Universität St.Gallen
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SWISS TRADE MONITOR

Edition 6:
Goods and Services

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From insight to impact.

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Key Findings

- With a total volume of almost 300 billion CHF, services constitute a large part of Switzerland's international trade flows. Their volume remains, however, lower than that of the goods trade.
- Trade shares of different service types are fairly evenly distributed for both exports and imports, indicating a balanced services trade. That is to say, the Swiss services trade is not marked by a few highly significant service types with disproportionate shares of total trade volumes.
- Goods and services trade flows possess a clear positive correlation between each other – both on a country level and on a product-group/service-type level.
- Services trade volumes remain on an upward trend, especially with partners such as the U.S., the Netherlands and Germany. R&D as well as license services have grown substantially over the last couple of years.

The Swiss Trade Monitor

Switzerland is a small open economy. The international exchange of goods and services is crucial for the nation's economic prosperity. The aim of the *Swiss Trade Monitor* is to document key trends in Switzerland's foreign trade. Its sixth edition introduces data on Switzerland's trade in services and provides a comparison with the country's foreign goods trade. The data sources for this report are the Swiss Federal Office for Customs and Border Security (FOCBS) as well as the Swiss National Bank (SNB).

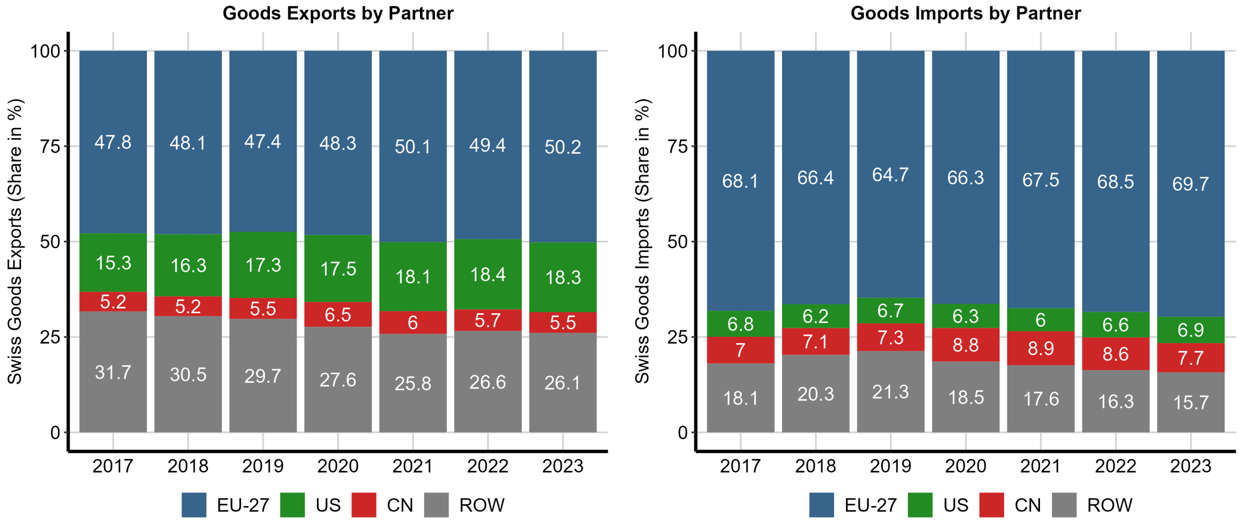
Goods Trade Data

Data on Swiss goods imports and exports are published by the Federal Office for Customs and Border Security (FOCBS) and are available on a monthly basis since 1988. The data separates trade flows by country of origin or destination as well as by product using the international classification set out in the Harmonized System (HS). The HS groups all goods into 96 so-called chapters, each of which includes headings and subheadings (see the appendix). While chapters are two-digit (e.g., "04" for dairy products), more detailed product codes are 4- or 6-digit. On top, Switzerland uses 8-digit codes (tariff numbers) for customs clearance and tariff levying. In total, this yields around 9'000 distinct product codes.

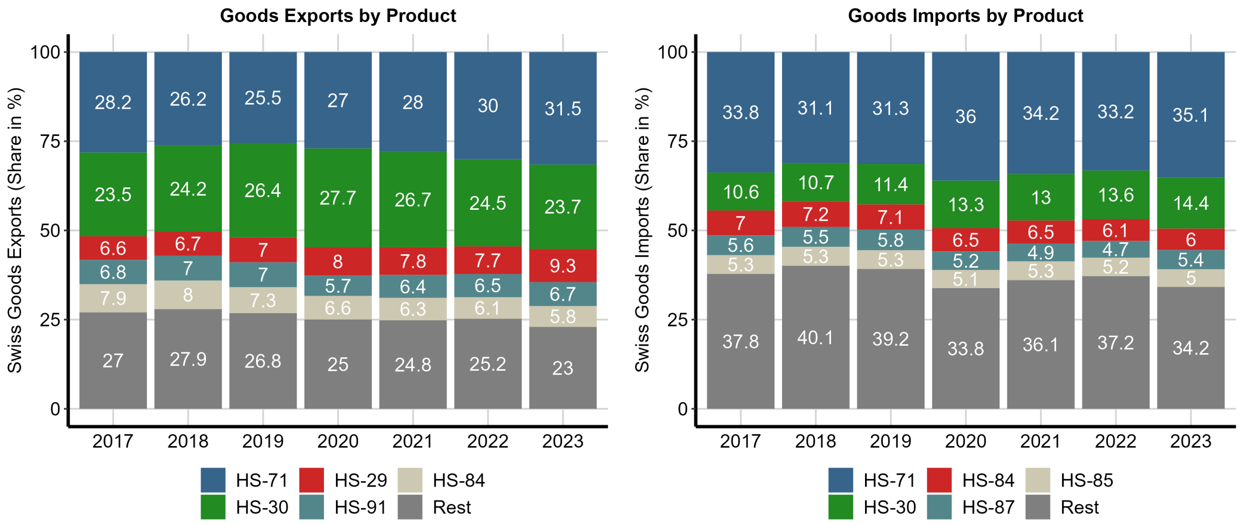
Since 2012, Swiss trade statistics are based on the country of origin concept. That is, imports refer to the country in which the goods were fully obtained or predominantly manufactured. This change of accounting leads to some breaks in the data.

