023 (2.1% of operating revenue) and will reach about Eur 1.1 billion and Eur 1.2 billion in 2024 and 2025 (3.2% and 3.5% of operating revenues respectively). This does not include the above mentioned capital spending. The city's debt service was around 19% of its operating revenue in 2023, and the ratio will remain stable over 2024-25.

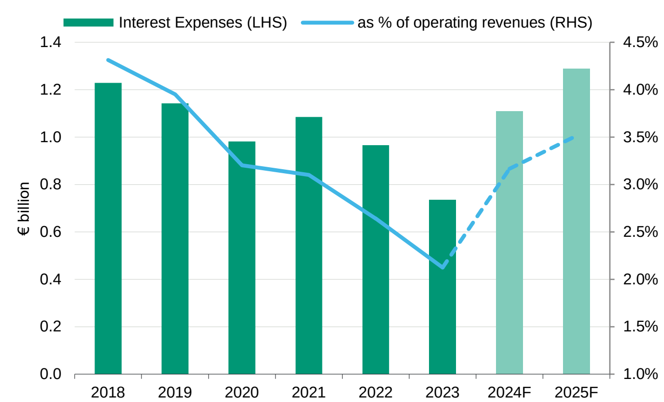
Berlin has launched a couple of large capital expense programs, e.g. expansion of the city train net (estimated cost Eur 1.4 billion potentially financed together with the federal government; it is envisioned that it will take ten years until construction begins), district heating (acquisition cost of Eur 1.6 billion with further about at least Eur 3 billion of investment needs according to public sources), investments for acquired electricity grid (Eur 300 million), acquisition of city train fleet (estimated cost Eur 5.3 billion over 5 years, currently estimated starting from 2025 through a participation) of as well as potential acquisition of further participations shares in another Berlin energy company (GASAG). These projects (except the public transport expansion) are aimed at addressing net zero targets more thoroughly and enhance public services more efficiently. The land is still in the process of elaborating financing options, typically though these projects are financed through debt, directly or indirectly through participations with Berlin guaranteeing the debt financing. As the land acquires assets, the debt break mechanism is not triggered, but still debt financing costs are expected to increase, directly or indirectly for the land, a credit negative. In addition, re-municipalization of assets and services could increase operating costs, through staff hirings and correlated costs, while also increasing complexity for the administration.

Exhibit 6
Berlin's high debt burden will increase ...



2024-25F: Moody's forecast.
Sources: Issuer, German Statistics Office, German Ministry of Finance and Moody's Ratings

Exhibit 7
... alongside interest expenses



2024-25F: Moody's forecast.
Sources: Issuer, German Statistics Office, German Ministry of Finance and Moody's Ratings

A social risk that is common among larger cities in Germany is the need to provide affordable housing for low-income households. The city owns six housing companies with the objective of providing affordable housing, with correlated costs for the city through these housing participations. The key companies include six housing companies (including GEWOBAG Wohnungsbau-AG Berlin [A1 stable]), the local public transportation company Berliner Verkehrsbetriebe, and the water utility company Berliner Wasserbetriebe. Overall, most of these entities are self-supporting. Berlin directly owns and controls around 40 companies, most of which are public limited companies, including a few that receive subsidies. Contingent liabilities in the form of these companies' financial debt are moderate. A possible source of contingent liabilities is Berlin's 37% share in the airport company Flughafen Berlin Brandenburg GmbH (A1 stable). The construction of the new airport site had led its owners — namely the city of Berlin, the neighbouring Land of Brandenburg (Aaa stable) and the federal government — to implement several support measures in the past (including the provision of additional capital and guarantees).

Berlin's pension obligations are largely unfunded, as is the case for most German Länder, which could hurt its creditworthiness in the future. We estimate that unfunded pension obligations will exceed Berlin's annual revenue. However, Berlin's obligations appear somewhat lower than those of most West German Länder.

Limited financial flexibility, although mitigated by Berlin's city-state status

Even if Berlin's regional tax base were to grow above the national average, the development would only have a limited effect on the city's budgetary performance. The above-average tax revenue growth would be partly offset by the equalisation system. In general, more than 80% of Berlin's operating revenue stems from shared taxes and transfers, and the German Länder have limited tax-setting rights. The tax rates, with very few exceptions, are set at the national level, as are some of the expenses, and, therefore, are not adjustable by the land. Personnel expenses (including pension payments), which account for more than 30% of Berlin's operating expenses, are adjustable only over a very long period. However, the city has used a range of adjustments in the past, which implies that further flexibility in cost savings appears limited.

