

## Bavaria (Germany)

September 2023

### 1. Introduction



The Free State of Bavaria (Freistaat Bayern), which comprises the entire southeast part of Germany, is geographically the largest of the country's 16 states, with a surface area of 70,550 km<sup>2</sup>. It is also Germany's second most populated federal state, behind Nordrhein-Westfalen. Bavaria accounted for approximately 16% of the national population in 2022. In that year, its 13.37 million inhabitants had a gross domestic product (GDP) per capita of EUR53,615. It shares borders with Austria and the Czech Republic as well as with four other federal states, namely, Baden-Württemberg, Hessen, Thuringia, and Saxony.

Bavaria is divided into seven administrative regions: Oberfranken, Mittelfranken, Unterfranken, Bayerisch Schwaben with Allgäu, Oberpfalz, Oberbayer, and Niederbayer. In 2022, the nominal GDP of Bavaria was EUR716.78 billion, having grown by 7.56% y-o-y between 2021 and 2022. With Munich as its capital city, Bavaria is one of the most advanced economic regions in Europe, and is home to global players like Adidas, BMW, Audi, and Airbus. Bavaria had the lowest unemployment rate of 3.1% in Germany in 2022. Germany's national unemployment averages 5.3 %.

**Table 1: General and economic information**

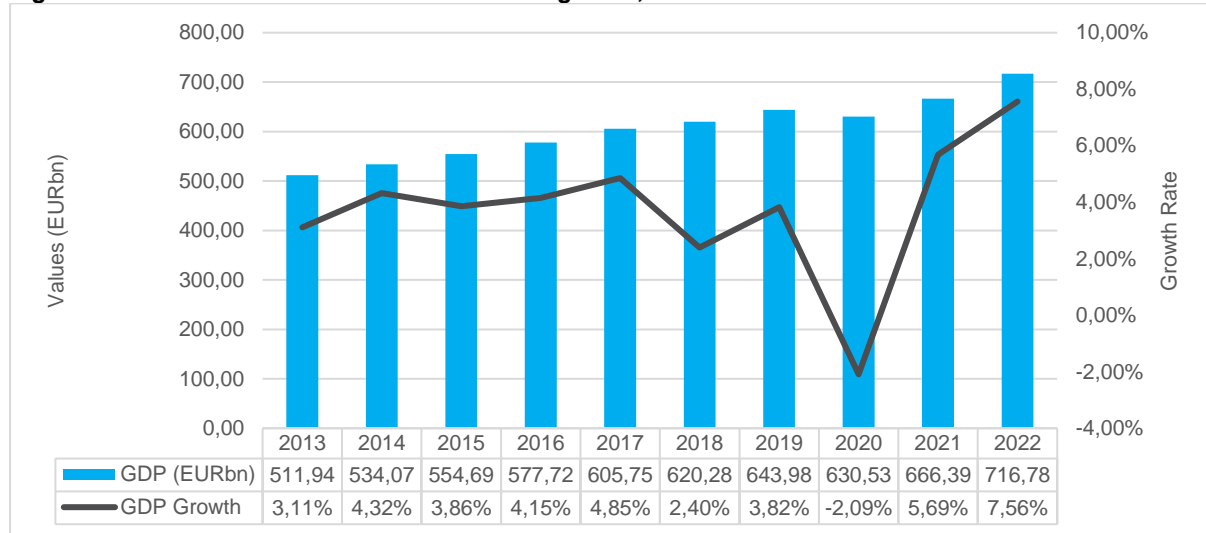
Minister-President	Dr Markus Söder, MdL
Capital	Munich
Population (2022)	13,369, 393 (15.85% of Germany)
Area	70,550 km <sup>2</sup>
Official unemployment rate (2022)	3.1%
Real GDP (2022)	EUR716.78 billion
GDP per capita (2022)	EUR53,615
Economic growth (2022)	7.56%
Exports (2022)	EUR216.46 billion
Imports (2022)	EUR250.63 billion

Source: Federal Statistical Office of Germany, 2023; Bayerische Staatsregierung, 2023

## 2. Economic Overview

Historically, economic growth in Bavaria has been stronger than in Germany as a whole and the expectation is that Bavaria will continue to grow at a faster rate than the national economy in the future. This is due to good representation in the region in high-growth sectors, such as vehicle construction, and the information and communications sector. In 2020, Bavaria's GDP declined by approximately 2.09%, owing to Covid-19. The regional economy bounced back in 2021, recording a GDP growth rate of 5.69%. Further growth was seen in 2022, at 7.56% y-o-y from a GDP value of EUR666.39bn in 2021 to EUR716.78bn in 2022.

