FitchRatings

Public Finance
Local and Regional Governments
Germany

State of North Rhine-Westphalia

Key Rating Drivers

Ratings Affirmed: Fitch Ratings' affirmation of the Stable Outlook on the State of North Rhine-Westphalia's (NRW) ratings reflect our unchanged assumptions of the 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: NRW's Issuer Default Ratings (IDRs) are linked to the Bund's. We assess NRW's Standalone Credit Profile (SCP) at 'aa+'. The SCP results from a 'Stronger' risk profile and a debt sustainability that we assess as 'a' under our rating case scenario. No other rating factors affect the rating. The stability of the solidarity system that underpins the creditworthiness of all Laender drives the equalisation of the German Laender's ratings with the Bund's, irrespective of 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 German 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 NRW's key risk factors at 'Stronger', which also reflects NRW'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, we expect NRW's economic liability burden to be 54.3% in 2024 (2019: 51.5%). Debt service coverage (Fitch's synthetic calculation) would decline to 0.7x (2019: 0.9x), while this fiscal debt burden would, after an increase to 208% in 2020, start gradually declining to 187% in 2024. Fitch bases its rating case on conservative GDP growth assumptions to test rating resilience through the economic cycle and considers a harsh decline of GDP in 2020 in light of the coronavirus crisis.

Additional Rating Factors: NRW's Long-Term IDR is rated on a par with the sovereign, reflecting the specific approach Fitch applies for the German Laender. The stability of the solidarity system that underpins the creditworthiness of North Rhine-Westphalia primarily drives the 'AAA' IDR, irrespective of its SCP of 'aa+'. The IDR 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 page.

Rating Sensitivities

Sovereign Downgrade: A downgrade of the sovereign's ratings would lead to a downgrade of NRW. An adverse change to the most important institutional feature – the solidarity principle – could also lead to a downgrade of NRW but Fitch believes this is unlikely.

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 ratting	F1+
Outlooks	
Long-Term Foreign-Currency IDR	Stable
Long-Term Local-Currency IDR	Stable

Issuer Profile

The State of North Rhine-Westphalia is the largest state in Germany in terms of population (2019: 17.9 million) and the largest contributor to Germany's GDP, accounting for 21.6%.

Financial Data

State of North Rhine-Westphalia

(EURm)	2019	2024rc
Economic liability burden (%)	51.5	54.3
Payback (x)	15.0	20.1
Synthetic coverage (x)[a]	0.9	0.7
Fiscal debt burden (%)	191.6	186.5
Net adjusted debt	145,236	163,752
Operating balance	9,699	8,142
Operating revenue	75,808	87,784
Debt service	18,547	10,130
Mortgage-style debt annuity[a]	10,423	12,153

rc: Fitch's rating-case scenario
[a] Fitch's calculation (see *Appendix C*)
Source: Fitch Ratings, State of NRW

Applicable Criteria

Rating Criteria for International Local and Regional Governments (September 2019)

Related Research

Fitch Affirms 11 German Laender at 'AAA'; Outlook Stable (April 2020)

Germany (January 2020)

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Rating Synopsis

SCP Positioning Table

Risk profile	Debt sustainability					
Stronger	aaa or aa	a	bbb	bb	B	
High midrange	aaa	aa	a	bbb	Bb	b
Midrange		aaa	aa	a	Bbb	bb or below
Low midrange			aaa	aa	A	bbb or below
Weaker				aaa	Aa	a or below
Vulnerable					Aaa	aa or below
Suggested analytical outcome (SCP)	aaa	aa	a	bbb	Bb	b

Source: Fitch Ratings

NRW'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 *Risk Profile: Stronger*) 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*).

