

Foreign Trade

Economic Impact of Bavarian Business in the USA

vbw

Study

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Bavarian Industry Association



Note

Quotations from this publication are allowed provided the source is indicated.

Foreword

Bavaria is an important economic partner for the USA

During his term as US President, Donald Trump pursued a protectionist policy. If he is reelected president in the fall of 2024, even more and stricter protectionist measures are to be feared. But even a Democratic President Kamala Harris is not expected to adopt a trade policy that is clearly geared towards free trade and openness. This has been demonstrated by the presidency of Joe Biden.

But whoever moves into the White House should not overlook the fact that globalization and the international division of labor offer advantages to all parties. Also the United States has been benefiting from international trade and from cross-border investment, as confirmed by this study commissioned by the Bavarian Industry Association *vbw* (*Ver-einigung der Bayerischen Wirtschaft e. V.*) with IW Consult GmbH.

The study clearly shows that Bavaria is anything but an insignificant partner of the USA. Bavarian companies in the United States generate a high level of added value and employment in the USA, in both direct and indirect ways.

It is therefore in the mutual interest of both sides to stabilize and strengthen transatlantic economic relations. Isolation and protectionism are the wrong approach. Open markets, free trade and cross-border investment ensure growth, employment and prosperity.

Bertram Brossardt
August 21, 2024

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1 Executive Summary

Bavarian companies remain important providers of momentum to the US economy

The USA has been a major sales and procurement market for Bavarian companies for many years. Furthermore, many Bavarian enterprises invest and operate directly in the United States. This country is the most important destination for Bavarian foreign direct investments (FDIs), with 32% of direct investments by Bavarian companies in 2021 being in US business enterprises (more recent data is not available at the level of detail required for this study). These investments increased by a third between 2017 and 2021 with Bavarian companies gaining international presence, new sales markets and innovation momentum.

The US economy also benefits from these investments. This study will quantify the positive effects of Bavaria's presence in the USA. To this end, the economic footprint of business entities in the United States under the control of Bavarian investors will be examined, these being enterprises in which Bavarian companies hold more than 50 percent of the capital stock or voting rights.

The economic footprint includes not only the direct value added and jobs created by the companies but also the economic effects triggered by input-output interdependencies in upstream industries and the spending of the workforce.

Bavarian companies control a total of 701 business entities in the USA, holding direct investments of 88.9 billion euro in 2021. A total gross value added of 131.5 billion euro is triggered by these companies which secures almost 730,000 jobs. This means that the economic footprint of Bavarian business accounts for 0.76 percent of total gross value generated in the USA and 0.48 percent of total employment.

- The direct gross value added generated by Bavarian-controlled companies themselves amounted to 45.5 billion euro with 159,000 persons employed in these companies.
- Bavarian-controlled companies generated an indirect gross value-added effect of 58.2 billion euro in the upstream value chain based on the purchase of intermediate inputs, this resulting in an indirect employment effect of around 364,000 jobs.
- The induced effect, which includes consumer spending by employees, amounts to 27.8 billion euro in gross value added and 205,000 additional jobs.

The share of triggered effects in overall employment is significantly lower than in total value added in the USA. This is due to the fact that Bavarian-controlled companies are primarily active in value-added-intensive sectors, which means that fewer employees are required to generate the same value added. This includes the manufacturing industry in particular: one fifth of the value-added effect of Bavarian companies in the USA is generated in the manufacturing industry. This is around twice as high as the share of industrial value added in the overall US economy, which lies at 11.5 percent.

[Executive Summary](#)

At 15.2 percent of the value-added effect, a substantial share is attributable to the M+E industry, in particular the manufacture of measuring and control equipment, watches and clocks and electro-medical devices (5.8 percent) and vehicle manufacturing (3.2 percent). The value added effect of 4.2 billion euro in the vehicle manufacturing industry corresponds to around 3.4 percent of the total gross value added generated in vehicle manufacturing in the USA. This is the largest relative share among all sectors and significantly higher than in the overall economy.

Bavarian business has a significant positive impact on the US economy based on its investments and economic activities in the United States, as shown by this study. Furthermore, FDIs generate non-quantified effects such as the exchange of know-how, knowledge transfer and a stable and lasting bond between the two economies. Both the US and Bavarian economies benefit from these interdependencies.

2 Introduction

The Bavarian and the US American economy are closely intertwined

The USA has been one of Bavaria's most important trading partners for many decades. In 2023, the USA was Bavaria's second most important trading partner with a trade volume of 42.1 billion euro. Fundamental success factors for the Bavarian business model include its strong industrial focus, the diversity of its economic structure and the broadness of its value chain, as well as its openness and internationalization.

Many Bavarian companies also invest and produce directly in the USA, which strengthens their global presence and opens up new markets. They are therefore watching very closely the political and economic developments in the United States, which have had an impact on investment activity in recent years. By offering attractive framework conditions American politics has been driving investment momentum over the past years: Following the effects of the protectionist Trump administration, which was intended to push investments by foreign companies in the USA, the Inflation Reduction Act (IRA) has recently also had an impact on the investment decisions of many German companies. The IRA, which aims to combine climate action and economic development, is boosting investment momentum, also in the automotive industry and other key technologies.

Besides the investing companies themselves, the US economy also benefits from these investments. They create added value and jobs, both in the investment destinations and in the upstream stages of the value chain. This study shows the economic significance of enterprises in the USA that are at least 50 percent owned by Bavarian companies. It analyzes the value-creation and employment effects triggered by these enterprises and the sectors in which they are generated in particular. Moreover, the development of this economic significance since 2017 is revealed in an inter-temporal comparison.

3 Bavarian investments in the USA

Foreign direct investments reveal the engagement of companies abroad

To analyze the engagement of Bavarian business and industry in the United States, figures on the amount, distribution and development of Bavaria's direct investments in the USA are used. Foreign direct investments are cross-border capital investments in companies and are often long-term commitments. FDIs are taken up in the statistics as from a share of ten percent of the voting capital in the foreign business entity. This data provides a good overview of the financial volume that flows to the USA and is further examined in Chapter 3.1.

Also available are the Foreign Affiliates Statistics: FATS. These give the KPIs of entities in which Bavarian investors hold more than 50 percent of the voting capital. It can be said that these US enterprises are controlled by Bavarian companies because it is assumed that these business entities would no longer be able to operate to the same extent if Bavarian direct investments were deducted. These figures can therefore be used to quantify "Bavarian business" in the USA. Direct investments from this threshold upwards and the KPIs of Bavarian companies in the USA defined in this way are analyzed in Chapter 3.2.