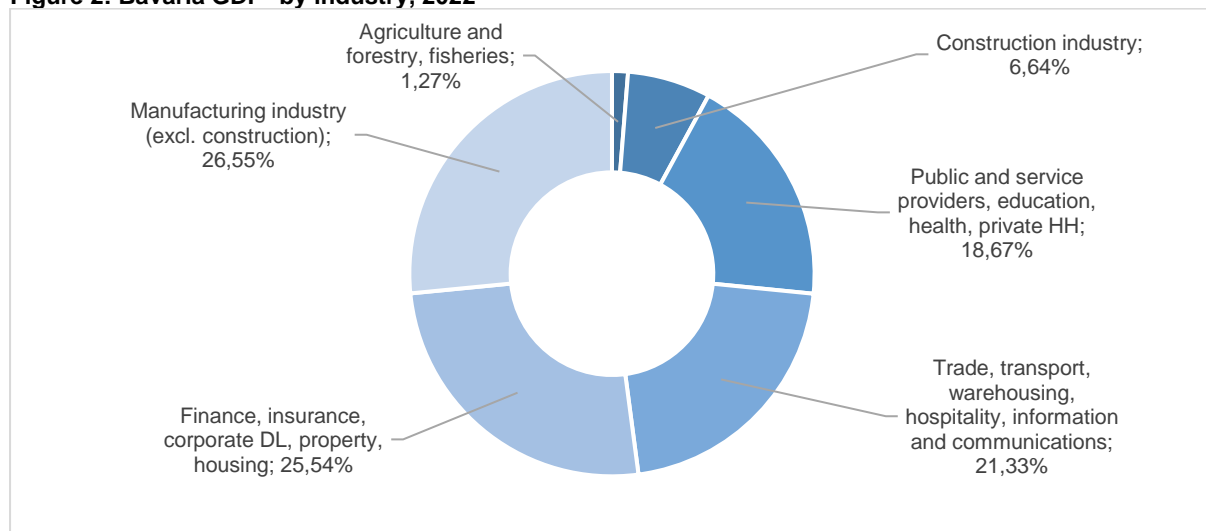
**Figure 1: Bavaria's nominal GDP and economic growth, 2013–2022**



Source: Federal Statistical Office of Germany, 2023

The sectors with the largest contribution to Bavaria's Gross Value Added (GVA) in 2022 were the manufacturing industry (excluding construction), with a 26.55% share; the financial, insurance, business, corporate DL, property, housing sector (25.54%); and trade, transportation, warehousing, hospitality, information & communications (21.33%).

**Figure 2: Bavaria GDP<sup>1</sup> by industry, 2022**



Source: Federal Statistical Office of Germany, 2023

<sup>1</sup> National accounts of the states (production calculation) – gross value added at production prices (nominal): federal states, years, economic sectors

## KEY SECTORS

Highlights of Bavaria's key industries are provided below:

**Automotive:** Bavaria-based original equipment manufacturers (OEMs) are among the most innovative automotive manufacturers in the world in the fields of electromobility, networked vehicles and autonomous driving. Four of the ten companies and institutions with the most patent applications in 2021 come from automotive industries in Bavaria. One landmark project is the Digital Motorway Test Bed between Nuremberg and Munich. The combination of modern road infrastructure and the latest communication technology makes the Digital Motorway Test Bed a unique opportunity for practical trials for the automotive industry, suppliers, telecommunications companies, and research facilities. In addition to electromobility, Bavaria is focusing especially on hydrogen as the energy carrier of the future, thus making a pioneering contribution to the mobility revolution.

**Bioeconomy:** The bioeconomy is based on natural material cycles; it consistently uses residual and waste materials and considers the limitation of natural resources. Replacing fossil fuels with renewable raw materials has many economic advantages. Bioeconomic innovations create new jobs and reduce dependence on fossil resources. Regional value chains are gaining importance and the worth of domestic raw materials is being reaffirmed. Agriculture and forestry are being strengthened as producers of renewable raw materials. Due to the cross-industry nature of the bioeconomy, however, this also applies to many other core Bavarian industries. Stable and sustainable jobs will be created in the food, wood, paper, leather, textile, and chemical industries, as well as in the energy and waste disposal sectors.

**Electrical industry:** The electrical industry is one of the largest industrial sectors in Germany and has a wide-ranging, very dynamic, and innovative portfolio. A large part of the total turnover of the manufacturing sector is accounted for by the road vehicle construction sector with 21.5%, ahead of the mechanical engineering sector with 11.5%, the chemical industry with 10.8%, and the electrical industry with 10.5%. Employing 872,000 people (more than 21% of whom are engineers), the sector is the second largest employer in Germany's processing industry. The German electrical industry benefits particularly from future trends such as the increasing fusion of production and information technology (*Industry 4.0*).

**Energy technology:** Energy provision in Germany will change rapidly over the next few years. The transition to alternative energies presents great potential for investment and will give a huge boost to energy technology. Bavaria is in an outstanding position and offers energy technology companies ideal opportunities for growth. All the key energy sources are represented in Bavaria: hydraulic power, photovoltaics, wind energy, biomass, solar thermal energy, ambient heat, and geothermal energy for electricity and heat generation. Bavaria is leading the way in hydraulic power and generated almost 12 million kilowatt hours from it in 2010 – more than any other German state. By the end of the same year, almost 40% of Germany's total solar power capacity was installed in Bavaria. Wind power in Bavaria is still a relatively small segment compared to the two giants of hydraulic and solar power.

**Information technology:** Customers of the information and communications technology (ICT) sector come from the automotive industry, medical technology, financial services, and many other sectors. Large numbers of companies in all these economic fields are based in Bavaria. In a study, the European Commission named Munich the top centre for the ICT segment in Europe. Around 380,000 people work in 20,000 companies in the sector in Bavaria today. The spectrum of ICT companies in Bavaria is large. These are international corporations; small and medium-sized companies; start-ups, which include service, development and distribution in the software and hardware fields; microelectronics and telecommunications; embedded software and software-based processes.

**Aerospace and satellite navigation:** Bavaria is home to leading global systems companies and is the location for numerous suppliers and technical service providers. Manufacturers of special equipment are based in Bavaria, as are leading international scientific and educational institutions. The Bavarian state government provides unique framework conditions for the industry with a wide range of support measures. As part of the High-Tech Agenda Plus (HTA+) for example, Bavaria will provide additional funding for the aerospace sector in the coming years, to promote disruptive innovations as well as technological advancements, among other things. The focus is on the construction of aircraft, aircraft engines, helicopters, and spacecraft.

