

GOVERNMENT OF THE PRINCIPALITY OF LIECHTENSTEIN

Economic and financial data on Liechtenstein

Data as of end of June 2022



Contents

Contents	. 2
Introduction	. 4
300 years of the Principality of Liechtenstein	. 4
Political stability	
International relations	. 5
Population of Liechtenstein	. 5
Location of Liechtenstein	. 6
Liechtenstein national economy	. 7
Gross national income per capita	. 7
Population, employment, GDP/capita, productivity	. 7
Real GDP growth rate since 1972	. 8
Gross value added by economic sector	. 9
Share of gross value added, industry and manufacturing	10
Enterprise and workplace structure	10
Population and employment since 1970	11
Cross-border commuters to and from Liechtenstein since 1960	12
Unemployment rate since 2000 (annual averages)	12
Employment (full-time equivalents) by economic sector since 2001	13
Employment in the ten largest industries	13
Persons employed by economic sector	14
Employees of Liechtenstein companies at home and abroad	14
Private research and development spending	

Revenue, expenditure, and net lending/borrowing (in %) of the central government since 1997 Revenue, expenditure, and net lending/borrowing (in %) of the municipalities since 1997 Asset/liability items of central government and municipalities Net assets (as of 31 Dec) of the central government and municipalities since 1998 Public revenue ratio and public spending ratio since 1998 Public revenue ratio Gross debt in relation to GDP Consolidated revenue/expenditure and net assets of the three levels of government since 2011 Net lending/net borrowing in relation to GDP	34 34 35 35 36 37 37 38
 Revenue, expenditure, and net lending/borrowing (in %) of the municipalities since 1997 Asset/liability items of central government and municipalities Net assets (as of 31 Dec) of the central government and municipalities since 1998 Public revenue ratio and public spending ratio since 1998 Public revenue ratio Gross debt in relation to GDP Consolidated revenue/expenditure and net assets of the three levels of government since 2011 	34 34 35 35 36 37 37
 Revenue, expenditure, and net lending/borrowing (in %) of the municipalities since 1997 Asset/liability items of central government and municipalities Net assets (as of 31 Dec) of the central government and municipalities since 1998 Public revenue ratio and public spending ratio since 1998 Public revenue ratio Gross debt in relation to GDP Consolidated revenue/expenditure and net assets of the three levels of government since 2011 	34 34 35 35 36 37 37
Revenue, expenditure, and net lending/borrowing (in %) of the municipalities since 1997 Asset/liability items of central government and municipalities Net assets (as of 31 Dec) of the central government and municipalities since 1998 Public revenue ratio and public spending ratio since 1998 Public revenue ratio Gross debt in relation to GDP	34 34 35 35 36 37
Revenue, expenditure, and net lending/borrowing (in %) of the municipalities since 1997 Asset/liability items of central government and municipalities Net assets (as of 31 Dec) of the central government and municipalities since 1998 Public revenue ratio and public spending ratio since 1998 Public revenue ratio	34 34 35 35 36
Revenue, expenditure, and net lending/borrowing (in %) of the municipalities since 1997 Asset/liability items of central government and municipalities Net assets (as of 31 Dec) of the central government and municipalities since 1998	34 34 35
Revenue, expenditure, and net lending/borrowing (in %) of the municipalities since 1997 Asset/liability items of central government and municipalities	34 34
Revenue, expenditure, and net lending/borrowing (in %) of the municipalities since 1997	34
Revenue, expenditure, and net lending/borrowing (in %) of the central government since 1997	
	33
Detailed income statement of the central government since 2005	32
Operating result of the central government since 2005	31
Current expenditure of the central government by area of responsibility	30
Central government revenue by type of tax	29
Public spending ratio	28
Liechtenstein and the other AAA-rated countries (S&P)	28
Public finances	28
Employment in various financial services	27
Core capital of banking sector	26
Earnings before taxes (EBT) since 2003	26
Assets under management and net new money since 2007	25
Employment (full-time equivalents) at banks since 2008	24
Employees (full-time equivalents) in the financial sector since 2008	24
Financial services	24
Direct exports and imports of goods by product group	23
Export and foreign trade ratio Direct exports and imports of goods by trading partner	
Development of exports and imports of goods since 2000	
Industry and manufacturing	
Direct investments	20
Average disposable income	19
Gross monthly wage (median) since 2006	18
Private household income since 1998	
Prices, interest rates, and exchange rates since 2000	10

Introduction¹

This information brochure contains an overview of relevant data and facts on the Liechtenstein economy and public finances. The brochure allows interested parties to gain a quick overview of the current status and economic development of the country. Most of the data are amenable to international comparison and are derived mainly from publications of the Liechtenstein Office of Statistics (OSL), the Financial Market Authority (FMA) Liechtenstein, the Swiss Federal Statistical Office (FSO), Eurostat, United Nations (UN), and in part also from estimates by the Liechtenstein Institute.

300 years of the Principality of Liechtenstein

In 2019, the Principality of Liechtenstein celebrated the 300th anniversary of its existence within unchanged national borders. After several changes of rulers between the 12th and 17th centuries, Prince Johann Adam, head of the Princely House of Liechtenstein, acquired the sovereign rights over the Domain of Schellenberg (1699) and the County of Vaduz (1712). On 23 January 1719, the two domains were elevated to the status of Imperial Principality of Liechtenstein by Emperor Charles VI. Sovereignty was gained by admission to the Confederation of the Rhine in 1806.

The end of the First World War and the concomitant upheavals of traditional systems of rule paved the way in Liechtenstein for a new Constitution, which was adopted in 1921 and is still in force today. At the same time, Liechtenstein separated from Austria and turned to Switzerland, with which a Customs Treaty was concluded in 1923. Moreover, it was during this time when the Swiss Franc was introduced as Liechtenstein's currency. Economically, these steps had a positive effect, although the actual upswing in Liechtenstein began only after the Second World War. In addition to the Customs Treaty, cooperation with Switzerland today also includes numerous other treaties such as the Currency Treaty and agreements in areas such as education, intellectual property, agriculture, road transport, and indirect taxes and duties.

Political stability

The 1921 Constitution is considered a mixed constitution, combining the monarchic and the democratic principles. Article 2 of the Liechtenstein Constitution is emblematic in this regard, defining the Principality as "a constitutional, hereditary monarchy on a democratic and parliamentary basis", in which the power of the State is "embodied in the Reigning Prince and the People".

The Reigning Prince is the Head of State of the Principality of Liechtenstein. As Head of State, he represents the country to the outside world. The entry into force of any law requires the sanction of the Reigning Prince. Further powers of the Reigning Prince are the appointment of the Government (on the proposal of the Liechtenstein Parliament) and substantial participation in the appointment of judges. The Liechtenstein Parliament is elected every four years by proportional representation. This unicameral parliament consists of 25 Members of Parliament. The powers of Parliament correspond to those of most parliaments in Western democracies. Parliament adopts laws, international agreements and treaties, takes important financial decisions including the budget, is responsible for oversight of the Government and the National Administration, and approves the annual reports of State institutions. The Liechtenstein Government is composed of five Ministers. It acts as a collegial body and is responsible to both the Reigning Prince and Parliament.

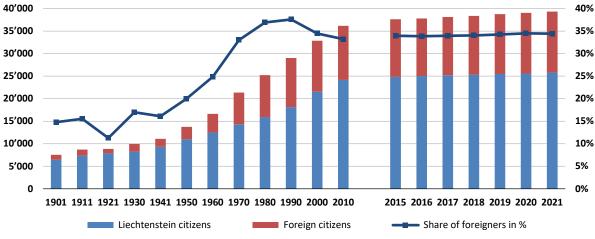
¹ Parts of the introductory text draw on Marxer and Pállinger (2009), with the kind permission of the authors.

Liechtenstein's political stability is based on a balanced distribution of powers, which puts a high degree of pressure on politics to compromise. Direct democracy plays a key role in Liechtenstein. Directdemocratic rights are comparable to those in Switzerland, such as the optional referendum and the popular initiative, with regard to both constitutional amendments and legislation. Another element of the culture of consensus in Liechtenstein politics is the generally extensive consultation process, in which municipalities, associations, and interest organisations can express their opinions on a legislative proposal.

International relations

Liechtenstein pursues an active foreign policy, which is reflected above all in the close relations with its neighbouring countries Switzerland and Austria and its membership in numerous international organisations. Milestones in the recognition of Liechtenstein as an independent member of the international community were its accession to the Council of Europe in 1978, its accession to the UN in 1990, its admission to the European Free Trade Association (EFTA) in 1991, and its accession to the WTO in 1995. Liechtenstein has been a member of the European Economic Area (EEA) since 1995 and an associate member of Schengen-Dublin since 2011.

Unhindered access to the European internal market via the EEA Agreement constitutes a locational advantage and an essential factor for the sustainable security and stability of the Liechtenstein economy. EEA membership has opened up new business opportunities, leading to further diversification of the Liechtenstein economy. At the same time, the Customs and Currency Treaties guarantee market access to Switzerland. Politically, Liechtenstein's EEA membership has helped to secure its sovereignty and at the same time position itself as a reliable partner in Europe. The overall outcome of Liechtenstein's EEA membership is therefore very positive, which is underlined by very high levels of approval for EEA membership among businesses, the population, and policymakers.



Population of Liechtenstein

Data source: OSL (Population Statistics).

In 2021 (31 Dec), the permanent population in the 11 municipalities of Liechtenstein increased by 260 persons, or 0.7%, reaching 39'315 persons. Liechtenstein thus has a population density of about 246 inhabitants per km².

The share of foreigners was 34.4% by the end of 2021. The majority of foreigners residing in Liechtenstein come from Switzerland (28.0% of foreigners), followed by Austria (17.0%) and Germany (13.1%). Other countries with a large number of Liechtenstein residents are Italy (8.9%), Portugal (5.1%), and Turkey (4.0%). 66.8% of Liechtenstein's population in 2020 were between 15 and 64 years of age, compared to 14.6% age 0 to 14 and 18.6% age 65 or more. Liechtenstein's age structure is thus similar to the EU average reported by Eurostat (age 15–64: 64.4%; age 0–14: 15.1%; age 65 or more: 20.7%). However, between 2010 and 2020, in none of the EU/EFTA states has the proportion of inhabitants aged 65 or more increased as rapidly as in Liechtenstein (+4.7 percentage points), with the exception of Finland (+5.3 percentage points).

