

The Estonian-Finnish economic cooperation

Some recommendations for the policy-makers

By Alari Purju

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Abstract

This article examines economic cooperation in different forms between Estonia and Finland. The economic growth patterns of two countries and comparison it with the EU level trends are treated. Foreign trade and foreign direct investment (FDI) are important tools of this economic cooperation and the article presents dynamics, structure and some important company level examples in these fields. The labor markets of Estonia and Finland are pooling together and the article presents trends and patterns of this phenomenon. The two countries participate also in wider EU level economic integration with supported by joint investments into large projects targeting development of infrastructure for transportation and logistics and electricity and gas. The article discusses impact and role of these projects. It ends with conclusions.

Keywords

Estonia, Finland, economic cooperation, foreign trade, foreign direct investments, labor market, infrastructure development

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1. Introduction

Estonian-Finnish economic cooperation takes place in wider context of economic, social, political and cultural contacts. The EU membership is one important influential factor of it. Historically, for Finland contacts with the other Nordic countries have been important and motivating. Sweden has been important foreign trade partner and played important role as a source of foreign direct investments. Finland's foreign trade with Russia and FDI into this country have been more important for Finland than for the other Nordic countries. Estonia has been for Finland a relatively small but an important foreign trade partner and a target for FDI partly for geographical and cultural closeness. That created a special, and somehow different from contacts with other countries, attitude into economic cooperation between the two countries.

Estonia has been looking on Finland, especially in the 1990s and earlier, as a model society and economy to follow up. Afterwards, Estonia's integration with the EU, membership of World Trade Organization (WTO), North Atlantic Treaty Organization (NATO), Organization of Economic Cooperation and Development (OECD) etc. widened cooperation pattern and introduced institutionalized cooperation patterns related to obligations and requirements of these organizations. In some sense, Estonia followed Finland's integration pattern with Western institutions.

In economic cooperation between Estonia and Finland, foreign trade and FDI have a special importance. Finland has been Estonia's most important foreign trade partner and the second important FDI source during practically all years after 1991. Estonia, as economically approximately ten times smaller country, has been Finland's tenth important foreign trade partner. Estonia has been a largest source of migrant labor force for Finland, approximately 50 thousand Estonians permanently living and working in Finland. Estonia, at the same time, became important travel and tourism related services location for Finnish citizens, particularly for retired people. Estonia's more liberal and open for foreigners' higher education system created high demand of this service by Finnish young generation.

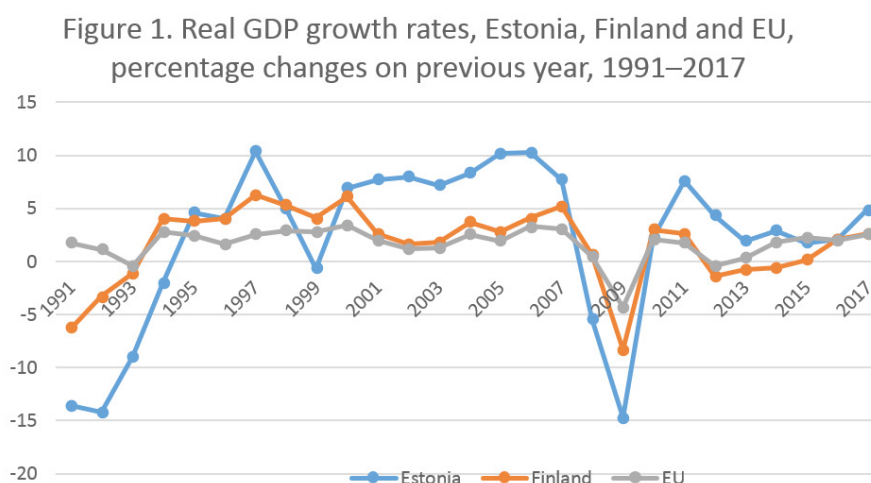
Joint infrastructure projects connecting electricity and gas infrastructure into wider networks of Nordic and other EU countries are important aspects of economic cooperation. Railway project *Rail Baltica* connecting Tallinn via Riga, Vilnius and Warsaw with Berlin is also crucial in connecting periphery EU area with the center of Europe. A possible tunnel between Helsinki and Tallinn is one additional possible transportation link in connecting these two countries closer with the core of Europe.

The article provides an overview of two countries general economic development trends. Analysis of foreign trade and services and FDI patterns follows. Then discussion of labor market development and impact of migration from Estonia to Finland is provided. The large infrastructure projects and their role in future economic cooperation is another topic of discussion. The article ends with recommendations for policy-makers.

2. Economic development

Estonia and Finland GDP grows during the period 1991-2017 but as Figure 1 demonstrates, the growth level was higher during a boom period and a decline deeper during a slump in comparison with the EU average.¹ Estonia had a deep economic decline in the beginning of the 1990s due to collapse of the Soviet economy before leaving the Soviet Union. After declaring political independence, the crises continued due to deep structural changes and reorientation economy from the East to the West. The economic growth started here in 1994 and a relatively fast growth period continued until economic and financial crises of 2008-9 with a short setback in 1999 due to the Russian financial crises a year earlier.

Finland went in the beginning of the 1990s also through economic and financial crises, but then a fast recovery followed and Finland's economy grew since 1994 until the economic and financial crises of 2008-9 also more rapidly than was the EU average growth. Finland's economic decline was also influenced by deep decline of foreign trade with the Soviet Union but domestic financial crises and the unforeseen impacts of liberalization of financial markets under influence of developments in Central and East Europe (unification of Germany) were probably more important here.² The economic crises in the beginning of the 1990s, economic liberalization in Estonia and economic problems in Finland created a quite specific framework for economic cooperation between the companies and individuals in both countries and stimulated investments from Finland to Estonia. In the 1990s, the number of companies founded in Estonia by Finnish owners were approximately ten times larger than number of companies founded by citizens of Sweden or any other country though the value of capital from Sweden was larger than the value of capital from Finland.



Source: Eurostat, Real GDP growth rates, 2019

The fast development of the information and communication technology cluster (ICT) in Finland created starting from the mid-1990s a new powerhouse of economic growth additionally to traditional pulp and paper, metal processing and machinery industries. Three aspects behind the Finnish success were underlined: the emerging knowledge economy, Nokia and the internationalization of economy (Ali-Yrkkö et al. 2017, 63-82). Nokia started to be the dominating company of the Finnish ICT sector and was during couple of years in the 2000s the world's largest producer of mobile telephones. Its global role widened with increase of production and product development in Brazil, China and Hungary. During economic and financial crises of 2008-9, the takeover of Nokia by Microsoft had negative impact on Finland's economy, though the ICT cluster recovered and the new companies Supercell, Rovio etc. emerged. Nokia also restructured itself and continued as a global company in

1 The EU real growth indicators base on EU12 indicators for 1991-1994, EU15 indicators for 1995-2003 and afterwards on EU28.

2 Some economists called it deregulation crises (Heikkinen & Kuuskerä 2001). There is also an opinion that the cause of crises was liberalization of financial markets under the fixed foreign exchange rate arrangement (that is, not enough liberalization). The increase of interest rates in Europe after unification of Germany, where due to fiscal deficit and inflationary pressures occurred increase of interest rates by Bundesbank to tackle inflation, created strong pressure on other national currencies including Finnish markka. The Bank of Finland devalued markka in November 1991 by 14% and after switch to floating exchange rate in September 1992 the markka depreciated another 20%. That created rapid increase of loan portfolios taken under fixed exchange rate arrangements. The banking and fiscal crises followed together with bankruptcies of companies and deep unemployment (Honkapohja & Koskela 2001, 52-101; Jonung, Kiander & Vartia 2009, 19-70).

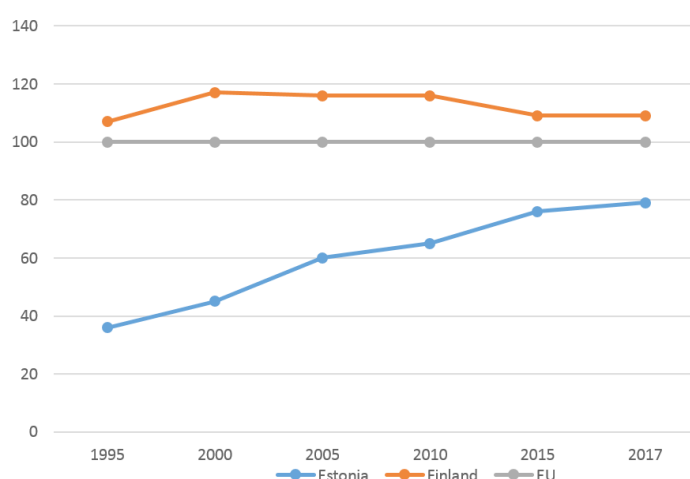
field of telecommunications network development. Data also confirmed that Finland as the other Nordic countries did well on indicators of ICT diffusion (Andersen et al. 2007, 47-53).

