ECONOMIC STRUCTURE

2

Image
Schurter AG, Lucerne

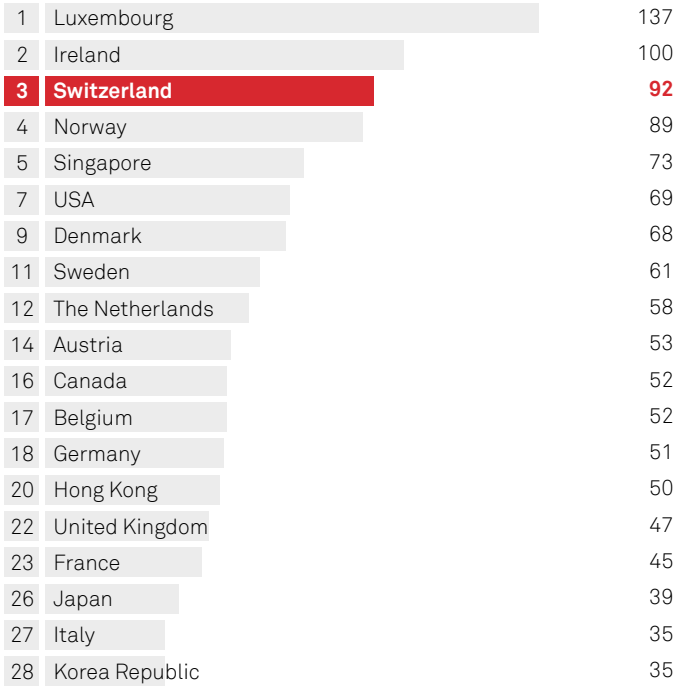
One of the most liberal and competitive economies in the world, Switzerland has always maintained close economic ties with other countries. A secure legal system, long-term stable fundamentals for investors, relatively little regulation, and the proximity to research institutions make it the location of choice in Europe for businesses offering high-quality products and services.

2.1 GROSS DOMESTIC PRODUCT AND INDUSTRY STRUCTURE

Switzerland's per capita gross domestic product was the third largest in the world in 2021 (see Fig. 5). The per capita GDP is above the EU average. The service sector generates over 70% of the gross domestic product. Comprising over 25% of GDP, the industrial sector is also an important mainstay of the economy. Key sectors are the pharmaceutical industry, the financial sector, ICT, and the mechanical, electrical engineering and metal industry. The Swiss economy is strongly export-oriented; the ratio of export trade to the gross domestic product is one of the highest in the world. The EU plays a key role here, accounting for 47% of exports and 61% of imports (2021).

Small and medium-sized enterprises (SMEs) dominate the Swiss economic landscape. More than 99% of companies have fewer than 250 full-time employees. However, Switzerland is also home to multinational companies that account for around one third of the country's value creation. They employ nearly 1.5 million people, with the result that one in three jobs is at a multinational concern. Employees are highly motivated, possess a keen sense of responsibility, and are very loyal to their company. These typical Swiss characteristics are responsible for the quality and service ethos in both the industrial and service sectors.

Gross Domestic Product per Capita (Nominal)
in thousands of US dollars
(FIG. 5)



Source: IMF Online 2022, as of 2021

Nearly 80% of people employed in Switzerland work in the service sector. The industrial sector accounts for nearly 21% (see Fig. 6). Although the industrial sector is increasingly diminishing in importance in advanced industrialized countries, in Switzerland the absolute number of people working in the secondary sector has remained stable for nearly 20 years.