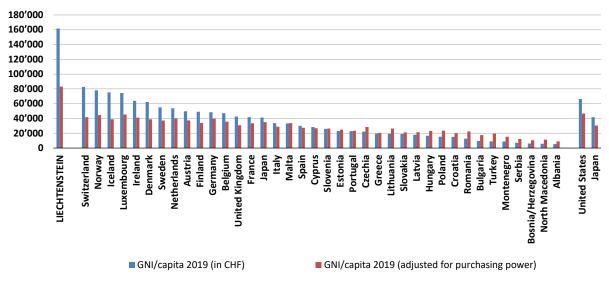
Location of Liechtenstein

Liechtenstein's territory covers an area of 160 km², making it the fourth smallest state in Europe. The settlement area amounts to 11%, while 42% of the national territory is considered forest area, 33% agricultural area, and 15% unproductive area. In the west and south, the national border runs 41 km along the Swiss cantons of St. Gallen and Graubünden. In the north and east, Liechtenstein shares a 37 km border with the Austrian state of Vorarlberg.



Source: OSL (Liechtenstein in Figures).

Liechtenstein national economy



Gross national income per capita

Gross national income (GNI, formerly referred to as gross national product) is a measure of the income of persons resident in the country (resident principle), generated by work or assets at home and abroad. GDP can be used as a starting point to calculate GNI by adding labour and capital income transferred from abroad and subtracting labour and capital income transferred abroad. Data source: calculation of GNI per capita (Liechtenstein Institute) based on OSL (Liechtenstein National Accounts), UN National Accounts Main Aggregates Database. Calculation of GNI adjusted for purchasing power (Liechtenstein Institute) based on Eurostat price level indices.

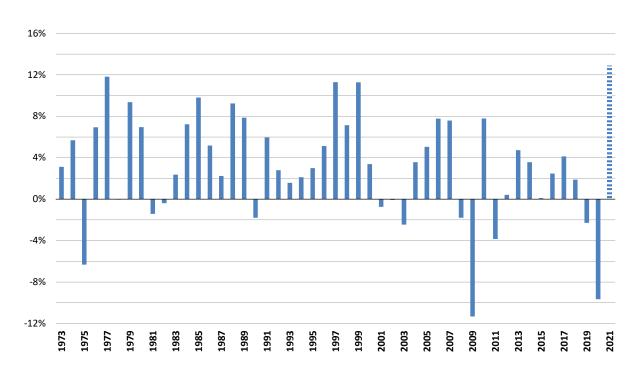
By a considerable margin, Liechtenstein's inhabitants have the highest level of prosperity among EU/EFTA states in terms of gross national income per capita (income from work and assets of private households, companies, and the public sector) at about CHF 162'000 in 2019. This is also true when the high price level in Liechtenstein is taken into account by adjusting for purchasing power.

Population, employment, GDP/capita, productivity

2020	Liechtenstein	Switzerland	Austria	Germany	Luxembourg
Gross domestic product, CHF billion	5.7	706	406	3′605	69
Population (as of 1 July)	38'896	8'654'622	9'006'398	83'783'942	625'978
Employees (annual average)	40'467	5'077'216	4'296'919	44'803'000	472'189
Full-time equivalents (annual average)	34'434	4'239'303			
GDP/capita (population), CHF	147'599	81′603	45'086	43'027	109'826
Productivity (GDP/employees), CHF	141'870	139'100	94'501	80'463	145'596
Productivity (GDP/FTE), CHF	166'725	166'594			

GDP is a measure of the income of persons resident in Liechtenstein and abroad, generated by work or assets in Liechtenstein (domestic principle), i.e. for domestic production whose value added is generated and accrued by persons resident in Liechtenstein and/or abroad. Data source: OSL (GDP Estimate, Statistical Yearbook), FSO (National Accounts, Employment and Job Statistics), Liechtenstein Institute (estimate of Swiss full time equivalents), SNB, Statistik Austria, Destatis, STATEC, Eurostat, UN.

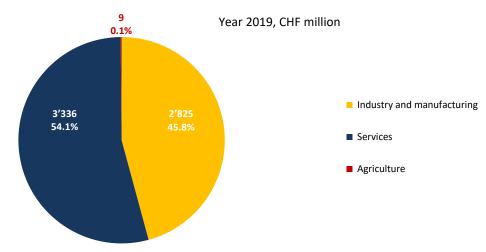
Liechtenstein's national economy is the fifth smallest of all European countries. Compared with Switzerland, Austria, Germany, and Luxembourg, Liechtenstein had the second highest productivity (gross domestic product in relation to employees) in 2020. Liechtenstein's productivity has not developed very dynamically since the turn of the millennium: Since then, GDP growth has been driven mainly by job creation and less by productivity gains.



Real GDP growth rate since 1972

Data sources for GDP: Approximate structural break adjustment from ESA 1995 to ESA 2010 (Liechtenstein Institute) based on OSL (Statistical Yearbook, GDP Estimate), GDP estimate 2021 (Liechtenstein Institute), price adjustment of GDP (Liechtenstein Institute) based on SECO (GDP deflator for Switzerland, sport event adjusted). GDP growth of Austria, Germany and Switzerland based on Eurostat. Data source for GNI: Approximate structural break adjustment from ESA 1995 to ESA 2010 (Liechtenstein Institute) based on OSL (Statistical Yearbook), price adjustment of GNI (Liechtenstein Institute) based on Swiss CPI (FSO).

Compared to the real GDP in 1972, Liechtenstein's economic output has nearly quintupled by 2021. In Austria, Germany and Switzerland, GDP is now between two and three times as high as it was in 1972. The average price-adjusted GDP growth rate in Liechtenstein since 1972 has been at a high 3.3%. Between 2012 and 2018, the Liechtenstein economy recovered from the financial crisis, the subsequent low international demand, the reforms in the financial sector, and the various appreciation shocks of the Swiss franc. In terms of level, in 2016, the price-adjusted GDP for the first time exceeded that of 2007. In 2020, Liechtenstein's economy was also hit by the COVID-19 pandemic and GDP fell by an estimated -10% (GDP Estimate by the OSL), but not as much as in the financial crisis of 2008/09. Similar to the global economy, Liechtenstein recovered strongly from the COVID-19 shock and pronounced catch-up effects were noticeable, especially in the case of investment goods exports. The latest estimate by the Liechtenstein Institute assumes a GDP increase of +13% for 2021. The real GDP of Liechtenstein in 2021 was thus again at about the level of 2018. From the turn of the millennium on, the gross domestic product (domestic value added) and the gross national income (income of residents) have diverged in Liechtenstein. The trend in price-adjusted GNI nearly stagnated, but high increases in 2016 and 2017 (+19% and +13%) made sure that the 2007-level was exceeded again, so that in 2017, GNI exceeded GDP for the first time since 2000. In 2018, real GNI per capita was at its highest level since national accounts began in 1998, but fell again by -8.2% in 2019. Normally, GNI in Liechtenstein tends to be lower than GDP, since the high proportion of commuters in the total employment means that a large part of the domestically generated labour income flows abroad and thus exceeds the usually achieved surplus of cross-border net capital income. However, with the strong average increases in GNI in recent years, the gap between GDP and GNI has closed again.

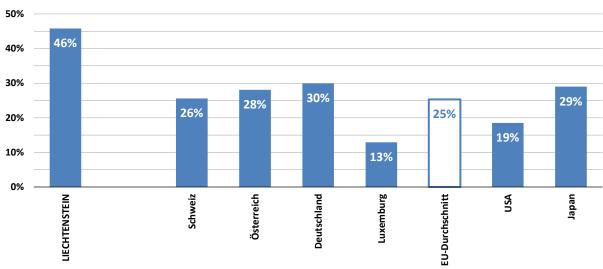


Gross value added by economic sector

Data source: OSL (National Accounts).

With CHF 3.3 billion in gross value added, the services sector had the highest share of Liechtenstein GDP in 2019, followed by industry and manufacturing (CHF 2.8 billion) and agriculture (CHF 0.01 billion). The sectoral share of industry and manufacturing of 46% in 2019 was above the long-term average of slightly more than 40%. Financial and insurance activities are an important branch within the services sector and accounted for 11.5% of total economy's value added in 2019. This is the second-highest share of all EU/EFTA countries (behind Luxembourg). Productivity, i.e. gross value added in relation to full-time equivalent employment, amounted to CHF 168'800 for services and CHF 201'700 for industry and manufacturing in 2019. The following table compares gross value added shares by economic activity with Switzerland. It shows that Liechtenstein's economy is very diversified given its small size (this especially holds for the export goods diversification, see Brunhart and Geiger 2019).

Gross value added shares (2019) by economic activity (NOGA)	Liechten- stein	Switzer- land
Agriculture, forestry, fishing (NOGA 01–03)	0.1%	0.6%
Mining and quarrying (05–09)	0.1%	0.1%
Manufacturing (10–33)	40.1%	18.7%
Electricity/water supply, sewerage, waste management and remediation activities (35–39)	1.3%	1.9%
Construction (41-43)	4.3%	4.9%
Wholesale and retail trade; repair of motor vehicles (45-47)	4.9%	15.0%
Transportation/storage (49–53)	1.7%	4.0%
Accommodation and food service activities (55–56)	0.9%	1.9%
Information/communication (58–63)	1.8%	4.5%
Financial and insurance activities (64–66)	11.5%	9.8%
Real estate activities (68)	6.5%	6.9%
Self-employed/scientific/technical support activities (69–75)	14.1%	7.6%
Other economic support activities (77-82)	1.9%	3.2%
Public administration, defence, compulsory social security (84)	6.0%	10.1%
Education (85)	0.6%	0.6%
Human health and social work activities (86–88)	2.5%	7.8%
Arts, entertainment, recreation (90–93)	0.9%	0.7%
Other service activities (94-96)	0.4%	1.3%
Activities of households as employers (97)	0.2%	0.3%



Share of gross value added, industry and manufacturing

Share of industry and manufacturing in total gross value added (2019)

Data source: OSL (National Accounts), Eurostat, UN.

Despite the important financial services sector, the value-added share of Liechtenstein's industry (including manufacturing) in 2019 is extraordinarily high at 46% by international standards. For instance, it is significantly higher than in Switzerland, Austria, Germany, Luxembourg, the EU average, the United States, and Japan. In fact, in 2019, the industrial share (production of goods, construction) in the overall economic value added in Liechtenstein was the highest among all European countries and the second-highest worldwide.