Estonia's entrepreneurs closely followed Nokia's success. Technical solution Skype was created in Estonia; though the company had international owners. There is a vivid cluster of ICT companies in Estonia. By value of output, Estonia's most important industries were manufacture of wood and wood products, manufacture of computer and electrical equipment, and manufacture of food products in 2017 (Statistics Estonia, Industry, 2019). Estonia has a rapidly growing service sector.

Estonia's GDP was EUR 23.6 billion and Finland's GDP EUR 223.9 billion in 2017. Estonia's population 1.319 million and Finland's population was 5.513 million at the end of 2017. Estonia's nominal GDP calculated using these figures was EUR 17,890 per capita and Finland's respective figure was EUR 40,610 per capita in 2017. Estonia's GDP per capita is on the level of 44% of Finland's GDP per capita.

However, the living standards in different countries are compared using GDP Purchasing Power Standard (PPS) figures, which take into account also price level differences in countries. Next, we compare Estonia's and Finland's living standard indicators with the EU average. Figure 2 demonstrates that Finland's GDP *per capita* was during the whole period above the EU average level. Estonia's GDP per capita came closer to EU average and was in 2017 at level of 79% of the EU-28 average. The Estonian figure was in 2017 at level of 72% of Finnish GDP per capita. The convergence of Estonia's GDP per capita with EU average and with Finland's GDP per capita occurred.³

Figure 2. GDP per capita in PPS , index (EU=100), 1995–2017



Source: Eurostat, GDP per capita in PPS, 2019

3. Foreign trade

Foreign trade of goods and services and foreign investments play an important role in international economic relations between different states. The wider context of Estonia's and Finland's international economic relations is that for Estonia, the Baltic Sea region and particularly Finland and Sweden are the most important foreign trade partners and sources of FDI. For Finland, relations with the other Nordic countries States are substantial and Germany is a very important foreign trade partner. Very often Germany is a final target of production manufactured in the Nordic countries (Purju 2017, 229-232).

3.1. Foreign trade by countries

Figures 3 and 4 describe Estonia's most important countries of exports and imports respectively. Estonia's most important country of exports and imports was Finland with share between 15–20% of total exports and imports. Figures 5 and 6 describe Finland's most important countries of exports and imports, respectively. Finland's most important country of exports and imports was Germany followed on exports side by Sweden and on imports side by Russia. Estonia was Finland's tenth largest country of exports and imports with approximately 3% of total exports and imports of Finland.

In foreign trade of goods, the trade of intermediate goods started to be more important in comparison with the trade of final goods. Krugman called it creation of kaleidoscopically build up value chains, accompanied with

³ Here it is necessary to remember that these are GDP PPS per capita figures, meaning that the indicators measuring price difference between Estonia and EU and Estonia and Finland corrected the income per capita figures. Estonia's comparative price level was 78.1% and Finland's price level was 122.4% that of the EU28 average in 2017. Estonia's price level was 63.8% of Finland's price level 2017 (Eurostat, Comparative price level 2019). In nominal terms, measured just by GDP per capita, Estonia's level was 59% of EU28 and 44% of Finland's nominal GDP per capita level.

wide international trade over borders of different states inside the same multinational company (Krugman 1991). Intermediate goods created 69% of Estonia's exports (EU28 average was 65%, in Finland's exports 76%) in 2011 (Ali-Yrkkö, Maltila & Seppälä 2017). That reflects quite well international integration of economies and influence of single companies on aggregate data of small countries.⁴

Figure 3. Estonia's ten most important countries of exports, 2005–2017, % of total exports

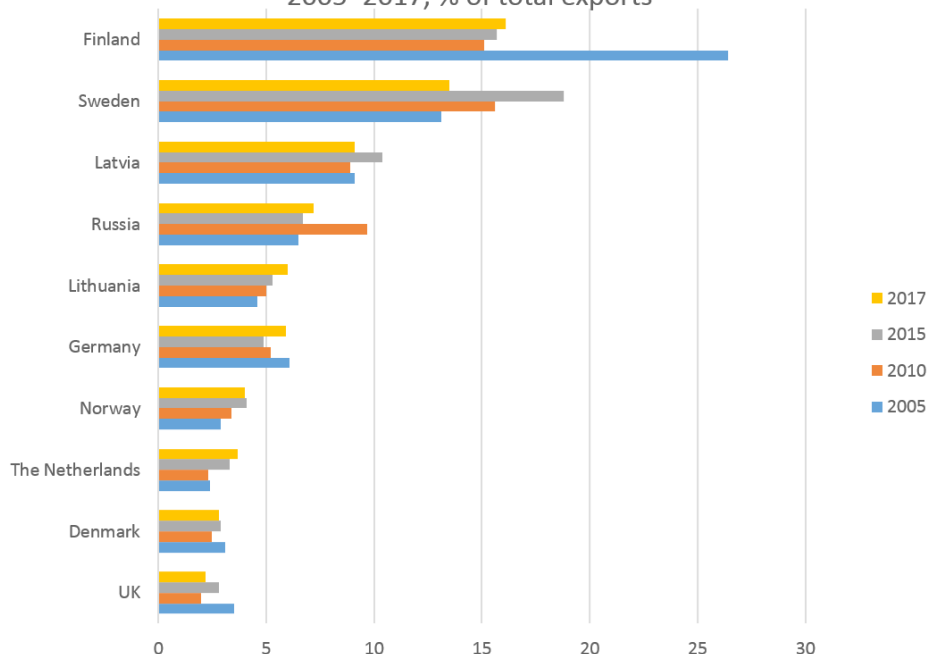
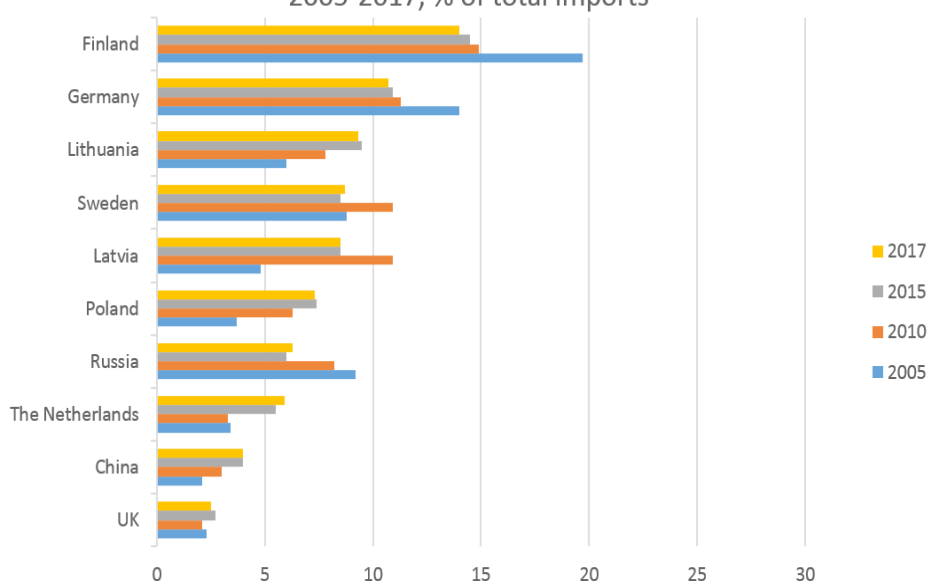


Figure 4. Estonia's ten most important countries of imports, 2005–2017, % of total imports



Source: Statistics Estonia, Foreign trade, 2019

⁴ The company with largest exports in Estonia was Ericsson Eesti AS, which production created 7.2% of Estonia's total exports in 2015. At the same time, imports of intermediate goods by the same company created 6% of Estonia's total imports and value added 0,3% of Estonia's total GDP of the same year. For comparison, Nokia's share in Finland's GDP was 1.5% in 2015. In 2006, Nokia's share was 3.6% of Finland's GDP, the largest proportion during Nokia's existence and its share was up to 21% of the total Finland's exports in the 2000s (Ali-Yrkkö, Mattila & Seppälä 2017).

