SUB-SOVEREIGN

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CREDIT OPINION
20 March 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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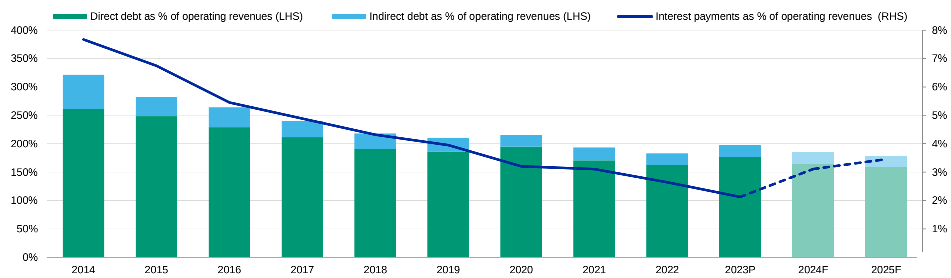
# Land of Berlin (Germany)

## Update following rating affirmation

## Summary


The credit profile of the Land of Berlin (Berlin, Aa1 stable) reflects its dynamic economy and gradually decreasing debt levels, as well as the supportive financial equalisation system in Germany (Aaa stable). Moreover, 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, limited financial flexibility as well as increasing social and infrastructure related expenses. Further, providing for affordable housing through its housing companies remains a social risk with correlated 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 but its debt affordability remains good**




2023P: preliminary data; 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 (wages, social spending, infrastructure related, affordable housing needs) 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 our expectation that Berlin's financial accounts will remain balanced, with growing tax revenue and cost controls, along with a reduction in structural 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 | 2019 | 2020 | 2021 | 2022 | 2023P | 2024F | 2025F |
|---|---|---|---|---|---|---|---|
| Population (in mn) | 3.7 | 3.7 | 3.7 | 3.8 | 3.8 | 3.8 | 3.8 |
| GDP per capita (in EUR) | 42,965 | 42,752 | 45,074 | 48,147 | 51,500 | 53,250 | 55,750 |
| GDP per capita as % of national average | 102.8 | 104.4 | 104.1 | 105.1 | 105.1 | 105.1 | 105.1 |
| Intergovernmental revenues as % of operating revenues | 33.4 | 27.3 | 24.7 | 20.4 | 16.7 | 16.9 | 16.5 |
| Interest payments as % of operating revenues | 3.9 | 3.2 | 3.1 | 2.6 | 2.1 | 3.1 | 3.5 |
| Gross operating balance (GOB) as % of operating revenues | 10.3 | 0.1 | 5.5 | 9.8 | 4.2 | 0.8 | 1.9 |
| Capital expenses (Capex) as % of total expenses | 10.6 | 6.9 | 8.2 | 10.1 | 10.8 | 10.0 | 9.8 |
| Financing result (surplus or deficit) as % of total revenues | 2.7 | -4.4 | -0.3 | 2.0 | -4.8 | -7.2 | -6.7 |
| Direct Debt as % of operating revenues | 186.4 | 194.8 | 170.5 | 162.5 | 176.5 | 164.1 | 158.2 |
| Net direct and indirect debt (NDID) as % of operating revenues | 210.7 | 215.4 | 193.4 | 183.0 | 198.1 | 185.1 | 178.3 |
| Short-term direct debt as % of total direct debt | 9.2 | 8.9 | 8.8 | 9.0 | 8.8 | 9.1 | 9.1 |

2023P: preliminary data; 2024-25F: Moody's forecast.
*Sources: Issuer, German Statistics Office, German Ministry of Finance and Moody's Ratings*

## Detailed credit considerations

On 15 March 2024, we affirmed Berlin's Aa1 rating and Baseline Credit Assessment (BCA) of aa3, with a stable outlook.

The credit profile of Berlin, as illustrated by its Aa1 (stable) rating, combines its BCA of aa3 and the 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 special subsidies 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.

