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This Survey is published on the responsibility of the Economic and Development Review Committee (EDRC) of the OECD, which is charged with the examination of the economic situation of member countries.

The economic situation and policies of Finland were reviewed by the Committee on 3 December 2015. The draft report was then revised in the light of the discussions and given final approval as the agreed report of the whole Committee on 23 December 2015.

The Secretariat's draft report was prepared for the Committee by Christophe André and Jon Pareliussen, with contributions from Thomas Chalaux, under the supervision of Vincent Koen. Secretarial assistance was provided by Mercedes Burgos.

The previous Survey of Finland was issued in February 2014.

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BASIC STATISTICS OF FINLAND, 2014

(Numbers in parentheses refer to the OECD)

LAND AND PEOPLE				
Population (millions)	5.5		Population density per km ²	18.0 (34.9)
Under 15 (%)	16.3 (18.1)		Life expectancy (years, 2013)	80.8 (80.5)
Over 65 (%)	19.8 (16.0)		Men	78.1 (77.8)
Foreign-born (% , 2013)	5.6 (11.6)		Women	83.7 (83.1)
Latest 5-year average growth (%)	0.5 (0.6)		Latest general election	19th April 2015
ECONOMY				
Gross domestic product			Value added shares (%)	
In current prices (billion USD)	270.7		Primary	2.8 (2.6)
Latest 5-year average growth (%)	0.5 (1.9)		Industry including construction	26.0 (26.5)
Per capita (thousand USD PPP)	39.8 (39.0)		Services	71.2 (71.0)
GENERAL GOVERNMENT				
Expenditure (% of GDP)	58.3 (41.9)		General government gross debt (% of GDP)	71.4 (112.1)
Revenue (% of GDP)	54.9 (37.8)		General government net debt (% of GDP)	-54.0 (69.0)
EXTERNAL ACCOUNTS				
Exchange rate (EUR per USD)	0.75		Main exports (% of total merchandise exports)	
PPP exchange rate (USA = 1)	0.94		Machinery and transport equipment	28.8
In per cent of GDP			Manufactured goods	27.8
Exports of goods and services	37.9 (28.5)		Mineral fuels, lubricants and related materials	10.8
Imports of goods and services	38.7 (28.6)		Main imports (% of total merchandise imports)	
Current account balance	-0.9 (0.0)		Machinery and transport equipment	27.2
Balance of income	0.5 (0.7)		Mineral fuels, lubricants and related materials	19.2
Net transfers	-1.2 (-0.8)		Chemicals and related products, n.e.s.	11.0
LABOUR MARKET, SKILLS AND INNOVATION				
Employment rate for 15-64 year-olds (%)	68.9 (65.7)		Unemployment rate, Labour Force Survey (15-64 year-olds, %)	8.7 (7.5)
Men	69.8 (73.6)		Youth (age 15-24, %)	19.3 (15.0)
Women	67.9 (57.9)		Long-term unemployed (1 year and over, % of unemployed)	25.2 (35.3)
Participation rate for 15-64 year-olds (%)	75.5 (71.2)		Tertiary educational attainment 25-64 year-olds (% , 2012)	33.1 (33.3)
Average hours worked per year	1 645.0 (1 770)		Gross domestic expenditure on R&D (% of GDP, 2012)	3.6 (2.4)
ENVIRONMENT				
Total primary energy supply per capita (toe)	6.3 (4.2)		CO ₂ emissions from fuel combustion per capita (tonnes, 2012)	9.0 (9.7)
Renewables (% of TPES)	29.6 (8.8)		Municipal waste per capita (tonnes, 2013)	0.5 (0.5)
Fine particulate matter concentration (urban, PM10, µg/m ³ , 2011)	12.0 (28.0)			
SOCIETY				
Income inequality (Gini coefficient, 2012)	0.26 (0.31)		Education outcomes (PISA score, 2012)	
Relative poverty rate (2012)	6.5 (10.9)		Reading	525.0 (496)
Public and private spending (% of GDP)			Mathematics	519 (494)
Health care, current expenditure (2013)	8.6 (9.0)		Science	546.0 (501)
Education (primary, secondary, post sec. non tert., 2012)	3.9 (3.7)		Share of women in parliament	42.5 (26.0)
Pensions (2011)	10.3 (7.9)		Net official development aid (% of GNI)	0.6 (0.39)

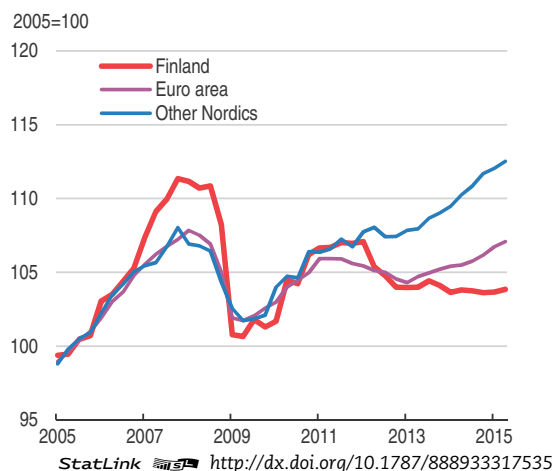
Source: Calculations based on data extracted from the databases of the following organisations: OECD, International Energy Agency, World Bank and World Health Organisation.

Executive summary

- *Structural reforms to restart growth*
- *Productivity needs to be revived and competitiveness restored*
- *Reforms to raise employment, growth and equity*

Structural reforms to restart growth

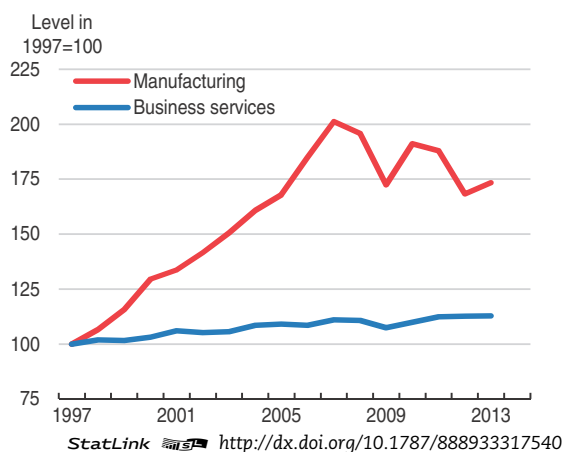
Output is stagnating at a low level



Finland enjoys a high level of income and well-being. Nevertheless, output has been dragged down by the global downturn, the decline of the electronics and paper industries and the Russian recession. Unemployment is rising rapidly, but social safety nets keep income inequality low. The general government deficit is above 3% of GDP and gross debt will rise above 60% of GDP in 2015. The government has an ambitious programme to restore competitiveness and fiscal sustainability through budgetary measures and structural reforms.

Productivity needs to be revived and competitiveness restored

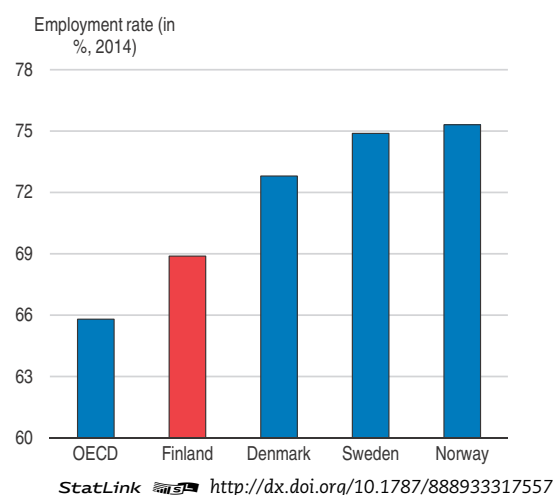
Labour productivity growth has stalled



Productivity has fallen in manufacturing and has hardly increased in business services. Rising labour costs and a loss of non-cost advantages have eroded international competitiveness. The government programme to streamline regulations, promote competition and encourage entrepreneurship will support growth. Continuing to invest in innovation is essential to raise well-being.

Reforms to raise employment, growth and equity

Boosting employment is essential



High hurdles for the low-skilled in the labour market call for further enhancing education and life-long learning. Leaner employment regulations, better work incentives and more flexible wage setting are essential to boost employment and productivity.

MAIN FINDINGS	KEY RECOMMENDATIONS
Fiscal sustainability	
The economy is weak and public debt is rising. Government spending as a share of GDP is the highest in the OECD.	Consolidate public finances gradually as planned by the government by curbing public expenditure growth.
Productivity and innovation	
Product market regulations are restrictive in retail trade, transport and construction.	Streamline regulations in retail trade, transport and construction.
Labour taxation is high.	Reduce taxes on labour to improve work incentives, and raise recurrent taxes on personal immovable property and indirect taxes. Reduce the number of products subject to reduced VAT rates.
Start-up creation and growth of young firms are weak. Co-operation between business and universities is successful, but on a limited scale.	Use funding criteria for higher-education institutions or R&D vouchers, to reinforce co-operation between companies, particularly start-ups, and universities.
Environmental sustainability	
Finland should reduce domestic emissions by 16% by 2020 under the EU Effort Sharing Decision, and has pledged to reduce domestic emissions by 80% by 2050.	To reduce greenhouse gas emissions further, phase out environmentally harmful subsidies and better align the tax rate on emissions across sectors.
Employment and skills	
Parental leave and the home care allowance reduce labour force participation among Finnish women in child-bearing age and enrolment in early childhood education. They tend to affect career prospects for women, thereby widening the gender pay gap.	Reduce the combined duration of parental leave and the home-care allowance to encourage female labour market participation.
The combination of generous benefits, long duration and late activation of the unemployed reduces job search intensity and prolongs unemployment spells. This tends to generate poverty traps and increase income inequality over the long run.	Shorten the duration of the unemployment benefit and reduce benefits over the unemployment spell. Systematically enforce mandatory job-search and reporting requirements starting early in the unemployment spell.
Unemployment and disability benefits are the two main routes to early retirement. A new pension scheme with a lower retirement age for those in mentally or physically demanding jobs may have the same effect.	Phase out the option to extend unemployment benefits until retirement, and limit rights to disability pensions to medical reasons only. Adjust the new pension scheme for those in demanding jobs to life expectancy.
Central wage bargaining coordinates wage increases according to the needs of exporting industries, but reduces labour market flexibility.	Strengthen the roles of the state mediator and of the local level of unions in the wage setting process to raise local flexibility without compromising competitiveness.
Narrow qualifications and a lack of foundation skills among vocational education and training graduates reduce adaptability to structural change. Difficulties to access employment for the low-skilled is one of the main sources of income inequality.	Strengthen foundation skills in vocational education and training.

Assessment and recommendations

- *Well-being is high but the economy is weak*
- *Restoring competitiveness and fiscal sustainability*
- *The government has ambitious structural reform plans*
- *Investing in the future is essential*

Finland has been hit hard by several shocks, in addition to the global economic slowdown. Electronic exports, demand for paper and exports to Russia have collapsed. This has durably lowered the economic growth potential. Furthermore, the population is ageing rapidly. Against this background, the key messages of this Survey are:

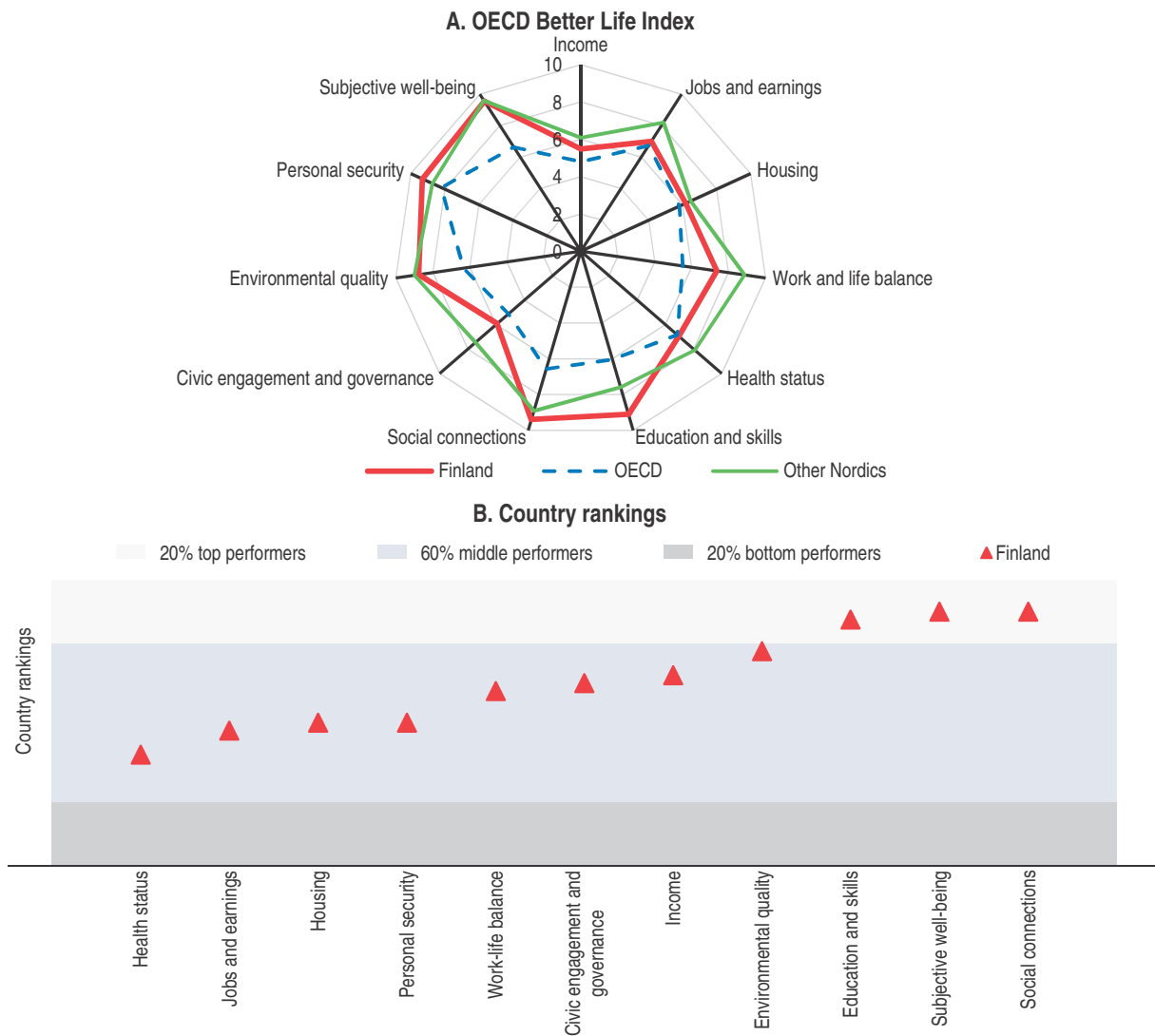
- Public finances need to be consolidated at a gradual pace to preserve the incipient recovery.
- Boosting productivity growth, by improving framework conditions and supporting innovation, is necessary to raise living standards and well-being for all.
- Raising employment, through further investing in workers' skills and enhancing labour market flexibility and work incentives is necessary to boost inclusive growth.

Well-being is high but the economy is weak

Finland has enjoyed strong economic progress over the past decades, which is reflected in high living standards and well-being (Figure 1). The country stands out for high subjective well-being, education and skills, environmental quality and personal security. The government has pledged to continue encouraging low-emission energy sources through taxation and supporting the bio-economy and clean technologies. Education performance remains excellent, but has weakened somewhat over recent years and forthcoming budget cuts will need to be compensated by efficiency gains to maintain world-class results. Housing conditions are better than the OECD average. Health conditions are similar to the OECD average and there are large inequalities across regions and socio-economic groups (*OECD Economic survey of Finland, 2012*). As the population ages, and with technological advances and patients' expectations putting pressure on costs, reducing the fragmentation of the health care system and striking a better balance between specialised and primary care will be essential to ensure both fiscal sustainability and well-being in the long term. This will require the successful implementation of the social welfare and health care reform that is to enter into force in 2019.


Inequality in Finland, as measured by the Gini coefficient of disposable income, is among the lowest in the OECD (Figure 2) and has stayed fairly constant since the turn of the century, following a sharp increase in the 1990s. The ratios of high and median to low incomes show similar patterns. Absolute poverty, measured as material and housing deprivation, is among the lowest in the EU. With a relatively compressed wage distribution, the main drivers of income are employment and productivity. The non-employed have significantly lower average incomes despite a relatively generous social safety net. The median income is almost 50% lower for the unemployed compared to the employed, and 35% lower for the inactive. The retired are less disadvantaged despite a low average retirement age compared to the other Nordics. Hence, raising employment through a better functioning labour market and investment in skills is the best way to promote inclusive growth (Pareliussen, 2016).

Figure 1. Well-being remains high



Note: On panel A, indicators are normalised to range between 0 (worst) and 10 (best).

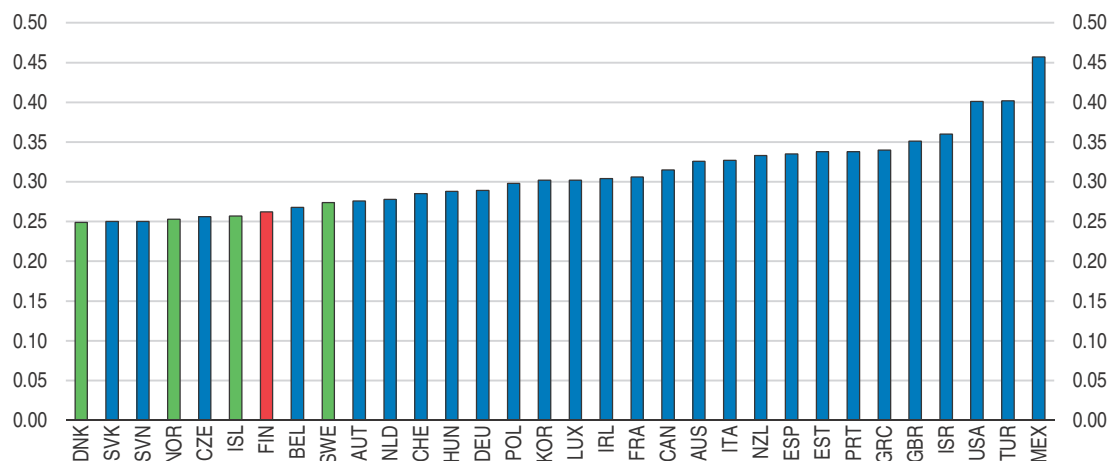
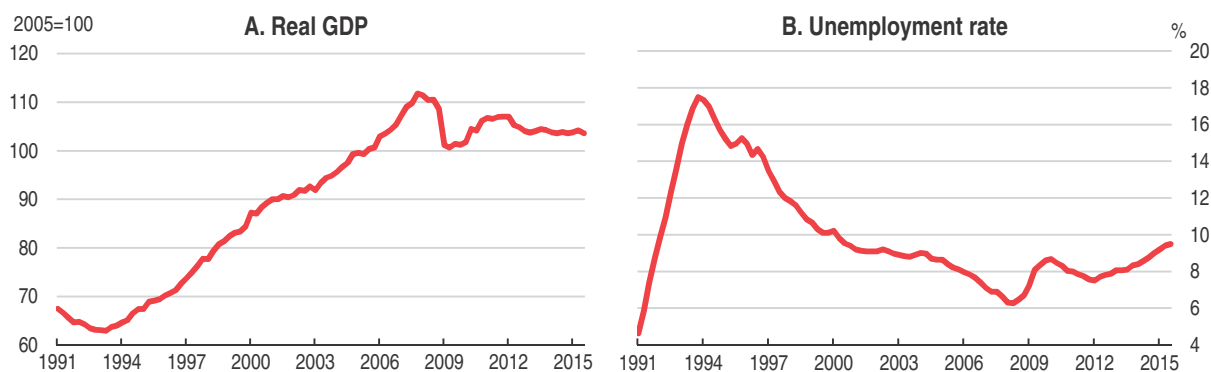
Source: OECD, *Better Life Index database* (2015).

StatLink  <http://dx.doi.org/10.1787/888933317112>

The main policy challenge in Finland is to maintain the high level of well-being, which would be eroded by continuing economic weakness. The Finnish economic and social model is being challenged, notably by tougher international competition and population ageing, and is evolving (Valkonen and Vihriälä, 2014). Further structural reforms are needed to restore competitiveness, raise productivity and boost employment. Even though Finland is still doing better than the OECD average in terms of levels of income and jobs, recent economic performance is eroding this advantage. Output remains nearly 7% below its late-2007 peak (Figure 3, Panel A). The unemployment rate has been rising steadily since April 2012 (Panel B). Exports are of key importance for a small open economy like Finland, but are at about 20% below pre-crisis levels. The recession and increasing age-related costs are taking their toll on public finances, and hence the general government deficit exceeded 3% of GDP in 2014 for the first time since the mid-1990s.

Figure 2. **Income inequality is low**

Gini coefficient post taxes and transfers, 2012 or latest year available

Source: OECD, *Income Distribution and Poverty database*.StatLink <http://dx.doi.org/10.1787/888933317128>Figure 3. **The economy is weak**Source: OECD, *Economic Outlook database*.StatLink <http://dx.doi.org/10.1787/888933317134>

A modest recovery is projected in the coming years. It hinges on stronger exports, as slow household income growth, uncertainty and cuts in public spending will hold back domestic demand. Hence, the recovery is strongly dependent on global economic developments, which are subject to high uncertainty. Higher exports are projected to reduce spare capacity, thereby reviving private investment. Public investment will be raised by spending on transport, energy and water supply infrastructure. Altogether, investment is projected to increase in 2016. Unemployment will creep up, as firms will intensify utilisation of their manpower before hiring. Inflation is projected to increase somewhat over the projection period.

Short-term risks are tilted to the downside. As a small open economy, Finland is very dependent on exports. Weaker-than-expected global growth and especially low global investment would hinder the recovery, while a pick-up would boost the economy. Turbulences in global financial markets could result in an increase of the cost of financing for the government and firms alike, although Finland has so far rather been considered as a safe haven. Vulnerabilities over a longer horizon are more diverse (Box 1).

Table 1. **Macroeconomic indicators and projections**

	2013	2014	2015	2016	2017
GDP	-1.1	-0.4	-0.1	1.1	1.6
Private consumption	-0.3	0.5	0.4	0.4	0.8
Government consumption	0.8	-0.2	0.3	1.3	1.0
Gross fixed capital formation	-5.2	-3.3	-0.9	3.7	3.1
Housing	-5.2	-5.9	-0.9	4.0	3.0
Business	-8.2	-2.9	-0.5	4.0	3.0
Government	3.5	-0.9	-1.7	2.4	3.7
Final domestic demand	-1.1	-0.5	0.1	1.3	1.4
Stockbuilding ¹	0.0	-0.5	0.5	0.0	-0.1
Total domestic demand	-1.1	0.1	-0.4	1.2	1.4
Exports of goods and services	1.1	-0.7	0.6	3.3	4.0
Imports of goods and services	0.0	0.0	-0.4	2.6	3.4
Net exports ¹	0.4	-0.3	0.4	0.3	0.3
Other indicators (% growth rates, unless specified)					
Potential GDP	0.5	0.5	0.6	0.7	0.7
Output gap ²	-3.8	-4.7	-5.3	-5.0	-4.1
Employment	-1.0	-0.4	-0.7	-0.3	0.0
Unemployment rate ³	8.2	8.7	9.4	9.7	9.8
GDP deflator	2.6	1.6	0.2	0.9	1.2
CPI	2.2	1.2	-0.2	0.4	0.8
Core inflation	1.8	1.6	0.8	0.8	0.9
Household saving ratio, net ⁴	1.3	-0.3	0.8	1.5	1.4
Trade balance ⁵	-0.8	-0.8	-0.2	-0.2	0.1
Current account balance ⁵	-1.7	-0.9	-1.0	-0.7	-0.4
General government financial balance ⁵	-2.5	-3.3	-3.3	-2.7	-1.6
Underlying government net lending ²	-0.3	-0.3	0.1	0.5	1.0
Underlying government primary balance ²	-0.2	-0.1	0.4	0.7	1.1
Gross government debt (Maastricht) ⁵	55.6	59.3	60.6	62.7	65.0
General government net debt ^{5, 6}	-54.0	-54.0	-50.7	-47.0	-44.0
Three-month money market rate, average	0.2	0.2	0.0	0.0	0.1
Ten-year government bond yield, average	1.9	1.4	0.7	0.7	1.0

1. Contribution to changes in real GDP.

2. As a percentage of potential GDP.

3. As a percentage of labour force.

4. As a percentage of household disposable income.

5. As a percentage of GDP.

6. The assets of Finland's private pension system are included in the general government's assets, but the liabilities of the private pension system are not included in general government gross debt.