The Principality of Liechtenstein is included in the Swiss customs territory and hence in Swiss trade statistics. The values of imports and exports correspond to the invoiced price of the goods in Swiss francs (CHF). In the case of imports, this includes transportation and insurance costs and other expenditures to the Swiss border (Cost, Insurance and Freight). For exports, the value includes expenses up to the point of origin of the goods (Free on Board). There is thus a discrepancy between the value of exports from country A to B, as country A declares them, and the value of imports of reporting country B from A.

Shares of the Swiss goods trade – by top trade partners and by main product groups – are illustrated below. The figures provide a high-level overview of Switzerland's foreign goods trade. The EU and U.S. stand out as Switzerland's most important export partners overall. With a share of as high as two-thirds of total imports, the EU constitutes Switzerland's most important import partner. Thereafter, both the U.S. and China play a similar role for Swiss imports. With regard to products, a few highly relevant groups such as precious metals, pharmaceutical and chemical products make up a large part of Swiss exports. On the import side, products are slightly more balanced, albeit precious metals and pharmaceutical products remain most important by a fair share.



Note: The figures show shares of Switzerland's total goods exports (left) and imports (right) for seven separate years (2017–2023), separated by major partners (EU, USA, China) and the rest of the world (ROW). Data for 2023 includes the months January to June.



Note: The figures show, for the main product groups, the share of Switzerland's goods exports (left) and imports (right) in the years 2017–2023. Here, gold and precious metals are included. Data for 2023 includes the months January to June.

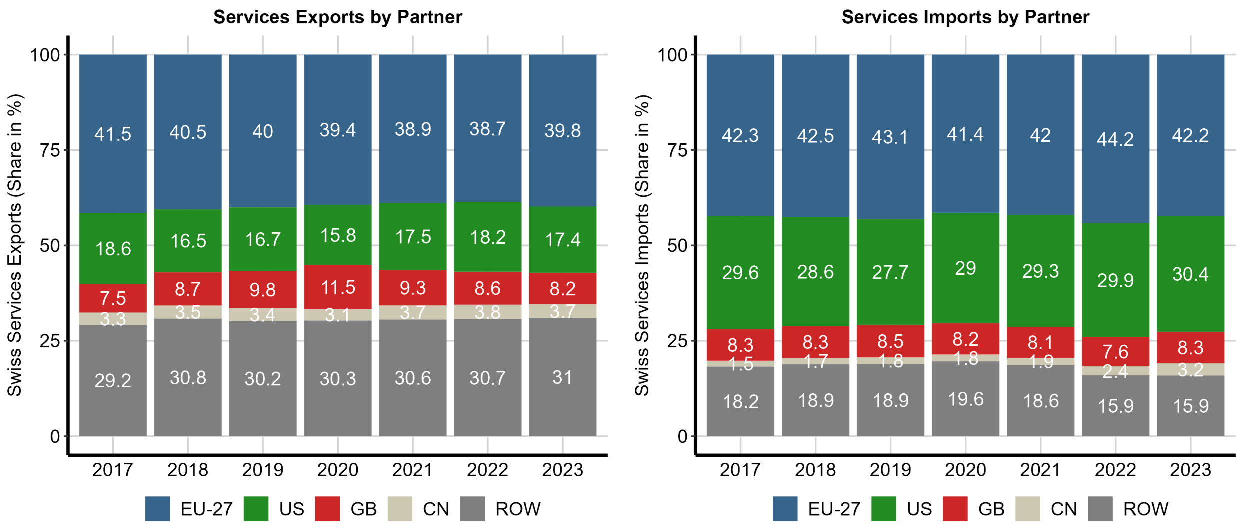
Services Trade Data

The Swiss National Bank (SNB) defines services as a "result of a production activity that changes the condition of consuming units, or facilitates the exchange of products or financial assets". Services thus cover a type of production activity whose impact on international trade is not captured by data on the foreign goods trade. In most developed economies, services play a considerably larger role in economic output than agriculture and manufacturing. What role do they play in international trade? As part of their statistical publications on the Swiss balance of payments, the SNB provides quarterly data on Swiss services imports and exports since 2012, by country (or country group) and type of service. The latter is made up of 10 different types described below. For simplicity, all examples refer to exports of services from the view of Switzerland.