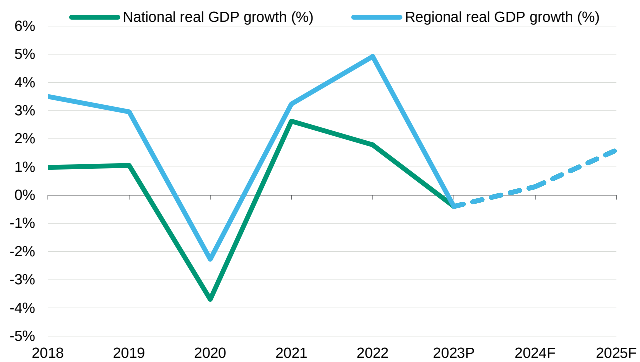
Another institutional factor that ensures budgetary discipline of the Länder is a constitutional requirement, known as the debt-brake mechanism, that mandates that each region maintain structurally balanced budgets from 2020. The federal government suspended the constitutional requirement for 2020, 2021 and 2022, 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 3.7 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 domestic and 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 such as labour shortages and increase in pension and social costs. At the same time Berlin´ social aid spending remains overproportionate compared to other large cities and other German regions. 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 well-articulated social pressure in the form of weaker housing affordability.

Exhibit 3

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

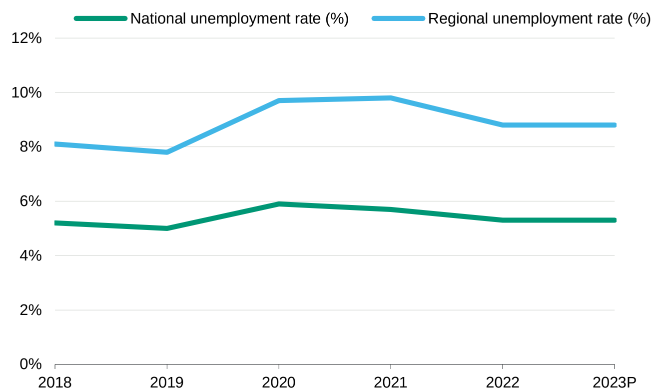



2023-25F: Moody's forecast.
*Sources: German Statistics Office and Moody's Ratings*

Exhibit 4

**... while unemployment is higher**

**Unemployment rate, national concept**




Yearly average and 2023 preliminary.
*Sources: Federal Employment Agency and Moody's Ratings*

For 2024 and 2025, we expect Berlin's GDP to grow 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). However, the land's unemployment rate of 9.1% as of December 2023 (8.8% in 2022) was 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.

Still, changes in the city's economic structure have become evident in the past decade and have made its economy increasingly dynamic. 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.

**Excellent market access and debt management**

The city has excellent access to capital markets because of its sophisticated state treasury and excellent liquidity management. 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.

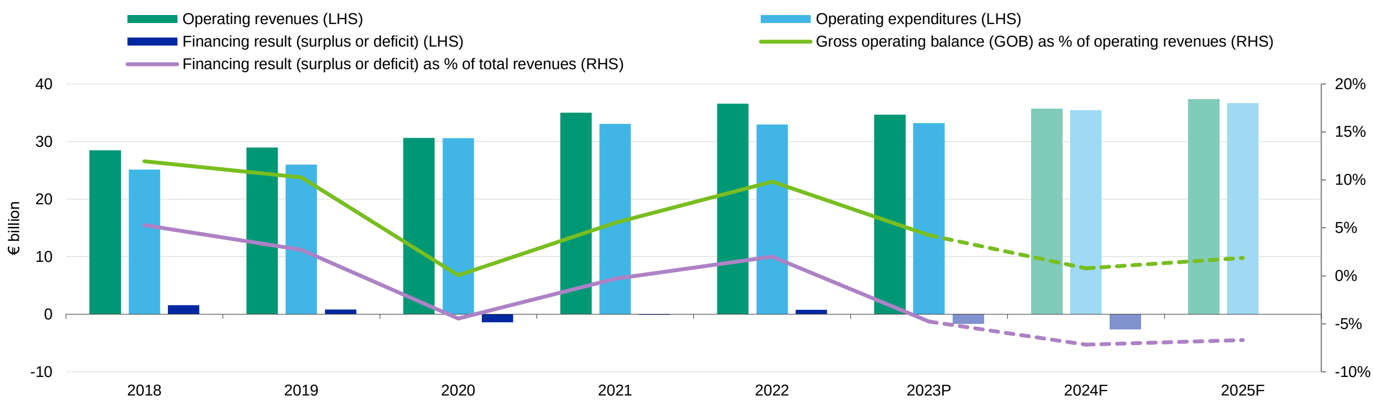
**Expense pressure from multiple sources (wages, social spending, net zero targets, infrastructure related, affordable housing needs) will affect the city's budget**