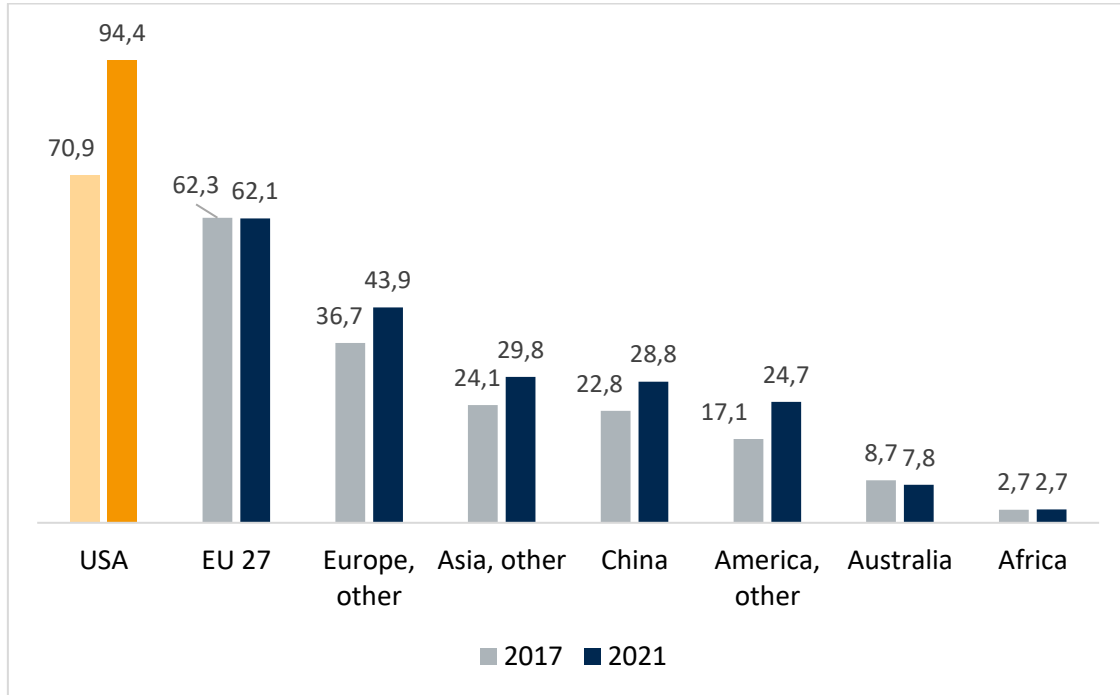
3.1 Direct investments of Bavarian companies in the USA

According to current statistics, in 2021, Bavarian companies held global investment stocks totaling 294.6 billion euro. Bavarian foreign direct investments in the USA amounted to some 94.4 billion euro. This makes the USA the most important destination for investments by Bavarian companies, well ahead of the 27 countries of the European Union (excluding Germany) where direct investments totaled 62.1 billion euro. The rest of Europe ranks in third position with 43.9 billion euro in direct investments, followed by the Asian region, where China alone accounted for a further 22.8 billion euro in FDIs, and the other countries on the American continent, Australia and Africa (see Fig. 1).

Since 2017, the direct investments of Bavarian companies in the USA have increased by 23.5 billion euro, or 33.1%. No other region has seen such an increase in Bavarian direct investments. This means that the United States, which was already the most important investment destination for Bavarian companies in 2017, has gained even greater significance. Bavarian direct investments in the European Union and in Australia declined slightly. Overall, foreign holdings of Bavarian investors grew by 49.1 billion euro or 20 percent in the four years from 2017 to 2021.

Fig. 1
Bavarian direct investments worldwide

In billion euro

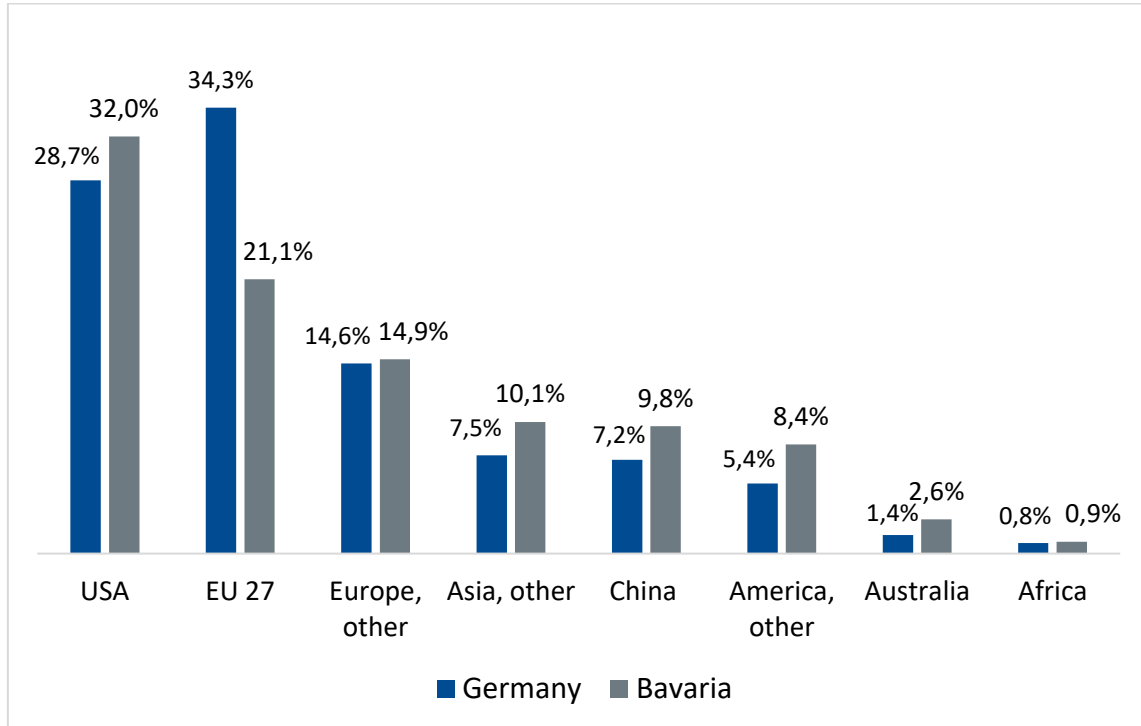


Source: Bundesbank; deviation from total due to rounding and lack of allocation in the statistics

The significance of the USA as a destination for investments by Bavarian companies also becomes evident in a comparison with the German average. The share of Bavarian direct investments in the USA exceeds the German federal average by 3.3 percentage points. Bavarian direct investments in other countries and regions not belonging to the European Union are also higher than the German federal average. Countries of the European Union, on the other hand, are clearly underrepresented as a location for Bavarian direct investments (see Fig. 2).