Source: Invest in Bavaria, 2023.

## COMPANIES IN BAVARIA

Approximately one-fourth of German DAX-listed companies are headquartered in Bavaria. Major international companies like Adidas, Audi, BMW, Airbus, MAN and Siemens are based in Bavaria.

The Forbes Global 2000 is an annual list of the world's 2000 largest corporations that are publicly listed. The largest publicly traded Bavarian companies as per the Forbes 2000 global rankings in 2023 are tabled below:

**Table 2: Bavarian Companies as per the Forbes 2000 global rankings, 2023**

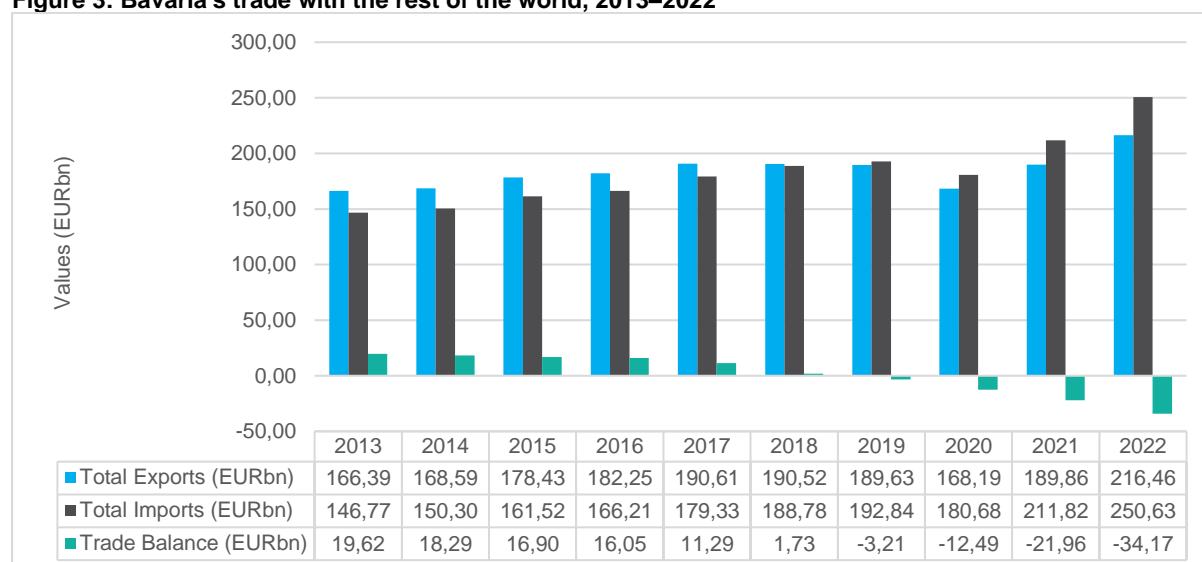
Global Rank	Company Name	Sales (USDbn)	Profits (USDbn)	Assets (USDbn)	Market Value (USDbn)	Sector
37	Allianz	134.3	7.1	1.1trn	95.45	Insurance
46	Bayerische Motoren Werke (BMW)	154.2	11.7	269	75.77	Automotive (Automotive and Suppliers)
97	Siemens	77.3	3.7	153.6	130.65	Engineering, Manufacturing
114	Munich RE	79.5	3.6	324.8	51.22	Banking and Financial Services
451	Infineon	16.5	2.9	28.7	47.58	Semiconductors
720	Siemens Energy	31.6	-\$790.3m	51.2	19.64	Capital Goods
866	Adidas	23.4	\$93.6m	21.4	33.47	Clothing, Shoes, Sports Equipment

Sources: Forbes 2000, 2023

### 3. Bavaria's Global Trade

In 2022, Bavaria was the third largest exporter among the 16 states in Germany, accounting for approximately 14% of the country's total exports. During the same period, Bavaria's imports constituted about 15% of total imports to Germany, making it the second largest importer among Germany's 16 federal states. As can be seen in Figure 3, Bavaria was a net exporter between 2013 and 2018. In 2022, it had a trade deficit of EUR34.17bn. The state's exports and imports increased by 14.01% and 18.32% respectively in 2021.

**Figure 3: Bavaria's trade with the rest of the world, 2013–2022**



Source: Federal Statistical Office of Germany, 2023

Passenger cars and mobile homes were Bavaria's top export category to the world in 2022, valued at EUR34.63bn, equivalent to 16.00% of all export receipts earned by the state in 2022. Apparatus for generating and distributing electricity placed second, at a value of EUR15.53bn (7.17%). Chassis, engines, and other parts for motor vehicles came third at a value of EUR13.73bn (6.34%). These figures are evident in Table 3.

Apparatus for generating and distributing electricity dominated Bavaria's imports from the world in 2022, at a cost of EUR21.59bn. This was equivalent to 8.62% of all import costs incurred by the state in 2022. Petroleum and natural gas placed second at a cost of EUR18.26bn (or 7.28%), while electronic components came third at a value of EUR17.29bn (or 6.90%).

