

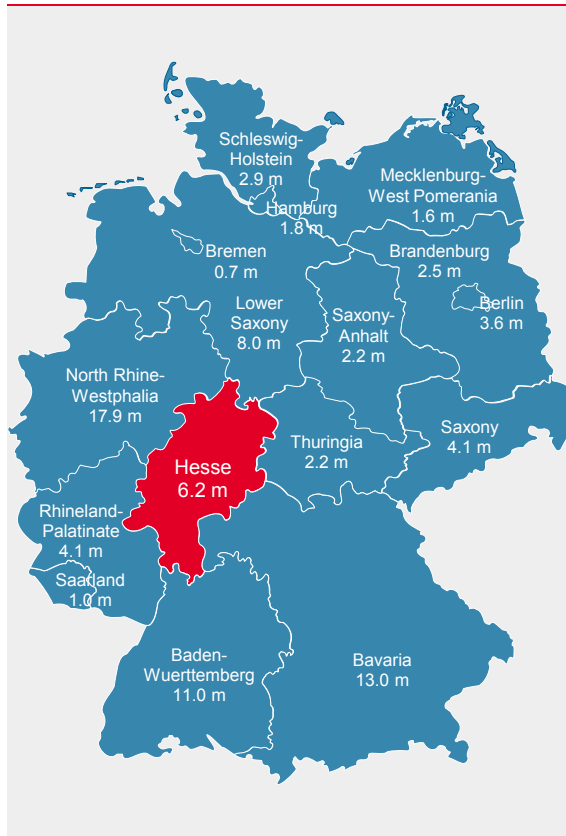


Facts & Figures: The Federal State of Hesse

The Federal Republic of Germany is a country with a federal structure that consists of 16 federal states. Hesse, which is situated in the middle of Germany, is one of them and has an area of just over 21,100 km² making it a medium-sized federal state.

Hesse in the middle of Germany

Population in millions, 30 June 2017



Sources: Statistisches Bundesamt, Helaba Research

At 6.2 million, the population of Hesse makes up 7.5 % of Germany's total population. In addition, a large number of workers commute into the state. As a place of work, Hesse offers interesting fields of activity for all qualification levels, for non-German inhabitants as well. Hence, the proportion of foreign employees, at 15 %, is significantly higher than the German average of 11 %.

Apart from its considerable appeal for immigrants, Hesse is also a sought-after location for foreign direct investment. The per capita value of investments by foreign companies in Hesse is almost 100 % above the average for Germany as a whole.

Hesse is responsible for 8.6 % of Germany's gross domestic product (GDP). Consequently, the federal state enjoys a higher-than-average economic strength: Hessian per capita GDP is 14 % above the German average. In terms of productivity,

that is to say GDP per worker, Hesse is also number one compared to other German states (excluding the city states of Berlin, Hamburg and Bremen) and exceeds the German average by 10 %. The Hessian unemployment rate, which is an average of 4.7 % in 2018 (January to July), was considerably below the overall German level of 5.4 %.

Selected figures

	Germany	Hesse
Area (in km ²)	357,340	21,115
Population* (in millions, June 2017)	82.7	6.2
GDP (nominal, EUR billions, 2017)	3,263	279
GDP per inhabitant (in EUR, 2017)	39,500	44,800
GDP per worker (in EUR, 2017)	73,700	81,300
Unemployment rate (in %, Ø Jan.- Jul. 2018)	5.4	4.7

