State government budgets: results for 2019

The coronavirus crisis is weighing heavily on government budgets this year. The same applies to the governments of Germany's federal states. Following in the steps of central government, the states have likewise activated the escape clause in their debt brakes, rendering them exempt from consolidation for the time being. This enables the states to contribute to macroeconomic stabilisation. At present, it is not yet possible to make a reliable assessment of what fiscal policy action will be needed when the crisis subsides.

Every autumn, the Bundesbank publishes a detailed report on the results of state government finances from the previous year. To ensure that the picture is even more comprehensive, the analysis also includes local governments and off-budget entities. The data are specifically prepared to aid interpretation and comparability between the states as far as possible. This analysis covers the pre-crisis year 2019.

Looking back, the financial situation has been very favourable overall and thus constituted a good starting point from which to tackle the crisis. The states recorded a total surplus of €10 billion in their core budgets. Including off-budget entities and local governments, the structural surplus (adjusted for cyclical effects, amongst other things) amounted to €17 billion.

Every federal state recorded a structural surplus. That said, there was still considerable heterogeneity, although the range had narrowed somewhat compared with the previous year. Interest expenditure was one of the causes of this development. A further fall in average rates of interest moderated the impact of the large differences in debt levels.

The states also used their surpluses to top up reserves. These special funds – some of which are well stocked – are earmarked to finance future investment, amongst other things. Once the escape clauses are no longer active and the debt brakes require the reduction of remaining fiscal gaps, greater use will be able to be made of these reserves. This can allow more time before actual consolidation is required. The fact that the federal states have, in some cases, designed their debt brakes very differently can also have a bearing on future consolidation requirements – for example, if this largely or even completely precludes cyclically-induced new borrowing.

Analyses and comparisons of state government finances based on financial statistics data alone are still meaningful to just a limited extent. Overviews of each state's debt brake requirements are also lacking. This impairs transparency and makes it more difficult to monitor national budgets, which, in Germany, is the responsibility of the Stability Council. The Stability Council continues to be tasked with working towards establishing appropriate statistical data and information on planning and debt brakes. Having timely information not only on core budgets but also on the major off-budget entities would also be helpful. A sound data base will be even more important in future. Budgetary surveillance is likely to become much more challenging than in the past few years, when fiscal conditions were very positive.

State government fiscal data

Regular comprehensive review of state government finances

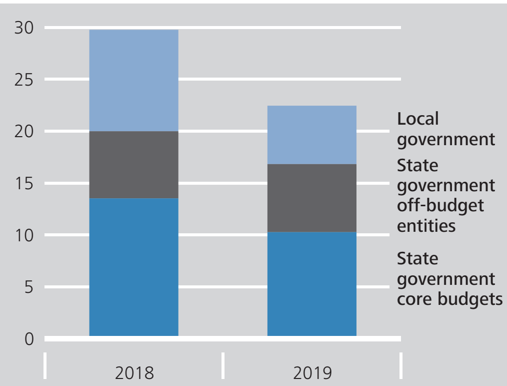
The Bundesbank's Monthly Report discusses the performance of state governments' core budgets every three months (in February, May, August and November). The preliminary result of the previous year is outlined in the following February. At this point, however, important data are still outstanding. In particular, data on closing entries as well as off-budget entities and local governments, which are ultimately attributable to the individual states, are only available at a later date. For the past two years, the Bundesbank has therefore also prepared and analysed data on financial developments for comparative purposes in autumn. The Stability Council, which is responsible for budgetary surveillance in Germany, limits its comparisons of the federal states to much more narrowly defined data.

State government finances in good shape prior to coronavirus crisis

The financial situation of the federal states will deteriorate dramatically this year as a result of the coronavirus crisis. This review looks at the good starting position last year but also points to the challenges that already existed at that time.

Breakdown of state and local governments' surplus*

€ billion



Sources: Federal Statistical Office and Bundesbank calculations. * Financial statistics data.

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Budgetary figures for the federal states (including local governments) as a whole

€ billion

Item	2018	2019
Derivation of adjusted structural balances		
Fiscal balance (1)	29.7	22.3
Financial transactions (net) (2)	– 9.8	– 6.5
Settlement of payments under the state government revenue-sharing scheme (3)	0.0	– 0.4
Adjusted balance (4)=(1)–(2)+(3)	39.5	28.4
Cyclical component[1] (5)	14.3	11.5
One-off effects (6)	1.8	0.0
Adjusted structural balance (7)=(4)–(5)–(6)	23.5	16.9
Net interest burden[2] (8)	12.2	10.6
Adjusted structural primary balance (9)=(7)+(8)	35.6	27.5

Sources: Federal Statistical Office (financial statistics) and Bundesbank calculations. **1** Data pursuant to the Bundesbank's cyclical adjustment procedure based on figures from the spring 2020 macroeconomic forecast. **2** Interest expenditure less interest income.

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Federal states as a whole

High surplus – but down on 2018

Last year, state government budgets, including their off-budget entities and local governments, recorded a high surplus of just over €22 billion (0.6% of gross domestic product (GDP)). In 2018, the surplus was larger still – by a little more than €7 billion (see the adjacent table, item 1, and chart).[1] The core budgets alone closed 2019 with a surplus of €10 billion. In addition, off-budget entities accounted for just under €7 billion and local governments for just under €6 billion.[2]

Structural balance lower than unadjusted balance

The structural surplus, which indicates the underlying budgetary position, amounted to €17 billion. It was lower than the unadjusted balance due to the elimination of a positive cyclical effect amounting to €11 billion (see

1 The adjacent table on the budgetary figures for the federal states as a whole follows the same structure as the upper part of the subsequent tables presenting the figures for the individual states (pp. 92 f. and 96 f.). Unless otherwise indicated, the data for the individual states in the tables are reported on a per inhabitant basis in order to improve comparability.
2 Background information: The figures here contain an additional off-budget entity each for Brandenburg and Lower Saxony that have not yet been recorded in the financial statistics data. At the end of 2019, Brandenburg set up a special fund using €1 billion from its core budget (credit-based pre-financing before the debt brake enters into force). Lower Saxony transferred €1½ billion of credit-financed funds from a new off-budget entity, in particular for the capital contribution to NordLB. This means that the off-budget entities' surplus is €½ billion lower than in the financial statistics.

Preparing state government data and remaining data gaps

Procedure and methodology[1]

Financial statistics data serve as the underlying dataset; the national accounts, which play a key role in European fiscal surveillance, do not feature any data on the individual federal states. Alongside state governments' core budgets, the present analysis also takes into account off-budget entities and local government data. This allows a much more meaningful picture to be produced:

- Off-budget entities belong to the government sector in the national accounts. They play a major role in some cases.

- Local governments are not only subdivisions of the federal states in terms of constitutional law: the way in which tasks are distributed between the state government and local government levels varies from state to state. Factoring in the local government level increases comparability. In addition, this allows the non-city states to be compared more effectively with the city states, which always include the local government level. As the city states have considerably higher financial requirements, a factor that is also reflected in the state government revenue-sharing scheme, the comparability of population-based variables remains limited.

In order to improve the comparability of indicators both among federal states as well as over time, the data are processed further. This allows structural budget outturns to be depicted in a better way:

- Financial transactions reported in the financial statistics that affect the fiscal balance are excluded. Such transactions often have a strong impact on fiscal balances in the financial statistics, but, in principle, only reallocate financial assets. For example, when a loan is granted, receivables increase by the amount of the corresponding expenditure – as a result, net financial assets remain unchanged. The financial statistics, however, will show a deficit, as they do not take account of the acquisition of assets but only the cash flows on the expenditure side. To this extent, the procedure selected here (exclusion of financial transactions) follows the basic approach of the national accounts.

- In order to depict the state government revenue-sharing scheme on an accruals basis, lagged settlement payments are taken into account: for the reporting year, the cash figures are adjusted to include the provisional settlement payments for the previous year and the reporting year. These comprise transactions between the state governments, but also payments between state governments and central government.

- Temporary cyclical factors obfuscate the underlying position and are therefore factored out of the calculations using the Bundesbank's cyclical adjustment procedure for government budgets. The results are based on the forecast published in June of this year.

- Finally, the results are adjusted for major one-off effects. The relevant figures for the states' core budgets are obtained

1 The adjustments are described in greater detail in Deutsche Bundesbank (2019a), pp. 40 f.

from the monthly cash statistics published by the Federal Ministry of Finance.

Supplementary background information on the technical particularities can be found in the footnotes of the main text.

