GOVERNMENT
OF THE PRINCIPALITY OF LIECHTENSTEIN

Economic and financial data on Liechtenstein

Data as of: 30 April 2018

Vaduz, 24th May 2018

Contents

Introduction [1]

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, and in part also from estimates by the Liechtenstein Institute.

300 years of the Principality of Liechtenstein

In 2019, the Principality of Liechtenstein will celebrate 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, this step had a very 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 text draw on Marxer et al. (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. Direct-democratic 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.

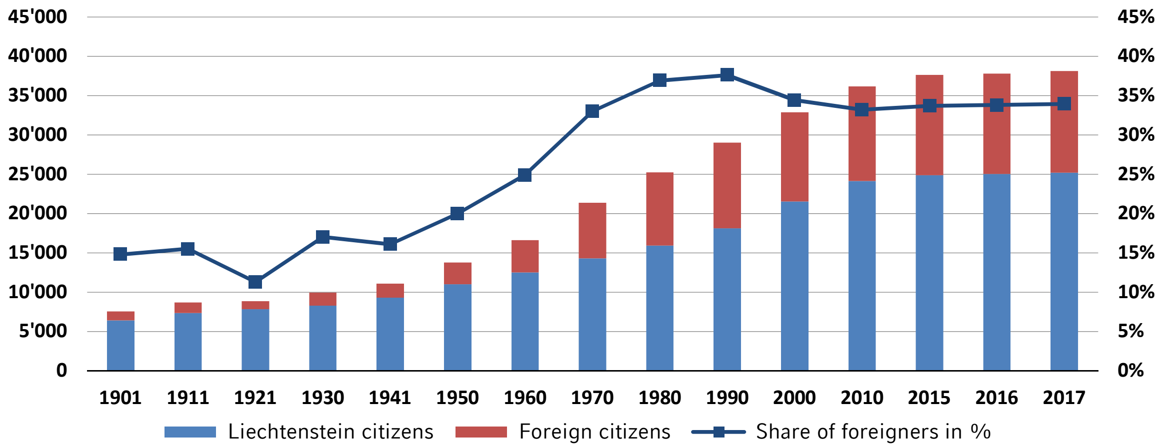
International relations

Liechtenstein pursues an active foreign policy, which is reflected above all in the close relations with its neighbouring countries of 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

In 2017, the permanent population in the 11 municipalities of Liechtenstein increased by 301 persons or 0.8%, reaching 38,111 on 31 December 2017. Liechtenstein thus has a population density of about 238 inhabitants per km^2.



Data source: OSL (Liechtenstein in Figures).

The share of foreigners was 33.9% at the end of 2017. The majority of foreigners residing in Liechtenstein come from Switzerland (28.2% of foreigners), followed by Austria (17.2%) and Germany (12.6%). Other countries with an above-average number of Liechtenstein residents are Italy (9.1%), Portugal (5.5%), and Turkey (4.6%). 68.6% of Liechtenstein's population is between 15 and 64 years of age, compared to 14.9% age 0 to 14 and 16.5% age 65 or more. Liechtenstein's age structure is thus similar to the EU average reported by Eurostat (age 0-14: 15.6%; age 15-64: 65.3%; age 65 or more: 19.2%).

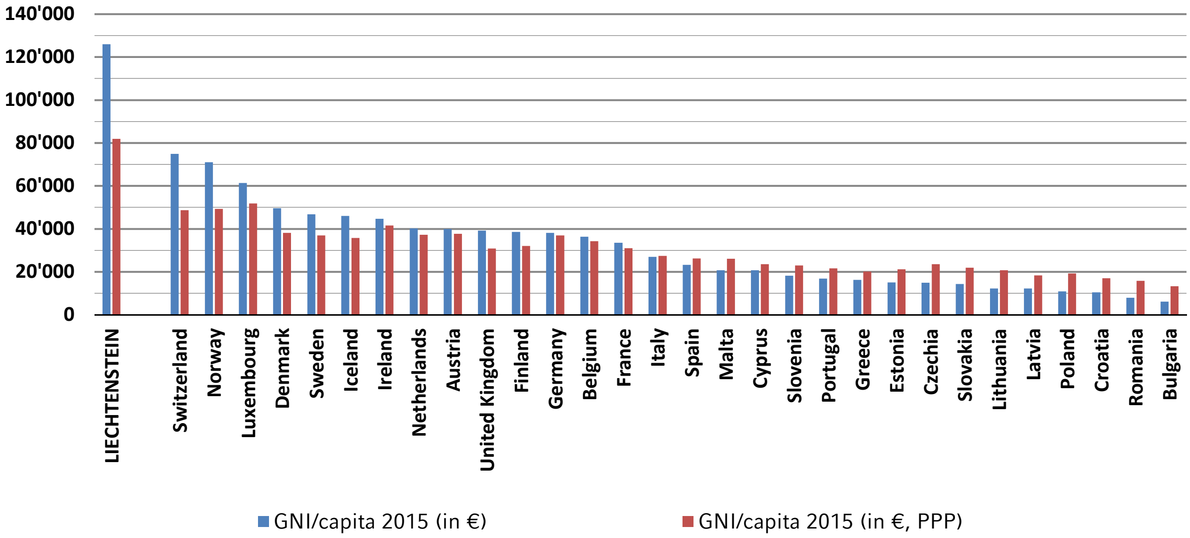
Location of Liechtenstein

Liechtenstein's territory today covers an area of 160 km^2, 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), Eurostat, Statistics Iceland, UN National Accounts Main Aggregates Database. Calculation of GNI adjusted for purchasing power (Liechtenstein Institute) based on Eurostat purchasing power standards.

By a considerable margin, Liechtenstein's inhabitants have the highest level of prosperity in Europe in terms of gross national income per capita (income from work and assets of private households, companies, and the public sector) at nearly EUR 126,000 in 2015. This is also true when the high price level in Liechtenstein is taken into account by adjusting for purchasing power.

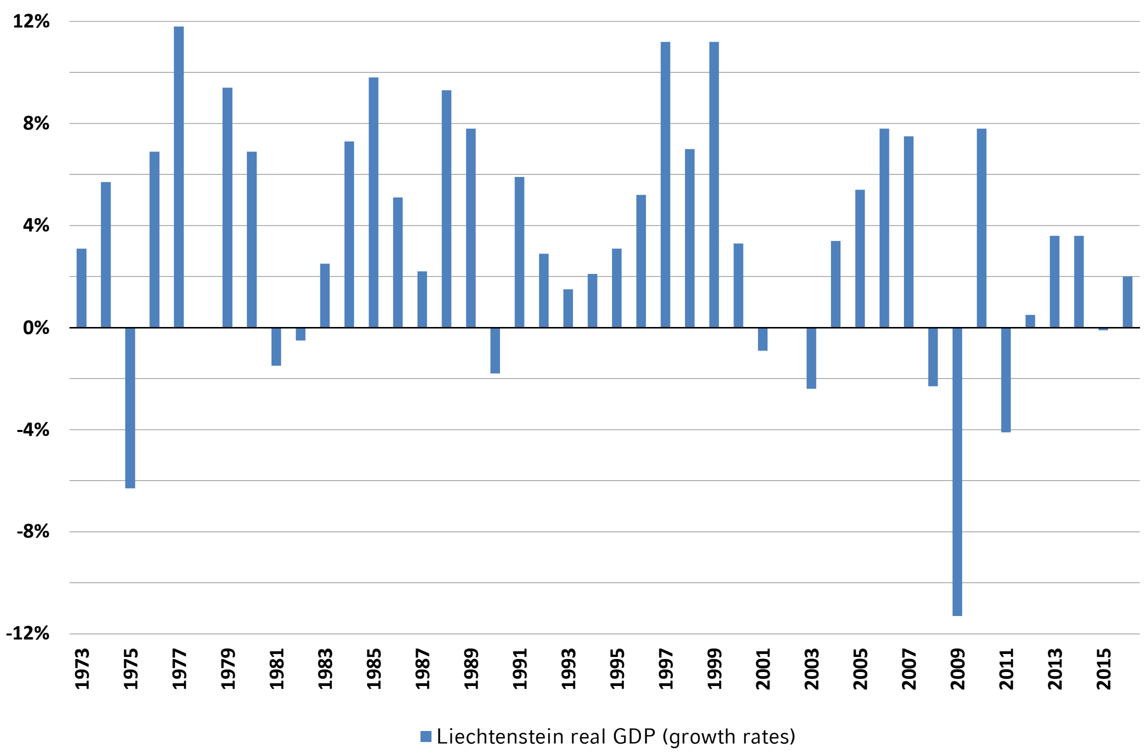
Population, employment, GDP/capita, productivity

2016	Liechtenstein	Switzerland	Austria	Germany	Luxembourg
Gross domestic product (CHF billion)	6.1	659	385	3,427	58
Population (31 Dec)	37,810	8,419,550	8,722,865	82,521,653	590,667
Employees (annual average)	37,104	4,899,550	4,220,300	43,638,000	418,400
Full-time equivalents (annual average)	31,861	3,829,823			
GDP/capita (population)	162,364	78,268	44,148	41,529	97,814
Productivity (GDP/employees)	165,454	134,498	91,248	78,534	138,086
Productivity (GDP/FTE)	192,681	172,065			

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 for GDP, population, employment, exchange rates: OSL (GDP Estimate, Statistical Yearbook), FSO (National Accounts, Employment Statistics), SNB, Statistik Austria, Destatis, STATEC, Eurostat. See Brunhart (2015), Von Stokar et al. (2016), and Kellermann and Schlag (2016) on Liechtenstein's productivity development.

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

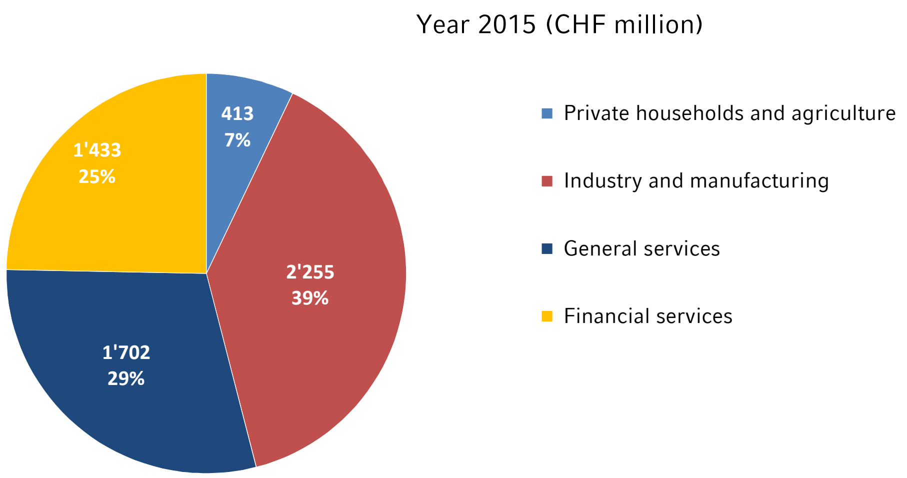
GDP growth rate (adjusted for inflation) since 1972



Data sources for GDP: approximative structural break adjustment from ESA 1995 to ESA 2010 (Liechtenstein Institute) based on OSL (Statistical Yearbook) and Brunhart (2013), price adjustment of GDP (Liechtenstein Institute) based on GDP deflator for Switzerland (FSO).
Data source for GNI: approximative 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). See Brunhart (2015) and Von Stokar et al. (2016) on the divergent development of GDP/GNI.

Liechtenstein's price-adjusted GDP growth in 2016 was 2.0% (2015: –0.1%). Compared with real GDP in 1972, Liechtenstein's economic output roughly quadrupled by 2016. In Austria, Germany, and Switzerland it slightly more than doubled in the same period. The average price-adjusted Liechtenstein GDP growth rate for that period was a very high 3.3%. Liechtenstein's economy has largely overcome the recent economic downturn and is recovering across the board from the financial crisis, the subsequent low international demand, the reforms in the financial centre, and the various appreciation shocks of the Swiss franc. After sharp declines following the financial crisis, price-adjusted GDP almost reached the level before the financial crisis (2007) again in 2016. Since the turn of the millennium, it has been observed that gross domestic product (domestic value added) and gross national income (income of Liechtenstein residents) are diverging. The trend in price-adjusted GNI has tended to stagnate since then: In 2015, it was comparable to 2000 (even lower per capita) and still significantly below 2007. In Liechtenstein, GNI tends to be smaller than GDP because the high share of cross-border commuters in total employment tends to entail that a large proportion of labour income generated in Liechtenstein flows abroad, more than compensating for the usual surplus of net cross-border capital income. While between 1998 and 2000, GNI and GDP in Liechtenstein were still about the same, i.e. the two effects just described were still more or less balanced, GNI then grew more slowly than GDP on average, mainly due to the continued strong growth in the number of cross-border commuters.

