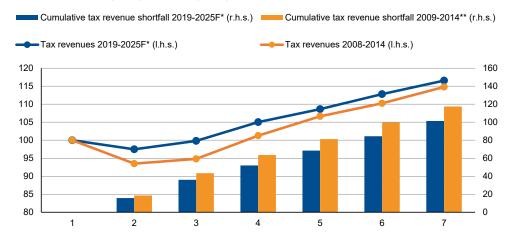


The Covid-19 crisis led to a contraction of about 5% of Germany's (AAA/Stable) economy in 2020, with economic activity in the 16 federal states (Länder) dropping by 4-10% in the first half of the year. Länder's tax revenues declined by 2.5% in 2020, while they dropped by 14% for the federal government, highlighting its shock-absorbing role in the crisis. Tax revenues are projected to be structurally lower in the next years, exerting pressure on budgets, yet the estimated tax revenue shortfall compares favourably to that of the great financial crisis. The well-established fiscal equalisation system spreads revenue shortfalls across all Länder, weakening the link between tax revenues and individual economic performance. This ensures burden-sharing in the crisis and that Länder creditworthiness remains in lockstep with the sovereign rating.

Total tax revenues (including transfers) for the Länder declined by EUR 8.2bn, or 2.5% in 2020, a better-than-expected outcome. Structurally lower tax revenues will exert pressure on Länder budgets however, as cumulative tax revenues from 2020-25 are estimated by the Ministry of Finance to be around EUR 100bn lower than pre-crisis estimates. This compares to an estimated shortfall during the great financial crisis between 2009-14 of around EUR 120bn (see **Figure 1**), and over EUR 200bn for 2020-25 at the federal level.

The crisis had varying effects on the Länder's economies. Real GDP declined by almost 10% for Saarland's small, open economy in the first half of 2020 compared to only 3.8% in Schleswig-Holstein. The tax equalisation system compensated for the large discrepancies between Länder's economic performance, leading to equal levels of per capita tax revenues. This ensures burden sharing and adequate revenue capacity for all Länder in times of crisis.

Figure 1: German Länder tax revenues, 2008-2014 vs 2019-2025F 2008/2019 = 100 (I.h.s.), EUR bn (r.h.s.)



N.B. \*Ministry of Finance November 2020 tax projections for 2021-2025. Tax revenue shortfalls are defined as the difference between tax projections in November 2020 and November 2019 (in the 2019 projections, 3.5% yoy growth for tax revenues is assumed for 2025). \*\*Tax revenue shortfalls are defined as the difference in May 2008 tax projections and actual outcomes (for 2008 projections, 3.5% yoy growth for tax revenues is assumed for 2013/14).

### The key takeaways of the report are:

- The Covid-19 shock will lead to structurally lower tax revenues for German Länder, but the federal government acts as a primary shock absorber.
- The fiscal equalisation system for Länder ensures burden sharing related to the Covid-19 crisis and weakens the link between tax revenues and economic performance.
- Effective tax revenue distribution is a key factor for anchoring the ratings of the German Länder with that of the Federal Republic (AAA/Stable).

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Source: German Ministry of Finance, Destatis, Scope Ratings GmbH



The federal government acted as a primary shock absorber in 2020

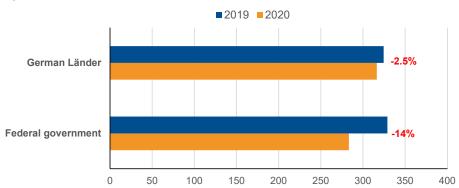
Tax revenues performed betterthan-expected for the Länder in 2020...

### Strong fiscal framework as shock absorber in the Covid-19 crisis

The federal government, via a strengthened role in fiscal equalisation and pro-active fiscal measures, acted as a primary shock absorber in the Covid-19 crisis, highlighted by a budget deficit of EUR 131bn at the federal level in 2020, three times as large as the EUR 42bn deficit of the Länder. Such interventions will primarily lead to a rising debt burden at the federal government level whose credit quality anchors Scope's German Länder ratings.

In 2020, the federal government's tax revenues declined by 14% against a reduction of 2.5% for the collective Länder (5% when excluding transfers), with tax revenues outperforming previous estimates by the German Ministry of Finance (see **Figure 2**). In the projections, tax revenues for the Länder are expected to recover to 2019-levels by the end of this year, and only by 2023 for the federal government.

Figure 2: Tax revenues federal government and Länder, 2020 vs 2019 EUR bn



N.B. Including transfers for the German Länder. Source: German Ministry of Finance, Scope Ratings GmbH

...but the crisis will lead to structurally lower tax revenues.

The federal and state governments disabled their debt brake laws...

... leading to increasing debt levels, especially at the federal government level. The crisis will lead to structurally lower tax revenues for both federal and state governments. The Ministry of Finance, in its latest tax projections from November 2020, estimates the Länder's cumulative tax revenues from 2020-2025 at EUR 2.08trn, around EUR 100bn lower than it had estimated in November 2019. This structural revenue shortfall is exerting pressure on budgets but compares favourably to an estimated shortfall of EUR 120bn from 2009-2014 in the great financial crisis (see **Figure 1**, previous page) and over EUR 200bn estimated until 2025 for the federal government.

