

State of Berlin

Key Rating Drivers

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

Rating Derivation Summary: Berlin's Issuer Default Rating (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 debt sustainability that Fitch Ratings 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 primarily driven by the stability of the solidarity system underpinning the creditworthiness of all Laender, 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. 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 at 'Stronger'. The 'Stronger' risk profile also reflects Berlin'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.

Debt Sustainability at 'a': In Fitch's rating-case scenario, Berlin's economic liability burden would increase to 75.3% in 2024 (2019: 67.5%). Debt service coverage (Fitch's synthetic calculation) would decline to 0.4x (2019: 1x), and the fiscal debt burden would increase to 205% (2019: 195%) in the coming years. Fitch's rating case is based on conservative GDP growth assumptions to test rating resilience through the economic cycle and also assumes additional stress due to the current coronavirus pandemic.

Neutral Additional Rating Factors: Berlin's Long-Term IDR is rated on a par with the sovereign, reflecting its SCP of 'aa' and the specific approach Fitch applies for the German Laender. Its rating does not take into account 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.

Rating Sensitivities

Sovereign 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 is unlikely in Fitch's view, could also lead to a downgrade of Berlin.

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+
Long-term senior unsecured rating	AAA
Short-term senior unsecured rating	F1+

Outlooks

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

Issuer Profile

Berlin is one of three city-states and the capital city of Germany with a service-oriented economy.

Financial Data

State of Berlin		
(EURm)	2019	2024rc
Economic liability burden (%)	67.5	75.3
Payback (x)	12.8	36.2
Synthetic coverage (x) ^a	1.0	0.4
Actual coverage (x)	0.8	0.4
Fiscal debt burden (%)	194.7	204.8
Net adjusted debt	57,119	64,119
Operating balance	4,452	1,770
Operating revenue	29,335	31,313
Debt service	5,718	5,691
Mortgage-style debt annuity ^a	4,491	4,275

rc: Fitch's rating-case scenario

^a Fitch's calculation (see Appendix C)

Source: Fitch Ratings, State of Berlin

Applicable Criteria

[International Local and Regional Governments Ratings Criteria \(October 2020\)](#)

Related Research

[Fitch Affirms 11 German Laender at 'AAA'; Outlook Stable \(April 2019\)](#)

[Fitch Affirms Germany at 'AAA'; Outlook Stable \(November 2020\)](#)

[Germany \(June 2020\)](#)

Analysts

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

Nazim Dadashov
+49 69 768076 149
nazim.dadashov@fitchratings.com

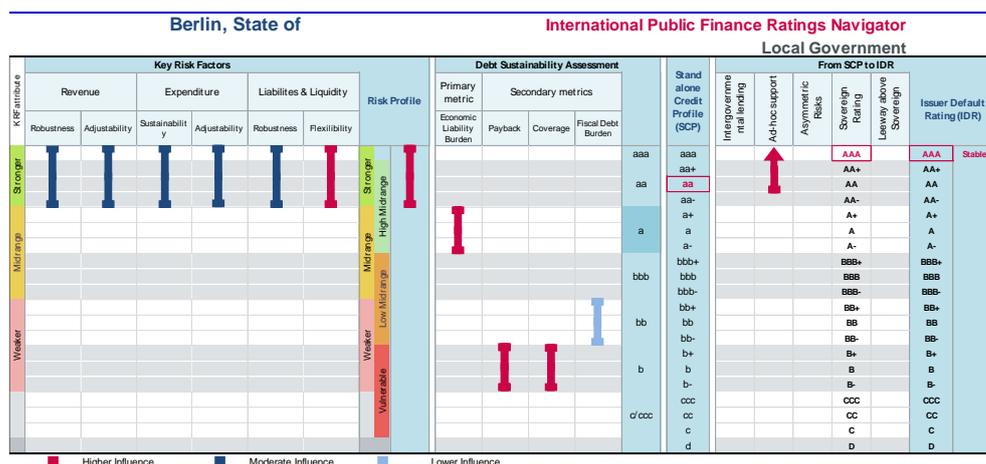
Rating Synopsis

Berlin's Long-Term IDR of 'AAA' is linked to the rating of the Bund. Its SCP is assessed at 'aa'. This reflects the combination of a 'Stronger' risk profile (see 'Stronger' Risk Profile) and debt sustainability that Fitch assesses as 'a' under its rating-case scenario (see Debt Sustainability of 'a'), and no other rating factors affect the rating (see Other Rating Factors).

Rating History

Date	Long-Term Foreign-Currency IDR	Long-Term Local-Currency IDR
16 Jan 04		AAA
25 Mar 99	AAA	

Source: Fitch Ratings



Issuer Profile

Berlin is the capital of Germany and by far the largest city in the country. It had a population of 3.67 million at end-2019 according to the population census for 2011. Berlin remains an attractive destination and its population has steadily increased due to net immigration. Berlin's population has grown by 40,000-50,000 inhabitants annually.

Berlin's GDP grew by 3.0% yoy to EUR153.3 billion in real terms in 2019, well above Germany's GDP growth rate of 0.6%. Following the pandemic, Berlin's growth rate may decline harshly, but we assume it would be below Fitch's estimate for Germany that foresees a decline of 7% in real terms for 2020. The city's economy, driven by a broad services sector, is less volatile than that of other German states, but Berlin has a fairly high share of tourism, which is greatly affected by the pandemic-related lockdown measures in November 2020. However, Berlin's wealth level has increase sustainably in recent and its GDP per capita exceeded that of Germany for the first time since 2000.

The unemployment rate in Berlin was 10.2% in October 2020. Berlin's unemployment declined significantly in recent years - in line with a national trend - but it was severely affected by the pandemic. The increase in its unemployment rate was higher compared to the Bund, because Berlin is a popular tourist destination and has a lot of hotels and restaurants, which were required to close during the lockdown (Berlin accounts for about 14 million tourists annually).

