

Switzerland's close ties with the EU – an economic success story in jeopardy?

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Note

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Foreword

In times of protectionism, Switzerland and the European Union need to demonstrate their commitment to a strong partnership

The Bavarian industry regrets the decision by the Swiss Federal Council to break off negotiations with the European Union on the Institutional Framework Agreement. It is equally regrettable that the EU is allowing existing bilateral agreements with Switzerland to expire.

The current standstill is of no benefit for either side and jeopardises the foundation of Switzerland's close connection with the European single market. Failure to find a solution for the continued development of bilateral relations will ultimately cost prosperity and growth – for Switzerland as well as for Bavaria, Germany and the European Union.

Especially in times of protectionism and disrupted supply chains we need Switzerland and the EU to demonstrate their commitment to a strong political and economic partnership based on shared values and open markets. We need a re-launch of negotiations, at the end of which both parties will find the correct balance between rights and obligations.

Bertram Brossardt
27 June 2022

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Executive Summary

Bilateral agreements are at the core of the successful economic relations between the EU and Switzerland.

The bilateral agreements concluded between Switzerland and the European Union (EU) at the turn of the millennium laid the foundation for close economic cooperation between Switzerland, Germany and Bavaria in particular. The following study will take a closer look at the close ties between Switzerland and the EU and with Bavaria, as well as the possible foreign trade consequences if no agreement is reached between Switzerland and the EU regarding the bilateral agreements.

Relations in foreign trade are particularly close. Bilateral imports and exports have increased significantly over the past two decades. Switzerland is the eleventh most important trading partner from a Bavarian perspective. From a Swiss perspective, Germany is the largest trading partner of all. A large part of the Swiss-German trade volume is accounted for by Bavaria.

Compared to Germany as a whole, Bavaria invests an above-average amount in Switzerland. Around a quarter of Germany's total investment in Switzerland comes from Bavaria. Conversely, Swiss direct investments are an equally important source of capital for the Bavarian economy, with close to 9 billion euros (2019).

The interdependency between the EU and Switzerland also shapes the respective labour markets. The number of employed persons from Bavaria and Germany in Switzerland is considerably larger than the number of Swiss employees here.

A special feature of Bavarian-Swiss exchange is the large number of cross-border research collaborations. The Horizon 2020 and EUREKA research framework programmes are examples of these links.

In a European comparison, German export demand provides the most gross value added and employment within Switzerland. Conversely, in Germany, smaller shares of total gross value added depend on demand from Switzerland.

Switzerland's departure from the EU would place a considerable burden on trade between the partners. Unless an agreement is reached on a continuation of the bilateral agreements, trade between the EU and Switzerland will in future take place based on WTO rules as well as the free trade agreement between the EU and Switzerland that has existed since 1972. This is associated with considerable restrictions and trade barriers that are not advantageous for either side. Even an agreement modelled on the EU-UK Trade and Cooperation Agreement would be a clear step backwards for trade relations.

1 Switzerland is closely intertwined with the EU and Germany

The success story of economic relations between the EU and Switzerland is threatened with an abrupt end.

In the early 1990s, a narrow majority of the Swiss population rejected accession to the European Union (EU). In order to nevertheless ensure close economic ties between Switzerland and the other European economies, numerous bilateral treaties were agreed upon between Switzerland and the EU. On the economic level, the bilateral agreements can be considered a great success. They enabled intensive economic relations between Switzerland and other European countries. More than two-thirds of Swiss imports and more than half of Swiss exports went to the EU in 2019. Not least, on the basis of the intensive foreign economic ties with the EU, the export-oriented Swiss economy has been able to record solid growth over the past two decades.

Economic exchange relations are also close outside of foreign trade. This is evident in various places. Tens of thousands of people have found jobs in the other respective country and have become an integral part of the national economy in the respective host country. Cross-border university and non-university research cooperation increase the innovative strength in both countries.

However, this economic success story is increasingly being obscured by political disputes between the Swiss government and the EU. Negotiations for a framework agreement that would comprehensively regulate relations between the EU and Switzerland were broken off by Switzerland in 2021. The reason is that Switzerland sees its independence and sovereignty threatened by the agreement. After the Swiss Federal Council decided not to sign the draft agreement, the EU announced that it would allow the temporary agreements to expire.

An example of this is the research cooperation under research framework programmes, which was ended by the dispute. Since open-ended bilateral agreements are not updated without a framework agreement, the agreements are no longer updated and they lose their validity in the long term. Also, the de facto expiry of open-ended bilateral agreements – and thus of the institutional foundation of close economic relations – is therefore now also considered a conceivable scenario. Although this is neither in Switzerland's nor the EU's interest, it can no longer be ruled out. If no agreement is reached in the dispute over the framework agreement, the success story to date threatens to come to an abrupt end with considerable economic upheaval – especially in Switzerland but also in Germany and Bavaria.

First, this study sheds light on the complex structure of Switzerland's institutional relations with the EU. Subsequently, we examine the intensive economic exchange relations and analyse the extent to which they are profitable for both sides. Finally, the status quo is compared with alternatives that become conceivable without an agreement between the sides, such as a "reversion" to the standardised rules of the World Trade Organisation (WTO). The overall picture illustrates the threat of economic damage that would accompany a continuation of the political conflict between the Swiss government and the EU.

2 Switzerland's institutional integration into the European Single Market

Switzerland is economically very closely integrated into the European Single Market.

Switzerland is not a member of the EU but it is nevertheless very closely integrated economically with the EU's member countries. Today, Switzerland's institutional relations with the EU are governed by more than 120 bilateral agreements.

This path distinguishes Switzerland from other countries closely linked to the EU, such as Norway, Iceland and Liechtenstein. These are members of the European Economic Area (EEA) and thus also officially part of the European Single Market. Originally, Switzerland had also planned to become a member of the European Economic Area and was heavily involved in the negotiation of the treaty. As a result of a narrowly negative referendum in December 1992, however, the country decided not to join and instead chose the so-called "bilateral route". Without the "bilateral route" and the accompanying bilateral agreements, any economic exchange would only take place on the basis of the free trade agreement between Switzerland and the EU, which has existed since 1972.

The first cornerstone of economic relations between the EU and Switzerland is formed through seven agreements signed in 1999 under the heading of *Bilateral Agreements I*. Each agreement covers individual topics or sectors. The focus is on easier access to the labour, goods and services markets. This first package contains an agreement on the free movement of persons, which facilitates the living and working conditions of citizens in the other economic area. A second agreement regulates the dismantling of technical barriers to trade and – among other things – the mutual recognition of technical standards and certificates of compliance. A third agreement deals with public procurement and is intended to ensure equal treatment of suppliers from the EU and Switzerland. Other agreements within the package regulate trade in agricultural products, civil aviation and land transport. Finally, Bilateral Agreements I regulate Switzerland's access to the European Framework Programme for Research and Innovation (Figure 1).

Figure 1
Bilateral Agreements I of 1999



Source: Figure produced by Prognos

The Bilateral Agreements I are linked by a so-called guillotine clause. This means that if one agreement is terminated, the other agreements also cease to apply within six months. This was intended to prevent the contracting parties from retaining only those agreements that serve their own interests after the conclusion of Bilateral Agreements I and terminating the rest.

In 2004, another package of agreements followed. The so-called *Bilateral Agreements II* regulate cross-border mobility and cooperation between the EU and Switzerland in protecting the Schengen external borders. This makes Switzerland a full Schengen member. In addition, Switzerland participates in the European asylum process (the "Dublin Regulation"). Other partial agreements concern the automatic exchange of information, the fight against fraud, trade in processed agricultural products and the European support programme "Creative Europe (MEDIA)". Through the agreement on the environment, Switzerland participates in the European Environment Agency (EEA) and contributes to European research activities. The agreement on statistics standardises data collection and gives Switzerland access to Europe-wide databases. The Bilateral Agreements II also include an agreement on pensions and an agreement on education, vocational training and youth (Figure 2).

Figure 2
Bilateral Agreements II of 2004



Source: Figure produced by Prognos

Bilateral Agreements I and II were followed by further agreements between Switzerland and the EU (Figure 3).