**Table 3: Top 10 products<sup>2</sup> exported by Bavaria, 2022**

Export Products, 2022				Import Products, 2022			
Rank	Product	Value (EURbn)	% Share, 2022	Rank	Product	Value (EURbn)	% Share, 2022
1	Passenger cars and mobile homes	34.63	16.00%	1	Apparatus for generating and distributing electricity	21.59	8.62%
2	Apparatus for generating and distributing electricity	15.53	7.17%	2	Petroleum and natural gas	18.26	7.28%
3	Chassis, engines, and other parts for motor vehicles	13.73	6.34%	3	Electronic Components	17.29	6.90%
4	Machines	9.68	4.47%	4	Passenger cars and mobile homes	16.06	6.41%

<sup>2</sup> EGW 2002: 3-digit codes

5	Measurement, control, and regulation technology. products	7.08	3.27%	5	Chassis, engines, and other parts for motor vehicles	15.43	6.16%
6	Medical devices and orthopedic devices	6.97	3.22%	6	Office machines and data processing machines	7.01	2.80%
7	Goods made from plastics	6.16	2.84%	7	Iron, sheet metal and metal goods, n.e.s.	6.53	2.61%
8	Iron, sheet metal and metal products	4.75	2.19%	8	Communications equipment and facilities	6.21	2.48%
9	Plastics	4.62	2.14%	9	Electrotechnical products n.e.c.	5.87	2.34%
10	Pharmaceutical products	4.51	2.08%	10	Pharmaceutical products	5.75	2.30%
	<b>TOTAL EXPORTS</b>	<b>216.46</b>	<b>100.00%</b>		<b>TOTAL IMPORTS</b>	<b>250.63</b>	<b>100.00%</b>

Source: Federal Statistical Office of Germany, 2023

In terms of key export markets, the United States was the leading destination market for Bavaria's exports at a value of EUR25.32bn in 2022, equivalent to 11.70% of all export receipts earned by the state in 2022. This can be seen in Table 4. Austria followed in second place, with exports reaching a total value of EUR20.04bn (9.26%), while China was third, with exports to this nation reaching a total value of EUR18.45bn (8.52%). South Africa was Bavaria's 34<sup>th</sup> largest export market in 2022, with a value of EUR0.99bn (or EUR988.00m).

China was the leading source market for Bavaria's imports in 2022, with imports of goods worth EUR36.74bn. This was equivalent to 14.66% of all import costs incurred by the state in 2022. Austria followed in second place with imports reaching a total value of EUR19.36bn (7.72%), while Czechia came third, with imports from the country valued at EUR16.54bn (6.60%) in 2022. South Africa was Bavaria's 27<sup>th</sup> largest source market for its imports in 2022, at a value of EUR1.94bn.

**Table 4: Top 10 countries importing from and exporting to Bavaria, 2022**

Destination Markets				Source Markets			
Rank	Country	Value (EURbn)	% Share, 2022	Rank	Country	Value (EURbn)	% Share, 2022
1	United States	25.32	11.70%	1	China	36.74	14.66%
2	Austria	20.04	9.26%	2	Austria	19.36	7.72%
3	China	18.45	8.52%	3	Czechia	16.54	6.60%
4	Italy	14.14	6.53%	4	United States	15.29	6.10%
5	France	13.67	6.32%	5	Italy	13.69	5.46%
6	United Kingdom	11.08	5.12%	6	Poland	13.28	5.30%
7	Poland	10.19	4.71%	7	Hungary	11.54	4.60%
8	Netherlands	8.97	4.14%	8	Netherlands	11.18	4.46%
9	Czechia	7.36	3.40%	9	France	8.95	3.57%
10	Belgium	6.98	3.23%	10	Russian Federation	6.69	2.67%
43	South Africa	0.99	0.46%	27	South Africa	1.94	0.77%
<b>Total Exports</b>		<b>216.46</b>	<b>100.00%</b>	<b>Total Imports</b>		<b>250.63</b>	<b>100.00%</b>

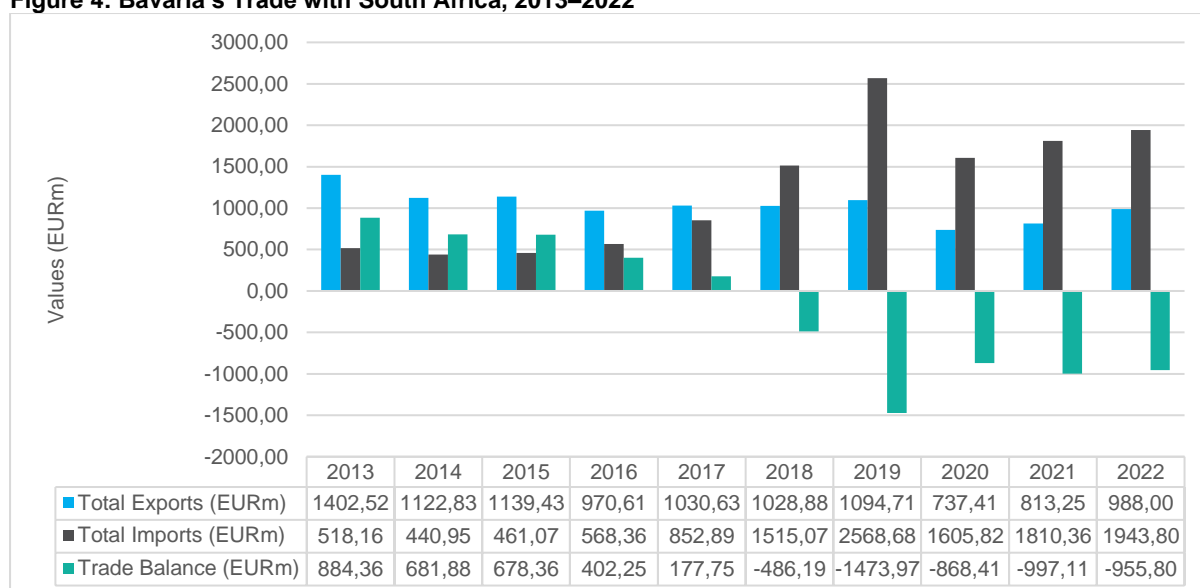
Source: Federal Statistical Office of Germany, 2023

#### 4. Bavaria's Trade with South Africa

South Africa is Bavaria's most important trading partner on the African continent. There are currently an estimated 1,077 Bavarian companies that have business relationships in South Africa (*State of Bavaria South Africa Office, 2022*).