Risk Profile: Stronger

Fitch has assessed Berlin's risk profile at 'Stronger'. This reflects a 'Stronger' assessment of its revenue robustness and adjustability, expenditure sustainability and adjustability, and of its liabilities and liquidity robustness, and liabilities and liquidity flexibility.

State of Berlin - Risk Profile Assessment

Risk profile	Revenue robustness	Revenue adjustability	Expenditure sustainability	Expenditure adjustability	Liabilities & liquidity robustness	Liabilities & liquidity flexibility
Stronger	Stronger	Stronger	Stronger	Stronger	Stronger	Stronger

Source: Fitch Ratings

State of Berlin



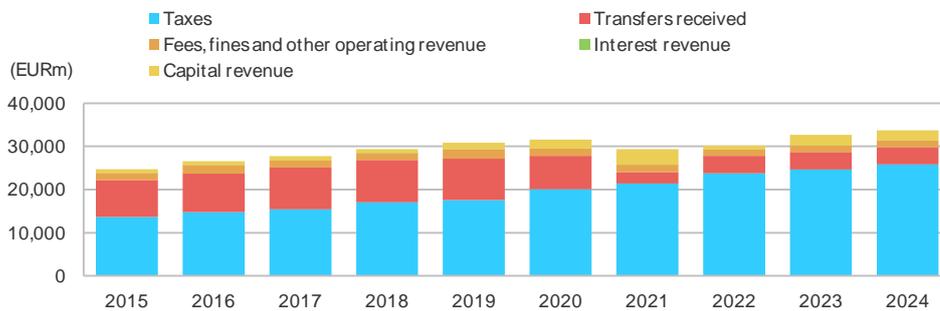
Source: Fitch Ratings

Socioeconomic Indicators

	Berlin	Germany
Population (m)	3.6	82.9
2011-2019 average annual population growth (%)	1.3	0.4
GDP per capita, 2019 (EUR)	41,967	41,358
Unemployment rate, October 2020(%)	10.2	6.0
Poverty rate, 2019 (%)	19.3	15.5

Source: Fitch Ratings, VGR der Laender, Arbeitsagentur, destatis, State of Berlin

Revenue Structure



Source: Fitch Ratings, State of Berlin

Revenue Robustness: Stronger

The ‘Stronger’ assessment is driven by the high share of stable revenue sources due to a strong and diversified tax base and stable transfers from the Bund. We consider Berlin, in line with the other 15 Laender, to be resilient to any potential shocks, mitigating the risk of a shrinking revenue base.

The main revenue sources of the Laender consist of common tax revenue – corporate income tax (CIT), value-added tax (VAT) and personal income tax (PIT) – between the Bund, the Laender and, to a lesser extent, the municipalities. By law, the Laender receive 50% CIT and 42.5% of PIT of the national tax revenue collection. The share of VAT results from a more complex allocation process and varies marginally yoy. In 2019, the share was 46.6% for the Laender, 50.2% for the Bund and 3.2% for municipalities. The common tax revenue accounted for 82.1% of the total collected in Germany in 2019.

In 2019, tax revenue accounted for 75% of the total revenue of the Laender, with VAT and PIT being the largest contributors, at 27.8% and 26.8%, respectively, while the more volatile CIT contributed a modest 6.4%. Over the past five years, the Laender’s tax revenue growth was above that of the national economy.

Revenue Adjustability: Stronger

The ‘Stronger’ assessment of Revenue Adjustability is supported by a strong record of constitutionally established revenue equalisation – an essential part of Fitch’s rating assessment – which links the rating of Berlin and that of all the Laender to that of the Bund. Extensive equalisation systems and a broad solidarity pact compensate for the financial disparity. This equalisation framework requires financially stronger Laender to transfer part of their above-average tax proceeds to the financially weaker ones. The framework partly offsets the differences among Laender’s tax revenue base and their financial strength.

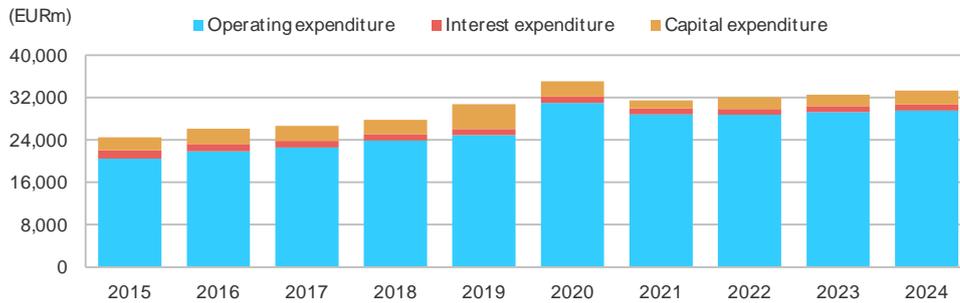
The most recent reform of the “Bund-Laender-Finanzbeziehungen” (the financial equalisation system) confirms the stability of revenue equalisation and is likely to increase transfers to financially weaker Laender and lower the burden on the net donor states, which we assess as credit-positive. Berlin is a net receiver from the system and received EUR4.3 billion based on preliminary figures.

Revenue Breakdown, 2019

	Operating revenue (%)	Total revenue (%)
PIT	23.5	
VAT	14.4	
Business tax	6.8	
Other tax items	15.2	
Transfers	32.6	
Other	7.5	
Operating revenue	100.0	95.2
Financial revenue		<0.1
Capital revenue		4.7

Source: Fitch Ratings, State of Berlin

Expenditure Structure



Source: Fitch Ratings, State of Berlin

Expenditure Sustainability: Stronger

The Laender have a prudent record of control over operating expenditure (opex). This is demonstrated by opex growth consistently below that of operating revenue. The main spending items consist of education and science, social security and administrative costs, which have a counter-cyclical nature. In times of economic stress, counter-cyclical measures are taken by the Bund.