Figure 3
Recent key bilateral agreements



Source: Figure produced by Prognos

For example, Switzerland cooperates with the European Police Office (Europol), the EU's Judicial Cooperation Agency, the European Defence Agency (EDA), the European competition authorities and the European Asylum Support Office (EASO). The EU and Switzerland also cooperate on satellite navigation and have linked their emissions trading systems.

As a result of the more than 120 bilateral agreements, Switzerland is not fully economically integrated into the European Single Market but economic actors on both sides do enjoy largely non-discriminatory access to the other market in almost all sectors.

However, the previous concept with its multitude of individual bilateral agreements has considerable disadvantages, especially from the EU's point of view; for example, there is no dispute settlement mechanism. The EU has therefore been striving since 2014 to remedy these disadvantages through an "institutional agreement". Such a framework agreement should comprehensively clarify the basis of cooperation and replace part of the bilateral agreements. In essence, the agreement provides for both dynamic adjustments of the market access agreements to EU legal developments (up to now, the individual agreements have had to be adjusted separately if necessary) and a dispute settlement mechanism to ensure the uniform application and interpretation of the regulations. However, no agreement could be reached in the negotiations with Switzerland, so Switzerland unilaterally declared them terminated in May 2021. In essence, Switzerland sees its independence and nation-state sovereignty as being threatened:

- On the one hand, Switzerland fears that the planned dynamic adoption of law would restrict its independence. As a result of the framework agreement, Switzerland would be obliged to adapt its own law to relevant changes in EU law. In the event of a dispute, the framework agreement provides for a dispute settlement procedure under the jurisdiction of the European Court of Justice.
- On the other hand, Switzerland fears a loss of sovereignty and sharply rising costs in the areas of the free movement of persons and wage protection. Due to the current free movement of persons, workers from the EU (among others) can work in Switzerland. If they have already worked there for one year and have a valid residence permit, they can also receive access to social benefits there. However, the EU Citizenship Directive is more generous than the agreement, as it extends both the right of residence and social benefits to people from the EU who are involuntarily unemployed. This has led to concerns that European jobseekers would migrate into the federal welfare system. With the help of the EU Citizenship Directive, a jobseeker, after one year of residence in the country, is granted the unrestricted right of residence and access to social assistance, provided that he or she is actively seeking a new job. In Switzerland, a person in the same situation would only be entitled to social assistance and a limited right of residence for a maximum of six months. If a person loses his or her job within the first year of residence, he or she is entitled to social assistance for six months, according to the EU Citizenship Directive. In Switzerland, however, jobseekers in this situation do not receive social assistance. On the subject of wage protection, Switzerland wants to keep open the possibility of taking action against foreign "wage dumping" without restrictions under EU law.

- In addition, there is disagreement about Switzerland's financial contribution in return for non-discriminatory access to the European Single Market. Switzerland argues that it has already paid this price through a one-off payment of 1.2 billion euros made in 2021, which will be paid out over 10 years. The EU, on the other hand, wants to enforce regular annual payments, as Switzerland also benefits permanently from access to the European Single Market.

Despite the breakdown of the negotiations on the framework agreement, the bilateral agreements continue to apply and regulate cross-border economic exchange between Switzerland and the EU. Nevertheless, the stalemate is leading to the continued deterioration of framework conditions for foreign trade. The following two factors are primarily responsible for this:

- Existing agreements are no longer updated: if EU law changes, the relevant bilateral agreements would also have to be updated. The market for medical devices is currently affected in this context. There, among other things, the mutual recognition of conformity assessments loses its validity, resulting in non-tariff validity, which creates non-tariff barriers to trade. Numerous other areas may follow.
- Participation in time-limited programmes ends: this applies, for example, to Switzerland's participation in the EU Framework Programmes for Research and Innovation, each of which has a limited duration. As a result, Switzerland is only treated as a non-associated third country in the EU's ninth Framework Programme for Research and Innovation (which runs from 2021 to 2027).

The further development of institutional relations between Switzerland and the EU is currently unclear. From Switzerland's point of view, the negotiations on the framework agreement have failed and are over. Instead, the previous path is to be continued on the basis of individual bilateral agreements. From the EU's point of view, however, the clarification of the institutional framework conditions on the basis of an overarching agreement is a prerequisite for the continuation of bilateral cooperation. The EU still favours the conclusion of what it considers to be a fully negotiated framework agreement and is not prepared to update the existing bilateral agreements with Switzerland until then. As a result, non-tariff barriers to trade between Switzerland and the EU are likely to increase in the future.

3 Economic interdependencies between Switzerland and the EU, Germany and Bavaria

Bavaria's foreign economic relations with Switzerland are more intensive than with some full EU members.

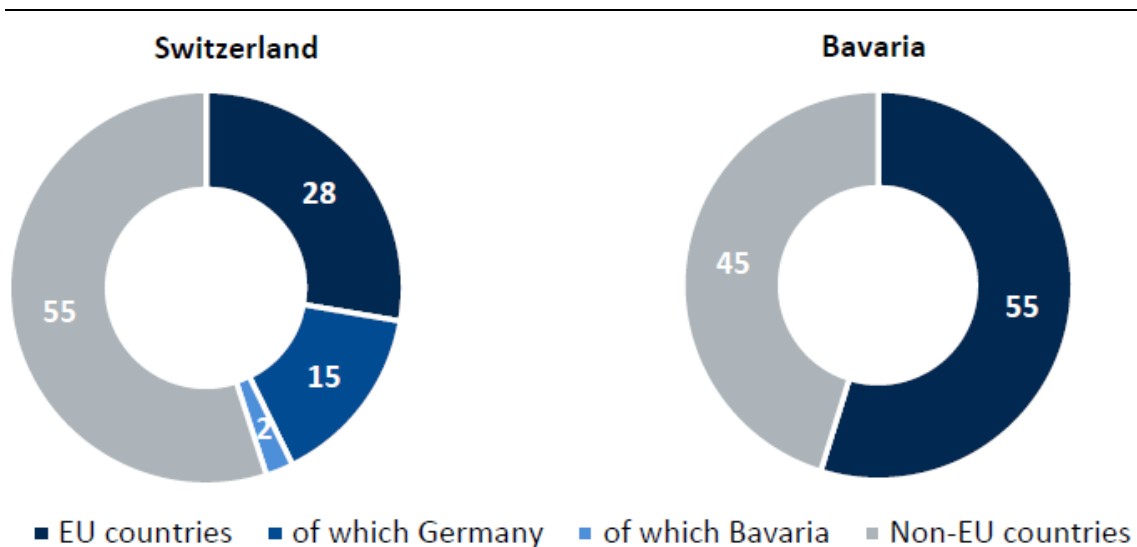
Switzerland's close institutional ties with the EU form the basis for intensive economic integration between the two economic areas. This is evident in terms of foreign trade, investment relations, the exchange of skilled workers and cross-border research cooperation.

3.1 Foreign Trade

The EU countries are by far the most important sales market for both Switzerland and Bavaria. In total, Switzerland handles around 45 per cent of the entire trade in goods with the EU (Figure 4). For Bavaria, the EU plays an even greater role as a trading partner with a share of 55 per cent.