Fig. 2
Bavarian and German direct investments worldwide

In percent of total direct investments, 2021



Source: Bundesbank

3.2 Bavarian business in the USA

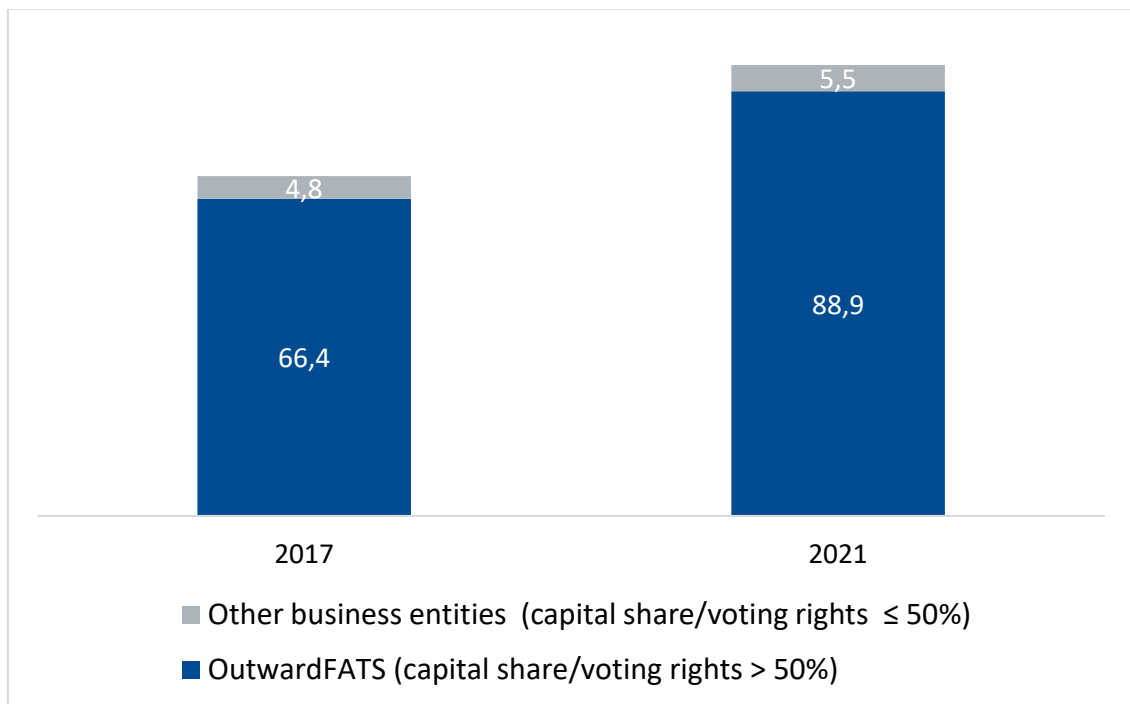
Direct investments flow into a wide variety of business and industrial undertakings abroad. Statistics differentiate between two groups of companies: those in which the capital share or voting rights of the investing foreign company amount to more than 10 percent, and those where the capital share or voting rights amount to more than 50 percent, the latter thus being controlled by the investing company. It can be assumed that these enterprises would not exist in the respective form and size without the respective investments. In order to estimate Bavaria's economic impact in the USA, the KPIs of these companies are therefore relevant. They are referred to in the following as Bavarian-controlled companies.

When differentiating the direct investments between these two groups, it becomes clear that direct investments from Bavaria in the USA largely go to companies with a Bavarian majority shareholding (see Fig. 3). Of the total foreign direct investments of 94.4 billion euro in 2021, 88.9 billion euro or 94.2% is attributable to companies in which Bavaria has a voting or capital share of over 50%. The ratio changed only slightly between 2017 and

2021: In 2017, direct investment holdings in Bavarian-controlled companies accounted for 93.4 percent of the total investments.

Fig. 3
Distribution of Bavarian direct investments in the USA

In billion euro



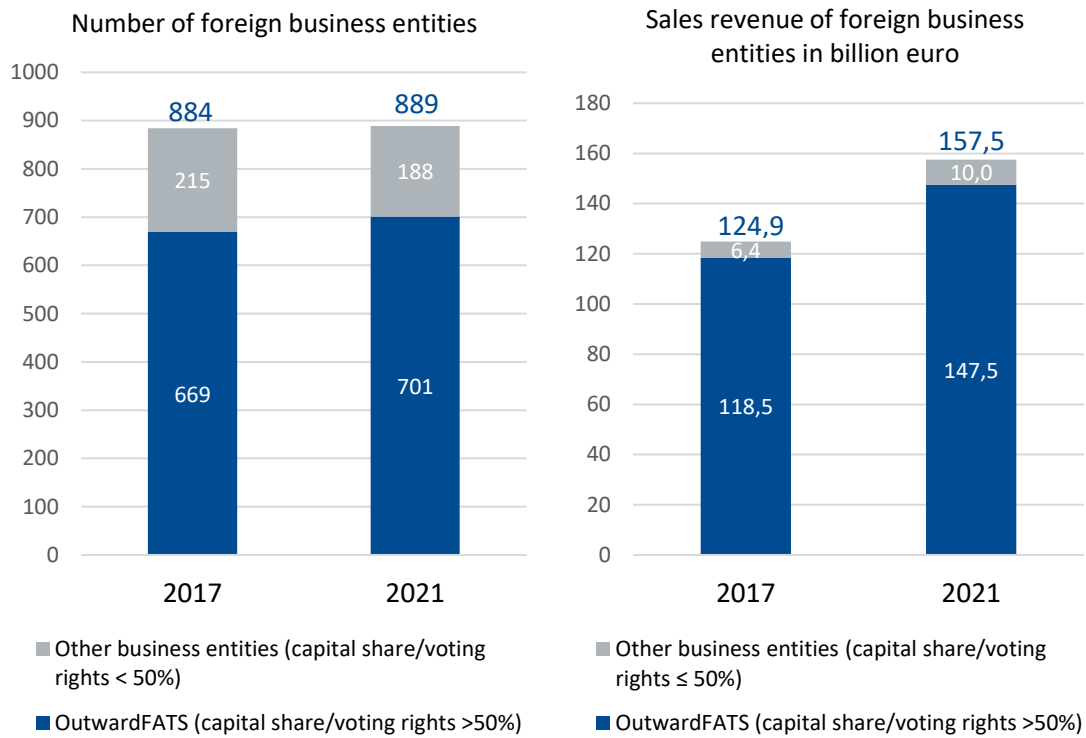
Source: Bundesbank

Also when looking at the number of enterprises and the revenue generated in these undertakings it is evident that the vast majority of these are under Bavarian control. These shares have also hardly changed compared to 2017 (see Fig. 4).

Bavarian companies hold direct investments in 889 enterprises in the USA, of which 701 were under Bavarian control. Compared to 2017, the number of foreign affiliates of Bavarian companies increased only slightly by five units. As a result, the direct investments per foreign affiliate increased from around 80 million euro in 2017 to 106 million euro in 2021.