Laender have applied cost-consolidation measures since 2010, resulting in opex growth below that of operating revenue growth, to comply with the debt brake rule from 2020. The Laender have maintained tight control of spending and began efforts in 2010 to keep opex growth consistently below that of operating revenue. Bremen and Saarland’s cost-consolidation measures are subject to supervision and control by the German Stability Council (Stabilitaetsrat), and it monitors the general budget developments for the remaining Laender.

Expenditure Adjustability: Stronger

The Laender have effective budget rules and have shown a strong ability to limit expenditure growth in recent years ahead of the debt brake. They have a moderate share of inflexible spending items, with personnel costs and transfers accounting for 69% of Berlin’s opex in 2019. Capex accounted for a relatively high 15% of Berlin’s total spending in 2019. This share increased based on Berlin’s recent good budgetary performance and the city was able to invest in the educational and housing sector. This offers some flexibility in adjusting capex and furthermore, Berlin has a good record of cost consolidation to achieve balanced budgets. Berlin kept opex growth below growth of operating revenue and improved its operating margin to 15.2% in 2019 from 8.1% in 2010. Berlin is legally obliged to run a structurally balanced budget without taking on new net debt from 2020, which Fitch views as being positive for this factor.

Liabilities and Liquidity Robustness: Stronger

Berlin, like the other German Laender, operates within a solid national framework for debt and liquidity management and has shown strict market discipline, which Fitch views as credit-positive. As part of one of the largest subnational issuer groups, Berlin has very good access to the capital markets, with a strong record of access. Berlin regularly taps the markets with benchmark issues and has an even maturity profile. There is no concentration risk due to the maturity profiles and a negligible exposure to foreign-currency debt. Floating interest-rate issues are hedged. Berlin is therefore not exposed to market volatility and due to its frequent refinancing needs, consistently reduces its interest burden.

Berlin has prudent debt management, predominantly funding its maturing debt with bond issues in 2019; its average lifetime of capital market debt was 7.6 years at end-2020. Berlin has issued a couple of benchmark issues (amount equal or above EUR500 million) during 2020 with tenors between four and 20 years. Depending on investor demand and market opportunities, Berlin may increase the amounts outstanding. Based on frequent refinancing needs, averaging EUR6.4 billion in 2020-2024 and very low interest rates, Berlin will further reduce its interest burden and the average interest rate was 1.7% at end-2019. Berlin has a very low share of foreign-currency debt in Swiss francs and Japanese yen, accounting for a negligible euro equivalent amount of below 0.2% of its total debt.

Expenditure Breakdown, 2019

	Opex (%)	Total expenditure (%)
Personnel costs	37.4	
Goods and services	31.7	
Current transfers made	30.9	
Other	0.0	
Operating expenditure	100	81.0
Financial charges		3.8
Capital expenditure		15.2

Source: Fitch Ratings, State of Berlin

Debt Analysis

	End-2019
Fixed rate (% of direct debt)	95.4
Short term debt (% of direct debt)	0.0
Apparent cost of debt (%)	1.7
Average maturity (year)	7.6
Debt service (2019, EURm)	5,718
Operating balance (2019, EURm)	4,452

Source: Fitch Ratings, State of Berlin

Liquidity

(EURm)	End-2019
Available cash	0.0
Unrestricted cash	0
Undrawn committed credit lines	0

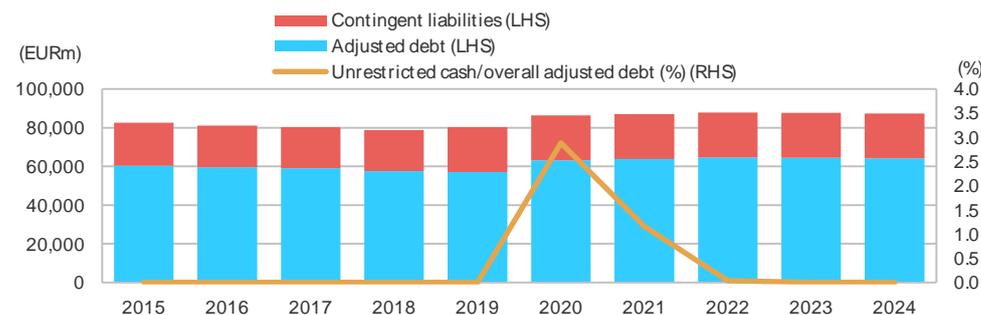
Source: Fitch Ratings, State of Berlin

Berlin's guarantees declined to EUR3.3 billion at end-2019 (2018: EUR4.6 billion), after the former largest guarantee related to Berlin's former Landesbank, Bankgesellschaft Berlin (EUR1,065 million) matured in 2019. The largest issued guarantee relates to the debt of social housing associations, which also declined and totalled EUR943 million at end-2019 (2018: EUR1.2 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 totalling EUR1 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 is limited; gross payments on behalf of these guarantees are usually covered by fees received.

At end-2019, Berlin had 55 shareholdings (40 majority-owned) with consolidated debt outstanding of EUR19.9 billion (2018: EUR16.9 billion). In 2019, they received EUR921 million of subsidies and the surplus of the state's shareholdings was EUR436 million at end-2019 (2018: EUR654 million). During 2019, the shareholdings invested a record EUR5.5 billion, which explains the debt increase in 2019. This was in line with Berlin's strategy to increase the number of housing units to cope with the growing population. Berlin's housing companies therefore accounted for the largest share of the investments amounting to EUR3.8 billion, driven by acquisition of housing units.

Overall Adjusted Debt Structure



Source: Fitch Ratings, State of Berlin

Liabilities and Liquidity Flexibility: Stronger

There is a strong framework for emergency liquidity support from upper-tier governments, with counterparty risk on treasury facilities above the 'A+' level. Berlin's well-established and active liquidity management system, together with its sound access to capital markets and corresponding strong refinancing capacity and appropriate treasury facilities, should prevent any temporary delays in the provision of liquidity and support. Berlin's liquidity risk is largely offset through bilateral and mutual agreements linking all Laender and the Bund, and ensuring their ability to assist one another. Liquidity would only fail to be forthcoming for Berlin if there were a complete federal breakdown, in which neither the other Laender nor the Bund itself could provide liquidity.

