FitchRatings

State of Berlin

The affirmation of State of Berlin's ratings reflects Fitch Ratings' unchanged rating approach for the German Laender, under which the ratings are equalised with those of the Federal Republic of Germany (Bund; AAA/Stable/F1+).

Key Rating Drivers

Rating Derivation Summary: Berlin's Issuer Default Ratings (IDRs) are linked to the Bund's. We assess its Standalone Credit Profile (SCP) at 'aa'. The SCP results from a 'Stronger' risk profile and a financial profile that Fitch assesses as 'a' under its rating-case scenario. No other factors affect the rating. Equalisation of the German Laender's ratings with the Bund's is driven by the stability of the solidarity system underpinning the creditworthiness of all Laender, irrespective of the key risk factors and financial profile assessment.

The solidarity system is enshrined in the German constitution and reflects the institutional framework of the Laender. Under the constitution, all member states of the federal republic are jointly responsible for supporting a Land in financial distress. If a Land experiences 'extreme budgetary hardship', it is entitled to financial assistance from all other Laender and the Bund. This principle has been reaffirmed by the constitutional courts on more than one occasion, most recently in 2006.

'Stronger' Risk Profile: Fitch assesses all of Berlin's Key Risk Factors (KRFs) as 'Stronger'. This risk profile also reflects the state's very good access to capital markets, corresponding strong refinancing capacity and appropriate treasury facilities preventing any temporary delays in the provision of liquidity and support.

Financial Profile at 'a': In Fitch's rating-case scenario, Berlin's economic liability burden will improve to 68.9% in 2028 from 76.0% in 2023 while its payback ratio will decrease to 19.4x from 31.3x. Debt service coverage (Fitch's synthetic calculation) will increase to 0.6x from 0.4x and the fiscal debt burden will improve to 160.3% from 179.0%. Our rating case is based on conservative GDP growth assumptions to test rating resilience through the economic cycle.

Neutral Additional Rating Factors: Berlin's Long-Term IDR is rated on a par with the sovereign, reflecting the specific approach Fitch applies for the German Laender. Its rating does not account for any other extraordinary support from the Bund. No additional risk factors have been identified.

ESG Considerations: The highest ESG score is '3', meaning that ESG issues are credit neutral. These issues are minimally relevant to the rating due to the mission of the issuer and the institutional framework.

Public Finance

Local and Regional Governments Germany

This report does not constitute a new rating action for this issuer. It provides more detailed credit analysis than the previously published Rating Action Commentary, which can be found on www.fitchratings.com.

Ratings

| Foreign Currency | |
|------------------|-----|
| Long-Term IDR | AAA |
| Short-Term IDR | F1+ |
| | |
| | |

Local Currency

| Long-Term IDR | AAA |
|----------------|-----|
| Short-Term IDR | F1+ |

Outlooks

Long-Term Foreign-Currency IDR Stable Long-Term Local-Currency IDR Stable

Debt Ratings

Senior Unsecured Debt - Long-Term AAA Rating Senior Unsecured Debt - Short-F1+ Term Rating

Issuer Profile Summary

Berlin, the capital of Germany, is one of the country's three city states. It has a servicesoriented economy.

Financial Data Summary

| (EURm) | 2023 | 2028rc |
|--------------------------------|--------|--------|
| Economic liability | 76.0 | 68.9 |
| burden (%) | | |
| Payback ratio (x) | 31.3 | 19.4 |
| Synthetic coverage (x) | 0.4 | 0.6 |
| Actual coverage (x) | 0.3 | 0.4 |
| Fiscal debt burden (%) | 179.0 | 160.3 |
| Net adjusted debt | 62,094 | 64,325 |
| Operating balance | 1,982 | 3,313 |
| Operating revenue | 34,691 | 40,137 |
| Debt service | 6,333 | 7,856 |
| Mortgage-style debt annuity | 4,566 | 5,119 |

rc: Fitch's rating-case scenario Source: Fitch Ratings, Fitch Solutions, State of

Berlin

Applicable Criteria

International Local and Regional Governments Rating Criteria (August 2024)

Related Research

Fitch Affirms State of Berlin at 'AAA'; Outlook Stable (August 2024) German Laender - Peer Review 2023 (October 2023)

