State of Berlin

Full Rating Report

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

Financial Data

State of Berlin

	31 Dec 17	31 Dec 16
Operating revenue (EURm)	26,723.5	25,642.8
Debt (EURm)	58,994.3	59,550.3
Operating balance/ operating revenue (%)	15.67	14.86
Debt service/current revenue (%)	32.58	33.66
Debt/current balance (yrs)	20.4	24.4
Operating balance/ interest paid (x)	3.21	2.75
Capital expenditure/ total expenditure (%)	8.3	8.72
Surplus (deficit) before debt variation/total revenue (excluding new debt) (%)	3.72	1.47
Current balance/ capital expenditure (%)	102.28	83.89

Source: Fitch Ratings

Related Research

Fitch Affirms 11 German Laender at 'AAA'; Outlook Stable (November 2018)

Fitch's Rating Approach for the German Laender (August 2015)

German Laender Dashboard (September 2018)

Germany (August 2018)

Analysts

Guido Bach
+49 69 768076 111
guido.bach@fitchratings.com

Nilay Akyildiz
+49 69 768076 134
nilay.akyildiz@fitchratings.com

Key Rating Drivers

Stability of Solidarity System: The ratings of the State of Berlin reflect the stability and sustainability of the solidarity system for German Laender. Under the German constitution, member states are jointly responsible for supporting a Land in financial distress. The Laender share equal responsibilities and must be able financially to fulfil their constitutional duties while exercising their right of autonomy. The federal government (the Bund) and all other federal members have to support a Land if it experiences extreme budgetary hardship.

Liquidity, Good Cash Management: Liquidity risk is mitigated through bilateral and mutual agreements linking all the federated states and the Bund, ensuring their ability to assist one another. Cash would only not be forthcoming for a Land if there were a complete federation-wide breakdown, in which neither the other Laender nor the Bund could provide cash. Active liquidity management and proper treasury facilities prevent any delays in providing support.

Extensive Financial Equalisation System: Extensive equalisation systems and an ambitious solidarity pact compensate for financial disparities. This framework requires financially stronger Laender to transfer some of their above-average tax proceeds to financially weaker ones and to reduce the gaps in financial strength between the Laender to a minimum. Berlin is a net receiver in the financial equalisation system and received EUR4.2 billion in 2017.

Debt Constraints From 2020: From 2020, Laender will have to run their budgets without taking on new debt. To comply with the new legislation, Berlin will have to follow a strict consolidation path during a transition period (until 2019). Berlin reduced debt for the sixth consecutive year in 2017. The state accounted for a large surplus before debt variation of EUR2.3 billion in 3Q18 according to its budget and aims to retain surpluses in 2019-2022.

Consolidation Efforts Successful: Following its consolidation efforts, Berlin adjusted the former fixed limit on expenditure growth. Based on budget surpluses, expenditure growth is capped by the growth of revenues to ensure compliance with the debt brake rules. However, Berlin needs to expand both operating spending and investments to cope with the city's population growth. The current medium-term financial plan for 2018-2022 complies with the consolidation strategy and the state should remain compliant with the debt brake.

Improving Fiscal Performance: Berlin's operating margin improved further to 15.7% in 2017 (2016: 14.9%). The state's mid-term plan envisages lower margins of 12%-13% in 2018-2022. However, based on tax revenues well above budget, 2018 performance is likely to outperform 2017 and the operating margin was 18.2% in 3Q18. The state's envisaged surplus before debt variation in 2018-2022 is realistic, in our view.

High Debt Burden: Berlin's direct risk declined for a sixth consecutive year in 2017, to EUR59 billion at the year-end, but remains high. According to the state, debt may decline below EUR58 billion by 2022. Considering further its sizeable contingent liabilities, the state has a high overall risk burden. However, given its prudent debt management strategy and current low interest rates, Berlin has been able to reduce its interest burden, increasing its financial leeway.

Rating Sensitivities

Sovereign Downgrade: A rating downgrade of Germany (AAA/F1+) could lead to a negative rating action on Berlin. Any change in the support scheme would require a review of the state's ratings.