Figure 5. Finland's ten most important countries of exports, 2005–2017, % of total exports

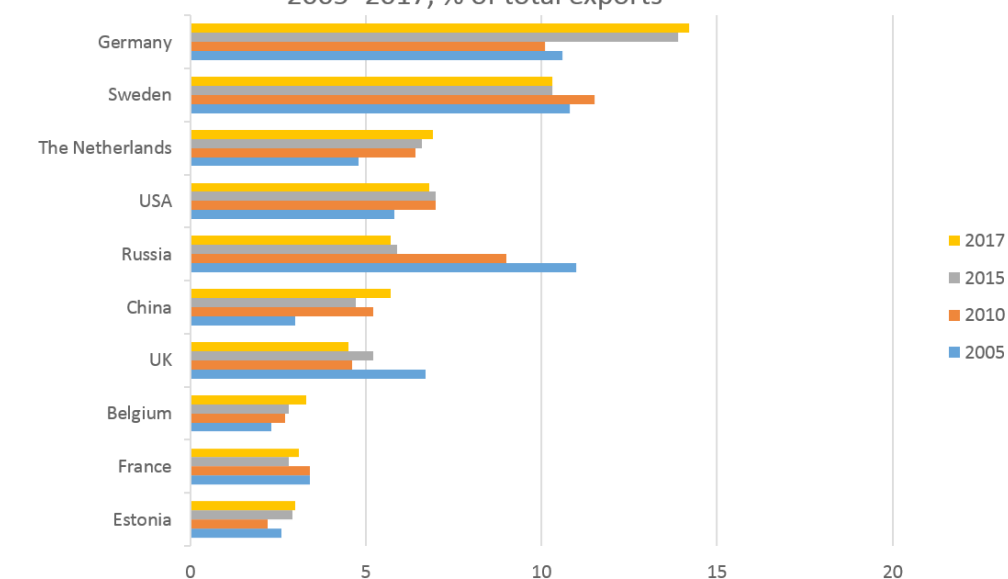
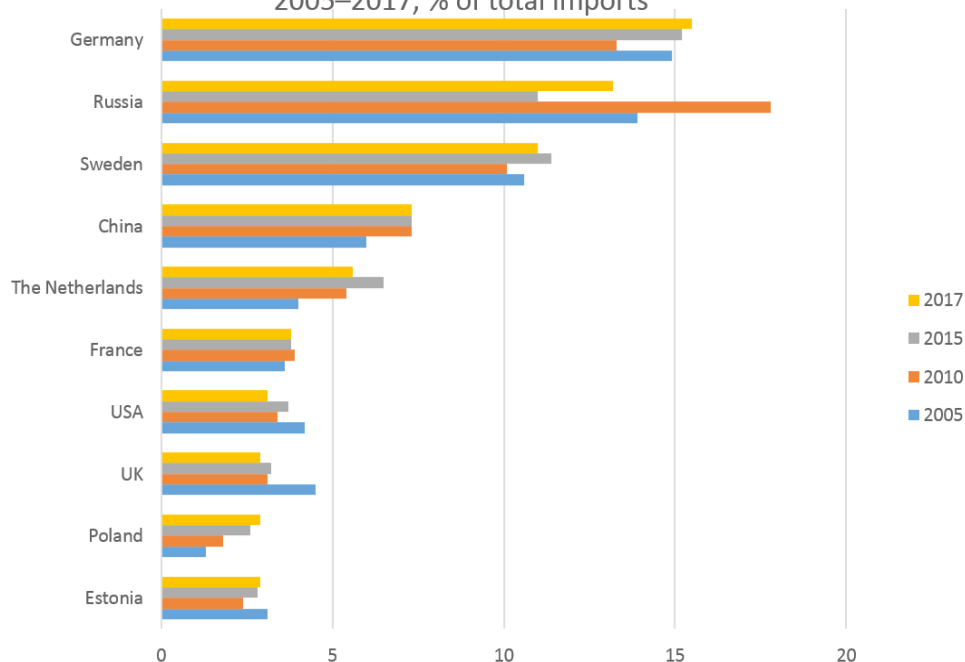


Figure 6. Finland's ten most important countries of imports, 2005–2017, % of total imports



Source: Statistics Finland, Foreign trade, 2019

3.2. Structure of foreign trade by commodities

Description of structure of trade by commodities bases on UN Standard International Classification, which divides the commodities into ten chapters (*Standard International Trade Classification 2006*).⁵ Table 3 presents Finland's and Estonia's structure of exported commodities in 2005 and 2015. The year 2005 was the first full year for Estonia to be a member of the EU for economic records after joining the EU from form May 1, 2004. The table compares main dynamics of foreign trade during this ten year.

⁵ UN Standard International Classification, which divides the commodities into ten chapters (*Standard International Trade Classification 2006*): 0 – Food and live animals. 1 – Beverages and tobacco. 2 – Crude materials, inedible, except fuels. 3 – Mineral fuels, lubricants and related materials. 4 – Animal and vegetable oils, fats and waxes. 5 – Chemicals and related products. 6 – Manufactured goods classified mainly by material. 7 – Machinery and transport equipment. 8 – Miscellaneous manufactured articles. 9 – Commodities and transactions not classified elsewhere in the SITC.

Table 3. Exports by commodity chapters and by countries, 2005 and 2015

Country	Exports 2005		Exports 2015		Index of increase of exports in 2015 in comparison with 2005
	Billion EUR	%	Billion EUR	%	
Finland, total	52.6	100.0	53.9	100.0	1.025
SITC 0 + 1 Food, beverages and tobacco	0.8	1.5	1.3	2.4	1.625
SITC 2 + 4 Crude materials	3.0	5.7	5.1	9.5	1.700
SITC 3 Mineral fuels	2.4	4.6	3.9	7.2	1.625
SITC 5 Chemicals	3.0	5.7	5.6	10.4	1.867
SITC 7 Machinery	23.3	44.3	16.9	31.4	0.725
SITC 6 + 8 + 9 Other	20.1	38.2	21.1	39.1	1.050
Estonia, total	6.2	100.0	11.6	100.0	1.871
SITC 0 + 1 Food, beverages and tobacco	0.3	4.8	1.0	8.6	1.792
SITC 2 + 4 Crude materials	0.6	9.6	1.0	8.6	1.667
SITC 3 Mineral fuels	0.5	8.2	1.1	9.5	2.200
SITC 5 Chemicals	0.3	4.8	0.6	5.2	2.000
SITC 7 Machinery	2.3	37.1	4.0	34.5	1.739
SITC 6 + 8 + 9 Other	2.2	35.5	3.9	33.6	1.773

Source: UNCTAD, 2019.

The value of Finland's exports in 2015 was only marginally larger than in 2005 (total growth of 2.5% during ten years). Manufactured products (SITC 5–9) created in 2005 and in 2015 more than 80% of total exports. However, in machinery and transport equipment (SITC 5), the value of exports was in 2005 EUR 23.3 billion and in 2015 only EUR 16.9 billion, due to mainly decrease of Nokia's production and exports and imports of intermediate and final goods.⁶ Increase of exports of chemicals (SITC 5) and crude materials (SITC 2 and 4) as wood, pulp and paper substituted decrease of machinery exports. Afterwards, the ICT related exports of goods but also services are still important if Finland's exports.

Structure of Estonia's exports changed substantially in the 1990s supported by signed free trade agreements with Finland and Sweden in 1992 and with the EU signed in 1994 and in force since 1995. EU membership from 2004 did not really change substantially the structure of Estonia's foreign trade. Value of Estonia's exports grow at the same time rapidly being in 2015 1.9 times higher than in 2005. Manufactured products (SITC 5-9) created 73% of total exports in 2015.

3.3. Trade between Estonia and Finland

Estonia's total exports of commodities was in EUR 11.6 billion in 2015, EUR 12.9 billion in 2017 and EUR 14.4 billion in 2018, Estonia's exports to Finland was respectively EUR 1.8 billion, EUR 2.1 billion and EUR 2.3 billion, Estonian exports to Finland created respectively 15.7%, 16.1% and 15.9% of Estonia's exports. Estonia's imports were EUR 13.1 billion in 2015, EUR 14.8 billion in 2017 and EUR 16.2 billion in 2018. Imports from Finland were EUR 1.9 billion, or 14.6% of Estonia's total imports in 2015, EUR 2.1 billion or 14.1% in 2017 and EUR 2.1 billion or 12.9% in 2018.

⁶ In this aggregated classification electronics, electro-technical equipment and other relate to ICT tools belong to chapter of machinery and transport equipment.

Table 4 describes ten most important commodity groups exported from Estonia to Finland and ten most important commodity groups imported from Finland to Estonia⁷ The commodity groups are of HS Code level HS 04. The line of the table 4 describes number of the commodity group, exports of this commodity group to Finland and the proportion of this commodity group exports to Finland in the total exports of this commodity group. The line continues with imports of commodity groups similar figures. The commodity groups of exports and imports are ranked separately. The share of trade with Finland was 18.3% of exports and 16.5% of imports of these commodity groups. The ten most important groups of exports created 24.3% of Estonia's total exports to Finland and 22.7% of total imports from Finland.

Most of these commodity groups are representing trade of intermediate technical goods. The foreign trade pattern with exports and imports of the same commodity groups (Commodity groups 8504, 8517, 9405 in Table 4) reflects intra-industry trade, which is characteristic to integration of industries and movement of intermediate goods over the borders of states. Some of these products belong to production of companies with Finnish ownership, presented in Table 5: PKC Eesti AS (commodity group 8544), Draka Keila Cables (8544), Enso Ensek AS (8537), Scanfil OÜ (8544), Glamox AS (9405). The high value of imported petroleum oils from Finland to Estonia (2710) reflects products imported by Finnish company Neste OY, which Porvoo refinery is a large provider of gasoline to Estonia's market (see Table 5).

