Land of Berlin Rating Report



Credit strengths

- Highly supportive institutional framework
- Commitment to fiscal consolidation
- Solid liquidity management
- Excellent capital market access
- Favourable debt profile
- Downward debt trajectory

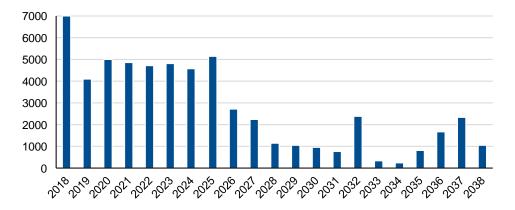
Credit weaknesses

- High direct debt levels
- Limited financial flexibility
- Sizeable, though largely low-risk, contingent liabilities

Rating rationale and Outlook: The AAA rating reflects the very supportive German institutional framework under which Berlin operates, solid economic growth, the administration's commitment to fiscal consolidation, the firm downward trajectory of the Land's direct debt, and strong liquidity management. However, these supportive factors are balanced by challenges related to still-high direct debt and limited financial flexibility. In addition, although Berlin's contingent liabilities are sizeable, the risks they pose to the city's balance sheet are mostly low. The Stable Outlook reflects Scope's assessment that the risks Berlin faces remain balanced.

The Land of Berlin's AAA rating is underpinned by a very stable and supportive German institutional system with a very strong revenue equalisation system, together with the federal solidarity principle. This ensures a high degree of cohesion among the Länder and prevents individual Länder from getting into financial difficulties. The system also benefits from a safe and predictable cash management system designed to guarantee efficiency and liquidity at any point in time, and good access to deep capital markets. It is Scope's view that these factors align the credit profiles of the Länder and the federal government (the Bund, AAA, Stable Outlook).

Figure 1: Debt redemption schedule (EUR m)



Source: Senatsverwaltung für Finanzen Land Berlin, Scope Ratings GmbH

Positive rating-change drivers

Not applicable

Negative rating-change drivers

- Downgrade of Germany's sovereign rating
- Changes in institutional framework resulting in notably weaker support

Ratings & Outlook

Foreign currency

Long-term issuer rating AAA/Stable AAA/Stable Senior unsecured debt Short-term issuer rating S-1+/Stable

Local currency

Long-term issuer rating AAA/Stable Senior unsecured debt AAA/Stable S-1+/Stable Short-term issuer rating

Lead analysts

Jakob Suwalski +49 69 6677389 45 j.suwalski@scoperatings.com

Levon Kameryan +49 69 6677389 21 I.kameryan@scoperatings.com

John F. Opie +49 69 6677389 13 jf.opie@scoperatings.com

Team leader

Dr Giacomo Barisone +49 69 6677389 22 g.barisone@scoperatings.com

Scope Ratings GmbH

Neue Mainzer Straße 66-68 60311 Frankfurt am Main

Phone +49 69 6677389 0

Headquarters

Lennéstraße 5 10785 Berlin

Phone +49 30 27891 0 Fax +49 30 27891 100

info@scoperatings.com www.scoperatings.com



in

Bloomberg: SCOP

6 July 2018 1/15



Extensive financial equalisation, stable system of solidarity

Strong framework aligns credit profiles between the Länder and the federal government

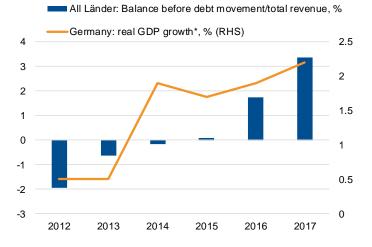
Institutional framework

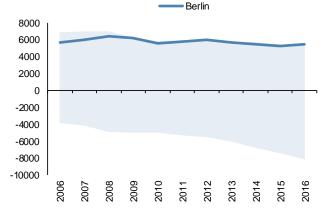
The Land of Berlin, like all Germany's Länder¹, benefits from a mature institutional framework including a unique and well-designed solidarity system. The key elements of the system are: i) a strong multi-step revenue equalisation mechanism; ii) a crucial national role for each Land in the delivery of public services and governance functions; iii) the ability of the Länder to influence arrangements and reforms made by the federal government as part of an intergovernmental system including revenue and expenditure mandate sharing; and iv) a solidarity principle² that ensures extraordinary system support in exceptional circumstances.

Scope views the German institutional framework as one of the strongest among European sub-sovereigns, ensuring a robust overall adequacy of revenues to cover expenditures, underpinned by a safe and predictable cash management system. In addition, the framework is highly predictable with small changes occurring at a measured pace and in a transparent manner, effective control levels, and the institutionalisation of budgetary processes, resulting in an overall alignment of credit profiles between the Länder and the federal government.

Figure 2: Growth and financial performance

Figure 3: Financial equalisation & consolidation aid, EUR m





Source: Federal Ministry of Finance, Federal Statistical Office, Scope Ratings GmbH; *price-adjusted, chain-linked Source: Federal Ministry of Finance, Scope Ratings GmbH NB: The shaded area is the spread between the highest and the lowest data points.

Berlin has been long-term recipient of payments from the equalisation system

The Land of Berlin has been one of the long-term recipients of payments from the German revenue equalisation system, reflecting its location in the former East Germany, its special status as a 'city-Land' and its lower financial strength before equalisation. The highly effective revenue equalisation mechanism is designed to protect all Länder against revenue shortfalls and to bring the financial strength of weaker German Länder closer to that of stronger ones. However, it places limits on revenue flexibility through the requirement to contribute to weaker Länder. In addition, the equalisation mechanism delinks the Land's credit profile from its regional economic fundamental metrics, aligning them instead with the macroeconomic characteristics of the sovereign.