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Rating Synopsis

Berlin, State of LT IDR Derivation Summary

| | | | Key Risk Factors (KRF) | | | | | Financial Profile Assessments | | | | s # | | | From | n SCP to | o LT IDF | R | | | |
|---------------|------------|---------------|------------------------|---------------|-------------|---------------------------|--------|-------------------------------|---------------------------------|----------------------|-----------------------|---------------------------|----------------------------|------------------------------------|------------------------------|---------------------------|------------------|-------------|-----------|-----|--|
| KRF attribute | Reve | enue | Expen | diture | Liabilities | Liabilities & Liquidity | | Risk Profile | Primar | Primary metric S | | Secondary metrics | | one Crec le (SCP) | mental Jg | pport | Rating | | | | |
| KRF a | Robustness | Adjustability | Sustainability | Adjustability | Robustness | Flexibility | i | Risk | Economic Liability Burden | Payback Ratio (x) | Synthetic DSCR (x) | Fiscal Debt Burden (%) | Financial Profile Score | Standalone Credit Profile (SCP) | Intergovernmental Iending | Iending Ad hoc support | Sovereign Rating | LT IDR | l Outlook | | |
| | | | | | | | | | | | | | | ааа | | | AAA | AAA | Stable | | |
| | | - T | | | | | | | aaa aaa | aaa | aaa | aaa aaa | aaa | aaa | ааа | aa+ | | | AA+ | AA+ | |
| nger | | | | | | | ngel | e. | | | | | | | aa | | | AA | AA | | |
| Stronger | | | | | | Stronger High Midrange | Sto | | aa- | | | AA- | AA- | | | | | | | | |
| | | | 1 1 | | | | | Mid | аа | аа | аа | аа | аа | a+ | | | A+ | A+ | | | |
| | • | | | | | | ligh | aa | aa | aa | aa | aa | а | | | A | A | | | | |
| | | | | | | | | · - | | | | | | a- bbb+ | | | A- | A- | | | |
| | | | | | | | | | | | | | | +ddd ddd | | | BBB+ BBB | BBB+ BBB | | | |
| Midrange | | | | | | | agu | Midrange | а | а | а | а | а | bbb- | | | BBB- | BBB- | | | |
| lidra | | | | | | | lidra | ang | | | | | | bbb- | | | BB+ | BB+ | | | |
| 2 | | | | | | | 2 | Low Midrange | | | | | | bb | | | BB | BB | | | |
| | | | | | | | | N N | bbb | bbb | bbb | bbb | bbb | bb- | | | BB- | BB- | | | |
| | | | | | | | | Ľ | | | | | | b+ | | | B+ | B+ | | | |
| | | | | | | | | | | | | | | b | | | в | в | | | |
| , er | | | | | | | er | | bb | bb | bb | bb | bb | b- | | | B- | B- | | | |
| Weaker | | | | | | | Weaker | e | 55 | 55 | 55 | 55 | 55 | ccc+ | | | CCC+ | CCC+ | | | |
| > | | | | | | | 5 | Vulnerable | | | | | | ссс | | | ссс | ссс | | | |
| | | | | | | | | /uln | | | | | | ccc- | | | ccc- | CCC- | | | |
| | | | | | | | | 1 | b | b | b | b | b | сс | | | сс | сс | | | |
| | | | | | | | | | | | | | | с | | | с | с | | | |

Source: Fitch Ratings

The six Key Risk Factors, combined according to their relative importance, collectively represent the Risk Profile of a local and regional government (LRG). Risk Profile and Financial Profile assessments, that measures the LRG's debt burden and debt service requirements amid a reasonable economic or financial downturn over the rating horizon, are

Rating Sensitivities

combined in an SCP.

Factors that Could, Individually or Collectively, Lead to Positive Rating Action/Upgrade

The ratings are at the highest level on Fitch's rating scale and cannot be upgraded.

Factors that Could, Individually or Collectively, Lead to Negative Rating Action/Downgrade

A downgrade of the sovereign ratings would lead to a downgrade of Berlin. An adverse change to the most important institutional feature, the solidarity principle, which Fitch views as unlikely, could also lead to a downgrade.

Issuer Profile

Berlin is the capital of Germany and its largest city. It had a population of 3.8 million at end-2023, according to extrapolated data from to the population census for 2011. It remains an attractive destination and its population has steadily increased due to net migration. In recent years, Berlin has made good progress and vastly increased its GDP per capita, which has been above the national average since 2018.

This was driven by the capital's steady economic growth and attractiveness for new business, demonstrated by the many start-ups, mainly in the information/communication and medicine sectors. In addition, many companies have relocated their headquarters to Berlin in recent years.

Tourism, which was heavily affected by pandemic-related lockdowns, is an important part of Berlin's economy. After a decline in overnight stays to 12 million in 2020 from 34 million in 2019, the recovery continued in 2023, with nearly 30 million stays (87% of pre-pandemic levels).

Berlin's GDP rose by 1.6% in real terms to a nominal EUR193.2 billion in 2023 and exceeded Germany's -0.3% real GDP decline on the basis of a strong and resilient economy, which is driven by a broad services sector and is less volatile than that of other German states.

Fitch anticipates 0.1% real GDP growth for Germany for 2024, 1.1% for 2025 and 1.4% for 2026. We believe that Berlin's regional economy may again outperform Germany's real GDP growth in 2024.

The unemployment rate in Berlin was 9.1% in 2023 (Germany 5.7%). Unemployment in Berlin has declined greatly recently – in line with the national trend – but rose from 8.6% at end-2022, partly due to an increased number of refugees.

