Rating Review Annex



Credit strengths

- Low debt burden
- · Excellent capital market access
- Ample liquidity
- Strong budgetary performance
- Wealthy economy
- Highly integrated institutional framework

Credit challenges

- Limited revenue flexibility
- · High pension liabilities
- Sizeable, although largely low-risk, contingent liabilities

Ratings and Outlook

Foreign & local currency

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

Rating rationale and Outlook

The Free State of Bavaria's (Bavaria) AAA rating is driven by:

- A highly integrated institutional framework, characterised by a very strong revenue equalisation system paired with the federal solidarity principle, which results in the close alignment of Länder's creditworthiness with the German federal government's AAA/Stable ratings.
- A strong individual credit profile captured by a low debt burden, excellent capital market access, ample liquidity, strong budgetary performance and a wealthy economy. In addition, sizeable federal support measures have mitigated the adverse effects of the Covid-19 crisis on the economy and on Bavaria's finances. Recently, the federal government has also taken measures to cushion the impact of the Russia-Ukraine war on the German economy and households, supporting all federal states.

Credit challenges relate to limited revenue flexibility and high pension liabilities weighing on long-term expenditure flexibility, as well as sizeable but manageable contingent liabilities. The Stable Outlook reflects our assessment that the risks Bavaria faces remain well balanced.

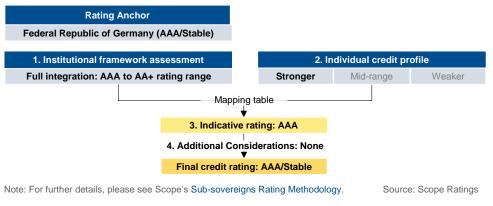
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Scope's approach to rating the Free State of Bavaria



Positive rating-change drivers

N/A

Negative rating-change drivers

- Downgrade of Germany's sovereign rating
- Changes in the institutional framework, resulting in weaker individual credit profile
- Individual credit profile weakens significantly and structurally

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Indicative rating range

0-1

0-2

0-3

Free State of Bavaria

I. Institutional Framework Assessment

To assess the institutional framework, we apply a Qualitative Scorecard (QS1) centred around 6 components. We assess each analytical component on a five-point scale ranging from a score of 0 for 'low' integration to 100 for 'full' integration. The institutional framework score, ranging from 0 to 100, is calculated as a simple average of these assessments. The score is then used to determine a rating range from the rating anchor level, within which the sub-sovereign's rating can be positioned.

Our assessment of intergovernmental integration between the German federal states, or Länder, and the Federal Republic of Germany (AAA/Stable) results in an indicative downward rating range of one notch from the German sovereign, within which the Länder can be positioned according to their individual credit strengths.

Institutional Framework scorecard (QS1)

Analytical components	Full integration (100)	Strong integration (75)	Medium integration (50)	Some integration (25)	Low integration (0)
Extraordinary support and bailout practices	•	0	0	0	0
Ordinary budgetary support and fiscal equalisation	•	0	0	0	0
Funding practices	0	0	•	0	0
Fiscal rules and oversight	•	0	0	0	0
Revenue and spending powers	•	0	0	0	0
Political coherence and multi-level governance	•	0	0	0	0
Integration score	92]			

Downward rating range			<u>0-1</u>							
Institutional framework score	100 > x≥ 90	90 > x ≥ 80	80 > x≥ 70	70 > x ≥ 60	60 > x≥ 50	50 > x≥ 40	40 > x ≥ 30	30 > x≥ 20	20 > x ≥ 10	10 > x ≥ 0

0-5

0-6

0-7

0-8

0-4

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II. Individual Credit Profile or ICP

To assess the ICP, we apply a Qualitative Scorecard 2 (QS2), centred around 10 components underpinned by peer benchmarking. We assess each analytical component on a three-point scale by benchmarking a sub-sovereign's performance and risk exposures to that of peers. Scores are 0 for 'weaker', 50 for 'mid-range', and 100 for 'stronger' for each component. The individual credit profile score, ranging from 0 to 100, is calculated as a simple average of these assessments. In addition, we make two additional assessments for environmental factors and resilience and social factors and resilience, which can lead to adjustments of the ICP score by up to +/- 10 points.

We assess the individual credit profile of the Free State of Bavaria as Stronger vis-à-vis peers, with an ICP score of 90 out of 100.

