



# **BANK OF FINLAND** **BULLETIN**

**BANK OF FINLAND ARTICLES ON THE ECONOMY**

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# Why is Finland trailing its peers?

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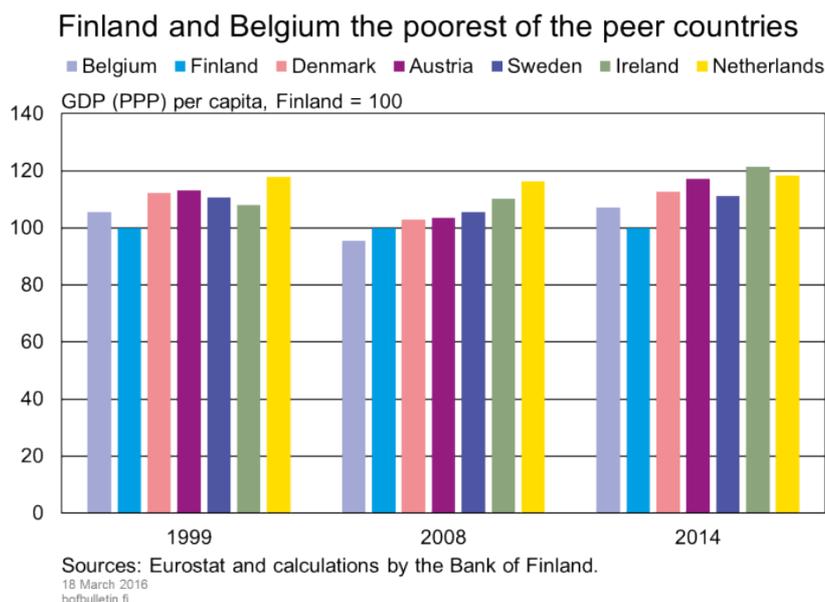
In Finland, economic growth has been weak since the onset of the financial crisis. According to the most recent forecast by the European Commission, GDP growth in Finland is expected to remain among the slowest in the euro area in the coming years – alongside Greece. The factors underlying the subdued development in GDP can be examined by comparing Finland with other small EU countries, i.e. the Netherlands, Belgium, Ireland, Austria, Sweden and Denmark. These countries constitute a meaningful peer group because they are relatively open economies with a similar degree of development.



The late 1990s saw Finland recover rapidly from the recession of the early part of the decade, led by the Nokia-driven ICT industry. But, in 1999, the standard of living in Finland, measured by purchasing-power-parity-adjusted GDP per capita (GDP (PPP) per capita), was still the lowest among our group of peer countries (Chart 1).

In the first years of the new millennium, the Finnish economy however continued to grow at a brisk pace, and of the peer countries, only in Ireland was economic growth significantly stronger than in Finland. Also in terms of standard of living, Finland caught up somewhat with its peers, and overtook Belgium.

Chart 1.



Following the recent financial crisis, the steepest decline in GDP in 2009 was witnessed in Finland; however, the impact of the crisis was of a similar scale in Sweden, Denmark and Ireland. Recovery from the recession has nevertheless been divergent. In Finland, the Netherlands and Denmark, GDP per capita began to decline again significantly after 2011, and, in Finland, the decline was still continuing in 2014. In contrast, Ireland seems to be returning to its pre-recession growth path. Moreover, Finland's catch-up with the standard of living of its peers has halted. The standard of living in Finland, measured by purchasing-power-parity-adjusted GDP per capita, is again clearly the weakest in the peer group.

## Consumption's share of aggregate demand has increased

The recession in the Finnish economy is above all related to the collapse of the export sector. In 2007, the structure of the Finnish economy was similar to that of its peers (Chart 2). At that time, private and public consumption accounted for around 70% of Finnish aggregate demand, whereas the share of net exports and investment was just under a third.