Rating History

Date	Long-Term Foreign IDR	Long-Term Local IDR
16 Jan 04		AAA
25 Mar 94	AAA	

Map of Germany

Source: Fitch Ratings

Debt[a] Per Capita of the Laender, End-2017

Land	(EUR)
Bremen	30,231
Berlin	**15,965**
Saarland	14,033
Hamburg	12,443
Schleswig-Holstein	9,026
Saxony-Anhalt	9,004
North Rhine-Westphalia	7,790
Rhineland-Palatinate	7,666
Lower Saxony	7,207
Thuringia	6,902
Hessen	6,544
Brandenburg	6,053
Mecklenburg-Western Pomerania	5,123
Baden-Wuerttemberg	3,520
Bavaria	1,426
Saxony	1,133
Laender average	**6,404**
Bund	**12,690**

[a] Capital market debt
Source: Fitch Ratings, Federal Ministry of Finance

Related Criteria

International Local and Regional Governments Rating Criteria – Outside the United States (April 2016)

Principal Rating Factors

Summary: Strengths and Weaknesses

	Institutional framework	Debt, liabilities and liquidity	Economy	Fiscal performance	Management and administration
Status	Strength	Weakness	Neutral	Neutral	Strength
Trend	Stable	Positive	Stable	Positive	Stable

Source: Fitch Ratings

Overall Strengths

- Strong institutional framework
- Sound fiscal performance supporting debt servicing requirements
- Very good access to the capital markets and sound liquidity and cash management

Overall Weaknesses

- High debt burden and weak debt metrics
- High amount of unfunded pension liabilities

Institutional Framework

According to the German Constitution (Article 20), the 16 Laender are equal partners with the federal government and have the same rights and duties, even though in practice they are subordinate in some areas. Given the mutual support and stable solidarity system, the extensive financial equalisation system and the Laender's good access to liquidity and exhaustive cash management, their ratings are linked to those of Germany (for further information, see *Fitch's Rating Approach for the German Laender* and *Institutional Framework for German Subnationals* under *Related Research*).

Debt, Liabilities and Liquidity

Debt and Debt Prospects

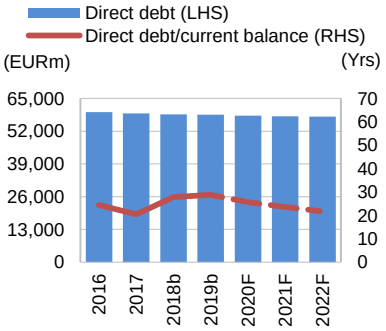
At end-2017, Berlin's total direct risk amounted to EUR59 billion (225% of current revenue), including EUR2.3 billion of debt to the public sector and internal debt. Berlin reported a net funding surplus before debt variation of EUR1,032 million (2016: EUR390 million) in 2017 and therefore was able to reduce debt for the sixth consecutive year, by EUR556 million. This resulted from improved revenues, with growth remaining slightly below that of operating expenditure (see *Fiscal Performance* below).

According to its medium-term financial plan 2018-2022, Berlin scheduled net maturing debt of EUR280 million in 2018 (and EUR215 million in 2019) and anticipates debt to decline consecutively over the entire planning period until 2022, to below EUR58 billion. Fitch expects Berlin to reduce debt above the initial budgeted amount in 2018 and, according to the most recent biannual budget of 2018/2019, Berlin aims to reduce debt by EUR703 million in 2018. This would confirm the good progress made so far, and provide some budgetary flexibility ahead of the upcoming introduction of the debt brake.