Federal financial equalisation changes in 2019

The current system of federal financial equalisation, which is to be discontinued in 2019, is divided into four levels: i) vertical distribution of tax revenue; ii) horizontal distribution of tax revenue (VAT equalisation); iii) financial equalisation between the Länder; and iv)

6 July 2018 2/15

Scope uses the colloquial German terms to refer to the German federal states, individually as 'Land' and collectively as 'Länder'. Scope will also footnote translations of important concepts in German with the original German term.

² Bundestreueprinzip



Land of Berlin

Rating Report

federal supplementary grants. At the end of 2016, the German government and the Länder agreed to the restructuring of the equalisation system starting in 2020, including an increased share of VAT for the Länder according to their needs. It is Scope's view that this reform outcome demonstrates the strong bargaining position of the Länder during the reform process as well as their considerable ability to influence reforms to the institutional framework. Under the new system, VAT equalisation between the Länder will be dropped, the horizontal tax allocation simplified and the Länder will receive an increased share of total general government VAT revenue under the vertical tax allocation, resulting in additional revenues for each Land overall.

Reforms to bring simplification and additional revenues

In Scope's opinion, the reform of financial equalisation will further underpin the strength of German fiscal federalism equalising financial disparities across the German Länder. Scope expects the reform of the equalisation system to result in a lower burden for contributing Länder and a simultaneous improvement in the financial position of all Länder, thereby safeguarding the high acceptance of the new system. These changes underpin Scope's view of an overall alignment of credit profiles between the Länder and the federal government.

Figure 4: Credit financing ratio 2017, %

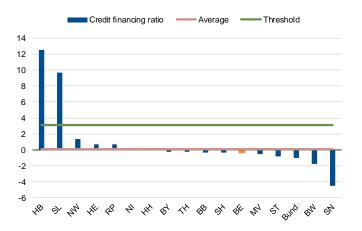
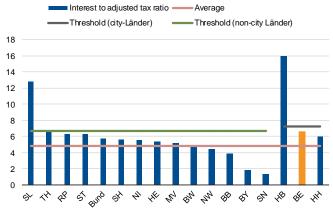


Figure 5: Interest to adjusted tax ratio 2017, %



Source: The Stability Council, Scope Ratings GmbH

Source: The Stability Council, Scope Ratings GmbH

From 2020 onwards, a 'debt brake' will also be implemented³. None of the Länder will be allowed to finance expenditures through borrowing. However, the framework does include new borrowing during economic downturns or, for example, in the event of natural disasters. Compliance with debt limits is monitored by the Stability Council⁴ which examines the budgets of the federal government and the Länder with respect to their compliance with debt limits.

In cases of critical budgetary situations, as identified for the Länder of Berlin, Bremen, Saarland and Schleswig-Holstein in 2010, the Stability Council will implement a regular five-year restructuring programme. In 2016, Berlin and Schleswig-Holstein had completed

6 July 2018 3/15

The debt brake is a legal framework that prohibits deficits from 2020 onwards; article 109 (3) of the Basic Law stipulates that the L\u00e4nder may incur deficits in the case of recessions or natural disasters provided they pass respective legislation at Land level. The debt acquired as a result of those circumstances should be repaid as soon as they improve.

⁴ Stabilitätsrat. The Stability Council uses four key indicators to assess the current budgetary situation and financial planning of the Länder: i) "structural financial deficit per inhabitant", for which the Stability Council considers the average minus EUR 200 per inhabitant as the critical value; ii) "credit financing ratio", reflecting the relation of new debt to adjusted expenditure, with a threshold value of the Länder average plus three percentage points and four percentage points in the financial planning period; iii) "interest-tax ratio", defined as interest expenditure relative to adjusted tax revenue with a limit also based on a relative comparison of the Länder and a critical value for non-city states of 140% (for city states 150%) of the Länder average, tolerating plus one percentage point for the financial planning period; and iv) "debt on the credit market at year-end per capita" with a limit of 130% of the Länder average for non-city states (220% in the case of city states). A key indicator is generally regarded as non-compliant for a specific period if at least two critical values have been exceeded. It is Scope's view that the transparent results provide a suitable option for monitoring the compliance of the Länder with the debt brake.



the restructuring process, while programmes were extended for both Bremen and Saarland.

In addition to the equalisation system, the German constitution, or Basic Law, also includes a solidarity principle. The federal government and the Länder are jointly responsible for the provision of extraordinary support to any of the Länder under financial distress if required. Under this principle, which has been confirmed by German constitutional court rulings, the federal government and the German Länder share common interests.

Cash management improves stability

The Länder also operate with a safe and predictable cash management system, based on established practices of comprehensive planning for intra- and multi-year cash flows and diversified sources of liquidity. Cash management plans are set for one year and based on predictable cash flows. While outflows are not subject to large deviations, Scope believes that inflows are calculated conservatively. The Länder also benefit from superior and timely market access, thanks to the depth of German capital markets, making liquidity risks negligible.

Economy and demography

Berlin benefits from strong economic development and favourable demographics. With around 3.6m inhabitants, Berlin is both largest city in and the capital city of Germany. Berlin's population has been growing steadily at 1.4% on average for the last five years and is expected to reach more than 3.8 m by 2030⁵, mainly due to strong net migration flows and by virtue of Berlin's overall attractiveness compared to other European capitals.