Remaining shortcomings in the dataset and areas for improvement

Yet, for all these adjustments, it is still hard to interpret the data in places. Over the course of recent years, it has become increasingly difficult to assess the situation, particularly as significant reserves have been built up in some cases. The extent to which these can be used to close possible budget gaps in future cannot be derived from the figures in the financial statistics. For the intra-year observations, matters are complicated by the fact that figures on key entities, such as the new special funds bundling all coronavirus-related costs, are only available with considerable lags. Monthly data would be desirable here. The informative value of annual data would increase significantly if payments between government entities were immediately factored out of the respective category. Otherwise, figures on revenue from fees and service purchases, for example, lose a considerable portion of their informative value as the number of off-budget entities rises. Furthermore, in several cases, government tasks are being performed by non-governmental institutions with their own sources of revenue. As a result, the data on revenue and expenditure only cover a portion of the activities commissioned by general government, and the financial statistics report grants rather than personnel and other operating expenditure. Timely figures from state governments, local governments and off-budget entities on revenue and expenditure categories broken down by area of activity could provide much needed information in this context. Such figures have been newly added to the Federal Statistical Office's publication programme. However, the current figures only extend to 2012.

Even with these kinds of adjustments and supplementary information, the financial statistics remain limited as a coordinated reporting system on government budgets. For instance, the financial data do not allow any direct conclusions to be drawn with regard to the results accomplished by the payments. It would be desirable to agree upon suitable indicators for important objectives, which would improve the comparability of developments at the state government level. A number of different areas of responsibility would be ideal candidates for this. The values of meaningful indicators for educational attainment as well as for needs-based availability and quality of childcare facilities should be captured and published on appropriate reporting dates. Indicators for transport and digital infrastructure could also provide useful information. The benefits of federalism could be realised more readily if the experiences of each federal state are reported transparently and then used as a basis for learning how to better achieve objectives. This would make it easier to utilise limited public funds as effectively and efficiently as possible.

item 5 in the table).[3] The opposite effect, particularly as a result of adjusting for financial transactions,[4] (see items 2 to 4 in the table) was considerably smaller.[5]

Fiscal stance eased markedly

The federal states' finances were thus still in very good shape. However, the fiscal stance had already been eased significantly in the previous year. This is reflected in the fact that the structural primary surplus (the structural balance adjusted for net interest expenditure) fell by €8 billion (see items 7 to 9 in the table).

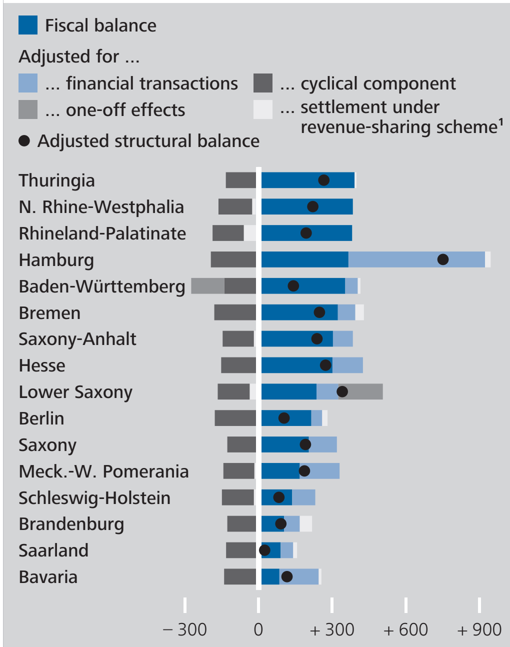
Individual federal states

States' results vary …

The results of the individual federal states are presented below. They show that, last year, not only the federal states as a whole but almost all of the states individually recorded significant structural surpluses. In Saarland, the structural balance was only slightly positive.[6] As in the previous year, Hamburg posted by far the highest surplus.

Derivation of the adjusted structural balance of state and local governments in 2019*

€ per inhabitant



Sources: Federal Statistical Office and Bundesbank calculations. * Financial statistics data. **1** Settlement of payments under the state government revenue-sharing scheme.

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… but the range is narrower

It is to be welcomed that the population-based range of structural budgetary positions has narrowed over the past year. It still amounted to just over €700 (2018: €1,100). While structural surpluses fell in most federal states, increases were recorded, particularly in states that had been in relatively unfavourable positions before. This applies, for example, to Bremen, which had still recorded the poorest result in the previous year, but also to Lower Saxony, North Rhine-Westphalia and Hesse. As was the case last year, Hamburg posted the highest structural surplus; however, this was also the surplus that fell by the largest amount (see the table on pp. 96 f., item 7).

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3 Background information: Compared with the previous report, estimates of the cyclical effect in recent years are now more favourable (and estimates of the structural situation are accordingly less favourable). The reason for this is the coronavirus crisis; as a result of the pandemic, the trend in the GDP path – which was recalculated using a filtering method, including retroactively – was revised significantly downward. GDP in 2018, too, is now thus further above the trend, indicating a greater positive cyclical effect on the economy (in the cyclical adjustment procedure used).

4 Background information: As of 2019, the financial statistics no longer record claims from guarantees as loans but as grants. They are therefore no longer classified as financial transactions and are no longer deducted, which means that, to this extent, the adjusted balance is less favourable than in the years up to 2019. However, this break probably does not have a significant impact on the interpretation of structural changes compared with 2018. Using this approach would likewise mean that the extensive payment made to HSH Nordbank in this regard in 2018 would not be included in the structural balance; it would merely be deducted as a one-off effect instead of as a financial transaction. See also Deutsche Bundesbank (2019a), p. 44.

5 Background information: The exclusion of one-off effects did not change the result for the federal states as a whole on balance. On the one hand, Baden-Württemberg received revenue totalling €1½ billion stemming from fines issued to car manufacturers in relation to the diesel scandal. On the other hand, Lower Saxony paid out capital contributions of €1½ billion in the course of rescuing NordLB. It is unclear how this will be recorded in the financial statistics as they do not yet include this off-budget entity. The transaction was deducted here as a one-off effect. In the previous year, Bavaria and Lower Saxony combined received a similar amount of one-off revenue from such fines as Baden-Württemberg did in 2019.

6 Background information: In both Saarland and Bremen, the structural balance would have been clearly negative without the last full payment of consolidation assistance from central government, which was made in 2019. However, the new budgetary recovery assistance that the two states will receive starting in 2020 will be somewhat higher still in the coming years.

Budgetary figures for the federal states (including local governments) in 2019*

Item	BW	BY	BB	HE	MV	NI	NW	RP
Derivation of adjusted structural balances	€ per inhabitant							
Fiscal balance (1)	353	85	104	301	168	236	384	381
Memo item: € million	3,917	1,110	263	1,888	270	1,889	6,879	1,558
Financial transactions (net) (2)	– 51	– 160	– 64	– 124	– 162	– 89	11	10
Settlement of payments under the state government revenue-sharing scheme (3)	11	11	50	– 10	– 17	– 36	– 15	– 50
Adjusted balance (4)=(1)–(2)+(3)	415	256	219	415	313	289	357	321
Cyclical component[1] (5)	139	140	127	142	126	130	137	127
One-off effects (6)	135					– 181		
Adjusted structural balance (7)=(4)–(5)–(6)	142	116	91	273	187	341	221	194
Memo item: After deduction of consolidation assistance	.	.	.	.	.	.	.	.
Net interest burden[2] (8)	119	– 16	113	195	109	119	142	181
Adjusted structural primary balance (9)=(7)+(8)	261	100	205	468	297	460	363	376
Expenditure, revenue and debt	€ per inhabitant							
Total expenditure (10)	6,728	7,622	6,965	7,543	6,743	6,434	7,037	6,108
of which:								
Personnel expenditure[3] (11)	2,884	2,726	2,772	2,938	2,639	2,750	2,774	2,774
Expenditure on current staff (11a)	2,179	2,050	2,368	2,274	2,188	2,081	2,066	2,083
Civil service pension benefits[4] (11b)	706	676	404	663	452	669	708	690
Other operating expenditure (12)	1,136	1,241	1,295	1,538	1,327	1,100	1,561	1,245
Interest expenditure (13)	139	62	130	221	155	174	203	202
Transfers to households (14)	663	784	817	995	886	962	1,070	802
Fixed asset formation (15)	723	924	504	522	688	463	402	451
Adjusted total expenditure[5] (16)	6,409	6,736	6,730	7,017	6,130	6,309	6,863	6,066
Less interest expenditure (16a)	6,270	6,674	6,601	6,796	5,974	6,135	6,660	5,863
Less interest expenditure and fees (16b)	5,688	6,199	5,964	6,013	5,425	5,697	5,688	5,355
Total revenue (17)	7,077	7,706	7,067	7,846	6,911	6,668	7,421	6,489
of which:								
Tax revenue[6] (18)	5,005	5,058	4,668	5,251	4,627	4,769	4,992	4,705
Fees (19)	582	475	637	782	550	438	972	509
Transfers from central government[7] (20)	504	525	955	633	1,037	577	581	562
Adjusted total revenue[5] (21)	6,547	6,852	6,820	7,292	6,317	6,648	7,084	6,260
Less fees (21a)	5,964	6,377	6,183	6,510	5,768	6,210	6,112	5,751
Debt at year-end (22)	5,094	2,108	7,743	9,033	7,445	9,488	12,840	11,949
Calculated average rate of interest (%)[8] (23)	2.69	2.83	1.73	2.38	2.14	1.82	1.60	1.61
Tax rates and multipliers								
Real estate acquisition tax (%) (24)	5.0	3.5	6.5	6.0	6.0	5.0	6.5	5.0
Real estate tax B (%)[9] (25)	391	394	409	490	428	435	577	403
Local business tax (%)[9] (26)	366	376	316	414	382	408	453	381
Other figures								
Staff (FTEs per 1,000 inhabitants)[10] (27)	34.7	31.5	36.1	35.0	31.6	33.5	33.2	33.7
Recipients of pension benefits (per 1,000 inhabitants)[11] (28)	13.8	12.9	4.8	14.2	4.6	14.2	14.0	13.7
A 13 annual gross civil servant pay (in €1,000)[12] (29)	62.5	65.5	61.5	60.8	62.1	62.0	60.7	60.5