Maturing debt was predominantly funded by bond issues in 2017 and 2018, and Berlin aimed to lengthen its maturity profile during that time. In June 2018, Berlin issued a EUR1 billion benchmark bond with a tenor of 15 years and in August 2018 another EUR500 million maturing in 20 years. The funding mix remained stable, even when including the opportunistic placement of loans. The average lifetime of capital markets debt increased from 7.1 years in 2016 to 7.6 years in 2017 (September 2018: 7.9 years) and the average annual interest rate fell further to 1.82% (end-2016: 1.95%). The maturity profile lengthened at end-2017, with about 33.9% (2016: 37.2%) of debt outstanding due within the next four years, about 40.7% (2016: 40.9%) set to mature in four to 10 years, and 25.4% (2016: 21.9%) in more than 10 years. Berlin has a

very low share of foreign-currency debt in Swiss francs and Japanese yen, accounting for a negligible euro-equivalent share of below 0.2% of total debt.

Debt and Debt Payback



b - Budget, F - Forecast
Source: Fitch Ratings, State of Berlin

Good Cash Management

Sound liquidity management and predictable cash flow planning are essential components of the Laender's 'AAA' long-term ratings. Like all Laender, Berlin has very good access to short-term liquidity from commercial banks, the Bund and the other Laender. It therefore aims to limit cash in its accounts and often acts as a lender when it receives large tax revenues rather than keeping the excess liquidity in its accounts to buffer maturing debt.

Contingent Liabilities

At end-2017, Berlin's guarantees amounted to EUR5.15 billion (end-2016: EUR5.9 billion). The largest such guarantee related to the Bankgesellschaft Berlin (BGB) real estate transaction. Of this guarantee, EUR1,611 million was outstanding at end-2017. Following ongoing redemption payments, the remaining risk will decline further over time.

The second-largest issued guarantee relates to the debt of social housing associations, which also declined and amounted to EUR1.5 billion at end-2017 (2016: EUR1.9 billion). However, the servicing of social housing associations' debt is fully self-supported through rents and sales of flats, which mitigates risk for Berlin's budget. Another issued guarantee amounting to EUR1.1 billion is on behalf of the former BWB Rekom GmbH (merged with Berlinwasser Holding in 2015), according to §3 Abs.10 of the state budget code for the re-municipalisation of Berliner Wasserbetriebe.

Fitch assumes risk stemming from these guarantees to be limited; gross payments on behalf of these guarantees are usually covered by fees received.

Shareholdings

At end-2017, Berlin had 56 shareholdings (41 majority-owned) with consolidated debt outstanding of EUR16.2 billion. In 2017, they received EUR831.4 million of subsidies and the entire surplus of its shareholdings was EUR622 million at end-2017 (2016: EUR708 million).

This debt does not include the liabilities of fully-owned development bank Investitionsbank Berlin of EUR16.3 billion. Fitch assumes the business profile of the bank to be conservative, and large parts of its assets are covered by real estate assets or lending to the municipal sector. The bulk of public-sector entities' debt belongs to the main housing companies (EUR9.2 billion), Berliner Wasserbetriebe AoeR (EUR3.4 billion), BVG (public transport; EUR682 million) and Berliner Stadtreinigungsbetriebe (the local waste company; EUR145 million).

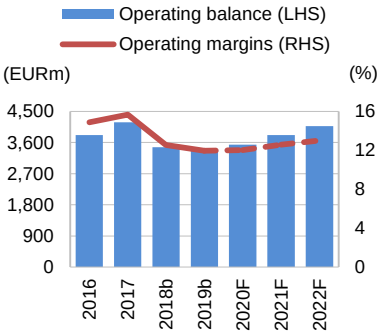
Berlin has a 37% share in the new Berlin-Brandenburg airport, with the state of Brandenburg also holding a 37% share and the Bund holding the remaining 26%. The airport still faces problems because of a delay in its completion resulting in a significant project cost rise; as a result, the shareholders need to provide several contributions and the debt of the airport was EUR2.5 billion at end-2017. The final opening is still uncertain.