Figure 4

Trading partner share in Switzerland and Bavaria's total trade in goods, 2020, in per cent



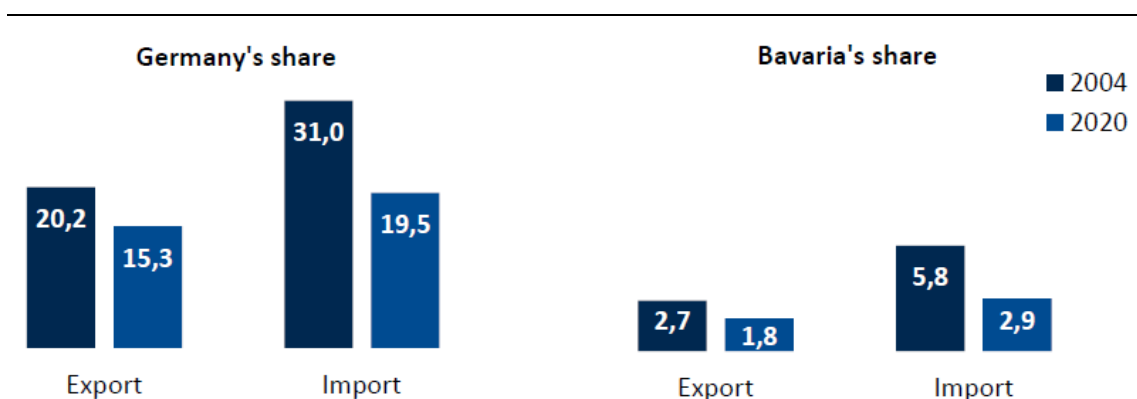
Source: Comtrade/Prognos World Trade Model 2022 and Federal Statistical Office 2022; figure produced by Prognos

Nevertheless, from Switzerland's perspective, the EU has lost relative importance as a trading partner in recent years. In 2004, EU countries still accounted for two-thirds of the total trade volume. In contrast, the United States and – to a lesser extent – China have gained relative importance. From a Bavarian perspective, the EU share of foreign trade has remained stable since 2004.

Overall, foreign trade with Germany and Bavaria plays a prominent role, especially for Switzerland. With a share of 17 per cent of total Swiss foreign trade, Germany was the largest trading partner of all in 2020. For imports, this figure is even higher at 19 per cent. With an export share of 15 per cent, Germany ranks second behind the USA from a Swiss perspective. Nevertheless, it can be seen that Germany has noticeably lost importance as a trading partner to the USA in recent years due to the strong increase in Swiss pharmaceutical exports to the USA (Figure 5).

Figure 5

Germany and Bavaria's share of Swiss trade in goods, 2004 and 2020, in per cent

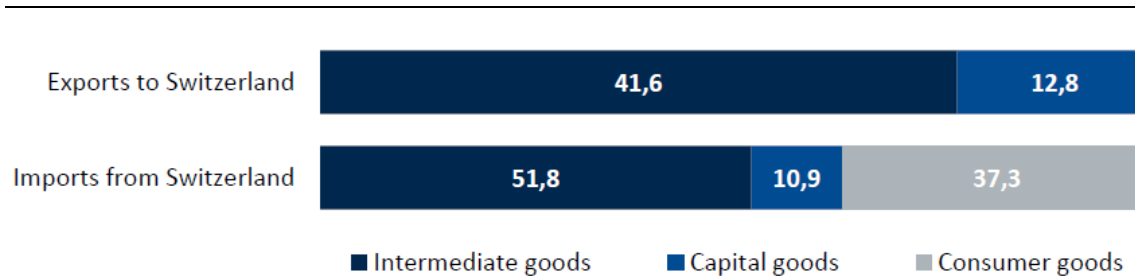


Source: Comtrade/Prognos World Trade Model 2022 and Federal Statistical Office 2022; figure produced by Prognos

At the level of the German federal states, Switzerland's geographical location means that it has particularly strong ties with Baden-Württemberg (5.9 per cent of exports and 7.7 per cent of imports from Switzerland go there). Around 1.8 per cent of total Swiss exports went to Bavaria in 2020. Bavaria had a share of around 2.9 per cent of imports. Overall, Bavaria's share of Swiss foreign trade has been declining in recent years.

More than half of the imported goods are intermediate products that are further processed in industrial production processes. Around 11 per cent are capital goods such as machinery, technical equipment or vehicles that are part of the production equipment of companies. The share of consumer goods is a good third (Figure 6). In contrast, consumer goods form the largest group of goods in German exports to Switzerland.

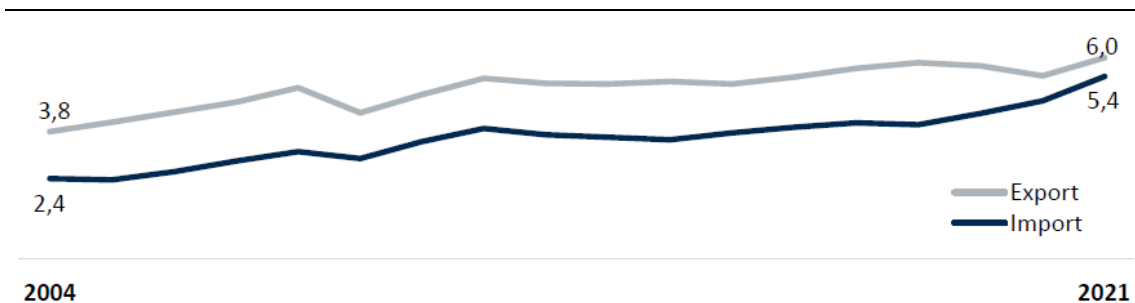
Figure 6
Swiss-German foreign trade according to use, 2020, in per cent



Source: Comtrade/Prognos World Trade Model 2022; figure produced by Prognos

Bavarian foreign trade with Switzerland has risen continuously since 2004, the year in which the Bilateral Agreements II was concluded. In 2021, Bavaria exported goods worth 6.0 billion euros to Switzerland. The value of imports in the same year was 5.4 billion euros (Figure 7).

Figure 7
Bavarian foreign trade with Switzerland, 2004 to 2021, in billion euros



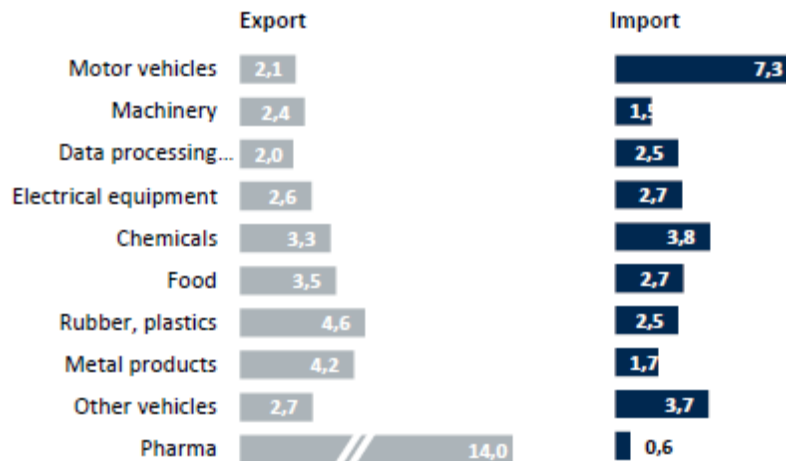
Source: Federal Statistical Office 2022; figure produced by Prognos

Overall, Switzerland is the eleventh most important trading partner from a Bavarian perspective. The importance of Switzerland has remained stable in recent years. During the period under consideration between 2004 and 2021, Switzerland accounted for an average of around 3.2 per cent of Bavarian exports and around 2.5 per cent of Bavarian imports.

At the sector level, the Swiss sales market is of outstanding importance for the pharmaceutical industry, as mainly intermediate products are exported to the country on a large scale. This can also be seen in the respective shares of the individual sectors in Bavarian foreign trade (Figure 8).