Fig. 4
Distribution of Bavarian direct investments in the USA

In billion euro



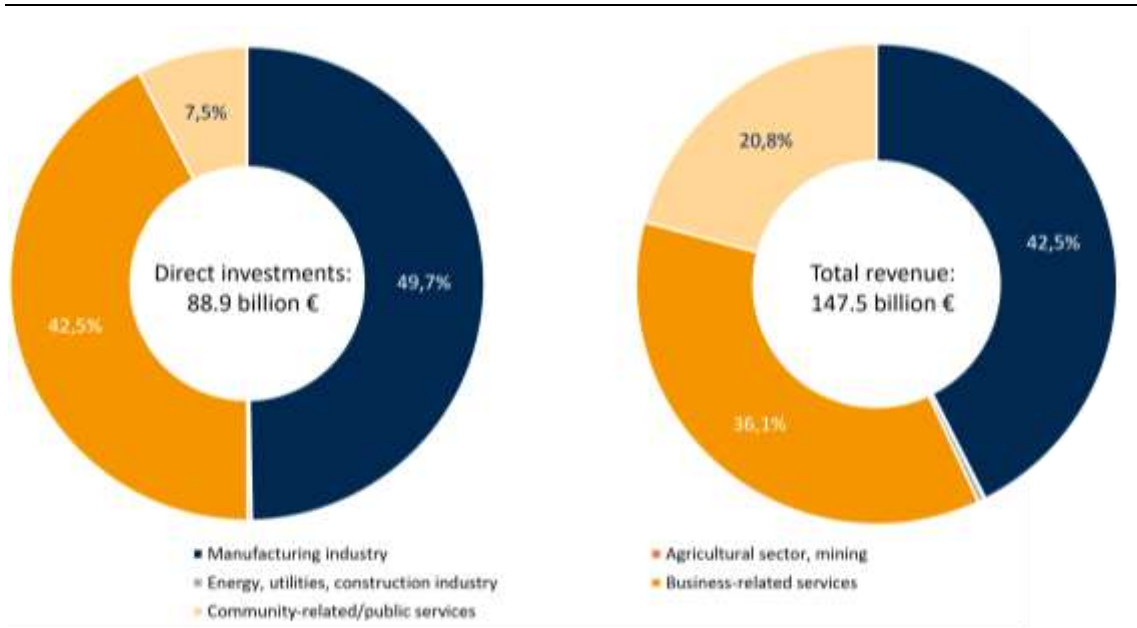
Source: Bundesbank

The shares of industry and service sector in Bavarian direct investments in Bavarian-controlled companies are evenly balanced (see Fig. 5). Of the 88.9 billion euro in foreign direct investments in Bavarian-controlled companies, 49.7% is attributable to manufacturing companies. The majority of these investments are in the M+E industry which can in turn be differentiated according to the predominant sectors. “Manufacture of measuring and control equipment, watches and clocks and electro-medical devices” is the most important sector and accounts for 26.5% of direct investments in Bavarian-controlled companies in the USA. This is followed by the mechanical engineering sector with a share of 8.6 percent. By contrast, only small shares are accounted for by the glass and ceramics manufacturing sector at 2.9 percent, the chemical industry at 2 percent and the automotive and automotive parts sector at 1.7 percent.

42.5 percent of Bavarian FDIs are in business-related service companies, these belonging almost entirely to the “Provision of financial and insurance services” sector where they account for a share of 42.3 percent. 7.5 percent of investments are in community-related or

public service companies. Shares in the energy, utilities and construction industries as well as the agricultural and mining sectors are close to zero.

Fig. 5
Direct investments and revenue of Bavarian-controlled companies in the USA, 2021



Source: Calculations based on data provided by the Bundesbank and BEA
Business-related services include the NACE sectors 49-53, 62-66, 69-75; Community-related/public services include the NACE sectors 45-47, 55-61, 68 and 77-98

In terms of revenue generated by Bavarian-controlled enterprises in the United States the distribution of economic activities is less balanced, with industry accounting for only 42.5 percent of revenue. This shift in shares towards the service sector is attributable to the lower capital intensity of the service sector compared to industry. On average, more revenue is generated per investment in this sector.

However, when comparing the revenue shares with the structure of total revenues of the US economy, the high industrial focus of Bavarian FDIs becomes evident: In the USA, manufacturing accounts for merely 16.3 percent of US revenues and therefore less than half of the industrial revenue share of Bavarian-controlled companies.

A breakdown of the industrial sector shows that 36 percent of revenue of Bavarian-controlled companies is generated in the M+E industry. In motor vehicle and vehicle parts manufacturing, with a share of 16.4 percent, revenue is eight times as high as its share in the direct investments. This industrial branch also has the highest revenue per enterprise across all sectors. At 10.1%, the share of revenue accounted for by the manufacture of

[Bavarian investments in the USA](#)

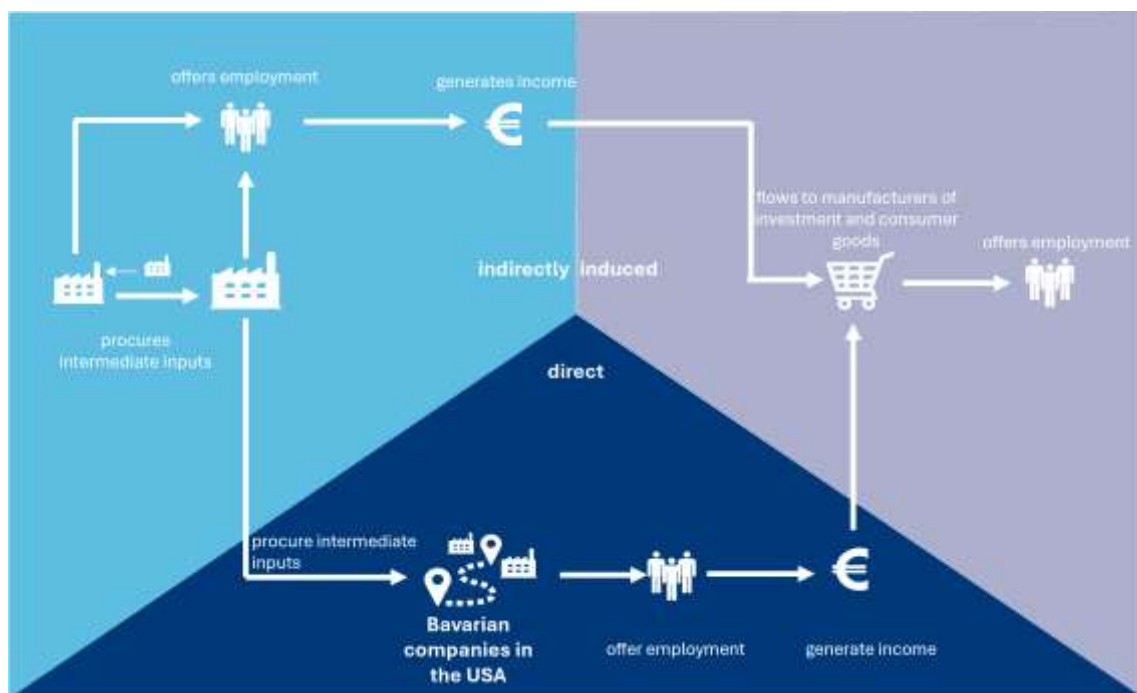
measuring and control equipment, watches and clocks and electro-medical devices, on the other hand, is less than half as high as its share in investments, whereas mechanical engineering, at 5.7%, and the manufacture of glass and ceramics, at 2.8%, account for a similarly high proportion of revenue and investments.

4 Impact of Bavarian business in the USA

Significant economic footprint of Bavarian business and industry in the USA

Bavarian-controlled companies in the USA have a direct impact on the US economy based on their US sales and the jobs they provide. They also trigger further economic effects: in addition to so-called “direct effects” the economic activity generated by input-output interdependencies in upstream value chains (“indirect effects”) and by consumer spending on the part of the workforce (“induced effects”) should also be taken into account (see Fig. 6). This so-called economic footprint or impact of Bavarian business in the USA, comprising the three aforementioned effects, is analyzed in the following chapter.