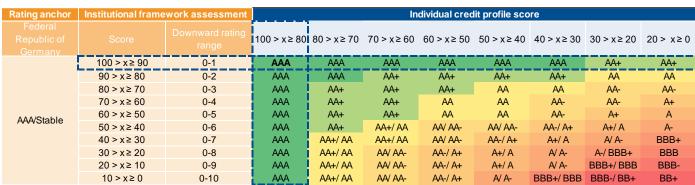
Individual Credit Profile scorecard (QS2)

Risk pillar	Analytical components	Stronger (100)	Mid-range (50)	Weaker (0)		
	Debt burden & trajectory	•	0	0		
Debt and %	Debt profile & affordability	•	0	0		
	Contingent liabilities	0	•	0		
	Liquidity position & funding flexibility	•	0	0		
	Budgetary performance & outlook	•	0	0		
Budget %	Revenue flexibility	•	0	0		
	Expenditure flexibility	0	•	0		
	Wealth levels & economic resilience	•	0	0		
Economy %	Economic sustainability	•	0	0		
Governance %	Governance & financial management quality		0	0		
Additional environmental and social factors Positive impact (+5) No impact (0) Negative impact						
	actors and resilience	Positive impact (+5)	• • • • • • • • • • • • • • • • • • •	Negative impact (-5)		
Eliviolillelialia	iciois and resilience					
Social factors an	d resilience	0	•	0		
	ICP score	00				
	Indicative notching	90 0				
		-				

III. Mapping Table

We derive the indicative sub-sovereign rating by mapping the result of the institutional framework assessment (i.e. the indicative rating range) to the ICP score.

For the Free State of Bavaria, this results in a rating alignment with the German sovereign rating of AAA/Stable.



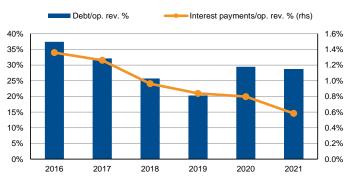
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IV. Selected charts

Debt and interest burden

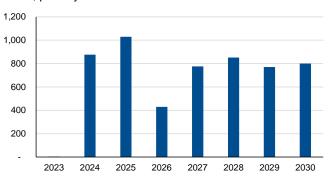
%



Source: Bayerisches Staatsministerium der Finanzen und für Heimat, Scope Ratings

Debt profile

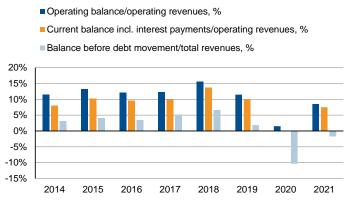
EUR m, publicly traded bonds



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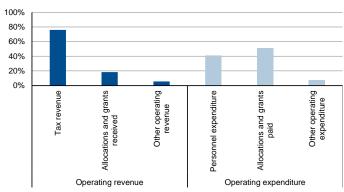
Budgetary performance

%



Operating budget composition

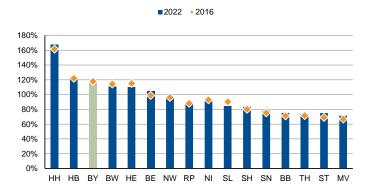
% of operating revenue / expenditure, 2019-21 average