All the liquidity provision facilities reflect the strong financial support mechanism, anchored in the German financial constitution: the Bund and the Laender would support a single state facing financial distress. This sub-factor is core for Fitch's rating approach to the German Laender.

Debt Sustainability of 'a'

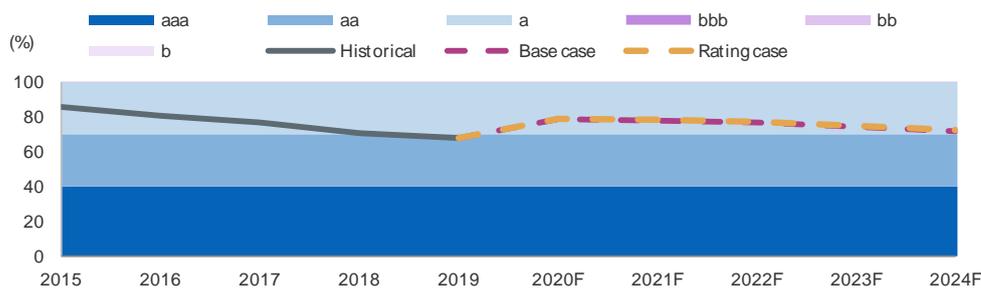
Debt Sustainability - Type A

	Primary Metric	Secondary Metrics		
	Economic Liability Burden (%)	Payback Ratio (x)	Coverage (x)	Fiscal Debt Burden (%)
aaa	$X \leq 40$	$X \leq 5$	$X \geq 4$	$X \leq 50$
aa	$40 < X \leq 70$	$5 < X \leq 9$	$2 \leq X < 4$	$50 < X \leq 100$
a	$70 < X \leq 100$	$9 < X \leq 13$	$1.5 \leq X < 2$	$100 < X \leq 150$
bbb	$100 < X \leq 140$	$13 < X \leq 18$	$1.2 \leq X < 1.5$	$150 < X \leq 200$
bb	$140 < X \leq 180$	$18 < X \leq 25$	$1 \leq X < 1.2$	$200 < X \leq 250$
b	$X > 180$	$X > 25$	$X < 1$	$X > 250$

Source: Fitch Ratings

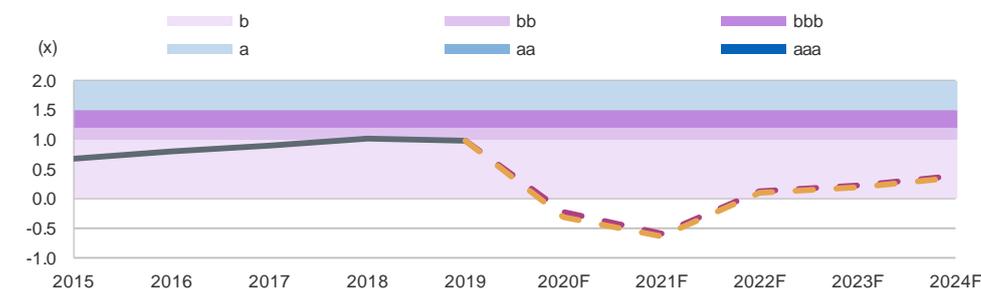
We assess Berlin's debt sustainability at 'a'. This assessment reflects a weakening of its economic liability burden declining to 75.3% (2019: 67.5%) in the medium term in our rating-case scenario driven by pandemic-related measures resulting in an increase of the state's debt. It further considers a weak coverage ratio (Fitch's synthetic calculation) likely to decline to 0.4x (2019: 1x). We expect the state's fiscal debt burden to increase to 205% at end-2024 from 195% in 2019.

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



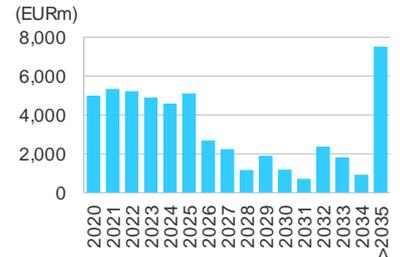
Source: Fitch Ratings, State of Berlin

Synthetic Debt Service Coverage Ratio - Fitch's Base- and Rating-Case Scenarios



Source: Fitch Ratings, State of Berlin

Debt Amortisation Schedule 2020-2039 – Capital Repayments

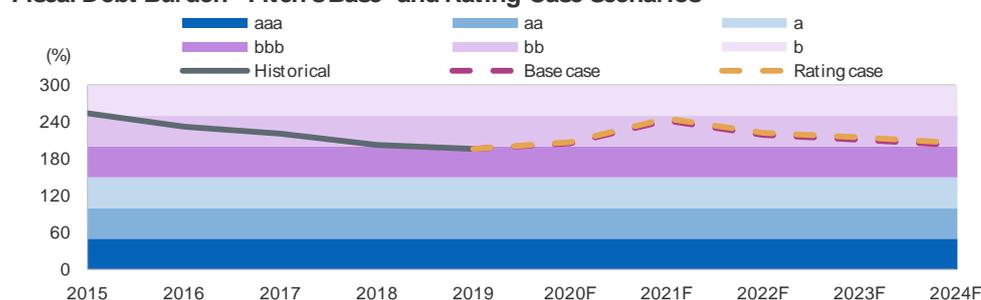


Source: Fitch Ratings, State of Berlin

Debt Sustainability Ratios:

- **Economic Liability Burden:** (et adjusted debt + a pro rata share of central government debt)/local GDP (%)
- **Payback:** Net adjusted debt/operating balance (x)
- **Fiscal debt burden:** Net adjusted debt/operating revenue (%)
- **Synthetic DSCR:** Operating balance/mortgage-style debt annuity; Fitch's synthetic calculation (x; see Appendix C)

Fiscal Debt Burden - Fitch's Base- and Rating-Case Scenarios



Source: Fitch Ratings, State of Berlin

Fitch's rating-case scenario ends in 2024 and is based on conservative assumptions as reflected in the table below.