Industry Structure and Shares of Workforce

(FIG. 6)

INDUSTRY	WORKFORCE (2ND QUARTER 2022)	
	in 1,000	in %
Total (not including agriculture and forestry)	**5,316**	**100%**
Sector II Total	**1,107**	**20.82%**
Mining and mineral extraction	5	0.09%
Processing and manufacturing	682	12.83%
Energy	31	0.58%
Water supply and purification	21	0.40%
Construction	368	6.92%
Sector III Total	**4,209**	**79.18%**
Vehicle trading, maintenance, and repair	624	11.74%
Transport and warehousing	252	4.74%
Hospitality	255	4.80%
Information and communication	193	3.63%
Financial and insurance services	244	4.59%
Real estate and housing	73	1.37%
Professional, scientific, and technical occupations	486	9.14%
Other economic services	369	6.94%
Public administration	216	4.06%
Education	395	7.43%
Healthcare and social services	807	15.18%
Arts, entertainment, and leisure	113	2.13%
Other services	181	3.40%

Source: Swiss Federal Statistical Office (FSO), employment statistics (BESTA), 2022

In international competitiveness indexes, Switzerland has occupied one of the top spots for many years. Switzerland scores highest for innovativeness, a strong education system, and a flexible labor market.

International Competitiveness Ranking

Overall score from 1 to 100

(FIG. 7)

1	Denmark	100.0
2	**Switzerland**	**98.9**
3	Singapore	98.1
4	Sweden	97.7
5	Hong Kong	94.9
6	The Netherlands	94.3
7	Taiwan, China	93.1
8	Finland	93.0
9	Norway	93.0
10	USA	89.9
11	Ireland	89.5
13	Luxembourg	87.8
15	Germany	85.7
17	China	83.9
23	United Kingdom	78.5
27	Korea Republic	75.6
28	France	74.3
34	Japan	66.6
37	India	66.0
41	Italy	65.0

Source: IMD World Competitiveness Center 2022

Switzerland is also one of the world's leading innovators. In 2021, it was ranked as the world's most innovative country for the eleventh consecutive year, leading the Global Innovation Index.

Global Innovation Index
Overall score from 0 to 100
(FIG. 8)

1	**Switzerland**	**65.5**
2	Sweden	63.1
3	USA	61.3
4	United Kingdom	59.8
5	Korea Republic	59.3
6	The Netherlands	58.6
7	Finland	58.4
8	Singapour	57.8
9	Denmark	57.3
10	Germany	57.3
11	France	55.0
12	China	54.8
13	Japan	54.5
16	Canada	53.1
18	Austria	50.9
19	Ireland	50.7
20	Norway	50.4
25	Australia	48.3
29	Italy	45.7
46	India	36.4

Source: INSEAD, The Global Innovation Index 2021

Switzerland is the world's most innovative country. It stands out primarily because of its innovation output, offering an ideal environment for innovation and proving its strength through the high maturity of the market and the economy.

2.2 INTERNATIONAL INTEGRATION

As the Swiss domestic market is small and the country lacks natural resources (apart from water), Swiss companies have been forced to seek and cultivate abroad what have often been their key markets since the advent of industrial production. Due to this necessity to open the country to the outside, Switzerland is an important player in world trade. As a result, Switzerland has taken a leading role among the important exporters in world trade, with regard to both goods and services.

Foreign Trade by Economic Area
Imports and exports (billions CHF), 2021
(FIG. 9)

Source: Federal Office for Customs and Border Security (FOCBS), 2022

2.2.1 Goods and Services Trade

Europe is by far Switzerland's most important trade partner (2021). Germany has traditionally been Switzerland's most important buyer and also supplier. Italy and France are futher important European suppliers. Internationally, the United States and China are Switzerland's most important trade partners.

The classic example of a successful export-oriented branch of industry is what is known as Switzerland's "secret automobile and aviation industry" – a little-known network of highly specialized manufacturing companies and problem-solvers providing components for a range of areas, from precision and micromechanics to materials technology, plastics, and textiles. As technology and innovation leaders, these Swiss companies have been able to position themselves as reliable suppliers of quality and precision products.

Switzerland is a co-signatory of the WTO Agreement, and has continually championed market liberalization through free trade agreements, as a member of EFTA, and through bilateral agreements with the EU. As a result of its consistent market liberalization policy, Switzerland has become an efficient trading center and a market of economic significance – not only relative to its market size.

Switzerland is an attractive location for foreign investors. At the end of 2020, foreign direct investments amounted to approximately 1'220 billion Swiss francs.