Sources: Statistische Landesämter, Bundesagentur für Arbeit, Helaba Research

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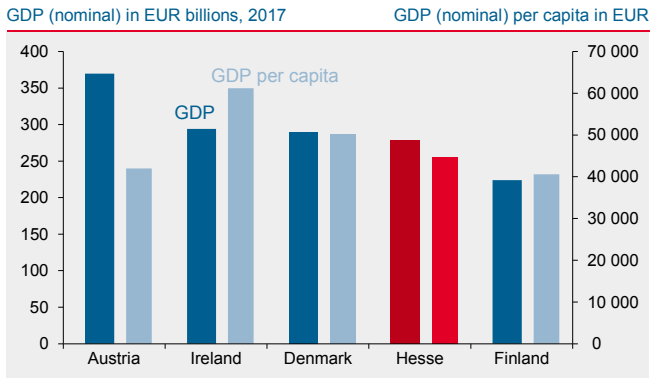
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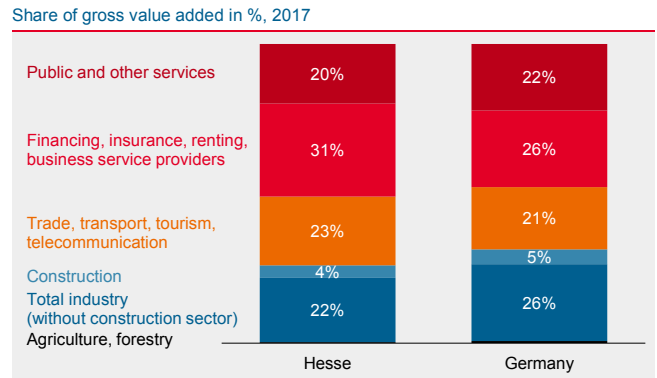
Hesse stands up well to international comparison, too. Hesse's GDP, for example, is almost as high as Denmark's. Per capita output in Hesse is 50 % above the average of all EU countries.

Hesse's GDP almost as high as Denmark's



Sources: Arbeitskreis VGR der Länder, Eurostat, Helaba Research

Hesse: the service sector state



Sources: Arbeitskreis VGR der Länder, Helaba Research

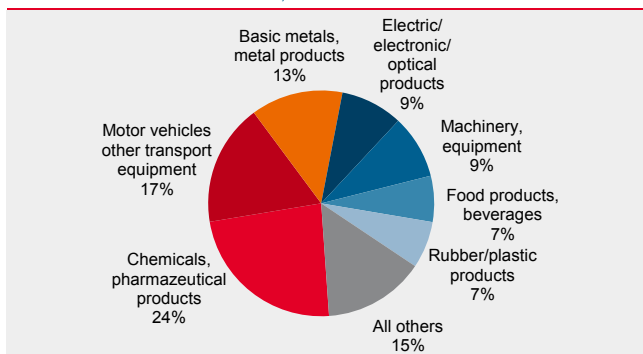
The most important factor for Hesse's high level of economic strength is, in particular, the sector mix: No other federal state is able to simultaneously boast of a significant financial centre, an international airport and a well-known location for trade fairs. This is also reflected in statistical data: A third of Hessian gross value added is generated in the area of the economy of "financing, insurance, renting, business service providers". The sector of "trade, transport, tourism, telecommunication" contributes a further 23 % to output.

The financial centre of Frankfurt is one reason for the extraordinary sector composition in Hesse: 203 domestic and foreign banks have their German head office in Frankfurt, which represents 44 % of all credit institutions in Germany operating on a supra-regional level (i.e. excluding savings banks and co-operative banks). Another reason is Frankfurt Airport, which is a key factor for the location and handles 27 % of the total passenger traffic and 45 % of the total volume of air freight in Germany. It is thus the undisputed leading airport in Germany, the second largest Continental European logistics hub for goods as well as the third-largest for passengers after Paris and Amsterdam. Messe Frankfurt, Frankfurt's trade fair, is yet another asset that strengthens the international focus of the region. In terms of visitors and exhibitors, the trade fair is in the vanguard of Germany's fairs, whereby international exhibitors particularly appreciate its location.