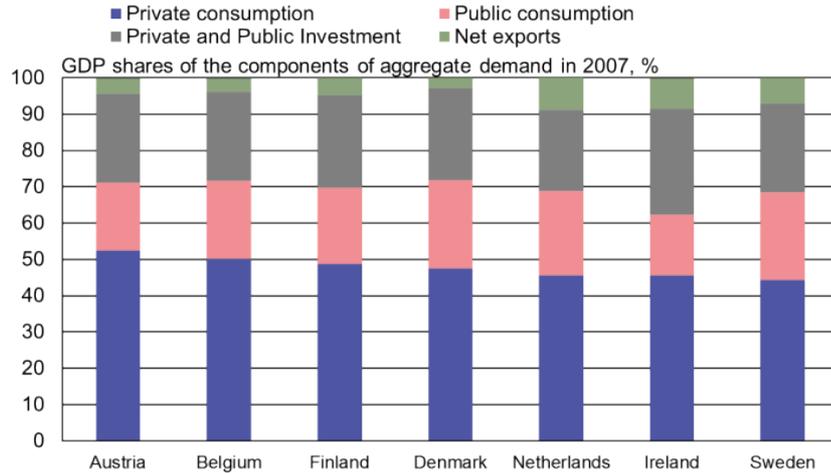
Reflecting the protracted weak performance of the economy and sector-specific difficulties, the share of net exports has decreased, as a result of which economic growth has in recent years depended mainly on private consumption. The GDP share of private consumption has, in Finland, increased from the pre-financial-crisis level of below 50%, to over 55% of GDP, i.e. the highest share in the peer group. In several other peer countries the share has remained stable, at clearly below 50% of GDP.<sup>[1]</sup> In Sweden, for example, the GDP share of private consumption is only about 45%. Nevertheless, the

1. The share of private consumption is typically even higher in many emerging countries and large developed economies, such as the United Kingdom and the United States.

rapid expansion in domestic demand largely explains the higher GDP growth rate in Sweden compared with Finland in recent years. In addition to private demand, net exports also continue to make a significant positive contribution to GDP growth in Sweden.

Chart 2.

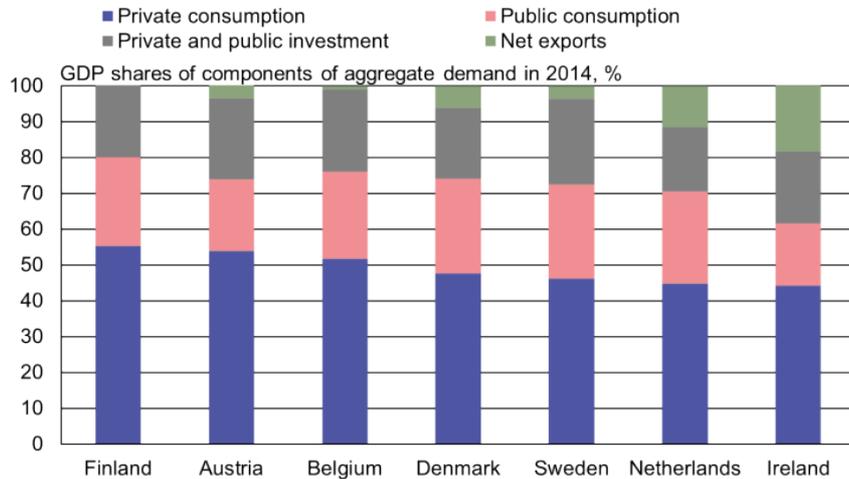
### Structure of aggregate demand in Finland similar to its peers in 2007



Source: Eurostat.  
18 March 2016  
bofbulletin.fi

Chart 3.

### Consumption's share of aggregate demand large in Finland in 2014



Source: Eurostat.  
18 March 2016  
bofbulletin.fi

In Finland, fixed investment has not tracked growth in consumption. In recent years, the volume of fixed investment has been modest in advanced economies,<sup>[2]</sup> but the rate in

2. Hukkinen et al. (2015) *Mistä investointien vaikeus johtuu?* (What explains the sluggishness of investment?) Analysis article, in Finnish only. Eurojalous.fi website.

Finland has been even weaker than its peers. In addition, Finland has not attracted foreign direct investment.<sup>[3]</sup>

In Finland, disposable household income has grown at a slower pace than consumption. The gross savings ratio for the economy as a whole has fallen from 25% to the lowest level in the group, i.e. below 20%. Due to the low savings ratio, Finnish households' debt-to-disposable income ratio increased in 1999–2015, from 65% to around 125%. Yet in 2014, only Belgium and Austria had lower household debt-to-income ratios than Finland. In the peer group, the households with the highest debt ratios are to be found in Denmark, the Netherlands and Ireland, with ratios above 200% of disposable income. Indebtedness has, however, decreased in these countries since the financial crisis.

Both private and public consumption have been supported by the accumulation of public debt. Finland's cyclically adjusted deficit is currently at the average level for the peer group, but over the period 2007–2014 it weakened most in Finland. Due to the protracted period of central and local government deficit, Finland's public debt-to-GDP ratio increased nearly 1.5 times in 1999–2014. The debt ratio is however still reasonable, particularly compared with Ireland and Belgium, where the level of public debt exceeds annual GDP.

