Creating true value.

Issuer Guide German Laender 2023

NORD/LB Markets Strategy & Floor Research

August 2023

NORD/LB
ISSUER GUIDE
German Laender 2023

Authors

Dr Norman Rudschuck, CIIA
Floor analyst, SSA/Public Issuers
Director
norman.rudschuck@nordlb.de

Christian Ilchmann
Floor analyst, SSA/Public Issuers
Associate
christian.ilchmann@nordlb.de

Assisted by
Lukas-Finn Frese

Contents

Contents

Introduction

Authors: Dr Norman Rudschuck, CIIA // Christian Ilchmann

Foreword

As was previously the case, the 16 German Laender continue to represent by far the largest sub-sovereign market in Europe. The outstanding volumes and annual issuance volumes of the Laender segment in Germany are higher than at any other sub-national level. Traditionally characterised by a steady supply of new bonds and (high) relative attractiveness versus Bunds, the Laender segment has always represented an interesting alternative to sovereign bonds. As a result, this sub-segment is among the most liquid, albeit not necessarily the most complex, markets in the European segment for supranationals, sub-sovereigns and agencies (SSA). In future – and above all after the coronavirus pandemic – issuance volumes are, however, likely to decline following the (re)application of the debt brake from 2023 in 13 of the 16 Laender at present. In contrast to the federal government (Bund), the debt brake essentially prohibits any net borrowing at Laender level not related to an emergency situation that is also beyond the control of the public sector. The debt brake represents one of the most important changes with regard to Laender finances for quite some time, as is the case with the reform of the federal financial equalisation system. In 2020, shortly after coming into force, the debt brake was suspended for 2020, 2021 and 2022 nationwide – due, as is well known, to the coronavirus pandemic – after the emergency paragraphs contained in the legislation were invoked. As a result, in 2023, the debt brake is now expected to take effect again in 13 of the 16 Bundeslaender to facilitate the supplementary budgets adopted to date by the federal government (or special funds) and the 16 Laender parliaments. These supplementary parliaments were adopted with a view to mitigating the consequences of the coronavirus pandemic.

Tenth edition of the Issuer Guide German Laender

The Issuer Guide German Laender, which is now to be published on a yearly basis once again, is part of a series of NORD/LB Markets Strategy & Floor Research products covering individual issuers and market segments in the global bond market. Following on from the first issue in 2013 − and an unplanned break in 2019 − this publication is the tenth edition in this format, which has consistently provided an extensive overview of the largest EUR market for sub-sovereigns. The focus of this Issuer Guide has always been to provide a relative comparison of this group of issuers and to highlight their respective idiosyncrasies. With the 16 Bundeslaender and the “Gemeinschaft deutscher Laender” joint issuance vehicle, we are once again firmly of the view this year that the present publication will offer our readers an extensive insight into the German Laender segment.

Laender versus Bundeslaender: a grammatical-legal alignment

According to Germany’s federal constitutional framework, a “Land” (as per official legal terminology; often referred to as a Bundesland in common German parlance; plural version: Laender/Bundeslaender), or federal state, is a partially sovereign member state of the Federal Republic of Germany. Since 1990, the Federal Republic of Germany has consisted of 16 federal states. According to the Basic Law (Grundgesetz [GG]; effectively the constitution of the Federal Republic of Germany), the Laender together do not merely represent some loose confederation of states, but rather form a sovereign federal nation. For this reason, although we have opted to adjust the headings this year, we will continue to predominantly refer to Bundeslaender in the main body text, since we also receive international recognition for greater returns and pick-ups with our “Beyond Bundeslaender” publication series, which shines a light on sub-sovereign issuers in other countries.

Print versions of all NORD/LB Issuer Guides aligned to specific needs
This year, we have once again decided to make the *Issuer Guide German Laender* exclusively available in PDF format due to sustainability considerations. However, even a sustainable approach calls for some leeway: should any of our readers prefer the Issuer Guide in printed format for their work, then we will gladly supply a hard copy. Please get in touch with your NORD/LB contact to provide a shipping address and indicate the number of copies required. Alternatively, you can also contact markets@nordlb.de.

Extended chapter: German Laender and ESG
Staying on the topic of sustainability, this year we will again be dealing with ESG (Environmental, Social, Governance) aspects in connection with our analysis of the German Laender. Up to now, five Laender in total have published their own frameworks, under which benchmark bonds have already been placed: North Rhine-Westphalia leads the way (sustainability framework), followed by Baden-Wuerttemberg and Hesse (both green frameworks), as well as Berlin (sustainability) and Saxony-Anhalt (social).

NORD/LB publications complementing our Issuer Guides
To complement this Issuer Guide, which aims to provide a market overview as comprehensive as possible, our publication spectrum also looks at specific market developments and fundamental changes in framework conditions across the entire SSA segment and covered bond market. These regular (in some cases weekly) publications, analyses and commentaries can be found in the usual manner on our website (http://www.nordlb.com/nordlb/floor-research) as well as via the NORD/LB Research Portal with Bloomberg (RESP NRDR <GO>). Should any of our readers not yet have access to these platforms, then please contact your account manager, send an email to markets@nordlb.de or simply click here.

Overarching changes in the segment
The principle of federal loyalty and the old federal financial equalisation system resulted in a clear convergence of the credit profiles of the individual Bundeslaender, both with respect to each other and versus the federal government. The introduction and preparatory phase of the debt brake and the monitoring of Bundeslaender finances by the Stability Council represent additional factors that have served to heighten this effect in recent years. At the same time, Laender finances continue to face huge challenges. Growing municipal debt and high implicit pension liabilities are just two factors that are already making budget management significantly more difficult and which will come into focus again in the coming years in the wake of the coronavirus crisis. The reform of the federal financial equalisation system agreed at the end of 2016 reduces the previously increased pressure from the relationships among the Laender themselves. These and other major challenges (Covid-19, influxes of refugees, war, inflation, etc.) are impeding the significant progress that the Laender have made in connection with required budget consolidation efforts: interest coverage has improved on a continuous basis over the past few years, while debt sustainability had also been recovering until the pandemic hit. Nevertheless, fundamental and significant differences continue to exist between the individual Laender, a situation that, in our opinion, necessitates a relative analysis.

Conclusion
The aim of the present *Issuer Guide German Laender 2023* is to facilitate the relative comparison of German sub-sovereigns against the backdrop of the constitutional and regulatory framework conditions. In particular, we highlight the differences relating to spreads and issuance volumes in light of the fundamental development of finances and the economy in the Laender. In addition, for the purpose of a differentiated analysis, we will also take a look at the Gemeinschaft deutscher Laender (Ticker: LANDER) as an issuer of Laender jumbos starting at a minimum value of EUR 1bn.

Constitutional framework
Principle of federal loyalty

Federal loyalty as unwritten constitutional law

Art. 20 of the Basic Law (Grundgesetz; GG) defines Germany as a federal republic. A structure of this type is classified under constitutional law on the basis that the federal government (Bund) and federal states (Bundeslaender), as members of the federal republic, must collaborate with the aim of forging mutually beneficial ties. In his essay entitled "Unwritten Constitutional Law in a Monarchic Federal State" (Ungeschriebenes Verfassungsrecht im monarchischen Bundesstaat) published in 1916, Rudolf Smend shaped our understanding of the German principle of a federal state. As an unwritten facet of constitutional law, the relationship between the federal government and Laender, Smend writes, is based on a spirit of cooperation instead of one of pure subordination. In its decision of 21 May 1952, the German Federal Constitutional Court (Bundesverfassungsgericht) referred to Smend's interpretation and came to the view that the principle of federalism includes "a legal obligation on the part of the federation (Bund) and all its members to 'conduct themselves in a way that is favourable towards the federation'" (Federal Constitutional Court Decision [BVerfGE] 1, 299). As such, the ruling gave rise to our contemporary understanding of the principle of "federal loyalty", as it is also known.

Implementation and definition of the principle of federal loyalty: Bremen and Saarland 1992

In 1992 an "extreme" budgetary crisis was identified in the Laender of Bremen and Saarland, which was subsequently confirmed by the Federal Constitutional Court for both Laender. The Court also defined the principle of federal loyalty: "If a member of the German federal community, whether it be the federal government or one of the federal states, is in the grip of an extreme budgetary crisis, the federal principle is defined by the duty of all the other members of the German federal community to render assistance to the affected member. The objective shall be to stabilise the budget based on concerted measures" (BVerfGE 86, 148). As a result, both Bremen and Saarland received payments to help restructure their budgets in the wake of the extreme budgetary crises in these Laender. For example, between 1999 and 2004, Bremen received the equivalent of EUR 3.9bn (DEM 7.7bn) in staggered special-need federal supplementary grants (SoBez) of decreasing amounts in order to restructure the budget, while Saarland received the equivalent of EUR 2.6bn (DEM 5.0bn) across the same time frame.

Extreme budgetary crisis as a prerequisite for federal loyalty to apply

The decision handed down by the Federal Constitutional Court created a prerequisite for federal loyalty to apply or for assistance to be provided by the Bund and Laender: an extreme budgetary crisis. The Federal Constitutional Court used a total of three indicators to assess the Bundeslaender budgets and to determine whether an extreme budget crisis existed. The credit financing ratio, as the ratio of net borrowing to the budgetary revenue and expenditure; the interest-tax ratio, as the ratio of payable interest to taxes received; and the primary balance, as the difference between the primary or core expenditure and the primary revenue, in which the net borrowing and other items are excluded. In the case of both Bremen and Saarland, the budgetary crisis was assessed as extreme on the basis of these indicators in comparison with the other Bundeslaender.

The case of Berlin in 2002

In 2002, Land Berlin tested the concept of federal loyalty. Berlin's Senate identified an extreme budget crisis, whereby it was concluded that federal restructuring aid would be an unavoidable measure required to help consolidate the city state's budget. The budgetary situation was regarded by the Berlin Senate as fulfilling the requirements for entitlement to restructuring aid under constitutional law. Berlin's application for a judicial review submitted to the Federal Constitutional Court was, however, rejected. The Court regarded restructuring obligations on the part of the federal government and claims by a Bundesland in distress "as alien to the federal financial equalisation system, based on the purpose and spirit of Art. 107 (2) Sentence 3 of the Basic Law (Grundgesetz; GG). They are in conflict with the principle implying that autonomous budgetary policy must be dealt with by the Bundeslaender independently and on their own responsibility" (press release issued by the Federal Constitutional Court, No. 96/2006 of 19 October 2006). The Federal Constitutional Court assessed the existence of a budget emergency as being the result of insufficient financial resources. However, the court saw the need to reform the federal financial equalisation system instead of providing additional federal grants. Nevertheless, the Federal Constitutional Court emphasised that federal aid provided through restructuring funding was admissible as a last resort.

Federal aid only in extreme budgetary crises

The Court added that this was only permitted and necessary if a budgetary crisis was considered extreme in relation to the budgets of the other Bundeslaender. However, this was not the case in Berlin, it concluded. Nevertheless, the Court did identify potential for additional consolidation measures. In this context, it expressly pointed to the significantly higher expenditure by Berlin in comparison with Hamburg, for example in relation to "cultural affairs", among other aspects.

Comment

The principle of federal loyalty as unwritten constitutional law is a basic element of the principle of German federalism. The most recent judgement of the Federal Constitutional Court once again increased the pressure on the federal government (Bund) and Bundeslaender to reform the financial equalisation system should budgetary emergencies become increasingly apparent or were they to actually arise. We nonetheless do not believe that the likelihood of support from Bund and Bundeslaender in extreme emergency situations has decreased as a result of the most recent judgement. On the contrary, the increased pressure on both Bund and Laender led to an informed debate on revisions to the financial equalisation system and ultimately to a proposal to reform it in October 2016. As a result of this, the tensions between the contributor and recipient Laender, as they were known at this time, were significantly eased, providing the Laender with budgetary certainty in connection with the debt brake applicable from 2020. From our point of view, this is certainly to be assessed positively. From now on, a new and reformed system will be in force, in which less money will be redistributed horizontally between the Laender. Instead, VAT is distributed from the outset in such a way that Laender with many structurally weak municipalities receive more – in this way, the aim, among other aspects, is to avoid any debate between contributors and recipients. Moreover, the federal government is to ease the burden on the Bundeslaender to the tune of EUR 10bn per annum. At the same time, the tasks assigned to the Laender were modernised in key areas and the competencies of the federal government strengthened.

Constitutional framework
The federal financial equalisation system

Federal financial relationships in Germany

With the federal financial equalisation system, Germany has at its disposal a system – similar to other federal nations – aimed at harmonising the financial power of the individual Bundeslaender, so that these are able to fulfil the tasks incumbent upon them. Furthermore, the federal financial equalisation system is intended to provide a platform for the creation and maintenance of equal living conditions across the whole of Germany. The special feature of the German system up to and including 2019 was a pronounced horizontal component of equalisation, via which money was distributed directly between the individual Laender. After the old regulations, namely the Financial Equalisation Act (Finanzausgleichsgesetz) and the Standards Act (Maßstäbegesetz, MaßstG) expired at the end of 2019, a revised version of the federal financial equalisation system within the meaning of Art. 107 GG has been in force since the beginning of 2020, in which the horizontal distribution level no longer plays such an important role. In the form applicable up to the end of 2019, the federal financial equalisation system comprised a vertical distribution component of all tax revenues at the level of federal government (Bund), Laender and municipalities, a horizontal VAT distribution component, the financial equalisation of the Laender in the actual sense of the phrase and federal supplementary grants (Bundesergänzungszuweisungen; BEZ).

Old system structured in four levels

The first level of the old federal financial equalisation system was focused on the distribution of joint taxes to the federal government, the Laender and the municipalities. The municipalities were entitled to a share of income tax and VAT. After this came the horizontal distribution of tax revenues. After allowing for marginal corrections, the principle of local tax receipts applied to income and corporation tax. A different distribution key was used for VAT, whereby up to 25% of tax receipts was initially distributed to Laender with below-average per capita tax revenues, with the aim of closing gaps in financial strength and implementing an initial adjustment. The remaining Laender portion of VAT was distributed across all the Laender on a per capita basis. The third level of the old federal financial equalisation system comprised financial equalisation payments between the Laender themselves (closest to actual sense of the phrase in general), in which the financially stronger Laender made payments to the financially weaker Laender. As was the case with the distribution of VAT, the aim here was not to completely converge the financial power of the Laender, but rather to bring it closer to the average. To determine the payment amounts, the financial strength per capita after VAT equalisation was calculated, whereby the populations of the city states (+35%) in addition to Brandenburg, Mecklenburg-Western Pomerania and Saxony-Anhalt (+2-5%) were notionally increased to take account of the elevated funding requirements in these Laender. The underlying revenues also contained 64% of the revenues at municipality level in the respective Bundesland, reflecting the fact that providing financial assistance to the municipalities was, and remains, a task incumbent upon the Laender. Under this system, the Laender displaying below average financial strength benefited from equalisation grants paid out by the Laender whose financial strength was deemed to be above average. The ranking of the Laender in terms of their respective financial strength was not altered by this.

Fourth and final level

The fourth and final level of the old federal financial equalisation system was composed of federal supplementary grants, otherwise referred to as BEZ payments here. Generally speaking, these grants represented a form of funding that was paid to recipient Laender directly from the federal government. They can also be sub-divided into general BEZ and special-need BEZ (Sonderbedarfs-BEZ; SoBEZ). After taking into account financial equalisation payment from the Laender, every Bundesland that still had less than 99.5% of the average financial strength per capita received general BEZ grants. SoBEZ payments were intended for Laender facing extraordinary financial burdens. However, these payments were not designated for a special purpose. The main recipients of SoBEZ payments were the Bundeslaender that made up the former East Germany. These Laender were awarded such grants within the framework of Solidarity Pact II (Solidarpakt II) in order to cover any special charges resulting from the division of Germany. Moreover, Bundeslaender in which disproportionately high costs of political leadership were identified, which primarily impacts small Bundeslaender, also received SoBEZ payments, as the fixed costs of political leadership in these Laender are borne by fewer inhabitants.

Summary of the old federal financial equalisation system

The public perception of the old system of federal financial equalisation was shaped by debates about net payer and net recipient Laender, above all among the Laender themselves. In this context, the former group tended to hold a more negative opinion of the system than the latter. Overall, it was clear that the East German Laender and Berlin received the highest funding across the period under review as a whole since 1995, the costs of which were overwhelmingly borne by Laender in the south and west. On the net payer side, Bavaria contributed the largest sum in the period under review, with Bad.-Wuer. taking the silver medal. East German non-city states were at all times net recipients across every segment of the federal financial equalisation system since its inception.

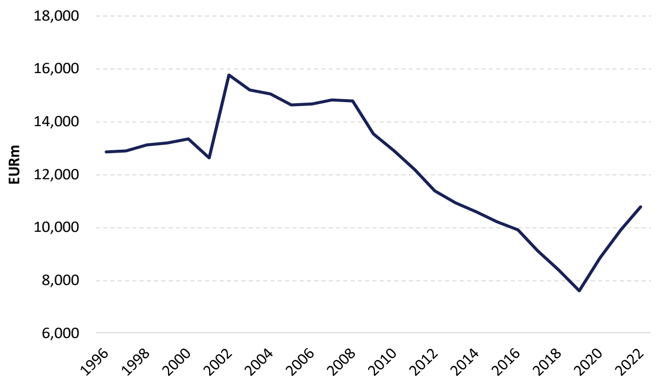
Bavaria, Baden-Wuerttemberg and Hesse by far the largest payers in the old system of financial equalisation among the Laender (LFA)...

The distributed volume of financial equalisation payments between the Laender themselves in the actual sense of the phrase (LFA) increased significantly from EUR 1.5bn to EUR 5.7bn following the integration of the new Bundeslaender in the system in 1995, which was followed by sustained growth in the distributed volume up to the point in 2022 that a peak value of EUR 18.5bn was recorded. The main payers across this period from 1995 through to the reformation of the system were Bavaria (EUR 104.9bn), Bad.-Wuer. (EUR 80.4bn) and Hesse (EUR 69.5bn). Moreover, these three Laender were the only ones to always be net payers across the period under review. A glance at the statistical archives dating back to 1967 reveals that Bad.-Wuer. remains the only constant contributor Bundesland, although Hesse has only switched to the net recipient side on a single occasion. Under the LFA, the East German Laender are the largest beneficiaries, with Berlin taking top spot here at EUR 86.3bn, followed at some distance behind by Saxony (EUR 35.2bn). It is additionally noteworthy here that the difference between the contributions made by the largest payers and the allocation to the main recipients increased substantially over time, as was the case under the UStA, which signalled a rising economic disparity that holds true in both absolute and relative per capita amounts (p.c.). In 2022, Bavaria paid a total of EUR 738 p.c., while Bremen received EUR 1,297, equating to a difference of EUR 2,034. In 2010, this value totalled EUR 1,127 (payer Hesse: EUR 289; recipient Berlin: EUR 838), while back in 1995 when the new Bundeslaender were first integrated in the LFA, the equivalent figure stood at EUR 805. It is also worth noting that Bavaria had been a recipient Bundesland under the LFA up to the mid-1980s before achieving its status as the largest net payer. In contrast, NRW has definitively switched to the recipient side of the system since 2010 (exception: 2020), having largely been a net payer before.

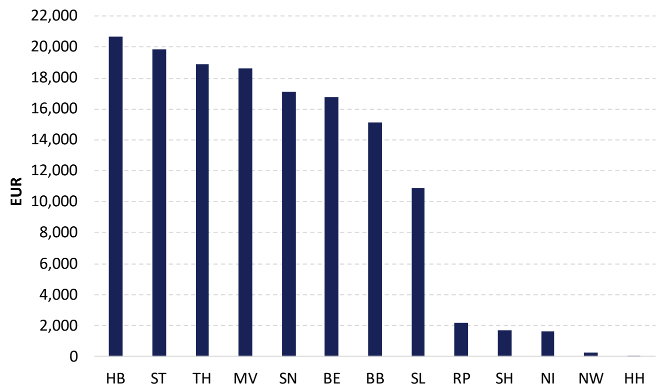
... and do not qualify for federal supplementary grants

As federal supplementary grants (BEZ) are intended for Laender with below-average financial strength in the reformed system too, it should come as little surprise that the economically powerful payer Laender under the LFA – Bavaria, Baden-Wuerttemberg and Hesse – receive no funding from this pot. The “new” Laender and Berlin have primarily benefited to the greatest extent from the payments made under Solidarity Pact II, which are contained within BEZ. The “new” Laender and the city state of Berlin account for roughly two thirds of the volume of EUR 342.2bn. In the overall calculation, Saxony is the largest recipient, banking a volume of EUR 69.8bn. In West Germany, Bremen and Lower Saxony benefit to the greatest extent from BEZ payments (EUR 14.2bn and EUR 13.0bn respectively). If we look at the overall volume of BEZ received in relation to number of inhabitants in 2022, Bremen is the largest beneficiary at EUR 20,672 per capita, followed by the new Laender and Berlin. Since 2009, the annual volume of BEZ payments had been on the slide, although the volume then rose sharply again in 2020 on account of the new federal financial equalisation system. In view of the greater role now incumbent upon the Bund, this trend is likely to continue over the years to come.

Annual BEZ volume



BEZ received per capita 1995-2021



Source: Federal Ministry of Finance, NORD/LB Markets Strategy & Floor Research

Consolidation and restructuring aid

Apart from the above-mentioned mechanisms, the consolidation aid instrument also existed up to 2019. Through this, the Bundeslaender of Berlin, Bremen, Saarland, Saxony-Anhalt and Schleswig-Holstein received additional funds from the federal budget to enable them to comply with the stipulations of Art. 109 (3) of the Basic Law (Schuldenbremse; referred to as the debt brake in English), which was applicable from the start of 2020 onwards. In total, Bremen received EUR 300m per annum, while Saarland was entitled to a sum of EUR 260m on an annual basis. Berlin, Saxony-Anhalt and Schleswig-Holstein each received EUR 80m annually, with two-thirds of the payments being made in the budget year in question and the remaining third following 12 months later. The Stability Council was responsible for monitoring compliance with consolidation obligations, including the complete dismantling of the structural financing deficit by 2020. Since 2020, Bremen and Saarland continued to receive additional funding of EUR 400m each from the Bund. This is known as restructuring aid and is linked to certain conditions with regard to debt reduction and budget consolidation as well as measures to be implemented to increase the economic and financial strength of the Laender (§2 Law on Restructuring Aid [Sanierungshilfengesetz; SanG]). In contrast to the consolidation aid, it is the Federal Ministry of Finance (BMF) that is responsible for the assessment in this instance.

Restructuring aid payments case study: Bremen

In this short case study, we shall take Bremen as an example to explain how the city state must comply with the restructuring obligations set out in the Law on Restructuring Aid (Sanierungshilfengesetz; SanG) and defined in the administrative agreement in order to qualify for restructuring aid from the federal government. The administrative agreement predominantly specifies the concept of budgetary repayments as well as regulating Bremen's reporting and disclosure obligations to the Federal Ministry of Finance (BMF). Bremen must submit a yearly report by 30 April of each year (first such deadline: 30 April 2021). This allows the budgetary repayments for the respective reporting year to be determined, while the report also comments on the measures implemented with the aim of reducing excessive debt and strengthening the economic/financial position of the city state. The BMF also audits this report with a view to verifying whether or not the conditions for awarding restructuring aid have been met. As such, the BMF can, at the request of Bremen, permit deviations from the ordinarily prescribed budgetary repayments in justified exceptional cases. As we set out in the previous paragraph, this should not be confused with the consolidation procedures that expired at the end of 2020 for the Laender of Berlin, Bremen, Saarland, Saxony-Anhalt and Schleswig-Holstein. A structurally balanced budget was planned for 2020. In 2021, the Stability Council determined that Berlin and Schleswig-Holstein had complied with this requirement. Due to the exceptionally high strain on Laender finances caused by the pandemic, the Stability Council identified that a specific emergency situation had occurred and therefore deemed the lack of a balanced budget in Bremen as "insignificant". No impending budgetary emergency was identified for either Saarland or Saxony-Anhalt in the current Stability Report 2022.

Criticism of financial equalisation and the 2020 reform

Criticism has been directed at the federal financial equalisation system: for example, one argument cited was that by seeking to strongly align the financial strength of the Laender, there would be insufficient incentives for all parties involved to improve the economic situation in the respective Bundesland, but especially for the recipient Laender. In 2013, Bavaria and Hesse initiated legal proceedings with the Federal Constitutional Court in order to verify the constitutional conformity of the LFA. However, these Laender subsequently withdrew their claim in 2017 when the revised form of the federal financial equalisation system began to take shape. Since 2020, new rules have been in force governing federal financial relationships that provide additional money to the Laender but simultaneously award greater powers to the federal government. The convergence of financial strength is now handled by way of VAT distribution payments, with the scope of federal supplementary grants (BEZ) expanded too. Under the reformed system, the advance VAT equalisation component and LFA have been merged into what is now known as Financial Power Equalisation (Finanzkraftausgleich; FKA). As the financially strong Laender now give up a portion of VAT revenues but, in return, no longer make payments out from their own budgets, the concept of the Laender being categorised as either "payers" or "recipients" is now obsolete. Another result of merging the UStA and LFA components was a new temporary role for North Rhine-Westphalia, which was ranked as an economically strong Bundesland in 2020 for one year only. Under the former arrangements, NRW received payments from the LFA between 2010 and 2019, while it posted payment outflows within the framework of the UStA. The distribution of VAT is conducted on the basis of number of inhabitants and financial power, with the share of municipal revenues taken into account upped to 75% and a larger portion of VAT going to the Laender overall. The notional population increases, the aim of which is to take into consideration the "structurally induced increased needs" of certain Laender, have, as was previously the case, been retained. Furthermore, as part of BEZ payments, federal government grants to the municipalities have been introduced in an effort to address differences in financial power.

The result

During the process of reworking the federal financial equalisation system, the top priority was to ensure that no Bundesland should be worse off than under the old framework. Under the revised version of the federal financial equalisation system, the Bundeslaender receive an additional sum of around EUR 10bn per year overall. If we take into consideration the fact that the Solidarity Pact II also expired at the end of 2019 and that no more payments will be made under this framework, the increase in funding paid out to the Laender actually amounts to just EUR 4bn. However, the request of the Laender to dynamically link this sum pro rata to increasing VAT receipts has not been fully met. Instead, a compromise was agreed in which a partial amount (EUR 1.42bn) is to be dynamically linked. In return for the additional financing for Laender and municipalities, the federal government has had additional powers at its disposal since 2020.

Additional powers for the federal government

The additional powers for the federal government (Bund) essentially involve:

1. *Management of motorways at Bund level*

   In contrast to the previous arrangement, in which the Laender were responsible for managing motorways on behalf of the federal government, the Bund will in future be solely responsible for the construction and maintenance of major roads through the formation of an infrastructure company under private law (motorway administration).

2. *Digitisation through a central citizen portal set up by the Bund*

   A new citizen portal will lead to more uniform standards for online administration applications. The aim here is to make administrative procedures more efficient.

3. *Investment assistance from the Bund "in areas of importance for the overall interest of the state"*

   In future, it is to become easier for the federal government to participate in financing for local authority projects. In particular, extended co-financing capabilities in relation to the education infrastructure of financially weak local authorities are planned.

4. *Monitoring and control rights for the Stability Council and Federal Court of Auditors*

   Additional powers to monitor the use of funds at Laender level.

5. *Strengthening tax administration powers at Bund level*

   Strengthening of tax administration powers, particularly in the area of information technology.

New “municipal financial power allocation” for local authorities

In the case of general BEZ, the thresholds and tariffs for the equalisation payments have been raised. For local authorities, the implementation of a "municipal financial power allocation", which is to be used to cover gaps in financial power at municipal level, is likely to be of primary interest. The current special-need BEZ grants, which mainly benefit the eastern German Bundeslaender, were discontinued at the end of 2019. The current horizontal equalisation between financially strong and financially weak Laender is being diluted. At the same time, the Bund will assume greater financial responsibility for the Laender by way of increased verticality in the system, while the dependency of the Laender on the federal government will also rise as a result of this.

Local authorities better off…

From a purely financial viewpoint, the impact on municipalities of reorganising Bund-Laender finances is certainly to be welcomed. The higher weighting of the financial situation of a Bundesland's municipalities within the scope of VAT allocation, as well as the structuring of BEZ based on the financial strength of the municipalities, will lead to greater account being taken of municipal financial power in the federal financial equalisation system and will lead – at least in theory – to the conclusion that the local authorities will have more solid finances following the new system taking effect. In practice, however, they only stand to benefit if the Laender actually forward the higher revenues on to the local authorities. This is assured in the Laender in which a combined rate or a uniformity principle has been established. There is, however, no generally applicable statutory allocation practice at municipality-Laender level. There is therefore a risk that only some of the extra funds will be forwarded to the municipalities and instead will end up in the general budget of the respective Bundesland. In addition, the municipalities stand to directly benefit from the additional federal funds for educational infrastructure. This is where the dependency on the federal government also increases. Added to this is the fact that linking the federal investment to the financial weakness of the municipalities acts as a disincentive for the Laender to provide their local authorities with sufficient financial resources off their own back.

…at the expense of increased dependency on the federal government

This additional federal assistance in the field of education, however, also means that the Laender bear rather less responsibility in one of their core areas: cultural policy. In future, this will result in local authorities not only being more directly dependent on the Bund, but also to a greater extent as well. With the introduction of a nationwide citizen portal, critics also pointed to the potential risk of interference in the administrative competence of local authorities (principle of subsidiarity).

Greater convergence fails to materialise

As a whole, the Laender will benefit from the reorganisation of Bund-Laender finances and the resultant additional revenue to be provided by the federal government. For example, general BEZ payments alone rose from EUR 7.7bn in 2021 to a total of EUR 8.2bn in 2022. Added to this was a sum of EUR 1.48bn from the new BEZ in connection with efforts to compensate for low municipal fiscal capacity and average-oriented research funding equalization payments of EUR 209m. However, there was only limited indication of greater convergence on a Laender basis in 2022. Although the gap between the highest and lowest levels of financial strength as measured by BEZ decreased in comparison with 2021, the gap in terms of financial strength as per FKA widened again. In this context, those Laender deemed to be particularly weak in terms of financial strength have continued to benefit to an above-average extent, although the rearranged system has also led to savings for the financially strong Laender too.

Bundestag approves comprehensive reform of Bund-Laender finances

Before the new regulations could be implemented, the Basic Law had to be amended in 13 sections. For this, a two-thirds majority in both chambers of the German parliament, the Bundestag and the Bundesrat, was required. The agreement on the sections to be reformed and the need to restructure the financial equalisation system made it highly likely in advance that the required majority would be comfortably achieved. In principle, the revised version is designed to apply for an unlimited period, unless at least three Laender and the federal government request a further reform after 2030. This gives the federal government a blocking minority. The reform of the financial equalisation system was approved on 1 June 2017.

All change for the federal financial equalisation system?
The first two years of the new federal financial equalisation system have been impacted by a series of special effects linked to Covid-19. However, as these have left their mark across all Laender, some insights can already be gained and conclusions drawn from these skewed first couple of years. As already outlined, the changes made to this system will primarily lead to the Bund assuming a more prominent role as well as to a slight improvement in the financially strong and, in particular, the financially weak Laender. With NRW again switching back to the collection of financially weaker Laender from 2021 onwards, this group once again constitutes the majority of the German population (56%). As such, a minority of the German population is now once again responsible for equalisation payments granted to the financially weaker majority. The abolition of the concept of Laender being categorised as either "net recipients" or "net payers" is more of a political detail and does not signify any erosion of solidarity between the Laender themselves. Under the new federal financial equalisation system, Bavaria and Bad.-Wuer. are facing a payment burden of around EUR 13bn. As calculated in advance, expenditure at federal government (Bund) level has been far higher than was the case under the old system. For example, at EUR 8.2bn in 2022, general BEZ payments were well in excess of the equivalent value recorded in 2019 (EUR 4.5bn). At this juncture, it is worth covering the new BEZ payments again: in this context, the new equalisation payment for low municipal fiscal capacity is, in particular, responsible for some unorthodox configurations. Take Saarland as an example: in 2022, it received an additional sum of just under EUR 62m, despite the fact that after financial equalisation and general BEZ payments are taken into account, it boasts greater financial strength than Bremen, which came away empty handed. The new supplements also harbour the potential to drastically alter the order of financial strength among the Laender. For example, after factoring in FKA payments, although before BEZ payments are taken into account, the relative financial strength of Thuringia stood at a score of 90 points (Berlin: 92). However, this subsequently shot up to 100.7 points following BEZ payments of EUR 1,340m in total – of which EUR 324m was intended to offset particularly weak municipal fiscal capacity. In contrast, Berlin received BEZ payments of EUR 1,701m but no equalisation payments to offset the fiscal power of its municipalities, and scored 98.2 for its financial strength. With Thuringia having received those equalisation payments, it was actually able to rank higher in the financial power league table than Berlin. Regarding the average-oriented research funding equalisation payments, it should first and foremost be noted that these are uncommitted funds, which can (or could) therefore be used by the recipients to cross-subsidise other budget items. In view of their low volume (EUR 209m), however, these payments currently have little impact on Laender budgets.

Comment
The task of the federal financial equalisation system is to provide a platform for the creation and maintenance of equal living conditions across the whole of Germany. Despite the fact that the distributed volumes of UStA and LFA have risen steadily in the past, there are still significant financial discrepancies, in particular between West German and East German Laender, even though reunification took place more than 30 years ago now. However, disparities among the West German Laender can now also be observed. It certainly remains open to debate as to whether the reforms implemented in the form of Financial Power Equalisation (FKA) will lead to greater incentives for the Laender to pursue sound financial policies. In particular, the higher top-up rate for the final tier of the federal financial equalisation system (BEZ payments) would seem to be apt to give the richer Laender greater incentives to improve their revenue than their financially weaker counterparts. In this context, there could be a threat of even greater fiscal drift between the "net recipients" and "net payers", as a result of which the Bund would be forced to intervene with even greater regularity in order to even out the differences.

Challenges for Laender finances
Debt brake and monitoring by the Stability Council

Debt brake to bring Laender net borrowing to an end in future
As far back as the signing of the Treaty of Rome, officially referred to as the Treaty establishing the European Economic Community (or EEC Treaty for short), subsequently renamed the “Treaty on the Functioning of the European Union” in 2009, the signatory countries agreed to keep a limit on public deficits. This requirement was implemented in German law in the form of Art. 109 of the Basic Law (Grundgesetz; GG) in 2009. The federal government (Bund) is therefore barred from generating any structural deficits that exceed 0.35% of nominal GDP, a stipulation that it adhered to between 2012 and 2019. For the German Bundeslaender, the debt brake obliges them to manage without any structural deficits and the associated net borrowing. Aside from cyclical additional expenditure, exceptions are only permitted for natural disasters and exceptional emergency situations. The aim of these provisions is to maintain budgetary discipline as intended for the Stability and Growth Pact and to adhere to the Maastricht criteria on structural deficits and sovereign debt. At Bund level, a transitional period in which the existing structural deficit was dismantled ran between 2011 and 2016. The Laender also found themselves in a transitional phase in which they had to align their budgets in such a way that compliance with the debt brake would have been possible under normal circumstances from 2020 onwards. The legal basis for this transitional period was provided by Art. 143d GG. An emergency situation as indicated above came about with the onset of the Covid-19 pandemic, giving the Bund cause to agree supplementary budgets in both March and June 2020. In 2022, too, the federal budget again exceeded the upper limit of the debt brake as a result of efforts to counteract the consequences of the Covid-19 pandemic, rampant inflation and the energy crisis. After all, in this context, the Laender are also planning additional expenditure. For example, NRW adopted two supplementary budgets (totalling roughly EUR 25bn overall) in 2020 alone. The budget plan for 2021 provided for the continuation of the agreed rescue package, which is why the volume of EUR 25bn was still available in 2022. The budget surplus generated in 2022 should now cover the rescue package in full, meaning that the repayment of the Covid-19 loans can begin as early as 2023 – a full year earlier than originally planned by the state government in NRW.

Precise wording
The debt brake is enshrined in Art. 109 (3) of the Basic Law (GG) as follows: “The budgets of the Federation and the Laender shall in principle be balanced without revenue from credits. The Federation and Laender may introduce rules intended to take into account, symmetrically in times of upswing and downswing, the effects of market developments that deviate from normal conditions, as well as exceptions for natural disasters or unusual emergency situations beyond governmental control and substantially harmful to the state’s financial capacity. For such exceptional regimes, a corresponding amortisation plan must be adopted. Details for the budget of the Federation shall be governed by Article 115 with the proviso that the first sentence shall be deemed to be satisfied if revenue from credits does not exceed 0.35 per cent in relation to the nominal gross domestic product. The Laender themselves shall regulate details for the budgets within the framework of their constitutional powers, the proviso being that the first sentence shall only be deemed to be satisfied if no revenue from credits is admitted.”

Implementation by the Laender

Since 2010, the Stability Council has been monitoring the financial situations of the Bund and Laender. The committee meets every six months and has the power, for example, to prescribe restructuring programmes should any anomalies be determined in respect of the budgetary situations of Bund or Laender. In recent years, the Laender had already been taking into account the application of the debt brake (at the start of 2020) in their respective budgetary planning processes. As the information published in connection with the 27th meeting of the Stability Council reveals, the significant rise in expenditure in 2022 (+7.6% or EUR +88.2bn) was the key factor behind the deterioration of the budget balance. In 2022, the economic impacts of the Russian war of aggression against Ukraine were added to the financial consequences of the Covid-19 pandemic. As a result, the Stability Council again expects the upper limit of general government structural financing deficit to be exceeded in the years 2023 through to 2025. Accordingly, compliance with the budgetary target of 0.5% of GDP can therefore be expected again from 2026 onwards (at its 23rd meeting in 2021, the Stability Council originally expected a return to the consolidation path beginning in 2024). At this point in time, the Stability Council has refrained from recommending measures aimed at reducing the excessive financing deficit.

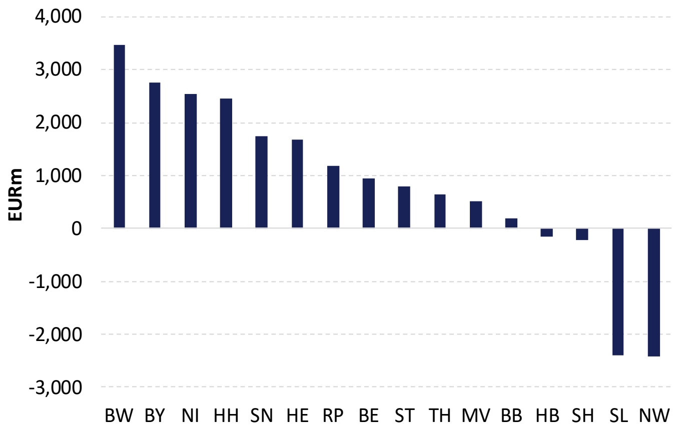
Results of the most recent Stability Council meeting

The 27th meeting of the Stability Council reported on current budget planning against the backdrop of current economic developments. First of all, there has been a fundamental recovery in the overall economic situation. The main factors contributing to this development were the adjustments made by private households and businesses to elevated energy prices and the associated gas savings, as well as state-led stabilisation measures. Nevertheless, the economic burden caused by high energy costs and inflation is still being felt. Consequently, the Stability Council notes that the public budgets continue to face major challenges. With regard to compliance with European requirements for budgetary surveillance, the Stability Council sees the current path as being consistent with the applicable regulations. Criticism of this conclusion comes in particular from the Stability Council's independent Advisory Board. In their statement, the experts criticise the fact that the Stability Council uses an outdated data basis that delivers information lacking in proper meaning. Furthermore, the Advisory Board warns against the tendency at Bund and Laender level to use credit-financed extra budgets. This practice could lead to a de-facto violation of the debt brake as per Article 109 of the Basic Law, as it contributes to the creation of deficits and would appear to undermine the Stability Council's responsbility to monitor the compliance of public finances. As a result of this, the Advisory Board is calling for greater transparency in the projections of extra budgets, which is, among other aspects, to be achieved through a separate listing of particularly weighty extra budgets such as the Federal Armed Forces Fund at level of the Bund and the ancillary budgets at Laender level. In last year's edition of this Issuer Guide, we reported on the budget situation in Bremen at this time. As expected, in December 2022, the Stability Council again identified an impending budgetary emergency in the Hanseatic City. Proposals for a restructuring programme are expected to be submitted at the 28th meeting of the Stability Council at the end of 2023. For further insights into the half-yearly Stability Council meetings, please refer to our weekly publication, the Covered Bond & SSA View . Prior to the onset of the Covid-19 pandemic, none of the 16 Laender had planned a budget balance for the coming year that either fell below or exceeded the threshold values defined by the Stability Council. Based on the financial planning released by the Laender, it is worth noting that the debt brake could probably have been adhered to under normal circumstances.

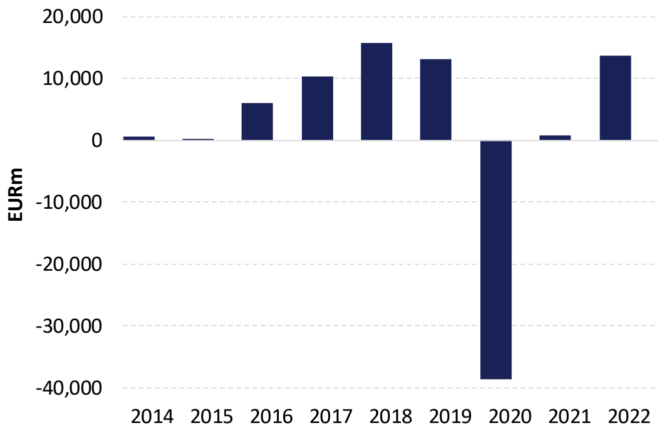
Economic framework conditions

Historically low interest rates, which have started to be tremendously raised since July 2022, as well as ongoing high employment rates have really boosted efforts aimed at consolidating public budgets, which has been reflected both on the revenue and expenditure side. In addition, price-adjusted economic growth in the decade prior to 2020 was consistently positive, which has also been favourable for public budgets. According to the most recent calculations from Destatis, the Federal Statistical Office, GDP in Germany grew in 2022 by +1.8% year on year, meaning that the positive trend seen in preceding years was continued. Following the Russian war of aggression against Ukraine and the resultant sanctions on Moscow, supply chains have been further impaired. As such, what was already restricted supply continues to meet robust demand, thereby increasing inflationary pressures in the process. The Council of Experts for the Assessment of Macroeconomic Developments has projected GDP growth in Germany of +0.2% in 2023 and +1.3% in 2024. However, inflation is set to total 6.6% in 2023, before slowing to 3.0% for 2024 (consumer price index). According to the Council of Experts for the Assessment of Macroeconomic Developments, the main risk factors for future economic developments are a sustained energy crisis and increasing geopolitical tensions between the USA and China. In the wake of the recently increased uncertainty permeating the banking sector, the experts do not believe that financial market stability will be jeopardised.

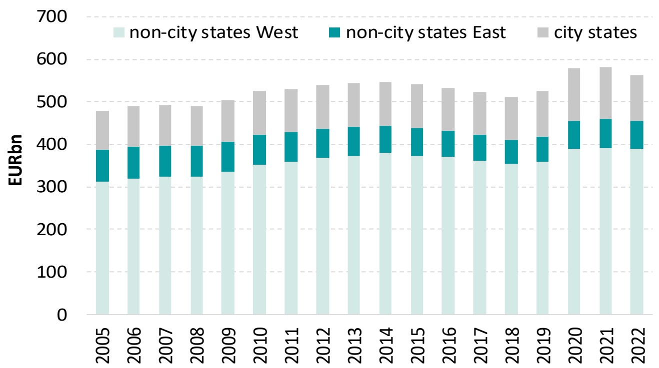
Budget balances of individual Laender



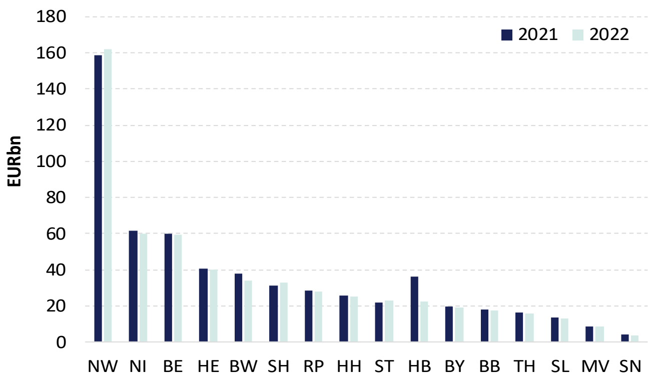
Budget balances of the Laender as a whole



Trend in overall debt level of the Laender



Debt level of individual Laender

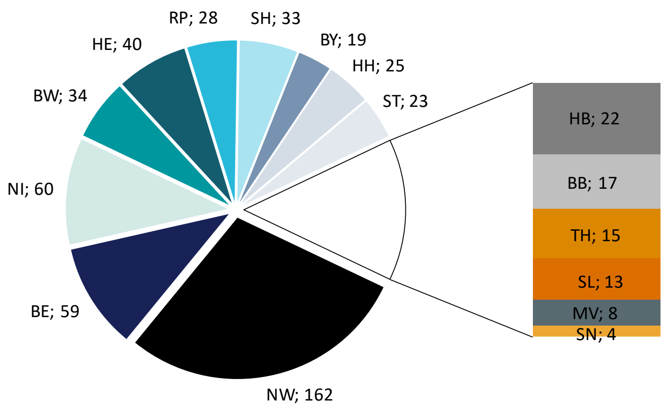


BW = Baden-Wuerttemberg, BY = Bavaria, BE = Berlin, BB = Brandenburg, HB = Bremen, HH = Hamburg, HE = Hesse, MV = Mecklenburg-Western Pomerania, NI = Lower Saxony, NW = North Rhine-Westphalia, RP = Rhineland-Palatinate, SL = Saarland, SN = Saxony, ST = Saxony-Anhalt, SH = Schleswig-Holstein, TH = Thuringia.
Source: German Federal Ministry of Finance, NORD/LB Markets Strategy & Floor Research

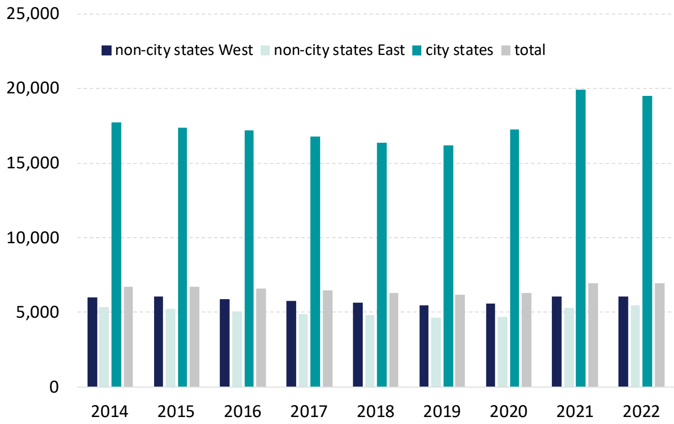
Laender debt trend – an overview

A look at the trend in debt level at Bundeslaender level reveals three strong increases: the first was at the start of the current millennium (at which point Germany was regarded as the "sick man of Europe"), with the second coming in connection with the global financial crisis. In the wake of the Covid-19 pandemic in 2020, a third significant rise in the debt level was added to the previous two. In 2022, new debt at Laender level fell overall by -3.1% for the first time since 2018 (decline of -2.1%). In the breakdown by respective Bundesland, the largest share of this fresh debt was incurred by the most-populated Bundesland, NRW, where outstanding liabilities rose by +2.3% to EUR 162.2bn to account for 28.8% of overall Laender debt. At 5.1%, Schleswig-Holstein accounted for the highest share of relative new debt, followed by Saxony-Anhalt (4.6%) and the previously mentioned NRW. As was the case in the previous year, both Laender with the largest debt growth have a comparatively low debt level in absolute terms. Compared with 2021, an impressive total of 13 Bundeslaender reduced their debt levels. Bremen again heads up the list of these Laender, at -34.8%, followed by Saxony (-21.7%) and Baden-Wuerttemberg (-9.9%). If we take a look at the respective debt levels on a per capita basis, the first thing we notice is that the city states register hugely above-average debt levels. The national average has been relatively stable at between EUR 6,000 and EUR 7,000 for many years now, although East German non-city states do present lower per capita debt levels than their West German counterparts. In 2022, per capita debt on a nationwide basis fell year on year for the first time since 2018 (-4.4%). As such, the trend of steadily rising debt seen since 2019 was at least brought to a halt in 2022.

The Laender and overall debt level (EURbn)



Development of debt per capita



BW = Baden-Wuerttemberg, BY = Bavaria, BE = Berlin, BB = Brandenburg, HB = Bremen, HH = Hamburg, HE = Hesse, MV = Mecklenburg-Western Pomerania, NI = Lower Saxony, NW = North Rhine-Westphalia, RP = Rhineland-Palatinate, SL = Saarland, SN = Saxony, ST = Saxony-Anhalt, SH = Schleswig-Holstein, TH = Thuringia.
Source: German Federal Ministry of Finance, NORD/LB Markets Strategy & Floor Research

Comment

Only a few months after entering into force, the debt brake had to be suspended after the onset of the Covid-19 crisis activated an emergency situation clause. In this context, resolutions were prepared in NRW, Bavaria, Baden-Wuerttemberg, Lower Saxony and Mecklenburg-Western Pomerania, among other Laender, to adopt a second supplementary budget in 2020, following the example of the Bund. Nevertheless, the Laender had to some extent already developed braking power in the past, with the result that some Laender had already started to repay their debts in advance, helping to curb the rise in the Laender debt level in the process. This was also supported by the economic conditions, which have clearly improved after a difficult start into the current millennium. Ensuring the sustainability of public-sector budgets, as the overarching aim of the debt brake, is fundamentally to be regarded as a positive, especially during stress situations such as the one we are currently facing. However, criticism can be directed at the fact that, due to the ban on net borrowing, the leeway in monetary policy operations, for example with regard to investments, is (heavily) restricted for the Laender. The ECB, for example, repeatedly called for higher investments from public budgets before the economic stimulus packages in the context of the Covid-19 pandemic. At its 21st meeting on 22 June 2020, the Stability Council stated: "The Stability Council is of the view that the Covid-19 pandemic is a natural disaster/exceptional emergency situation as set out in Article 109 (3) Sentence 2 GG which is beyond the state's control and is having a major impact on the state's financial situation. The debt brake envisages exemptions in such an event, which can and will allow an appropriate response to the crisis". In the 27th and therefore most recent meeting of the Stability Council on 2 May 2023, no comment was offered on this assessment. Nevertheless, the Stability Council justifiably points to the ongoing financial burdens caused by the Covid-19 crisis, which have been exacerbated by the Russian war of aggression in Ukraine. In the federal budget adopted for 2023, a reactivation of the debt brake was also agreed. At federal level, according to the budget plans, a majority of the Laender should also be in a position to comply with this. Brandenburg, Bremen and North Rhine-Westphalia are among the few Laender that have again opted to suspend the debt brake.

Challenges for Laender finances
The Stability Council

The Stability Council – monitoring body for the federal government and Laender
The Stability Council was created in 2010 to meet the challenge of complying with the debt brake and to prevent budgetary crises, as had occurred in Bremen and Saarland in 1992. It is a joint body operated by the federal government and the Bundeslaender. The establishment of the Stability Council can be traced back to Federalism Reform II (Foederalismusreform II), which governs its existence via Art. 109a of the Basic Law (GG). The purpose of the Council is to regularly monitor the budgets of the federal government (Bund) and the Laender, with the aim of identifying and/or preventing any impending budgetary crises ahead of time. As a result, the Stability Council is an important body for examining the budgets of Bund and Laender, particularly in relation to compliance with debt limits. The body is managed by the federal government. Its members are the Federal Minister of Finance, the finance ministers of the Bundeslaender and the Federal Minister for Economic Affairs and Climate Action. The Stability Council meets twice a year (usually in June and December). The first session was held on 28 April 2010. Since the beginning of 2020, its remit has included monitoring compliance with the debt brake, which is based on European requirements and procedures.

The "Aufbau Ost" project
To offset below-average municipal financial strength and ease infrastructural backlog needs, the Laender of Berlin, Brandenburg, Mecklenburg-Western Pomerania, Saxony and Saxony-Anhalt received annual payments from 2005 to 2019 as part of the Solidarity Pact II. The aim here was to empower these Laender to counteract their special charges. The funds earmarked for this came in at EUR 156.7bn as planned and were split into two separate "baskets". Basket1 contained special need BEZ (SoBEZ) payments amounting to EUR 105.3bn, which were put directly towards improving financial strength and infrastructure. Basket2 totalled EUR 51.4bn and could be invested in broader policy fields, including the economy, promotion of innovation, research and development, education, transport, housing and urban development, EU structural funds, the elimination of ecological contaminations/site restoration and sport. With regard to progress made in the relevant areas, a final report was presented for the last time on 15 September 2020 and discussed in the statement covering the 22nd meeting of the Stability Council. The eastern German Laender bore responsibility for ensuring that the funds received were used for the prescribed purposes. In order to verify this, three criteria were defined in collaboration with the Bund, via which the appropriate use of funds was to be achieved with the aim of then closing the gap between the Laender. The first criterion focused on the SoBEZ share, which was intended to be used to finance infrastructure investments and to offset below-average financial strength. The second criterion related to the SoBEZ share that aimed to rectify the situation regarding disproportionately self-financed infrastructure investments compared to the reference Laender. The third criterion concerned closing the infrastructure gap through disproportionate total investment expenditure compared with the reference Laender. The financially weak Laender of Lower Saxony, Rhineland-Palatinate, Saarland and Schleswig-Holstein were taken as a reference for the east German non-city states, while Hamburg was selected as the reference point for Berlin.

Balance sheet data

As planned, the Solidarity Pact II programme expired at the end of 2019. When the programme was first launched, a volume of EUR 105.3bn was planned for Basket1. Thereafter, payments were supposed to fall over time so that a final instalment of EUR 2.1bn would be paid in 2019 before the programme came to an end. At this point, we should point out that the payments were not evenly distributed among the Laender. For example, Saxony received the largest share of the cumulative payments, at EUR 26.1bn (27%), followed by Berlin (EUR 19.0bn; 20.0%) and Saxony-Anhalt (EUR 15.7bn; 16.6%). Thereafter came Brandenburg with EUR 14.3bn (15.1%) and Mecklenburg-Western Pomerania with EUR 10.5bn (11.1%). While the payments from Basket1 came in on budget, the payments made under Basket2 of EUR 56.3bn were actually well above the original target value of EUR 51.4bn. Due to the fact that the volume of payments from Basket2 was upped by just under 10%, the total volume of grants under the programme as a whole came in at EUR 161.7bn. The promotion of innovation as well as research and development accounted for the largest shares of this additional expenditure, followed by the categories of economy and housing and urban development. With this support, the federal government laid the foundations for overcoming infrastructure deficits caused by the former division of Germany, increasing the quality of life for German citizens and improving the country's economic situation. However, the Laender have not simply been left to their own devices after Solidarity Pact II expired. In this context, grants continue to be made via the revised federal financial equalisation system as well as from the national German support system for structurally weak regions.

Restructuring programmes

If a critical budgetary situation is identified in the case of either the federal government or one of the Bundeslaender, the Stability Council agrees restructuring programmes with the impacted political authority. The implementation of the restructuring programme is intended to ensure that the analysis system of the ongoing budget monitoring for the affected body, i.e. federal government or regional government, no longer shows any anomolies with regard to an imminent budget emergency in the foreseeable future. The duration of the restructuring programme is agreed on a case-by-case basis, but extends over at least two years. The programme contains guidelines for the targeted reduction in annual new debt and other consolidation measures. If the federal government or Bundesland in question neither sticks to the guidelines nor presents satisfactory suggestions for restructuring concepts, a request is made for increased budgetary consolidation. If an impending budgetary crisis is still identified even after complete implementation of the restructuring measures, an agreement is reached on a further consolidation programme. Impending budgetary crises were identified for the federal states Berlin, Bremen, Saarland and Schleswig-Holstein at the second meeting held on 15 October 2010. As a result, restructuring programmes were agreed, for which compliance and progress was reviewed at each half-yearly meeting of the Stability Council. The supervisory body also monitored compliance with the requirements incumbent on the affected Laender for them to receive consolidation aid up to 2019. At the end of 2016, it was announced that Berlin and Schleswig-Holstein had completed their respective recovery plans. In contrast, however, Bremen and Saarland were unable to achieve the requirements placed upon them with regard to the requisite key metric values in this period. Moreover, since 2020 both Bremen and Saarland have each been receiving restructuring aid to the tune of EUR 400m per year. Based on the continued anomalies, the Stability Council identified another imminent budgetary crisis for Bremen at its 26th meeting on 16 December 2022 and expects Bremen to present proposals for a restructuring programme to the Stability Council at its meeting scheduled for the end of 2023.

Monitoring four key budget indicators over two assessment periods
The Stability Council uses four key indicators to assess whether a budgetary crisis is impending. The development of these indicators is monitored in the current budgetary situation and financial planning. The current situation includes the actual figures for the last two budget years as well as the target figure for the current year. In the second assessment period the key financial indicators in the budgetary and financial planning for subsequent years are analysed.