Source: Bayerisches Staatsministerium der Finanzen und für Heimat, Scope Ratings

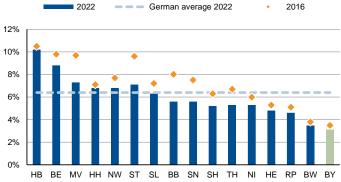
GDP per capita

% of national average



Unemployment rate

% of civilian labour force



Source: Destatis, Statistische Ämter des Bundes und der Länder, Scope Ratings

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V. Statistical Overview

	2013	2014	2015	2016	2017	2018	2019	2020	2021
Budget (EUR m)									
Operating revenue	47,323	49,593	52,440	55,355	57,178	61,979	63,817	60,529	69,175
Tax revenues	37,623	39,709	42,143	45,900	47,097	51,134	52,329	44,529	50,138
Allocations and grants	6,250	5,868	6,267	6,477	7,015	6,822	7,039	13,035	15,509
Other operating revenue	3,449	4,016	4,029	2,978	3,065	4,022	4,449	2,964	3,528
Current revenue	47,395	49,672	52,514	55,419	57,253	62,041	63,887	60,634	69,285
Active interests	73	79	74	63	76	62	70	105	109
Operating expenditure	40,495	43,924	45,498	48,622	50,143	52,346	56,499	59,608	63,275
Personnel	19,028	19,804	20,283	20,984	21,861	22,592	23,677	24,742	25,526
Allocations and grants	18,639	21,162	21,944	23,838	24,499	25,862	28,709	30,153	32,548
Other operating expenditure	2,829	2,958	3,271	3,800	3,783	3,892	4,113	4,714	5,201
Current expenditure	41,450	44,816	46,332	49,374	50,864	52,942	57,034	60,091	63,679
Interest payments	955	892	834	753	721	597	535	483	404
Operating balance	6,827	5,669	6,941	6,734	7,035	9,633	7,318	920	5,900
Current balance	5,945	4,856	6,181	6,044	6,390	9,098	6,853	542	5,606
Capital revenue	1,545	2,139	1,534	1,570	2,663	1,773	2,071	1,551	1,468
Capital expenditure	5,358	5,375	5,518	5,683	5,956	6,647	7,684	8,525	8,302
Capital balance	-3,813	-3,236	-3,984	-4,113	-3,293	-4,874	-5,613	-6,975	-6,834
Total revenue	48,941	51,811	54,047	56,989	59,917	63,814	65,958	62,184	70,752
Total expenditure	46,808	50,191	51,850	55,058	56,820	59,589	64,718	68,617	71,981
Balance before debt movement	2,132	1,620	2,197	1,931	3,096	4,225	1,240	-6,433	-1,229
Financial ratios (%)									
Balance before debt movement/total revenue, %	4.4	3.1	4.1	3.4	5.2	6.6	1.9	-10.3	-1.7
Operating balance/operating revenue, %	14.4	11.4	13.2	12.2	12.3	15.5	11.5	1.5	8.5
Interest payments/operating revenue, %	2.0	1.8	1.6	1.4	1.3	1.0	0.8	0.8	0.6
Transfers/operating revenue, %	13.2	11.8	12.0	11.7	12.3	11.0	11.0	21.5	22.4
Personnel expenditure/operating expenditure, %	47.0	45.1	44.6	43.2	43.6	43.2	41.9	41.5	40.3
Capital expenditure/total expenditure, %	11.4	10.7	10.6	10.3	10.5	11.2	11.9	12.4	11.5
Debt (EUR m)									
Budget debt	20,565	20,025	19,525	19,525	19,525	19,525	19,525	19,525	19,525
thereof, direct debt	16,413	15,100	13,876	13,106	10,958	8,985	6,883	5,428	4,833
thereof, postponed credit authorisations	4,152	4,925	5,648	6,419	8,567	10,540	12,642	14,097	14,692
Stabilisation fund	10,000	10,000	10,000	9,450	8,950	7,450	7,400	7,350	7,300
thereof, direct debt	10,000	10,000	8,752	7,622	7,412	6,942	6,064	5,192	4,912
thereof, postponed credit authorisations	0	0	1,248	1,828	1,538	508	1,337	2,158	2,388
Covid-19 pandemic fund								7,208	10,146
thereof, direct debt								7,208	10,146
thereof, postponed credit authorisations								0	0
Postponed credit authorisations	4,152	4,925	6,896	8,247	10,105	11,048	13,978	16,254	17,079
Total direct debt	26,413	25,100	22,628	20,728	18,370	15,927	12,947	17,829	19,892
Overall risk	30,565	30,025	29,525	28,975	28,475	26,975	26,925	34,083	36,971
Debt ratios (%)									
Total direct debt/operating revenue, %	55.8	50.6	43.2	37.4	32.1	25.7	20.3	29.5	28.8
Overall risk/operating revenue, %	64.6	60.5	56.3	52.3	49.8	43.5	42.2	56.3	53.4
Interest payments/total debt, %	3.6	3.6	3.7	3.6	3.9	3.7	4.1	2.7	2.0
Economy									
GDP at market prices, EUR m	511,943	534,066	554,688	577,717	605,752	620,188	643,366	624,403	661,541
Share of German GDP, %	18.2	18.2	18.3	18.4	18.5	18.4	18.5	18.5	18.5
GDP per capita (EUR)	40,526	41,873	43,294	44,829	46,726	47,572	49,109	47,547	50,289
% of German GDP per capita	116.9	116.8	117.3	117.8	118.2	117.1	117.5	117.4	117.1
Population ('000s)	12,562	12,648	12,768	12,887	12,964	13,077	13,125	13,140	13,177
Real GDP growth, %	1.3	2.4	1.8	2.5	3.7	0.4	1.7	-4.3	3.0
Unemployment rate (% of labour force)	3.8	3.8	3.6	3.5	3.2	2.9	2.8	3.6	3.5
Source: Baverisches Sta									

Source: Bayerisches Staatsministerium der Finanzen und für Heimat, Federal Ministry of Finance, Federal Statistical Office, Scope Ratings

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