Sector mix in Hesse:
Financial centre, airport,
trade fair, chemicals &
pharmaceuticals

Chemicals/pharma biggest industrial sector in Hesse

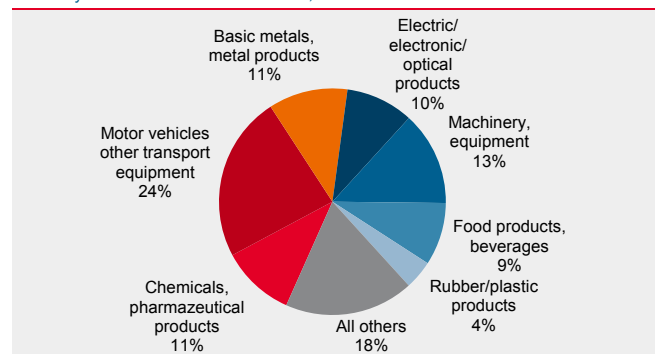
Hesse: Share of industrial revenues, 2017



Sources: Hessisches Stat. Landesamt, Helaba Research

German industry: automotive important

Germany: Share of industrial revenues, 2017



Sources: Statistisches Bundesamt, Helaba Research

Manufacturing industry (excluding construction), with a share of 22 % of gross value added, plays a smaller role in Hesse than the overall German share of 26 %. Within the industrial production segment, there are significant focal areas in Hesse: A quarter of industrial revenues are generated by the segment of chemicals & pharmaceuticals. Motor vehicles/other transport equipment and the metals sector account for 17 % and 13 % of Hessian industrial revenues, respectively. Thus, three

sectors are responsible for 54 % of revenues. The structure of German industry as a whole is concentrated in a similar way, albeit with the automotive and mechanical engineering sectors dominating.

The 25 largest companies

The economic structure of the federal state is clearly reflected in Hesse's largest companies. The following ranking¹, which we compiled ourselves, is based on a company's total workforce in Hesse and is not measured by its German or global significance.

Ranking of 25 largest companies in Hesse¹

Rank	Company	Sector
1	Deutsche Lufthansa AG	Transportation
2	Rewe Group	Wholesale and retail trade
3	Deutsche Bahn AG	Transportation
4	Fraport Konzern	Transportation
5	Deutsche Post Gruppe	Transportation
6	Commerzbank AG	Banking
7	Deutsche Telekom AG	Telecommunications
8	Continental Konzern	Automotive supplier
9	Volkswagen AG	Automotive industry
10	Adam Opel AG	Automotive industry
11	Rhön-Klinikum AG	Hospitals
12	DZ Bank Gruppe	Banking
13	Deutsche Bank AG	Banking
14	Merck KGaA	Chemicals, pharmazeut. products

Rank	Company	Sector
15	Metro Group	Wholesale and retail trade
16	Sanofi Group	Chemicals, pharmazeut. products
17	WISAG Facility Service Holding	Service to buildings
18	B. Braun Melsungen AG	Pharmazeutical products, medical engineering
19	Procter & Gamble Germany GmbH & Co. Operations oHG	Chemicals
20	Siemens AG	Electric/electronic products
21	Helaba Konzern	Banking
22	Stadtwerke Frankfurt am Main	Utility, Transportation
23	Bilfinger SE	Construction
24	Fresenius SE & Co. KGaA	Pharmazeutical products, hospitals
25	Evonik Industries AG	Chemicals, utility, real estate

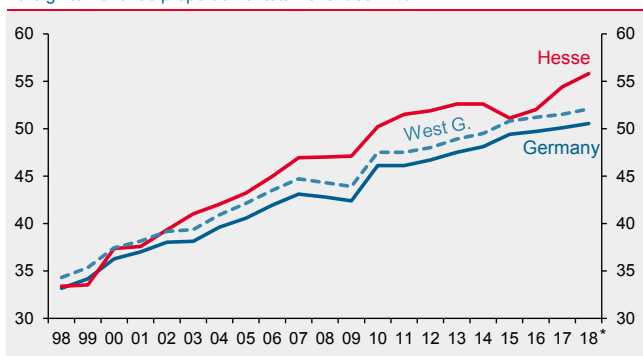
Sources: Helaba Research, Hessen Agentur

High export ratios

The export ratios of industrial companies have risen strongly over the last twenty years. With a share of 56 % of foreign turnover as a proportion of total revenues in January to May 2018, Hesse achieved an export ratio that exceeded the German average. The economic crisis of 2008/2009 led to a slump in domestic and foreign demand, so that total export ratios declined slightly. German and, consequently, Hessian companies were able to benefit from the worldwide recovery in 2010 and export ratios rose again. As the domestic economy strengthened, export ratios initially remained largely constant. In 2015, the average export ratio of all German states saw another slight increase, but it fell back somewhat in Hesse due to the weaker development in some industrial branches. However, since 2016 the Hessian export ratio returned to growth above the average.

