Rating Review Annex



Credit strengths

- Integrated institutional framework
- Large, wealthy and resilient economy
- Sound budgetary performance
- Declining debt burden, favourable debt profile
- Excellent capital market access

Credit challenges

- Moderate budgetary flexibility
- High pension burden weighing on long-term expenditure flexibility

Ratings and Outlook

Foreign & local currency

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

Rating rationale and Outlook

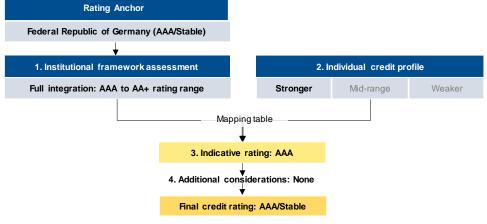
The Land of Baden-Württemberg's (Baden-Württemberg) AAA rating is driven by:

- A highly integrated Institutional Framework, which results in a close alignment of Länder's creditworthiness with the German federal government's AAA/Stable ratings.
- A strong Individual Credit Profile, underpinned by i) a large, diversified economic base with robust growth prospects and a low unemployment rate, ii) solid budgetary performance and management, iii) a moderate, and declining, debt burden with a low-risk debt profile, and iv) excellent capital market access. Credit challenges relate to limited revenue and expenditure flexibility, and high pension liabilities weighing on expenditure flexibility in the long-term, although risks are mitigated by regular contributions to the state's pension funds.

The Stable Outlook represents Scope's view that risks to the ratings over the next 12 to

18 months are balanced.

Scope's approach to rating the Land of Baden-Württemberg



Note: For further details, please see Scope's Sub-sovereigns Rating Methodology.

Source: Scope Ratings

Negative rating-change drivers

N/A

Positive rating-change drivers

- Downgrade of Germany's sovereign
- Changes in the institutional framework, resulting in a weaker individual credit profile
- Structural deterioration in the individual credit profile

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Indicative rating range

Land of Baden-Württemberg

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			0-1	1						
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

0-2

0-3

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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 Baden-Württemberg as Stronger vis-à-vis peers, with an ICP score of 80 out of 100.

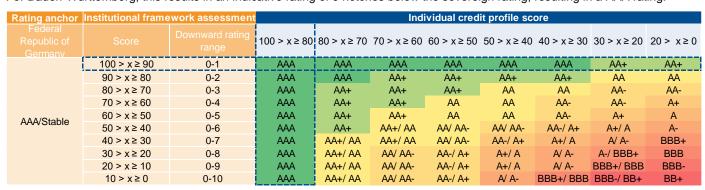
Individual Credit Profile scorecard (QS2)

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				
	Revenue flexibility	•	0	0				
	Expenditure flexibility	0	•	0				
Economy 07	Wealth levels & economic resilience	0	•	0				
	Economic sustainability	•	0	0				
Governanc %	Governance & financial management quality	•	0	0				
Additional environmental and social factors Positive impact (+5) No impact (0) Negative impact (-5)								
Environmental factors and resilience		Positive impact (+5)	No impact (0)	_				
		0	●	0				
Social factors and resilience		0	•	0				
	ICP score	80						
	Indicative notching	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 Baden-Württemberg, this results in an indicative rating of 0 notches below the sovereign rating, resulting in a AAA rating.



Note: Mapping table under section 4 of Scope's Sub-sovereigns Rating Methodology, as applied to the rating anchor's AAA-ratings.