The current account describes the rate of debt build-up for the economy as a whole. During the recession, Finland's sizeable current account surplus turned into a deficit, and now it is broadly in balance. However, risks relating to the pick-up in the growth of external debt and the sustainability of the public finances limit the possibilities to revive the economy via demand stimulation.<sup>[4]</sup> For all comparison countries, the surplus is larger than in Finland. In Ireland, too, the deficit recorded in the crisis years has turned into a surplus of approximately 3%. Finland's current account is depressed not only by the services account, which is weakest in the comparison, but also by the balance of trade (0%), which is among the weakest in the group, along with that of Austria and Belgium.

Finland's export problems are largely sector-specific. In addition to difficulties in the ICT and forest industries, exports have been dampened by problems in the shipbuilding industry and the sluggishness of trade with Russia. If these problem sectors are not taken into account, the volume of Finnish exports grew in 2007–2014 by over 5%, which is not significantly slower than export growth in the peer countries. For example, Sweden's goods exports have recorded a slower pace of growth. The sectors facing difficulties however account for a significant share of Finnish exports.

## Finland a more closed economy than its peers

The success of the ICT industry and the rapid rate of global economic growth in the first post-millennium decade masked a group of structural problems in Finnish exports. These problems hamper the adjustment of the export industry to sector-specific changes.

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3. Leino (2015) [Suomi jäänyt muista Pohjoismaista ulkomaisissa investoinneissa](#). (Finland lagging behind the other Nordic countries in foreign investment) Analysis article, in Finnish only. Eurojatalous.fi website.

4. The corporate sector has in recent years been the only sector in the Finnish economy that has posted a financial surplus. Without the corporate sector surplus, the pace of debt accumulation in the Finnish economy would be significantly higher. See e.g. [Bank of Finland Bulletin 5/2015](#).

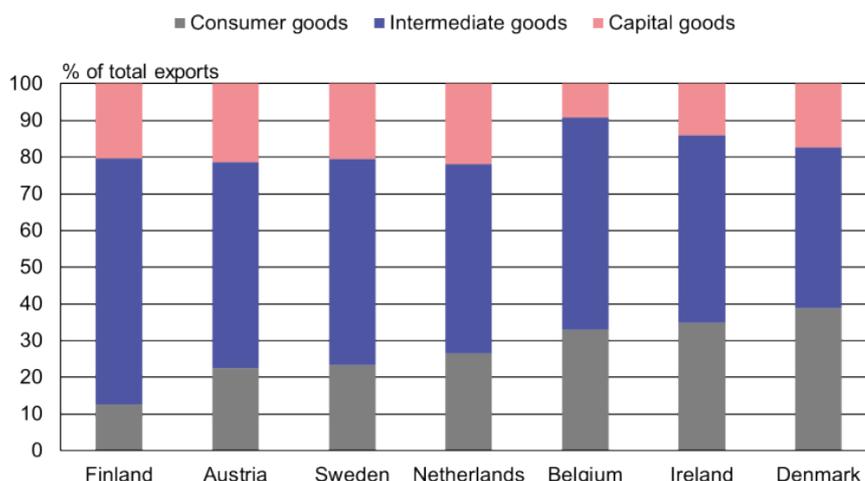
Finland is a more closed economy than its peers: the ratio of combined exports and imports to GDP is below 80%, whereas in e.g. Ireland, it is significantly above 100%. Of the other peer countries, also Sweden is a more closed economy, but the ratio is nearly ten percentage points higher than in Finland. In Belgium and the Netherlands, the openness of the economy is partly explained by the large commercial ports.

The small volume of Finnish exports is mainly due to the smaller volumes of exports to the EU's internal market. For example, the volume of Sweden's goods exports to the EU, relative to GDP, is more than one percentage point higher than Finland's. Compared to the other countries, the difference is even more pronounced. In contrast, in terms of the volume of extra-EU foreign trade, Finland does not seem to lag significantly behind its peers.

A sector-specific examination shows that Finland exports relatively large volumes of intermediate goods, such as metal and forest industry products, whereas in the large consumer goods items and particularly in the manufacture of food products, basic pharmaceutical products, motor vehicles and small electronic products, export volumes are low (Chart 4). The low volume of consumer goods exports increases Finland's vulnerability to global cyclical fluctuations because the demand for capital goods reacts more strongly to global business cycle fluctuations.

Chart 4.