Socioeconomic Indicators

| Issuer | Sovereign |
|--------|-----------------------------|
| 3.8 | 84.7 |
| 51,209 | 48,750 |
| 1.6 | -0.3 |
| 6.2 | 5.9 |
| 9.1 | 5.7 |
| | 3.8 51,209 1.6 6.2 |

Source: Fitch Ratings, national statistics, State of Berlin

Risk Profile Assessment

Risk Profile: Stronger

Fitch Assesses Berlin's Risk Profile at 'Stronger', reflecting the combination of assessments:

Risk Profile Assessment

| Revenue robustness | Revenue adjustability | Expenditure sustainability | Expenditure adjustability | Liabilities & liquidity robustness | Liabilities & liquidity flexibility | Implied operating environment score | Risk profile |
|-----------------------|--------------------------|----------------------------|------------------------------|--|---|---|--------------|
| Stronger | Stronger | Stronger | Stronger | Stronger | Stronger | аа | Stronger |
| Source: Fitch Ra | ntings | | | | | | |

The assessment reflects Fitch's view of a low risk relative to international peers that Berlin's ability to cover debt service with the operating balance may weaken unexpectedly over the forecast horizon (2024-2028) due to lower revenue, higher expenditure, or an unexpected rise in liabilities or debt or debt service requirements.

Revenue Robustness: Stronger

This assessment is driven by the high share of stable revenue sources due to the strong and diversified tax base and stable transfers from the Bund. We view Berlin as resilient to potential shocks, mitigating the risk of a shrinking revenue base.

Laender's main revenue sources consist of common tax revenues (corporate income tax (CIT), VAT and personal income tax (PIT) between the Bund, the Laender and, to a lesser extent, the municipalities. By law, the Laender receive 50.0% of CIT and 42.5% of PIT. The shares of VAT have a more complex allocation process and marginally vary. In 2023, the share was 49.7% for the Laender, 47.5% for the Bund and 2.8% for the municipalities.

In 2023, tax revenue accounted for 73.9% of Berlin's total revenue, with PIT and VAT the largest contributors, at 17.8% and 27.8%, respectively. These taxes have shown stable growth in the past.

Real Total Revenue and GDP Growth



Revenue Breakdown, 2023

| (%) | Operating revenue | Total revenue |
|-------------------------|----------------------|------------------|
| PIT | 18.3 | 17.8 |
| VAT | 28.6 | 27.8 |
| Other taxes | 29.2 | 28.3 |
| Transfers | 18.6 | 18.1 |
| Other operating revenue | 5.4 | 5.2 |
| Operating revenue | 100.0 | 97.2 |
| Interest revenue | - | 0.0 |
| Capital revenue | - | 2.8 |
| Total revenue | - | 100.0 |

Note: Figures may not tally due to rounding.

Source: Fitch Ratings, Fitch Solutions, State of Berlin

Revenue Adjustability: Stronger

This assessment is supported by a strong record of revenue equalisation, an essential part of Fitch's rating approach, which links Laender's ratings to the Bund's. An extensive equalisation system and a broad-based solidarity pact compensate for financial disparity. This equalisation framework requires financially stronger Laender to transfer part of their above-average tax proceeds to financially weaker members. The framework partly offsets the differences among Laender's tax revenue bases and their financial strength.

The most recent reform of the financial equalisation system confirms the stability of revenue equalisation. This is likely to increase transfers from the Bund to financially weaker Laender and lower the burden of net donor states. Fitch views this as credit positive.

Berlin is a net receiver from the financial equalisation system and received EUR3.8 billion in 2023 (EUR3.6 billion in 2022) based on preliminary figures, or about 10.6% of its total revenue.

Expenditure Sustainability: Stronger

The Laender have a prudent record of controlling operating expenditure (opex). The main spending items are related to education and science, security and infrastructure. In times of economic stress, the Bund carries out anti-cyclical measures.

The Laender have been applying cost-consolidation measures since 2010 to comply with the debt-brake rule starting in 2020. They have shown strong spending restraint since 2010 to keep opex growth below that of operating revenue. Cost-consolidation measures are subject to the supervision of the German Stability Board.

Berlin, in line with all Laender, is in a tight exchange with the Bund in times of crisis, most recently proved during the pandemic and within the refugee crisis. Additional burden stemming from the refugee crisis has been largely covered by specific grants from the Bund to the Laender. This means that, even if expenditure increases due to a sudden need, the additional burden is usually met by an adequate revenue stream.

Real Total Expenditure and Revenue Growth



Expenditure Breakdown, 2023

| (%) | Operating expenditure | Total expenditure |
|-----------------------|-----------------------|----------------------|
| Staff costs | 35.0 | 30.6 |
| Goods and services | 36.0 | 31.5 |
| Operating subsidies | 28.9 | 25.3 |
| Operating expenditure | 100.0 | 87.3 |
| Interest expenditure | - | 2.0 |
| Capital expenditure | - | 10.7 |
| Total expenditure | - | 100.0 |
| | | |

Note: Figures may not tally due to rounding. Source: Fitch Ratings, Fitch Solutions, State of Berlin

Expenditure Adjustability: Stronger

The Laender are legally obliged to run their budgets without taking on new net debt from 2020, which Fitch views positively for expenditure adjustability. However, since the pandemic was declared as an extraordinary emergency situation (außergewöhnliche Notsituation) beyond the government's control, the additional debt load the Laender faced in 2020 and 2021 was not a breach of the debt brake rules.

The Laender have effective budget rules and have demonstrated a strong ability to limit expenditure growth ahead of the debt brake. They have a moderate share of inflexible spending items. Despite the limited flexibility in adjusting capital expenditure (capex), Berlin has a good record of cost consolidation.