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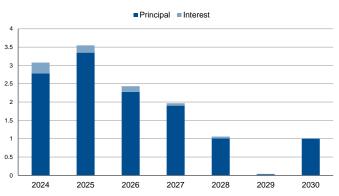
IV. Selected charts

Debt and interest burden

% Debt/op. rev. % Interest payments/op. rev. % (rhs) 140% 3.5% 3.0% 120% 100% 2.5% 2.0% 80% 60% 1.5% 40% 1.0% 20% 0.5% 0% 0.0% 2016 2017 2018 2019 2020 2021 2022

Debt profile

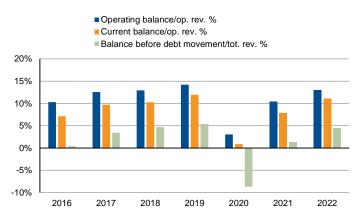
EUR m



Source: Destatis, Bloomberg Finance L.P., Scope Ratings

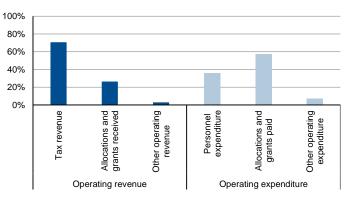
Budgetary performance

%



Operating budget composition

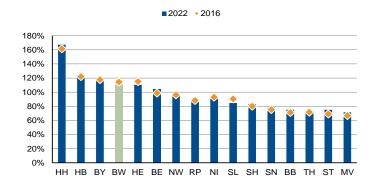
% of operating revenue / expenditure, 2020-22 average



Source: Destatis, Scope Ratings

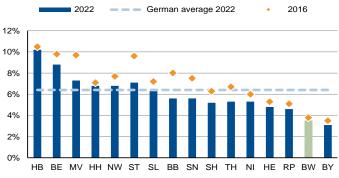
GDP per capita

% 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	2022
Budgetary Performance (EUR m)										
Operating revenue	39,319	41,516	42,859	46,399	48,573	51,924	53,816	54,285	60,741	62,353
Operating expenditure	35,548	36,576	38,172	41,635	42,472	45,208	46,168	52,634	54,425	54,263
Operating balance	3,771	4,941	4,687	4,764	6,101	6,716	7,648	1,652	6,316	8,090
Net interest payments	1,724	1,578	1,530	1,457	1,384	1,394	1,230	1,168	1,568	1,191
Current balance	2,047	3,363	3,157	3,308	4,717	5,322	6,419	484	4,748	6,898
Capital balance	-2,441	-2,882	-3,153	-3,121	-3,002	-2,818	-3,468	-5,268	-3,946	-4,071
Balance before debt movement	-394	480	4	187	1,715	2,504	2,951	-4,785	802	2,827
Debt (EUR m)										
Direct debt	63,895	52,591	53,107	53,091	46,181	44,009	44,134	47,989	47,050	43,758
Guarantees	37,403	23,083	23,859	20,114	12,067	11,743	12,040	11,989	11,988	-*
Overall debt risk (direct debt plus guarantees)	101,298	75,674	76,966	73,205	58,248	55,752	56,174	59,978	59,038	43,758
Financial ratios										
Debt/operating revenue, %	162.5%	126.7%	123.9%	114.4%	95.1%	84.8%	82.0%	88.4%	77.5%	70.2%
Debt/operating balance, years	16.9	10.6	11.3	11.1	7.6	6.6	5.8	29.1	7.4	5.4
Interest payments/operating revenue, %	4.4%	3.8%	3.6%	3.2%	2.9%	2.7%	2.3%	2.2%	2.6%	1.9%
Implicit interest rate, %				2.8%	3.0%	3.2%	2.8%	2.4%	3.3%	2.7%
Operating balance/operating revenue, %	9.6%	11.9%	10.9%	10.3%	12.6%	12.9%	14.2%	3.0%	10.4%	13.0%
Balance before debt movement/total revenue, %	-1.0%	1.1%	0.0%	0.4%	3.4%	4.7%	5.4%	-8.7%	1.3%	4.4%
Transfers and grants/operating revenue, %	19.2%	19.0%	18.6%	18.4%	18.9%	18.4%	18.4%	27.6%	28.7%	23.0%
Capital expenditure/total expenditure, %	8.7%	10.1%	9.9%	9.2%	9.0%	8.3%	8.9%	10.2%	8.2%	9.4%
GDP per capita, % of national GDP per capita	115.1%	114.7%	115.8%	114.3%	114.5%	115.2%	113.4%	112.0%	112.0%	110.8%

^{*} Not available

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

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