- **Transport services**: Carriage of passengers and freight by sea, waterway, air, rail, road, space, pipeline, electricity transmission and postal services. Example: An international passenger flight booked by non-residents operated by a Swiss airline.
- **Tourism services**: Goods and services purchased by non-residents in the country visited. Example: Services or goods purchased by a foreign tourist in Switzerland.
- **Insurance and pension services**: Services in the premium business of insurance and non-insurance companies (insurance, reinsurance, pension funds). Example: Insurance services by domestic insurers to foreign clients.
- **Financial services**: Financial intermediary and auxiliary services offered by banks and other financial institutions. Example: Trading services carried out by domestic banks for non-residents in relation to securities, foreign exchange, commodities and precious metals.
- **License services**: Charges for the use of intellectual property, including licenses to reproduce and distribute. Example: A Swiss pharmaceutical company licenses one of its patents to a foreign party.
- **Telecommunications, computer and information services**: Services provided in respect of information presentation, storage, processing and transmission using information and communications technology. Example: A domestic telecommunications provider provides roaming services to a non-resident.
- **Research and development (R&D) services**: Basic and applied research, experimental development of new products and processes, purchase and sale of research results. Example: A Swiss research institute carries out a research project for a foreign corporation.
- **Consulting services**: Professional and management consulting. Example: A Swiss consulting firm advises a foreign corporation on a new project.
- **Technical, trade-related, and other business services**: Manufacturing, maintenance and repair services. Example: A Swiss machinery manufacturer provides maintenance services to one of its foreign customers.
- **Other services**: Personal, cultural, recreational services and government goods and services. Example: Health services provided by a Swiss hospital to a non-resident or various goods and services purchased by foreign representations in Switzerland.

The figure below depicts the share of services exports and imports separated by Switzerland's major trade partners. As in the goods trade, the EU constitutes Switzerland's most important partner in the services sector. Bordering many EU member states, Switzerland and the EU enjoy strong economic relations in the services trade sector, most notably – but not only – through the Agreement on the Free Movements of Persons. In the case of the U.S., the share of imports of U.S.

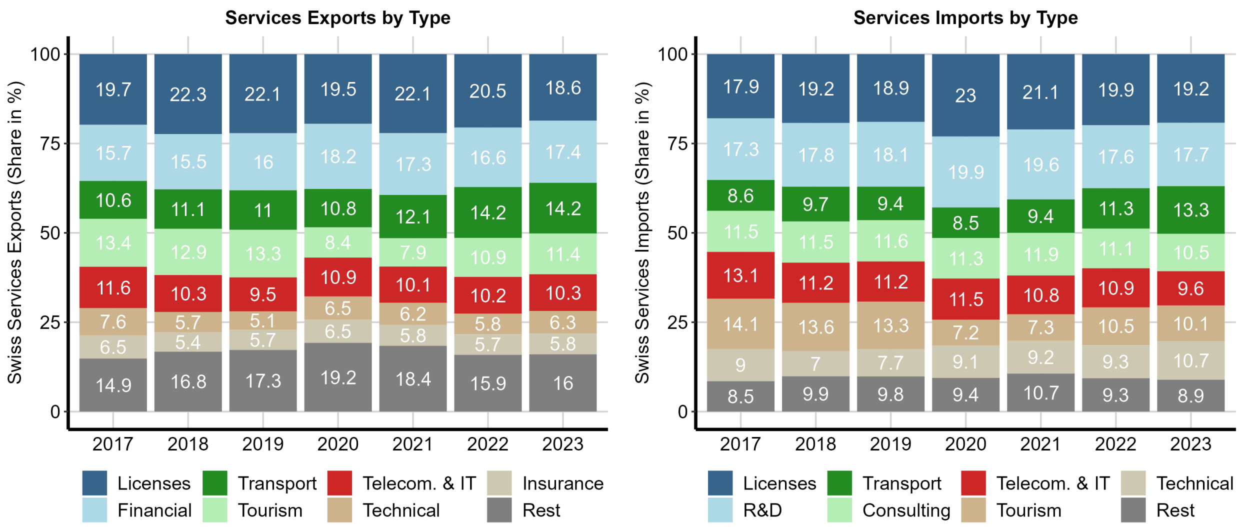
services is considerably higher than the share of exports to the U.S. – mainly driven by U.S. license and R&D services. Charges for the licenses of computer software, books, movies or the franchising in the hospitality industry, for example, fall under the category of license services. When watching the newest blockbuster made by Hollywood or working with key computer software, Switzerland essentially imports the associated U.S. license services. While the trade in goods with the UK has decreased over the previous years in the wake of Brexit, the country remains a major partner in the services trade. From 2014 to 2022, for example, the UK's share of the total services trade remained at roughly 8% – an increase in trade volumes from 19 billion CHF to 24.2 billion CHF. In comparison, with a decrease of the total goods trade volume from 16.5 billion CHF to 13.6 billion CHF between 2014 to 2022, the UK's share of the total goods trade dropped from 4.3% to 2.6%. Consulting services – likely in the form of management consulting – and License services – likely in the form of IP licenses – play a large role for UK and Swiss services exports, respectively.



Note: The figure shows shares of Switzerland's total services exports (left) and imports (right) for seven separate years (2016–2023), separated by major partners (EU, USA, UK, China) and the rest of the world (ROW). Source: SNB - Quarterly Services Data (bopservq).