Figure 6: GDP per capita 2017, % of euro-area average

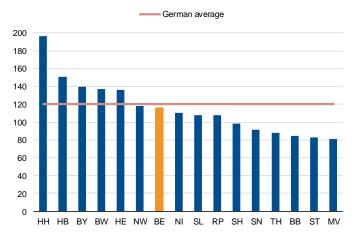
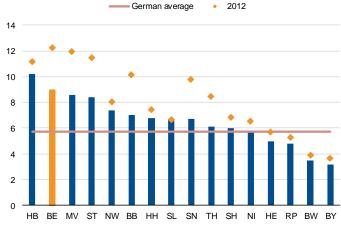


Figure 7: Unemployment rate 2017 (% of total labour force)



Source: Federal Statistical Office, Scope Ratings GmbH

Source: Federal Statistical Office, Scope Ratings GmbH

Robust economic development driven by service sector

Berlin has posted strong real GDP growth for the fourth year in a row, at 3.1% in 2017, well above the national average of 2.2% and second highest among the Länder, after Bremen. In 2013-2017 Berlin's real GDP rose by 12.5% compared to 8% for Germany as a whole. The service sector, which accounts for 85% of gross value added (versus 69% nationally), has been the main driver of this growth, expanding by 3.9% in real terms in 2017. As a result, GDP per capita rose to EUR 38,000 in 2017, amounting to 96.3% of the German average and 116% of the euro-area average. The saving ratio for households continued to increase, reaching 8.4% in 2016, somewhat below the national average of 9.7%.

6 July 2018 4/15

⁵ https://www.stadtentwicklung.berlin.de/planen/bevoelkerungsprognose/



While strong economic performance has led to a material reduction in the unemployment rate, it remains elevated at 9% compared to 5.7% for Germany. Scope expects the unemployment rate to remain above-average, also in view of the constant flow of jobseekers to the German capital.

Berlin benefits from the highest number of start-ups per capita among the Länder, aided by strong innovation and favourable framework conditions. In 2017, companies in Berlin accounted for two-thirds of venture capital flows to German start-ups. Berlin continues to attract foreign direct investment, in keeping with its status as a capital city with strong and dynamic growth. Multinational enterprises have increased their presence significantly. In addition, Berlin has also become a leading tourist destination.

Robust economic growth is supported by increased investment activity. According to the most recent data available, investments rose by 5.9% in real terms in 2015 and were up by 28.5% between 2010-2015, the strongest performance of all Länder. Corporate R&D expenditure increased to around EUR 4.6bn in 2016.

Berlin has the smallest export sector, relative to GDP, of the Länder at 11%. After improving in 2016, Berlin's external trade surplus declined by approximately EUR 1.5bn to 1.1% of GDP in 2017, driven by robust imports. Key export markets in 2017 were the USA (11.3%), China (6.3%), France (5.6%) and Switzerland (5.4%). Berlin chiefly exported machinery, vehicles, data processing and electrical equipment and pharmaceuticals. Imports to Berlin were led by Switzerland (11.6%), followed by the Netherlands (10.1%), Italy (9.9%), Poland (9.3%) and China (8.9%).

Budgetary performance

Continued fiscal commitment

In 2017, Berlin continued its good budgetary performance, benefitting from higher-than budgeted tax revenues and solid expenditure management. For example, Berlin demonstrated its commitment to fiscal consolidation by underspending on personnel expenditure and allocations and grants. In terms of budgetary performance, Berlin continues to be ahead of the debt-brake requirements.

Figure 8: Operating performance

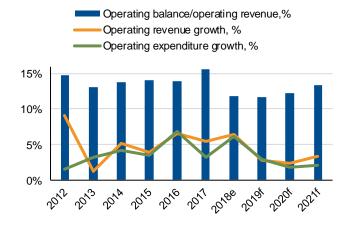
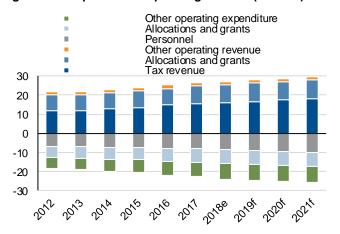


Figure 9: Components of operating balance (EUR bn)



Source: Federal Ministry of Finance, Scope Ratings GmbH

Source: Federal Ministry of Finance, Scope Ratings GmbH

Strong budget performance to continue in 2018-2021

High operating surpluses averaging 14.2% of operating revenues from 2012-2017 (above the Länder average of 12.3%) enhanced Berlin's ability not only to fund its operating expenses with operating revenue but to realise extra revenue to cover interest payments and some capital expenditure. Berlin's balance before debt movement has remained in positive territory since 2012, supporting a gradual reduction of the Land's direct debt.

6 July 2018 5/15



Prudent budgetary policy

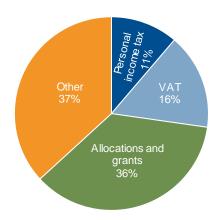
Operating revenue growth is driven by strong tax revenue expansion

Scope expects the Land to maintain its prudent budgetary policy and adhere to its consolidation strategy. Under the conservative medium-term financial plan for 2018-2021 Scope expects operating surpluses to decline slightly but to average 12.3% due to rising operating expenses and investments needed to address the city's rapid growth and migration flows. Berlin intends to sustain a strong capital expenditure ratio of over 8% and keep balances before debt movement as a percentage of total revenue solidly positive. This underscores the commitment of the Land to avoiding taking on new debt and to creating a solid foundation for coping with the debt brake rule starting in 2020.

Operating revenue

Berlin has benefitted from the strong revenue growth of the last several years. On average, Berlin's operating revenue grew by 5.2% from 2012 to 2017, driven by good performance in taxes and allocations and grants. In line with constitutional arrangements between the Länder and the Bund, Berlin receives shared taxes, largely revenues from personal income taxes, value-added taxes and corporate taxes. These taxes exhibit many features attributable to budgetary transfers, and though they initially flow to Berlin's budget, they are later redistributed in accordance with the revenue-sharing agreements at national level, essentially weakening their link to the Land's economic performance.