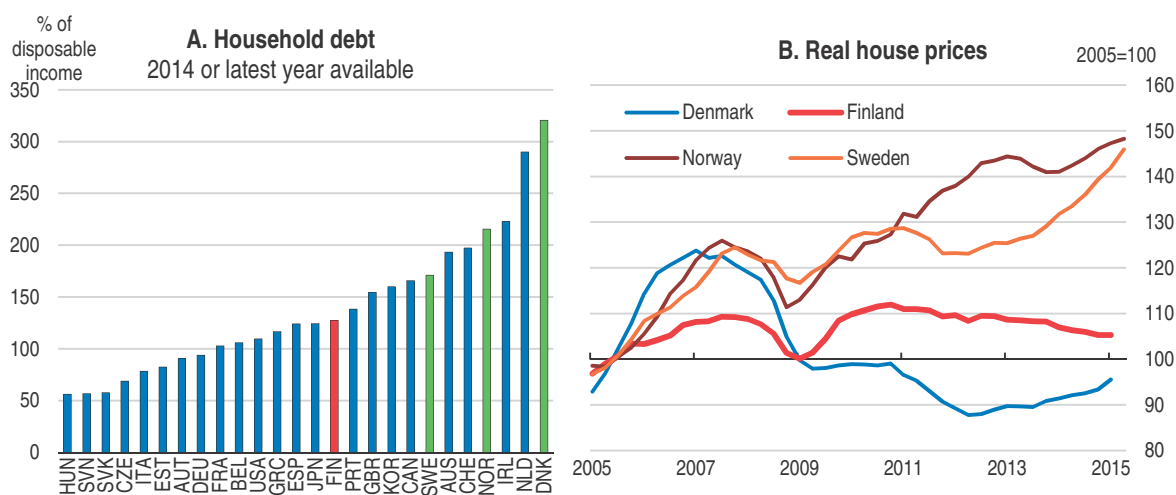
Source: OECD, *Economic Outlook 98 database*.

The main domestic financial vulnerability relates to high household debt, even though it is lower than in the other Nordics (Figure 4, Panel A). High loan-to-value (LTV) mortgages are common in Finland (FIN-FSA, 2012), and most mortgages carry variable interest rates. Heavily indebted households are vulnerable to higher interest rates, losses in income or falls in housing prices. At the same time, there is no sign of a housing bubble, as housing prices have been broadly flat for more than a decade (Figure 4, Panel B). Furthermore, two policy measures will reduce risks. Mortgage interest tax deductions are being cut in steps; and from June 2016 a maximum LTV ratio of 90% (95% for first-time buyers) will be imposed. Housing loans account for about 60% of bank lending and risk weights computed through banks' internal models range between 6 and 13%, compared to 35% under the standardised approach. There may be a case for introducing minimum risk weights on mortgages, as in Norway and Sweden, and to encourage harmonisation of risk-weight calculations across banks (Bank of Finland, 2015a).


Box 1. Shocks that might affect economic performance

Vulnerability	Possible outcome
Euro area turbulence	Finland has little exposure to the most vulnerable euro area countries. However, financial turmoil could affect bond yields and financial conditions in Finland and other euro area countries. A euro-area wide recession would affect Finnish exports, although a weaker euro could boost exports to countries outside the euro area.
Deepening recession in Russia and further political tensions between Russia and the European Union	A further deterioration of economic conditions in Russia would reduce exports, even though the share of Russia in Finnish exports has already shrunk considerably. Escalating political tensions could lead to damaging sanctions on both sides.
Global or regional financial crisis contagion	The Finnish financial system is dominated by Nordic banks, which have low liquidity buffers. A liquidity crisis triggered by events outside Finland could lead to difficulties in the banking sector, falls in asset prices and a credit squeeze, which would cause a deep recession.

Figure 4. Household debt is relatively high but housing prices are stable

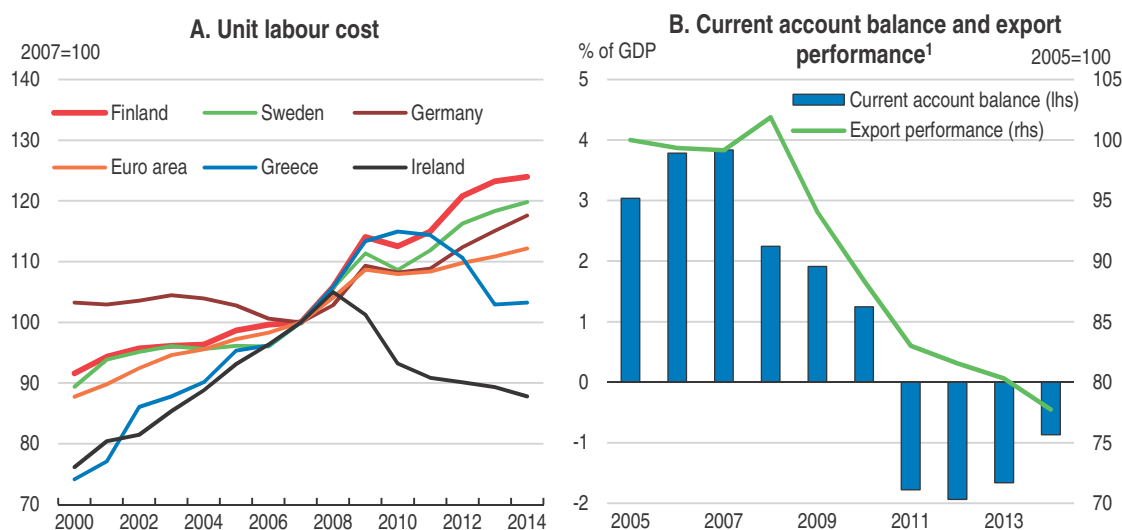


Source: OECD, Economic Outlook database.

StatLink  <http://dx.doi.org/10.1787/888933317142>


The economic downturn is largely structural, insofar as it reflects downsizing in industries such as electronics and forestry. Estimating potential output is challenging at a time of unusually large structural changes and output gap estimates vary widely. The fall in value added from electronics has reduced GDP by about 3% since the end of 2007. The decline in manufacturing of wood and paper started around the turn of the century and has cut GDP by around 0.75% since 2007. In addition, Finland's growth potential is being eroded by a rapidly ageing population. Sluggish global growth, low demand for investment goods in which Finland specialises, and the recession in Russia have dragged down Finnish exports. The value of exports of goods to Russia has fallen by roughly half over the past three years, subtracting about 1.5% from Finnish GDP. In addition, unit labour costs increased more than for the country's main trading partners (Figure 5, Panel A). Although the fall in exports is mostly due to non-cost factors, better cost-competitiveness could have mitigated the effects of the shocks mentioned above. Finland has lost market share, and

Figure 5. Finland has lost strength on foreign markets



1. Ratio of exports to export markets (trade-weighted average of trading partners' imports). A decrease indicates a loss in export market shares.

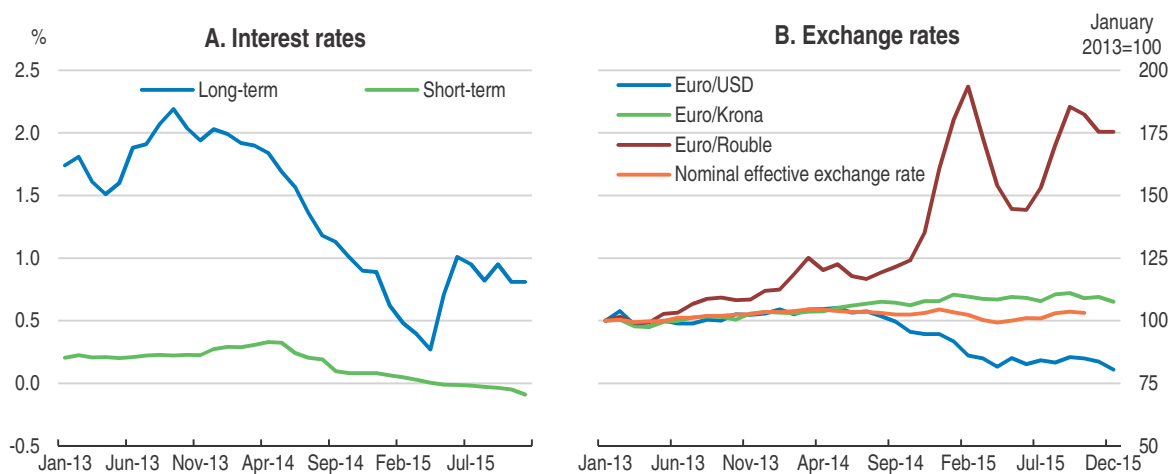
Source: OECD, *Economic Outlook database*.

StatLink  <http://dx.doi.org/10.1787/888933317152>

restoring competitiveness is a policy priority (see below). The current account balance moved from a surplus of nearly 4% of GDP in 2007 to a deficit close to 2% in 2011 (Panel B). The deficit has shrunk since then, with weak domestic consumption and exports leading to a fall in imports and lower energy prices improving terms of trade. Finland's net international investment position is positive and external sustainability is not a concern (European Commission, 2015a).

The European Central Bank's (ECB) asset purchase programme and near zero interest rate have alleviated the financial burden of households and firms. In particular, mortgage interest rates have followed policy rates down. The Bank of Finland estimates that the ECB asset purchase programme will raise GDP by about 0.3 percentage points cumulatively in 2015-16. This estimate, however, does not take into account the effect on Finnish exports of higher growth in other euro area countries, which could be substantial. ECB asset purchases have lowered government bond yields somewhat (Figure 6, Panel A). The euro has depreciated by about 20% against the dollar since mid-2014, which provides a welcome boost to Finnish competitiveness, as about two-thirds of Finnish exports go outside the euro area. However, the positive impact of the depreciation of the euro against the dollar is partly offset by its appreciation against the Swedish krona and the Russian rouble (Panel B).

Finland's large surpluses in the years preceding the global financial and economic crisis meant fiscal policy could support activity, including with a stimulus package in 2009-10. The fiscal stance has been mildly restrictive since then, and is likely to remain so. The government seeks to cut the budget deficit, which is now slightly over 3% of GDP, and to stem the rise in gross debt, which will exceed 60% of GDP in 2015. The government's programme aims at permanent annual savings of €4 billion (about 2% of GDP) by 2019, mostly through spending cuts. It also contains one-off increases in public investments of €1.6 billion by end-2018. Furthermore, the government has initiated the social welfare and health care reform, set to come into force in 2019. The permanent annual savings target for

Figure 6. **Financial conditions are supportive**

Note: Long- and short-term interest rates refer to respectively 10-year government bond and 3-month money market yields.

Source: Bank for International Settlement, Thomson Reuters.

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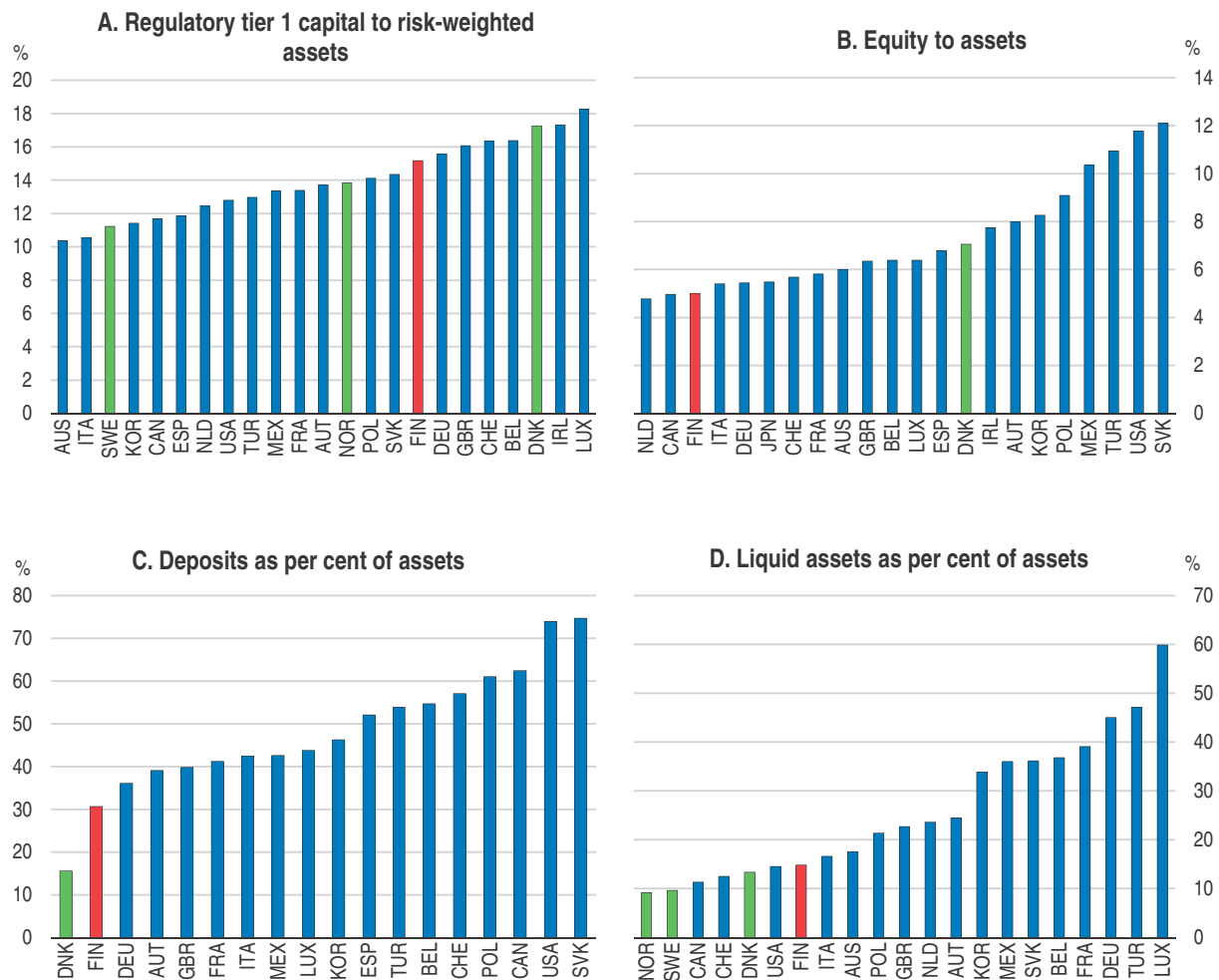
the reform is €3 billion (about 1.5% of GDP) by 2029 relative to the no-policy action baseline. Fiscal consolidation will slow growth in the short term. However, the size of the fiscal multiplier is very uncertain. On the one hand, Finland is a small open economy with a well-functioning financial system, which suggests a small multiplier. On the other hand, there is ample spare capacity in the economy, little prospect of further easing of financial conditions and spending multipliers tend to be higher than tax multipliers in downturns (Batini et al., 2012).

The financial system has withstood the downturn well. Access to credit has remained relatively easy, even though it has tightened somewhat for small companies as the downturn lingered. Bank capital buffers have been reinforced and tier 1 capital now exceeds 15% of risk-weighted assets (Figure 7, Panel A). Nevertheless, Finnish banks' balance sheets amount to about 250% of GDP and the banking system is the most concentrated in the European Union. Hence, difficulties in a major bank could rapidly spread across the financial system and the economy. As the Finnish banking system is strongly interconnected with those of other Nordic countries, it is vulnerable to shocks occurring in the region, which calls for continued tight co-operation between Nordic regulators and supervisors. Such co-operation will become even more important if Nordea, which accounts for about 30% of Finnish bank loans and deposits, goes ahead with its plan to convert its Finnish subsidiary into a branch. Additional capital requirements will be imposed on four systemically important financial institutions from January 2016. While these institutions already meet the new capital standards, the decision brings Finnish capital requirements close to those of other Nordic countries, which is crucial to avoid regulatory arbitrage within regional banking groups.

The banking system is strong and there is no sign of asset bubbles. However, some structural features of the banking system make it vulnerable in the event of an international liquidity crisis. Although the tier 1 capital ratio is high, the overall equity-to-asset ratio is one of the lowest in the OECD, reflecting the large share of mortgages with low risk weights in bank balance sheets (Figure 7, Panel B). Banks depend on short-term wholesale funding, especially from abroad, which exposes them to risks in the case of a


Figure 7. **Some vulnerabilities remain in the banking system**

2013



Note: Data cover domestically incorporated, domestically controlled entities, as well as domestically incorporated subsidiaries of foreign entities, along with these entities' branches and subsidiaries.

Source: IMF, *Financial Soundness Indicators database*.

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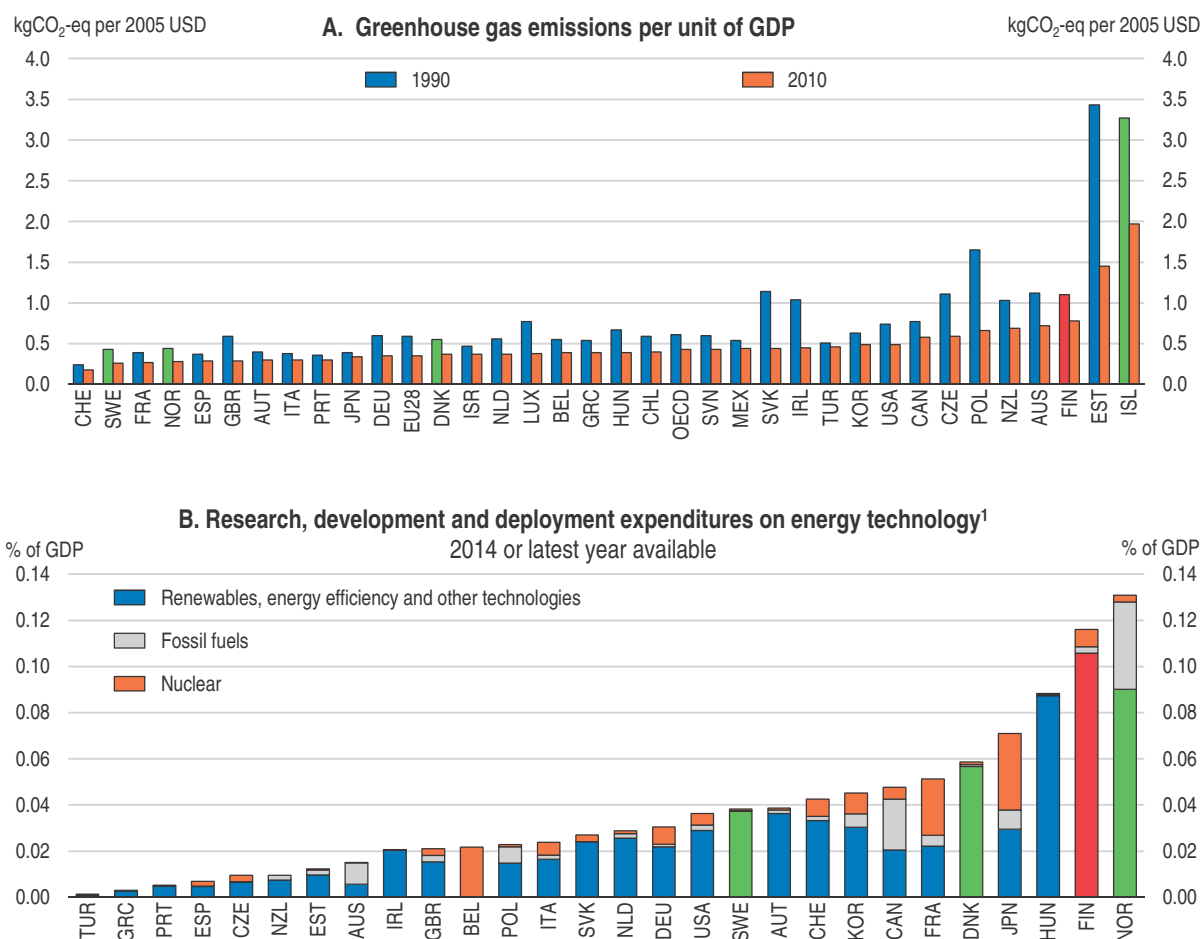
European or global liquidity crisis. Deposits account for only about 30% of assets, one of the smallest proportions in the OECD (Panel C). Furthermore, the share of liquid assets in total assets remains fairly small, even though it has increased in recent years (Panel D). Further reinforcing liquidity buffers would reduce Finland's vulnerability to potential disruptions in global financial markets.

Growth is becoming greener

Finland enjoys an abundant supply of clean water, and air quality is better than the OECD average, despite some local particle pollution from the widespread use of woodstoves for heating. The longstanding use of economic instruments, especially taxation, to promote green growth, has reduced greenhouse gas emissions intensity considerably since 1990, but it is still the third highest in the OECD because of the importance of energy intensive industries, the cold climate and long transport distances


(Figure 8, Panel A). The share of clean and nuclear energy in energy supply is one of the highest in the OECD. Further increases are planned and supported by policy, notably within biomass, wind, biofuels and nuclear power. In 2014, total R&D spending on energy technologies amounted to nearly 0.12% of GDP, the highest among OECD countries, with the largest share devoted to renewables and energy efficiency (Panel B). The private sector accounts for around 70% of total energy R&D expenditure.

Figure 8. **Emission intensity should be reduced and R&D can help**



1. Based on total public RD&D, including government, public agencies and state-owned enterprises.

Source: International Energy Agency, CO₂ Emissions from Fuel Combustion Statistics and Energy Technology R and D databases.

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Finland is obliged to reduce domestic emissions by 16% by 2020 under the EU Effort Sharing Decision. Furthermore, it has pledged to reduce domestic emissions by 80% by 2050 (OECD, 2015a). Environmental policies are already stringent, but stringent policies do not harm productivity and competitiveness if they are flexible and do not hinder competition (Albrizio et al., 2014). However, they may shift comparative advantages, accentuating the need for structural change (Kozluk and Timiliotis, 2016). Additional measures should therefore target environmentally harmful subsidies and tax expenditures, and enhance the efficiency of environmental regulation and direct support.

Restoring competitiveness and fiscal sustainability


Competitiveness has been eroded

Wages continued to progress steadily after the onset of the 2008 global crisis even as productivity growth slowed sharply, in line with the generous 2007 multi-year wage agreement (Figure 9). The wage agreement reached in 2013 has led to slow wage growth since, and wage moderation is also expected going forward. However, as wage growth is also subdued in most of Finland's trading partners, regaining cost-competitiveness will take time. The government estimates that Finland's cost-competitiveness has deteriorated by 10 to 15% compared to its main trading partners over recent years (Prime Minister's Office, 2015). It aims at closing this gap, through three types of measures, each yielding a unit labour cost reduction of 5%: a one-off cut in labour costs; wage moderation over the coming years; and productivity gains at the firm level generated by enhanced flexibility, notably in wage negotiations. The government had proposed a social contract, which included an increase of 5% in working time for the same pay. This would have speeded up the catch-up in cost competitiveness, but the social partners have so far failed to reach an agreement. In the absence of an agreement, the government is pushing forward measures to shorten annual leave, convert two public holidays into unpaid holidays, reduce sick-leave benefits and cut employer social security contributions.

Figure 9. **Wages have outpaced productivity**



Source: OECD, Productivity and Analytical databases.

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Non-cost competitiveness has also deteriorated. Some Finnish products have become less demanded on world markets, notably electronic products, as Nokia missed the “smartphone revolution”, and pulp and paper, as a consequence of the development of digital media and increased competition from other countries. The electronics and ICT industries, including computer games, are restructuring and should be able to contribute to growth again, although not on the same scale as in the early 2000s. The paper industry is renewing itself as well, focussing on markets where Finland has a comparative advantage over emerging economies because of the type of wood fibres it produces, and pursuing environmentally-friendly strategies, including the development of bio-energy from by-products. The chemical industry has expanded and shipbuilding is reviving, partly

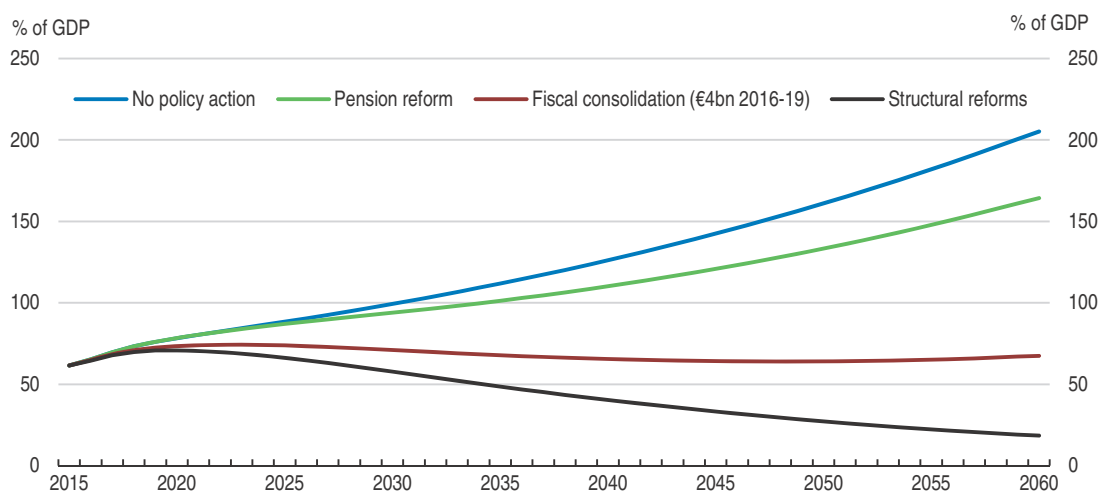
based on its capacity to produce greener ships propelled by liquefied natural gas. Nevertheless, finding new sources of growth through innovation and entrepreneurship will be needed for a sustained revival of export growth.