#### Finland exports a relatively small volume of consumer goods



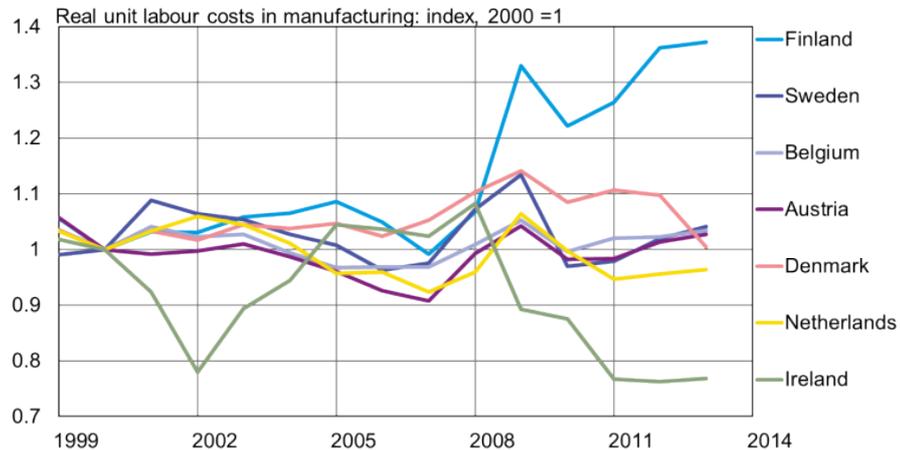
Source: Eurostat.  
18 March 2016  
bofbulletin.fi

The creation of new possibilities for exports may have been hampered by the fact that in Finland labour costs have outpaced productivity growth since 2008. This is reflected e.g. in the weakening of manufacturing competitiveness relative to the peer countries (Chart 5). In Finland, the weakening of productivity in the manufacturing sector is partly due to the aforementioned problems in the export industries, but at the same time, wage growth has remained strong. This may have slowed the creation of new jobs in manufacturing and also in other sectors of high productivity growth. During the recession, employment growth has been strongest in public services, where productivity developments are typically very weak. Opposing developments in unit labour costs have been witnessed in

Ireland where sluggish growth in wages since the economic crisis has been accompanied by strong improvements in productivity. In Ireland, productivity has been supported particularly by the creation of new jobs in high-productivity international companies.

Chart 5.

### Finland's cost-competitiveness has weakened since 2008



Sources: Eurostat and calculations by the Bank of Finland.  
18 March 2016  
bofbulletin.fi

## Potential output has weakened in Finland at a faster pace than in the peer countries

In examining differences between the peer countries in terms of long-term economic developments, it is of key importance to analyse the supply-side factors, i.e. differences in the available labour force, the tangible and intangible capital stock, and particularly in labour productivity. The longer-than-expected recession, the slow pace of structural changes in manufacturing as well as further accumulation of public debt have weakened Finland's growth potential in terms of all the growth factors. According to a Bank of Finland estimate in 2015, GDP per capita should grow by 0.5–1.0% per annum in 2015–2035.<sup>[5]</sup> Corresponding rates of other Finnish economic forecasters are between 0.7 and 1.6%.

## Population ageing most rapidly in Finland

The developments in the potential labour force in Finland and its peer countries will depend in the near future mainly on population ageing. The size of the working-age population (15–64-year-olds) will shrink due to, in particular, the retirement of the baby-boomers, which has commenced at a slightly faster pace in Finland than in the peer countries. This partly reflects the relatively low retirement age of the male population. The average effective retirement age in Finland in 2009–2014 was 61.9 years, whereas

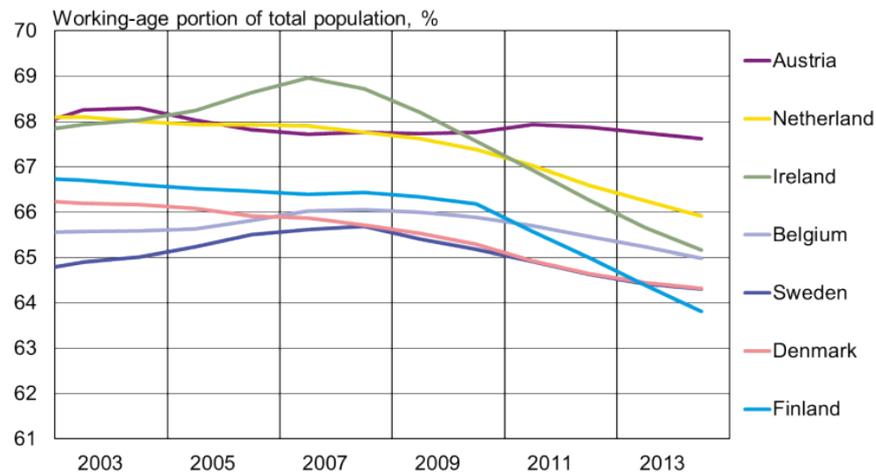
5. See Mäki-Fränki, P (2015) Rakenteelliset tekijät hidastavat pitkän aikavälin talouskasvua (Structural factors dampen long-term economic growth). The Finnish Economic Journal 111, 3/2015, p. 306–311 (in Finnish only).

the average for the whole peer group was a year higher. The retirement age of Finnish women, 62.3 years, is a year higher than the average (61.6 years).