Figure 8

Share of Switzerland in Bavarian foreign trade in the most important Bavarian export sectors, 2021, in per cent

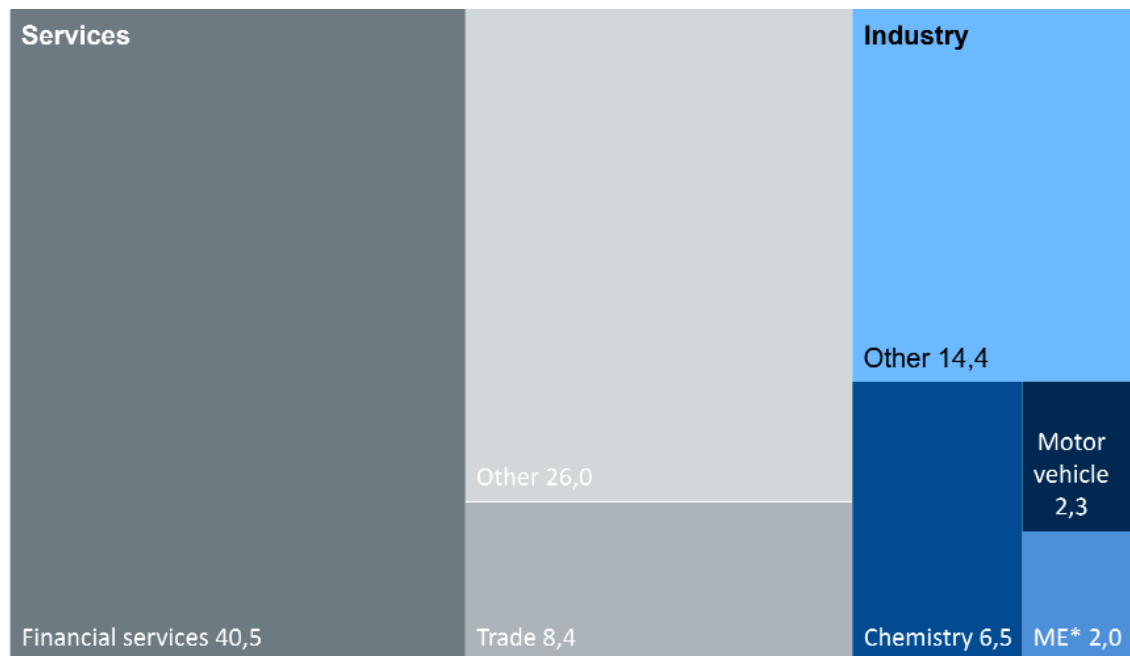


Source: Federal Statistical Office 2022; figure produced by Prognos

3.2 Investments

In Germany as a whole, Switzerland accounted for only 3.2 per cent of all foreign direct investment in 2019. The manufacturing sector – i.e. industry in the narrower sense – accounted for around 25 per cent of the total investment stock (Figure 9). Within the manufacturing sector, no other German industry invests more in Switzerland than the chemical industry. In 2019, almost seven per cent of German investments in Switzerland came from the chemical industry, which illustrates the importance of this sector in German-Swiss investment activity. This is followed by mechanical engineering and motor vehicle construction, each with a good two per cent.

Figure 9
German FDI to Switzerland by industry, 2019, in per cent

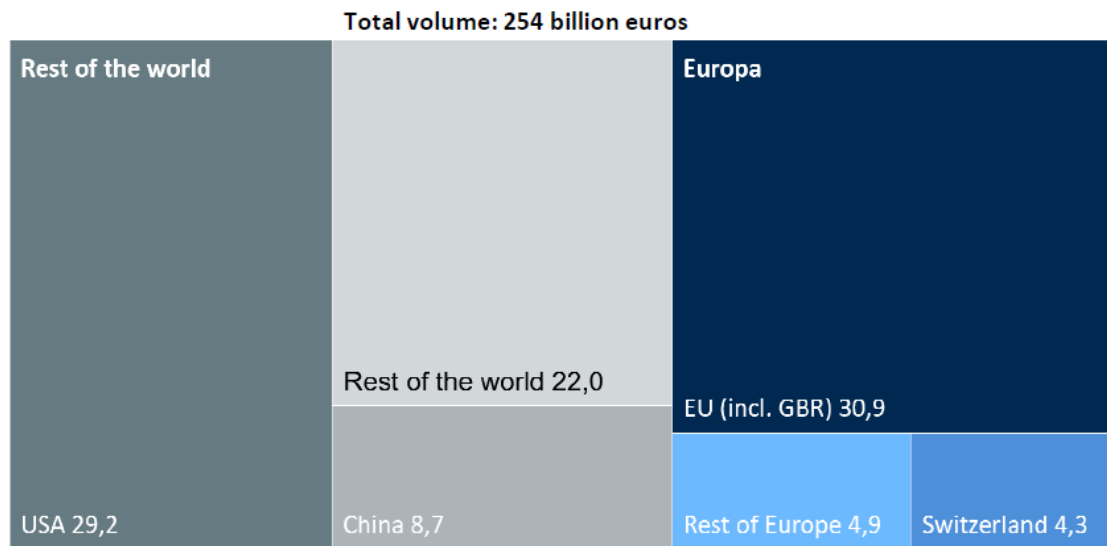


Source: Bundesbank 2021b; figure produced by Prognos

Bavarian direct investment abroad was almost 254 billion euros in 2019, of which 10.9 billion euros (4.3 per cent of all Bavarian direct investment, went to Switzerland (Figure 10). Compared to Germany as a whole, Bavaria thus invests an above-average amount in Switzerland, with around a quarter of Germany's total investment stock in Switzerland coming from Bavaria.

Figure 10

Direct and indirect Bavarian direct investment abroad by country and region, 2019, in per cent



Source: Bundesbank 2014, Bundesbank 2021a; figure produced by Prognos

Figures for Germany as a whole also provide information on which sectors are making particularly extensive foreign investments in Switzerland. Traditionally, a large share of direct investment comes from the financial sector. In 2019, for example, 36 per cent of Bavarian direct investment abroad was in this sector. The background to the very high importance of the financial sector is that foreign direct investments are often made through financial holding companies.

Conversely, the stock of Swiss direct investment in Germany was 46.9 billion euros in 2019. Germany's importance as an investment destination has increased for Switzerland in recent years. Germany's share of all Swiss direct investment abroad increased from 3 per cent in 2016 to 4.8 per cent in 2020.

For the Bavarian economy, Swiss direct investments are an increasingly important source of capital. At just under 9 billion euros, Swiss direct investment accounted for almost 8 per cent of all foreign direct investment in Bavaria in 2019. Over the past decade, the stock of Swiss direct investments in Bavaria has grown by an average of 2 per cent p.a. – and thus faster than the total investment stock in Bavaria. The comparison of the Swiss import share of Bavaria (2019: 2.6%) with the Swiss share of foreign direct investment in Bavaria (2019: 8%) shows the disproportionate importance of Switzerland to the Bavarian economy.

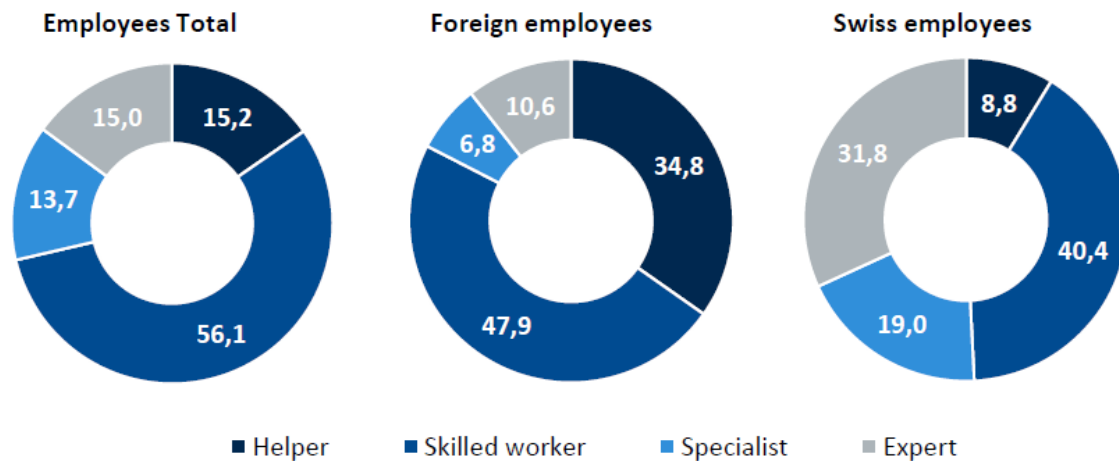
3.3 Labour market

In addition to foreign trade and investment relations, the interconnectedness of the Bavarian and Swiss labour markets is an important feature of the exchange between the two countries. German employees play a much more central role for Switzerland than Swiss employees do for Germany. The decisive factor here could be the more attractive wage level within Switzerland. This is because the statistics also include commuters who live in Germany but work in Switzerland as German employees in Switzerland. The number of Swiss nationals in Bavaria who are subject to social security contributions has risen consistently over the last few years, reaching a level of 2,400 in 2021. However, their overall economic significance is low, as they only account for a total of about 0.04 per cent of all employees in Bavaria. A total of 12,400 Swiss nationals were employed in Germany in 2021 (also 0.04 per cent). The high number of Swiss employees in Munich is striking. With the exception of Berlin, no other German city has more Swiss employees. In 2021, almost 40 per cent of Swiss employees worked in Bavaria and over 7 per cent of Swiss employees in Germany worked in the Bavarian capital. The German data only allow an evaluation of employees from Switzerland who are subject to social security contributions. Non-employees are not included in this group. In particular, the self-employed and civil servants are not counted, in contrast to the employed.