Sources: Federal Statistical Office, Federal Ministry of Finance and Bundesbank calculations. * Core budgets and off-budget entities. Abbreviations: BW – Baden-Württemberg, BY – Bavaria, BB – Brandenburg, HE – Hesse, MV – Mecklenburg-West Pomerania, NI – Lower Saxony, NW – North Rhine-Westphalia, RP – Rhineland-Palatinate, SL – Saarland, SN – Saxony, ST – Saxony-Anhalt, SH – Schleswig-Holstein, TH – Thuringia, BE – Berlin, HB – Bremen, HH – Hamburg. **1** Data pursuant to the Bundesbank's cyclical adjustment procedure based on figures from the spring 2020 macroeconomic forecast. **2** Interest expenditure less interest income. **3** Including refunds to central government for legacy claims for pension benefits in eastern Germany (under the Entitlement Transfer Act *(Anspruchs- und Anwartschaftsüberführungsgesetz* – AAÜG)). **4** Including healthcare subsidies and AAÜG payments. **5** Excluding financial transactions on the revenue side and expenditure side as well as payments under the state government revenue-sharing scheme made by states providing contributions. Lagged payments under the state government revenue-sharing scheme are settled on the income side as a correction affecting the fiscal balance. **6** Taxes and compensation for motor vehicle tax; state

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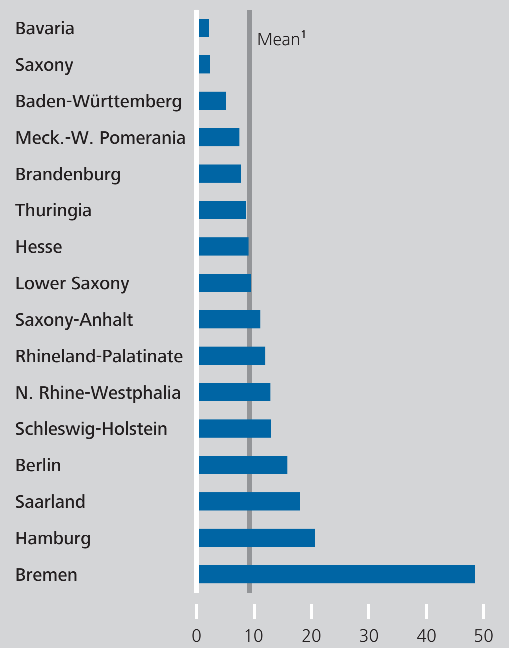
SL	SN	ST	SH	TH	BE	HB	HH	Total	Item
								€ per inhabitant	**Derivation of adjusted structural balances**
90	205	303	137	391	215	323	366	268	Fiscal balance (1)
89	835	666	397	835	785	221	674	22,277	Memo item: € million
– 51	– 114	– 81	– 94	6	– 44	– 71	– 556	– 79	Financial transactions (net) (2)
16	– 2	– 19	– 19	8	22	35	23	– 5	Settlement of payments under the state government revenue-sharing scheme (3)
157	317	365	213	393	282	429	945	342	Adjusted balance (4)=(1)–(2)+(3)
132	125	127	130	127	178	180	194	138	Cyclical component[1] (5)
								1	One-off effects (6)
25	191	238	83	266	104	248	751	203	Adjusted structural balance (7)=(4)–(5)–(6)
– 238	.	202	56	.	82	– 191	.	.	Memo item: After deduction of consolidation assistance
381	– 13	110	155	127	303	802	342	128	Net interest burden[2] (8)
406	178	349	238	392	407	1,051	1,093	331	Adjusted structural primary balance (9)=(7)+(8)
								€ per inhabitant	**Expenditure, revenue and debt**
6,700	6,626	7,018	6,941	6,323	8,541	9,701	11,080	6,997	Total expenditure (10)
									of which:
2,950	2,727	2,715	2,588	2,651	3,193	3,536	3,695	2,822	Personnel expenditure[3] (11)
2,176	2,359	2,290	1,941	2,245	2,456	2,602	2,659	2,165	Expenditure on current staff (11a)
773	368	424	647	406	737	934	1,036	658	Civil service pension benefits[4] (11b)
1,487	1,209	1,635	1,113	1,102	2,590	2,379	3,535	1,432	Other operating expenditure (12)
392	43	173	189	173	314	1,042	447	177	Interest expenditure (13)
604	744	613	929	726	816	1,101	846	867	Transfers to households (14)
388	697	556	632	614	452	371	663	593	Fixed asset formation (15)
6,603	6,417	6,906	6,783	6,289	8,396	9,515	10,324	6,794	Adjusted total expenditure[5] (16)
6,211	6,373	6,732	6,594	6,116	8,083	8,473	9,877	6,617	Less interest expenditure (16a)
5,760	5,901	6,215	6,073	5,672	7,472	7,612	7,634	5,943	Less interest expenditure and fees (16b)
6,790	6,831	7,322	7,078	6,714	8,755	10,022	11,446	7,265	Total revenue (17)
									of which:
4,716	4,583	4,592	4,792	4,608	6,430	6,480	7,034	5,041	Tax revenue[6] (18)
451	472	518	521	444	610	862	2,244	674	Fees (19)
878	799	1,258	735	861	942	1,272	816	656	Transfers from central government[7] (20)
6,628	6,608	7,145	6,866	6,555	8,499	9,762	11,075	6,997	Adjusted total revenue[5] (21)
6,177	6,136	6,627	6,345	6,111	7,889	8,900	8,832	6,323	Less fees (21a)
18,023	2,321	11,089	12,902	8,595	15,795	48,437	20,642	9,190	Debt at year-end (22)
2.18	1.69	1.65	1.44	2.02	1.92	2.99	2.12	1.94	Calculated average rate of interest (%)[8] (23)
									Tax rates and multipliers
6.5	3.5	5.0	6.5	6.5	6.0	5.0	4.5	5.4	Real estate acquisition tax (%) (24)
444	498	420	399	435	810	687	540	475	Real estate tax B (%)[9] (25)
446	422	376	378	407	410	469	470	403	Local business tax (%)[9] (26)
									Other figures
32.8	35.7	36.1	31.3	35.2	41.4	43.0	38.3	34.1	Staff (FTEs per 1,000 inhabitants)[10] (27)
17.2	3.1	5.4	13.7	5.4	17.2	22.4	19.8	12.7	Recipients of pension benefits (per 1,000 inhabitants)[11] (28)
60.7	64.1	62.5	59.8	62.4	60.6	61.2	61.7	61.8	A 13 annual gross civil servant pay (in €1,000)[12] (29)

government revenue-sharing scheme and general supplementary central government grants according to provisional settlement figures. **7** Excluding general supplementary central government grants and compensation for motor vehicle tax. **8** Interest expenditure as a percentage of debt at the end of the previous year. **9** Revenue-weighted average local government multipliers for 2019. **10** Public sector staff working in state and local governments as at 30 June 2019, expressed in full-time equivalents (FTEs). Areas in which non-public sector enterprises normally operate (such as university and other hospitals, nutrition, utilities, transport, finance) are not included. **11** Recipients of state and local governments' civil service pension benefits as at 1 January 2019. **12** Total of annual basic salary at the final level of the pay grade, general job-based allowance or structural allowance, special payment(s), assuming a 40-hour week. Total column shows the unweighted mean here. The A 13 pay grade applies in particular to many school teachers. Source: DGB Besoldungsreport March 2019.

Debt of state and local governments in 2019*

€ thousand per inhabitant



Sources: Federal Statistical Office and Bundesbank calculations. * Financial statistics data. Debt in the non-public and public sectors (non-consolidated). **1** Population-weighted mean of all state and local governments.