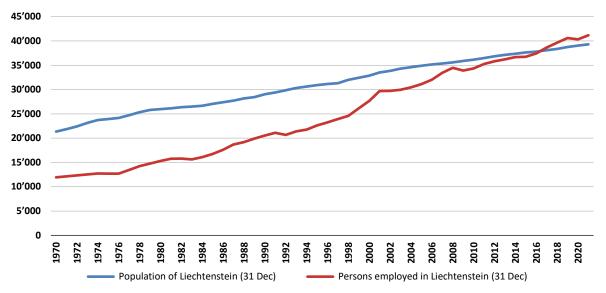
Enterprises and work-	1 to 9 wo	orkplaces	10 to 49 w	vorkplaces	50 to 249 v	vorkplaces	250+ wo	rkplaces
places by company size (2020)	Enter- prises	Work- places	Enter- prises	Work- places	Enter- prises	Work- places	Enter- prises	Work- places
Agriculture	97	230	2	24	0	0	0	0
Industry/ manufacturing	477	1′315	126	2′734	22	2′352	9	8′446
Services	4′015	8′570	351	6'775	71	6′579	9	5′037

Enterprise and workplace structure

Data source: OSL (Employment Statistics)

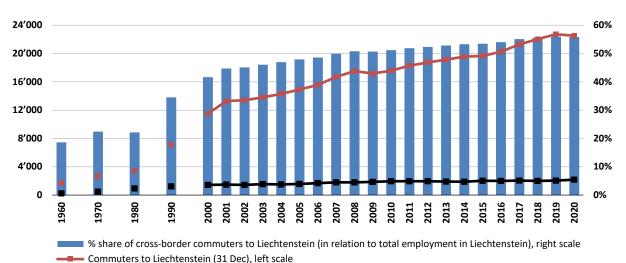
By the end of 2020, the 18 largest companies in Liechtenstein had 13'483 people employed (approx. 32% of the total workforce). However, Liechtenstein's national economy is also heavily shaped by small and medium-sized enterprises: About 89% of the 5'179 enterprises in Liechtenstein had fewer than ten employees (98% have fewer than 50). The number of companies in Liechtenstein is therefore very large compared to the population: There is one company for close to every eight inhabitants. The figure is about 14 in Switzerland and about 25 in Germany. The number of enterprises in Liechtenstein has nearly doubled in the last two decades.





Data source: OSL (Statistical Yearbook), approximation of employment between 1971–1979 and approximate removal of structural breaks (Liechtenstein Institute).

Since 1970, the population of Liechtenstein almost doubled to 39'315 in 2021. Over the same period, the number of persons employed in Liechtenstein more than tripled (to 41'180). There are now about as many employees as inhabitants, compared to only about half as many employees as inhabitants in 1970. In 2017, for the first time, there were more employees than inhabitants. Their ratio was 104.7% in 2021. In comparison, this ratio was 58.7% in Switzerland, 47.7% in Austria, 53.5% in Germany, and 75.4% in Luxembourg in 2020. Employment has tended to increase even during the years of the financial crisis, euro debt crises as well as during the strong appreciation of the Swiss franc or during the COVID-19 pandemic, almost unaffected by the sharp GDP drops in certain years. This is less due to the labour force participation of domestic residents, but primarily due to the sharp increase in cross-border commuters to Liechtenstein: In 2020, the labour force participation rate (labour force aged 15 to 64 in relation to total population) was 75.0% in Liechtenstein, 84.1% in Switzerland, the EU-average was 73.9%.

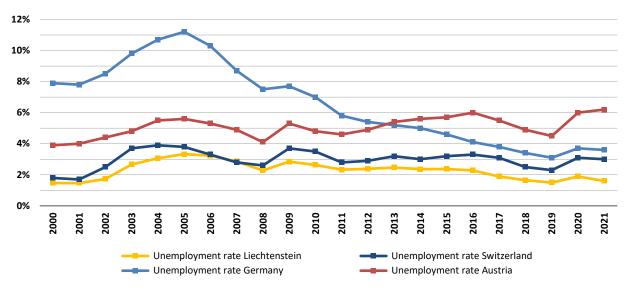


Cross-border commuters to and from Liechtenstein since 1960

------ Commuters from Liechtenstein (31 Dec), left scale

Data source: OSL (Employment Statistics), approximate structural break adjustment (Liechtenstein Institute).

While the number of cross-border commuters from Liechtenstein is rising only slowly, the number of cross-border commuters to Liechtenstein has veritably exploded from about 7'100 in 1990 and 11'500 in 2000 to 22'511 in 2020 (2019: 22'709). The share of commuters to Liechtenstein has also increased in relation to total employment in Liechtenstein, both in industry and in services. In 2020, 58% of cross-border commuters to Liechtenstein came from Switzerland and 38% from Austria. The share of EEA nationals living in Switzerland and commuting to Liechtenstein has increased disproportionately over the last two decades, mainly due to the introduction of the free movement of persons under bilateral agreements between Switzerland and the EU.

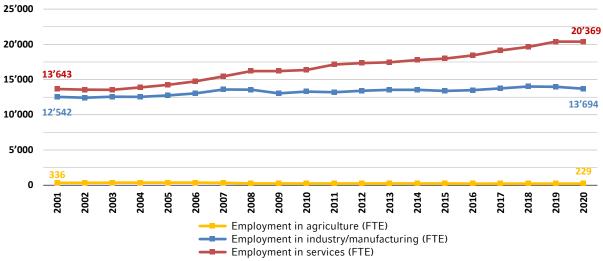


Unemployment rate since 2000 (annual averages)

The levels of the unemployment rates of Liechtenstein and Switzerland are not fully internationally comparable. Data source: OLS, SECO, Eurostat, approximation of Liechtenstein unemployment rate before 2006 (Liechtenstein Institute).

Unemployment in Liechtenstein has been low for the last decades, and showed a decreasing trend for the last ten years. While the COVID-19 pandemic and its economic implications lead to rising unemployment rates in most countries, unemployment in Liechtenstein remained at a low level. In 2021, the

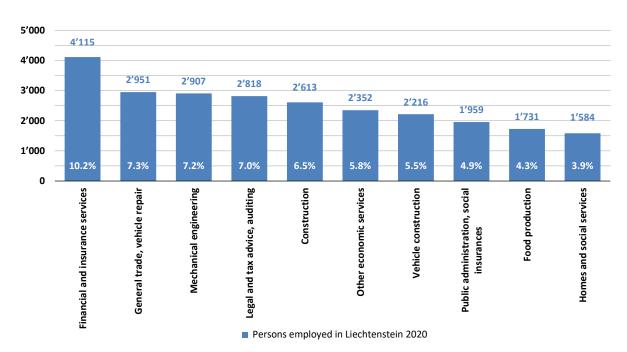
unemployment rate was 1.6%. Youth unemployment in Liechtenstein was also very low at 1.5% in 2019 (Switzerland 2.2%, Austria 11.7%).



Employment (full-time equivalents) by economic sector since 2001

Data source: OSL (Employment Statistics), approximate adjustment for structural breaks (Liechtenstein Institute).

In contrast to most developed countries, no strong "tertiarization" has been observed in Liechtenstein so far: Although the share of employment in the industrial and manufacturing sector tends to decline, it was still very high at 39.9% by the end of 2020 compared to 59.4% in services and 0.7% in agriculture. In absolute terms, employment in the industrial sector rose from about 12'500 in 2001 to almost 13'700 by the end of 2020. However, the increase was not as steep as in the services sector.



Employment in the ten largest industries

Data source: OSL (Employment Statistics).

Employment (number of persons employed part-time and full-time) in Liechtenstein is surprisingly diversified for such a small state, across the economic sectors of industry and manufacturing, financial services, and general services. The ten industries with the highest employment are spread across all three of these economic sectors, accounting for 63% of total employment in Liechtenstein in 2020.

Employed persons (2020)	Agriculture	Industry and manufacturing	Services (without fi- nance and insurance)	Finance and insurance
Liechtenstein	0.6%	36.3%	53.1%	10.0%
Switzerland	2.6%	20.7%	72.2%	4.5%
Austria	3.9%	25.1%	68.0%	3.1%
Germany	1.3%	24.0%	74.7	°%
Luxembourg	0.7%	19.5%	68.6%	11.3%

Persons employed by economic sector

Data source: OSL (Employment Statistics), FSO (Jobs Statistics, Employment Statistics), Statistics Austria, Destatis, STATEC, approximations (Liechtenstein Institute).

As with gross value added, the relative importance of the industrial and manufacturing sector in Liechtenstein's employment becomes evident when compared internationally. The distribution within the services sector (general services versus financial services) is also unusual in Liechtenstein, given that a large number of people work in the finance and insurance sub-sector: Specifically, in 2020, about 10.0% of the total number of persons employed in Liechtenstein worked in this sub-sector, while the figure was "only" 4.5% in Switzerland. Luxembourg is also a special case in this respect, with an even higher share working in financial and insurance services (11.3%).

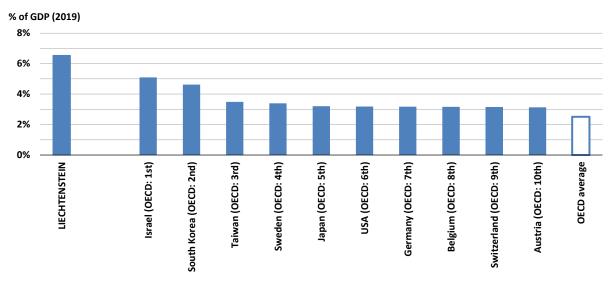
Employees of Liechtenstein companies at home and abroad

Employment 2021	Liechtenstein	Abroad
LCCI industrial companies (number of employees)	10′175	51′373
Liechtenstein banks (number of employees)	approx. 2'400	approx. 4'600

LCCI employment: foreign branches, majority-owned or under management control of LCCI industrial companies.

Data source: LCCI (Annual Report), OLS (Banking Statistics), FMA, approximation of employment for banks (Liechtenstein Institute).

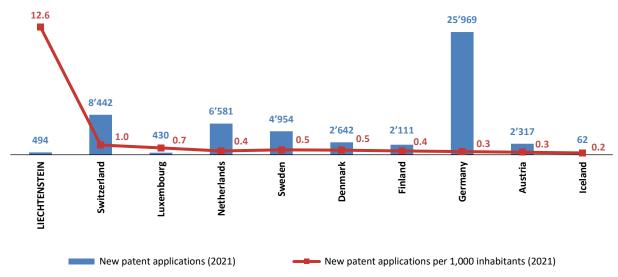
Liechtenstein companies create jobs not only in Liechtenstein, but increasingly also abroad: In 2000, Liechtenstein's large industrial companies employed a total of 24'134 people abroad. Compared to the domestic employment of 7'971 at that time, this corresponded to a foreign share of 75%, which rose to 83% by 2021. The number of employees working abroad for LCCI industrial companies has increased strongly in recent years, but declined between 2019 and 2021 from 58'201 to 51'373. In 2021, the Liechtenstein banks had approximately 4'600 employees working abroad (2'400 in Liechtenstein).



