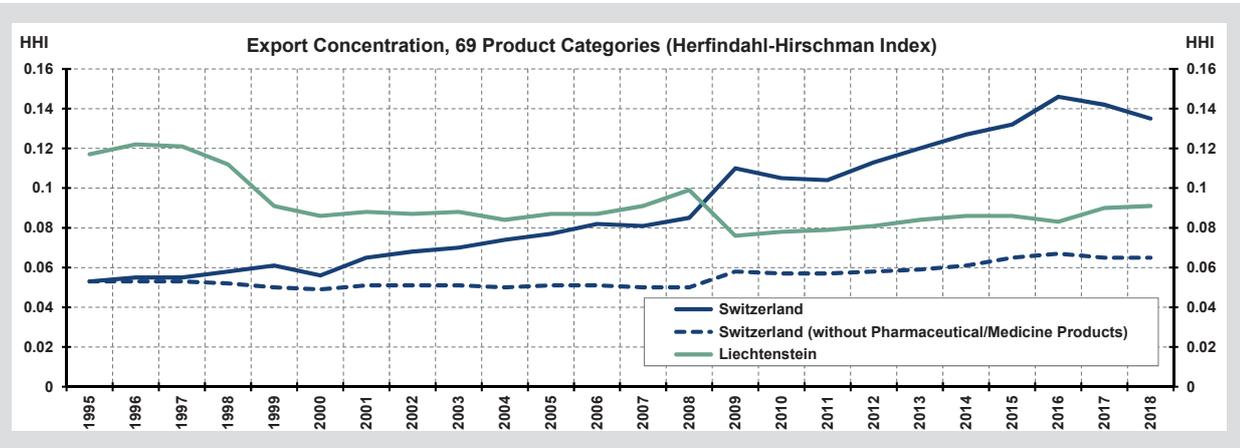


For Liechtenstein as a very small and open economy, exports play a crucial role. Small states generally feature a lower economic diversification level (low domestic market size, lack of economies of scale/scope, scarce personal or natural resources, niche strategy by state/economy), which usually leads to higher export concentration. This LI Facts discusses Liechtenstein's export concentration as an important aspect of economic diversification.

To measure export concentration, we apply the Herfindahl-Hirschman Index (HHI). The HHI captures sectoral concentration at product group level. An HHI value of 1 indicates complete concentration, meaning that only one product group is being exported. By contrast, an HHI close to 0 reflects a very broadly diversified export sector (with many product groups and comparable market shares). The main graph below shows the HHI (69 product groups) both for Liechtenstein and Switzerland.

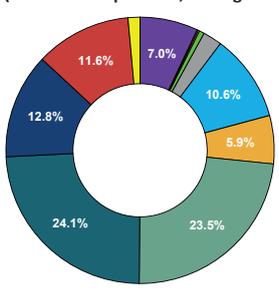
Despite Liechtenstein's small size, the degree of export diversification is surprisingly high. Also, Liechtenstein's goods exports concentration has decreased over the last 25 years and fell under the Swiss level after the financial crisis 2008 (and has remained below Switzerland since). The increasing dominance of the pharmaceutical sector in Switzerland has continuously reduced export diversification: If the pharma sector is excluded from the product group sample, the Swiss export diversification has remained stable and lies below the Liechtenstein benchmark.



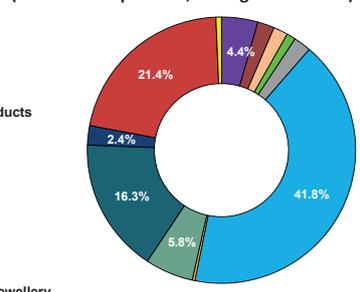
LIECHTENSTEIN'S EXPORT CONCENTRATION

- The goods export concentration has diminished over the entire sample period, the HHI has fallen from 0.12 to 0.09 (the reduction from 1998 to 1999 can be attributed, to some extent, to a revision of the product groups' classification).
- The sharp concentration decrease along with the financial crisis 2009 was driven by the contraction of exports in the sectors "metals" and "machines, appliances, electronics", which are of high importance for Liechtenstein. Investment goods are typically more severely affected during recessions.
- The relative share of machinery exports in Liechtenstein has declined during the last ten years, while vehicle parts and chemical/pharmaceutical products have gained relative importance. The decline in the relative share of machines combined with an increase of the chemical/pharmaceutical sector's importance can also be observed for Switzerland, but the development is much more pronounced than in Liechtenstein.
- Even though a divergence between Switzerland and Liechtenstein is evident, both countries share a common pattern of increasing diversification regarding exports with respect to export destination countries.

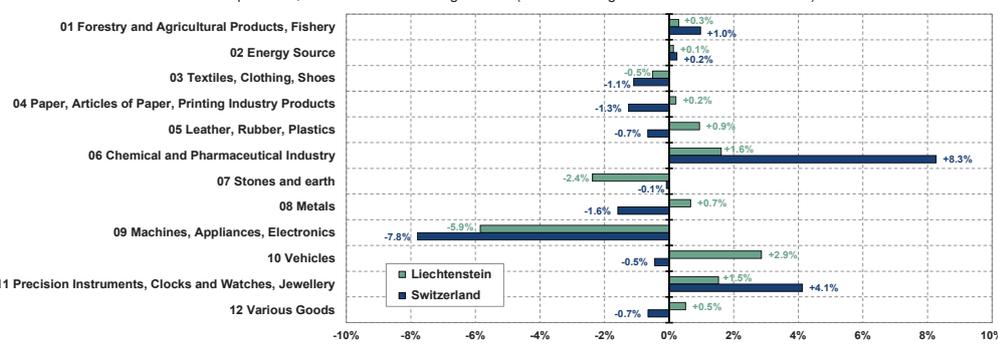
Goods Exports Liechtenstein (Product Group Shares, Average 2009–2018)



Goods Exports Switzerland (Product Group Shares, Average 2009–2018)



Goods Exports Liechtenstein and Switzerland (Product Group Shares, Difference in Percentage Points (Annual Averages 2009–2018 vs. 1999–2008))



	LIE	CH	AUT	GER	UK	USA	ISL	AND	LUX	OECD
Sectoral Concentration of Goods Exports (Herfindahl-Hirschman Index)										
1999	0.091	0.061	0.045	0.056	0.067	0.050	0.396	0.125	0.082	0.081
2008	0.099	0.085	0.044	0.053	0.075	0.040	0.290	0.108	0.105	0.082
2018	0.091	0.135	0.044	0.057	0.068	0.052	0.329	0.177	0.063	0.085
Export Quota (Goods Exports in Relation to GDP)										
2017	53.1%	44.1%	40.2%	39.5%	16.5%	8.0%	19.9%	4.0%	24.6%	17.7%

Compared with other small states (e.g. Iceland, Andorra), Liechtenstein is characterized by a stable and very diversified export structure. According to the HHI, the goods export concentration in Liechtenstein has declined since 1999 and is currently below Switzerland, but (not surprisingly) above larger countries such as Germany, Austria, USA or United Kingdom. Liechtenstein's export quota is the highest among the countries considered here (exports within the mutual custom area Switzerland/Liechtenstein are not included).