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Example: Hamburg saw strong expenditure growth and Bremen high revenue growth

The different developments can be traced back to various causes. In Hamburg, for example, adjusted[7] total expenditure rose sharply (see the table on pp. 96 f., item 16). This was due, in particular, to personnel expenditure and other operating expenditure (see the table on pp. 96 f., items 11 and 12). The largest increase in the number of staff was in Hamburg (see the table on pp. 96 f., item 27), and supplementary provisions appear to have been made, partly due to the wage agreement. At the same time, growth in adjusted total revenue was below average despite relatively steep growth in tax revenue (see the table on pp. 96 f., items 18 and 21). In Bremen, by contrast, adjusted total revenue still rose somewhat more strongly than adjusted total expenditure.

Interest burdens

Wide range of debt levels

Before the debt brake entered into force, individual federal states were able to determine their own net borrowing for investment purposes. They were able to breach this limit relatively easily without incurring repayment obligations. As a result, the (per capita) debt levels among the states are very different – irrespective of the extensive multi-year special transfers in connection with particularly high debt levels. For example, at the end of 2019, Bremen's debt exceeded the population-weighted state average by just over four times (see the table on pp. 92 f., item 22, and the adjacent chart). Hamburg and Saarland also recorded significantly above average figures, while Bavaria and Saxony were at the lower end. Interest expenditure resulting from debt (see the table on pp. 92 f., item 13) varied from state to state broadly in line with debt levels.

Debt falling in most states, but sharp rises in individual cases

Debt fell in most federal states in 2019 (see the table on pp. 96 f., item 22). However, considerable rises were recorded in some states, most notably in Bremen. It appears that Bremen had concluded forward transactions in the past to secure interest rate conditions. Consequently, the city state then had to finance the necessary collateral.[8] The rise in debt in Saxony-Anhalt resulted partly from financing a capital contribution to NordLB. In Brandenburg, loans were taken out to finance a special fund.[9]

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7 Background information: Here, total revenue and total expenditure are adjusted for financial transactions as well as one-off effects and payments made under the state government revenue-sharing scheme. Cyclical effects and payments made under the state government revenue-sharing scheme concerning other reporting years are neutralised on the revenue side (see the table on pp. 92 f., items 16 and 21).
8 See Federal Statistical Office (2020). Background information: In the case of forward transactions, collateral is generally required to secure the claims arising from the contracts. However, the provision or receipt of collateral is not reported as expenditure or revenue that would affect the budget. If current interest rates deviate from the agreed rates and the market value of the derivative changes as a result, the collateral requirements are adjusted accordingly. The rise in debt in Bremen resulted from higher cash advances. Cash advances may indicate that collateral has been provided or received. Collateral received increases cash balances. However, as it is repayable, a cash advance is also recorded in the corresponding amount. Collateral to be provided is often financed using cash advances. This, however, entails a claim on the collateral taker in the amount of the collateral provided. In this way, collateral provided in connection with forward transactions can decouple debt development from the budget deficit.
9 See Deutsche Bundesbank (2020), p. 65.

Average rate of interest down in almost all states, but considerable differences in some cases

Despite differing levels of debt, the risk premiums for borrowing do not vary widely from state to state. The capital markets appear to generally assume high creditworthiness and, if in doubt, that assistance would be provided by the German state as a whole. Nevertheless, the calculated average rates of interest that the states pay for their debt differ (see the table on pp. 92 f., item 23). Ultimately, this is due chiefly to the debt structure. For instance, there are differences in interest rate fixation periods and the percentage of loans that were taken out during years when interest rates were higher. Interest rate hedging operations are also likely to contribute to the variance. At 3%, Bremen recorded the highest average rates of interest. Schleswig-Holstein stood at the other end of the scale with rates of 1½%. In 2019, the average rate of interest still recorded a further fall of just over 0.1 percentage point across Germany as a whole.[10] Low interest rates are expected to continue to significantly dampen expenditure, especially for highly indebted states.

Interest expenditure offset by substantial interest income in some cases

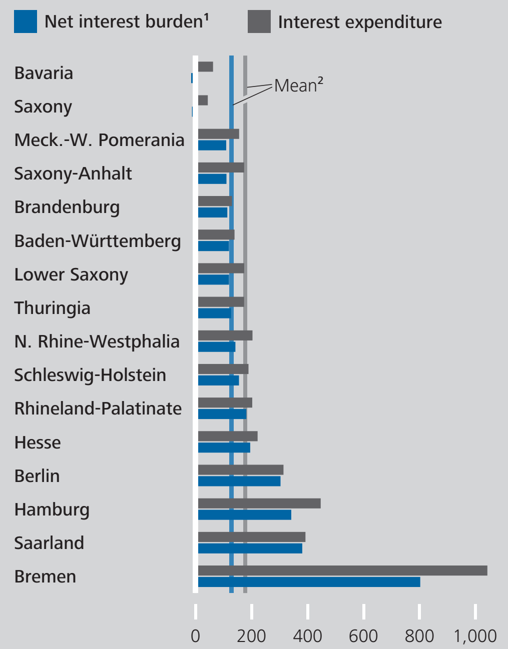
For a more comprehensive picture, account needs to be taken of interest income from financial assets alongside interest expenditure on debt. Netting both items (to calculate net interest) results in the per capita range between the federal states decreasing from €1,000 to €820 (see the table on pp. 92 f., item 8, and the adjacent chart). Bavaria and Saxony both posted slightly negative net interest burdens, meaning that their interest income was somewhat higher than their interest expenditure. By contrast, in spite of high revenues, Bremen had the heaviest net interest burden, and was followed some way behind by Saarland and Hamburg.

States with the highest interest rate burdens sometimes compensate for these with a more ambitious stance elsewhere

The structural primary balance shows the balance minus any existing (net) debt burden (see the table on pp. 92 f., item 9, and the chart on p. 98). In these terms, Hamburg recorded the highest surplus, closely followed by Bremen. Hamburg and Bremen adopted a more ambitious stance in the remaining areas of their budgets, evidently partly in response to their high interest burdens. The opposite was true for federal states with low interest burdens: Bavaria and Saxony used their low interest expenditure to pad out their budget more generously in other areas (low structural primary surpluses).

Interest burden of state and local governments in 2019*

€ per inhabitant



Sources: Federal Statistical Office and Bundesbank calculations. * Financial statistics data. **1** Interest expenditure less interest income. **2** Population-weighted mean of all state and local governments.

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Borrowing for crisis management not associated with significant interest burdens

The very low interest rates will also make it easier to manage the current crisis. The high level of borrowing to be expected can probably initially be financed without incurring a significant interest burden. However, while interest rates do not look set to see a turnaround in the short term and the average interest rate is likely to fall further to begin with, it should not be assumed that today's extremely low rates will persist over the long term.

10 The booking of premiums and discounts can sometimes also play a role in annual comparisons of the calculated average rates of interest. Premiums reduce and discounts increase the underlying interest expenditure.

Budgetary figures for the federal states (including local governments) in 2019: Change against 2018*

Item	BW	BY	BB	HE	MV	NI	NW	RP
Derivation of adjusted structural balances	€ per inhabitant							
Fiscal balance (1)	– 45	– 418	– 290	42	– 335	– 231	98	25
Memo item: € million	– 488	– 5,448	– 726	268	– 539	– 1,836	1,769	105
Financial transactions (net) (2)	– 18	– 87	– 50	– 26	– 33	– 18	68	4
Settlement of payments under the state government revenue-sharing scheme (3)	– 10	21	104	– 40	– 40	– 42	– 1	– 164
Adjusted balance (4)=(1)–(2)+(3)	– 38	– 310	– 137	27	– 342	– 255	30	– 144
Cyclical component[1] (5)	– 33	– 32	– 32	– 37	– 32	– 30	– 35	– 37
One-off effects (6)	135	– 61				– 307		
Adjusted structural balance (7)=(4)–(5)–(6)	– 139	– 217	– 105	64	– 310	82	64	– 106
Net interest burden[2] (8)	– 21	– 9	– 4	– 10	– 4	– 18	– 33	– 32
Adjusted structural primary balance (9)=(7)+(8)	– 160	– 226	– 109	54	– 313	63	32	– 138
Expenditure, revenue and debt	€ per inhabitant							
Total expenditure (10)	233	667	436	247	594	452	229	235
of which:								
Personnel expenditure[3] (11)	153	122	119	124	108	132	123	144
Expenditure on current staff (11a)	166	123	119	139	95	127	118	120
Civil service pension benefits[4] (11b)	– 14	– 1	0	– 15	13	5	4	24
Other operating expenditure (12)	78	82	65	128	77	36	81	7
Interest expenditure (13)	– 23	– 8	– 4	– 10	– 5	– 12	– 27	– 37
Transfers to households (14)	14	41	14	5	7	3	29	– 5
Fixed asset formation (15)	66	107	78	52	80	77	42	66
Adjusted total expenditure[5] (16)	283	424	329	241	498	438	194	243
Less interest expenditure (16a)	306	431	333	251	503	450	221	280
Less interest expenditure and fees (16b)	177	419	328	230	440	439	197	324
Total revenue (17)	186	249	145	289	259	217	327	259
of which:								
Tax revenue[6] (18)	– 7	– 2	113	106	50	68	87	– 11
Fees (19)	129	12	5	21	63	12	24	– 44
Transfers from central government[7] (20)	121	150	62	105	97	142	105	138
Adjusted total revenue[5] (21)	143	207	223	305	188	516	258	137
Less fees (21a)	14	194	218	284	125	504	234	181
Debt at year-end (22)	– 95	– 102	214	– 322	197	– 82	135	– 632
Calculated average rate of interest (%)[8] (23)	– 0.33	– 0.05	0.01	0.05	– 0.08	– 0.13	– 0.15	– 0.26
Tax rates and multipliers								
Real estate acquisition tax (%) (24)	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0
Real estate tax B (%)[9] (25)	– 6.2	0.1	0.5	17.3	1.2	3.9	6.4	1.4
Local business tax (%)[9] (26)	– 0.8	0.9	– 3.2	1.0	1.2	1.2	1.8	3.8
Other figures								
Staff (FTEs per 1,000 inhabitants)[10] (27)	0.6	0.4	0.4	0.6	0.5	0.8	0.5	0.5
Recipients of pension benefits (per 1,000 inhabitants)[11] (28)	0.4	0.3	0.5	0.2	0.3	0.3	0.3	0.2