High Pension Liabilities

Berlin is liable for pension payments to its civil servants. According to the state, pension payments to its public employees were EUR1.66 billion in 2017 and EUR1.75 billion is envisaged for 2018. Based on the next 10 years' expected average annual pension payments and considering a payout period of 20 years for active staff, Berlin has estimated its pension liabilities at about EUR36 billion (excluding adjustments and deduction of accrued interest). Berlin expects its retirees to peak at 70,960 in 2031 (2017: 59,930). Berlin only provides mandatory payments to the pension contribution plan (Sondervermoegen "Versorgungsruecklage des Landes Berlin"). These contributions totalled EUR924 million at end-2017 (market value) and are expected to increase to EUR1.1 billion by 2019.

Neither the pension liabilities, which would normally be considered as other Fitch-classified debt, nor the contingent liabilities stemming from Berlin's development bank are reflected in the guarantees and other contingent liabilities listed in *Appendix A*.

Budgetary Performance



b - Budget, F - Forecast
Source: Fitch Ratings, State of Berlin

Fiscal Performance

Operating Revenue

Berlin's operating performance further improved in 2017, with an operating margin of 15.7% (2016: 14.9%). According to the medium-term financial plan, the operating margin is expected to oscillate between 12% and 13% in 2018-2022. However, we expect Berlin's 2018 results to be close to those of 2017; based on 3Q18 results, the operating margin was 18.2%, well above Berlin's budget.

Berlin expects operating revenue to grow by between 2.6% and 3.7% annually in 2018-2022. Fitch expects this growth to be achieved, as the most recent tax estimate as of November 2018 forecasts the taxes of the Laender to increase by between 2.7% and 5.7% annually over the same period. Taxes accounted for about 59% of operating revenues in 2017; an additional 36% comprised transfers received. As these transfers are largely correlated to the tax proceeds achieved in Germany as a whole, the tax estimate provides a reliable proxy for the operating revenues of Berlin in particular.

According to the medium-term financial plan of Berlin, the expected decline in its operating margin will not result in a deficit before debt variation in 2018-2022. Driven by sustained revenue growth and moderate growth of interest expenses, the current balance is expected to cover at least 90% of the state's estimated capital expenditure (see *Capital Expenditure* below) in 2018-2022, helping to keep the surplus before debt variation above 1.5%; therefore, we expect Berlin to remain being compliant with the debt brake ahead of its introduction in 2020.

Tax Revenue[a]

(EURm)	2013	2014	2015	2016	2017
Income and corporate tax	3,943	4,130	4,638	4,880	5,253
VAT	3,453	3,658	3,612	4,192	4,283
State taxes	1,028	1,087	1,565	1,587	1,392
Municipal taxes	3,497	3,533	3,811	4,106	4,266
Total	**11,921**	**12,408**	**13,626**	**14,765**	**15,194**

[a] Does not contain all taxes that are included in "Taxes" in *Appendix A*
Source: Fitch Ratings, State of Berlin

Operating Expenditure

Operating expenditure is driven by personnel costs and transfers, which together accounted for about 68% of Berlin's operating expenditure in 2017. Limiting these cost items will be key to maintaining the current fiscal performance, even in times of weaker operating revenues. The above-German average growth of its population and an increasing number of immigrants require additional staff and expansion of Berlin's administration and local infrastructure. Growth of operating spending is therefore above the growth of revenue in 2018-2022, resulting in a declining operating margin, but based on prudent budgeting practices in Fitch's view. However, in 2017, operating performance was driven by strong growth of tax revenue, which we expect to continue at least in 2018 and 2019.

Operating Expenditure

(EURm)	2016	2017	2018[a]	% change, 2017-2018[a]
Personnel costs	7,807.2	8,220.9	8,799.0	7.0
Goods and services	7,152.6	7,299.4	7,804.0	6.9
Current transfers made	6,873.2	7,015.9	7,550.0	7.6
Other opex	0.0	0.0	0.0	0.0
Total operating expenditure	**21,833.0**	**22,536.2**	**24,153.0**	**7.2**