The Swiss employees in Bavaria are also characterised by their above-average education (Figure 11). More than half of the Swiss employees in Bavaria have the educational level "specialist" or "expert" and are thus considered to be highly qualified. These values are clearly above average: only 30 per cent of employees overall and only one-fifth of non-German employees are considered specialists or experts. Since these terms are statistically defined, they are adopted in this study and not adapted to gender-equitable language. The same applies to the official designations of the occupational groups. Nevertheless, they always refer to both males and females.

Figure 11

Employees in Bavaria by sector and nationality, 2021, in per cent



Source: Federal Employment Agency 2021; figure produced by Prognos

Much greater than the number of Swiss employees in Bavaria or Germany is the number of Bavarian or German employees in Switzerland. This number has remained stable at around 200,000 in recent years.

This clearly shows Switzerland's continuously high dependency on German labour. In 2020, Germans accounted for 6.1 per cent of the total workforce in Switzerland. In the event of an intensification of the conflict between the EU and Switzerland and an end to the free movement of persons, Switzerland would have a severe shortage of skilled workers. Based on migration data specific to the federal states, it is possible to estimate approximately how large Bavaria's share of the German workforce is in Switzerland. In the period 2016 to 2020, Bavaria accounted for around 16 per cent of all immigration from Germany to Switzerland. If this share is applied to the number of German employees in Switzerland, the number of Bavarian employees in Switzerland can be quantified at around 33,000.

3.4 Research and innovation

A special feature of Bavarian-Swiss exchange is the large number of cross-border research collaborations. These can be well illustrated by the examples of the European funding programmes Horizon 2020 and EUREKA.

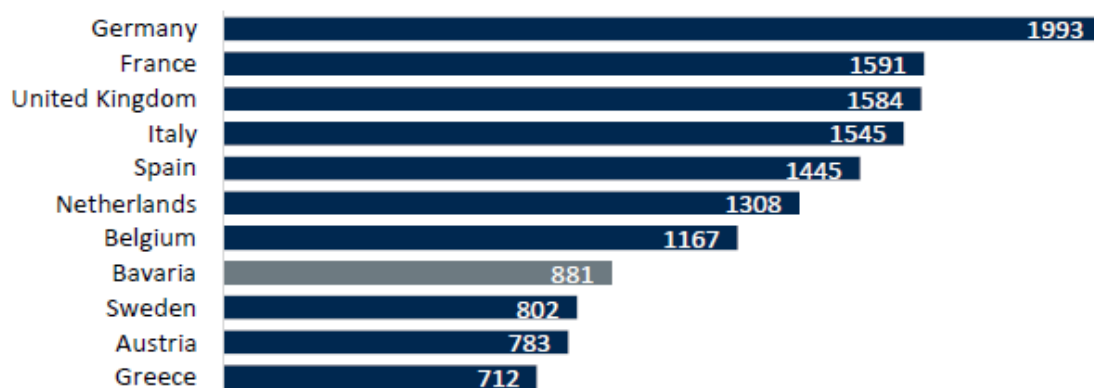
The Horizon 2020 research programme aims in particular to promote scientific excellence and technological development, namely, it belongs to the area of basic research. In total, Bavarian actors participated in around 3,760 projects within the framework of Horizon 2020 in the period from 2014 to 2020. In these projects, the Bavarian actors worked with partners from at least one other country.

In most cases, several partners from different Horizon 2020-participating countries joined forces to form collaborations. It can be seen that research actors from Bavaria and Switzerland cooperated very frequently within the framework of Horizon 2020. In almost a quarter of all Horizon 2020 projects with Bavarian participation, a Swiss partner was also on board. This makes Switzerland the eighth most important cooperation partner for Bavaria.

This finding also applies to the other side: from a Swiss perspective, Bavaria is one of the most important partners in Horizon 2020. In total, Swiss actors participated in around 3,850 research projects within the framework of Horizon 2020. Bavarian research partners were also involved in more than a fifth of these projects. This shows that Switzerland has not collaborated more often with any other German federal state – not even with Baden Württemberg, which has much closer ties to foreign trade. If Bavaria were counted as an independent state, it would be in eighth place (Figure 12). Germany, as a whole, is Switzerland's most important collaboration partner within the framework of Horizon 2020.

Figure 12

Switzerland's international research collaboration within the framework of Horizon 2020



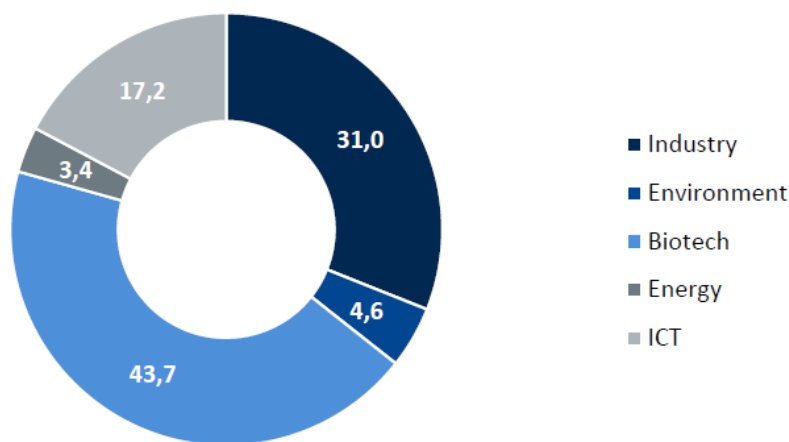
Source: Cordis 2022; figure produced by Prognos

While the Horizon 2020 programme is primarily aimed at basic research, the European research framework programme EUREKA addresses collaboration that is more application- and market-oriented. Here, too, there is a lively exchange between Switzerland and Germany. For reasons of data availability, only the period from 2014 to 2019 can be presented here. German actors were active in over 500 projects. Almost 90 of these involved collaboration with Switzerland. This makes Switzerland Germany's third most important cooperation partner. Germany collaborated more frequently only with the Netherlands and Spain. For Switzerland, Germany is the most important cooperation partner of all. German research actors are also involved in almost a third of the projects with Swiss participation.

It is striking that Switzerland is disproportionately involved in German research cooperation in the field of biotech research in EUREKA projects. Only slightly more than a quarter of German research within the framework of EUREKA focuses on the field of biotech. However, this field is the research focus in over 40 per cent of the projects in which Germany and Switzerland work together (Figure 13). This demonstrates the importance of the chemical and pharmaceutical industry in Switzerland.

Figure 13

Research cooperation between Switzerland and German organisations within the framework of EUREKA, 2014–2019, by research priority



Source: EUREKA Network 2020, figure produced by Prognos

4 Value-added interdependencies between the EU, Germany, Bavaria and Switzerland

The economic exchange between the partners ensures a large amount of value added and employment in the other country.

Switzerland's economic trade relations with Bavaria, Germany and also the EU create value added and employment in the respective partner country or region. This can be shown quantitatively using an input-output analysis. The calculations are based on the values of the Exiobase multiregional input-output database of 2019. A distinction is made between methodologically direct and indirect effects on gross value added (GVA) and employment:

- Direct effects on GVA and employment arise from the production of goods and services that are directly exported.
- Indirect effects refer to GVA and employment at upstream value-added stages of export goods. The complete value chain of production is included in the analysis.