Sources: Federal Statistical Office, Federal Ministry of Finance and Bundesbank calculations. * Core budgets and off-budget entities. Abbreviations: BW – Baden-Württemberg, BY – Bavaria, BB – Brandenburg, HE – Hesse, MV – Mecklenburg-West Pomerania, NI – Lower Saxony, NW – North Rhine-Westphalia, RP – Rhineland-Palatinate, SL – Saarland, SN – Saxony, ST – Saxony-Anhalt, SH – Schleswig-Holstein, TH – Thuringia, BE – Berlin, HB – Bremen, HH – Hamburg. **1** Data pursuant to the Bundesbank's cyclical adjustment procedure based on figures from the spring 2020 macroeconomic forecast. **2** Interest expenditure less interest income. **3** Including refunds to central government for legacy claims for pension benefits in eastern Germany (under the Entitlement Transfer Act (*Anspruchs- und Anwartschaftsüberführungsgesetz* – AAÜG)). **4** Including healthcare subsidies and AAÜG payments. **5** Excluding financial transactions on the revenue side and expenditure side as well as payments under the state government revenue-sharing scheme

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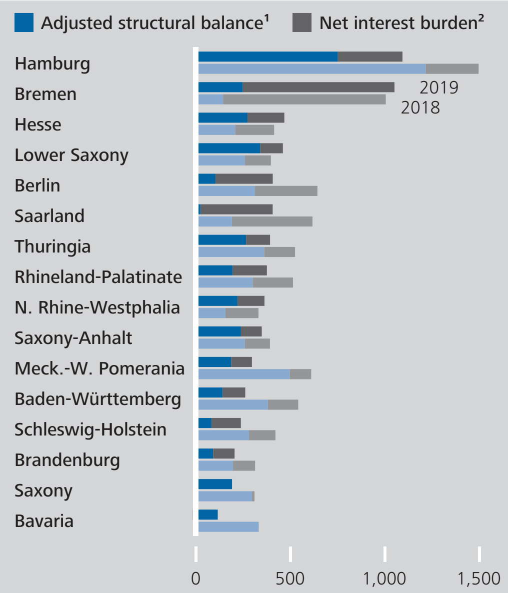
SL	SN	ST	SH	TH	BE	HB	HH	Total	Item
								€ per inhabitant	**Derivation of adjusted structural balances**
− 286	− 470	− 47	723	− 134	− 364	71	666	− 90	Fiscal balance (1)
− 284	− 1,916	− 108	2,093	− 290	− 1,315	49	1,224	− 7,442	Memo item: € million
− 58	− 338	− 25	1,008	3	31	49	1,237	39	Financial transactions (net) (2)
32	− 8	− 27	− 48	10	147	40	63	− 5	Settlement of payments under the state government revenue-sharing scheme (3)
− 196	− 139	− 49	− 333	− 127	− 248	62	− 508	− 135	Adjusted balance (4)=(1)–(2)+(3)
− 30	− 34	− 28	− 35	− 31	− 39	− 43	− 43	− 34	Cyclical component[1] (5)
								− 21	One-off effects (6)
− 165	− 106	− 21	− 298	− 96	− 209	104	− 465	− 80	Adjusted structural balance (7)=(4)–(5)–(6)
− 45	− 26	− 23	− 5	− 36	− 27	− 59	62	− 19	Net interest burden[2] (8)
− 210	− 132	− 43	− 303	− 132	− 236	46	− 403	− 99	Adjusted structural primary balance (9)=(7)+(8)
								€ per inhabitant	**Expenditure, revenue and debt**
763	583	288	− 377	408	432	360	− 537	342	Total expenditure (10)
									of which:
118	107	100	110	133	142	284	184	130	Personnel expenditure[3] (11)
129	112	101	113	122	134	238	139	129	Expenditure on current staff (11a)
− 11	− 5	− 1	− 2	11	8	46	45	1	Civil service pension benefits[4] (11b)
226	75	35	77	151	108	189	290	85	Other operating expenditure (12)
− 47	− 10	− 10	− 24	− 16	− 26	5	− 2	− 18	Interest expenditure (13)
− 23	11	2	17	2	− 13	48	6	17	Transfers to households (14)
103	67	81	107	100	107	39	− 72	70	Fixed asset formation (15)
771	553	261	606	413	444	429	626	347	Adjusted total expenditure[5] (16)
818	563	272	630	429	470	424	628	365	Less interest expenditure (16a)
800	575	274	595	322	559	339	565	337	Less interest expenditure and fees (16b)
476	119	240	346	274	67	428	128	251	Total revenue (17)
									of which:
− 28	53	60	73	29	155	59	131	54	Tax revenue[6] (18)
18	− 13	− 2	34	107	− 90	85	62	28	Fees (19)
157	56	90	144	58	36	154	172	115	Transfers from central government[7] (20)
606	453	240	308	317	234	530	161	267	Adjusted total revenue[5] (21)
588	465	242	274	210	324	445	98	239	Less fees (21a)
120	− 252	661	− 271	72	− 673	13,413	− 539	14	Debt at year-end (22)
− 0.23	− 0.21	− 0.04	− 0.31	− 0.07	− 0.13	− 0.07	− 0.15	− 0.15	Calculated average rate of interest (%)[8] (23)
									Tax rates and multipliers
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	Real estate acquisition tax (%) (24)
5.2	0.8	0.5	6.8	0.0	0.0	0.0	0.0	2.7	Real estate tax B (%)[9] (25)
0.8	0.7	12.6	− 2.3	− 0.9	0.0	0.0	0.0	0.9	Local business tax (%)[9] (26)
									Other figures
0.4	0.5	0.3	0.7	0.5	0.5	1.0	1.3	0.6	Staff (FTEs per 1,000 inhabitants)[10] (27)
0.4	0.3	0.4	0.3	0.7	0.2	0.1	0.1	0.3	Recipients of pension benefits (per 1,000 inhabitants)[11] (28)

made by states providing contributions. Lagged payments under the state government revenue-sharing scheme are settled on the income side as a correction affecting the fiscal balance. **6** Taxes and compensation for motor vehicle tax; state government revenue-sharing scheme and general supplementary central government grants according to provisional settlement figures. **7** Excluding general supplementary central government grants and compensation for motor vehicle tax. **8** Interest expenditure as a percentage of debt at the end of the previous year. **9** Revenue-weighted average local government multipliers. **10** Public sector staff working in state and local governments, expressed in full-time equivalents (FTEs). Areas in which non-public sector enterprises normally operate (such as university and other hospitals, nutrition, utilities, transport, finance) are not included. **11** Recipients of state and local governments' civil service pension benefits.

Adjusted structural primary balance of state and local governments*

€ per inhabitant



Sources: Federal Statistical Office and Bundesbank calculations. * Financial statistics data. The adjusted structural primary balance is the sum of the adjusted structural balance and the net interest burden. **1** Fiscal balance adjusted for financial transactions, settlement of payments under the state government revenue-sharing scheme, cyclical effects and one-off effects. **2** Interest expenditure less interest income.

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Information on debt structure needed when assessing interest burden

Relying on the information at hand, there are limits to how far it is possible to assess the way different interest rate paths impact state government finances – whether they act as a source of risk or offer potential for relief. Access to supplementary details concerning the debt structure of each federal state would therefore be a desirable addition. Alongside the residual maturities of any outstanding debt amounts, data on the average interest rate of debt maturing in a given year as well as on any hedging with derivatives would be needed. Derivative interest rate hedges prove particularly problematic in the interpretation of debt statistics, too (see footnote 8 for more information on their potential effects). It then becomes almost impossible to interpret the outstanding cash advances without explanatory notes. Drawing a distinction with conventional cash advances used to finance expenditure in the short term would be helpful for budget analysis purposes.