Fig. 6
Schematic diagram of economic effects



Source: own diagram

4.1 Economic impact in the year 2021

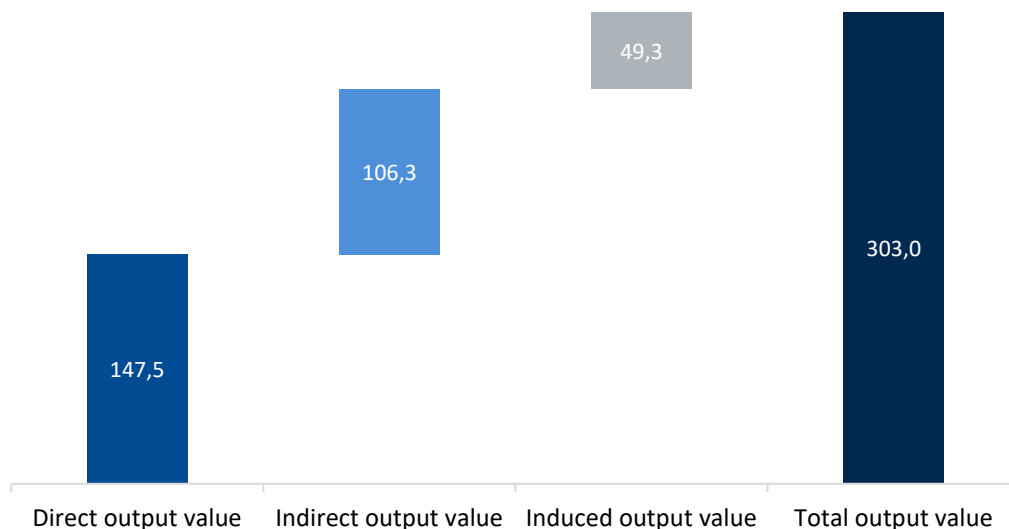
4.1.1 Output value

The 701 Bavarian-controlled companies generated sales revenue of 147.5 billion euro in 2021 (see chapter 3.2). To achieve this revenue, which can also be seen as part of the gross output value of the US economy, the companies procure intermediate goods from other companies, thus triggering further economic effects along the value chain. The overall footprint of Bavarian-controlled companies comprises the following:

Fig. 7

Gross output value generated by Bavarian-controlled companies in the USA

In billion euro, 2021



Sources: Calculations based on data provided by the Bundesbank, BEA and AMNE-IOT of OECD

- The direct gross output value of Bavarian-controlled companies in the USA amounted to 147.5 billion euros in 2021. This is generated in the companies themselves, for example in the production of a vehicle.
- The purchase of intermediate goods and services triggers an indirect gross output value of 106.3 billion euro. This is generated in companies providing these inputs, for example in a company that manufactures car tires and supplies them to vehicle manufacturers. The calculations also take into account indirect inputs (e.g. the production value generated in the production of rubber for car tires).

- Wage payments to employees and the associated consumer spending trigger the induced effect, which amounts to a total of 49.3 billion euro. Both wage payments in the Bavarian-controlled companies themselves and wages paid in the upstream value chain are considered.

Altogether, Bavarian-controlled companies in the USA account for a gross output value of 303 billion euro, corresponding to approximately 0.97 percent of the total gross output value of the United States.

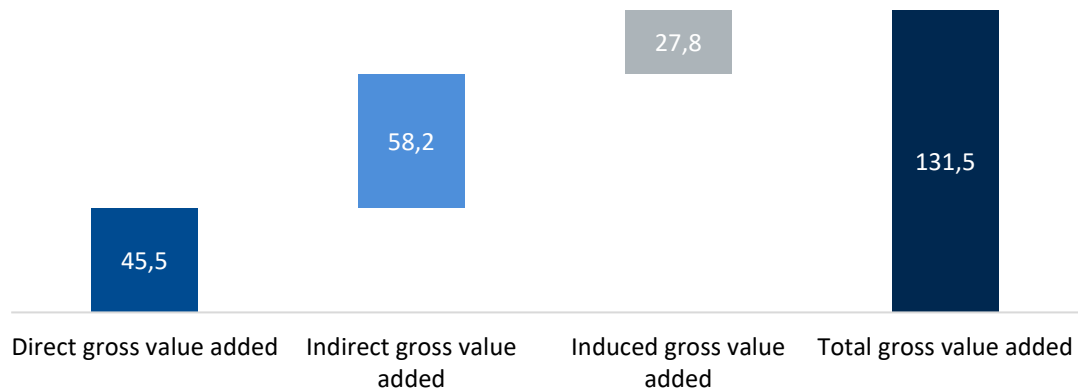
4.1.2 Gross value added

From a macroeconomic perspective, gross value added is the indicator that represents the actual economic contribution to the national economy: the sum of the gross value added generated in a country corresponds approximately to the gross domestic product. The gross added value is calculated from the gross output value minus intermediate inputs used.

Fig. 8

Gross value added of Bavarian-controlled companies in the USA

In billion euro, 2021



Sources: Calculations based on data provided by the Bundesbank, BEA and AMNE-IOT of OECD

- The direct gross value added of Bavarian-controlled companies in the USA amounted to 45.5 billion euro for the year 2021.
- The purchase of intermediate goods and services by Bavarian-controlled companies led to an indirect gross value added of 58.2 billion euro.
- Wages paid to employees and their subsequent consumer spending led to an induced effect of 27.8 billion euro.

Bavarian-controlled companies in the USA generated a total gross value added of 131.5 billion euro, corresponding to 0.76 percent of the total value added in the United States (see Fig. 8). The gross value added generated by Bavarian companies is therefore higher than the gross value added of the US State of Mississippi. The value added multiplier is 2.9, i.e. every euro of value added generated in Bavarian-controlled companies will trigger a further 1.90 euro in additional value added. This high leverage is due to the high level of input intensity of companies operating in the manufacturing sector.

4.1.3 Employment

Bavarian-controlled companies in the USA also create jobs in the United States.

Fig. 9

Employment effects generated by Bavarian-controlled companies in the USA

In thousands, 2021



Sources: Calculations based on data provided by the Bundesbank, BEA and AMNE-IOT of OECD

- The direct effect, i.e. employment in the Bavarian-controlled companies themselves, is around 159,000 employees.
- The procurement of intermediate goods and services also triggers an indirect effect in companies producing these intermediate goods and services, thus accounting for some 364,000 jobs.
- Wages paid to employees and their subsequent consumer spending also cause an employment effect, which is referred to as induced effect and accounts for some 205,000 jobs.

Bavarian-controlled companies in the USA generate a total of over 728,000 jobs corresponding to 0.48 percent of total employment in the United States. Hence Bavarian-controlled companies create more jobs in the USA than currently the US State of Montana.

The share in total employment is clearly lower than the share of total value added in the USA. This is due to the fact that, compared to the US average, a higher proportion of Bavarian-controlled companies operate in high value-added industries such as manufacturing, which means that fewer employees are required to achieve the same value added.