Swiss service exports and imports by service type are shown in the figure below. In general, shares for the seven major service types appear fairly evenly distributed. Consequently, the Swiss services trade is not marked by a few highly important components in the same way the goods trade is. License, transport and financial services make up roughly half of Swiss exports, while half of the imports are composed of the former two and R&D services. Throughout the seven years depicted, shares appear relatively stable apart from some minor changes, notably in 2020.

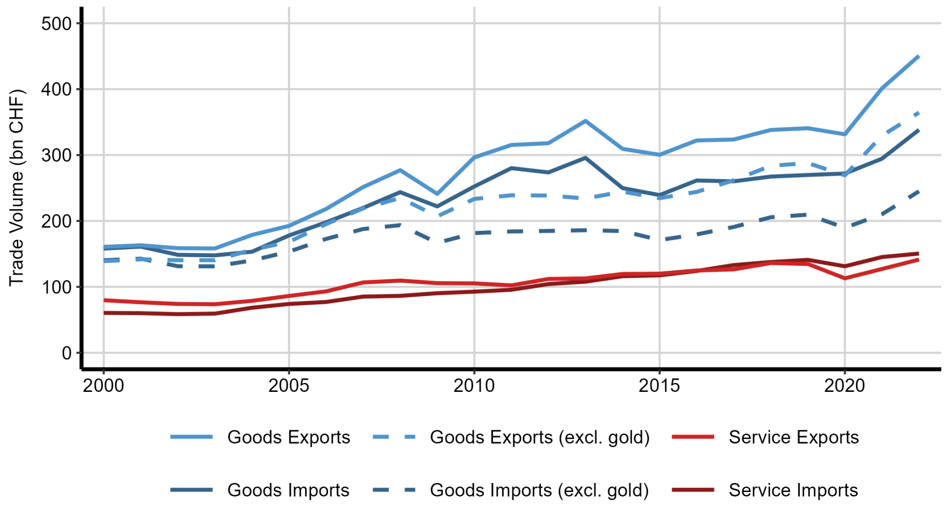
It becomes apparent that this figure effectively reflects Switzerland's corporate and economic landscape. Switzerland's large trade in license services reflects both its highly innovative economy and strategic measures by companies due to attractive corporate tax environments domestically and abroad. A global financial hub, financial services play a further key role in its exports. The large trade in transport services, on the other hand, reflect Switzerland's supply of tourism-related transport services as a popular tourist destination, its highly developed freight corridor by lying on the European north-south axis as well as it being an attractive domicile for multinational shipping companies. On the import side, the high share of R&D services imports stand out. While Switzerland is often praised as a hub for R&D activities, especially for its pharmaceutical and machinery industry, international competition in the form of tax incentives and other framework conditions nevertheless persists. These imports mainly originate from the U.S., Germany, the UK and France, in decreasing order.



Note: The figure shows shares of Switzerland's total services exports (left) and imports (right) for seven separate years (2016–2023), by service components. Source: SNB - Quarterly Services Data (bopservq).

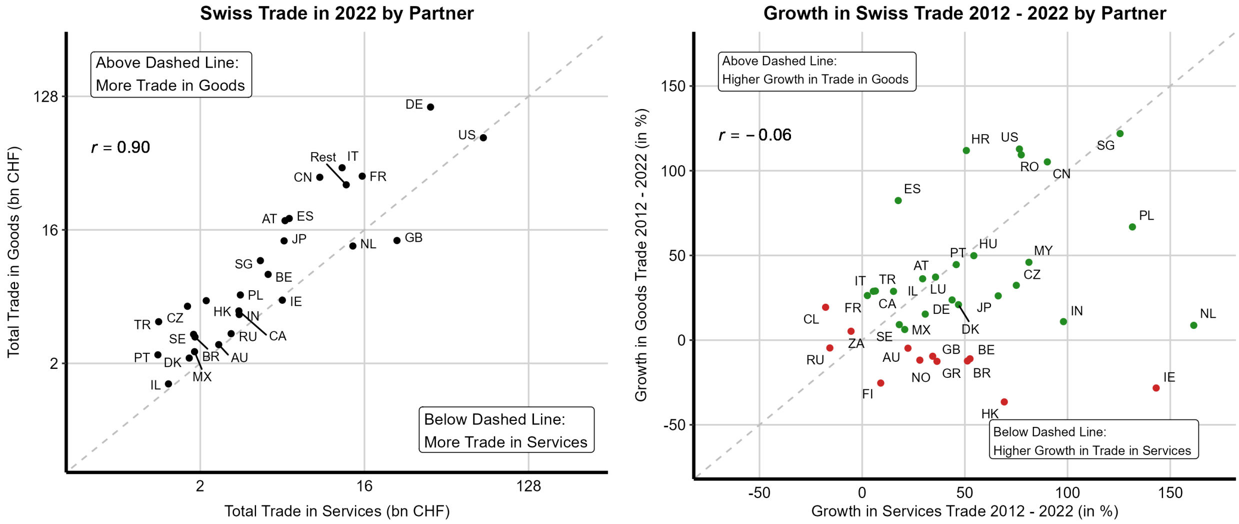
Comparing Trade in Goods and Trade in Services

Based on the SNB's annual current account data, both trade in goods and trade in services exhibit a positive relationship. The goods trade is the larger sector, both in terms of volume and growth between 2000 and 2022. It is, however, also subject to higher volatility than its services counterpart, visible in the years 2009 to 2015. Excluding trade flows of gold, the gap between the two sectors becomes substantially smaller and the volatility of the goods trade decreases as well. From a current account perspective, the Swiss goods trade contributes to the country's positive trade balance, and net exports have steadily increased over the past years. Services exports and imports are more balanced, with a slight tendency towards higher imports and thus a net import position in this respect.