Structural financial deficit per capita
The structural financial deficit is defined by the Stability Council as the financial deficit adjusted to allow for financial transactions and economic influences. It is calculated in EUR per inhabitant. If the threshold value is not reached, this is reported as an anomaly (non-compliance). For the term of the current budgetary situation of the Laender, the critical value is calculated as the Bundeslaender average minus EUR 200 per inhabitant, whereas for financial planning, the threshold value defined for the current financial year is used as the tolerance threshold. In order to factor in economic slowdowns, a surcharge of EUR 50 per inhabitant is generally included.

Credit financing ratio
The Stability Council also examines the credit financing ratio, which reflects the relation of new debt to adjusted expenditure. For the current budgetary situation, the body defines a threshold value comprising the Bundeslaender average plus three percentage points. In the financial planning, an unacceptable deviation from the critical value is identified if the threshold value for the current budgetary year is exceeded by two percentage points.

Interest-tax ratio
As a third key indicator, the Stability Council analyses the interest-tax ratio, defined as the ratio of interest expenditure to tax revenue. In the case of tax revenues, an adjustment is made for payment flows related to the financial equalisation among the Bundeslaender, general purpose BEZ, promotional levies and vehicle tax compensation. The limit for this key indicator during the period of the current budgetary situation is also based on a relative comparison of the Bundeslaender. The critical value for non-city states is defined as 140% (150% for the city states) of the Bundeslaender average. For the duration of the financial planning, the tolerance value of the current budgetary year plus one percentage point applies as the limit.

Debt per capita
The last key indicator reflects the debt level on the credit market as of 31 December of each year in relation to the number of inhabitants. For the current budgetary situation, a limit violation is determined in cases where the key indicator exceeds 130% of the Bundeslaender average for non-city states (220% in the case of city states). For the duration of the financial planning, a limit amounting to the threshold value for the current budgetary year plus EUR 100 per citizen and year is used as a basis. A key indicator is generally regarded as non-compliant for a specific period if at least two critical values have been exceeded. By contrast, a time period is regarded as non-compliant if at least three out of four key indicators exceed their specified limits. If a time period is identified as non-compliant, an evaluation of the regional authority in question is carried out by the Stability Council.

NORD/LB

Monitoring system of the Stability Council

	Actual		Target	Limit violations	Financial planning				Limit violations
	2020	**2021**	**2022**		**2023**	**2024**	**2025**	**2026**	
Financial balance in EUR per capita									
Threshold value	-37	-692	-703	**Yes / No**	-753	-753	-753	-753	**Yes / No**
Bundeslaender average	163	-492	-503						
Credit financing ratio in %									
Threshold value	1.8	15.9	14.4	**Yes / No**	16.4	16.4	16.4	16.4	**Yes / No**
Bundeslaender average	-1.2	12.9	11.4						
Interest/tax ratio in %									
Threshold value (non-city states)	4.5	3.8	4.7	**Yes / No**	5.7	5.7	5.7	5.7	**Yes / No**
Threshold value (city states)	4.8	4.1	5.1		6.1	6.1	6.1	6.1	
Bundeslaender average	3.2	2.7	3.4						
Total debt in EUR per capita									
Threshold value (non-city states)	8,696	9,690	10,558	**Yes / No**	10,658	10,758	10,858	10,958	**Yes / No**
Threshold value (city states)	14,715	16,398	17,868		17,968	18,068	18,168	18,268	
Bundeslaender average	6,689	7,454	8,122						
Violations in the period			**Yes / No**				**Yes / No**		

Source: Stability Council, NORD/LB Markets Strategy & Floor Research

Stability Council offers many advantages…

The transparent method of working and presentation of the results enables the situation in each Bundesland budget to be easily assessed. The credit financing ratio and interest-tax ratio provide two additional indicators for the Stability Council. They were also used by the Federal Constitutional Court when assessing the budgetary situation for the Laender of Bremen and Saarland in 1992 and Berlin in 2002. The mechanistic definition of critical values avoids any political interpretation of the respective budgetary situation, providing a clear advantage in the process. The agreement of recovery plans and the transparent monitoring of compliance with them should also be interpreted as positive aspects, since this applies constant pressure to those Laender obliged to follow a restructuring programme. Aligning the threshold values to the Bundeslaender average also allows special circumstances such as economic downturns to be taken into account dynamically. The review of financial planning enables negative tendencies or even budgetary crises to be identified at an early stage.

... and some disadvantages

However, in contrast, it should be noted that the financial planning of a Bundesland does not constitute any definitive or specific plan and consequently there is no binding obligation in terms of compliance. The informative value of the figures for financial planning is, to a certain extent, accordingly low. Aligning the threshold value to the Bundeslaender average entails the risk that negative tendencies or potential budgetary crises are not identified, if a majority of the Laender generate poorer budget figures and the Bundeslaender average consequently falls. We also consider the choice of indicators to be worthy of discussion. Although the four indicators provide an insight into Bundeslaender budgets, major structural budgetary problems such as significantly above-average personnel expenses or pension commitments, for example, are not registered. The definition of the critical values and the calculation of key indicators are also subject to (adjustment) methods that are not especially transparent. In our view, however, the biggest disadvantage of the Stability Council in its current legal framework is the absence of a mechanism for imposing sanctions. If a Bundesland does not comply with the restructuring plans, for example, it is only requested to comply with them and, in extreme cases, a new restructuring programme is defined. However, no effective means are in place, such as cutting BEZ grants.

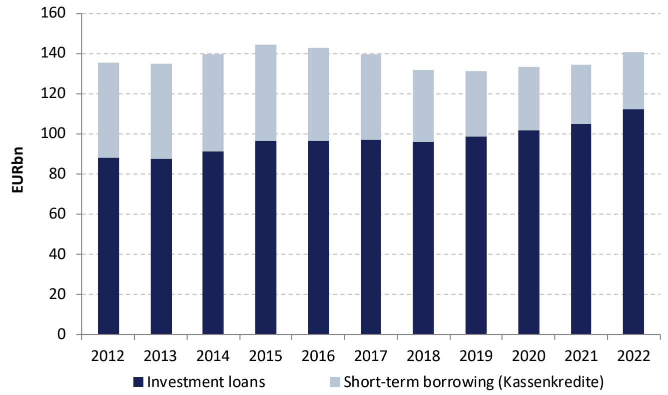
Comment

Despite these disadvantages, we believe that the Stability Council is a worthwhile committee for monitoring budgets at both federal government and Bundeslaender level. Due in particular to the introduction of the debt brake, which we see as a major challenge especially for financially weaker Laender, we regard the supervisory body as a suitable method of budget control at Bund and Laender level. From an investor viewpoint, too, we regard the Stability Council and especially its bi-annual reports to be important, since they provide up-to-date and transparent information on the budgetary situation of all Laender. Although we believe it to be a significant disadvantage that the Stability Council does not currently possess serious mechanisms for imposing sanctions, given the positive budget performance up to the end of 2019, this has not posed major problems. However, it shall remain to be seen what consequences this lack of adequate pressure might have in the years following the Covid-19 pandemic.

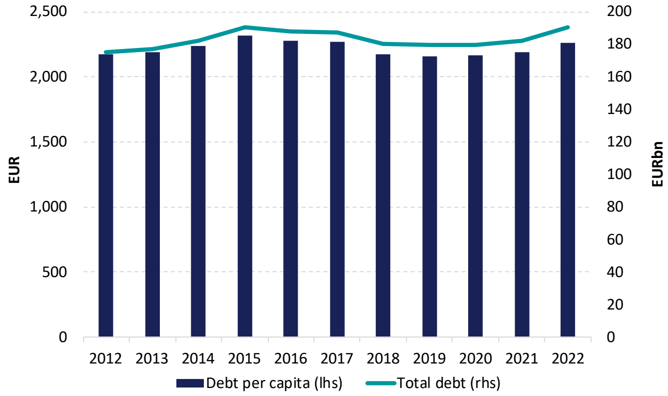
Challenges for Laender finances
Municipal budget situation as stress factor

Latest data set: municipalities generate another surplus in 2022
Despite facing a variety of challenges, municipalities and municipal associations were able to generate a surplus of EUR 2.6bn (core and extra budgets) on a nationwide basis in 2022. However, this result is EUR 2.0bn down on the previous year. After achieving a surplus of EUR 3.0bn in 2021, the core budgets generated a slightly lower surplus of EUR 2.2bn in 2022. This was mainly due to a significant decline (-9.2%) in the municipal share of VAT, although the effect of this was offset by an increase in local business tax revenues of +13.9% (net). Administration and service charges rose by +9.8% in 2022, exceeding the pre-pandemic value from 2019 in the process, which can be mainly attributed to the access restrictions and closures linked to the Covid-19 pandemic being revoked. Expenditure at municipal level increased significantly by +7.4% in 2022 to stand at EUR 325.8bn overall. The main reason for this was increased costs for the “management of land and buildings” as a result of the energy crisis, which saw an increase of +13.8%, and “rents and leases”, which also grew by +13.8%. As a result of the war in Ukraine, there was also a noticeable increase in benefits under the Asylum Seekers Benefits Act. At around EUR 4.0bn, this item experienced growth of +61.2% year on year. With regard to the municipal debt level, 2022 saw the fourth increase in a row. The sum total of liabilities increased by +4.4% to EUR 190.7bn, which equates to 58.1% of revenue. As such, this value was well below the Laender average, where the debt-to-revenue ratio amounted to 112.0%. The highest growth in debt levels versus 2021 in percentage terms was recorded by the municipalities and municipal associations in Saxony, at +20.8%, followed by Bavaria (+11.3%) and Baden-Wuerttemberg (+8.9%). In terms of the sharpest percentage declines in debt, Thuringia (-8.7%) and Saarland (-5.6%) lead the way.

Municipal debt level in the non-public sector



Municipal debt level



Source: Federal Statistical Office, NORD/LB Markets Strategy & Floor Research

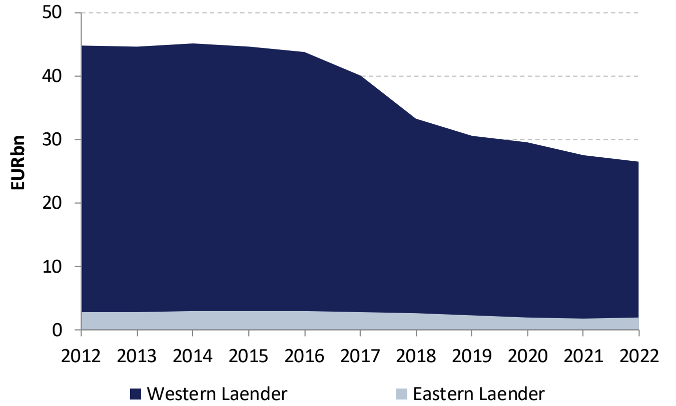
Steady investment loan volume in the recent past

Investment loans account for a significant portion of municipal debt. These are backed by direct assets, whereby the interest expenses can potentially be covered by the return on investments. The respective shares of investment loans in total municipal debt differ significantly from case to case. At 81%, the highest share of investment loans in overall municipal debt is attributable to municipalities in Schleswig-Holstein, while Baden-Wuerttemberg has the lowest value in this regard, at 43% (national average: 59%). Between 2009 and 2020, the national average of investment loans in total municipal debt had been in a corridor of between 49% and 55%. In 2022, the value exceeded this range, now at 59%, for the second year in a row.

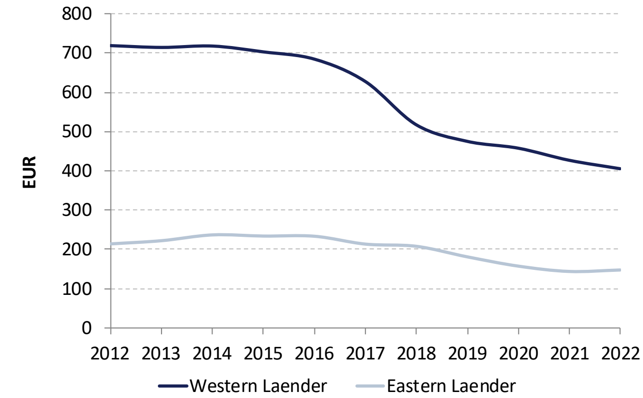
Trend reversal in Kassenkredite portfolios continues

Kassenkredite were originally intended to cover short-term cash flow problems that can arise from timing mismatches in revenue and expenditure. For instance, if higher personnel costs are incurred at the start of a calendar year, while regular tax revenue has not yet been received, Kassenkredite can be used to bridge this time gap. Since the turn of millennium, however, the volume of Kassenkredite has increased sevenfold across Germany. At the highpoint as at year-end 2014, for example, around 27% (roughly EUR 48bn) of total municipal debt was attributable to Kassenkredite. We can therefore say that these loans were not (exclusively) used for bridging purposes. Back in 1995, this figure came in at just 3.1%. A higher proportion of Kassenkredite liabilities brings with it an increased risk of changes to the interest rate environment. For this reason, we take a critical view of a high level of Kassenkredite debt. While a low interest rate environment was the status quo for many years, this is now very much a thing of the past, with the ECB having increased key rates by a total of 425 basis points over the past 12 months. As a result, this veritable risk has emerged from the shadows to take centre stage. Having remained relatively constant between 2012 and 2016, Kassenkredite volumes have continually declined since this time. This is certainly a development which we welcome. At EUR 32.9bn, Kassenkredite still accounted for a share of 18.3% in total municipal debt in 2019. Between 2020 and 2022, Kassenkredite portfolios were steadily scaled back further still – albeit to only a rather limited extent owing to the Covid-19 crisis. The outstanding volume of Kassenkredite at municipal level as at year-end 2022 amounted to EUR 28.4bn, which corresponded to a share of 14.9% of total municipal debt. Striking aspects in this context are, firstly, the fact that West German Laender have much higher Kassenkredite liabilities than their East German counterparts, although additional growth was again recorded for the latter in 2022. Secondly, it should also be noted that the per capita levels of Kassenkredite in both groups of Laender have been converging since 2015.

Municipal cash boosting loans



Municipal cash boosting loans per capita



Source: Federal Statistical Office, NORD/LB Markets Strategy & Floor Research

2022: Kassenkredite volumes in decline in nine of 13 non-city states

A breakdown by Bundesland of the Kassenkredite burden on municipalities reveals a highly varied picture: the share of Kassenkredite in overall municipal debt ranges from 0.2% in Hesse to 34.2% in Saxony-Anhalt, where in actual fact the Kassenkredite debt level even exceeded the volume of investment loans for a brief period in 2018. However, one aspect to highlight here is that, in 2020, eight of the 13 non-city state Laender were able to reduce their Kassenkredite debt levels, with seven of the 13 repeating this development in 2021. In 2022, as many as nine of the 13 cut their Kassenkredite liabilities. The extent of the decline in Kassenkredite also varied significantly across the individual Laender. The sharpest reduction was again posted by Hesse, at -55.5%. It is also fundamentally striking that the declines were smaller in Laender with high volumes of Kassenkredite in their loan portfolios than in those where the volumes are already lower. For example, North Rhine-Westphalia and Rhineland-Palatinate, Laender in which Kassenkredite portfolios accounted for shares of around 30% in their respective overall debt levels, only registered below-average declines, while the declines in Brandenburg and Bavaria, for example, were higher (-30.6% and -38.3% respectively), despite the fact that their shares were much lower (8.5% and 0.9%). In percentage terms, the largest increase in Kassenkredite loans was recorded for Saxony, at +187.7%, followed by Thuringia at +62.1%. Nevertheless, at 7.4% and 0.9% respectively, the volume of short-term liabilities in these two Laender remains at a low overall level that should be manageable.

Growing challenges, growing debt?

Municipal budgets are also facing a variety of challenges: following the succession of interest rate hikes, credit financing costs will also become increasingly expensive, which in turn will place the strain on budgets. In particular, the rise in money market rates could put pressure on municipalities with higher Kassenkredite debt levels. Despite the fact that the ECB is now more likely to increase interest rates at a more moderate pace in future on the back of nine hikes in total, which gives rise to the idea that we may be approaching the peak of interest rate rises, municipalities will now be forced to take heed of these circumstances to a greater extent in their financial planning. In addition, significant effects on municipal financing are expected from regulatory changes. Due to the introduction of the leverage ratio by Basel III, municipal financing is likely to become increasingly unattractive for privately organised banks. The key indicator stipulates a minimum ratio of regulatory capital to the exposure of a bank, in which the risk of the exposure is irrelevant. Low-margin segments, and this includes municipal financing, are therefore likely to see a declining credit offer from private banks. The banking crisis had also already led to a shift within the market for municipal finance: specifically, regional promotional banks have experienced significant growth in this respect for years. In North Rhine-Westphalia, the municipal lending business of NRW.BANK has posted strong growth over recent years. After a new record of EUR 7.6bn was registered in 2020 (EUR 3.7bn for municipal financing), NRW.BANK generated a volume of new financing commitments of EUR 4.4bn (-42%) in the business area of Municipalities/Infrastructure in 2021. The reason for this was falling demand for coronavirus aid. In 2022, the volume of new commitments rose by around +34% to EUR 5.9bn. Moreover, with a volume of new commitments totalling EUR 838.6m, the NRW.BANK Energy Infrastructure programme (+25%) remained subject to high demand, having recorded growth of +36% in the prior year. Other regional development banks such as BayernLabo have also been experiencing growth in the municipal lending business over a period of several years. In contrast, KfW is already restricting its municipal lending to a maximum of EUR 750 per inhabitant. As a result, the focus is increasingly turning towards alternative funding options such as Schuldscheindarlehen (SSD) and bonds, some of which are issued in a joint format together with other municipalities, for example under the NRWGK and DEUSTD tickers.

Laender support local authorities with bailout funds

In recent years, several Bundeslaender have implemented consolidation aid or debt relief funds with the aim of supporting municipalities. With reference to the self-governance of municipalities, these programmes are usually voluntary and highly varied in their structure. The programmes were generally established in response to the difficult municipal budget situation: in 2022, a survey of 301 municipalities conducted by a consulting firm indicated that 20% of the municipalities still considered themselves unable to repay their debts from their own resources. Although this suggests de facto insolvency, no insolvency proceedings can be initiated against municipalities, at least according to Section 12 of the Insolvency Code. In order to support the municipalities most affected by high Kassenkredite debt levels, Olaf Scholz, the former Minister of Finance, called for a full haircut, whereby the Bund (federal government) would assume liability for all municipal debt. However, this plan was highly controversial even within the Grand Coalition (the 4th Merkel cabinet; Germany's coalition that governed until December 2021). However, the fact that the Laender support municipalities through various debt relief programmes can be justified, among other aspects, in that, in the event of a payment default, it would be necessary to clarify whether the respective Bundesland followed the *Konnexitätsprinzip*. It would then be necessary to check whether the Bundesland had made the necessary funding available to the municipality for the tasks transferred to it. The Laender constitutions also include corresponding articles that require the respective Bundesland to comply with a maintenance obligation, i.e., to ensure financial backing for performance of the tasks (e.g. Art. 58 of the Constitution of Lower Saxony).

Bailout funds reveal significant differences

The consolidation aid and debt relief funds that are provided already deal with this and, depending on the Bundesland, reveal some significant differences. In most cases, the repayment of loans or direct deficit coverage is the focal point. The corresponding cash inflows are often linked to the financial equalisation at municipal level. In 2012, for example, the Bundesland of Rhineland-Palatinate set up a municipal debt relief fund totalling EUR 3.8bn, in which more than 800 local authorities currently participate. The objective of the fund is to repay two-thirds of the municipal cash boosting loans (Kassenverstärkungskredite) that were taken out up to 2009. Given that the programme ultimately did not significantly relieve municipal finances in Rhineland-Palatinate, another bailout fund was announced in September 2022 in the form of the "Partnership for Municipal Debt Relief in Rhineland-Palatinate" (PEK-RP). A sum of EUR 3.0bn is to be made available in the state budget for this purpose. The plan envisages debt relief across three stages: up to the basic amount of EUR 500 per inhabitant, Kassenkredite loans remain with the respective municipality; from EUR 500 per inhabitant up to a maximum amount of EUR 2,500 per inhabitant, half of the liquidity loans is assumed by Rhineland-Palatinate; above this maximum amount, Rhineland-Palatinate assumes the liquidity loans in full. For districts, these amounts are divided by three (independent municipalities: two thirds of the full amount). Mecklenburg-Western Pomerania has adopted a different approach: in this case, a consolidation fund was set up in 2012 to provide financial assistance for unavoidable deficits. A debt relief fund was subsequently added to the mix in 2018. Both programmes, which are reported as special funds, ran in parallel until the consolidation fund expired in 2019. In contrast, Hesse set up a programme known as "Hessenkasse", the objective of which is to take over the Kassenkredite of municipalities and to arrange debt relief via WIBank, the promotional bank of the Bundesland of Hesse. Overall, a repayment amount of EUR 4.9bn was achieved, which equated to roughly 95% of the municipal Kassenkredite debt level in 2020. Agreement on both consolidation plans and, in some cases, the merging of existing municipalities with the aim of stabilising the budgets on a sustainable basis, represent aspects that all programmes share in common.

Clear differences in programme ratios

There are also differences in the scope of the programmes in relation to the total debt of the municipalities (at the time that the programmes were first launched in each case). The Hessenkasse programme set up in 2018, which envisages a form of debt relief for municipal Kassenkredite, whereby the municipalities in Hesse make a repayment contribution of EUR 25 per inhabitant per year, takes top spot here. Some way behind follows the latest debt relief programme implemented in Rhineland-Palatinate: a fund in the amount of EUR 3.0bn has been announced here, whereby 50% of the municipal Kassenkredite debt will be assumed by the Bundesland itself. The first debt relief fund was designed to reduce municipal debt (from 2012) by approximately 28% up to 2026. The scope of the programmes in Saxony-Anhalt (16.2%), Hesse (first programme 12.8%), Lower Saxony (11.8%) and Schleswig-Holstein (10.7%) is far smaller, although it is the situation in Saarland that is truly remarkable: despite the fact that Saarland regularly occupies one of the top spots (in a negative sense) in a comparison of the Laender for per capita municipal debt, the original programme volume in Saarland was actually just 4.3%. The Saarland Pact, which was agreed at the end of 2019 before coming into force at the start of 2020, is designed to counteract this situation. An annual amount of EUR 30m up to 2065 should gradually remove the burden of nearly half the outstanding Kassenkredite from the municipalities, while an extra EUR 20m is set to be put towards municipal investment projects. Although municipalities in NRW have the highest absolute and second-highest per capita debt, at 9.9%, the programme volume is currently on the low side. At the time of preparing this Issuer Guide, discussions have been taking place in NRW with regard to assuming 50% of the municipal debt from 2024 onwards. In Brandenburg (5.9%) and MV (5.4%; or 9.5% once special aid is factored into the equation), the absolute programme volumes are also below average, but adequate with the low per capita debt level also taken into account.

Overview of municipal bailout packages (excluding Covid-19 bailout funds)

	Term	Volume (EURm)	Comment	Repayment of		Interest relief	Deficit coverage
				Kassen-kredite	Credit market liabilities		
BY	2007-2012	10	Annual				X
	2012 -	140	Annual				X
BB	2020-2022	40	Annual				X
HE	2013-2019	3,200	Terminated with retroactive effect as at 31 December 2019 due to Covid-19	X	X	X	
	Ref. date in 2018	4,900	One-off; less repayment contributions	X			
MV	2018 -	25*	Annual; plus one-off sum of EUR 100m				X
NI	2012-2041	70**	Annual	X		X	
NW	2011-2020	5,850**	Overall			X	X
RP	2012-2026	255	Annual	X		X	
	Ref. date in 2023	3,000	One-off	X			
SL	2013-2024	17**	Annual	X	X		
	2020-2065	50					
ST	2011-2027	736	Overall	X	X	X	
	2013-2023	400	Overall	X			
SH	2012-2018	60	Annual				X

* Excluding special aid for budgetary consolidation and debt reduction in the amount of EUR 40m per annum in the period 2014-2017 outside the Financial Equalisation Act Mecklenburg-Western Pomerania (FAG-MV).
** Figures include participation of local authorities.
*** Gradually lower since 2020
BY = Bavaria, BB = Brandenburg, HE = Hesse, MV = Mecklenburg-Western Pomerania, NI = Lower Saxony, NW = North Rhine-Westphalia, RP = Rhineland-Palatinate, SL = Saarland, ST = Saxony-Anhalt, SH = Schleswig-Holstein.
Source: Relevant Bundesland legislation, NORD/LB Markets Strategy & Floor Research

Bailout packages in the context of Covid-19

Municipalities continue to face significant problems in the wake of the Covid-19 pandemic. While the economic impacts of the pandemic years from 2020 to 2022 are noticeably fading away, municipalities have been exposed to new budgetary strains and, in part, collapsing revenues. The German Association of Cities and Municipalities estimates that municipalities will have to cope with a tax shortfall of almost EUR 20bn for the years 2021 to 2024 – as measured against expectations prior to the onset of the Covid-19 crisis. Since allocations to municipalities are also calculated from tax revenues, these revenues were also significantly lower. For this reason, it was clear as early as March 2020 that many municipalities were fearful of long-term negative consequences in connection with the coronavirus crisis. The Laender reacted by offering short-term financial assistance, which was subsequently followed by bailout and rescue packages. For the most part, these were designed to supplement the economic measures implemented by the federal government, ultimately doubling the financial relief provided to the municipalities. Each Bundesland has supported its municipalities, in part with further relief measures. While some Laender such as Mecklenburg-Western Pomerania initially pledged financial assistance only for 2020 and 2021, others went much further: for example, Rhineland-Palatinate and Hesse both guaranteed support through to 2022 and 2023 respectively. The aid packages have often also included an element to compensate for the loss of revenue from local public transport.

Comment

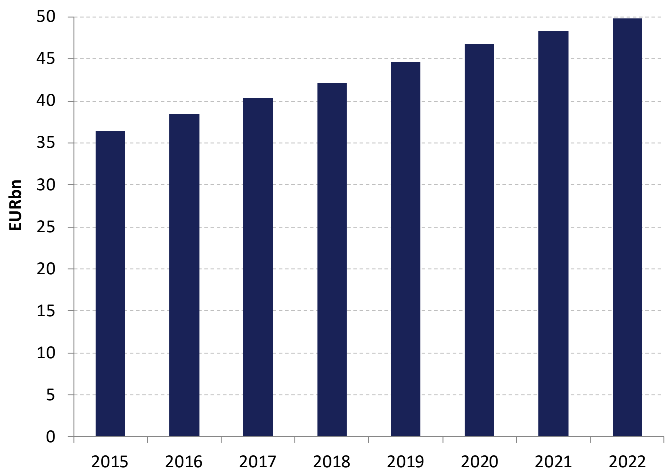
We regard the performance of municipal finances as one of the major challenges for Laender finances. In our view, a difficult budgetary situation at municipal level indirectly impacts the budgetary situation, which has been shaken by the effects of the coronavirus crisis, of the respective Bundesland. From our perspective, the fact that numerous Laender have sought to counteract this scenario with defined programmes can only be evaluated positively. However, there are some negatives in terms of the individual configuration of the Laender municipal programmes. In Rhineland-Palatinate, for example, we believe that the programme volume in relation to municipal debt is appropriate, while we would take a more critical view in the case of Saarland. The programme volume here is much lower in relation to the municipal debt level compared with the other Laender, although in this regard, the newly implemented Saarland Pact could provide an element of support to some extent. Added to this is the fact that many municipalities continue to pin their hopes on the Bund clearing their debts. The recent positive development with regard to municipal revenues after direct Covid-19 restrictions were lifted gained further momentum in 2022. However, in connection with the sharp rise in interest charges and stubbornly persistent inflation data, this will not help to stabilise municipal finances alone. The lowering of the income tax rate implemented by the Bund to mitigate “cold progression” was resolved in parallel with elevated inflation rates in 2022, although the actual fiscal effect will only become clear from 2024 in particular. The same applies to the public sector collective bargaining agreement. The programmes presented by the Laender are a commendable attempt to fight fires, although they are too short-lived to properly eliminate structural deficits. In this context, municipalities will not have any additional scope to assume new responsibilities in the foreseeable future, despite the fact that they urgently need to get to grips with the transformation in their local area. There are still a great number of unresolved question marks with regard to the future. In this sense, it can be expected that municipal debt levels will continue to rise for the foreseeable future and that the odd municipality will occasionally encounter financial difficulties.

Challenges for Laender finances
Pension obligations as a strain on Laender finances

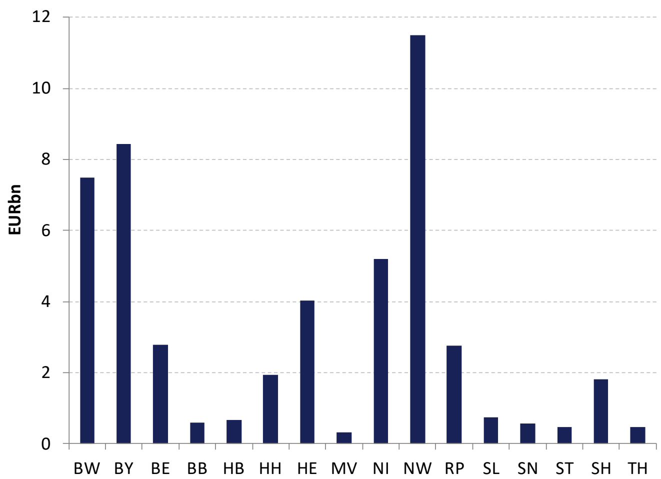
Pension obligations represent an increasing challenge for Laender finances
In view of demographic change and longer life expectancy, pension expenditure is an increasingly prominent element of the budgetary planning at Laender level. In contrast to the pay-as-you-go-financed pension system, which applies in the case of salaried employees, pension expenditure for government employees form part of personnel costs and is paid from the ongoing budget. It is only since 1999 that the federal government and the Laender began to create pension reserves as stipulated in Section 14a (1) of the Federal Civil Service Remuneration Act (BBesG). From 2017 onwards, these are expected to be dissolved (in line with Section 7 of the Pension Reserves Act [VersRücklG]) due to the highest expected charges in the subsequent 15 years (commonly referred to as the "pension avalanche"). These reserves may differ with regard to the investment types for the assets and in relation to the reserve policy. For example, some Laender have already been setting aside payments to a pension reserve since 2003, while others use their pension funds concurrently as lenders for their own budgetary purposes. While we consider these to be examples of a lack of pension provision, or provision that is only sustainable to a limited extent, other Laender rely on the additional creation of reserves through the Bundesland's own pension or retirement funds, extending above and beyond the reserves required by law. The differing methods for creating reserves pose major challenges, and in some cases such provisions are totally absent. These challenges are, in our view, particularly relevant with regard to the partial reapplication of the debt brake from 2023 onwards.

Pension and allowance expenses represent significant items of expenditure
In comparison with 2015, the pension and allowance expenses of the Laender have grown by 36.6% up to 2022. In the past budget year alone, a rise of 2.9% (previous year: +3.4%) was posted. In 2022, the Laender spent a cumulative total of EUR 49.8bn on this budget item (2021: EUR 48.4bn). This corresponds to 10.2% of total expenditure. However, pension payments (for now!) accounted for a smaller proportion of Laender budgets than investments (10.9%). This budgetary strain is likely to continue to rise in the future, with the majority of the baby boomer generation born between 1955 and 1969 now gradually starting to draw their pensions.

Development of pension and allowance expenses



Pension and allowance expenses in 2022



Source: Federal Ministry of Finance, NORD/LB Markets Strategy & Floor Research

Low(er) level of pension provisions in East Germany

At 13.6%, the share of pension provisions in relation to total expenditure was highest in Lower Saxony. However, Rhineland-Palatinate, Baden-Wuerttemberg and Hesse also register values of at least 12% for this item. In addition, it is striking that pension payments account for a far smaller proportion of expenses in the Laender that make up the former East Germany. The value for 2022 was just 3.4%, having been 3.2% in the previous year. Looking at pension provisions in relation to the number of inhabitants, the city states of Hamburg and Bremen traditionally posted the highest expenses in this regard. At EUR 1,031 per capita, the value in Hamburg, for example, is more than seven times higher than that of Saxony (EUR 138). This relatively high expenditure is justified by the function and structure as city states, as reflected both in above-average personnel costs and an elevated assumed number of inhabitants in the calculation used under the current system of financial equalisation among the Laender.

Comment

For years, the pension liabilities of the Laender have represented substantial items of expenditure. Especially in the west of Germany, they significantly impair budget flexibility. Moving forwards, these charges are likely to continue rising. We believe that eastern German Laender have a clear advantage in this respect, because the resulting challenges are less severe. Nonetheless, this advantage will gradually ebb away over the years, with further convergence of the proportion of pension payments in the budget to the west German level anticipated as a result. In the coming years, we expect these payments to rise further. As a result, we believe that revenues will either need to be consistently strengthened or expenditure must be cut, so that at least there is no deterioration in budget balances. However, rising interest rates could alleviate this issue, at least to some extent.

Regulatory framework
Risk weighting of outstanding claims against German Laender

Relevant regulatory framework: Regulation (EU) No. 575/2013 (CRR)
On the basis of the risk weightings that were defined by Basel II, the EU initially specified the provisions in Directive 2006/48/EC, before these definitions for risk weightings were subsequently replaced by the CRR (Regulation (EU) No 575/2013) in mid-2013. In 2019, this was expanded by the inclusion of elements under Basel III by Regulation (EU) 2019/876 (CRR II). An amending regulation (referred to as the CRR quick fix) to help with operating capital relief at banks in order to safeguard lending to the real economy and to mitigate the effects of Covid-19 then followed in June 2020.

Risk weighting of EU states using standard approach: 0%
The risk weighting for exposures to central governments or central banks is derived from Art. 114 of the CRR. In accordance with Paragraphs 3 and 4, this means a risk weighting of 0% for risk positions held against EU member states or the ECB. If the exposure is denominated in the domestic currency of the respective country, this shall apply without any time limit. For exposures in a currency which is not the respective country's domestic currency, but nevertheless the currency of another member state, a 0% risk weighting applied only until 31 December 2017. This was revised yet again in the wake of the Covid-19 pandemic: pursuant to Art. 500A (1), a total of 0% of the determined risk position was applied until 31 December 2022. Since the start of 2023, this is to be gradually increased until, in 2025, the risk weighting to be applied shall be based fully on Art. 114 (2) again.

Risk weighting of regional and local authorities (RGLAs)
The risk weighting of regional and local authorities (RGLAs) is equated with that of the relevant state in accordance with Art. 115 (2) CRR, subject to two provisos: powers to levy taxes must be in place and, based on the existence of specific institutional precautions for reducing the risk of default, there is no risk-related difference with risk positions held against the central government of the state in question. The risk weighting for other sub-sovereigns of member states is 20%, assuming the exposure is denominated in the respective country's domestic currency. For other sub-sovereigns, the risk weighting is the same as in the case of institutions, provided the sub-sovereign is from a country on the list of third countries that are equivalent from a legal and supervisory viewpoint.

EBA maintains database of risk weightings of RGLAs
As this definition is open to interpretation, the EBA shall maintain a public database, which contains all RGLAs in the EU where responsible authorities treat risk exposures as exposures to their respective central government. Accordingly, outstanding claims against the following levels are assigned a risk weighting of 0% in Germany:

- Bundeslaender and their legally dependent special funds
- Municipalities and municipal associations

Bundeslaender assigned 0% risk weighting
It follows from this that exposure to German Laender can be assigned a risk weighting of 0%, i.e., exposures of this kind benefit from the same regulatory advantages as, for example, German government bonds (Bunds).

Regulatory framework
Implications of the Liquidity Coverage Ratio (LCR)

Implementation of the LCR with major implications for SSAs and in particular agencies
During the financial crisis, the liquidity position of credit institutions increasingly became the focus of attention. Consequently, in December 2010 the Basel Committee on Banking Supervision (BCBS) announced the implementation of a Liquidity Coverage Ratio (LCR) and a Net Stable Funding Ratio (NSFR). Following a transitional phase since 2015, full compliance with the LCR has been mandated since 2018. In the EU, the corresponding regulations were defined in European law in Regulation (EU) No. 575/2013 and Directive 2013/36/EU (CRD IV), as well as through the LCR Regulation. The definition of the means used to calculate the LCR presents major implications for SSAs.

Objective of the LCR: reduction in liquidity risks for credit institutions
The objective of the LCR is to control the liquidity risk of a credit institution in such a way that sufficient high-quality liquid assets (HQLA) are available at all times to survive a significant stress scenario lasting 30 days. It comprises the minimum liquidity buffer, which is required in order to bridge liquidity mismatches of one month in crisis situations. Specifically, the LCR is calculated from the ratio of HQLA to the net payment outflows in the 30-day stress scenario, whereby this ratio must be at least 100%.

10 October 2014: European Commission publishes LCR Regulation
After there had been a lack of clarity for a long time about the precise definition of HQLA, as well as the EBA recommendation published at the end of 2013 only leading to further uncertainty in particular, the Liquidity Coverage Requirement Delegated Act was finally published on 10 October 2014. This LCR legal act specified in particular which assets are to be treated as HQLA in future. A revised version of the LCR Regulation finalised in February 2022 entered into force on 8 July 2022 and mainly affects covered bond regulations.

Categorisation in different liquidity levels
Under the HQLA definition, the legislation, as proposed by the BCBS, divides HQLA into different liquidity levels. Depending on the assigned level, this results in upper and lower limits for certain levels and the application of possible haircuts. On the following two pages we provide a brief overview of asset classification and allocation, before analysing the implications for the Laender. Brief note from us: in market practice, however, a distinction is occasionally made within Level 1 between Level 1A and Level 1B assets (Level 1 covered bonds due to obligatory haircut), even if such a linguistic distinction appears neither in the CRR nor the LCR Regulation.

NORD/LB

Liquidity levels – an overview

Level 1 assets (Art. 10 LCR)

- ≥ 60% of the liquidity buffer; no haircut

So-called "Level 1B" assets (Art. 10 (1)(f) LCR; certain covered bonds)

- < 70% of the liquidity buffer; haircut of at least 7%

Level 2A assets (Art. 11 LCR)

- < 40% of the liquidity buffer; haircut of at least 15%

Level 2B assets (Art. 12 & 13 LCR)

- ≤ 15% of the liquidity buffer; haircut of at least 25-50%

Source: LCR-R, NORD/LB Markets Strategy & Floor Research

Classification overview

			Minimum haircut (for shares or units in CIUs)
	Level 1 assets (minimum of 60% of liquidity buffer; min. 30% excluding (f) – covered bonds)		
(a)	Coins and bank notes		- (-)
(b)	Following exposures to central banks:		- (-)
	(i)	Assets representing claims on or guaranteed by the ECB or an EEA member state's central bank	
	(ii)	Assets representing claims on or guaranteed by central banks of third countries, provided that these have an ECAI rating of CQS 1.	
	(iii)	Reserves held by the credit institution in a central bank referred to in i) and ii) provided that the credit institution is permitted to withdraw such reserves at any time during stress periods and the conditions for such withdrawals have been specified in an agreement between the relevant responsible authority and the ECB or the central bank	
(c)	Assets representing claims on or guaranteed by the following central governments, regional governments, local authorities or public sector entities (PSEs):		- (5%)
	(i)	Central government of an EEA member state	
	(ii)	Central government of a third country, provided that it has an ECAI rating of CQS 1.	
	(iii)	Regional governments or local authorities or public sector entities (PSEs) in an EEA member state, provided that they are treated as exposures to the central government of the respective EEA member state (i.e., risk weighting of 0%)	
	(iv)	Regional governments or local authorities in a third country of the type referred to in ii), provided that they are treated as exposures to the central government of the third country (i.e., same risk weighting as the central government [0%])	
	(v)	PSEs provided that they are treated as exposures to the central government of an EEA member state or to one of the regional governments or local authorities referred to in iii) (i.e., same risk weighting of 0%)	
(d)	Assets representing claims on or guaranteed by the central government or the central bank of a third country, which has not been allocated a rating of CQS 1 (rating below AA-), and certain reserves		- (5%)
(e)	Assets issued by credit institutions which meet at least one of the following requirements:		- (5%)
	(i)	Incorporated in, or established by the central government of, an EEA member state or the regional government or local authority in an EEA member state, the government or local authority is under the legal obligation to protect the economic basis of the credit institution and maintain its financial viability throughout its lifetime and any exposure to that regional government or local authority, if applicable, is treated as an exposure to the central government of the EEA member state (i.e., risk weighting of 0%);	
	(ii)	The credit institution is a promotional lender as defined in Art. 10(1)(e)(ii)	
(f)	Qualifying EEA covered bonds that fulfill all of the following criteria:		7% (12%)
	(i)	Covered bonds as defined in Art. 3 No. 1 CBD, or which were issued prior to 08 July 2022 and fulfill the requirements of Art. 52 (4) of the UCITS Directive at the time of issuance, so that they qualify for preferential treatment as covered bonds through to maturity	
	(ii)	Risk positions against banks in the cover pool in line with Art. 129 (1) (c) and 129 (1a) CRR	
	(iii)	deleted	
	(iv)	issue volume of at least EUR 500m or equivalent in domestic currency	
	(v)	Rating: CQS 1 from ECAI; no rating: risk weighting of 10% pursuant to Art. 129 (5) CRR	
	(vi)	Overcollateralisation of at least 2%	
(g)	Assets representing claims on or guaranteed by the multilateral development banks and the international organisations referred to in Art. 117 (2) and Art. 118 CRR		- (5%)

NB: CQS = Credit Quality Step (rating class) as defined in CSA

Source: LCR-R, NORD/LB Markets Strategy & Floor Research

Classification overview (continued)

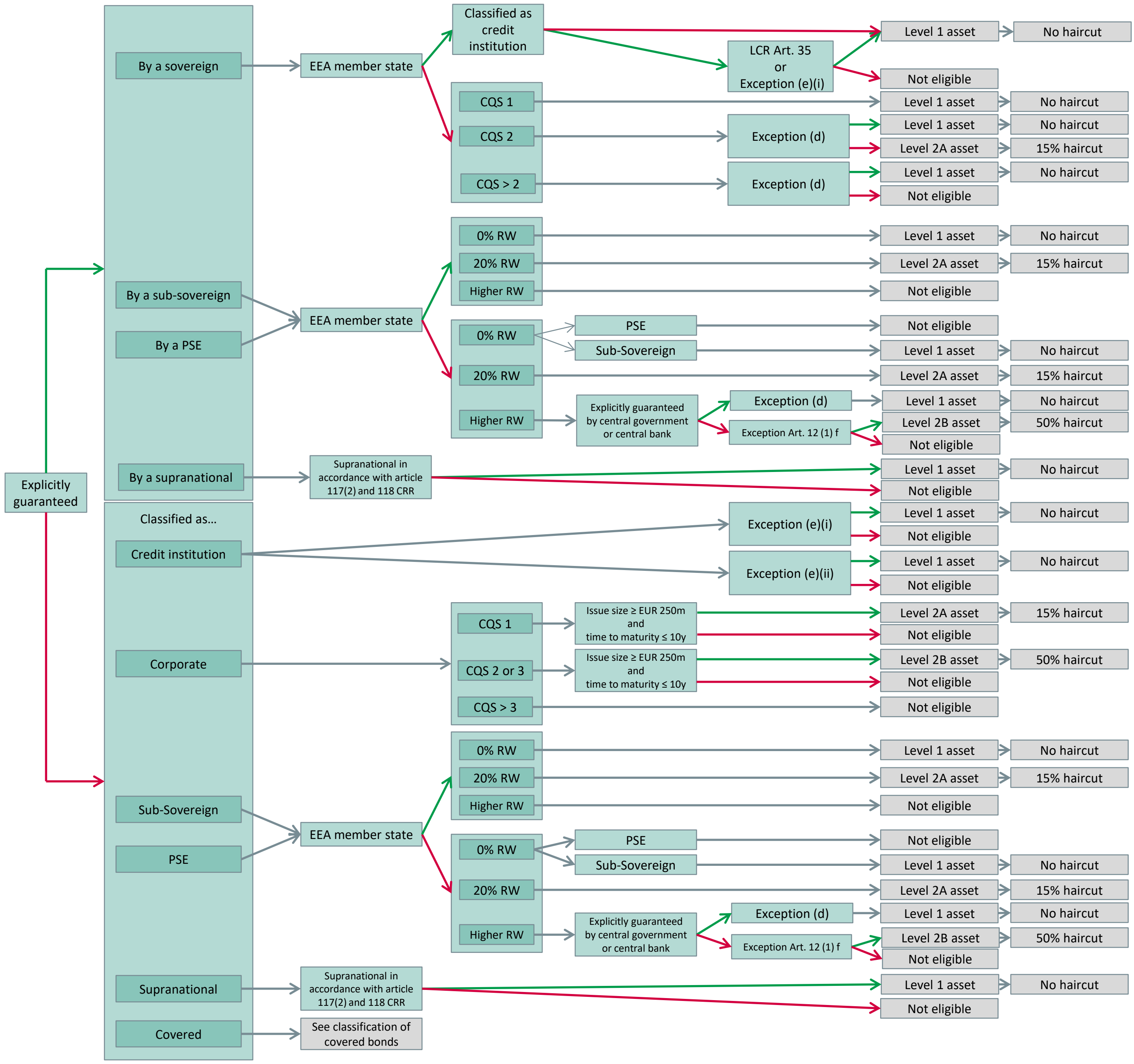
	Level 2A assets (maximum of 40% of liquidity buffer)	**Minimum haircut (for shares or units in CIUs)**
(a)	Assets representing claims on or guaranteed by regional governments, local authorities or PSEs in an EEA member state, where exposures to them are assigned a risk weighting of 20% pursuant to Art. 115 (1) (5) and Art. 116 (1) (2) (3) CRR	15% (20%)
(b)	Assets representing claims on or guaranteed by the central government or the central bank of a third country or by a regional government, local authority or PSE in a third country, where exposures to them are assigned a risk weighting of 20% pursuant to Art. 114 (2) and Art. 115 or Art. 116 CRR	15% (20%)
(c)	Qualifying EEA covered bonds that do no not reach so-called "Level 1B"	15% (20%)
(d)	Qualifying covered bonds issued by credit institutions in third countries (supervisory requirements must be examined in each particular case: Regulation 2016/2358/EU does not apply)	15% (20%)
(e)	Corporate debt securities which meet all of the following requirements: (i) CQS1 (minimum rating of at least AA- or equivalent in event of a short-term credit assessment) (ii) issue size of at least EUR 250m or equivalent in domestic currency (iii) maximum time to maturity of the securities at the time of issuance is 10 years	15% (20%)
	Level 2B assets (maximum of 15% of liquidity buffer)	**Minimum haircut (for shares or units in CIUs)**
(a)	Exposures in the form of ABS under certain conditions (pursuant to Art. 13 of the LCR Regulation)	25-35% (30-40%)
(b)	Corporate debt securities which meet all of the following requirements: (i) CQS ≤ 3 (ii) issue size of at least EUR 250m or equivalent in domestic currency (iii) maximum time to maturity of the securities at the time of issuance is 10 years	50% (55%)
(c)	Shares, provided that they meet certain conditions	50% (55%)
(d)	Restricted-use committed liquidity facilities provided by the ECB, the central bank of an EEA member state or a third country, under certain conditions	-
(e)	Qualifying EEA covered bonds (no rating restriction)	30% (35%)
(f)	Only for religiously observant credit institutions: certain non-interest-bearing assets	50% (55%)

NB: CQS = Credit Quality Step (rating class) as defined in CSA
Source: LCR-R, NORD/LB Markets Strategy & Floor Research

Classification of PSEs and sub-sovereigns

The classification of PSEs and sub-sovereigns (regional governments and local authorities; RGLAs for short) is almost identical. If an explicit guarantee is given for a bond or an issuer by a central government, classification is the same as for sovereigns. If no explicit guarantee is given, classification is carried out primarily on the basis of the risk weight of the issuer. If, in regulatory terms, PSE and sub-sovereign bonds may be treated as exposures to the respective central government and a risk weighting of 0% can be applied, these issuers can accordingly be classified as Level 1. Theoretically, exceptions to this are issuers from outside the EEA where a risk weighting of 0% can be applied but there is no explicit guarantee in place. If it involves a PSE, classification is not possible. Sub-sovereigns can be classified as a Level 1 asset. Institutions where a risk weighting of 20% can be applied are classified as Level 2A issuers. Institutions with higher risk weightings that are based outside the EAA and have an explicit guarantee from a central bank or government can be classified as Level 1 issuers using the conditions of Exemption (d) (see classification of sovereigns). If an explicit guarantee is not specified, a Level 2B classification as defined in Art. 12 (1) (f) LCR Regulation remains an option. This refers to institutions which, due to their religious beliefs, are not permitted to hold interest-bearing assets. Bonds of other PSEs and sub-sovereigns for which the risk weighting is higher than 20% under the standardised credit risk approach cannot be classified as liquid assets.

LCR classification of assets (Articles 10 – 12 LCR Regulation)



Comments: stated haircuts do not apply to shares or units in CIUs; PSE = Public Sector Entity; CQS = Credit Quality Step (rating class) as defined in CSA; green = condition met; red = condition not met; grey = tbc
Source: LCR-R, NORD/LB Markets Strategy & Floor Research

0% risk weighting enables Level 1 classification for Laender bonds

Since exposure to Bundeslaender can be assigned a risk weighting of 0% under the CRR standard approach (see previous chapter), this consequently results in Level 1 classification for German Laender bonds. In the case of the LCR, too, from a regulatory viewpoint this results in equal treatment of exposures to both the Bund (federal government) and German Laender.

Regulatory framework
Impacts of the Net Stable Funding Ratio (NSFR)

Introduction of the NSFR targets reduction in funding risks

In December 2010, the Basel Committee on Banking Supervision (BCBS) announced the introduction of a net stable funding ratio (NSFR) which, similar to the LCR, is aimed at increasing the stability of financial institutions. The aim of the LCR is to prevent liquidity bottlenecks in a 30-day stress scenario, whereas the NSFR focuses on reducing funding risks across a 12-month time frame. The objective is to reduce a bank's susceptibility to disruptions in the usual funding channels, to counteract potential liquidity disruptions and thereby prevent a systemic stress scenario. In particular, the NSFR is designed to limit over-reliance on short-term funding. In October 2014, the BCBS published the final NSFR framework.

EU implementation of the NSFR

In Article 413 (1), the CRR already includes an initial requirement for institutions to structure their long-term liabilities in such a way that they can be adequately funded under both normal and stressed conditions. Moreover, institutions are already subject to requirements to report to the responsible authorities. However, detailed criteria and weighting factors for the NSFR were only included in Articles 428a et seq. of the CRR with the banking package of 20 May 2019. The new rules came into force on 28 June 2021. In the future, simplified NSFR calculations will apply to "small and non-complex institutions" (in accordance with Article 4 (1) No. 145 of the CRR). However, the regulator has also introduced some deviations from the Basel framework in its implementation into European law. For example, the definition and the weighting of liquid assets have been taken from the LCR. There are also differences in relation to calibration and individual instruments. The aim of these differences and subsequent introduction at a later date (currently only the reporting obligation applies) is to make it easier for institutions at European level to introduce the Basel framework, which is regarded as quite conservative. The simplified requirements for small and non-complex institutions are also a European feature.

Definition of the NSFR

The NSFR is defined as the available amount of stable funding (ASF) relative to the required amount of stable funding (RSF). A value of 100% should be maintained as a minimum value here.

Stable funding considerations

The idea behind the NSFR is to ensure that the available stable funding (ASF) fully covers the required stable funding (RSF) for a time horizon of one year. The maturity, quality and liquidity of an asset are the main factors used to calculate how much stable funding the respective asset requires. The stability of the liabilities is mainly defined by their maturity and their availability in relation to the probability of outflows.

Calculation of the NSFR
The NSFR is calculated using the formula below and expressed as a percentage (Art. 428b and 428c of the CRR):

$$\mathrm{NSFR} = \frac{\text{Available Stable Funding (ASF)}}{\text{Required Stable Funding (RSF)}} \geq 100\%$$

The calculation is carried out in the reporting currency. Institutions are required to apply the appropriate factors to the book value of assets, liabilities and off-balance-sheet items, as outlined in the following.

Calculation of the RSF
The RSF is calculated by multiplying the totality of all assets and off-balance-sheet exposures in accordance with Articles 428r to 428ah of the CRR by the appropriate weighting factors (Required Stable Funding Factor, RSFF). As a rule, in the context of the calculation of the RSF, it can be assumed that assets with a longer residual maturity will be assigned a higher RSF weight factor. At the same time, better quality and liquidity make for a lower RSF weight. In the event that funding routes should be disrupted, the expectation is that high quality liquid assets (HQLA) would be easy to sell and therefore could help counteract any liquidity bottleneck. The funding risk of assets with longer residual maturities tends to be higher. Consequently, such assets call for larger amounts of stable funding.

Calculation of the ASF
Ideally, an institution should have ASF to cover at least 100% of the RSF amount calculated in the first instance. ASF is derived from the totality of all liabilities pursuant to Articles 428k to 428o of the CRR, multiplied by the respective risk weight factors (Available Stable Funding Factor, ASFF). The allocation of ASF weight factors to the respective liabilities is initially based on the maturity of the liability. Accordingly, a longer residual maturity results in a higher allocation of the instrument to the ASF. Consequently, all liabilities with a residual maturity of at least one year, in other words, a maturity date outside the period assessed by the NSFR, are given a weight factor of 100%. These liabilities are regarded as stable funding in full, as there is no funding risk within a year. Alongside maturity, the respective counter-party of the liabilities plays a role. Liabilities against retail customers or small and medium-sized enterprises (SMEs) are deemed to be more stable.

Weighting factors could change again
As previously mentioned, the NSFR entered into force on 28 June 2021, although the EBA has already been tasked with reviewing this by way of Article 510 CRR after the CRR came into force in June 2019. The particular focus is on derivative contracts (Art. 428s [2] and Art. 428at [2]). In this regard, netting sets of derivative contracts are therefore taken into account in both the NSFR and the simplified calculation of the NSFR at 5% of the required stable funding.

Bundeslaender enjoy preferential regulatory treatment pursuant to CRR
From our perspective, the effect of the NSFR on the Bundeslaender will be positive. Since LCR-eligible assets only need to be backed by less stable funding because of their lower RSF factor, they are given preferential treatment. The LCR level of 1 for German Laender produces an NSFR classification of 0% pursuant to Art. 428R CRR.

Regulatory framework
Classification of SSAs under Solvency II

Solvency II with major implications for SSAs and Bundeslaender in particular

On 10 October 2014, the European Commission published the delegated regulation implementing Solvency II. To calculate the solvency capital requirements for insurance companies, the regulation calls for a variety of risk modules to be taken into account, with the market risk module entailing significant implications. In addition to interest rate, equity, real estate and exchange rate risks as well as market risk concentrations, it shows how the spread risk is calculated. As is the case for the risk weighting in banking regulations, there are also exemptions here, which significantly enhance the relative attractiveness of selected groups of issuers.

Art. 180 (2) gives preferred status to selected issuers

The criteria for the preferred regulatory treatment of exposure arise, in particular, from Art. 180 (2) Solvency II. Exposures that meet certain criteria (see below) may be allocated a stress factor of 0%, whereby no capital backing is required for these items to support spread risk. According to Art. 180 (9), a stress factor of 0% also applies in the case of credit derivatives where the underlying financial instrument is a bond or a loan to any exposure listed in Art. 180 (2). Furthermore, according to Art. 199 (8), a probability of default of 0% can be assumed for exposures to counterparties referred to in points (a) to (d) of Article 180 (2), while, in addition, according to Art. 187 (3), a risk factor of 0% is assigned for market risk concentration. Overall, very positive implications therefore arise from this preferred treatment, which, in our opinion, applies to a large number of SSAs.

Art. 180 (2) regulates RGLA exposures for the first time

In the European Commission's delegated regulation (EU) 2019/981 dated 8 March 2019, guarantees from RGLAs were finally included. Exposure to RGLAs has also now been defined. Fundamentally, guarantee recipients must have preferred status in terms of the guarantees from RGLAs and exposure to these. However, two restrictions must be taken into account: first, RGLAs must be regarded as identical exposure to the respective central government ((EU) 2015/2011; Article 116), and second, the conditions laid down in Article 215 of the Regulation (EU) 2015/35 must be satisfied. RGLAs that are not equal to a central government as per Article 116 are, pursuant to Article 180 of (EU) 2019/981, automatically considered to have a *stress*$_i$ risk factor in line with CQS 2. This also applies to bonds/issuers guaranteed by these RGLAs. According to our understanding, this means that international regions of non-member states can never benefit from preferred status.

Criteria for preferred status within the scope of Solvency II

Art. 180 (2): Specific exposures

Exposures in the form of bonds and loans to the following shall be assigned a *stress*$_i$ risk factor of 0%:

a) the European Central Bank (ECB);
b) Member States' central governments and central banks denominated and funded in the domestic currency of that central government and central bank;
c) multilateral development banks referred to in Art. 117 (2) CRR;
d) international organisations referred to in Art. 118 CRR.

Exposures in the form of bonds and loans that are fully, unconditionally and irrevocably guaranteed by one of the counterparties mentioned in points (a) to (d), where the guarantee meets the requirements set out in Art. 215, shall also be assigned a risk factor *stress*$_i$ of 0%. For the purposes of sub-paragraph 1 b, risk exposures in the form of bonds and loans that are fully, unconditionally and irrevocably guaranteed by one of the RGLAs mentioned in Article 1 of the European Commission Implementing Regulation (EU) 2015/2011 (1), are to be regarded as risk exposures against the central government, provided that the guarantee satisfies the requirements laid down in Article 215.