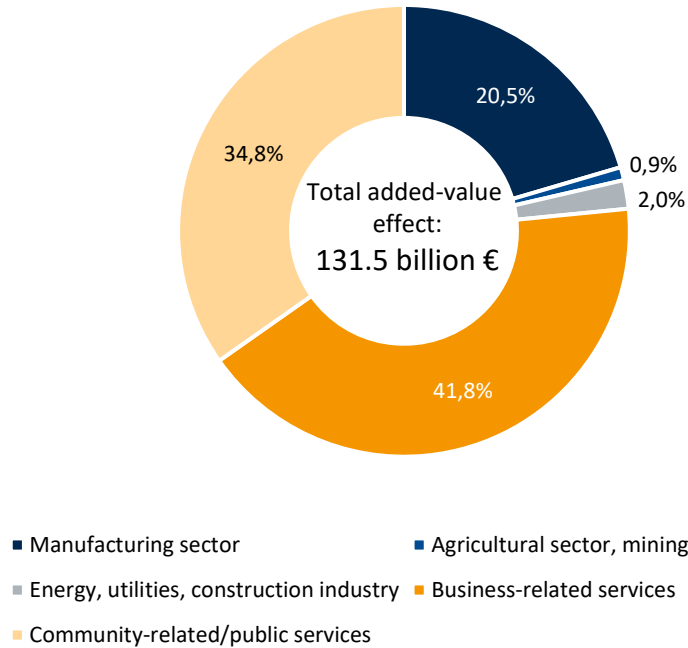
4.1.4 Impact according to sectors of economic activity

The Bavarian-controlled companies in the USA trigger a total value added effect of 131.5 billion euro. Sectors benefit differently (see Fig 10). The largest value added effect is generated in the services sector, with 41.8 percent attributable to business-related services and 34.8 percent attributable to community-related services. One in five euros is generated in the manufacturing industry. Otherwise, the value-added effect of Bavarian-controlled companies in the USA is spread across the energy, utilities and construction industries, which account for a share of 2.0 percent. The agricultural sector and mining have a share of 0.9 percent.

At 20.5 percent, the industrial share of value added generated by Bavarian companies is significantly higher than in the US economy where the manufacturing sector merely accounts for 11.5 percent. The generated industrial value added is largely attributable to the significant M+E industry (15.2 percent) and, in particular, to the manufacture of measuring and control equipment, clocks and watches and electro-medical devices (5.8 percent) and vehicle manufacturing (3.2 percent).

Vehicle manufacturing is also the sector that in relative terms is most dependent on Bavarian-controlled companies. The value-added effect of 4.2 billion euro generated in this sector corresponds to around 3.4 percent of gross value added generated in the US automotive sector as a whole. The manufacture of glass and glassware is equally important to the US economy, accounting for 3.4 percent of the sector's value added, although in absolute terms this is significantly lower than the value added by vehicle manufacturing. This shows that the strong Bavarian automotive industry is also expanding its market position via investments in the USA and is a significant factor in the local economy.

Fig. 10
Added-value effect of Bavarian-controlled companies in the USA



Sources: Calculations based on data provided by the Bundesbank, BEA and AMNE-IOT of OECD

The business-related services sector also benefits to an above-average extent from Bavarian-controlled companies. Compared to the US economy as a whole, where the sector generates 22.6 percent of value added, the share of value added triggered by Bavarian-controlled companies is almost twice as high. This is hardly surprising, as business-related service providers (such as financial service providers, IT service providers or logistics companies) supply important inputs for industrial enterprises. A major part of the effect is generated by the provision of financial and insurance services. With a gross value-added effect of 35.3 billion euro, 2.5 percent of the total value added in this US economic sector is triggered by Bavarian-controlled companies.

The effects generated in community-related service companies, such as retail or the hospitality sector, is below average.

4.2 Development and rating of the economic impact

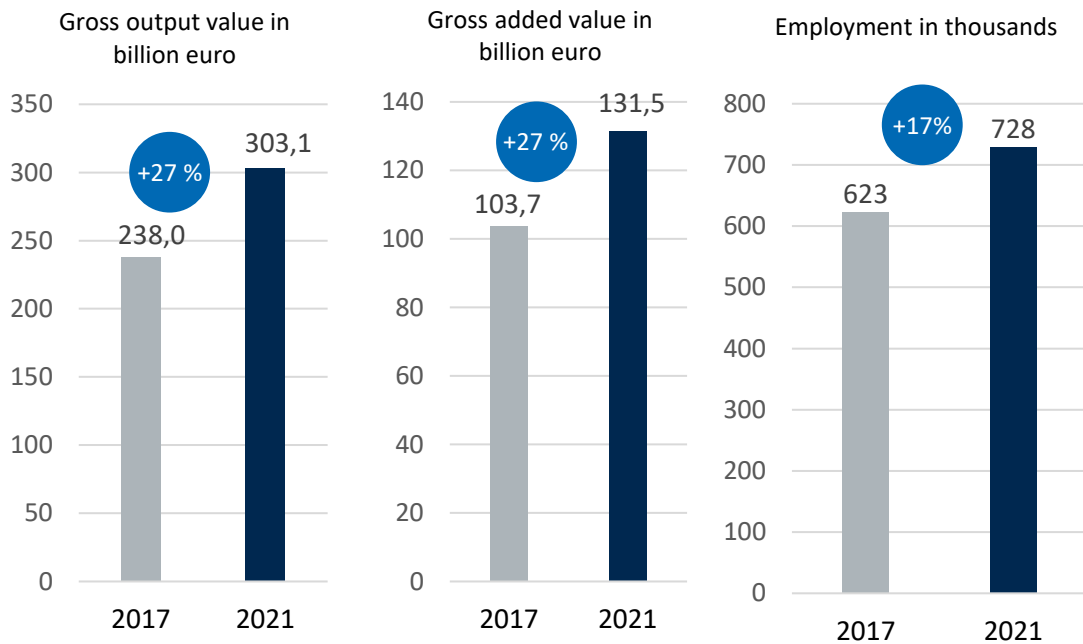
The following chapter examines the development of the economic impact in the USA since 2017. All in all, the impact of Bavarian-controlled companies in the United States has increased significantly (see Fig. 11). The gross output value stepped up from 238 billion euro

Impact of Bavarian business in the USA

in 2017 to 303 billion euro in 2021, an increase of 27.3 percent. Gross value added shows a similarly high increase of 26.8%. Between 2017 and 2021, the figure climbed from 103.7 to 131.5 billion euro. This means that the value-added effect has increased to a greater extent than total US value added, which rose by 4.7% in the same period. The increase in jobs was somewhat less pronounced, but also significant. The number of employees grew from around 623,000 to about 728,000, corresponding to an increase of 17%.

The surge in the economic impact of Bavarian-controlled companies in the USA is primarily due to the increased engagement of Bavarian investors in the USA and the growth in sales of Bavarian-controlled companies (see chapter 3.2). Moreover, in 2021, Bavarian-controlled companies procured more intermediate products in relation to their sales than in 2017, meaning that the input intensity increased. Hence in 2021, for every euro of value added generated in Bavarian-controlled companies, there was more value added triggered in the upstream value chain than four years earlier. The value-added multiplier increased from 2.7 in 2017 to 2.9 in 2021.