[a] Budget
Source: Fitch Ratings, State of Berlin

Capital Expenditure

Capital expenditure amounted to EUR2.8 billion in 2017, in line with capex realised in 2016 (EUR2.9 billion) and well above 2017 budget (EUR2 billion). This was driven by the programme SIWANA (Sondervermoegen Infrastruktur der Wachsenden Stadt und Nachhaltigkeitsfonds), which replaced an established programme called SIWA (Sondervermoegen Investitionen in die Wachsende Stadt), following a change of law in January 2017. Berlin aimed to establish a fund that can be used either for investments or to cover unexpected cyclical challenges for the budget. As Berlin still applies cash accounting, this fund can be used even beyond an accrued fiscal year, offering additional fiscal leeway. Based on budget surpluses 2015-2017, the fund accounted for EUR3.02 billion at end-2017 and only EUR290 million has been put to a sustainability fund so far.

Under SIWANA, only a minimum of EUR80 million of repayment of debt is required, and any remaining surpluses can be used either for the repayment of debt or to fund SIWANA. This is under the full discretion of the Parliament upon proposal by the Senate. However, the full discretion of the Parliament is limited, as Berlin's structural deficit is obliged to remain within its set limits. The size of the sustainability fund (a separate compartment within the SIWANA fund) is determined as 1% of the annual budget, starting at the earliest in 2019, to compensate for unexpected revenue shortfalls, acting as a discretionary stabilisation mechanism, in case a structurally balanced budget cannot be achieved by other means. Fitch views the established fund as credit positive, as the proceeds offer a flexible element to fund investments and specific projects irrespective of a particular budget year.

Berlin's population growth and its already constrained property market require the city to further invest and expand its local infrastructure, as well as to create new homes. Its six main housing companies held over 330,000 housing units at end-2017 and Berlin aims to increase these units by 41,000, to 360,000 units in 2021 and 400,000 in 2026, via its housing companies. After limiting its annual investments to EUR1.4 billion until 2014, Berlin envisages investments between EUR2.3 billion in 2018 and EUR2.7 billion in 2022, corresponding to 6%-8% of its total expenditure in the same period (2017: 8.3%).

Economy

Demography, GDP and Employment Market

Berlin is the capital of Germany and by far the largest city in the country. Based on the population census for 2011, Berlin had a population of 3.61 million at end-2017. Berlin remains an attractive destination and has seen its population steadily increase due to net immigration. Currently, Berlin's population is growing by 40,000-50,000 inhabitants annually.

Berlin's GDP grew by 3.1% yoy to EUR136.6 billion in real terms in 2017, well above Germany's growth rate of 2.2% and is expected to grow by 2.7% in 2018 (Germany: 2%). Driven by a broad services sector, the city's economy is less volatile than that of other German states, but still has a below-average wealth level. Berlin's GDP per capita of EUR38,032 is still below the average GDP of Germany, but has been getting closer over the last few years.

The unemployment rate in Berlin was 7.6% in November 2018. In line with the overall trend in Germany, Berlin achieved a significant decline in unemployment since 2009, but it remains well above that of Germany. Despite its economic progress, Berlin will probably maintain relatively high unemployment compared to the German average. As a capital city, Berlin attracts jobseekers, many of whom find employment. However, given the large number of highly skilled people moving to Berlin, reducing structural unemployment will prove challenging.

GDP[a] Per Capita of the Laender, 2017

Land	(EUR)
Hamburg	64,567
Bremen	49,570
Bavaria	45,810
Baden-Wuerttemberg	44,886
Hessen	44,804
North Rhine-Westphalia	38,645
Berlin	**38,032**
Lower Saxony	36,164
Saarland	35,460
Rhineland-Palatinate	35,455
Schleswig-Holstein	32,342
Saxony	29,856
Thuringia	28,747
Brandenburg	27,675
Saxony-Anhalt	27,221
Mecklenburg-Western Pomerania	26,560
Germany	**39,477**

[a] At current prices
Source: Fitch Ratings, VGR der Laender, 2017

Economic Structure of Berlin, 2017

Sector (as % of GVA)	Berlin	Germany
Agriculture and forestry	<0.0[a]	0.7
Production	15.4	30.6
Services	84.6	68.7
Inhabitants per square kilometre	**4,052**	**229**