2.2.2 Direct Investments

Switzerland's exposure to global markets is among the strongest of any country. At the end of 2020, direct investments abroad totaled 1,460 billion Swiss francs. Swiss companies with direct investments abroad employ around two million people in their foreign subsidiaries and operating units, and they are also important employers in Switzerland. Switzerland is among the top fifteen largest direct investors in the world. Switzerland is an important direct investor in the USA as well; in 2020, 20.04% of all Swiss direct investments were made in the USA, a total of 292,617 million Swiss francs.

Switzerland is also an attractive location for foreign investors, in particular from the EU (72.6% or 882,751 million Swiss francs) and the USA. The capital stock of U.S.-American investors in Switzerland was 12.7% or 153,927 million Swiss francs at the end of 2020.

Direct Investments Capital Stock

(FIG. 10)

CAPITAL STOCK AT YEAR END, 2020	SWISS DIRECT INVESTMENTS ABROAD		FOREIGN DIRECT INVESTMENTS IN SWITZERLAND	
	CHF (millions)	in %	CHF (millions)	in %
Total	**1,460,050**	**100.0%**	**1,216,319**	**100.0%**
EU	**664,664**	**45.5%**	**882,751**	**72.6%**
United Kingdom	89,384	6.1%	62,005	5.1%
Germany	69,464	4.8%	14,014	1.2%
The Netherlands	158,899	10.9%	332,439	27.3%
Luxembourg	114,710	7.9%	283,070	23.3%
France	64,810	4.4%	48,054	4.0%
Italy	21,439	1.5%	2,805	0.2%
Ireland	57,900	4.0%	94,537	7.8%
Austria	10,881	0.7%	16,122	1.3%
Rest of Europe	**153,826**	**10.5%**	**99,078**	**8.1%**
Offshore financial centers	27,199	1.9%	N/A	N/A
Russian Federation	27,792	1.9%	N/A	N/A
North America	**324,447**	**22.2%**	**153,817**	**12.6%**
USA	292,617	20.0%	153,927	12.7%
Canada	31,830	2.2%	–109	0.0%
Central and South America	**144,196**	**9.9%**	**31,230**	**2.6%**
Brazil	8,098	0.6%	N/A	N/A
Offshore financial centers	113,512	7.8%	35,118	2.9%
Asia, Africa + Oceania	**172,917**	**11.8%**	**49,444**	**4.1%**
Japan	21,952	1.5%	3,055	0.3%
Singapore	32,522	2.2%	N/A	N/A
China	25,191	1.7%	N/A	N/A
Hong Kong	15,528	1.1%	N/A	N/A
South Korea	19,938	1.4%	N/A	N/A
India	5,854	0.4%	N/A	N/A
Australia	10,148	0.7%	N/A	N/A

Source: Swiss National Bank (SNB), 2022

2.3 IMPORTANT TECHNOLOGIES AND INDUSTRIES

Clusters are industry groups that are formed based on a degree of regional proximity and through a common area of activity along the value chain. When these conditions are in place, a growth pool can arise, which attracts suppliers and specialized service providers and creates competitive advantages for all companies involved. Ecosystems, by contrast, describe a dynamic structure of wide-ranging, loosely connected economic players. These form a network and interact through common technologies, languages, and institutions.

Switzerland has several of these industry clusters and technology ecosystems, which are also important on an international scale. Over the next few pages, five technology ecosystems and the most important industry clusters in Switzerland will be presented briefly. The figures provided are for reference purposes only, as the clusters sometimes overlap.