Private research and development spending

Research and development spending in relation to GDP 2019. Data source: OSL (R+D Statistics, National Accounts), OECD, FSO.

In 2019, research and development spending in Liechtenstein amounted 6.5% of GDP or CHF 375.4 million. Liechtenstein was therefore ahead of the three OECD countries with the highest share of research and development spending in relation to GDP (2019) – Israel (5.1%), South Korea (4.6%), and Taiwan (3.5%) – and also ahead of Germany (3.2%), Switzerland (3.2%), and Austria (3.1%), as well as above the OECD average of 2.5%. In Liechtenstein, research and development spending is almost entirely carried by the private sector (especially industry and manufacturing). Public spending on research and development amounted to CHF 8.9 million which was around 2% of the total research and development expenditure in 2019 (in Switzerland around 30%, EU average of 29%).

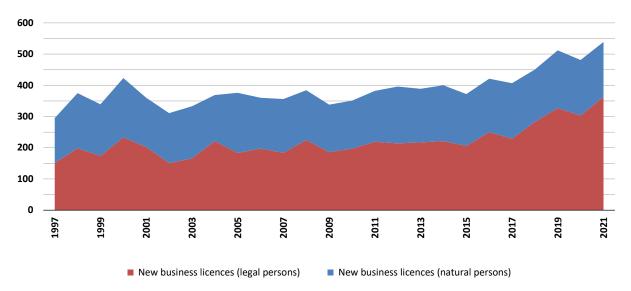


Patent applications in relation to the population

In cases where several applicants are listed, the country of the former is considered. Data sources: European Patent Office, UN, OSL (Population statistics).

Liechtenstein's economy is extraordinarily innovative. The 494 new patent applications (2020: 436) in 2021 correspond to 12.6 patent applications per 1'000 inhabitants, which is very high in comparison with other countries.

Business licences since 1997



Newly issued licences in Liechtenstein between 1997 and 2000, new formations starting in 2001. Data source: OSL (Statistical Yearbook).

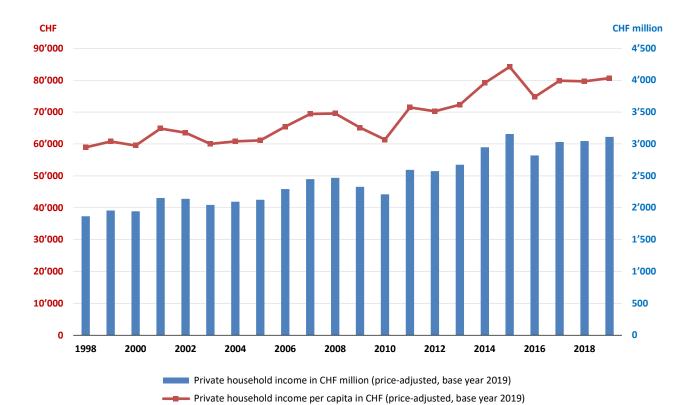
On average, approximately 390 new companies have been established in Liechtenstein since 1997. The trend has been rising for several years, especially among legal persons.

	Inflation rate	Interes	st rates		Exchange rates	
	Consumer prices (CPI)	Short-term	Long-term	CHF/€	CHF/£	CHF/\$
2000	1.6%	0.5%	3.6%	1.56	2.56	1.69
2001	1.0%	0.4%	3.1%	1.51	2.43	1.69
2002	0.6%	0.3%	2.9%	1.47	2.33	1.56
2003	0.6%	0.1%	2.0%	1.52	2.20	1.35
2004	0.8%	0.1%	2.2%	1.54	2.27	1.24
2005	1.2%	0.1%	1.8%	1.55	2.26	1.25
2006	1.1%	0.1%	2.4%	1.57	2.31	1.25
2007	0.7%	0.2%	2.3%	1.64	2.40	1.20
2008	2.4%	0.4%	2.4%	1.59	2.00	1.08
2009	-0.5%	0.1%	1.7%	1.51	1.70	1.09
2010	0.7%	0.1%	1.8%	1.38	1.61	1.04
2011	0.2%	0.1%	1.6%	1.23	1.42	0.89
2012	-0.7%	0.0%	1.5%	1.21	1.49	0.94
2013	-0.2%	0.0%	1.3%	1.23	1.45	0.93
2014	0.0%	0.0%	1.1%	1.21	1.51	0.92
2015	-1.1%	0.0%	0.4%	1.07	1.47	0.96
2016	-0.4%	0.0%	0.3%	1.09	1.33	0.99
2017	0.5%	0.0%	0.3%	1.11	1.27	0.98
2018	0.9%	0.0%	0.4%	1.15	1.31	0.98
2019	0.4%	0.0%	0.4%	1.11	1.27	0.99
2020	-0.7%	0.0%	0.3%	1.07	1.20	0.94
2021	0.6%	0.0%	0.2%	1.08	1.26	0.91

Prices, interest rates, and exchange rates since 2000

Data source: FSO (Swiss Consumer Price Index), OSL (Banking Statistics), SNB. Short-term interest rates: Sight deposits (2000–2016), current account (from 2017). Long-term interest rates: medium-term notes 7–8 years (2000–2016), medium-term notes 8–10 years (from 2017).

Pursuant to the Currency Treaty with Switzerland, the Swiss franc is the legal tender in Liechtenstein. The interest rate level is strongly influenced by the common currency area. This also applies to inflation, where common customs duties and jointly levied indirect taxes (e.g. VAT) result in additional alignment of the two countries. Historically by international standards, Liechtenstein has a very low inflation rate and a low interest rate level, both of which have fallen even further during the past two decades. The Swiss franc has appreciated significantly against the major currencies since the turn of the millennium, especially in the wake of the financial crisis 2008/09, discontinuation of the SNB's minimum exchange rate target for the franc against the euro at the beginning of 2015 and during the pandemic 2020.

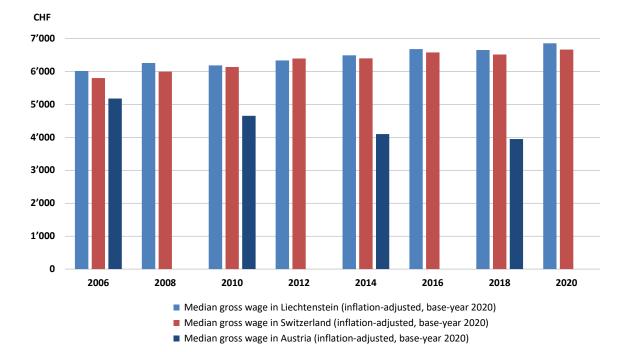


Private household income since 1998

Private household income consists of compensation of employees, income of unincorporated enterprises and property income of households (national income accounts of Liechtenstein National Accounts).

Data source: OSL (National Accounts). Price adjustment (Liechtenstein Institute) based on FSO (Swiss CPI).

The income of private households (income from self-employment and employment as well as asset income) can be calculated from the national income accounts of the Liechtenstein National Accounts. After a decline following the financial crisis 2008/09, income has returned to its original growth path, also in per capita figures. There was another decline in 2016 due to lower asset income of private households, but private household income has increased again during the following years. In 2019, per capita income was approximately CHF 80'700 in Liechtenstein.



Gross monthly wage (median) since 2006

Data source: OSL (Wage Statistics, Tax Statistics). Price adjustment (Liechtenstein Institute) based on FSO (Consumer Price Index), Statistics Austria (Consumer Price Index), SNB (exchange rates).

In 2020, the effective gross monthly wage (median) of persons employed in Liechtenstein was CHF 6'852 (Switzerland: CHF 6'665). After 2008, wages in Liechtenstein had stagnated. During that period, Switzerland was able to catch up with Liechtenstein in this respect. Since 2010, the monthly median wage has constantly increased, in Liechtenstein slightly more than in Switzerland. Both countries are well ahead of Austria. The decline in Austrian wages in Swiss francs is mainly due to the strong appreciation of the Swiss franc against the euro. In 2014, cross-border commuters to Liechtenstein have for the first time earned more than the working resident population in Liechtenstein. In 2020, monthly median wage amounted to CHF 6'933 for commuters while it was CHF 6'730 for employees residing in Liechtenstein. In 2019, the median taxed net assets of Liechtenstein residents amounted to CHF 471'928 per taxable person) and CHF 125'755 per household (mean CHF 902'785 per household).

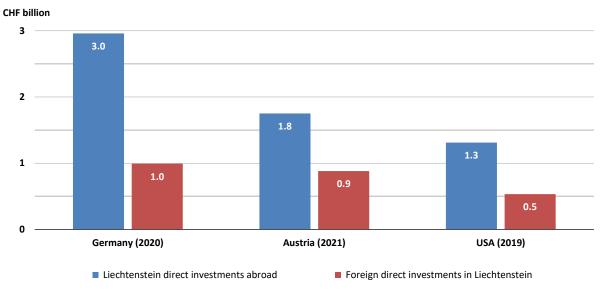
Rank	Municipality	Average weighted disposable income	Rank	Municipality	Average weighted disposable income
1.	Triesenberg	61.5%	16.	Herisau AR	48.5%
2.	Schellenberg	59.5%	17.	Chur GR	48.4%
3.	Balzers	59.3%	18.	Frauenfeld TG	48.4%
4.	Schaan	59.1%	19.	Fläsch GR	48.3%
5.	Triesen	58.9%	20.	Buchs SG	47.8%
6.	Mauren	58.8%	21.	Sennwald SG	47.1%
7.	Gamprin	58.7%	22.	Schwyz SZ	47.1%
8.	Vaduz	58.6%	23.	St. Gallen SG	47.0%
9.	Ruggell	58.3%	24.	Sevelen SG	46.8%
10.	Eschen	58.3%	25.	Wartau SG	46.5%
11.	Planken	57.8%	26.	Zug ZG	46.5%
12.	Altdorf UR	51.1%	27.	Geneva GE	45.2%
13.	Glarus GL	50.3%	28.	Zurich ZH	42.9%
14.	Appenzell Al	50.2%	29.	Basel BS	42.5%
15.	Maienfeld GR	48.7%			

Average disposable income

Data source: Brunhart and Büchel (2016).