[a] 0.004%
Source: Fitch Ratings, State of Berlin, Arbeitskreis "Erwerbstaetigenrechnung des Bundes und der Laender", Statistical Office Berlin-Brandenburg

Unemployment Rates

	2015	2016	2017	Nov 18
Germany	6.4	6.1	5.7	4.8
West	5.7	5.6	5.3	4.5
East	9.2	8.5	7.6	6.3
Berlin	10.7	9.8	9.0	7.6

Source: Fitch Ratings, Arbeitsagentur

Management and Administration

At the 18 September 2016 elections, the Social Democrats (SPD) remained the strongest party, with 38 of the parliament's 160 seats. Michael Mueller remains the mayor and formed the first coalition between the SPD, Left Party and Green Party, which is led by the SPD. The next elections will take place in autumn 2021.

To comply with the debt brake and the requirements of the Stability Board, Berlin established a consolidation strategy, including a strict limit on expenditure growth. After the successful consolidation of its budget and sustainable budgetary surpluses, as well as the increasing demand for public services following a growing population, this strategy was adjusted. Based on balanced budgets, expenditure growth is strictly capped to the growth rate of revenues, ensuring to maintain a budget surplus. Considering the most recent fiscal improvements and decline in debt, Berlin enjoys fiscal leeway. It aims to set up reserves (see Fiscal Performance above) to cope with unexpected shortfalls of revenues and the challenges of the increasing population in terms of housing investments and staff adjustments.

State of Berlin: Parliament

Party	Seats
SPD	38
CDU	31
Green Party	27
Left Party	27
AfD[a]	25
FDP[b]	12
Germany	**160**

[a] Alternative for Germany
[b] Liberal Party
Source: Fitch Ratings, State of Berlin

Appendix A

State of Berlin

(EURm)	2013	2014	2015	2016	2017
Taxes	11,946.0	13,149.3	13,652.7	14,789.5	15,425.1
Transfers received	8,376.1	8,203.0	8,526.2	8,901.1	9,635.5
Fees, fines and other operating revenue	1,473.1	1,557.0	1,612.1	1,952.2	1,662.9
Operating revenue	**21,795.2**	**22,909.3**	**23,791.0**	**25,642.8**	**26,723.5**
Operating expenditure	-18,799.5	-19,746.9	-20,444.9	-21,833.0	-22,536.2
Operating balance	**2,995.7**	**3,162.4**	**3,346.1**	**3,809.8**	**4,187.3**
Financial revenue	24.3	18.6	18.5	18.2	10.1
Interest paid	-1,921.0	-1,759.0	-1,606.6	-1,384.5	-1,306.4
Current balance	**1,099.0**	**1,422.0**	**1,758.0**	**2,443.5**	**2,891.0**
Capital revenue	927.5	892.5	898.9	859.1	967.2
Capital expenditure	-1,265.3	-1,406.3	-2,429.8	-2,912.7	-2,826.5
Capital balance	-337.8	-513.8	-1,530.9	-2,053.6	-1,859.3
Surplus (deficit) before debt variation	**761.2**	**908.2**	**227.1**	**389.9**	**1,031.7**
New borrowing	7,383.9	8,063.9	7,136.3	7,039.1	5,424.5
Debt repayment	-7,871.5	-8,457.1	-8,350.3	-7,254.1	-7,403.2
Net debt movement	**-487.6**	**-393.2**	**-1,214.0**	**-215.0**	**-1,978.7**
Overall results	**273.6**	**515.0**	**-986.9**	**174.9**	**-947.0**
Debt					
Short-term	138.0	0.0	509.9	113.9	0.0
Long-term	61,607.1	60,804.2	59,905.6	59,436.4	58,994.3
Direct debt	**61,745.1**	**60,804.2**	**60,415.5**	**59,550.3**	**58,994.3**
+ Other Fitch classified debt – pre-financing	-	-	-	-	-
Direct risk	**61,745.1**	**60,804.2**	**60,415.5**	**59,550.3**	**58,994.3**
- Cash, liquid deposits, sinking fund	-	-	-	-	-
Net direct risk	**61,745.1**	**60,804.2**	**60,415.5**	**59,550.3**	**58,994.3**
Guarantees and other contingent liabilities	8,889.6	7,510.4	6,900.8	5,928.3	5,151.7
Net indirect debt (public sector entities exc. gteed amount)	12,427.0	15,064.3	15,183.0	15,563.0	16,180.0
Net overall risk	**83,061.7**	**83,378.9**	**82,499.3**	**81,041.6**	**80,326.0**
Memo for direct debt					
% in foreign currency	0.7	0.4	0.4	0.4	0.2
% issued debt	99.8	100.0	99.2	99.8	100.0
% fixed interest rate debt	85.3	86.6	87.0	87.7	92.2