2.3.1 Artificial Intelligence

Switzerland has world-renowned universities and research institutes in the field of artificial intelligence (AI). The proximity to high-caliber research is a key reason for the establishment in Switzerland of major tech giants like Google, IBM, and Microsoft. Thanks to its traditional strength in the area of life sciences, Switzerland is also driving forward AI developments in the healthcare system. In relation to number of inhabitants, the country has one of the highest number of AI patents in the world, underlining its high innovation potential. Companies here benefit to a considerable degree from efficient technology transfer, sustainable software systems, and unbureaucratic support from cantons and the government. Startups like Starmind, Sophia Genetics, and Recapp work with universities and research institutes specializing in the field of AI, e.g. the Dalle Molle Institute for Artificial Intelligence (IDSIA) in Ticino, the IDIAP Research Institute in Valais, and the Schaffhausen Institute of Technology (SIT). Global groups such as Novartis and Microsoft have also founded a joint AI lab with the goal of developing intelligent and personalized therapies with the help of digital technologies.

www.s-ge.com/artificial-intelligence
Facts and figures on artificial intelligence in Switzerland

2.3.2 Robotics

Due to its excellent technical universities, dynamic talent pool and established ecosystem, Switzerland has earned the reputation of being the "Silicon Valley of robotics". One can trace this back to its longstanding traditional expertise in sectors such as mechanical engineering, precision engineering and watchmaking. This tradition forms the basis for first-class research in the still relatively young discipline of robotics, which is attracting global technology companies such as Google, Meta (formerly Facebook) and HP. You will find a wide range of experts and talents here. Thanks to the innovation-friendly and pragmatic attitude of the Swiss regulatory authorities, the legislative foundations for the Unmanned Traffic Management (UTM) sector are already in place. Switzerland was the first country in the world to introduce the U-Space concept nationwide, which was tested live in Geneva in 2017. Switzerland is also the birthplace of SORA (Specific Operation Risk Assessment), a non-binding risk assessment guideline for drones that is on its way to becoming a global standard. Due to the unique cooperation between industry and regulatory authorities, Switzerland offers companies the ideal framework for developing innovative products and testing and using them under real conditions.

www.s-ge.com/invest-robotics
Facts and figures on robotics in Switzerland

2.3.3 Advanced Manufacturing

Thanks to the traditional watch, MEM, and medtech industries, a highly industrialized precision cluster has developed in Switzerland, which occupies a leading position in the field of advanced production processes in the digital age. As a production location, Switzerland allows companies to optimize their manufacturing processes by increasing efficiency and saving costs. Various international companies such as ABB, Oerlikon, Hamilton and Schindler as well as watchmaking industry groups such as Richemont SA are optimizing their existing production processes with digital solutions in Switzerland; its dual education system enables them to find very well qualified staff who can operate highly specialized machines. Most companies focus on innovation and quality in order to compete with cheaper locations and maintain and expand their global market position.

www.s-ge.com/invest-advanced-manufacturing
Facts and figures on advanced manufacturing (Industry 4.0) in Switzerland

2.3.4 Personalized Health

Thanks to its strength in the life sciences and ICT sector, Switzerland is the ideal location for innovative companies that want to quickly and easily bring new ideas in relation to personalized health to the market. The close collaboration between science and industry plays a key role in this. Cutting-edge research is being carried out at Swiss pharmaceutical groups as well as at world-class universities and state institutes; SMEs and startups are also providing important momentum.

www.s-ge.com/invest-personalized-health
Facts and figures on personalized health in Switzerland

2.3.5 Blockchain

Switzerland's decentralized political system is organized as a grassroots democracy and forms the perfect environment for crypto technologies: In 2018, the Swiss Financial Market Supervisory Authority (FINMA) became the first regulatory authority in the world to publish clear guidelines for ICOs and classifications for tokens. Due to this pragmatic approach by the Swiss authorities, particularly favorable conditions exist for blockchain companies. The result is a blossoming ecosystem that produces world premieres by the dozen: In 2016, Zug became the first city in the world to recognize Bitcoin payments for tax purposes. In 2018, the fintech company 21Shares, formerly Amun, introduced the world's first exchange-traded products on the Swiss stock exchange, and in 2019, FINMA issued banking licenses to the companies SEBA and Sygnum, both located in Switzerland, making them the first crypto banks in the world. The new DLT legislation came into force in 2021. This has furnished Switzerland with one of the most advanced sets of laws in the world, creating scope for innovative projects and completely new business models that extend far beyond the financial industry.