Issuer Profile

Based on an extrapolation of the 2011 census, NRW had a total population of 17.93 million at end-2019. According to state projections, the population is estimated to stabilise at about 17.7 million by 2030 and then marginally decline to 17.4 million by 2060.[1]

NRW's economic profile is in line with the German average. The state reported nominal GDP of EUR711.4 billion in 2019 and the real GDP growth rate was 0.2%, while Germany's growth was 0.6%. NRW's GDP per capita in 2019 of EUR39,678 is slightly below Germany's average of EUR41,358. Although the services sector may contribute less to regional GDP than in other states, NRW has an important manufacturing sector and its economy is well diversified, with the chemicals, pharmaceuticals, automotive, automotive supply and retail sectors (among others) playing an important role. NRW is the largest state contributor to German VAT and an attractive investment location. Investments in NRW amounted to EUR136 billion in 2017 and accounted for more than 25% of the total investments in Germany.

The unemployment rate in the state was 6.5% in 2019 (Germany: 5.0%), further declining in line with the national trend but still the second-highest rate among western German states. NRW's large number of big cities makes it attractive to job seekers, who often apply for unemployment or social aid on arrival there. This partly explains why NRW has an above-average number of non-working people.

Risk Profile: Stronger

Fitch has assessed NRW'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 NRW – 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

[1] This is based on the state's forecast considering a moderate birth rate and life expectancy and a high migration balance. If all three parameters are set to moderate, the population is expected to decline to 16.5 million and to 15.8 million in case the migration balance is low.

Rating History

Date	Long-Term Foreign-Currency IDR	Long-Term Local-Currency IDR
17 Dec 03		AAA
25 Mar 99	AAA	

Source: Fitch Ratings

State of North Rhine-Westphalia

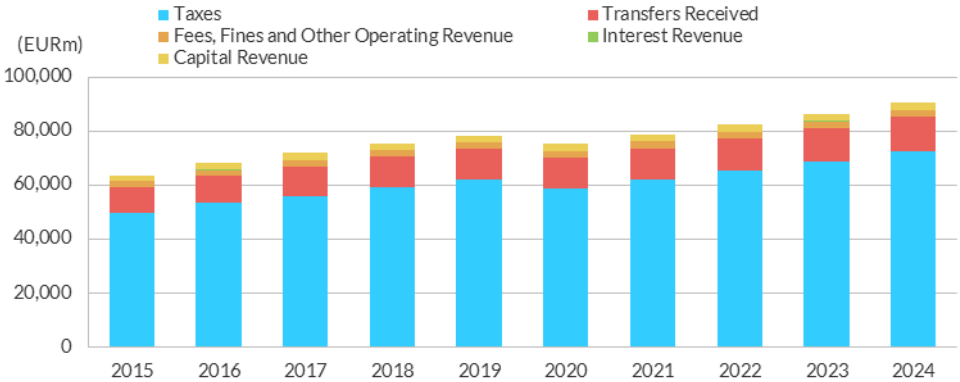
Source: Fitch Ratings

Socioeconomic Indicators

	NRW	Country
Population (m), 2019	17.9	82.9
2011-2018 average annual population growth (%)	0.7	0.5
GDP per capita, 2019 (EUR)	39,678	41,358
Unemployment rate, 2019 (%)	6.5	5.0
Poverty rate, 2018 (%)	18.1	15.5

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

Revenue Structure



Source: Fitch Ratings, State of NRW

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 NRW, 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 revenues – 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 shares of VAT result from a more complex allocation process and vary 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 tax revenue 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 NRW 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.

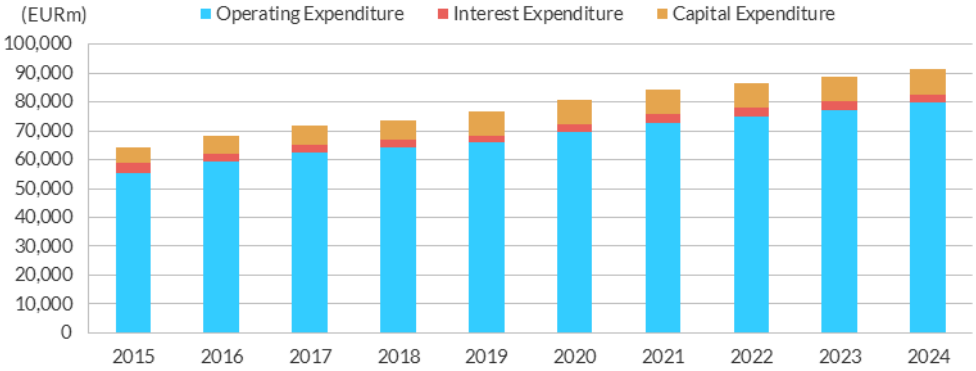
The most recent reform of the Bund-Laender-Finanzbeziehungen (the financial equalisation system) confirms the stability of revenue equalisation and is likely to increase transfers to financial weaker Laender and lower the burden on the net donor states, which we assess as credit-positive. NRW is a net receiver from the system and received EUR1 billion in 2019 based on preliminary figures.