In 2022, Bavarian exports to South Africa amounted to EUR988.00m, whereas its imports from South Africa amounted to approximately EUR1,943.80m. Until 2017, Bavaria's exports to South Africa exceeded its imports from the country, as can be seen in Figure 4. Between 2021 and 2022, Bavaria's exports and imports to and from South Africa increased by 21.49% and 7.37% respectively.

**Figure 4: Bavaria's Trade with South Africa, 2013–2022**



Source: Federal Statistical Office of Germany, 2023

In Table 5, it is evident that Bavaria's dominant export category to South Africa in 2022 was passenger cars and mobile homes valued at EUR250.07m, equivalent to 25.31% of all export receipts earned with the state in 2022. The category of chassis, engines and other parts for motor vehicles placed second at a value of EUR118.20m (11.96%), followed by other machines at EUR88.15m (8.92%).

Passenger cars and mobile homes dominated Bavaria's imports from South Africa in 2022 at a cost of EUR978.10m. This was equivalent to 50.32% of all import costs incurred by the state with South Africa in 2022. End products came second at a cost of EUR701.36m (36.08%), while halvaren was third at a value of EUR64.04m (3.29%).

**Table 5: Top 10 products exported from Bavaria to South Africa, 2022**

Bavaria Exports to South Africa, 2022				Bavaria Imports from South Africa, 2022			
Rank	Product	Value (EURm)	% Share, 2022	Rank	Product	Value (EURm)	% Share, 2022
1	Passenger cars and mobile homes	250.07	25.31%	1	Passenger cars and mobile homes	978.10	50.32%
2	Chassis, engines, and other parts for motor vehicles	118.2	11.96%	2	End products	701.36	36.08%
3	Other machines	88.15	8.92%	3	Halvaren	64.04	3.29%
4	Apparatus for generating and distributing electricity	71.44	7.23%	4	Chemical precursors	22.27	1.15%
5	Measurement, control, and regulation technology. products	49.18	4.98%	5	Fresh fruit, excluding tropical fruits	19.94	1.03%

6	Iron, sheet metal and metal goods	31.54	3.19%	6	Gold for commercial purposes	17.66	0.0
7	goods made of plastic	24.94	2.52%	7	Tropical fruits	17.17	0.88%
8	Paper and cardboard	23.49	2.38%	8	Aluminum and aluminum alloys, with waste, scrap	15.31	0.79%
9	Hoists and conveyors	21.83	2.21%	9	Raw materials, including waste	13.71	0.71%
10	Pumps and compressors	21.3	2.16%	10	Vegetable preparations and vegetable preserves	12.21	0.63%
	<b>TOTAL EXPORTS</b>	<b>988.00</b>	<b>100.00%</b>		<b>TOTAL IMPORTS</b>	<b>1943.80</b>	<b>100.00%</b>

Source: Federal Statistical Office of Germany (2022)



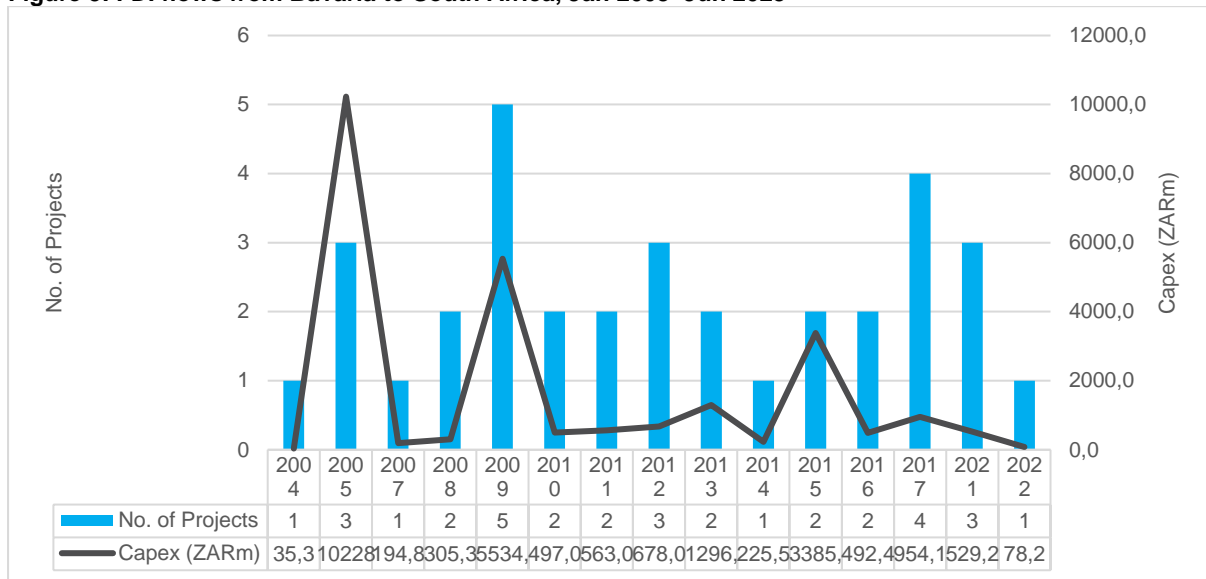
## 5. Investment

This section analyses Foreign Direct Investment (FDI) flows between Bavaria and South Africa as well as the Western Cape.