The most rapid contraction in the size of the working-age population has in recent years been witnessed in Ireland, where the shrinking of the working-age population reflects not only ageing but also emigration during the financial crisis and the recession. In Finland, the population is ageing at a rapid pace (Chart 6). Between the start of the millennium and the year 2010, the proportion of the working-age population of the total population in Finland (just under 67%) was still close to the average in the peer group and higher than e.g. in Sweden and Denmark. As a result of the rapid pace of retirement of the baby-boomers since the turn of the decade, the proportion of the working-age population in Finland has decreased to ca 64%, the lowest in the peer group.

Chart 6.

### In Finland, population has aged at a rapid pace



Sources: Eurostat and calculations by the Bank of Finland.  
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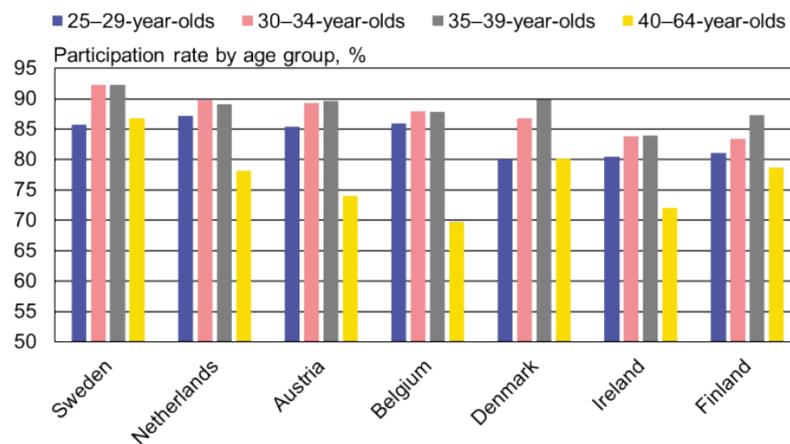
In addition to the contraction in the working-age population, the labour supply in Finland is weakened by the relatively low labour force participation rate among the working-age population (Chart 7). The labour force participation rate was in Finland ca 75%, i.e. close to the level in Austria and the third weakest in the peer group, after Ireland and Belgium. In contrast, in Sweden, which has the highest labour force participation rate in the group, the effects of population ageing are dampened. In Sweden, just under 82% of the working-age population is available for the labour market. In Finland, the average participation rate is depressed mainly by the labour participation rate of men, which particularly in the older age groups, is low compared to the peer countries. The rate is depressed also by the low level of labour participation by persons of prime working age (about 30–40 years), particularly women. In contrast, in the older age groups, the participation rate is in Finland fairly high and close to that in Denmark and the Netherlands.

In addition to the labour force participation rate the employment rate in Finland is also lower than in most of the peer countries. The employment rate in Finland (ca 75%) is

nearly 5 percentage points lower than in Sweden, which is similar to Finland in terms of labour market institutions. In Finland, the lower employment rate of women compared to the peer countries is due, in particular, to the mothers of children under 6 years of age, as their employment rate is the lowest in the peer group, despite the high overall employment rate of women. In the Netherlands, ca 80% of the mothers of the under 6-year-olds are employed, whereas in Finland and in Ireland, the corresponding figure is only ca 60%. A special feature in Finland is that compared to the other countries, highly-educated mothers, in particular, are more often out of work.

Chart 7.