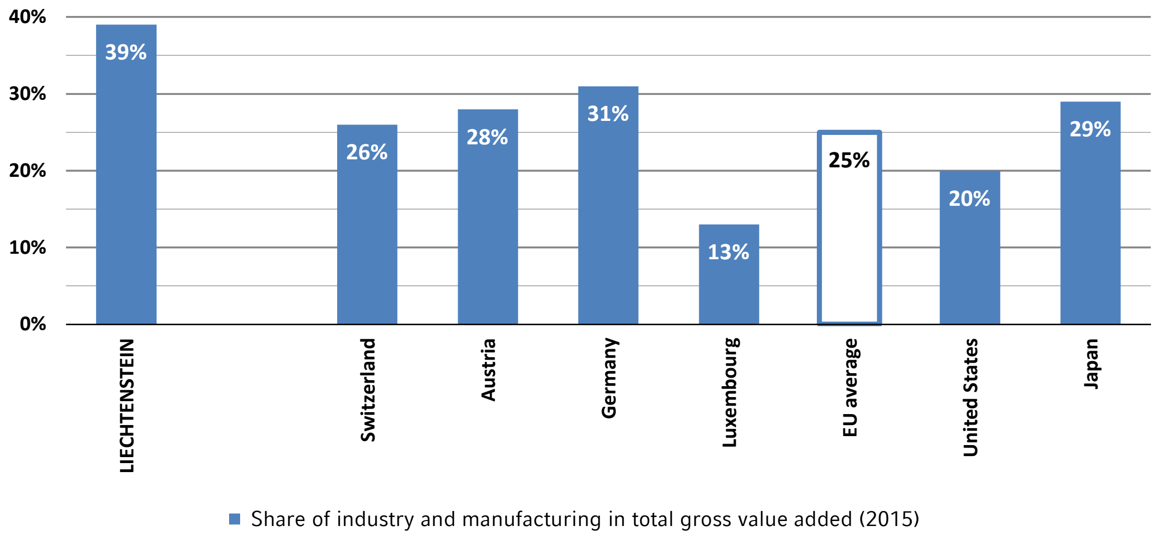
Gross value added by economic activity



Data source: OSL (National Accounts)

With CHF 2.3 billion in gross value added, the economic sector of industry and manufacturing had the highest share of Liechtenstein GDP in 2015, followed by general services (CHF 1.7 billion) and financial services (CHF 1.4 billion). In the economic sector of private households and agriculture, private rental income plays a very important role in terms of value added. The value-added share of general services has risen continuously since 1998 from 23% to almost 30% today. The sectoral share of industry and manufacturing was below the long-term average of slightly more than 40% in 2015, mainly due to the discontinuation of the SNB minimum CHF/EUR exchange rate target. The value-added share of the financial services sector was about 25% between 2010 and 2015; while in some years (1999, 2007, and 2008) it even exceeded 30%, it is still very high by international standards. Productivity, i.e. gross value added in relation to full-time equivalent employment, amounted to CHF 283,261 for financial services, CHF 139,277 for general services, and CHF 165,826 for industry and manufacturing in 2015.

Share of gross value added, industry and manufacturing



Data source: OSL (National Accounts), Eurostat.

Despite the important financial services sector, the value-added share of Liechtenstein's industry (including manufacturing), at 39%, is extraordinarily high by international standards in 2015 and is, for example, significantly higher than in Switzerland, Austria, Germany, Luxembourg, the EU average (25%), the United States, and Japan.

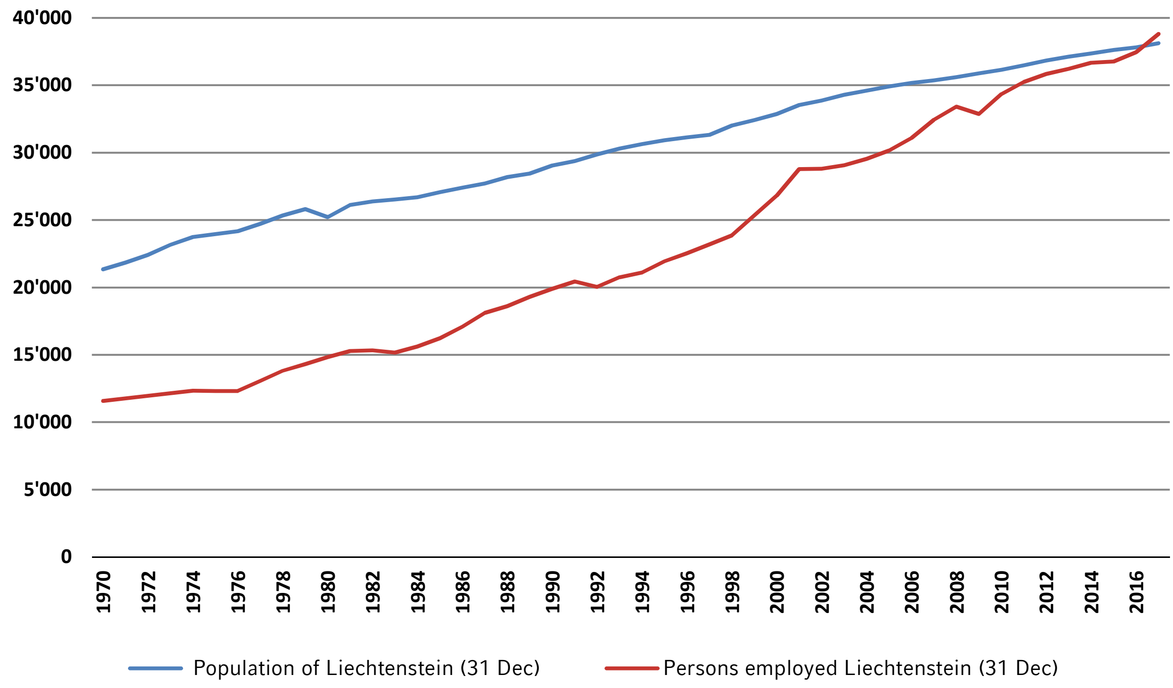
Enterprise and employment structure

Enterprises and employees by company size (2016)	1 to 9 employees		10 to 49 employees		50 to 249 employees		250+ employees	
	Enterprises	Employees	Enterprises	Employees	Enterprises	Employees	Enterprises	Employees
Agriculture	101	207	2	31	0	0	0	0
Industry/ manufacturing	435	1,200	123	2,395	27	2,810	8	8,088
General services	2,928	6,142	210	4,283	51	4,736	5	2,519
Financial services	561	1,573	103	1,988	9	697	4	2,088

Data source: OSL (Employment Statistics)

At the end of 2016, the 17 largest companies in Liechtenstein employed 12,695 people (approx. 33% of the total workforce). However, Liechtenstein's national economy is also heavily shaped by small and medium-sized enterprises: About 88% of the 4,567 enterprises in Liechtenstein have 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 every eight inhabitants. The figure is about 14 in Switzerland and about 24 in Germany. The number of enterprises in Liechtenstein has more than doubled in the last 20 years.

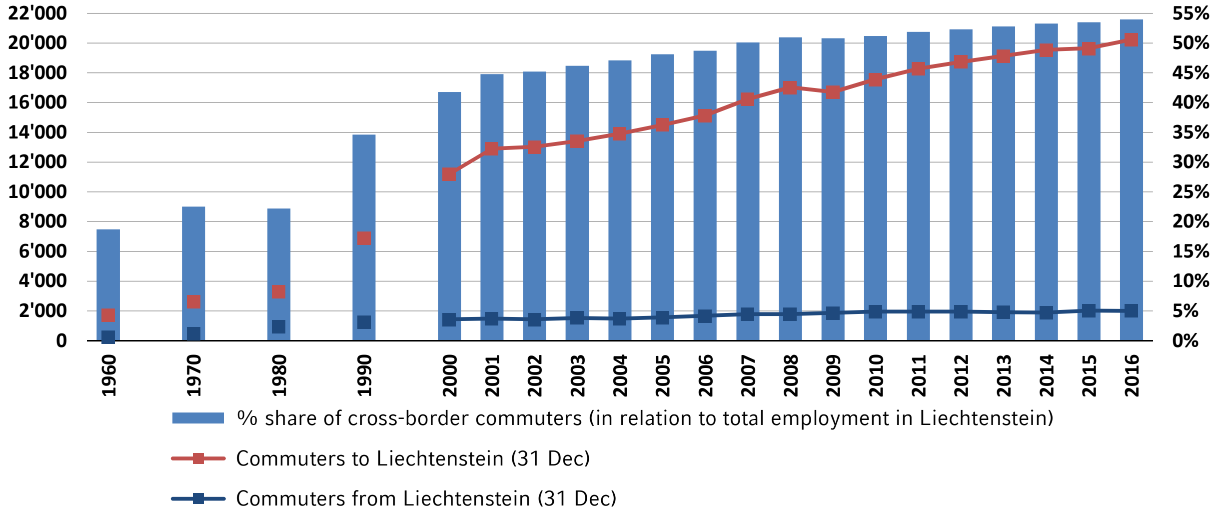
Population and employment since 1970



Data source: OSL (Statistical Yearbook)

The population of Liechtenstein almost doubled between 1970 and 2017 to 38,111. Over the same period, the number of persons employed in Liechtenstein more than tripled to 38,810, i.e. there are now about as many employees as there are 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, with a ratio of 101.8%. In comparison, this ratio in 2016 was 54.7% in Switzerland, 48.1% in Austria, 53.1% in Germany, and 68.7% in Luxembourg. Employment has tended to increase even during the years of the financial, euro, and debt crises as well as during the strong Swiss franc, and it was almost unaffected by the sharp drops in GDP in certain years. This is less due to the labour force participation of domestic residents (in 2015, the labour force participation rate was 73.7% in Liechtenstein, 83.8% in Switzerland, and 70.1% in the EU), but rather primarily due to the sharp increase in cross-border commuters to Liechtenstein.

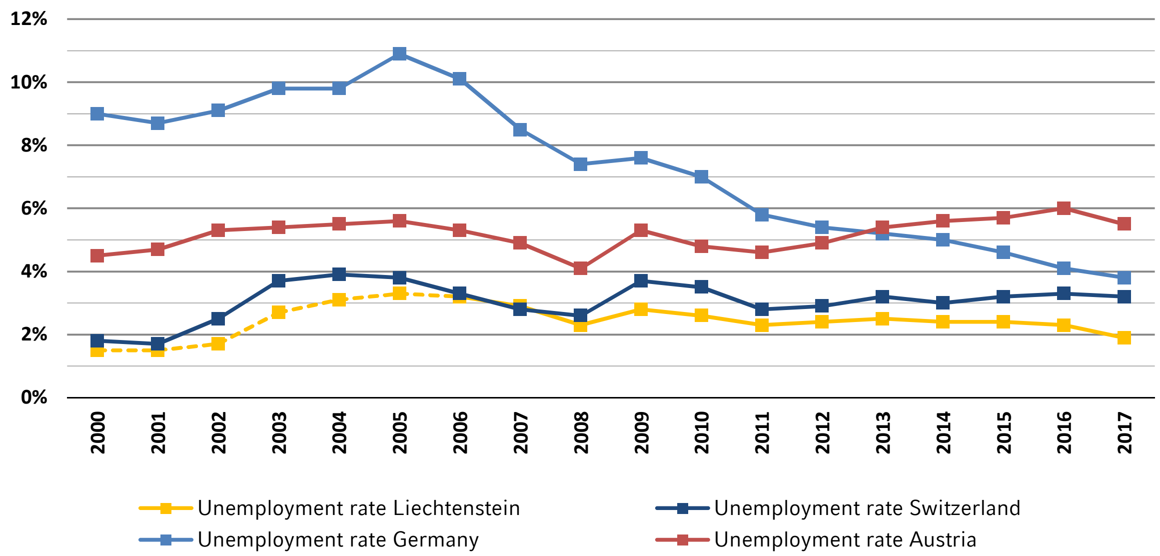
Cross-border commuters to and from Liechtenstein since 1960



Data source: OSL (Employment Statistics), approximative structural break adjustment for cross-border commuters from Liechtenstein before 2011 (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 6,885 in 1990 and 11,192 in 2000 to 20,239 in 2016 (2015: 19,652). The share of commuters to Liechtenstein has also increased in relation to total employment in Liechtenstein, both in industry and in services. In 2016, 54% of cross-border commuters to Liechtenstein came from Switzerland and 42% from Austria. EEA nationals living in Switzerland and commuting to Liechtenstein have increased disproportionately over the last 15 years, mainly due to the introduction of the free movement of persons under bilateral agreements between Switzerland and the EU.

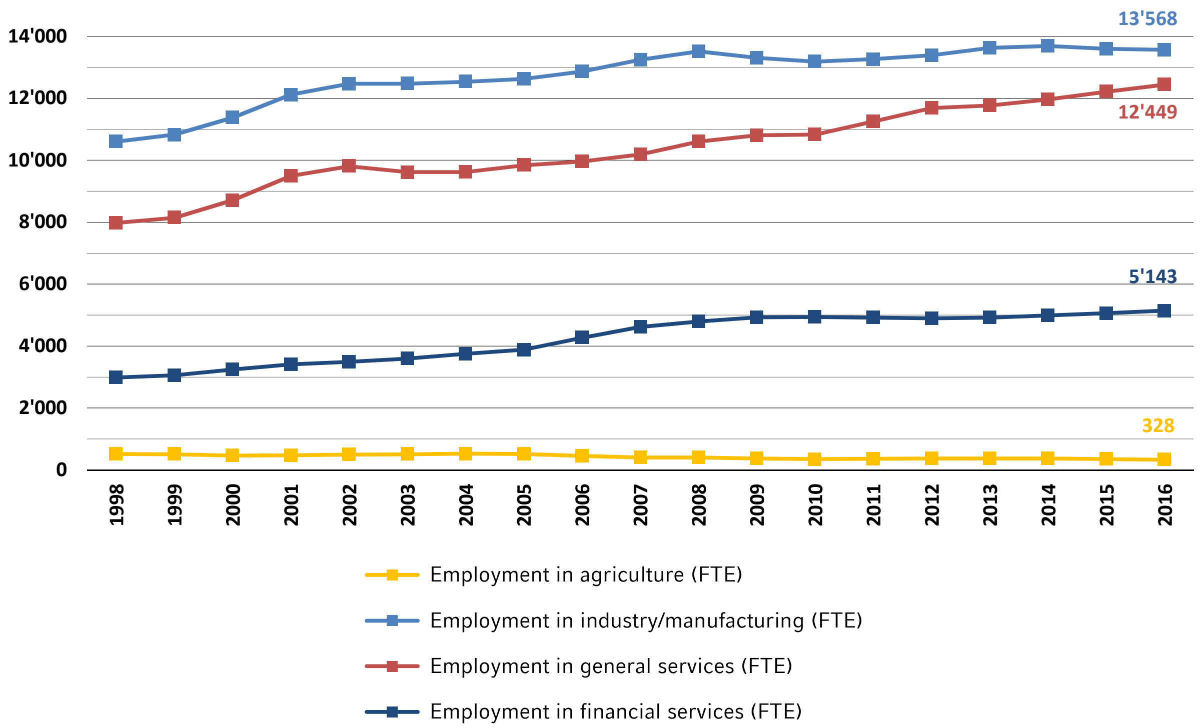
Unemployment rate since 2000



Data source: OSL, FSO, Statistik Austria, Destatis, approximative estimate of Liechtenstein unemployment rate before 2006 (Liechtenstein Institute).