Table 4. Ten most important groups of commodities (HS-4 digit level) in trade between Estonia and Finland, 2015

	Estonia's exports to Finland				Estonia's imports from Finland			
	Commodity group	Exports of the commodity group to Finland, mln EUR	Exports of the commodity group, mln EUR	Share of exports to Finland, %	Imports of the commodity group from Finland, mln EUR	Exports of the commodity group, mln EUR	Imports of this commodity group, mln EUR	Share of imports to Finland %
1	8504	59.6	184.0	32.4	2710	192.6	893.2	21.6
2	7308	59.0	138.5	42.6	4407	49.8	208.4	23.9
3	8431	54.7	139.8	39.1	8504	31.1	133.3	23.3
4	9403	49.9	165.3	29.9	8517	27.2	831.8	3.3
5	9401	46.4	113.6	40.8	4810	26.4	42.5	62.1
6	8537	45.2	105.8	42.7	8535	19.3	31.4	61.5
7	7326	34.1	73.4	46.5	8536	18.6	139.7	13.3
8	9405	31.3	77.7	40.3	9405	17.1	62.6	27.3
9	4418	30.4	241.6	12.6	7210	16.5	93.9	17.5
10	8517	28.1	1178.4	2.4	8544	15.2	179.8	8.5
Σ		438.7	2391.1	18.3		431.8	2616.6	16.5

Source: Statistics Estonia, Foreign trade, 2019

3.4. Trade of services

Trade of services is creating increasing part of total trade of goods and services. The value of Estonia's services exports was EUR 6.1 billion and services imports EUR 4.2 billion in 2017, which is respectively 47% of value of goods exports and 28% of value of goods imports. The service exports exceeded the value of imported services and balanced the Estonia's foreign trade deficit of traded goods. In Estonia's exports of services, the largest share was for transport and storage with 28.1% of total exports followed by information and telecommunication services

⁷ Commodity groups are following (HS Code 2017): 2710 – Petroleum oils and oils from bituminous minerals. 4407 – Wood sawn or clipped length wise, sliced or peeled, whether or not planed, sanded or end-jointed, of a thickness exceeding 6mm. 4418 – Builder's joinery and carpentry of wood, including cellular wood panels, assembled flooring panels, shingles and shales. 4810 – Paper and paperboard coated one or both sides with kaolin (china clay) or inorganic substances, with binder or not. 7210 – Iron or non-alloy steel, flat, rolled products with 600mm or more, clad, plated or coated. 7308 – Structures of iron or steel and parts there of; plates, rods, angles, shapes, sections, tubes and the line, prepared to use in structures. 7326 – Iron or steel. 8431 – Machinery parts, used solely or principally with the machinery of heading. 8504 – Electric transformers, static converters (e.g. rectifiers) and inductors. 8517 – Telephone sets, including telephones for cellular networks or other wireless networks; other apparatus for transmission or reception of voice, images or other data. 8535 – Electrical apparatus for switching, protecting electrical circuits, for making connections too or in electrical circuits; for a voltage exceeding 1000 volts. 8537 – Boards, panels, consoles, desks, cabinets, bases with apparatus of heading for electricity control and distribution. 8544 – Isolated wire, cable and other electric conductors, connector fitted or not, optical fiber cables of individually sheathed fibers, whether or not assembled via electric conductors or fitted with connections. 9401 – Seats, whether or not convertible into beds and parts thereof. 9403 – Furniture and parts thereof. 9405 – Lamps, light fittings; including searchlights, spotlights and parts thereof, illuminated signs, nameplates.

with 12.1%, services of manufacturing with 8.4%, professional, scientific and technological activities with 7.2%, administrative and support service activities with 7.1% and construction with 4.9% (Statistics Estonia, Trade of services, 2019).

Finland's balance of foreign services was lightly negative with exports of EUR 26.5 billion and imports of EUR 27.6 billion in 2017. Finland's service exports was 43% of value of goods exports and 44% of value of goods imports. In Finland's exports of services, the largest share was for information and telecommunication services with 26.3% followed by transport with 14.0% and charges for use of intellectual property with 11.3%. The information and telecommunication services and charges for use of intellectual property created a surplus in foreign services balance with net exports of EUR 3.8 billion and EUR 2.1 billion respectively in 2017 (Statistics Finland, Trade of services 2019).

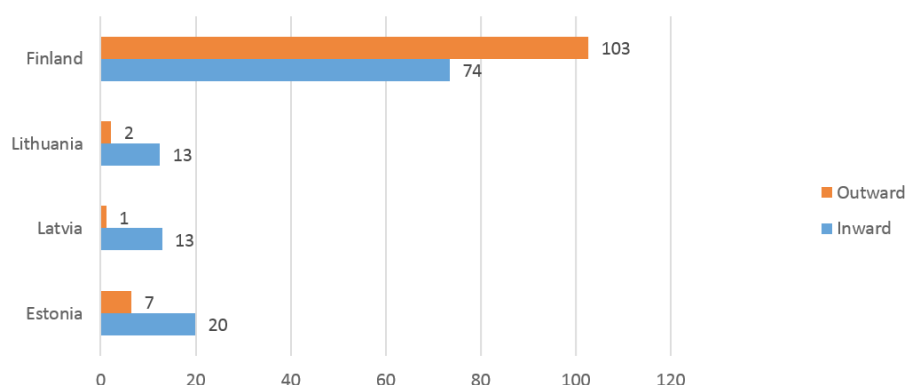
Finland's exports of services was EUR 582 Million and imports of services EUR 1422 million in 2017. Estonia's exports of services (equal to Finland's services imports) created 5.2% of total Finland's imports of services, what is higher than Estonia's share of Finland's imports of goods (here Estonia's share was 2.9%). Estonia's services exports to Finland created 23.5% of Estonia's exports of services in 2017.

One important area of foreign trade services is related to tourism. In 2017, more than 6 million tourist visited Estonia, 2.2 million foreign visitors stayed in Estonian accommodation establishments (Statistics Estonia, 2018, 53-54). Estonia was for years the most popular travel destination for Finns. According to Statistics Finland, 1.7 million overnight trips were made by Finnish residents to Estonia in 2017, which accounted for more than one fifth of all overnight trips made by Finnish residents abroad (Statistics Finland, Tourism 2019). Important share of these trips were related to Finnish retired people's visits to Estonia's spas in Tallinn, Pärnu, Haapsalu and Kuressaare. Estonia's immigrant workers in Finland were another large group of regular travelers between Tallinn and Helsinki. Purchases of several other services, including meal and drinks in restaurants, services of repair shops and medical services accompany these visits. Bank of Estonia estimated that the Estonia's revenue from tourism was EUR 1.9 billion, 8% of Estonia's GDP (Statistics Estonia 2018, 53).

4. Foreign direct investment

The Finland's inward FDI stock was EUR 73.5 billion and outward stock EUR 102.7 billion at the end of 2017 (Statistics Finland, International financial position 2019). Finland's inward FDI stock was on level of 33% and outward stock on the level of 46% of Finland's GDP. Finland had more outward invested by Finnish companies abroad FDI stock than was inward stock of FDI invested into Finland by foreign companies. Finland has been integrating to the wider world economy through FDI. Estonia's inward FDI stock was EUR 17.4 billion and outward stock was EUR 5.8 billion at the end of 2017, which was respectively 74% and 25% of Estonia's GDP (Bank of Estonia, International financial position 2019). Estonia is the net receiver of FDI, its inward stock of FDI is much larger than its outward stock of FDI. In relative terms, FDI played more important role in Estonia's capital accumulation that did FDI in Finland. FDI link Estonia mainly to the Baltic Sea Region. For comparison, the FDI from all other countries into the Baltic States created half of FDI made into Finland by foreign companies. The Sweden's inward FDI stock was EUR 286 billion and the outward stock was EUR 343 billion at the end of 2017, what was respectively 61% and 72% of Sweden's GDP of 2017. These figures confirm that though the FDI from Sweden and Finland were important for the Baltic States, and created there substantial part of the total FDI stock (half of the invested into Estonia FDI), the share of these investment in outward stock of Sweden and Finland was small. These investments created close to 3% of Finland's total outward FDI stock and 1% of Sweden's outward FDI stock (calculations based on UNCTAD 2019 figures).