Revenue Breakdown, 2019

	Operating revenue (%)	Total revenue (%)
PIT	33.0	
VAT	30.3	
CIT	5.4	
Other tax items	13.7	
Transfers	15.1	
Other	2.5	
Operating revenue	**100.0**	**96.8**
Financial revenue		**0.1**
Capital revenue		**3.1**

Source: Fitch Ratings, State of NRW

Expenditure Structure



Source: Fitch Ratings, State of NRW

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 been applying 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. Cost-consolidation measures were subject to supervision and control by the German Stability Board (Stabilitaetsrat).

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. There is a moderate share of inflexible spending items, with personnel costs and transfers accounting for 92.5% of NRW's opex in 2019. Capex accounted for a moderate 11.1% of NRW's total spending in 2019. Despite the limited flexibility in adjusting capex, NRW has a good record of cost consolidation to achieve balanced budgets and keep opex growth below the growth of operating revenue and a consistent improvement of its operating margin from 8.5% in 2014 to 12.5% in 2019. NRW is legally obliged to run a structurally balanced budget without taking on new net debt from 2020, which Fitch views ratings-positive.

Liabilities & Liquidity Robustness: Stronger

NRW, like the other German Laender, operates within a solid national framework for debt and liquidity management and shows strict market discipline, which Fitch views as credit-positive. As part of one of the largest subnational issuer groups, NRW has very good access to the capital markets, with a strong record. NRW regularly taps the markets with benchmark issue sizes and has an even maturity profile. NRW has lengthened its maturity profile to reduce the risk of interest rate changes and a higher interest expenditure burden and has placed bonds with maturities up to 100 years.

NRW also faces large contingent liabilities in the form of debt guarantee on behalf of their development bank (NRW.Bank; AAA/Stable) and former Landesbank, as well as their largely unfunded pension liabilities (please see *Sound Operating Performance and Improved Debt Ratios* below for details).

NRW has prudent debt management, predominantly funding its maturing debt by bond issues during 2019. The total funding amount was EUR23.1 billion with bonds sharing 91.8%. The average maturity of the funding during 2019 was 40.3 years. This resulted in a weighted-average maturity of the states' debt portfolio of 13.1 years at end-2019 and the average interest rate was 1.5%.

Expenditure Breakdown, 2019

	Opex (%)	Total expenditure (%)
Personnel costs	41.1	
Goods and services	7.5	
Current transfers made	51.4	
Other	0.0	
Operating expenditure	**100.0**	**86.4**
Financial charges		**2.5**
Capital expenditure		**11.1**

Source: Fitch Ratings, State of NRW

Debt Analysis

	End-2019
Fixed-rate (% of direct debt)	90.1
Short-term debt (% of direct debt)	0.8
Apparent cost of debt (%)	1.5
Average maturity (year)	13.1
Debt service (EURm)	18,644
Operating balance (EURm)	9,699