Unemployment in Liechtenstein is traditionally low, has been declining again for the last ten years, and was clearly the lowest in Europe at 1.9% in 2017 (Iceland 2.8%, Austria 5.5%, Germany 5.7%, Switzerland 3.2%, EU average 7.7%). Youth unemployment in Liechtenstein is also very low at 3.1% in 2015 (Switzerland 3.3%, Austria 10.6%).

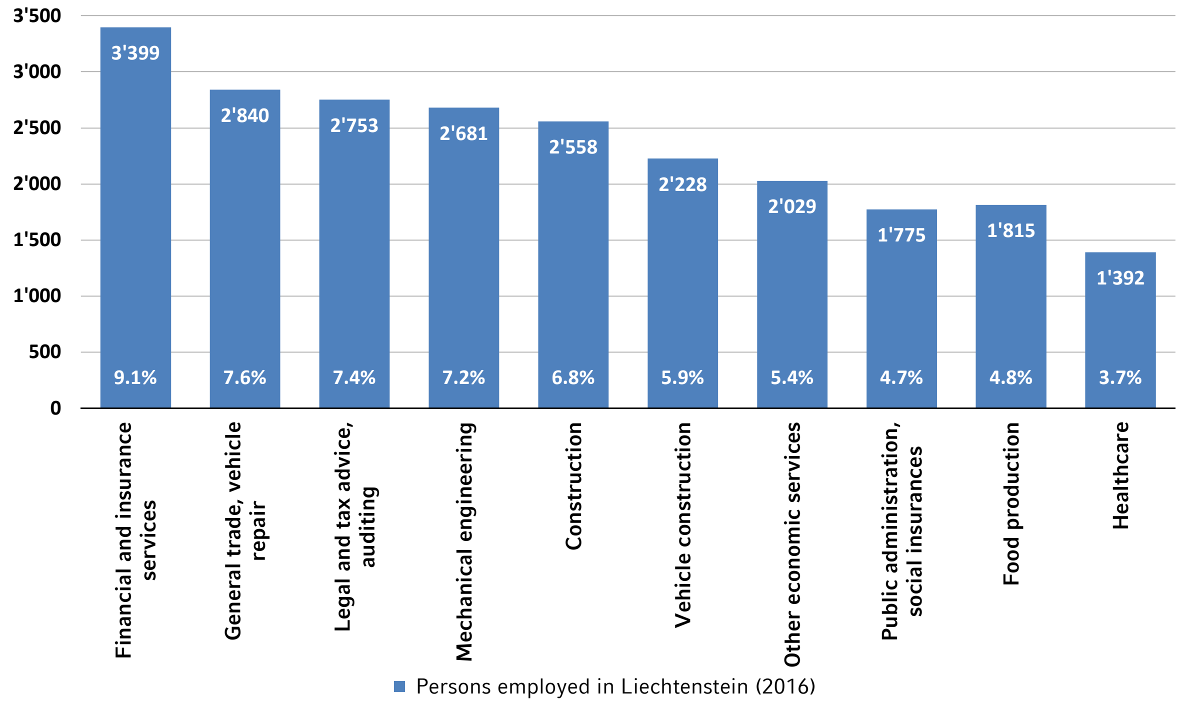
Employment (full-time equivalents) by economic sector



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

In contrast to most developed countries, no "tertiarisation" has been observed so far in Liechtenstein: Although the share of employment in the industrial and manufacturing sector tends to decline, it was still very high at an annual average of 43% in 2016, followed by general services at 40%, financial services at 16%, and agriculture at 1%. In absolute terms, employment in the industrial sector is still rising (annual average of 13,568 full-time equivalents in 2016). Employment momentum in the financial services sector has slowed noticeably since 2009, in contrast to general services.

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 a (very) 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 2016.

Persons employed by economic sector

Employed persons (2016)	Agriculture	Industry and manufacturing	General services	Financial services
Liechtenstein	0.7%	37.9%	45.0%	16.4%
Switzerland	3.2%	21.1%	69.4%	6.4%
Austria	4.4%	25.6%	70.1%	
Germany	1.4%	24.2%	74.4%	
Luxembourg	0.9%	18.9%	62.9%	17.2%

Data source: OSL (Employment Statistics), FSO (Job Statistics, Employment Statistics), STATEC.

As with gross value added, the relative importance of the industrial and manufacturing sector in Liechtenstein's employment is also clear when compared internationally. The breakdown within the services sector (general services versus financial services) is also unusual in Liechtenstein, given that a large number of people work in the financial services sub-sector: Specifically, about 16.4% of the total number of persons employed in Liechtenstein in 2016 worked in financial services, while the figure was "only" 6.4% in Switzerland. Luxembourg is also a special case here, with an even higher share of 17.2% working in financial services in 2016.

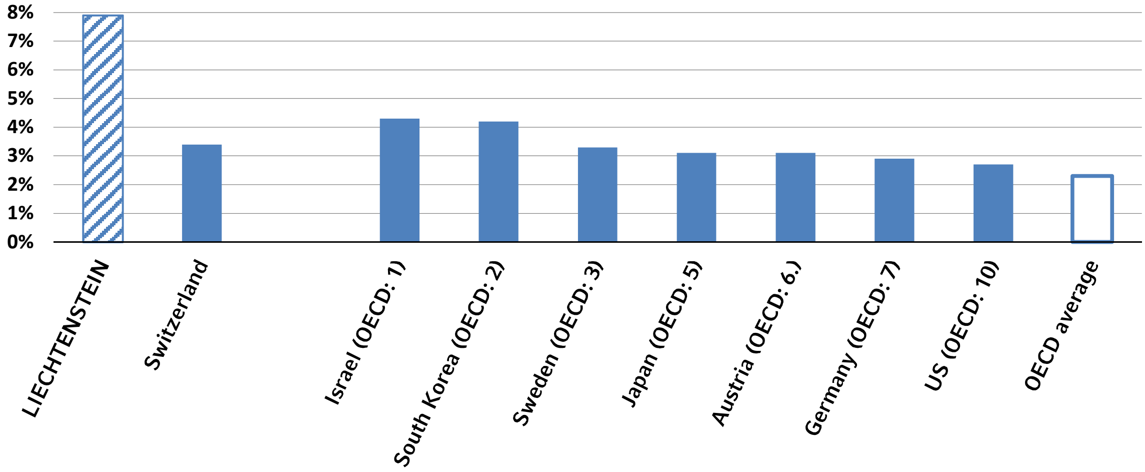
Employees of Liechtenstein companies at home and abroad

Employment (2016)	Liechtenstein	Abroad
LCCI industrial companies (number of employees)	9,981	49,981
Liechtenstein banks (FTE employees)	2,313	2,307

LCCI employment: foreign branches, majority-owned or under management control of LCCI industrial companies.
Data source: LCCI (Statistics Report), FMA (Liechtenstein Financial Market).

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 2016. In 2007, Liechtenstein banks had 2,035 employees abroad (compared to 1,946 in Liechtenstein); in 2016 this figure was 2,307 (2,313 in Liechtenstein).

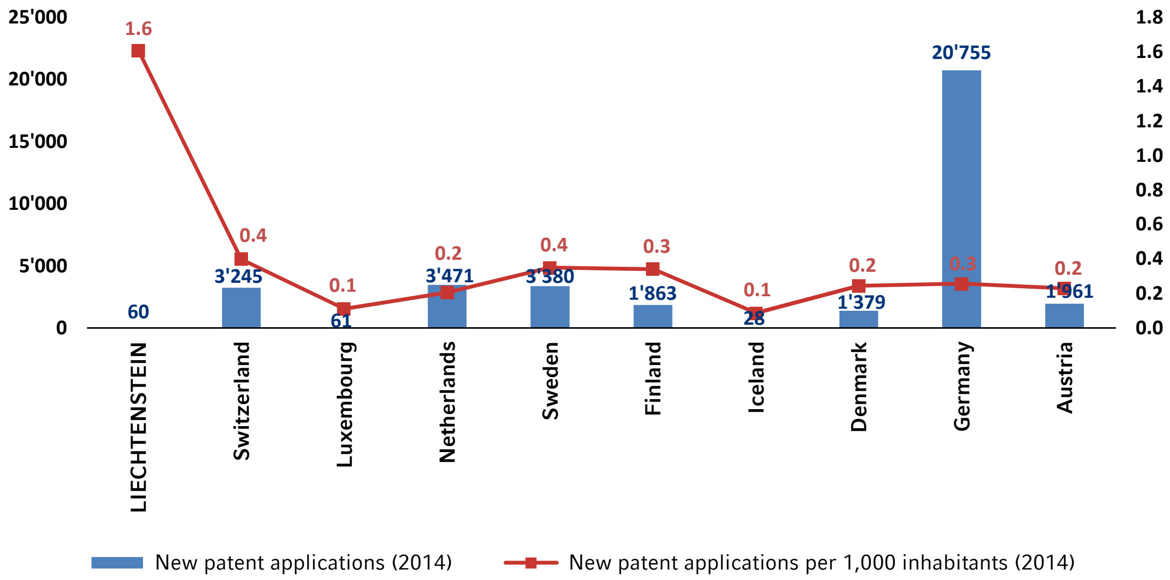
Research and development spending



Data source for research and development spending in relation to GDP: OECD, LCCI, FSO. Public spending on research and development: Kellermann and Schlag (2012), Prange (2011). GDP: OSL (National Accounts)

In 2016, research and development spending by industrial member companies of the Liechtenstein Chamber of Commerce and Industry (LCCI) amounted to CHF 485 million, corresponding to 7.9% of Liechtenstein GDP. Significantly more than half of this is probably attributable to Liechtenstein, since almost 60% of the LCCI's research and development employees work in Liechtenstein. Unfortunately, there is no research and development data for all companies in Liechtenstein. However, taking into account the LCCI data (and the domestic share of LCCI employment in research) and the fact that LCCI member companies account for only slightly more than half of total industrial employment in Liechtenstein, it can plausibly be concluded that Liechtenstein is ahead of the three OECD countries with the highest share of research spending in relation to GDP – Israel (4.3%), South Korea (4.2%), and Sweden (3.3%) – and also ahead of Austria (3.1%), Germany (2.9%), Japan (3.1%), the OECD average (2.3%), and Switzerland (2015: 3.4%). In Liechtenstein, research and development spending is almost exclusively in the private sector (especially industry and manufacturing). According to estimates, public spending on research and development was about 1% of all research and development spending in 2003 and 2008 (in Switzerland in 2015 about 27%, EU average of 35%).

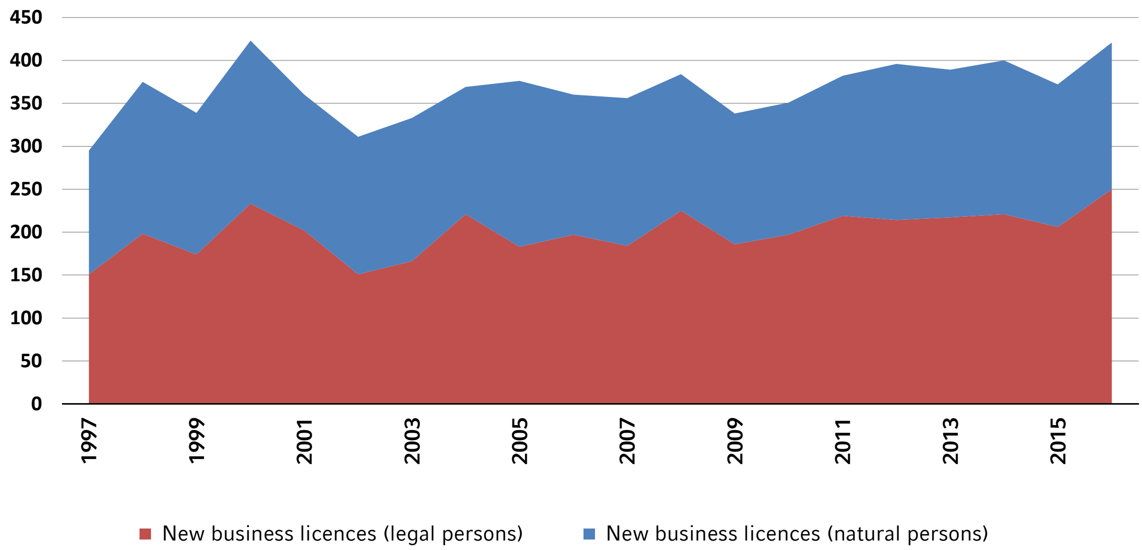
Patent applications in relation to the population



Patents weighted by number of countries involved: For example, where individuals or companies from three different countries are involved in a patent, each country is allocated 1/3 of the patent.
Data source: Eurostat.

Liechtenstein's economy is extraordinarily innovative. The 60 new patent applications (weighted by the number of countries of origin involved) in 2014 correspond to 1.6 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 370 new companies have been established in Liechtenstein since 1997. The trend has been rising for several years, among both natural persons and legal persons. In 2016, 3,400 of the 4,567 companies in Liechtenstein were subject to the Business Act; of these 3,400 business licences, 1,054 were for sole proprietorships.

Prices, interest rates, and exchange rates since 2000

	Inflation rate	Interest rates		Exchange rates		
	Consumer prices (CPI)	Sight deposits	Medium-term notes (7-8 years)	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%			1.11	1.27	0.98

Data source: FSO (Swiss Consumer Price Index), OSL (Banking Statistics), SNB

Pursuant to the Currency Treaty with Switzerland, the Swiss franc is the legal tender in Liechtenstein. The interest rate level is influenced strongly 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 since the financial crisis. The Swiss franc has appreciated significantly against the major currencies since the turn of the millennium, especially in the wake of the financial crisis and the discontinuation of the SNB's minimum exchange rate target against the euro at the beginning of 2015. But there have been signs of a slight turnaround against the euro since 2016 (already since 2011 against the US dollar).