Figure 10: Composition of operating revenue 2017, %



Source: Senatsverwaltung für Finanzen Land Berlin, Scope Ratings GmbH

Transfer revenue for the Land of Berlin is largely from horizontal equalisation and vertical transfers. Horizontal equalisation transfers are constitutionally anchored in the equalisation scheme and are provided by the other Länder, bringing Berlin's financial capacity up the Länder average. Vertical transfers come from the German federal government, combining general equalisation transfers from the federal government with special purpose grants aimed at strengthening finances in specific areas (infrastructure) or covering costs connected to Berlin's role as the capital of Germany. The relatively small special-purpose grants associated with payments to the Solidarity Pact II will be phased out in 2020.

For the 2018-2021 planning period, Berlin expects operating revenue to grow by an average of 3.7%, supported by robust growth in taxes and transfer revenues. Tax growth during the planning period is expected to increase by an average of 5.1%, above the increases in German nominal GDP, reflecting the stronger growth in Berlin. Operating revenue is expected to increase by 6.4% in 2018, reflecting vigorous growth. Scope considers this to be a conservative estimate and anticipates greater revenue flows.

6 July 2018 6/15



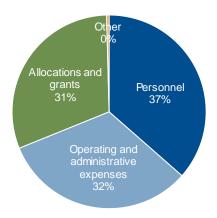
Rigid expenditure structure

Scope expects the 2020 reform of the German Länder equalisation system to have a neutral or possibly positive impact on operating revenues due to the per-capita principle of transfer allocations, as Länder with growing populations will benefit from this approach. This will help to mitigate the negative impact of the phase-out of the Solidarity Pact II grants in 2020.

Operating expenditure

The Land of Berlin's successful financial consolidation efforts support its strong fiscal performance. Operating expenditures have risen by an average of 3.8% from 2012 to 2017, below revenue growth by an average of 5.2%. In keeping with the responsibilities of the Land, Berlin's expenditure structure is rigid owing to minimum legislative requirements and due to the socially-sensitive nature of some expenditure items, making most items difficult to trim. Moreover, certain external factors also drive up operating expenditures. At the same time, the Land has been exploring options for keeping a handle on rising expenditures and intends to implement these in future.

Figure 11: Composition of operating expenditure 2017, %



Source: Senatsverwaltung für Finanzen Land Berlin, Scope Ratings GmbH

Personnel costs represent the largest single expenditure item at 36.5% of operating expenditures in 2017; transfers represented 30.7%. The remainder consists of materials and various administrative costs. Personnel costs increased by an average of 4.0% from 2012 to 2017, with transfers up by 3.3%. Scope anticipates that these will continue to rise, with similar growth rates over the planning period, also reflecting the expected population gains. The number of employees (including civil servants) rose in 2016 to 116,578 (+2.9%)⁶, reflecting greater pressure on administrative resources. After a prolonged period of stagnant wages, personnel costs are expected to increase further as wages catch up to the Länder average, also in a bid to retain key administrative personnel. Despite the rising trend for personnel costs, Scope expects Berlin to continue to keep a grip on its operating expenditure, also supported by low interest rates leading to declining debt interest payments.

Capital expenditure

Capital expenditures, measured as a percentage of total expenditures, increased in 2017 to 10.7% from 6.3% in 2013, driven by population growth and the need to renew infrastructure. Next to the core budget, the Land of Berlin's investment strategy rests on infrastructure investments made by public companies. Moreover, part of the strength of

6 July 2018 7/15

⁶ The data for this section was obtained in June 2018 from: Beschäftigte im unmittelbaren Landesdienst Berlin im Januar 2017, Statistikstelle Personal bei der Senatsverwaltung für Finanzen, Land Berlin.



capital expenditures lies in the activities of the Land's investment fund SIWANA⁷, which went operational in 2015. This fund uses a portion of past budget surpluses to invest in schools, hospitals, transport infrastructure and refugee accommodation. Berlin's high levels of capital expenditure provide a buffer in times of budgetary revenue slowdown. Moreover, SIWANA's funds can easily, upon proposal by Senate Department of Finance of the Land Berlin and with consent of the Budget Committee, be (re-) allocated and then be used to replace investment itemized in the budget plan. In its current medium-term financial plan, Berlin foresees a rise in additional investments, mainly related to the construction of new residential property due to ongoing population growth requirements.

Debt and debt trends

At year-end 2017, Berlin's direct debt (excluding internal public debt) stood at 204.1% of total revenues, down from 265.6% four years earlier. While this is high in a national and international context, Scope expects the debt burden to continue to decline through 2018, remaining above the average for the Länder.

Berlin benefits from a favourable debt structure with an increasing average debt maturity length of 7.6 years at the end of 2017, up from 7.1 at the end of 2016. Debt is almost entirely euro-denominated. More than three-quarter of the stock carries a fixed interest rate (after swaps, variable debt amounts to 7.8% of the total), while around 66% of the debt is securities at the end of 2017.

Debt servicing costs were high, at 31.5% of operating revenues in 2017, but down significantly from 44.6% in 2013 and mitigated by excellent capital market access. Berlin's interest expenses are in line with the safe-haven status of the Länder and the low interest rate environment, with the average cost of outstanding debt at 1.82% in 2017, down from 1.95% in 2016. The low and decreasing cost of debt led Berlin's net interest payments, relative to operating revenues, to fall to 4.9% in 2017, down significantly from 8.7% in 2013.