Note: The figure compares the value of exports and imports of both goods and services from 2000 to 2022. Source: SNB - Annual Current Account (bopcurra).

The two figures below investigate whether the goods and services trade relationship is also existent when disaggregated to the level of trade partners. The left figure shows the trade in services and trade in goods on the x- and y-axis, respectively, by trade partner in 2021. The data indicates a clear positive correlation between the two trade sectors ($r = 0.90$ after log-transformation), implying that the same partners are important for Switzerland in both the goods and services trade. Points above (below) the 45-degree line indicate a larger trade in goods (services). Generally, most countries still have a more developed goods trade in comparison to services (as can be deduced from the figure above comparing the aggregated goods and services trade).



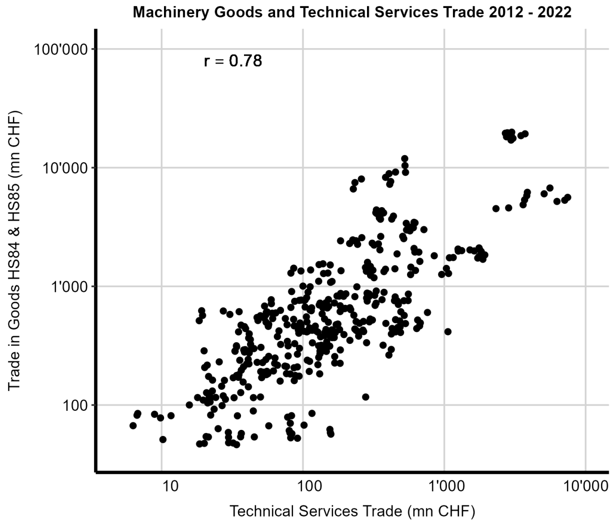
Note: The figures compare the total value of the goods and services trade by partner for 2022 (left) – in a log-scale – as well as the growth in trade from 2012 to 2022 (right). In the left figure, partners with a trade volume of less than 1 bn CHF were aggregated to "Rest". In the right figure, countries with either shrinking goods or services trade are colored in red while countries with both growing trade and services trade are colored green. Source: SNB - Quarterly Services Data (bopservq), FOCBS - foreign trade statistics.

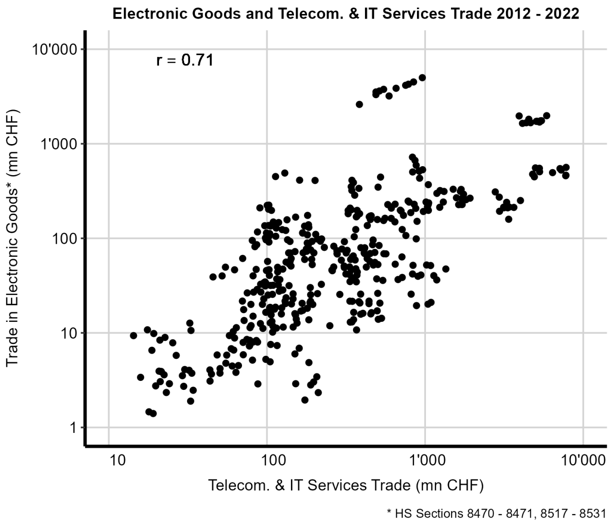
Some notable exceptions include the UK, the Netherlands and Ireland. As explained above, the UK remains an important partner in the services trade, even after Brexit. On the one hand, both countries enjoy strong corporate and financial relations, which translate to high consulting, financial and IT services. In fact, as part of Switzerland's "Mind the Gap" strategy with the UK, the promotion of trade in services constituted an important pillar of the agreement. On the other hand, Brexit did not affect the services trade as strongly as goods. Leaving the EU Single Market implied an end to trade-promoting benefits and an increase of technical trade barriers predominantly in the goods market. The large services trade with the Netherlands is mainly due to license and transport services. In the view of the Netherlands, the former is likely a result of subsidiaries of multinational corporations that reside in the country and from which Switzerland imports IP rights to distribute and reproduce. In both the Netherlands and Ireland, multinational corporations benefit from very attractive intellectual property box (patent box) regimes. The large trade of transports services with the Netherlands is a result of both countries' large shipping and personal transport industry.

Growth in each trade sector from 2012 to 2022 by partner is depicted in the right figure. There seems to be only a weak correlation between the two growth rates ($r = -0.06$). With some partners, such as Ireland, the Netherlands, Hong Kong and India, trade growth has been heavily biased towards services. In contrast, the goods trade growth seemed to play a larger role for some partners such as Spain, the U.S., Singapore and China, yet the difference to the services trade growth is less pronounced in this respect. Additionally, a look at the top right quadrant reveals which countries have gained importance in both goods and services over the past decade. These include Singapore, China, the U.S., Romania, and Poland.

The disproportionate growth in the services trade seen with countries such as the Netherlands and Ireland may again be explained by subsidiaries of multinational companies domiciled there. An increase of a little less than 5 billion CHF between 2012 to 2022, the growth in license services explains the high total services trade growth with the Netherlands of over 150% quite well. In the same manner, license services exports and imports with Ireland have increased by 3 billion CHF over the past decade. Moreover, consulting services trade with said country have also recorded large growth since 2012. Partners with emerging economies, such as India or China, will certainly play a key role for the future development of the Swiss services trade. While these countries transition to a service-based economy, the respective trade with Switzerland in this sector will be further promoted.