Personnel costs and transfers accounted for 64% of Berlin's opex in 2023, while capex accounted for a low of 10.7% of total spending. Operating revenue growth usually outpaces the rise in operating expenditure. However, for 2019-2023, Berlin's operating revenue increased by an average of 4.0%, while the average rise in opex was 6.5%, but this was driven by the pandemic.

Liabilities and Liquidity Robustness: Stronger

Berlin, like other Laender, operates in a solid national framework for debt and liquidity management and shows strict market discipline, which Fitch views as credit positive. As one of the large subnational and frequent issuers, Berlin enjoys strong access to international capital markets, which allows the issuance of bonds in benchmark size.

Because of still high interest rates from the ECB, the interest burden of the Laender is likely to rise, in contrast to the previous long period of reductions. This risk has been mitigated by the Laender extending their maturity profiles in recent years. As Berlin will refinance about EUR27 billion of debt in the next five years (about 42% of its adjusted debt at end-2023) it has factored higher interest costs into its medium-term financial plan. We consider additional risk beyond this schedule to be low.

Laender also face large contingent liabilities in the form of debt guarantees on behalf of their development banks, as well as their largely unfunded pension liabilities. The risk stemming from their commitments provided to banks is mitigated by adequate assets and the conservative business profiles of their development banks.

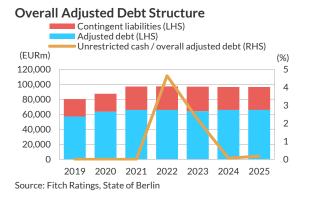
To cope with the pandemic, Berlin took on EUR7.3 billion of new debt in two supplementary budgets in 2020. This was sufficient to cover the deficit for that year, with the remainder put into a reserve fund. Berlin made use of the reserve, with withdrawals in 2021-2023. This emergency credit (Notfallkredit) will be repaid from 2026, with annual instalments of EUR270 million and a tenor of 27 years.

At end-2023, Berlin's adjusted debt of EUR64.3 billion included direct debt of EUR59.6 billion and the internal loan of EUR4.7 billion. Berlin remained within the debt frame that was widened 2020, but made use of the reserve which corresponds to the amount of the internal loan.

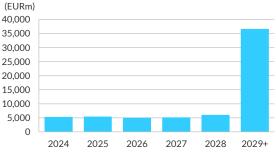
Berlin has prudent debt management, predominantly funding its maturing debt with bond issues in 2023; its average lifetime of capital market debt was 8.15 years at end-2023. Its frequent refinancing needs average EUR5.1 billion to EUR6.1 billion a year in 2024-2028 (below 10% of its adjusted debt end-2023). There is no concentration risk due to the maturity profiles. Berlin has a very low share of foreign-currency debt denominated in Japanese yen, accounting for a negligible euro equivalent amount of about 0.2% of its total debt.

Floating-rate issues are hedged to a large extend. Berlin is, therefore, not exposed to market volatility.

In February 2023, Berlin issued its first sustainable bond of EUR750 million, with a maturity of 10 years.



Debt Maturity Profile



Source: Fitch Ratings, State of Berlin

Liabilities and Liquidity Flexibility: Stronger

Laender benefit from strong emergency liquidity support provided by the national government with a counterparty risk of 'AAA'. This established and active liquidity management system, together with Laender's strong access to capital markets and corresponding strong refinancing capacity and appropriate treasury facilities, should ensure timely provision of liquidity and support.

The liquidity risk of a single Land is avoided through bilateral and mutual agreements linking all Laender as well as the Bund, ensuring their ability to assist one another.

Liquidity would only fail to be forthcoming for any given Land in the event of a complete federal breakdown, in which neither the Laender nor the Bund itself could provide liquidity.

All the liquidity provision facilities underline the strong financial support mechanism that is anchored in the German financial constitution, which requires the Bund and the Laender to support any single state in financial distress.

This sub-factor is core to Fitch's rating approach for the Laender.

Debt Analysis

| | 2023 |
|---|------|
| Fixed rate (% of direct debt) | 97 |
| Debt in foreign currency (% of direct debt) | 0.2 |
| Apparent cost of debt (%) | 1.3 |
| Weighted average life of debt (years) | 8.15 |
| | |

Source: Fitch Ratings, State of Berlin

Liquidity

| (EURm) | 2023 |
|---|-------|
| Total cash, liquid deposits and sinking funds | 2,149 |
| Restricted cash | 0 |
| Cash available for debt service | 2,149 |
| Undrawn committed credit lines | 0 |
| Source: Fitch Ratings, State of Berlin | |