Fig. 11
Impact of Bavarian-controlled companies in the USA over time



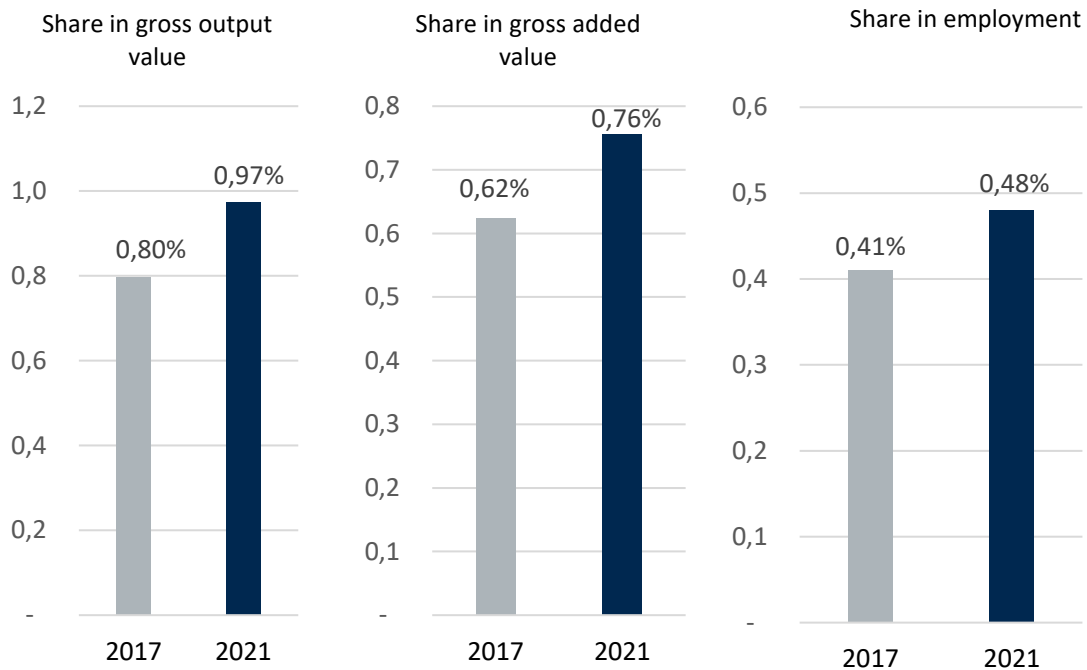
Sources: Calculations based on data provided by the Bundesbank, BEA and AMNE-IOT of OECD

The higher input intensity of Bavarian-controlled companies is not attributable to a change in the sectors covered. The shares of the sectors in terms of added-value effects remained largely constant between 2017 and 2021, indicating that Bavarian companies are pursuing long-term goals with their investments and that Bavarian business is well established in the USA.

An increase in the impact of Bavarian-controlled companies is not only reflected in the absolute figures, but also in the shares they hold in the overall US economy (see Fig. 12). The share of Bavarian-controlled companies in the US gross output value increased from 0.80 to 0.97 percent between 2017 and 2021, whereas the share of gross value added grew from 0.62 to 0.76 percent. In terms of employment their share also increased, however by only 0.07 percentage points. US business intertwined with Bavarian-controlled companies has therefore gained a higher intensity of value added compared to the US economy as a whole: the focus on business sectors with high added value per employee has thus increased compared to the overall US economy.

Fig. 12

Share of Bavarian-controlled companies in the US economy over time



Sources: Calculations based on data provided by the Bundesbank, BEA and AMNE-IOT of OECD

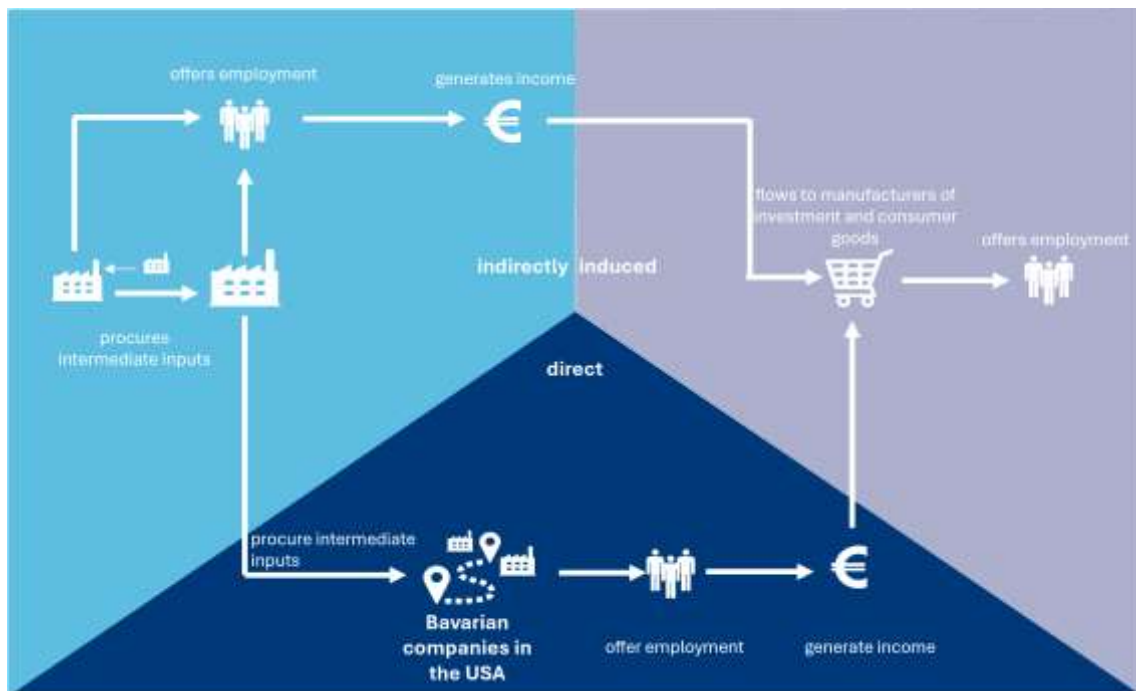
In the final analysis this study confirms the economic effects triggered by Bavarian foreign direct investments in the USA. It is first and foremost the US industry that benefits most from Bavarian-controlled companies in the USA in the form of value creation and employment. Bavaria's economic footprint in the United States saw an increase in the period between 2017 and 2021.

Appendix. Methods and results in detail

Methodological background

The aim of the impact study is to examine the economic footprint of Bavarian business in the USA. The engagement abroad is determined on the basis of foreign direct investments. The amount of Bavarian direct investments in the USA gives an indicative overview of the interdependencies between Bavaria and the USA (see Chapter 3.1). Direct investments are cross-border holdings in companies of at least 10 percent of the voting capital. From this threshold upwards it can be assumed that the investor is engaged for a longer term in the foreign company. From a share of 50 percent of the voting capital it is assumed that the foreign investor has cross-border control over the business entity. It is these business entities that are defined in this study as “Bavarian-controlled companies in the USA” and their economic footprint in the United States is analyzed (see Chapter 3.2 and 4). The economic footprint takes into account that Bavarian-controlled companies in the USA generate added value and jobs not only directly. The overall effect is much higher due to input-output interdependencies in upstream industries and consumer spending by the workforce (see also Fig. 13):

Fig. 13
Methodical procedure of the impact analysis,
schematic diagram of the three effects



Source: own elaboration IW Consult

- Direct effects are understood to mean the economic activity that Bavarian-controlled companies generate themselves within the framework of their ongoing operations.
- Indirect effects are the added-value and employment effects that Bavarian-controlled companies trigger in the USA through the procurement of intermediate inputs or services.
- Induced effects are the circular effects of additional demand resulting from the calculated spending of the workforce of Bavarian-controlled companies as well as their US suppliers in the USA.