Art. 215: Guarantees

In the calculation of the Basic Solvency Capital Requirement, guarantees shall only be recognised where explicitly referred to in this Chapter, and where in addition to the qualitative criteria in Articles 209 and 210, all of the following criteria are met:

a) the credit protection provided by the guarantee is direct;
b) the extent of the credit protection is clearly defined and incontrovertible;
c) the guarantee does not contain any clause, the fulfilment of which is outside the direct control of the lender, that
    i) would allow the protection provider to cancel the protection unilaterally;
    ii) would increase the effective cost of protection as a result of a deterioration in the credit quality of the protected exposure;
    iii) could prevent the protection provider from being obliged to pay out in a timely manner in the event that the original obligor fails to make any payments due;
    iv) could allow the maturity of the credit protection to be reduced by the protection provider;
d) on the default, insolvency or bankruptcy or other credit event of the counterparty, the insurance or reinsurance undertaking has the right to pursue, in a timely manner, the guarantor for any monies due under the claim in respect of which the protection is provided and the payment by the guarantor shall not be subject to the insurance or reinsurance undertaking first having to pursue the obligor;
e) the guarantee is an explicitly documented obligation assumed by the guarantor;
f) the guarantee fully covers all types of regular payments the obligor is expected to make in respect of the claim.

Source: Solvency II, NORD/LB Markets Strategy & Floor Research

Equal treatment of central government exposure and exposure with an explicit state guarantee

From a regulatory perspective, the effect of Art. 180 (2) is therefore an equal treatment of central government exposure and exposures which benefit from an explicit central government guarantee. Promotional banks guaranteed by RGLAs have now been newly and explicitly included. These institutions now also have preferred status. However, unlike the rules under CRD IV for banks, in conjunction with Art. 215, this Article defines minimum requirements for guarantees, which we understand are met by most explicit guarantees.

Bundeslaender benefit from 0% stress factor

At the beginning of July 2015, the European Insurance and Occupational Pensions Authority (EIOPA) published a Final Report on the basis of a consultation paper produced at the end of November 2014, which defined a list of regional and local governments that meet the requirements of Art. 85 and can therefore be assigned a stress factor of 0%. The most important issuers to benefit from a 0% stress factor here are the German Laender. As with the risk weighting under Basel III, under Solvency II, the Spanish regions are, for example, given preferential treatment as per the EIOPA list, while the absence of Italian regions, for instance, implies that a $stress_i$ risk factor of 0% cannot be assigned here. The table below summarises the regional and local authorities that can be assigned a stress factor of 0%. In Directive (EU) 2015/2011 of 11 November 2015, this Final Report was approved with the result that the proposed classification became effective.

Regional and local authorities (0% stress factor possible)

Country	Regional and local governments
Austria	Laender & municipalities
Belgium	Municipalities (Communauté/Gemeenschappen), regions (Régions/Gewesten), towns (Communes, Gemeenten) & provinces (Provinces, Provincies)
Denmark	Regions (Regioner) & municipalities (Kommuner)
Finland	Municipalities (kunta/kommun), towns (kaupunki/stad), province of Åland
France	Regions (régions), municipalities (communes), “Départements”
Germany	Bundeslaender, municipalities & municipal associations
Liechtenstein	Municipalities
Luxembourg	Municipalities (communes)
Lithuania	Municipalities (Savivaldybės)
The Netherlands	Provinces (Provincies), municipalities (Gemeenten) & water associations (Waterschappen)
Poland	Districts (powiat), municipalities (gmina), regions (województwo), district and municipal associations (związki międzygminne i związki powiatów) & the capital Warsaw
Portugal	Autonomous regions the Azores and Madeira
Spain	Autonomous regions (Comunidades autónomas) and local government (Gobierno local)
Sweden	Municipalities (Kommuner), councils (Landsting) & regions (Regioner)

Source: (EU) 2015/2011, NORD/LB Markets Strategy & Floor Research

Non-EEA regions not included on EIOPA list

Interestingly, EIOPA only cites EEA regional and local governments in its list, although there is no restriction to member states under Art. 85. In contrast, the Final Report based on the consultation paper states that the scope shall be restricted initially to EEA regional and local governments. However, future extension of the scope to include regional and local governments of the relevant third countries is not ruled out. If Solvency II also follows the risk weighting according to Basel III for international sub-sovereigns when applying preferred status, we believe that Canadian regions (as well as the UK) would also benefit from a stress factor of 0%. If exposures to Canadian regions were to be treated in the same way as exposures to their central government, our interpretation under Art. 180 (3) based on the rating of Canada would also result in a stress factor of 0%.

Conclusion

We are of the opinion that the Solvency II Directive highlights the importance of regulation within the SSA segment. The possibility of preferential regulatory treatment or regulatory equivalence with central governments would lead to a significant increase in the relative attractiveness of selected SSAs – including for the German Bundeslaender.

Regulatory framework
ECB repo collateral rules and their implications

General framework and Temporary framework define collateral rules
Within the scope of its statutes, access to ECB liquidity is only possible on a collateralised basis. The ECB defines the assets that are eligible as collateral in its General framework and Temporary framework. There are some significant differences in the criteria for acceptance as collateral, especially for government-affiliated issuers. For this reason, and also due to the fact that on 29 June (following the end of the coronavirus-related, time-limited reduction in valuation haircuts) the opportunity to adjust the details presented itself to the ECB, we devote the following section to a more detailed look at the ECB repo rules.

Overview of collateral regulations (in accordance with General framework)

Eligibility criteria	Marketable assets	Non-marketable assets	
Type of asset	ECB debt certificates, other marketable debt instruments	Credit claims	Retail mortgage-debt instruments (RMBDs)
Credit standards	The asset must meet credit quality requirements. These are assessed using ECAF (Eurosystem credit assessment framework) rules for marketable assets.	The credit quality is assessed on the basis of the credit quality of the debtor or guarantor. The relevant debtor or guarantor shall comply with the Eurosystems credit quality requirements as specified in the ECAF rules for credit claims	The RMBDs shall comply with the Eurosystems credit quality requirements specified in the ECAF rules for RMBDs.
Place of issue	Debt instruments shall be issued in the EEA with a central bank or with an eligible securities settlement system (SSS)	-	-
Settlement/ handling procedures	Debt instruments shall be transferable in book-entry form and shall be held and settled in Member States whose currency is the euro through an account with a national central bank (NCB) or with an eligible SSS, so that the perfection and realisation of collateral is subject to the law of a Member State whose currency is the euro	Eurosystem procedures laid down in the relevant national documentation of the NCBs	Eurosystem procedures as defined in the national documentation of the home NCB
Type of issuer/ debtor/guarantor	NCBs, public sector entities, agencies, credit institutions, financial corporations other than financial institutions, non-financial corporations, multilateral development banks or international organisations	Non-financial corporations, public sector entities (excluding public financial corporations), multilateral development banks or International organisations	Credit institutions that are eligible counterparties
Place of establishment of the issuer/debtor/ guarantor	Issuer: EEA or non-EEA G-10 country; Debtor: EEA; Guarantor: EEA	Eurozone	Eurozone
Acceptable markets	Regulated markets as defined in Directive 2014/65/EU, unregulated markets assessed acceptable by the ECB based on the principles of safety, transparency and accessibility	-	-
Currency	Euro	Euro	Euro

Source: ECB, NORD/LB Markets Strategy & Floor Research

NORD/LB

Overview of collateral regulations (in accordance with General framework) (continued)

Minimum amount	-	Minimum size threshold at the time of submitting the credit claim - domestic use: EUR 0, or any higher amount set by NCB; - cross-border use: uniform minimum amount of EUR 0.5m.	-
Legal basis	For asset-backed securities (ABS), the acquisition of the cash-flow generating assets by the SPV shall be governed by the law of a Member State. The law governing the cash-flow generating assets shall be the law of an EEA country.	Governing law for credit claim agreement and mobilisation: law of a Member State whose currency is the euro. There shall be no more than two governing laws in total that apply to: a) the counterparty, b) the creditor, c) the debtor, d) the guarantor (if relevant), e) the credit claim agreement, f) and the mobilisation agreement	-
Cross-border use	Yes	Yes	Yes

Source: ECB, NORD/LB Markets Strategy & Floor Research

Precise definition of possible collateral

In accordance with Part 4, Title II, Chapter 1, Article 62 of the General Framework, the ECB accepts bonds with fixed, unconditional nominal volume as collateral (in contrast to convertible bonds, for example). The bonds must carry a coupon that could not result in negative cash flows. In addition, bonds without a coupon payment (zero coupons), with fixed or variable interest payments based on a reference interest rate, are also eligible. Bonds designed so that the coupon payment changes in line with a rating upgrade or downgrade, or inflation-linked bonds, are also eligible for use as collateral. Special rules apply to ABS with regard to the first condition (fixed, unconditional nominal volume). The ECB generally divides collateral into two groups: marketable and non-marketable assets, which differ primarily in terms of their acceptance criteria.

Temporary framework extends collateral rules

Apart from assets that meet these acceptance criteria, the Temporary framework extends the criteria to some extent. Under certain conditions, particular bonds that are denominated in GBP, JPY or USD may be accepted for collateral purposes, while the credit threshold limits may be waived for debt securities that were issued or are guaranteed by IMF/EU programme states.

Valuation discount (haircut) for collateral is derived from allocation to a haircut category

ECB-compliant collateral (marketable) is divided into five haircut categories, which differ with regard to issuer classification and type of collateral. The haircut category is the key factor in determining haircuts to which certain debt securities are subject. The haircuts also differ on the basis of residual term to maturity and coupon structure, although since the revised version came into force the haircuts for bonds with variable coupons correspond to those of fixed-interest bonds (of the respective category).

Haircut categories – an overview

Category I	Category II	Category III	Category IV	Category V
Debt instruments issued by central governments	**Debt instruments issued by local and regional governments**	Debt instruments issued by non-financial corporations, corporations in the government sector and agencies which are non-credit institutions that do not meet the quantitative criteria set out in Annex XIIa to Guidline (EU) 2015/510 (ECB/2014/60)	Unsecured debt instruments issued by credit institutions and agencies which are credit institutions that do not meet the quantitative criteria set out in Annex XIIa to Guidline (EU) 2015/510 (ECB/2014/60)	Asset-backed securities
Debt instruments issued by the European Union	Debt instruments issued by entities (credit institutions or non-credit institutions) classified by the Eurosystem as agencies and which meet the quantitative criteria set out in Annex XIIa to Guidline (EU) 2015/510 (ECB/2014/60))		Unsecured debt instruments issued by financial corporations other than credit institutions	
ECB debt certificates	Debt instruments issued by multilateral development banks and international organisations other than the European Union			
Debt certificates issued by national central banks (NCBs) prior to the date of adoption of the euro in their respective Member State	Legislative bond jumbos			
	Multi cédulas			

Source: ECB, NORD/LB Markets Strategy & Floor Research

What else changed in the aftermath of July 2023?

The Governing Council of the ECB also decided that, since the risk profile of jumbo covered bonds is similar to that of other covered bonds regulated by law and multi-cédulas (Spanish covered community bonds) from its perspective, the same valuation haircuts in haircut category II shall henceforth apply to all the above-named. The references to jumbo covered bonds were consequently deleted from the ECB Guideline. All debt instruments issued by the European Union will be assigned to haircut category I (previously II) with immediate effect. However, another new feature is that instruments with the longest residual term of more than ten years are allocated to three new categories (10-15 years, 15-30 years and 30+ years). As a result, and in conjunction with the decision to apply a term-related theoretical valuation correction, the granularity of the risk coverage of this theoretical valuation is expected to be improved, which is of particular relevance for instruments with longer maturities.

Haircuts by haircut category and rating – an overview

Credit quality	Residual maturity (years)(*)	Haircut category												
		Category I			Category II			Category III			Category IV			Category V
		fixed coupon	zero coupon	floating coupon	fixed coupon	zero coupon	floating coupon	fixed coupon	zero coupon	floating coupon	fixed coupon	zero coupon	floating coupon	
AAA to A-	0-1	0.5%	0.5%	0.5%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	7.5%	7.5%	7.5%	4.0%
	1-3	1.0%	2.0%	0.5%	1.5%	2.5%	1.0%	2.0%	3.0%	1.0%	10.0%	10.5%	7.5%	4.5%
	3-5	1.5%	2.5%	0.5%	2.5%	3.5%	1.0%	3.0%	4.5%	1.0%	13.0%	13.5%	7.5%	5.0%
	5-7	2.0%	3.0%	1.0%	3.5%	4.5%	1.5%	4.5%	6.0%	2.0%	14.5%	15.5%	10.0%	9.0%
	7-10	3.0%	4.0%	1.5%	4.5%	6.5%	2.5%	6.0%	8.0%	3.0%	16.5%	18.0%	13.0%	13.0%
	10-15	4.0%	5.0%	6.5%	8.5%	7.5%	10.0%	18.0%	22.5%	18.0%	10-15	4.0%	5.0%	6.5%
	15-30	5.0%	6.0%	8.0%	11.5%	9.0%	13.0%	21.0%	25.0%	20.0%	15-30	5.0%	6.0%	8.0%
	>30	6.0%	9.0%	10.0%	13.0%	11.0%	16.0%	24.0%	31.5%	22.0%	>30	6.0%	9.0%	10.0%
BBB+ to BBB-	0-1	6.0%	6.0%	6.0%	7.0%	7.0%	7.0%	8.0%	8.0%	8.0%	13.0%	13.0%	13.0%	**Not** permissible
	1-3	7.0%	8.0%	6.0%	9.5%	13.5%	7.0%	12.0%	15.0%	8.0%	22.5%	25.0%	13.0%	
	3-5	9.0%	10.0%	6.0%	13.5%	18.5%	7.0%	16.5%	22.0%	8.0%	28.0%	32.5%	13.0%	
	5-7	10.0%	11.5%	7.0%	14.0%	20.0%	9.5%	18.5%	26.0%	12.0%	30.5%	35.0%	22.5%	
	7-10	11.5%	13.0%	9.0%	16.0%	24.5%	13.5%	19.0%	28.0%	16.5%	31.0%	37.0%	28.0%	
	10-15	12.5%	14.0%	17.0%	25.5%	19.5%	28.0%	28.5%	35.0%	10-15	12.5%	14.0%	17.0%	
	15-30	13.5%	15.0%	20.0%	28.5%	22.0%	31.0%	31.5%	39.0%	15-30	13.5%	15.0%	20.0%	
	>30	14.0%	17.0%	22.0%	32.5%	25.0%	35.5%	34.5%	43.0%	>30	14.0%	17.0%	22.0%	

(*), i.e. [0-1) residual maturity less than 1 year, [1-3] residual maturity equal to or greater than 1 year and less than 3 years, etc.
Source: ECB, NORD/LB Markets Strategy & Floor Research

Bundeslaender bonds still in the second highest haircut category

The listing of haircut categories above shows that German Laender as regional governments are assigned to the same level as, for example, agencies such as KfW, which are recognised by the ECB. This means that Bundeslaender bonds receive the second-best treatment under the repo rules, after instruments issued by central governments and central banks. The ECB's definitions of collateral therefore provide for a further preferential treatment of Bundeslaender from a regulatory viewpoint.

What is left following the coronavirus crisis?

As a result of the coronavirus crisis, the ECB announced comprehensive, temporary adjustments to the collateral framework on 7 April 2020 that focused on mitigating possible shortages of liquidity on the financial markets in the eurozone. Originally, the temporary adjustment envisaged a general reduction in the collateral haircuts of 20% up to September 2021 (subsequently up to June 2022). This was gradually brought to an end by the resolution of the Governing Council of the ECB on 23 March 2022: from 8 July 2022 until the end of June 2023, a flat rate reduction in the haircuts of 10% applied. The new table shown above has applied since July 2023. As mentioned before, the matter has been systematically simplified by treating bonds with fixed and floating coupons equally. However, the fact that the valuation haircuts for bonds with floating coupons (with a maturity of >1 year) were consistently less than their fixed-coupon equivalents before Covid-19 must also be mentioned. In the new reality, this regularly results in a doubling of the reduction rates. The creation of three new categories for maturities of ten years or more, which we mentioned before, also leads to larger haircuts for longer maturities. Instead of the "gradual approach" to "gradually lower the Eurosystem's risk tolerance to the level preceding the pandemic" that had been announced, the ECB will ultimately be tightening the regulations once again.

Performance and relative value
Benchmark indices for German Laender

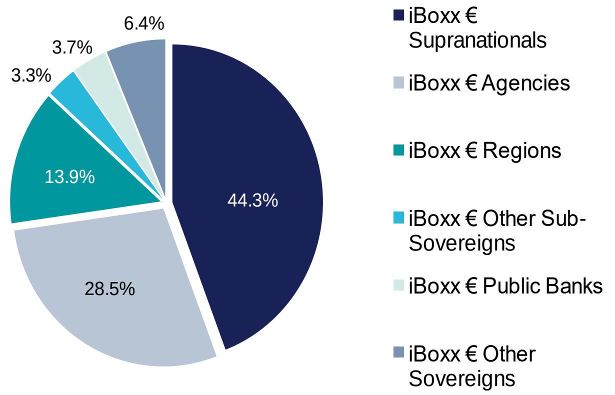
iBoxx € Regions as a benchmark for German Laender?
When looking for a benchmark index for bonds issued by the German Laender, the iBoxx € Regions from the data provider Markit always stands out. Containing a total of 200 bonds (composition: August 2023), the sub-index of the iBoxx € Sub-Sovereigns maps the universe of EUR-denominated bonds issued by regional governments and local authorities (RGLAs). With an index weighting of 77.1% (152 bonds), German bonds dominate the index. However, for various reasons we do not consider the index to be the ideal benchmark for bonds issued by German Laender.

Criteria for classifying issuers into iBoxx € Sub-Sovereigns sub-indices

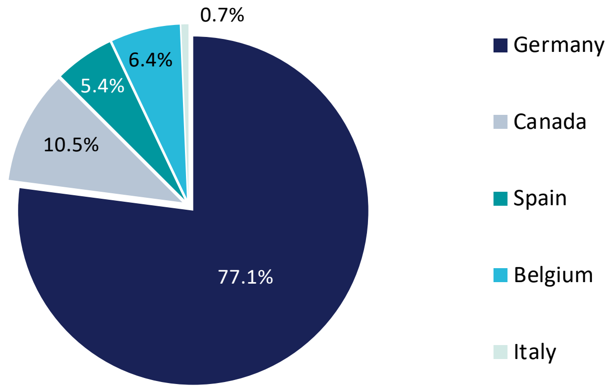
Agencies	Issuers whose main business activity is carrying out a task which is funded by a local authority and which is neutral in relation to competition (e.g. KfW).
Supranationals	Issuers owned by more than one country (e.g. EIB).
Public banks	Issuers which are publicly owned and funded but which offer commercial bank services (e.g. BNG)
Regions	*Issuers that represent regional or local governments (e.g. Laender) – with either implicit or explicit guarantee and strong relationship to or ownership by the government.*
Other sub-sovereigns	All other bonds that are regarded as sub-national. A distinction is made between three groups: 1. Non-financials: State-funded issuers from a non-financial sector such as state-owned railway companies. 2. Guaranteed financials: Private sector issuers guaranteed by regional municipalities. 3. State-guaranteed bonds by non-guaranteed institutions.

Source: Markit, NORD/LB Markets Strategy & Floor Research

Sub-indices of the iBoxx € Sub-Sovereigns by outstanding volume



Laender weighting within the iBoxx € Regions



Source: Markit, NORD/LB Markets Strategy & Floor Research

Criteria for bond selection in the iBoxx € Sub-Sovereigns sub-indices

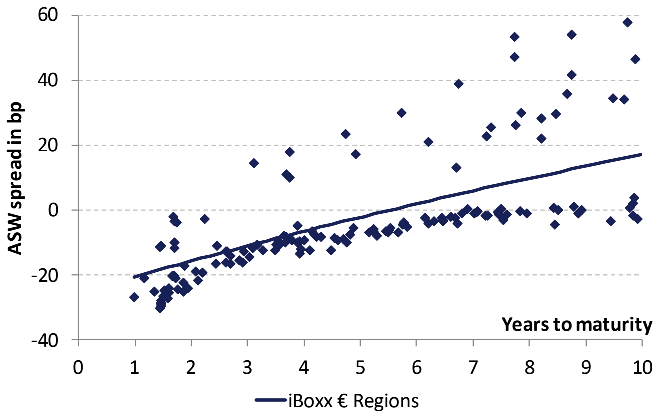
Bond type	Only those bonds whose cash flows can always be determined in advance are taken into consideration in the Markit iBoxx € indices. T-bills and other money market instruments are not included; the only currency permitted is the euro. The origin of the issuer is irrelevant.
Rating	All bonds in the Markit iBoxx € indices must have an investment grade Markit iBoxx rating. The rating approach used by the Markit iBoxx indices is based on the average of the ratings awarded by the three rating agencies Fitch, Moody's and S&P.
Residual term to maturity	Each bond included in an iBoxx € Index must have a minimum residual term to maturity of one year on the day the composition of the Index is specified.
Outstanding volume	Minimum volume outstanding EUR 1.0bn

Source: Markit, NORD/LB Markets Strategy & Floor Research

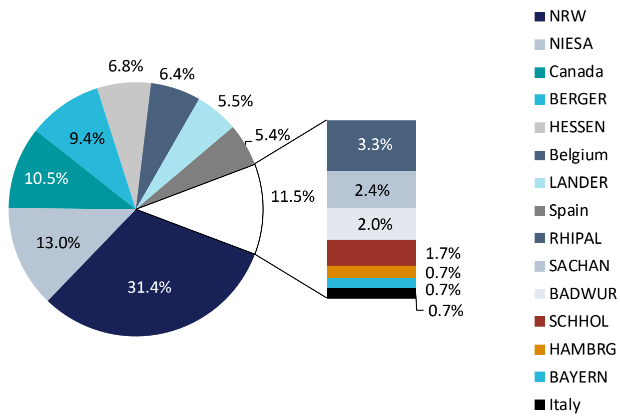
Risk premiums vary due to periphery issuers

From our perspective, the inclusion of Canadian provinces as well as municipalities and regions from Belgium, Spain and Italy does not ideally replicate the Bundeslaender segment. In fact, due to issuers originating from periphery countries in particular, the ASW spreads can, in part, differ significantly from those of the Bundeslaender. As a result of ratings and collateral mechanisms as well as differences in fundamental analysis, the spread level of the Bundeslaender is considerably lower than that of issuers from the periphery, which in turn reduces the comparability of the index.

ASW spreads of the iBoxx € Regions*



iBoxx € Regions by issuer



* Residual term to maturity >1 year and <10 years.
Source: Bloomberg, Markit, NORD/LB Markets Strategy & Floor Research

Weighting of Bundeslaender does not reflect the actual Laender bond market

The weighting of the Laender in the iBoxx € Regions does not truly depict the actual Laender market either. This is primarily due to the criteria for bond selection used by Markit for the iBoxx € Sub-Sovereigns indices. The criteria, in particular the specification of minimum issue volumes of EUR 1.0bn and fixed-interest bonds, cause a distorted weighting of the Bundeslaender in relation to one other. As a result, there is a large supply of bonds with lower volumes, while Saarland, for example, was not rated until October 2016 and Bremen exclusively issued floaters up to 2014. In general, the specification of the iBoxx € Regions means there is no benchmark for the performance and risk premiums of Laender floaters. Nevertheless, after excluding the periphery issuers, the iBoxx € Regions almost exactly replicates the ASW spread levels of bonds issued by the Laender.

Comment

Given the inherent weaknesses of the iBoxx € Regions, we shall use the total number of Laender bonds in circulation to produce a relative view of each of the Bundeslaender in the following analysis. For this reason, we analyse fixed-interest bonds in relation to all Bundeslaender bonds with an outstanding volume of at least EUR 500m. Similarly, where no fixed-interest bonds are available for analysis, if necessary we look at the floaters issued by a Bundesland in relation to all Laender floaters with an outstanding volume of at least EUR 500m as well.

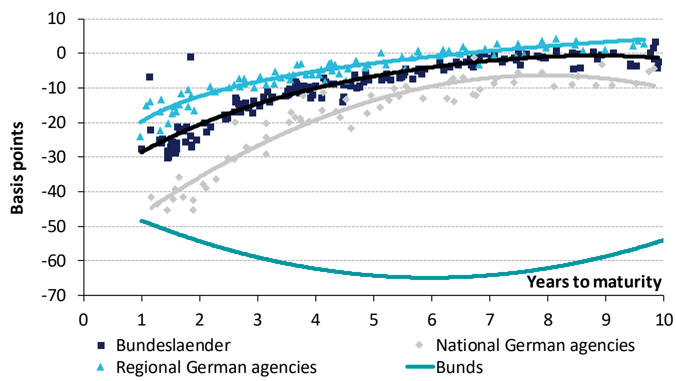
Performance und relative value
Total return and spread performance

LCR and dwindling liquidity as performance drivers
While SSA spread performance in 2014 was still being impacted by the LCR classification in particular, as well as a general decline in liquidity, this trend towards the drying-up of the market has been exacerbated further since 2015 by way of the Eurosystem's securities purchasing programmes. Since 2016, the spread performance of SSAs has primarily been characterised by the purchases made by the ECB and the national central banks within the scope of the APP and PSPP. An approach on the part of the central banks that could occasionally be described as aggressive also impacted the spread development of sub-sovereigns. After the scope of the purchase programme was expanded to include regional bonds, the measures taken by the central bank have had a very direct impact. In addition, spreads were determined by a general decline in liquidity within the SSA segment (with the exception of the EU), which merely served to further increase the rarity value of a number of bonds and issuers. Despite the fact that the ECB discontinued its net purchasing activities halfway through 2022, the ECB is set to remain active as an investor in the market due to PEPP reinvestments at least until the end of 2024.

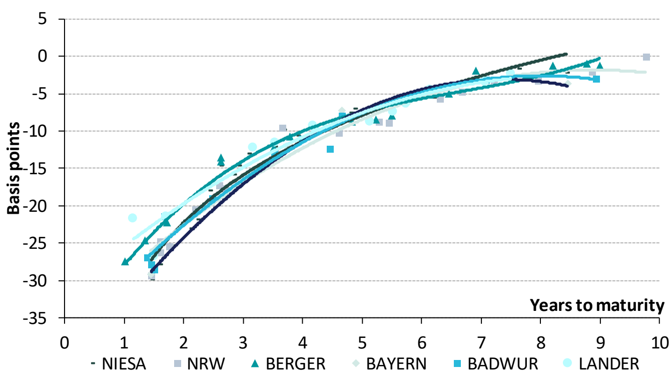
Laender bonds – a comparison

Only a certain relative attractiveness remains
Up to the beginning of the Eurosystem's purchase programme in March 2015, German Laender bonds traditionally offered a high level of relative attractiveness compared to Bunds in the German SSA investment segment. Even though the PSPP has already had a considerable impact on the Laender segment, there are still some premiums to be found. Launched in 2020, the PEPP ensures that spreads in this segment are compressed further – although this is mainly among Laender bonds themselves, and less in comparison with Bunds. An interesting aspect to note here is the relative stability of the ASW spreads in comparison with the G spreads, where volatility is significantly higher due to the fluctuations in the respective Bunds.

ASW spreads – a comparison



ASW spreads – a comparison



NB: Residual term to maturity >1 year and <10 years; minimum outstanding volume of EUR 500m.
National agencies: KFW, RENTEN, FMSWER, among others. Regional agencies: NRWBK, LBANK, BAYLAN, IBB, BYLABO, WIBANK, among others.
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

ESG – significant further developments visible

Authors: Dr Norman Rudschuck, CIIA // Christian Ilchmann

Green light for ESG bonds from German Laender

There can be no doubt that ESG bonds have already become a fixture on the international capital markets, with German Laender refusing to be left behind when it comes to this trend towards bonds with ESG aspects. For example, North Rhine-Westphalia recognised the potential of this segment as early as 2015, when it issued an inaugural sustainability bond. Since then, NRW has been an annual issuer of sustainability bonds on the primary market. In 2021, two more Laender joined the ranks of ESG issuers. To start with, Baden-Wuerttemberg issued an inaugural green bond in March 2021, before Hesse also issued a green bond in June of the same year. The German capital Berlin and Saxony-Anhalt have now become the fourth and fifth Laender respectively to join the list of issuers of sustainable bonds. In the short to medium term, we expect further Laender to conduct refinancing activities on the capital market via ESG bonds. The reasons for this are manifold. On the one hand, refinancing costs via sustainability bonds are often a few basis points cheaper (key word: greenium), while on the other, the concept of sustainability is now part and parcel of political initiatives and efforts to jointly shape a new era. Hesse, for example, explicitly included this as an objective in its constitution in 2018: "The state, municipalities and associations of municipalities shall take into account the principle of sustainability in their actions in order to safeguard the interests of future generations" (Art. 26c. of the Hessian Constitution). Conversely, the higher costs for more extensive reporting could be a stumbling block for some Laender, from which the profitability of an ESG issue could suffer.

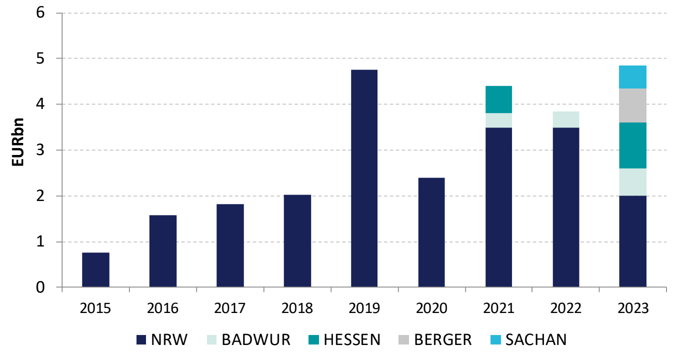
Green, Social and Sustainability – a classification

Three forms of sustainable bonds have in particular established themselves on the capital market: green bonds, social bonds and sustainability bonds. The respective designation already indicates the primary sustainability goal to be pursued. In particular, green bonds pursue goals that serve environmental protection. For example, this can take the form of promoting the use of renewable energy or the financing of regional and long-distance public transport through more environmentally friendly drive options. Social bonds, on the other hand, are used (as can be expected) in connection with social projects. These are expressed, for example, in the promotion of social housing, or in measures to reduce unemployment and targeted financing of support measures. Sustainability bonds, on the other hand, are all-rounders and the projects supported can be of both an ecological and social nature. Projects that are fundamentally eligible for financing through sustainability bonds are to be found in the corresponding issuer frameworks. These tend to be closely linked to the respective Guidelines of the International Capital Market Association (ICMA). The goals of the respective frameworks are primarily based on the UN Sustainable Development Goals (SDGs) and the respective category of the Green Bond Principles (GBP), Social Bond Principles (SBP) or Sustainability Bond Guidelines (SBG). In addition to the corresponding use of proceeds, the respective ICMA guidelines provide additional guidance on the process of project evaluation and selection, management of proceeds and reporting.

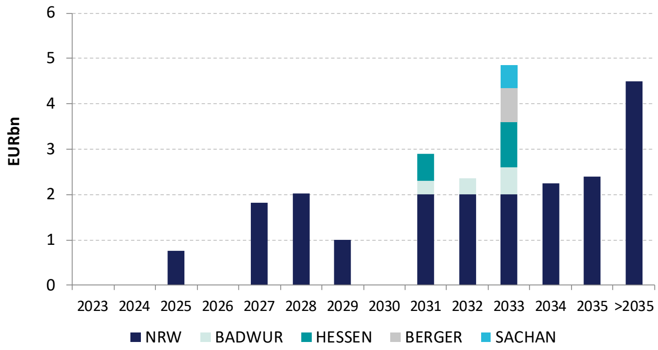
Issuance volume on the rise, but still room for improvement

Since the first sustainability bond was issued by North Rhine-Westphalia in 2015, this segment has enjoyed growing popularity: further bonds have followed annually from NRW. In 2021, the Laender of Hesse (EUR 600m) and Baden-Wuerttemberg (EUR 300m) each issued a green bond. In May 2022, it was once again Baden-Wuerttemberg that placed another green bond (EUR 350m) and offered the prospect of further green issues. In late 2022 and mid-2023, Berlin (EUR 750m) and Saxony-Anhalt (EUR 500m) first launched their frameworks and then issued fresh benchmark bonds. In addition, after offering two sub-benchmark deals, in June 2023 BADWUR also succeeded in issuing its first benchmark bond in ESG format. The total volume of ESG bonds issued by the German Bundeslaender currently stands at EUR 25.4bn, with the majority attributable to sustainability bonds from NRW. With efforts to invest more in environmental and social areas, we anticipate that further Laender will opt to issue ESG bonds. Over the next few years, we are expecting additional momentum in each of the ESG segments outlined above. An upward trend in the volume of ESG bonds issued has already been observed in recent years. While the annual ESG volume issued in 2015 was just EUR 750m, a total of EUR 4.75bn was issued in 2019 and EUR 4.4bn in 2021, with North Rhine-Westphalia again accounting for the lion's share here.

ESG volume issued over time (EURbn)



Maturity profile of ESG bonds



Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

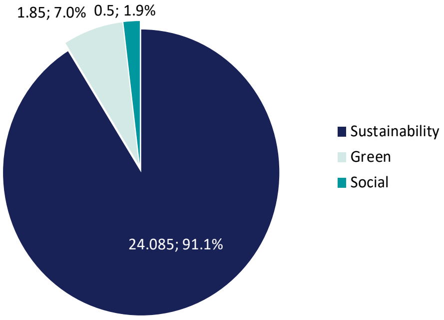
NRW offering long maturities

In terms of the maturity profile of the ESG bonds issued by the German Laender, there is already quite a wide range of different maturities. NRW is unsurprisingly setting the pace in this regard, with the original maturities of the bonds issued ranging from seven years (issued in 2016, before subsequently falling due in 2023) to 30 years (issued in 2022; maturing in 2052). However, the 10y maturity segment has dominated activities in this segment up to now. Baden-Wuerttemberg, Hesse, Berlin and Saxony-Anhalt all also opted for this maturity segment for their inaugural ESG deals.

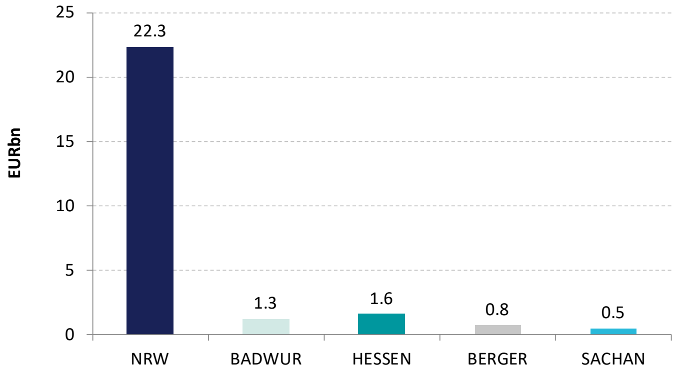
Data situation: as expected, sustainability ahead of green

Due to the early participation of North Rhine-Westphalia in the ESG market in the form of sustainability bonds, it is hardly surprising that this form of ESG bond boasts by far the largest volume to date (EUR 23.1bn; 90.8%). However, the four green bonds issued since 2021 (purely social bonds were only added by SACHAN in 2023) are probably just the beginning of the story in this context. The volume of EUR 1.9bn issued here so far represents only around 7.3% of the total volume. The initial lack of social bonds is perhaps misleading. After all, given that NRW and Berlin issue sustainability bonds, social aspects are also included in the use of proceeds here. For example, the bond issued by North Rhine-Westphalia in 2022 covered aspects such as affordable local public transport and the promotion of affordable housing.

Volume by ESG category (EURbn)



ESG volume by Bundesland (EURbn)



Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

Frameworks – similarities and differences (I)

The issuers' frameworks all comply with the ICMA Principles. As already mentioned, the Laender of BADWUR and HESSEN (to use their tickers) have issued green bonds and published corresponding green bond frameworks in addition to having had them assessed by a second party opinion. NRW has been through the same process with its Sustainable Bond Framework. The content is therefore structured according to the four ICMA pillars, namely use of proceeds, process of project evaluation and selection, management of proceeds and annual reporting. While HESSEN and BADWUR have a corresponding focus on green finance, NRW can act more flexibly between social and environmental aspects with regard to the use of proceeds. This is also reflected in the project selection to date. Broken down into the categories of the ICMA's Green Bond Principles, for example, the majority of Hesse's green bond proceeds went towards "clean transport" (46%), followed by "environmentally sustainable management of living natural resources and land use" (29%). Meanwhile, a total of 14% was allocated to the category of "energy efficiency". A similar distribution of the use of proceeds can also be seen in Baden-Wuerttemberg, with the highest proportion (22%) attributable to the category "energy efficiency", followed by 18% to "environmentally sustainable management of living natural resources and land use". In addition, "green buildings" account for a share of 17% and "clean transport" for 13%. North Rhine-Westphalia, on the other hand, follows six categories of the Social Bond Principles and eight categories of the Green Bond Principles with its framework. Whereas pre-Covid it was mainly green aspects that played a part in the use of proceeds, NRW has increasingly concentrated on social projects as part of its pandemic response. For example, 47% of the (most recent) sustainability bond No. 10 was used to finance the category "access to basic social services". The total share of green categories in the last issue was nearly 17%. At the end of 2022, Berlin became the fourth federal state to present its Sustainability Bond Framework. From now on, it intends to appear on the capital market as a regular issuer of sustainable bonds. Accordingly, these can be issued in the form of green and/or social aspects. The suitability assessment and final selection of suitable green and social projects for sustainable financing is the responsibility of the Sustainable Financing Coordination Group. With regard to reporting, the Federal Capital undertakes to provide separate information on the use of funds and the sustainability impact in the form of an allocation and impact report. The former is to be published within one year of the respective bond issue and published annually from the year following the issue until the issue proceeds have been fully allocated. The impact report is also to be published at the latest one year after the bond placement.

Frameworks – similarities and differences (II)

Saxony-Anhalt was then active via a corresponding social bond framework from mid-2023 onwards in the field of social bonds. The Bundesland emphasises that the issue proceeds will be used for social projects related to combating the effects of the Covid-19 pandemic and future pandemic resilience. These include better access to basic social services, job creation and unemployment prevention programmes, as well as the development of affordable basic infrastructure. Accordingly, a significant part of the expenditure underlying the framework comes from the special Covid-19 fund from 15 December 2021. The 60 individual projects already included in it - divided into individual years - trigger payment flows within five years until 2027. Reporting on payment outflows as well as the respective status of projects is the responsibility of the Landtag (regional parliament) of Saxony-Anhalt.

Comment

Despite the increasing volume in recent years, we believe that there remains significant additional untapped growth potential in the ESG segments of the German Laender. In this way, what was once a niche product with bonds solely from NRW could ultimately be transformed into an established market with many players. Critical to this is the ever-increasing need for financing, due, among other aspects, to amendments to the energy transition and climate protection laws of the individual Laender. The ICMA principles provide solid guidelines containing core recommendations, while external audits also safeguard the use of proceeds with constant monitoring processes in place. The fact that only five of the 16 German Laender have a framework alone underlines the inherent catch-up potential for the vast majority of the Laender.

An overview of the German Laender

Authors: Dr Norman Rudschuck, CIIA // Christian Ilchmann

Laender characterised by high degree of heterogeneity – spread convergence could be reversed due to terminated purchase programmes

The German Laender are characterised by a high degree of heterogeneity. Differences between the Bundeslaender exist not only in terms of area, number of inhabitants and economic strength; they also differ significantly with regard to factors such as debt situation, focus on exports and demographic trends. In addition, the liquidity of Laender bonds and their ratings result in differences, although these are at most reflected marginally due to the very minor differences in spreads. In the past, this spread convergence was intensified or perhaps even actually manifested by way of the ECB's focus on bonds issued by German Laender within the framework of its securities purchases (e.g. under the APP/PEPP). Net purchasing activity has now been brought to an end both in this context and in connection with APP reinvestments, meaning that the fundamental differences between the Laender will gradually start to become more important again. In the discussion below, we will initially look at the overall development of the Laender, before focusing on the differences between them.

Broad range of products

The 16 German Laender offer a broad range of bonds and Schuldscheindarlehen (SSD). At present, an outstanding volume of EUR 399.7bn is spread across 833 separate bond deals. Only EUR 11.4bn (2.9%) of this amount is not denominated in EUR, which again serves to illustrate the fact that foreign currencies remain of very minor importance in Laender funding mixes. Fixed-coupon bonds (outstanding volume: EUR 360.6bn) and floating rate notes (EUR 24.6bn; FRNs) dominate Laender funding profiles. Overall, 348 EUR-denominated bonds feature a volume of at least EUR 500m and can therefore be classified as benchmark bonds. In the non-public segment, loans and Kassenkredite together account for a volume of around EUR 145.8bn. The data also includes a total of 17 Laender jumbos (EUR 18.0bn) jointly placed by a group of several Laender.

General information

Total debt*

EUR 563.0bn

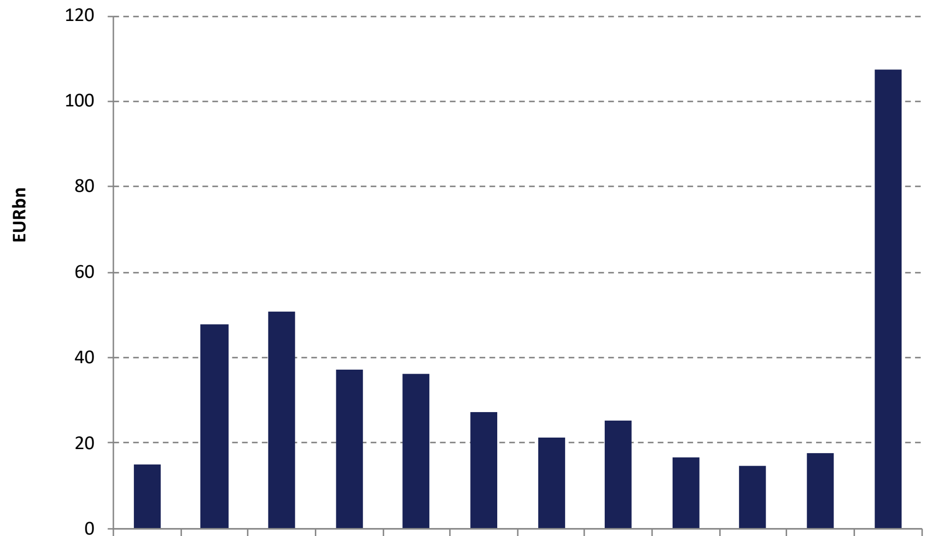
Of which bonds**

EUR 417.7bn

* As reported at year-end 2022

** Data retrieved on 07 August 2023

Outstanding bonds issued by the German Laender



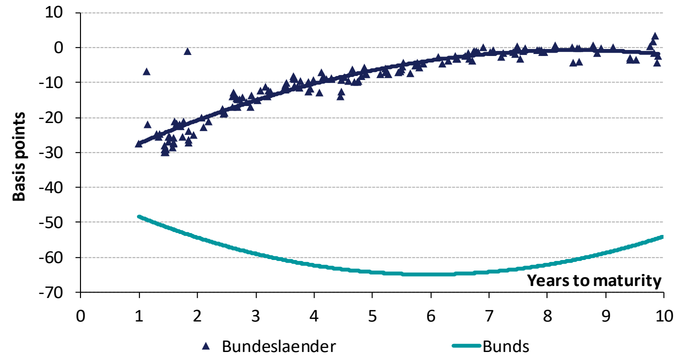
	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	>2033
Laender bonds	14.9	47.7	50.9	37.3	36.3	27.4	21.2	25.4	16.6	14.6	17.7	107.5

Foreign currencies are converted into EUR at rates as at 07 August 2023.
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

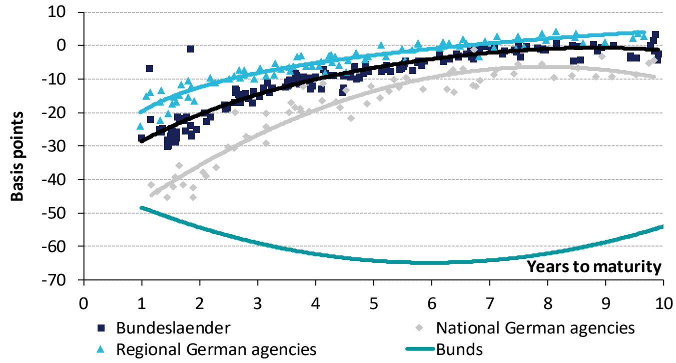
Ratings

The rating agencies Fitch, Moody's and S&P link their ratings for each of the Laender with the rating of the German federal government (for the most part). Fitch regards the system of financial equalisation among the Laender and the principle of federal loyalty in general as the dominant factors in equating the ratings directly. Moody's also views this system as a significant factor, although the agency does take other aspects into consideration, with the result that the ratings are not necessarily equated. The Bundesland of NRW, for example, is currently rated Aa1, which is one notch below the Aaa top rating held by the German federal government. S&P makes an even wider distinction. Although this rating agency does also factor the system of financial equalisation among the Laender and the principle of federal loyalty in to its rating decision, it occasionally diverges more widely from the AAA rating held by the German federal government. In this context, for example, S&P currently awards NRW a rating of AA (for the first time since 2004) following a rating upgrade in September 2019.

ASW spreads vs. Bunds



ASW spreads vs. agencies



NB: Residual term to maturity >1 year and <10 years; minimum outstanding volume of EUR 500m.
National agencies: KFW, RENTEN, FMSWER, among others. Regional agencies: NRWBK, LBANK, BAYLAN, IBB, BYLABO, WIBANK, among others.
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

Relative value

Volume-weighting of the German Laender in the iBoxx € Regions

77.1%

No. of German bonds in iBoxx € Regions

152 (out of 200) [76.0%]

Pick-up versus swaps*

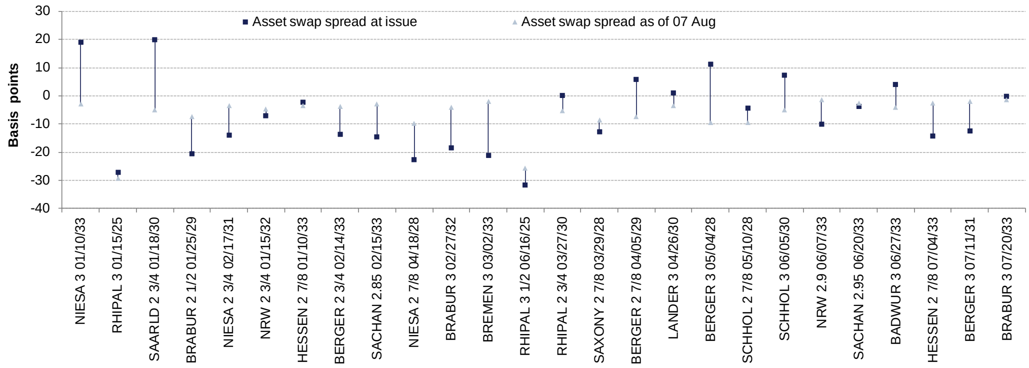
-35 to +94bp (Median: -8bp)

Pick-up versus Bunds*

+12 to +82bp (Median: +63bp)

*vs. interpolated figures; minimum term of 1 year; minimum volume EUR 0.5bn.

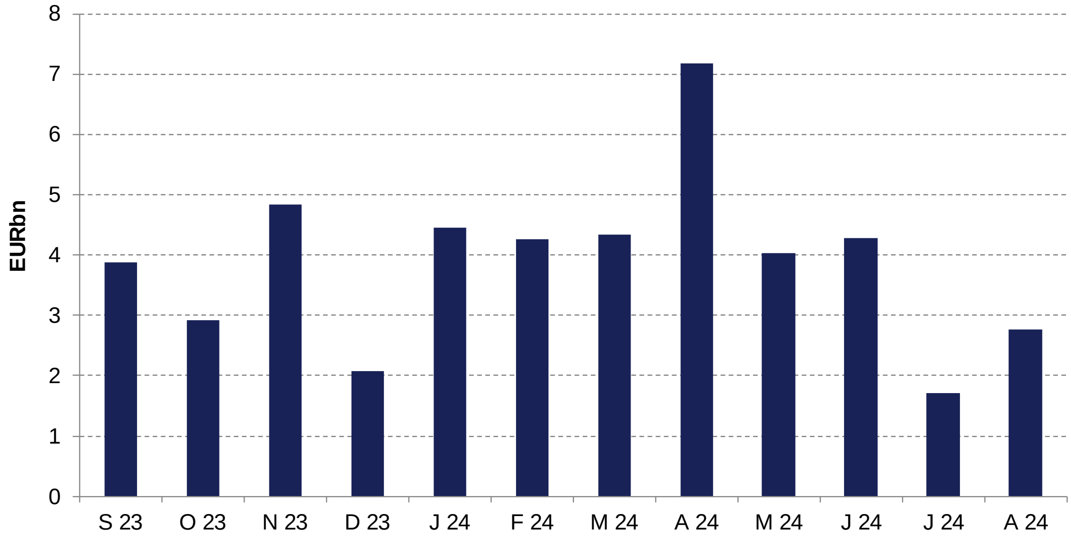
Performance of fixed income benchmark issues 2023**



** Issuance volume of at least EUR 0.5bn. Bonds are not necessarily liquid.

For reasons of clarity and comprehensibility, we again excluded fresh ultra-long NRW bonds this year.
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

Bond amounts maturing in the next 12 months



Source: Laender, Bloomberg, NORD/LB Markets Strategy & Floor Research

Refinancing

Although Laender issuance volumes have been declining for many years, they have nonetheless remained at a high level. Before the coronavirus pandemic, the recently introduced debt brake was a factor in this development. After the period between 2020 and 2022, significant refinancing volumes and gross credit authorisations are expected for 2023 as well. The most important funding instruments are bonds and SSD deals, while public-sector bonds in benchmark format are used just as frequently as large-volume private placements. As a result, there is a relatively abundant fresh supply of large-volume bonds. After credit authorisations rose from around EUR 70bn to approximately EUR 154bn in 2020 on the back of supplementarx budgets, these authorisations fell to EUR 119bn in 2021 and EUR 91bn in 2022. For 2023, a sum of EUR 91.7bn has been announced. As such, credit authorisations remain at a high level (2019: EUR 67bn).

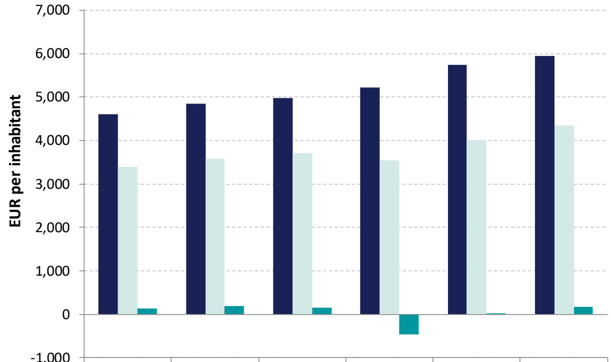
Credit authorisations of German Laender in 2023 (EURbn)*

	Net	Gross
Baden-Wuerttemberg	1.25	29.79
Bavaria	-0.05	3.83
Berlin	0.10	5.49
Brandenburg	1.58	4.04
Bremen	0.54	1.80
Hamburg	0.06	2.80
Hesse	0.21	4.95
Mecklenburg-Western Pomerania	0.00	1.32
Lower Saxony	0.00	7.25
North Rhine-Westphalia	5.00	16.70
Rhineland-Palatinate	-0.16	4.04
Saarland	0.00	1.70
Saxony	0.00	0.28
Saxony-Anhalt	-	1.91
Schleswig-Holstein	0.37	4.91
Thuringia	-0.24	0.87
Total	**8.66**	**91.68**

*Some figures are rounded and/or provisional; as at: 07 August 2023; unchanged values from 23 March 2023

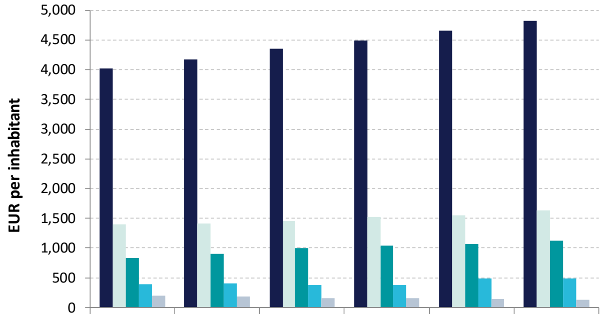
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

Development of revenue in EUR per capita



	2017	2018	2019	2020	2021	2022
Operating revenue	4,615	4,843	4,974	5,217	5,752	5,958
Tax revenue	3,394	3,585	3,720	3,540	4,003	4,345
Deficit/surplus	127	189	159	-465	10	162

Development of expenditure in EUR per capita



	2017	2018	2019	2020	2021	2022
Operating expense	4,027	4,170	4,346	4,488	4,654	4,815
Staff expenditure	1,406	1,420	1,461	1,520	1,557	1,631
Grants to municipals	838	902	1,001	1,043	1,074	1,126
Capital expenditure	390	404	378	382	488	496
Interest expense	198	182	162	151	138	124

Source: Federal Ministry of Finance, NORD/LB Markets Strategy & Floor Research

Budget figures 2022

Balance (vs. 2021)
EUR 13.7bn (EUR +12.9bn)

Balance/GDP (2021)
0.35% (0.02%)

Balance per capita (2021)
EUR 162 (EUR 10)

Tax revenue (vs. 2021)
EUR 366.5bn (EUR +33.3bn)

Taxes per capita (2021)
EUR 4,345 (EUR 4,003)

Taxes/interest paid (2021)
43.8x (36.8x)

Total revenue/interest paid (2021)
60.1x (52.9x)

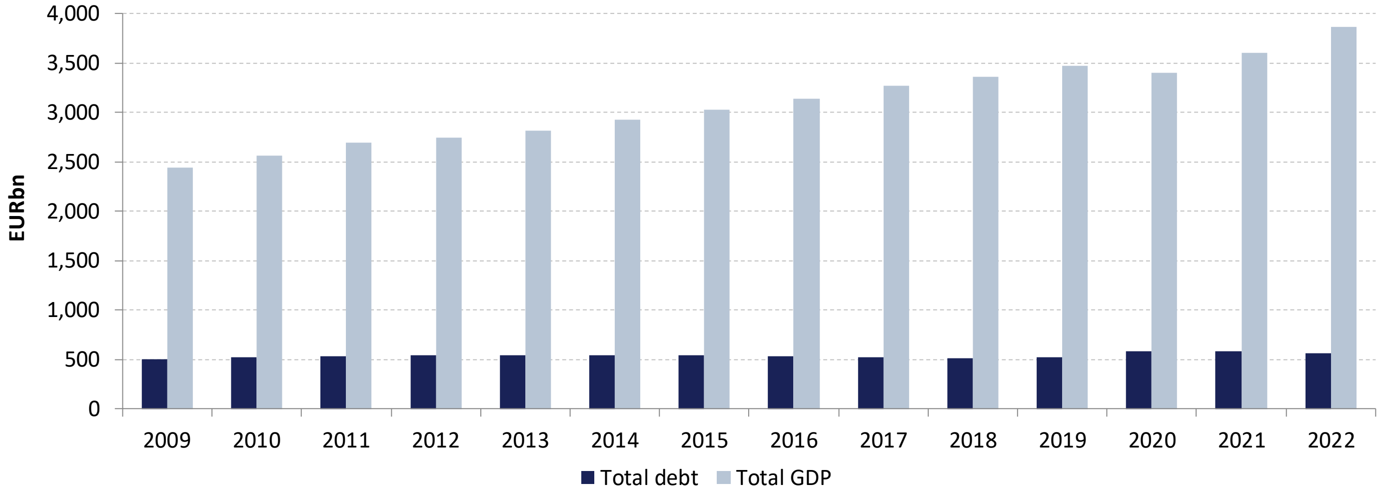
Debt level (vs. 2021)
EUR 563.0bn (EUR -18.1bn)

Debt/GDP (2021)
14.6% (16.32%)

Debt/revenue (2021)
1.1x (1.2x)

Although the budgetary development of the Laender had, generally speaking, been very positive in the years prior to Covid-19, the pandemic brought this trend to an abrupt halt in 2020. However, the Laender were again in a position to post a positive budget balance of EUR 0.8bn as early as 2021. In 2022, this positive upwards trend was sustained, with the budget balance again rising by EUR 12.9bn to stand at EUR 13.7bn overall. This can be attributed to the increase in tax revenues in particular. The rise in total expenditure amounting to EUR +10.9bn to EUR 488.9bn was not as pronounced as the rise in total revenues of EUR +23.8bn to EUR 502.6bn. As such, the consistently positive development in total revenues seen in previous years has been continued. Over the past five years, growth of +32.0% has been recorded here. However, total expenditures have likewise risen by +32.0% across the same time frame. This development can primarily be attributed to the dramatic increase in expenditure incurred as a result of the Covid-19 crisis in 2020. Grants to municipalities, for which a slight decline of -4.3% was recorded in the previous year, rose from EUR 107.8bn to EUR 115.4bn. Moreover, personnel expenses also rose slightly by +3.6% year on year from EUR 146.1bn to EUR 151.4bn. As a result, personnel expenses have now increased by +20.7% over the past five years. Based on interest expenses falling once more (EUR -0.7bn Y/Y), a further improvement in the ratio of total revenue to interest paid (60.1x) was achieved, which was also due to the renewed rise in revenues. The positive development in tax revenues, in tandem with the decline in interest expenses, has led to another record high for the tax-interest coverage metric in the reporting period (2022: 43.8x; 2021: 36.8x; 2020: 34.4x). For the sixth consecutive year, capital expenditure was up, rising sharply in comparison with 2021 by +17.2% from EUR 45.5bn to EUR 53.3bn. While it was a mixed picture on the key credit metric front at both Laender and Bund level in 2020 due to the pandemic, a recovery started to set in during 2021. Although record values for interest coverage and total revenues were recorded in 2022, as outlined above, debt sustainability (reflecting the ratio of debt to total revenues) fell to 1.1x year on year (2021: 1.2x). However, a positive development in the ratio of debt to GDP can also be reported: this metric declined from 16.1% to 14.6%, which can be attributed to an increase in GDP.