After highlighting the positive relationship between the goods and services trade by partner, the focus turns to relationships between selected product groups and service types. The three figures below show different relationships between the goods and services trade, by selected product groups and service types. Are there relevant relationships between selected product groups (HS sections) in the goods trade and types in the services trade? A positive correlation was found between the volume of total goods and transport services trade. As expected, the more products are traded between partners the higher the demand in transport services – mainly freight transports – resulting in a positive correlation ($r = 0.78$ after log-trans.). Furthermore, when investment goods (machines, IT, etc.) are purchased, they require maintenance, repairs and further services throughout their time in operation. The figure below shows a positive correlation between the trade in machinery goods (HS-84 and HS-85) and technical services ($r = 0.78$ after log-trans.). Additionally, IT services may be rendered by the same firm that sold the IT infrastructure goods. Although weaker than the two previous relationships, there is a positive correlation between the trade in electronic goods and telecommunications & IT services ($r = 0.71$ after log-trans.).



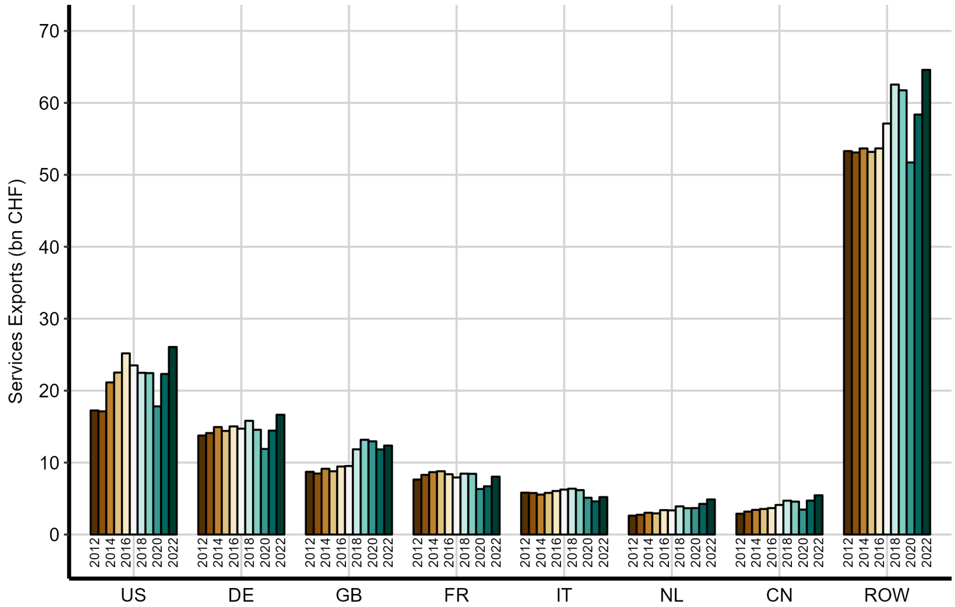


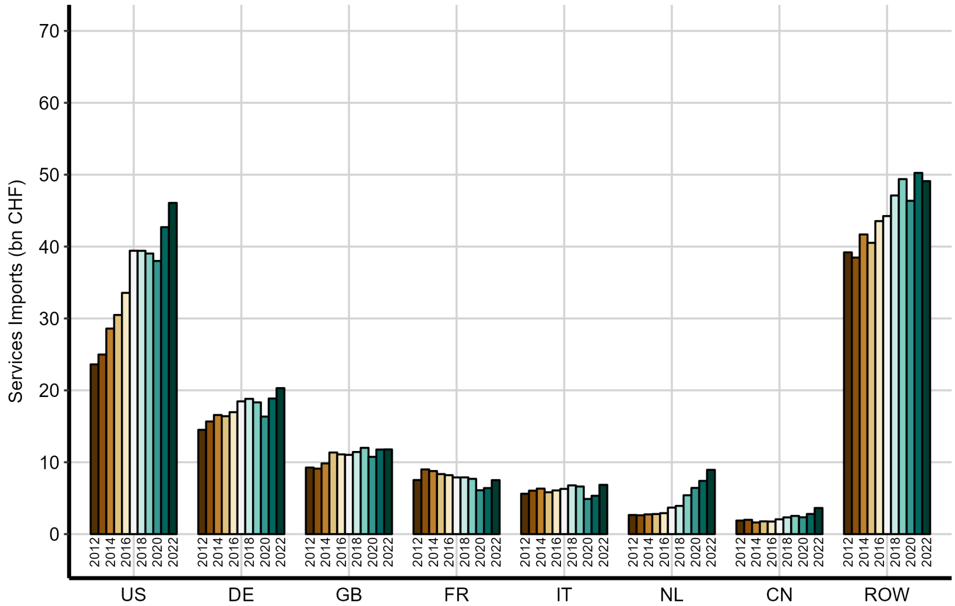
Note: The figures (in a log-scale) compare the total value of the goods trade with transport services (top left), the value of machinery goods and technical services trade (top right) as well as the electronic goods and IT services trade (bottom), each from 2012 to 2022 by partner. Source: SNB - Quarterly Services Data (bopservq), FOCBS - foreign trade statistics.