We expect rather low operating revenue margins in 2024 and 2024 at below 2% though positive, reflecting multiple expense pressures, which even increasing tax and other operating revenues cannot compensate. In 2023 gross operating margin stood at 4.2% (2022: 9.8%).

Increase of expenses is due to various reasons, increase in wages for personnel costs, e.g. salary increases as well as nominal increase of staff. Many planned positions remained vacant in 2023 due to hiring difficulties, resulting in lower than planned expenses. We expect similar dynamics for 2024 (and 2025). That said, other spending areas increased in 2023, including infrastructure, net zero related expenses and social expenses, mainly due to immigration related costs. We expect social expenses related to immigration to increase further. In the past years, the city had established significant financial reserves and liquidity that it can now draw on, which provide it with some flexibility to address the investment needs and operating expenses of a growing city.

Exhibit 5

**Financial performance rebounded in 2022 from the pandemic low**




2023P: Preliminary data; 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.

**High debt levels and related increasing interest expenses**

Berlin has launched a couple of large capital programs, e.g. expansion of the subway 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), as well as potential acquisition of further participations shares in another Berlin energy company (GASAG). These projects (except the subway expansion) are aimed at addressing net zero targets more thoroughly. The land is still in the process of elaborating financing options, most likely through a supplementary budget or an emergency fund, or a combination - involving also the land 100% owned financial institution Investitionsbank Berlin (not rated). As the land acquires assets, the debt break mechanism is not triggered, but debt financing costs are expected to increase, directly or indirectly for the land, a credit negative.

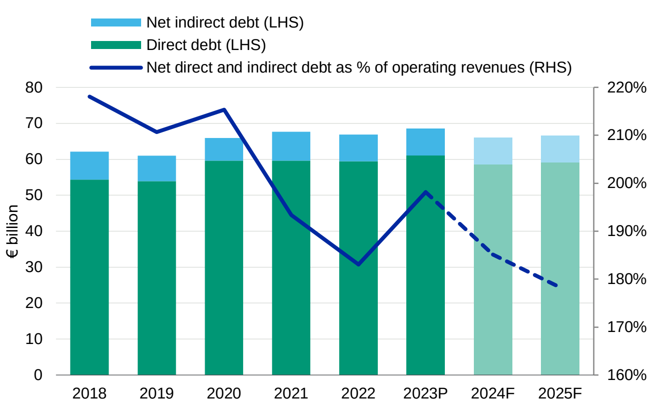
Berlin expected nominal debt to remain rather flat in 2023, 2024 and 2025, though depending on timing of above described transaction, nominal debt will increase. Berlin recorded high debt levels in 2023, with direct debt at 177% of its operating revenue, up from 163% in 2022. Although this ratio is expected to decrease in 2024 and 2025, this is due mainly to an increase in operating revenue rather than nominal debt reductions. Berlin's 2024 budget indicates that financial deficits will be covered mainly by reducing cash and reserves.

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 (3.1% and 3.5% of operating revenues respectively). This does not include the above mentioned capital spending. The city's debt service was less than 19% of its operating revenue in 2023, and the ratio is likely to remain stable over 2024-25.