Government debt would continue to rise without policy action

Gross government debt (Maastricht definition) has increased from below 40% of GDP before the 2008 crisis to above 60% of GDP in 2015. Finland had net government assets of about 50% of GDP in 2015. However, this strong net asset position essentially reflects the recording in the government balance sheet of the financial assets of Finland's private pension system, but not of the corresponding liabilities. With a deficit exceeding 3% of GDP and age-related expenditures rising rapidly, debt will increase further in the absence of policy action. A "No policy action" scenario based on OECD long-term growth scenarios, pension projections and public health and long-term care expenditure projections, suggests that gross government debt would reach 100% of GDP by 2030 and 200% by 2060 if nothing is done to tackle these challenges (Figure 10). These estimates are subject to a number of assumptions, but are broadly in line with estimates from the Bank of Finland (2015b) and the Finnish Economic Policy Council (Economic Policy Council, 2015). The "Pension reform" scenario, shows the impact on public debt of the pension reform which is set to be implemented from 2017. It is estimated to lower debt by about 5 percentage points of GDP in 2030 and about 40 percentage points in 2060, but would not prevent a rising public debt-to-GDP ratio (the underlying assumptions are described in Annex 2).

The government programme, if successfully implemented, is adequate to restore fiscal sustainability through budget measures and structural reforms. The "Fiscal consolidation" scenario in Figure 10 shows the estimated cumulative impact on public debt of the pension reform and fiscal consolidation. The "Structural reforms" scenario adds to the latter the impact of product and labour market reforms (the latter are discussed at length further

Figure 10. **Gross government debt scenarios**



Note: The impact of measures shown is cumulative. First, implementation of the pension reform is assumed and subsequently fiscal consolidation and structural reforms are introduced in steps. Structural reforms consist of product market reforms, which raise productivity growth by 0.5% per year, and labour market reforms, which raise labour participation to the average of the other Nordics.

Source: OECD calculations.

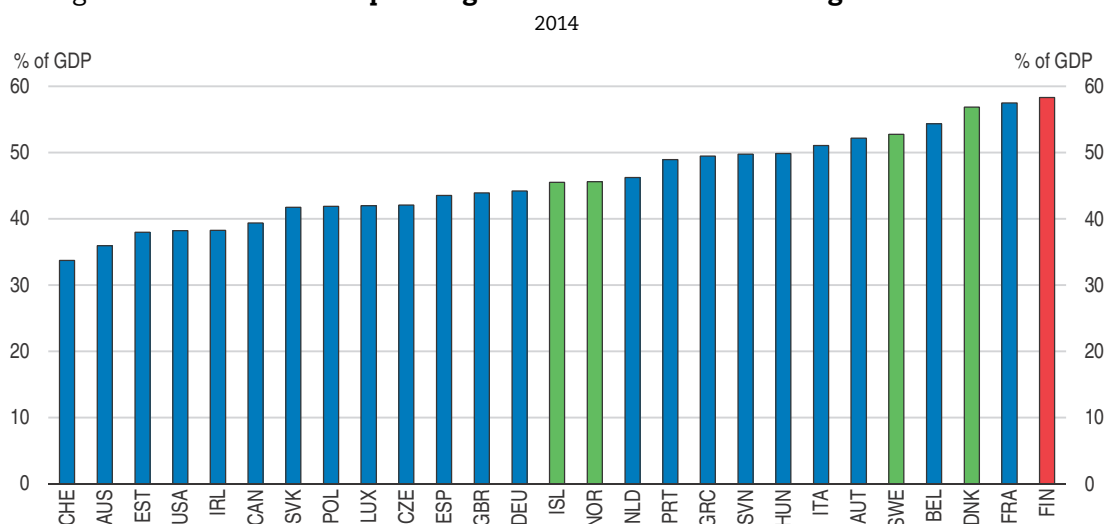
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below). The fiscal consolidation plan of €4 billion (2% of GDP) over 2016-19 is set to lower public debt to about 70% of GDP by 2030. Structural reforms pushing up productivity growth by 0.5 percentage point and raising the employment rate to 72% by 2023 would bring the debt ratio down further, to around 60% in 2030 and 20% in 2060.

The fiscal consolidation plan of €4 billion, of which €3.2 billion of spending cuts, over 2016-19 will bring the budget deficit below 3% of GDP by 2017, assuming no major macroeconomic shock. The main planned spending cuts concern social benefits, education and research. As many benefits are universal, the impact of cuts will be spread widely across the population, while strong social safety nets protect the most vulnerable. Besides, reforming unemployment benefits is necessary to enhance work incentives and raise employment over time. Cuts to education and research will need to be compensated by efficiency gains, to avoid affecting the quality of services and the economy's growth potential (see below). Service fees for some health and social services will also increase, but from generally modest levels. The impact of spending cuts on growth is mitigated by one-off spending on key projects financed through the government's balance sheet. Nevertheless, general government debt is set to continue to rise until the early 2020s, when it would peak slightly above 70% of GDP.

Government spending is high relative to GDP in Finland (Figure 11). Between 2008 and 2014, it increased by 10 percentage points, almost half of which is due to higher social benefit payments, mainly related to ageing and higher unemployment. Government consumption also increased markedly as a share of GDP. Although this increase is partly due to wage increases, non-wage expenditure also went up substantially. The increase in spending caused the deterioration of the fiscal position, accentuated by falling GDP. The share of receipts from indirect taxes, personal income taxes and social contributions moved up, while that of corporate income tax revenues fell, both as a result of tax rate cuts and lower corporate profits (Table 2).

Figure 11. **Government spending as a share of GDP is the highest in the OECD**



Source: OECD, *Economic Outlook* database.


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Table 2. **Social benefits and public consumption have driven up public expenditure**

As a percentage of GDP

	Level			Change		
	2001	2008	2014	2001-14	2001-08	2008-14
Total expenditure	47.3	48.3	58.3	11.0	1.0	10.0
<i>Of which:</i>						
Consumption	20.0	21.7	24.8	4.8	1.7	3.1
<i>Of which:</i>						
wages	12.6	12.9	14.2	1.6	0.3	1.3
Social benefits	15.3	14.7	19.6	4.3	-0.6	4.9
Total receipts	52.3	52.4	54.9	2.6	0.1	2.5
<i>Of which:</i>						
Direct taxes						
Households	14.1	13.2	14.2	0.1	-0.9	1.0
Corporations	4.3	3.6	2.3	-2.0	-0.7	-1.3
Indirect taxes	12.9	12.4	14.0	1.1	-0.5	1.6
Social contributions	11.8	11.6	12.8	1.0	-0.2	1.2

Source: OECD, Economic Outlook database.

The government has ambitious structural reform plans

Weak growth and productivity point to the need for structural reforms. Previous governments have taken action, often in line with OECD recommendations (Table 3). Still, more reforms are needed to restore growth and boost productivity. The current government has an ambitious reform agenda, which includes reforming the tax structure, the labour market, education, health care and social services, as well as promoting entrepreneurship. Labour market reforms to increase employment would have the greatest impact on Finland's output growth, especially if they were coupled with product market reforms improving the competitiveness of the economy (OECD, 2015b). As the population is ageing rapidly, the reform of social welfare and health care is also essential to ensure long-term fiscal sustainability and a high level of well-being.

The tax structure will be made more growth-friendly

The level of taxation in Finland is among the highest in the OECD, reflecting an extensive welfare system. High tax rates may be harmful to doing business, as pointed out by more than a fifth of respondents in the World Economic Forum Global Competitiveness Survey 2015-16, although they have to be weighed against the benefits generated by developed public services and infrastructure. Finland has already been moving in the direction of a more growth-friendly tax system in recent years, with cuts in corporate income tax rates, an increase in the share of indirect taxes in total taxation and increases in recurrent taxes on personal immovable property. Nevertheless, the tax wedge on labour remains among the highest in the OECD (Figure 12). The government has announced a reduction in labour taxation, notably through an increase in the earned income deduction focusing on low and medium incomes, and coordination of tax and social security measures to reduce inactivity traps. Excise duties and recurrent taxes on personal immovable property, which are less detrimental to growth, will increase. The deduction of mortgage interest rate payments from taxable personal income will be reduced further, making housing taxation more neutral. Some reforms to taxation of entrepreneurship,

Table 3. **Many earlier OECD recommendations are being followed**

Earlier OECD recommendations	Action taken or planned
Pension reform: Increase the minimum pension age gradually and limit early retirement paths (2014)	In September 2014, the social partners agreed on raising the retirement age to 65 by 2025, and thereafter to link it to life expectancy. The reform will take effect in 2017. Early retirement paths have been progressively narrowed.
Tax structure: Shift taxation from labour to recurrent taxes on personal immovable property and indirect taxes (2008, 2010)	The share of receipts from indirect taxes and recurrent taxes on personal immovable property has increased over recent years. The government plans to move further in that direction and more specifically to coordinate tax and social security measures to remove inactivity traps.
Labour market: Strengthen activation and reform unemployment benefits to improve work incentives (2012)	The Youth guarantee strengthens activation for young people. The Government will prepare a reform of unemployment security in co-operation with social partners. Activation will be enhanced and work incentives for the unemployed will be improved by lowering replacement rates, tapering benefits or a combination of the two.
Product market regulations: Increase competition in retail trade and network industries (2012)	Shops' opening hours were further liberalised in December 2015.
Local government finances and municipal reform: strengthen the fiscal framework to reinforce control over local government spending; promote the merger of municipalities or scale back their responsibilities in functions where economies of scale and scope can be achieved (2012, 2014)	Local government spending has been included in the aggregate spending limit since 2015. The previous government's plan to encourage mergers has faced strong opposition and few municipalities have merged in recent years. The current government, while still encouraging voluntary mergers, will focus on reducing municipalities' duties and obligations.
Health care and social services reform: rationalise the organisation of health services to achieve economies of scale and a better balance between primary and specialised care (2012)	The former government proposed a health care reform creating five new regional authorities responsible for organising most of health care, but the reform was ruled unconstitutional. The current government has announced the creation of 18 autonomous regions, of which 15 will organise healthcare and social services in their area themselves, while three will provide the services with the support of one of the other autonomous regions. In addition, the country will be divided into five university hospital areas providing more demanding health care. The regions will be managed by elected councils, probably with some (limited) power to collect taxes. The reform will enter into force on 1 January 2019.
Housing market reform: phase out mortgage interest deductibility, raise recurrent taxes on personal immovable property and increase the responsiveness of land-use planning (2006)	Mortgage interest deductibility is being reduced in steps. Recurrent taxes on personal immovable property have increased. The government pledged to support supply by amending land-use planning regulations and promoting competition in the construction industry.
Entrepreneurship, innovation and R&D: Maintain strong government support for basic R&D and education. Streamline the system of business support institutions and downscale public funding in areas where private alternatives exist (2012).	Team Finland has been created to coordinate the activities of several institutions, with a focus on internationalisation. Planned cuts in funding risk weakening the innovation and entrepreneurship potential of Finland.

ownership and investment are also planned (Prime Minister's Office, 2015). This includes easing the inheritance tax, which would however entail revenue losses and increase inequality (Economic Policy Council, 2015).

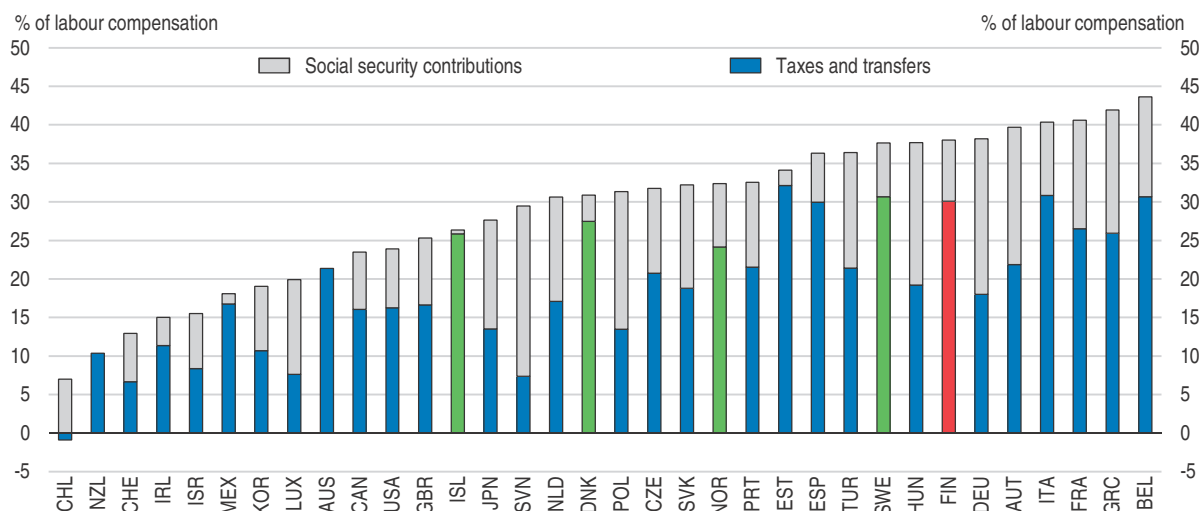
The VAT revenue ratio, which relates VAT revenues to the potential tax base, is around 55%, only slightly above the OECD average and well below that of Estonia or Switzerland (OECD, 2014a). The tax system could be further improved by taxing more goods and services at the standard VAT rate instead of at a reduced VAT rate. However, this could affect poor people more and therefore should be accompanied by compensation measures.

Enhanced work incentives will promote inclusive growth

The employment rate is lower than in the other Nordics for both genders and across most age groups (Figure 13). The government has the ambition to increase the employment rate to 72% and reduce the unemployment rate to 5% by 2019 (Prime Minister's Office, 2015).

Figure 12. **The tax wedge on labour is high**

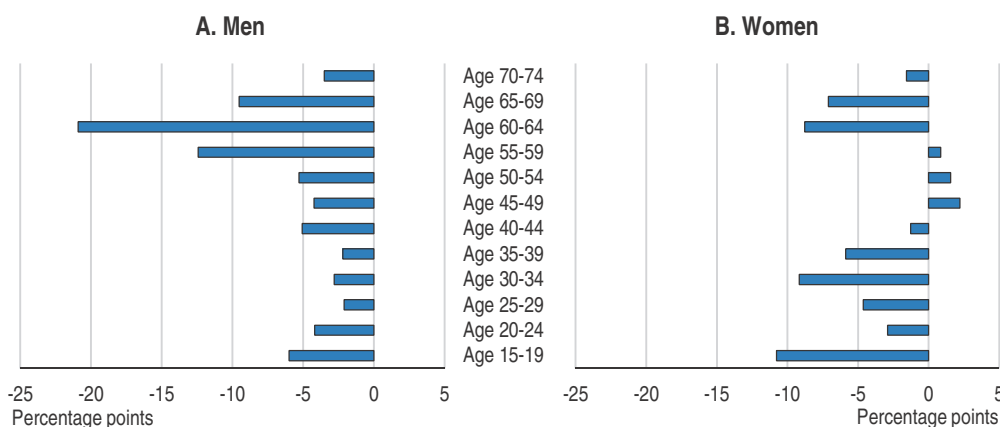
2014



Note: Average tax wedge for a couple with two children and average earnings. Social security contributions include both employee and employer contributions. Taxes include personal income tax and any payroll tax.
Source: OECD, Taxing Wages database.

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These targets seem out of reach, with the employment rate currently at 68%, the unemployment rate above 9% and significant demographic headwinds in the coming years. In the baseline OECD long-term scenario, the government target is reached only around 2050, despite significant advances in the participation rates of women and of older people. But the potential to boost employment is significant in the longer term, as illustrated by labour market participation convergence scenarios (Pareliussen, 2016). Such convergence to the other Nordics will require a comprehensive package of policy reforms targeting quicker labour market entry of youth, postponing the exit of older workers, encouraging work immigration, improving work incentives and activation policies for the unemployed and increasing the participation of women of childbearing age.

Figure 13. **Employment is low compared to other Nordics¹**

1. Difference in employment rates between Finland and the Nordic average (Denmark, Norway and Sweden) in 2014.
Source: OECD, Labour Force Statistics database.

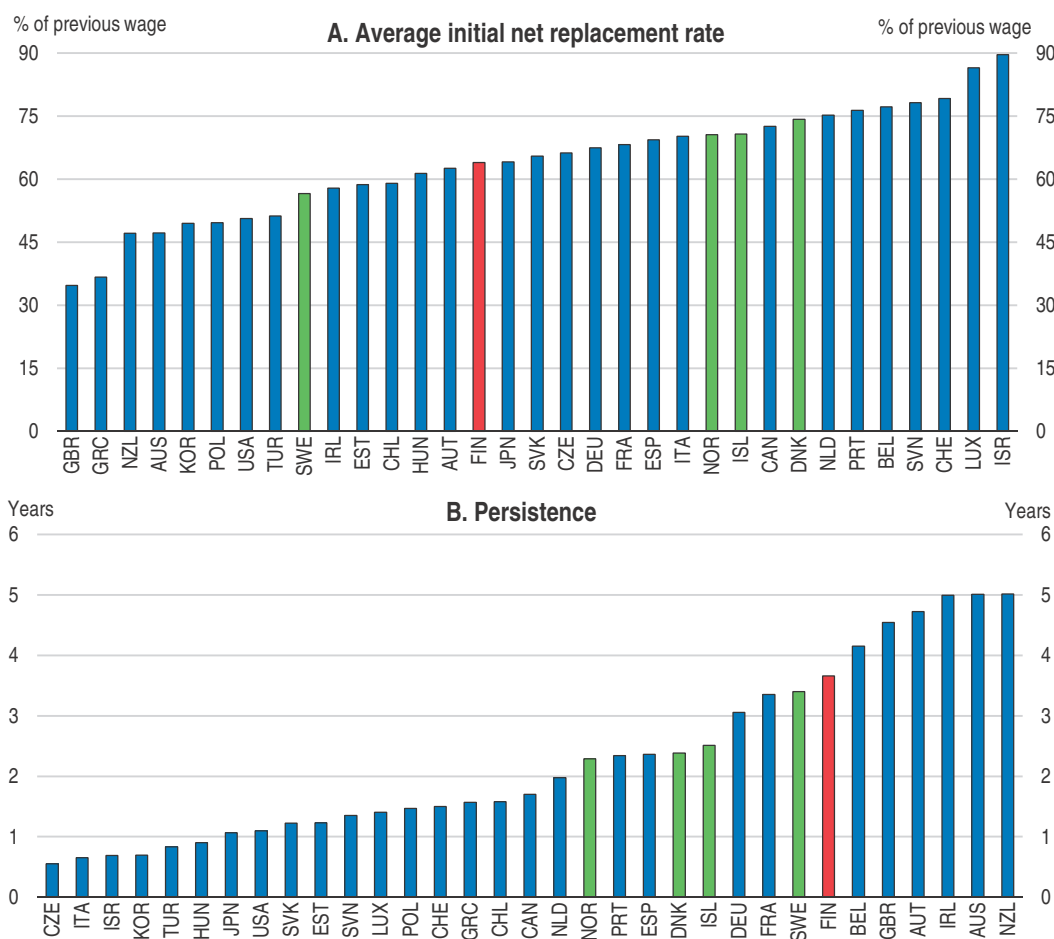
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The social partners agreed on a pension reform in September 2014. Key elements of the reform include gradually raising the lower pension age limit from 63 to 65 years and linking it to longevity thereafter. The expected benefits are substantial, with on average five months added to working careers, pension expenditure reduced by around 6% and the government fiscal balance strengthened by approximately 1% of GDP once the reform is fully implemented (Economic Policy Council, 2015). In order to reap the full benefits of the reform, a new pension scheme with a lower age limit (63 years) for those who have worked for 38 years in demanding jobs should be subject to strict eligibility criteria and its age and career limits need to be adjusted to longevity. The option to extend unemployment benefits until retirement for those who are unemployed at the age of 61 should be closed, and criteria to access disability pensions should be the same for persons above 60 as for those below. Shifting the initial medical evaluation away from patients' physicians towards insurance teams would help achieve greater consistency and increase focus on medical conditions (OECD, 2014b).

The combination of fairly generous benefits, slow tapering and late activation of the unemployed distinguishes Finland's unemployment benefit system from those of the other Nordics (Figure 14). These features reduce job search intensity and prolong unemployment spells. Somewhat more generous initial benefits in Norway and Denmark are for example tapered more quickly, and more resources are spent on active relative to passive labour market policies in these countries. The government has announced a €200 million cut to unemployment insurance. Among other things, the maximum duration of unemployment benefits will be reduced from 500 to 400 days for most claimants. Reducing replacement rates during the unemployment spell could strike a balance between income security and improved work incentives. Policies to get the unemployed back to work are being consolidated, and further measures have been announced in the government programme, notably better aligning financial incentives to responsibilities in local employment services and increasing the use of private providers of employment services (Ministry of Finance, 2014, Prime Minister's Office, 2015). Introducing mandatory job search and reporting from the beginning of the unemployment spell combined with a more gradual sanction regime would be an effective and low-cost way to shorten unemployment for those who have good re-employment prospects (Martin, 2014).

The tradition of centralised wage settlements has left local wage setting institutions and employer-employee co-operation less efficient in Finland than in other Nordics (Braconier, 2010). Planned legislative changes to strengthen the employees' position in companies' decision making on issues like pay, working hours, flexible working hours and well-being at work (Prime Minister's Office, 2015) can help pave the way for a "two-tier" collective bargaining framework, in which a central coordination is combined with firm-level flexibility. Wage bargaining in Sweden, Denmark and Norway have long followed such a model, which can secure both macroeconomic coordination and better allocation of labour. Strengthening the mandate of the state mediator in this process could further improve incentives to reach reasonable agreements.


Lengthening the trial period for new hires, loosening restrictions on fixed-term contracts for assignments shorter than a year and easing a requirement to offer employment to earlier laid-off employees, as proposed by the government (Prime Minister's Office, 2015) will make it easier to hire, as it will increase opportunities to test

Figure 14. **Relatively generous unemployment benefits are tapered slowly**¹

1. Replacement rates are calculated for four family types; single, lone parent, couple and couple with children. Rates are from 2013.

Source: OECD, Tax-Benefit Models.

How to read this figure: The initial net replacement rate refers to benefits received during the first 12 months of unemployment as a percentage of the previous wage. Persistence is calculated as the sum of replacement rates over five years divided by the initial replacement rate. A low value means that the initial benefit is tapered relatively quickly.

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the capabilities of new hires and reduce the risk and cost associated with lay-offs. More should be done to ease regulations on individual dismissals, as they make companies reluctant to hire, notably young and small firms.

Education will be reformed

Adult skills are high in Finland, and school results are good. But the skills of 15-year olds, as measured by the *OECD Programme for International Student Assessment (PISA)*, are declining. Boys are increasingly falling behind girls, and second-generation immigrants do not perform better than the first generation (NAO, 2015). The reasons behind the fall in results are still unknown, but immigrants are too few to account for it. Tertiary education starts late and is completed slowly. Vocational education provides a pathway to work for students who are less inclined to pursue academic studies, but narrow qualifications and

low foundation skills reduce adaptability to structural change. The government will launch programmes to continue professional education for teachers, update pedagogical approaches and use digital learning environments to allow a wider range of learning methods. Training in foreign languages will be stepped up. The government also plans to make vocational education and training more flexible by making it easier to switch between educational paths and easing the financial and administrative burden for apprenticeships (Prime Minister's Office, 2015).