A study of the Liechtenstein Institute commissioned by the Government (Brunhart and Büchel 2016) determined the percentage disposable income of the Liechtenstein population for the base year 2013, comparing the consumption and savings possibilities of households and the financial attractiveness of living in Liechtenstein municipalities. It was determined how market income, i.e. original household income from work and assets, is reduced after taxes and social insurance contributions (in addition, state transfer income is taken into account) and how much of the income remains after urgently needed expenditures for housing, food, and mobility. Weighted by household type as well as income and asset classes, the disposable income in Liechtenstein averaged 59% of the generated market income, while that of Swiss municipalities averaged 44%. The considerable difference between Liechtenstein and Switzerland applied regardless of the household type selected (single, couple, family, pensioner) or the income and asset class. The causes of the higher disposable income in Liechtenstein are primarily the lower tax burden, but also the lower social insurance contributions (and in some cases higher transfer income); this is not compensated by housing costs, which tend to be higher in Liechtenstein.

Direct investments

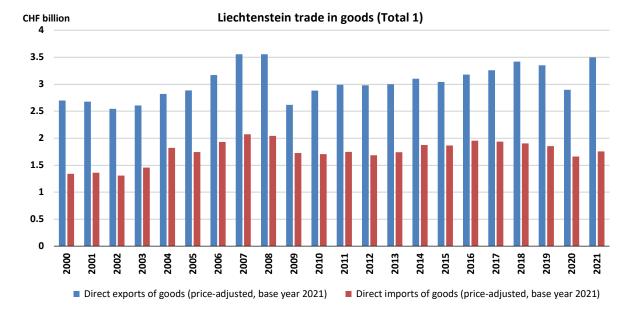


The most important types of foreign assets (also referred to as foreign investments) are direct investments and portfolio investments. While portfolio investments are monetary or financial investments abroad, direct investments represent long-term investments by companies, individuals, or other economic actors abroad which result in holdings in foreign companies or subsidiaries and normally involve corresponding influence/cooperation.

Data source: Central Bank of Germany (inventory of direct investments), Office for National Statistics (Pink Book), Bureau of Economic Analysis, Austrian National Bank.

Liechtenstein has invested more capital abroad than foreign countries have invested in Liechtenstein, which is primarily due to Liechtenstein's decades of trade surpluses. However, it is not possible to provide any precise details, given that Liechtenstein does not have its own balance of payments and the Swiss National Bank does not report Liechtenstein separately. Some foreign central banks do publish the economic exchange with Liechtenstein. For instance, for Austria, Germany, the United Kingdom, and the United States some important data on foreign assets (households, companies, public sector) and especially direct investments is available. Accordingly, Liechtenstein's direct investments in Germany amounted to CHF 3.0 billion in 2020, in Austria to CHF 1.8 billion in 2021, and in the United States to CHF 1.3 billion in 2019. Conversely, the direct investments of those countries in Liechtenstein are significantly lower. The Bank of England provides figures on total foreign assets (direct investments, and other asset investments) with respect to Liechtenstein: In 2020, Liechtenstein's inhabitants and companies had CHF 5.2 billion in foreign assets in the United Kingdom, while the United Kingdom only had CHF 0.8 billion in Liechtenstein. In other countries, Liechtenstein's pattern is most likely similar to that in the four countries mentioned above.

Industry and manufacturing



Development of exports and imports of goods since 2000

Direct exports and imports of goods (Total 1) excluding exports/imports of services and exports/imports between Liechtenstein and Switzerland. While in the case of FCA exports and imports, "Total 2" includes the total of all product groups, "Total 1" takes an economic perspective and thus excludes trade in gold bars, other precious metals, coins, precious and semi-precious stones, as well as works of art and antiques. Data source: OSL (Foreign Trade Statistics), price adjustment (Liechtenstein Institute) based on Swiss export price index and import price index (SECO).

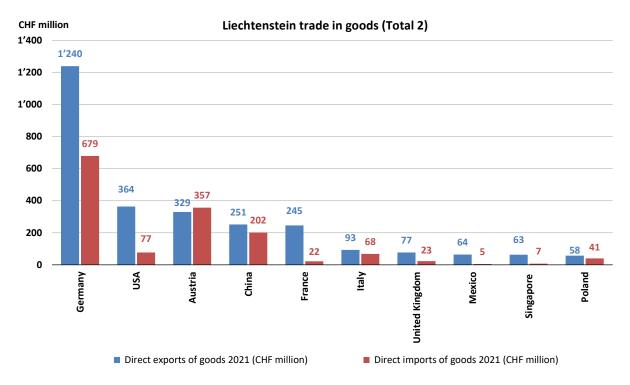
After significant losses in 2020 due to the COVID-19-pandemic, Liechtenstein's direct goods exports (excluding trade in goods with Switzerland, Total 1) recovered strongly, and are back above the 2019-level. The growth rates compared to the previous year were -13.6% (from 2019 to 2020) and +20.7% (from 2020 to 2021). However, with exports worth CHF 3.49 billion in 2021, the 2007 value from before the financial crisis has still not been reached (CHF 3.55 billion). Nevertheless, Liechtenstein has a significant goods trade surplus in exports/imports. In 2021, the surplus was 89.1% (Total 2), compared to 73.2% in 2020. Switzerland's trade surplus in goods amounted to 17.3% in 2021. Goods imports (Total 1) rose slightly by +5.6% in 2021, after falling sharply in 2020 (-10.3%).

Export and	foreign	trade	ratio
------------	---------	-------	-------

Trade in goods 2021	Liechten- stein	Switzerland	Austria	Germany	Luxem- bourg	Iceland
Imports of goods (€ bil- lion)	1.7	274.3	185.3	1′201.7	21.8	6.6
Exports of goods (€ billion)	3.3	321.7	171.5	1′380.1	14.1	5.1
GDP (€ billion)	6.1	687.1	402.7	3′570.6	73.3	21.5
Export ratio	54%	47%	43%	39%	19%	23%
Foreign trade ratio	82%	87%	89%	72%	49%	54%

Export ratio: exports of goods/GDP. Foreign trade ratio: (goods exports+imports)/GDP. The Federal Customs Administration provides figures for Liechtenstein's direct trade in goods, but these do not include exports/imports to or from Switzerland. Looking at the foreign trade revenues of LCCI member companies (in 2021, CHF 1.0 billion of CHF 7.4 billion in total foreign trade revenue was attributable to Switzerland), the actual Liechtenstein export ratio is probably over 60%, while the foreign trade ratio is more likely in the region of 95%. For Liechtenstein, there are also no figures for exports and imports of services (as there is no Liechtenstein balance of payments), which is why they have been excluded here for all countries in the comparison. Data source: Computations based on FCA, Eurostat, SNB, GDP Estimate 2021 (Liechtenstein Institute).

Due to its small size, high level of economic development, and competitive industry, Liechtenstein has a very high export ratio: Total direct exports of goods from Liechtenstein (without exports to Switzerland, Total 2) recovered to approximately CHF 3.51 billion in 2021 (2020: CHF 2.86 billion); in relation to GDP, they amounted to 54% in 2021. Even without exports to Switzerland, which are not included in the statistics of the Federal Customs Administration, the export ratio is thus significantly higher than that of neighbouring countries. The foreign trade ratio is also high by international standards, and can be explained by the high foreign trade surplus driven by the exports.



Direct exports and imports of goods by trading partner

While in the case of FCA exports and imports, "Total 2" includes the total of all product groups, "Total 1" takes an economic perspective and thus excludes trade in gold bars, other precious metals, coins, precious and semi-precious stones, as well as works of art and antiques. Data source for goods exports/imports (Total 2): OSL (Foreign Trade Statistics). Data source for foreign trade revenues: LCCI (Annual Report).

As already shown above, Liechtenstein has a high surplus in the trade in goods. This is also true for the trade in goods with all of Liechtenstein's most important trading partners, with the exception of

Austria. The most important of the 150 trading partners compiled by the Federal Customs Administration in 2021 for Liechtenstein was by far Germany, followed by Austria, China, the United States, and France. The Federal Customs Administration does not provide any figures for trade in goods between Switzerland and Liechtenstein. However, in terms of foreign sales of LCCI member companies, Switzerland ranks third behind Germany and the US. Of the total foreign sales of CHF 7.4 billion, CHF 1.0 billion were attributable to Switzerland in 2021 (2020: 0.9 billion of CHF 6.4 billion).

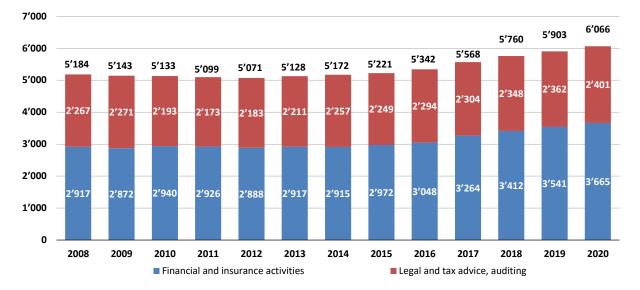
Evenente (importe of goode by type (CDA)	Direct exp	oorts 2021	Direct imp	orts 2021
Exports/imports of goods by type (CPA)	CHF million	Share	CHF million	Share
Total type of goods	3′515	100.0%	1′859	100.0%
Agricultural/forestry products, fishing	3	0.1%	6	0.3%
Mining and Quarrying	0	0.0%	7	0.4%
Manufactured Products	3'481	99.0%	1′616	87.0%
Food Products	263	7.5%	69	3.7%
Beverages	0	0.0%	6	0.3%
Textiles	14	0.4%	10	0.5%
Wearing Apparel	0	0.0%	4	0.2%
Leather and Related Products	14	0.4%	7	0.4%
Wood (Expect Furniture); Straw, Plaiting Materials	2	0.1%	19	1.0%
Paper and Paper Products	7	0.2%	32	1.7%
Coke and Refined Petroleum Products	8	0.2%	2	0.1%
Chemicals and Chemical Products	260	7.4%	79	4.3%
Pharmaceutical Products	0	0.0%	1	0.1%
Rubber and Plastic Products	52	1.5%	60	3.2%
Other Non-Metallic Mineral Products	293	8.3%	131	7.1%
Basic Metals	56	1.6%	134	7.2%
Fabricated Metal Products	716	20.4%	290	15.6%
Computer, Electronic and Optical Products	315	9.0%	109	5.9%
Electrical Equipment	364	10.4%	127	6.8%
Machinery	435	12.4%	290	15.6%
Motor Vehicles, Trailers and Semi-Trailers	350	10.0%	91	4.9%
Other Transport Equipment	6	0.2%	8	0.4%
Furniture	1	0.0%	24	1.3%
Other Manufactured Goods	324	9.2%	122	6.6%
Water supply, Waste Management	18	0.5%	8	0.4%
Information and Communication Services	8	0.2%	10	0.5%
Arts, Entertainment and Recreation Services	4	0.1%	5	0.3%

Direct exports and imports of goods by product group

Data source: OSL (Foreign Trade Statistics).