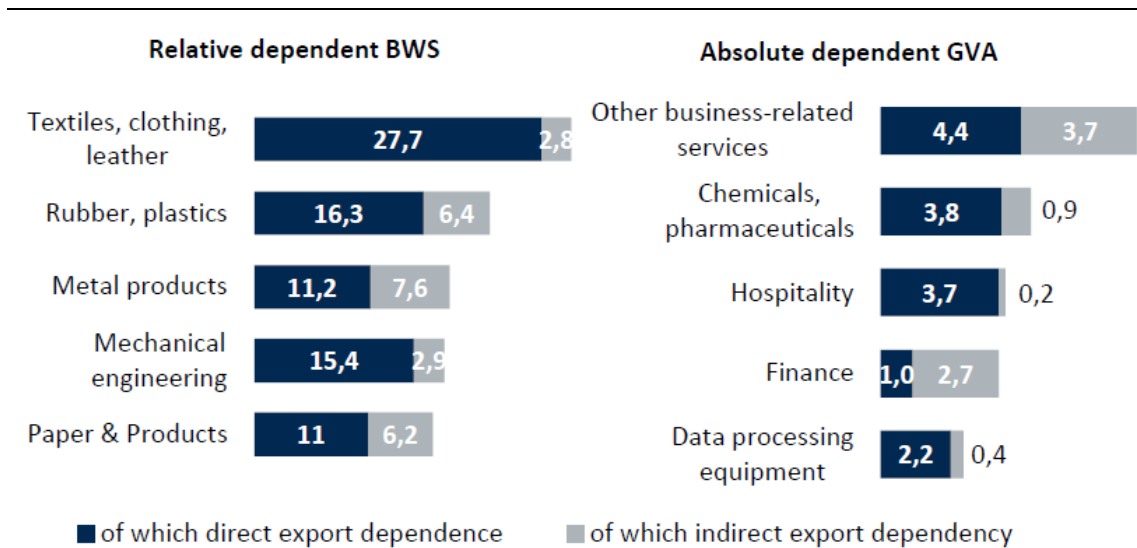
From the perspective of Switzerland, pan-European demand in 2019 was directly and indirectly responsible for a gross value added of almost 93 billion euros (7 per cent of total Swiss GVA) and for the employment of 549,000 Swiss people (a share of 13 per cent of total employment in Switzerland). The degree of interdependence between Switzerland and the various EU member states varies in intensity. Almost 50 per cent of the effects are due to demand from Germany (45 billion euros GVA and 268,000 employees). In addition, Switzerland is most closely linked economically with France and Italy.

The degree of dependence on exports varies from one Swiss sector to another. Industrial sectors are more export-oriented than average and are particularly strongly influenced by foreign business, both directly and indirectly. In contrast, companies in the service sector are less dependent on European demand. It is striking that the service sector is rather indirectly determined by exports, namely services that depend on exports mostly serve as intermediate inputs for exporting industries within Switzerland.

Figure 14 compares the Swiss sectors that are most dependent on exports to Germany in relative (left) or absolute (right) terms. A particularly strong dependence can be seen in the Swiss sectors of textiles, clothing, leather as well as rubber, plastics and metal products. Measured in absolute values, most of the gross value added in Other business-related services and in the industrial sector of chemicals and pharmaceuticals depend on German export demand.

Figure 14

Relative and absolute GVA of selected Swiss industries that depend directly or indirectly on German demand, 2019, in per cent and billion euros respectively

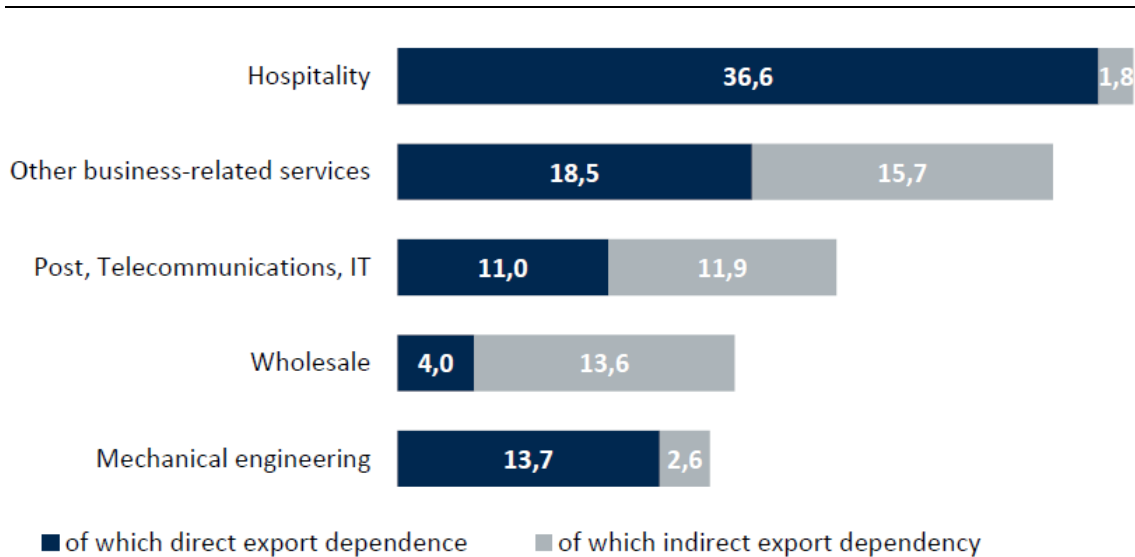


Source: Exiobase 2022; figure produced by Prognos

The employees in the Swiss industries involved in the manufacturing process are also directly or indirectly dependent on German export demand. The most dependent sectors in terms of dependent employment are the Swiss hotel and restaurant industry with 38,200 dependent employees and the Other business-related services sector (34,200 dependent employees) (Figure 15).

Figure 15

Number of employees in selected industries in Switzerland that depend directly or indirectly on German demand, 2019, in thousands of persons

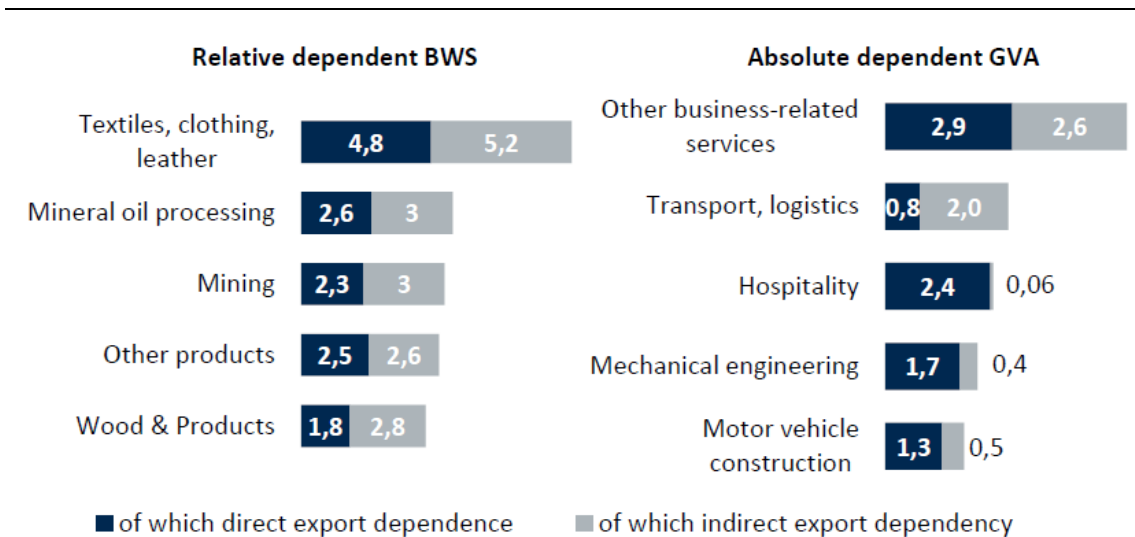


Source: Exiobase 2022; figure produced by Prognos

Conversely, Swiss export demand in Germany provides almost 33 billion euros in gross value added and employment for almost 440,000 people. Thus, Germany's dependence on exports to Switzerland is greater in absolute terms but lower in relation to total employment than Switzerland's dependence on exports to Germany. In a comparison of selected industries in Germany, which are among the five most dependent sectors either in relative or absolute terms, the sectors of textiles, clothing, leather as well as mineral oil processing and mining are particularly dependent on Swiss export demand. In absolute terms, most gross value added in the German sectors Other business-related services and Transport, Logistics is dependent on trade with Switzerland (Figure 16).