According to the December 2017 Stability Council monitoring report, Berlin is non-compliant in one of four key indicators due to high indebtedness per capita for the 2015-2017 period, as well as for the financial planning period in 2018-2021. Debt per capita was EUR 16,471 in 2017 (above the threshold of EUR 15,039) and is projected to decline moderately again in 2018 to 16,422 (threshold of EUR 15,239), and then stabilise at EUR 16,378 per capita in 2019-2021 (thresholds of EUR 15,439, EUR 15,639 and EUR 15,839, respectively).

The interest-to-adjusted-tax ratio for the Land of Berlin is also on a downward trend, supported by sustained revenue growth and lower interest costs. The Stability Council projects that this trend will continue, with the ratio gradually declining to 5.9% in 2021, well below the threshold of 8.2%, reflecting overall compliance with the debt brake in 2020.

Moreover, the structural financing ratio of the Land of Berlin is projected by the Stability Council to improve to a surplus of EUR 64 per capita in 2018 (from a surplus of EUR 27 in 2017, versus a national average of EUR -42 and against a tolerated deficit of EUR 242 in 2017). During the financial planning period, the ratio is projected to gradually decline to a surplus of EUR 28 per capita in 2021 (against a tolerated deficit of EUR 342).

Low interest expenses

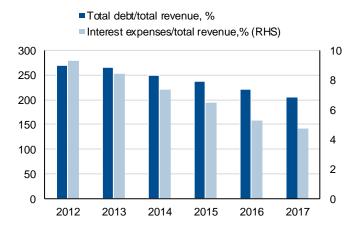
Compliant with debt brake

6 July 2018 8/15

Sondervermögen Investitionen in die Wachsende Stadt and Nachhaltigkeitsfonds, Special Wealth Fund for Investments in the Growing City and Sustainable Development.

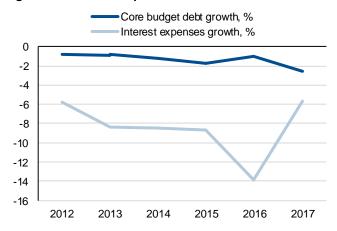


Figure 12: Debt and interest burden



Source: Federal Ministry of Finance, Federal Statistical Office, Scope Ratings GmbH

Figure 13: Debt developments



Source: Federal Ministry of Finance, Federal Statistical Office, Scope Ratings GmbH

Improving debt metrics

Well-established capital market access, safe-haven status

Access to internal Länder credit

Outstanding guarantees on a significant downward trend

Low risk of materialisation for contingent liabilities

The relationship of new debt to adjusted expenditures (credit financing ratio) for the Land of Berlin has been negative since 2015, reflecting the sustained downward debt trend, and is expected to continue through 2021, well below the debt brake threshold of 7.1%.

Liquidity management

The Land of Berlin has a solid track record regarding access to capital markets. During the last financial crisis, access remained excellent, reflecting investor confidence in the German solidarity system. Additional continued access to liquidity is available through credit facilities to bridge intra-day needs, if required. Furthermore, liquidity is provided by cash transactions between the German Länder, which place excess liquidity with each other, acting as lenders, as well as mutual agreements linking the Länder and the Bund for periods of stress.

Scope views the liquidity management of the Land of Berlin as sound due to comprehensive inter-year cash planning and the availability of numerous sources of liquidity. The Land's cash flows, especially inflows, are prone to seasonal variability driven by the tax calendar. The Land of Berlin pursues a liquidity strategy that limits cash holdings in Berlin's account by lending excess liquidity upon receipt of large tax revenues, rather than using these to buffer maturing debt. In combination with broad access to deep markets, the risk of potential liquidity shortages is negligible.

Contingent liabilities

Guarantees

As of 2017, outstanding guarantees issued by the Land Berlin stood at EUR 5.2bn, down from EUR 5.9bn a year earlier and steadily declining from EUR 26.6bn in 2010. In Scope's opinion, entities and projects guaranteed by the Land of Berlin carry a limited risk that their obligations will crystallise on Berlin's balance sheet.

Guarantees are primarily related to three sectors. A third of the outstanding guarantees (EUR 1.6bn in 2017 following redemption versus EUR 1.9bn in 2016) relates to real estate transactions conducted by the Bankgesellschaft, a wind-down entity, through which real estate assets are divested to repay outstanding liabilities. The favourable economic outlook, which Scope anticipates will improve property values, makes it less likely that the Land will have to honour these guarantees. Scope therefore expects declining guarantee risks over time. Another third (EUR 1.55bn in 2017 versus EUR 1.88bn in 2016) are guarantees for debt held by social housing associations, which

6 July 2018 9/15



is not relevant to the budget, in Scope's opinion, as the associations generate stable income from rent and apartment sales. Other outstanding guarantees are mainly for Berlin public companies, especially the Berlin water works (EUR 1.07bn in 2017 versus EUR 1.1bn in 2016) and the Berlin Brandenburg airport (EUR 0.82bn in 2017 versus EUR 0.84bn in 2016).

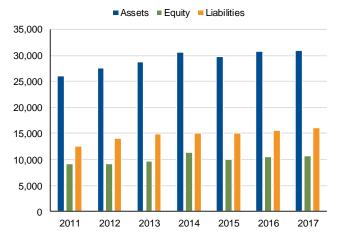
Shareholding in local companies

Shareholdings play critical role in investment policy

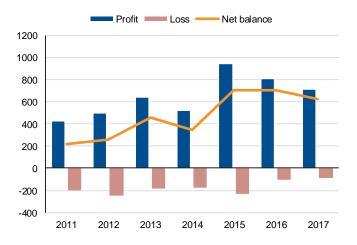
Of the currently 56 associated companies of the Land of Berlin, 41 are majority-owned by Land of Berlin, including eight public companies (Anstalten des öffentlichen Rechts). The associated companies, in turn, have a total of around 150 subsidiaries. The shareholdings play a critical role in the Land of Berlin's investment policy. The companies fulfil a significant public-sector mandate for the Land of Berlin by contributing to the further development of the city's dynamic growth, as well as strengthening the regional economy. The low and decreasing share of loss-making companies (in 2016, eight of 56 companies incurred losses, versus 10 in 2015) and good annual results overall support high and sustained investment volumes.