### 5.1 Bavaria FDI into South Africa

This section examines FDI trends by all companies from Bavaria investing in South Africa, and vice versa, between January 2003 and June 2023. During the period under consideration, a total of 34 FDI projects originated from Bavaria to South Africa. These projects brought about a capital investment of ZAR25.00bn and created 8,666 jobs. The highest number of projects was recorded in 2009, whereas the largest capex and the highest number of jobs were realised in 2005. This can be seen in Figure 5.

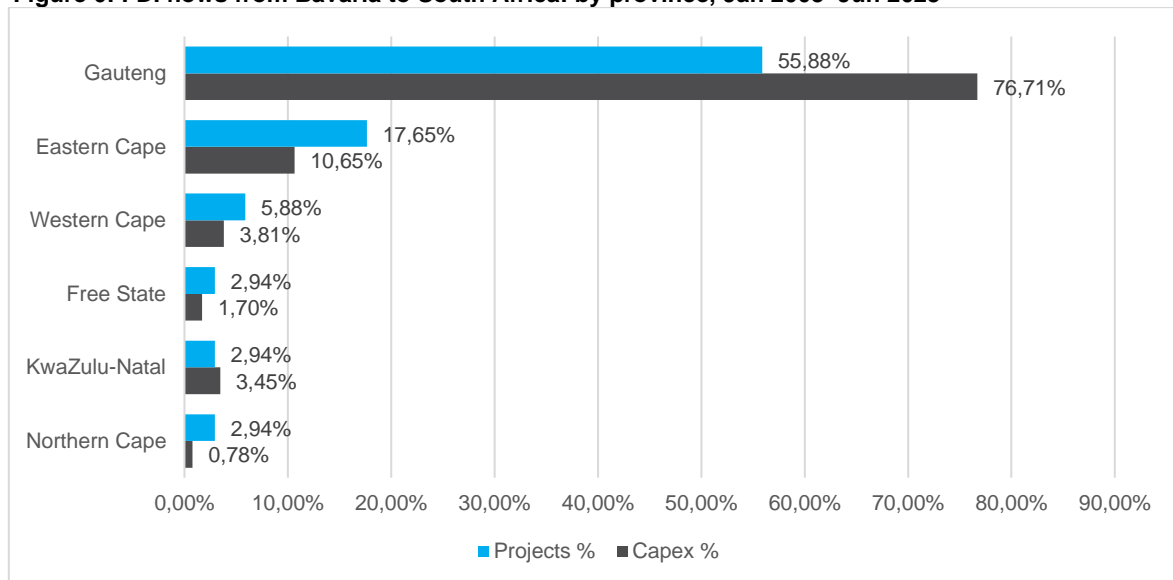
**Figure 5: FDI flows from Bavaria to South Africa, Jan 2003–Jun 2023**



Source: FDI Intelligence, 2023

Gauteng was the top destination in South Africa for inward FDI from Bavaria between January 2003 and June 2023. The province accounted for 55.88% of projects and 76.71% of capex during this period, followed by the Eastern Cape with 17.65% of projects and 10.65% of capex.

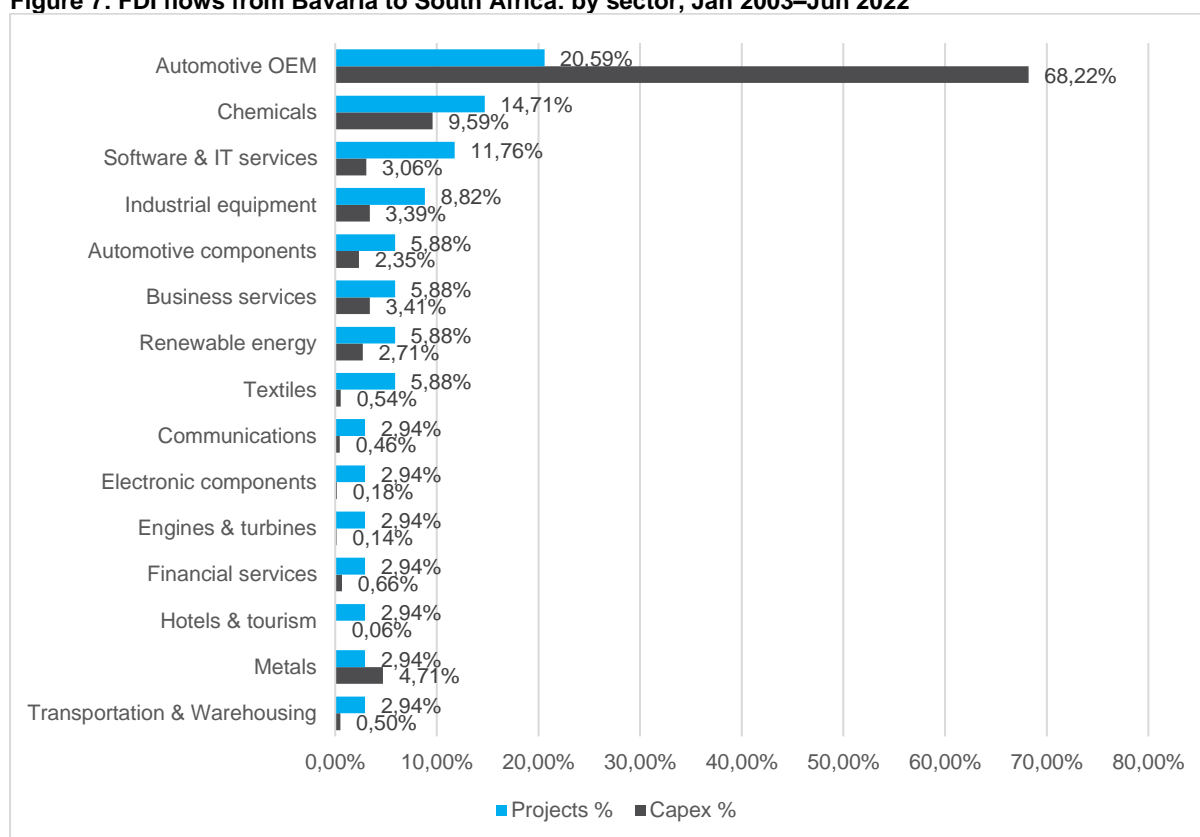
**Figure 6: FDI flows from Bavaria to South Africa: by province, Jan 2003–Jun 2023**