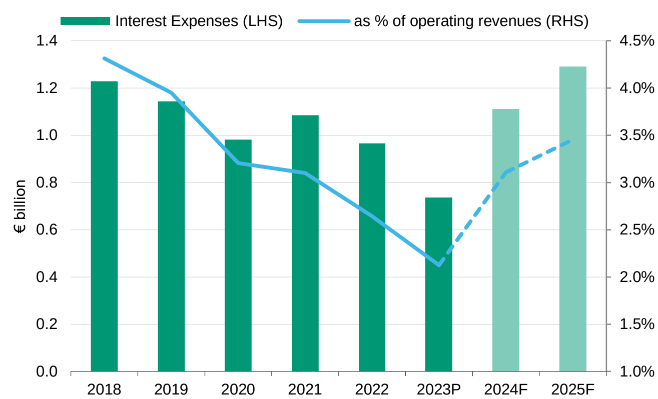
Overall, the level of direct debt is high compared with that of Berlin's international peers and other German Länder. However, as Berlin is a city-state, its debt also includes municipal debt, unlike that of its German peers that we rate. Including other indirect debt (for example, guarantees), Berlin's net direct and indirect debt (NDID) stood at 198% of its operating revenue as of year-end 2023 (likely to decrease to 185% and 178% in 2024 and 2025 respectively on the above-mentioned denominator effect) (see Exhibit 6). In our calculation of indirect debt, we include a guarantee for financing the transaction to buy the city's electricity grid through a newly established municipal company.

Exhibit 6
**Berlin's high debt burden will temporarily increase again ...**




2023P: Preliminary data; 2024-25F: Moody's forecast.
*Sources: Issuer, German Statistics Office, German Ministry of Finance and Moody's Ratings*

Exhibit 7
**... although the drop in its interest burden is reversing**




2023P: Preliminary data; 2024-25F: Moody's forecast.
*Sources: Issuer, German Statistics Office, German Ministry of Finance and Moody's Ratings*

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. 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. Another possible source of contingent liabilities is Berlin's 37% share in the airport company Flughafen Berlin Brandenburg GmbH (A1 stable). The construction of a 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 (including the provision of additional capital and guarantees). The new airport started operations in 2021, but could remains in need of additional support, as demonstrated by the additional equity injection of €1.71 billion (shared among the three owners) into the airport company's capital reserves.

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

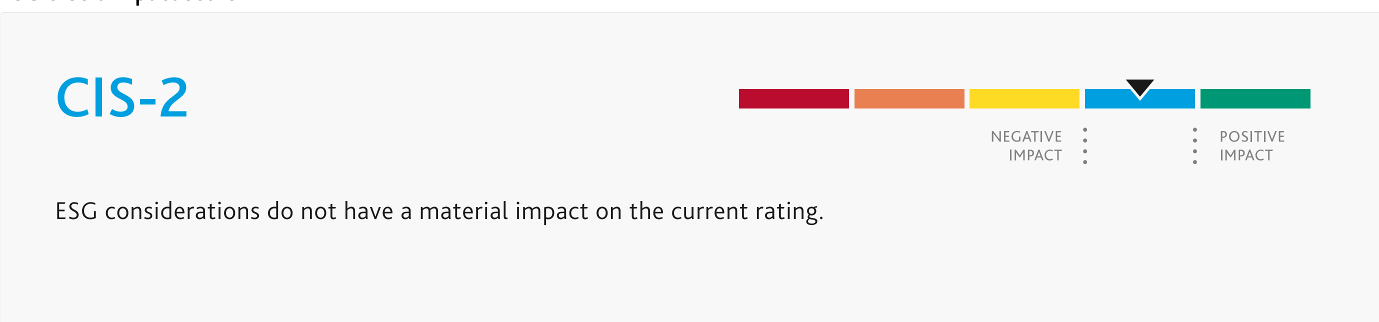
Berlin has a very high likelihood of receiving extraordinary support from the federal government, which reflects our assessment of the high reputational risk for Germany as a whole in case of default by the land, and under the Bundestreuekonzept, according to which all German Länder must provide mutual 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**