Financial Profile Assessment

Financial Profile: 'a' category

Financial Profile Score Summary

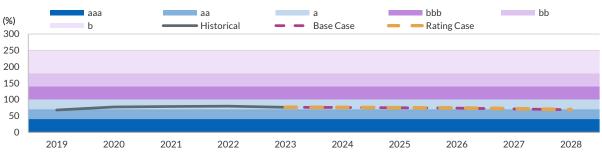
| | Primar | y metric | Secondary metrics | | |
|-----|----------------------------------|-------------------|-------------------|------------------------|--|
| | Economic liability burden (%) | Payback ratio (x) | Coverage (x) | Fiscal debt burden (%) | |
| ааа | X ≤ 40 | X ≤ 5 | X >= 4 | X ≤ 50 | |
| аа | 40 < X ≤ 70 | 5 < X ≤ 9 | 2 ≤ X < 4 | 50 < X ≤ 100 | |
| а | 70 < X ≤ 100 | 9 < X ≤ 13 | 1.5 ≤ X < 2 | 100 < X ≤ 150 | |
| bbb | 100 < X ≤ 140 | 13 < X ≤ 18 | 1.2 ≤ X < 1.5 | 150 < X ≤ 200 | |
| bb | 140 < X ≤ 180 | 18 < X ≤ 25 | 1 ≤ X < 1.2 | 200 < X ≤ 250 | |
| b | X > 180 | X > 25 | X < 1 | X > 250 | |

Note: Yellow highlights show metric ranges applicable to the issuer. Source: Fitch Ratings

Fitch classifies German Laender as type A local and regional governments as the state has the ability to incur structural deficits and as Laender share some key attributes of sovereignty with the central government.

We assess Berlin's economic liability burden (primary metric) at 68.9%, according to our rating case for 2028 (2023: 76.0%), corresponding to the 'aa' category. However, on the basis of a weaker assessment of the secondary metrics – the debt payback ratio is assessed at 19.4x ('bb' category), the synthetic debt service coverage at 0.6x (b) and the fiscal debt burden at 160.3x (bbb) – we assess Berlin's overall financial profile in the 'a' category.

Economic Liability Burden - Fitch's Base and Rating Case Scenarios



Source: Fitch Ratings, State of Berlin

Fitch's base-case scenario considers the assumptions that are primarily derived from economic data, including Fitch's *Global Economic Outlook* and the Germany sovereign report as well as the issuer's forecast. Fitch's assumptions for cash flow in years 2024 to 2028 are primarily based on economic data, in particular national nominal GDP growth and inflation forecasts.

Our rating-case is a "through-the cycle" scenario, which incorporates revenue stresses. It is based on 2019-2023 actual figures and 2024-2028 projected ratios. The rating case ends in 2028 and relies on the assumptions in the table below.

Scenario Assumptions Summary

| | Five-Year historical | 2024-2028 avera | age |
|---|----------------------|-----------------|-------------|
| Assumptions | average | Base case | Rating case |
| Operating revenue growth (%) | 4.0 | 3.1 | 3.0 |
| Tax revenue growth (%) | 9.1 | 4.1 | 3.9 |
| Current transfers received growth (%) | -8.0 | -0.7 | -0.7 |
| Operating expenditure growth (%) | 6.5 | 2.4 | 2.4 |
| Net capital expenditure (annual average; m) | -2,516 | -2,459 | -2,459 |
| Apparent cost of debt (%) | 1.7 | 1.9 | 1.9 |
| | | 2028 | |
| Outcomes | 2023 | Base case | Rating case |
| Economic liability burden (%) | 76.0 | 68.2 | 68.9 |
| Payback ratio (x) | 31.3 | 17.3 | 19.4 |
| Overall payback ratio (x) | 47.8 | 26.3 | 29.3 |
| Actual coverage ratio (x) | 0.3 | 0.5 | 0.4 |
| | 0.4 | 0.7 | 0.6 |
| Synthetic coverage ratio (x) | 0.4 | 0.7 | 0.0 |

Berlin's adjusted debt was EUR64.243 billion at end-2023. This consisted of EUR59.008 billion of capital market debt, EUR0.585 billion of intergovernmental debt and EUR4.651 billion of an internal loan. We expect Berlin's debt to increase by about EUR1.7 billion in 2024 and about EUR440 million in 2025, mainly due to the acquisition of BEW Berliner Energie und Wärme AG (former Vattenfall Wärme Berlin AG) in May 2024, bringing infrastructure related to district heating back into municipal hands, as well as other planned investments in its shareholdings.

The state's overall debt of EUR96.899 billion also includes guarantees (2023: EUR4.454 billion) and the debt of its majority-owned government-related entities and other contingent liabilities (2023: EUR28.202 billion). The high number of shareholdings and public-sector entities results from the state's dual status as a Land and a city, which means it has to provide city-like utility services (e.g. transport, water and waste management). Fitch views the risk stemming from Berlin's contingent liabilities as low.

SCP Positioning and Peer Comparison

Analytical Outcome Guidance

| Risk Profile | | Financial Profile | | | | | | |
|------------------------------------|-----------|-------------------|-----|-----|-----|--------------|--|--|
| Stronger | aaa or aa | а | bbb | bb | b | | | |
| High Midrange | ааа | аа | а | bbb | bb | b | | |
| Midrange | | ааа | аа | а | bbb | bb or below | | |
| Low Midrange | | | ааа | аа | а | bbb or below | | |
| Weaker | | | | ааа | аа | a or below | | |
| Vulnerable | | | | | ааа | aa or below | | |
| Suggested analytical outcome (SCP) | ааа | аа | а | bbb | bb | b | | |

Source: Fitch Ratings

Fitch publicly rates 11 German states, of which one has an SCP at 'aaa', five have SCPs at 'aa+', three at 'aa', one at 'aa-' and one at 'a'.