www.s-ge.com/invest-blockchain
Facts and figures on Switzerland as a blockchain location

2.3.6 Life Sciences

Major groups that are extremely successful globally, such as Novartis, Roche, and Syngenta, as well as smaller companies form a unique industrial cluster that is concentrated in the regions of Basel, Zurich, Zug, and Lake Geneva. The Swiss chemical-pharmaceutical industry is virtually exclusively active in specialty chemicals and is very internationally orientated. Companies in the Swiss chemical-pharmaceutical industry have a leading worldwide position in many market sectors. With a 33% share of Swiss export goods, chemical-pharmaceutical products are Switzerland's most important export commodity.

Thanks to the momentum created by pharmaceutical giants Novartis and Roche, but also as a result of recent investments by international companies such as Indigo, Alnylam, Bluebird Bio, BeiGene, and Incyte, a unique biotech cluster has arisen. Switzerland is one of the strongest and most innovative locations in Europe for biotechnology, which is why these companies have moved their European headquarters to Switzerland. Over half of Swiss biotech firms are small companies with fewer than 20 employees. They profit from the geographical proximity to large companies both in Switzerland and in its neighboring countries. Switzerland has a high concentration of innovative and successful companies, research institutes, and universities along the entire value chain of the life sciences sector. Some well-known global players headquartered in Switzerland and which are industry leaders in Europe include Actelion, Amgen, Biogen, Bristol-Myers Squibb, and MSD Merck Sharp&Drone.

The concentration of medical technology companies in Switzerland is also unusually high with around 1,400 companies. 75% of all products manufactured in Switzerland are then exported, which makes up 3.4% of all Swiss exports in 2021. Investment in research and development, growth rates, and profitability are all above average. In total, around 67,500 people are employed in medical technology. At 1.3% relative to the working population, this is more than any other country. Global Swiss companies include Ypsomed, Sonova, and Straumann. Some major foreign corporations worth mentioning are Zimmer Biomet, Medtronic, B. Braun, and Jabil.

www.s-ge.com/invest-lifesciences
Facts and figures on Switzerland as a life sciences location

www.s-ge.com/biotech
Facts and figures on Switzerland as a biotech location

www.s-ge.com/invest-medtech
Facts and figures on Switzerland as a medical technology location

2.3.7 Engineering

The mechanical, electrical engineering, and metal industry (MEM) is the largest industrial sector and holds a key position in the Swiss economy, with around 320,000 employees: In 2021, the MEM industry's share of value creation amounted to about 7%. Almost 20% of jobs in the MEM industry are in the field of research and development. Countless companies of the Swiss MEM industry have a leading international role in their sub-sectors. Almost 80% of products from the MEM industry are exported. Global companies in the metal and mechanical industry with well-known names such as OC Oerlikon, Rieter, Schindler, and ABB are present in Switzerland.

The Swiss watch industry is primarily located in the Jura region stretching from Geneva to Schaffhausen (called the "watchmaker belt"). Companies such as the Swatch Group, IWC Schaffhausen, Rolex SA, Richemont SA, and the LVMH Group are headquartered here. The Swiss watch industry makes products whose high degree of mechanization is reflected in a very considerable division of labor. As a result, the sector generally comprises small and medium enterprises. Around 700 companies employ 57,500 people (as of 2021). 95% of all employees and businesses are located in the nine cantons of the Jura region, resulting in a watch industry cluster. Particularly in the luxury segment, the world market position of Swiss watchmakers is excellent. 95% of all watches are exported. The total value of Swiss watch exports was 22.3 billion Swiss francs in 2021.