Source: Fitch Ratings, State of NRW

Liquidity

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

Source: Fitch Ratings, State of NRW

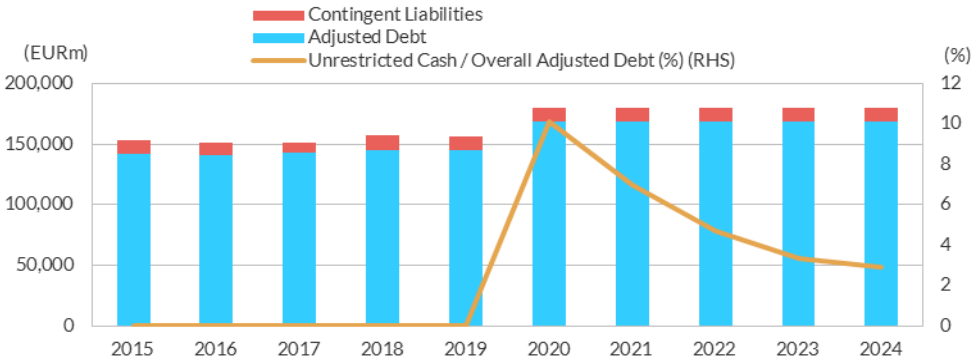
NRW is exposed to a largely unfunded pension burden. At end-2019, the state accounted for 214,200 pensioners; this number may increase to 229,700 in 2027 before declining to 226,700 in 2040. Pensioners are paid on a "pay-as-you-go" basis and NRW paid out EUR7.86 billion (10.8% of its operating revenues) in 2019. This amount will consecutively increase slightly to EUR8.84 billion (state's medium-term plan). In the more recently available pension plan, the amount may peak in 2027 and then start declining. According to the state, the net present value of the pension burden is EUR131 billion and the state is working on an update. We assume the state's risk to be limited, as the amount is rather stable and part of the state's annual budgeting process, limiting unexpected payments beyond the budget.

At end-2019, NRW reported guarantees of EUR8.98 billion, of which EUR5.6 billion were outstanding. Most of these guarantees relate to inherited liabilities of the former WestLB, now Portigon AG. The guarantees also include the amounts that have been transferred to Erste Abwicklungsanstalt (EAA; AAA/Stable). NRW's risk is limited to a EUR3.76 billion guarantee provided in 2008 to protect risks stemming from the Phoenix portfolio on behalf of WestLB. Of this, EUR1.91 billion is drawn and the state expects further drawdowns, partly covered by a risk fund amounting to EUR878 million.

Fitch assumes NRW to be financially liable for the debt of its shareholdings. Considering those in which the state holds a minimum 50.1% share and excluding NRW.Bank and Portigon AG, we assume NRW to be liable for 22 shareholdings with relatively low total debt of EUR219.9 million outstanding at end-2018. NRW also provided a loan to Bau- und Liegenschaftsbetrieb NRW, which manages the state's real estate assets, amounting to EUR385 million at end-2019.

NRW is also liable for all the obligations of the fully owned NRW.Bank, which has a deficiency guarantee (Gewährträgerhaftung) and a maintenance obligation (Anstaltslast). The explicit guarantee enables the bank to meet its obligations (EUR126.7 billion at end-2018) at any time. These represent a significant contingent liability for NRW, mitigated by the bank's assets and the fact that a default of a development bank is unlikely due to its conservative business profile. Fitch has not factored in this amount in *Appendix A*.

Overall Adjusted Debt Structure



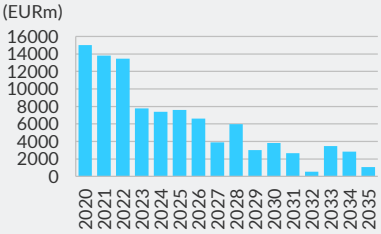
Source: Fitch Ratings, State of NRW

Liabilities & 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. NRW'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. NRW'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 NRW 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 Amortisation Schedule 2020-2035 – Capital Repayments



Source: Fitch Ratings, State of NRW

Debt Sustainability of 'a'

Debt Sustainability – Type A

	Primary metrics		Secondary metrics	
	Economic liability burden (%)	Payback (x)	Coverage (x)	Fiscal debt burden (%)
aaa	X ≤ 40	X ≤ 5	X >= 4	X ≤ 50
aa	40 < X ≤ 70	5 < X ≤ 9	2 ≤ X < 4	50 < X ≤ 100
a	70 < X ≤ 100	9 < X ≤ 13	1.5 ≤ X < 2	100 < X ≤ 150
bbb	100 < X ≤ 140	13 < X ≤ 18	1.2 ≤ X < 1.5	150 < X ≤ 200
bb	140 < X ≤ 180	18 < X ≤ 25	1 ≤ X < 1.2	200 < X ≤ 250
b	X >180	X > 25	X < 1	X > 250