Overview of Laender debt and economic output

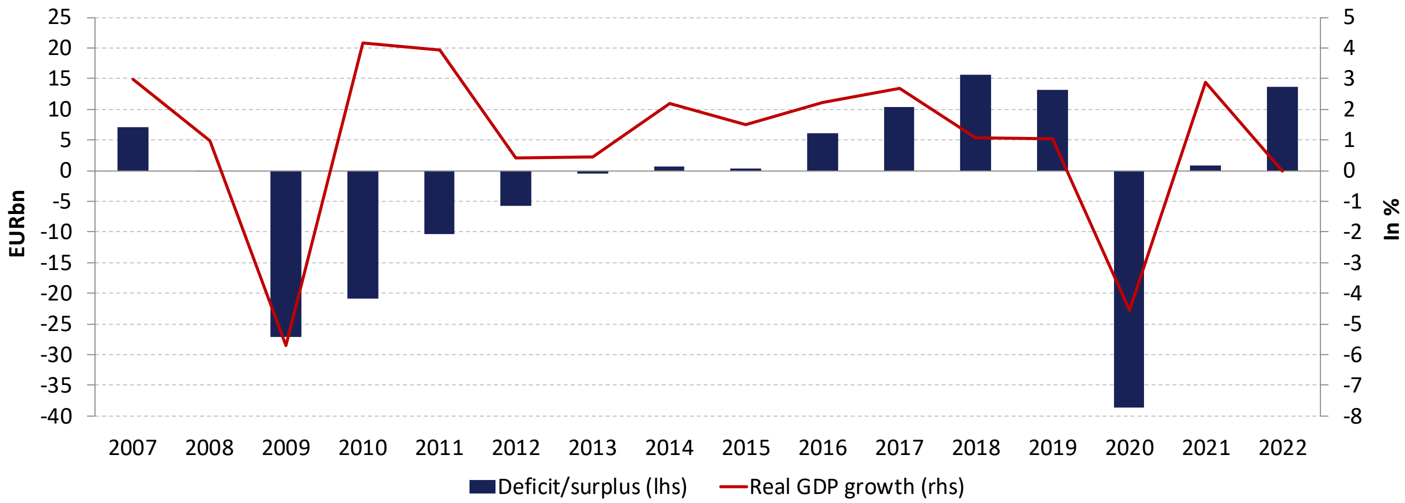


Source: Federal Ministry of Finance, national accounts produced by the Laender, NORD/LB Markets Strategy & Floor Research

Minor fall in Laender debt

While the overall debt level of the Laender rose on a constant basis over previous years, from 2014 onwards, the debt trend stabilised, before falling again in both 2017 and 2018. Due to the introduction of the debt brake at the start of 2020, however, the majority of the Laender took the opportunity to assume fresh debt again during the 2019 budget year. In 2020, debt rose once more on account of the Covid-19 pandemic, with aggregated new debt totalling EUR 78.2bn. However, in view of the economic stabilisation, renewed revenue growth and falling interest expenses, total debt fell by EUR -18.1bn overall. This represents the first decline since 2018. Gross credit authorisations were initially supposed to total roughly EUR 70bn in 2020, although the actual value eventually came in at EUR 154bn. The reason for this was several supplementary budgets implemented in an attempt to deal with the additional financial expenditure incurred on account of the Covid-19 pandemic. For 2023, the Laender are currently planning credit authorisations totalling EUR 91.7bn. This would represent stagnation at a high level, after credit authorisations came in as high as EUR 119.4bn in 2021. This is another indicator that the economic consequences of the pandemic are – slowly but surely – continuing to ebb away.

Overview of Laender balances and real GDP growth



Source: Federal Ministry of Finance, national accounts produced by the Laender, NORD/LB Markets Strategy & Floor Research

Positive budget balance developments

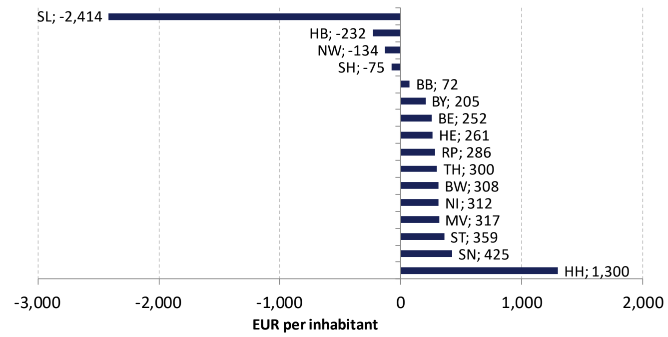
The aggregated budget balances of the Laender have followed a significantly positive trend since 2010. Although a deficit of EUR 20.8bn was posted in 2010, deficits have subsequently fallen on an almost constant basis. A sea change came about in 2014, before what is by far the largest surplus in recent years was recorded in 2018 (EUR +15.7bn). This was closely followed by the budget balance recorded in 2019 (EUR +13.2bn). The positive trend seen over recent years was not continued into 2020, again owing to the coronavirus crisis. In fact, the largest deficit in recent years was recorded in 2020, at EUR -38.6bn. The primary drivers of this development were falling tax revenues (-4.9% on average across Germany) and a rise in expenditures (+18.9% on average across Germany). In 2021, this development was turned on its head: through a sharp rise in tax revenues (+13.2%) and only a marginal rise in expenditure (+1.2%), a positive budget balance of EUR +0.8bn was recorded. This trend also continued into 2022: the aggregated budget balance of the Laender grew by EUR +12.9bn to total EUR 13.7bn overall.

Overview of the Bundeslaender 2022

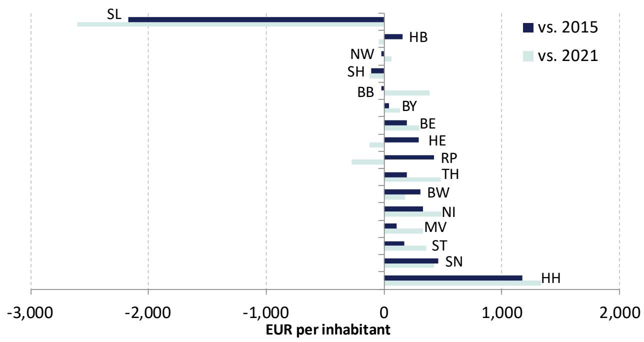
	Adjusted revenue (EURbn)	Adjusted expenditure (EURbn)	Balance (EURbn)	Debt level (EURbn)	GDP (EURbn)	Debt/GDP (in %)	Balance/GDP (in %)
BW	64.0	60.6	3.5	34.2	572.8	6.0	0.6
BY	74.3	71.5	2.7	18.9	716.8	2.6	0.4
BE	37.4	36.4	0.9	59.4	179.4	33.1	0.5
BB	15.0	14.8	0.2	17.2	88.8	19.4	0.2
HB	7.3	7.5	-0.2	22.4	38.7	57.9	-0.4
HH	20.7	18.3	2.5	25.1	144.2	17.4	1.7
HE	35.4	33.7	1.7	40.0	323.4	12.4	0.5
MV	11.1	10.6	0.5	8.2	53.4	15.4	1.0
NI	40.7	38.1	2.5	59.9	339.4	17.7	0.7
NW	103.6	106.0	-2.4	162.2	793.8	20.4	-0.3
RP	21.7	20.5	1.2	28.0	171.7	16.3	0.7
SL	5.6	8.0	-2.4	13.0	38.5	33.7	-6.2
SN	22.7	21.0	1.7	3.5	146.5	2.4	1.2
ST	13.6	12.8	0.8	23.0	75.4	30.4	1.0
SH	17.0	17.2	-0.2	32.6	112.8	28.9	-0.2
TH	12.5	11.9	0.6	15.5	71.4	21.6	0.9
Total	**502.6**	**488.9**	**13.7**	**563.0**	**3,867.0**	**14.5**	**0.4**

BW = Baden-Wuerttemberg, BY = Bavaria, BE = Berlin, BB = Brandenburg, HB = Bremen, HH = Hamburg, HE = Hesse, MV = Mecklenburg-Western Pomerania, NI = Lower Saxony, NW = North Rhine-Westphalia, RP = Rhineland-Palatinate, SL = Saarland, SN = Saxony, ST = Saxony-Anhalt, SH = Schleswig-Holstein, TH = Thuringia.
Source: National accounts produced by the Laender, Federal Statistical Office, NORD/LB Markets Strategy & Floor Research

Budget balance in EUR per capita



Change in budget balance in EUR per capita

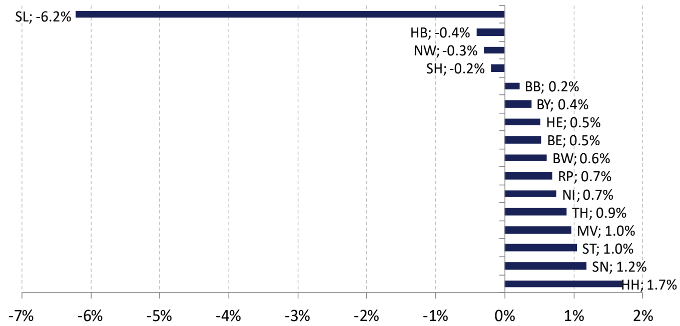


BW = Baden-Wuerttemberg, BY = Bavaria, BE = Berlin, BB = Brandenburg, HB = Bremen, HH = Hamburg, HE = Hesse, MV = Mecklenburg-Western Pomerania, NI = Lower Saxony, NW = North Rhine-Westphalia, RP = Rhineland-Palatinate, SL = Saarland, SN = Saxony, ST = Saxony-Anhalt, SH = Schleswig-Holstein, TH = Thuringia.
Source: Federal Ministry of Finance, NORD/LB Markets Strategy & Floor Research

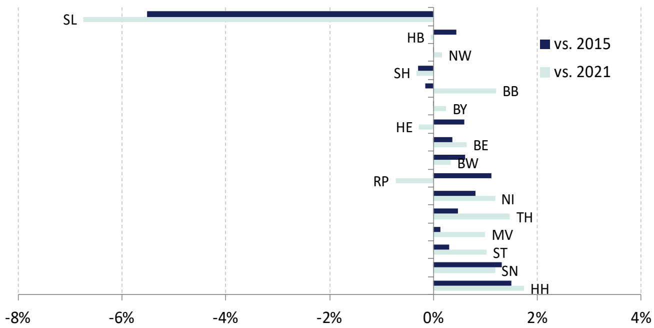
Positive trend in Laender balances

The positive trend seen in recent years was also continued in 2022. The budget balance per capita grew to EUR 162 (2021: EUR 10). The improvement was notably strong in Hamburg, where a particularly sharp rise versus 2021 was achieved. Saarland, on the other hand, experienced the largest decline. The balance per capita here fell to EUR -2,414 (2021: EUR 193). Other Laender to post year-on-year declines include Hesse, Rhineland-Palatinate, Schleswig-Holstein and Bremen. In fact, this puts the Hanseatic City of Bremen in last place behind Saarland in the Laender rankings. With a cash surplus of EUR 3.5bn, Baden-Wuerttemberg generated the highest budget balance in absolute terms. However, if we contextualise this figure in relation to the population of Germany's third-most populous sub-sovereign, then Baden-Wuerttemberg has to settle for sixth place in a comparison of all Laender. In this respect, Hamburg takes top spot. The Hanseatic city generated a balance per capita of EUR 1,300 in 2022.

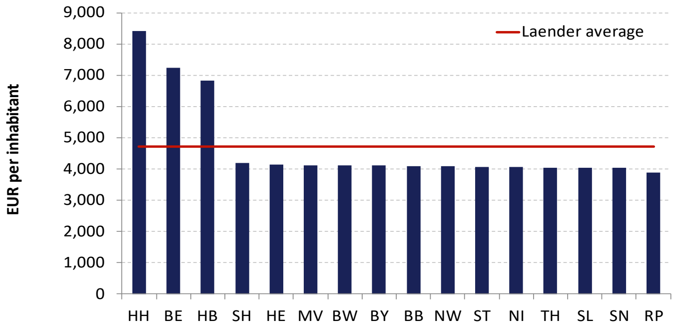
Budget balance as a % of GDP



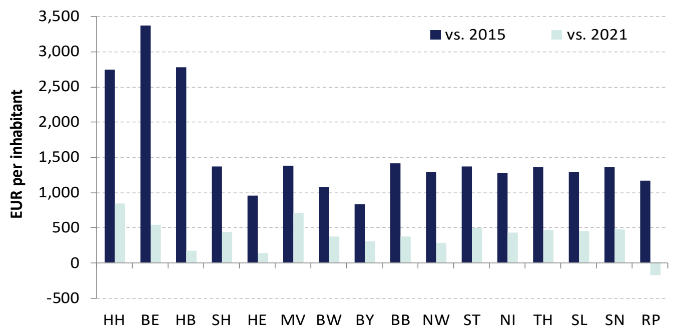
Change in budget balance as a % GDP



Taxes in EUR per capita



Change in taxes in EUR per capita

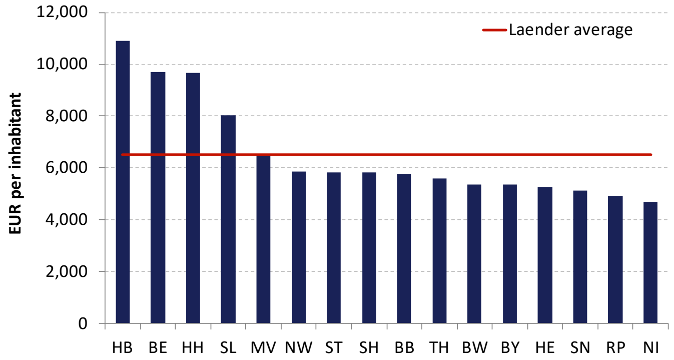


BW = Baden-Wuerttemberg, BY = Bavaria, BE = Berlin, BB = Brandenburg, HB = Bremen, HH = Hamburg, HE = Hesse, MV = Mecklenburg-Western Pomerania, NI = Lower Saxony, NW = North Rhine-Westphalia, RP = Rhineland-Palatinate, SL = Saarland, SN = Saxony, ST = Saxony-Anhalt, SH = Schleswig-Holstein, TH = Thuringia.
Source: Federal Ministry of Finance, NORD/LB Markets Strategy & Floor Research

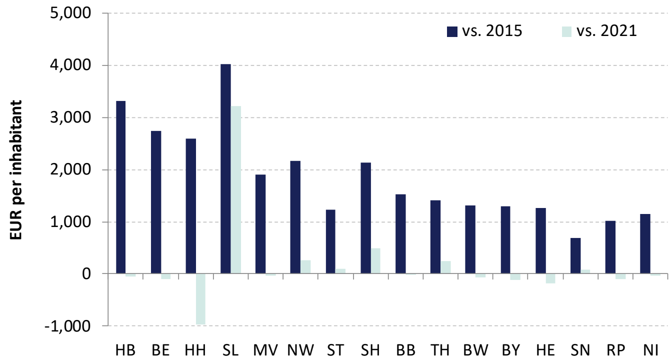
City states with highest tax revenue per capita

In terms of tax revenues per capita, the city states of Bremen, Berlin and above all Hamburg traditionally stand out, with all three generating above-average tax revenues in relation to their population. This trend was continued in 2022, with Hamburg again topping the charts for this metric. The strongest growth in percentage terms was achieved by Mecklenburg-Western Pomerania (+21.0%), followed by Saxony-Anhalt (+14.0%). With the exception of Rhineland-Palatinate (-4.3%), all Bundeslaender were able to increase their tax revenues per capita.

Expenditure in EUR per capita



Change in expenditure in EUR per capita

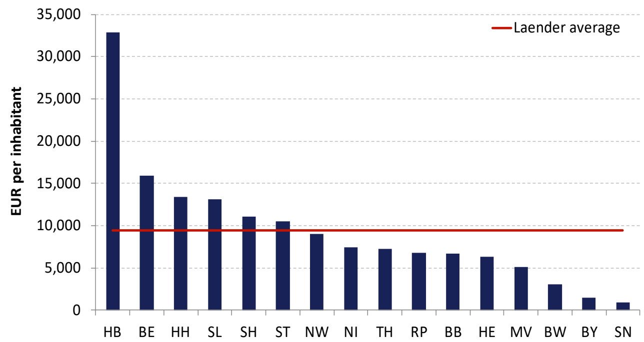


BW = Baden-Wuerttemberg, BY = Bavaria, BE = Berlin, BB = Brandenburg, HB = Bremen, HH = Hamburg, HE = Hesse, MV = Mecklenburg-Western Pomerania, NI = Lower Saxony, NW = North Rhine-Westphalia, RP = Rhineland-Palatinate, SL = Saarland, SN = Saxony, ST = Saxony-Anhalt, SH = Schleswig-Holstein, TH = Thuringia.
Source: Federal Ministry of Finance, NORD/LB Markets Strategy & Floor Research

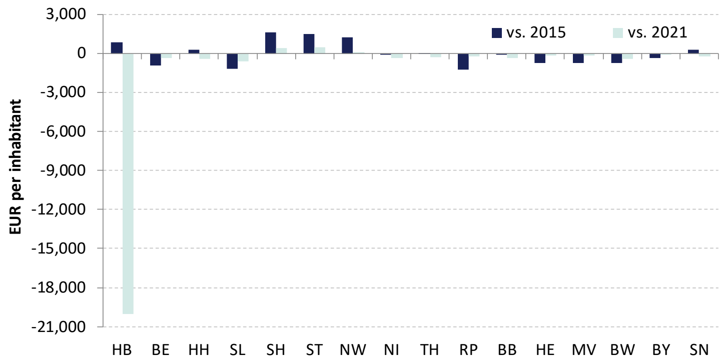
Lower Saxony again records lowest expenditure per capita

The city states also traditionally post the largest outflows in terms of per capita expenditure levels. As a result, Bremen tops the table for this particular category, with the Hanseatic city spending a sum of EUR 10,910 per capita in 2022. At the other end of the scale, in a repeat of 2021, Lower Saxony again posted the lowest expenditure per capita. The largest rise in per capita expenditure was recorded by Saarland at EUR +3,219 year on year. As a result, Saarland's expenditure per capita amounts to EUR 8,018 for 2022, which positions the Land just behind the city states. Hamburg recorded the sharpest decline in per capita expenditure: in comparison with the previous year, the value here fell by EUR -962. In this respect, the East German non-city states (EUR 5,642) have slightly higher expenditure levels per capita than West German non-city states (EUR 5,435), although these respective values are continuing to converge.

Debt per capita in EUR



Change in debt per capita in EUR

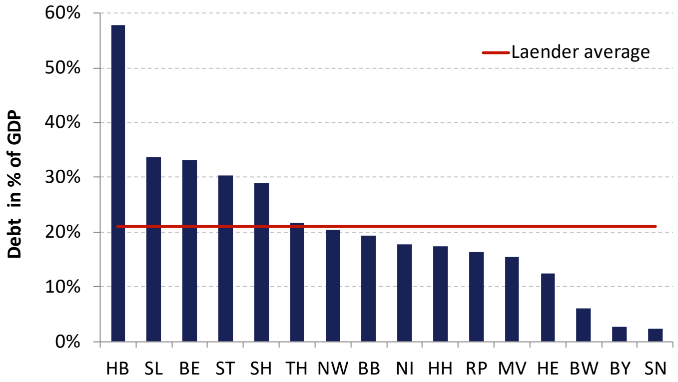


BW = Baden-Wuerttemberg, BY = Bavaria, BE = Berlin, BB = Brandenburg, HB = Bremen, HH = Hamburg, HE = Hesse, MV = Mecklenburg-Western Pomerania, NI = Lower Saxony, NW = North Rhine-Westphalia, RP = Rhineland-Palatinate, SL = Saarland, SN = Saxony, ST = Saxony-Anhalt, SH = Schleswig-Holstein, TH = Thuringia.
Source: Federal Ministry of Finance, NORD/LB Markets Strategy & Floor Research

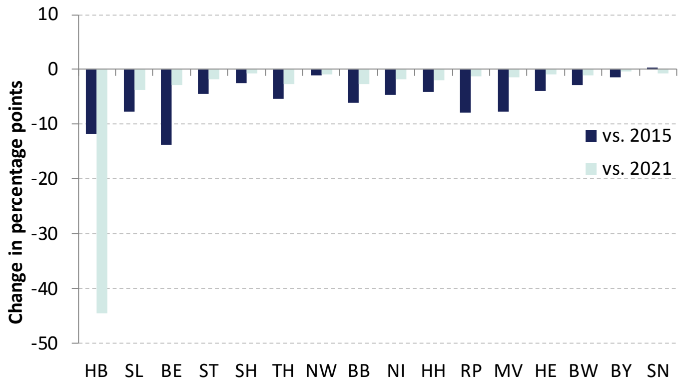
Highest debt per capita in city states and Saarland

For years now, the city states as well as Saarland have had the highest level of per capita debt. Bremen's historically weak budget performances have exacerbated this development. Having already posted substantial growth in debt per capita in 2019 and 2020, Bremen's aggregated decline in this metric (EUR -24,500) since 2021 in unprecedented in a Laender comparison. In 2022 alone, Bremen reduced its debt per capita by EUR -20,000. Taking the 16 German Laender as a whole, only Saxony-Anhalt, Schleswig-Holstein and North Rhine-Westphalia failed to reduce their debt levels in per capita terms in 2022.

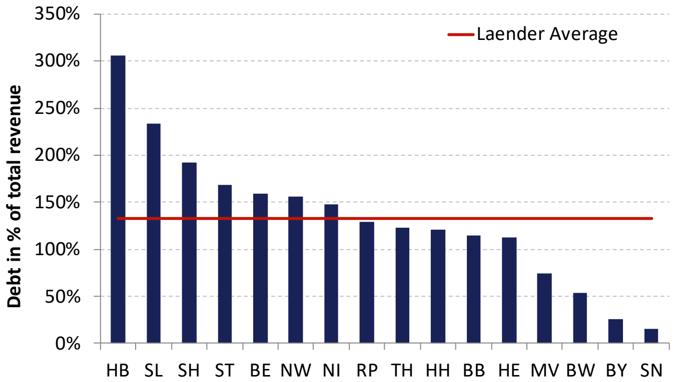
Debt as a % of GDP



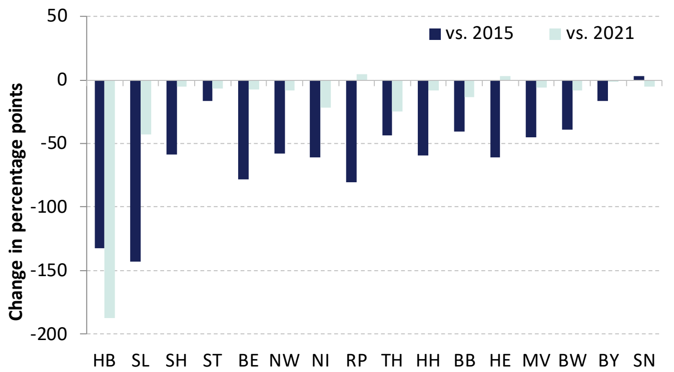
Change in debt as % of GDP (in percentage points)



Debt/revenue



Change in debt/revenue (in percentage points)



BW = Baden-Wuerttemberg, BY = Bavaria, BE = Berlin, BB = Brandenburg, HB = Bremen, HH = Hamburg, HE = Hesse, MV = Mecklenburg-Western Pomerania, NI = Lower Saxony, NW = North Rhine-Westphalia, RP = Rhineland-Palatinate, SL = Saarland, SN = Saxony, ST = Saxony-Anhalt, SH = Schleswig-Holstein, TH = Thuringia.
Source: Federal Ministry of Finance, national accounts produced by the Laender, NORD/LB Markets Strategy & Floor Research

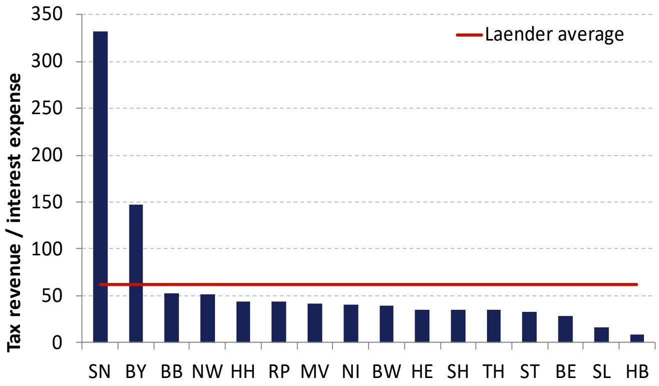
Reduction in the debt-revenue ratio

The ratio of debt to revenue also reveals major differences between the Laender. In 2022, all Laender, with the exception of Hesse and Rhineland-Palatinate, achieved a reduction in this metric. The reason for this is the rise in revenues at Laender level following the pandemic year of 2020. Compared with the previous year, Bremen, Saarland and Thuringia achieved the greatest reduction in their respective debt-revenue ratios. Saxony is the only sub-sovereign to have a higher debt-revenue ratio than was the case in 2015.

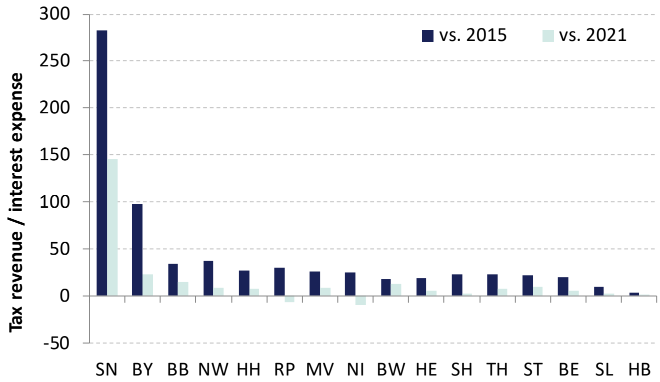
Rising trend across Germany for interest coverage

On account of steadily declining interest expenses at Laender level, and significantly increased tax revenues at the same time, the tax-interest coverage improved across practically all Laender as a result. Only Lower Saxony and Rhineland-Palatinate failed to record an improvement in this key metric in 2022. However, since these Laender are in mid-table in a national comparison and the declines were in any case minimal, this can be regarded as more of a side note to the main headline. Once again, Saxony and Bavaria achieved by far the best values in this regard.

Tax-interest coverage



Change in tax-interest coverage



BW = Baden-Wuerttemberg, BY = Bavaria, BE = Berlin, BB = Brandenburg, HB = Bremen, HH = Hamburg, HE = Hesse, MV = Mecklenburg-Western Pomerania, NI = Lower Saxony, NW = North Rhine-Westphalia, RP = Rhineland-Palatinate, SL = Saarland, SN = Saxony, ST = Saxony-Anhalt, SH = Schleswig-Holstein, TH = Thuringia.
Source: Federal Ministry of Finance, NORD/LB Markets Strategy & Floor Research

Comment

The segment of German Laender continues to represent the most important sub-market for sub-sovereign issuers in Europe and even the world. A steady supply of fresh bonds ensures the market offers a relatively diverse range of products. The increased issuance volume aimed at counteracting the effects of the Covid-19 crisis is again leading to a high level of fresh supply in the current year as well. The positive development in Laender finances has largely continued. For example, key credit metrics have improved, in some cases outperforming the equivalent values from the last pre-crisis year of 2019. However, the heterogeneity of this market segment has nevertheless remained at a high level. Balances, tax revenue, debt and a number of key credit metrics reveal differences between the Laender, which are actually quite considerable in some cases. Despite the strong progress that has been made, the Laender of Bremen and Saarland in particular are under pressure due to their high levels of debt. Overall, however, an improvement in the creditworthiness of the Laender can be reported. Nevertheless, it should not be forgotten that the former market environment helped to conceal fundamental differences. In this context, the purchase programmes of the Eurosystem (PSPP and PEPP) suppressed both spreads and yields. The huge economic breakdown triggered by the Covid-19 crisis in 2020 precipitated a decline in revenue streams and growth in new debt on the part of the Laender. Signs of recovery initially looked to be on the cards for 2022, although rising energy prices due to Putin's war of aggression in Ukraine subsequently posed a major challenge as the year went on. In addition, the ECB increased key rates by 425 basis points within the space of 12 months. As a result, the interest burden has intensified, a situation that looks set to continue for some time to come and which can be seen as the catalyst for increased heterogeneity between the German Laender.

Bundesland and politics

Link to the Ministry of Finance

Homepage

Number of inhabitants (2022)

11,280,257

State capital

Stuttgart

Government

Greens/CDU

Minister-President

Winfried Kretschmann (Greens)

Expected next election date

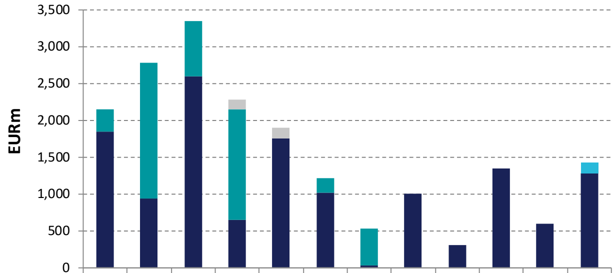
Spring 2026

Ratings	Long-term	Outlook
Fitch	-	-
Moody's	Aaa	stab
S&P	AA+	stab

Baden-Wuerttemberg

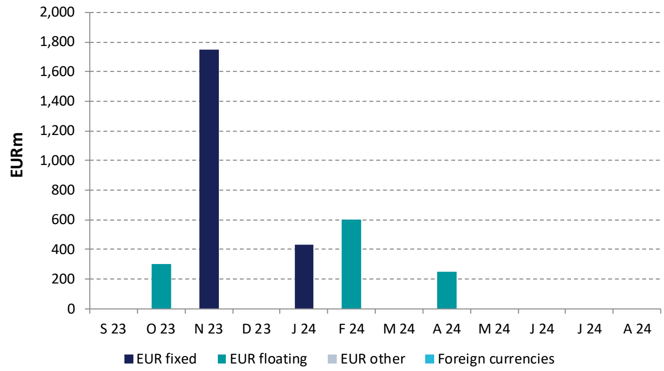
Covering a total area of 35,748 km² and with a population of 11.3m inhabitants, Baden-Wuerttemberg is the third largest federal state of Germany in terms of both size and population. Historically, the present-day sub-sovereign was formed in 1951 by the Allied Powers from the regions of Wuerttemberg-Baden, Wuerttemberg-Hohenzollern and Baden in the wake of the Second World War, with Stuttgart designated as the state capital. As the sixth-largest city in Germany, Stuttgart is also the most important economic hub in Baden-Wuerttemberg. Germany owes much of its reputation as a world-renowned, innovative export nation to Baden-Wuerttemberg. For example, major industrial firms such as the Mercedes-Benz Group, Porsche and Bosch are located in and around the Stuttgart area. Alongside these established companies, Baden-Wuerttemberg is a shining light for start-ups year after year, with various companies ranked among the Top 50 start-ups in Germany. Baden-Wuerttemberg therefore ranks among the most innovative and entrepreneur-friendly regions of Germany. For example, it has overtaken both Bavaria and Berlin in the rankings, with Baden-Wuert. now sharing top spot with North Rhine-Westphalia (NRW). This success is no coincidence: in 2017, a platform for networking and financial support was created in the form of "Start-up BW". The overall picture is underlined by 74,600 new business start-ups in 2022, which in comparison with the last pre-crisis year in 2019 equates to an increase of +9.8%. Compared with the previous year, the number of newly founded small businesses in particular recorded growth of +5.6% to around 14,600. In addition to its high-tech industries, Baden-Wuerttemberg is also a popular holiday destination, with tourists flocking in their droves to visit the Black Forest, Lake Constance and the Allgäu region, not forgetting the Bundesland's famous vineyards as well. Academic excellence is equally as important to the region as its technologically intensive industries: four of Germany's 11 elite-level universities are located in Baden-Wuerttemberg (Heidelberg, Karlsruhe, Konstanz and Tübingen), serving to underline the region's research strength even more. Since 2021, the Land has been issuing green bonds as well, and looks set to build up an ESG curve in the future (2021: EUR 300m; 2022: EUR 350m; 2023: EUR 600m).

Overall maturity profile

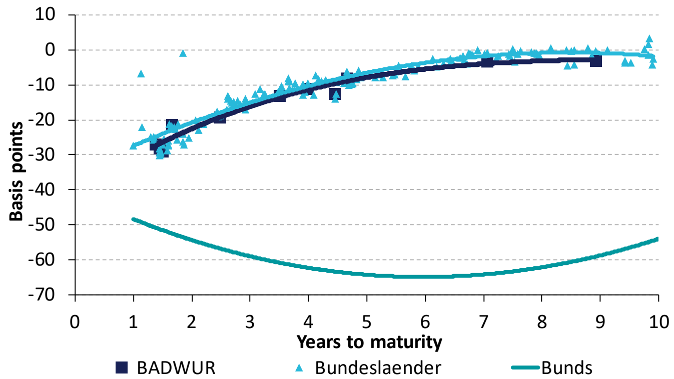


	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	>2033
Foreign currencies	0	0	0	0	0	0	0	0	0	0	0	153
EUR other	0	0	0	128	153	0	0	0	0	0	0	0
EUR floating	300	1,850	750	1,500	0	200	500	0	0	0	0	0
EUR fixed	1,850	933	2,600	651	1,750	1,011	25	1,000	300	1,350	600	1,275

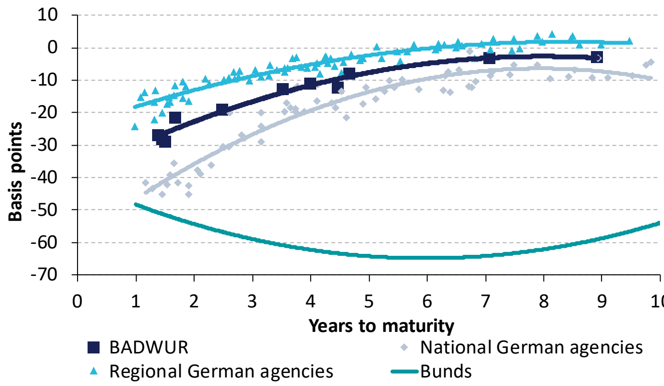
Bond amounts maturing in the next 12 months



ASW spreads vs. Bunds & peers



ASW spreads vs. German agencies

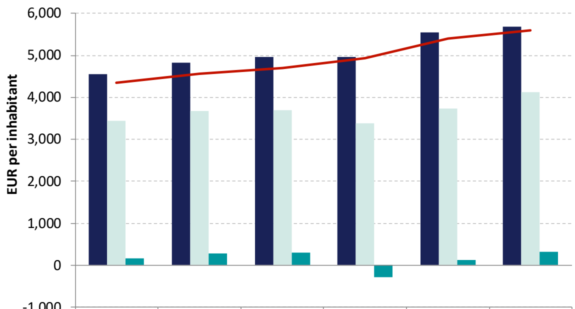


NB: Foreign currencies are converted into EUR at rates as at 07 August 2023; residual term to maturity >1 year and <10 years; outstanding volume at least EUR 0.5bn.
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

Capital market	Economy 2022	Key figures 2022
Debt level* (ranking)**	**GDP (ranking)**	**Tax-interest coverage (ranking)**
EUR 34.2bn (12th)	EUR 572.8bn (3rd)	38.9x (9th)
Outstanding bonds	**GDP per capita (ranking)**	**Total revenue/interest paid (ranking)**
EUR 18.9bn	EUR 50,982 (4th)	53.7x (8th)
ESG volume	**Real GDP growth (ranking)**	**Debt/GDP (ranking)**
EUR 1.3bn	1.4% (11th)	6.0% (3rd)
Bloomberg ticker	**Unemployment (ranking)**	**Debt/revenue (ranking)**
BADWUR	3.5% (2nd)	0.5x (3rd)

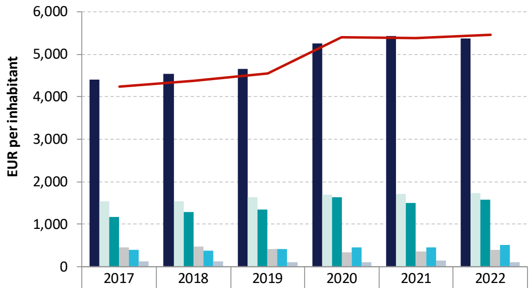
* As reported at the end of the previous year.
**Ranking of the Bundesland among the Laender for the respective key figure, where 1 is the best figure in the comparison of the Laender.
Source: Federal Statistical Office, Federal Ministry of Finance, national accounts produced by the Laender, NORD/LB Markets Strategy & Floor Research

Development of revenue in EUR per capita



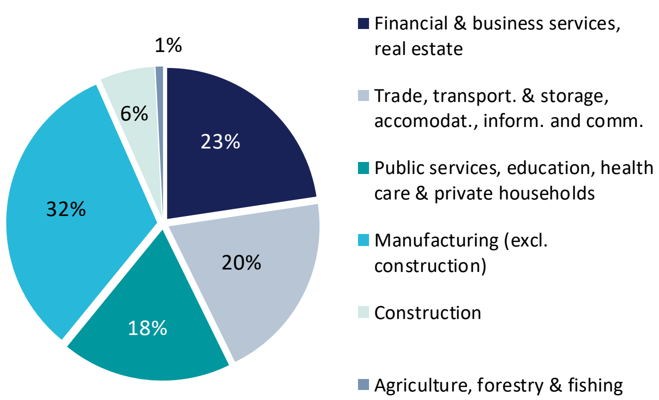
	2017	2018	2019	2020	2021	2022
Operating revenue	4,555	4,818	4,955	4,966	5,557	5,677
Tax revenue	3,447	3,667	3,686	3,389	3,739	4,114
Deficit/surplus	157	273	305	-296	130	308
Ø of operating revenues (non-city states)	4,357	4,572	4,699	4,940	5,401	5,603

Development of expenditure in EUR per capita

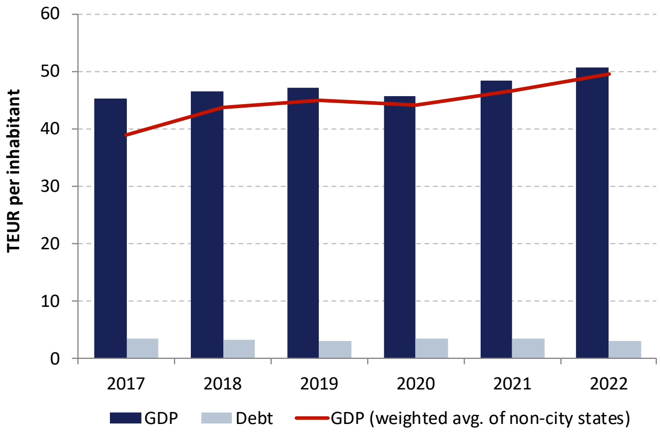


	2017	2018	2019	2020	2021	2022
Operating expense	4,399	4,545	4,649	5,262	5,427	5,368
Staff expenditure	1,535	1,549	1,637	1,688	1,720	1,732
Grants to municipals	1,172	1,283	1,339	1,632	1,493	1,573
Equalisation mechanism (net)	455	478	407	331	361	397
Capital expenditure	390	377	412	452	446	507
Interest expense	127	126	111	105	141	106
Ø of operating expenses (non-city states)	4,246	4,385	4,558	5,407	5,385	5,469

Gross value added by economic sector



Trend in GDP and total debt



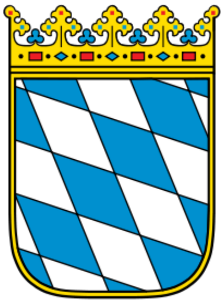
Source: Federal Statistical Office, Federal Ministry of Finance, national accounts produced by the Laender, NORD/LB Markets Strategy & Floor Research

Strengths/Chances

+ Debt sustainability and interest coverage
+ Strong, innovative and diversified economy
+ International trade
+ Low unemployment rate

Weaknesses/Risks

– Development of indebtedness
– Dependency on manufacturing sector
– Resource bottlenecks being felt particularly keenly



Bundesland and politics

Link to the Ministry of Finance

[Homepage]

Number of inhabitants (2022)

13,369,393

State capital

Munich

Government

CSU/Free Voters of Bavaria

Minister-President

Markus Söder (CSU)

Expected next election date

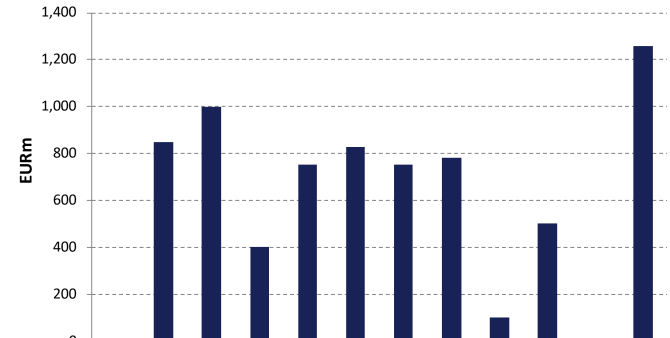
08 October 2023

Ratings	Long-term	Outlook
Fitch	-	-
Moody's	Aaa	stab
S&P	AAA	stab

Bavaria

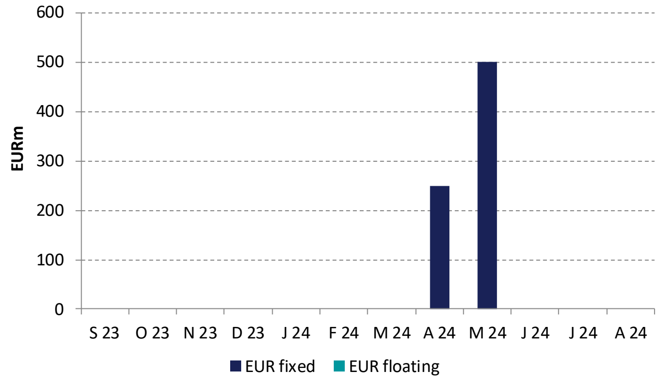
At 70,542 km², the Free State of Bavaria is the largest Land as measured by total area. It has a population of 13.4m inhabitants, with only NRW exceeding this figure. The Free State of Bavaria has existed in its present form since 1 September 1955, when Lindau was re-integrated into the Land. Only a handful of other Laender can boast a similarly broad industrial base. Aside from a focus on industry (mechanical and electrical engineering in addition to information and communication technology), the automotive industry is of particular importance. Moreover, in 2022, just under 30% of all the patents registered in Germany came from Bavaria, underlining the innovative capacity of the economy in this Bundesland. In this context, Bayerische Motoren Werke AG (BMW) was ranked in second place across the whole of Germany for its total of 1,867 patent applications in 2022. In addition, agriculture and tourism are also of elevated importance for the Bavarian economy. No other Land has a greater area of agricultural land. From a tourism viewpoint, Bavaria is a global brand with an international profile that is reflected in strong visitor numbers. In fact, approx. 20% of all overnight stays in hotels and guesthouses in Germany per year are attributable to Bavaria. Since 2019, the Free State of Bavaria has registered a negative external trade balance. In 2022, imports overtook exports by a value of EUR 34.1bn. Bavaria has always made a significant contribution to the economic output of Germany. In 2022, Bavarian GDP amounted to EUR 716.8bn, which corresponds to 16.9% of German economic output as a whole. At 3.1%, unemployment in Bavaria is the lowest across Germany. The Bavarian budget has also been solid for many years. In this context, Bavaria can claim one of the top spots for all key credit metric rankings in a comparison of the Bundeslaender. Having implemented two supplementary budgets totalling EUR 20bn in order to combat the coronavirus pandemic, Bavaria is presumably unlikely to achieve its target of continual debt reduction year on year, which it voluntarily set itself many years ago (previously, it was aiming to be debt-free by 2030). Nevertheless, the budgetary situation in Bavaria remains exemplary in a Bundeslaender comparison. For many years, the Free State of Bavaria was by far the most important net payer within the federal financial equalisation system.

Overall maturity profile

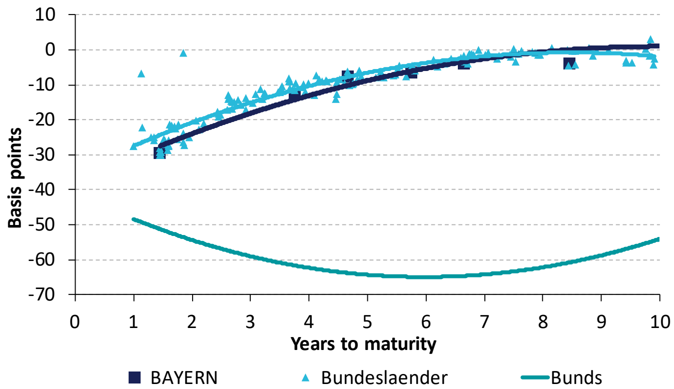


	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	>2033
EUR fixed	0	850	1,000	401	750	827	750	780	100	500	0	1,260

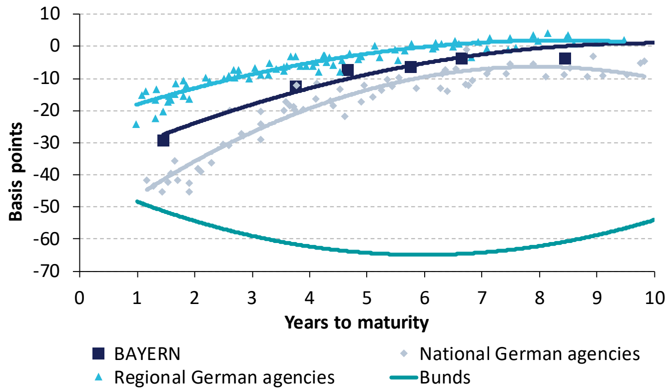
Bond amounts maturing in the next 12 months



ASW spreads vs. Bunds & peers



ASW spreads vs. German agencies

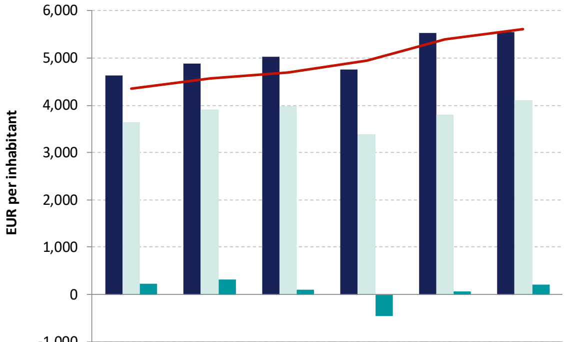


NB: Foreign currencies are converted into EUR at rates as at 07 August 2023; residual term to maturity >1 year and <10 years; outstanding volume at least EUR 0.5bn.
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

Capital market	Economy 2022	Key figures 2022
Debt level* (ranking)**	**GDP (ranking)**	**Tax-interest coverage (ranking)**
EUR 18.9bn (6th)	EUR 716.8bn (2nd)	147.7x (2nd)
Outstanding bonds	**GDP per capita (ranking)**	**Total revenue/interest paid (ranking)**
EUR 7.2bn	EUR 53,768 (3rd)	199.7x (2nd)
ESG volume	**Real GDP growth (ranking)**	**Debt/GDP (ranking)**
EUR 0.0bn	2.1% (7th)	2.64% (2nd)
Bloomberg ticker	**Unemployment (ranking)**	**Debt/revenue (ranking)**
BAYERN	3.1% (1st)	0.3x (2nd)

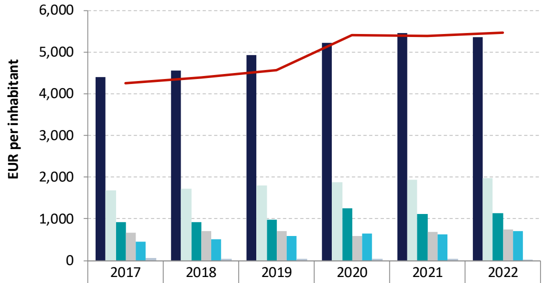
* As reported at the end of the previous year.
**Ranking of the Bundesland among the Laender for the respective key figure, where 1 is the best figure in the comparison of the Laender.
Source: Federal Statistical Office, Federal Ministry of Finance, national accounts produced by the Laender, NORD/LB Markets Strategy & Floor Research

Development of revenue in EUR per capita



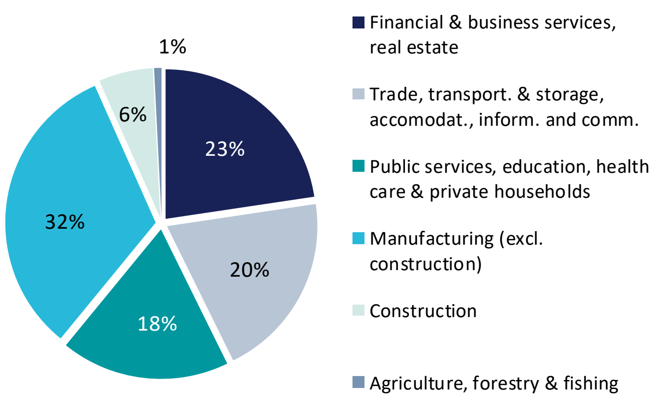
	2017	2018	2019	2020	2021	2022
Operating revenue	4,634	4,878	5,025	4,754	5,528	5,556
Tax revenue	3,638	3,906	3,982	3,384	3,801	4,110
Deficit/surplus	230	322	97	-467	67	205
Ø of operating revenues (non-city states)	4,357	4,572	4,699	4,940	5,401	5,603

Development of expenditure in EUR per capita

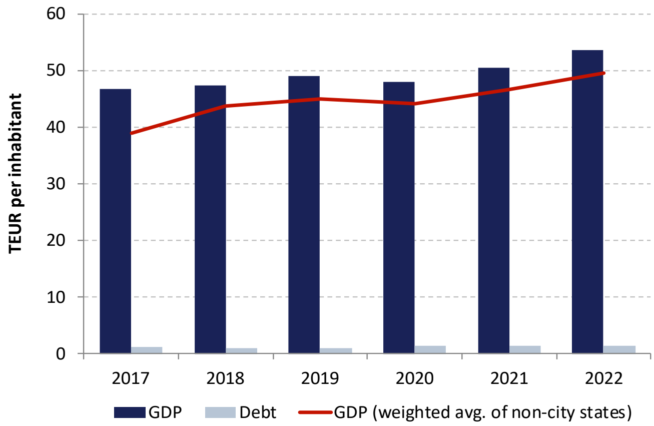


	2017	2018	2019	2020	2021	2022
Operating expense	4,403	4,556	4,928	5,221	5,461	5,350
Staff expenditure	1,691	1,728	1,804	1,883	1,937	1,983
Grants to municipals	925	927	983	1,242	1,113	1,129
Equalisation mechanism (net)	659	709	698	591	686	738
Capital expenditure	455	505	581	648	628	697
Interest expense	56	45	40	36	30	28
Ø of operating expenses (non-city states)	4,246	4,385	4,558	5,407	5,385	5,469

Gross value added by economic sector



Trend in GDP and total debt



Source: Federal Statistical Office, Federal Ministry of Finance, national accounts produced by the Laender, NORD/LB Markets Strategy & Floor Research

Strengths/Chances

+ Debt sustainability and interest coverage
+ Strong, innovative and diversified economy
+ Internationally competitive
+ Low unemployment rate

Weaknesses/Risks

– High level of pension payments and personnel expenses
– Dependency on foreign trade

Bundesland and politics

Link to the Ministry of Finance

Homepage

Number of inhabitants (2022)

3,755,251

State capital

-

Government

CDU/SPD

Mayor

Kai Wegner

Expected next election date

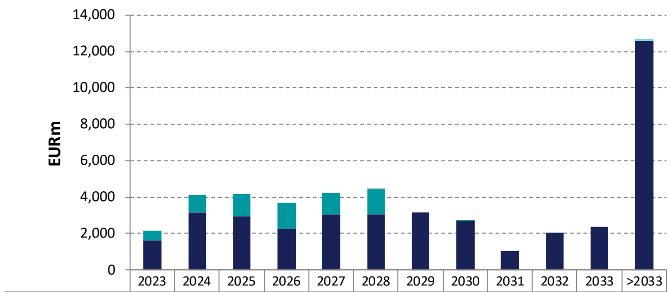
Autumn 2026

Ratings	Long-term	Outlook
Fitch	AAA	stab
Moody's	Aa1	stab
S&P	-	-

Berlin

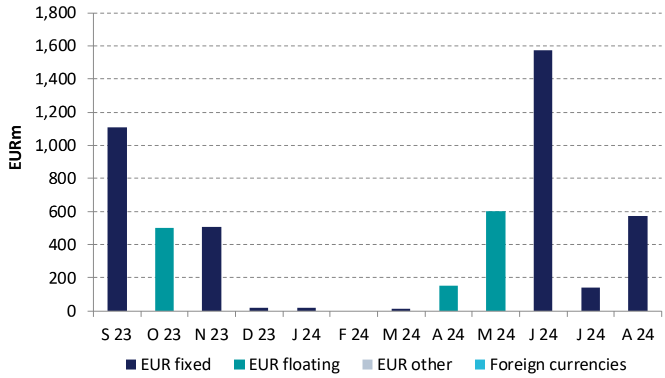
With a population of around 3.8m people and covering an area of approximately 891 km², the capital city of Germany, Berlin, is the country's most densely populated Bundesland and the largest city in the European Union (EU) by population. Following reunification in 1990, Berlin was reinstated as the federal capital of Germany. The most important institutions of the federal government were then gradually relocated to Berlin, creating many new jobs in the process. One in every five Berliners is of foreign nationality and one in three comes from an immigrant background. In total, Berlin is home to people from nearly 190 different countries. Woodland and forests, farms, waterways, allotments, parklands and sports areas account for 44% of the area of Berlin, making it the greenest capital city in Europe. On top of this, Berlin is also aiming to be climate-neutral by 2050. The city's proximity to universities and research institutions also promotes the influx and investment of companies from sectors including information and communication technology, multimedia, transport technology and environmental engineering, in addition to medtech and biotech firms. In response to the consequences of the Covid-19 pandemic, Berlin launched the "Neustart Wirtschaft" (Economic Reboot) programme in March 2022. This builds upon strategies and measures that were developed and implemented over the course of 2020 and 2021 during initial recovery phases. Tourism, retail and the creative economy all stand to benefit from this. However, the majority of Berlin's value added is derived from the service sector, accounting for just under 64% of the gross value added generated by the local economy. At the same time, Berlin (alongside London) is also regarded as the start-up powerhouse of Europe. No other cities within Europe have the same standard of infrastructure required by start-ups. In the wake of Brexit, Berlin is expected to see future growth in this key economic segment for the EU. Overall, Berlin generated nearly 4.6% of Germany's total economic output in 2022. After the federal financial equalisation system was reconfigured, Berlin was once again the largest recipient under the terms of Financial Power Equalisation (Finanzkraftausgleich; FKA), as was the case in both 2020 and 2021.