Together the three effects make up Bavaria's economic footprint. They are determined in terms of output value, value added and employment.

Data basis

The calculations are based on the key statistics relating to Bavarian direct investments in the USA for 2021, obtained from the Bundesbank in a special evaluation of shares in voting capital of at least 10 percent and of at least 50 percent (Bundesbank, 2024a). The information, broken down by economic sectors, on the level of investment, the number of companies involved and the associated revenue and number of employees is evaluated, validated and supplemented with information from the Bureau of Economic Analysis (BEA) on investment stocks in the country, since figures from the Bundesbank also include confidentiality cases.

Based on the figures obtained from the Bundesbank, the direct effects are determined. The sales revenue generated by the "Bavarian-controlled" companies (i.e. companies controlled by Bavarian investors across borders with a capital share of at least 50%) corresponds to the output value generated as a direct effect. The number of employees associated with the investments can also be drawn from the statistics of the Bundesbank. Gross value-added is quantified on the basis of sector-specific value added intensities. The BEA provides respective data on value added and employment for US companies, differentiated by nationality of the controlling company and economic sector. This enables the specific value-added and employment intensities achieved by German companies in the USA to be considered.

With the help of input-output tables showing the interdependencies between sectors within the USA, in a next step it is possible to calculate the gross value added and employment effects resulting from procurement of intermediate inputs by the Bavarian companies (indirect effects). A special OECD IOT can be used for this purpose, showing specifically the economic interdependences of foreign companies in the country (AMNE database). Should foreign companies in the USA have different intermediate input structures than the average, this can thus be taken into account in the calculations.

To calculate the spending effects (induced effects), it is necessary to first determine the level of the wages of the previously calculated employees. For this purpose, the key statistics for German companies in the USA are again used, specifically sector-specific payroll figures. Taking the US spending ratio as a basis, in the next step it is possible to determine

how much economic activity is attributable to the spending of direct and indirect employees.

To gain an impression of how Bavarian business has developed in the USA over the past years, the economic footprint of Bavarian companies in 2017 is also calculated using the same data sources and methodological approaches.

Further results in detail

Table 1

Direct investments in Bavarian-controlled companies according to sectors of economic activity

	2021	Share	2017	Share
Provision of financial and insurance services	37,619	42.3 %	33,155	49.9 %
Manufacture of measuring and control equipment, watches and clocks and electro-medical devices	23,546	26.5 %	12,959	19.5 %
Mechanical engineering	7,669	8.6 %	6,106	9.2 %
Trade; maintenance and repair of motor vehicles	4,906	5.5 %	1,663	2.5 %
Manufacture of furniture and other goods / repair and installation of machinery and equipment	3,043	3.4 %	497	0.7 %
Manufacture of glass and glassware, ceramic products, processing of mining products	2,590	2.9 %	627	0.9 %
Manufacture of chemical products	1,757	2.0 %	3,711	5.6 %
Manufacture of motor vehicles and motor vehicle parts	1,539	1.7 %	795	1.2 %
Other sectors	6,227	7.0 %	6,866	10.3 %
M+E industry	36,712	45 %	20,963	31.6 %

In million euro, selected sectors

Sources: Calculations based on data provided by the Bundesbank (2024b, c), BEA (2024), and AMNE-IOT of OECD (2024)

M+E Industry: Sectors acc. to WZ code nos. 24 to 33

Table 2

Sales revenue of Bavarian-controlled companies in the USA according to sectors of economic activity

	2021	Share	2017	Share
Provision of financial and insurance services	49,643	33.7 %	41,300	34.9 %
Trade; maintenance and repair of motor vehicles	30,109	20.4 %	24,100	20.3 %
Manufacture of motor vehicles and motor vehicle parts	24,134	16.4 %	13,200	11.1 %
Manufacture of measuring and control equipment, watches and clocks and electro-medical devices	14,861	10.1 %	13,700	11.6 %
Mechanical engineering	8,462	5.7 %	9,700	8.2 %
Manufacture of glass and glassware, ceramic products, processing of mining products	4,170	2.8 %	807	0.7 %
Manufacture of furniture and other goods / repair and installation of machinery and equipment	3,634	2.5 %	639	0.5 %
Other sectors	12,437	8.4 %	15,052	12.7 %
M+E-Industry	53,099	36.0 %	38,947	32.9 %

In million euro, selected sectors

Sources: Calculations based on data provided by the Bundesbank (2024b, c), BEA (2024), and AMNE-IOT of OECD (2024)

M+E Industry: Sectors acc. to WZ code nos. 24 to 33

Table 3

Gross value added effect of Bavarian-controlled companies according to sectors of economic activity

	2021	2017
US-based Bavarian business, total	131,526	103,722
Provision of financial and insurance services	35,383	28,499
Trade; maintenance and repair of motor vehicles	15,536	12,559
Manufacture of motor vehicles and motor vehicle parts	4,230	2,771
Provision of free-lance, scientific and technical services	11,453	9,127
Manufacture of measuring and control equipment, watches and clocks and electro-medical devices	7,675	5,879
Real estate and housing	11,307	8,154
Provision of other economic services	5,906	4,684
Mechanical engineering	2,556	4,011
IT services	4,181	2,952

In million euro, selected sectors

Sources: Calculations based on data provided by the Bundesbank, BEA (2024) and AMNE-IOT of OECD (2024)

M+E industry: Sectors acc. to WZ code nos. 24 to 33

Table 4

Generated gross output value of Bavarian-controlled companies according to sectors of economic activity

	2021	2017
US-based Bavarian business, total	303,011	237,981
Provision of financial and insurance services	77,137	63,568
Trade; maintenance and repair of motor vehicles	47,852	37,563
Manufacture of motor vehicles and motor vehicle parts	27,161	14,992
Provision of free-lance, scientific and technical services	18,151	14,442
Manufacture of measuring and control equipment, watches and clocks and electro-medical devices	17,472	15,740
Real estate and housing	16,362	11,725
Provision of other economic services	9,889	7,587
Mechanical engineering	9,426	10,501
IT services	7,409	5,626

In million euro, selected sectors

Sources: Calculations based on data provided by the Bundesbank (2024b, c), BEA (2024), and AMNE-IOT of OECD (2024)

M+E Industry: Sectors acc. to WZ code nos. 24 to 33

Table 5

Employment effect generated by Bavarian-controlled companies according to sectors of economic activity

	2021	2017
US-based Bavarian business, total	728	623
Provision of financial and insurance services	72	64
Trade; maintenance and repair of motor vehicles	120	105
Manufacture of motor vehicles and motor vehicle parts	29	18
Provision of free-lance, scientific and technical services	69	56
Manufacture of measuring and control equipment, watches and clocks and electro-medical devices	41	40
Real estate and housing	11	8
Provision of other economic services	74	64
Mechanical engineering	21	21
IT services	12	10

In thousands, selected sectors

Sources: Calculations based on data provided by the Bundesbank (2024b, c), BEA (2024), and AMNE-IOT of OECD (2024)

M+E Industry: Sectors acc. to WZ code nos. 24 to 33

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