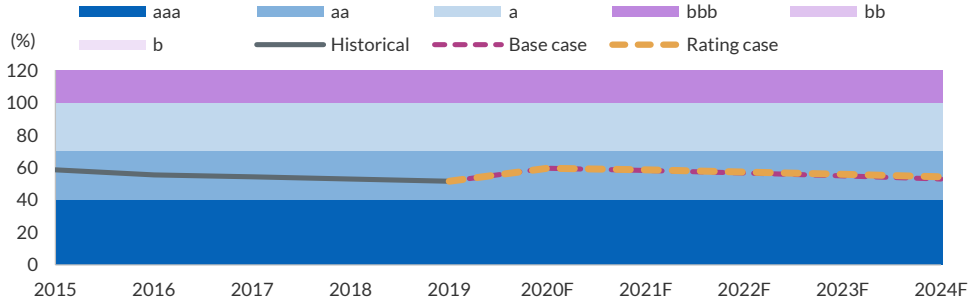
Note: Yellow highlights show metric ranges applicable to NRW.
Source: Fitch Ratings

We assess NRW's debt sustainability at 'a', reflecting its slightly weakening economic liability burden increasing to 57.9% in the medium term in our rating-case scenario (2019: 51.5%) and a weak coverage ratio (Fitch's synthetic calculation) likely to remain well below 1x. We expect the state's fiscal debt burden to remain around 190%.

Debt Sustainability Ratios:

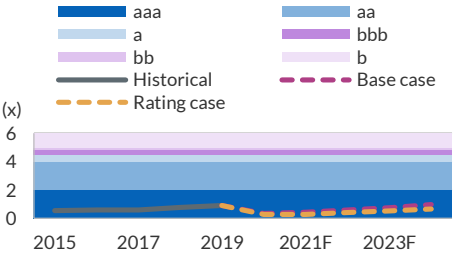
- **Economic Liability Burden:** (net adjusted debt + a pro-rata share of central government debt) / local GDP (%)
- **Payback:** Net adjusted debt/operating balance (x)
- **Fiscal debt burden:** Net adjusted debt/operating revenue (%)
- **Synthetic DSCR:** Operating balance/mortgage style debt annuity;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

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



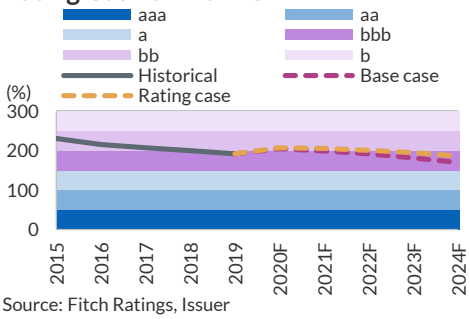
Source: Fitch Ratings, State of NRW

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



Source: Fitch Ratings, Issuer

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



Source: Fitch Ratings, Issuer

Debt Sustainability Ratios – Fitch's Ratin-Case Scenario

	2019	2024rc
Economic liability burden (%)	51,5	55.6
Payback (x)	15.3	24.1
Synthetic coverage (x)	0.9	0.6
Fiscal debt burden (%)	190.6	190.2

rc: Fitch's rating case
Source: Fitch Ratings, State of NRW

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 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

		2020-2024 CAGR	
	Past 5-yr CAGR	Base case	Rating case
National real GDP growth (Fitch's assumptions)[a]	*1.8*	*0.9*	*0.9*
Operating revenue growth (%)	4.6	2.5	2.3
Tax revenue growth (%)	5.6	3.6	3.0
Transfers received growth (%)	5.4	1.9	1.9
Operating expenditure growth (%)	4.7	3.6	3.8
Net capital expenditure (average a year; EURm)	6,708	8,762	8,762
Apparent cost of debt (%), last year	1.5	1.7	1.7