Figure 14: Assets, liabilities and equity 2011-2017, EUR m

Figure 15: Profits and losses of Land of Berlin holdings, EUR m



Source: Senatsverwaltung für Finanzen Land Berlin, calculations by Scope Ratings GmbH



Source: Senatsverwaltung für Finanzen Land Berlin, calculations by Scope Ratings GmbH

All major units were profitable in 2017

While total liabilities at these companies increased to EUR 16.15bn⁸ in 2017 from EUR 15.54bn in 2016, there is a low degree of leverage with a ratio of total liabilities to assets of 0.52, pointing to greater financial flexibility. The high level of assets is in part due to the Land's participation in the real estate and housing sectors which have experienced a rise in value. Moreover, with the exception of the Berlin Brandenburg Airport, all major units were profitable in 2017, which is reflected in a net surplus of EUR 0.59bn in 2017.

The debt of the airport company was slightly reduced by EUR 40m to EUR 2.45bn in 2017. Nevertheless, the airport still faces problems because of a delay in its completion, resulting in a significant rise in project costs. This is, however, mitigated by two factors. First, the Land owns 37% of the project and shares financial responsibility with the Land of Brandenburg (37%) as well as the Federal Republic of Germany (26%). Second, Berlin has set aside reserves of EUR 104m for potential contingent liabilities related to the airport, thereby reducing the risk of further financing needs appearing suddenly. The

6 July 2018 10/15

This figure excludes the debt of fully owned development bank Investitionsbank Berlin which has a conservative lending policy, focusing exclusively on municipalities and social real estate projects, for example.



overall associated entities' total debt increased by EUR 621m in 2017 which was mainly due to investments in the form of purchases and the construction of new apartments, as well as maintenance and modernisation measures undertaken by social housing associations.

Pension liabilities

Pension liabilities strain budget

Rising pension liabilities are

partially mitigated

Stable political environment

Berlin is liable for sizeable pension payments to its civil servants (EUR 1.7bn in 2017), which are set to rise further in the medium to long term. These obligations are being pushed up by the increasing number of retirees, which is expected to grow continuously from 55,930 in 2014 to 70,960 in 20319. Going forward, however, this trend is likely to reverse, due to a reduction in the number of civil servants in education and in full-time

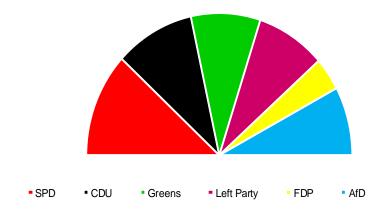
positions, as well as the replacement of civil servants with non-civil servants.

To ease the pressure from pension obligations, Berlin provides mandatory payments to the pension contribution plan (Sondervermögen "Versorgungsrücklage des Landes Berlin", required by German law10), which are expected to reach EUR 877.1m in 2019, resulting in largely unfunded pension liabilities. However, the fund is not designed to cover future liabilities as such, but serves as a buffer, ensuring payments to pensioners are not placed into question during economic downturn, when revenues would be lower. These reserves have been tapped only once since their creation in 1999 (EUR 650,000 in 2005) and are invested conservatively. While past returns have stood at 4.45%, the current low interest rate environment will most likely result in significantly lower returns going forward. Scope does not view these pension liabilities as indirect debt.

Local administration and politics

Scope views the government and administration of the Land of Berlin as stable. The last regional elections, held in September 2016, resulted in a coalition of three parties (the centre-left Social Democratic Party 38 seats; the Left Party 27 seats; and the Greens 27 seats) gaining 92 of 160 seats in the regional parliament and replacing the two-party coalition of the Social Democratic Party and Christian Democratic Union. The Christian Democratic Union, the Alternative for Germany and the Free Democratic Party are in opposition.

Figure 16: Share of seats held by political parties in the Landtag



Source: Landtag, Scope Ratings GmbH

6 July 2018 11/15

⁹ As communicated to Scope by the City of Berlin (Fortschreibung des Berichts zur Entwicklung der Versorgungsausgaben, Senatsverwaltung für Inneres und Sport, 26 Aug 2015).

¹⁰ Article 5 Nr. 4 of the Pension Reform Law 1998, implemented as §14a BBesG..



Strategic policy priorities

The strategic policy of the Land of Berlin's government has the following key points: i) adherence to prudent fiscal policy to cap costs and reduce Berlin's direct debt; and ii) the promotion of Berlin's economic development to attract businesses and foreign direct investment, while at the same time maintaining a social balance. The Land of Berlin has a long-term Urban Development Concept in place up to 2030 which provides an interagency model for sustainable development, underscoring strong community involvement in the development of the Land and the political commitment to long-term development.

Methodology

The methodology applicable for this rating and/or rating outlook, 'Rating Methodology: Sub-Sovereign Credit Rating', published on 15 June 2018, is available on www.scoperatings.com.

Historical default rates of Scope Ratings can be viewed in the rating performance report on https://www.scoperatings.com/#governance-and-policies/regulatory-ESMA. Please also refer to the central platform (CEREP) of the European Securities and Markets Authority (ESMA): http://cerep.esma.europa.eu/cerep-web/statistics/defaults.xhtml. A comprehensive clarification of Scope's definition of default as well as definitions of rating notations can be found in Scope's public credit rating methodologies on www.scoperatings.com.