Source: Fitch Ratings, State of Berlin

Appendix B

State of Berlin

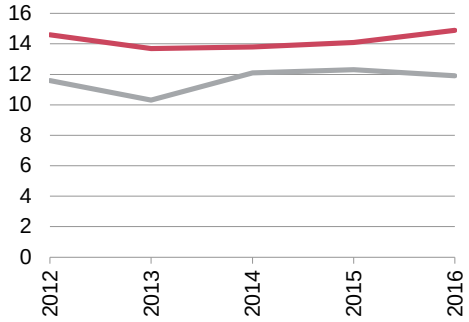
	2013	2014	2015	2016	2017
Fiscal performance ratios					
Operating balance/operating revenue (%)	13.74	13.80	14.06	14.86	15.67
Current balance/current revenue[a] (%)	5.04	6.20	7.38	9.52	10.81
Surplus (deficit) before debt variation/total revenue[b] (%)	3.35	3.81	0.92	1.47	3.72
Overall results/total revenue (%)	1.20	2.16	-3.99	0.66	-3.42
Operating revenue growth (annual % change)	-0.72	5.11	3.85	7.78	4.21
Operating expenditure growth (annual % change)	2.29	5.04	3.53	6.79	3.22
Current balance growth (annual % change)	1.77	29.39	23.63	38.99	18.31
Debt ratios					
Direct debt growth (annual % change)	0.82	-1.52	-0.64	-1.43	-0.93
Interest paid/operating revenue (%)	8.81	7.68	6.75	5.40	4.89
Operating balance/interest paid (x)	1.56	1.80	2.08	2.75	3.21
Direct debt servicing/current revenue (%)	44.88	44.56	41.82	33.66	32.58
Direct debt servicing/operating balance (%)	326.89	323.05	297.57	226.75	208.00
Direct debt/current revenue (%)	282.98	265.2	253.75	232.07	220.67
Direct risk/current revenue (%)	282.98	265.2	253.75	232.07	220.67
Direct debt/current balance (yrs)	56.18	42.76	34.37	24.37	20.41
Net overall risk/current revenue (%)	380.68	363.66	346.5	315.82	300.47
Direct risk/current balance (yrs)	56.18	42.76	34.37	24.37	20.41
Direct debt/GDP (%)	54.74	51.64	48.66	46.00	43.18
Direct debt per capita (EUR)	18,295	17,523	17,164	16,918	16,324
Revenue ratios					
Operating revenue/budget operating revenue (%)	102.73	102.84	103.48	105.06	104.63
Tax revenue/operating revenue (%)	54.81	57.40	57.39	57.68	57.72
Modifiable tax revenue/total tax revenue (%)	-	-	-	-	-
Current transfers received/operating revenue (%)	38.43	35.81	35.84	34.71	36.06
Operating revenue/total revenue[b] (%)	95.82	96.18	96.29	96.69	96.47
Total revenue[b] per capita (EUR)	6,740	6,865	7,019	7,534	7,665
Expenditure ratios					
Operating expenditure/budget operating expenditure (%)	101.17	102.7	104.94	101.76	99.85
Staff expenditure/operating expenditure (%)	36.90	36.50	36.62	35.76	36.48
Current transfer made/operating expenditure (%)	33.25	33.24	32.51	31.48	31.13
Capital expenditure/budget capital expenditure (%)	80.70	89.74	120.47	153.46	139.03
Capital expenditure/total expenditure (%)	4.24	4.48	7.40	8.72	8.30
Capital expenditure/local GDP (%)	1.12	1.19	1.96	2.25	2.07
Total expenditure per capita (EUR)	8,847	9,040	9,327	9,484	9,428
Capital expenditure financing					
Current balance/capital expenditure (%)	86.86	101.12	72.35	83.89	102.28
Capital revenue/capital expenditure (%)	73.30	63.46	36.99	29.49	34.22
Net debt movement/capital expenditure (%)	-38.54	-27.96	-49.96	-7.38	-70.01