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 Swiss Consumer Price Index (FSO).

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, income has returned to its original growth path, also in per capita figures.

Gross monthly wages since 2006 (adjusted for inflation, base year 2014)

Data source: OSL (Wage Statistics, Tax Statistics)

In 2014, the effective gross monthly wage (median) of persons employed in Liechtenstein was CHF 6,522, compared with CHF 6,427 in Switzerland and CHF 3,765 in Austria. After 2008, wages in Liechtenstein stagnated for a long time. During that period, Switzerland was able to overtake Liechtenstein in this respect. The strong wage increase in 2014 – price-adjusted wages are meanwhile higher than they were in 2008 – has again caused the median wage in Liechtenstein to exceed that 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 for the first time earned more than the working resident population in Liechtenstein. In 2015, the median taxed net assets of Liechtenstein residents amounted to CHF 35,232 per capita (average CHF 417,829 per capita) and CHF 96,786 per household (average CHF 811,085 per household).

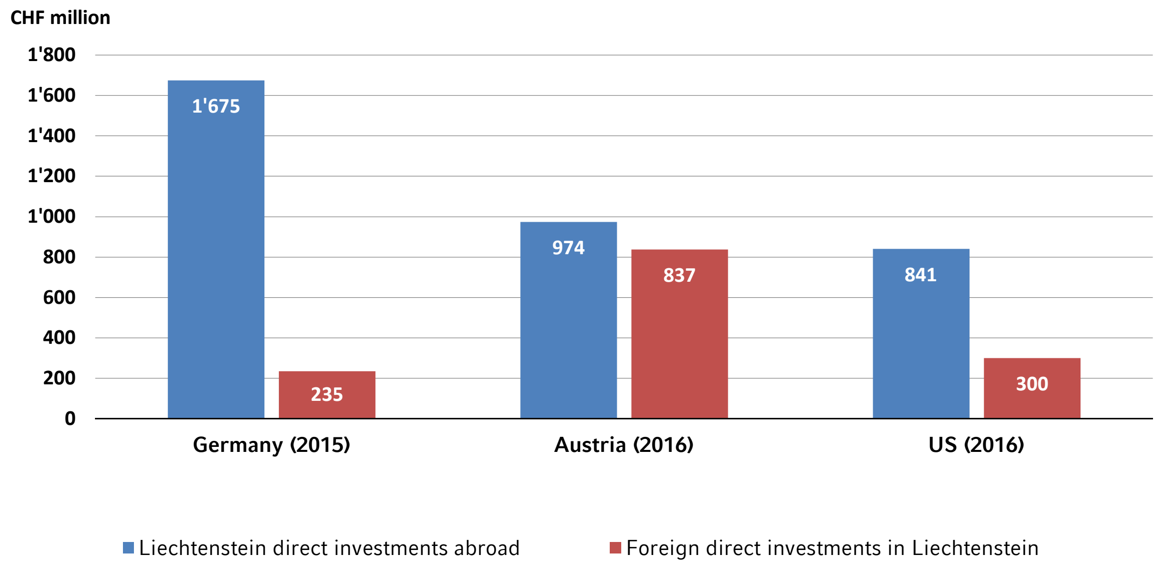
Average disposable income, 2013

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.	Genf GE	45.2%
13.	Glarus GL	50.3%	28.	Zürich ZH	42.9%
14.	Appenzell AI	50.2%	29.	Basel BS	42.5%
15.	Maienfeld GR	48.7%			

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 averages 59% of the generated market income, while that of Swiss municipalities averages 44%. This applies 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

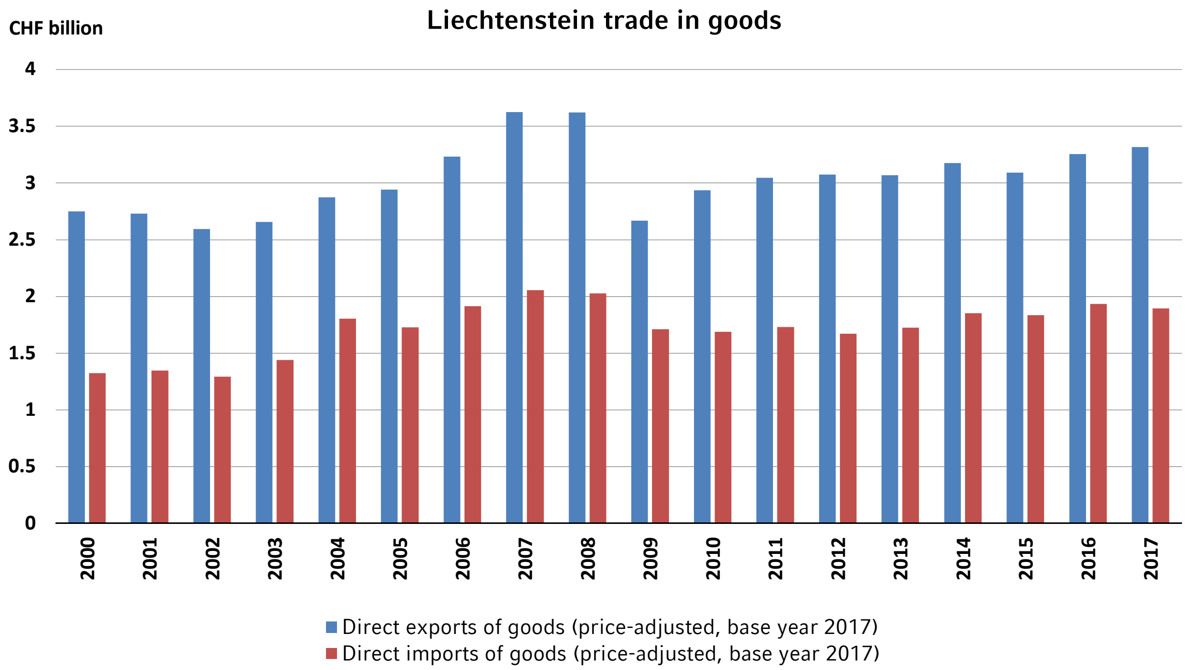


The most important types of foreign assets (also referred to as foreign investments) are direct investments and portfolio investments. While portfolio investments are monetary or financial investments abroad, direct investments represent long-term investments by companies, individuals, or other economic 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 Austria, Germany, the United Kingdom, and the United States, for instance, some important data on foreign assets and especially direct investments is available. Accordingly, Liechtenstein's direct investments (households, companies, public sector) in Germany amounted to CHF 1.7 billion in 2015, in Austria to CHF 1.1 billion in 2016, and in the United States to CHF 0.8 billion in 2016. Conversely, the direct investments of those countries in Liechtenstein are significantly lower. The Bank of England makes figures on its total foreign assets (direct investments, portfolio investments, and other asset investments) available with respect to Liechtenstein: In 2016, Liechtenstein's inhabitants and companies had CHF 7 billion in foreign assets in the United Kingdom, while the United Kingdom had CHF 0.9 billion in Liechtenstein. In other countries, Liechtenstein's pattern is probably similar to that in the four countries mentioned above.

Industry and manufacturing

Price-adjusted development of exports and imports of goods



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), FCA (IMPEX), price adjustment (Liechtenstein Institute) based on Swiss export price index and import price index (SECO).

Liechtenstein's direct exports and imports of goods (excluding trade in goods with Switzerland) collapsed dramatically in the wake of the financial crisis, after having risen strongly for decades, and they have recovered only gradually since – mainly due to the continued strength of the Swiss franc. Nevertheless, Liechtenstein still has a clear trade surplus in direct exports/imports of goods. In 2017, this figure was a high 75%, while Switzerland's trade surplus in goods amounted to 19%. Direct exports of goods (Total 1) amounted to CHF 3.316 billion in 2017 and grew by a price-adjusted 1.9% compared with the previous year (2016: +5.3%), while imports of goods fell by 2.0% in real terms year-on-year to CHF 1.896 billion in 2017 (2016: +5.5%).

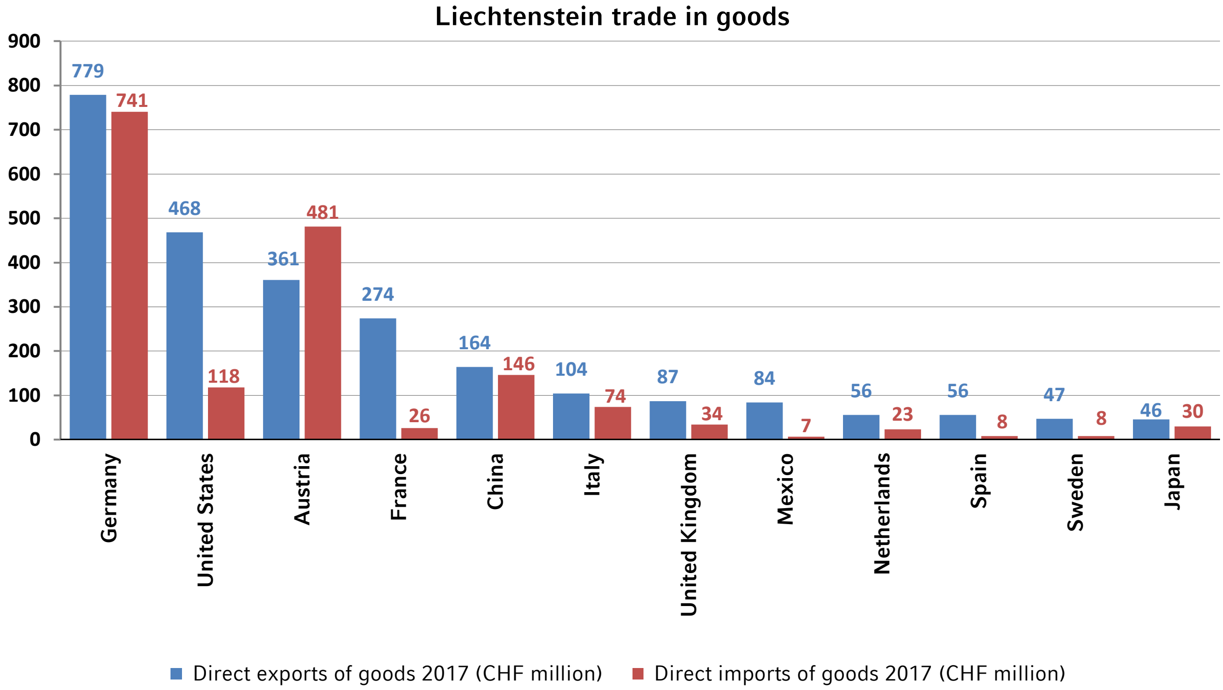
Export and foreign trade ratio

Trade in goods 2016	Liechten-stein	Switzer-land	Austria	Germany	Luxem-bourg	Iceland
Imports of goods (€ billion)	1.8	244.2	142.5	953.8	19.6	5.0
Exports of goods (€ billion)	3.1	273.9	137.4	1,205.5	14.2	4.0
GDP (€ billion)	5.6	604.5	353.3	3,144.1	53.0	18.4
Export ratio	54.7%	45.3%	38.9%	38.3%	26.9%	21.9%
Foreign trade ratio	86.9%	85.7%	79.2%	68.7%	63.9%	49.1%

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 2016, CHF 0.9 billion of CHF 6.7 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 100%. 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 for goods exports/imports, GDP: Eurostat.

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 (Total 2, all product groups) in 2017 amounted to approximately CHF 3.372 billion (2016: CHF 3.355 billion); in relation to GDP, they amounted to 54.7% in 2016. 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 very high by international standards. This is due more to goods exports than imports due to the striking foreign trade surplus.

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), FCA (IMPEX). Data source for foreign trade revenues: LCCI (Statistics Report).

As already shown above, Liechtenstein has a high surplus in 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 171 trading partners compiled by the Federal Customs Administration in 2017 for Liechtenstein was by far Germany, followed by Austria, the United States, France, and China. Unfortunately, the Federal Customs Administration does not provide any figures for trade in goods between Switzerland and Liechtenstein. In terms of foreign sales of LCCI member companies, however, Switzerland ranks third behind Germany and the US. Of the total foreign sales of CHF 6.7 billion, CHF 869 million were attributable to Switzerland.