Selected other expenditure categories

Clear differences in expenditure for current staff …

Personnel expenditure represents the largest spending category for all federal states (see the chart on p. 99 and the table on pp. 92 f., item 11). Looking at the non-city states' expenditure for current staff (see the table on pp. 92 f., item 11a), there was a spread of almost €430 between the highest spender, Brandenburg, and the lowest, Schleswig-Holstein. Besides staffing levels (see the chart on p. 100 and the table on pp. 92 f., item 27), state-specific salaries (see the table on pp. 92 f., item 29) are a key factor behind the differences. The city states had significantly higher numbers of staff and, as a result, higher personnel expenditure.[11] However, the figures have to be interpreted with caution. A low number of staff does not necessarily indicate that tasks are being performed in a cost-effective manner, for instance. Instead of public sector staff, these services could be being provided by non-governmental institutions, which may then be receiving government grants. In these cases, lower personnel and operating costs will be recorded in the government sector and, on the revenue side, usage fees can be collected directly from the non-governmental institutions concerned (see the section on revenue from fees below).

… and on civil service pension benefits

Among the non-city states, expenditure on civil service pension benefits exhibited a similar spread as expenditure for current staff (see the table on pp. 92 f., item 11b). Given that the eastern federal states have no civil service staff of their own from the period prior to German reunification, they have far fewer recipients of civil service pension benefits (see the table on pp. 92 f., item 28, and the chart on p. 100). However, since reunification, they have employed comparatively high numbers of staff on salaried contracts rather than as civil servants,

11 Under the state government revenue-sharing scheme, the city states are estimated to require greater funding than the non-city states because their populations are given significantly larger weightings.

entailing fewer pension obligations.[12] Saxony posted the lowest expenditure while, among the non-city states in western Germany, Saarland recorded the highest. This was due not least to the state experiencing population decline over a number of years. Looking at the city states as well, pension expenditure in Hamburg was by far the highest.

Broad span for transfers to households, partly due to particularities in accounting

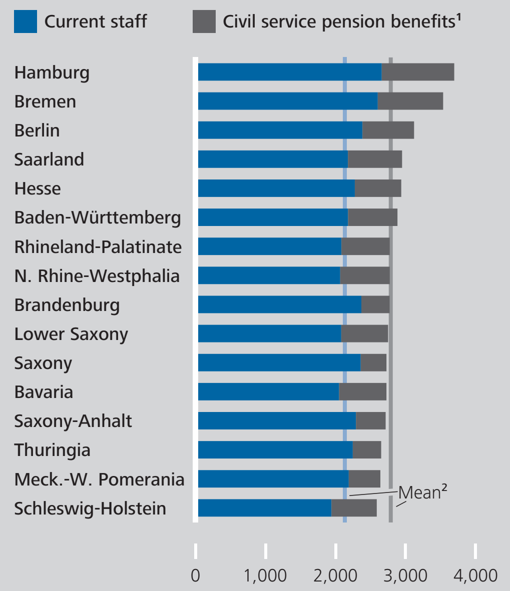
Social benefits are the prime component of transfers to households (see the table on pp. 92 f., item 14). For this item, there was likewise strong variation between the states. Expenditure was at its lowest in Saarland and Saxony-Anhalt, with particularities in accounting methods playing a role.[13] That said, even if those two states are discounted, the range in figures remains considerable: per capita expenditure in North Rhine-Westphalia was €400 higher than in Baden-Württemberg. Again, though, the data should be interpreted with caution, since they do not reflect the net burden on each state. Central government partially compensates the federal states (or – indirectly – the local governments) for various social benefits, such as accommodation costs for recipients of unemployment benefit II. Different reimbursement rates apply for different federal states because central government wished to secure specific levels of relief when unemployment assistance was abolished in 2005. In the case of the basic allowance for the elderly and for persons with reduced earning capacity, central government even reimburses the transfers in full. As a result, a federal state's net burden will be contingent, not least, on how the relevant transfers are structured.

Large differences in fixed asset formation

Particularly pronounced differences are apparent when examining fixed asset formation (see the chart on p. 100 and the table on pp. 92 f., item 15). Bavaria reported by far the highest figures, while the lowest among the non-city states came from Saarland and North Rhine-Westphalia. Despite high additional revenue stemming from the state government revenue-sharing scheme, fixed asset formation in the city states of Berlin and especially Bremen also remained significantly below the national reference figure. However, the differing degree of outsourcing to non-governmental entities makes for limited informative value in this category, too. Berlin, for instance, assigned school building work to a state-owned housing construction company. Since then, the corresponding investment no longer appears as state gov-

Personnel expenditure of state and local governments in 2019*

€ per inhabitant



Sources: Federal Statistical Office and Bundesbank calculations. * Financial statistics data. **1** Including refunds under the legislation incorporating legacy claims and entitlements to civil service pension benefits in eastern Germany into the western German pension scheme *(Anspruchs- und Anwartschaftsüberführungsgesetz)*. **2** Population-weighted mean of all state and local governments.

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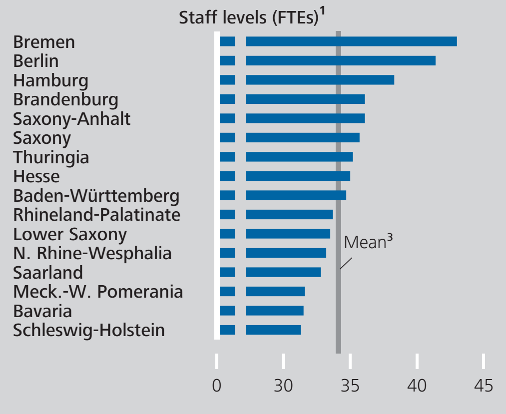
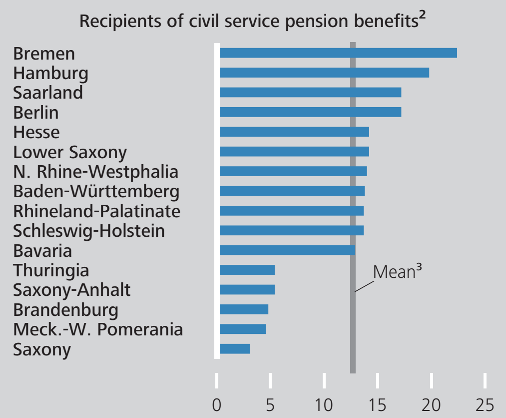
12 Background information: The pension costs reported in the eastern states and Berlin (eastern part) also include the federal states' payments of around €200 per capita to central government for special and supplementary pension payments made to former government employees up to 1990.

13 Background information: In Saxony-Anhalt (and apparently Saarland, too), some social benefits are recorded as other operating expenditure. Accordingly, its figure for that expenditure item was the highest out of all the non-city states. See Deutsche Bundesbank (2019a), p. 55. There were also sizeable differences between the non-city states when it came to other operating expenditure. It is likely that non-consolidated intra-state service purchases play a role in rendering comparison considerably more difficult here.

Staff levels and number of recipients of civil service pension benefits in state and local governments in 2019

Per 1,000 inhabitants





Sources: Federal Statistical Office and Bundesbank calculations. **1** Public sector staff in state and local governments (in full-time equivalents) as at 30 June 2019. Areas where tasks do not usually belong to enterprises that are part of the government sector are not included. **2** Recipients of state and local governments' civil service pension benefits as at 1 January 2019. **3** Population-weighted mean of all state and local governments.

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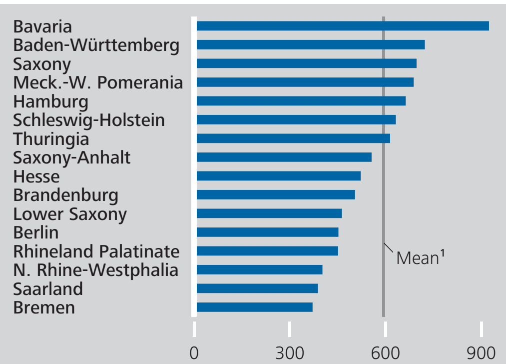
Fixed asset formation by state and local governments in 2019*

€ per inhabitant



Sources: Federal Statistical Office and Bundesbank calculations. * Financial statistics data. **1** Population-weighted mean of all state and local governments.

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ernment expenditure.[14] In any case, it is ultimately not the level of investment expenditure which is the decisive factor. Rather, it is a case of evaluating whether public infrastructure is in line with current and foreseeable future needs and thus does not present a hurdle to the location's development. There are no robust data aggregated at state level on this, however.