Time Trends in the Trade in Services

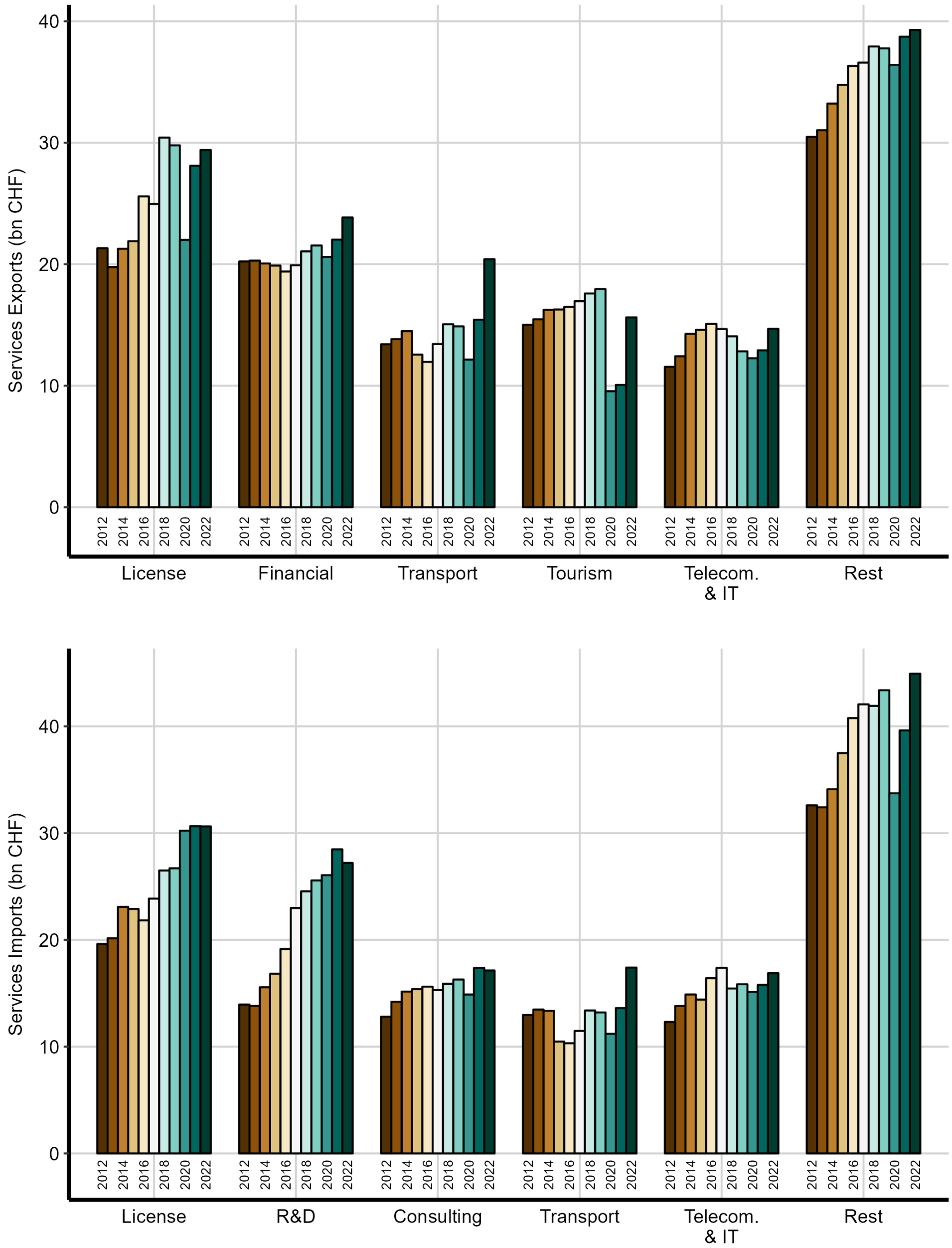
The development of Switzerland's trade in services with its major partners is shown below. Both trade exports and imports have risen in the last decade for almost all partners. On the export side, the U.S. and UK record the largest absolute increases in Swiss exports, while Switzerland's two latin neighbours – France and Italy – have both lost in significance. For the two former countries, license and transport service exports have grown rapidly over the past decade. Conversely, the U.S. and the Netherlands stand out as the most rapidly growing import partners for Switzerland - almost doubling their trade flows since 2012. While license fees again explain a substantial part of this increase, there are other types of services that contribute to the remarkable rise as well. For example, transport and R&D services in the case of the U.S. or financial and IT services in the case of the Netherlands. As discussed above, the Netherlands' rise as a trade partner can be explained by the large amount of subsidiaries of large multinational corporations that are domiciled in the country, these as a result of its very favourable corporate tax environment.