Overall maturity profile

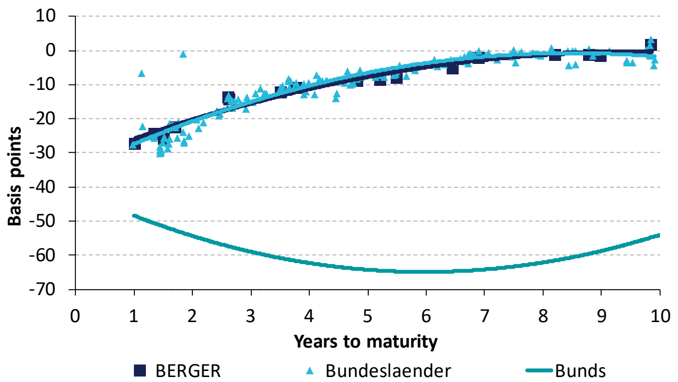


	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	>2033
Foreign currencies	0	0	0	0	0	0	0	0	0	0	0	101
EUR other	0	0	0	0	0	51	0	0	0	0	0	0
EUR floating	500	1,005	1,190	1,400	1,150	1,350	0	50	0	0	0	0
EUR fixed	1,640	3,135	2,955	2,280	3,055	3,071	3,152	2,700	1,026	2,025	2,350	12,590

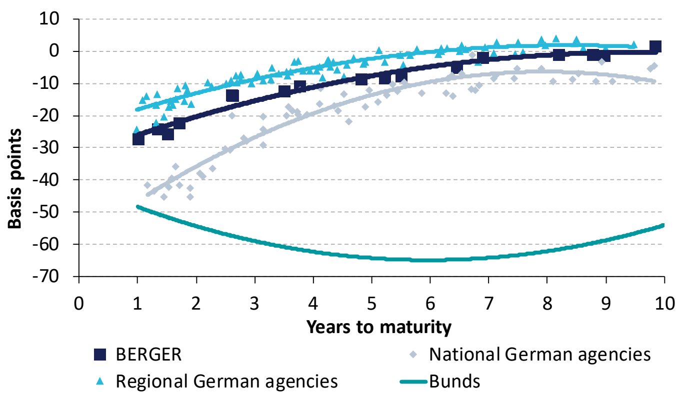
Bond amounts maturing in the next 12 months



ASW spreads vs. Bunds & peers



ASW spreads vs. German agencies



NB: Foreign currencies are converted into EUR at rates as at 07 August 2023; residual term to maturity >1 year and <10 years; outstanding volume at least EUR 0.5bn.
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

NORD/LB

Capital market

Debt level* (ranking)**
EUR 59.4bn (14th)

Outstanding bonds
EUR 46.8bn

ESG volume
EUR 0.8bn

Bloomberg ticker
BERGER

Economy 2022

GDP (ranking)
EUR 179.4bn (6th)

GDP per capita (ranking)
EUR 48,147 (6th)

Real GDP growth (ranking)
4.9% (2nd)

Unemployment (ranking)
8.8% (15th)

Key figures 2022

Tax-interest coverage (ranking)
28.2x (14th)

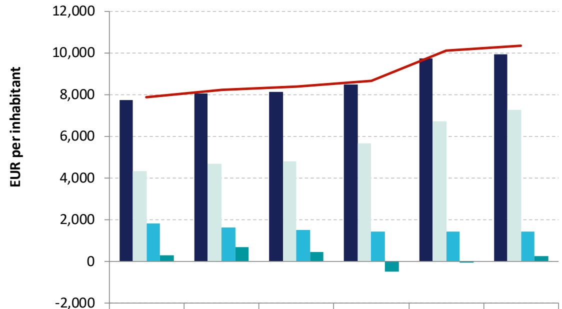
Total revenue/interest paid (ranking)
38.7x (14th)

Debt/GDP (ranking)
33.1% (14th)

Debt/revenue (ranking)
1.6x (12th)

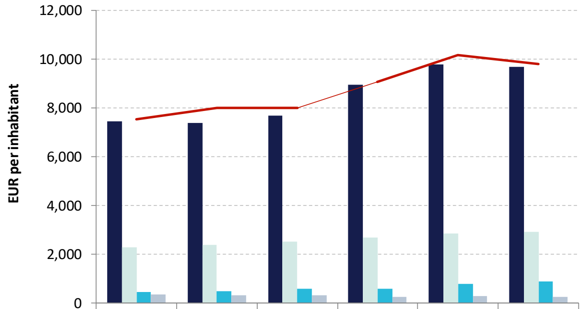
* As reported at the end of the previous year.
**Ranking of the Bundesland among the Laender for the respective key figure, where 1 is the best figure in the comparison of the Laender.
Source: Federal Statistical Office, Federal Ministry of Finance, national accounts produced by the Laender, NORD/LB Markets Strategy & Floor Research

Development of revenue in EUR per capita



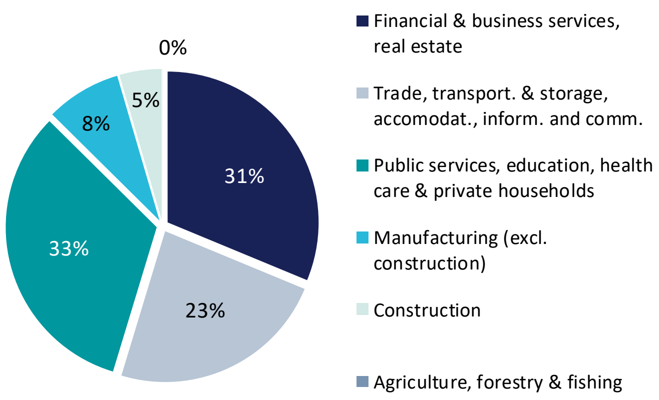
	2017	2018	2019	2020	2021	2022
Operating revenue	7,749	8,050	8,124	8,492	9,743	9,954
Tax revenue	4,308	4,672	4,778	5,658	6,704	7,249
Equalisation mechanism (net)	1,809	1,627	1,514	1,411	1,442	1,414
Deficit/surplus	282	664	433	-484	-51	252
Ø of operating revenues (city states)	7,871	8,221	8,386	8,652	10,106	10,332

Development of expenditure in EUR per capita

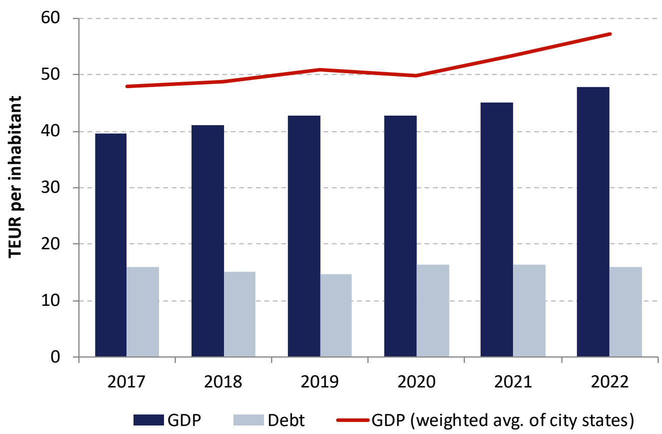


	2017	2018	2019	2020	2021	2022
Operating expense	7,466	7,385	7,691	8,976	9,794	9,701
Staff expenditure	2,300	2,402	2,537	2,690	2,857	2,914
Capital expenditure	455	504	590	605	793	903
Interest expense	365	338	316	265	295	257
Ø of operating expenses (city states)	7,541	8,001	8,002	9,094	10,167	9,819

Gross value added by economic sector



Trend in GDP and total debt



Source: Federal Statistical Office, Federal Ministry of Finance, national accounts produced by the Laender, NORD/LB Markets Strategy & Floor Research

Strengths/Chances

+ Solid budgetary development with constant debt level
+ Above-average economic growth
+ High-density of start-ups

Weaknesses/Risks

– Key credit metrics below average
– Above-average unemployment rate
– High interest expenses

Brandenburg

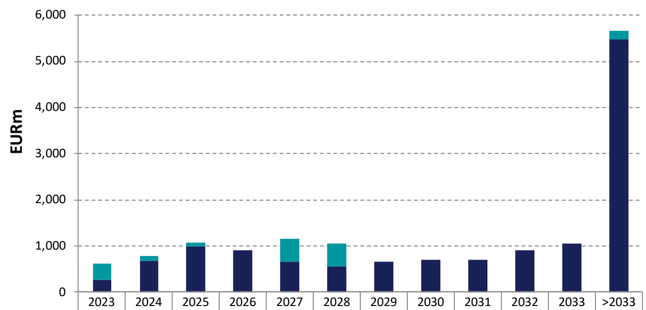
With an area totalling 29,654 km², Brandenburg is one of the largest Laender in Germany. However, with a population of just 2.6m people, it also has the second-lowest population density after Mecklenburg-Western Pomerania. Following the establishment of Brandenburg in its present form on 3 October 1990, numerous companies opted to establish a presence around the Bundesland's capital, Potsdam, which is situated on the fringes of the federal capital, Berlin. These companies firstly benefited from the well-developed infrastructure on offer in the metropolitan region, while secondly Brandenburg is one of Europe's research hotspots, with the life sciences sector and engineering of key importance in this respect. The automotive manufacturer Tesla has meanwhile commenced operations at its gigafactory, with plans in place to increase the number of jobs on offer here to up to 12,000 in due course. Further into the future, Tesla even has ambitions to employ as many as 22,500 staff at the gigafactory. Brandenburg is pursuing an innovative economic policy approach with a regional and sectoral focus. For example, synergy potentials are being unlocked in partnership with Berlin on the basis of the joint innovation strategy entitled "innoBB 25". While attempts to merge Brandenburg and Berlin into a single, joint Bundesland may ultimately have failed in 1996, their close cooperation in the context of the "Berlin/Brandenburg Metropolitan Region" continues to sustain the close links between the two Bundeslaender. Despite the creation of jobs for skilled workers, demographic development remains a core challenge for Brandenburg. No other Bundesland has a lower proportion of 15 to 25-year-olds in the overall population. In comparison with the rest of Germany, unemployment in Brandenburg has been particularly high for many years. Targeted support programmes, financed in particular by the European Social Fund (ESF), have, however, had some success in counteracting this circumstance. In 2022, economic output of EUR 88.8bn, equivalent to around 2.1% of total GDP in Germany, was generated in Brandenburg. In terms of economic growth in real terms, the largest of the Laender that made up the former East Germany is ranked in fourth place for 2022, having only a year previously finished bottom of the table in this regard.

Bundesland and politics

Link to the Ministry of Finance
Homepage
Number of inhabitants (2022)
2,573,135
State capital
Potsdam
Government
SPD/CDU/Greens
Minister-President
Dietmar Woidke (SPD)
Expected next election date
22 September 2024

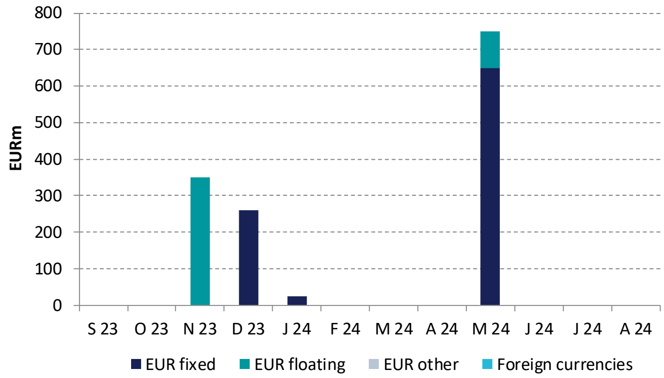
Ratings	Long-term	Outlook
Fitch	-	-
Moody's	Aaa	neg
S&P	-	-

Overall maturity profile

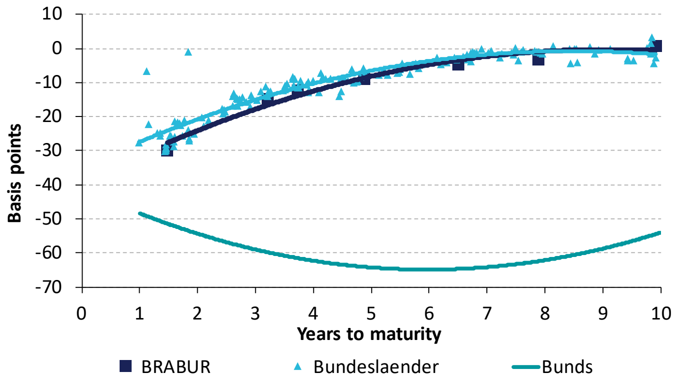


	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	>2033
EUR other	0	0	0	0	0	0	0	0	0	0	0	0
EUR floating	350	100	100	0	500	500	0	0	0	0	0	200
EUR fixed	260	675	980	900	650	550	650	700	700	900	1,050	5,470

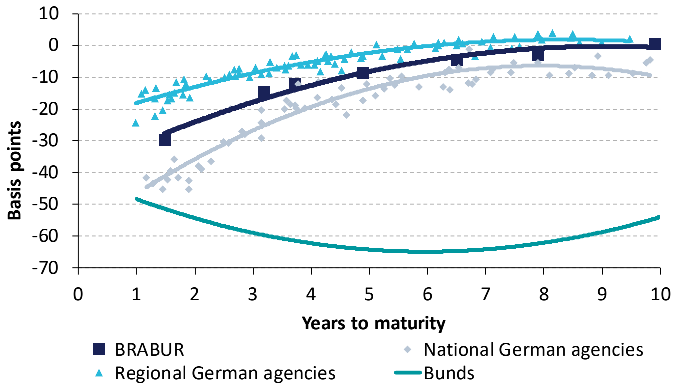
Bond amounts maturing in the next 12 months



ASW spreads vs. Bunds & peers



ASW spreads vs. German agencies

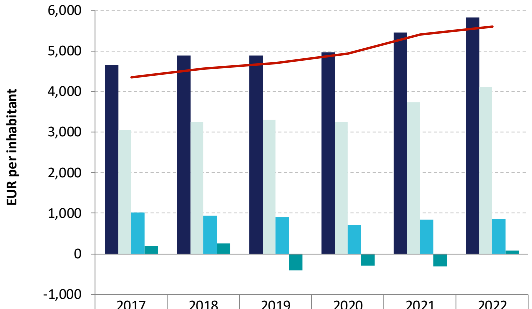


NB: Foreign currencies are converted into EUR at rates as at 07 August 2023; residual term to maturity >1 year and <10 years; outstanding volume at least EUR 0.5bn.
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

Capital market	Economy 2022	Key figures 2022
Debt level* (ranking)**	**GDP (ranking)**	**Tax-interest coverage (ranking)**
EUR 17.2bn (5th)	EUR 88.8bn (11th)	52.6x (3rd)
Outstanding bonds	**GDP per capita (ranking)**	**Total revenue/interest paid (ranking)**
EUR 15.2bn	EUR 34,610 (13th)	74.8x (3rd)
ESG volume	**Real GDP growth (ranking)**	**Debt/GDP (ranking)**
EUR 0.0bn	3.3% (4th)	19.4% (9th)
Bloomberg ticker	**Unemployment (ranking)**	**Debt/revenue (ranking)**
BRABUR	5.6% (8th)	1.2x (6th)

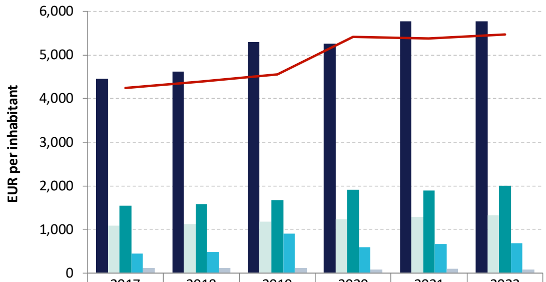
* As reported at the end of the previous year.
**Ranking of the Bundesland among the Laender for the respective key figure, where 1 is the best figure in the comparison of the Laender.
Source: Federal Statistical Office, Federal Ministry of Finance, national accounts produced by the Laender, NORD/LB Markets Strategy & Floor Research

Development of revenue in EUR per capita



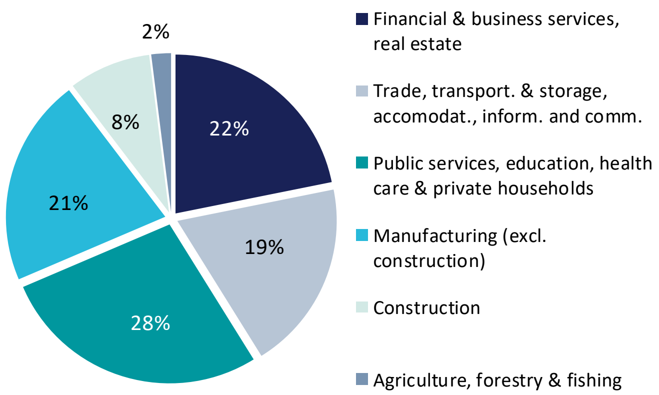
	2017	2018	2019	2020	2021	2022
Operating revenue	4,655	4,888	4,891	4,967	5,461	5,835
Tax revenue	3,050	3,246	3,303	3,238	3,730	4,099
Equalisation mechanism (net)	1,027	947	901	704	835	870
Deficit/surplus	200	263	-403	-293	-318	72
Ø of operating revenues (non-city states)	4,357	4,572	4,699	4,940	5,401	5,603

Development of expenditure in EUR per capita

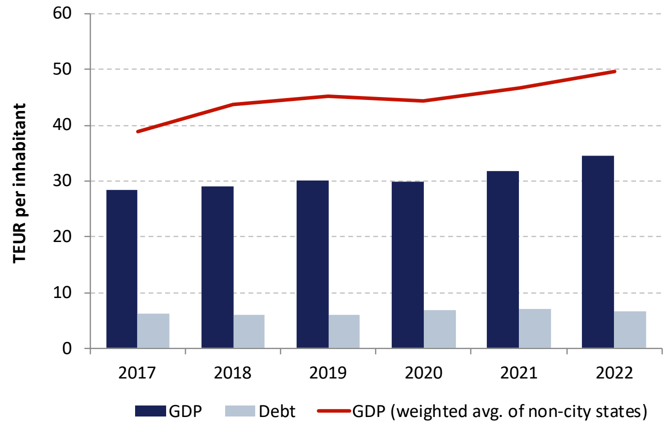


	2017	2018	2019	2020	2021	2022
Operating expense	4,455	4,626	5,294	5,260	5,779	5,763
Staff expenditure	1,087	1,127	1,181	1,231	1,290	1,331
Grants to municipals	1,547	1,571	1,672	1,902	1,899	2,010
Capital expenditure	439	479	907	585	673	690
Interest expense	120	112	107	79	98	78
Ø of operating expenses (non-city states)	4,246	4,385	4,558	5,407	5,385	5,469

Gross value added by economic sector



Trend in GDP and total debt



Source: Federal Statistical Office, Federal Ministry of Finance, national accounts produced by the Laender, NORD/LB Markets Strategy & Floor Research

Strengths/Chances

+ Solid GDP growth
+ High-level investment in economy and infrastructure
+ Good budget metrics

Weaknesses/Risks

– Demographic trend
– Below average GDP per capita

Bundesland and politics

Link to the Ministry of Finance

[Homepage]

Number of inhabitants (2022)

684,864

State capital

-

Government

SPD/Greens/Die Linke (the Left Party)

Mayor

Andreas Bovenschulte (SPD)

Expected next election date

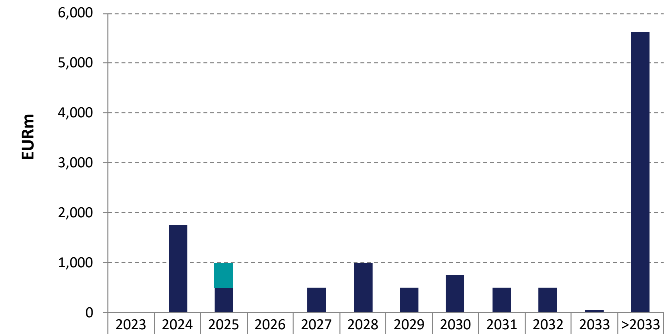
Spring 2027

Ratings	Long-term	Outlook
Fitch	AAA	stab
Moody's	-	-
S&P	-	-

Bremen

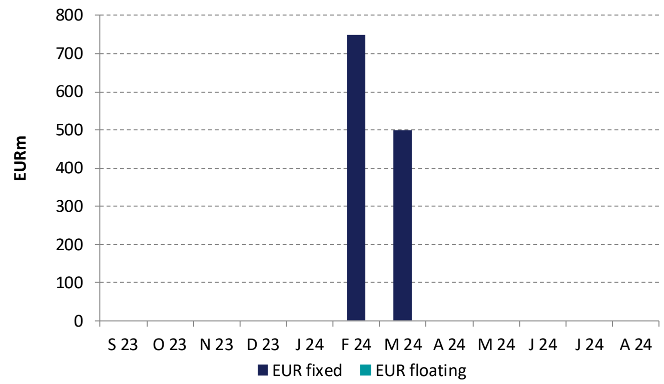
With a population of 685,000 inhabitants and covering an area of 420 km², the city state of Bremen, which actually comprises the two cities of Bremen and Bremerhaven, has the smallest population of all 16 German sub-sovereigns. Although Bremen has a long tradition of self-determination, ultimately it was due to the logistical interests of the USA that the actual Allied Power in this area (the United Kingdom) entrusted this part of the territory it occupied in the north of Germany to the Americans. Today, Bremen's port remains the second most important in Germany in economic terms, after Hamburg. Bremen's special status paved the way to its recognition as an independent Bundesland in 1947. Trade, transport and the hospitality industry are the mainstays of Bremen's economy. The automotive industry in addition to the aviation and aerospace technology sector are also major employers in Germany's smallest sub-sovereign. Bremen Technology Park, one of the largest of its kind in Germany, offers a breeding ground for these economic sectors. Bremen has a leading position in the food industry. By contrast, the ship and steel industry has been undergoing a structural transformation in recent decades and, as a result, now only plays a subordinate role. In 2022, the GDP of Bremen amounted to EUR 38.7bn, which equates to just under 1.0% of Germany's nationwide economic output. In terms of real economic growth, the Hanseatic City occupies top spot in a comparison of the Laender at +5.1%. Unemployment continues to be a real thorn in the side of Bremen. At 10.2% in 2022, this remains the highest across Germany, while unemployment is also the most common cause for over-indebtedness in the Bundesland. The exclave of Bremerhaven can be considered, in particular, as structurally weak. In comparison with 2020, however, the Hanseatic City has managed to reduce unemployment over the past two years. After an impending budget emergency was identified for Bremen in 2021, the Stability Council renewed its evaluation for 2022. Nevertheless, key metrics such as the interest-tax ratio have already been improved (also in relation to 2019).

Overall maturity profile

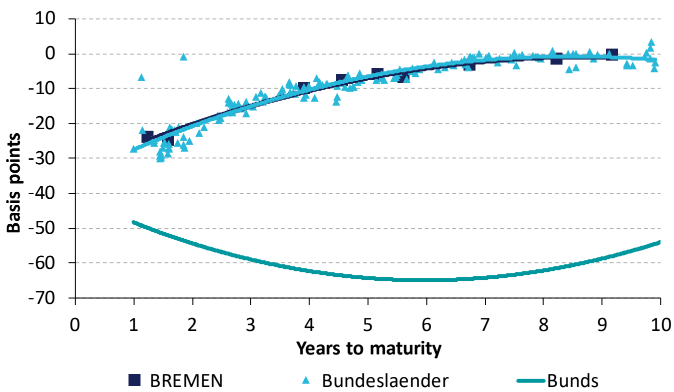


	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	>2033
EUR floating	0	0	500	0	0	0	0	0	0	0	0	0
EUR fixed	0	1,750	500	0	500	1,000	500	750	500	500	50	5,625

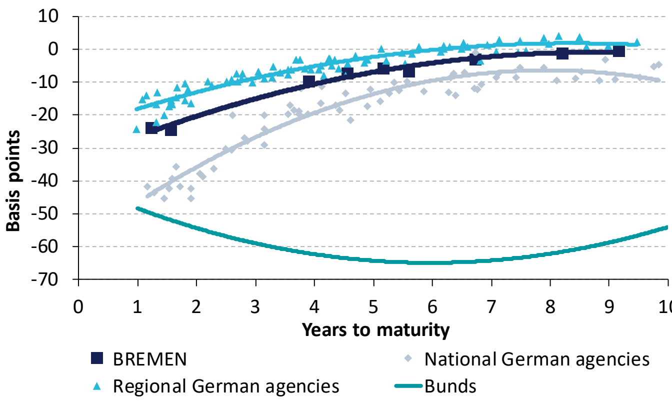
Bond amounts maturing in the next 12 months



ASW spreads vs. Bunds & peers



ASW spreads vs. German agencies



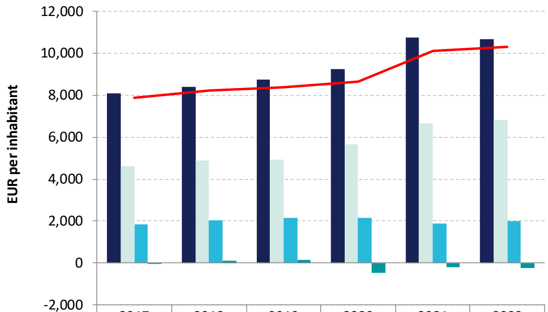
NB: Foreign currencies are converted into EUR at rates as at 07 August 2023; residual term to maturity >1 year and <10 years; outstanding volume at least EUR 0.5bn.
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

NORD/LB

Capital market	Economy 2022	Key figures 2022
Debt level* (ranking)**	**GDP (ranking)**	**Tax-interest coverage (ranking)**
EUR 22.4bn (7th)	EUR 38.7bn (16th)	8.2x (16th)
Outstanding bonds	**GDP per capita (ranking)**	**Total revenue/interest paid (ranking)**
EUR 12.2bn	EUR 56,901 (2nd)	12.8x (16th)
ESG volume	**Real GDP growth (ranking)**	**Debt/GDP (ranking)**
EUR 0.0bn	5.1% (1st)	57.9% (16th)
Bloomberg ticker	**Unemployment (ranking)**	**Debt/revenue (ranking)**
BREMEN	10.2% (16th)	3.1x (16th)

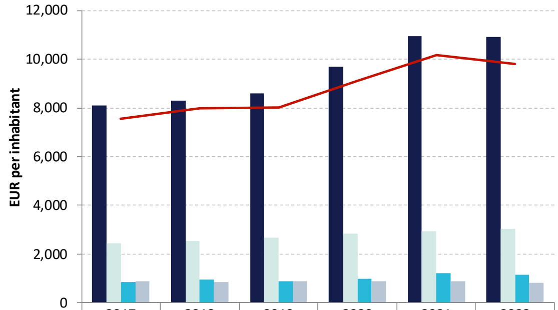
* As reported at the end of the previous year.
**Ranking of the Bundesland among the Laender for the respective key figure, where 1 is the best figure in the comparison of the Laender.
Source: Federal Statistical Office, Federal Ministry of Finance, national accounts produced by the Laender, NORD/LB Markets Strategy & Floor Research

Development of revenue in EUR per capita



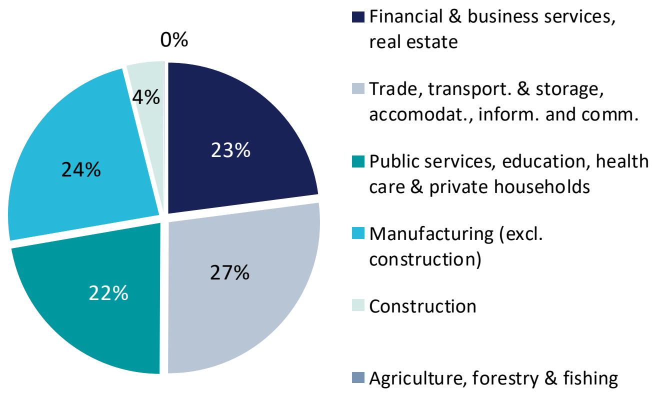
	2017	2018	2019	2020	2021	2022
Operating revenue	8,090	8,395	8,751	9,245	10,771	10,678
Tax revenue	4,610	4,898	4,950	5,654	6,654	6,828
Equalisation mechanism (net)	1,827	2,054	2,148	2,144	1,883	1,978
Deficit/surplus	-25	96	138	-456	-190	-232
Ø of operating revenues (city states)	7,871	8,221	8,386	8,652	10,106	10,332

Development of expenditure in EUR per capita

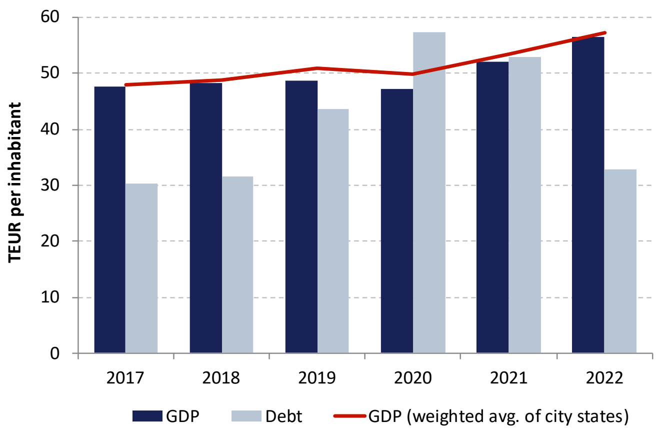


	2017	2018	2019	2020	2021	2022
Operating expense	8,115	8,299	8,613	9,701	10,961	10,910
Staff expenditure	2,442	2,527	2,686	2,836	2,956	3,033
Capital expenditure	861	945	887	985	1,204	1,167
Interest expense	903	856	882	900	880	835
Ø of operating expenses (city states)	7,541	8,001	8,002	9,094	10,167	9,819

Gross value added by economic sector



Trend in GDP and total debt



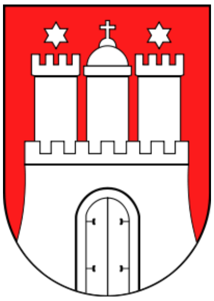
Source: Federal Statistical Office, Federal Ministry of Finance, national accounts produced by the Laender, NORD/LB Markets Strategy & Floor Research

Strengths/Chances

+ High-level economic growth
+ Strong economic output per capita
+ Comparatively positive initial demographic position

Weaknesses/Risks

– Low values for debt sustainability and interest coverage
– High expenditure in relation to population
– Highest unemployment of all Laender



Hamburg

With a population of approximately 1.9m people, the Free and Hanseatic City of Hamburg is Germany's second-largest city after Berlin. Hamburg covers a total area of 755 km², producing a population density of 2,384 inhabitants per square kilometre, meaning that it again ranks second only to Berlin in a Laender comparison for this metric. Hamburg has traditionally valued its sense of political independence and owes its economic importance to the city's port, which is among the largest of its kind in Europe. Across Europe, only the ports of Rotterdam and Antwerp handled a greater volume of container transshipments in 2022. The importance of the economic sectors involving logistics, the port and maritime trade is accordingly high. Approximately 124,000 jobs are directly dependent on the port. As a commercial, transport and services hub within Germany, Hamburg represents one of the country's most important conurbations and boasts excellent transport links. This is also reflected in the composition of Hamburg's GDP: the financial and commercial sector contribute more to the relative gross value added in Hamburg than is the case for any other Bundesland. Demographic trends in Hamburg are also relatively advantageous. The only other sub-sovereign with a higher proportion of the overall population aged between 25 and 45 is Berlin, while the proportion of over 65s is the lowest in Germany. This gives rise to a comparatively positive outlook for demographic trends in Hamburg. Alongside the city's internal potential, the international profile of the city has now been promoted for a number of years. However, it is not only the tourism sector that has benefited from this; the Hanseatic city has in the meantime also become the preferred location for Chinese companies establishing a presence in continental Europe as a result. In addition to the stunning Elbphilharmonie concert hall, Hamburg is also becoming more popular as a location for conferences and trade fairs. In 2022, Hamburg's economy generated 3.7% of German economic output. For years now, Hamburg has generated the highest GDP per capita of all Laender (2022: EUR 76,910; national average: EUR 45,993). Once again, therefore, several aspects of life in the north remain top level – with the unfortunate exception of the city's two football teams!

Bundesland and politics

Link to the Ministry of Finance
Homepage

Number of inhabitants (2022)
1,892,122

State capital
-

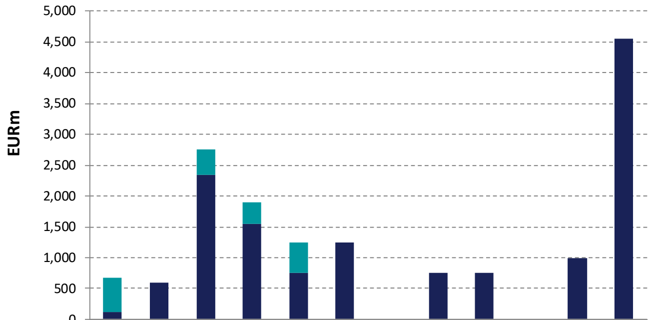
Government
SPD/Greens

Minister-President
Peter Tschentscher (SPD)

Expected next election date
Spring 2025

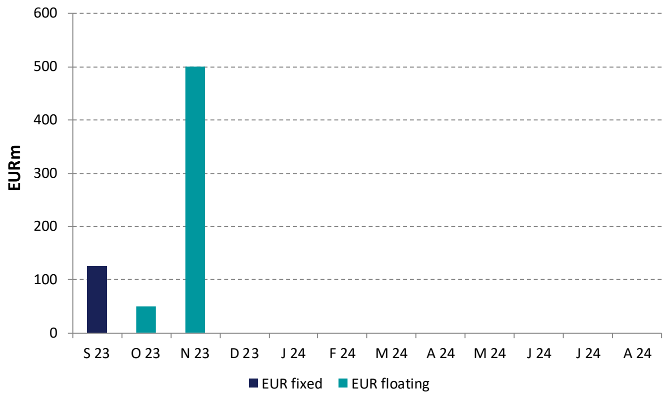
Ratings	Long-term	Outlook
Fitch	AAA	stab
Moody's	-	-
S&P	-	-

Overall maturity profile

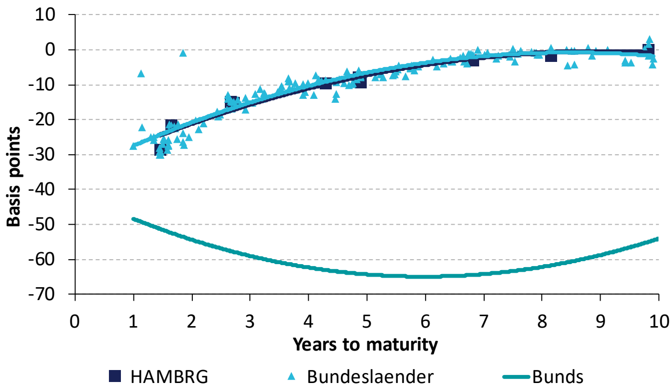


	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	>2033
EUR floating	550	0	400	350	500	0	0	0	0	0	0	0
EUR fixed	125	600	2,350	1,550	750	1,250	0	750	750	0	1,000	4,550

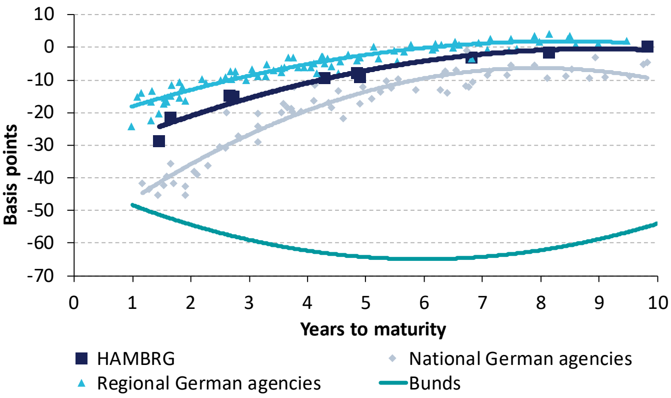
Bond amounts maturing in the next 12 months



ASW spreads vs. Bunds & peers



ASW spreads vs. German agencies



NB: Foreign currencies are converted into EUR at rates as at 07 August 2023; residual term to maturity >1 year and <10 years; outstanding volume at least EUR 0.5bn.
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

NORD/LB

Capital market

Debt level* (ranking)**

EUR 25.1bn (9th)

Outstanding bonds

EUR 15.5bn

ESG volume

EUR 0.0bn

Bloomberg ticker

HAMBRG

Economy 2022

GDP (ranking)

EUR 144.2bn (9th)

GDP per capita (ranking)

EUR 76,910 (1st)

Real GDP growth (ranking)

4.5% (3rd)

Unemployment (ranking)

6.8% (11th)

Key figures 2022

Tax-interest coverage (ranking)

44.4x (5th)

Total revenue/interest paid (ranking)

57.7x (7th)

Debt/GDP (ranking)

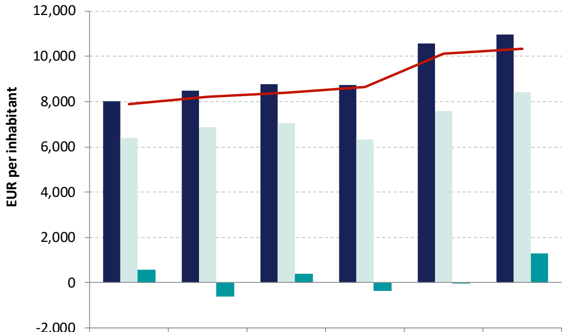
17.4% (7th)

Debt/revenue (ranking)

1.2x (7th)

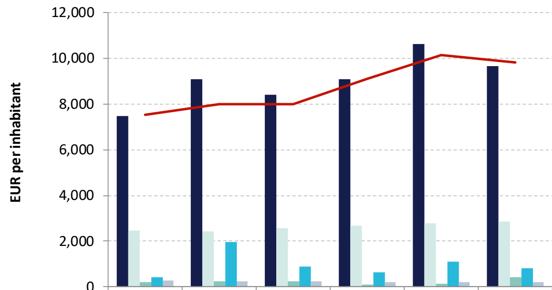
* As reported at the end of the previous year.
**Ranking of the Bundesland among the Laender for the respective key figure, where 1 is the best figure in the comparison of the Laender.
Source: Federal Statistical Office, Federal Ministry of Finance, national accounts produced by the Laender, NORD/LB Markets Strategy & Floor Research

Development of revenue in EUR per capita



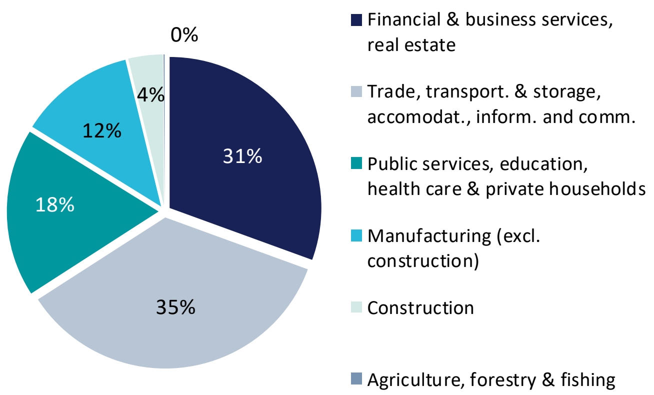
	2017	2018	2019	2020	2021	2022
Operating revenue	8,032	8,495	8,770	8,751	10,583	10,957
Tax revenue	6,412	6,853	7,039	6,307	7,587	8,428
Deficit/surplus	557	-614	374	-354	-36	1,300
Ø of operating revenues (city states)	7,871	8,221	8,386	8,652	10,106	10,332

Development of expenditure in EUR per capita

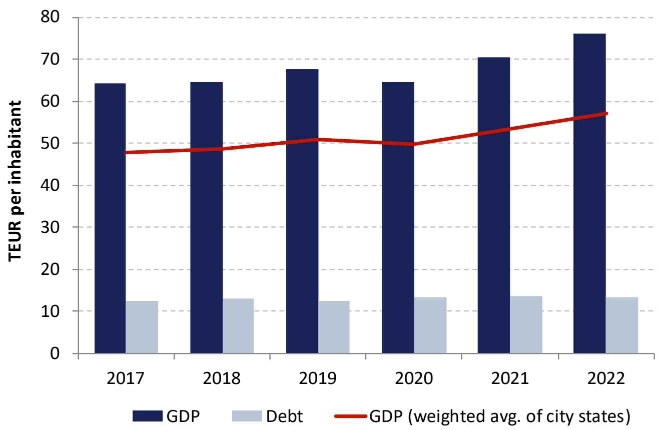


	2017	2018	2019	2020	2021	2022
Operating expense	7,474	9,109	8,395	9,106	10,618	9,657
Staff expenditure	2,449	2,443	2,557	2,668	2,771	2,847
Equalisation mechanism (net)	197	244	253	93	124	430
Capital expenditure	406	1,949	888	647	1,116	828
Interest expense	276	244	242	216	203	190
Ø of operating expenses (city states)	7,541	8,001	8,002	9,094	10,167	9,819

Gross value added by economic sector



Trend in GDP and total debt



Source: Federal Statistical Office, Federal Ministry of Finance, national accounts produced by the Laender, NORD/LB Markets Strategy & Floor Research

Strengths/Chances

+ Economic power in relation to population
+ Prospering foreign trade
+ Comparatively positive initial demographic position
+ High tax revenues in relation to population

Weaknesses/Risks

– Room for improvement re: unemployment
– Debt level in relation to population

Bundesland and politics

Link to the Ministry of Finance

[Homepage]

Number of inhabitants (2022)

6,391,360

State capital

Wiesbaden

Government

CDU/Greens

Minister-President

Boris Rhein (CDU)

Expected next election date

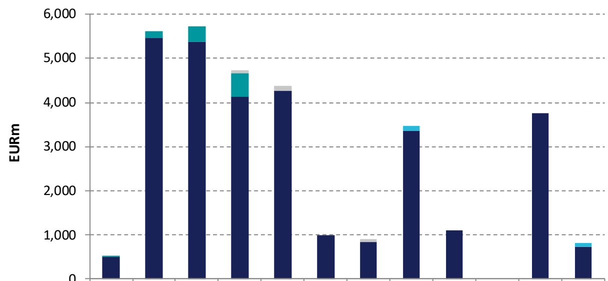
08 October 2023

Ratings	Long-term	Outlook
Fitch	-	-
Moody's	-	-
S&P	AA+	stab

Hesse

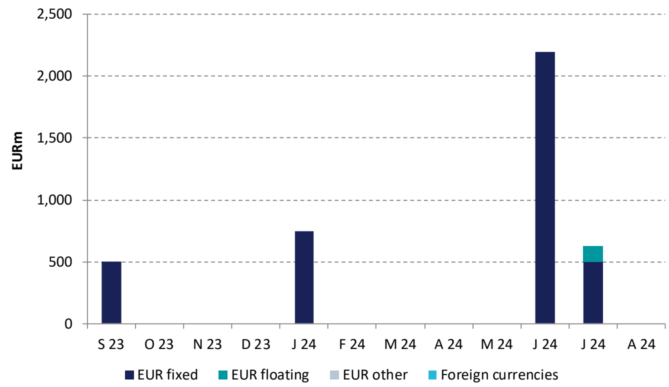
With approximately 6.4m inhabitants, Hesse is one of the most populous Laender in Germany. Covering an area of 21,116 km², only three other non-city states have a higher population density than Hesse. Its economy is heavily diversified, with manufacturing industries (excluding construction), trade, hospitality and transport, in addition to both public and private service providers, all generating a similarly high level of gross value added respectively. The chemicals, metal processing and automotive industries predominate in northern Hesse. Trading companies, in particular, benefit from Frankfurt Airport's role as one of the most important air traffic hubs in Europe (freight and passenger transport) in conjunction with the highly developed transport infrastructure. The economy is nevertheless dominated by finance, leasing and corporate services. As the largest city in Hesse, the international financial centre of Frankfurt is also a focus of the Land's financial sector. It is here that, among other organisations, the European Central Bank (ECB), the European Insurance and Occupational Pensions Authority (EIOPA) and the German stock exchange are headquartered. The importance of this financial hub is potentially set to be increased further as foreign banks and financial services providers (continue to) relocate to Frankfurt in the wake of the United Kingdom's withdrawal from the EU (Brexit). In order to confront global challenges such as global warming, scarcity of resources and the digital transformation, a new innovation programme ties in with national and international frameworks such as the European Green Deal, the Sustainable Development Goals (SDGs) of the United Nations and the high-tech strategy of the German federal government. The strategy ranges from start-up consulting and support for companies in the area of R&D, all the way through to sourcing IT equipment for schools and universities. Moreover, the innovation programme will outline how a small yet innovative municipality will be able to cut a significant portion of its greenhouse gas emissions as early as 2024 or make products more resource-efficient and sustainable through 3D printing.

Overall maturity profile

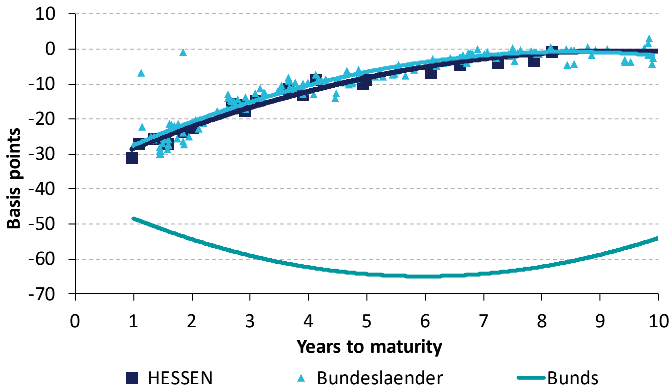


	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	>2033
Foreign currencies	0	0	0	0	0	0	0	104	0	0	0	101
EUR other	0	0	0	51	102	0	51	0	0	0	0	0
EUR floating	25	175	350	550	0	0	0	0	0	0	0	0
EUR fixed	500	5,450	5,380	4,126	4,275	1,000	850	3,360	1,100	0	3,750	720

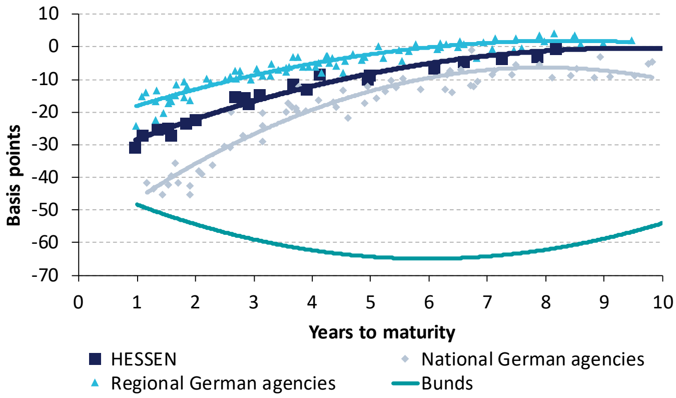
Bond amounts maturing in the next 12 months



ASW spreads vs. Bunds & peers



ASW spreads vs. German agencies



NB: Foreign currencies are converted into EUR at rates as at 07 August 2023; residual term to maturity >1 year and <10 years; outstanding volume at least EUR 0.5bn.
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

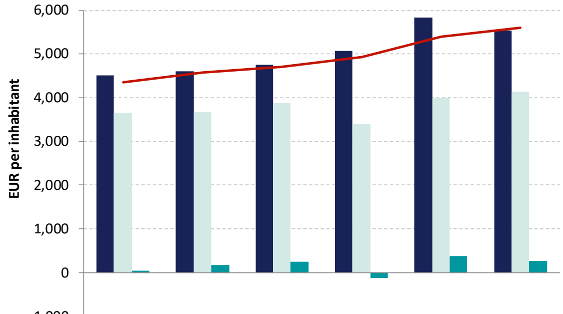
Capital market	Economy 2022	Key figures 2022
Debt level* (ranking)**	**GDP (ranking)**	**Tax-interest coverage (ranking)**
EUR 40.0bn (13th)	EUR 323.4bn (5th)	35.4x (10th)
Outstanding bonds	**GDP per capita (ranking)**	**Total revenue/interest paid (ranking)**
EUR 32.0bn	EUR 50,751 (5th)	47.3x (13th)
ESG volume	**Real GDP growth (ranking)**	**Debt/GDP (ranking)**
EUR 1.6bn	1.6% (9th)	12.4% (4th)
Bloomberg ticker	**Unemployment (ranking)**	**Debt/revenue (ranking)**
HESSE	4.8% (4th)	1.1x (5th)

* As reported at the end of the previous year.

**Ranking of the Bundesland among the Laender for the respective key figure, where 1 is the best figure in the comparison of the Laender.

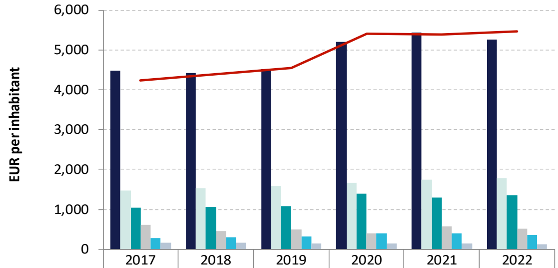
Source: Federal Statistical Office, Federal Ministry of Finance, national accounts produced by the Laender, NORD/LB Markets Strategy & Floor Research

Development of revenue in EUR per capita



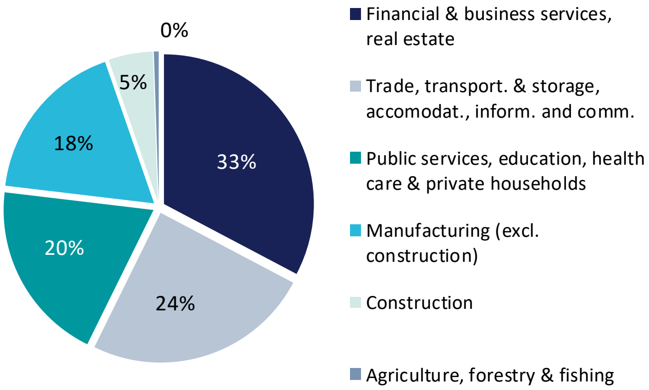
	2017	2018	2019	2020	2021	2022
Operating revenue	4,514	4,601	4,761	5,075	5,831	5,535
Tax revenue	3,660	3,665	3,881	3,387	3,991	4,134
Deficit/surplus	35	172	246	-133	384	261
Ø of operating revenues (non-city states)	4,357	4,572	4,699	4,940	5,401	5,603

Development of expenditure in EUR per capita

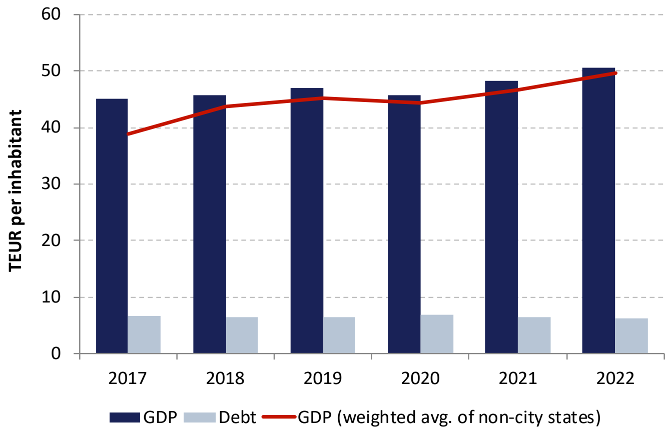


	2017	2018	2019	2020	2021	2022
Operating expense	4,479	4,429	4,515	5,208	5,447	5,273
Staff expenditure	1,480	1,536	1,596	1,672	1,738	1,775
Grants to municipals	1,045	1,056	1,074	1,402	1,300	1,356
Equalisation mechanism (net)	610	457	491	402	565	508
Capital expenditure	282	298	320	391	390	364
Interest expense	161	153	144	140	134	117
Ø of operating expenses (non-city states)	4,246	4,385	4,558	5,407	5,385	5,469

Gross value added by economic sector



Trend in GDP and total debt



Source: Federal Statistical Office, Federal Ministry of Finance, national accounts produced by the Laender, NORD/LB Markets Strategy & Floor Research

Strengths/Chances

+ Solid budget policy has reversed long history of deficits
+ Low unemployment rate

Weaknesses/Risks

– Below-average investment concentration
– Slightly below-average interest coverage
– High level of absolute debt

Bundesland and politics

Link to the Ministry of Finance

Homepage

Number of inhabitants (2022)

1,628,378

State capital

Schwerin

Government

SPD/Die Linke (the Left Party)

Minister-President

Manuela Schwesig (SPD)

Expected next election date

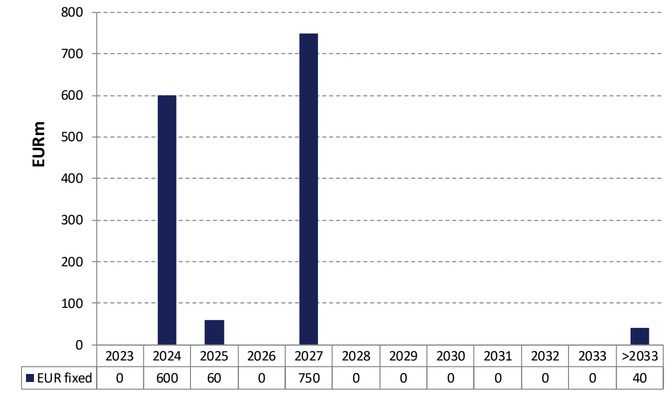
Autumn 2026

Ratings	Long-term	Outlook
Fitch	AAA	stab
Moody's	-	-
S&P	-	-

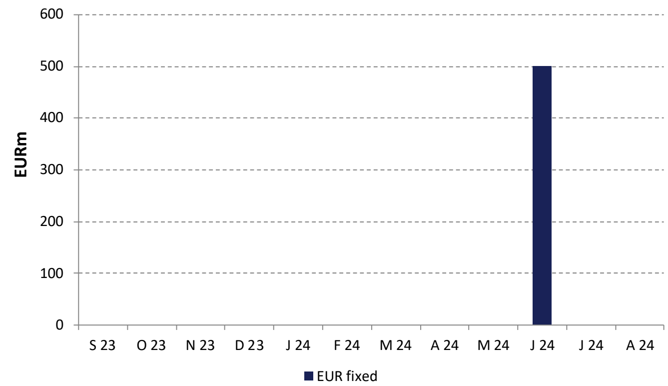
Mecklenburg-Western Pomerania

With a population of 1.6m inhabitants and covering an area of 23,295 km^2, Mecklenburg-Western Pomerania is the most sparsely populated Land. It has existed in its present form since the reunification of Germany (aside from the cession of Amt Neuhaus back to Lower Saxony in 1993) and is characterised by a large number of islands (794) and its long Baltic Sea and Bodden (briny lagoons) coastline, 1,945 km in total. As a result, tourism plays a vital role in the local economy. Tourism intensity in 2022 with 19,700 overnight stays per 1,000 permanent residents was once again higher in Mecklenburg-Western Pomerania than in any other Land. The role of agriculture, forestry and fishing is also comparatively high; these industries contribute more as a percentage of GDP than in any of the other Laender. However, public services also contribute more to gross value added in Mecklenburg-Western Pomerania than in any other Land. Shipping and the economic sectors associated with this are still significant. For example, according to information in our NORD/LB Regional Economy report, several businesses operating in this sector are ranked among the 100 biggest companies across the Land as a whole. The Land is also increasingly trying to gain a foothold in the field of future technologies. The main drivers here are the two universities in Rostock and Greifswald, with the Wendelstein 7-X nuclear reactor located at the University of Greifswald since November 2015 for research purposes. In addition, the Land is traditionally well-represented in the aerospace sector. Owing to its extensive stretch of coastline, renewable energies are also playing an increasingly important role. More than 70% of all electricity generated is now obtained from renewable sources. For example, the Lüttow-Valluhn solar park, which was newly opened on 07 September 2022, should save just under 6,000 tons of CO_2 per year. In 2022, Mecklenburg-Western Pomerania generated GDP of EUR 53.4bn, which corresponds to 1.3% of total German economic output. As such, GDP per capita is lower than in any other Land. However, it should also be stressed that the budget situation had been continuously improved in the years before the Covid-19 pandemic. This is reflected by the relatively low debt per capita metric.

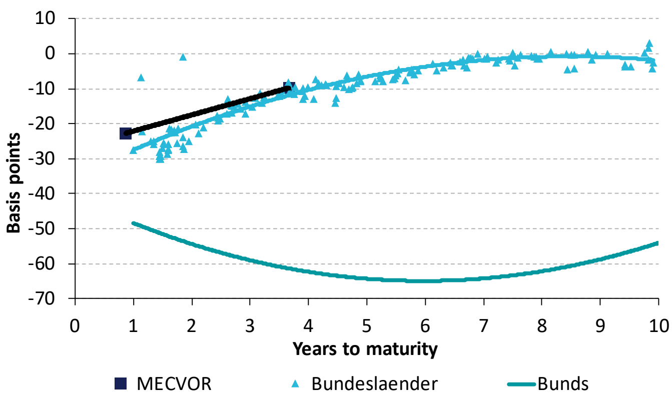
Overall maturity profile



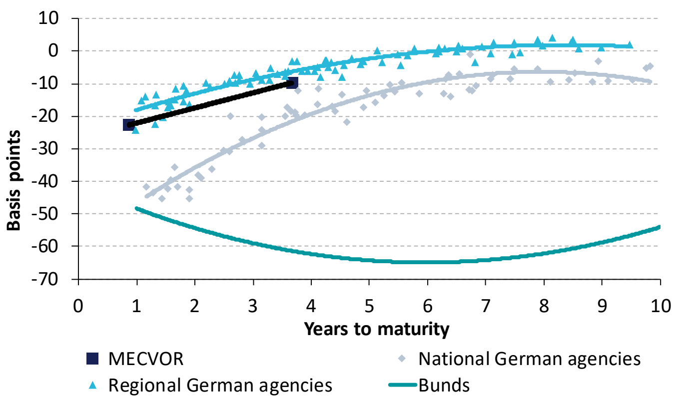
Bond amounts maturing in the next 12 months



ASW spreads vs. Bunds & peers



ASW spreads vs. German agencies



NB: Foreign currencies are converted into EUR at rates as at 07 August 2023; residual term to maturity >1 year and <10 years; outstanding volume at least EUR 0.5bn.
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

NORD/LB

Capital market

Debt level* (ranking)**

EUR 8.2bn (2nd)

Outstanding bonds

EUR 1.5bn

ESG volume

EUR 0.0bn

Bloomberg ticker

MECVOR

Economy 2022

GDP (ranking)

EUR 53.4bn (14th)

GDP per capita (ranking)

EUR 32,837 (16th)

Real GDP growth (ranking)

0.2% (15th)

Unemployment (ranking)

7.3% (14th)

Key figures 2022

Tax-interest coverage (ranking)

41.9x (7th)

Total revenue/interest paid (ranking)

69.4x (5th)

Debt/GDP (ranking)

15.4% (5th)

Debt/revenue (ranking)

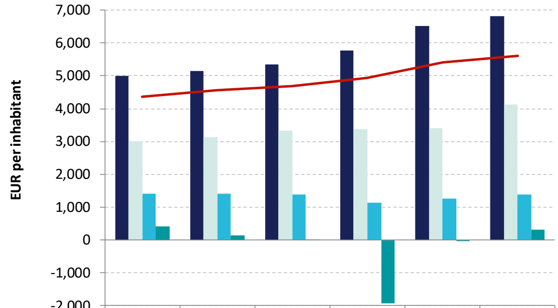
0.7x (4th)

* As reported at the end of the previous year.