Direct exports and imports of goods by product group

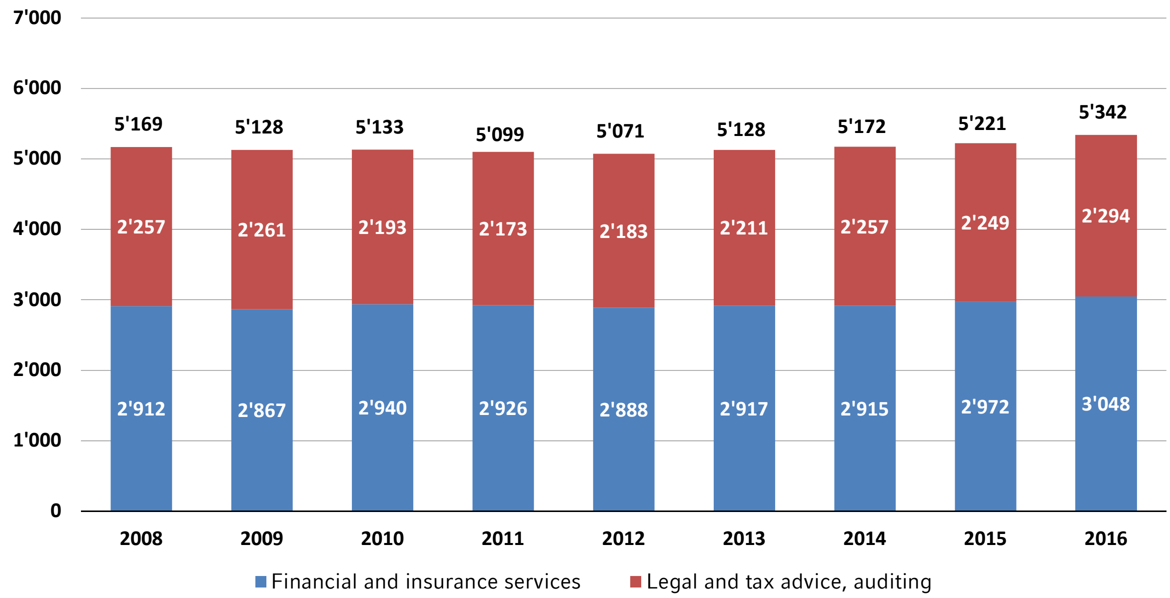
Exports/imports of goods by type and intended use	Direct exports 2017		Direct imports 2017	
	CHF million	Share	CHF million	Share
Type of goods	3'373	100%	2'001	100%
Agricultural/forestry products, fishing	207	6.2%	100	5.0%
Energy sources	8	0.2%	11	0.6%
Textiles, clothing, shoes	3	0.1%	19	1.0%
Paper, stationery, and graphic products	17	0.5%	46	2.3%
Leather, rubber, plastics	79	2.3%	73	3.7%
Chemical-pharmaceutical industry	329	9.8%	117	5.9%
Quarrying	172	5.1%	119	5.9%
Metals	841	24.9%	529	26.5%
Machinery, devices, electronics	764	22.6%	477	23.8%
Vehicles	426	12.6%	136	6.8%
Precision instruments, watches, and jewellery	411	12.2%	205	10.2%
Miscellaneous goods	59	1.7%	63	3.1%
Precious metals, precious and semi-precious stones	48	1.4%	64	3.2%
Works of art and antiques	9	0.3%	42	2.1%
Intended use	3'373	100%	2'001	100%
Raw materials and semi-finished products	1'349	40.0%	722	36.1%
Energy sources	8	0.2%	11	0.6%
Capital goods	1'382	41.0%	849	42.4%
Consumer goods	577	17.1%	314	15.7%
Precious metals, precious and semi-precious stones	48	1.4%	64	3.2%
Works of art and antiques	9	0.3%	42	2.1%

Data source: OSL (Foreign Trade Statistics), FCA (IMPEX)

Clearly the most important product groups for both Liechtenstein's exports and imports in 2017 are "Metals" and "Machinery, devices, electronics," each with a share of about a quarter. Exports and imports of goods consisted mainly of raw materials and semi-finished products as well as capital goods.

Financial services

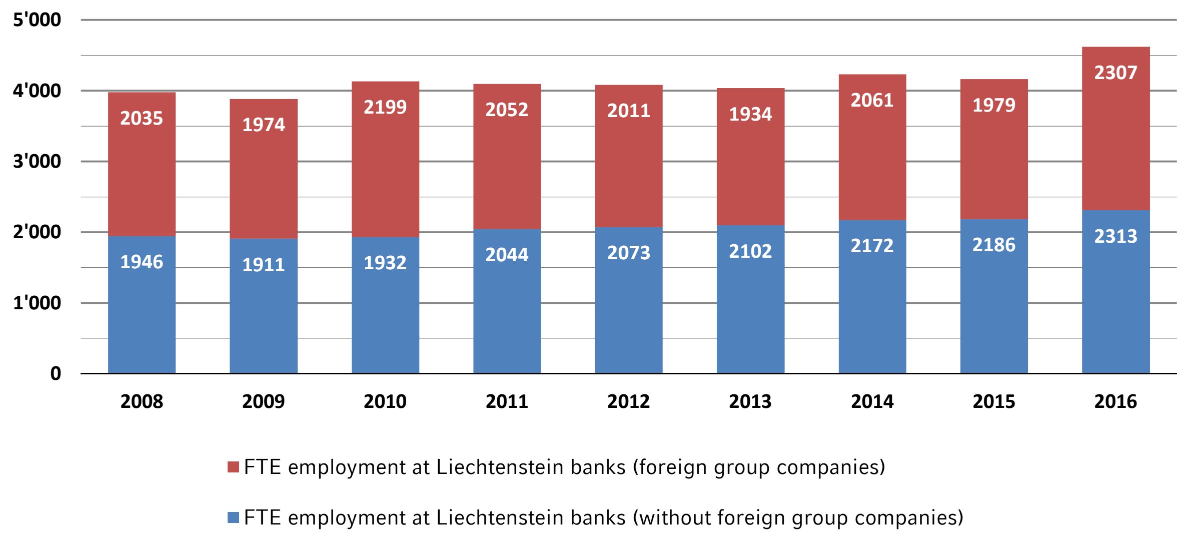
Employees (full-time equivalents) in financial services since 2008



Data source: OSL (Employment Statistics)

Full-time equivalent employment in Liechtenstein's financial services as of the end of the year declined starting in 2009 and began rising again in 2012. The share of financial services employees in total employment in Liechtenstein has remained roughly constant since 2008 (2016: approx. 16%).

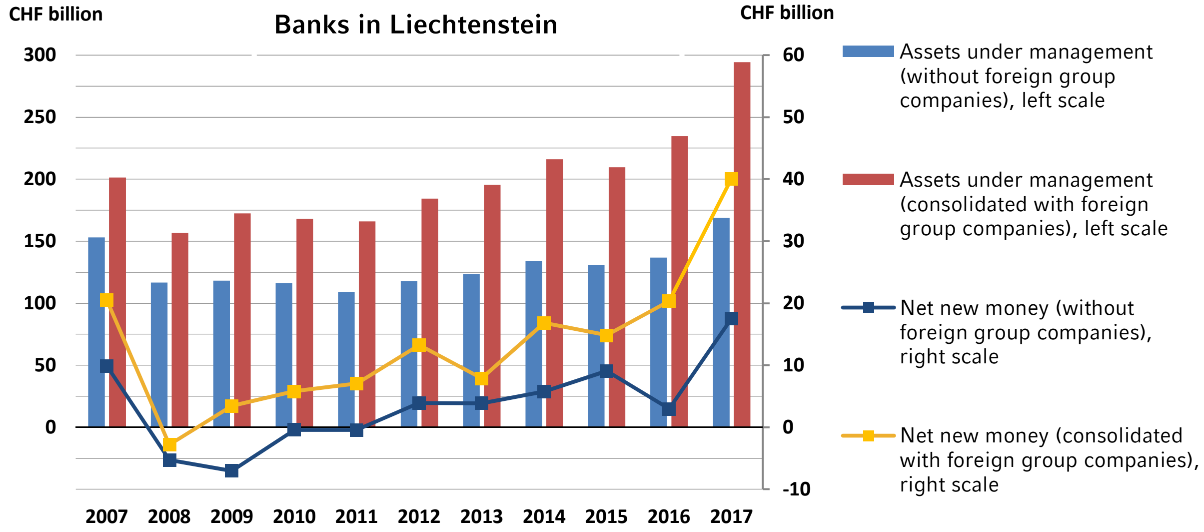
Employment (full-time equivalents) at banks since 2008



Data source: FMA (Liechtenstein Financial Market)

The 14 banking institutions in Liechtenstein had 2,313 employees in Liechtenstein in 2016 (full-time equivalents). Including foreign group companies, the consolidated number of employees was about twice as many (4,620). Employment continued to rise sharply in 2017 to 2,435 full-time equivalents (excluding foreign group companies). Figures for the foreign group companies are not yet available for 2017.

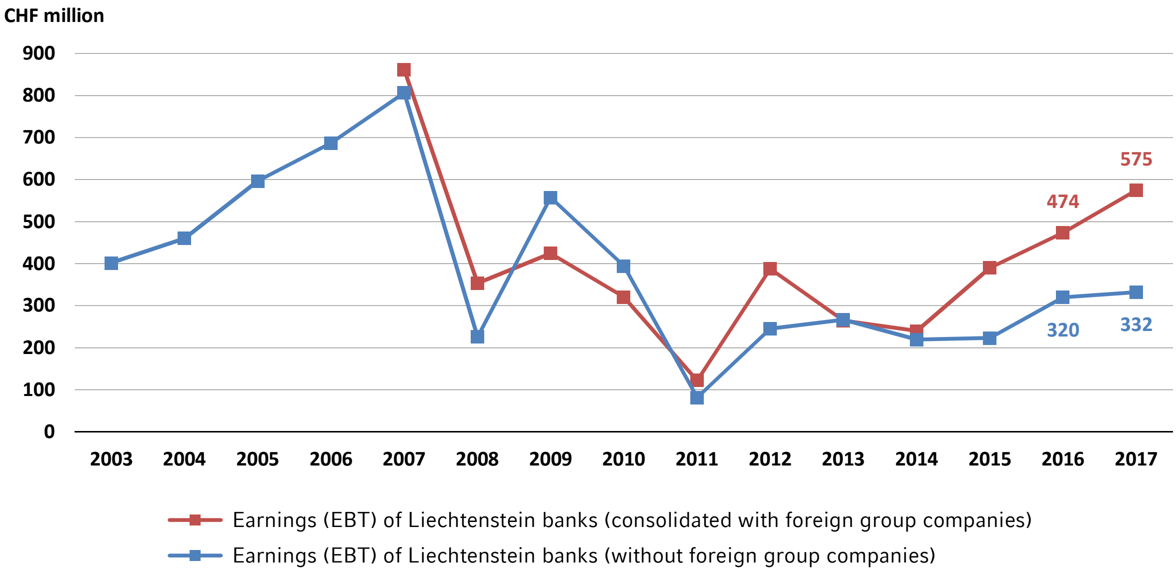
Assets under management and net new money since 2007



Data source: FMA (Liechtenstein Financial Market)

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, but since then they have risen again quite steadily to almost CHF 300 billion (including foreign group companies). Assets under management in Liechtenstein, excluding foreign group companies, also recovered and reached or even exceeded the level of 2007 (at least in nominal terms), amounting to CHF 169 billion in 2017. In 2017, net new money amounted to CHF 40.1 billion (2016: CHF 20.3 billion) including foreign group companies and CHF 17.6 billion (2016: CHF 3.0 billion) excluding them. The positive trend in assets under management and net new money thus seems to be accelerating. 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.

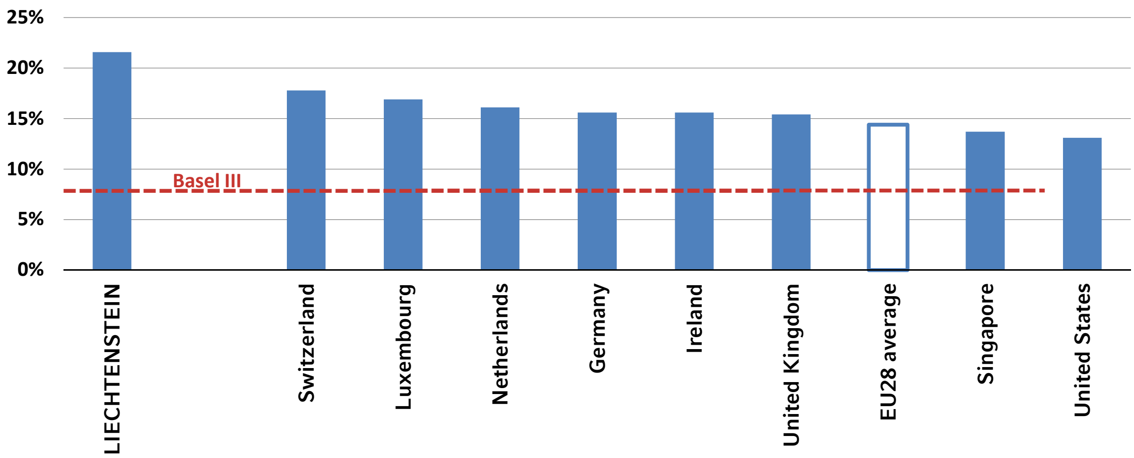
Earnings before taxes (EBT) since 2003



Data source: FMA (Liechtenstein Financial Market), 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 (a burden especially for smaller banks). Since 2011, however, earnings have been gradually recovering.

Tier 1 ratio



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: LBA (The Liechtenstein Banking Centre), FMA (Liechtenstein Financial Market).

Liechtenstein's banks are very strongly capitalised: At the end of 2016, they had an average Tier 1 ratio of a very high 21.6%. This is far above the requirements of Basel III (8%, including supplementary capital) and the EU average (slightly below 15%). This is also true for the leverage ratio, which at 7.5% at the end of 2017 was significantly above the requirements of Basel III (3%). All Liechtenstein banks have a core capital ratio of over 16%, and the non-consolidated cost/income ratio of banks in the Liechtenstein financial centre was 62.2% in 2016 (good for private banking). The country rating of Standard & Poor's (AAA with a stable outlook) and the BICRA rating (risk group 2) underscore the reliability of the Liechtenstein financial sector. This was also evident in the financial crisis, when Liechtenstein banks did not need any support from the State.

Employment in various financial services

Employment in Liechtenstein 2016	Employed persons (31 Dec)
Banks	2'133
Asset management companies	646
Insurance undertakings	649
Legal/tax advice, auditing	2'753

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

In addition to banks, other financial services play an important role: According to figures from the Financial Market Authority, the 109 asset management companies licensed in Liechtenstein with their 664 employees (2016: 646) managed client assets of CHF 40.6 billion in 2017 (2016: CHF 35.1 billion). The 683 Liechtenstein investment funds contained net assets of CHF 53.1 billion in 2017 (2016: CHF 46.0 billion in 695 funds). In 2017, 38 insurance undertakings with an aggregated balance sheet total of CHF 31.1 billion were also active in Liechtenstein with 867 employees (2016: 39 insurance undertakings with a balance sheet total of CHF 28.7 billion and 649 employees). Within the financial services sector in Liechtenstein, the Employment Statistics for 2016 (OSL) show that legal and tax advice as well as auditing play a key role with 2,753 employees in 2016; according to the Banking Statistics (OSL), 2,133 persons worked for banks in 2016.