Berlin's closest peers are the States of Saxony-Anhalt and Schleswig-Holstein, whose economic liability burdens (at 71.8% and 69.0% respectively) are close to Berlin's (68.9%). They also have SCPs of 'aa'.

Peer Comparison

| | Risk Profile | Financial Profile Score | SCP | Rating floor | LT IDR |
|----------------------------------|---------------------|-------------------------|-----|--------------|------------|
| Berlin, State of | Stronger | а | аа | AAA | AAA/Stable |
| Saxony-Anhalt, State of | Stronger | а | аа | AAA | AAA/Stable |
| Schleswig-Holstein, State of | Stronger | а | аа | AAA | AAA/Stable |
| Hamburg, State of | Stronger | аа | aaa | AAA | AAA/Stable |
| North Rhine-Westphalia, State of | Stronger | а | aa+ | AAA | AAA/Stable |
| Saarland, State of | Stronger | а | aa- | AAA | AAA/Stable |
| Bremen, State of | Stronger | bbb | а | AAA | AAA/Stable |

Source: Fitch Ratings

Long Term Rating Derivation

From SCP to LT IDR: Factors Beyond the SCP

| | | Support | | | | | Leeway | | |
|-----|-----|---------------------------|-------------------|-------|---------------------|------------|---------------------------------|--------|--|
| SCP | | Intergovern. financing | Ad-hoc support | Floor | Asymmetric risks | Rating cap | above sovereign (notches) | LT IDR | |
| aa | AAA | - | - | AAA | - | - | - | AAA | |

German Laender's 'AAA' IDRs are linked to the rating of the Bund.

Fitch assesses Berlin's SCP at 'aa', which reflects a combination of a 'Stronger' risk profile and a financial profile of 'a'.

Berlin' IDRs are driven by the stability of the solidarity system that underpins the state's creditworthiness, irrespective of the key risk factors and debt sustainability assessment.

The solidarity system is enshrined in the German constitution and reflects the institutional framework of the Laender. According to the constitution, all member states of the federal republic are jointly responsible for supporting a Land in financial distress. If a Land experiences 'extreme budgetary hardship', it is entitled to financial assistance from all other Laender and the Bund. This principle has been reaffirmed by the constitutional courts on more than one occasion, most recently in 2006.

Short Term Rating Derivation

Berlin's short-term ratings of 'F1+' are in line with its long-term ratings of 'AAA'.

National Ratings

Not applicable.

Transaction and Securities

Berlin's senior unsecured debt ratings are in line with its Long- and Short-Term IDRs.

Criteria Variation

Not applicable.

ESG Considerations

Unless otherwise disclosed in this section, the highest level of ESG credit relevance is a score of '3'. This means ESG issues are credit neutral or have only a minimal credit impact on the entity, either due to their nature or the way in which they are being managed by the entity. Fitch's ESG Relevance Scores are not inputs in the rating process; they are an observation on the relevance and materiality of ESG factors in the rating decision. For more information on Fitch's ESG Relevance Scores.