Fitch's Base and Rating-Cases - Main Assumptions

	2015-2019	2029-2024 CAGR	
		Base case	Rating case
National nominal GDP growth (Fitch's assumptions) ^a	1.8	0.9	0.9
Operating revenue growth (%)	5.4	2.5	2.1
Tax revenue growth (%)	6.6	8.2	8.0
Transfers received growth (%)	3.0	-6.5	-6.5
Operating expenditure growth (%)	5.0	2.3	2.4
Net capital expenditure (average per year; EURm)	2,104	636	636
Apparent cost of debt (%), last year	2.1	1.9	1.9

^a Macro assumptions reflect Fitch's sovereign assumptions. Base case is based on Fitch's sovereign assumptions. Rating case is a stressed assumption used for Berlin's rating-case scenario
Source: Fitch Ratings

Coronavirus to Stress Sound Operating Performance and Improved Debt Ratios

Berlin has a sound operating performance record, and reported operating surpluses in 2015-2019 with operating margins of about 15% in 2015-2019 and 15.2% in 2019, ensuring sufficient pre-financing for the state's investments. Berlin's operating balance was EUR4,452 million in 2019 (2018: EUR4,617 million) enabling Berlin to fuel further its reserve funds and actively reduce debt:

- EUR600 million were used to fund construction of new schools (Schulbaufinanzierungsfonds);
- EUR700 million were put towards a newly created budget relief fund (Haushaltentlastungsfonds), the proceeds of which will be used in weaker budgetary years;
- EUR239 million were added to SIWA (SIWA - Sondervermögen Infrastruktur der Wachsenden Stadt) a fund used to finance additional investment projects; and
- EUR80 million were used to reduce its direct debt.

Debt Sustainability Ratios - Fitch's Rating-Case Scenario

	2019	2024rc
Economic liability burden (%)	67.5	75.3
Payback (x)	12.8	36.2
Synthetic coverage (x)	1.0	0.4
Fiscal debt burden (%)	194.7	204.8

rc: Fitch's rating case

Source: Fitch Ratings, State of Berlin

Fitch's Rating-Case Scenario

The rating case is a through-the-cycle scenario that incorporates a combination of revenue, cost or financial risk stresses.

Fitch's latest *Global Economic Outlook* (GEO) assumes an unprecedented decline in economic activity in 2H20, a key driver of which is the length of lockdowns. While a global recovery is assumed, beginning in 2H20 and supported by the scale of policy responses, a return to the pre-crisis level of economic activity is not expected until after 2021. For Germany, the GEO assumes a 6.7% GDP decline in 2020, with a 4.8% increase in 2021. Given the uncertainty surrounding the duration of the health crisis and lockdowns, further revisions to this forecast are possible and a steeper GDP decline and longer recovery cannot be ruled out.

Our rating-case scenario for 2020-2024 considers this GDP decline and translates to declining tax revenue in 2020, in particular VAT revenue. The rating case further considers a 2.4% average increase in the state's opex in 2020-2024. This results in a drop in the operating margin (balance) to -5% (-EUR1,483 million) in 2020 and 5.7% (EUR1,770 million) in 2024. The state published a supplemental budget for 2020 and 2021 including an additional credit facility of EUR6 billion to cope with the coronavirus pandemic. We have considered this amount as additional debt in our rating-case assumptions. This amount will be used to cover the state's annual deficits, amounting to EUR2 billion in 2020-2021, according to the state's estimate.

At end-2019, Berlin's capital market debt totalled EUR54.1 billion and its direct debt EUR57.6 billion, including public debt (EUR666 million) and an internal loan amounting to EUR2,786 billion¹. Including EUR3,295 million of guarantees and EUR19.9 billion of debt of its majority-owned shareholdings, Berlin's total debt was EUR80.8 billion at end-2019.

In 2019, Berlin paid EUR1.2 billion of interest, which was covered 3.8 times by its operating balance. The state refinanced EUR4,557 million of maturing debt in 2019 and was in compliance with the debt brake. According to its initial budget and our rating case prior to the pandemic, Berlin would have been able to run its 2020 budget without taking on net new debt. Due to the current crisis, the Bund and the states have been exempted from the debt brake by the invoking of the emergency situation clause at least for 2020; Berlin has established measures to support the state's economy, which are supplemental to the central government measures. We view this as credit-positive, as this should support the state's economy, but this will increase the state's debt and corresponding debt ratios.

In order to cope with the challenges deriving from the pandemic, Berlin prepared supplementary budgets for 2020 and 2021 early in 2020. In common with all other German states, Berlin faces a decline in revenue and higher costs. According to the most recent tax estimates from May and September 2020, Berlin's tax revenue may amount to EUR21,735 million, 7% less (EUR1,635 million) compared to the tax revenue reported in 2019 and EUR2,431 million below the initial budget provision for 2020. Taxes may increase to EUR23,148 million in 2021. This is still below the 2019 tax revenue and about EUR2 billion below the tax revenue envisaged in the first budget for 2021. Berlin may face a financing deficit of more than EUR3 billion in 2020 and 2021 (according to the state's estimates), considering further high opex to support central pandemic-related measures established by the central government and measures to stimulate the state's economy. To cope with this, Berlin enacted an additional credit allowance of EUR6 billion to cover deficits in 2020-2021.

Within Berlin's medium-term financial plan for 2020-2024, the state highlights three reasons why rates of revenue growth diverge from that of the expenditure, driven by the pandemic:

¹ Berlin replaced part of its capital market debt by inner loans to reduce its interest costs. The inner loan is almost all provided by Berlin's reserve fund SIWA. The fund proceeds amounted to EUR2.73 billion in 2019. About EUR400 million of investments are paid out annually and the remaining proceeds are eligible as a loan towards Berlin.