Public finances

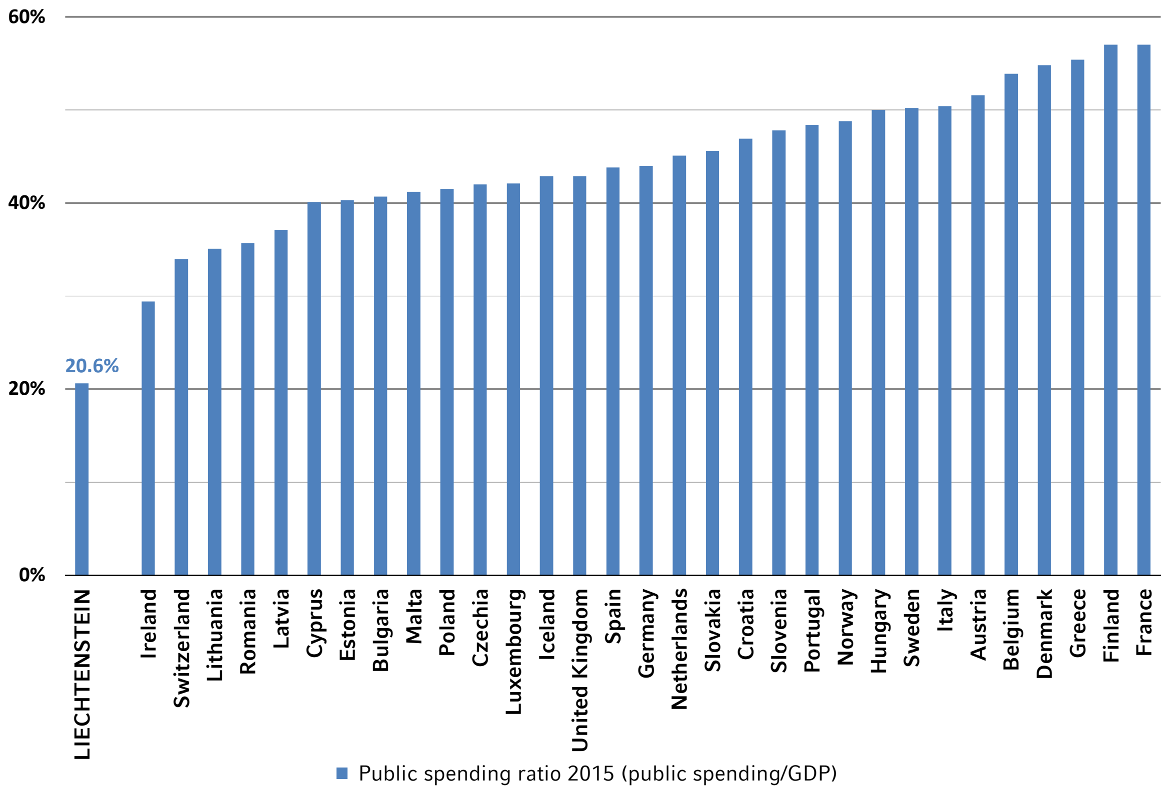
Liechtenstein and the other AAA-rated countries (S&P)

Standard & Poor's	S&P-rating	Population	Area (km^2)	GDP (USD billion)	GDP/capita (USD)
LIECHTENSTEIN	AAA	38'244	160	6.4	166'836
Australia	AAA	23'232'412	7'741'200	1'325.0	53'888
Denmark	AAA	5'605'948	43'094	323.9	56'273
Germany	AAA	80'594'017	357'022	3'726.5	45'182
Canada	AAA	35'623'680	9'984'670	1'647.4	44'878
Luxembourg	AAA	594'130	2'586	63.1	106'866
Netherlands	AAA	17'084'719	41'543	826.8	48'474
Norway	AAA	5'320'045	323'802	386.9	73'515
Singapore	AAA	5'888'926	719	308.3	54'933
Sweden	AAA	9'960'487	450'295	540.7	54'216
Switzerland	AAA	8'236'303	41'277	663.7	78'081

Data source: Standard & Poor's (data retrieved 11 April 2018: GDP and GDP/capita), The World Factbook (data retrieved 24 April 2018: population and area).

Liechtenstein is distinguished by high political and economic stability as well as by an excellent situation of its public finances. Also for this reason, Liechtenstein is in Standard & Poor's highest rated group of countries (long-term rating: AAA), with a stable outlook. Only 11 of the 131 rated countries currently hold the top rating of AAA.

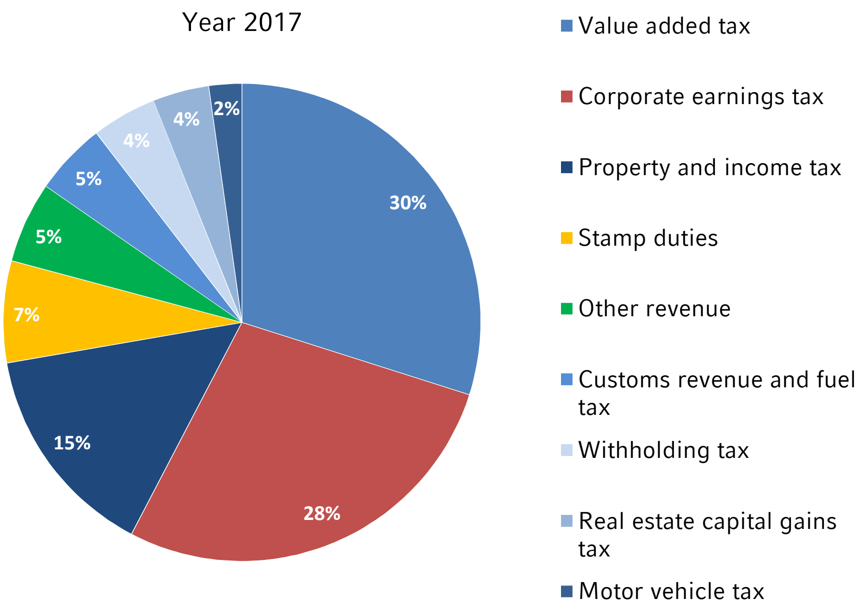
Public spending ratio



Data source: OSL (Government finance statistics, GDP Estimate), OECD.

At 20.6%, the public spending ratio, i.e. consolidated public spending (central government, local government, social security funds) in relation to GDP, was very low in 2015, not only in a European context, but also in a global comparison (USA 36.2%, Japan 39.4%).

Central government revenue by type of tax



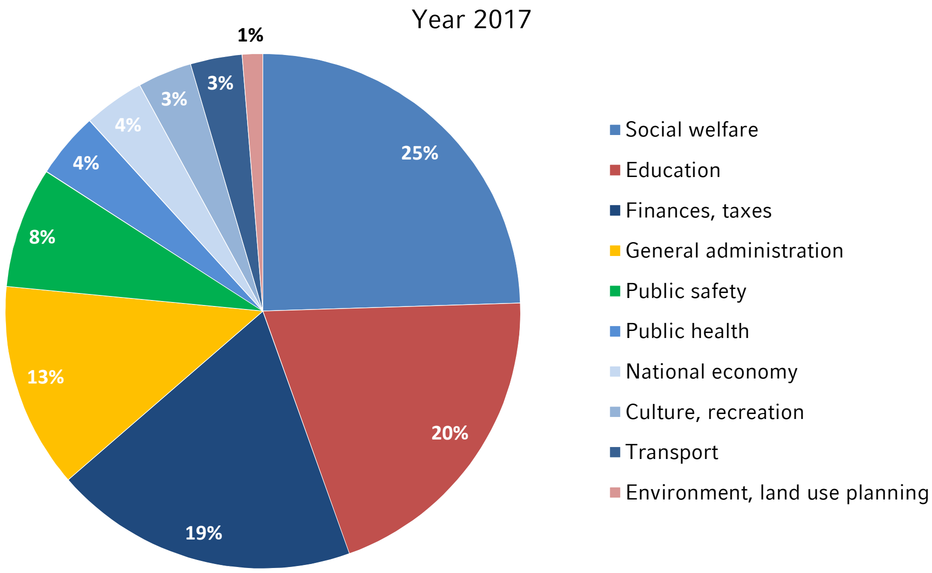
The municipal portion of the corporate earnings tax is excluded from the revenue.
Data source: OSL (Statistical Yearbook), Government Accountability Report.

Central government revenue from taxes and duties amounted to CHF 673 million in 2017 (2016: CHF 666 million). The three most important types of tax accounted for about three quarters of this amount:

- value added tax: CHF 201 million (2016: CHF 215 million),
- national share of corporate earnings tax: CHF 187 million (2016: CHF 191 million),
- national share of property and income tax: CHF 98 million (2016: CHF 93 million).

Revenue from taxes and duties accounted for approximately 75% of total current central government income of CHF 900 million in 2017, while financial income of CHF 161 million accounted for approximately 18%. In 2016, municipal tax revenues amounted to CHF 194 million (2015: CHF 186 million), comprising the municipal portion of corporate earnings taxes and property and income taxes.

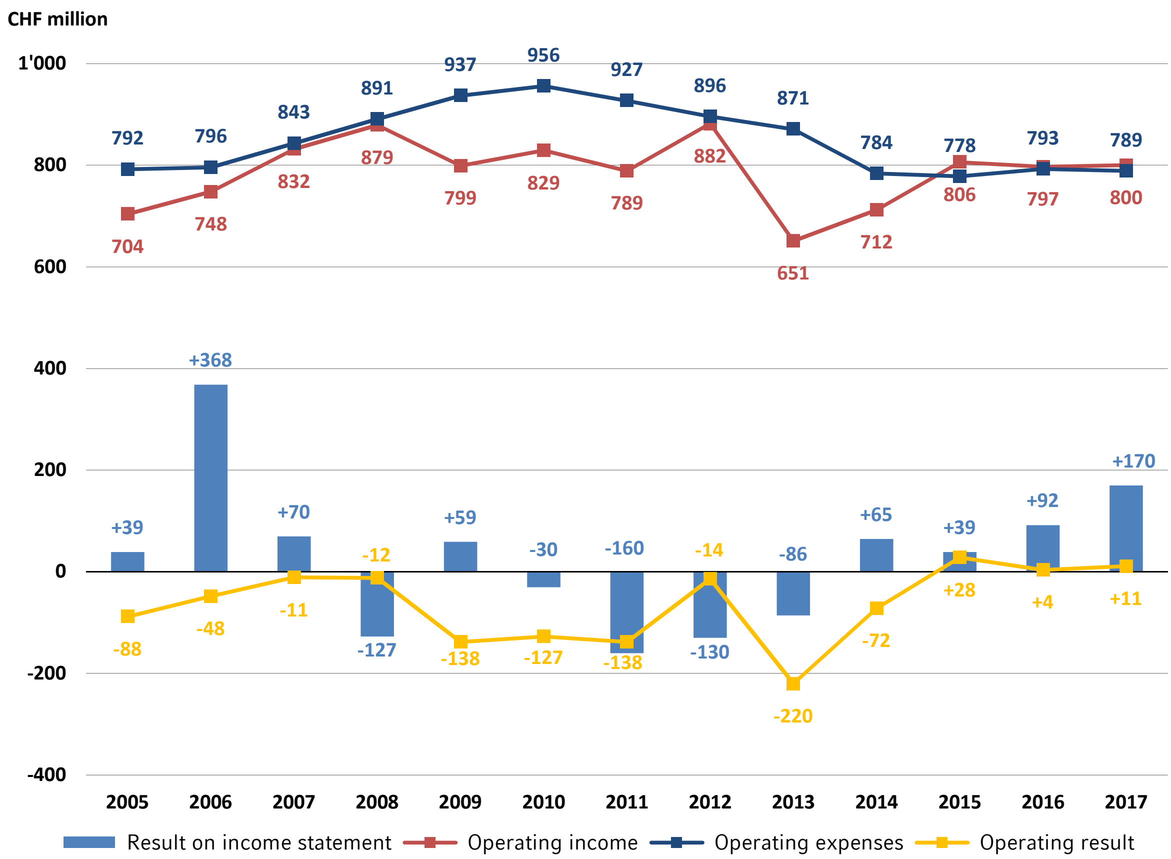
Current expenditure of the central government by area of responsibility



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

The total expenditure of the central government's current account in 2017 was approximately CHF 790 million (2016: CHF 793 million). The most significant areas in terms of expenditure were social welfare and education, which together accounted for almost half of the total expenditure. Current expenditure of the municipalities amounted to CHF 256 million in 2016 (2015: CHF 259 million). In 2016, the central government and municipalities made non-consolidated total gross investments of CHF 109 million (2015: CHF 119 million).