The rating outlook indicates the most likely direction of the rating if the rating were to change within the next 12 to 18 months. A rating change is, however, not automatically ensured.

6 July 2018 12/15



I. Appendix: Peer comparison

Figure 17: Operating balance/operating revenue, %

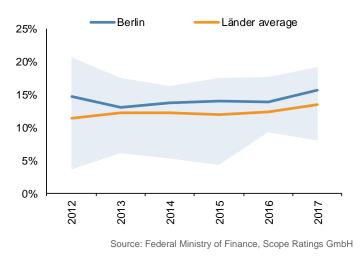
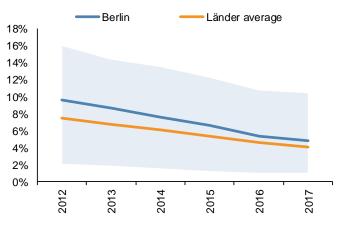


Figure 18: Net interest payments/operating revenue, %



Source: Federal Ministry of Finance, Scope Ratings GmbH

Figure 19: Total debt/overall revenue, %

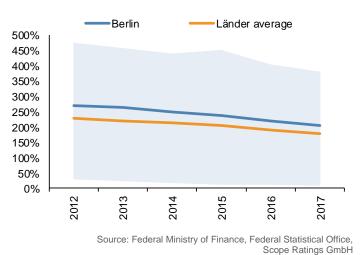


Figure 20: Debt per inhabitant (EUR)



Source: Federal Statistical Office, Scope Ratings GmbH

Figure 21: GDP per capita (EUR)

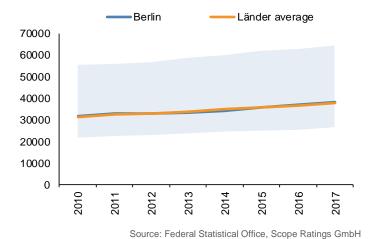
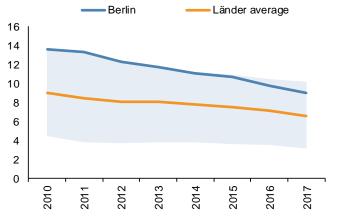


Figure 22: Unemployment (% of labour force)



Source: Federal Statistical Office, Scope Ratings GmbH

6 July 2018 13/15



II. Appendix: Statistical tables

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---------|---|---------|---------|---------|---------|
| Financial performance | Numb | Numbers are in million EUR (unless noted otherwise) | | | | |
| Operating revenue | 21,530 | 21,795 | 22,909 | 23,791 | 25,362 | 26,723 |
| Operating revenue growth, % | 9.0% | 1.2% | 5.1% | 3.8% | 6.6% | 5.4% |
| Tax revenue | 11,616 | 11,921 | 13,127 | 13,626 | 14,767 | 15,399 |
| Allocations and grants | 8,400 | 8,355 | 8,182 | 8,496 | 8,593 | 9,600 |
| Other operating revenue | 1,514 | 1,520 | 1,601 | 1,669 | 2,002 | 1,725 |
| Operating expenditure | 18,358 | 18,952 | 19,747 | 20,445 | 21,833 | 22,536 |
| Operating expenditure growth, % | 1.6% | 3.2% | 4.2% | 3.5% | 6.8% | 3.2% |
| Personnel | 6,759 | 6,938 | 7,207 | 7,487 | 7,807 | 8,221 |
| Allocations and grants | 5,879 | 6,088 | 6,290 | 6,452 | 6,755 | 6,923 |
| Other operating expenditure | 5,719 | 5,926 | 6,251 | 6,506 | 7,271 | 7,392 |
| Operating balance | 3,172 | 2,843 | 3,162 | 3,346 | 3,528 | 4,187 |
| Net interest payments | 2,070 | 1,897 | 1,740 | 1,588 | 1,366 | 1,296 |
| Current balance | 1,102 | 946 | 1,422 | 1,758 | 2,162 | 2,891 |
| Capital balance | -425 | -469 | -549 | -1,553 | -2,026 | -1,882 |
| Balance before debt movement | 677 | 478 | 873 | 206 | 137 | 1,009 |
| New borrowing (credit market) | 7,820 | 7,384 | 8,064 | 7,136 | 7,039 | 5,425 |
| Debt redemption (credit market) | 8,015 | 7,836 | 8,405 | 8,324 | 7,228 | 7,381 |
| Overall result | 481 | 26 | 532 | -982 | -52 | -947 |
| Financial ratios | ' | ' | | | | |
| Balance before debt movement/total revenue, % | 3.0% | 2.1% | 3.7% | 0.8% | 0.5% | 3.6% |
| Operating balance/operating revenue,% | 14.7% | 13.0% | 13.8% | 14.1% | 13.9% | 15.7% |
| Net interest payments/operating revenue,% | 9.6% | 8.7% | 7.6% | 6.7% | 5.4% | 4.9% |
| Capital expenditure/total expenditure, % | 6.6% | 6.3% | 6.4% | 10.0% | 11.2% | 10.7% |
| Debt to non-public sector (Federal Statistical Office) | · | | | | | |
| Core budget debt | 60,902 | 60,391 | 59,638 | 58,613 | 58,001 | 56,519 |
| Core budget debt growth, % | -0.8% | -0.8% | -1.2% | -1.7% | -1.0% | -2.6% |
| Securities debt | 38,202 | 37,718 | 38,683 | 38,178 | 38,681 | 37,187 |
| Loans | 22,700 | 22,673 | 20,955 | 20,436 | 19,321 | 19,332 |
| Extra budget debt | 23 | 22 | 54 | 42 | 91 | 28 |
| Direct debt | 60,925 | 60,413 | 59,692 | 58,655 | 58,092 | 56,547 |
| Guarantees | 8,776 | 8,890 | 7,510 | 7,190 | 5,928 | 5,152 |
| Overall debt risk (incl. guarantees) | 69,701 | 69,303 | 67,202 | 65,845 | 64,020 | 61,699 |
| Debt ratios | | | | | | |
| Direct debt/total revenue, % | 270.0% | 265.6% | 250.4% | 237.3% | 221.0% | 204.1% |
| Direct debt/operating revenue, % | 283.0% | 277.2% | 260.6% | 246.5% | 229.1% | 211.6% |
| Overall debt risk (incl. guarantees)/operating revenue, % | 323.7% | 318.0% | 293.3% | 276.8% | 252.4% | 230.9% |
| Net interest payments/direct debt,% | 3.4% | 3.1% | 2.9% | 2.7% | 2.4% | 2.3% |
| Municipality debt/land debt, % | - | - | - | - | - | - |
| Debt per inhabitant (EUR) | 18,213 | 17,799 | 17,347 | 16,831 | 16,669 | 15,925 |
| Economic performance | | | | | | |
| GDP at market prices | 109,910 | 112,603 | 117,817 | 124,401 | 130,537 | 136,614 |
| share in Germany's GDP, % | 4.0% | 4.0% | 4.0% | 4.1% | 4.2% | 4.2% |
| GDP per capita (EUR) | 32,803 | 33,133 | 34,191 | 35,594 | 36,798 | 38,032 |
| % of Germany's GDP per capita | 95.6% | 94.5% | 94.4% | 95.5% | 96.4% | 96.3% |
| % of EA average GDP per capita | 112.3% | 112.3% | 113.6% | 114.8% | 116.1% | 116.0% |
| Population (ths) | 3,351 | 3,399 | 3,446 | 3,495 | 3,547 | 3,592 |
| Unemployment rate (% labour force) | 12.3 | 11.7 | 11.1 | 10.7 | 9.8 | 9.0 |