[a] Macro assumptions reflect Fitch's sovereign assumptions
Source : Fitch Ratings

Coronavirus to Stress Sound Operating Performance and Improved Debt Ratios

NRW has a sound operating performance record and its operating margin improved to 12.5% in 2019 from 11.5% in 2018. The average margin was 10.5% in 2015-2019. NRW's operating balance was EUR9,505 million in 2019 (2018: EUR8,364 million). 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 (please see *Global Economic Outlook:Crisis Update May 2020 - Coronavirus Shock Broadens*, available at www.fitchratings.com). 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 adopts the former and this should translate to declining tax revenue in 2020, in particular value-added tax revenue. The rating case further considers an increase of the state's operating expenditure of 5% in 2020 and 4% in 2021 and 3% in 2022-2024. This results in a drop of the operating margin (balance) to 4% (EUR2,886 million) in 2020 and 4.2% (EUR3,210 million) in 2021. The operating performance is then envisaged to improve continuously to 9.3% (EUR8.141 million) in 2024. The state has published a supplemental budget 2020 including an additional credit facility of EUR25 billion to cope with the coronavirus pandemic. We have considered this amount as additional debt in our rating-case assumptions.

At end-2019, NRW's direct debt totalled EUR143.9 billion and its overall debt EUR156.4 billion, including EUR6.6 billion of guarantees and EUR5.6 billion of debt to its majority-owned shareholdings. In 2019, NRW paid EUR2 billion of interest expenses, which was covered almost five times by its operating balance. The state refinanced EUR23.1 billion of maturing debt in 2019 and was in compliance with the debt brake. According to its budget and our rating case prior to the pandemic, NRW would have been able to run its 2020 budget without taking on net new debt. Due to the current crisis, Bund and the states have postponed this at least for 2020 and NRW has established measures to support the state's economy, which are above the central government measures. We view this credit-positive, as this should support the state's economy, but this will increase the state's debt and corresponding debt ratios.

At end-2019, the state's economic liability burden, Fitch's primary metrics for Type A issuers, was 51.5% and well in the band between 40% and 70% corresponding to an 'aa' assessment. According to Fitch's rating case, this ratio may increase to 59.6% in 2020 and start declining in 2021 to reach 54.3% in 2024. The state's secondary metrics, the fiscal debt burden and its synthetic debt-servicing coverage ratio, show as weaker. They were 192% and 0.9x in 2019, corresponding to a 'bbb' and 'b' assessment, respectively. They may deteriorate to 208% and 0.3x, respectively, in 2020 and improve back to 187% and 0.7x in 2024 but remain weak. We view the state's relative weak coverage of its debt servicing as mitigated by the state's proved record of capital market access and its ability to gain liquidity even if short term notice is required. However, NRW 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

NRW'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 NRW's key risk factors (all 'Stronger'), its debt sustainability ('a') and its SCP assessment of 'aa+'. No other rating factors affect the final rating.

From SCP to IDR: Factors Beyond the SCP

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

Source: Fitch Ratings

Peer Analysis

German States and International Peers

German states	Risk profile	Primary metric (%)	SCP	IDR	Outlook
North Rhine-Westphalia	Stronger	54.3	aa+	AAA	Stable
Berlin	Stronger	65.5	aa	AAA	Stable
Hamburg	Stronger	43.9	aaa	AAA	Stable
Schleswig-Holstein	Stronger	65.8	aa	AAA	Stable
Lower Saxony	Stronger	54.4	aa+	AAA	Stable
International Peers					
Zurich, Canton of	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