The most important product groups for both Liechtenstein's exports and imports in 2021 were "Fabricated Metal Products" and "Machinery". Other important export groups were the "Motor Vehicles, Trailers and Semi-Trailers" as well as "Electrical Equipment" with a share of total exports of 10% or more.

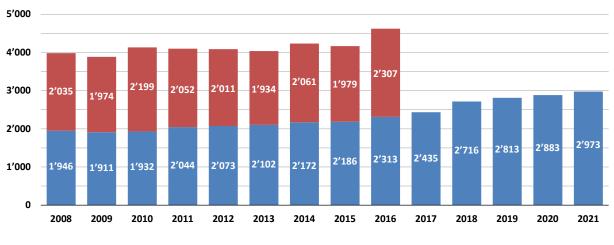
Financial services



Employees (full-time equivalents) in the financial sector since 2008

Data source: OSL (Employment Statistics), approximate structural break adjustment (Liechtenstein Institute).

Full-time equivalent employment (31 Dec) in Liechtenstein's financial sector (financial/insurance activities, legal/tax advice, auditing) declined starting in 2009 and began to rise again in 2013. The share of financial services employees in total employment has remained roughly constant since 2008 (2020: approx. 17.7%).



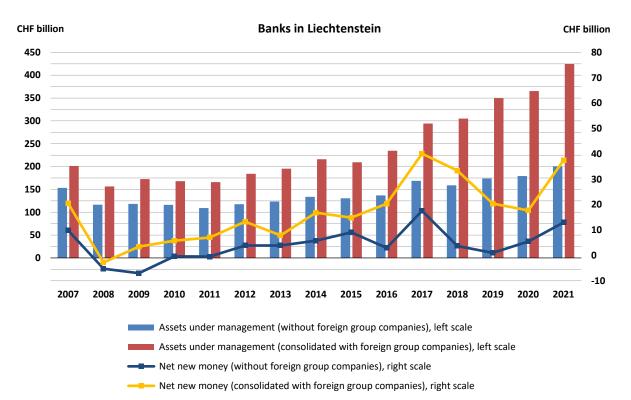
Employment (full-time equivalents) at banks since 2008

FTE employment at Liechtenstein banks (foreign group companies)

FTE employment at Liechtenstein banks (without foreign group companies)

Data source: FMA (Liechtenstein Financial Centre). More recent data regarding foreign group companies is not available.

The banking institutions in Liechtenstein had 2'313 employees in 2016 (full-time equivalents, foreign group companies not included). Including foreign group companies, the consolidated number of employees was about twice as many (4'620). Employment continued to rise to 2'973 full-time equivalents (excluding foreign group companies) in 2021. The three large banks (LGT, LLB, VPB) had approximately 6'400 employees in 2021 (2020: 6'100) including foreign group companies.

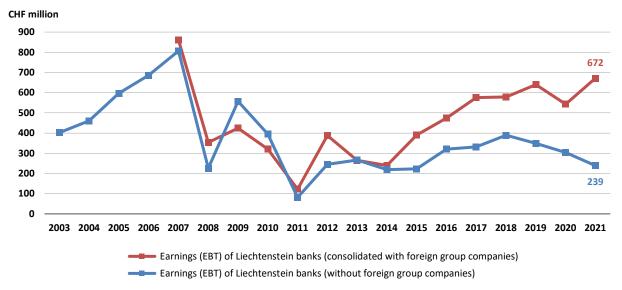


Assets under management and net new money since 2007

Data source: FMA (Liechtenstein Financial Centre).

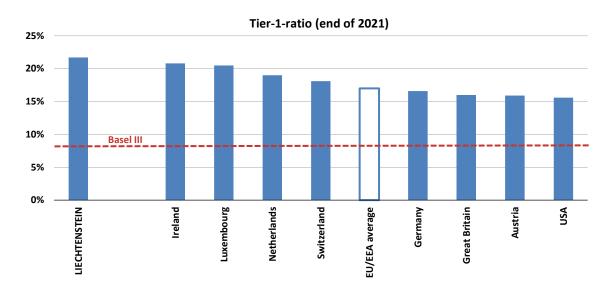
The assets under management of Liechtenstein banks in Liechtenstein and abroad collapsed in the wake of the financial crisis and subsequent far-reaching reforms in the financial centre. Since then, they have recovered and risen quite steadily to over CHF 420 billion (including foreign group companies) in 2021. Assets under management without foreign group companies rose and exceeded the level from before the financial crisis with CHF 200 billion (2007: CHF 153 billion). Net new money in 2021 was exceptionally high with CHF 37.5 billion (2020: CHF 17.7 billion) including foreign group companies and CHF 13.0 billion (2020: CHF 5.5 billion) excluding them. Therefore, the positive trend in assets under management and net new money seems to be continuing despite of the COVID-19-pandemic. According to estimates by the Boston Consulting Group (2015), Liechtenstein has a share of about 1% in the total of USD 11'000 billion in cross-border assets under management. Compared with Switzerland (25%), the United Kingdom/Ireland (25%), Hong Kong/Singapore (15%), the Caribbean/Panama (12%), the United States (7%), and Luxembourg (5%). Liechtenstein is thus a rather small niche player.

Earnings before taxes (EBT) since 2003



Data source: FMA (Liechtenstein Financial Centre), OSL (Banking Statistics).

The earnings of Liechtenstein banks in Liechtenstein and abroad tended to decline sharply after 2007. Various factors played a role here: the financial crisis, the strong Swiss franc (depreciation of assets in foreign currency), low interest rates (lower margins in the interest-difference business), structural change in the Liechtenstein financial centre, and the generally rising regulatory effort, which is a burden especially for smaller banks. Since 2011, earnings have been recovering. Still, in 2021 earnings have not reached the pre-financial crisis level of 2007.



Core capital of banking sector

The Tier 1 ratio is the core capital ratio (ratio of equity to risk-weighted total capital). BICRA stands for S&P's Banking Industry Country Risk Assessment, with 1 being the lowest risk and 10 the highest. The leverage ratio is the unweighted equity ratio (core capital in relation to business volume).

Data source: FMA (Liechtenstein Financial Centre), European Banking Authority, SNB, IMF.

Liechtenstein's banks are very strongly capitalised: At the end of 2021, they had an average Tier 1 ratio of a very high 21.7% (including foreign group companies). This is far above the requirements of

Basel III (8%, including supplementary capital) and the EU/EEA average (approx. 17.0%). This is also true for the leverage ratio: At 8.2%, it was significantly above the requirements of Basel III (3%) by the end of 2021. All Liechtenstein banks have a core capital ratio of over 18.8%, and the consolidated cost/income ratio of banks in the Liechtenstein financial centre was 69.7% in 2021 (a good value for private banking). The country rating of Standard & Poor's (AAA with a stable outlook) and the BICRA rating (risk group 2) highlight the reliability of the Liechtenstein financial sector.

Employment in various financial services

Employed persons (31 Dec)
2′485
648
1′058
2'907

Data source: OSL (Employment Statistics, Banking Statistics), FMA (Liechtenstein Financial Centre).

In addition to banks, other financial services play an important role: According to figures from the Financial Market Authority, the 98 asset management companies licensed in Liechtenstein with their 648 employees (2020: 633) managed client assets worth CHF 59.5 billion in 2021 (2020: CHF 53.0 billion). The 812 Liechtenstein investment funds contained net assets worth CHF 70.3 billion in 2021 (2020: CHF 59.1 billion in 763 funds). In 2021, 33 insurance companies with an aggregated balance sheet total of CHF 31.0 billion were active in Liechtenstein (2020: 36 insurance companies with a balance sheet total of CHF 31.0 billion). Within the financial services sector in Liechtenstein, the Employment Statistics (OSL) show that legal and tax advice as well as auditing are important branches with 2'907 employees in 2020; according to the Banking Statistics (OSL), 2'485 persons worked in banks in 2021.

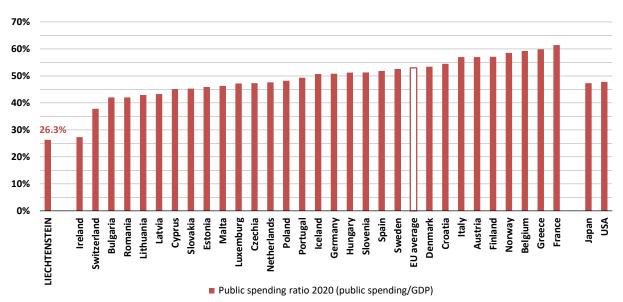
Public finances

Standard & Poor's	S&P-rating 2021	Population 2020	Area (km²)	GDP 2020 (USD billion)	GDP/capita 2020 (USD)
LIECHTENSTEIN	AAA	38'896	160	6.1	157'338
Australia	AAA	25'499'884	7'741'200	1'423	55'823
Denmark	AAA	5'792'202	43'094	356	61'476
Germany	AAA	83'783'942	357'022	3'846	45'909
Canada	AAA	37'742'154	9'984'670	1'644	43'560
Luxembourg	AAA	625'978	2'586	73	116'618
Netherlands	AAA	17'134'872	41'543	914	53'334
Norway	AAA	5'421'241	323'802	363	66'871
Sweden	AAA	10'099'265	450'295	541	53'568
Switzerland	AAA	8'654'622	41'277	752	86'890
Singapore	AAA	5'850'342	719	340	58'114

Liechtenstein and the other AAA-rated countries (S&P)

Data source: Standard & Poor's, UN National Accounts Main Aggregates Database, OSL (Population Statistics, GDP estimate). In international comparisons of Liechtenstein's GDP per capita, some caution is needed due to the very high number of cross-border commuters (for an international comparison of prosperity see figure "Gross national income per capita").

Liechtenstein is distinguished by high political and economic stability as well as by an excellent situation of its public finances. Inter alias for this reason, Liechtenstein is in Standard & Poor's highest rated group of countries (long-term rating: AAA) with a stable outlook. In 2021, only 11 of the 134 rated countries held the top rating of AAA.

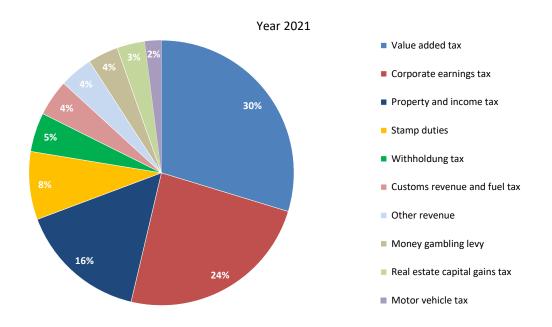


Public spending ratio

Data source: OSL (Government Finance Statistics, GDP Estimate), OECD.