Figure 7. International investment position, end of 2017,
Billion EUR



Source: Bank of Estonia, International financial position, 2019; Statistics Finland, International financial position, 2019, UNCTAD, 2019

4.1. Finland

The Finland's inward FDI stock was EUR 73.5 billion at end of 2017. Five largest sources of capital were Sweden with EUR 26.0 billion (35% of total of the inward FDI stock of Finland), the Netherlands with EUR 14.6 billion (19.9%), Luxembourg with EUR 12.5 billion (17.0%), Denmark with EUR 5.6 billion (7.6%) and Germany with EUR 2.2 billion (3.0%). The value of FDI stock from Estonia to Finland was EUR 624 million and that created 0.9% of Finland's total FDI stock (Statistics Finland, International financial position 2019). The value of total outward FDI stock at the end of 2017 was EUR 102.7 billion. By economic activities, 31% of FDI stock invested into Finland went into financial intermediation, 30% into services and 12% into manufacturing.⁸

The main target countries of Finland's outward FDI were the Netherlands with EUR 31.7 billion (30.9% of Finland's total outward FDI stock), Sweden with EUR 27.0 billion (26.3%), Ireland with EUR 10.1 billion (9.8%), France with EUR 3.2 billion (3.1%), Luxembourg with EUR 2.8 billion (2.7%), Denmark with EUR 2.6 Billion (2.5%), Russia with EUR 2.4 billion (2.3%). Estonia with EUR 2.2 billion (2.1%) was the eight country followed by Singapore with EUR 2.0 Billion (1.9%) and Turkey with EUR 2.0 billion (1.9%). Finland's FDI into Lithuania were EUR 384 million and into Latvia EUR 143 million (Statistics Finland 2019). The total FDI stock of Finland's FDI in the Baltic States was EUR 2.7 billion, or 2.7% of Finland's total outward FDI.

4.2. Estonia

According to Bank of Estonia statistics, Estonia's inward FDI stock was dominated by investments from Sweden with EUR 5.5 billion (27.7% of total Estonia's FDI stock) and Finland with EUR 4.4 billion (22.4%). These two countries created 50.1% of Estonia's FDI stock at the end of 2017. The Netherlands followed with EUR 1.5 billion (7.8%), Lithuania with EUR 897 million (4.5%), Russia with EUR 748 million (3.8%), Luxembourg with EUR 675 million (3.4%), Latvia with EUR 605 million (3.0%) and Cyprus with EUR 562 million (2.8%). If we consider Kalotay's hypothesis that FDI from Cyprus are really Russia's FDI correct, then we can estimate the value Russia's FDI in Estonia approximately EUR 1.3 billion (6.6%) (Kalotay, et. al. 2014). By activities, financial intermediation created 27.5%, real estate 19.0%, manufacturing 13.6% and trade 12.6% of Estonia's inward FDI stock.

4.3. Integration of Estonia's and Finland's economies through FDI

Foreign trade and FDI are interrelated. FDI are often made to introduce production not only for this particular market of a foreign country but also for exports from that country. One particular pattern of that relationship is vertical intra-industry trade when FDI is used to develop production capacities in foreign countries and value chain of production is built up through cooperation between different units in different countries. Movement of intermediate products over borders of these states is recorded as imports and exports of countries, though this trade occurs inside a multinational company. In economic relationships of Estonia and Finland, foreign trade and FDI are interrelated.

Table 5 describes 20 largest Finnish companies in Estonia by owners, activities and turnover in 2016. Some of them have long history in Estonia and they started to be in foreign ownership after privatization in the 1990s as Saku Õlletehas AS (Saku Brewery) or AS A. Le Coq (Brewery in Tartu). Some companies are subsidiaries of well-known Finnish companies, which purchased Estonian companies and integrated them into their value chain or introduced a new subsidiary in Estonia. That is background of AS HKScan Estonia, Valio Eesti AS, Orkla Eesti AS⁹ and PKC Eesti AS. There is a group of new companies in electrical machinery and electronics, which introduced production in Estonia to use certain locational advantages as Scanfil OÜ or Ensto Ensek AS. Three large department store chains also belong to Finnish owners.

⁸ Here the FDI are by country of consignment or destination, the origin country of FDI could be different. That concerns the FDI to and from the Netherlands and Luxembourg in case of Finland.

⁹ AS Kalev was Estonian chocolate factory, which became in 2010 a member of the Orkla ASA group based in Norway. AS Kalev belonged until 2018 to the Orkla ASA through Felix Abba OyAb based in Finland. The business name AS Kalev was changed into Orkla Eesti AS which consists also located in Estonia Põltsamaa Felix AS (Kalev 2019).

Table 5. Twenty Finnish companies with largest turnover in Estonia, 2016

	Company	Owners	EMTAK description	TO, Mln EUR
1.	Neste Eesti AS	Neste Oil Oy 100%	Retail sale of automotive fuels	232,3
2.	Toyota Baltic AS	Toyota Auto Finland Oy 100%	Retail sale of new and second-hand vehicles	213,3
3.	Prisma Peremarket AS	SOK Liiketoiminta Oy 100%	Retail sale in non-specialised stores	190.4
4.	Stora Enso Eesti AS	Stora Enso Oy 100%	Sawmilling and planing of wood	187.3
5	PKC Eesti AS	PKC Wiring Systems 100%	Production of wiring and electronic equipment or vehicles	146.6
6.	AS HKScan Estonia	HKScan Oyj100%	Processing and preserving of meat and products of meat	140.3
7.	Elisa Eesti AS	Elisa Oyj100%	Wireless electronic communication services	99.3
8.	Valio Eesti AS	Nordic Dairy Holding Oy, 100%	Operation of dairies and cheese making	93.3
9.	AS A. Le Coq	Olvi Oyj, 100%	Manufacture of beer	76.9
10.	Yit Infra Eesti AS	Lemminkäinen Infra Oy 100%	Construction of roads	73.6
11.	Ruukki Products AS	Rautaruukki Oyj100%	Structures of iron or steel and parts thereof	72.1
12	Ensto Ensek AS	Ensto Oy 100%	Boards, panels, consoles, desks, cabinets, bases with apparatus of heading for electricity control and distribution	69.0
13.	Draka Keila Cables AS	Prysmian Finland Oy 100%	Isolated wire, cable and other electric conductors	62.0
14.	Saku Õlletehase AS	Carlsberg Invest A/S, Filial I Finland 100%	Manufacture of beer	61.0
15.	Metsä Forest Eesti AS	Metsäliitto Osuuskunta 100%	Wholesale of wood products	59.7
16.	Seesam Insurance AS	Citibank (London) Pohjola Vakuutus Oy 100%	Non-life insurance	59.1
17.	Scanfil OÜ	Scanfil EMS Oy 100%	Manufacture of electronic components and boards	59.0
18.	Orkla Eesti AS	Felix Abba Oy Ab 100%	Manufacture of cocoa, chocolate and sugar confectionary	46.7
19.	Stockmann AS	Stockmann Oyj Abp 90%	Retail sale in non-specialised stores	46.7
20.	Glamox He AS	Glamox ASA 20%, Glamox Luxo Lighting Oy 80%	Production of lamps, light fittings	46.5

Source: Äripäev 22.5.2018.

This list demonstrates importance of Finnish capital in different areas of Estonia's economy. By newspaper Äripäev calculations based on the Enterprise Register figures, the 270 largest Finnish capital owned companies output was EUR 4.3 billion in 2016 (Äripäev 22.5.2018). Estonia's GDP was EUR 20.9 billion in 2016 and assuming that 50% of output is value added, we can find that the total GDP created by these companies was EUR 2.2 billion, approximately 10% of Estonia's GDP.¹⁰

The total number of foreign affiliates in Finland was 4,308 with 254,977 employees and turnover of EUR 92.2 billion in 2017 (Statistics Finland, Foreign Affiliates 2019). The leading country was Sweden with 1051 affiliates, 83739 employees and turnover of EUR 20.4 billion (respectively 24.3%, 32.8% and 22% of total of foreign affiliates in

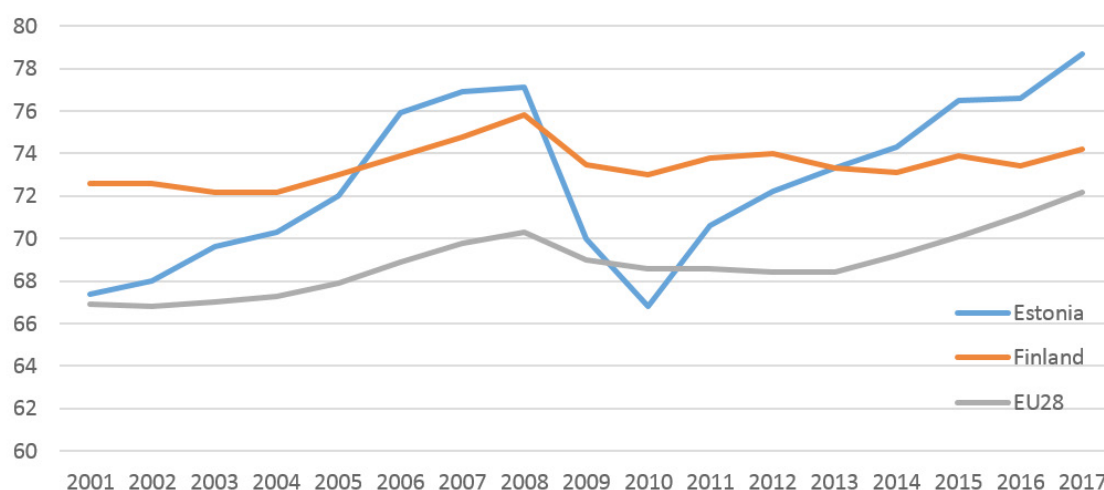
¹⁰ We cannot compare directly total output or turnover with value added numbers. Former consists some double counting as materials produced by one company could be part of production of another company and consist in value of output of that other company. Value added principle avoids that double counting.