Selected revenue categories

Strong convergence of tax revenue due to revenue-sharing scheme

The state government revenue-sharing scheme is designed to limit differences in tax revenue between the federal states.[15] Accordingly, the scheme leads to a reduction of around three-fifths in the range of tax revenue figures (before distribution of turnover tax receipts) reported by the non-city states. Nevertheless, there are still significant differences in final tax revenue[16] (range of €670 across non-city states and of €2,450 if city states are included, see also the table on pp. 92 f., item 18, and the chart on p. 101). Hesse exceeded the reference figure for the non-city states by 6½%, which was partly due to its above average real estate acquisition tax and high multipliers for local government taxes. Under the approach applied for the revenue-sharing scheme (where this is factored out), the corresponding figure was 4½%. Calculated in these terms, Bavaria overshot Hesse by a further 2 percentage points. In Saxony, actual tax revenue was 7% lower than

14 Background information: This move was intended to accelerate investment but was evidently also motivated by options for accessing credit financing after the entry into force of the debt brake. See Sozialdemokratische Partei Deutschlands (SPD), DIE LINKE, BÜNDNIS 90/DIE GRÜNEN (2016), p. 71.
15 Background information: Just under two-thirds of local government tax revenue is included, with adjustment for different multipliers – similar to the approach used for real estate acquisition tax. The city states also benefit from the practice of upgrading their numbers of inhabitants. See the state government revenue-sharing scheme data in Federal Ministry of Finance (2020).
16 Background information: For the purposes of this report, the revenue of the states providing contributions is reduced by their payments under the state government revenue-sharing scheme.

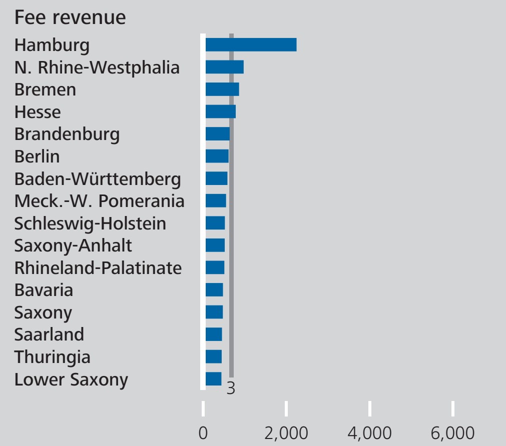
the reference figure for the non-city states.[17] Calculated for the purposes of the revenue-sharing scheme (i.e. adjusted, in particular, for Saxony's low real estate acquisition tax), it fell just 1½% short, however.

Broad spread for revenue from fees but comparability limited

Revenue from fees (see the table on pp. 92 f., item 19) differed to an even greater extent from state to state. This was due to Hamburg's extremely high revenues, which were more than three times the national reference figure.[18] Irrespective of this, higher fee revenue is not necessarily evidence that the general public is under a greater burden. Public services subject to fees may be outsourced out of the government sector to varying extents. One example would be independently operated or privately run childcare facilities. In such cases, the corresponding revenue will then be excluded from the financial statistics in the same way that the personnel and operating costs associated with the service will not be captured. Government grants to offset shortfalls of revenue over expenditure are recorded as transfers. It is not possible to estimate the impact of outsourcing on the individual categories in a reliable manner.

Tax and fee revenue of state and local governments in 2019*

€ per inhabitant



Sources: Federal Statistical Office, Federal Ministry of Finance and Bundesbank calculations. * Financial statistics data. **1** Population-weighted mean of all city states. **2** Population-weighted mean of all non-city states. **3** Population-weighted mean of all state and local governments.

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Concluding remarks

States making own contribution to coronavirus crisis assistance

Tackling the coronavirus crisis is currently the focal point for fiscal policy. Like central government, all federal states are seeking to suspend the credit limit imposed under the debt brake. To this end, they are activating the escape clauses enshrined in state law, a move which appears justified in the light of the pandemic and its ramifications. Doing so means that the federal states can not only allow pandemic-induced burdens to pass through to the budget, but are also in a position to finance assistance measures by raising new debt. For example, they are participating in various tax relief measures, often granting transfers of their own to the corporate sector, compensating for losses of income resulting from provisions under the Protection against Infection Act *(Infektionsschutzgesetz)* and purchasing personal protective equipment (PPE). Furthermore, state governments are frequently using the escape clause to stabilise their local governments' budgets, making it easier – amongst other

17 Background information: Under this approach, only the general supplementary Federal grants are included in tax revenue and the financial strength index. The special supplementary Federal grants, of which Saxony was a major recipient, are not taken into account. The values according to the state government revenue-sharing scheme are quoted in relation to the financial strength index, with the general supplementary Federal grants excluded from the denominator.

18 Background information: Hamburg's figures included around €300 per capita in internal payments for building use alone, which is something that does not incur a charge in other federal states.

The future requirements of state-specific debt brakes on state governments' budgets

Recourse to debt brake escape clauses in 2020

As of 2020, the debt brake enshrined in Germany's Basic Law applies to state governments in full. In principle, this means they are prohibited from structural net borrowing. Due to the coronavirus crisis, however, every federal state has been planning to make use of the escape clause in their state-specific debt brake. Like central government, many federal states still aim to have these extended credit facilities next year, too.

Different future challenges

If the escape clauses cease to apply further down the line, each state will face different requirements. This is due to the following factors in particular:

- The federal states' structural budget positions varied strongly even before the crisis. This will also have an impact on any future need for action.

- Different levels of provisions formed in previous years (e.g. reserves) make it possible to spread future consolidation over a longer period.

- The debt brakes normally allow temporary cyclical burdens to be financed through new debt. The cyclical adjustment procedures used and the borrowing entitlement options derived from these vary considerably in some cases.

- The rules also sometimes differ significantly beyond just cyclical adjustment, such as regarding the inclusion of financial transactions. In addition, there are various ways in which budgetary implementation may deviate from the regular limits. Borrowing leeway when implementing a budget (especially supplementary budgets) means that fewer buffers have to be included within the budget, thereby allowing a correspondingly looser stance to be taken.

- Different levels of new debt based on the escape clause will result in different repayment burdens after the crisis. Repayment periods of different lengths are also planned.

Selected aspects of this are examined below in closer detail.

Different cyclical adjustment procedures

Under the debt brake, federal states are permitted to exclude cyclical influences on their budgets. This makes borrowing possible in tougher times, while requiring appropriate repayments when the economic situation is favourable. The procedures chosen by the federal states to adjust for cyclical influences are very different and partly complex.[1]

For federal states, cyclical effects mainly affect tax revenue.[2] The procedures are divided into three basic types (with variations occurring within these groups):

- Some procedures refer to the overall economic development expected by central government in relation to the estimated potential output ("potential output method"). The calculated cyclical

1 For more detailed information on this, see Deutsche Bundesbank (2017).
2 The aggregate revenue to be taken into account consists primarily of tax revenue after state government revenue-sharing and of general supplementary central government grants. Hence, state-specific cyclical effects are largely offset.

overutilisation or underutilisation is used to derive the cyclical impact on taxes. New estimates are to be included in the draft budgets and thus early on in many cases.

– Other procedures calculate deviations in tax revenue from its projected trend derived from past years ("tax trend method"). This approach allows the financial impact of legislative changes to be filtered out. These procedures generally permit a time adjustment of consolidation efforts in the event of shortfalls in tax revenue.

– Other procedures are based on the level (and not the trend) of tax revenue in recent years. They only rarely allow a distinct increase in new debt ("tax level method").

Looking at 2019 illustrates clearly how widely the range of results from cyclical adjustment procedures can span (see the table below, column 5). In Bremen, for example, cyclical new debt of €10 (in each case, per capita) would have conformed with the rules, whilst in Saxony taxes were €430 higher than the calculated "normal value", and in Baden-Württemberg €310 higher. Bavaria completely refrains from taking into account cyclical influences, and net borrowing is not permitted even in a severe economic downturn (meaning that no corresponding surpluses are needed to make repayments in good times).

Although these figures for 2019 do not indicate the future fiscal challenges facing individual federal states once their escape clause expires, it is clear that, depending on the cyclical adjustment procedure, very different requirements may emerge in order to

Reserve holdings as at year-end 2019*

€ per inhabitant

Federal state	Cyclical off-set reserve	Budget contingency reserve	General reserve	Pre-financed special fund for invest-ment	Memo item: Cyclical component according to state procedure	Memo item: 2020 debt brake escape clauses		
						Borrowing authorisa-tion 1	Repayment period in years	Start of repayment
	1	2	3	4	5	6	7	8
BW	.	.	230	34	307	649	25	2024
BY	.	788	.	.	.	3,054	30	2024
BB	.	.	692	397	.	795	30	2022
HE	159	.	.	.	101	1,912	30	2021
MV	311	.	965	.	.	2 1,771	20	2025
NI	.	.	316	249	.	921	25	2024
NW	.	.	114	.	.	1,394	50	2024
RP	.	257	.	12	91	294	20	2024
SL	48	40	43	91	23	1,417	30	2025
SN	.	610	.	944	426	1,473	8	2023
ST	239	.	93	.	47	118	3	2022
SH	.	.	.	399	40	2 1,897	40	2024
TH	.	866	.	96	0	2 466	5	2022
BE	90	192	.	999	141	1,643	27	2023
HB	.	490	210	96	– 13	1,756	30	2024
HH	.	.	.	90	248	543	20	2025

* Source: Federal states' finance ministries. Abbreviations: BW – Baden-Württemberg, BY – Bavaria, BB – Brandenburg, HE – Hesse, MV – Mecklenburg-West Pomerania, NI – Lower Saxony, NW – North Rhine-Westphalia, RP – Rhineland-Palatinate, SL – Saarland, SN – Saxony, ST – Saxony-Anhalt, SH – Schleswig-Holstein, TH – Thuringia, BE – Berlin, HB – Bremen, HH – Hamburg. **1** Borrowing authorisations in the core budgets for 2020; total borrowing authorisations to finance special funds. **2** Still includes draft legislation as at 22 October.