### In Finland, the labour participation rate is low for young adults

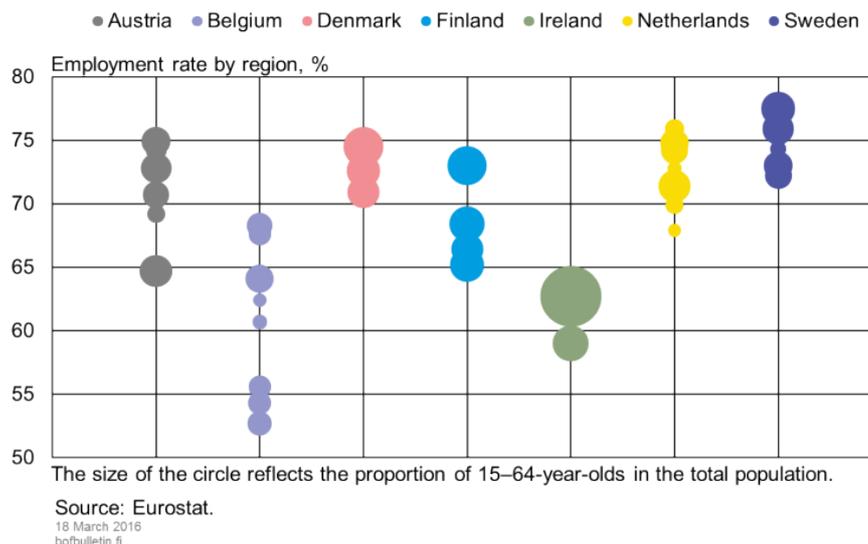


Source: Eurostat.  
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The countries also have regional differences in employment (Chart 8). Particularly in Sweden, the majority of the population lives in regions with a high employment rate, and even at its weakest, the employment rate matches that found in Finland only in the southern county of Uusimaa. In Finland, a large share of the population lives in regions with low employment rates, whereas in the other countries, with the exception of some French-speaking regions of Belgium and in Austria in the Vienna region, the employment rate does not differ as much between areas with high or low population density. Cross-country differences in urbanisation are however not large if we look at how the population is distributed among cities, population centres and the countryside. In Finland, the majority of the population in the countryside lives far away from areas with high concentrations of workplaces.

Chart 8.

### In Finland, large regional differences in employment rates



## Capital stock drying up in Finland

Private fixed investment contracted during the financial crisis in 2008 and 2009 in all the developed economies, and even since the crisis, such investment has been sluggish. In Finland, developments in the capital stock have since 2008 been even weaker than in most of the peer countries.

The capital intensity of production is a measure of the amount of material and immaterial productive capital per person employed in the economy.<sup>[6]</sup> From the start of the millennium until the financial crisis, the capital intensity of manufacturing was the lowest in Finland among all the peer countries except for Austria. The pace of increase in capital intensity was however about the same in all the countries.

Since 2010, the capital stock has remained virtually unchanged in Finland, whereas in the comparison countries, it has typically started to increase again. A particularly strong increase in capital intensity has been witnessed in Sweden.

In the private sector, developments in the net capital stock of manufacturing, in particular, has been weak in Finland. In 2013, it was some 12% lower than in 2008. The erosion of the capital stock is largely due to the collapse of the ICT industry and the shutting down of forest industry facilities. It may also reflect the adjustment of the capital stock to a weaker outlook for growth.<sup>[7]</sup>

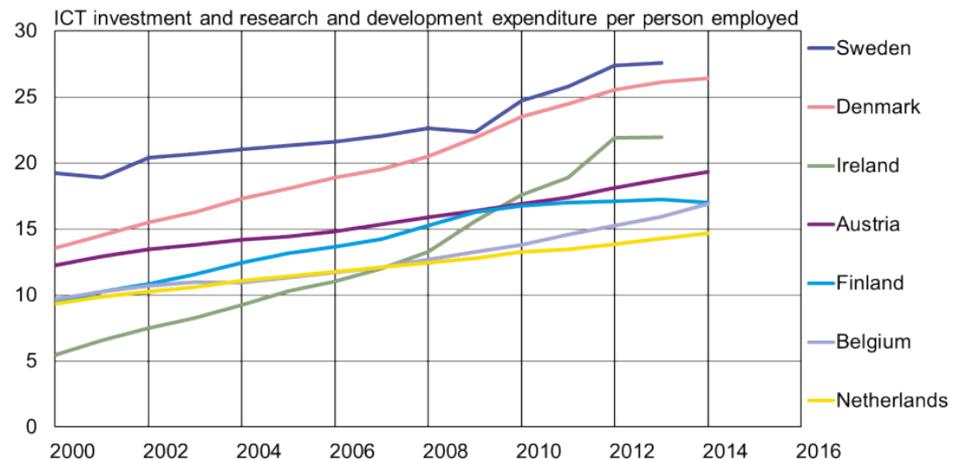
6. According to traditional neoclassical growth theory, an increase in the amount of capital improves labour productivity. However, after a certain point, productivity can be increased effectively only by raising the efficiency of capital usage, but not by increasing the amount of capital.

7. Itkonen, J. – Mäki-Fränti, P. (2016) *Kuultuva pääoma* (Shrinking capital). Analysis article, in Finnish only. Eurojatalous.fi website.

The contraction of the Finnish ICT industry has been reflected in investments that promote the introduction and utilisation of new technology. The capital stock, which has accumulated as a result of investments in ICT technology as well as immaterial capital, has increased in the peer countries since the financial crisis, but in Finland it has stagnated; measured per person employed, it is now close to the level in Belgium (Chart 9).

Chart 9.