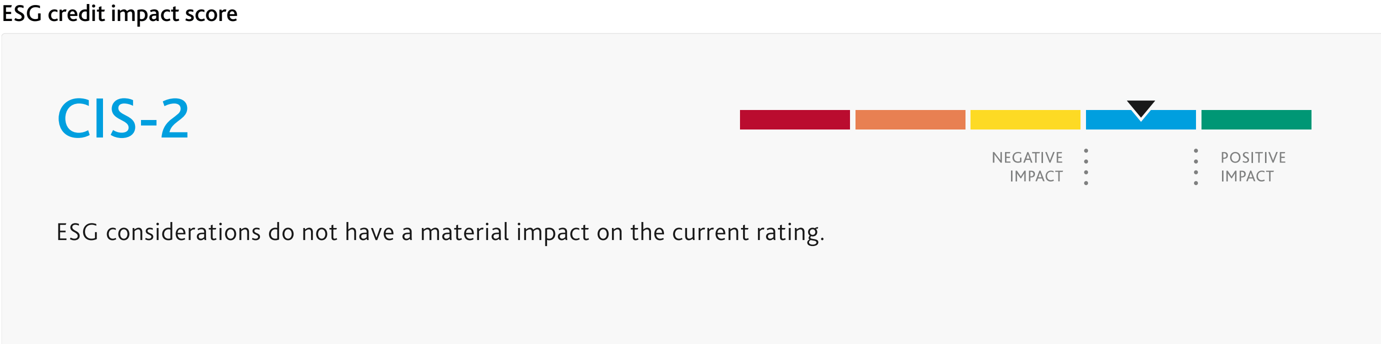
Extraordinary support considerations

Berlin has a very high likelihood of receiving extraordinary support from the federal government, which reflects our assessment of the high reputational risk for Germany as a whole in case of default by the land, and under the Bundestreuekonzept, according to which all German Länder must provide mutual support in the event that one of them or the federal republic faces a severe budgetary crisis. In addition, the debt volume and structure of the German Länder are extremely complex, and an event of non-payment would have a corresponding impact on Germany as a whole. In our opinion, the principle of solidarity is firmly entrenched in the Grundgesetz (basic law), thereby offering reassurance that, if required, financial support for a member in distress would be forthcoming. We have, therefore, incorporated two notches of uplift, to Aa1 from aa3, into Berlin's final rating.

ESG considerations

Berlin, Land of's ESG credit impact score is CIS-2

Exhibit 8
ESG credit impact score



Source: Moody's Ratings

The Land of Berlin's ESG Credit Impact Score (**CIS-2**) reflects neutral-to-low exposure to environmental and social risk, along with very strong governance and policy effectiveness that mitigate the region's susceptibility to these risks.

Exhibit 9
ESG issuer profile scores

Source: Moody's Ratings

Environmental

The environmental issuer profile score (**E-2**), reflects all environmental factors. Due to its geographical position as a city and the service sector oriented and highly innovative economy , we think that Berlin is relatively well positioned to weather challenges from environmental risk.

Social

The social issuer profile score (**S-2**) reflects risks from most social factors, other than health and safety (which scores positive), housing (which scores moderately negative). Housing appears to be a somewhat higher risk for larger cities, like Berlin, which face growing population and – as is the case for Berlin – a somewhat weaker socio-economic profile of its population, leading to less housing affordability. On the other side, immigration of young population contributes to mitigate the overall aging trends, resulting in declining labour supply and higher pension and social cost. We view the coronavirus pandemic as a social risk under our ESG framework, given the substantial implications for public health and safety in the city.

Governance

The positive governance issuer profile score (**G-1**) reflects the very strong national institutional and governance framework. Budgetary discipline in Germany is a constitutional requirement, which requires each of the regions to maintain structurally balanced budgets. Budget planning in Berlin is very prudent, transparent and highly predictable.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moodys.com. In order to view the latest scores, please click here to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

Rating methodology and scorecard factors

The assigned BCA of aa3 is close to the suggested BCA of aa2.

For details about our rating approach, please refer to the Regional and Local Governments rating methodology, published on 28 May 2024.

Exhibit 10

Berlin, Land of

Regional & Local Governments

Baseline Credit Assessment – Scorecard	Score	Value	Sub-factor Weighting	Sub-factor Score	Factor Weighting	Total
Factor 1: Economy					**25%**	**0.70**
Regional Income [1]	1.34	69000.67	15%	0.20		
Economic Growth	9.00	baa	5%	0.45		
Economic Diversification	1.00	aaa	5%	0.05		
Factor 2: Institutional Framework and Governance					**30%**	**0.90**
Institutional Framework	3.00	aa	15%	0.45		
Governance	3.00	aa	15%	0.45		
Factor 3: Financial Performance					**20%**	**1.11**
Operating Margin [2]	10.06	5.73%	10%	1.01		
Liquidity Ratio [3]	1.10	27%	5%	0.06		
Ease of Access to Funding	1.00	aaa	5%	0.05		
Factor 4: Leverage					**25%**	**2.32**
Debt Burden [4]	11.60	195.62%	15%	1.74		
Interest Burden [5]	5.79	2.15%	10%	0.58		
Preliminary BCA Scorecard-Indicated Outcome (SIO)						**(5.03) a1**
Idiosyncratic Notching						**0.0**
Preliminary BCA SIO After Idiosyncratic Notching						**(5.03) a1**
Sovereign Rating Threshold						**Aaa**
Operating Environment Notching						**2.0**
BCA Scorecard-Indicated Outcome						**(3.03) aa2**
Assigned BCA						**aa3**

[1] Regional GDP per capita in terms of purchasing power parity (PPP) terms, in international dollars
[2] Primary Operating Balance / Operating Revenue
[3] Cash and Cash Equivalents / Operating Revenue
[4] Net Direct and Indirect Debt / Operating Revenue
[5] Interest Payments/ Operating Revenue
Source: Moody's Ratings; Fiscal 2023.

Ratings

Exhibit 11

Category	Moody's Rating
BERLIN, LAND OF	
Outlook	Stable
Baseline Credit Assessment	aa3
Issuer Rating	Aa1
Senior Unsecured -Dom Curr	Aa1

Source: Moody's Ratings

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