**Ranking of the Bundesland among the Laender for the respective key figure, where 1 is the best figure in the comparison of the Laender.

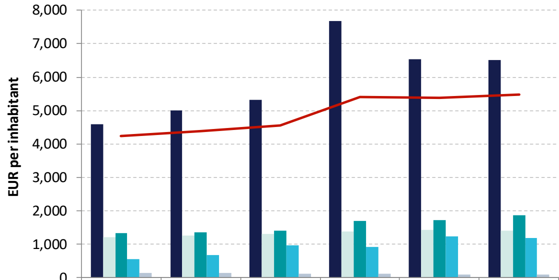
Source: Federal Statistical Office, Federal Ministry of Finance, national accounts produced by the Laender, NORD/LB Markets Strategy & Floor Research

Development of revenue in EUR per capita



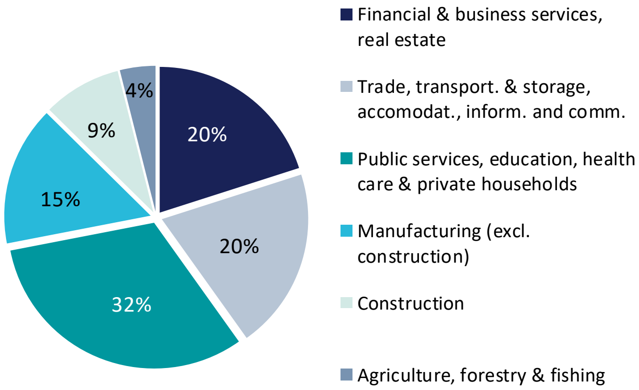
	2017	2018	2019	2020	2021	2022
Operating revenue	5,006	5,157	5,337	5,764	6,522	6,819
Tax revenue	2,996	3,123	3,333	3,369	3,402	4,117
Equalisation mechanism (net)	1,419	1,422	1,397	1,131	1,266	1,377
Deficit/surplus	420	147	16	-1,923	-11	317
Ø of operating revenues (non-city states)	4,357	4,572	4,699	4,940	5,401	5,603

Development of expenditure in EUR per capita

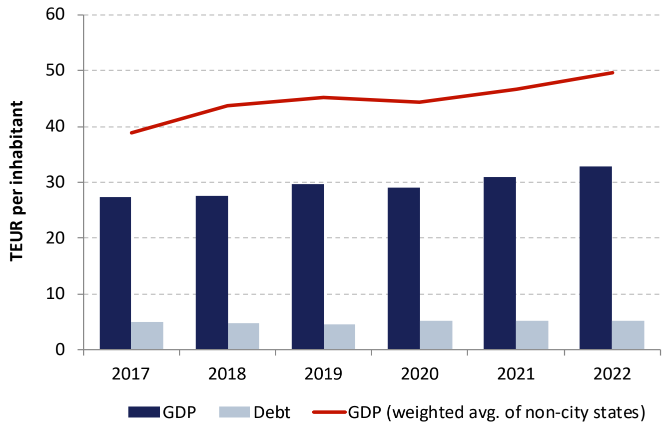


	2017	2018	2019	2020	2021	2022
Operating expense	4,586	5,010	5,321	7,687	6,533	6,502
Staff expenditure	1,217	1,263	1,312	1,386	1,431	1,399
Grants to municipals	1,329	1,351	1,394	1,686	1,729	1,858
Capital expenditure	546	664	959	909	1,246	1,176
Interest expense	140	132	123	120	103	98
Ø of operating expenses (non-city states)	4,246	4,385	4,558	5,407	5,385	5,469

Gross value added by economic sector



Trend in GDP and total debt



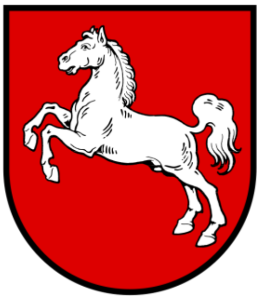
Source: Federal Statistical Office, Federal Ministry of Finance, national accounts produced by the Laender, NORD/LB Markets Strategy & Floor Research

Strengths/Chances

+ Above-average revenues in relation to number of inhabitants
+ Very solid debt sustainability and interest coverage metrics
+ Low debt level

Weaknesses/Risks

– Low economic output (both in absolute terms and per capita)
– Unemployment is above average



Lower Saxony

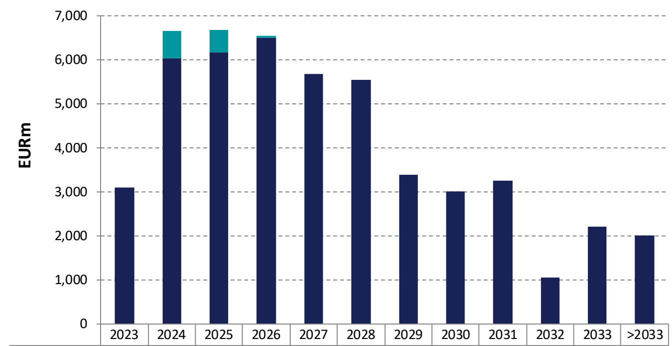
Formed from the regions of Hanover, Oldenburg, Brunswick and Schaumburg-Lippe in 1946, Lower Saxony is Germany's second-largest Bundesland, covering an area of approximately 47,710 km². Its population of just over 8.1m people is exceeded by only three other Laender. The population of Lower Saxony features an above-average proportion of inhabitants aged 6-15, which must be rated as a relative advantage given the general demographic trend in evidence across Germany as a whole. The economy is dominated by the automotive industry and its suppliers, which are located across the region with a focus on the areas around Hanover, Braunschweig, Wolfsburg, Salzgitter and Emden. More than a quarter of Lower Saxony's GDP is generated by manufacturing industries. The importance of this economic sector is therefore only higher in three other Laender. Lower Saxony's highly developed infrastructure is of great advantage in this regard, with the Land actually boasting the most extensive rail network of all Laender across Germany. Home to the largest exhibition site in the world, Hanover plays host to globally leading industrial trade fairs, including, for example, Hannover Messe, Domotex, EuroBlech, IAA Transportation, among others. As the state capital, Hanover is therefore an important location for current and future technologies at international level. Traditionally, agriculture is also a key sector of the economy in Lower Saxony. In fact, only in Bavaria is gross value added in absolute terms higher for this sector. Lower Saxony also ranks among the leading Bundeslaender in terms of its use of renewable energies. As part of Germany's efforts to reduce its dependency on Russian gas, a liquefied natural gas (LNG) terminal was put into operation at the end of 2022. Located in Wilhelmshaven on the Jade Bight of the North Sea coast, this was the first such LNG terminal in Germany, and has now been supplemented by another in Brunsbüttel, which was opened in March 2023. Stade is set to become the third LNG site in Germany by the end of 2023. As such, Lower Saxony is assuming a leading role in solving a nationwide issue, with implications for the whole of Germany. In 2022, Lower Saxony generated 8.8% of German GDP, which is the fourth highest contribution of all Bundeslaender.

Bundesland and politics

Link to the Ministry of Finance
Homepage
Number of inhabitants (2022)
8,140,242
State capital
Hanover
Government
SPD/CDU
Minister-President
Stephan Weil (SPD)
Expected next election date
Autumn 2027

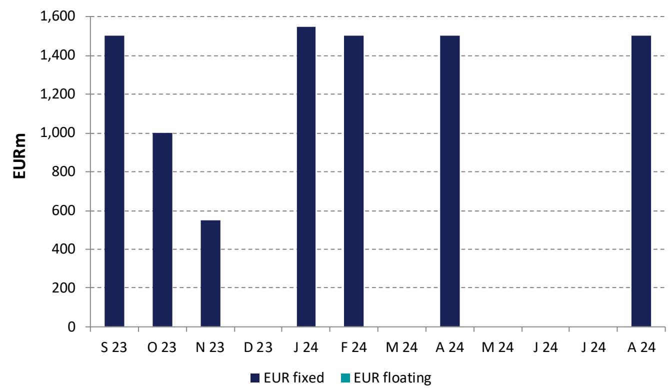
Ratings	Long-term	Outlook
Fitch	AAA	stab
Moody's	-	-
S&P	-	-

Overall maturity profile

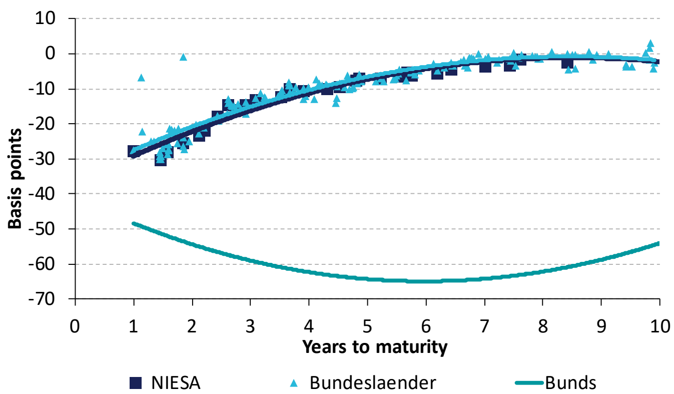


	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	>2033
EUR floating	0	625	500	50	0	0	0	0	0	0	0	0
EUR fixed	3,100	6,050	6,185	6,500	5,675	5,550	3,390	3,000	3,250	1,050	2,200	2,000

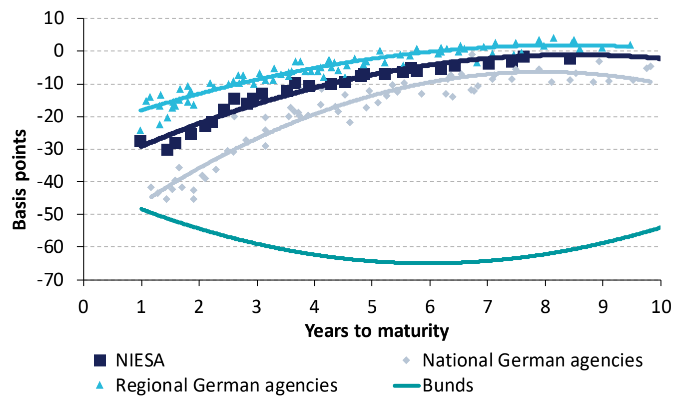
Bond amounts maturing in the next 12 months



ASW spreads vs. Bunds & peers



ASW spreads vs. German agencies

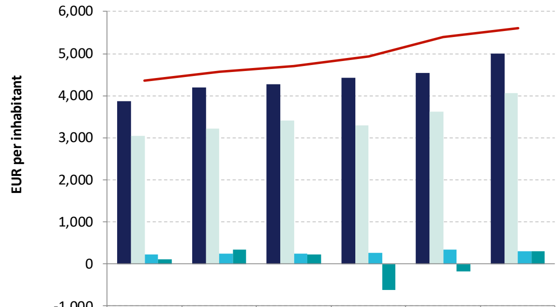


NB: Foreign currencies are converted into EUR at rates as at 07 August 2023; residual term to maturity >1 year and <10 years; outstanding volume at least EUR 0.5bn.
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

Capital market	Economy 2022	Key figures 2022
Debt level* (ranking)**	**GDP (ranking)**	**Tax-interest coverage (ranking)**
EUR 59.9bn (15th)	EUR 339.4bn (4th)	40.3x (8th)
Outstanding bonds	**GDP per capita (ranking)**	**Total revenue/interest paid (ranking)**
EUR 49.1bn	EUR 41,826 (8th)	49.6x (10th)
ESG volume	**Real GDP growth (ranking)**	**Debt/GDP (ranking)**
EUR 0.0bn	1.1% (13th)	17.7% (8th)
Bloomberg ticker	**Unemployment (ranking)**	**Debt/revenue (ranking)**
NIESA	5.3% (6th)	1.5x (10th)

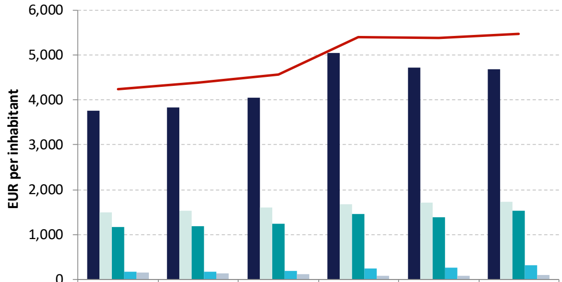
* As reported at the end of the previous year.
**Ranking of the Bundesland among the Laender for the respective key figure, where 1 is the best figure in the comparison of the Laender.
Source: Federal Statistical Office, Federal Ministry of Finance, national accounts produced by the Laender, NORD/LB Markets Strategy & Floor Research

Development of revenue in EUR per capita



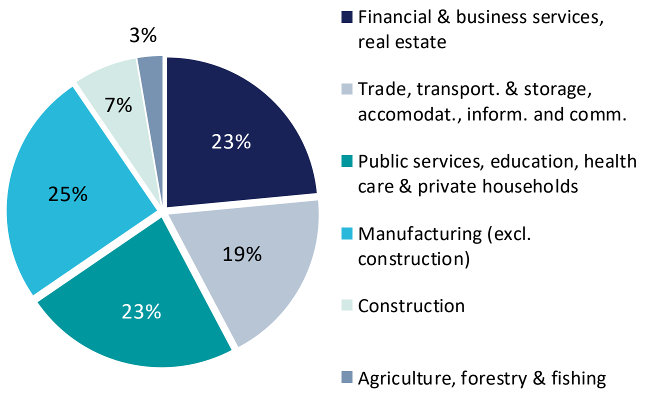
	2017	2018	2019	2020	2021	2022
Operating revenue	3,870	4,187	4,277	4,435	4,547	4,996
Tax revenue	3,040	3,222	3,403	3,301	3,630	4,055
Equalisation mechanism (net)	221	248	247	261	340	313
Deficit/surplus	105	349	225	-614	-177	312
Ø of operating revenues (non-city states)	4,357	4,572	4,699	4,940	5,401	5,603

Development of expenditure in EUR per capita

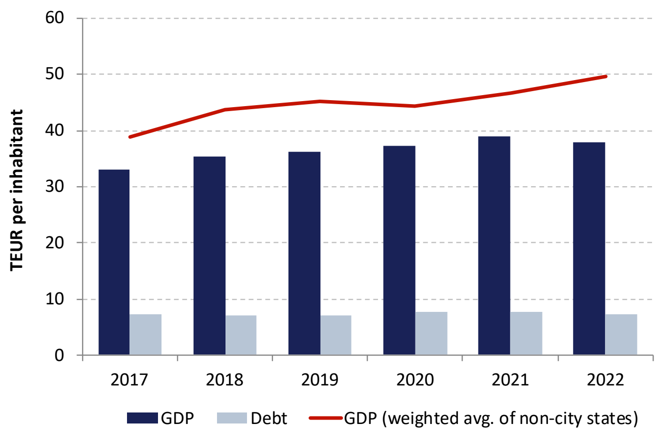


	2017	2018	2019	2020	2021	2022
Operating expense	3,765	3,837	4,052	5,049	4,724	4,684
Staff expenditure	1,490	1,535	1,602	1,671	1,708	1,735
Grants to municipals	1,158	1,177	1,239	1,453	1,381	1,533
Capital expenditure	163	161	192	251	267	306
Interest expense	146	133	123	75	72	101
Ø of operating expenses (non-city states)	4,246	4,385	4,558	5,407	5,385	5,469

Gross value added by economic sector



Trend in GDP and total debt



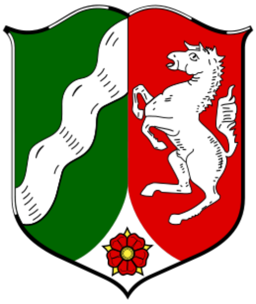
Source: Federal Statistical Office, Federal Ministry of Finance, national accounts produced by the Laender, NORD/LB Markets Strategy & Floor Research

Strengths/Chances

+ Solid budgetary development
+ Low expenditure relative to the number of inhabitants
+ Low unemployment rate

Weaknesses/Risks

– High interest expenses
– Below-average revenues in relation to population
– Relatively high debt level



North Rhine-Westphalia

North Rhine-Westphalia (NRW) has existed since 1947. With a population of 18.1m people, it is Germany's most populous sub-sovereign. In addition, NRW covers a total area of almost 34,112 km², making it the most densely populated of all the non-city states in Germany. The population has been increasing over the past few years, with this growth based on a positive balance in migratory movements. Forecasts nevertheless suggest that the population will begin to decrease over the next few decades. However, the influx of immigrants does present the Land with an opportunity to counteract its problems related to demographic trends. NRW has developed its strong economic position over the course of several decades. Since the beginning of the 1960s, NRW has transitioned from a region shaped by mining and heavy industry – albeit the Ruhr Metropolis is still the most industrialised region in Europe – in the direction of an economy geared towards a modern service sector. In 2022, a total of 7.5m people in NRW were employed in this sector, with this number having doubled since 1970. At 6.8%, unemployment is above the average across Germany as a whole (5.3%). In response to future challenges, NRW has established an interdisciplinary working group in the form of the "Economy & Work 4.0" initiative, with the aim of promoting development and innovation processes. For example, NRW is scheduled to be the first Land to have a comprehensive network of fibre-optic technology by 2026. The Land has also defined ambitious goals in the area of climate protection. By 2030, the aim is to cut greenhouse gas emissions by 65% in comparison with 1990, and by 88% by 2040. Thereafter, from 2045, NRW expects to be carbon-neutral. NRW has always generated a large portion of Germany's overall GDP, although this share has been on the slide for a few years now. With GDP of EUR 793.8bn in 2022, a total of 20.5% of German economic output was generated in NRW. Prior to the pandemic and flood disasters that struck the region in the summer of 2021, NRW was well on its way to consolidating its budget with a second consecutive surplus in the billions. Since 2010, NRW has always been a recipient under the terms of the old financial equalisation system among the Laender. Under the Financial Power Equalisation (FKA) framework, NRW received a total of EUR 1.2bn in 2022.

Bundesland and politics

Link to the Ministry of Finance
Homepage

Number of inhabitants (2022)
18,139,116

State capital
Düsseldorf

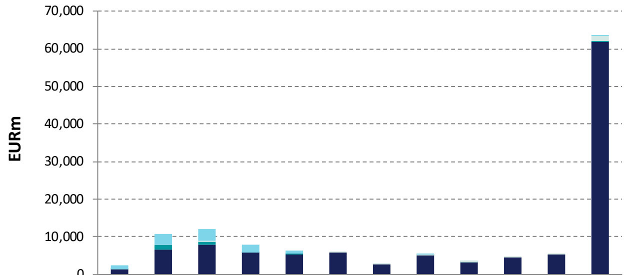
Government
CDU/Greens

Minister-President
Hendrik Wüst

Expected next election date
Spring 2027

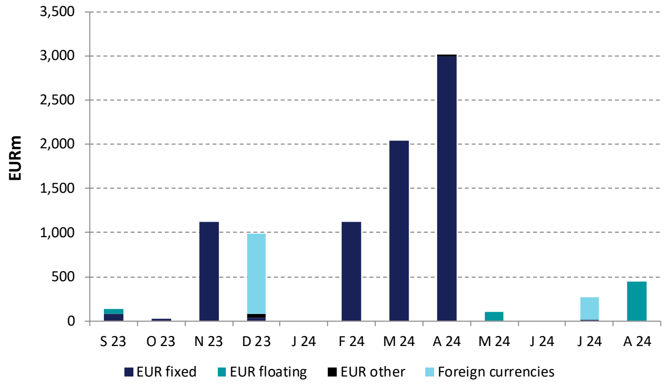
Ratings	Long-term	Outlook
Fitch	AAA	stab
Moody's	Aa1	stab
S&P	AA	stab

Overall maturity profile

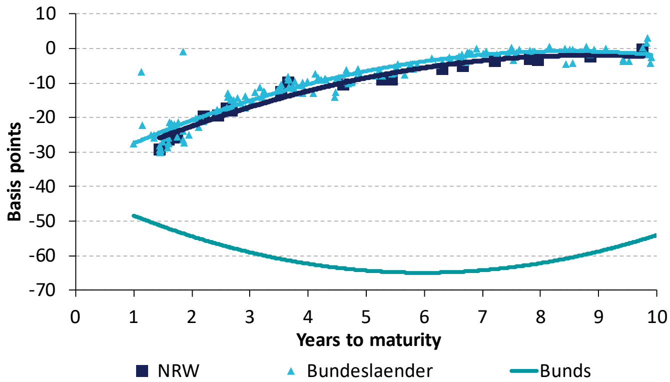


	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	>2033
Foreign currencies	910	2,865	3,196	2,027	744	0	0	104	0	0	0	370
EUR other	50	25	175	0	10	10	71	305	365	80	60	1,075
EUR floating	50	1,200	750	40	300	0	0	100	100	0	0	272
EUR fixed	1,277	6,588	7,912	5,876	5,325	5,838	2,655	4,925	3,200	4,500	5,165	61,946

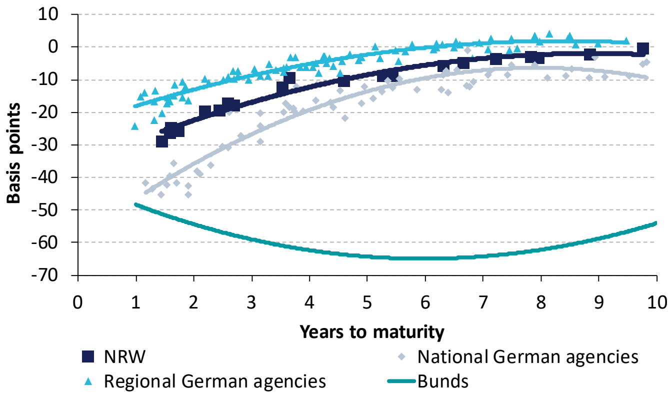
Bond amounts maturing in the next 12 months



ASW spreads vs. Bunds & peers



ASW spreads vs. German agencies



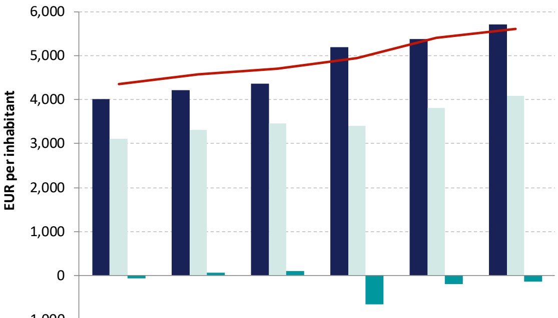
NB: Foreign currencies are converted into EUR at rates as at 07 August 2023; residual term to maturity >1 year and <10 years; outstanding volume at least EUR 0.5bn.
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

NORD/LB

Capital market	Economy 2022	Key figures 2022
Debt level* (ranking)**	**GDP (ranking)**	**Tax-interest coverage (ranking)**
EUR 162.2bn (16th)	EUR 793.8bn (1st)	51.7x (4th)
Outstanding bonds	**GDP per capita (ranking)**	**Total revenue/interest paid (ranking)**
EUR 130.5bn	EUR 43,910 (7th)	72.3x (4th)
ESG volume	**Real GDP growth (ranking)**	**Debt/GDP (ranking)**
EUR 20.8bn	1.1% (14th)	20.4% (10th)
Bloomberg ticker	**Unemployment (ranking)**	**Debt/revenue (ranking)**
NRW	6.8% (11th)	1.6x (11th)

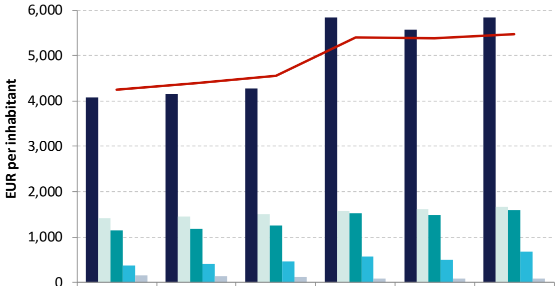
* As reported at the end of the previous year.
**Ranking of the Bundesland among the Laender for the respective key figure, where 1 is the best figure in the comparison of the Laender.
Source: Federal Statistical Office, Federal Ministry of Finance, national accounts produced by the Laender, NORD/LB Markets Strategy & Floor Research

Development of revenue in EUR per capita



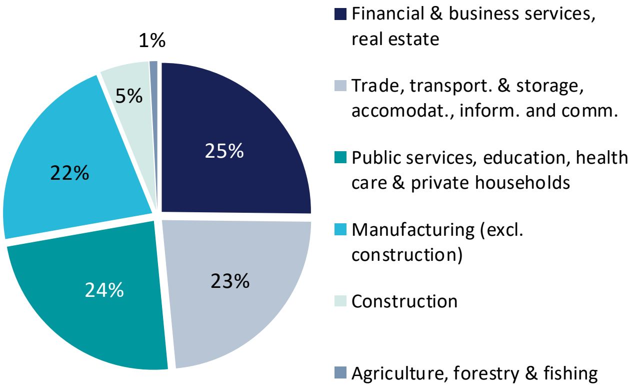
	2017	2018	2019	2020	2021	2022
Operating revenue	4,013	4,212	4,367	5,199	5,378	5,710
Tax revenue	3,114	3,303	3,455	3,405	3,806	4,085
Deficit/surplus	-68	60	96	-648	-197	-134
Ø of operating revenues (non-city states)	4,357	4,572	4,699	4,940	5,401	5,603

Development of expenditure in EUR per capita

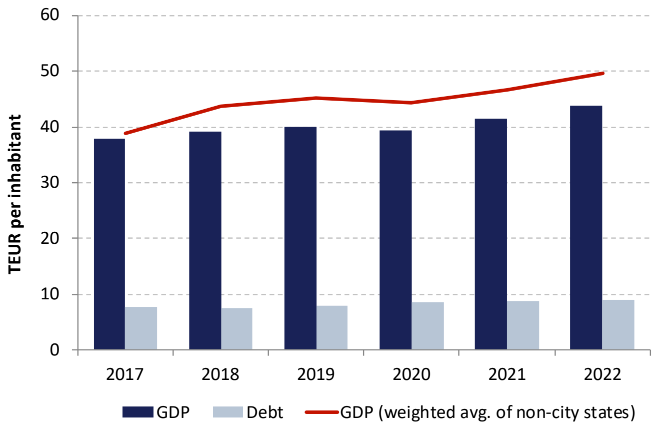


	2017	2018	2019	2020	2021	2022
Operating expense	4,082	4,153	4,271	5,847	5,575	5,844
Staff expenditure	1,419	1,446	1,513	1,579	1,618	1,675
Grants to municipals	1,140	1,181	1,246	1,531	1,494	1,603
Capital expenditure	370	410	468	566	500	679
Interest expense	148	137	112	77	88	79
Ø of operating expenses (non-city states)	4,246	4,385	4,558	5,407	5,385	5,469

Gross value added by economic sector



Trend in GDP and total debt



Source: Federal Statistical Office, Federal Ministry of Finance, national accounts produced by the Laender, NORD/LB Markets Strategy & Floor Research

Strengths/Chances

+ Solid budget performance
+ Well-diversified economy
+ Strong economic power

Weaknesses/Risks

– Above-average pension liabilities
– Below-average debt sustainability
– High unemployment in structurally weak areas

Bundesland and politics

Link to the Ministry of Finance
[Homepage]

Number of inhabitants (2022)
4,159,150

State capital
Mainz

Government
SPD/Greens/FDP

Minister-President
Malu Dreyer (SPD)

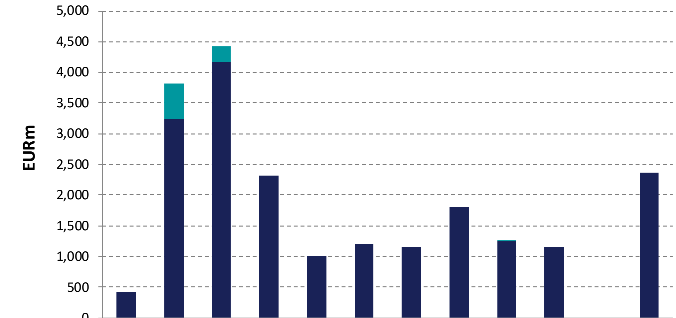
Expected next election date
Spring 2026

Ratings	Long-term	Outlook
Fitch	AAA	stab
Moody's	-	-
S&P	-	-

Rhineland-Palatinate

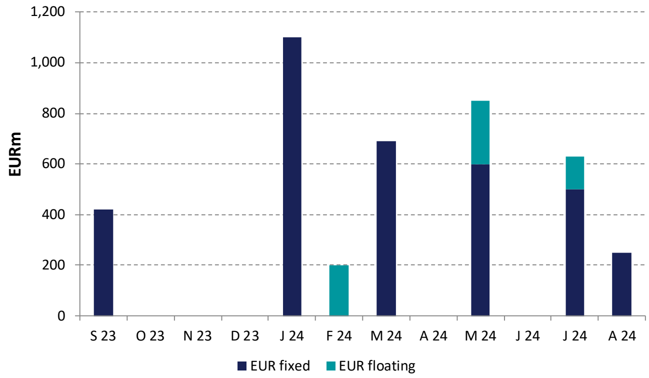
A total of seven regions were merged to form the Land of Rhineland-Palatinate on 18 May 1946, which was initially in the US occupation zone after the Second World War, before passing into the control of the French. The sub-sovereign, which has covered a total area of 19,858 km², now has a population of more than 4.2m people. Over the course of the next few decades, Rhineland-Palatinate is expected to be faced with the challenge of a declining population. Industry plays a more significant role in Rhineland-Palatinate's economy than in most other Laender. The proportion of gross value added attributable to manufacturing industries (excluding construction) is only higher in Baden-Wuert. and Bavaria. Industrial clusters can be found in various locations along the river Rhine. The chemicals sector is by far the most important branch, responsible for more than 30% of total sales in the economy of Rhineland-Palatinate. Other key sectors, albeit to a far less significant extent than the chemicals industry, include vehicle manufacturing and mechanical engineering, the production of metal products as well as rubber and plastic goods. In 2022, real GDP growth in Rhineland-Palatinate amounted to -0.2%, meaning that it was the only one of the 16 Laender where the economy contracted in real terms. However, the low unemployment rate is a positive aspect to be mentioned. At 4.6% in 2022, this was the third-lowest value across Germany. Looking to the future, Rhineland-Palatinate will primarily focus on promoting SMEs. In the past, targeted investments were made in research infrastructure in order to boost the innovative capacity of these firms. With the help of a communal debt relief fund, municipalities are also set to be freed from financial constraints linked to Kassenkredite. In 2022, Rhineland-Palatinate's economic output amounted to EUR 171.7bn, which equated to just under 4.4% of Germany's national GDP. For the second year in succession, Rhineland-Palatinate posted a positive budget balance. This is a noteworthy development in particular due to the fact that tax revenues were far lower on account of falling sales at the biotechnology firm BioNTech. In the Financial Power Equalisation (FKA) framework, Rhineland-Palatinate has also switched from recipient side to rank among the contributor Laender. This trend is expected to be consolidated over the next few years.

Overall maturity profile

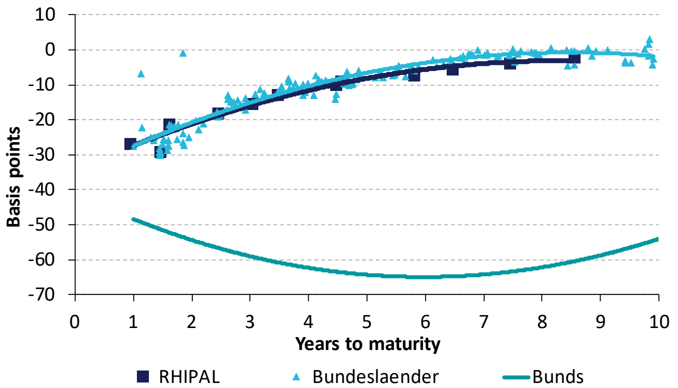


	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	>2033
EUR floating	0	580	250	0	0	0	0	0	20	0	0	0
EUR fixed	420	3,242	4,175	2,311	1,000	1,200	1,150	1,805	1,250	1,150	0	2,362

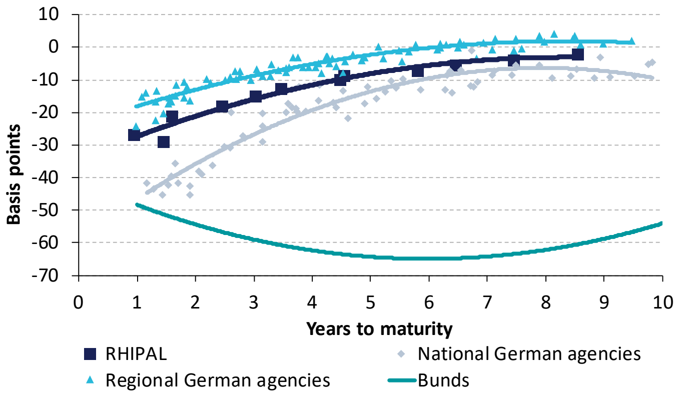
Bond amounts maturing in the next 12 months



ASW spreads vs. Bunds & peers



ASW spreads vs. German agencies

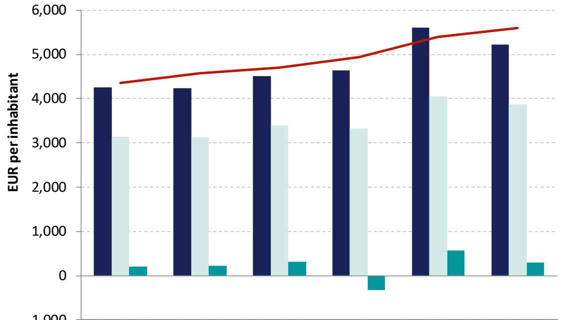


NB: Foreign currencies are converted into EUR at rates as at 07 August 2023; residual term to maturity >1 year and <10 years; outstanding volume at least EUR 0.5bn.
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

Capital market	Economy 2022	Key figures 2022
Debt level* (ranking)**	**GDP (ranking)**	**Tax-interest coverage (ranking)**
EUR 28.0bn (10th)	EUR 171.7bn (7th)	43.7x (6th)
Outstanding bonds	**GDP per capita (ranking)**	**Total revenue/interest paid (ranking)**
EUR 20.9bn	EUR 41,366 (9th)	58.8x (6th)
ESG volume	**Real GDP growth (ranking)**	**Debt/GDP (ranking)**
EUR 0.0bn	-0.2% (16th)	16.3% (6th)
Bloomberg ticker	**Unemployment (ranking)**	**Debt/revenue (ranking)**
RHIPAL	4.6% (3rd)	1.3x (9th)

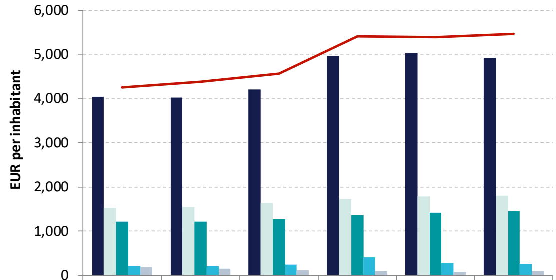
* As reported at the end of the previous year.
**Ranking of the Bundesland among the Laender for the respective key figure, where 1 is the best figure in the comparison of the Laender.
Source: Federal Statistical Office, Federal Ministry of Finance, national accounts produced by the Laender, NORD/LB Markets Strategy & Floor Research

Development of revenue in EUR per capita



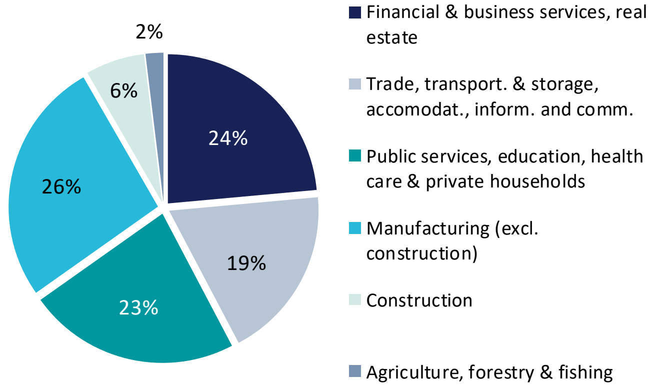
	2017	2018	2019	2020	2021	2022
Operating revenue	4,251	4,232	4,511	4,632	5,597	5,220
Tax revenue	3,145	3,125	3,404	3,327	4,051	3,875
Deficit/surplus	211	212	307	-328	559	286
Ø of operating revenues (non-city states)	4,357	4,572	4,699	4,940	5,401	5,603

Development of expenditure in EUR per capita

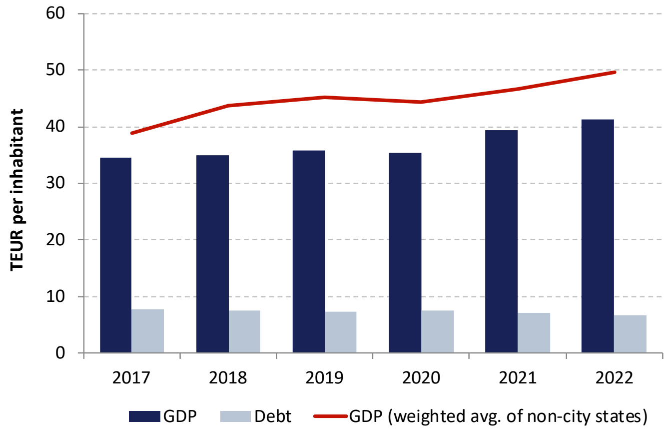


	2017	2018	2019	2020	2021	2022
Operating expense	4,041	4,020	4,204	4,960	5,038	4,934
Staff expenditure	1,522	1,545	1,638	1,723	1,778	1,808
Grants to municipals	1,216	1,213	1,269	1,363	1,421	1,462
Capital expenditure	209	207	245	403	279	251
Interest expense	184	141	116	91	81	89
Ø of operating expenses (non-city states)	4,246	4,385	4,558	5,407	5,385	5,469

Gross value added by economic sector



Trend in GDP and total debt



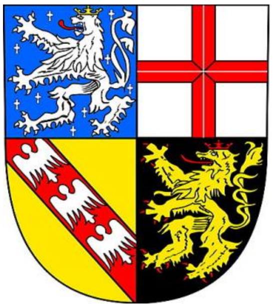
Source: Federal Statistical Office, Federal Ministry of Finance, national accounts produced by the Laender, NORD/LB Markets Strategy & Floor Research

Strengths/Chances

+ Solid budget metrics
+ Diversified economic structure
+ Low unemployment rate

Weaknesses/Risks

– Highly dependent on the chemicals industry
– Low per capita revenue basis
– Lowest economic growth of all 16 Laender



Bundesland and politics

Link to the Ministry of Finance

Homepage

Number of inhabitants (2022)

992,666

State capital

Saarbrücken

Government

SPD

Minister-President

Anke Rehlinger (SPD)

Expected next election date

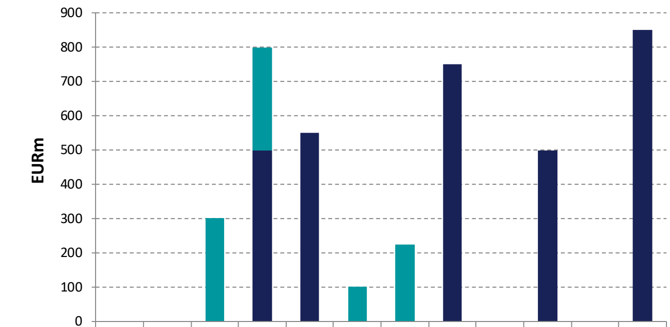
Spring 2027

Ratings	Long-term	Outlook
Fitch	AAA	stab
Moody's	-	-
S&P	-	-

Saarland

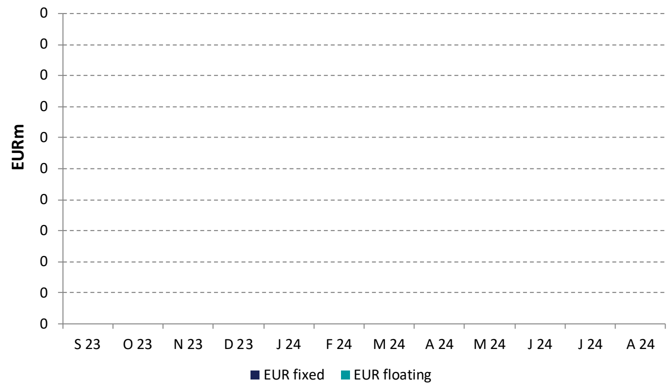
Covering an area of just 2,571 km², Saarland is the smallest sub-sovereign in Germany (excluding the city states). At the same time, its overall population of just under one million people means that it is virtually twice as densely populated as the adjacent Land of Rhineland-Palatinate. Saarland is the youngest of the western German Laender: after the Second World War, Saarland was initially a French protectorate until 1949 and an autonomous region until 1957, before it was incorporated within the Federal Republic of Germany. Saarland has the highest property ownership rate and the most cars per thousand inhabitants. The most important industries in Saarland are the steel, mechanical engineering and vehicle industries, with all of these sectors recording sales growth in the first nine months of 2022. The steel industry in particular recorded an increase of +37.9% as a result of a global boom in demand. The mechanical engineering industry recorded growth of +14.7%, likewise driven by increased demand. The third core industry in Saarland – automotive manufacturing – recorded positive growth as well. Industry sales of EUR 5.6bn reflected year-on-year growth of +5.9%. According to data from the German Association of the Automotive Industry (VDA), 3.5 million vehicles were manufactured in Germany in 2022 – corresponding to growth of +12.4% versus 2021. However, supply chain difficulties continue to pose a problem for the supplier industry in Saarland as well. The GDP of Saarland rose by EUR +2.4bn to EUR 38.5bn in the previous year, although the budget balance fell sharply to EUR -2,396m (2021: EUR 190m). Over the past decade, the budget balance per capita has never been higher than in 2021. After attaining a positive value in the previous year, a negative budget balance per capita was recorded for 2022 (EUR -2,414). This is the weakest value in a comparison of the Laender. Aside from the three city states, Saarland has the highest per capita debt level of EUR 13,127. In terms of key budget metrics such as tax-interest coverage and the ratio of total revenue to interest paid, Saarland again ranks towards the bottom of the Laender table. At 6.3%, unemployment is higher than the national average of 5.3%.

Overall maturity profile

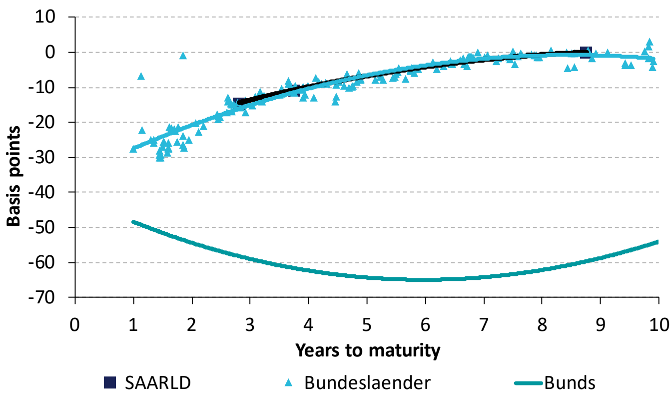


	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	>2033
EUR floating	0	0	300	300	0	100	225	0	0	0	0	0
EUR fixed	0	0	0	500	550	0	0	750	0	500	0	850

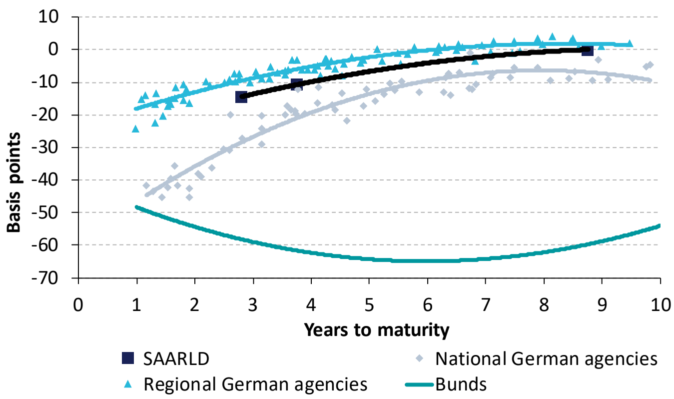
Bond amounts maturing in the next 12 months



ASW spreads vs. Bunds & peers



ASW spreads vs. German agencies

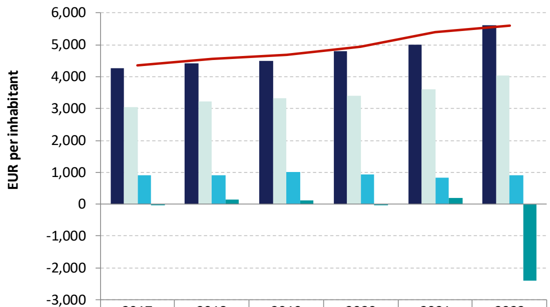


NB: Foreign currencies are converted into EUR at rates as at 07 August 2023; residual term to maturity >1 year and <10 years; outstanding volume at least EUR 0.5bn.
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

Capital market	Economy 2022	Key figures 2022
Debt level* (ranking)**	**GDP (ranking)**	**Tax-interest coverage (ranking)**
EUR 13.0bn (3rd)	EUR 38.5bn (16th)	16.2x (15th)
Outstanding bonds	**GDP per capita (ranking)**	**Total revenue/interest paid (ranking)**
EUR 4.1bn	EUR 38,925 (10th)	22.4x (15th)
ESG volume	**Real GDP growth (ranking)**	**Debt/GDP (ranking)**
EUR 0.0bn	1.7% (8th)	33.7% (15th)
Bloomberg ticker	**Unemployment (ranking)**	**Debt/revenue (ranking)**
SAARLD	6.3% (10th)	2.3x (15th)

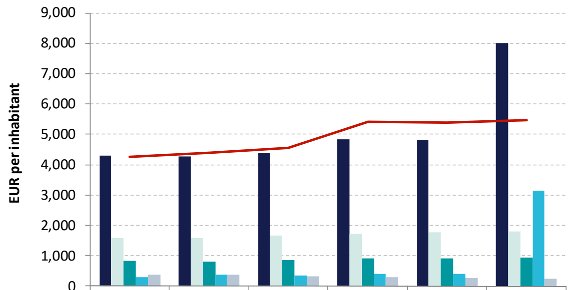
* As reported at the end of the previous year.
**Ranking of the Bundesland among the Laender for the respective key figure, where 1 is the best figure in the comparison of the Laender.
Source: Federal Statistical Office, Federal Ministry of Finance, national accounts produced by the Laender, NORD/LB Markets Strategy & Floor Research

Development of revenue in EUR per capita



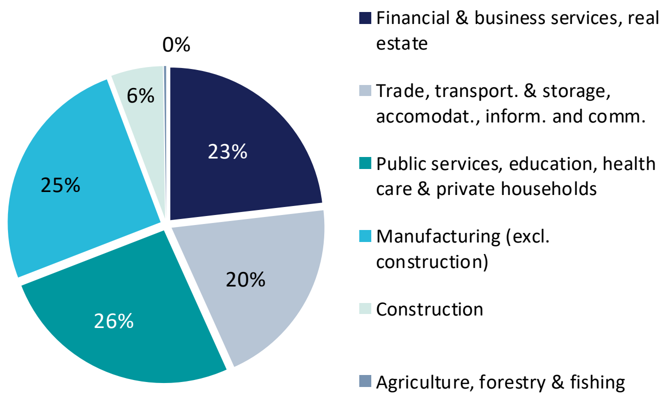
	2017	2018	2019	2020	2021	2022
Operating revenue	4,279	4,423	4,497	4,805	4,993	5,605
Tax revenue	3,040	3,233	3,331	3,395	3,598	4,045
Equalisation mechanism (net)	916	913	1,014	936	827	911
Deficit/surplus	-12	147	119	-24	193	-2,414
Ø of operating revenues (non-city states)	4,357	4,572	4,699	4,940	5,401	5,603

Development of expenditure in EUR per capita

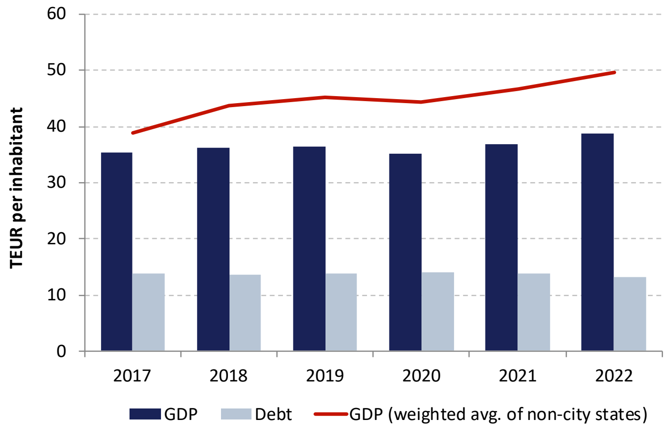


	2017	2018	2019	2020	2021	2022
Operating expense	4,291	4,277	4,378	4,829	4,800	8,018
Staff expenditure	1,578	1,598	1,656	1,726	1,778	1,809
Grants to municipals	820	802	850	926	915	937
Capital expenditure	291	377	356	404	397	3,151
Interest expense	379	365	320	292	256	250
Ø of operating expenses (non-city states)	4,246	4,385	4,558	5,407	5,385	5,469

Gross value added by economic sector



Trend in GDP and total debt



Source: Federal Statistical Office, Federal Ministry of Finance, national accounts produced by the Laender, NORD/LB Markets Strategy & Floor Research

Strengths/Chances

+ Absolute debt level is low
+ Manufacturing industries as key pillar of the economy

Weaknesses/Risks

– Long history of budget deficits
– High-level dependency on industrial sector
– Below-average debt sustainability and interest coverage

Saxony

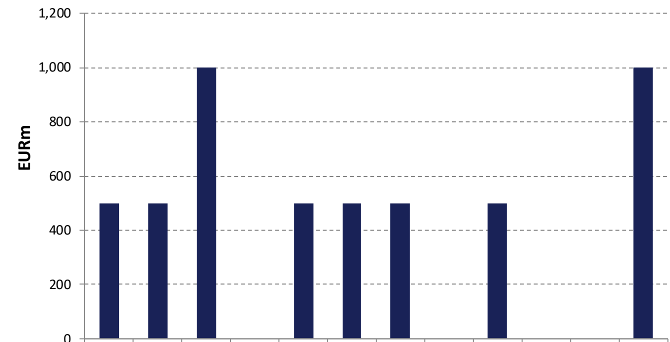
Covering an area of 18,450 km² and with a population of nearly 4.1m inhabitants, Saxony is the most densely populated of the East German Bundeslaender with the exception of the city state of Berlin. Since it was established on 3 October 1990, the Free State of Saxony has also been the strongest of the new Bundeslaender in an economic sense. Saxony's three most important economic sectors are public and private sector services (I), manufacturing industries (II) as well as finance, rental and corporate services (III). The latter sector has become increasingly important in recent decades. Since reunification, a large number of companies from various economic sectors have settled in Saxony. In particular, companies from the microelectronics and electrical engineering sectors as well as mechanical engineering and the automotive industry have relocated to Saxony. In order to consolidate this trend, Saxony is pursuing an innovation strategy aimed at transforming the Land into one of Europe's leading scientific and economic regions by 2030. To achieve this goal, Saxony is in the process of implementing measures intended to improve the innovative capacity and competitiveness of SMEs in particular. Saxony also has one of the highest investment ratios among the 16 Laender and additionally boasts a relatively well-educated population. The conurbations of Leipzig-Halle and Chemnitz-Zwickau in particular represent the driving force of Saxony's economy. In economic terms, the Greater Dresden area is the strongest region in Saxony as measured by GDP. In 2022, the economy in Saxony generated GDP of EUR 146.5bn, which equated to 3.8% of total economic output across Germany as a whole. Traditionally, Saxony has been and remains to this day one of the largest recipients within the federal financial equalisation system, although at the same time it has also had one of the best budgetary situations too. For example, Saxony can regularly be found topping the Laender league tables for key budget metrics. Saxony enjoys huge financial flexibility as a result of posting the lowest debt level of all Bundeslaender. In terms of unemployment and real GDP growth, Saxony is ranked in mid-table in a comparison of the Bundeslaender, although at a value of EUR 35,909, its GDP per capita is relatively low (ranked 12th in a Laender comparison).