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comply with the debt brake. Tax trend methods can tend to extend consolidation requirements and initially permit larger net borrowing. That said, this does pose the risk that debt will continue to build up. Potential output methods, too, would allow cyclical debt in the medium term (coming to an end by 2024). In this case, however, there are constantly new estimations of how structural revenue is developing. By contrast, tax level methods are likely to allow a rather limited scope for cyclically induced debt.

Provisions available from better times

If repayment obligations become effective or if structural budget gaps are planned to be closed gradually after the escape clause runs out, reserves can be used here, if available. In previous fiscally favourable times, the federal states formed provisions, which are extensive in some cases. States with little or no new borrowing options from cyclical adjustment may need to draw on these reserves to a greater extent in the coming years.

These provisions can be structured in different ways. Some federal states formed reserves, for example, from unused borrowing authorisations and surpluses in recent years (when the debt brake had not yet fully entered into force). The amounts recorded as reserves differ considerably (see the summary table on p. 103, columns 2 and 3). For example, the reported per capita reserves available for balancing budgets ranged from just over €80 in Saarland to just over €960 in Mecklenburg-West Pomerania (by comparison, central government's general reserve comprised around €580 per capita at the end of 2019). This corresponds to between around 2% and 20% of the tax revenue generated last year by these federal states (including their local governments).

Furthermore, special funds primarily designed to finance future investment were often topped up.[3] Existing borrowing facilities under the old debt limits were also used to fill these funds. Brandenburg, for example, passed a supplementary budget at the end of 2019 borrowing around €400 per capita to set up an investment reserve as a special fund. Saarland and Bremen, which received considerable consolidation assistance, also filled up these types of funds. This created temporary scope to implement investment projects under the debt brake in case of a tight budget situation, thereby easing the overall burden on the budget. Investment-oriented provisioning differs significantly from state to state (see the table on p. 103, column 4): this remained very limited in Baden-Württemberg and Rhineland-Palatinate according to the reports received. By contrast, provisioning was particularly extensive in Berlin and Saxony. The state of Berlin had invested relatively little over many years.

Repayment plans

At present, it is not yet possible to reliably estimate the level of debt that the federal states will incur due to the escape clause. This year's borrowing authorisations[4] amount to somewhere in the region of €120 billion (more than €1,400 per capita). As with central government, a repayment plan must be drawn up for planned extraordinary debt, and the funds for this are to be generated within the regular debt brake limit.

The repayment plans adopted so far vary widely. In Hesse, repayment is already scheduled to begin as early as 2021. Most federal states, however, only want to com-

3 Pension reserves and pension funds are comparable special funds. They are not considered here, however, owing to their planned use over many years.
4 Borrowing authorisations are included for the core budgets in 2020. Borrowing authorisations to finance special funds cover all years.

mence their repayments after allowing slightly more time to pass after the current coronavirus crisis. In some federal states, the repayment periods are then limited to just a few years, meaning that they are quite narrow. Saxony-Anhalt, for example, envisages only three years to repay its coronavirus-related debt (given its relatively limited borrowing authorisations). By contrast, other states are extending the repayment period considerably. The longest repayment phase compared to other federal states, lasting 50 years, was adopted by North Rhine-Westphalia. The unweighted state average is close to 25 years, which is higher than central government's repayment horizon.

The widespread prohibition of new debt in state budgets is a fairly strict rule. If the debt leveraged under the escape clause is reduced evenly and reliably, longer periods of time for its repayment do not appear to be a concern either. However, a very long period gives rise to especially large uncertainties, and it might give the impression that simply postponing burdens is the underlying intention. In this respect, a very long repayment period might contradict the original legislative intent.

First stabilisation, then consolidation

As long as the COVID-19 crisis has not yet been clearly resolved, it would appear appropriate to make use of the escape clause. This means that federal states can also continue to contribute to macroeconomic stabilisation, focusing on fiscal policy measures, such as in taxation or supporting local governments. Additional measures may make sense down the line. However, these should be temporary in order to avoid a structural strain on budgets after the crisis.

It would be important to present the expected future development of state government finances regularly and in a transparent manner. The Stability Council should have access to updated forecasts whenever it assesses general government budget developments (usually twice a year). These forecasts should include core budgets and be based on the most recent expectations (such as the latest official tax estimate and updated spending plans). In addition, information should be provided stating which requirements are set by the state-specific (and sometimes quite complicated) debt brakes. To this end, there would have to be clear illustrations as to what scope for new borrowing there is likely to be, whether this gives cause to expect fiscal gaps as a result, and which budget provisions are in place in order to (temporarily) close these gaps. The full picture should also include, in particular, information on expected developments in off-budget entities, planned financial transactions and estimated global revenue and expenditure (such as global spending cuts).[5]

Uncertainty about the further course of the pandemic and the economic constraints it entails remains high. It is likely that tax revenue will also be structurally lower than was expected before the crisis, meaning that the debt brakes are likely to require adjustment measures in the future in order to close fiscal gaps. However, it seems advisable not to adopt consolidation measures for the medium term at first, but to wait for further developments. Given the current uncertain situation, it is therefore not recommended to draw up budgets where the course of fiscal policy is set for two years. First of all, it would be important to tightly limit the pandemic-related burden on potential output and to support recovery and necessary structural adjustments. Specific consolidation measures are only appropriate once a draft budget has to be adopted without recourse to the escape clause.

5 For further information on requirements, see Deutsche Bundesbank (2018).

things – to maintain their investment activity. All in all, the federal states are making key contributions to macroeconomic stabilisation.

Federal states on a solid fiscal footing

As part of the Bundesbank's regular reporting cycle, this article looks back at the starting position of federal state finances prior to the crisis. Overall, they were on a very favourable footing: together with their off-budget entities and local governments, the federal states posted a considerable budget surplus in 2019 – even after deduction of the positive cyclical effect. In addition, all states had prepared for the debt brake in Germany's Basic Law *(Grundgesetz),* which entered into force for them this year: they scaled back their structural deficits and also, in some cases, made extensive provision for harder times. As a result, some federal states closed 2019 with high reserve holdings. Based on the figures reported by the states (see the table on p. 103, columns 2 and 3), reserves expressed as a percentage of total core budget expenditure ranged from 2% in Saarland and Saxony-Anhalt to 18% in Mecklenburg-West Pomerania.

Prudent to activate escape clauses for 2021 too but also make stabilisation measures temporary

In many cases, reserves are currently being left untapped since the escape clauses are enabling temporary credit financing. As it is foreseeable that the crisis will continue into the coming year, it makes sense to make use of the clauses again. Moreover, further measures for tackling the crisis may be advisable in future. These should then be limited to specific timeframes, so as to avoid additional structural burdens in the post-crisis period.

Consolidation likely to be needed after the crisis

Once the crisis eases and the escape clauses expire, consolidation measures may be necessary to achieve compliance with the debt brake. Not least, the current tax estimate suggests that the coronavirus crisis has opened up not only temporary gaps, but also structural ones. Such structural gaps would need closing in future, though the existence of reserves means that the adjustment path can be spread over time.

Create transparency around widely different state-specific requirements without delay

At any rate, it is not yet the time to outline concrete consolidation measures; that can wait until the crisis eases and there is more clarity about the future path of events. There is a need for transparency with regard to the challenges currently anticipated, however. Gaining a clear picture of the situation is made very difficult by the complexity of state-specific sets of rules and the different sets of reserves. As a result, the post-crisis adjustment paths and needs for consolidation may vary considerably (for more details, see the box on pp. 102 ff.). It seems virtually impossible to achieve effective budgetary surveillance without access to suitable overviews of current developments and federal state planning, including reference to any need for action to maintain compliance with the respective provisions. For these purposes, more informative data on respective state outturns and budgetary planning would be required. In its capacity as Germany's core body responsible for fiscal surveillance, the Stability Council should hasten to work towards creating a more rigorous and meaningful data basis.[19]

19 See also Deutsche Bundesbank (2019b) and Independent Advisory Board to the Stability Council (2019).

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