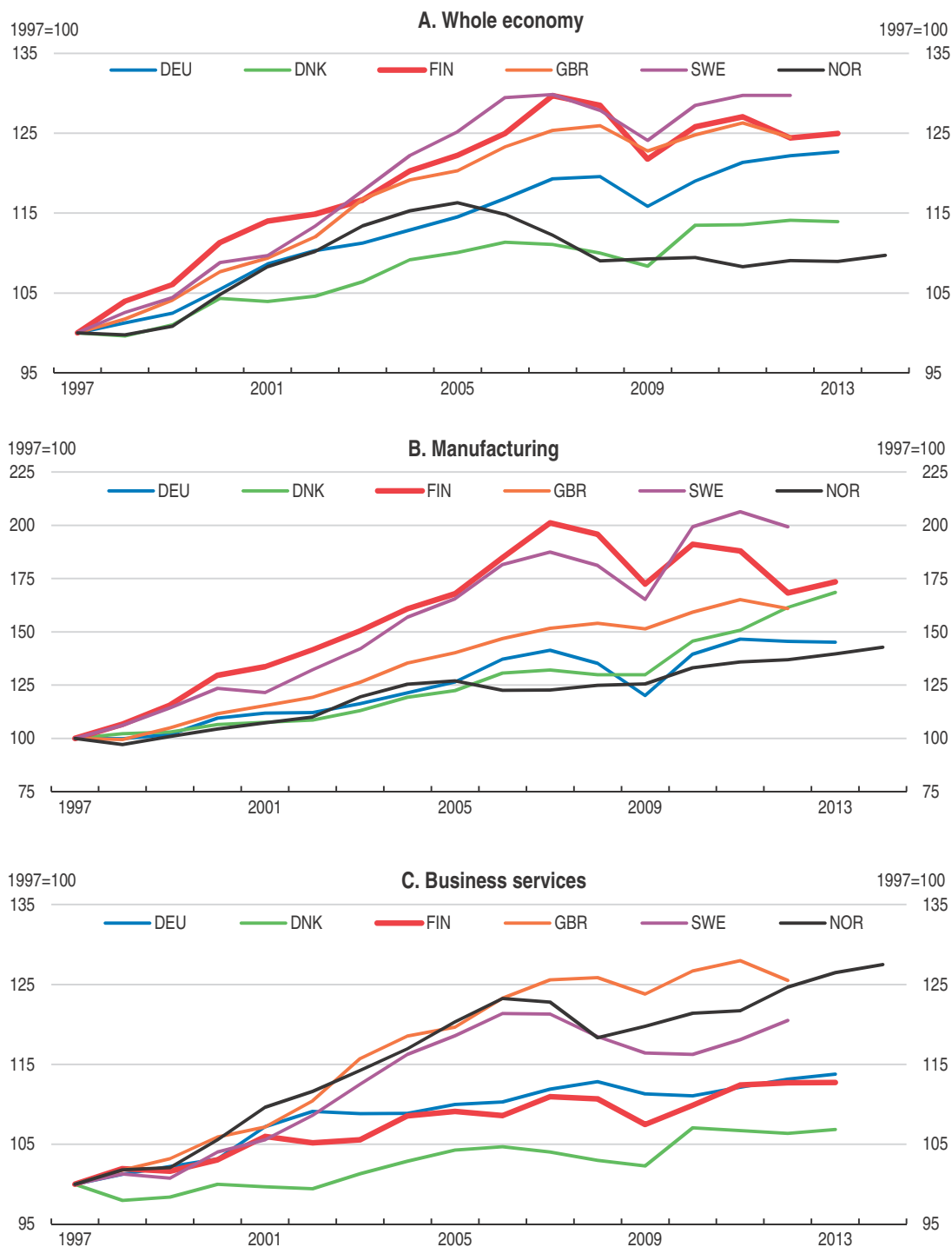
Educational attainment is also high in Finland, but progress has slowed and tertiary education attainment of the young is today below the OECD median. Speeding up entry and graduation would free up resources to accommodate more students. A joint national application to tertiary education will smooth transitions from upper secondary to tertiary education. Plans to reform the system of entrance exams that differ between universities and programmes should contribute further. Long completion times have been discouraged by stepwise reforms to student support and university financing, and the government plans to go further in this direction. Furthermore, the government intends to pave the way for more students entering working life with a Bachelor's degree by adjusting qualification requirements in the public sector (Ministry of Finance, 2014; Prime Minister's Office, 2015).

Regulations will be streamlined

Burdensome regulations and barriers to entrepreneurship can hamper productivity growth, which is the main driver of living standards, well-being and competitiveness in the long run. As shown in the government debt simulations above, an increase in productivity can also markedly improve fiscal sustainability. Finland has experienced a fall in labour productivity since 2007, mainly due to the manufacturing sector, which had performed exceptionally well during the preceding decade (Figure 15, Panels A and B). A shift in the production structure towards less productive sectors, as high-productivity sectors suffered most during the downturn, and perhaps also labour hoarding played a role in the drop in productivity. Business services productivity growth is sluggish, as in Denmark and Germany, but in contrast with the strong performance of Norway, Sweden and the United Kingdom (Panel C). This suggests that there is room for raising business services productivity in Finland, which is all the more important as services and manufacturing are increasingly intertwined (Ministry of Employment and the Economy, 2015).

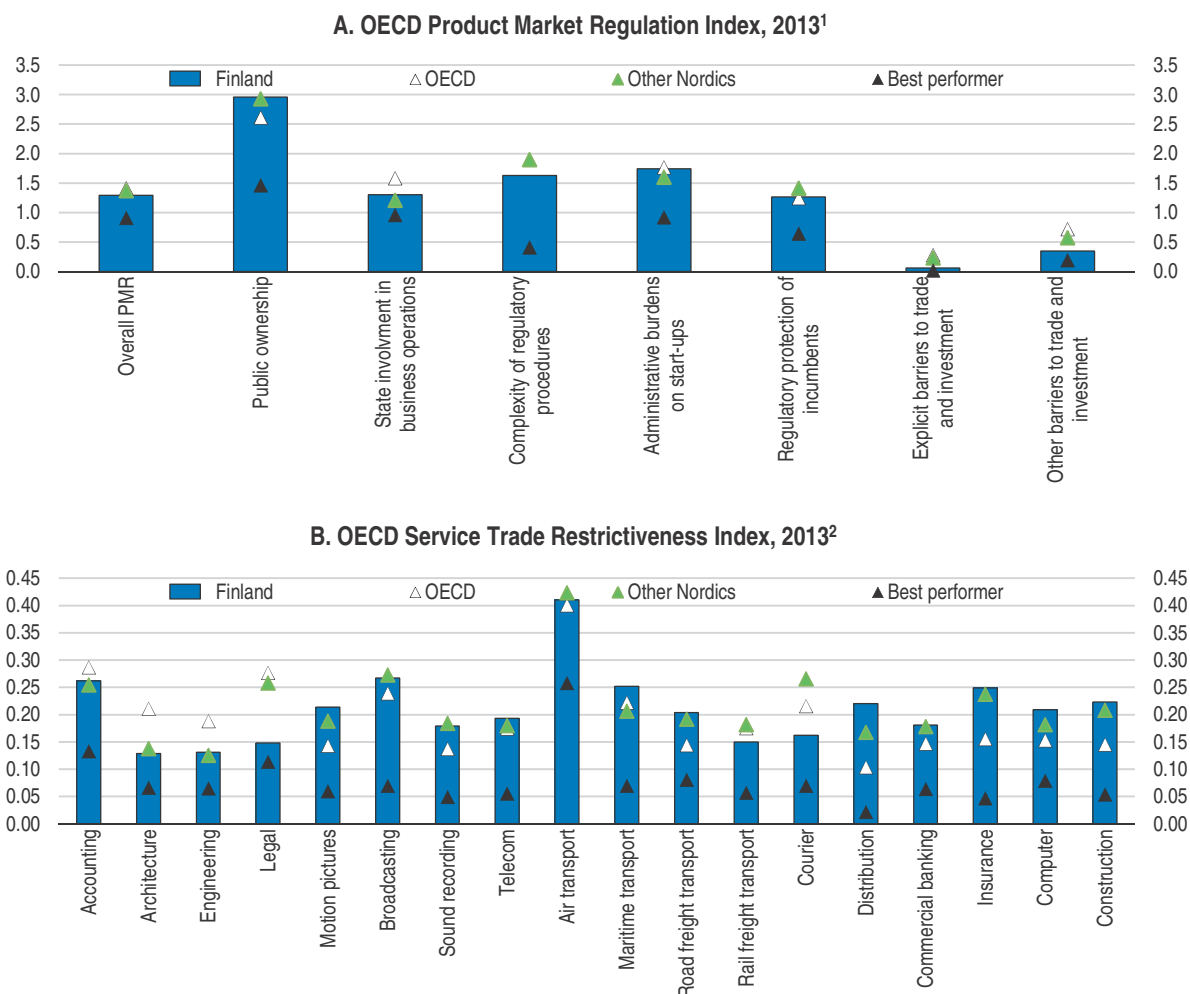
Finland's product market regulations (PMR) are less restrictive overall than the OECD average (Figure 16, Panel A). Only the Netherlands and the United Kingdom have significantly leaner regulations (Koske et al., 2015). The 2011 Competition Act brought regulation in line with recommendations from the European Commission. It reinforced merger control and enhanced damage compensation as well as "whistle-blowing" instruments. It also expanded the investigation powers of the Finnish Competition Authority, whose resources have been increased. Competition is, however, limited by low population density in large parts of the country. Finnish regulations remain excessively cumbersome in some areas, notably retail trade, network industries, construction and land-use planning. Streamlining regulations is a key objective of the new government, which also plans to promote competition in the construction industry and public services (Prime Minister's Office, 2015). Store opening hours were further liberalised in

Figure 15. **Productivity developments vary widely across sectors**¹



1. Real output per hour worked.
Source: OECD National Accounts database.


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Figure 16. **Product market regulations and service trade restrictiveness could be eased further**

1. Index, scale of 0-6 from least to most restrictive.

2. STRI indices take values from 0 to 1, where 0 is completely open and 1 completely closed.

Source: OECD Product Market Regulation and Service Trade Restrictiveness Index databases.

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December 2015. Land-use planning still restricts retail outlets (*OECD Economic Survey of Finland, 2012*), and a proposal to amend the land use and building act submitted to Parliament in late 2014 was judged by the Competition Authority to fail to effectively take into account competition objectives (European Commission, 2015a).

There is scope for greater competition in transport. Indeed, the government is considering opening up rail passenger transport competition. There is some competition for freight, but entry in the freight market remains challenging, given the dominant position of the incumbent in the organisation of the railway system (Mäkitalo, 2011). Road transport accounts for 75% of total freight transport and market entry is relatively tightly regulated. Cabotage – transport inside a country by a foreign haulier – accounts for a much lower share of the market than in Denmark and Sweden (European Commission, 2013). There may also be room to enhance competition in air transport, where the national carrier enjoys a dominant position on many domestic routes.

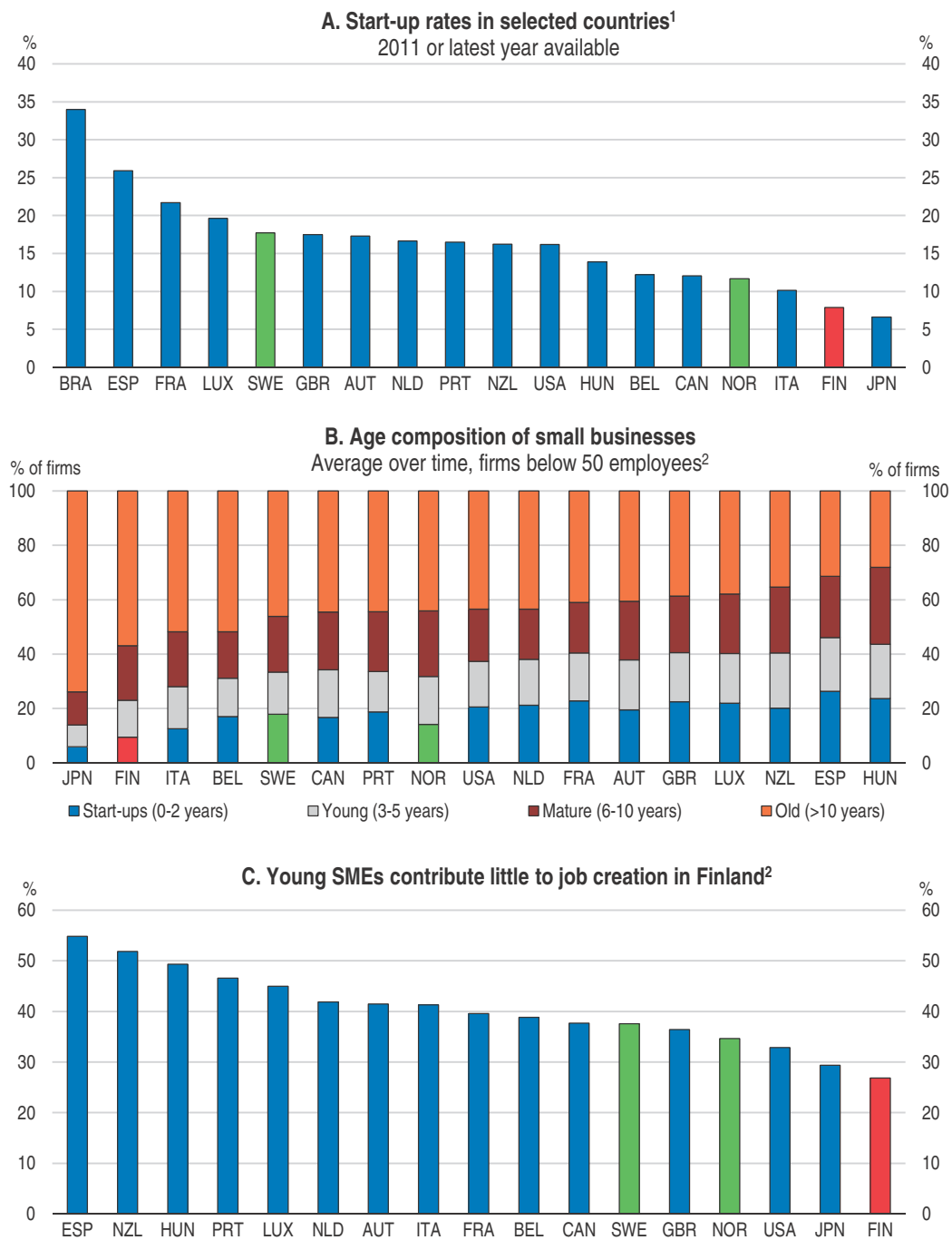
The government also aims at promoting competition in the construction industry. Indeed, competition may be hampered by concentration and market power of developers and construction firms, as well as by regulatory constraints. Furthermore, the construction product industry – e.g. concrete, paints – is more concentrated than the building industry. Prices lack transparency, as complex discount systems prevail. The market is dominated by a few firms and market entry is unattractive to foreign players because of the small size of the country and specific national standards (André and García, 2012).

Finland's Service Trade Restrictiveness Index (STRI) scores are above the OECD average and scores of other Nordic countries in several sectors (Figure 16, Panel B). The comparison with the OECD's best performers on these indicators suggests that there is room for lowering barriers further in a number of sectors, including transport and construction, consistent with the PMR indicators.

Entrepreneurship will be promoted

Economic renewal occurs both through the restructuring of old firms and through the emergence and growth of new companies. In OECD countries, young firms provide the main contribution to employment growth (Criscuolo et al., 2014). In Finland, start-up rates have been among the lowest in the OECD, both before and during the downturn (Figure 17, Panel A). The share of young companies among small businesses is among the lowest in the OECD (Figure 17, Panel B). This comes despite low barriers to entry in most markets and a cost of bankruptcy legislation for entrepreneurs which is among the lowest in the OECD (OECD, 2015c). Furthermore, young firms' growth has been fairly slow on average. Even though growing is a challenge for small firms in most OECD countries, the contribution of young firms to job creation and employment growth in Finland from 2001 to 2011 was particularly weak (Figure 17, Panel C).


Beyond streamlining regulations, the government plans to support innovation and entrepreneurship in several ways. It is creating special funds to raise equity capital and enhance the risk-taking capacity of businesses, notably start-ups and growth firms. It will strengthen Team Finland, which brings together a range of government-funded organisations to support exporters and promote Finland's brand name. Co-operation between higher education institutions and businesses will be reinforced (Prime Minister's Office, 2015). Higher education is currently fragmented, with many inefficient small research units. Consolidation is necessary to create larger centres of excellence, with a higher profile which would favour integration in international research networks. Collaboration on innovation of both large firms and SMEs with higher education or research institutions is among the strongest in the OECD (OECD, 2015d). This can contribute to diffusing knowledge, promoting innovation and fostering entrepreneurship and should be encouraged further, for example, through putting more weight on funding criteria for higher-education institutions or through R&D vouchers (Research and Innovation Policy Council, 2014). A one-off package of €1.6 billion to fund key projects in 2016-18 will also contribute to encourage innovation, in particular through investments in clean technologies, digitalisation and health.

Figure 17. **Young firms' contribution to growth and jobs is low**

1. Fraction of start-ups among all firms.

2. 2001-11.

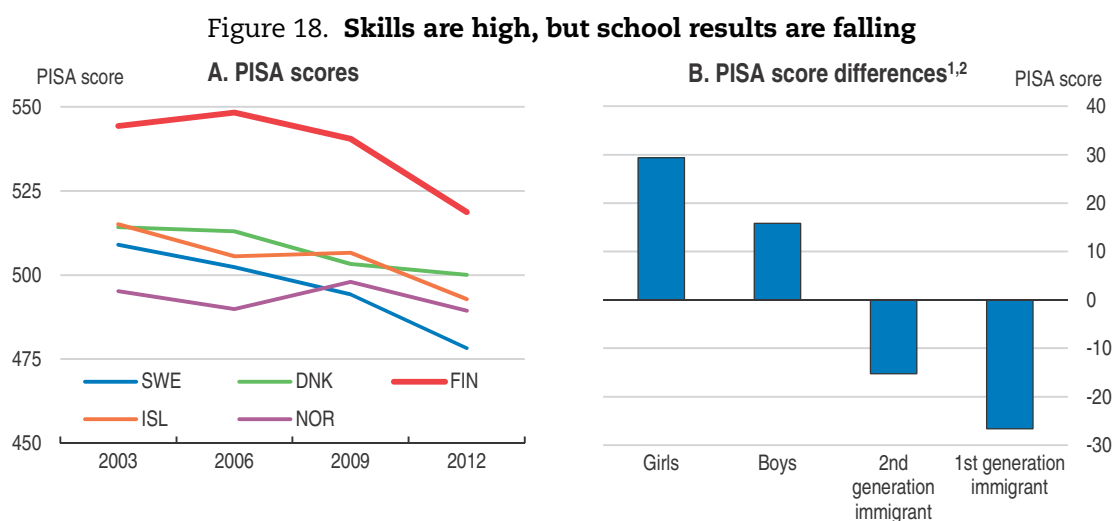
Source: Criscuolo, Gal and Menon (2014).

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Investing in the future is essential

Raising workers' skills


Finland has one of the highest levels of educational attainment in the OECD. It is renowned for its good results in compulsory schools, which are reflected in high PISA rankings, even though spending per pupil is slightly below the OECD average. However, PISA performance has deteriorated since 2006 (Figure 18, Panel A) and boys fall behind girls. Furthermore, second-generation immigrant youth score lower than natives and only slightly better than first-generation immigrants (Panel B; NAO, 2015). PISA results are also falling in other Nordics. Even though the reasons behind the falling results are not fully understood some hypotheses, such as the effect of rising immigration, can be ruled out. Also, Finland ranks second in the *OECD Survey of Adult Skills (PIAAC)* for literacy, numeracy and problem solving in technology-rich environments (OECD, 2013a).



1. Data refer to 2012.

2. 16-65 year-olds, difference to OECD average.

Source: OECD, *Survey of Adult Skills (2012)*; PISA 2009 and PISA 2012 databases.

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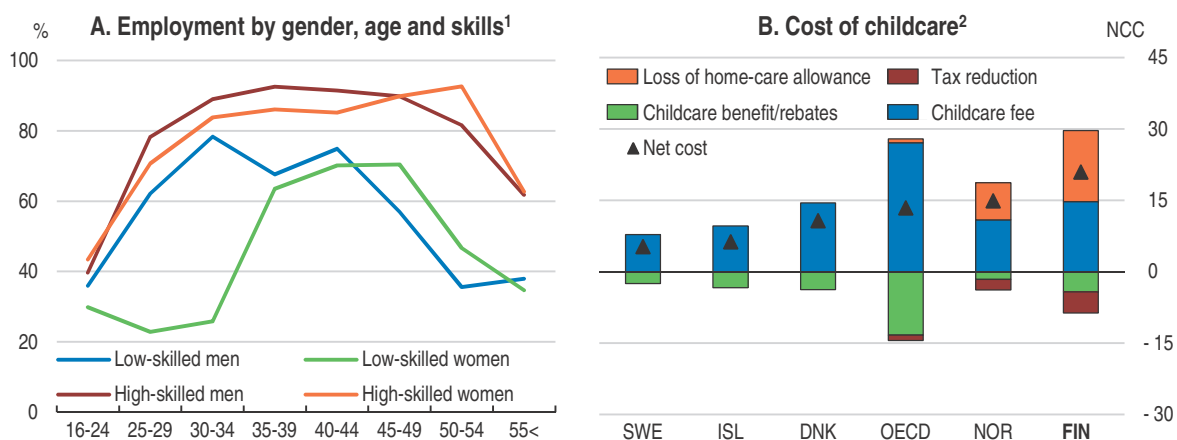
High-quality vocational education and training (VET) eases the transition from school to working life by focusing on trade-specific skills. But lower foundation skills reduce VET graduates' adaptability to rapid technological change (Hanushek et al., 2011). Efforts to build foundation skills should be increased, along with life-long development and training to improve the long-term labour market outcomes of VET graduates. Consolidating VET programmes and specialisations could be considered as a part of this effort.

More research is needed to identify causes of the relatively poor school results for boys and immigrant children and make sure that teaching practices are adjusted accordingly, so that these children are given a fair treatment and the support they need to succeed. Higher enrolment in pre-primary education would lift average educational outcomes and increase equity, but a relatively generous home-care allowance incentivises women to keep their children at home until the youngest sibling turns three.

Encouraging female participation and promoting gender balance

The employment rate of Finnish women (68%) is close to that of men (69%) but considerably lower than in the other Nordics. Despite a second place in the Global Gender Gap Report, only 24% of science, technology, engineering and mathematics students are female. Furthermore, the Finnish labour market is gender-segregated. Just 30% of legislators, senior officials and managers are female, and women are 70% more likely than men to be in part-time work (WEF, 2014), contributing to a gender wage gap of 19% (Eurostat, 2015a). Labour force participation among Finnish mothers with children below six years of age is the lowest in the Nordics, almost 20 percentage points below that of Sweden and Denmark (Eurostat, 2015b). The home-care allowance and the associated supplements reduce work incentives, especially for women with low potential earnings, since it offers a flat rate subsidy for staying at home (Figure 19, Panel A). Indeed, the cost of childcare, taking into account the loss of benefits when working, is the highest among the Nordics (Panel B). Four in ten women with children aged below seven receive the home-care allowance rather than making use of public day-care. Kosonen (2013) finds that increasing the home-care allowance reduces substantially maternal labour supply and earnings. Female employment rates across the OECD fall sharply if combined parental- and home-care leave entitlements exceed two years (Thévenon and Solaz, 2013). A study of Swedish women shows that women taking 16 months leave or more are less likely to progress in their careers once back on the job again (Evertsson and Duvander, 2011). Lower participation and earnings imply lower pensions. Limiting the combined duration of parental leave and the home-care allowance to between one and two years would generate significant gains in children's enrolment and mothers' employment. Simulations for Austria show how moving towards a more gender-equal working life could yield substantial growth and well-being gains (OECD, 2015e).

Figure 19. **The home-care allowance reduces female employment**



1. Low skills are defined as PIAAC level 2 or lower in literacy. Data were collected in 2012.

2. Calculated for the year 2012 as the difference in family net income of a double-earner family with two children, aged two and three, who uses centre-based childcare and an otherwise identical family who does not. Family net income is the sum of gross earnings plus cash benefits minus income taxes and social contributions paid by workers for a family with two earners, earning 67% and 50% of the national average wage, respectively.

Source: OECD Survey of Adult Skills, 2012, OECD Tax-Benefit Models, www.oecd.org/els/social/workincentives (last accessed 27 July 2015).

StatLink <http://dx.doi.org/10.1787/888933317291>

Promoting work immigration

Immigration could partly compensate for Finland's declining workforce as its population ages. Only 5% of the population is foreign born and gross inflows have averaged 0.3% annually in recent years, of which half is work immigration, almost exclusively from other EU countries. The nature of immigration has a strong bearing on labour market performance. Immigrants from OECD countries are largely work immigrants, who are generally skilled and perform well in the labour market (Pareliussen, 2016). Finland should encourage more work immigration by abolishing the "work test" that stipulates that non-EU work immigrants can only immigrate if their job offer is in an occupation where there is a lack of local supply, by improving systems for recognition of foreign qualifications and by bridging courses, and streamlining systems to integrate workers' families.

Immigrants from poorer countries, who often come for humanitarian reasons or family reunion, tend to have weaker socio-economic backgrounds, to be less educated and to score lower on literacy tests (Pareliussen, 2016). As a result, they are less likely to be employed, more likely to be overqualified for their jobs, more likely to be poor, and more likely to live in overcrowded accommodation (OECD/European Union, 2015). The number of asylum seekers has surged in 2015, notably from Iraq, Somalia and Afghanistan. Tapping this potential to reinvigorate Finland's ageing workforce depends on effective integration policies in which up-skilling, starting with language, is the cornerstone. Experience from Canada and Switzerland shows that utilising immigrants' full skills is a challenge, but that well-developed apprenticeship schemes help integration of low-skilled immigrants and their children (OECD, 2013b; OECD, 2014c). Finland does fairly well in the up-skilling of first generation immigrants. Even though the literacy proficiency of newly arrived immigrants is low, it exceeds the OECD average for foreign-born adults who have lived more than five years in the country (Bussi and Pareliussen, 2015). However, the magnitude of current inflows is unprecedented in Finnish history, and scaling up the integration apparatus while maintaining high quality will be a challenge.