Source: FDI Intelligence, 2023

As shown in Figure 7, automotive OEM; chemicals; software and IT services; and industrial equipment were the top sectors in terms of both the number of projects and capex.

**Figure 7: FDI flows from Bavaria to South Africa: by sector, Jan 2003–Jun 2022**



Source: FDI Intelligence, 2023

When ranked by number of projects invested, Afrox and BMW South Africa were the leading companies, accounting for 12% of projects each respectively. BMW South Africa in turn accounted for the largest share of capex (36%) as can be seen in Table 6. The company also created the highest number of jobs during the period under review.

**Table 6: Companies from Bavaria investing in South Africa, Jan 2003–Jun 2023**

Rank	Company	Sectors	Projects	Capex (ZARm)	Jobs
1	Afrox	Chemicals	4	2 239.64	649
2	BMW South Africa	Automotive OEM	4	9 052.13	3 228
3	Bayerische Motoren Werke (BMW)	Automotive OEM	3	8 033.56	1 804
4	MAN Ferrostaal	Industrial equipment	2	1 791.71	1 723
5	Acrontum	Software & IT services	1	78.23	231
6	Adidas	Textiles	1	67.50	50
7	ADVA Optical Networking	Communications	1	115.05	16
8	Aviareps	Hotels & tourism	1	13.81	13
9	Dachser South Africa	Transportation & Warehousing	1	125.79	9
10	Euler Hermes	Financial services	1	165.67	81
<b>TOTAL</b>			<b>34</b>	<b>24 999.60</b>	<b>8 666</b>

Source: FDI Intelligence, 2023

## 5.2 South Africa's FDI in Bavaria

A total of four companies from South Africa, which are listed in Table 7, invested in Bavaria between January 2003 and June 2022. These companies invested in four projects at a value of ZAR982.37 million. Furthermore, 104 jobs were estimated to have been created from these projects.

**Table 7: FDI flows from South Africa to Bavaria, Jan 2003–Jun 2023**

Date	Investing Company	Source Province	Industry Sector	Business Activity	Capex (ZARm)	Jobs
2019 Dec	myResilience	Gauteng	Software & IT services	Sales, Marketing & Support	16.87	10
2018 Dec	Entersekt	Western Cape	Software & IT services	Sales, Marketing & Support	23.01	12
2017 Oct	Palletways	Gauteng	Transportation & Warehousing	Logistics, Distribution & Transportation	898.92	77
2009 Sep	Mondi Corrugated Packaging	Gauteng	Plastics	Manufacturing	43.57	5
<b>TOTAL</b>					<b>982.37</b>	<b>104</b>

Source: FDI Intelligence, 2023

## 5.3 Bavaria's FDI in the Western Cape

Available data indicates that two companies from Bavaria invested in the Western Cape during the period under consideration. These investment projects, which were made in the renewable energy and industrial equipment sectors, brought in a capex of ZAR952.61 million and created 1,529 jobs, as shown in Table 8.

**Table 8: Companies from Bavaria investing in Western Cape between Jan 2003 and Jun 2023**

Date	Investing Company	Destination City	Industry Sector	Business Activity	Capex (ZARm)	Jobs
2017 Jan	IBC Solar	Cape Town	Renewable energy	Sales, Marketing & Support	339.01	29
2005 Oct	MAN Ferrostaal	Saldanha	Industrial equipment	Manufacturing	613.60	1500
<b>TOTAL</b>					<b>952.61</b>	<b>1529</b>

Source: FDI Intelligence, 2023

## 5.4 Western Cape's FDI in Bavaria

As shown in Table 9, one outward FDI project was recorded from the Western Cape to Bavaria between January 2003 and June 2023. The capital expenditure involved in this project was ZAR23.01 million, and the project led to the creation of 12 jobs in the destination state.