Appendix A: Financial Data

State of Berlin

| (EURm) | 2019 | 2020 | 2021 | 2022 | 2023 | 2024rc | 2025rc | 2026rc | 2027rc | 2028rc |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Fiscal performance | | | | | | | | | | |
| Taxes | 17,569 | 20,761 | 24,653 | 27,220 | 26,364 | 27,314 | 28,560 | 29,645 | 30,801 | 31,910 |
| Transfers received | 9,562 | 8,348 | 8,616 | 7,403 | 6,461 | 5,952 | 6,063 | 6,000 | 6,134 | 6,234 |
| Fees, fines and other operating revenue | 2,204 | 1,499 | 1,700 | 1,917 | 1,866 | 1,883 | 1,897 | 1,887 | 1,943 | 1,993 |
| Operating revenue | 29,335 | 30,608 | 34,970 | 36,540 | 34,691 | 35,149 | 36,520 | 37,532 | 38,878 | 40,137 |
| Operating expenditure | -24,882 | -29,619 | -31,959 | -31,996 | -32,708 | -33,853 | -34,598 | -35,324 | -36,066 | -36,824 |
| Operating balance | 4,452 | 989 | 3,010 | 4,544 | 1,982 | 1,296 | 1,922 | 2,208 | 2,812 | 3,313 |
| Interest revenue | 13 | 10 | 14 | 11 | 6 | 22 | 22 | 22 | 22 | 22 |
| Interest expenditure | -1,161 | -980 | -1,085 | -966 | -745 | -887 | -1,088 | -1,312 | -1,450 | -1,509 |
| Current balance | 3,304 | 18 | 1,939 | 3,590 | 1,244 | 430 | 856 | 917 | 1,384 | 1,826 |
| Capital revenue | 1,460 | 853 | 914 | 872 | 990 | 1,031 | 709 | 671 | 655 | 655 |
| Сарех | -4,685 | -2,303 | -2,975 | -3,711 | -3,994 | -3,952 | -3,378 | -2,896 | -2,890 | -2,900 |
| Capital balance | -3,225 | -1,450 | -2,061 | -2,840 | -3,004 | -2,921 | -2,669 | -2,225 | -2,235 | -2,245 |
| Total revenue | 30,808 | 31,470 | 35,897 | 37,423 | 35,687 | 36,202 | 37,251 | 38,225 | 39,555 | 40,814 |
| Total expenditure | -30,728 | -32,902 | -36,019 | -36,673 | -37,447 | -38,692 | -39,063 | -39,533 | -40,406 | -41,233 |
| Surplus (deficit) before net financing | 79 | -1,431 | -122 | 750 | -1,760 | -2,491 | -1,813 | -1,308 | -851 | -419 |
| New direct debt borrowing | 4,081 | 8,227 | 3,470 | 5,390 | 5,122 | 8,507 | 7,822 | 6,202 | 5,154 | 6,062 |
| Direct debt repayment | -4,557 | -6,797 | -5,714 | -5,740 | -5,588 | -5,340 | -5,397 | -5,336 | -5,439 | -6,347 |
| Net direct debt movement | -476 | 1,430 | -2,244 | -350 | -466 | 3,167 | 2,425 | 866 | -285 | -285 |
| Overall results | -397 | -1 | -2,366 | 400 | -2,225 | 677 | 612 | -442 | -1,136 | -704 |
| Debt and liquidity | | | | | | | | | | |
| Short-term debt | 0 | 0 | 0 | 0 | 0 | 5,397 | 5,066 | 5,169 | 6,077 | 5,464 |
| Long-term debt | 54,102 | 59,802 | 59,788 | 59,458 | 59,008 | 56,794 | 59,547 | 60,343 | 59,165 | 59,508 |
| Intergovernmental debt | 0 | 631 | 619 | 600 | 585 | 569 | 554 | 539 | 524 | 509 |
| Direct debt | 54,102 | 60,433 | 60,408 | 60,058 | 59,593 | 62,760 | 65,167 | 66,051 | 65,766 | 65,481 |
| Other Fitch-classified debt | 3,016 | 3,271 | 5,515 | 5,846 | 4,651 | 3,151 | 1,151 | 0 | 0 | 0 |
| Adjusted debt | 57,119 | 63,705 | 65,923 | 65,904 | 64,243 | 65,910 | 66,317 | 66,051 | 65,766 | 65,481 |
| Guarantees issued (excluding adjusted debt portion) | 3,295 | 3,007 | 4,616 | 4,283 | 4,454 | 4,454 | 4,454 | 4,454 | 4,454 | 4,454 |
| Majority-owned GRE debt and other contingent liabilities | 19,935 | 20,862 | 26,480 | 27,071 | 28,202 | 28,202 | 28,202 | 28,202 | 28,202 | 28,202 |
| Overall adjusted debt | 80,349 | 87,574 | 97,019 | 97,258 | 96,899 | 98,566 | 98,973 | 98,707 | 98,422 | 98,137 |
| Total cash, liquid deposits and sinking funds | 0 | 0 | 0 | 4,519 | 2,149 | 2,826 | 3,438 | 2,996 | 1,860 | 1,156 |
| Restricted cash | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Unrestricted cash | 0 | 0 | 0 | 4,519 | 2,149 | 2,826 | 3,438 | 2,996 | 1,860 | 1,156 |
| Net adjusted debt | 57,119 | 63,705 | 65,923 | 61,385 | 62,094 | 63,085 | 62,879 | 63,055 | 63,906 | 64,325 |
| Net overall debt | 80,349 | 87,574 | 97,019 | 92,739 | 94,750 | 95,741 | 95,535 | 95,710 | 96,561 | 96,980 |
| Enhanced net adjusted debt | 57,119 | 63,074 | 65,303 | 60,784 | 61,509 | 62,516 | 62,325 | 62,516 | 63,382 | 63,816 |
| Enhanced net overall debt | 80,349 | 86,943 | 96,399 | 92,139 | 94,165 | 95,172 | 94,981 | 95,171 | 96,037 | 96,471 |
| Memo: | | | | | | | | | | |
| Debt in foreign currency/direct debt (%) | 0 | 0 | 0 | 0 | 0 | - | - | - | - | - |
| Issued debt/direct debt (%) | 100 | 99 | 99 | 99 | 99 | - | - | - | - | - |
| Floating interest rate debt/direct debt (%) | 5 | 0 | 3 | 5 | 3 | - | - | - | - | - |