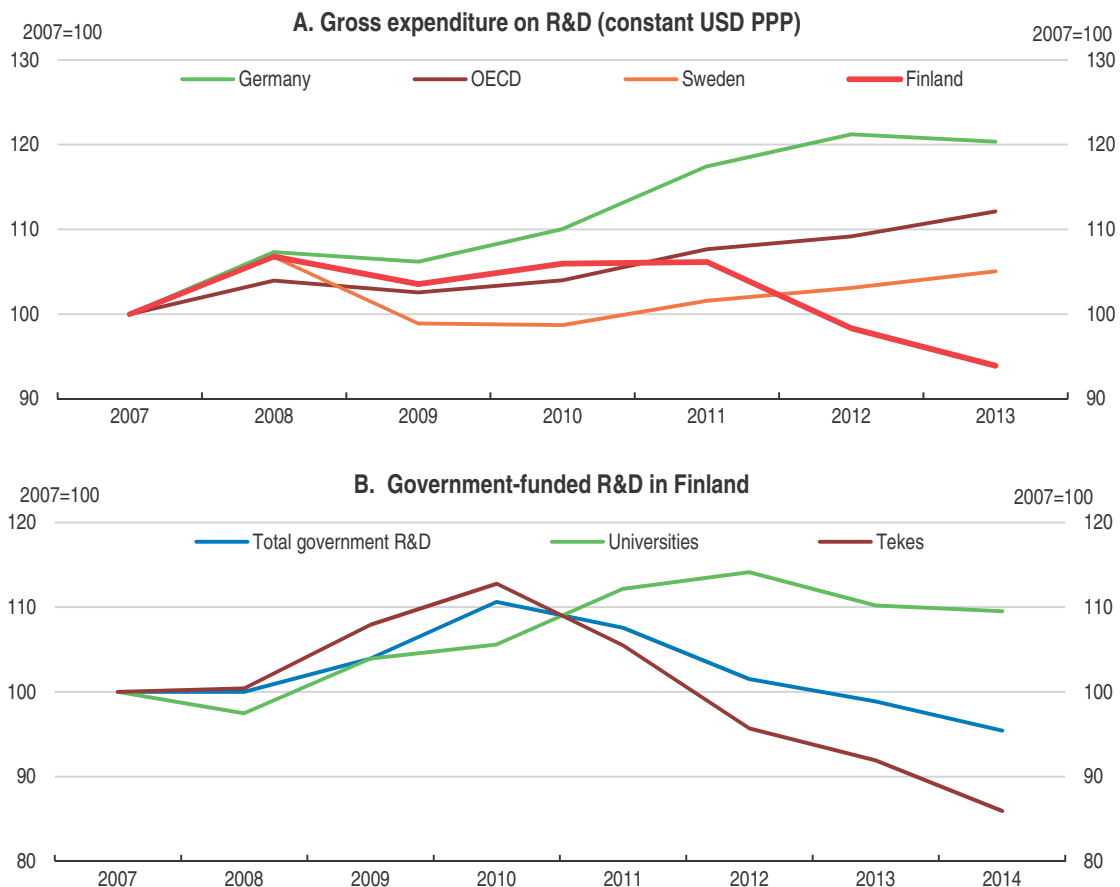
Continuing to support R&D

Finland's government provides broad-based support for innovation, through education and basic research as well as through help for business innovators, including funding, counselling, network building and international promotion. Public support for innovation is justified by externalities generated by spill-overs from innovation investment, which raise the social rate of return above the private rate of return, leading to socially sub-optimal investment in the absence of government intervention. Hence, innovation policy should focus on the areas generating the strongest externalities, in particular education and basic R&D (Westmore, 2013). Government support played a key role in the development of the ICT industry over the past decades. But in other sectors results appear mixed, although evaluating innovation policies is fraught with difficulties and requires a long time perspective. Some public support programmes seem to have crowded in private funding for R&D (Einiö, 2009). However, there is also evidence that large firms are more likely to apply for support than smaller ones and that many companies tend to benefit from public support programmes for extended periods (Koski and Tuuli, 2010). Karhunen (2015) finds no significant effect of R&D subsidies on the labour productivity of Finnish SMEs over the five-year period after a subsidy is granted. This may suggest some inefficiencies and deadweight costs.


Innovation is essential to restore Finland's competitiveness. According to the Innovation Union Scoreboard, which provides a multi-dimension comparative assessment of EU countries' research and innovation performances, Finland is among the innovation leaders, along with Denmark, Germany and Sweden, even though its performance has declined somewhat since 2012 (European Commission, 2015b). Business and government R&D expenditures are among the highest in the OECD as a share of GDP. However, Finland's R&D expenditure has declined markedly in real terms after 2011, which contrasts with a pick-up in Germany, Sweden and the OECD as a whole (Figure 20, Panel A). This is a cause for concern in a knowledge-based economy. To a large extent, the contraction in R&D reflects the difficulties of the ICT sector, where R&D is highly concentrated. The low level of R&D and patents in non-ICT sectors is one of the main weaknesses of the Finnish innovation system, and is reflected in the inability of other industries to compensate the decline in ICT output.

Direct government R&D funding declined by about 14% in real terms between 2010 and 2014 (Figure 20, Panel B). Further cuts are planned over the current parliamentary term. The overall budget for tertiary education will be cut by about 4% and the budget of the Finnish funding agency for technology and innovation (Tekes), which already shrank by about a quarter in real terms since 2010, will be reduced further by about a third (Prime Minister's Office, 2015). There is indeed scope for efficiency gains. A large number of

Figure 20. **Business and government R&D is being scaled down**



Source: OECD, Main Science and Technology Indicators database and Statistics Finland.

StatLink  <http://dx.doi.org/10.1787/888933317303>

government agencies are involved in funding business innovation and development and efficiency gains could be achieved through rationalisation (OECD *Economic Survey of Finland*, 2012). As well, substantial efficiency gains could be realised by reorganising higher education. Furthermore, part of Tekes financing could be replaced by private funding. Even so, R&D spending is likely to be affected by the spending cuts, which could affect Finland's growth potential.

Although credit standards for SMEs have been tightened somewhat, access to finance has remained easy compared to most other European countries since the 2008 financial crisis (OECD, 2015f). Furthermore, innovative firms can benefit from substantial public funding. However, as the latter is being scaled back, other funding sources will need to be found. The government has committed to raising additional capital for business financing, based on market needs. However, Finland could also take greater advantage of new forms of SME and entrepreneurship finance which are emerging globally, including asset-based lending, alternative forms of debt, crowdfunding and hybrid instruments. Such instruments are often better suited than traditional bank lending to innovative and fast-growing companies and could contribute to financing innovation in Finland. The conditions for the expansion of alternative financial instruments, in particular in terms of regulatory framework, should be explored, paying attention to striking a balance between financial stability, investor protection and the opening of new financing channels for SMEs (OECD, 2015g).

Public procurement can also be used to encourage innovation, without compromising the essential requirement to maximise value-for-money. Fostering demand for innovative products is an important dimension of innovation policy, as uncertainty about demand may deter firms from developing some innovations and investors from funding them. As public procurement amounts to nearly a fifth of GDP in Finland (OECD, 2015h), having innovation requirements where applicable can make a difference. The government has set an objective of 5% of innovative public procurement (Prime Minister's Office, 2015). Finland has been encouraging environmental sustainability in public procurement since 2009 (Ministry of the Environment, 2009). In addition, many municipalities have engaged in innovative procurement, especially in construction, social and health care services and energy and water supply, in some cases supported by funding from Tekes' Smart procurement programme. Nevertheless, there may be room for requiring more innovation from firms responding to public procurement in many areas. This is particularly the case in sectors where public procurement represents a substantial share of the market, like health care, education, transport or construction.

Getting value for money requires a competitive tendering process and fostering innovation calls for a focus on the functionalities of procured items rather than on technical specifications. Importantly, effective procurement requires expertise on the part of the purchaser and evaluating the outcomes of innovative procurement is often complex. In Finland, local authorities are responsible for a large share of public procurement and may have difficulties in building up the required expertise. This difficulty may be overcome through exchange of information across government authorities, standardisation of procurement procedures or centralisation of procurement (OECD, 2014d). The proposed social and health care reform foresees that one national unit would take care of all health care related public procurement, with a view to improve the efficiency of public procurement in this sector. Moreover, health care ICT is to be centralised.

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ANNEX 1

Progress in structural reform

This table reviews action taken on key recommendations from previous Surveys. Recommendations that are new in this Surveys are listed at the end of the relevant chapter.

Recommendations in previous Surveys	Action taken since February 2014
A. Fiscal framework	
Strengthen the fiscal framework by adopting a medium-term fiscal target for the general government balance (while allowing automatic stabilisers to work) that is consistent with a debt target. Contain spending growth, especially in municipalities, preferably by expanding the expenditure ceiling to cover a larger share of general government spending.	A new steering system for local government finances has been introduced in 2015. It is comparable to the central government spending limits procedure. The new system ensures that municipalities' tasks and obligations are consistent with balanced local government budgets.
B. Pension reform	
Increase the minimum pension age gradually, with some linking of both the retirement age and the benefits to life expectancy.	In September 2014, the social partners agreed on raising the retirement age to 65 by 2025, and thereafter to link it to life expectancy. The reform will take effect in 2017.
End part-time pensions and the extended period of eligibility to unemployment benefits for older people. Access to disability pensions should be based on medical reasons only.	Early retirement paths have been progressively narrowed. However, the years-of-service pension introduced by the pension reform could lead to an increase in early pensions if it is not subject to sufficiently strict eligibility criteria. Access to disability pensions is still not based on medical reasons only.
C. Local public finances and municipal reform	
Continue to promote the merger of municipalities or scale back their responsibilities in functions where economies of scale and scope can be achieved.	The large-scale merger plan has been abandoned. The government still supports voluntary mergers and a few have taken place. The government has committed to scaling back the responsibilities of municipalities.
D. Health care reform	
Rationalise the organisation of health services to achieve a better balance between primary and specialised care.	The government has announced the creation of 18 autonomous regions, of which 15 will organise healthcare and social services in their area themselves, while three will provide the services with the support of one of the other autonomous regions. The regions will be 15 social welfare and health care areas, managed by elected councils, probably with some (limited) power to collect taxes. The reform will enter into force on 1 January 2019.
Drawing on existing experiences in some municipalities, a purchaser-provider split should be adopted in areas where the population base and the level of complexity of treatment allow meaningful competition.	Municipalities have considerable autonomy in how they provide the required health services and the use of purchaser-provider split is expanding. The new social welfare and health care areas will be allowed to use private or third-sector service providers. Competitive neutrality between different providers will be emphasised. A scorecard will be prepared for assessing the efficiency and quality of service provision.
Continue to develop electronic tools to promote evidence-based medicine and health-provider benchmarking.	Progress is ongoing and digitalisation of public services is high on the government agenda.
Continue to encourage the development of home care to limit dependence on institutional care and explore possibilities to expand the use of vouchers for buying services needed to support independent living at home.	Developing home care for the elderly further is part of the government programme.
E. Labour market reform	
Strengthen active labour market policies to improve the labour force participation of youth, women of childbearing age and the long-term unemployed.	The geographical search area was widened in 2015. The government intends to make more use of private activation providers.
Adjust the temporary lay-off scheme so that the employer bears some of the costs of the programme.	No action taken.
Lower high replacement rates in the unemployment insurance and related benefit systems to improve work incentives. Work incentives for second earners in families with small children should also be improved.	The government plans to obtain €200m savings from the unemployment insurance, which would improve work incentives. No action taken for second earners.
Taper unemployment benefits over time as is currently done in many other OECD countries.	No action taken.

Recommendations in previous Surveys	Action taken since February 2014
F. Productivity-enhancing reforms	
Continue to support innovation using a broad approach. Monitor the impact of direct public funding to ensure efficient resource allocation and prioritise support to activities generating positive externalities, such as basic research and education.	No action taken. The government programme includes large cuts to education and research, even though a strategic investment programme will provide one-off funding for some priority projects.
Lower business subsidies and shrink the number of business supporting institutions. Lower or terminate government funding in areas (like venture capital) where markets nowadays provide equal or better services.	There have been no major changes to the system of business supporting institutions. However, Team Finland has been created to coordinate the activities of several institutions, with a focus on internationalisation. The government programme includes cuts on funding for innovation, and initiatives to attract more venture capital.
Pursue more structural reforms within network industries and open up government dominated sectors to private provision, e.g. in health, in order to increase productivity and provide stronger incentives for private sector R&D in those sectors.	No action taken. The government is considering opening up new areas to competition (e.g. rail passenger transport).
Loosen zoning and planning restrictions on retail development to encourage competition and increase store-level scale economies.	No action taken.
G. Green growth	
Phase out environmentally harmful subsidies, taking into consideration wider socioeconomic and competitiveness effects.	No action taken.
H. Tax reform	
Continue to lower the taxation of labour and increase taxes on recurrent personal immovable property and indirect taxes.	The share of receipts from indirect taxes and recurrent personal immovable property taxes has increased over recent years. The government plans to move further in that direction and more specifically to coordinate tax and social security measures to remove inactivity traps.
Raise property tax revenues by setting property assessment values (for tax purposes) equal to 100% of market valuations and by raising property tax rates.	In 2014, property assessment has come closer to market values. Mortgage interest deductibility is being reduced in steps.
Raise the revenue efficiency of the VAT by eliminating reduced VAT rates.	No action taken.

ANNEX 2

Government debt scenarios

The debt dynamics simulations presented in this document are based on OECD estimates for long-term output growth and expenditures on pensions, health and long-term care. Over the long term, potential real GDP is assumed to increase by 1.5% and the GDP deflator by 2% per year (Johansson et al., 2013). Pension costs mount with ageing (OECD, 2013c). The baseline scenario (“No policy action”) does not incorporate the impact of the pension reform to be implemented from 2017. Public health and long-term care expenditure projections are based on the cost-containment scenario in De la Maisonnette and Oliveira Martins (2013), in which the increase in public health and long-term care spending between 2010 and 2060 is contained to about 2.5 percentage points of GDP. Although precise quantification is challenging, such an outcome seems plausible if the social welfare and health care reform is successfully implemented.

Net debt dynamics

The net debt-to-GDP ratio follows the following dynamics:

$$ND_t = (1+r)/(1+g) ND_{t-1} + PB_t$$

Where ND is net debt, PB the primary balance, r the nominal interest rate and g nominal GDP growth.

The interest rate used is a weighted average of the long-term (with a weight of 70%) and short-term interest rate (with a weight of 30%), roughly reflecting the time structure of public debt. The short and long-term interest rates are assumed to converge to respectively 4% and 5% in the long term. Unlike in most OECD countries, Finland’s pension funds are incorporated in the government sector. The return on pension fund assets, which contain a high proportion of equities, should be higher than the return on government securities in the long term. However, as a conservative assumption, the simulations assume the same rate of return on government liabilities and assets.

Gross debt dynamics

Defining gross debt trajectories requires making assumptions about the evolution of government assets. Government assets are assumed to grow in line with nominal GDP,

except for the pension-related component, which is assumed to decline proportionately to the age-related increase in pension costs. This assumption is made to keep the simulations as neutral and simple as possible. It affects the level of gross debt similarly in the baseline and all scenarios. Hence, deviations from the baseline are not affected. The simulations are based on the national accounts definition of debt. The wedge *vis-à-vis* Maastricht debt is kept constant over the simulation horizon.

Scenario 1: pension reform

The pension reform to be implemented from 2017 is assumed to reduce the cost of pensions relative to the baseline from around 2020, with the difference converging to about 1% of GDP in 2030. This is in line with central estimates of the impact of the reform (Economic Policy Council, 2015). The main risk to this scenario is a higher than expected share of early retirements.

Scenario 2: fiscal consolidation

This scenario adds to the pension reform the impact of the fiscal consolidation plan of €4 billion over 2016-20 announced by the government.

Scenario 3: structural reforms

Structural reforms boosting labour productivity and employment are added on top of the two previous scenarios. Product market reforms are assumed to raise productivity growth by 0.5% per year. This is a plausible figure given the measures to streamline regulations and increase competition outlined in the government's programme. However, the size of the impact of reforms is uncertain and many specific measures are still to be defined. Achieving a 0.5% per year increase in productivity growth will require full and effective implementation of the government's programme. The increase is phased in over five years from 2016. Government spending and revenue are assumed to increase in line with output. Hence the debt ratio is only affected through the denominator. This is a conservative assumption, as productivity gains could allow to achieve savings in the public sector and generate higher tax revenue per unit of output.

Labour market reform is assumed to narrow the participation gap *vis-à-vis* the other Nordics by 5% per year, which is a relatively optimistic assumption, requiring the implementation of ambitious policy measures. The government target of an employment rate of 72% is reached in 2023. It is assumed that over the long term, higher labour participation translates into higher employment. The increase in labour participation is supposed to result in a more-than-proportional increase in tax revenue relative to GDP. The elasticity of government revenue to GDP is 1.1, as estimated in Price et al. (2014). The ratio of government spending to GDP is also assumed to be reduced through lower out-of-work benefit payments. The reduction in benefits associated with higher employment is calibrated using the share of unemployment and earnings-related benefits in total government expenditure, as reported in Price et al. (2014). A one percent increase in employment is assumed to result only in a 0.8% reduction in unemployment and earnings-related benefits, as the latter include in-work benefits. Overall, a one point increase in the labour participation rate is assumed to lower benefits by 0.06% of GDP.

Thematic chapters

Chapter 1

Boosting productivity

Boosting productivity growth is necessary to raise living standards and well-being for all. Aggregate productivity has fallen, mainly driven by manufacturing, although service industries have also tended to underperform. Reviving productivity requires improving framework conditions further so labour and capital can more easily move to the most dynamic sectors and firms, making the tax system more growth-friendly, and supporting innovation, basic research and young firms' financing.

Since the onset of the global financial and economic crisis, Finland's productivity has declined both in absolute terms and relative to the leading OECD economies. The fall in productivity primarily reflects a strong manufacturing and especially information and communication technologies (ICT) cycle. These sectors had driven exceptionally high growth before the downturn, but have since collapsed. The slowdown in other sectors is more in line with global productivity developments and hence can be, at least partly, related to the weakness of the global economy and the associated slowdown in the diffusion of innovations (Box 1.1).

Reviving productivity growth is crucial to restore Finland's competitiveness, to push up output when the contribution of labour input is shrinking due to population ageing, and to raise standards of living and well-being further. While productivity trends are strongly influenced by global factors, domestic policies also play a role. Structural reforms, including those announced by the government, can boost productivity by increasing competition, improving the business environment, facilitating the reallocation of resources towards growth sectors and enhancing incentives for work and entrepreneurship. Promoting investment in R&D, which has contracted sharply over recent years, raising the efficiency of the innovation system and supporting young firms' growth and internationalisation is also key to Finland's future productivity performance and competitiveness.

Box 1.1. The global productivity frontier and the diffusion of innovations

A country's productivity performance can broadly be split into three elements: productivity developments at the global productivity frontier, the distance of the best-performing local firms to that frontier, and the position of other companies relative to national leaders (OECD, 2015a). While developments at the global frontier are largely determined by technological progress, policies have a strong role to play in helping local firms reach the frontier and in facilitating the diffusion of innovations across the economy.

Future productivity growth at the global productivity frontier is very uncertain and the recent economic downturn has revived the old debate on whether the world is heading for secular stagnation or renewed expansion. Gordon (2012) argues that the wave of innovation associated with information technology and the Internet, which boosted US productivity between 1995 and 2004, has largely run its course. Combined with headwinds from ageing, slowing progress in education, rising inequality, global competition, environmental challenges and high consumer and government debt, slower innovation could lower real consumption per capita annual growth for 99% of the population to below 0.5% for decades. Although the analysis is US-specific, it is relevant for any country close to the efficiency frontier, where growth is mainly driven by innovation. However, Gordon's pessimistic view is disputed. Byrne et al. (2013) show that semiconductor technology has continued to progress rapidly in recent years. They see a "reasonable prospect" that this could lift back US non-farm business sector labour productivity growth to its long-term average of 2.25%.

Box 1.1. **The global productivity frontier and the diffusion of innovations** (cont.)

Recent OECD research also creates ground for optimism. Firms at the global productivity frontier, identified as the 100 globally most productive firms, have continued to expand rapidly after 2004, when aggregate productivity in advanced economies began to slow. The widening gap between frontier firms and others suggests that innovation is still strong, both in manufacturing and services, but that diffusion has weakened. The key factors driving diffusion are openness and factor mobility, knowledge-based capital, the ability of firms to upscale and competition.

Finland is a very open economy with strong human and knowledge-based capital and is therefore well placed to benefit from knowledge diffusion. A number of Finnish firms are close to the global productivity frontier. Continued investment and enhanced efficiency in innovation can push more Finnish firms towards the global efficiency frontier, and hence allow them to benefit from comparative advantages in global value chains. There may also be ways to make the country more attractive to foreign investors and workers, which could also lift the local productivity frontier.

The greatest challenge in Finland, as in other advanced economies, seems to be the diffusion of innovations from the frontier to other firms. Creative destruction played a strong role in Finland's productivity performance since the mid-1980s, although it lost intensity in the early 2000s (Maliranta et al., 2010). The Finnish economy is now undergoing deep structural change, which will be supported by reforms aimed at facilitating the reallocation of resources and boosting entrepreneurship. This should translate into higher productivity over time. However, new firms tend to have low productivity initially. Aggregate productivity rises only once successful entrants achieve a high level of productivity and unsuccessful ones exit the market (Hyttinen and Maliranta, 2013). Policies need to create an environment which supports this market selection process.

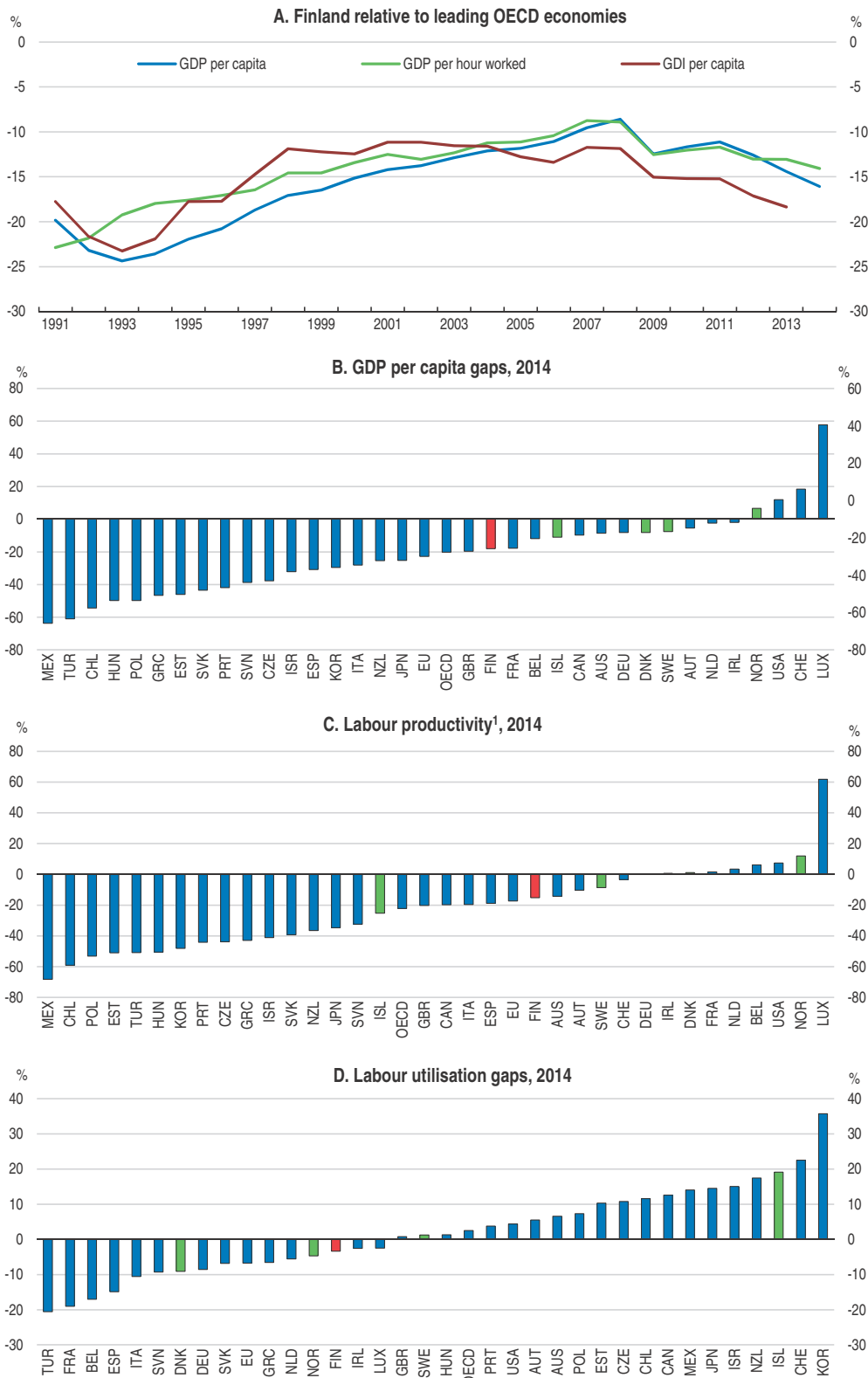
This chapter is organised as follows. The first section compares Finland's productivity performance to the leading OECD countries. The second shows how sectorial developments have shaped aggregate productivity evolutions. The third examines the deterioration in competitiveness. The fourth outlines structural reforms with potential to raise productivity. The final section looks at innovation and entrepreneurship policies.