State of North Rhine-Westphalia

(EURm)	2016	2017	2018	2019	2020rc	2024rc
Taxes	53,702	55,706	59,238	62,011	58,600	72,595
Transfers received	9,559	11,197	11,196	11,452	11,646	12,606
Fees, fines and other operating revenue	2,313	2,203	2,361	2,346	2,385	2,582
Operating revenue	**65,574**	**69,106**	**72,796**	**75,808**	**72,631**	**87,783**
Operating expenditure	-59,331	-62,707	-64,432	-66,109	-69,745	-79,642
Operating balance	**6,243**	**6,399**	**8,364**	**9,699**	**2,886**	**8,141**
Interest revenue	84	41	54	31	31	34
Interest expenditure	-2,793	-2,652	-2,439	-2,002	-2,649	-2,851
Current balance	**3,534**	**3,788**	**5,979**	**7,728**	**268**	**5,324**
Capital revenue	2,776	2,654	2,491	2,536	2,579	2,791
Capital expenditure	-6,028	-6,666	-6,913	-8,433	-8,433	-8,862
Capital balance	**-3,252**	**-4,012**	**-4,423**	**-5,897**	**-5,854**	**-6,071**
Total revenue	68,434	71,801	75,340	78,375	75,241	90,608
Total expenditure	-68,152	-72,025	-73,784	-76,544	-80,827	-91,355
Surplus (deficit) before net financing	**282**	**-224**	**1,556**	**1,831**	**-5,586**	**-747**
New direct debt borrowing	18,388	20,224	16,897	16,630	40,323	7,793
Direct debt repayment	-18,417	-18,996	-17,288	-16,642	-16,545	-7,793
Net direct debt movement	**-30**	**1,228**	**-391**	**-12**	**23,778**	**0**
Overall results	**253**	**1,004**	**1,164**	**1,819**	**18,192**	**-747**
Debt						
Short-term debt	87	2,022	1,897	1,222	0	0
Long-term debt	138,988	139,247	142,032	142,695	167,695	167,695
Intergovernmental debt	0	0	0	0	0	0
Direct debt	**139,075**	**141,269**	**143,929**	**143,917**	**167,695**	**167,695**
Other Fitch-classified debt	2,199	1,987	1,481	1,319	1,319	1,319
Adjusted debt	**141,274**	**143,256**	**145,410**	**145,236**	**169,014**	**169,014**
Guarantees issued (excluding adjusted debt portion)	8,378	7,060	6,617	5,611	5,611	5,611
Majority-owned GRE debt and other contingent liabilities	1,258	1,382	5,722	5,559	5,559	5,559
Overall adjusted debt	**150,911**	**151,698**	**157,748**	**156,406**	**180,184**	**180,184**
Total cash, liquid deposits, and sinking funds	0	0	0	0	18,194	5,262
Restricted cash	0	0	0	0	0	0
Unrestricted cash	0	0	0	0	18,194	5,262
Net adjusted debt	**141,274**	**143,256**	**145,410**	**145,236**	**150,820**	**163,752**
Net overall debt	**150,911**	**151,698**	**157,748**	**156,406**	**161,990**	**174,922**

rc: Fitch's rating case, based on conservative assumptions. 2024 is the last year of the rating case scenario
Source: Fitch Ratings, State of North Rhine-Westphalia