Finland). Estonia had with 66 affiliates, over 30002 employees and turnover of EUR 990 million EUR (respectively 1.5%, 3.9% and 4.9% of total of foreign affiliates in Finland). Estonia was by number of affiliates 12th, by number of employees 13th and by value of turnover 16th country in Finland (Statistics Finland, Foreign Affiliates 2019). The most important FDI made from Estonia to Finland is purchase of Silja Line Oy by Tallink Group AS in 2006. The price was EUR 466 millions¹¹. Due to that purchase, Tallink Group AS started to be the largest shipping company in passenger shipping though the company also provides cargo service and moved into hotel and taxi business.

5. Labor market

Figure 8 demonstrates that employment rate in Finland and Estonia has been higher than EU28 average over the whole period 2001-2017.¹² Employment rate of Estonia and Finland were above the average of the EU during most of the years, except in Estonia in 2010 due to impact of the economic and financial crises of 2008-9. The EU's highest employment rate was in Sweden with 81.8% in 2017, Estonia's respective rate being 78.7% and Finland's 74.2%. From the Nordic countries, Iceland had the employment rate of 90.5% (Eurostat, Employment 2019). Comparing Estonia's and Finland's employment rates by sex, one could see that in Finland difference was smaller, employment rate of male was 75.9%, of female 72.4% and the average was 74.2% in 2017. In Estonia, the respective figures were 82.4%, 75.1% and 78.7% in 2017. The Estonia's employment rate fluctuated up during economic boom years and down during economic depression, Finland's figures were more stable. That reflects impact of Finland's more regulated by three side agreements (employer organizations, trade unions and the government) labor market policy and deeper social protection. Estonia has more flexible labor market policy, but also migration, full or part time work in Finland were possible solutions to labor market problems, especially during depression periods. We will discuss these labor market pooling together issues below.

Figure 8. Employment rate, age group 20-64, %



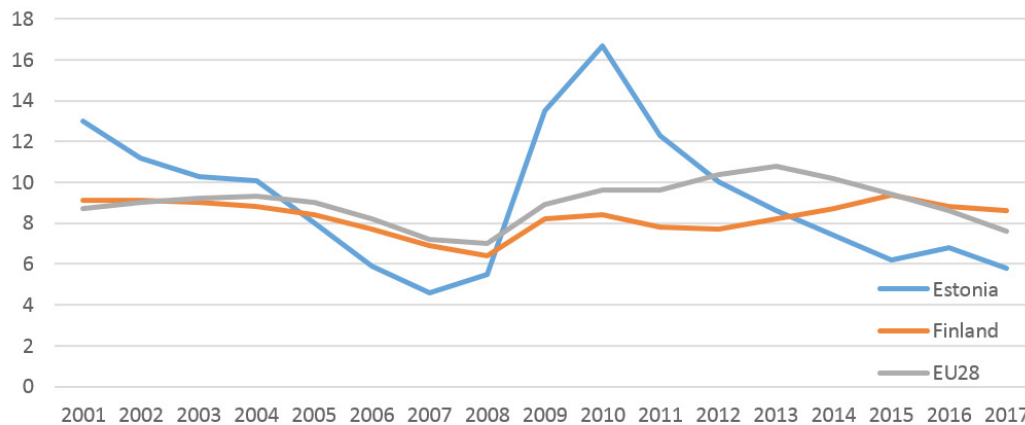
Source: Eurostat, Employment, 2019.

Finland's unemployment has been quite close to the EU level in 2000s. Estonia's unemployment level fluctuated at the same time substantially. Before economic and financial crises, Estonia had practically full employment with unemployment level between 4-5% (just frictional and structural unemployment at the level of potential GDP or even above the latter). During the economic crises, unemployment increased to level of 16-17%. When economy recovered afterwards, the unemployment rate moved again to the level of 5.8% in 2017.

¹¹ EUR 450 millions and 5 million Tallink's shares, total some was approximately EUR 466 millions (MTV uutiset 2006).

¹² The employment rate is calculated by dividing the number of persons aged 24 to 64 in employment by the total population of the same age group.

Figure 9. Unemployment rate, age group 20-64, %

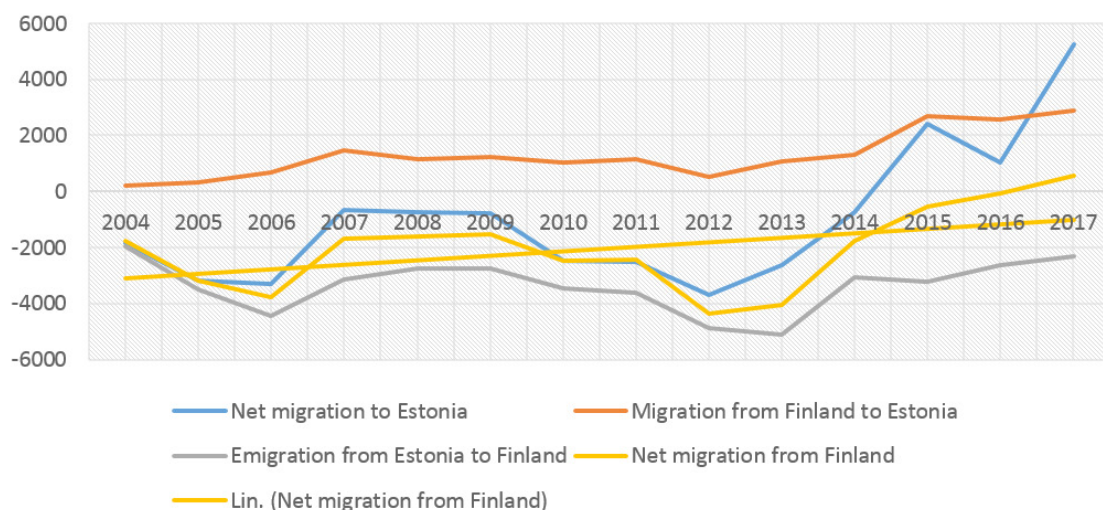


Source: Eurostat, Unemployment, 2019.

5.1. Migration and pooling together Estonia's and Finland's labor markets

Closeness of Estonian and Finnish languages is one supportive factor of migration. Very strong motive has been deep difference in living standards and wages in favor of Finland has been a motive for Estonians to move into Finland. The EU membership of Estonia in 2004 and opening of Finland's labor market in 2006 created another important impulse for migration to Finland.¹³ Emigration from Estonia to Finland has been annually between 2500 and 5000 during a period of 2004-17 what created from Estonia's total emigration 50-70%. At the same time migration from Finland to Estonia has been starting from 2007 to be more than 1000 persons annually and negative net migration of Estonia became more modest. The first year, when migration from Finland to Estonia was larger than opposite (inflow to Estonia being 2886, outflow 2308 and net migration to Estonia 578) was 2017 (Statistics Estonia, Migration, 2019). Estonia's total migration started to be positive first time in 2015 with net inflow of 2410 persons, and continued to be positive with 1030 persons in 2016 and with 5257 in 2017 (Statistics Estonia, Migration, 2019).

Figure 10. Migration to and from Estonia, 2004-2017, persons



Sources: Statistics Estonia, Migration, 2019

¹³ When ten new states, including Estonia, joined the EU in 1.5.2004, the EU15 had a possibility to use a transition period in opening of their labor markets up to seven years. The UK, Ireland and Sweden opened their labor markets immediately and did not use an opportunity of a transition period. Finland opened its labor market in May 2006 after two years transition period.

Estonia's citizens living in Finland created with 51,539 persons the largest group of foreigners (20.7%) living in Finland at the end of 2017 (Statistics Finland, Migration 2019). The second largest group were citizens of Russia with 29,183 persons (11.7% of total). By language, Russian speakers created the largest group with 77,177¹⁴, followed by Estonians with 49,590¹⁵. Number of Estonia's citizens reflects people with Estonia's citizenship. Some Estonians emigrating to Finland got Finland's citizenship, but this number is not large substantial in comparison with migration flows. During a period 2012-7, approximately 3000 former Estonia's citizens take a Finland's citizenship (Statistics Finland, Migration 2019).

There are no exact figures how many Estonians are working in particular industries. In interviews and other materials, civil engineering and city transportation (especially in Helsinki) have been mentioned.