The availability of highly qualified staff with professional know-how in the Jura regions has resulted in the relocation to this area of more and more companies outside the watchmaking industry which require similar technology for their production. In particular, this "precision cluster", which has developed over the course of years, includes medical technology, which has significantly expanded its presence in the region in recent years. Today, this precision cluster features production technologies from the fields of robotics and additive manufacturing especially. A cluster strongly orientated to micromechanics, optics, and photonics has also formed in Eastern Switzerland and in the regions of Bern and Neuchâtel.

www.s-ge.com/invest-mem
Facts and figures on Switzerland as an MEM location

2.3.8 Information and Communication Technology (ICT)

Switzerland leads the way with respect to the expansion of infrastructure for the information society. According to the OECD, over 50% of the population has a fixed high-speed Internet connection, putting Switzerland in first place worldwide ahead of Denmark and France. In 2017, 93% of Swiss households had an Internet connection. The World Economic Forum "Networked Readiness Index 2021" placed Switzerland in sixth place. The ICT occupational field employs approximately 240,000 people.

The ICT landscape is characterized by extremely specialized SMEs such as Abacus, Opacc, Elca, and Netcetera. Renowned companies, for instance IBM, Google, and Meta (formerly Facebook), have also established premises close to research institutes like ETH Zurich, EPFL, and their research establishments. Some of the largest employers in the sector are foreign companies such as Siemens, Dell, and HP. One important criterion encouraging foreign IT firms to settle in Switzerland is the extremely well educated, technically experienced, and often multilingual workforce.

www.s-ge.com/invest-ict
Facts and figures on Switzerland as an ICT location

www.s-ge.com/ invest-cybersecurity
Facts and figures on cyber security in Switzerland

2.3.9 Finance

The Swiss financial center is an important element of the economy as well as a world-class cluster. In Switzerland there are some 240 banks, 200 insurance companies, and 1,400 pension funds as well as 380 FinTech companies. The majority of the financial institutions are located in Zurich, Geneva, Basel, and Lugano. In 2020, direct value creation by banks and insurance companies amounted to around 66.5 billion Swiss francs, with banks contributing 37.9 billion Swiss francs and insurers 28.6 billion Swiss francs. This corresponds to about 9.7% of the entire Swiss gross domestic product. Nearly 224,400 employees work in the financial sector (full-time equivalent), which is about 5.3% of the entire working population in Switzerland. Around 148,100 of these employees work at banks, while roughly 76,400 work in the insurance industry. The importance of the financial industry is also reflected in the courses offered by universities. Thanks to the "Swiss Finance Institute" – a collaborative effort between financial institutions and leading Swiss universities – education and financial research are guaranteed.

From an international perspective, the Swiss banking center is regarded very highly and is extremely competitive. Innovativeness, professionalism, and quality set Swiss banks apart. Their core competency is asset management. With a fourth of the world's global cross-border investments, Switzerland is the market leader in cross-border private banking. In addition to the two major globally active banks, UBS and Credit Suisse, there are numerous regional and specialized institutions. This diversity is one of Switzerland's major strengths as a banking center, because it guarantees that every customer will find the right Swiss bank for every need.

The key factors for success and the basic conditions for the insurance industry include a high per capita income, a strong need for security, a solidly structured old-age pension system, an open and internationally networked insurance center, a credible regulatory environment, and international know-how in the reinsurance business.

For more information and links relating to banking,
see page 88 onward.

www.s-ge.com/financial-center
Facts and figures on Switzerland as a financial center

2.3.10 Headquarters in Switzerland

Switzerland is a vital center for the global and regional headquarters of foreign companies. While European firms have their global headquarters in Switzerland, U.S. companies tend to open their regional headquarters here. Prominent examples demonstrate the attractiveness of Switzerland as a location for company headquarters.

Switzerland offers a multitude of benefits for businesses locating their company headquarters in the country. On the one hand, thanks to a high standard of education and excellent working conditions, there is a very large number of highly qualified workers available. On the other hand, Switzerland makes an excellent test market as it is a stronghold of political stability and legal certainty, has close proximity to research, and is home to important decision-makers. The country offers a strategically favorable location in the heart of Europe, providing direct access to the European market, excellent infrastructure, and an attractive tax system with a reliable double taxation treaty.

www.s-ge.com/headquarters
Facts and figures on headquarters in Switzerland

Upwards of 850 international companies have headquarters in Switzerland.