Since 2012, trade volumes have been increasing for most service types. The effect of the Covid-19 pandemic in 2020 and 2021 is visible in the data, yet it seems to be more pronounced for selected service types of Swiss exports – most clearly in tourism. Tourism services have seen a recovery from their low in 2020. However, pre-pandemic levels have not been reached in 2022. Like tourism services, the influx of trade in transport services in 2022 is probably a result of the rise in international travel. Exports of financial services have started to rise again after a period of stagnation – the stagnation likely being a result of the suspension of Swiss banking secrecy practices. Meanwhile telecommunication and IT services have started to rise again after a decline from their peak in 2016. On the import side, the rise of R&D and license services stands out most clearly, the former more than doubling within the past decade and recently reaching similar levels to the latter. For license services, IP license boxes and other tax incentives have likely played a key role for its growth. The R&D services trade is subject to increasing international competition to attract R&D activities. Instruments such as special tax benefits for R&D expenses and other incentive frameworks motivate multinational corporations to relocate R&D activities internationally, creating more trade in services. The rapid increase of imports in this sector may indicate a shift of R&D activities from Switzerland abroad – an undesirable development for the country as a hub for innovation.





Note: The figure shows the development of Switzerland's trade in services with its most important partners for exports (top) and imports (bottom) from 2012 to 2022. Source: SNB - Quarterly Services Data (bopservq).



Note: The figure shows the trade development of Switzerland's most important service types for exports (top) and imports (bottom) from 2012 to 2022. Source: SNB - Quarterly Services Data (bopservq).

Conclusion

In this edition of the Swiss Trade Monitor – entitled *Goods and Services* – services trade data were introduced for the first time. While the role of this sector within advanced economies is well known, its trade counterpart is often overlooked in the field of international trade. Yet, the analysis in this report based on the services trade data has presented many insights into the Swiss economy and its characteristics. Key trends and patterns of the services trade that were examined in this edition include: The distribution of trade flows separated by partners and service types, a comparison with the goods trade and analysis of their relationship, and recent developments of Switzerland's main partners and service types.

Services constitute a large part of Switzerland's international trade flows. Their volume remains, however, lower than that of the goods trade. Meanwhile, trade shares of service types are fairly evenly distributed for both exports and imports, indicating a balanced services trade for Switzerland. In contrast, the goods trade is subject to a handful of product groups that make up a disproportionate share of it (with and without the consideration of gold). Goods and services trade flows possess a clear positive relationship between each other - both on a country level and on a product group-service type level. That is to say, main partners in one of the sectors are likely also important in the other sector. Services trade volumes remain on an upward trend, especially with partners such as the U.S., the UK, the Netherlands and Germany. With respect to service types, R&D as well as License services have grown substantially over the last couple of years – both for exports and imports. Their future direction depends ultimately on the international scramble for corporate attractiveness.

Appendix: HS Sections — Descriptions

1	Live Animals
2	Meat
3	Fish
4	Dairy Products
5	Products of Animal Origin
6	Live Trees and Plants
7	Edible Vegetables
8	Edible Fruit and Nuts
9	Coffee, Tea, Spices
10	Cereals
11	Products of the Milling Industry
12	Oil Seeds
13	Lac, Gums, Resins
14	Vegetable Plaiting Materials
15	Animal and Vegetable Fats and Oils
16	Preparations of Meat or Fish
17	Sugars and Confectionery
18	Cocoa
19	Preparations of Cereals, Flour
20	Preparations of Vegetables
21	Misc. Edible Preparations
22	Beverages
23	Residues and Waste of Food Industries
24	Tobacco
25	Salt, Sulfur, Earths, and Stone
26	Ores, Slag, and Ash
27	Mineral Fuels and Oils
28	Inorganic Chemicals
29	Organic Chemicals
30	Pharmaceutical Products
31	Fertilizers
32	Tanning or Dyeing Extracts
33	Essential Oils
34	Soap
35	Albuminoidal Substances
36	Explosives, Pyrotechnicals
37	Photographic or Cinematographic Goods
38	Misc. Chemical Products
39	Plastics and Articles Thereof
40	Rubber and Articles Thereof
41	Raw Hides and Skins
42	Articles of Leather
43	Furskins and Artificial Fur
44	Wood and Articles of Wood
45	Cork and Articles of Cork
46	Manufactures of Straw
47	Pulp of Wood
48	Paper and Paperboard
49	Printed Books, Newspapers
50	Silk
51	Wool
52	Cotton
53	Other Textile Fibers
54	Man-made Filan-Made Textile Materials
55	Man-made Staple Fibers
56	Wadding
57	Carpets
58	Special Woven Fabrics
59	Impregnated, Coated or Laminated Textile Fabrics
60	Knitted or Crocheted Fabrics
61	Articles of Apparel (knitted)
62	Articles of Apparel (not knitted)
63	Other Textiles
64	Footwear
65	Headgear
66	Umbrellas, Walking Sticks
67	Prepared Feathers
68	Articles of Stone, Plaster, Cement
69	Ceramic Products
70	Glass and Glassware
71	Natural or Cultured Pearls, Precious Metals
72	Iron and Steel
73	Articles of Iron or Steel
74	Copper or Articles Thereof
75	Nickel or Articles Thereof
76	Aluminum or Articles Thereof
78	Lead or Articles Thereof
79	Zinc or Articles Thereof
80	Tin or Articles Thereof
81	Other Base Metals
82	Tools, Cutlery
83	Misc. Articles of Base Metal
84	Machines
85	Specialized Machines
86	Railway or Tramway Locomotives
87	Vehicles other than railway, tramway rolling stock
88	Aircraft, Spacecraft
89	Ships, Boats
90	Optical, Photographic, Precision Instruments
91	Clocks and Watches
92	Musical Instruments
93	Arms and Ammunition
94	Furniture
95	Toys
96	Misc. Manufactured Articles
97	Works of Art