- i) Based on a revenue decline in 2020 and considering increased revenue in the following years based on an economic recovery, there remains a gap in the primary budget. This gap will persist relative to original expenditure growth estimate, as long as this remains unchanged;
- ii) some spending items will remain above original expenditure level, for instance due to greater social costs caused by higher unemployment;
- iii) expenditure and interest costs, in particular, will increase, driven by the extraordinary pandemic-related additional new debt.

Based on this, the discrepancy between revenue growth and expenditure growth will increase and Berlin faces a EUR2 billion structural deficit in 2022-2024. Berlin aims to return to a structural balanced budget in 2022 and to reduce opex growth and scheduled investments. The 2022 budget still shows minor deficits, but is currently not considering tax revenue above that of the September 2020 tax estimate and the use of the state's existing reserve funds.

At end-2019, the state's economic liability burden – Fitch's primary metric for Type A issuers – was 67.5% and at the end of the band between 40% and 70% corresponding to a 'aa' assessment. According to Fitch's rating case, this ratio may increase to 77.6% in 2020 and start declining in 2021 to reach 75.3%, at the stronger end of the band between 70% and 100% corresponding to an 'a' assessment. The state's secondary metrics – the fiscal debt burden and its synthetic debt-service coverage ratio were 195% and 1.0x in 2019, corresponding to a 'bbb' assessment and 'bb', respectively. They may weaken to 205% and -0.4x, respectively, in 2020, and improve to 205% and 0.4x in 2024. The fiscal debt burden may remain in line with its 2019 assessment, while coverage will then correspond to 'b'.

We view the state's weak coverage of its debt servicing as being mitigated by its proven record of capital market access and its ability to gain liquidity even at short notice. However, Berlin has prudent, forward-looking and well-experienced debt and cash management, reviewing its daily funding and deposit needs. This should prevent any unexpected shortfall of cash.

Other Rating Factors

Berlin's final IDR is driven by Fitch's rating approach for the German Laender. The equalisation of its ratings with those of the Bund is primarily driven by the stability of the solidarity system, which underpins the creditworthiness of all Laender, irrespective of Fitch's assessment of Berlin's key risk factors (all 'Stronger'), its debt sustainability ('a') and its SCP assessment of 'aa'. No other rating factors affects the final rating.

From SCP to IDR: Factors Beyond the SCP

SCP	Sovereign Rating	Support				Cap	Notches above the Sovereign	IDR
		Intergovern. financing	Ad-hoc support	Floor	Asymmetric risks			
aa	AAA	-	-	AAA	-	AAA	-	AAA

Source: Fitch Ratings

Peer Analysis

German States and International Peers

German states	Risk profile	Primary metric (%)	SCP	IDR	Outlook
Berlin	Stronger	75.3	aa	AAA	Stable
Hamburg	Stronger	46.2	aaa	AAA	Stable
Bremen	Stronger	93.9	a	AAA	Stable
Schleswig-Holstein	Stronger	68.2	aa	AAA	Stable
North Rhine-Westphalia	Stronger	55.7	aa+	AAA	Stable
International Peers					
Canton of Zurich	Stronger	14.9	aaa	AAA	Stable

Source: Fitch Ratings

ESG Considerations

Unless otherwise disclosed in this section, the highest level of ESG credit relevance is a score of '3' – 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.

For more information on our ESG Relevance Scores, visit <https://www.fitchratings.com/site/esg>.

Appendix A

Financial Data

State of Berlin (EURm)	31 Dec 16 Original	31 Dec 17 Original	31 Dec 18 Original	31 Dec 19 Original	31 Dec 20 Rating case	31 Dec 24 Rating case
Fiscal performance						
Taxes	14,790	15,425	17,054	17,569	20,076	25,782
Transfers received	8,901	9,636	9,797	9,562	7,731	4,035
Fees, fines and other operating revenues	1,952	1,663	1,631	2,204	1,683	1,496
Operating revenue	25,643	26,724	28,482	29,335	29,490	31,313
Operating expenditure	-21,833	-22,536	-23,865	-24,882	-30,973	-29,543
Operating balance	3,810	4,187	4,617	4,452	-1,483	1,770
Interest revenue	18	10	12	13	13	13
Interest expenditure	-1,385	-1,306	-1,229	-1,161	-1,199	-1,103
Current balance	2,444	2,891	3,400	3,304	-2,669	680
Capital revenue	859	967	846	1,460	2,059	2,341
Capital expenditure	-2,913	-2,827	-2,695	-4,685	-2,900	-2,663
Capital balance	-2,054	-1,859	-1,850	-3,225	-841	-322
Total revenue	26,520	27,701	29,340	30,808	31,562	33,667
Total expenditure	-26,130	-26,669	-27,789	-30,728	-35,072	-33,309
Surplus (deficit) before net financing	390	1,032	1,551	79	-3,510	358
New direct debt borrowing	7,039	5,425	5,677	4,081	10,987	4,228
Direct debt repayment	-7,254	-7,403	-7,292	-4,557	-4,987	-4,588
Net direct debt movement	-215	-1,979	-1,615	-476	6,000	-360
Overall results	175	-947	-65	-397	2,490	-2
Debt and liquidity						
Short-term debt	114	0	0	0	0	0
Long-term debt	59,436	58,994	54,508	54,102	60,102	61,104
Intergovernmental debt	0	0	0	0	0	0
Direct debt	59,550	58,994	54,508	54,102	60,102	61,104
Other Fitch-classified debt	0	0	3,123	3,456	3,456	3,456
Adjusted debt	59,550	58,994	57,631	57,567	63,567	64,569
Guarantees issued (excluding adjusted debt portion)	5,928	5,152	4,255	3,295	3,295	3,295
Majority-owned GRE debt and other contingent liabilities	15,563	16,180	16,866	19,935	19,935	19,935
Overall adjusted debt	81,042	80,326	78,752	80,797	86,797	87,799
Total cash, liquid deposits, and sinking funds	0	0	0	0	2,490	1
Restricted cash	0	0	0	0	0	0
Unrestricted cash	0	0	0	0	2,490	1
Net adjusted debt	59,550	58,994	57,631	57,567	61,077	64,568
Net overall debt	81,042	80,326	78,752	80,797	84,307	87,798
Enhanced net adjusted debt	59,550	58,994	57,631	57,567	61,077	64,568
Enhanced net overall debt	81,042	80,326	78,752	80,797	84,307	87,798