**Table 9: Companies from Western Cape investing in Bavaria between Jan 2003 and Jun 2023**

Date	Investing Company	Source City	Industry Sector	Business Activity	Capex (ZARm)	Jobs
Dec 2018	Entersekt	Stellenbosch	Software & IT services	Sales, Marketing & Support	23.01	12
<b>TOTAL</b>					<b>23.01</b>	<b>12</b>

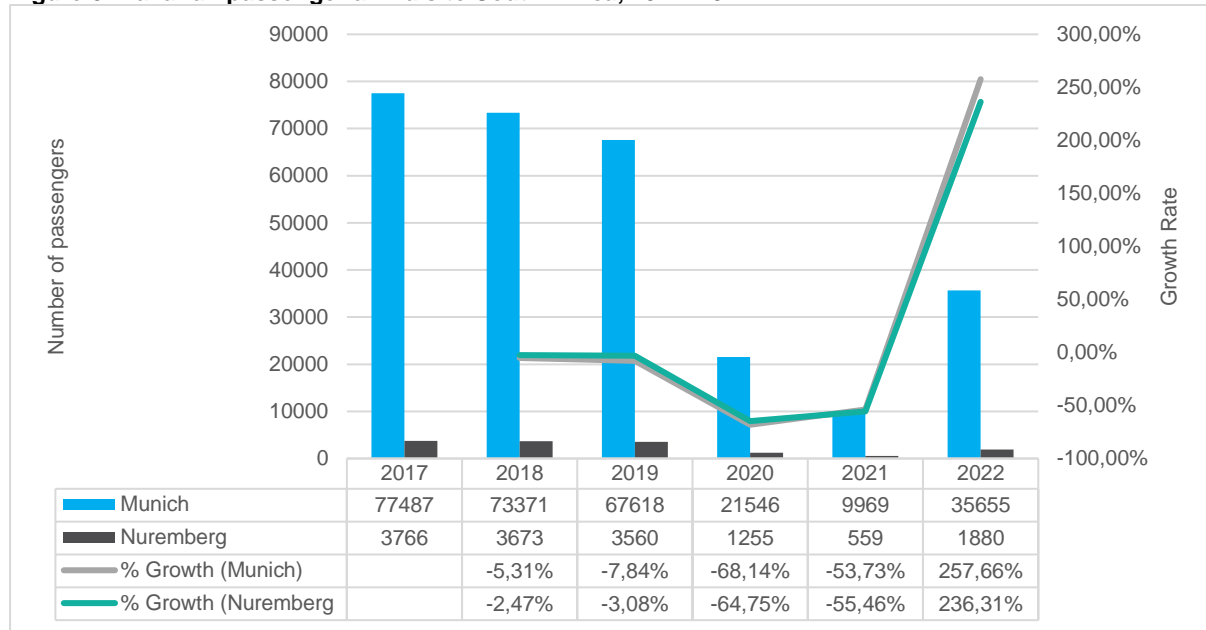
Source: FDI Intelligence, 2023

## 6. Tourism

### 6.1 Bavarian Passenger Arrivals in South Africa

Over the past six years, the largest number of passengers from Bavaria to South Africa came from Munich. South Africa recorded 67,618 passengers from Munich pre-pandemic (2019), which declined to 9,969 passengers in 2021. In 2022, passengers from Munich reached 35,655 and grew by 257.66% when compared to 2021. Figures for Nuremberg show that passenger arrivals increased by 236.31% y-o-y between 2021 and 2022.

**Figure 8: Bavarian passenger arrivals to South Africa, 2017–2022**

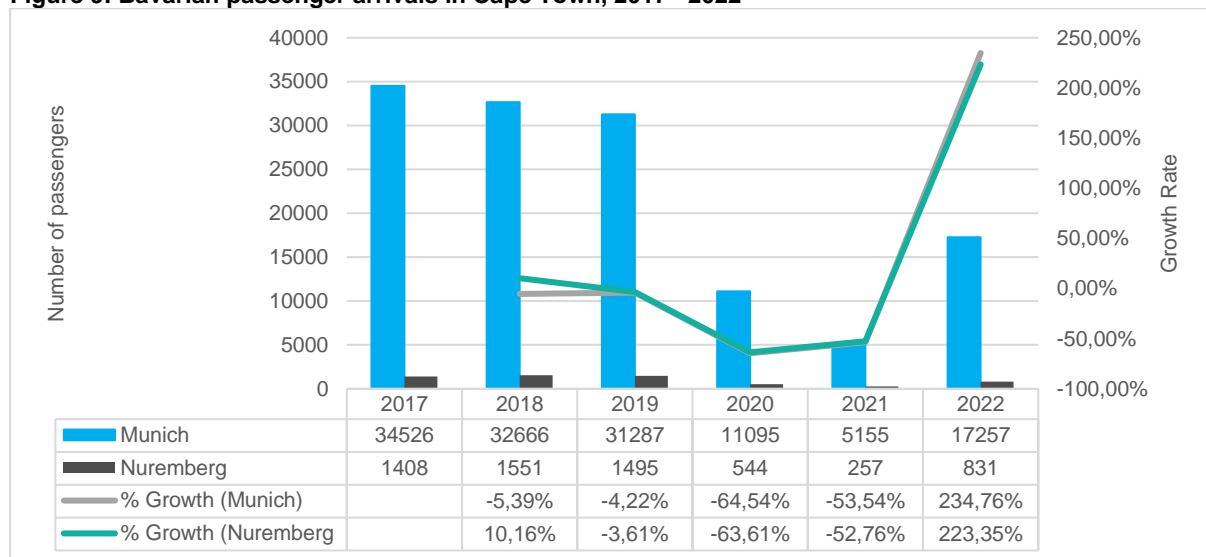


Source: OAG Traffic Analyser, 2023

### 6.2 Bavarian Passenger Arrivals in Cape Town

Pre-pandemic (2019), Cape Town recorded 31,287 passenger arrivals from Munich and 1,495 from Nuremberg. These declined to 5,155 and 257 each respectively in 2021. In 2022, passengers from Munich grew by 234.76% y-o-y when compared to 2021, while Nuremberg passenger arrivals grew by 223.35% y-o-y over the same period.

**Figure 9: Bavarian passenger arrivals in Cape Town, 2017– 2022**



Source: OAG Traffic Analyser, 2022

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