Finland is losing ground vis-à-vis leading OECD countries

Convergence to the leading OECD economies' income level has stalled

Finland's GDP per capita gap to the leading OECD economies has widened again after shrinking by about 15 percentage points between the early 1990s and 2008 on the back of strong productivity growth. A continued deterioration in the terms of trade, partly due to falling electronic products prices, has acted as a drag on income (Figure 1.1, Panel A). The level of Finnish GDP per capita is above the OECD and EU average, but lower than in all other Nordic countries (Figure 1.1, Panel B). The GDP per capita gap essentially results from lower productivity (Figure 1.1, Panel C). Labour utilisation is close to the upper half of the OECD countries' average (Figure 1.1, Panel D).

Figure 1.1. **Gaps in GDP per capita and productivity have widened**



Note: Percentage gaps with respect to the simple average of the best performing 17 OECD countries.

1. Real output per hour worked.

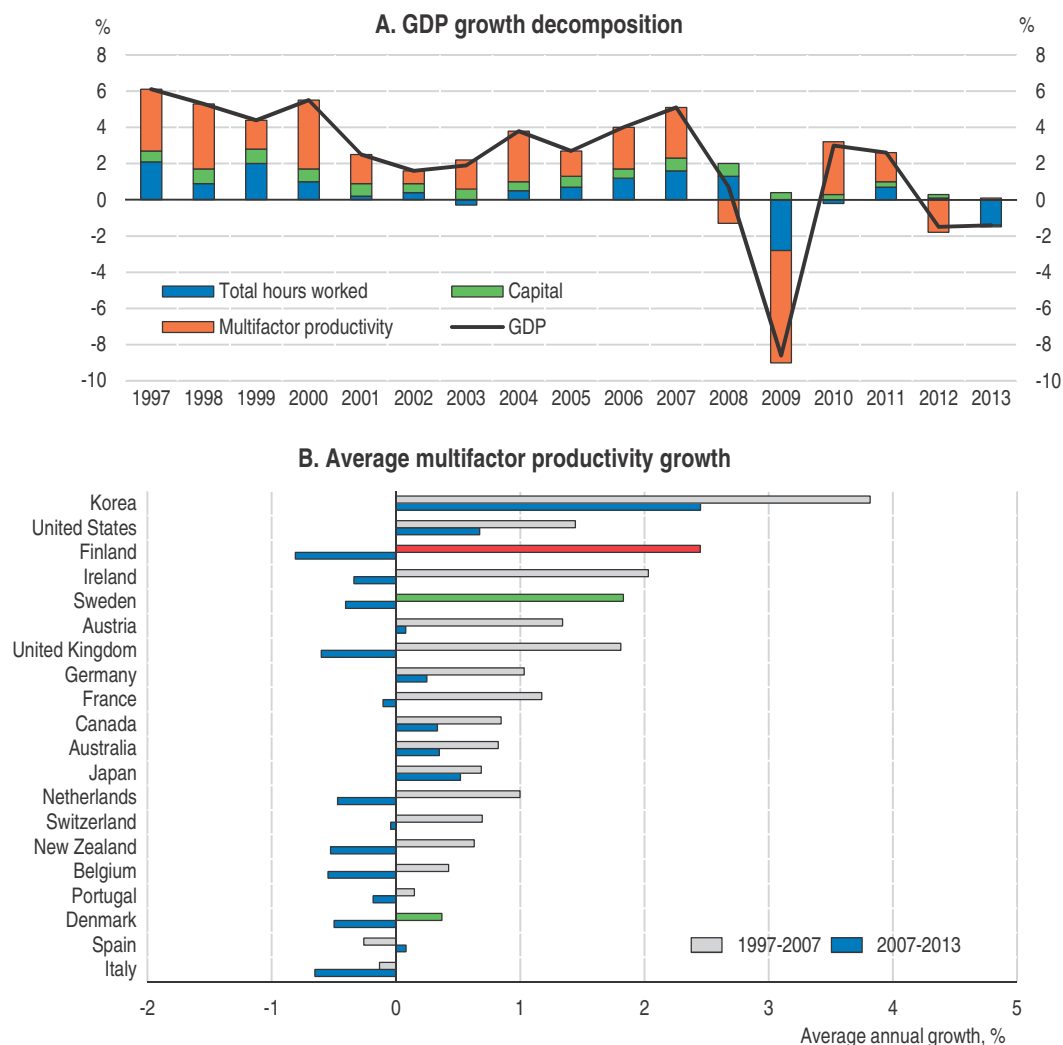
Source: OECD, National Accounts and Productivity databases.

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Productivity growth has fallen

The pre-crisis expansion was primarily driven by growth in total factor productivity (TFP), which encompasses technological innovations, new business models and more efficient allocation of resources (Figure 1.2, Panel A). To a large extent, Finland's growth performance during that period reflects the rapid spread of ICT, reflected in strong ICT investment, particularly in communication equipment where Finland outpaced all other OECD countries, and strong TFP gains allowed by digitalisation (Spezia, 2012). Increases in labour input and non-ICT capital deepening also made sizeable contributions to GDP growth in the decade preceding the global financial and economic crisis. After 2007, TFP collapsed. At the same time, demand for labour and investment were hit by low demand for goods and services, contributing further to output weakness. The turnaround in TFP performance has been among the most spectacular in the OECD. From 1997 to 2007, TFP growth in Finland came second only to Korea among countries for which reliable data are

Figure 1.2. **Total factor productivity has been the main driver of output fluctuations**



Source: OECD Productivity database.

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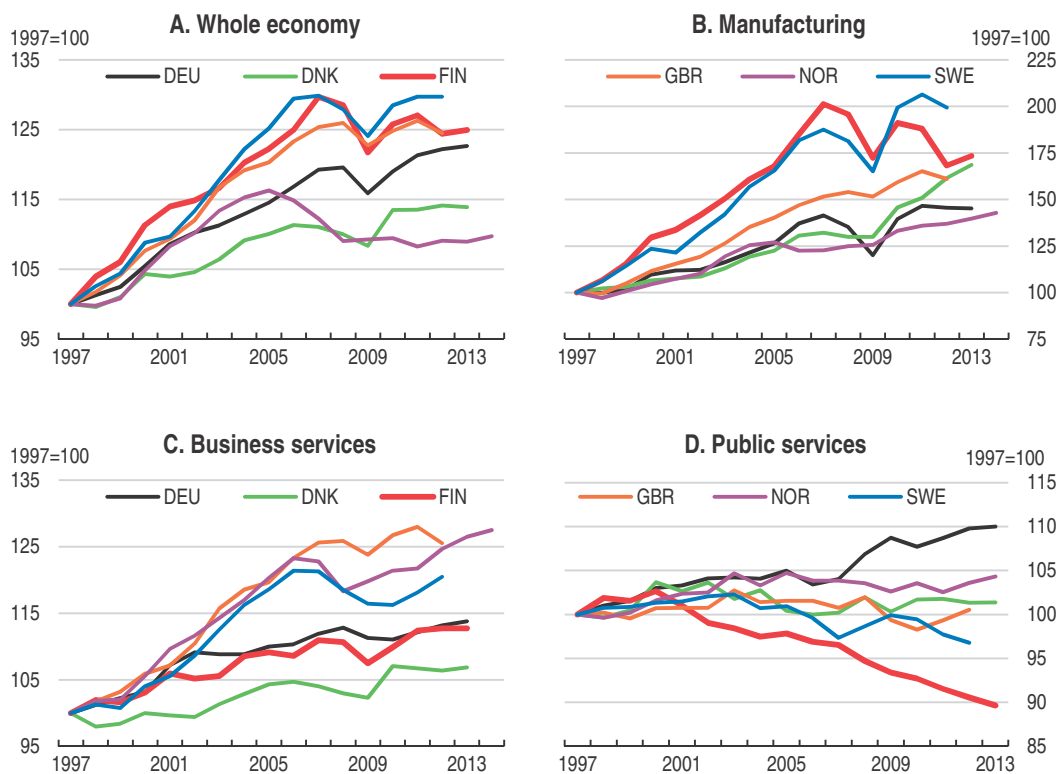
available. However, Finland's drop in TFP growth from 2007 to 2013 was the largest in the sample, some of which may be explained by labour hoarding. Although TFP fell in many countries, it continued to increase in Japan, Korea, the United States and a few others, albeit at a slower pace than before the crisis (Figure 1.2, Panel B).

Productivity growth has varied widely across sectors


Finland outpaced most countries in terms of output per hour worked between 1997 and 2007 (Figure 1.3, Panel A). Manufacturing productivity growth was outstanding before 2007, but subsequently declined and failed to rebound, contrary to what occurred in Sweden (Figure 1.3, Panel B). Business services productivity growth has been sluggish, as in Denmark and Germany, contrasting with the strong performance of Norway, Sweden and the United Kingdom (Figure 1.3, panel C). This suggests that there is room for raising business services productivity in Finland, which is all the more important as services and manufacturing are increasingly intertwined (Ministry of Employment and the Economy, 2015). Productivity in public services has declined in Finland, while it has increased in Germany and remained broadly flat in other peer countries (Figure 1.3, panel D). Public sector productivity estimates should be taken with great caution, as measuring non-market output and adjusting for quality improvements is challenging (Jääskeläinen and Lönnqvist, 2011). Nevertheless, there seems to be scope for efficiency improvements in public services provision, notably in health and social services. The successful implementation of the social welfare and health care reform, which is to enter

Figure 1.3. **Productivity developments vary widely across sectors**

Indices, different scales



Source: OECD, National Accounts database.

StatLink  <http://dx.doi.org/10.1787/888933317252>

into force on 1 January 2019, would enhance efficiency. The government expects the associated annual savings to amount to €3 billion (about 1.5% of GDP). Furthermore, better coordination of health care should also improve health and well-being outcomes.

The manufacturing sector has been the key driver of productivity developments, even though it represents less than a fifth of total hours worked. It contributed two-thirds of overall productivity growth between 1997 and 2007 and an even higher share of the decline since then. The contribution of manufacturing of computers and other electronic equipment to productivity swings has been particularly large, even though that sector represents less than 2% of labour input (Table 1.1). A closer look at the time profile shows that this sector accounts for most of the labour productivity drop since 2011 (Figure 1.4). This largely reflects the difficulties of Nokia, which ended up exiting the mobile phone business, after missing the “smartphone revolution”. Other manufacturing sectors, including wood and paper production, contributed to overall productivity growth during the upswing, but stalled after 2007. Reallocation of labour between sectors has contributed only modestly to productivity growth during the upswing and its impact turned negative after 2007, as high-productivity industries contracted.

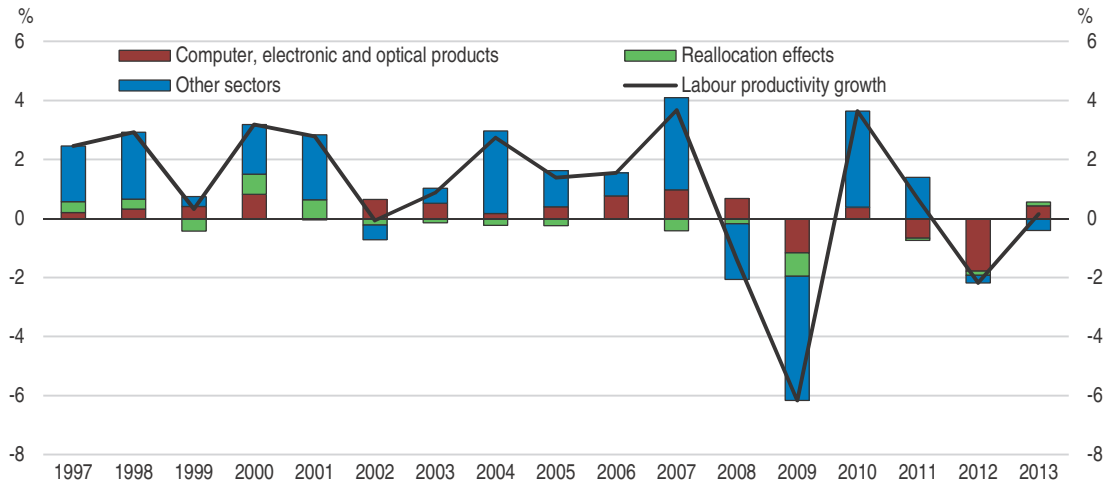
Table 1.1. **Average annual contribution to productivity growth**

	1997-2007	2007-13
Total	2.6	-0.7
Agriculture, mining, forestry	0.0	0.1
Manufacturing	1.7	-0.5
<i>of which:</i>		
Food, beverages and tobacco	0.1	-0.1
Paper and wood products	0.2	0.0
Computers and other electronic equipment	1.0	-0.3
Machinery and equipment	0.1	-0.1
Other	0.3	-0.1
Construction	-0.1	0.0
Utilities	0.1	0.0
Services	0.6	0.0
<i>of which:</i>		
Wholesale and retail trade	0.4	0.1
Telecommunications	0.3	0.2
Transport and storage	0.0	0.1
Real state	-0.1	0.1
Other	0.0	-0.4
Private	0.7	0.2
Government	0.0	-0.2
Reallocation	0.2	-0.3

Source: Statistics Finland.

Productivity in the business services sector has advanced only slowly in the past 15 years. Business services accounted only for about a fourth of productivity growth between 1997 and 2007, even though they represent about 40% of labour input. Productivity growth varies widely across service sectors (Figure 1.5). Information and communication services achieved strong productivity growth between 1997 and 2007, even though progress in this area was even faster in Denmark, Norway and the United Kingdom. As in most peer countries, productivity growth in information and communication services has remained

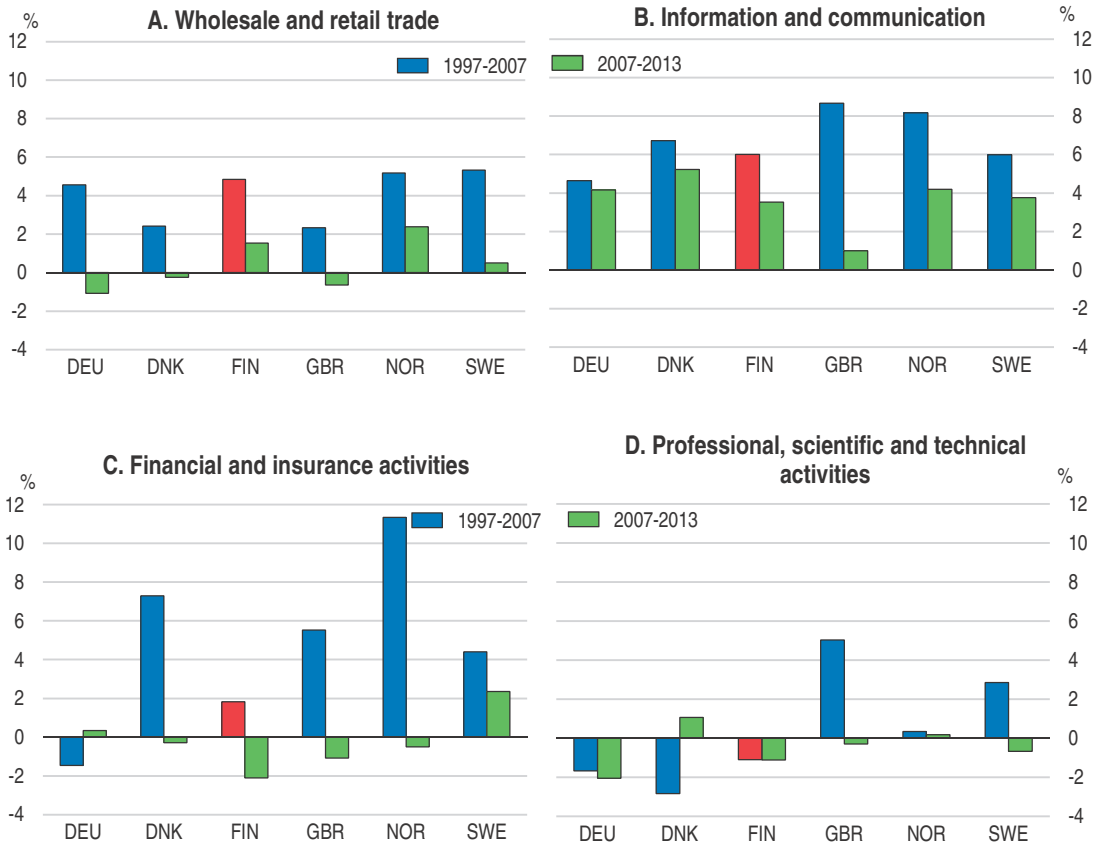
Figure 1.4. **ICT contributed most to recent productivity drops**
Contribution to labour productivity growth



Source: OECD, National Accounts database.

StatLink <http://dx.doi.org/10.1787/888933317335>

Figure 1.5. **Business service productivity growth is uneven**



Source: OECD, National Accounts database.

StatLink <http://dx.doi.org/10.1787/888933317344>

healthy after the crisis. Productivity has also increased in wholesale and retail trade, albeit at a slower pace than in Norway and Sweden. The slowdown after 2007 has been milder than in Sweden, reflecting efforts to adapt to tough market conditions, as the purchasing power of consumers stagnated or contracted. Productivity in financial and insurance services has been weak compared to most peer countries. However, measurement issues and the regional dimension of the biggest market players make it difficult to interpret this result, which may even be considered implausible (Maliranta et al., 2010). The most disappointing performance has been in professional, scientific and technical services, which contrasts with strong advances in Sweden and the United Kingdom.

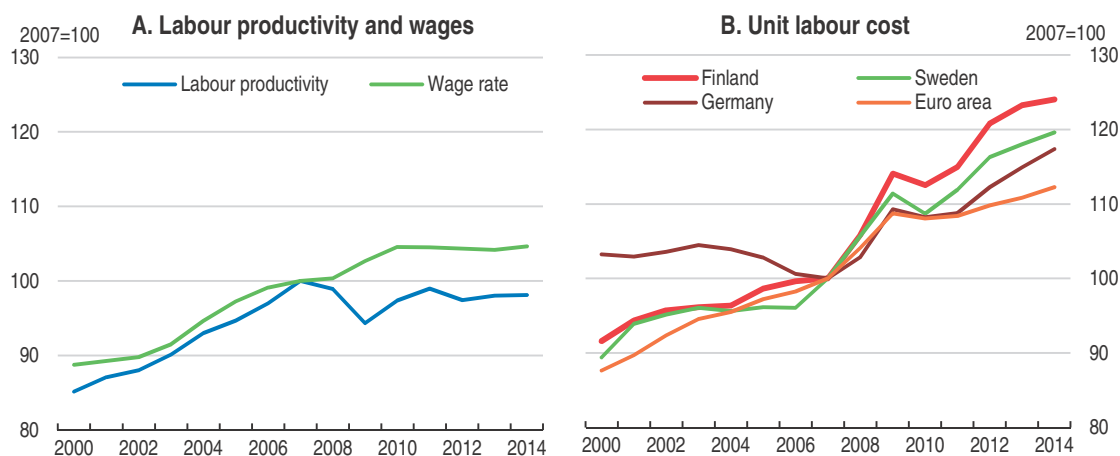
In line with sluggish productivity growth, the price of services is high in Finland. Since 2007, domestic service prices have increased by over 10% more than in the euro area (Bank of Finland, 2015). High service prices eat into the purchasing power of households, but also reduce the cost-competitiveness of exports by raising input prices.

Finland's competitiveness has weakened


Recent weakness results from multiple causes and hence no single policy will be enough to revive the Finnish economy. The erosion of cost competitiveness since 2007 contributes to the weakness of exports, but non-cost factors are at least equally important. Both the outstanding productivity performance before 2007 and the subsequent fall were largely driven by the ICT sector. While a repeat of the performance of the early 2000s is unlikely, digitalisation still offers potential to enhance productivity (Ministry of Employment and the Economy, 2015). Other sectors, notably in services, have been lagging behind and offer opportunities to catch up. For this potential to materialise, innovation and entrepreneurship are needed. This calls for structural reforms to facilitate the allocation of resources towards the most dynamic sectors of the economy and for policies encouraging the diffusion of knowledge (OECD, 2015a). R&D investment needs to remain high and broad-based to foster innovation and its ability to translate into economic benefits and competitive advantages needs to be enhanced. Entrepreneurship is key to the diffusion of innovations. Beyond streamlining regulations, entrepreneurship and young firms' development can be encouraged through direct funding, enhanced co-operation between universities and companies, support for internationalisation and high-quality infrastructure. Sustaining a high level of educational achievements and skills is also essential (see Chapter 2).

The sharp slowdown in productivity after the global financial and economic crisis has not been immediately matched by slower wage growth. Agreements between social partners reached just before the crisis led to fairly high wage increases in the early years of the downturn (Figure 1.6, Pane A). As a result, unit labour costs increased more than for Finland's main trading partners (Figure 1.6, Panel B). Compared to 2007, cost-competitiveness has declined relative to Sweden, Germany and the euro area average. Recent wage agreements will lead to slow wage growth over the coming years. However, as wage growth is subdued in most of Finland's trading partners, regaining cost-competitiveness will take time.

Beyond the deterioration in cost competitiveness, Finland has been hit by the sharp contraction in exports, mainly due to three factors: the loss of market share of Nokia mobile phones as the competition marketed more attractive smartphones; the fall in the demand for paper linked to the development of digital media; and more recently the slowdown of the Russian economy, with a further impact of EU sanctions on some sectors,

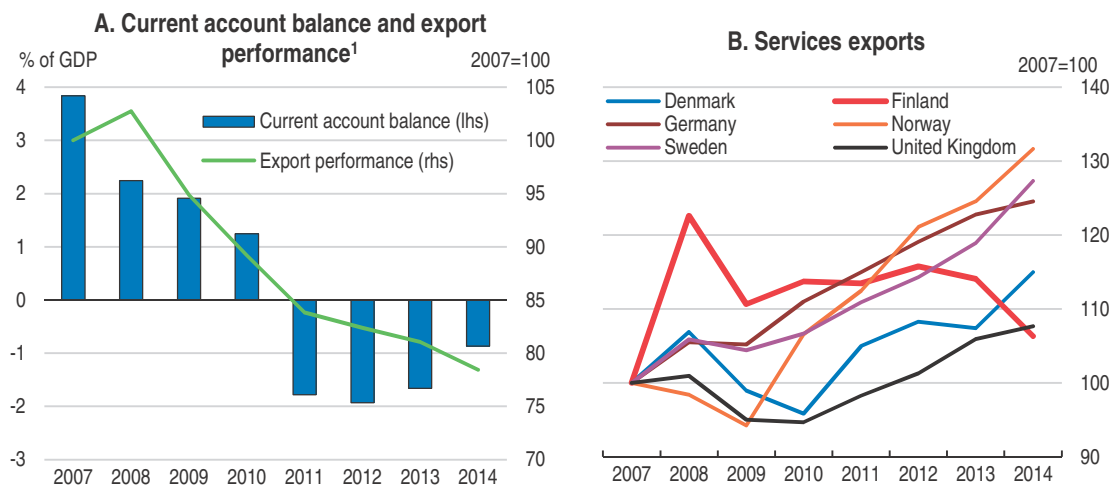
Figure 1.6. **Wages have outpaced productivity**

Source: OECD, *Productivity and Economic Outlook 97* databases.

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notably agricultural and dairy products. While exports to Russia are likely to continue to decline for some time, the outlook is more positive for the paper and electronic industries, where the adjustment in output seems to have run its course and positive developments are emerging. Nokia's earlier performance, which saw the company contribute 3 to 4% of Finnish GDP and around 20% of exports in the early to mid-2000s, was exceptional and is unlikely to be repeated. Nevertheless, after several years of deep restructuring, Nokia is again contributing to Finnish output growth. The paper industry is also renewing itself, focussing on markets where Finland has a comparative advantage over emerging economies because of the type of wood fibres it produces, and pursuing environmentally-friendly strategies, including the development of bio-energy as by-products. Shipbuilding was also badly hit and required government support during the crisis, but is now reviving, as Finland builds on its expertise in constructing giant cruise ships and proposes cleaner ships propelled by liquefied natural gas.

These green shoots have not been sufficient so far to make up for export losses since 2007. The volume of exports is still nearly 20% below its peak in the second quarter of 2008. Moreover, terms of trade have been on a declining trend until the recent drops in energy prices. As a result, the current account balance moved from a surplus of nearly 4% of GDP in 2007 to a deficit close to 2% in 2011 (Figure 1.7, Panel A). The deficit has been broadly stable since then, as weak consumption and exports are reflected in declining imports. Output growth in a small open economy like Finland is largely dependent on export performance. Despite a strong contribution from the chemical industry and promising developments in niche markets, like computer games, the contraction in electronics and forest products exports has only very partly been compensated by other industries. To some extent, this could be expected, as electronics and forest products accounted for a disproportionate share of exports before the crisis. However, Finland is probably not making the most of its potential, especially regarding services and SMEs. Finnish service exports have stagnated since 2009, in contrast with other Nordics, Germany and the United Kingdom. Norway and Sweden have performed particularly strongly (Figure 1.7, Panel B). Large surpluses on services, along with foreign income flows, have allowed Sweden to retain large current account surpluses despite goods surpluses falling like in Finland (OECD, 2015b).

Figure 1.7. **The current account has gone into deficit**

1. Ratio of exports to export markets (trade-weighted average of trading partners' imports). A decrease indicates a loss in export market shares.

Source: OECD, National Accounts and Economic Outlook databases.