### Weak trend in investments that support technology development in Finland



Source: Eurostat.  
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## Productivity in Finland among the weakest in the peer group

Due to the weak developments in both the potential labour force and the capital stock in Finland, the improvement of the economy in the next couple of decades is likely to depend almost entirely on the growth of total factor productivity.<sup>[8]</sup> In recent years, growth in total factor productivity has however been subdued in both Finland and the EU countries in general, and it is not expected to pick up rapidly. For example, according to projections by the European Commission, total factor productivity growth in 2013–2060 will be only 0.8% on average in the EU countries and 0.7% in Finland.<sup>[9]</sup>

If productivity is measured roughly by value added per person employed, Finland throughout the first post-millennium decade was at the bottom of the peer group, along with Austria and the Netherlands (Chart 10). From the start of the millennium until the financial crisis, Finland on the heels of Sweden, gained ground on Belgium, Denmark, and Ireland. During the recession, productivity in Finland descended sharply, as output fell, especially in manufacturing, faster than the decline in employment.

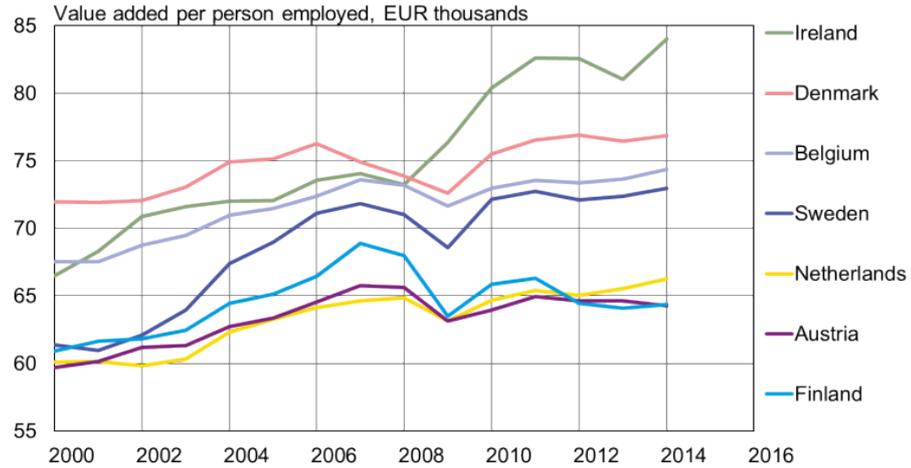
8. Total factor productivity refers to the growth in labour productivity that is not directly due to increases in inputs, e.g. labour and capital, but the result of their more efficient use.

9. European Commission (2015) The 2015 Ageing Report. European Economy 3/2015.

The weak developments in productivity in Finland since the drastic drop in GDP in 2009 are explained by structural changes in the economy and by the replacement of high-productivity industrial jobs by low-productivity jobs, particularly in public services. However, productivity developments within a number of individual sectors in Finland have also been among the weakest in the peer group.

Chart 10.

### Labour productivity developments weaker in Finland than in the peer countries



Source: Eurostat.  
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## Both weaknesses and strengths in the structures of the economy

The World Economic Forum (WEF) Competitiveness Index describes the most important factors shaping the outlook for economic growth. Finland has for several years ranked high in the index; in the 2015 index, Finland's ranking was 8th. Of the peer countries, only the Netherlands ranked higher, and all the peer countries ranked very high, among the top 24 economies. Finland has several strengths that support competitiveness and in which it ranks number one among the peer countries and in the world.

Table.

## Finland's competitiveness index: strengths and weaknesses

| Finland's strengths           |                                |                                     | Finland's weaknesses     |                                |                                     |
|-------------------------------|--------------------------------|-------------------------------------|--------------------------|--------------------------------|-------------------------------------|
|                               | Finland's ranking in the index | Finland's ranking in the peer group |                          | Finland's ranking in the index | Finland's ranking in the peer group |
| Institutions                  | 1.                             | 1.                                  | Market size              | 59                             | 7                                   |
| Health and primary education  | 1.                             | 1.                                  | Labour market efficiency | 26                             | 5                                   |
| Higher education and training | 2.                             | 1.                                  | Goods market efficiency  | 21                             | 6                                   |
| Innovations                   | 2.                             | 1.                                  | Business sophistication  | 14                             | 6                                   |
| Financial market development  | 6.                             | 1.                                  |                          |                                |                                     |

Source: World Economic Forum.

The WEF report also points out several well-known weaknesses of Finland (Table). Finland is a closed economy, intensity of competition in the goods market is low, and there is room for improvement in the functioning of the labour market. A more interesting finding is that these factors are some of the competitiveness advantages of the richest countries in the peer group.

A clear weakness of the Finnish economy is the lack of competition. The best of the peer countries are among the top 10 economies in the world based on the competitiveness indicators, whereas Finland's ranking in, for example, the intensity of competition and the number of local subcontractors is close to 90th. Moreover, the number of companies with strong market dominance is higher in Finland.