At 26.3%, the public spending ratio, i.e. consolidated public spending (central government, local government, social security funds) in relation to GDP was very low in Liechtenstein in 2020, not only in a European context, but also in a global comparison (Japan 47.3%, USA 47.8%). The public spending ratio rose sharply from 20.9% in 2019 to 26.3% in 2020. The increase was driven by a supplementary state funding for OASI and additional health spending and fiscal support for the economy in the context of the COVID-19 pandemic.

Central government revenue by type of tax



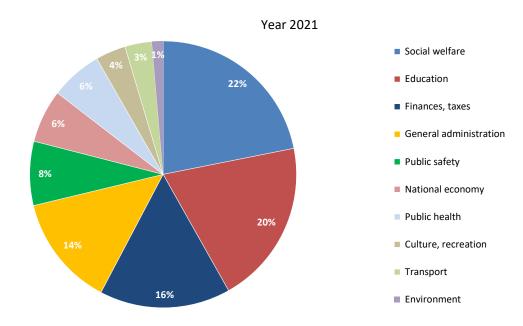
The municipal portion of the corporate earnings tax is excluded from the revenue. The tax revenues refer to the financial year and not the tax vear.

Data source: Government Accountability Report.

Central government revenue from taxes and duties amounted to CHF 761 million in 2021 (2020: CHF 1'030 million). The three most important types of tax accounted for 69% of this amount:

- value added tax: CHF 226 million (2020: CHF 220 million), •
- national share of corporate earnings tax: CHF 183 million (2020: CHF 468 million),
- national share of property and income tax: CHF 119 million (2020: CHF 118 million). •

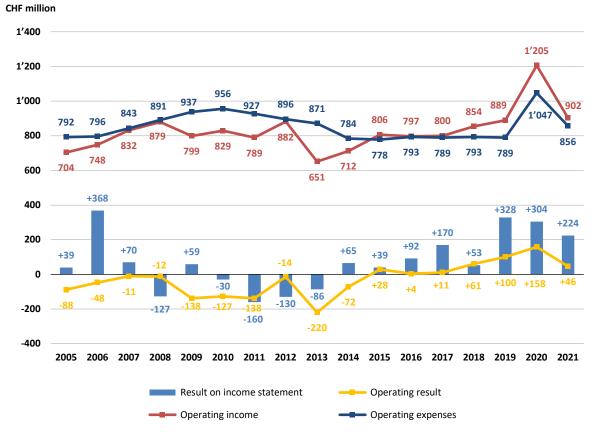
In 2021, revenue from taxes and duties accounted for approximately 80% of total current central government income of CHF 1'023 million, while financial income of CHF 179 million accounted for approximately 18%. In the same year, municipal revenues from taxes and duties amounted to CHF 218 million (2020: CHF 250 million), mainly consisting of the municipal share of the corporate earnings taxes and of the property and income taxes.



Current expenditure of the central government by area of responsibility

Data source: Government Accountability Report, OSL (Statistical Yearbook, Government Finance Statistics).

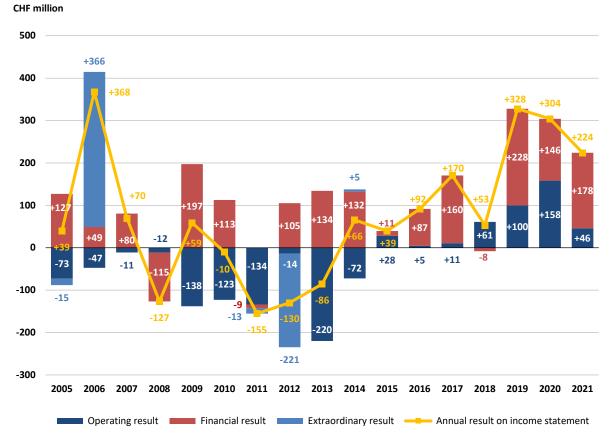
The total expenditure of the central government's current account in 2021 was approximately CHF 857 million (2020: CHF 1'073 million). The two largest expenditure areas were social welfare and education, which summed up to more than 40% of central government spending. Current expenditure of the municipalities amounted to CHF 276 million in 2020 (2019: CHF 244 million). In 2020, the central government and municipalities made consolidated total gross investments of CHF 98.2 million (2019: CHF 111.9 million).



Operating result of the central government since 2005

After an extended rise until 2010, operating expenses have stabilised at a significantly lower level in more recent years. In 2020 they were driven by the effect of the COVID-19 pandemic and an additional state funding for OASI. Beginning in 2015, the operating account has been positive for the first time since 2001 and has remained on positive levels since then. In the year 2020 operating expenses were driven by a special effect due to a one-time tax income. Operating income is very volatile, especially due to economic cycle fluctuations in tax revenues. In addition, special effects can have a strong influence, as can be seen in the sale of government's shares of the LLB 2016, the transition phase to the abolition of the coupon tax in 2011 to 2016, or the one-time tax income special effect regarding corporate earnings tax in 2020.

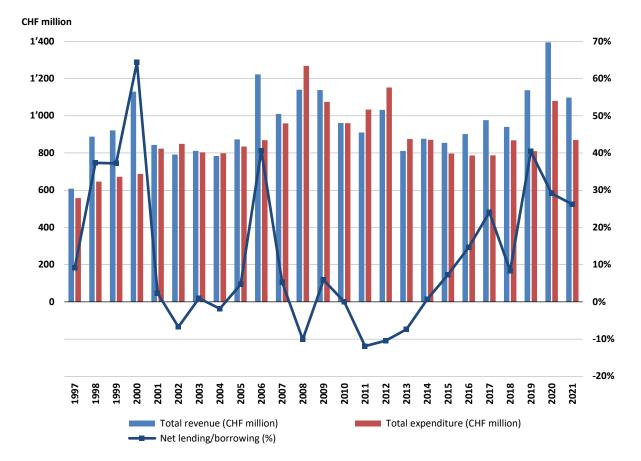
Data source: Government Accountability Report.



Detailed income statement of the central government since 2005

The central government's income statement – i.e. operating result, financial result, and extraordinary result (excluding investment account) – fell below zero after the financial crisis 2008/09, but has been positive again since 2014. Since 2015, the operating result has been positive again. In the years before (from 2002 on), the operating result had been negative and too large to be compensated by the usually positive financial result. In 2006 (sale of central government's LLB shares) and 2012 (securing the funding of the national pension insurance), high extraordinary special effects were recorded. In addition, the abolition of the coupon tax in the transitional phase from 2011 to 2016 resulted in high extraordinary revenue from the distribution of companies' old reserves in some of those years. In 2020, the peak of the COVID-19 impact, higher expenses for health measures and financial support to the economy were necessary. Also, additional state funding for OASI was granted. Yet, due to the one-time tax income special effect, a positive operating result was achieved in 2020. In 2021, the positive operating and financial results amounted to an annual income statement result of CHF +224 million, even though the revenue from the corporate earnings tax related to the tax year 2020.

Data source: Government Accountability Report.

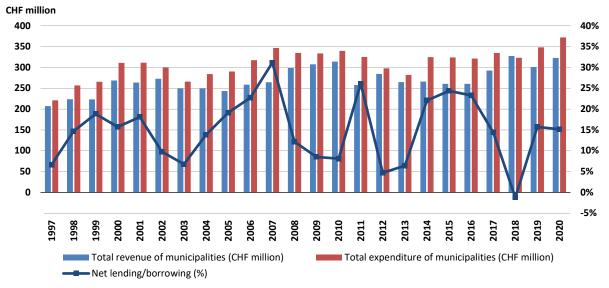


Revenue, expenditure, and net lending/borrowing (in %) of the central government since 1997

Overall result of the central government account: operating result (excl. write-offs on administrative assets) + financial result + extraordinary result + investment account. Net lending/borrowing (in %): overall revenue of the central government account/overall expenditure of the central government account.

Data source: Government Accountability Reports, OSL (Statistical Yearbook), recalculations of the central government account adjusted for structural breaks (Liechtenstein Institute and Thomas Lorenz/Stiftung Zukunft.li).

Over the 25 years presented in the chart, Liechtenstein reported a positive net lending/borrowing ratio in 19 of these years, i.e. the revenue from the overall central government account was higher than the expenditure (overall result of the central government account: income statement and investment account, excluding write-offs on administrative assets). The central government account has recovered strongly in recent years, and since 2014 there has been an overall surplus again (the operating result has also stabilised). Compared with 2020, the overall central government account 2021 was determined by decreasing revenue, which fell from CHF 1'395 million (due to the one-time tax income) to CHF 1'098 million, and also by decreasing expenditure, which decreased from CHF 1'080 (due to the economic support expenses during COVID-19 and the state funding of OASI) to CHF 870 million. Hence, also in 2021, a high overall surplus of CHF 228 million or +26.2% emerged. The high surpluses in 1998, 1999, 2000, and 2006 were influenced by the sales of government shares of LLB.

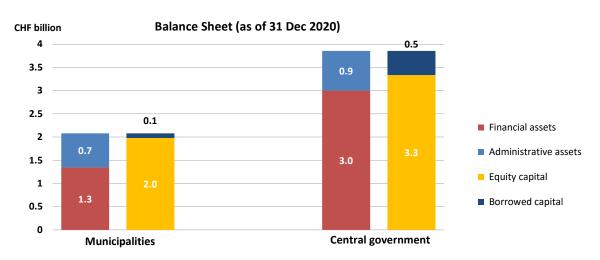


Revenue, expenditure, and net lending/borrowing (in %) of the municipalities since 1997

Overall result of the municipal accounts: operating result (excl. write-offs on administrative assets) + financial result + extraordinary result + investment account. Net lending/borrowing (in %): overall revenue of the municipal accounts/overall expenditure of the municipal accounts.

Data source: OSL (Statistical Yearbook)

Over the entire period presented, net lending/borrowing (overall result of the municipal accounts: income statement and investment account, excluding write-offs on administrative assets) of the Liechtenstein municipalities was clearly positive; except for the year 2018. In 2019 and 2020, net lending/borrowing has recovered and amounted to +15.7 and +15.2% respectively.



Asset/liability items of central government and municipalities

Data source: OSL (Statistical Yearbook), Government Accountability Report.

The net assets – i.e. equity plus surplus at the end of the year (assets minus liabilities) – of the municipalities were CHF 2.0 billion in 2020, about two third of the amount of the central government's net assets (CHF 3.3 billion). The net assets of the municipalities of Vaduz (CHF 752 million) and Schaan (CHF 404 million) were notably significant. The very high share of financial assets on the side of both levels of government is also evident.