Appendix B

State of North Rhine-Westphalia

	2015	2016	2017	2018	2019rc	2023rc
Fiscal performance ratios						
Operating balance/operating revenue (%)	9.5	9.3	11.5	12.8	4.0	9.3
Current balance/current revenue (%)	5.4	5.5	8.2	10.2	0.4	6.1
Operating revenue growth (annual % change)	6.6	5.4	5.3	4.1	-4.2	4.9
Operating expenditure growth (annual % change)	6.9	5.7	2.8	2.6	5.5	3.0
Surplus (deficit) before net financing/total revenue (%)	0.4	-0.3	2.1	2.3	-7.4	-0.8
Surplus (deficit) before net financing/GDP (%)	0.0	0.0	0.2	0.3	-0.8	-0.1
Total revenue growth (annual % change)	7.5	4.9	4.9	4.0	-4.0	4.8
Total expenditure growth (annual % change)	6.1	5.7	2.4	3.7	5.6	2.7
Debt ratios						
Primary metrics						
Economic liability burden (%)	55.3	54.3	52.8	51.5	59.6	54.3
Secondary metrics						
Payback ratio (x)	22.6	22.4	17.4	15.0	52.2	20.1
Fiscal debt burden (%)	215.4	207.3	199.8	191.8	207.7	186.5
Synthetic debt service coverage ratio (x)	0.6	0.6	0.8	0.9	0.3	0.7
Other debt ratios						
Liquidity coverage ratio (x)	0.3	0.3	0.4	0.5	0.2	1.3
Direct debt maturing in one year/total direct debt (%)	13.3	13.6	12.2	11.7	7.9	4.7
Direct debt (annual % change)	-0.3	1.6	1.9	0.0	16.5	0.0
Apparent cost of direct debt (interest paid/direct debt) (%)	2.0	1.9	1.7	1.4	1.7	1.7
Revenue ratios						
Tax revenue/total revenue (%)	78.5	77.6	78.6	79.1	77.9	80.1
Current transfers received/total revenue (%)	14.0	15.6	14.9	14.6	15.5	13.9
Interest revenue/total revenue (%)	0.1	0.1	0.1	0.0	0.0	0.0
Capital revenue/total revenue (%)	4.1	3.7	3.3	3.2	3.4	3.1
GDP deflated total revenue growth (annual % change)	6.0	3.3	3.4	4.0	-7.4	4.8
Expenditure ratios						
Staff expenditure/total expenditure (%)	35.8	35.2	35.1	35.5	35.7	36.1
Current transfers made/total expenditure (%)	43.8	44.1	45.9	44.4	44.2	45.1
Interest expenditure/total expenditure (%)	4.1	3.7	3.3	2.6	3.3	3.1
Capital expenditure/total expenditure (%)	8.8	9.3	9.4	11.0	10.4	9.7
GDP deflated total expenditure growth (annual % change)	4.7	4.1	0.9	3.7	1.9	2.7

rc: Fitch's rating case, based on conservative assumptions. 2024 is the last year of the rating case scenario
Source: Fitch Ratings, State of North Rhine-Westphalia

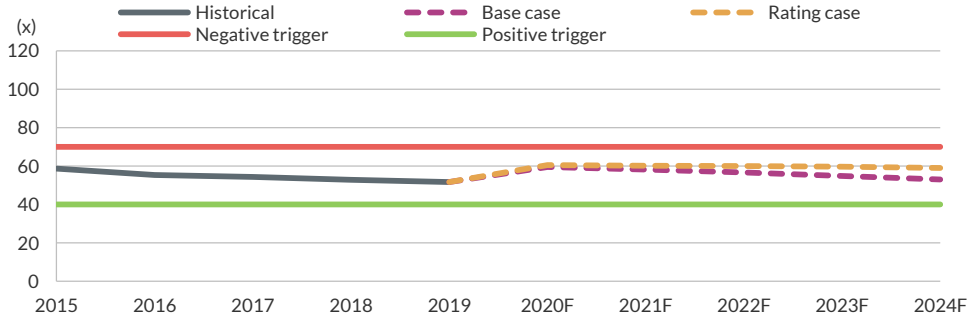
Appendix C: Data Adjustments

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.

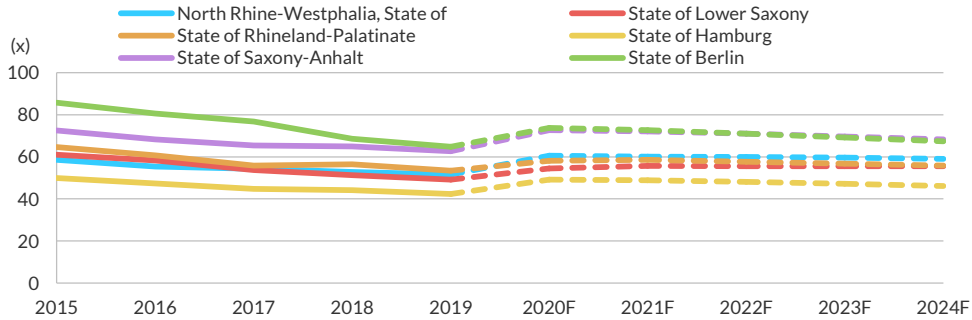
Appendix D: Rating Cases Comparisons and Rating Sensitivities

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



Source: Fitch Ratings, State of NRW

Fitch-Rated German States 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.