Appendix B: Financial Ratios

State of Berlin

| | 2019 | 2020 | 2021 | 2022 | 2023 | 2024rc | 2025rc | 2026rc | 2027rc | 2028rc |
|--|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|
| Fiscal performance ratios (%) | | | | | | | | | | |
| Operating balance/operating revenue | 15.2 | 3.2 | 8.6 | 12.4 | 5.7 | 3.7 | 5.3 | 5.9 | 7.2 | 8.3 |
| Current balance/current revenue | 11.3 | 0.1 | 5.5 | 9.8 | 3.6 | 1.2 | 2.3 | 2.4 | 3.6 | 4.6 |
| Operating revenue annual growth | 3.0 | 4.3 | 14.3 | 4.5 | -5.1 | 1.3 | 3.9 | 2.8 | 3.6 | 3.2 |
| Operating expenditure annual growth | 4.3 | 19.0 | 7.9 | 0.1 | 2.2 | 3.5 | 2.2 | 2.1 | 2.1 | 2.1 |
| Surplus (deficit) before net financing/total revenue | 0.3 | -4.6 | -0.3 | 2.0 | -4.9 | -6.9 | -4.9 | -3.4 | -2.2 | -1.0 |
| Surplus (deficit) before net financing/GDP | 0.1 | -0.9 | -0.1 | 0.4 | -0.9 | -1.2 | -0.9 | -0.6 | -0.4 | -0.2 |
| Total revenue annual growth | 5.0 | 2.2 | 14.1 | 4.3 | -4.6 | 1.4 | 2.9 | 2.6 | 3.5 | 3.2 |
| Total expenditure annual growth | 10.6 | 7.1 | 9.5 | 1.8 | 2.1 | 3.3 | 1.0 | 1.2 | 2.2 | 2.1 |
| Debt ratios | | | | | | | | | | |
| Primary metrics | | | | | | | | | | |
| Economic liability burden (%) | 67.5 | 76.5 | 78.0 | 79.4 | 76.0 | 76.8 | 74.4 | 73.6 | 71.3 | 68.9 |
| Enhanced economic liability burden (%) | 67.5 | 76.1 | 77.6 | 79.1 | 75.7 | 76.5 | 74.1 | 73.4 | 71.1 | 68.7 |
| Payback ratio (x) (net adjusted debt/operating balance) | 12.8 | 64.4 | 21.9 | 13.5 | 31.3 | 48.7 | 32.7 | 28.6 | 22.7 | 19.4 |
| Secondary metrics | | | | | | | | | | |
| Fiscal debt burden (%) (net debt/operating revenue) | 194.7 | 208.1 | 188.5 | 168.0 | 179.0 | 179.5 | 172.2 | 168.0 | 164.4 | 160.3 |
| Synthetic debt service coverage ratio (x) | 1.0 | 0.2 | 0.6 | 1.0 | 0.5 | 0.3 | 0.4 | 0.5 | 0.6 | 0.6 |
| Actual debt service coverage ratio (x) | 0.8 | 0.1 | 0.4 | 0.7 | 0.3 | 0.2 | 0.3 | 0.3 | 0.4 | 0.4 |
| Other debt ratios | | | | | | | | | | |
| Liquidity coverage ratio (x) | 0.8 | 0.1 | 0.4 | 0.7 | 1.0 | 0.6 | 0.7 | 0.9 | 0.8 | 0.7 |
| Direct debt maturing in one year/total direct debt (%) | 9.3 | 8.8 | 9.4 | 9.0 | 9.0 | 8.6 | 7.8 | 7.8 | 9.2 | 8.3 |
| Direct debt (annual % change) | -0.7 | 11.7 | 0.0 | -0.6 | -0.8 | 5.3 | 3.8 | 1.4 | -0.4 | -0.4 |
| Apparent cost of direct debt (interest paid/direct debt) (%) | 2.1 | 1.7 | 1.8 | 1.6 | 1.3 | 1.5 | 1.7 | 2.0 | 2.2 | 2.3 |
| Revenue ratios (%) | | | | | | | | | | |
| Tax revenue/total revenue | 57.0 | 66.0 | 68.7 | 72.7 | 73.9 | 75.5 | 76.7 | 77.6 | 77.9 | 78.2 |
| Current transfers received/total revenue | 31.0 | 26.5 | 24.0 | 19.8 | 18.1 | 16.4 | 16.3 | 15.7 | 15.5 | 15.3 |
| Interest revenue/total revenue | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Capital revenue/total revenue | 4.7 | 2.7 | 2.5 | 2.3 | 2.8 | 2.9 | 1.9 | 1.8 | 1.7 | 1.6 |
| Expenditure ratios (%) | | | | | | | | | | |
| Staff expenditure/total expenditure | 30.3 | 30.0 | 29.2 | 29.8 | 30.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Current transfers made/total expenditure | 25.0 | 30.5 | 29.8 | 26.5 | 25.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Interest expenditure/total expenditure | 3.8 | 3.0 | 3.0 | 2.6 | 2.0 | 2.3 | 2.8 | 3.3 | 3.6 | 3.7 |
| Capex/total expenditure | 15.3 | 7.0 | 8.3 | 10.1 | 10.7 | 10.2 | 8.7 | 7.3 | 7.2 | 7.0 |
| rc - rating case Source: Fitch Ratings, State of Berlin | | | | | | | | | | |

Appendix C: Data Adjustments

Net Adjusted Debt Calculations

Berlin's net adjusted debt was EUR62.1 billion at end-2023. This consisted of EUR59.0 billion of capital market debt, EUR585 million of public debt and EUR4.7 billion of an internal loan deducting EUR2.2 billion of cash.

Synthetic Coverage Calculation

Fitch's synthetic coverage calculation assumes a mortgage-style amortisation over 15 years of the entity's net adjusted debt, using its average cost of debt. This synthetic calculation is used to assess the German state's LRGs' debt sustainability.

Specific Adjustments

None.

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