Export ratios on a high level

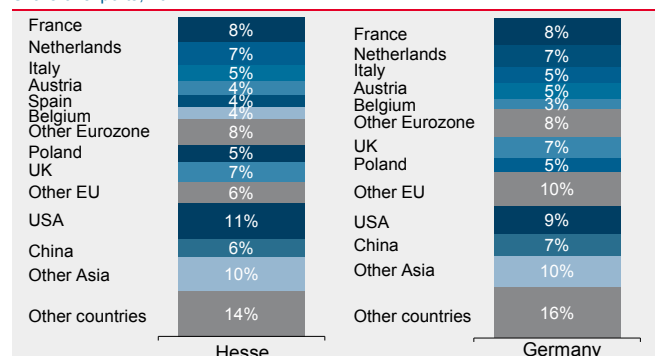
Foreign turnover as proportion of total revenues in %



*Average of January to May 2018
Sources: Statistisches Bundesamt, Helaba Research

Exports primarily destined for Europe

Share of exports, 2017



Sources: Statistisches Bundesamt, Helaba Research

Main destination for exports: Europe

The euro area was the main destination for exports in 2017, accounting for 36 % of goods exported from Hesse, with neighboring countries and Italy being the most important markets. Two-thirds of Hessian exports were destined for Europe as a whole. Asia was the second-biggest destination (with a 16 % share of exports), with China as the primary importer. As the country with the largest

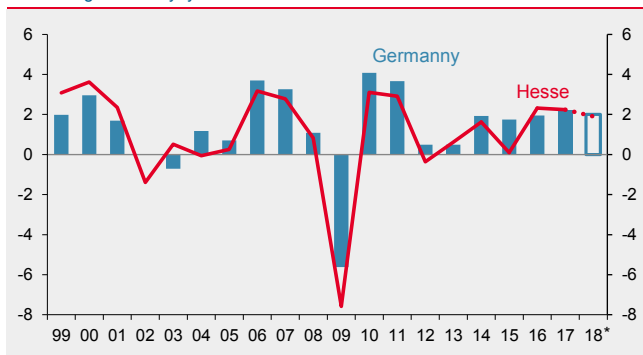
¹ For Hesse, the ranking is based on data of 2012. Experience shows, that there are only minor changes in companies and ranking positions.

single share of Hessian exports, the United States played an important role for companies in Hesse, with the pharmaceutical industry responsible for the majority of goods shipped here. Its share of exports to the US amounted to 37 %. The sectors of electrical engineering/optics/electrical equipment, chemicals, machinery and metals followed far behind (12 %, 11 %, 11 % and 9 %). With a proportion of 4 %, exports of motor vehicles and automotive parts were not one of the main business areas. In this respect, Hesse would only be partially affected by the protectionist trade policy of the United States, even if customs duties on automobiles were raised.

Nevertheless, the US President Donald Trump's impetuous utterances and the ensuing discussions are leading to uncertainty regarding the profitability of old and new production sites around the world. This is likely to put a dampener on demand for capital goods that will place an additional burden on German industry on top of the slowdown in euro area economic growth. This means that it will probably no longer be possible to see a repeat of GDP growth (not calendar adjusted) in Hesse over the last two years of 2.2 % (2017) and 2.3 % (2016). However, it is likely that domestic demand will continue to support economic growth, as Germany is still registering real wage increases of around 2 %. The outlook for GDP growth in 2018 is likely to be more or less limited to the average level forecast for Germany of around 2 %. This is what data for the current year is pointing towards.