There are three different patterns how Estonians participate in Finland's labor market. There are families, who stay permanently in Finland (some of their member have applied for Finland's citizenship, many have living and working permissions). Then there is another large group of Estonians working in Finland, who's families stay in Estonia. They are permanently commuting between Estonia and Finland. There is a group of people, who live permanently in Estonia, but who come to Finland for a short period to fulfil certain working tasks (for example, through firms, leasing labor force to other companies) (Purju 2012). Analysis of Estonia's migration to Finland using international theoretical context separates three types of migration: 1) transnational commuters (no integration in Finland, strong relations with Estonia, continuous mobility, high return intention), 2) circular migrants (low integration in Finland, strong relations with Estonia, high return intentions) and 3) bi-national migrants (high integration in Finland, relatively strong relations with Estonia, long-term plan to stay in Finland) (Anniste et al. 2017, 97-114). This study is a qualitative research, based on interviews and other surveys, and does not provide exact numbers how many migrants belong to one or another group. Estonians returning from Finland created some part of migration from Finland to Estonia.

One reason for that is that Estonia's wage level have been coming closer to Finland's wage level. There is still a major difference but people, especially whose families stay in Estonia, are looking also for other utilities than just income. Finland's average wage was EUR 3470 in the third quarter of 2018 (Trading economics 2019). Estonia's average wage was EUR 1384 in the fourth quarter of 2018 (Statistics Estonia 2019). Estonia's employers pay additionally 33% social tax, what is in Finland's tax system included into the nominal wage figure. To make tax levels comparable, Estonia's tax number should be increased by 33%, which puts its value on the level of EUR 1,840. That is on the level of 53% of Finland's average wage.¹⁶

6. Infrastructure projects integrating Estonia and Finland

Estonia's economy is approximately ten times smaller by value of GDP than Finland's economy and that makes the former relatively sensitive to single success stories or also economic failures. Regarding infrastructure projects, Estonia's smaller GDP means automatically that there are available ten times less resources than in Finland. That makes the EU support for infrastructure projects especially crucial for Estonia.

Geographically some connections through Estonia could be useful also for Finland's economy, though Finland has other connection possibilities through Sweden and the Baltic Sea is an important transportation channel for all countries on the coast of the sea. There have been a long list of projects and publications discussing different aspects of cooperation between Estonia and Finland. OECD report, for example, provides a long instruments and programs and initiatives to support cross-border policy in Helsinki – Tallinn joint region and wider between Finland and Estonia (Nauwelaers et. al. 2013). Here we discuss the role and potential of three large infrastructure projects in promoting future cooperation.

Estonia founded Elering AS in 2010 through unbundling from former state monopoly Estonian Energy AS. Republic of Estonia is a single owner of the company. Elering AS acquired also gas transmission network in 2015.

The Baltic Electricity Market Interconnection Plan (BEMIT) was launched in 2009 with the objective to connect the Baltic States with the rest of the European energy market (Elering 2019). In this plan's framework, Estonia and Finland are connected by Estlink 1 (350 MW) and Estlink 2 (650 MW). From the Estonian point of view, one target is to desynchronize Estonia's electricity system from the Unified Energy System of Russia and integrate it into EU's electricity system. The separation of Estonia's electricity system from Russia's system and connection to the European energy system will take place when all the necessary preparations are done.

¹⁴ There are several reasons for a difference number of people recorded with Russian as a mother language and citizens of Russia living in Finland. There are people from other countries with mother language of Russian, first of all, from former Soviet republics. Quite substantial number of people with Russian as a mother language do not have citizenship of Russian Federation anymore.

¹⁵ Some Estonia's citizens are Russians.

¹⁶ The *Labor Market Review of Estonia* argues that wages in individual sectors of Estonian manufacturing are around 50% higher than those in the same sector in Hungary, Latvia, Lithuania and Poland (alphabetical order), and 20-25% higher than in the Czech Republic and Slovakia (The Labor Market Review of Estonia 2018, 13).

Fingrid Oy is a Finland's owner of electric grid. Finland's power system is part of the inter-Nordic power system together with the systems in Eastern Denmark, Norway and Sweden. There are direct current transmission links to Finland from Russia and Estonia for connection of their systems to the Finnish system (Fingrid 2019). Similarly, the inter-Nordic system is connected to the system in continental Europe by means of direct transmission links. The integration of the Estonian and Finnish grids is so a part of wider integration of electricity grids. From the Baltic States, important electricity links are also NordBal between Lithuania and Sweden and LitPol between Lithuania and Poland.

Gas markets of Finland and the Baltic States functioned separately until now. Elering AS from Estonian side and Baltic Connector Oy¹⁷ from Finnish side signed a cooperation agreement on 17 October 2016 concerning the construction of a gas interconnection between Estonia and Finland, the Balticconnector. That is a bi-directional natural gas pipeline under construction between Inkoo in Finland and Paldiski in Estonia. It will connect Estonian and Finnish gas grids and assists ensuring security of gas supply in the region for both sides of the Gulf of Finland. The EU provides 75% of its funding totaling to EUR 250 million. The pipeline will be in operation in 2020 (Balticconnector 2019).

The gas transmission system current operators (TSOs) in Estonia (Elering AS), in Finland (Gasum Oy) and in Latvia (AS Conexus Baltic Grid) signed an inter TSO compensation agreement, which enables the functioning of a single transmission tariff zone for Finland, Estonia and Latvia from the beginning of 2020 (Elering 2019). The new pipeline and agreement between the TSOs creates a joint gas market of these three countries, diversifies gas distribution channels, and provides Finland with access to Latvia's natural underground gas storage. Lithuania did not join the TSOs agreement and relies on LNG terminal in Klaipeda. Technically, Lithuania's gas transmission system is linked to the other Baltic states. At the same time, the Lithuania's LNG terminal is too small and not sufficient to meet the natural gas needs of three Baltic countries. The gas interconnection between Lithuania and Poland is missing but would be important for another connection to the European gas transmission system.

The Rail Baltica project is an international rail connection that will connect Estonia, Latvia, Lithuania, Poland and Germany. Its cost has been estimated at EUR 5 billion and its construction time will be approximately ten years, the rail is expected to be in operation in 2028. The project is part of the EU's North Sea Baltic TEN-T corridor (*Rail Baltica*, 2019). The Government of Finland decided on 1 February 2019 to establish a limited liability company Oy Suomen Rata AB. Its subsidiary, the Rail Baltica Oy is expected to become a shareholder of RB Rail AS (*Rail Baltica*, 2019).

The Finland's interest to the Rail Baltica project is partly connected to the vision that in future, the Arctic route will create a new transportation channel from Asia to Europe. The Arctic route and connection from North through Finland and Estonia to Central Europe is not just a transportation and logistics channel but creates also business opportunities for different production and services areas.

7. Conclusions

Estonian-Finnish economic cooperation takes place in wider context of economic, social, political and cultural contacts. The EU membership is one important influential factor of it. Historically, for Finland contacts with the other Nordic states has been important and motivating. Sweden has been important foreign trade partner and played an important role as a source of foreign direct investments. Finland's foreign trade with Russia and FDI into this country has been more important for Finland than for the other Nordic countries. Estonia has been for Finland a relatively small but important foreign trade partner and target for FDI partly for geographical and cultural closeness. That created a special, and somehow different from contacts with other countries, attitude into economic cooperation between the two countries.

Estonia has been looking on Finland, especially in the 1990s and earlier, as a model society and economy to follow up. In some sense, Estonia followed in the 1990s Finland's integration pattern with Western institutions. At the same time, Estonia's and Finland's relationships continued development in wider framework of institutional framework. That created also specific tasks and opportunities for cooperation between these two states in development of foreign trade and services, transportation connections and infrastructure projects.

There are well-known historical cooperation, cultural closeness and some common features in business attitudes and skills. Important role of ICT companies and recognition of this area as an important catalyst of societal behavior and working habits and tools is a common feature for the both countries.¹⁸ That is a good starting point in developing further common economic space on interface of the Nordic and the Baltic countries.

¹⁷ *Baltic Connector Oy* is a company established by Finland to implement the Finnish part of the *Balticconnector* gas pipeline project between Finland and Estonia. There is an idea to unbundle the sales and transmission operations of gas from *Gasum Oy* when Finland's gas market will be opened from the year 2020. The new company *Suomen Kaasunsiirtopalvelut Oy* will be responsible for transmission operations of the gas (*Balticconnector*, 2019).

¹⁸ See Lumiste, Pefferly & Purju (2008, 37-42).

Development of connecting infrastructure supports substantially development of economic space on the both coast of the Baltic Sea. Projects like Balticconnector 1 and 2, gas network, LNG terminals, ports development, Rail Baltic, possible future Helsinki – Tallinn tunnel support development of this common economic space. For small countries as Finland and Estonia, these larger projects have initiated discussion about economic cost benefit analysis and economic and social efficiency. These calculations are necessary and required. But important are also visions of future economic development and potential scale of activities. The efficiency of different large projects depend largely on the size of future economy and these projects have important role in these development.