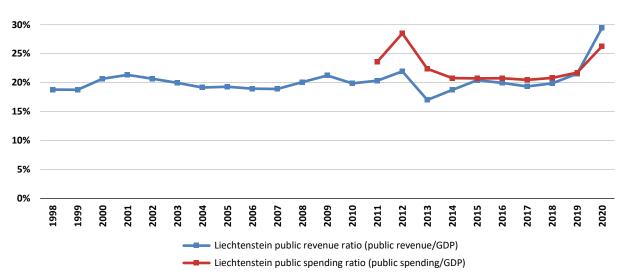
Net assets (as of 31 Dec) of the central government and municipalities since 1998

	Municipalities			Central government		
	Net assets (CHF million)	Net assets per capita (CHF)	Net assets/ annual expendi- ture	Net assets (CHF million)	Net assets per capita (CHF)	Net assets/ annual expendi- ture
1998	332.5	10'385	1.5	1′100.7	34′379	1.5
2007	911.6	25'782	3.5	2′764.1	78′179	2.5
2013	1′134.2	30'547	4.5	2′285.1	61′544	2.4
2016	1′320.2	34'916	5.3	2'481.4	65′629	2.9
2017	1′613.1	42'323	5.9	2'651.9	69'578	3.1
2018	1′788.5	46'601	6.0	2′704.8	70'479	3.1
2019	1'891.1	48'807	6.5	3'032.6	78'266	3.5
2020	1′980.8	50'709	6.3	3′336.8	85'423	2.9
2021				3'561.2	90'581	3.8

Annual expenditure: current expenditure including capital expenditure, excluding write-offs on financial and administrative assets. Approximate structural break adjustment of the central government's net assets (Liechtenstein Institute).

Data source: Calculations based on OSL (Statistical Yearbook) and Government Accountability Reports. Net assets data for municipalities for 2021 are not yet available.

After a similarly steep increase in the net assets of the municipalities and the central government from 1998 to 2007, the net assets of the central government declined until 2013 and then rose again until 2021. In contrast, the net assets of the municipalities have increased each year over the entire period from 1998. These conclusions are true in regard to both absolute net assets and net assets per capita. The central government's net assets in relation to annual expenditure have steadily increased over the years, with the exception of 2020 (due to spending increases during the COVID-19 pandemic and additional state funding for OASI), and amounted to reserves of almost four annual expenses in 2021.

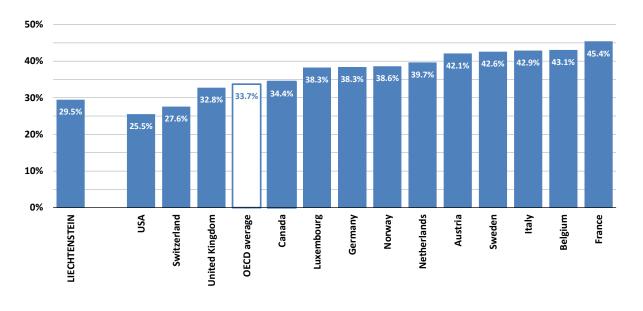


Public revenue ratio and public spending ratio since 1998

Public revenue ratio: consolidated public revenue (central government, local government, social security funds) in % of GDP. Public spending ratio: consolidated public expenditure (central government, local government, social security funds) in % of GDP. Data source: OSL (Government Tax Statistics, Government finance statistics, GDP Estimate).

The public revenue ratio (consolidated public revenue of central government, local government, social security funds in relation to GDP) in Liechtenstein has been stable for the last two decades at a low level of approximately 20%. In 2020, it significantly rose to 29.5%. This can be attributed to the health

and economic support measures put in place because of the COVID-19 pandemic. Also, the public spending ratio (consolidated expenditure of the central government, local government and social security funds in relation to GDP) has settled at around 20% in recent years and exceeded the usual level, with 26.3% in 2020 due to the one-time tax income. The public spending ratio in 2012 was strongly influenced by the sharp temporary increase in public expenditure in the course of securing funding of the central government pension insurance.



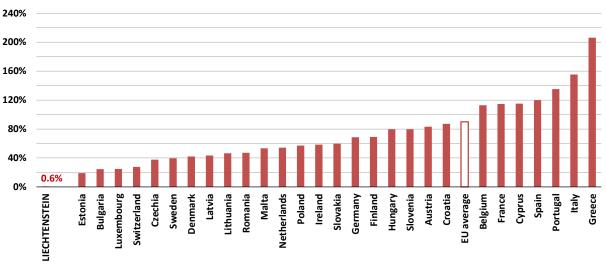
Public revenue ratio

Public revenue ratio 2020 (public revenue/GDP)

Data source: OSL (Tax Statistics, GDP Estimate), OECD (Revenue Statistics).

Compared internationally, the public revenue ratio (consolidated revenue of the central government, local government and social security funds in relation to GDP) in Liechtenstein is traditionally extraordinarily low. In 2019, at 20.9%, it was still significantly below that of Switzerland (2019: 28.5%) and the United States' (2019: 24.5%). However, a one-time tax income raised the fiscal ratio to 29.5% in 2020, which is for once higher than the ratio of the United States (2020: 25.5%) and Switzerland (2020: 27.6%). The relatively low ratios of Liechtenstein's public budgets can also be observed when international comparisons are based on GNI instead of GDP as a reference value for public revenue/expenditure.

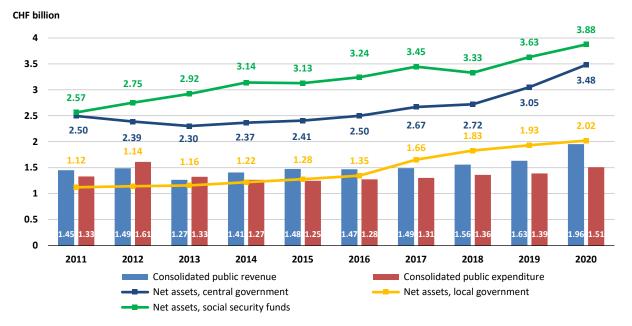
Gross debt in relation to GDP



Gross public debt 2020 (in % of GDP)

Data source: OSL (Government finance statistics).

The gross debt ratio in Liechtenstein's public budgets is almost zero. If assets are taken into account, the result shows even clearly negative debt (i.e. a positive net worth), which is very rarely the case by international standards.

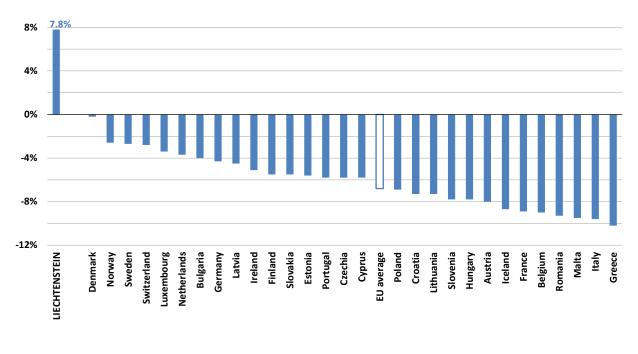


Consolidated revenue/expenditure and net assets of the three levels of government since 2011

Data source: OSL (Government finance statistics), FFA (Government finance statistics), own calculations (Liechtenstein Institute).

After two negative years, Liechtenstein's public budgets has reported a consolidated revenue surplus since 2014. The net assets of the social security funds and the local government have risen quite continuously since 2011, while an increase has been observed for the central government only since 2013.

In 2020, the consolidated net assets of all levels of Liechtenstein (central government, local government, social security funds) amounted to CHF 9.4 billion (2019: CHF 8.6 billion), i.e. about CHF 240'000 per inhabitant. By comparison, the total net assets of all government sub-sectors in Switzer-land amounted to about CHF 43'000 per inhabitant in 2020.



Net lending/net borrowing in relation to GDP

Net public lending/borrowing 2020 (in % of GDP)

Data source: OSL (Government finance statistics).

Liechtenstein's consolidated net lending/borrowing as a percentage of GDP (central government, local government, social security funds) amounted to +7.8% in 2020 (2019: +3.7%). In an EU/EFTA comparison, this makes Liechtenstein the only country to have a positive balance in 2020.

References

- Brunhart, A. and B. Büchel (2016): "Das verfügbare Einkommen in Liechtenstein im Vergleich mit der Schweiz". Study commission by the Liechtenstein Government (Ministry for Social Affairs), Liechtenstein Institute.
- Brunhart, A. and M. Geiger (2019): "Entwicklung des liechtensteinischen Aussenhandels seit der Finanzkrise". LI Focus (1/2019), Liechtenstein Institute.
- Marxer, W. and Z. T. Pállinger (2009): "Die politischen Systeme Andorras, Liechtensteins, Monacos, San Marinos und des Vatikan". In: Ismayr, W. (ed.): Die politischen Systeme Westeuropas. Wiesbaden: VS Verlag für Sozialwissenschaften, pp. 901–955.

List of abbreviations

BICRA	Banking Industry Country Risk Assessment (S&P)
CHF	Swiss franc
CIA	Central Intelligence Agency
CPI	Swiss Consumer Price Index
Destatis	Federal Statistical Office of Germany
EBT	Earnings before taxes
EEA	European Economic Area
EU	European Union
Eurostat	Statistical Office of the European Union
FCA	Swiss Federal Customs Administration
FFA	Swiss Federal Finance Administration
FMA	Financial Market Authority Liechtenstein
FSO	Swiss Federal Statistical Office
FTE	Full-time equivalents
GDP	Gross domestic product
GNI	Gross national income (formerly gross national product)
IMF	International Monetary Fund
LBA	Liechtenstein Bankers Association
LCCI	Liechtenstein Chamber of Commerce and Industry
LGT	Liechtenstein Global Trust
LLB	Liechtensteinische Landesbank
NOGA	General Classification of Economic Activities
OASI	Old-Age and Survivors's Insurance
OECD	Organisation for Economic Co-operation and Development
OSL	Office of Statistics Liechtenstein
SECO	Swiss State Secretariat for Economic Affairs
SNB	Swiss National Bank
STATEC	National Institute of statistics and economic studies of Luxembourg
S&P	Standard & Poor's
UN	United Nations
USA	United States of America
VPB	Verwaltungs- und Privatbank



Compiled by the Liechtenstein Institute, commissioned by the Government of the Principality of Liechtenstein.

Author:

Dr. Andreas Brunhart andreas.brunhart@liechtenstein-institut.li

Assistant: Miriam Prater, BSc

Editor:

Regierung des Fürstentums Liechtenstein

Peter-Kaiser-Platz 1 9490 Vaduz +423 236 61 11

office@regierung.li www.regierung.li