Bundesland and politics

Link to the Ministry of Finance
Homepage
Number of inhabitants (2022)
4,086,152
State capital
Dresden
Government
CDU/Greens/SPD
Minister-President
Michael Kretschmer (CDU)
Expected next election date
01 September 2024

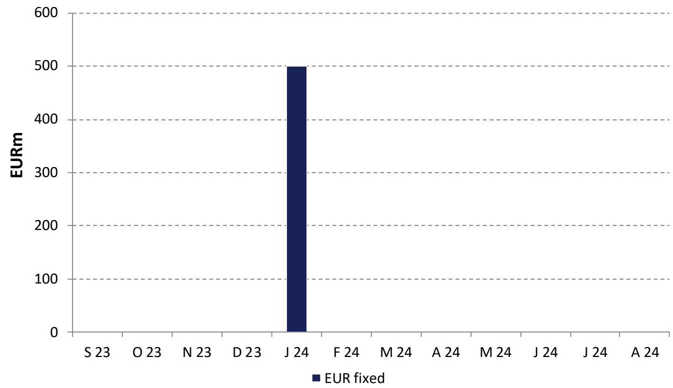
Ratings	Long-term	Outlook
Fitch	-	-
Moody's	-	-
S&P	AAA	stab

Overall maturity profile

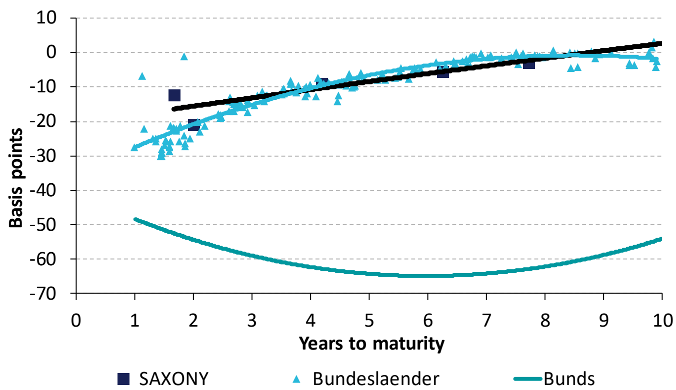


	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	>2033
EUR fixed	500	500	1,000	0	500	500	500	0	500	0	0	1,000

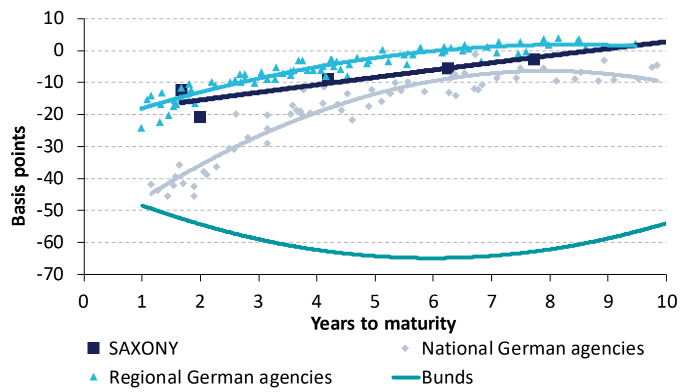
Bond amounts maturing in the next 12 months



ASW spreads vs. Bunds & peers



ASW spreads vs. German agencies



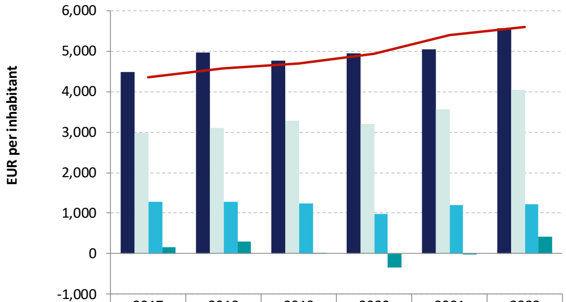
NB: Foreign currencies are converted into EUR at rates as at 07 August 2023; residual term to maturity >1 year and <10 years; outstanding volume at least EUR 0.5bn.
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

NORD/LB

Capital market	**Economy 2022**	**Key figures 2022**
Debt level* (ranking)**	**GDP (ranking)**	**Tax-interest coverage (ranking)**
EUR 3.5bn (1st)	EUR 146.5bn (8th)	332.1x (1st)
Outstanding bonds	**GDP per capita (ranking)**	**Total revenue/interest paid (ranking)**
EUR 5.0bn	EUR 35,909 (12th)	457.3x (1st)
ESG volume	**Real GDP growth (ranking)**	**Debt/GDP (ranking)**
EUR 0.0bn	2.6% (5th)	2.4% (1st)
Bloomberg ticker	**Unemployment (ranking)**	**Debt/revenue (ranking)**
SAXONY	5.6% (8th)	0.2x (1st)

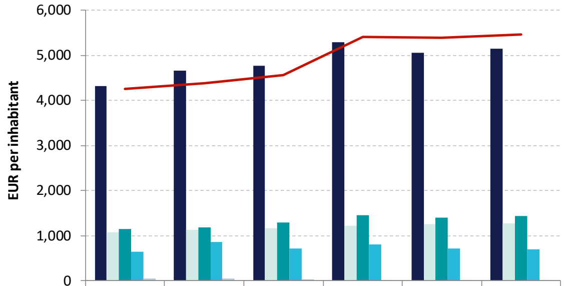
* As reported at the end of the previous year.
**Ranking of the Bundesland among the Laender for the respective key figure, where 1 is the best figure in the comparison of the Laender.
Source: Federal Statistical Office, Federal Ministry of Finance, national accounts produced by the Laender, NORD/LB Markets Strategy & Floor Research

Development of revenue in EUR per capita



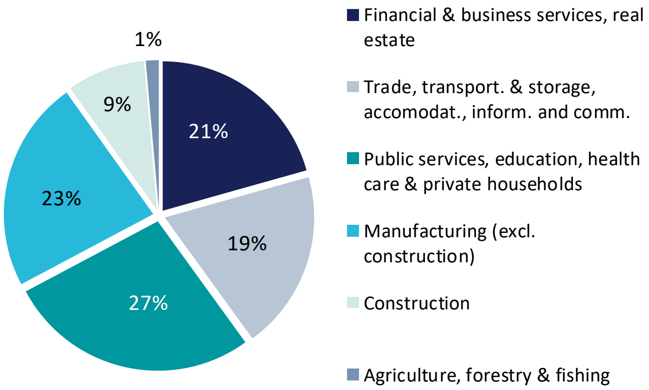
	2017	2018	2019	2020	2021	2022
Operating revenue	4,475	4,970	4,761	4,936	5,050	5,562
Tax revenue	2,980	3,108	3,282	3,199	3,567	4,040
Equalisation mechanism (net)	1,277	1,281	1,236	984	1,195	1,210
Deficit/surplus	167	307	0	-351	-2	425
Ø of operating revenues (non-city states)	4,357	4,572	4,699	4,940	5,401	5,603

Development of expenditure in EUR per capita

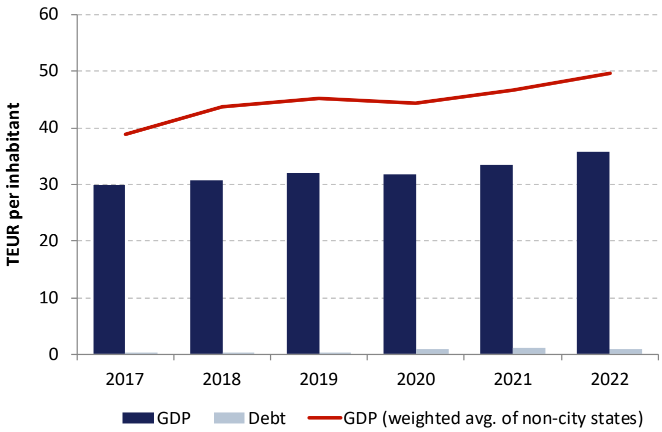


	2017	2018	2019	2020	2021	2022
Operating expense	4,308	4,663	4,760	5,287	5,052	5,137
Staff expenditure	1,067	1,130	1,169	1,220	1,250	1,277
Grants to municipals	1,141	1,187	1,289	1,452	1,407	1,426
Capital expenditure	636	864	709	811	711	688
Interest expense	43	39	30	19	19	12
Ø of operating expenses (non-city states)	4,246	4,385	4,558	5,407	5,385	5,469

Gross value added by economic sector



Trend in GDP and total debt



Source: Federal Statistical Office, Federal Ministry of Finance, national accounts produced by the Laender, NORD/LB Markets Strategy & Floor Research

Strengths/Chances

+ Healthy debt sustainability and interest coverage
+ Low absolute debt
+ Well-diversified economy
+ Highly attractive urban centres

Weaknesses/Risks

– Below-average economic output in per capita terms
– Demographic trend as a risk factor

Bundesland and politics

Link to the Ministry of Finance

[Homepage]

Number of inhabitants (2022)

2,186,643

State capital

Magdeburg

Government

CDU/SPD/FDP

Minister-President

Reiner Haseloff (CDU)

Expected next election date

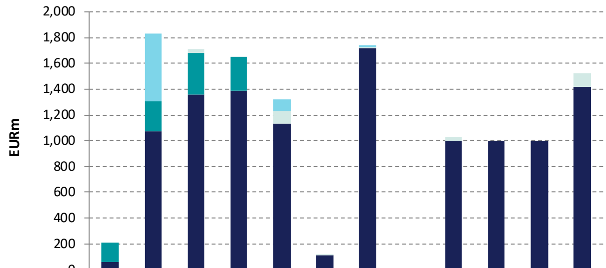
Summer 2026

Ratings	Long-term	Outlook
Fitch	AAA	stab
Moody's	Aa1	stab
S&P	AA	stab

Saxony-Anhalt

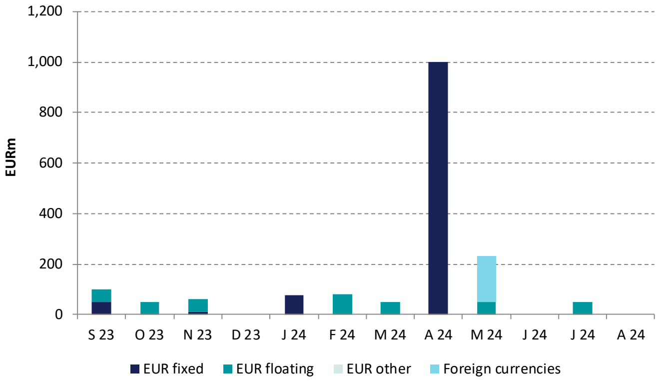
With a population of just under 2.2m people living across an area of 20,459 km^2, Saxony-Anhalt has the third-lowest population density of all Laender. As is the case with the other new Laender, Saxony-Anhalt came into existence on 3 October 1990. Key sectors of the economy include manufacturing industries, transport and services in particular. According to the information presented in our NORD/LB Regional Economy report, around 80% of employees at the 100 largest companies in Saxony-Anhalt (according to employee numbers) operate in these three economic sectors. The manufacturing industries are dominated by the chemicals sector, the food industry, mechanical engineering and metalwork. Most of the 100 largest companies are based in the region between Wernigerode, Magdeburg and Halle. In addition, agriculture also plays a comparatively important role. Moreover, the service sector and future-oriented industries such as biotechnology, information and communication technologies, renewable resources, wind energy and photovoltaics have become established as key economic pillars. The relative structural weakness of this sparsely populated sub-sovereign has been counteracted since the reunification of Germany through the massive expansion of infrastructure in particular. For example, the industrial port at Magdeburg is to be connected to the European waterway network by the end of 2023 at a cost of EUR 45m. Saxony-Anhalt is also committed to developing its scientific infrastructure in the areas of engineering, environmental and life sciences. In spring 2022, the chip manufacturer Intel announced plans to construct a factory in Magdeburg. Construction is expected to begin in 2024, with around 10,000 jobs created in the process. This is the largest investment in Saxony-Anhalt for several decades. In 2022, 1.9% of total German economic output was generated in Saxony-Anhalt. As is the case with the other new Bundeslaender, Saxony-Anhalt has been particularly affected by the issue of demographic change: the proportion of over 65s is higher in Saxony-Anhalt than anywhere else in Germany, while at the same time the proportion of those aged 6 and under is the lowest in a comparison of the Laender. Since its inception, Saxony-Anhalt has at all times been a net recipient within the federal financial equalisation system.

Overall maturity profile

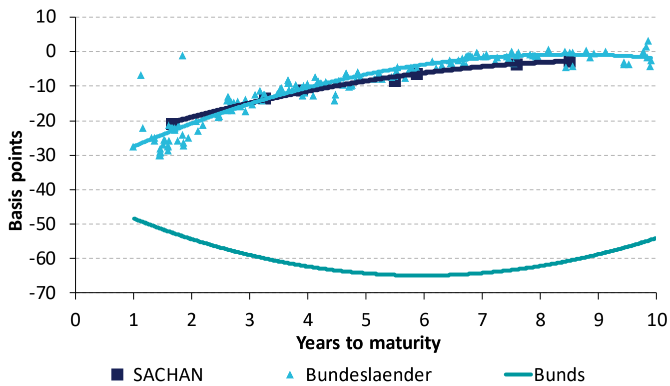


	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	>2033
Foreign currencies	0	530	0	0	90	0	10	0	0	0	0	0
EUR other	0	0	30	0	102	10	10	0	30	0	0	100
EUR floating	150	230	325	270	0	0	0	0	0	0	0	0
EUR fixed	60	1,075	1,355	1,385	1,130	110	1,720	0	1,000	1,000	1,000	1,420

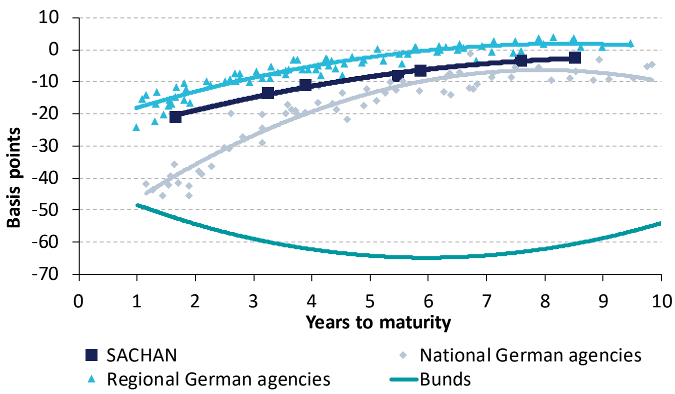
Bond amounts maturing in the next 12 months



ASW spreads vs. Bunds & peers



ASW spreads vs. German agencies



NB: Foreign currencies are converted into EUR at rates as at 07 August 2023; residual term to maturity >1 year and <10 years; outstanding volume at least EUR 0.5bn.
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

NORD/LB

Capital market

Debt level* (ranking)**

EUR 22.9bn (8th)

Outstanding bonds

EUR 13.1bn

ESG volume

EUR 0.0bn

Bloomberg ticker

SACHAN

Economy 2022

GDP (ranking)

EUR 75.4bn (12th)

GDP per capita (ranking)

EUR 34,505 (14th)

Real GDP growth (ranking)

2.6% (6th)

Unemployment (ranking)

7.1% (13th)

Key figures 2022

Tax-interest coverage (ranking)

32.5x (13th)

Total revenue/interest paid (ranking)

49.5x (11th)

Debt/GDP (ranking)

30.4% (13th)

Debt/revenue (ranking)

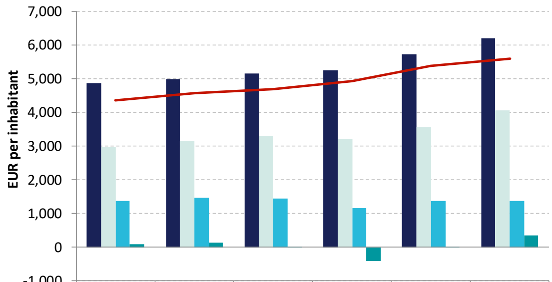
1.7x (13th)

* As reported at the end of the previous year.

**Ranking of the Bundesland among the Laender for the respective key figure, where 1 is the best figure in the comparison of the Laender.

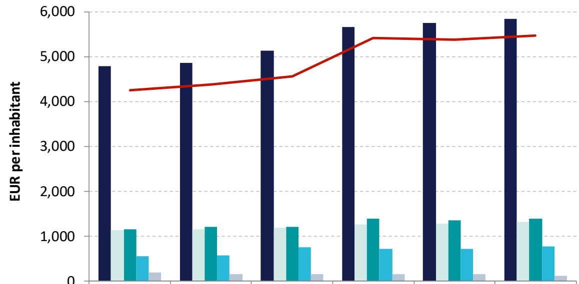
Source: Federal Statistical Office, Federal Ministry of Finance, national accounts produced by the Laender, NORD/LB Markets Strategy & Floor Research

Development of revenue in EUR per capita



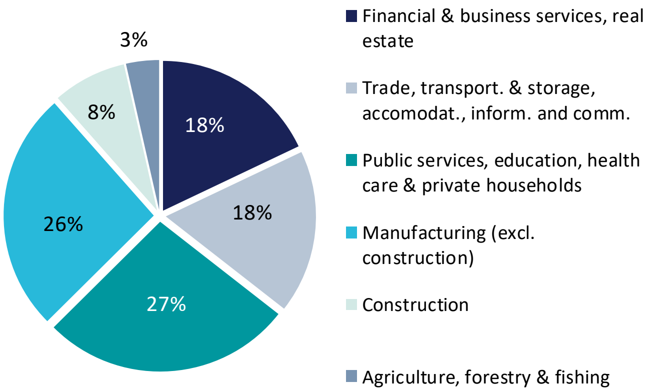
	2017	2018	2019	2020	2021	2022
Operating revenue	4,869	4,996	5,155	5,253	5,746	6,201
Tax revenue	2,966	3,173	3,318	3,217	3,563	4,063
Equalisation mechanism (net)	1,388	1,477	1,442	1,175	1,386	1,380
Deficit/surplus	83	142	20	-411	2	359
Ø of operating revenues (non-city states)	4,357	4,572	4,699	4,940	5,401	5,603

Development of expenditure in EUR per capita

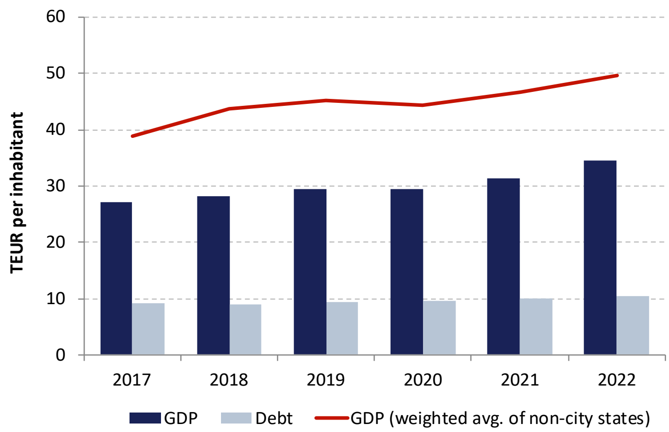


	2017	2018	2019	2020	2021	2022
Operating expense	4,786	4,854	5,135	5,664	5,744	5,842
Staff expenditure	1,140	1,165	1,201	1,257	1,278	1,314
Grants to municipals	1,165	1,210	1,216	1,391	1,357	1,401
Capital expenditure	549	579	752	715	716	780
Interest expense	203	166	164	150	154	125
Ø of operating expenses (non-city states)	4,246	4,385	4,558	5,407	5,385	5,469

Gross value added by economic sector



Trend in GDP and total debt



Source: Federal Statistical Office, Federal Ministry of Finance, national accounts produced by the Laender, NORD/LB Markets Strategy & Floor Research

Strengths/Chances

+ Solid economic growth
+ Manufacturing industries prominent
+ Low personnel expenses and pension liabilities

Weaknesses/Risks

– Below-average economic output in per capita terms
– Demographic trend as a risk factor
– Below-average debt sustainability

Bundesland and politics

Link to the Ministry of Finance

[Homepage]

Number of inhabitants (2022)

2,953,270

State capital

Kiel

Government

CDU/Greens

Minister-President

Daniel Günther (CDU)

Expected next election date

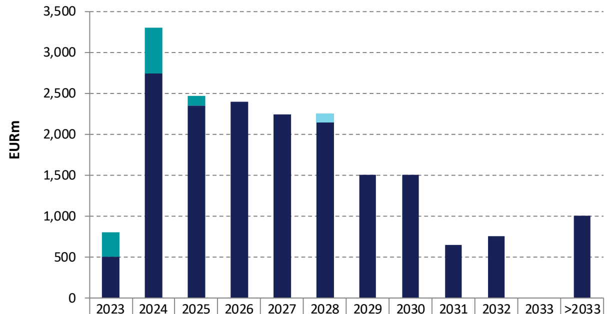
Spring 2027

Ratings	Long-term	Outlook
Fitch	AAA	stab
Moody's	-	-
S&P	-	-

Schleswig-Holstein

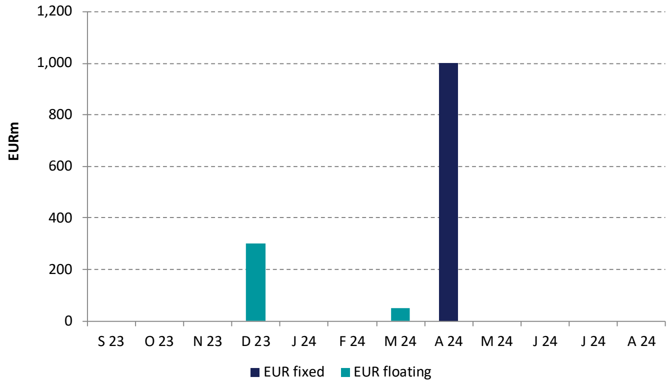
Covering a total area of 15,804 km^2, Schleswig-Holstein is the smallest non-city state in Germany with the exception of Saarland. Founded on 23 August 1946, Schleswig-Holstein was the first Land to ratify its own state constitution after the promulgation of the Basic Law. Tourism is vital to the economy of Schleswig-Holstein. Annual turnover from this sector amounted to around EUR 10.4bn in 2022, which is more or less on a par with revenues generated by major industrial sectors. Prior to the Covid-19 pandemic, around three quarters of gross value added was generated via the service sector, slightly above the national average. Schleswig-Holstein's economic development activities are concentrated, in particular, on the food industry, information technology, telecommunications and media, life sciences, logistics, aviation in addition to microtechnology and nanotechnology. Traditionally, fishing has also been an important area of the economy. In fact, Schleswig-Holstein accounts for approximately two thirds of the German fishing sector. Its location between the North Sea and the Baltic Sea means that attention is also focused on the maritime economy, tourism and the renewable energies sector. The latter is an essential element of the sub-sovereign's future economic planning. For example, Schleswig-Holstein has ambitions of becoming an exporter of green energy. In 2021, the Land was already obtaining more than 140% of its gross electricity consumption from "green" sources. The state government has underlined these ambitions to become a more sustainable energy economy by recently adopting the Energy Transformation and Climate Protection Act, which supplements existing efforts in the area of wind power with an expansion of photovoltaic facilities and plans to establish municipal heating networks. Schleswig-Holstein is striving to cut greenhouse gas emissions by at least 65% by 2030 in comparison with the levels recorded in 1990, and by at least 88% by 2040, before achieving carbon-neutrality by 2045. In 2022, Schleswig-Holstein generated GDP of EUR 112.8bn, which equates to roughly 2.9% of total economic output across Germany. Following a budget surplus in the prior year, Schleswig-Holstein registered a cash deficit again in the 2022 budget year. At 5.2%, unemployment in Schleswig-Holstein is below the national average.

Overall maturity profile

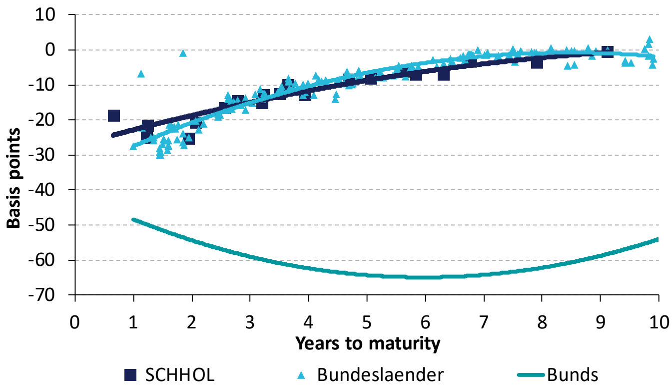


	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	>2033
Foreign currencies	0	0	0	0	0	101	0	0	0	0	0	0
EUR floating	300	550	125	0	0	0	0	0	0	0	0	0
EUR fixed	500	2,750	2,350	2,400	2,250	2,150	1,500	1,500	650	750	0	1,000

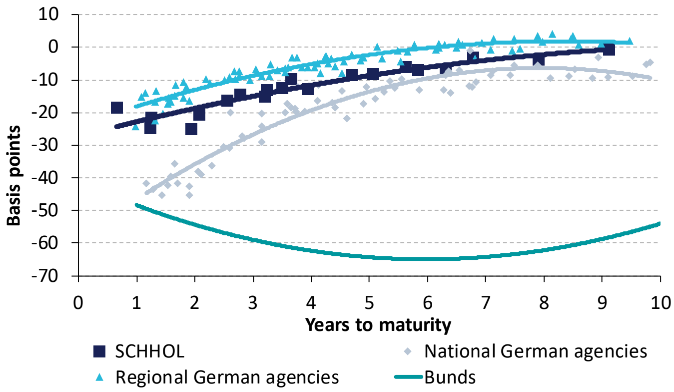
Bond amounts maturing in the next 12 months



ASW spreads vs. Bunds & peers



ASW spreads vs. German agencies



NB: Foreign currencies are converted into EUR at rates as at 07 August 2023; residual term to maturity >1 year and <10 years; outstanding volume at least EUR 0.5bn.
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

Capital market

Debt level* (ranking)**

EUR 32.6bn (11th)

Outstanding bonds

EUR 18.9bn

ESG volume

EUR 0.0bn

Bloomberg ticker

SCHHOL

Economy 2022

GDP (ranking)

EUR 112.8bn (10th)

GDP per capita (ranking)

EUR 38,274 (11th)

Real GDP growth (ranking)

1.3% (12th)

Unemployment (ranking)

5.2% (5th)

Key figures 2022

Tax-interest coverage (ranking)

35.0x (11th)

Total revenue/interest paid (ranking)

48.0x (12th)

Debt/GDP (ranking)

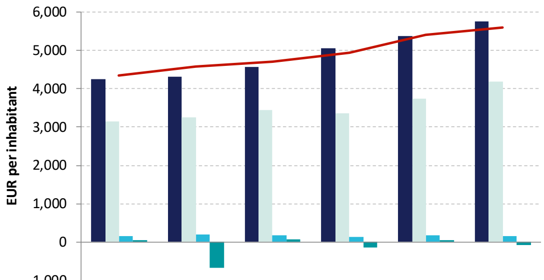
28.9% (12th)

Debt/revenue (ranking)

1.9x (14th)

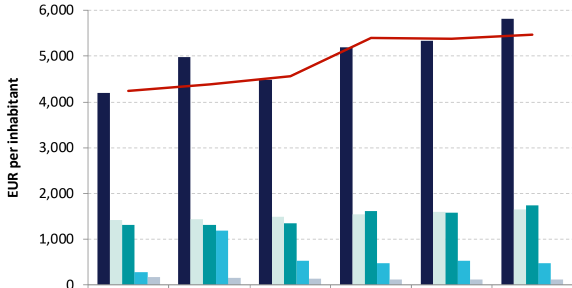
* As reported at the end of the previous year.
**Ranking of the Bundesland among the Laender for the respective key figure, where 1 is the best figure in the comparison of the Laender.
Source: Federal Statistical Office, Federal Ministry of Finance, national accounts produced by the Laender, NORD/LB Markets Strategy & Floor Research

Development of revenue in EUR per capita



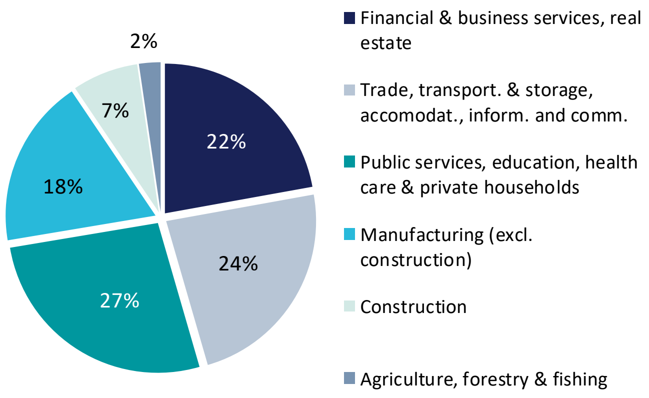
	2017	2018	2019	2020	2021	2022
Operating revenue	4,241	4,313	4,565	5,052	5,381	5,753
Tax revenue	3,150	3,262	3,449	3,354	3,753	4,191
Equalisation mechanism (net)	160	204	185	128	172	161
Deficit/surplus	43	-662	82	-147	45	-75
Ø of operating revenues (non-city states)	4,357	4,572	4,699	4,940	5,401	5,603

Development of expenditure in EUR per capita

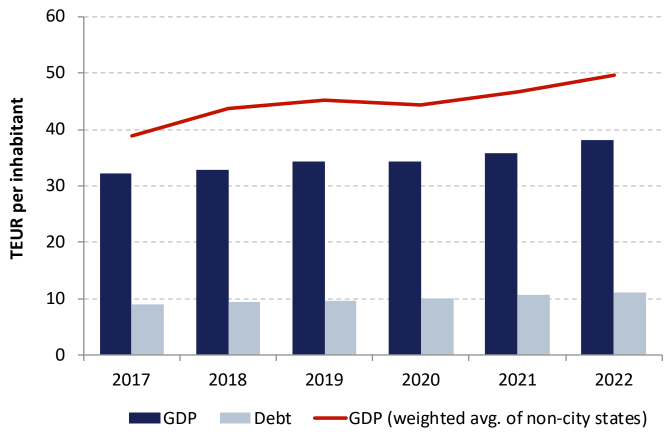


	2017	2018	2019	2020	2021	2022
Operating expense	4,198	4,974	4,484	5,199	5,336	5,828
Staff expenditure	1,408	1,432	1,495	1,547	1,592	1,640
Grants to municipals	1,306	1,305	1,346	1,614	1,569	1,736
Capital expenditure	280	1,192	517	477	534	469
Interest expense	171	159	142	112	115	120
Ø of operating expenses (non-city states)	4,246	4,385	4,558	5,407	5,385	5,469

Gross value added by economic sector



Trend in GDP and total debt



Source: Federal Statistical Office, Federal Ministry of Finance, national accounts produced by the Laender, NORD/LB Markets Strategy & Floor Research

Strengths/Chances

+ Broadly diversified economy
+ Low unemployment rate
+ Beneficiary of the energy transition

Weaknesses/Risks

– Below-average debt sustainability and interest coverage
– High level of pension commitments
– Below-average economic output in per capita terms

Bundesland and politics

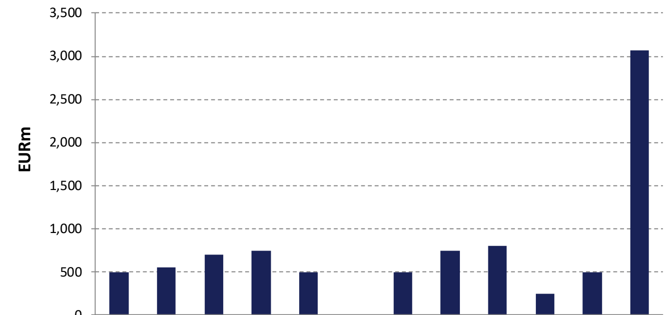
Link to the Ministry of Finance
Homepage
Number of inhabitants (2022)
2,126,846
State capital
Erfurt
Government
Die Linke (the Left Party)/SPD/Greens
Minister-President
Bodo Ramelow (Die Linke)
Expected next election date
Autumn 2024

Ratings	Long-term	Outlook
Fitch	AAA	stab
Moody's	-	-
S&P	-	-

Thuringia

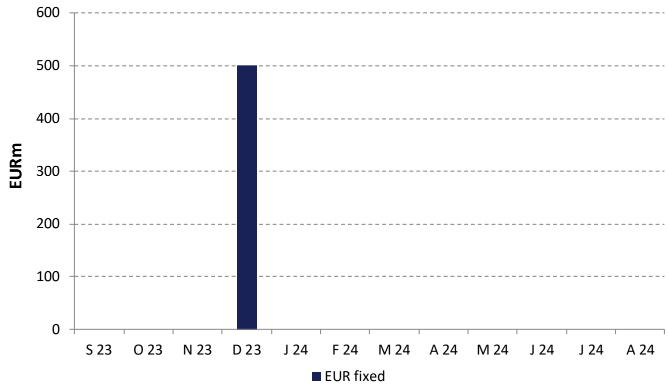
At 16,202 km^2, the Free State of Thuringia is the smallest of the eastern German Laender (excluding the city state of Berlin) in terms of area. With a population of around 2.1m people, only the Free State of Saxony is more densely populated among the non-city state Laender in the east of Germany. Thuringia, which was established in 1990, has an economy that is dominated by manufacturing industries in particular. These account for a greater proportion of gross value added than in any other eastern German sub-sovereign. Including the construction sector, which accounts for a higher share of gross value added in only three other Bundeslaender, manufacturing industries are responsible for nearly one third of the gross value added generated by Thuringia. A large part of its economic output is attributable to the region around the chain of cities extending from Erfurt to Jena via Weimar in particular. The automotive and mechanical engineering sectors as well as the optical and medical technology sectors are of particular significance here. The economy of Thuringia is also distinguished by a relatively high capacity for innovation. Within Thuringia, a discrepancy between the planning region in the south-west of Thuringia and the rest of the sub-sovereign has become apparent in recent years. This planning region is increasingly developing into the economic and growth engine of Thuringia. Investments are also being made in the education and research centres, with a particular focus in this regard on Jena, Erfurt and Ilmenau with its University of Technology. After being ranked in fourth place in the Education Monitor 2021, Thuringia returned to a podium position in the 2022 edition. In fundamental terms, this continues to represent a good basis from which the Bundesland can strive to counteract a lack of skilled workers and confront demographic trends, factors which also represent a major challenge for this sub-sovereign. In terms of its vision for the future, Thuringia is seeking to catch up with the elite group of non-city states in the area of digital infrastructure within the next decade. By 2025, convergent gigabit networks should be available in every community. Unemployment in Thuringia amounted to 5.3% in 2022. Since being included in the federal financial equalisation system, Thuringia has been a net recipient at all times. At EUR 75.3bn, Thuringia contributes around 1.8% of German GDP.

Overall maturity profile

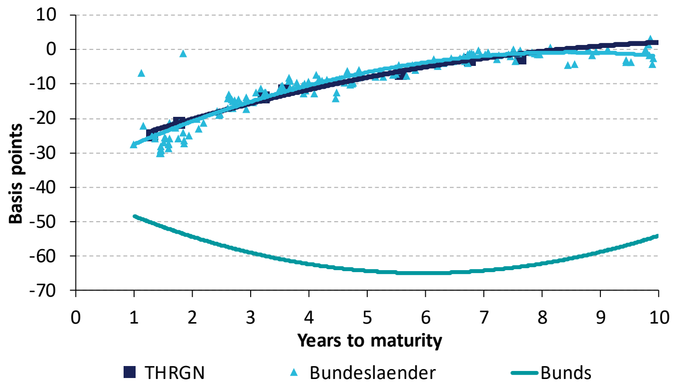


	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	>2033
EUR floating	0	0	0	0	0	0	0	0	0	0	0	0
EUR fixed	500	550	700	750	500	0	500	750	800	250	500	3,065

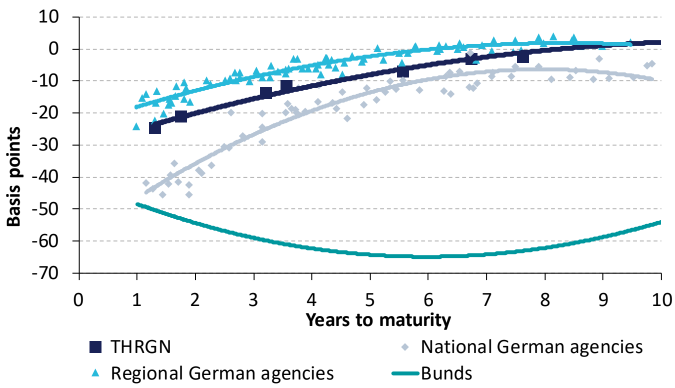
Bond amounts maturing in the next 12 months



ASW spreads vs. Bunds & peers



ASW spreads vs. German agencies

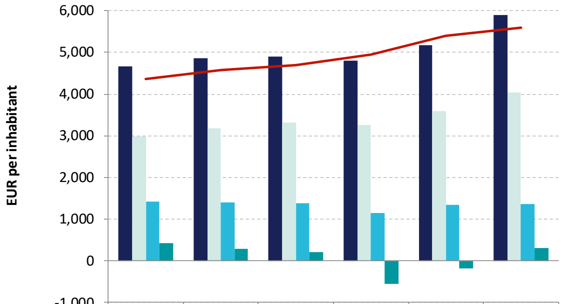


NB: Foreign currencies are converted into EUR at rates as at 07 August 2023; residual term to maturity >1 year and <10 years; outstanding volume at least EUR 0.5bn.
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

Capital market	Economy 2022	Key figures 2022
Debt level* (ranking)**	**GDP (ranking)**	**Tax-interest coverage (ranking)**
EUR 15.5bn (4th)	EUR 71.4bn (13th)	34.9x (12th)
Outstanding bonds	**GDP per capita (ranking)**	**Total revenue/interest paid (ranking)**
EUR 8.9bn	EUR 33,656 (15th)	50.9x (9th)
ESG volume	**Real GDP growth (ranking)**	**Debt/GDP (ranking)**
EUR 0.0bn	1.5% (10th)	21.6% (11th)
Bloomberg ticker	**Unemployment (ranking)**	**Debt/revenue (ranking)**
THRGN	5.3% (6th)	1.2x (8th)

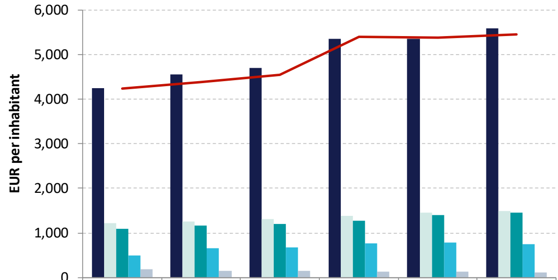
* As reported at the end of the previous year.
**Ranking of the Bundesland among the Laender for the respective key figure, where 1 is the best figure in the comparison of the Laender.
Source: Federal Statistical Office, Federal Ministry of Finance, national accounts produced by the Laender, NORD/LB Markets Strategy & Floor Research

Development of revenue in EUR per capita



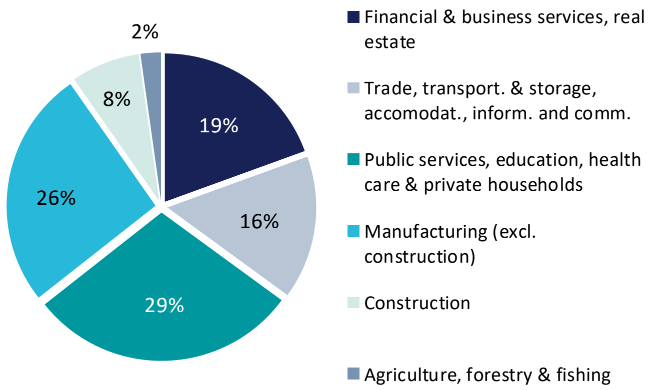
	2017	2018	2019	2020	2021	2022
Operating revenue	4,674	4,852	4,909	4,808	5,172	5,900
Tax revenue	2,987	3,175	3,320	3,258	3,580	4,048
Equalisation mechanism (net)	1,417	1,410	1,381	1,139	1,340	1,371
Deficit/surplus	425	291	210	-550	-185	300
Ø of operating revenues (non-city states)	4,357	4,572	4,699	4,940	5,401	5,603

Development of expenditure in EUR per capita

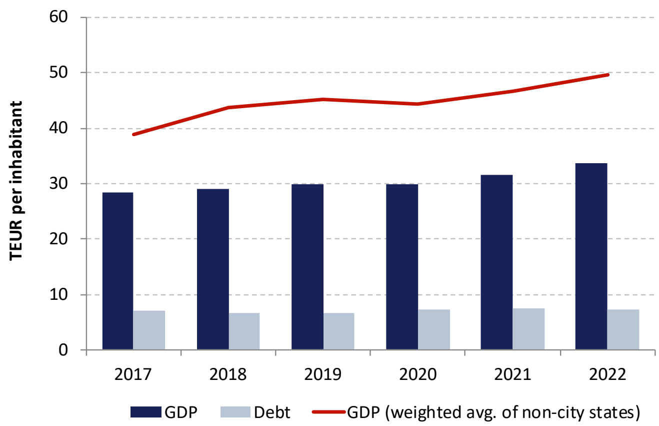


	2017	2018	2019	2020	2021	2022
Operating expense	4,249	4,561	4,699	5,359	5,356	5,600
Staff expenditure	1,225	1,257	1,312	1,374	1,455	1,482
Grants to municipals	1,083	1,160	1,191	1,269	1,393	1,462
Capital expenditure	483	652	672	764	775	755
Interest expense	179	155	147	136	130	116
Ø of operating expenses (non-city states)	4,246	4,385	4,558	5,407	5,385	5,469

Gross value added by economic sector



Trend in GDP and total debt



Source: Federal Statistical Office, Federal Ministry of Finance, national accounts produced by the Laender, NORD/LB Markets Strategy & Floor Research

Strengths/Chances

+ Absolute debt level is low
+ Manufacturing industries prominent
+ Low level of pension liabilities
+ High-performance education system

Weaknesses/Risks

– Below-average economic output in per capita terms
– Demographic trend as a risk factor
– Widening gap between urban and rural areas

Link to bond overview

[Homepage]

Ratings

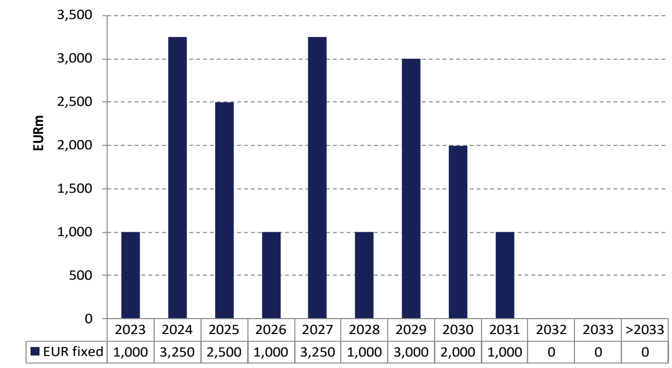
	Long-term	Outlook
Fitch	**AAA***	-
Moody's	-	-
S&P	-	-

*** Issuer ratings not available. However, Fitch awards a rating for each individual bond.**

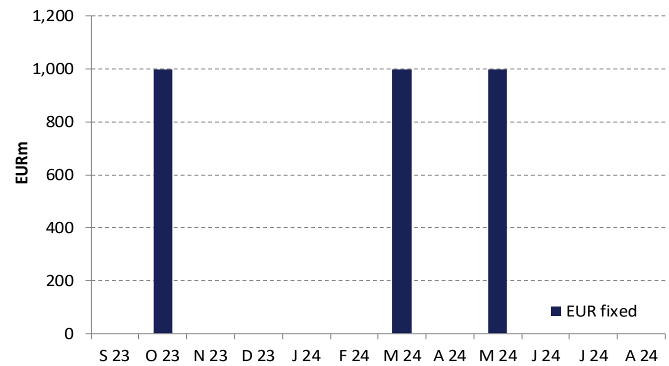
Gemeinschaft deutscher Laender (Joint Laender)

An idiosyncrasy of the bond market in general, and one specific to the German sub-sovereign market, is the Gemeinschaft deutscher Laender issuance vehicle. Within this framework, several sub-sovereigns issue joint bonds (known as "Laender jumbos"; issuance volumes starting from EUR 1bn), whereby each Land assumes several (but not joint) liability for the issuance overall. As a result, joint and several liability structures do not exist for such deals. The first time that several Laender grouped together to issue a joint bond of this kind was in 1996. Since then, the Gemeinschaft deutscher Laender has become an established issuer on the bond market, joining forces to place joint bonds on a semi-regular basis (mostly twice per year). The large-volume Laender jumbos enable these Bundeslaender, which – prior to the pandemic in particular – otherwise had or continue to have comparatively low refinancing requirements, to generate economies of scale that are reflected in lower interest expenses. Seven Laender are still involved in the bond issuances currently in circulation. While Saxony-Anhalt, Hesse and NRW ceased to use Laender jumbos as a funding instrument after the first issuance in 1996, with Berlin subsequently opting not to participate in the joint issuing vehicle since 2002, the following Laender have at times made use of Laender jumbos as key funding instruments: Brandenburg, Bremen, Hamburg, Mecklenburg-Western Pomerania, Rhineland-Palatinate, Saarland and Schleswig-Holstein. In fact, these Laender have raised substantial amounts of their respective funding volumes on the basis of joint issuance currently in circulation. The last deal in which Thuringia was involved fell due earlier in 2023. As a result of the particular structure, there is no issuer rating. Instead, the Fitch rates each individual issuance in order to take account of the differing participation structures (several – but not joint – liability basis). However, this does not lead to any differences: since Laender jumbo No. 11, Fitch has awarded a rating of AAA to all bonds of this kind. As justification for the rating, Fitch cites the system comprising the principle of federal loyalty and the new system of federal financial equalisation payments, in which it generally sees an exceptionally low default risk. In total, the Joint Laender issuance vehicle accounts for an outstanding volume of EUR 18.0bn split across 17 separate bond deals at present, making it an important player within the German Bundeslaender bond market. The outstanding volume is EUR-denominated in full and features a fixed coupon. Other instruments such as Schuldscheindarlehen (SSD) are not jointly issued. Having issued a Laender jumbo in the form of a floating rate note (FRN; floater) in 2008, the Gemeinschaft has subsequently refrained from using this instrument for joint refinancing. Here, too, the coupon has long since been in region of between 0.0% and 0.01%. The first year in which a zero preceded the decimal point was 2015. There have now been 63 separate bond deals issued by the Gemeinschaft deutscher Laender. At present, the longest outstanding bond is set to fall due in February 2031 (No. 60), while the largest bond (No. 47) comprises a volume of EUR 1.5bn.

Overall maturity profile

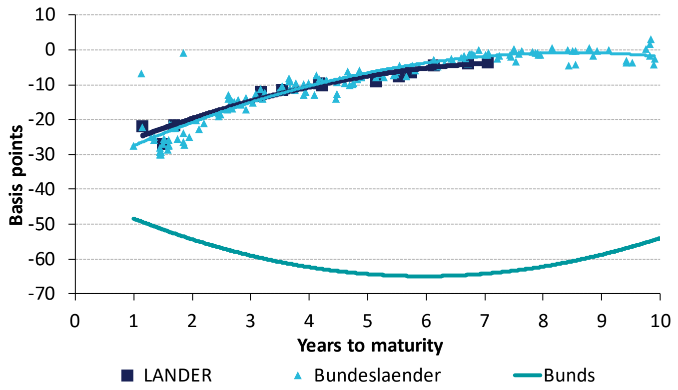


Bond amounts maturing in the next 12 months

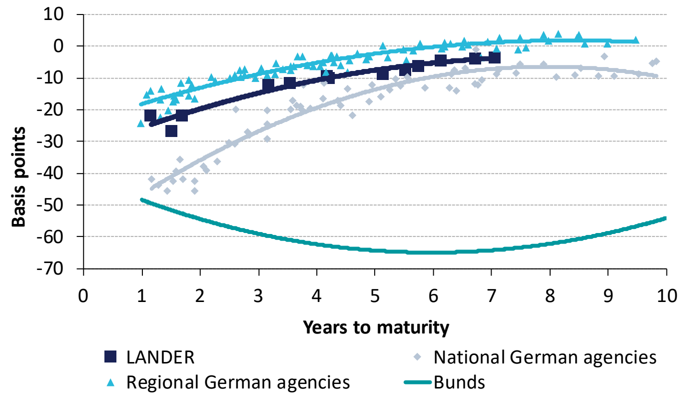


Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

ASW spreads vs. Bunds & peers

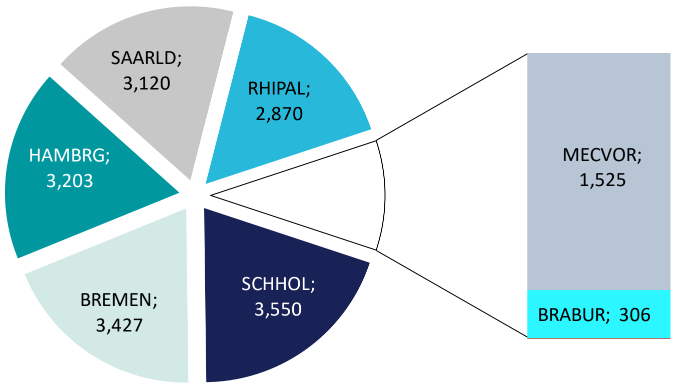


ASW spreads vs. German agencies

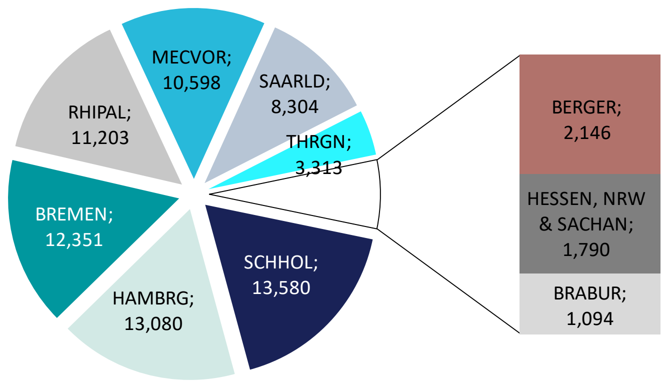


Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

Share of current outstanding volume attributable to the Bundeslaender (EURbn)



Cumulative share of total volume issued since 1996 (EURbn)



Source: Ministry of Finance of Rhineland-Palatinate, NORD/LB Markets Strategy & Floor Research

Strengths/ Chances

+ Includes smaller issuers
+ More liquid bond volumes

Weaknesses/ Risks

– Participants are primarily Bundeslaender with budgetary problems, high-level dependency on the federal financial equalisation system and/or below-average economic output
– Complex structure
– Several (but not joint) liability

NORD/LB

Appendix

Overview by debt level, Kassenkredite and non-public sector loans* in addition to outstanding bond volumes

Issuer	Ticker	Official debt level** (EURbn)	Of which outstanding Kassenkredite** (EURbn)	Of which outstanding loans** (EURbn)	Outstanding volume of bonds (EURbn)	Number of benchmark bonds
Baden-Wuerttemberg	BADWUR	34.2	-	15.4	18.9	20
Bavaria	BAYERN	18.9	-	8.7	7.2	8
Berlin	BERGER	59.4	1.0	13.7	46.7	42
Brandenburg	BRABUR	17.2	0.4	3.4	15.2	22
Bremen	BREMEN	22.4	0.2	5.5	12.2	20
Hamburg	HAMBRG	25.1	0.04	5.4	15.5	19
Hesse	HESSEN	40.0	0.4	7.4	32.0	31
Mecklenburg-Western Pomerania	MECVOR	8.2	-	4.5	1.5	2
Lower Saxony	NIESA	59.9	-	11.6	49.1	42
North Rhine-Westphalia	NRW	162.2	0.4	32.4	130.5	54
Rhineland-Palatinate	RHIPAL	28.0	0.2	5.1	20.9	21
Saarland	SAARLD	13.0	-	5.7	4.1	5
Saxony	SAXONY	3.5	-	0.8	5.0	10
Saxony-Anhalt	SACHAN	22.9	-	8.7	13.1	11
Schleswig-Holstein	SCHHOL	32.6	1.6	6.8	18.9	27
Thuringia	THRGN	15.5	-	6.5	8.9	14
Joint Laender	LANDER	-	-	-	18.0	17
Bund-Laender bond	BULABO	-	-	-	Fell due: 15/07/2020	0
Sum total	**-**	**563.0**	**4.2**	**141.6**	**417.7**	**365**

* Excludes supplementary budgets
** As reported at the end of the previous year
Source: Bloomberg, issuers, Federal Ministry of Finance, NORD/LB Markets Strategy & Floor Research

Appendix

Ratings overview

Issuer (Bloomberg ticker)	Fitch		Moody's		S&P	
	Rating	Outlook	Rating	Outlook	Rating	Outlook
BW (BADWUR)	-	-	Aaa	stab	AA+	stab
BY (BAYERN)	-	-	Aaa	stab	AAA	stab
BE (BERGER)	AAA	stab	Aa1	stab	-	-
BB (BRABUR)	-	-	Aaa	neg	-	-
HB (BREMEN)*	AAA	stab	-	-	-	-
HH (HAMBRG)	AAA	stab	-	-	-	-
HE (HESSEN)	-	-	-	-	AA+	stab
MV (MECVOR)*	AAA	stab	-	-	-	-
NI (NIESA)	AAA	stab	-	-	-	-
NW (NRW)	AAA	stab	Aa1	stab	AA	stab
RP (RHIPAL)	AAA	stab	-	-	-	-
SL (SAARLD)	AAA	stab	-	-	-	-
SN (SAXONY)	-	-	-	-	AAA	stab
ST (SACHAN)	AAA	stab	Aa1	stab	AA	stab
SH (SCHHOL)	AAA	stab	-	-	-	-
TH (THRGN)*	AAA	stab	-	-	-	-
Joint Laender (LANDER)**	AAA	-	-	-	-	-

* Ratings for individual bonds (see respective Land profile).
** Ratings for all bonds currently in circulation; no outlook provided.
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

Appendix Key figures 2022 – at a glance

Key metrics as at year-end 2022 (EURm)	Adjusted revenue	Adjusted expenses	Balance	Debt	GDP	Debt/GDP (in %)	Balance/GDP (in %)
Baden-Wuerttemberg	64,034	60,558	3,476	34,178	572,837	6.0%	0.6%
Bavaria	74,275	71,531	2,744	18,893	716,784	2.6%	0.4%
Berlin	37,379	36,432	947	59,398	179,379	33.1%	0.5%
Brandenburg	15,015	14,828	186	17,218	88,800	19.4%	0.2%
Bremen	7,313	7,472	-159	22,391	38,698	57.9%	-0.4%
Hamburg	20,732	18,272	2,461	25,081	144,220	17.4%	1.7%
Hesse	35,374	33,703	1,671	39,985	323,352	12.4%	0.5%
Mecklenburg-Western Pomerania	11,104	10,587	516	8,247	53,440	15.4%	1.0%
Lower Saxony	40,667	38,129	2,539	59,926	339,414	17.7%	0.7%
North Rhine-Westphalia	103,576	105,999	-2,423	162,209	793,790	20.4%	-0.3%
Rhineland-Palatinate	21,711	20,522	1,189	27,972	171,699	16.3%	0.7%
Saarland	5,564	7,960	-2,396	12,985	38,505	33.2%	-6.2%
Saxony	22,726	20,991	1,735	3,517	146,511	2.4%	1.2%
Saxony-Anhalt	13,560	12,775	785	22,918	75,436	30.4%	1.0%
Schleswig-Holstein	16,991	17,213	-222	32,599	112,755	28.9%	-0.2%
Thuringia	12,548	11,911	637	15,451	71,430	21.6%	0.9%
Total	**502,568**	**488,881**	**13,687**	**562,967**	**3,867,050**	**14.6%**	**0.4%**

Source: Federal Ministry of Finance, Federal Statistical Office, NORD/LB Markets Strategy & Floor Research

Appendix Laender budgets 2022

2022 (EURm)	BW	BY	BE	BB	HB	HH	HE	MV
Adjusted revenue	**64,034**	**74,275**	**37,379**	**15,015**	**7,313**	**20,732**	**35,374**	**11,104**
Tax revenue	46,410	54,945	27,220	10,548	4,676	15,947	26,424	6,704
as a % of total revenue	72.48%	73.97%	72.82%	70.25%	63.95%	76.92%	74.70%	60.38%
Federal supplementary grants (BEZ)	-	-	1,642	655	407	-	-	663
as a % of total revenue	-	-	4.39%	4.36%	5.57%	-	-	5.97%
Special-need BEZ (SoBEZ)	-	-	59	132	60	-	-	132
as a % of total revenue	-	-	0.16%	0.88%	0.82%	-	-	1.19%
Financial Power Equalisation (FKA)	-	-	3,609	1,452	888	-	-	1,447
as a % of total revenue	-	-	9.66%	9.67%	12.14%	-	-	13.03%
Total equalisation payments	-	-	5,310	2,239	1,355	-	-	2,242
as a % of total revenue	-	-	14.21%	14.91%	18.53%	-	-	20.19%
Adjusted expenses	**60,558**	**71,531**	**36,432**	**14,828**	**7,472**	**18,272**	**33,703**	**10,587**
Personnel expenditure	19,541	26,515	10,942	3,426	2,077	5,387	11,346	2,279
in % of total expenditure	32.27%	37.07%	30.03%	23.10%	27.80%	29.48%	33.66%	21.52%
Interest expenditure	1,192	372	965	201	572	359	747	160
in % of total expenditure	1.97%	0.52%	2.65%	1.35%	7.66%	1.97%	2.22%	1.51%
Grants to municipalities	17,742	15,094	2	5,171	11	15	8,669	3,025
in % of total expenditure	29.30%	21.10%	0.01%	34.87%	0.15%	0.08%	25.72%	28.57%
Investment expenditure	5,715	9,323	3,390	1,774	799	1,567	2,323	1,915
in % of total expenditure	9.44%	13.03%	9.31%	11.97%	10.69%	8.58%	6.89%	18.09%
Financial Power Equalisation (FKA)	4,473	9,865	-	-	-	814	3,250	-
in % of total expenditure	7.39%	13.79%	-	-	-	4.45%	9.64%	-
Budget balance	3,476	2,744	947	186	-159	2,461	1,671	516
Total debt	34,178	18,893	59,398	17,218	22,391	25,081	39,985	8,247

Source: Federal Ministry of Finance, NORD/LB Markets Strategy & Floor Research

Appendix Laender budgets 2022 (continued)

2022 (EURm)	NI	NW	RP	SL	SN	ST	SH	TH
Adjusted revenue	**40,667**	**103,576**	**21,711**	**5,564**	**22,726**	**13,560**	**16,991**	**12,548**
Tax revenue	33,009	74,105	16,118	4,016	16,507	8,885	12,376	8,610
as a % of total revenue	81.17%	71.55%	74.24%	72.18%	72.63%	65.52%	72.84%	68.61%
Federal supplementary grants (BEZ)	755	392	-	261	1,509	910	109	879
as a % of total revenue	1.86%	0.38%	-	4.69%	6.64%	6.71%	0.64%	7.00%
Special-need BEZ (SoBEZ)	-	-	48	66	132	121	66	118
as a % of total revenue	-	-	0.22%	1.19%	0.58%	0.89%	0.39%	0.94%
Financial Power Equalisation (FKA)	1,789	1,241	-	577	3,304	1,986	299	1,919
as a % of total revenue	4.40%	1.20%	-	10.37%	14.54%	14.65%	1.76%	15.29%
Total equalisation payments	2,544	1,633	48	904	4,945	3,017	474	2,916
as a % of total revenue	6.26%	1.58%	0.22%	16.25%	21.76%	22.25%	2.79%	23.24%
Adjusted expenses	**38,129**	**105,999**	**20,522**	**7,960**	**20,991**	**12,775**	**17,213**	**11,911**
Personnel expenditure	14,126	30,386	7,519	1,796	5,219	2,874	4,842	3,152
in % of total expenditure	37.05%	28.67%	36.64%	22.56%	24.86%	22.49%	28.13%	26.46%
Interest expenditure	819	1,432	369	249	50	274	354	246
in % of total expenditure	2.15%	1.35%	1.80%	3.12%	0.24%	2.14%	2.06%	2.07%
Grants to municipalities	12,476	29,084	6,079	930	5,828	3,064	5,126	3,110
in % of total expenditure	32.72%	27.44%	29.62%	11.68%	27.77%	23.98%	29.78%	26.11%
Investment expenditure	2,488	12,312	1,046	3,127	2,813	1,706	1,385	1,605
in % of total expenditure	6.53%	11.62%	5.09%	39.29%	13.40%	13.35%	8.04%	13.48%
Financial Power Equalisation (FKA)	-	-	107	-	-	-	-	-
in % of total expenditure	-	-	0.52%	-	-	-	-	-
Budget balance	2,539	-2,423	1,189	-2,396	1,735	785	-222	637
Total debt	59,926	162,209	27,972	12,985	3,517	22,918	32,599	15,451