In March 2020, the German parliament suspended the debt brake and approved a stimulus package to help the economy deal with pandemic-related impacts. Separately, the federal states invoked the safeguard clause and temporarily suspended their regular debt brake provision to implement support measures and credit authorisations of over EUR 130bn to mitigate the budgetary impact of Covid-19. Before the crisis, debt service costs for federal states were on a declining trend due to an increase in the average maturity of debt, gradual debt reduction and the long-term declining trend in interest rates. New debt issuances via the natural disaster clause of the debt brake will include an obligatory redemption plan with annual instalments, with additional debt service costs mitigated by accommodative financing conditions.

Total debt by the federal government increased by 20% from end-2019 until September 2020, compared to a 9% increase for the states. We view this form of support as an effective form of burden sharing for the states, given the federal government's status as a primary benchmark issuer. In addition, the debt brake, currently suspended for the federal government and states until the end of 2021, would be less strict for the federal government when reinstated.

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Fiscal equalisation ensures adequate response of the Länder to the pandemic...

... by equalising per-capita resources and requirements.

Reform of fiscal equalisation effective since 2020...

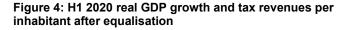
Moreover, Germany's federal fiscal equalisation system proved effective during the Covid-19 crisis, by weakening the link between the states' tax revenues and the severity of the shock for the regional economy. The system is designed to put federal states on equal financial footing and equip them with the necessary resources to fulfil their responsibilities. This is crucial in times of crisis such as the pandemic, as federal states take on key responsibilities, like procurement of healthcare equipment, expanding intensive care unit capacity and coordinating financial aid to businesses.

Specifically, the system compares each state's *financial resources per capita* (FR), i.e. its collected tax resources (including municipal taxes) <u>before</u> equalisation, with the state's *financial needs per capita* (FN), i.e. spending needs to fulfil their responsibilities. Each state's FN is measured as the aggregate states' tax resources, distributed among the states based on their population, with adjustments for city states and three sparsely populated states which are entitled to larger transfers.

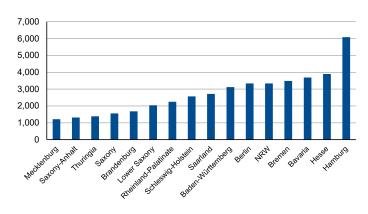
The latest reform on federal financial relations, agreed in 2017, took effect in 2020 and has resulted in a higher distributed share of VAT revenues to the states<sup>1</sup>. The VAT distribution fully compensates for the different taxing powers, thereby replacing the former two-step process of horizontal equalisation payments between the states. The reformed system has changed towards a more pronounced vertical financial equalisation (federal to state level) from the previous system of horizontal transfers between the states. Under the reformed system, different per-capita levels of collected taxes between states (**Figure 3**) are equalised (yellow line in **Figure 4**), with a strengthened role of the federal government. In 2020, the system came into its own, as it smoothed out the relative severity of the economic impact on per-capita tax revenue capacity across the states (**Figure 4**).

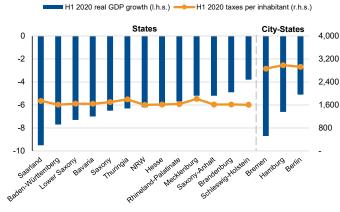
Figure 3: Tax revenues per inhabitant before common tax sharing and equalisation

EUR per inhabitant, H1 2020



% yoy (l.h.s.) and EUR per inhabitant (r.h.s.)





N.B. Shared and Länder taxes. Source: Destatis, Scope Ratings GmbH

N.B. Tax income includes transfers from federal government ('allgemeine BEZ').

Source: Ministry of Finance, Statistical Offices of the Federal and State
Governments, Destatis, Scope Ratings GmbH

...strengthens intergovernmental integration.

Regular equalisation adjustments ensure predictable internal revenue flows through the year rather than large re-distribution flows at the end of the year. All 16 states benefit from the reform as transfers from the federal government are larger in the new system. Net transfers from the federal government are expected to increase by around EUR 10bn in

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<sup>&</sup>lt;sup>1</sup> In the reformed system and the first, horizontal equalisation step, VAT resources are distributed among the states according to the number of inhabitants, resulting in effectively equal per-capita VAT tax revenues. Next, these VAT revenue shares are adjusted upward for states with low FR relative to FN, and downwards for states with a high FR relative to FN. Finally, the federal government pays out vertical transfers to states whose per-capita financial resources after the first equalisation step fall below the German average, as well as for certain special needs.



2020, via higher shares of revenues (either by retaining higher VAT shares or receiving additional transfers from the federal level). In turn, the federal government receives more control over certain competencies. As a result, interdependencies between the federal government and the states have increased, strengthening the fiscal interlinkage across government levels.