Figure 16

Relative and absolute GVA of selected German industries that depend directly or indirectly on demand from Switzerland, 2019, in per cent and billion euros respectively



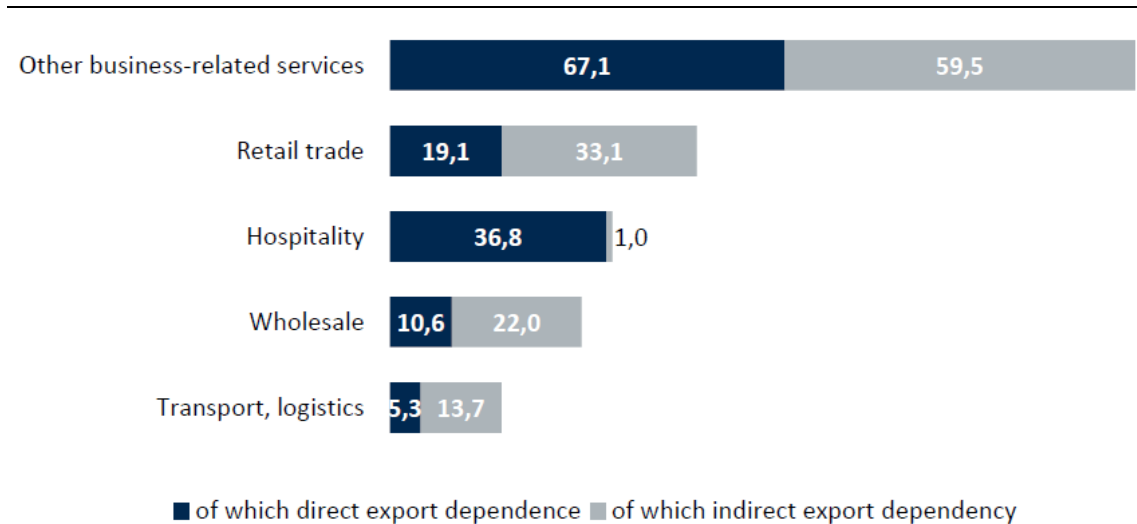
Source: Exiobase 2022; figure produced by Prognos

Due to Germany's larger total population, Swiss export demand generates less employment in percentage terms. However, in absolute terms, more employees in the German sectors as a whole (almost 440,000 people) are dependent on Swiss export demand than vice versa (268,000 people).

In a sector comparison, most of the employees in Germany who depend on Swiss demand are employed in the sectors of Other business-related services and Retail trade (Figure 17).

Figure 17

Employment in selected German industries that depends directly or indirectly on export demand from Switzerland, 2019, in thousands of persons

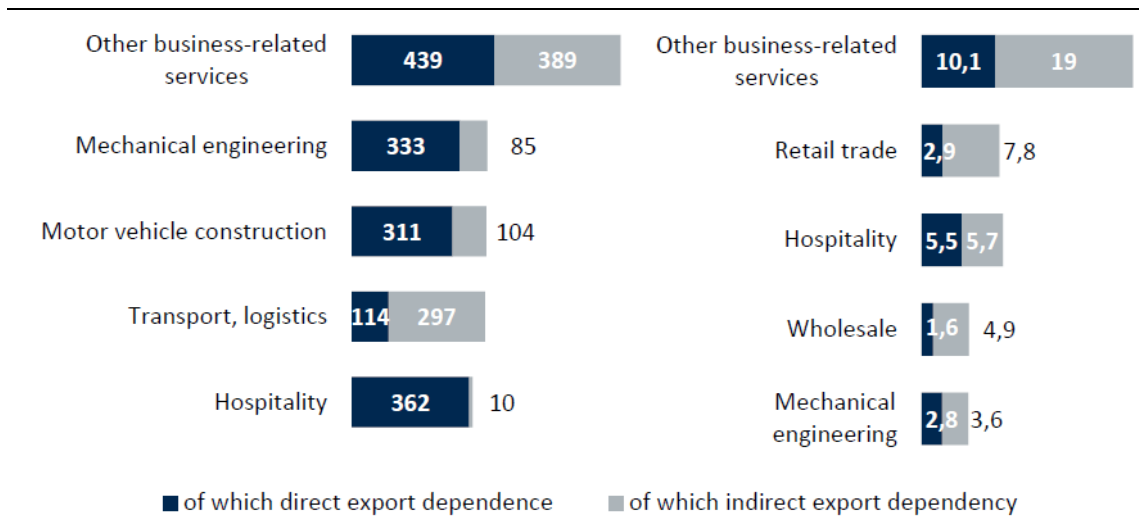


Source: Exiobase 2022; figure produced by Prognos

From a Bavarian perspective, around 5 billion euros of gross value added and the employment of 68,000 people depend on trade with Switzerland. The Bavarian sectors with the greatest direct and indirect export dependence on Switzerland include Other business-related services and mechanical engineering. The sectors with the most dependent employees are Other business-related services with 29,000 employees and Retail trade with around 10,700 employees (Figure 18).

Figure 18

Gross value added and employment in selected Bavarian industries dependent on Swiss export demand, 2019, in million euros and in per cent respectively



Source: Exiobase 2022; figure produced by Prognos

5 What could Switzerland's departure from the EU mean?

The status quo of relations between the EU and Switzerland has weaknesses but also great advantages.

Switzerland is currently closely integrated economically with the EU through 120 bilateral agreements. However, it is unclear how this will change in the coming years. As described in chapter 0, the stalemate in the negotiations on the framework agreement means that existing bilateral agreements of unlimited duration will no longer be updated and those of limited duration may expire. To this end, we use two scenarios to show the potential impact on future trade. On the one hand, a reversion to WTO rules is possible in some areas and on the other, the trade partners could agree on a less comprehensive trade agreement.

5.1 Reversion to WTO rules and the 1972 free trade agreement

Prior to the bilateral agreements currently in force, the free trade agreement between Switzerland and the EU (then the EEC) was in force. In this agreement, customs duties and quantitative restrictions on trade in most goods were abolished. Exceptions were some agricultural products, especially meat and dairy products. However, other non-tariff trade barriers, such as the provision of proofs of origin, were not abolished in this agreement. Since the 1972 agreement does not need to be updated, the rules agreed in this agreement remain in force even without new negotiations.

The lack of updating of bilateral treaties with regard to, for example, technical barriers to trade, would nevertheless lead to a continuous increase in trade barriers between the EU and Switzerland. If no solution is found to this problem, in practice, some of the bilateral treaties will gradually expire without replacement. This will eventually lead to trade between the EU and Switzerland taking place on the basis of World Trade Organisation (WTO) rules, with the exception of the areas negotiated in the Free Trade Agreement. For the scenario "reversion to WTO rules", the agreements of the WTO are briefly presented with regard to the areas of bilateral trade which, in this scenario, even with the retention of the free trade agreement, would be unfair. Subsequently, it will be shown by way of example in which sectors these WTO agreements are consequently effective.

WTO rules are divided into three main agreements. The General Agreement on Tariffs and Trade (GATT) and the General Agreement on Trade in Services (GATS) lay down the basic principles for trade in goods and services. The third treaty, the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), defines minimum requirements for the regulation of intellectual property in the member states. Each country, within the

framework of these three treaties, determines its own conditions for international trade with all other countries.

In the event that the temporary bilateral agreements expire without replacement, trade between the EU and Switzerland will largely revert to the basis of WTO rules. This leads to non-tariff trade barriers between the partners. However, even in this case, no tariff barriers will arise for the majority of trade in goods, since the 1972 free trade agreement between the EU and Switzerland is not limited in time.

In particular, the areas of agriculture, the electricity market and aviation would be restricted by the expiry of the bilateral agreements. In the area of agriculture or the supply of meat and dairy products to the other market, trade is already more difficult. In the electricity market, Swiss access to European trade and cooperation agreements in the energy sector would be lost. Moreover, the connection to the electricity grid in the EU would gradually become more complicated. This would result in a significant reduction in the efficiency of the Swiss electricity market. Finally, Switzerland's access to the EU's internal aviation market would be made more difficult. Without new agreements, cabotage, in particular, would not be permitted. Cabotage refers to the operation of transport connections where both the departure and destination airports are located in the airspace of the other contracting party. This would severely restrict the operational possibilities of Swiss airlines.