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Structural reforms to facilitate the restructuring of the economy

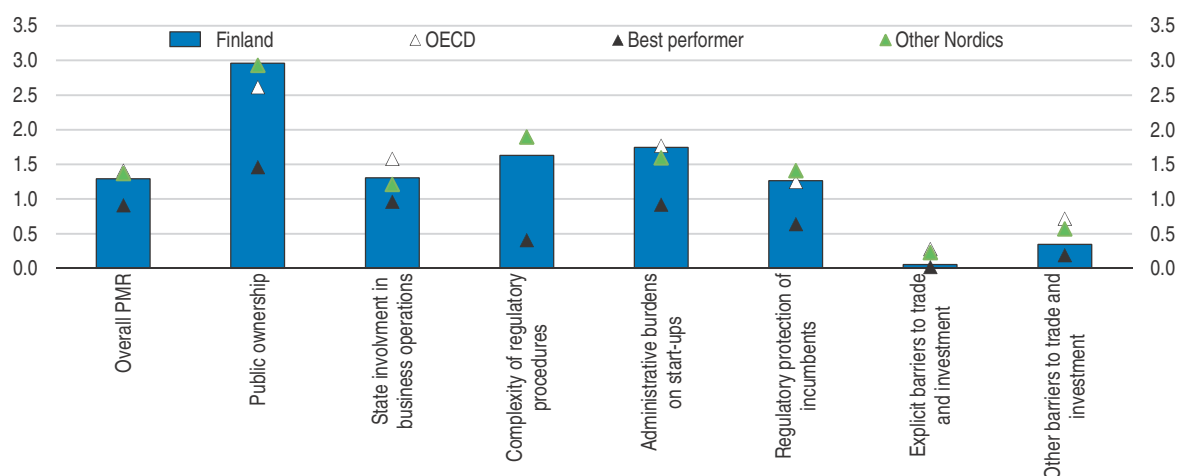
Finland enjoys a business-friendly environment, which should help the reallocation of resources towards productive uses and encourage investments. The country ranks eighth on the World Economic Forum (WEF) Global Competitiveness Index 2015-16 and ninth on the World Bank 2015 Ease of Doing Business indicator. Finland is only twentieth in the Institute for Management Development ranking, reflecting the greater weight of cost-competitiveness in this assessment. According to the WEF ranking, Finland's main strengths are in education, innovation and technological readiness, financial market development and institutions. The most problematic factors for doing business are high tax rates and restrictive labour regulations. OECD product market regulation (PMR) and service trade restrictiveness indices, while close to the OECD average, point to some areas for improvement compared to the best performing countries. The government's structural reform programme could unleash the growth potential of Finland, if successfully implemented.

Removing obstacles to productivity

Effective regulations are essential to ensure the proper functioning of markets and address externalities, in particular relating to the environment, safety, consumer protection and fair competition. However, excessively burdensome regulations are detrimental to growth, as they lower productivity, distort the allocation of resources and weaken incentives for work and entrepreneurship. Finland's product market regulations (PMR) are overall less restrictive than the OECD average and only the Netherlands and the United Kingdom have significantly leaner regulations (Koske et al., 2015). The 2011 Competition Act brought regulation in line with recommendations from the European Commission. It reinforced merger control and enhanced damage compensation as well as "whistle-blowing" instruments. It also expanded the investigation powers of the Finnish Competition Authority, whose resources have been increased. Competition is, however, limited by low population density in large parts of the country. Finnish regulations remain excessively cumbersome in some areas, notably retail trade, network industries, construction and land-use planning. Streamlining regulations is a key objective of the new government (Prime Minister's Office, 2015).


As in other Nordic countries, public ownership of companies is high, but public companies generally operate on a commercial basis and state involvement in business operations is limited. The complexity of regulatory procedures, administrative burdens on start-ups and regulatory protection of incumbents are in line with OECD and Nordic averages, but markedly higher than in countries with the lightest regulations. In the service sector, start-ups face sizeable administrative barriers. In retail trade and network industries, regulatory protection of incumbents is strong. Barriers to trade and investment, however, are very low in most sectors (Figure 1.8).

Figure 1.8. **Product market regulations could be streamlined**
2013¹

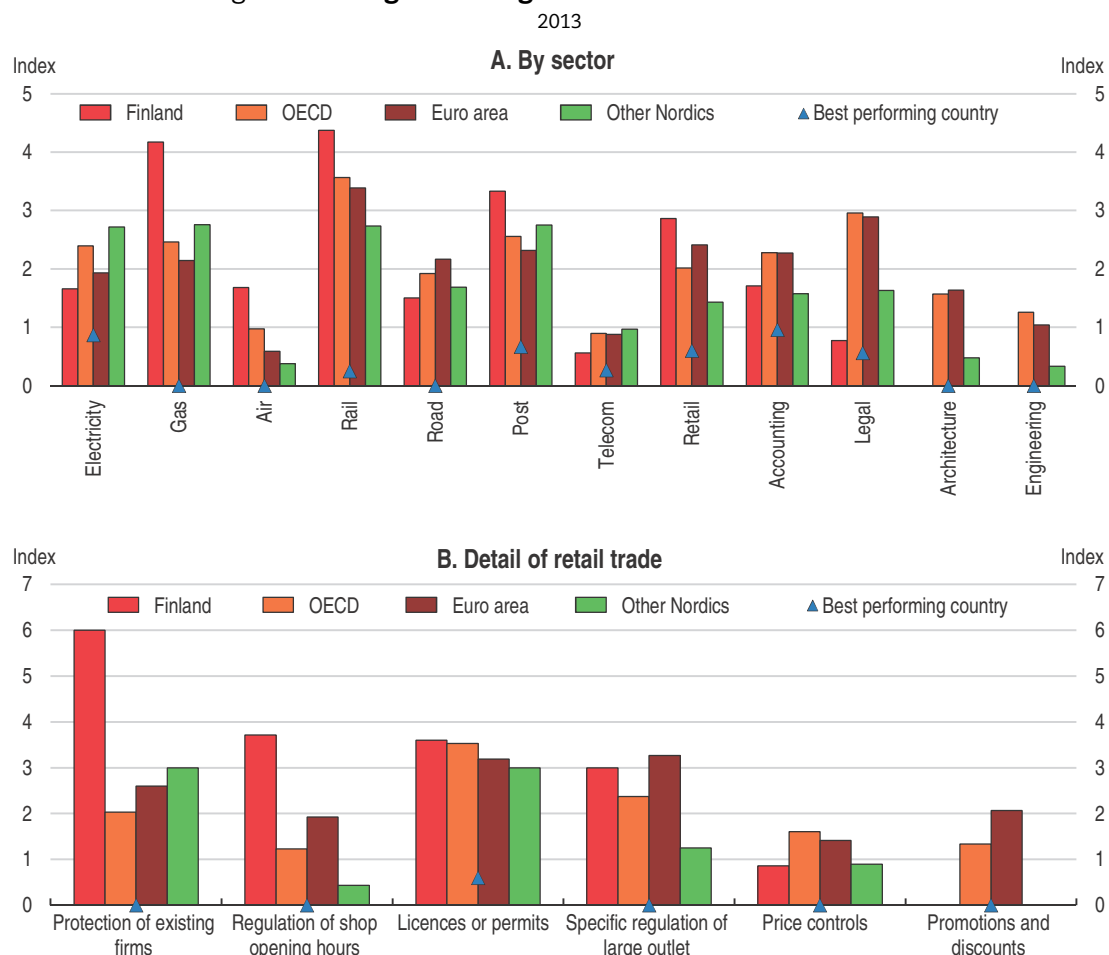


1. Index, scale of 0-6 from least to most restrictive.

Source: OECD, Product Market Regulation database.

StatLink  <http://dx.doi.org/10.1787/888933317365>

Regulations are fairly stringent both in absolute and relative terms in the gas, post, rail and retail sectors (Figure 1.9, Panel A). In the gas sector, barriers to entry and vertical integration are high, there is no liberalised wholesale market and consumers have no choice of supplier. The electricity market is very competitive, leading to low prices, which are among the advantages attracting foreign companies to create big data centres in Finland. Postal services are dominated by a government-owned group, which has a universal service obligation, but private firms are allowed to compete in some segments of the market. State-ownership is also high in rail, where there is competition for freight but not for passengers yet, although the government is considering opening up. Entry in the freight market remains challenging, given the dominant position of the incumbent in the organisation of the railway system (Mäkitalo, 2011). Road accounts for 75% of total freight transport and market entry is relatively tightly regulated. Cabotage – transport inside a country by a foreign haulier – accounts for a much lower share of the market than in Denmark and Sweden (European Commission, 2013). Finland is one of the few remaining EU countries with a public majority stake in the national carrier, which may lower competition on some routes. Professional services are lightly regulated by OECD and European standards, and even compared to other Nordic countries.

Figure 1.9. Regulation tightness varies across sectors¹

1. No bar corresponds to a value of zero.

Source: OECD, Product Market Regulation database.

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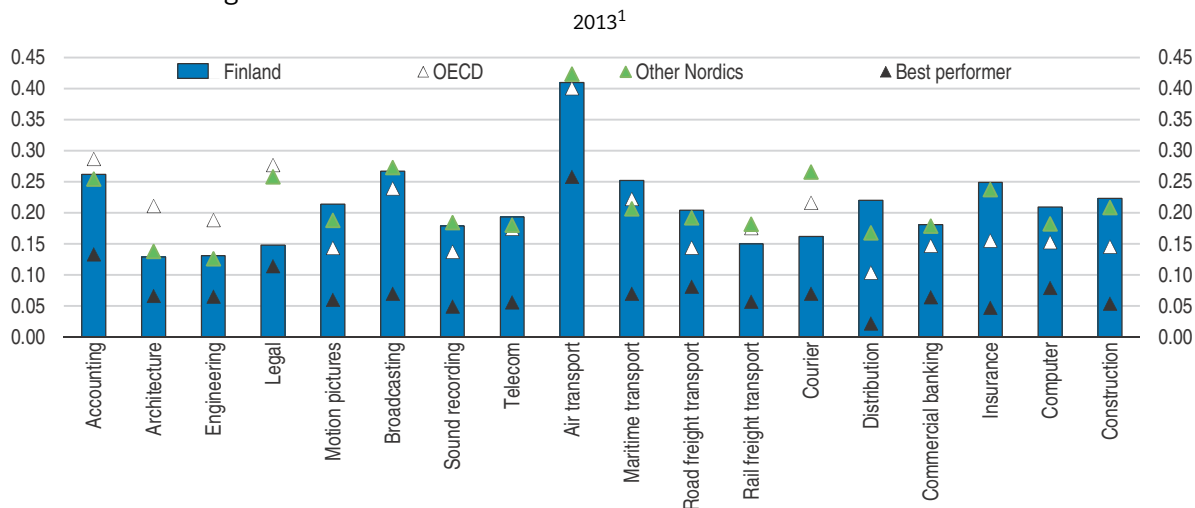
An important area where stringent regulations hold back competition and productivity is retail trade, which is dominated by two groups. In particular, land-use planning regulations restrict the establishment of large-scale outlets. Although restrictions on developments on the fringes of cities may to some extent be justified by environmental concerns, the current legislation seems overly restrictive (OECD *Economic Survey of Finland* 2012). While a proposal to amend the land use and building act was submitted to parliament in late 2014, the Competition Authority estimated that it failed to effectively take into account competition objectives (European Commission, 2015a). According to the 2013 OECD PMR indicators, Finnish retail trade regulations are more stringent than the OECD, EU and Nordic averages on most dimensions, with only price and discount restrictions being low (Figure 1.9, Panel B). A few measures have been taken to increase retail competition. Shops' opening hours were further liberalised in December 2015.

The government also aims at promoting competition in the construction industry. Indeed, competition may be hampered by concentration and market power of developers and construction firms, as well as by regulatory constraints. Furthermore, the construction product industry – e.g. concrete, paints – is more concentrated than the building industry.

Prices lack transparency, as complex discount systems prevail. The market is dominated by a few firms and market entry is unattractive to foreign players because of the small size of the country and specific national standards (André and García, 2012).

Finland's Service Trade Restrictiveness Index (STRI) scores are above the OECD average and those of other Nordic countries in several sectors (Figure 1.10). The comparison with the OECD's best performers on these indicators suggests that there is room for lowering barriers further in a number of sectors, including transport and construction, which is consistent with the PMR indicators.

Figure 1.10. **Some restrictions to service trade could be eased**



1. STRI indices take values from 0 to 1, where 0 is completely open and 1 completely closed.

Source: OECD, Service Trade Restrictiveness Index Regulatory database.

StatLink  <http://dx.doi.org/10.1787/888933317386>

Making the tax structure more growth-friendly

The level of taxation in Finland is among the highest in the OECD. High tax rates may be seen as harmful to doing business, as pointed out by more than a fifth of respondents in the World Economic Forum Global Competitiveness Survey 2015-16, but they also pay for highly developed public services and infrastructure. Some taxes create more distortions and hence affect growth more than others (Arnold et al., 2011). Hence a revenue-neutral modification of the tax structure can yield benefits in terms of growth. The distributional impact of such a modification also needs to be taken into account, as redistribution is a fundamental objective of the tax system.

Finland has already been moving in the direction of a more growth-friendly tax system in recent years. The corporate income tax rate was lowered from 26 to 20% in three steps between 2011 and 2014, with the aim of maintaining an attractive business environment. Corporate income taxes have been found to be most harmful for growth in OECD countries (Arnold et al., 2011). However, a “race to the bottom” in corporate taxation also raises concerns related to equity and reduced revenue. Although cuts in the corporate income tax rate were accompanied by base broadening and an increase in dividend taxation, associated revenues were much lower than the loss resulting from the rate cut (Economic Policy Council, 2015). International co-operation in this area is warranted and the OECD’s base erosion and profit shifting (BEPS) project is important in

that respect. The share of indirect taxes in total taxation has increased, with hikes in both VAT and excise duties, including taxes on products that are harmful to the environment and health. Recurrent taxes on personal immovable property have increased, but remain relatively low.

Despite the recent reforms, the tax structure can be improved further. Reduced VAT rates on some categories of products increase the burden of compliance and reduce government revenue substantially. The VAT revenue ratio, which relates VAT revenues to the potential tax base, is around 55%, only slightly above the OECD average and well below that of Estonia or Switzerland (OECD, 2014a). Furthermore, the potential equity effects of reduced VAT rates could be achieved at a lower cost through measures targeted at low-income households. There are also many tax expenditures, which create complexity in the tax system, are often poorly targeted and risk being used to circumvent government spending limits. Hence there is a case for reducing tax expenditures. Also, taxation on labour remains high by OECD standards, which weakens work incentives for individuals and incentives to hire workers for employers (see Chapter 2). The government has announced a reduction in labour taxation, notably through an increase in the earned income deduction focusing on low and medium incomes, and coordination of tax and social security measures to remove inactivity traps. Excise duties and recurrent taxes on personal immovable property, which are less detrimental to growth, will increase. The deduction of mortgage interest rate payments from taxable personal income will be reduced further. Some reforms to taxation of entrepreneurship, ownership and investment are also planned (Prime Minister's Office, 2015). This includes easing the inheritance tax, which would however entail revenue losses and increase inequality (Economic Policy Council, 2015).

Innovation and entrepreneurship are key to boosting productivity and competitiveness

Finland is an innovative country

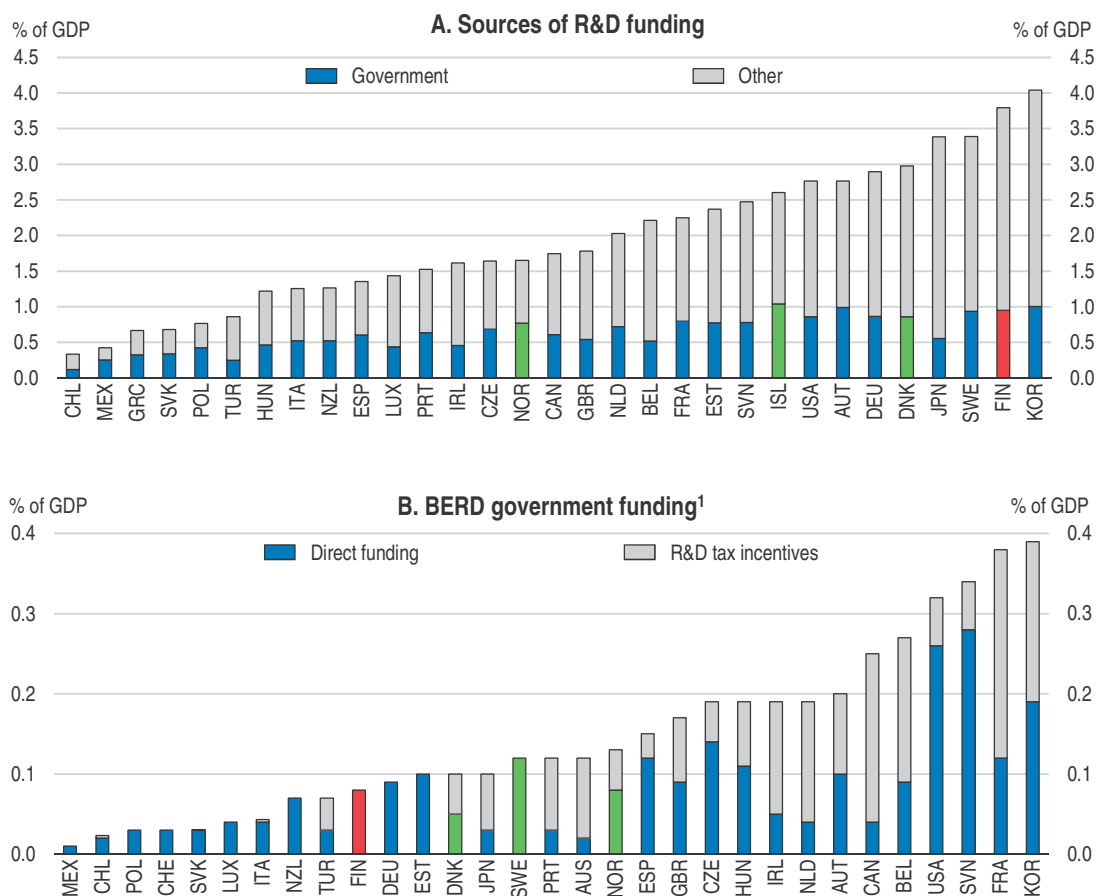
According to the Innovation Union Scoreboard, which provides a multi-dimension comparative assessment of EU countries' research and innovation performances, Finland is among the innovation leaders, along with Denmark, Germany and Sweden, even though its performance has declined somewhat since 2012 (European Commission, 2015b). Its main strengths relative to EU peers are in patent applications, international scientific co-publications and licence and patent revenues from abroad. Relative weaknesses are found in the number of non-EU doctoral students, non-R&D innovation expenditures and exports of medium and high-tech products and knowledge-intensive services. Knowledge-based capital – which includes software and databases, R&D and other intellectual property products and brand equity – firm-specific human capital, and organisational capital accounted for more than 40% of total business investment in Finland in 2013 (OECD, 2015c). In particular, both business and government R&D expenditures are among the highest in the OECD as a share of GDP, even though they have been reduced in recent years (Figure 1.11).

Business and government R&D spending is contracting

R&D expenditure has declined markedly in real terms since 2011, which contrasts with a pick-up in Germany, Sweden and the OECD as a whole (Figure 1.12, Panel A). This is a cause for concern in a knowledge-based economy. To a large extent, the contraction in


Figure 1.11. **Business and government R&D expenditures are high**

2011



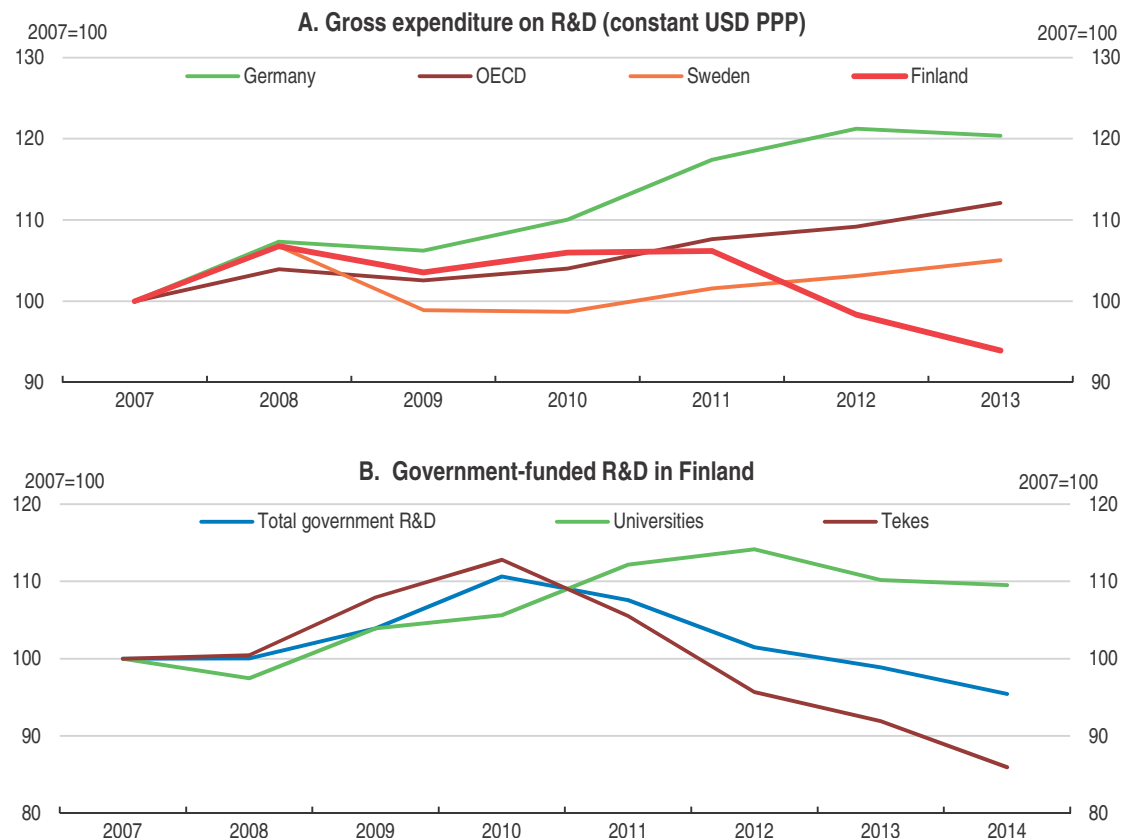
1. BERD refers to Business Enterprise Research and Development.

Source: OECD, *Main Science and Technology Indicators database*.


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R&D reflects the difficulties of the ICT sector, where R&D is highly concentrated. In Finland, as in Sweden, the computer, electronic and optical products sector has the largest sectoral share in business R&D, but while it accounted for less than a fourth of total R&D spending in 2007 in Sweden, it accounted for more than half in Finland. As a further comparison, the sector with the highest share in R&D in Germany (motor vehicles) accounts for about one third of business R&D. The low level of R&D and patents in non-ICT sectors is one of the main weaknesses of the Finnish innovation system, and is reflected in the inability of other industries to compensate the decline in ICT output.

Direct government R&D funding has declined by about 14% in real terms between 2010 and 2014 (Figure 1.12, Panel B). Further cuts are planned over the current parliamentary term. The overall budget for tertiary education will be cut by about 4% and the budget of the Finnish funding agency for technology and innovation (Tekes), which already shrank by about a quarter in real terms since 2010, will be reduced further by about a third (Prime Minister's Office, 2015). Even though substantial efficiency gains could be realised by reorganising higher education and part of Tekes financing could be replaced by private funding, R&D outcomes are likely to be affected by the spending cuts, which may undermine Finland's growth potential.

Figure 1.12. **Business and government R&D is being scaled down**

Source: OECD, *Main Science and Technology Indicators database* and Statistics Finland.