Source: Federal Ministry of Finance, NORD/LB Markets Strategy & Floor Research

Appendix Overview by key economic indicators

Development of nominal GDP (EURbn)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ranking
Baden-Wuerttemberg	425.4	442.7	463.3	474.9	497.3	516.9	525.3	509.4	538.9	572.8	**3**
Bavaria	511.9	534.1	554.7	577.7	605.8	620.2	644.0	630.5	666.4	716.8	**2**
Berlin	112.9	118.5	124.9	133.2	141.3	150.0	157.1	156.8	165.5	179.4	**6**
Brandenburg	60.5	63.7	65.3	67.5	70.6	72.8	76.0	75.8	80.6	88.8	**11**
Bremen	**28.8**	**29.8**	**30.5**	**31.4**	**32.4**	**32.9**	**33.2**	**32.2**	**35.2**	38.7	**15**
Hamburg	101.1	103.4	108.2	110.5	116.6	119.1	124.9	119.9	130.9	144.2	**9**
Hesse	243.5	253.8	260.3	271.2	280.1	286.4	295.8	288.1	303.3	323.4	**5**
Mecklenburg-Western Pomerania	37.6	39.4	40.1	41.1	44.2	44.4	47.6	46.9	49.9	53.4	**14**
Lower Saxony	247.9	259.1	261.4	280.6	287.9	297.7	310.7	303.7	315.7	339.4	**4**
North Rhine-Westphalia	**594.4**	**617.5**	**637.3**	**653.4**	**679.0**	**703.3**	**717.4**	**707.2**	**742.8**	**793.8**	**1**
Rhineland-Palatinate	123.0	127.5	132.9	136.3	140.1	143.3	147.0	144.6	162.2	171.7	**7**
Saarland	31.7	33.3	34.0	34.3	35.3	35.9	35.9	34.6	36.1	**38.5**	**16**
Saxony	104.1	109.3	113.6	117.2	121.8	125.3	130.3	128.7	135.0	146.5	**8**
Saxony-Anhalt	55.0	56.3	57.4	59.0	60.9	62.2	64.7	64.2	68.3	75.4	**12**
Schleswig-Holstein	80.0	82.9	84.8	87.5	92.6	95.1	99.6	99.7	104.7	112.8	**10**
Thuringia	53.4	56.2	57.5	59.0	61.2	62.3	63.8	63.2	66.4	71.4	**13**
Federal government	2,811.4	2,927.4	3,026.2	3,134.7	3,267.2	3,367.9	3,473.3	3,405.4	3,601.8	3,867.1	

Development of nominal GDP in EUR per capita

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ranking
Baden-Wuerttemberg	40,128	41,473	42,910	43,507	45,260	46,772	47,393	45,878	48,493	50,982	**4**
Bavaria	40,754	42,226	43,445	44,829	46,726	47,578	49,156	48,013	50,643	53,768	**3**
Berlin	33,215	34,395	35,741	37,551	39,320	41,164	42,965	42,752	45,074	48,147	**6**
Brandenburg	24,715	25,980	26,442	27,092	28,265	28,990	30,205	29,985	31,787	34,610	**13**
Bremen	43,934	45,173	45,739	46,450	47,638	48,282	48,641	47,257	51,822	56,901	**2**
Hamburg	**58,119**	**58,950**	**60,935**	**61,449**	**64,042**	**64,798**	**67,701**	**64,838**	**70,620**	**76,910**	**1**
Hesse	40,368	41,809	42,422	43,773	44,972	45,747	47,121	45,803	48,190	50,751	**5**
Mecklenburg-Western Pomerania	**23,540**	**24,663**	**24,954**	**25,497**	27,428	**27,529**	29,567	**29,167**	**30,957**	**32,837**	**16**
Lower Saxony	31,842	33,176	33,186	35,359	36,195	37,327	38,901	37,969	39,390	41,826	**8**
North Rhine-Westphalia	33,841	35,074	35,899	36,547	37,929	39,228	39,987	39,427	41,440	43,910	**7**
Rhineland-Palatinate	30,813	31,858	32,966	33,576	34,428	35,070	35,943	35,291	39,530	41,366	**9**
Saarland	31,955	33,594	34,302	34,397	35,510	36,148	36,265	35,140	36,730	38,925	**10**
Saxony	25,724	26,989	27,908	28,711	29,852	30,684	31,988	31,660	33,330	35,909	**12**
Saxony-Anhalt	24,445	25,141	25,617	26,325	**27,317**	28,000	**29,385**	29,345	31,381	34,505	**14**
Schleswig-Holstein	28,460	29,350	29,809	30,488	32,094	32,838	34,344	34,291	35,903	38,274	**11**
Thuringia	24,658	26,031	26,563	27,263	28,394	28,987	29,839	29,735	31,413	33,656	**15**
Federal government	34,861	36,149	37,046	38,067	39,527	40,594	41,800	40,950	43,292	45,993	

NB: Lowest values in orange, highest values in blue.
Source: Federal Statistical Office, national accounts produced by the Laender (VGRdL), NORD/LB Markets Strategy & Floor Research

NORD/LB

Real GDP growth Y/Y in %

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ranking
Baden-Wuerttemberg	0.7	2.2	2.5	1.1	3.6	2.2	-0.2	-5.4	3.4	1.4	**11**
Bavaria	1.3	2.4	1.8	2.5	3.7	0.4	1.7	-4.3	3.0	2.1	**7**
Berlin	0.3	2.7	3.6	5.1	4.3	3.9	2.9	-3.8	3.3	4.9	**2**
Brandenburg	0.5	3.8	0.9	2.1	2.6	0.7	1.9	-3.2	0.9	3.3	**4**
Bremen	-1.0	1.2	0.4	1.9	1.4	-0.2	-1.5	-4.1	2.7	5.1	**1**
Hamburg	3.0	-0.4	2.0	2.1	1.8	0.1	3.0	-6.7	2.0	4.5	**3**
Hesse	0.5	1.7	0.5	2.7	2.2	0.6	1.3	-4.7	3.1	1.6	**9**
Mecklenburg-Western Pomerania	0.2	3.1	0.3	1.4	4.3	-1.8	4.6	-3.7	1.7	0.2	**15**
Lower Saxony	-0.9	2.9	-0.6	6.0	0.9	1.3	2.1	-4.6	1.7	1.1	**13**
North Rhine-Westphalia	0.2	2.0	1.5	1.2	2.5	1.4	-0.1	-4.5	2.2	1.1	**14**
Rhineland-Palatinate	-0.1	2.1	2.5	1.1	1.4	0.3	0.4	-4.0	9.6	-0.2	**16**
Saarland	-2.5	3.2	0.3	-0.5	1.9	-0.5	-2.0	-6.4	1.4	1.7	**8**
Saxony	0.2	3.2	2.2	1.8	2.3	0.8	1.6	-4.2	2.5	2.6	**5**
Saxony-Anhalt	-0.7	1.1	0.4	1.5	1.0	-0.2	1.6	-3.8	2.1	2.6	**6**
Schleswig-Holstein	-0.8	1.7	0.8	2.3	2.9	0.6	2.5	-3.0	2.2	1.3	**12**
Thuringia	1.3	3.6	0.8	1.2	2.0	-0.2	0.1	-4.3	2.0	1.5	**10**
Federal government	0.4	2.2	1.5	2.2	2.7	1.1	1.1	-4.6	2.9	1.8	

Unemployment rate (%)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ranking
Baden-Wuerttemberg	4.1	4.0	3.8	3.8	3.5	3.2	3.2	4.1	3.9	3.5	**2**
Bavaria	3.8	3.8	3.6	3.5	3.2	2.9	2.8	3.6	3.5	3.1	**1**
Berlin	11.7	11.1	10.7	9.8	9.0	8.1	7.8	9.7	9.8	8.8	**15**
Brandenburg	9.9	9.4	8.7	8.0	7.0	6.3	5.8	6.2	5.9	5.6	**8**
Bremen	11.1	10.9	10.9	10.5	10.2	9.8	9.9	11.2	10.7	10.2	**16**
Hamburg	7.4	7.6	7.4	7.1	6.8	6.3	6.1	7.6	7.5	6.8	**11**
Hesse	5.8	5.7	5.5	5.3	5.0	4.6	4.4	5.4	5.2	4.8	**4**
Mecklenburg-Western Pomerania	11.7	11.2	10.4	9.7	8.6	7.9	7.1	7.8	7.6	7.3	**14**
Lower Saxony	6.6	6.5	6.1	6.0	5.8	5.3	5.0	5.8	5.5	5.3	**6**
North Rhine-Westphalia	8.3	8.2	8.0	7.7	7.4	6.8	6.5	7.5	7.3	6.8	**11**
Rhineland-Palatinate	5.5	5.4	5.2	5.1	4.8	4.4	4.3	5.2	5.0	4.6	**3**
Saarland	7.3	7.2	7.2	7.2	6.7	6.1	6.2	7.2	6.8	6.3	**10**
Saxony	9.4	8.8	8.2	7.5	6.7	6.0	5.5	6.1	5.9	5.6	**8**
Saxony-Anhalt	11.2	10.7	10.2	9.6	8.4	7.7	7.1	7.7	7.3	7.1	**13**
Schleswig-Holstein	6.9	6.8	6.5	6.3	6.0	5.5	5.1	5.8	5.6	5.2	**5**
Thuringia	8.2	7.8	7.4	6.7	6.1	5.5	5.3	6.0	5.6	5.3	**6**
Federal government	6.9	6.7	6.4	6.1	5.7	5.2	5.0	5.9	6.3	5.3	

NB: Lowest values in orange, highest values in blue. Reversed for unemployment figures.
Source: Federal Statistical Office, national accounts produced by the Laender (VGRdL), NORD/LB Markets Strategy & Floor Research

Appendix Overview by budget indicators

Official debt level (EURbn)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ranking
Baden-Wuerttemberg	44.2	45.6	40.7	40.6	37.6	35.4	35.3	38.9	38.0	34.2	**12**
Bavaria	26.4	25.1	22.6	19.4	16.9	14.6	12.9	17.8	19.8	18.9	**6**
Berlin	60.4	59.8	58.6	58.0	56.5	54.4	53.9	59.6	59.6	59.4	**14**
Brandenburg	17.2	16.7	16.7	16.2	15.4	14.8	15.3	17.3	17.8	17.2	**5**
Bremen	19.6	19.5	21.2	21.0	20.5	21.5	29.7	39.0	36.0	22.4	**7**
Hamburg	23.2	23.2	23.2	22.9	22.3	23.9	23.2	24.9	25.4	25.1	**9**
Hesse	39.9	41.0	42.6	42.7	40.9	39.9	40.4	43.0	40.4	40.0	**13**
Mecklenburg-Western Pomerania	9.5	9.4	9.2	8.3	7.8	7.5	7.4	8.4	8.5	8.2	**2**
Lower Saxony	56.5	57.2	58.1	57.2	57.2	56.6	56.4	61.8	61.6	59.9	**15**
North Rhine-Westphalia	**133.9**	**136.8**	**136.9**	**137.0**	**138.8**	**135.6**	**142.9**	**153.8**	**158.6**	**162.2**	**16**
Rhineland-Palatinate	32.8	32.6	32.1	32.5	31.1	30.5	29.8	30.8	28.5	28.0	**10**
Saarland	13.7	14.0	14.1	13.8	13.8	13.6	13.7	13.9	13.5	13.0	**3**
Saxony	**4.1**	**3.2**	**2.3**	**1.9**	**1.6**	**1.4**	**1.1**	**3.6**	**4.3**	**3.5**	**1**
Saxony-Anhalt	20.4	20.5	20.0	20.2	20.8	19.9	20.9	21.2	21.9	22.9	**8**
Schleswig-Holstein	26.4	26.8	26.7	26.5	25.7	27.4	27.8	29.1	31.0	32.6	**11**
Thuringia	15.8	15.7	15.6	14.8	15.3	14.3	14.3	15.4	16.1	15.5	**4**

Debt per capita in EUR

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ranking
Baden-Wuerttemberg	4,174	4,286	3,791	3,734	3,441	3,224	3,180	3,504	3,427	3,042	**3**
Bavaria	2,105	1,991	1,781	1,509	1,315	1,124	985	1,354	1,510	1,417	**2**
Berlin	17,804	17,468	16,844	16,477	15,917	15,137	14,769	16,286	16,285	15,943	**15**
Brandenburg	7,032	6,826	6,785	6,507	6,190	5,911	6,098	6,867	7,031	6,711	**6**
Bremen	**30,012**	**29,736**	**32,044**	**31,275**	**30,384**	**31,617**	**43,542**	**57,443**	**52,927**	**32,924**	**16**
Hamburg	13,319	13,300	13,116	12,810	12,391	13,132	12,583	13,510	13,758	13,375	**14**
Hesse	6,617	6,788	6,978	6,909	6,625	6,406	6,435	6,845	6,425	6,276	**5**
Mecklenburg-Western Pomerania	5,937	5,870	5,782	5,175	4,872	4,676	4,625	5,203	5,252	5,068	**4**
Lower Saxony	7,248	7,339	7,414	7,210	7,191	7,111	7,049	7,725	7,709	7,385	**9**
North Rhine-Westphalia	7,633	7,783	7,753	7,669	7,763	7,580	7,970	8,576	8,844	8,973	**10**
Rhineland-Palatinate	8,213	8,170	7,983	8,011	7,666	7,489	7,294	7,537	6,967	6,739	**7**
Saarland	13,853	14,100	14,272	13,904	13,850	13,628	13,830	14,121	13,742	13,127	**13**
Saxony	**1,004**	**783**	**566**	**453**	**381**	**346**	**279**	**874**	**1,055**	**862**	**1**
Saxony-Anhalt	9,068	9,142	8,976	9,006	9,272	8,938	9,495	9,703	10,014	10,483	**11**
Schleswig-Holstein	8,415	9,533	9,423	9,270	8,925	9,499	9,587	10,015	10,673	11,066	**12**
Thuringia	7,325	7,254	7,223	6,837	7,101	6,630	6,689	7,231	7,573	7,280	**8**

NB: Lowest values in blue, highest values in orange.
Source: Federal Ministry of Finance, NORD/LB Markets Strategy & Floor Research

Official debt level as a % of GDP

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ranking
Baden-Wuerttemberg	10.40	10.29	8.78	8.56	7.56	6.86	6.70	7.70	7.10	5.97	**3**
Bavaria	5.16	4.70	4.08	3.36	2.80	2.35	2.00	2.85	**3.00**	2.64	**2**
Berlin	53.53	50.43	46.91	43.54	39.99	36.25	34.26	38.60	36.60	33.11	**14**
Brandenburg	28.43	26.23	25.55	23.97	21.80	20.27	20.13	23.03	22.57	19.39	**9**
Bremen	**68.15**	**65.60**	**69.61**	**66.97**	**63.44**	**65.17**	**89.75**	**120.76**	**105.12**	**57.68**	**16**
Hamburg	22.95	22.46	21.47	20.71	19.12	20.08	18.62	21.15	20.03	17.39	**7**
Hesse	16.37	16.17	16.36	15.74	14.61	13.93	13.67	15.08	13.36	12.37	**4**
Mecklenburg-Western Pomerania	25.19	23.78	23.07	20.30	17.74	16.97	15.61	17.89	17.09	15.43	**5**
Lower Saxony	22.77	22.07	22.23	20.37	19.85	19.02	18.13	20.51	19.52	17.66	**8**
North Rhine-Westphalia	22.53	22.15	21.48	20.97	20.44	19.28	19.94	22.12	21.63	20.43	**10**
Rhineland-Palatinate	26.63	25.59	24.11	23.82	22.22	21.27	20.29	21.53	17.58	16.29	**6**
Saarland	43.32	42.01	41.45	40.40	39.10	37.80	38.13	40.73	37.98	33.72	**15**
Saxony	**3.90**	**2.90**	**2.02**	**1.58**	**1.28**	**1.12**	**0.87**	**2.79**	3.19	**2.40**	**1**
Saxony-Anhalt	37.05	36.44	34.91	34.28	34.09	32.06	32.24	33.48	32.63	30.38	**13**
Schleswig-Holstein	33.05	32.39	31.50	30.28	27.72	28.83	27.88	29.52	29.68	28.91	**12**
Thuringia	29.68	27.89	27.08	25.15	25.08	22.92	22.36	24.66	24.59	21.63	**11**

Official debt level/tax revenue

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ranking
Baden-Wuerttemberg	1.47x	1.43x	1.23x	1.12x	1.00x	0.87x	0.86x	1.03x	0.91x	0.82x	**3**
Bavaria	0.70x	0.63x	0.54x	0.42x	0.36x	0.29x	0.25x	0.40x	0.40x	0.38x	**2**
Berlin	5.07x	4.55x	4.30x	3.93x	3.67x	3.19x	3.08x	2.88x	2.42x	2.41x	**12**
Brandenburg	2.78x	2.72x	2.50x	2.24x	2.02x	1.81x	1.84x	2.12x	1.88x	1.82x	**8**
Bremen	**8.15x**	**7.62x**	**7.82x**	**6.89x**	**6.57x**	**6.42x**	**8.82x**	**10.15x**	**7.99x**	**4.97x**	**16**
Hamburg	2.56x	2.35x	2.29x	2.12x	1.92x	1.90x	1.78x	2.13x	1.80x	1.78x	**7**
Hesse	2.27x	2.21x	2.17x	1.93x	1.80x	1.74x	1.66x	2.02x	1.61x	1.59x	**5**
Mecklenburg-Western Pomerania	2.43x	2.23x	2.10x	1.84x	1.62x	1.50x	1.39x	1.54x	1.54x	1.50x	**4**
Lower Saxony	2.83x	2.84x	2.64x	2.40x	2.37x	2.20x	2.07x	2.34x	2.12x	2.06x	**10**
North Rhine-Westphalia	3.00x	2.95x	2.75x	2.55x	2.49x	2.29x	2.30x	2.52x	2.32x	2.38x	**11**
Rhineland-Palatinate	3.21x	3.09x	2.92x	2.71x	2.43x	2.39x	2.14x	2.26x	1.71x	1.68x	**6**
Saarland	5.59x	5.33x	5.14x	4.75x	4.56x	4.24x	4.16x	4.16x	3.83x	3.67x	**15**
Saxony	**0.41x**	**0.31x**	**0.21x**	**0.16x**	**0.13x**	**0.11x**	**0.09x**	**0.27x**	**0.30x**	**0.24x**	**1**
Saxony-Anhalt	3.65x	3.62x	3.31x	3.11x	3.13x	2.84x	2.87x	3.02x	2.83x	2.96x	**13**
Schleswig-Holstein	3.61x	3.74x	3.31x	3.03x	2.83x	2.90x	2.78x	2.98x	2.83x	2.97x	**14**
Thuringia	2.95x	2.84x	2.67x	2.39x	2.38x	2.10x	2.02x	2.22x	2.13x	2.05x	**10**

NB: Lowest values in blue, highest values in orange.
Source: Federal Ministry of Finance, Federal Statistical Office, NORD/LB Markets Strategy & Floor Research

Tax revenue/interest expenditure

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ranking
Baden-Wuerttemberg	17.4x	20.1x	21.5x	24,7x	27.2x	29.1x	33.3x	32.2x	26.5x	38.9x	**9**
Bavaria	**39.6x**	**44.8x**	**50.5x**	**60.9x**	65.2x	**86.3x**	98.5x	92.9x	125.3x	147.7x	**2**
Berlin	6.2x	7.5x	8.5x	10.7x	11.8x	13.8x	15.1x	21.4x	22.7x	28.2x	**14**
Brandenburg	13.3x	14.4x	18.4x	21.7x	25.5x	29.1x	30.8x	41.1x	38.1x	52.6x	**3**
Bremen	**3.8x**	**4.6x**	**4.2x**	**5.1x**	**5.1x**	**5.7x**	**5.6x**	**6.3x**	**7.6x**	**8.2x**	**16**
Hamburg	11.9x	14.4x	17.0x	19.5x	23.3x	28.1x	29.1x	29.1x	37.3x	44.4x	**5**
Hesse	13.8x	15.6x	16.7x	21.6x	22.7x	23.9x	27.0x	24.3x	29.7x	35.4x	**10**
Mecklenburg-Western Pomerania	11.4x	13.3x	15.5x	18.1x	21.4x	23.6x	27.1x	28.1x	33.0x	41.9x	**7**
Lower Saxony	12.0x	13.2x	15.8x	18.8x	20.9x	24.2x	27.6x	43.8x	50.4x	40.3x	**8**
North Rhine-Westphalia	11.3x	13.0x	15.0x	19.2x	21.0x	24.2x	31.0x	44.1x	43.3x	51.7x	**4**
Rhineland-Palatinate	10.4x	11.2x	13.4x	14.6x	17.1x	22.1x	29.4x	36.6x	50.3x	43.7x	**6**
Saarland	5.1x	5.6x	6.4x	7.4x	8.0x	8.9x	10.4x	11.6x	14.0x	16.2x	**15**
Saxony	33.2x	40.0x	50.0x	60.8x	**69.9x**	79.7x	**108.2x**	**171.4x**	**186.6x**	**332.1x**	**1**
Saxony-Anhalt	8.8x	9.5x	11.0x	12.8x	14.6x	19.1x	20.3x	21.5x	23.2x	32.5x	**13**
Schleswig-Holstein	8.5x	9.3x	12.4x	14.8x	18.4x	20.5x	24.3x	30.0x	32.6x	35.0x	**11**
Thuringia	9.3x	10.1x	11.6x	14.3x	16.7x	20.5x	22.7x	24.0x	27.6x	34.9x	**12**

Adjusted revenue (EURm)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ranking
Baden-Wuerttemberg	40,478	42,952	44,054	47,670	49,888	53,335	54,999	55,139	61,821	64,034	**3**
Bavaria	48,869	51,786	54,048	56,989	59,917	63,792	65,949	62,468	72,849	74,275	**2**
Berlin	22,746	23,799	24,713	26,283	27,701	29,340	29,812	31,116	35,831	37,379	**5**
Brandenburg	10,829	10,537	10,764	11,198	11,612	12,279	12,334	12,572	13,859	15,015	**11**
Bremen	4,368	4,658	4,839	5,277	5,491	5,734	5,961	6,288	7,286	7,313	**15**
Hamburg	11,219	12,297	12,851	13,757	14,541	15,641	16,200	16,211	19,620	20,732	**9**
Hesse	22,004	23,011	24,512	27,083	28,043	28,826	29,936	31,937	36,705	35,374	**6**
Mecklenburg-Western Pomerania	7,335	7,394	7,737	7,863	8,063	8,301	8,583	9,284	10,508	11,104	**14**
Lower Saxony	26,352	27,140	28,893	30,131	30,753	33,420	34,188	35,494	36,501	40,667	**4**
North Rhine-Westphalia	**56,770**	**59,881**	**63,688**	**68,432**	**71,801**	**75,534**	**78,369**	**93,192**	**96,390**	**103,576**	**1**
Rhineland-Palatinate	13,819	14,578	15,284	16,343	17,287	17,289	18,470	18,984	22,985	21,711	**8**
Saarland	**3,425**	**3,590**	**3,745**	**3,968**	**4,265**	**4,381**	**4,438**	**4,728**	**4,905**	**5,564**	**16**
Saxony	17,156	17,318	18,041	17,640	18,268	20,268	19,385	20,025	20,418	22,726	**7**
Saxony-Anhalt	10,118	9,986	10,795	10,811	10,888	11,033	11,313	11,455	12,464	13,560	**12**
Schleswig-Holstein	9,760	9,621	10,649	11,544	12,223	12,493	13,256	14,706	15,725	16,991	**10**
Thuringia	9,297	9,143	9,344	9,772	10,087	10,399	10,473	10,195	10,907	12,548	**13**

NB: Lowest values in blue, highest values in orange. Reversed for tax revenue/interest expenses as well as adjusted revenue.
Source: Federal Ministry of Finance, Federal Statistical Office, NORD/LB Markets Strategy & Floor Research

Adjusted revenue in EUR per capita

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ranking
Baden-Wuerttemberg	3,807	4,008	4,049	4,353	4,555	4,818	4,955	4,966	5,557	5,677	**10**
Bavaria	3,877	4,080	4,208	4,407	4,634	4,878	5,025	4,754	5,528	5,556	**13**
Berlin	**6,647**	6,859	7,021	7,352	7,749	8,050	8,124	8,492	9,743	9,954	**3**
Brandenburg	4,421	4,287	4,332	4,489	4,655	4,888	4,891	4,967	5,461	5,835	**7**
Bremen	6,644	**7,037**	**7,206**	**7,774**	**8,090**	8,395	8,751	**9,245**	**10,771**	10,678	**2**
Hamburg	6,424	6,976	7,190	7,599	8,032	**8,495**	**8,770**	8,751	10,583	**10,957**	**1**
Hesse	3,640	3,776	3,969	4,359	4,514	4,601	4,761	5,075	5,831	5,535	**14**
Mecklenburg-Western Pomerania	4,594	4,623	4,799	4,882	5,006	5,157	5,337	5,764	6,522	6,819	**4**
Lower Saxony	3,383	3,468	**3,519**	**3,792**	**3,870**	**4,187**	**4,277**	**4,435**	**4,547**	**4,996**	**16**
North Rhine-Westphalia	**3,231**	**3,395**	3,565	3,825	4,013	4,212	4,367	5,199	5,378	5,710	**9**
Rhineland-Palatinate	3,460	3,634	3,771	4,019	4,251	4,232	4,511	4,632	5,597	5,220	**15**
Saarland	3,457	3,630	3,761	3,982	4,279	4,423	4,497	4,805	4,993	5,605	**11**
Saxony	4,240	4,271	4,417	4,322	4,475	4,970	4,761	4,936	5,050	5,562	**12**
Saxony-Anhalt	4,508	4,467	4,808	4,835	4,869	4,996	5,155	5,253	5,746	6,201	**5**
Schleswig-Holstein	3,466	3,399	3,725	4,006	4,241	4,313	4,565	5,052	5,381	5,753	**8**
Thuringia	4,303	4,239	4,304	4,528	4,674	4,852	4,909	4,808	5,172	5,900	**6**

Adjusted expenditure (EURm)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Rang*
Baden-Wuerttemberg	40,688	42,254	44,050	47,483	48,173	50,312	51,608	58,430	60,373	60,558	-
Bavaria	46,759	50,178	51,966	55,178	56,938	59,579	64,680	68,602	71,959	71,531	-
Berlin	22,266	22,961	24,507	26,147	26,691	26,918	28,222	32,889	36,017	36,432	-
Brandenburg	10,119	10,210	10,527	10,778	11,114	11,619	13,350	13,313	14,667	14,828	-
Bremen	4,852	5,097	5,100	5,271	5,508	5,668	5,867	6,598	7,415	**7,472**	-
Hamburg	11,815	11,873	12,628	13,470	13,532	16,771	15,508	16,868	19,686	18,272	-
Hesse	22,512	23,677	24,738	26,609	27,827	27,750	28,389	32,775	34,286	33,703	-
Mecklenburg-Western Pomerania	7,017	7,131	7,402	7,546	7,387	8,064	8,557	12,382	10,526	10,587	-
Lower Saxony	26,733	27,346	28,049	29,155	29,917	30,631	32,391	40,405	37,924	38,129	-
North Rhine-Westphalia	**59,220**	**61,784**	**65,635**	**68,398**	**73,025**	**74,466**	**76,648**	**104,807**	**99,925**	**105,999**	-
Rhineland-Palatinate	14,364	15,192	15,852	16,019	16,430	16,422	17,211	20,329	20,688	20,522	-
Saarland	**3,883**	**3,891**	**3,986**	**4,119**	**4,227**	**4,236**	**4,321**	**4,752**	**4,715**	7,960	-
Saxony	16,334	16,655	18,193	17,782	17,585	19,017	19,383	21,449	20,424	20,991	-
Saxony-Anhalt	9,869	9,916	10,369	10,348	10,704	10,718	11,269	12,351	12,459	12,775	-
Schleswig-Holstein	9,645	9,865	10,563	11,160	12,099	14,409	13,019	15,133	15,592	17,213	-
Thuringia	8,956	8,957	9,106	9,181	9,171	9,776	10,025	11,362	11,296	11,911	-

NB: Lowest values in orange, highest values in blue. Reversed for adjusted expenditure figures.
* No ranking, as low/high expenditure values are neither positive or negative per se.
Source: Federal Statistical Office, national accounts produced by the Laender (VGRdL), NORD/LB Markets Strategy & Floor Research

Adjusted expenditure in EUR per capita

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ranking*
Baden-Wuerttemberg	3,827	3,943	4,049	4,336	4,399	4,545	4,649	5,262	5,427	5,368	-
Bavaria	3,710	3,954	4,046	4,267	4,403	4,556	4,928	5,221	5,461	5,350	-
Berlin	6,507	6,617	6,962	7,314	7,466	7,385	7,691	8,976	9,794	9,701	-
Brandenburg	4,131	4,154	4,237	4,320	4,455	4,626	5,294	5,260	5,779	5,763	-
Bremen	7,380	7,701	7,594	7,766	8,115	8,299	8,613	9,701	10,961	10,910	-
Hamburg	6,765	6,735	7,065	7,440	7,474	9,109	8,395	9,106	10,618	9,657	-
Hesse	3,724	3,885	4,005	4,283	4,479	4,429	4,515	5,208	5,447	5,273	-
Mecklenburg-Western Pomerania	4,395	4,459	4,591	4,685	4,586	5,010	5,321	7,687	6,533	6,502	-
Lower Saxony	3,431	3,494	3,539	3,669	3,765	3,837	4,052	5,049	4,724	4,684	-
North Rhine-Westphalia	3,370	3,503	3,674	3,823	4,082	4,153	4,271	5,847	5,575	5,844	-
Rhineland-Palatinate	3,596	3,787	3,911	3,940	4,041	4,020	4,204	4,960	5,038	4,934	-
Saarland	3,919	3,934	4,003	4,133	4,291	4,227	4,378	4,829	4,800	8,018	-
Saxony	4,037	4,107	4,454	4,356	4,308	4,663	4,760	5,287	5,052	5,137	-
Saxony-Anhalt	4,397	4,436	4,618	4,627	4,786	4,854	4,854	5,664	5,744	5,842	-
Schleswig-Holstein	3,425	3,485	3,695	3,872	4,198	4,974	4,484	5,199	5,336	5,828	-
Thuringia	4,145	4,153	4,195	4,254	4,249	4,561	4,699	5,359	5,356	5,600	-

Budget balance (EURm)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ranking
Baden-Wuerttemberg	-210	697	4	187	1,715	3,023	3,391	-3,291	1,447	3,476	**1**
Bavaria	2,110	1,608	2,081	1,811	2,979	4,213	1,269	-6,135	889	2,744	**2**
Berlin	480	838	206	137	1,009	2,422	1,590	-1,773	-186	947	**8**
Brandenburg	710	327	237	420	498	660	-1,016	-741	-808	186	**12**
Bremen	-484	-440	-266	5	-17	66	94	-310	-128	-159	**13**
Hamburg	-596	424	223	287	1,009	-1,130	692	-657	-66	2,461	**4**
Hesse	-508	-666	-226	474	217	1,076	1,547	-838	2,419	1,671	**6**
Mecklenburg-Western Pomerania	318	263	335	317	676	237	26	-3,098	-18	516	**11**
Lower Saxony	-381	-205	-156	976	836	2,789	1,798	-4,911	-1,423	2,539	**3**
North Rhine-Westphalia	-2,450	-1,903	-1,947	34	-1,225	1,069	1,722	-11,615	-3,536	-2,423	**16**
Rhineland-Palatinate	-546	-614	-568	324	857	867	1,258	-1,346	2,297	1,189	**7**
Saarland	-458	-301	-241	-151	-12	145	117	-24	190	-2,396	**15**
Saxony	822	663	-152	-142	683	1,251	2	-1,425	-6	1,735	**5**
Saxony-Anhalt	249	70	426	464	185	315	44	-896	5	785	**9**
Schleswig-Holstein	115	-244	87	384	125	-1,917	237	-427	133	-222	**14**
Thuringia	341	186	238	592	917	624	448	-1,167	-389	637	**10**

NB: Highest values in orange, lowest values in blue. Reversed for budget balance figures.

* No ranking, as low/high expenditure values are neither positive or negative per se.
Source: Federal Statistical Office, national accounts produced by the Laender (VGRdL), NORD/LB Markets Strategy & Floor Research

NORD/LB

Budget balance per capita in EUR

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ranking
Baden-Wuerttemberg	-20	65	3	22	160	273	305	-296	130	308	**6**
Bavaria	167	127	162	140	230	322	97	-467	67	205	**11**
Berlin	140	**241**	59	38	283	**664**	**433**	-484	-51	252	**10**
Brandenburg	**290**	133	95	168	200	163	**-403**	-293	**-318**	72	**12**
Bremen	**-736**	**-664**	**-389**	8	-25	96	138	-456	-190	-232	**15**
Hamburg	-341	**241**	126	158	**558**	-614	374	-354	-36	**1,300**	**1**
Hesse	-84	-109	-38	76	35	172	246	-133	384	261	**9**
Mecklenburg-Western Pomerania	199	164	**208**	197	420	147	16	**-1,923**	-11	317	**4**
Lower Saxony	-49	-26	-20	123	105	349	225	-614	-177	312	**5**
North Rhine-Westphalia	-139	-108	-109	2	**-68**	60	96	-648	-197	-134	**14**
Rhineland-Palatinate	-137	-153	-140	78	211	212	307	-328	**559**	286	**8**
Saarland	-462	-304	-242	**-151**	-11	147	119	**-24**	193	**-2,414**	**16**
Saxony	203	163	-34	-30	173	307	0	-351	-2	425	**2**
Saxony-Anhalt	111	31	190	207	83	142	20	-411	2	359	**3**
Schleswig-Holstein	41	-86	30	133	43	**-662**	82	-147	45	-75	**13**
Thuringia	158	86	109	**274**	425	291	210	-550	-185	300	**7**

Budget balance as a % of GDP

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ranking
Baden-Wuerttemberg	-0.05	0.16	0.00	0.04	0.34	0.58	0.64	-0.65	0.27	0.61	**8**
Bavaria	0.41	0.30	0.38	0.31	0.49	0.68	0.20	-0.98	0.13	0.38	**11**
Berlin	0.43	**0.71**	0.16	0.10	0.72	**1.61**	**1.01**	-1.15	-0.11	0.53	**9**
Brandenburg	**1.17**	0.51	0.36	0.62	0.71	0.91	**-1.33**	-0.98	**-1.03**	0.21	**12**
Bremen	**-1.68**	**-1.48**	**-0.86**	0.02	-0.05	0.20	0.28	-0.96	-0.38	-0.41	**15**
Hamburg	-0.59	0.41	0.21	0.26	0.87	-0.95	0.56	-0.56	-0.05	**1.71**	**1**
Hesse	-0.21	-0.26	-0.09	0.17	0.08	0.38	0.52	-0.29	0.80	0.52	**10**
Mecklenburg-Western Pomerania	0.85	0.67	**0.84**	0.77	**1.53**	0.53	0.06	**-6.62**	-0.04	0.97	**4**
Lower Saxony	-0.15	-0.08	-0.06	0.35	0.29	0.94	0.58	-1.63	-0.45	0.75	**6**
North Rhine-Westphalia	-0.41	-0.31	-0.31	0.01	**-0.18**	0.15	0.24	-1.67	-0.48	-0.31	**14**
Rhineland-Palatinate	-0.44	-0.48	-0.43	0.24	0.61	0.61	0.86	-0.94	**1.42**	0.69	**7**
Saarland	-1.44	-0.90	-0.71	**-0.44**	-0.03	0.40	0.33	**-0.07**	0.53	**-6.22**	**16**
Saxony	0.79	0.61	-0.13	-0.12	0.58	1.00	0.00	-1.12	0.00	1.18	**2**
Saxony-Anhalt	0.45	0.12	0.74	0.79	0.30	0.51	0.07	-1.41	0.01	1.04	**3**
Schleswig-Holstein	0.14	-0.29	0.10	0.44	0.13	**-2.02**	0.24	-0.43	0.13	-0.20	**13**
Thuringia	0.64	0.33	0.41	**1.00**	1.50	1.00	0.70	-1.87	-0.59	0.89	**5**

NB: Highest values in blue, lowest values in orange.
Source: Federal Ministry of Finance, Federal Statistical Office, NORD/LB Markets Strategy & Floor Research

Appendix Age structure of the Laender populations

Share of different age groups in the population

	Under the age of 6	6 to 15 years old	15 to 25 years old	25 to 45 years old	45 to 65 years old	Aged 65+
Baden-Wuerttemberg	6.0%	8.5%	10.5%	26.0%	28.1%	20.9%
Bavaria	5.9%	8.3%	10.2%	26.3%	28.4%	20.9%
Berlin	6.0%	8.4%	9.7%	31.9%	25.2%	18.9%
Brandenburg	5.1%	8.6%	8.3%	22.2%	30.3%	25.5%
Bremen	6.0%	8.3%	11.0%	27.2%	26.4%	21.1%
Hamburg	6.2%	8.4%	10.4%	31.0%	26.1%	17.9%
Hesse	5.8%	8.6%	10.3%	25.8%	28.4%	21.1%
Mecklenburg-Western Pomerania	4.8%	8.2%	8.6%	22.6%	29.4%	26.4%
Lower Saxony	5.8%	8.5%	10.4%	24.2%	28.8%	22.5%
North Rhine-Westphalia	5.8%	8.5%	10.4%	25.2%	28.5%	21.5%
Rhineland-Palatinate	5.7%	8.3%	9.9%	24.6%	28.9%	22.6%
Saarland	5.1%	7.7%	9.3%	23.9%	29.2%	24.8%
Saxony	5.1%	8.5%	9.0%	23.6%	27.1%	26.6%
Saxony-Anhalt	4.8%	8.0%	8.5%	21.9%	29.2%	27.6%
Schleswig-Holstein	5.4%	8.3%	9.9%	23.5%	29.5%	23.5%
Thuringia	4.8%	8.2%	8.7%	22.3%	28.9%	27.1%
Federal government	5.7%	8.4%	10.0%	25.4%	28.3%	22.1%

Source: Federal Statistical Office, NORD/LB Markets Strategy & Floor Research

Appendix Election calendar

Provisional dates for the next Laender parliamentary (Landtag) elections (and frequency)

Baden-Wuerttemberg	Spring 2026	5 years
Bavaria	08 October 2023	5 years
Berlin	Autumn 2026	5 years
Brandenburg	22 September 2024	5 years
Bremen	Spring 2027	4 years
Hamburg	Spring 2025	5 years
Hesse	08 October 2023	5 years
Mecklenburg-Western Pomerania	Autumn 2026	5 years
Lower Saxony	Autumn 2027	5 years
North Rhine-Westphalia	Spring 2027	5 years
Rhineland-Palatinate	Spring 2026	5 years
Saarland	Spring 2027	5 years
Saxony	01 September 2024	5 years
Saxony-Anhalt	Summer 2026	5 years
Schleswig-Holstein	Spring 2027	5 years
Thuringia	Autumn 2024	5 years

Source: German Federal Council (Bundesrat), NORD/LB Markets Strategy & Floor Research

Appendix

Data and definitions used

Data source and actuality for securities
Nearly all of the data on securities used within this Issuer Guide is based on the Bloomberg financial information system, whereby our own trading (NOLB) was used as the primary source of price information. Information with regard to the respective composition of the iBoxx indices was obtained from data provider Markit.

Data source and actuality for Schuldscheindarlehen (SSD)
To determine the issuance volume of SSD, the data was requested directly from the individual Laender. The portion of Laender debt attributable to SSD deals was also ascertained via a survey, although approximate estimations were used in some cases.

Data source and assumptions for assessment of budget situation
Federal Ministry of Finance cash statistics were used to analyse Laender budgets for financial year 2022. It should be noted that these figures do not necessarily reflect the actual budgets. Rather, the cash statistics relate to payments actually made in 2022. In our opinion, this does not appropriately illustrate the movements in funds connected to the system of financial equalisation among the Laender (FKA) for the 2022 budget year. For instance, a payment claim can arise in one financial year but actual payments can take place in part in the following year. Payments from federal supplementary grants (BEZ) are similar in this regard, which is why we use the provisional annual financial statements for 2022 of the Federal Ministry of Finance to illustrate the figures relating to the federal financial equalisation system. The historical data for the Laender budgets is based on the final results of the development of the Laender budgets.

Terminology: debt sustainability and interest coverage
Determining the debt sustainability and interest coverage represents an important part of our analysis of the budgets of the Laender. These terms relate to the various key indicators that measure debt and interest expenses against other variables. Here, we use debt in relation to economic output or the total revenue of a sub-sovereign as one example of debt sustainability. In our debt sustainability analysis, we also look at debt per capita. When determining interest coverage, we focus primarily on the ratio of revenue or taxes to the interest expenses during a given period.

Data source and assumptions for assessment of economic situation
When analysing the economic situation in a Land, we used data from the Federal Statistical Office (Destatis) and from the respective statistical offices in the Laender. In some instances, we also used data from other sources, such as the German Patent and Trade Mark Office (DPMA). The data used is in part based on analyses carried out by our NORD/LB Regional Economy and Sector Strategy (formerly known as Regional Research) teams.

Special thanks to our helping hands
We would like to take this opportunity to thank Lukas-Finn Frese for his valuable contributions to this study. His commitment and ideas have resulted in a highly differentiated presentation of the market for bonds issued by German Laender in a slightly adapted format.

Appendix
Contacts at NORD/LB

Markets Strategy & Floor Research

Dr Frederik Kunze
Covered Bonds/Banks

+49 172 354 8977
frederik.kunze@nordlb.de

Dr Norman Rudschuck, CIIA
SSA/Public Issuers

+49 152 090 24094
norman.rudschuck@nordlb.de

Melanie Kiene, CIIA
Covered Bonds/Banks

+49 172 169 2633
melanie.kiene@nordlb.de

Christian Ilchmann
SSA/Public Issuers

+49 157 851 64976
christian.ilchmann@nordlb.de

Stefan Rahaus
Covered Bonds/Banks

+49 172 6086 438
stefan.rahaus@nordlb.de

Sales

Institutional Sales	+49 511 9818-9440
Sales Sparkassen & Regionalbanken	+49 511 9818-9400
Sales MM/FX	+49 511 9818-9460
Sales Europe	+352 452211-515

Trading

Covereds/SSA	+49 511 9818-8040
Financials	+49 511 9818-9490
Governments	+49 511 9818-9660
Länder/Regionen	+49 511 9818-9550
Frequent Issuers	+49 511 9818-9640

Origination & Syndicate

Origination FI	+49 511 9818-6600
Origination Corporates	+49 511 361-2911

Sales Wholesale Customers

Firmenkunden	+49 511 361-4003
Asset Finance	+49 511 361-8150

Treasury

Collat. Management/Repos	+49 511 9818-9200
Liquidity Management	+49 511 9818-9620 +49 511 9818-9650

Disclaimer

The present report (hereinafter referred to as "information") was drawn up by NORDDEUTSCHE LANDESBANK GIROZENTRALE (NORD/LB). The supervisory authorities responsible for NORD/LB are the European Central Bank (ECB), Sonnemannstraße 20, D-60314 Frankfurt am Main, and the Federal Financial Supervisory Authority in Germany (Bundesanstalt für Finanzdienstleitungsaufsicht; BaFin), Graurheindorfer Str. 108, D-53117 Bonn and Marie-Curie-Str. 24-28, D-60439 Frankfurt am Main. The present report and the products and services described herein have not been reviewed or approved by the relevant supervisory authority.

The present information is addressed exclusively to Recipients in Austria, Belgium, Canada, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Indonesia, Ireland, Italy, Japan, Korea, Luxembourg, the Netherlands, New Zealand, Poland, Portugal, Singapore, Portugal, Spain, Sweden, Switzerland, the Republic of China (Taiwan), Thailand, the United Kingdom and Vietnam (hereinafter referred to as "Relevant Persons" or "Recipients"). The contents of the information are disclosed to the Recipients on a strictly confidential basis and, by accepting such information, the Recipients shall agree that they will not forward it to third parties, copy and/or reproduce this information without the prior written consent of NORD/LB. The present information is addressed solely to the Relevant Persons and any parties other than the Relevant Persons shall not rely on the information contained herein. In particular, neither this information nor any copy thereof shall be forwarded or transmitted to the United States of America or its territories or possessions, or distributed to any employees or affiliates of Recipients resident in these jurisdictions.

The present information does not constitute financial analysis within the meaning of Art. 36 (1) of the Delegate Regulation (EU) 2017/565, but rather represents a marketing communication for your general information **within the meaning of Art. 36 (2) of this Regulation. Against this background, NORD/LB expressly points out that this information has not been prepared in accordance with legal provisions promoting the independence of investment research and is not subject to any prohibition of trading following the dissemination of investment research.** Likewise, this information does not constitute an investment recommendation or investment strategy recommendation within the meaning of the Market Abuse Regulation (EU) No. 596/2014**.**

This report and the information contained herein have been compiled and are provided exclusively for information purposes. The present information is not intended as an investment incentive. It is provided for the Recipient's personal information, subject to the express understanding, which shall be acknowledged by the Recipient, that it does not constitute any direct or indirect offer, recommendation, solicitation to purchase, hold or sell or to subscribe for or acquire any securities or other financial instruments nor any measure by which financial instruments might be offered or sold.

All actual details, information and statements contained herein were derived from sources considered reliable by NORD/LB. For the preparation of this information, NORD/LB uses issuer-specific financial data providers, own estimates, company information and public media. However, since these sources are not verified independently, NORD/LB cannot give any assurance as to or assume responsibility for the accuracy and completeness of the information contained herein. The opinions and prognoses given herein on the basis of these sources constitute a non-binding evaluation of the employees of the Markets Strategy & Floor Research division of NORD/ LB. Any changes in the underlying premises may have a material impact on the developments described herein. Neither NORD/LB nor its governing bodies or employees can give any assurances as to or assume any responsibility or liability for the accuracy, appropriateness and completeness of this information or for any loss of return, any indirect, consequential or other damage which may be suffered by persons relying on the information or any statements or opinions set forth in the present Report (irrespective of whether such losses are incurred due to any negligence on the part of these persons or otherwise).

Past performance is not a reliable indicator of future performance. Exchange rates, price fluctuations of the financial instruments and similar factors may have a negative impact on the value and price of and return on the financial instruments referred to herein or any instruments linked thereto. Fees and commissions apply in relation to securities (purchase, sell, custody), which reduce the return on investment. An evaluation made on the basis of the historical performance of any security does not necessarily provide an indication of its future performance.
The present information neither constitutes any investment, legal, accounting or tax advice nor any assurance that an investment or strategy is suitable or appropriate in the light of the Recipient's individual circumstances, and nothing in this information constitutes a personal recommendation to the Recipient thereof. The securities or other financial instruments referred to herein may not be suitable for the Recipient's personal investment strategies and objectives, financial situation or individual needs.

Moreover, the present report in whole or in part is not a sales or other prospectus. Accordingly, the information contained herein merely constitutes an overview and does not form the basis for any potential decision to buy or sell on the part of an investor. A full description of the details relating to the financial instruments or transactions which may relate to the subject matter of this report is given in the relevant (financing) documentation. To the extent that the financial instruments described herein are NORD/LB's own issues and subject to the requirement to publish a prospectus, the conditions of issue applicable to any individual financial instrument and the relevant prospectus published with respect thereto as well NORD/LB's relevant registration form, all of which are available for download at www.nordlb.de and may be obtained free of charge from NORD/LB, Georgsplatz 1, 30159 Hanover, shall be solely binding. Furthermore, any potential investment decision should be made exclusively on the basis of such (financing) documentation. The present information cannot replace personal advice. Before making an investment decision, each Recipient should consult an independent investment adviser for individual investment advice with respect to the appropriateness of an investment in financial instruments or investment strategies subject to this information as well as for other and more recent information on certain investment opportunities.

Each of the financial instruments referred to herein may involve substantial risks, including capital, interest, index, currency and credit risks in addition to political, fair value, commodity and market risks. The financial instruments could experience a sudden and substantial deterioration in value, including a total loss of the capital invested. Each transaction should only be entered into on the basis of the relevant investor's assessment of his or her individual financial situation as well as of the suitability and risks of the investment.

NORD/LB and its affiliated companies may participate in transactions involving the financial instruments described in the present information or their underlying basis values for their own account or for the account of third parties, may issue other financial instruments with the same or similar features as those of the financial instruments presented in this information and may conduct hedging transactions to hedge positions. These measures may affect the price of the financial instruments described in the present information.

If the financial instruments presented in this information are derivatives, they may, depending on their structure, have an initial negative market value from the customer's perspective at the time the transaction is concluded. NORD/LB further reserves the right to transfer its economic risk from a derivative concluded with it to a third party on the market by means of a mirror-image counter transaction.

More detailed information on any commission payments which may be included in the selling price can be found in the "Customer Information on Securities Business" brochure, which is available to download at www.nordlb.de.

The information contained in the present report replaces all previous versions of corresponding information and refers exclusively to the time of preparation of the information. Future versions of this information will replace this version. NORD/LB is under no obligation to update and/or regularly review the data contained in such information. No guarantee can therefore be given that the information is up-to-date and continues to be correct.
By making use of this information, the Recipient shall accept the terms and conditions outlined above.

NORD/LB is a member of the protection scheme of Deutsche Sparkassen-Finanzgruppe. Further information for the Recipient is indicated in clause 28 of the General Terms and Conditions of NORD/LB or at www.dsgv.de/sicherungssystem.

Additional information for Recipients in Australia:
NORD/LB IS NOT A BANK OR DEPOSIT TAKING INSTITUTION AUTHORISED UNDER THE 1959 BANKING ACT OF AUSTRALIA. IT IS NOT SUPERVISED BY THE AUSTRALIAN PRUDENTIAL REGULATION AUTHORITY. NORD/LB does not provide personal advice with this information and does not take into account the objectives, financial situation or needs of the Recipient (other than for the purpose of combating money laundering).

Additional information for Recipients in Austria:
None of the information contained herein constitutes a solicitation or offer by NORD/LB or its affiliates to buy or sell any securities, futures, options or other financial instruments or to participate in any other strategy. Only the published prospectus pursuant to the Austrian Capital Market Act should be the basis for any investment decision of the Recipient. For regulatory reasons, products mentioned herein may not be on offer in Austria and therefore not available to investors in Austria. Therefore, NORD/LB may not be able to sell or issue these products, nor shall it accept any request to sell or issue these products to investors located in Austria or to intermediaries acting on behalf of any such investors.

Additional information for Recipients in Belgium:
Evaluations of individual financial instruments on the basis of past performance are not necessarily indicative of future results. It should be noted that the reported figures relate to past years.

Additional information for Recipients in Canada:
This report has been prepared solely for information purposes in connection with the products it describes and should not, under any circumstances, be construed as a public offer or any other offer (direct or indirect) to buy or sell securities in any province or territory of Canada. No financial market authority or similar regulatory body in Canada has made any assessment of these securities or reviewed this information and any statement to the contrary constitutes an offence. Potential selling restrictions may be included in the prospectus or other documentation relating to the relevant product.

Additional information for Recipients in Cyprus:
This information constitutes an analysis within the meaning of the section on definitions of the Cyprus Directive D1444-2007-01 (No. 426/07). Furthermore, this information is provided for information and promotional purposes only and does not constitute an individual invitation or offer to sell, buy or subscribe to any investment product**.**

Additional information for Recipients in the Czech Republic:
There is no guarantee that the invested amount will be recouped. Past returns are no guarantee of future results. The value of the investments may rise or fall. The information contained herein is provided on a non-binding basis only and the author does not guarantee the accuracy of the content.

Additional information for Recipients in Denmark:
This Information does not constitute a prospectus under Danish securities law and consequently is not required to be, nor has been filed with or approved by the Danish Financial Supervisory Authority, as this Information either (i) has not been prepared in the context of a public offering of securities in Denmark or the admission of securities to trading on a regulated market within the meaning of the Danish Securities Trading Act or any executive orders issued pursuant thereto, or (ii) has been prepared in the context of a public offering of securities in Denmark or the admission of securities to trading on a regulated market in reliance on one or more of the exemptions from the requirement to prepare and publish a prospectus in the Danish Securities Trading Act or any executive orders issued pursuant thereto.

Additional information for Recipients in Estonia:
It is advisable to closely examine all the terms and conditions of the services provided by NORD/LB. If necessary, Recipients of this information should consult an expert.

Additional information for Recipients in Finland:
The financial products described herein may not be offered or sold, directly or indirectly, to any resident of the Republic of Finland or in the Republic of Finland, except pursuant to applicable Finnish laws and regulations. Specifically, in the case of shares, such shares may not be offered or sold, directly or indirectly, to the public in the Republic of Finland as defined in the Finnish Securities Market Act (746/2012, as amended). The value of investments may go up or down. There is no guarantee of recouping the amount invested. Past performance is no guarantee of future results.

Additional information for Recipients in France:
NORD/LB is partially regulated by the "Autorité des Marchés Financiers" for the conduct of French business. Details concerning the extent of our regulation by the respective authorities are available from us on request. The present information does not constitute an analysis within the meaning of Article 24 (1) Directive 2006/73/EC, Article L.544-1 and R.621-30-1 of the French Monetary and Financial Code, but does represent a marketing communication and does qualify as a recommendation pursuant to Directive 2003/6/EC and Directive 2003/125/EC.

Additional information for Recipients in Greece:
The information contained herein gives the view of the author at the time of publication and may not be used by its Recipient without first having confirmed that it remains accurate and up to date at the time of its use. Past performance, simulations or forecasts are therefore not a reliable indicator of future results. Investment funds have no guaranteed performance and past returns do not guarantee future performance.

Additional information for Recipients in Indonesia:
This report contains generic information and has not been tailored to the circumstances of any individual or specific Recipient. This information is part of NORD/LB's marketing material.

Additional information for Recipients in the Republic of Ireland:
This information has not been prepared in accordance with Directive (EU) 2017/1129 (as amended) on prospectuses (the "Prospectus Directive") or any measures made under the Prospectus Directive or the laws of any Member State or EEA treaty adherent state that implement the Prospectus Directive or such measures and therefore may not contain all the information required for a document prepared in accordance with the Prospectus Directive or the laws.

Additional information for Recipients in Japan:
This information is provided to you for information purposes only and does not constitute an offer or solicitation of an offer to enter into securities transactions or commodity futures transactions. Although the actual data and information contained herein has been obtained from sources which we believe to be reliable and trustworthy, we are unable to vouch for the accuracy and completeness of this actual data and information.

Additional information for Recipients in South Korea:
This information has been provided to you free of charge for information purposes only. The information contained herein is factual and does not reflect any opinion or judgement of NORD/LB. The information contained herein should not be construed as an offer, marketing, solicitation to submit an offer or investment advice with respect to the financial investment products described herein.

Additional information for Recipients in Luxembourg:
Under no circumstances shall the present information constitute an offer to purchase or issue or the solicitation to submit an offer to buy or subscribe for financial instruments and financial services in Luxembourg.

Additional information for Recipients in New Zealand:
NORD/LB is not a bank registered in New Zealand. This information is for general information only. It does not take into account the Recipient's financial situation or objectives and is not a personalised financial advisory service under the 2008 Financial Advisers Act.

Additional information for Recipients in the Netherlands:
The value of your investment may fluctuate. Past performance is no guarantee for the future.

Additional information for Recipients in Poland:
This information does not constitute a recommendation within the meaning of the Regulation of the Polish Minister of Finance Regarding Information Constituting Recommendations Concerning Financial Instruments or Issuers thereof dated 19 October 2005.

Additional information for Recipients in Portugal:
This information is intended only for institutional clients and may not be (i) used by, (ii) copied by any means or (iii) distributed to any other kind of investor, in particular not to retail clients. The present information does not constitute or form part of an offer to buy or sell any of the securities covered by the report, nor should it be understood as a request to buy or sell securities where that practice may be deemed unlawful. The information contained herein is based on information obtained from sources which we believe to be reliable, but is not guaranteed as to accuracy or completeness. Unless otherwise stated, all views contained herein relate solely to our research and analysis and are subject to change without notice.

Additional information for Recipients in Sweden:
This information does not constitute (or form part of) a prospectus, offering memorandum, any other offer or solicitation to acquire, sell, subscribe for or otherwise trade in shares, subscription rights or other securities, nor shall it or any part of it form the basis of or be relied on in connection with any contract or commitment whatsoever. The present information has not been approved by any regulatory authority. Any offer of securities will only be made pursuant to an applicable prospectus exemption under the EC Prospectus Directive (Directive (EU) 2017/1129), and no offer of securities is being directed to any person or investor in any jurisdiction where such action is wholly or partially subject to legal restrictions or where such action would require additional prospectuses, other offer documentation, registrations or other actions.

Additional information for Recipients in Switzerland:
This information has not been approved by the Federal Banking Commission (merged into the Swiss Financial Market Supervisory Authority (FINMA) on 1 January 2009). NORD/LB will comply with the Directives of the Swiss Bankers Association on the Independence of Financial Research (as amended). The present information does not constitute an issuing prospectus pursuant to article 652a or article 1156 of the Swiss Code of Obligations. The information is published solely for the purpose of information on the products mentioned herein. The products do not qualify as units of a collective investment scheme pursuant to the Federal Act on Collective Investment Schemes (CISA) and are therefore not subject to supervision by FINMA.

Additional information for Recipients in the Republic of China (Taiwan):
This information is provided for general information only and does not take into account the individual interests or requirements, financial status and investment objectives of any specific investor. Nothing herein should be construed as a recommendation or advice for you to subscribe to a particular investment product. You should not rely solely on the information provided herein when making your investment decisions. When considering any investment, you should endeavour to make your own independent assessment and determination on whether the investment is suitable for your needs and seek your own professional financial and legal advice. NORD/LB has taken all reasonable care in producing this report and trusts that the information is reliable and suitable for your situation at the date of publication or delivery. However, no guarantee of accuracy or completeness is given. To the extent that NORD/LB has exercised the due care of a good administrator, we accept no responsibility for any errors, omissions, or misstatements in the information given. NORD/LB does not guarantee any investment results and does not guarantee that the strategies employed will improve investment performance or achieve your investment objectives.

Information for Recipients in the United Kingdom:
NORD/LB is subject to partial regulation by the Financial Conduct Authority (FCA) and the Prudential Regulation Authority (PRA). Details of the scope of regulation by the FCA and the PRA are available from NORD/LB on request. The present information is "financial promotion". Recipients in the United Kingdom should contact the London office of NORD/LB, Investment Banking Department, telephone: 0044 / 2079725400, in the event of any queries. An investment in financial instruments referred to herein may expose the investor to a significant risk of losing all the capital invested.

Time of going to press: 17 August 2023 (14:23)