Source: Federal Ministry of Finance, Federal Statistical Office, Scope Ratings GmbH

6 July 2018 14/15



III. Regulatory disclosures

This credit rating and/or rating outlook is issued by Scope Ratings GmbH.

Lead analyst Jakob Suwalski, Associate Director

Person responsible for approval of the rating Karlo Fuchs, Executive Director/Head of Covered Bonds

The ratings /outlook were first assigned by Scope in 14 July 2017.

The main points discussed during the rating committee were: i) institutional framework, ii) fiscal flexibility, iii) Berlin's economy structure, iv) debt and fiscal developments v) the state of contingent liabilities, in particular Bankgesellschaft transaction, the Berlin-Brandenburg Airport and social housing association debt, vi) the activity of the Land's investment fund SIWANA, vii) international peers comparison

Solicitation, key sources and quality of information

The rating was requested by the rated entity. The rated entity participated in the rating process. Scope had access to accounts, management and/or other relevant internal documents for the rated entity.

The following material sources of information were used to prepare the credit rating: Senatsverwaltung für Finanzen Land Berlin, Bundesfinanzministerium, Statistisches Bundesamt, Haver. Key sources of information for the rating include: Historical figures on budget implementation, actual financial figures, budget for the next year and multi-year budget forecasts, historical outstanding debt, debt obligations and guarantees, list of sponsored entities, socio-economic statistics.

Scope considers the quality of information available to Scope on the rated entity or instrument to be satisfactory. The information and data supporting Scope's ratings originate from sources Scope considers to be reliable and accurate. Scope does not, however, independently verify the reliability and accuracy of the information and data.

Prior to publication, the rated entity was given the opportunity to review the rating and/or outlook and the principal grounds on which the credit rating and/or outlook is based. Following that review, the rating was not amended before being issued.

Potential conflicts

Please see www.scoperatings.com for a list of potential conflicts of interest related to the issuance of credit ratings.

Conditions of use / exclusion of liability

© 2018 Scope SE & Co. KGaA and all its subsidiaries including Scope Ratings GmbH, Scope Analysis GmbH, Scope Investor Services GmbH and Scope Risk Solutions GmbH (collectively, Scope). All rights reserved. The information and data supporting Scope's ratings, rating reports, rating opinions and related research and credit opinions originate from sources Scope considers to be reliable and accurate. Scope does not, however, independently verify the reliability and accuracy of the information and data. Scope's ratings, rating reports, rating opinions, or related research and credit opinions are provided 'as is' without any representation or warranty of any kind. In no circumstance shall Scope or its directors, officers, employees and other representatives be liable to any party for any direct, indirect, incidental or other damages, expenses of any kind, or losses arising from any use of Scope's ratings, rating reports, rating opinions, related research or credit opinions. Ratings and other related credit opinions issued by Scope are, and have to be viewed by any party as, opinions on relative credit risk and not a statement of fact or recommendation to purchase, hold or sell securities. Past performance does not necessarily predict future results. Any report issued by Scope is not a prospectus or similar document related to a debt security or issuing entity. Scope issues credit ratings and related research and opinions with the understanding and expectation that parties using them will assess independently the suitability of each security for investment or transaction purposes. Scope's credit ratings address relative credit risk, they do not address other risks such as market, liquidity, legal, or volatility. The information and data included herein is protected by copyright and other laws. To reproduce, transmit, transfer, disseminate, translate, resell, or store for subsequent use for any such purpose the information and data contained herein, contact Scope Ratings GmbH at Lennéstrasse 5 D-10785 Berlin.

Scope Ratings GmbH, Lennéstrasse 5, 10785 Berlin, District Court for Berlin (Charlottenburg) HRB 192993 B, Managing Director: Torsten Hinrichs.

6 July 2018 15/15