The Estonian-Finnish cooperation should be developed by taking into account wider context of the EU and global economy. The EU strategies of infrastructure development together with financial support create a very good perspective in this area. The wider goal of EU strategies to achieve deeper integration of member states is especially important for countries located in historical periphery of economic development. On the other hand, these trends support also global competitiveness of economies here. The Arctic route and connection from North through Finland and Estonia to Central Europe is not just a transportation and logistics channel but creates also business opportunities for different production and services areas.

Though Finland and Estonia are both small countries in EU and in global economy, Finland's economy is ten times larger by GDP than Estonia's economy. FDI from Finland and foreign trade with Finland were more important for Estonia than otherwise. Finland was at the same time due to its connections to the Nordic countries, at least in some areas, model economy and creator of contacts for wider cooperation and networks.

Estonia's small size was advantage in some cases. For example, e-governance and several other pioneering projects were easier to introduce in a small country with relatively developed technical skills and ICT capacities. Do develop Estonia's ICT has a place to experiment with new services is one opportunity to develop cooperation between Estonia and Finland further. The digitalization of transport and logistics is one interesting challenge for ICT companies from both countries.

This overview of economic potential of economies and linkages between them could be used in future analysis of development patterns and joint projects in different fields of economy. The economic integration which took place until now, created a good bases for deeper pooling together Estonian and Finnish economies.

References

- Ali-Yrkkö, J., M. Lehmus, P. Rouvinen & V. Vihriälä. (2017). *Riding the Wave. Finland in the Changing Tides of Globalization*. Research Institute of Finnish Economy – ETLA. Series B274. Helsinki: Taloustieto.
- Ali-Yrkkö, J., J. Mattila, T. & T. Seppälä. (2017). *Estonia in Global Value Chains*. Research Institute of the Finnish Economy – ETLA. Reports No. 69.
- Andersen, T. M., B. Holmström, S. Honkapohja, S. Korkman, H. T. Söderström, J. Vartiainen., (2007). *The Nordic Model. Embracing globalization and sharing risks*. ETLA. Helsinki: Taloustieto Oy.
- Anniste, K., L. Pukkonen & T. Paas.. (2017). "Towards incomplete migration: Estonian migration to Finland", *Trames*, 21, 2, 97-114.
- Balticconnector. (2019). <http://balticconnector.fi/en/company>. (4.3.2019).
- Bank of Estonia, International financial position. (2019). <http://statistika.eestipank.ee/#/et/p/146/r/2293> (20.2.2019).
- Elering. (2019). <https://www.elering.ee/en/gas-tsos-finland-estonia-and-latvia-have-reached-new-voluntary-agreement-inter-tso-compensation> (4.3.2019).
- Eurostat, GDP Eurostat, Comparative price levels., (2019). <https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tec00120> (20.02.2019).
- Eurostat, GDP per capita in PPS, per capita. (2019). <https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tec00114&plugin=1> (20.02.2019)
- Eurostat, GDP Eurostat, Real GDP growth rates. (2019). <https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tec00115&plugin=1> (20.02.2019).
- Eurostat, Unemployment. (2019). http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=une_rt_a&lang=en (28.2.2019)
- Fingrid. (2019). <https://www.fingrid.fi/en/grid/electricity-system-of-finland/> (4.3.2019)
- Gasum. (2019). <https://www.gasum.com/en/About-gas/Finlands-gas-network/Natural-gas-transmission/gas-transmission-system/> (4.3.2019)
- Heikkinen, S. & A. Kuusterä. (2001). "Finnish Economic Crises in the 20th Century". J. Kalela, J. Kiander, U. Kivikuru, H. A. Loikanen & J. Simpura (eds.), *Down from the Heavens, up from the Ashes. The Finnish Economic Crisis of the 1990s in the Light of Economic and Social Research. Economic Crises. 1990s Economic Crisis. The Research Programme on the Economic Crisis of the 1990s Finland*. Helsinki: Valtion Taloudellinen Tutkimuslaitos, 25–51.
- Honkapohja, S. & E. Koskela. (2001). "The Economic Crises of the 1990s in Finland". J. Kalela, J. Kiander, U. Kivikuru, H. A. Loikanen & J. Simpura (eds.), *Down from the Heavens, up from the Ashes. The Finnish Economic Crisis of the 1990s in the Light of Economic and Social Research. Economic Crises. 1990s Economic Crisis. The Research Programme on the Economic Crisis of the 1990s Finland*. Helsinki: Valtion Taloudellinen Tutkimuslaitos, 52–101.
- HS Code. (2017). <https://www.foreign-trade.com/reference/hscod.htm> (23.2.2019).
- Jonung, L., J. Kiander & P. Vartia. (2009). 'The Great Financial Crises in Finland and Sweden: the Dynamics of Boom, Bust and Recovery 1985–2000', in: Jonung, L., J. Kiander & P. Vartia: *The Great Financial Crises in Finland and Sweden. The Nordic Experience of Financial Liberalization*. Cheltenham: Edward Elgar, pp. 19–70.
- Kalev. 2019. <http://kalev.eu/en/company/kalevi-ajalugu>. (8.4.2019).
- Kalotay, K., A. Éltető, M. Sass & C. Weiner. (2014). *Russian Capital in the Visegrád Countries*. IWE Working Papers, No 210. Budapest, Centre for Economic and Regional Studies of the Hungarian Academy of Sciences – Institute of World Economics.
- Krugman, P. (1991). *Geography and Trade*. Cambridge, Massachusetts and London: MIT Press.
- Labour Market Review. (2018). No. 2, Bank of Estonia.
- Lumiste, R., R. Pefferly & A. Purju. (2008). *Estonia's Economic Development: Trends, Practices and Sources*. Commission on Growth and Development, the World Bank, Working Paper No. 25.
- MTV uutiset. 2006. <https://www.mtvuutiset.fi/artikkeli/tallink-osti-silja-linen/2095868#gs.4rpuwcs> (8.4.2019).

Nauwelaers, C., K. Maguire, & G. M. Marsan. (2013). « The case of Helsinki-Tallinn (Finland–Estonia) – Regions and innovation: collaborating across borders”. *OECD Regional Development Working Papers* 2013/19.

Purju, A. (2012). *Majandus- ja sotsiaalsed arengud Balti riikides: Eesti*. European Economic and Social Committee, 1-17. Brüssel: EK.

Purju, A. (2017). "Economy". In Bernd Henningsen, Tobias Etzold and Krister Hanne, eds, *The Baltic Sea Region: A Comprehensive Guide. History, Politics, Culture and Economy of a European Role Model*, pp. 205-264, Berlin: Berliner Wissenschafts-Verlag.

Rail Baltica. (2019). <http://www.railbaltica.org/about-rail-baltica/> (4.3.2019).

Standard International Trade Classification, Revision 4. (2006). <https://unstats.un.org/unsd/tradekb/Knowledgebase/50017/Standard-International-Trade-Classification-Revision-4.htm> (23.2.2019).

Statistics Estonia. (2018). "Record Year in Tourism Last Year", *Quarterly Bulletin of Statistics Estonia*, No. 2, pp. 53-55.

Statistics Estonia, Foreign trade. (2019). <http://andmebaas.stat.ee/Index.aspx?lang=et&DataSetCode=VKT14> (20.02.2019).

Statistics Estonia, Migration. (2019). <http://andmebaas.stat.ee/Index.aspx?lang=et&DataSetCode=RVR05> (28.02.2019).

Statistics Estonia, Trade of services. (2019). <http://andmebaas.stat.ee/Index.aspx?lang=et&DataSetCode=VKT10> (20.02.2019).

Statistics Finland, Employment. (2019). <https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=t2020> (28.2.2019).

Statistics Finland, Migration. (2019). https://www.stat.fi/tup/suoluk/suoluk_vaesto_en.html (28.2.2019).

Statistics Finland, Foreign affiliates. (2019). http://tilastokeskus.fi/til/ulkoy/2017/ulkoy_2017_2018-12-18_tie_001_en (28.2.2019).

Statistics Finland, International financial position. (2019).

http://www.stat.fi/til/ssij/2017/ssij_2017_2018-10-31_tau_001_en.html (20.2.2019).

Statistics Finland, Tourism. (2019). <http://www.stat.fi/til/smat> (4.3.2019).

Statistics Finland, Trade of goods, (2019). http://pxnet2.stat.fi/PXWeb/pxweb/en/StatFin/StatFin_kan_tpulk/?tablelist=true (20.2.2019).

Statistics Finland, Trade of services. (2019). http://pxnet2.stat.fi/PXWeb/pxweb/en/StatFin/StatFin_kan_tpulk/?tablelist=true (20.2.2019).

Trading economics. 2019. <https://tradingeconomics.com/finland/wages> (28.02.2019).

UNCTAD. (2019). United Nations Conference on Trade and Development. <http://unctadstat.unctad.org/wds/ReportFolders/reporfolders.aspx>. (20.2.2019).

Äripäev. (2018). Suurima käibega Soome omanikuga ettevõtted Eestis. Äripäev, 22.5.2018.

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