In other areas, too, non-tariff barriers to trade would impose restrictions set by trading partners on international trade. Switzerland's most important restrictions on exports and imports under WTO rules are regulations relating to health, safety and environmental protection. The EU, on the other hand, focuses more strongly than Switzerland on non-tariff trade barriers in international trade.

5.2 Brexit-like agreement

Alternatively, it is conceivable that the trading partners could agree on a less extensive trade agreement than the framework agreement under consideration in order to prevent the bilateral agreements from expiring without replacement. For this scenario, it is assumed here that this agreement would be similar to the free trade agreement negotiated between the EU and the UK at the end of 2020 in the wake of the Brexit. The analysis shows how such an agreement would change trade between the EU and Switzerland and in which areas trade barriers would continue to arise.

Should the negotiations between the EU and Switzerland be resumed after all, a possible agreement could be similar to the Trade and Cooperation Agreement between the EU and the UK. Following the UK's decision to leave, the EU and the UK were able to agree on a new trade agreement at the end of 2020. This avoided a "no-deal Brexit" and thus a reversion to WTO rules concerning foreign trade.

What could Switzerland's departure from the EU mean?

Even within the framework of such a trade agreement between the EU and Switzerland, not all hurdles in the areas of trade in goods and services would be removed. However, these would be more specific and more limited than without such an agreement.

In trade in goods between the EU and Switzerland, a Brexit-like agreement would facilitate the control of rules of origin in particular compared to the WTO scenario. Trade in selected services would continue to be possible. Various non-tariff trade barriers that occur in trade according to WTO rules would continue to exist. These are mainly product standards and conformity assessments as well as the control of sanitary and phytosanitary measures. Product standards and conformity assessments of the contracting parties would no longer be automatically mutually recognised in the case of an agreement. Exporting and importing companies would have to provide additional evidence of compliance with these standards. Also, despite the agreement, the contracting parties would be obliged to respect the requirements of the SPS agreement when setting and monitoring regulations. These emerging non-tariff barriers to trade originate from the fact that various standards relating to the manufacture of products between the EU and the UK are no longer mutually recognised in an automated manner. The introduction of such controls between the EU and Switzerland would thus massively impair the exchange of goods.

By contrast, a free trade agreement could improve the rules of origin between the EU and Switzerland. Rules of origin state that goods traded duty-free between the contracting parties must originate to a certain extent in the partner country. The aim is to prevent imports of non-processed goods from third countries. Rules of origin are also agreed upon in the existing agreement between the EU and Switzerland. In the agreement between the EU and the UK, rules of origin were retained but control was permanently simplified. Here, only importers in the EU and Switzerland would have to present the proofs of origin at the explicit request of the customs authorities.

Despite the great importance of trade in services, it was largely left out of the trade agreement between the EU and the UK. Trade in services would in principle remain possible with a comparable agreement between the EU and Switzerland. Nevertheless, even under a trade agreement, domestic air services and other areas would probably be completely excluded (Figure 19). Instead, trade in many areas would remain possible to a limited extent through national reservation rules. These reservation rules allow contracting parties to restrict trade in sectors named in negative lists within predefined limits. Nevertheless, trade is still possible in principle.

A momentous point in trade with Switzerland would be, in particular, the restriction of trade in financial services. The Trade and Cooperation Agreement between the EU and the United Kingdom does not provide for mutual market access to financial services. Instead, it is planned to expand regulatory cooperation in this area. Currently, financial services providers can only serve each other's markets through domestic branches. A similar arrangement would be possible in the exchange between the EU and Switzerland.

Figure 19

Trade in services provisions in the Trade and Cooperation Agreement between the EU and the United Kingdom

Liberalised in the agreement	Restrictions on trade through reservation rules	Excluded in the agreement
<p>In principle, all trade in services is liberalised. Excluded:</p> <ul style="list-style-type: none"> - Areas with special rules (shown in the centre) - Excluded areas (shown on the right) 	<p>This includes certain areas, e.g.:</p> <ul style="list-style-type: none"> - Financial services - Energy - Transport services - Business services 	<p>This includes the following areas:</p> <ul style="list-style-type: none"> - National air services - Audiovisual services - Inland maritime transport of goods - Inland navigation

Source: Figure produced by Prognos 2021

As a result, the scenarios show that the discontinuation of the updates to the bilateral agreements between the EU and Switzerland would significantly burden trade between the partners (Figure 20). In the event of a reversion to the Free Trade Agreement between the EU and Switzerland and the fundamentals of the WTO, new non-tariff trade barriers in particular would restrict trade and exchange between the countries. This would, above all, limit Swiss access to the European electricity market. Instead, the parties could decide to conclude an alternative free trade agreement analogous to that of "Brexit". A restriction of electricity market access could thus be prevented and existing hurdles to trade removed. This includes, in particular, facilitating the provision of guarantees of origin. This shows that the scenario of a Brexit-like agreement would be preferable to the scenario of WTO regulations.

Figure 20

The success of Bavarian-Swiss relations will depend on the form of the trade agreements

WTO Base + Free Trade Agreement of 1972	Brexit-like agreement
<ul style="list-style-type: none"> - Existing restrictions in the areas of agriculture and aviation will be continued - The Swiss electricity market will be further restricted - Relapse to country-specific WTO requirements leads to an increase in barriers in the area of health, safety and environmental protection when trading to Switzerland 	<ul style="list-style-type: none"> - Mostly similar hurdles as in the first scenario - Facilitated control of rules of origin - Partial simplification of trade in services with national reservations - Possible restrictions on market access for financial services

Source: Figure produced by Prognos 2022

However, even such a free trade agreement would not be a good solution for trade between Bavaria and Switzerland. The development of trade between Bavaria and the United Kingdom since the announcement of the UK's exit from the EU speaks clearly here. Bavarian exports to the UK fell by almost 40 per cent between 2015 and 2020, while imports stagnated. Since the UK's exit in 2020, trade has declined even further, while Bavarian foreign trade with the rest of the world has continued to rise. Bavarian imports from the United Kingdom in September 2021 were 21 per cent lower than the previous year's figure. The economic exchange has become more difficult despite the free trade agreement. Dissolution of the negotiating pact between the EU and Switzerland is therefore in the trade policy interests of both sides.

6 Switzerland is more dependent on the EU than vice versa

Without a solution to the framework agreement dispute, all parties lose GVA, employment and investment.

The EU and Switzerland are closely intertwined when it comes to foreign trade. Export demand generates GVA and employment in the partner country. European demand within Switzerland generates almost 93 billion euros in gross value added and provides employment for 549,000 people.

For Switzerland, economic interdependence with Germany is of particular importance. Just under half of the effects mentioned, namely 45 billion euros GVA (7 per cent of total Swiss GVA) and 268,000 employees, are due to demand from Germany.

Conversely, however, namely for Germany and Bavaria, Switzerland is also an important trading partner. In Germany, 33 billion euros in gross value added and the employment of 440,000 people depend on foreign trade with Switzerland, of which 5 billion euros in GVA and 68,000 employees in Bavaria.

The EU, Germany and Bavaria are also closely interconnected with Switzerland in the areas of foreign direct investment and research. Accordingly, these areas are particularly affected by the dispute between the EU and Switzerland.

Without an agreement in the negotiations between Switzerland and the EU, GVA and employment which depend on the respective partner, as well as investments and cooperation in the area of research, would be considerably restricted. Although this loss would be less serious for Germany in absolute and relative terms than for Switzerland, it is nevertheless in the interest of both parties to find a solution to the current stalemate.

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Tatjana Vargas

Department of Economics and Foreign Trade

Phone 089-551 78-258

Fax 089-551 78-91258

tatjana.vargas@vbw-bayern.de

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www.vbw-bayern.de

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Other parties involved

Dr. Michael Böhmer

Phone 089 95 41 586-701
michael.boehmer@prognos.com

Johann Weiß

Phone 089 95 41 586-705
johann.weiss@prognos.com