Source: Fitch Ratings; State of Berlin

Appendix B

Financial Ratios

State of Berlin (EURm)	31 Dec 16 Original	31 Dec 17 Original	31 Dec 18 Original	31 Dec 19 Original	31 Dec 20 Rating case	31 Dec 24 Rating case
Fiscal performance ratios						
Operating balance/operating revenue (%)	14.9	15.7	16.2	15.2	-5.0	5.7
Current balance/current revenue (%)	9.5	10.8	11.9	11.3	-9.0	2.2
Operating revenue growth (annual % change)	7.8	4.2	6.6	3.0	0.5	3.6
Operating expenditure growth (annual % change)	6.8	3.2	5.9	4.3	24.5	1.0
Surplus (deficit) before net financing/total revenue (%)	1.5	3.7	5.3	0.3	-11.1	1.1
Surplus (deficit) before net financing/GDP (%)	0.3	0.8	1.1	0.1	-2.4	0.2
Total revenue growth (annual % change)	7.3	4.5	5.9	5.0	2.4	3.0
Total expenditure growth (annual % change)	6.7	2.1	4.2	10.6	14.1	2.4
Debt ratios - type A						
Primary metrics						
Economic liability burden (%)	80.5	76.7	70.6	67.5	77.6	75.3
Enhanced economic liability burden (%)	80.5	76.7	70.6	67.5	77.6	75.3
Secondary metrics						
Payback ratio (x)	15.6	14.1	12.5	12.8	-40.9	36.2
Overall payback ratio (x)	21.3	19.2	17.1	18.0	-56.5	49.3
Fiscal debt burden (%)	232.2	220.8	202.2	194.7	205.6	204.8
Synthetic debt service coverage ratio (x)	0.8	0.9	1.0	1.0	-0.4	0.4
Actual debt service coverage ratio (x)	0.4	0.5	0.5	0.8	-0.3	0.4
Other debt ratios						
Liquidity coverage ratio (x)	0.4	0.5	0.5	0.8	-0.3	0.4
Direct debt maturing in one year/total direct debt (%)	12.4	12.5	13.4	9.3	8.3	7.5
Direct debt (annual % change)	-1.4	-0.9	-7.6	-0.7	11.1	-0.6
Apparent cost of direct debt (interest paid/direct debt) (%)	2.3	2.2	2.2	2.1	1.7	1.7
Revenue ratios						
Tax revenue/total revenue (%)	55.8	55.7	58.1	57.0	63.6	76.6
Current transfers received/total revenue (%)	33.6	34.8	33.4	31.0	24.5	12.0
Interest revenue/total revenue (%)	0.1	0.0	0.0	0.0	0.0	0.0
Capital revenue/total revenue (%)	3.2	3.5	2.9	4.7	6.5	7.0
Expenditure ratios						
Staff expenditure/total expenditure (%)	29.9	30.8	31.9	30.3	30.1	30.5
Current transfers made/total expenditure (%)	26.3	26.3	26.3	25.0	25.1	25.3
Interest expenditure/total expenditure (%)	5.3	4.9	4.4	3.8	3.4	3.3
Capital expenditure/total expenditure (%)	11.1	10.6	9.7	15.2	8.3	8.0

Source: Fitch Ratings; State of Berlin

Appendix C: Data Adjustments

Net Adjusted Debt Calculation

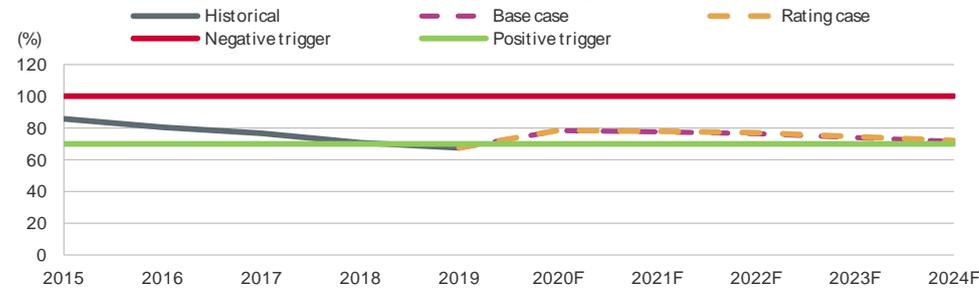
Net adjusted debt calculation (including unrestricted cash calculation, if applicable)

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 states' debt sustainability.

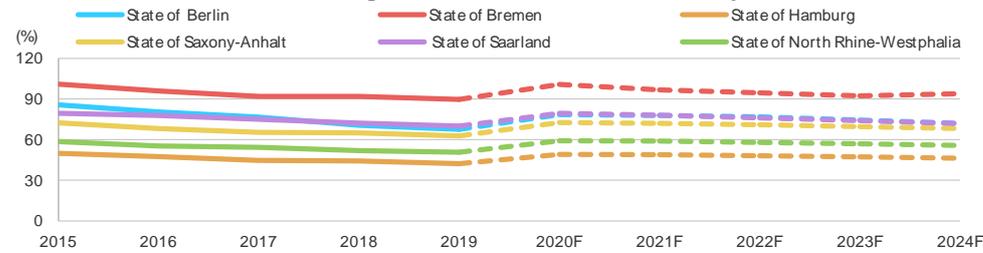
Appendix D: Rating Cases Comparisons and Rating Sensitivities

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



Source: Fitch Ratings, State of Berlin

Fitch-Rated German Laender Rating-Case Scenarios - Economic Liability Burden



Source: Fitch Ratings, Fitch-rated LRGs

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.