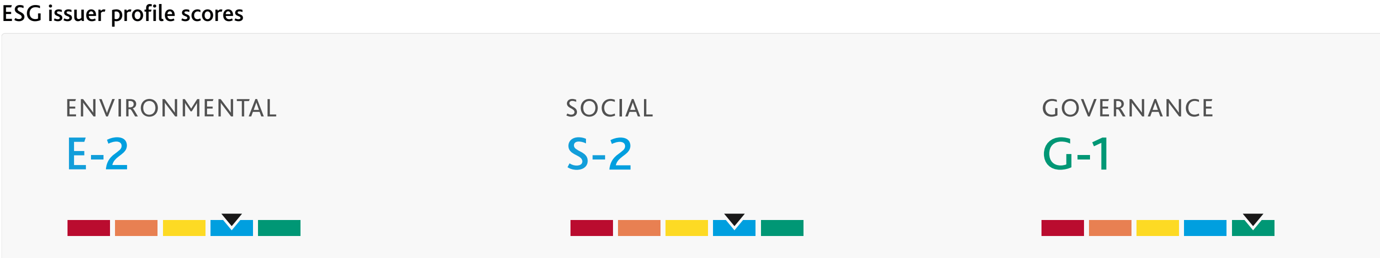



*Source: Moody's Ratings*

The Land of Berlin's ESG Credit Impact Score is neutral-to-low (**CIS-2**), reflecting 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.

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.All of these considerations are further discussed in the Detailed credit considerations section above. Our approach to ESG is explained in our report on how the scores depict limited impact of ESG factors in advanced economy RLGs, negative in emerging markets and our cross-sector methodology General Principles for Assessing Environmental, Social and Governance Risks Methodology.

## Rating methodology and scorecard factors

The assigned BCA of aa3 is in line with the suggested BCA of aa3. The scorecard-generated BCA of aa3 reflects an Idiosyncratic Risk score of 3 (presented below) on a 1-9 scale, where 1 represents the strongest relative credit quality and 9 the weakest; and a Systemic Risk score of Aaa, as reflected in the sovereign bond rating of Germany.

For details about our rating approach, please refer to the Regional and Local Governments rating methodology, published on 16 January 2018.

Exhibit 10

**Berlin, Land of**

**Regional & Local Governments**

| Baseline Credit Assessment – Scorecard | Score | Value | Sub-factor Weighting | Sub-factor Total | Factor Weighting | Total |
|---|---|---|---|---|---|---|
| **Factor 1: Economic Fundamentals** | | | | **3.80** | **20%** | **0.76** |
| Economic Strength [1] | 5 | 104.95% | 70% | | | |
| Economic Volatility | 1 | | 30% | | | |
| **Factor 2: Institutional Framework** | | | | **3** | **20%** | **0.60** |
| Legislative Background | 1 | | 50% | | | |
| Financial Flexibility | 5 | | 50% | | | |
| **Factor 3: Financial Position** | | | | **3** | **30%** | **0.90** |
| Operating Margin [2] | 3 | 6.02% | 12.5% | | | |
| Interest Burden [3] | 3 | 2.41% | 12.5% | | | |
| Liquidity | 1 | | 25% | | | |
| Debt Burden [4] | 7 | 198.15% | 25% | | | |
| Debt Structure [5] | 1 | 8.77% | 25% | | | |
| **Factor 4: Governance and Management** | | | | **1** | **30%** | **0.30** |
| Risk Controls and Financial Management | 1 | | | | | |
| Investment and Debt Management | 1 | | | | | |
| Transparency and Disclosure | 1 | | | | | |
| **Idiosyncratic Risk Assessment** | | | | | | **2.56 (3)** |
| **Systemic Risk Assessment** | | | | | | **Aaa** |
| **Suggested BCA** | | | | | | **aa2** |
| **Assigned BCA** | | | | | | **aa3** |

[1] Local GDP per capita as % of national GDP per capita
[2] Gross operating balance/operating revenues
[3] Interest payments/operating revenues
[4] Net direct and indirect debt/operating revenues
[5] Short-term direct debt/total direct debt
*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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