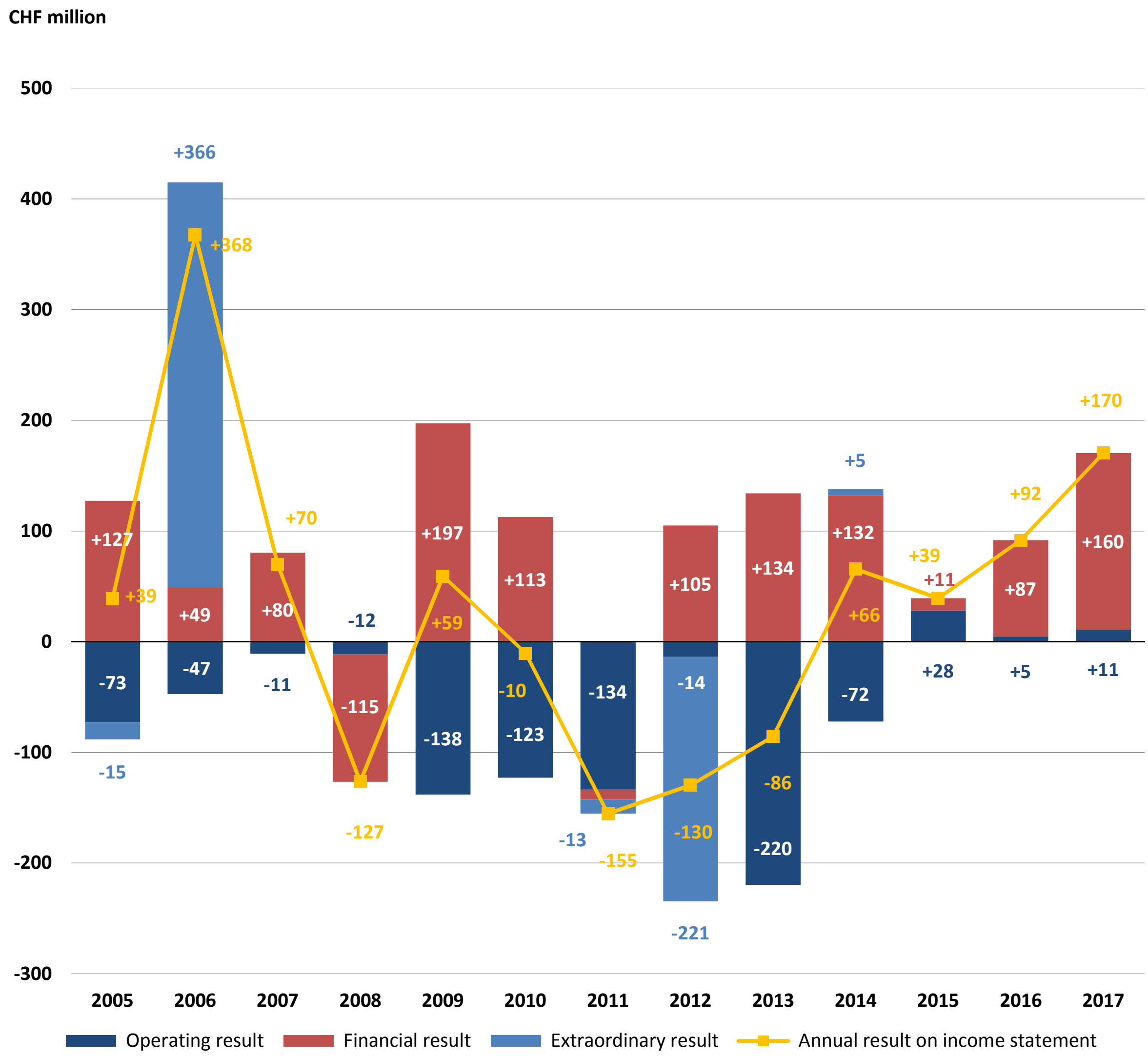
Operating result of the central government since 2005



Data source: Government Accountability Reports

After an extended rise in operating expenses until 2010, they have stabilised at a significantly lower level in recent years. Operating income is very volatile, especially due to the economic cycle fluctuations in tax revenues; in addition, there were the strongly fluctuating special effects of the transition phase to the abolition of the coupon tax in 2011 to 2016. Beginning in 2015, the operating account has been positive again for the first time since 2001.

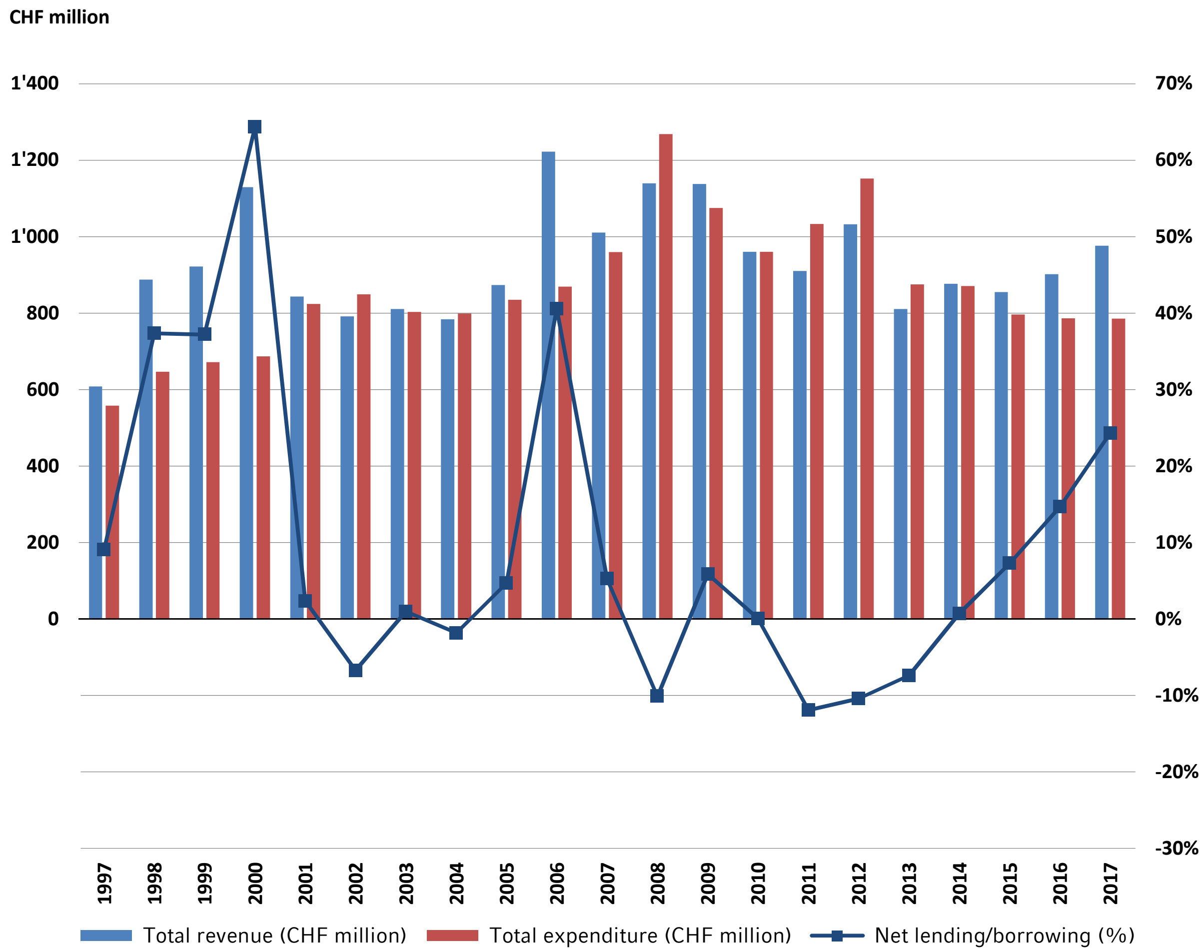
Detailed income statement of the central government since 2005



Data source: Government Accountability Reports

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, but has been positive again in the last four years. The operating result has been structurally improved over the past years thanks to the three packages of measures to restructure the central government finances: Since 2015, the operating result has been positive again. In the years before (since 2002), the operating result had been negative and would have been too large in a few years to compensate with the usually positive financial result. In 2006 (sale of the 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 some cases in high extraordinary revenue from the distribution of companies' old reserves.

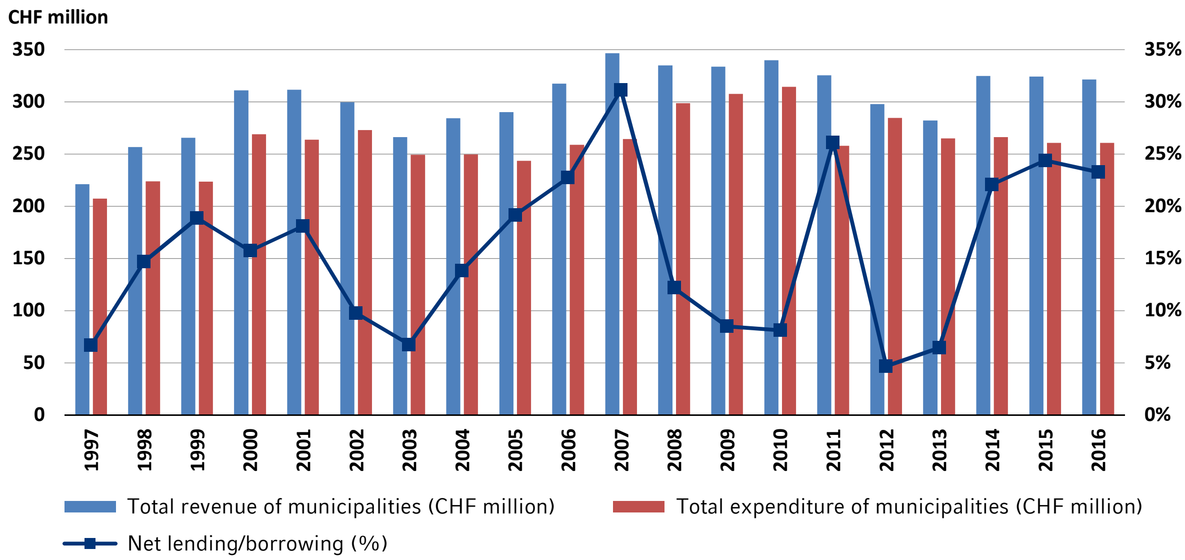
Revenue, expenditure, and net lending/borrowing (in %) of the central government since 1997



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

Over the 21 years presented in the chart, Liechtenstein reported a positive net lending/borrowing ratio in 15 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 recovered strongly in recent years, and since 2014 there has been a financial surplus again (the operating result has also stabilised). The years 1998 to 2000 and 2006 were marked by very high revenue from the sale of shares in the Liechtensteinische Landesbank. Excluding these four special years, the total surplus of CHF 190 million in 2017 was the highest in the period under consideration, dating back to 1976 (start of the uniform recalculation of the central government accounts used here). This also applies to net lending/borrowing in %.

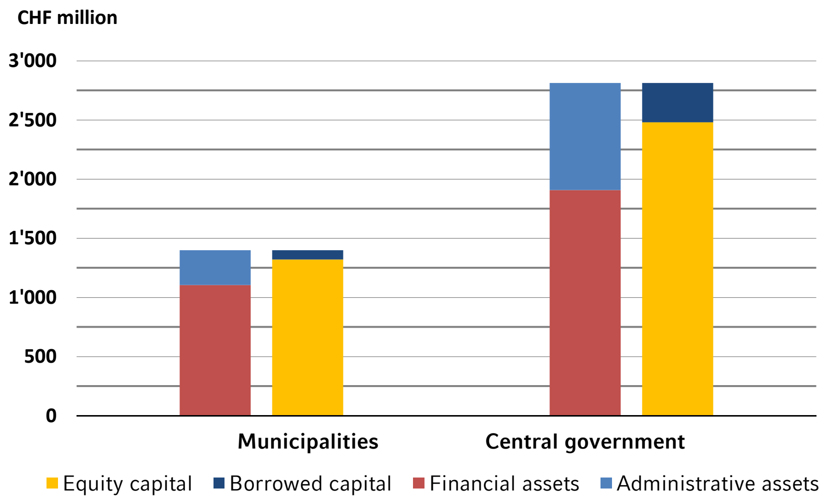
Revenue, expenditure, and net lending/borrowing (in %) of the municipalities of Liechtenstein since 1997



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; the last deficit was in 1994. Moreover, the municipalities' net lending/borrowing as a percentage has been almost consistently (and generally significantly) higher than at the central government level over the past 20 years.

Asset/liability items (as of 31 Dec 2016), 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 1.3 billion in 2016, about half that of the central government (CHF 2.5 billion). The net assets of the municipalities of Vaduz (CHF 517 million) and Schaan (CHF 226 million) were particularly significant. The very high proportion of financial assets on the assets side of both levels of government is also evident.

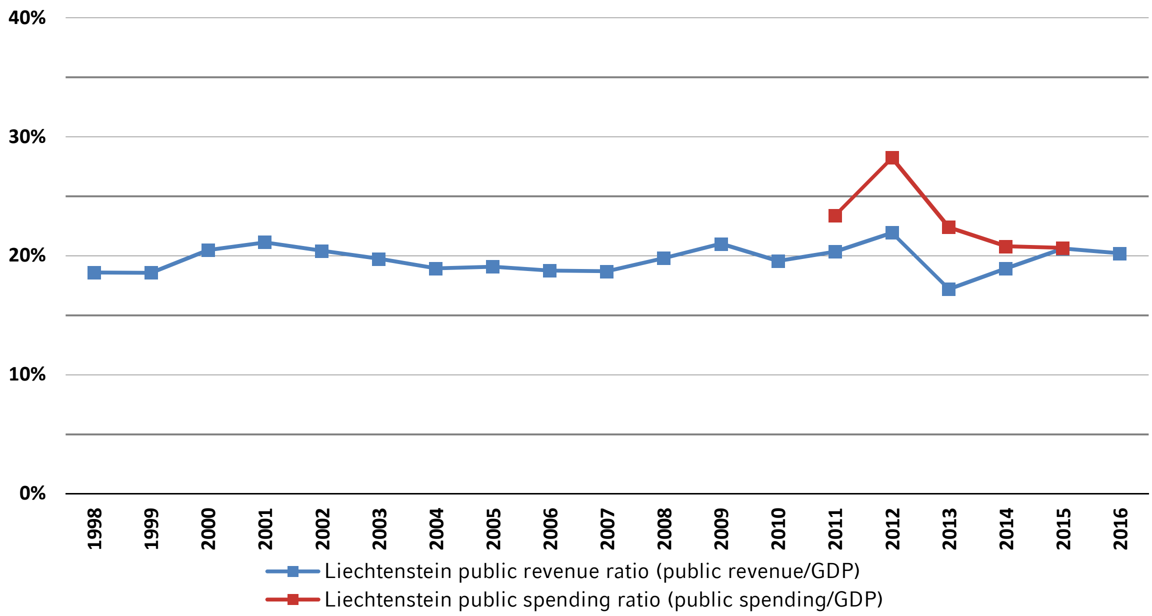
Net assets (as of 31 Dec) of the central government and municipalities since 1998

	Municipalities			Central government		
	Net assets (CHF million)	Net assets per capita (CHF)	Net assets/ annual expenditure	Net assets (CHF million)	Net assets per capita (CHF)	Net assets/ annual expenditure
1998	332.5	10'386	1.5	1'100.7	34'381	1.7
2007	911.6	25'783	3.5	2'764.1	78'179	3.1
2013	1'134.2	30'548	4.4	2'285.1	61'545	2.6
2016	1'320.2	34'917	5.3	2'481.4	65'628	3.2

Annual expenditure: current expenditure including capital expenditure, excluding write-offs on financial and administrative assets. Approximative structural break adjustment of the central government's net assets (1998 and 2007): see footnote 11 in Brunhart (2018).
Data source: Brunhart (2018) based on OSL (Statistical Yearbook) and Government Accountability Reports.