ALL FITCH CREDIT RATINGS ARE SUBJECT TO CERTAIN LIMITATIONS AND DISCLAIMERS. PLEASE READ THESE LIMITATIONS AND DISCLAIMERS BY FOLLOWING THIS LINK: [HTTPS://FITCHRATINGS.COM/UNDERSTANDINGCREDITRATINGS](https://fitchratings.com/understandingcreditratings). IN ADDITION, RATING DEFINITIONS AND THE TERMS OF USE OF SUCH RATINGS ARE AVAILABLE ON THE AGENCY'S PUBLIC WEB SITE AT WWW.FITCHRATINGS.COM. PUBLISHED RATINGS, CRITERIA, AND METHODOLOGIES ARE AVAILABLE FROM THIS SITE AT ALL TIMES. FITCH'S CODE OF CONDUCT, CONFIDENTIALITY, CONFLICTS OF INTEREST, AFFILIATE FIREWALL, COMPLIANCE, AND OTHER RELEVANT POLICIES AND PROCEDURES ARE ALSO AVAILABLE FROM THE CODE OF CONDUCT SECTION OF THIS SITE. FITCH MAY HAVE PROVIDED ANOTHER PERMISSIBLE SERVICE TO THE RATED ENTITY OR ITS RELATED THIRD PARTIES. DETAILS OF THIS SERVICE FOR RATINGS FOR WHICH THE LEAD ANALYST IS BASED IN AN EU-REGISTERED ENTITY CAN BE FOUND ON THE ENTITY SUMMARY PAGE FOR THIS ISSUER ON THE FITCH WEBSITE.

Copyright © 2020 by Fitch Ratings, Inc., Fitch Ratings Ltd. and its subsidiaries. 33 Whitehall Street, NY, NY 10004. Telephone: 1-800-753-4824, (212) 908-0500. Fax: (212) 480-4435. Reproduction or retransmission in whole or in part is prohibited except by permission. All rights reserved. In issuing and maintaining its ratings and in making other reports (including forecast information), Fitch relies on factual information it receives from issuers and underwriters and from other sources Fitch believes to be credible. Fitch conducts a reasonable investigation of the factual information relied upon by it in accordance with its ratings methodology, and obtains reasonable verification of that information from independent sources, to the extent such sources are available for a given security or in a given jurisdiction. The manner of Fitch's factual investigation and the scope of the third-party verification it obtains will vary depending on the nature of the rated security and its issuer, the requirements and practices in the jurisdiction in which the rated security is offered and sold and/or the issuer is located, the availability and nature of relevant public information, access to the management of the issuer and its advisers, the availability of pre-existing third-party verifications such as audit reports, agreed-upon procedures letters, appraisals, actuarial reports, engineering reports, legal opinions and other reports provided by third parties, the availability of independent and competent third-party verification sources with respect to the particular security or in the particular jurisdiction of the issuer, and a variety of other factors. Users of Fitch's ratings and reports should understand that neither an enhanced factual investigation nor any third-party verification can ensure that all of the information Fitch relies on in connection with a rating or a report will be accurate and complete. Ultimately, the issuer and its advisers are responsible for the accuracy of the information they provide to Fitch and to the market in offering documents and other reports. In issuing its ratings and its reports, Fitch must rely on the work of experts, including independent auditors with respect to financial statements and attorneys with respect to legal and tax matters. Further, ratings and forecasts of financial and other information are inherently forward-looking and embody assumptions and predictions about future events that by their nature cannot be verified as facts. As a result, despite any verification of current facts, ratings and forecasts can be affected by future events or conditions that were not anticipated at the time a rating or forecast was issued or affirmed.

The information in this report is provided "as is" without any representation or warranty of any kind, and Fitch does not represent or warrant that the report or any of its contents will meet any of the requirements of a recipient of the report. A Fitch rating is an opinion as to the creditworthiness of a security. This opinion and reports made by Fitch are based on established criteria and methodologies that Fitch is continuously evaluating and updating. Therefore, ratings and reports are the collective work product of Fitch and no individual, or group of individuals, is solely responsible for a rating or a report. The rating does not address the risk of loss due to risks other than credit risk, unless such risk is specifically mentioned. Fitch is not engaged in the offer or sale of any security. All Fitch reports have shared authorship. Individuals identified in a Fitch report were involved in, but are not solely responsible for, the opinions stated therein. The individuals are named for contact purposes only. A report providing a Fitch rating is neither a prospectus nor a substitute for the information assembled, verified and presented to investors by the issuer and its agents in connection with the sale of the securities. Ratings may be changed or withdrawn at any time for any reason in the sole discretion of Fitch. Fitch does not provide investment advice of any sort. Ratings are not a recommendation to buy, sell, or hold any security. Ratings do not comment on the adequacy of market price, the suitability of any security for a particular investor, or the tax-exempt nature or taxability of payments made in respect to any security. Fitch receives fees from issuers, insurers, guarantors, other obligors, and underwriters for rating securities. Such fees generally vary from US\$1,000 to US\$750,000 (or the applicable currency equivalent) per issue. In certain cases, Fitch will rate all or a number of issues issued by a particular issuer, or insured or guaranteed by a particular insurer or guarantor, for a single annual fee. Such fees are expected to vary from US\$10,000 to US\$1,500,000 (or the applicable currency equivalent). The assignment, publication, or dissemination of a rating by Fitch shall not constitute a consent by Fitch to use its name as an expert in connection with any registration statement filed under the United States securities laws, the Financial Services and Markets Act of 2000 of the United Kingdom, or the securities laws of any particular jurisdiction. Due to the relative efficiency of electronic publishing and distribution, Fitch research may be available to electronic subscribers up to three days earlier than to print subscribers.

For Australia, New Zealand, Taiwan and South Korea only: Fitch Australia Pty Ltd holds an Australian financial services license (AFS license no. 337123) which authorizes it to provide credit ratings to wholesale clients only. Credit ratings information published by Fitch is not intended to be used by persons who are retail clients within the meaning of the Corporations Act 2001.