Ireland and the Netherlands are more open economies than Finland. They have a high prevalence of foreign ownership and direct investment, and they attract international experts. In all these subcomponents Finland's ranking is below 50, among the 140 economies examined. Labour market efficiency is one of the strengths of Denmark, whereas Sweden is one of the best in terms of production process sophistication.

The level of labour market efficiency in Finland is around the average for the peer group, whereas Belgium and Austria rank considerably lower than Finland. The competitiveness

index shows that the problems in the labour market are related to flexibility of wage determination (poorest in the peer group) and cooperation in labour-employer relations (2nd weakest after Belgium).

The low level of goods market efficiency in Finland reflects, in part, the low level of entrepreneurial intention among Finns. In the Global Entrepreneurship Monitor study, only about one-third of Finns considered entrepreneurship a relevant career choice. This is reflected also as a lower level of early-stage entrepreneurial activity. The popularity of entrepreneurship is higher in the Netherlands and Ireland than in the other countries. The survey also reflects Finnish entrepreneurs' weak international aspirations and growth expectations, which are partly in line with the fact that Finland is a relatively closed economy with a low level of competition.

## High level of taxation in several peer countries

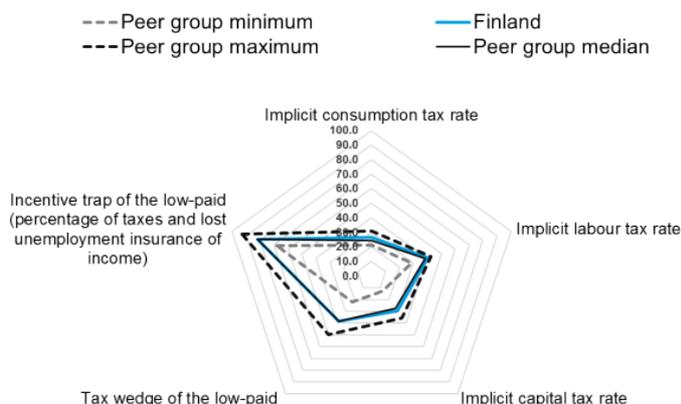
The tax rates in Finland are close to the median for the peer group for consumption, capital and labour (Chart 11). The difference in the tax rate in Finland versus the lowest tax rate in the peer group is most significant in the taxation of capital. Capital taxation is low particularly in the Netherlands and Ireland where the implicit tax rate on capital is ca 13%, whereas in for example Sweden and Finland, it is ca 30% and in Belgium even higher. Consumption is heavily taxed in all the Nordic countries, and labour taxation is relatively high not only in Finland but also in Belgium, Austria, the Netherlands, and Sweden.

In terms of labour taxation, the size of the work incentive traps and tax wedge for the low-paid employees is also important from the perspective of labour supply. In Finland, the tax wedge is of medium size among the peer group, together with Denmark (Chart 11) and slightly narrower than e.g. in Sweden and Austria where the employment rate is higher than in Finland. In contrast, in Ireland the tax wedge for the low-paid employees is approximately 15 percentage points narrower than in Finland.

The work incentive traps for the low-pay industries (defined as the share of unemployment insurance in net wages and salaries of those earning 67% of the median) are in Finland of the average size (80%), together with the Netherlands. The work incentive traps are ca 10 percentage points smaller in Ireland, Austria and Sweden. In contrast, in Belgium the low-pay industries' work incentive trap (93%) and tax wedge (50%) are significant, which may partly explain the low employment rate in Belgium.

Chart 11.

### Finnish taxation of medium level for the peer



Source: Eurostat.  
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## Finland's big challenge: to catch up with the others

Finland's slower economic growth relative to the peer countries since 2007 is largely explained by difficulties in the forest and ICT industries, which escalated simultaneously with the weakening of international business conditions.

The small size of the domestic market, low intensity of competition in the goods markets and problems in the labour market have slowed the changes in the structure of production. The weakening of export industry competitiveness in the first years of the recession has also slowed down the creation of new jobs in high-productivity industries.

In the pre-recession period, Finland was still catching up with the wealthiest small economies, but now it is falling further behind. Population ageing, low level of investment and the protracted stagnation in productivity growth may restrict the growth potential of Finland more than that of the peer countries also in the immediate years ahead. Finland's traditional strengths are its efficient institutions and high level of education, but these alone are hardly sufficient for catching up with the most advanced economies.

### Tags

- [capital stock](#)
- [consumption](#)
- [employment](#)
- [EU](#)
- [gross domestic product](#)
- [productivity](#)
- [structure of economy](#)

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