Three years of economic growth

Real change in GDP yoy in %

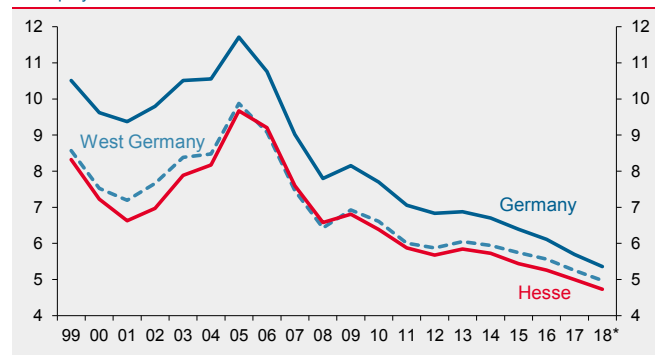


*Forecast

Sources: Statistisches Bundesamt, Helaba Research

Improvement of labour market continues

Unemployment rates in % of total workforce



*Average of January to July 2018

Sources: Bundesagentur für Arbeit, Helaba Research

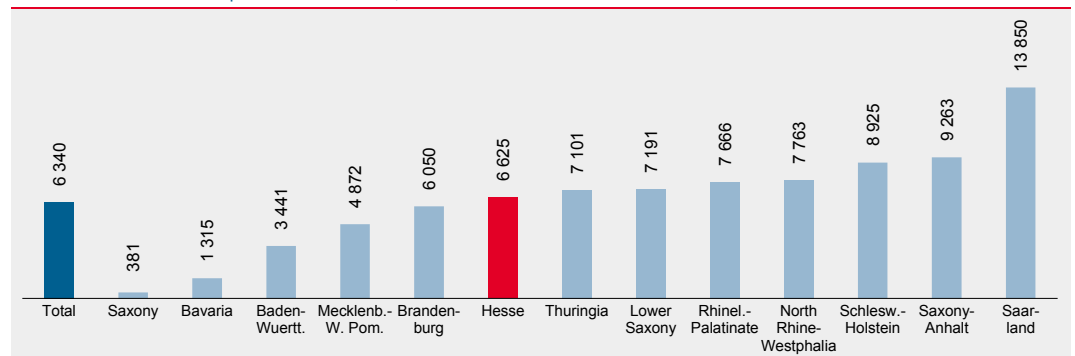
Rising employment

The overall high output level of recent years is continuing to have an effect on the Hessian labour market. Since 2014 the unemployment rate in Hesse is declining and with a rate of 4.6 % in July 2018 it is in the area of full employment (4 % to 5 %). Furthermore, the stability of the labour market is reflected in the employment trend of jobs subject to social insurance contributions, which has been almost constantly positive for the last eight years. In this respect, local employees are not the only ones who are able to find a new job, but companies are also able to fill vacancies, according to their requirements, with migrant jobseekers as well.

The economically strong federal states generate considerably higher tax revenues. In this regard, the per capita financial strength of Hesse is 25 % above the German average in terms of both income and corporation taxes. Since, on the one hand, Germany is a federal country and, on the other, is concerned about ensuring the uniformity of living conditions, value added tax is distributed according to other criteria, so that financially weak federal states are able to catch up. The ensuing fiscal equalisation system between federal states leads to a further harmonisation of per capita income, which is additionally boosted by general supplementary federal grants. As a consequence, per capita financial strength in Hesse is only 2 % above the German average after these redistributive measures.

Public debt: Hesse slightly above average

Public debt of federal states per inhabitant in EUR, December 2017



Sources: Bundesfinanzministerium, Helaba Research

Hesse with good rating thanks to high level of financial strength

The closely intertwined system of fiscal harmonisation between the federal states as well as the constitutional guarantee of existence for the federal states prompts the rating agency Fitch to couple the ratings of German states to that of the Federal Republic of Germany. Thus, in principle Hesse could receive a “AAA” rating if it had an active rating relationship to Fitch as an issuer. Standard & Poor’s cites the economic performance as well as debt situation and differentiates accordingly, with Hesse receiving a “AA+” rating (Outlook: stable). This is because, although the state displays high tax revenues thanks to its strong economic fundamentals, in terms of per capita debt it is above the German average, in contrast to Bavaria and Saxony. ■