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 slightly until 2016. In contrast, the net assets of the municipalities increased each year over the entire period since 1998. These conclusions are true in regard to absolute net assets, net assets per capita, and also in relation to annual expenditure for the year in question. Adjusted for structural breaks, the central government's net assets in 2016 have not yet returned to the 2007 level, but instead are still almost CHF 300 million lower at CHF 2.5 billion. The fact that the ratio of net assets to annual expenditure, at 3.2, has roughly returned to the 2007 level since 2013 is due not only to the slight increase in net assets, but also to the significantly lower level of expenditure, which has been achieved primarily through the three packages of measures to restructure the central government finances since 2010.

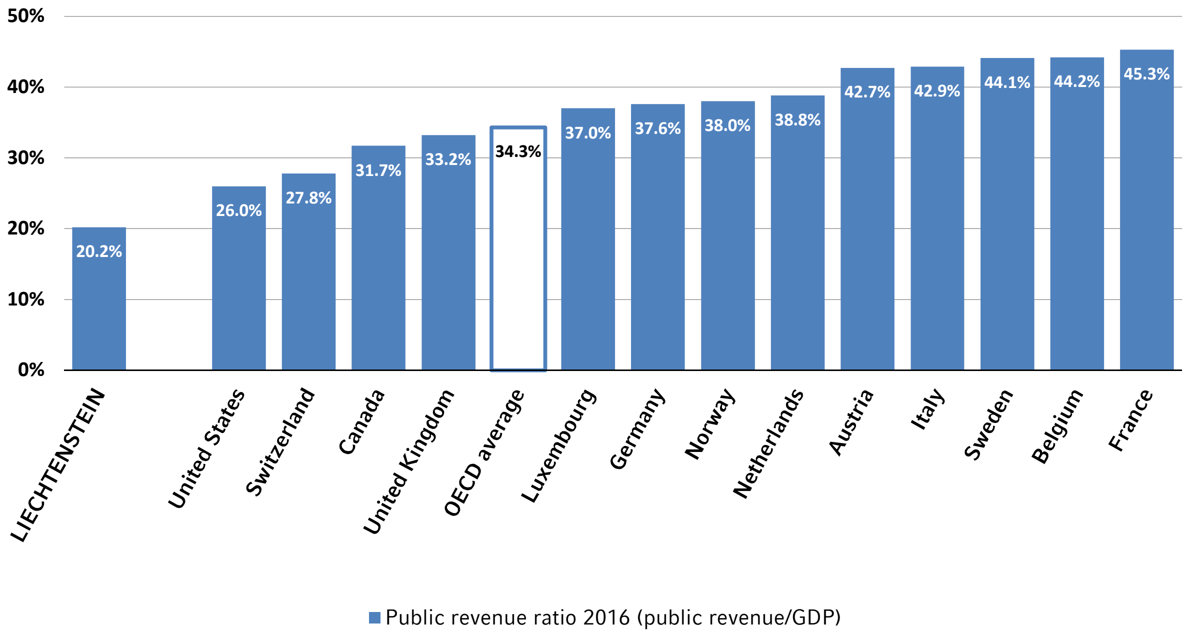
Public revenue ratio and public spending ratio since 1998



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 spending ratio (consolidated revenues of the central government, local government and social security funds in relation to GDP) has remained very stable in Liechtenstein for two decades at a low level of approximately 20% (2016: 20.2%). The public spending ratio in 2012 (consolidated expenditure of the central government, local government and social security funds in relation to GDP) was strongly influenced by the sharp temporary increase in public expenditure in the course of securing funding of the central government pension insurance.

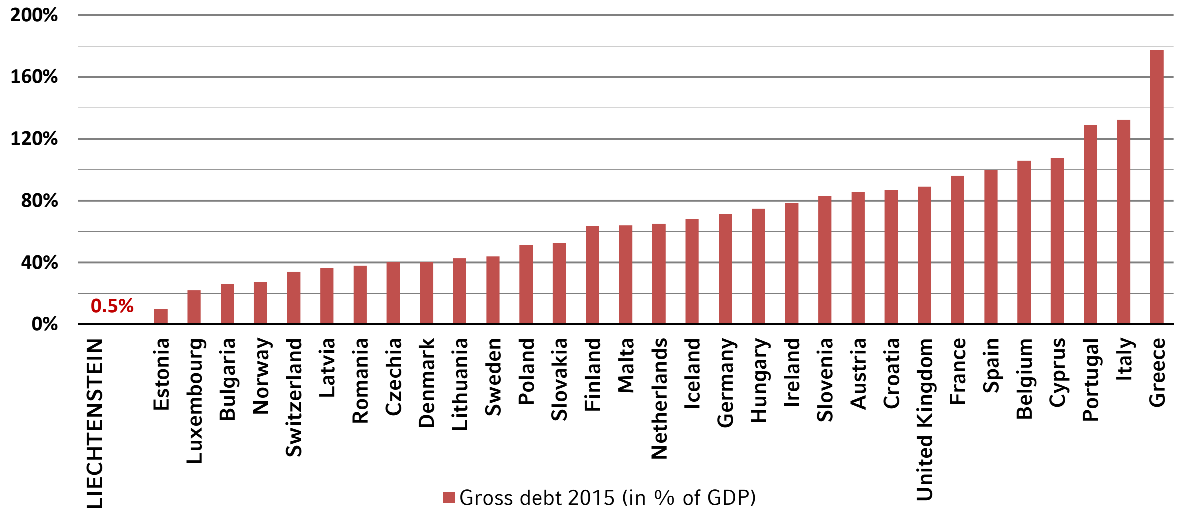
Public revenue ratio



Data source: OSL (Tax Statistics, GDP Estimate), FSO (Statistical Data on Public Finances).

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 2016, at 20.2%, it was even significantly below that of Switzerland (27.8%) and the United States (26.0%). 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.

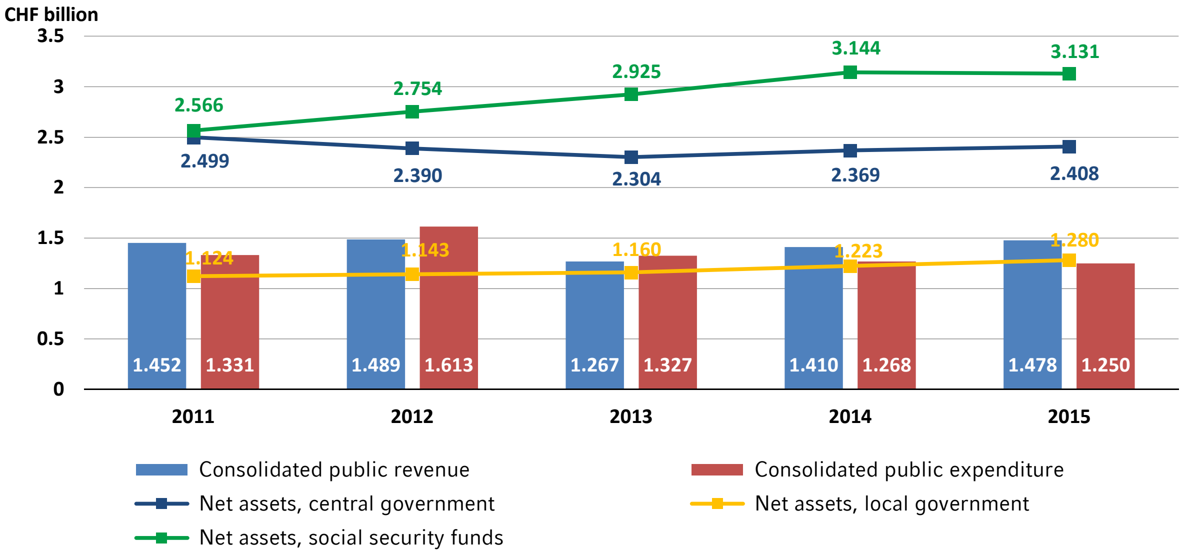
Gross debt in relation to GDP



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 is even clearly negative debt (i.e. a positive net worth), which is very rarely the case by international standards.

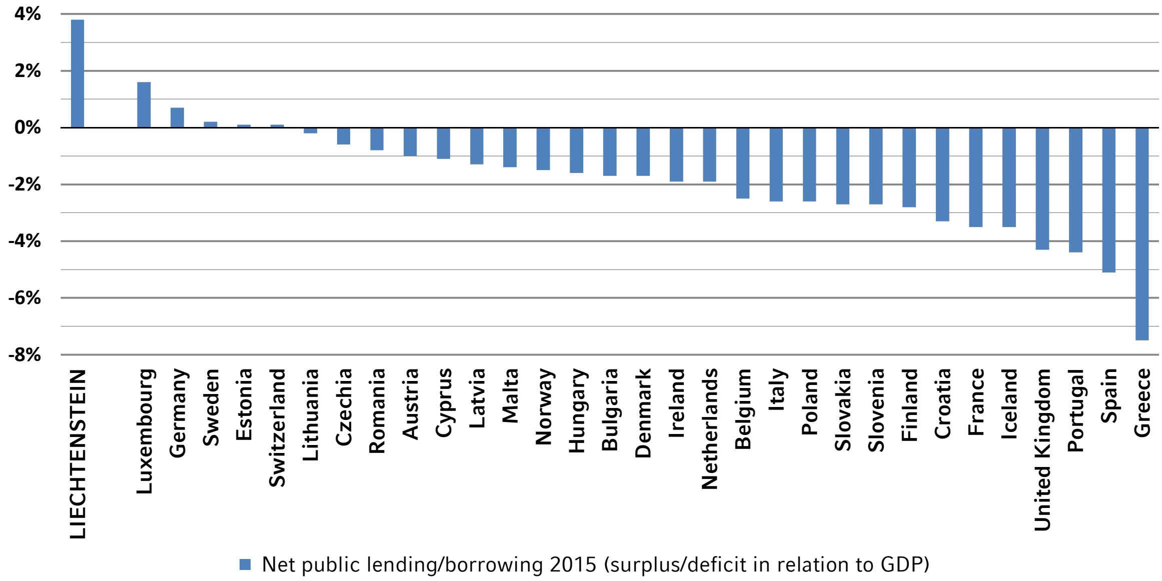
Consolidated revenue/expenditure and net assets of the three levels of government since 2011



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

After two negative years, Liechtenstein's public budgets reported a consolidated revenue surplus again in 2014 and 2015. The net assets of the social security funds and the local government have risen continuously since 2011, while an increase has been observed for the central government only since 2013. In 2015, the consolidated net assets of all levels of Liechtenstein (central government, local government, social security funds) amounted to CHF 6.8 billion (2014: CHF 6.7 billion), i.e. CHF 181,232 per inhabitant. By comparison, the total net assets of all government sub-sectors in Switzerland in 2015 amounted to CHF 8,297 per capita.

Net lending/net borrowing in relation to 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 almost +4% in 2015, while it was negative in almost all other European countries considered (with the exception of Germany, Estonia, Luxembourg, Sweden, and Switzerland).

References

Brunhart, A. (2013): "Economic Growth and Business Cycles in Liechtenstein - Econometric Investigations Considering the Past, Present, and Future". Doctoral dissertation at the University of Vienna. Berlin: Winter-Industries.

Brunhart, A. (2015): "Liechtensteinische Wachstumsschwäche bei Produktion und Einkommen verschärft sich. Aktualisierte empirische Beobachtungen". LI Aktuell (1/2015), Liechtenstein Institute.

Brunhart, A. (2018): "Liechtensteins Gemeinde- und Landesfinanzen unter besonderer Berücksichtigung von Steuerwettbewerb und Gemeindeautonomie". In: Liechtenstein Institute (ed.) (forthcoming): Gemeinden – Geschichte, Entwicklung, Bedeutung.

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.

Kellermann, K. and C.-H. Schlag (2012): "Hochschulen im Zentrum der Wachstumspolitik – Von der europäischen zur liechtensteinischen Perspektive". KOFL Studien (No. 8), Liechtenstein Economic Institute.

Kellermann, K. and C.-H. Schlag (2016): "Charakteristika und Quellen des Produktivitätswachstums in Liechtenstein". KOVL Studien (No. 10), Konjunkturforschungsstelle Vierländereck.

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, 901–955.

Prange, H. (2011): "Liechtenstein im europäischen Forschungsraum – Positionierung und Zukunftsorientierung". In: Liechtenstein Institute (ed.): 25 Jahre Liechtenstein-Institut (1986-2011). Schaan: Verlag der Liechtensteinischen Akademischen Gesellschaft (Liechtenstein Politische Schriften, vol. 50), 335–358.

Von Stokar, T., M. Peter, R. Zandonella, V. Angst, A. Brunhart and W. Marxer (2016): "Wirtschaftspotenzial und Zuwanderung in Liechtenstein. Schlussbericht". Study prepared by infras in cooperation with the Liechtenstein Institute and commissioned by the Stiftung Zukunft.li.

List of abbreviations

BICRA	Banking Industry Country Risk Assessment (S&P)
CHF	Swiss franc
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
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)
LBA	Liechtenstein Bankers Association
LCCI	Liechtenstein Chamber of Commerce and Industry
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	Institut national de la statistique et des études économiques du Grand-Duché de Luxembourg
S&P	Standard & Poor's

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