What explains variations in GDP contraction across states?

# Output loss from Covid-19 crisis driven by economic structure

Losses in real GDP in the first half of 2020 varied widely between 9.5% in the small, open economy of the Land of Saarland, and 3.8% in Schleswig-Holstein, with the pandemic outbreak disproportionately hitting services compared to industry, construction and retailing. Thus, the German states' varying economic structures, and associated to this, varying impacts of sectoral lockdowns largely explain the diverging economic outcomes in the first half of 2020, given that imposed restrictions across the 16 states were coordinated with the federal government, which also provided the bulk of fiscal support.

The share of manufacturing and the share of sectors hard-hit by lockdown measures such as tourism and recreation explain the diverging economic performance in H1 2020 for the Länder's economies.

Export-reliant manufacturing businesses were exposed to value-chain disruptions in early 2020...

First, Germany's export-oriented economy including its car manufacturing sector was severely affected by the Covid-19 shock, given the economic downturn in Europe but also China (although to a lesser degree), as well as disruptions in international value chains. Regional economies with large manufacturing sectors and a higher propensity to export such as Baden-Württemberg, Bavaria, Bremen and Saarland were thus more heavily affected by the crisis. To measure the share of the manufacturing sector, we use its gross value added (GVA) relative to the total state's GVA in 2019.

... and economies with a higher share of 'hard hit' sectors were more affected by early, hard lockdowns. Second, sectors that were hit particularly hard by lockdown measures in 2020 include tourism, and arts and recreation, which are important economic sectors in the states of Berlin, Mecklenburg-West Pomerania and Schleswig-Holstein. A higher share of economic output produced by these service sectors was thus relatively more adversely affected by the containment measures. The relative importance of these 'hard-hit' sectors can be measured by using the share of GVA of these sectors in total GVA in 2019.

Export-oriented economies were hit hard by Covid-19 shock...

An overview of the Länder's economic vulnerability to national lockdowns is provided in **Figure 5**, next page. We observe substantial differences between the states. Berlin's, Mecklenburg-West Pomerania and Schleswig-Holstein's relatively large tourism sector expose the regional economies to lockdown measures, while economies of non-city states such as Bavaria, Baden-Württemberg and Saarland display a high share of the export-oriented manufacturing sector exposed to the economic developments of key trading partners. Germany's Eastern states, with lower export reliance, appear to be less affected by the lockdown measures in general.

... which is reflected in real economic outcomes in H1 2020.

**Figure 6** on the next page displays how the indicators compare to observed declines in real GDP in H1 2020. For this purpose, the share of 'affected sectors' is defined as the sum of the share of manufacturing and the share of 'hard-hit' sectors. Indeed, economies with large industrial sectors experienced more severe real GDP contractions in the first half of 2020 than more service -and inward-oriented states.

A higher share of 'hard-hit' sectors such as tourism and recreation does not directly translate into higher economic losses, as regional economies in Berlin and Schleswig-Holstein were among the least hit. This can be explained by the overall small contribution of these sectors to GVA in Germany, even for states where the sector is relatively large. This is highlighted by the fact that Saarland's export-oriented economy contracted by almost 10% in the first half of 2020, compared to 3.8% in Schleswig-Holstein, which also

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benefitted from higher domestic tourist arrivals in May and June due to international travel restrictions.

Figure 5: Share of GVA of manufacturing and 'hard-hit' sectors in total GVA

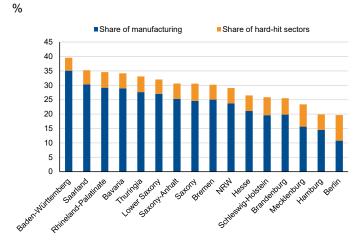
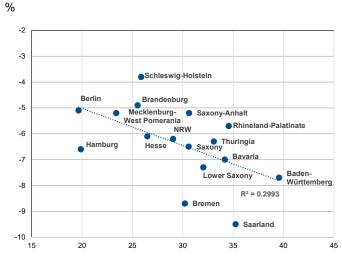


Figure 6: H1 2020 real GDP growth (y-axis) vs share of affected sectors (x-axis)



Source: Statistical Offices of the Federal and State Governments, Scope Ratings GmbH

Different economic outcomes are smoothed out by fiscal equalisation, strengthening weaker tax bases in times of stress Significant differences in output losses between the Länder emerged in the Covid-19 crisis. These differences are economically relevant, as the GDP of some states, such as North-Rhine Westphalia and Bavaria is comparable to that of Switzerland. An effective, mature and predictable tax equalisation system acts as a shock absorber for financially weaker states, some of which are among the most heavily hit economically. This is an echo of government policies in the global financial crisis, which led to extensive reforms of the institutional framework in a European context.

The high fiscal interlinkage in the German system ensures timely financial means in times of severe stress and underpins a key pillar in Scope's rating approach for the German Länder, namely the strength of the fiscal integration and intergovernmental links between government layers.

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