n.a.: Not available
[a] Includes financial revenue
[b] Excluding new borrowing
Source: Fitch Ratings, State of Berlin

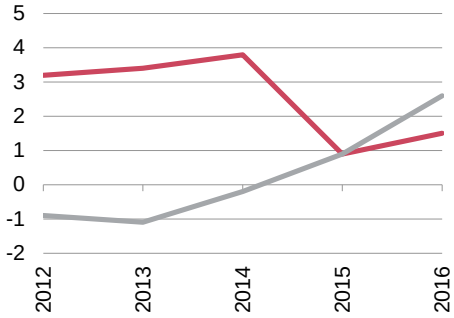
Appendix C
State of Berlin

Peer Comparison

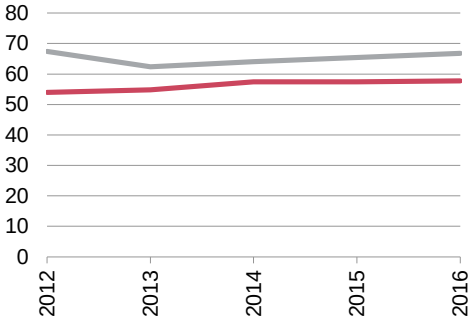
Operating Balance
% operating revenue



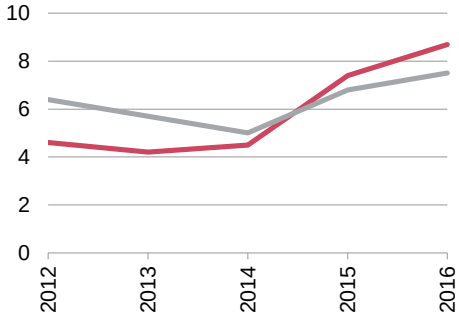
Surplus (Deficit)
% total revenue



Taxes
% operating revenue

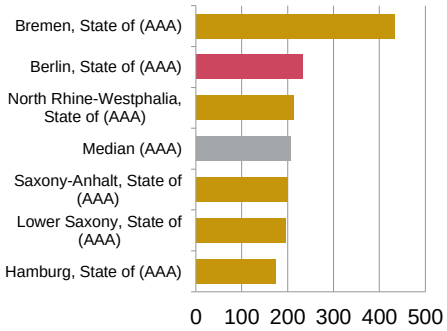


Capital Expenditure
% total expenditure

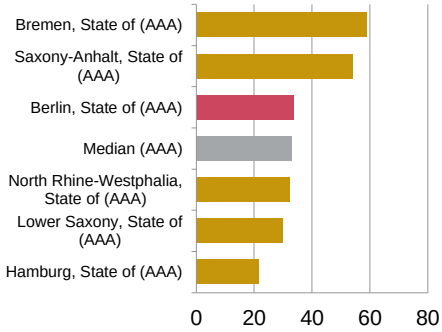


State of Berlin — AAA Peer Group Median

Debt
To current revenue (%) 2016



Debt Servicing
To current revenue (%) 2016



Source: Fitch Ratings

The ratings above were solicited and assigned or maintained at the request of the rated entity/issuer or a related third party. Any exceptions follow below.