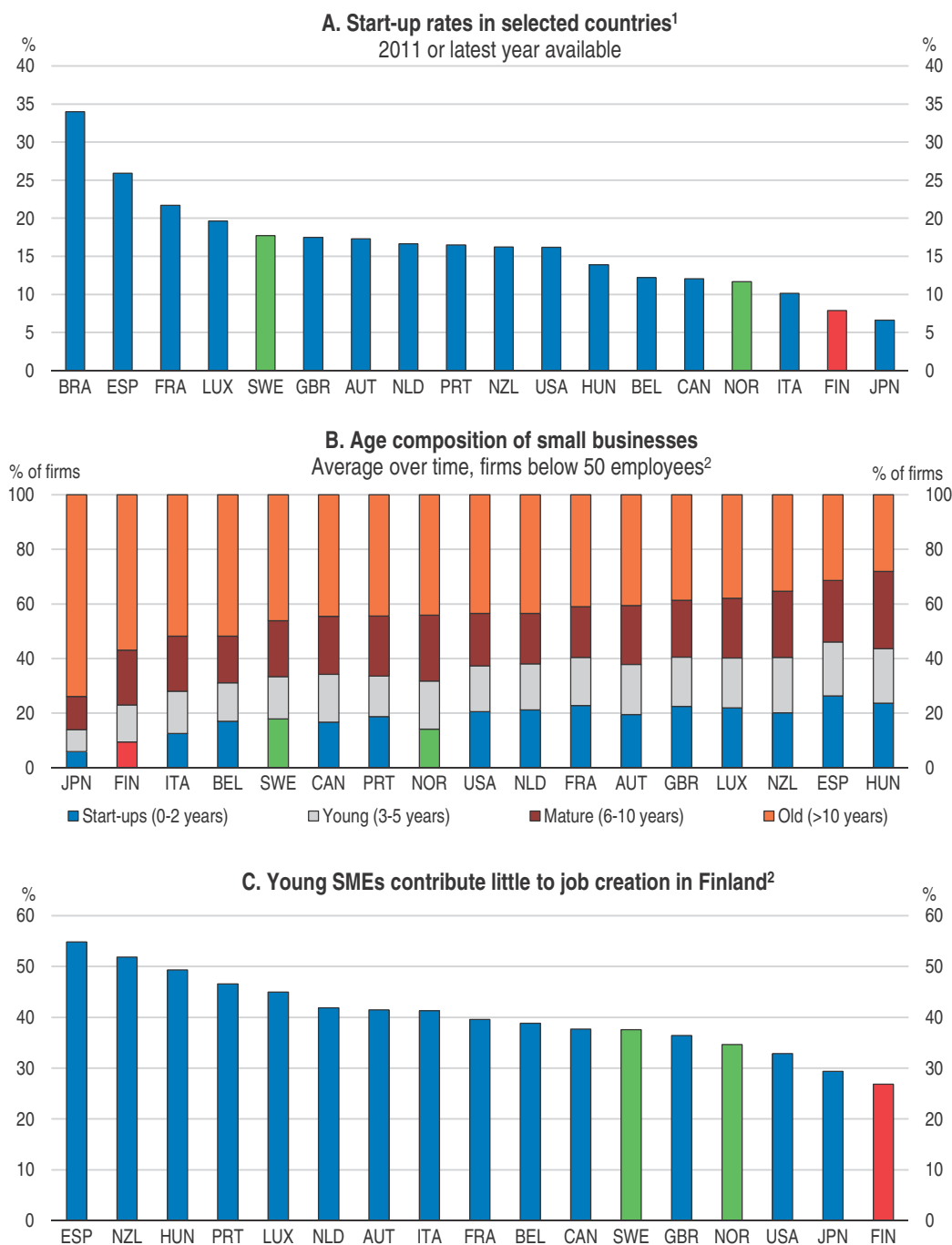
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Young firms' contribution to output and employment needs to increase

Economic renewal occurs both through the restructuring of old firms and through the emergence and growth of new companies. In OECD countries, young firms provide the main contribution to employment growth (Criscuolo et al., 2014). In Finland, start-up rates are among the lowest in the OECD, both before and during the downturn (Figure 1.13, Panel A). The share of young companies among small businesses is among the lowest in the OECD (Panel B). Furthermore, young firms' growth has been fairly slow on average. Growing is a challenge for small firms in most OECD countries. Nevertheless, the contribution of young firms to job creation and employment growth in Finland from 2001 to 2011 has been among the lowest in the OECD (Figure 1.13, Panel C).

The relative weakness of entrepreneurship in Finland is puzzling in a country which has a strong history of innovation, relatively business-friendly regulations, low barriers to entry in most markets and strong government support for start-ups. While more than a third of Finnish adults believe they have the skills and knowledge needed to start a business and more than 40% perceive opportunities, only 9% intend to become entrepreneurs in the next three years (Global Entrepreneurship Monitor, 2014). Although the risk of failure is a concern for more than a third of respondents, this is close to the international average. Furthermore, the cost of bankruptcy legislation for entrepreneurs is among the lowest in the OECD (OECD, 2015a). The current weakness of the economy may deter would-be entrepreneurs. However, business creation was low even before the downturn.

Figure 1.13. **Young firms' contribution to growth and jobs is low**



1. Fraction of start-ups among all firms.

2. 2001-11.

Source: Criscuolo, Gal and Menon (2014).

Streamlining product market regulations and lowering service trade barriers, as outlined above, could enhance conditions for entrepreneurship. Loosening employment protection legislation (EPL) would encourage young firms to hire. As young firms face more uncertain prospects than established ones, they tend to be reluctant to hire if dismissing workers is difficult and costly. High-risk innovative sectors tend to be small in countries with high EPL (Bartelsman et al., 2011). In addition to its impact on entrepreneurship and risk taking, EPL's wider effect on employment justifies loosening it (see Chapter 2).

Although streamlining regulations will facilitate entrepreneurship, more support will be needed to close the gap with the most dynamic OECD countries. In particular, internationalisation of SMEs should be encouraged further, the public sector needs to continue to support R&D and innovation, to encourage innovative solutions for funding new firms and to maintain high-quality infrastructure.

Public support to innovation is crucial

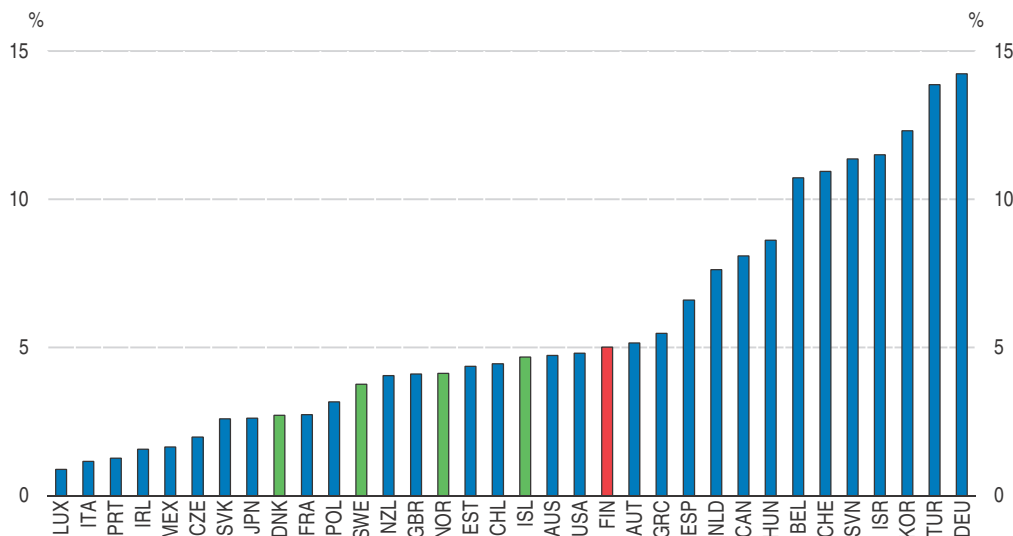
Finland's government provides broad-based support for innovation, through education and basic research as well as through help for business innovators, including funding, counselling, network building and international promotion. Public support for innovation is necessary, as externalities generated by spill-overs from innovation investment raise the social rate of return above the private rate of return, leading to socially sub-optimal investment in the absence of government intervention (Westmore, 2013). Government support played a key role in the development of the ICT industry over the past decades. In other sectors, results appear mixed, although evaluating innovation policies is fraught with difficulties and requires a long time perspective. Nevertheless, encouraging innovation is essential to restore Finland's competitiveness.

As shown above, government R&D spending is on a declining trend. Hence, enhancing efficiency, making good strategic choices, converting more research into business and societal outcomes, and attracting further private financing will be essential to foster innovation and revive economic growth. Higher education is currently fragmented, with many relatively inefficient small research units. Consolidation is necessary to create larger centres of excellence, with a higher profile which would favour integration in international research networks and help recruit high-level foreign researchers, whose net inflow is lower than in most other Nordics (OECD, 2013b). Collaboration on innovation of both large firms and SMEs with higher education or research institutions is among the strongest in the OECD (OECD, 2015c). This can contribute to diffusing knowledge, promoting innovation and fostering entrepreneurship and should be encouraged further. The percentage of higher-education R&D financed by industry is higher than in other Nordic countries, but substantially lower than in Germany, Korea and Switzerland (Figure 1.14). Co-operation with the business sector could be encouraged, for example, through the funding criteria for higher-education institutions or through R&D vouchers (Research and Innovation Policy Council, 2014).

Innovation policy should focus on the areas generating the strongest externalities, in particular education and basic R&D. It needs to build on the strengths of the innovation system and the Finnish economy and society. The innovation policy framework has evolved over the years from an essentially technological orientation to a broader approach to innovation, encompassing service and organisational innovations and focussing on overarching objectives such as improving competitiveness, well-being and the quality of the environment (Hyytinen et al., 2012). The Research and Innovation Council, chaired by

Figure 1.14. **The contribution of industry to financing higher education R&D remains fairly limited**

Share of higher education R&D financed by industry, 2013



Source: OECD, Main Science and Technology Indicators database.

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the Prime Minister, plays a key role, as it sets strategic objectives and ensures coordination between the institutions involved in science and technology policy. It is also engaging in the evaluation of policies. Support for business innovation is provided through direct funding, whereas most OECD countries use a mix of direct funding and R&D tax incentives. Both types of support have been found to have a positive effect on innovation in OECD countries (Westmore, 2013). The design of support schemes is most important for their effectiveness and efficiency. Potential pitfalls include high deadweight costs, distorting resource allocation and competition, and “picking winners”.

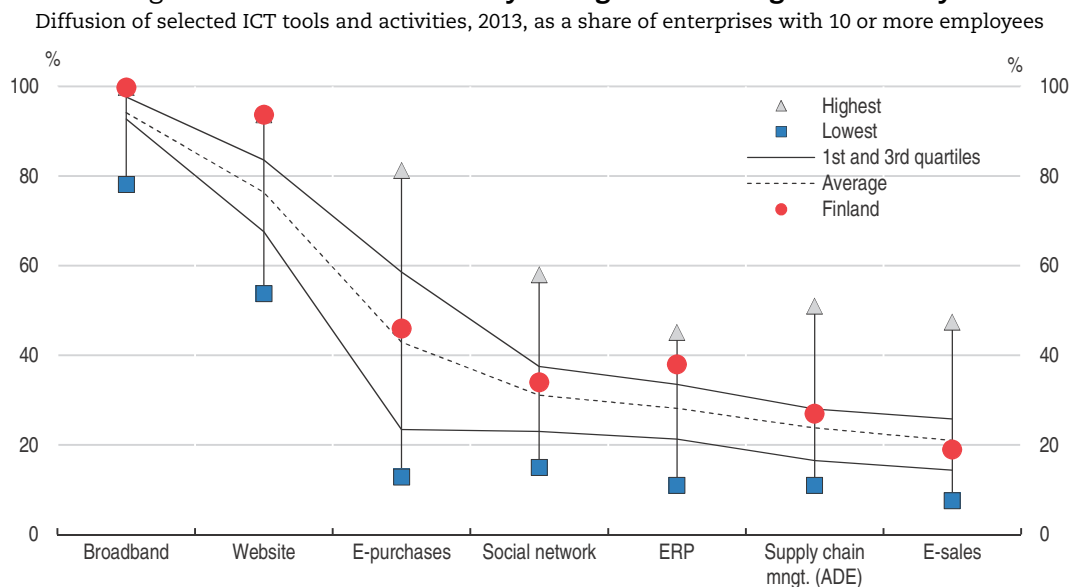
TeKes is the main provider of government loans and grants for innovation, although a number of other agencies are active in this area. Although international comparisons are difficult because the mandates of innovation agencies vary across countries, TeKes has resources more in line with those of the Austrian and Dutch innovation agencies than with that of its Swedish counterpart Vinnova in absolute terms. The agency is widely credited for fostering innovation through funding, network building and counselling of companies. It has participated in the financing of over half of commonly known innovations in Finland between 2000 and 2013. Young companies funded by TeKes have on average grown faster and created more jobs than others. Spill-over effects, notably through the diffusion of knowledge and enhanced co-operation between universities, big companies and SMEs, are also important (TeKes, 2015). Furthermore, there is evidence that TeKes programmes have contributed to improving well-being and the environment (Valovirta et al., 2014).

While these achievements do not seem to have come with significant negative side effects, the evidence on the efficiency of public funding for innovation is mixed. An evaluation of TeKes commissioned by the Ministry of Employment and the Economy to international evaluating teams concluded that interventions did not lead to an inefficient allocation of resources or distortions of competition (Van der Veen et al., 2012). Some studies suggest that public subsidies tend to delay the exit of non-performing firms from

the market, which would hamper the reallocation of resources and productivity growth (Koski et al., 2013; Koski and Pajarinen, 2015). But others find that subsidies have no significant effect on the closure of firms (Ebersberger, 2011). Administrative costs are moderate (Van der Veen et al., 2012). It is more difficult to assess whether specific innovations would have occurred without support from Tekes, although many participants report that projects would not have taken place without Tekes funding (Tekes, 2015). Some public support programmes seem to have crowded in private funding for R&D (Einiö, 2009). However, there is also evidence that large firms are more likely to apply for support than smaller ones and that many companies tend to benefit from public support programmes for extended periods (Koski and Tuuli, 2010). Karhunen (2015) finds no significant effect of R&D subsidies on the labour productivity of Finnish SMEs over the five-year period after a subsidy is granted. This may suggest some inefficiencies and deadweight costs.

Given the cuts planned in Tekes' budget, the ability to find alternative sources of funding will be critical for Finnish innovation, even though a government one-off package of €1.6 billion to fund key projects in 2016-18 will contribute to encourage innovation, in particular through investments in clean technologies, digitalisation and health. Digitalisation is transforming large parts of the economy and is an area where Finland has comparative advantages (Figure 1.15). Finland also scores high on eco-innovation (Katre Eljas-Taal et al., 2013). Cleantech solutions are widely applied, even though growth failed to meet expectations over recent years, partly because of the general weakness of the economy. For example, Finnish firms are world leaders in renewable fuels and liquefied natural gas propelled ships. The renewal of the pulp and paper industry also involves green innovations. Finland has experienced some success in health technologies. Beyond business opportunities, innovations in this field are important to foster well-being in an ageing society.

Figure 1.15. **Finland has many strengths in the digital economy**



Note: ERP refers to the use of Enterprise Resource Planning software in business processes. ADE refers to the use of automated data exchange applications.

Source: OECD (2014), *Measuring the Digital Economy: A New Perspective*.

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Public procurement can also be used to encourage innovation. Fostering demand for innovative products is an important dimension of innovation policy, as uncertainty about demand may deter firms from developing some innovations and investors from funding them. Public procurement amounts to nearly a fifth of GDP (OECD, 2015d). Hence, using just a fraction of it to promote innovation can make a difference. The government has set an objective of 5% of innovative public procurement (Prime Minister's Office, 2015). Finland has been encouraging environmental sustainability in public procurement since 2009 (Ministry of the Environment, 2009). In addition, many municipalities have engaged in innovative procurement, especially in construction, social and health care services and energy and water supply, in some cases supported by funding from Tekes' Smart procurement programme. Nevertheless, there may be room for more innovative procurement. This is particularly the case in sectors where public procurement represents a substantial share of the market, like health care, education, transport or construction. Getting value for money requires a competitive tendering process and fostering innovation calls for a focus on the functionalities of procured items rather than on technical specifications. Importantly, effective procurement requires expertise on the part of the purchaser and evaluating the outcomes of innovative procurement is often complex. In Finland, local authorities are responsible for a large share of public procurement and may have difficulties in building up the required expertise. This difficulty may be overcome through exchange of information across government authorities, standardisation of procurement procedures or centralisation of procurement (OECD, 2014b).

New solutions for funding innovation and young firms should be encouraged

Although credit standards for SMEs have been tightened somewhat, access to finance has remained relatively easy compared to most other European countries since the 2008 financial crisis (OECD, 2015e). Furthermore, innovative firms can benefit from substantial public funding. However, as the latter is being scaled back, other funding sources will need to be found. The government has committed to raising additional capital for business financing, based on market needs. New forms of SME and entrepreneurship finance are emerging globally, including asset-based lending, alternative forms of debt, crowdfunding and hybrid instruments. Such instruments are often better suited than traditional bank lending to innovative and fast-growing companies and could contribute to financing innovation in Finland. The conditions for the expansion of alternative financial instruments, in particular in terms of regulatory framework, should be explored, paying attention to striking a balance between financial stability, investor protection and the opening of new financing channels for SMEs (OECD, 2015f).

Recommendations on structural reforms and innovation policies to boost productivity

Key recommendations

- Streamline regulations in retail trade, transport and construction.
- Reduce taxes on labour to improve work incentives, and raise recurrent taxes on personal immovable property and indirect taxes.
- Reduce the number of products subject to reduced VAT rates.
- Use funding criteria for higher-education institutions or R&D vouchers, to reinforce co-operation between companies, particularly start-ups, and universities.

Other recommendations

- Ensure that the financial regulatory framework supports the development of new forms of financing for innovative and fast-growing companies, while guaranteeing financial stability and investor protection.
- Design public procurement in a way that also encourages innovation.

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Chapter 2

Employment and skills

Employment fosters equity and economic inclusiveness because those out of work face the highest risk of poverty, and it generates the tax receipts on which the social safety net depends. Further enhancing education and life-long learning would lower hurdles to employment, which are high for the low-skilled. Policies to speed up tertiary graduation, improve work incentives and activation of the unemployed and postpone labour market exit are necessary to bring the employment rate closer to the level of other Nordics. Easing employment regulations and allowing more flexible wage setting would increase both employment and productivity.

The employment rate is lower in Finland than in all the other Nordics. The government has the ambition to increase the employment rate to 72% and reduce the unemployment rate to 5% by 2019, the end of the parliamentary term (Ministry of Finance, 2014). Higher employment increases equity and well-being in a number of ways. Raising employment increases equity directly, as those out of work face the highest risk of poverty, and indirectly, as it generates tax revenue, which can be used to finance public services and the social safety net. Well-being is also higher for the employed, who enjoy higher purchasing power, better housing conditions, better health outcomes and better opportunities to interact socially. Higher female employment can improve work-life balance for both genders, if work and domestic responsibilities are shared more equally.

There is a considerable potential to expand the labour force by speeding up the labour market entry of youth, postponing the exit of older workers, improving work incentives and activation policies for the unemployed and increasing the participation of women of childbearing age. Human capital is important in this respect, as hurdles to employment are high for the low-skilled and Finland has a comparative advantage in knowledge-intensive industries. Maintaining and further developing a world-class education system and encouraging life-long learning is essential to secure Finnish prosperity going forward.

This chapter is structured as follows: The first section outlines the potential to increase employment and provides a bird's-eye view of the role of skills and education, coupled with sound labour market policies to boost employment and equity. The second section focuses on the deteriorating results in reading, mathematics and science among 15-year olds tested in the Programme for International Student Assessment (PISA) Survey, and offers recommendations to improve the education system from early childhood to upper secondary school. The third section provides analyses and recommendations on how to increase labour supply by speeding up entry, shortening unemployment spells, facilitating work immigration and increasing employment rates of women of childbearing age and older workers. The fourth section deals with the cost of labour, and how wage bargaining institutions and employment protection regulation could be reformed to boost labour demand and allocate resources more efficiently.

Skills, employment and inequalities

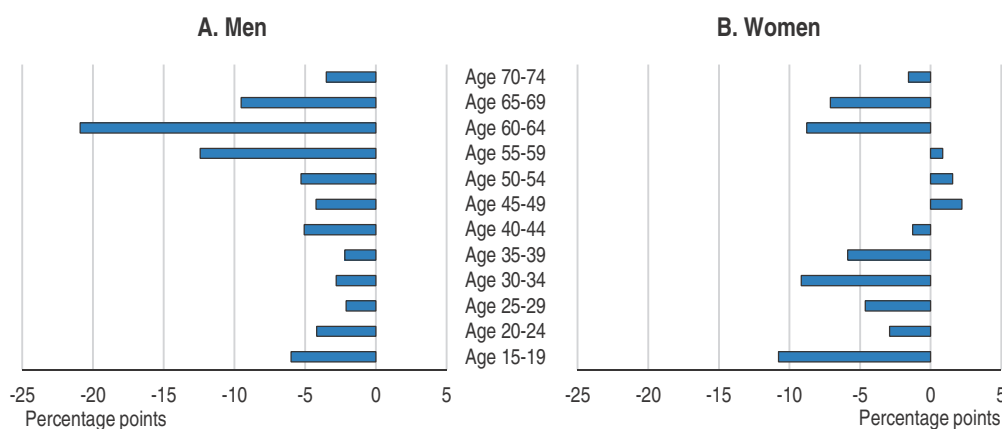
Finland's low employment rate compared to the other Nordics is partly compensated in terms of total labour input by more hours worked per employee and a lower prevalence of part-time work. Even though part of the difference in employment reflects legacies from the 1990s crisis and the sluggish recovery from the Great Recession, policy settings also hold back labour supply. High employment fosters equity, but people with low education or low skills struggle to get jobs, partly because the compressed wage distribution reduces incentives to hire low-productivity staff.

Employment is low across age, gender and skill levels compared to other Nordics

The highest potential to increase employment is found among older workers. With an employment rate of 59% in the 55 to 64 age group, Finland fares much worse than neighbouring Sweden (74%), Norway (72%) and Denmark (63%), despite steadily increasing employment in this age group for the past two decades.

Men are less likely to be employed than in other Nordics in almost all age groups, but especially so in older cohorts (Figure 2.1, Panel A). Middle-aged women do relatively well, with employment rates approaching those of Sweden. In contrast, women in childbearing age are much less likely to be employed than in Sweden and Norway, despite generous parental leave and childcare arrangements in all three countries (Figure 2.1, Panel B). The employment rate of young adults is lower in Finland than in Norway and Denmark, despite higher tertiary enrolment in those countries. Given the high attendance in upper secondary vocational education and training (VET), Finland should target youth employment rates comparable to Norway, Germany and Denmark rather than current low levels. Indeed, individuals with a vocational education enter the Finnish labour market fairly smoothly at a young age.

Figure 2.1. **Employment is low compared to other Nordics**¹



1. Difference in employment rates between Finland and the Nordic average (Denmark, Norway and Sweden) in 2014. Source: OECD, Labour Force Statistics database.

StatLink  <http://dx.doi.org/10.1787/888933317232>

Simulations of labour market participation converging towards the Nordic average (described in Box 2.1) illustrate that the government's target of an employment rate for the age group 15-64 of 72% in 2019 seems out of reach, given economic weakness and strong demographic headwinds in the coming years. In the baseline scenario, which already posits higher participation of women in childbearing age and older cohorts, the employment rate reaches 72% only around 2047. Achieving the employment rates of either of the two convergence scenarios would require unprecedented participation growth (Figure 2.2, Panel A), and would necessitate a comprehensive package of policy reforms targeting higher participation and lower structural unemployment of both genders and across age groups. The sizeable potential to boost employment of 65-74 year-olds should be harnessed further even though this age group is not included in the 72% employment target (Figure 2.2, Panel B).

Box 2.1. Labour market participation scenarios

Simulations based on OECD long-term scenarios set out alternative convergence paths towards Nordic average participation rates by gender and age cohort. Labour market participation is driven by two factors, the size of cohorts and changing rates of participation within each cohort. For example, overall participation falls when large cohorts age, as older individuals are less likely to be in the labour force. Higher educational attainment will postpone labour market entry of the young, but higher-educated individuals are likely to stay longer in work. The model is based on a long-term cross-country convergence scenario, where the baseline already includes significant advances, notably in the area of education attainment. The simulations for Finland assume that the gap in labour market participation between Finland and the Nordic average is reduced at a constant 2% or 5% rate within each gender and age cohort. A third scenario is constructed by identifying the highest historic five-year moving average participation growth since 1963 within each cohort and gender. Trend participation rates in the base year are then extrapolated with this past growth.

Table 2.1. **Participation convergence scenarios**

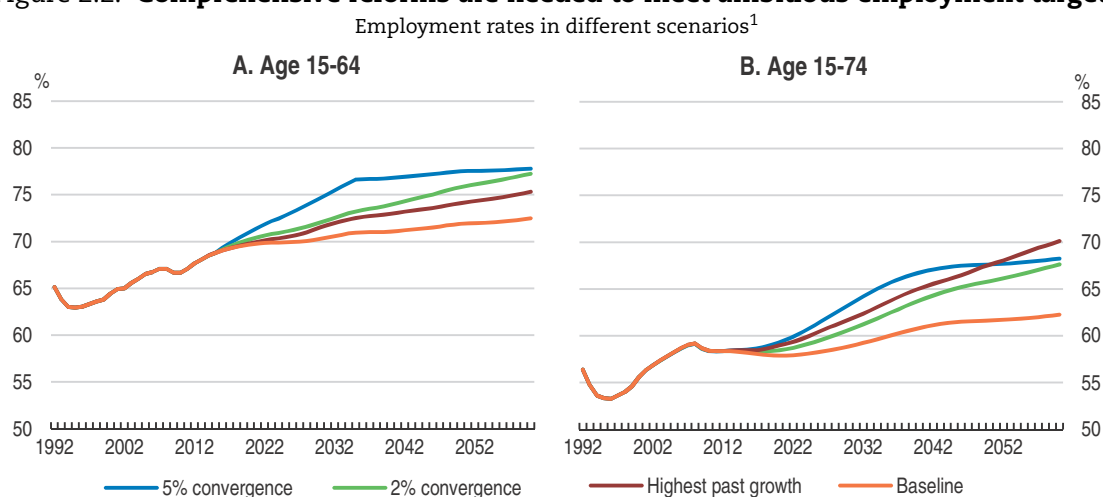
Percentage points increase in participation rates from 2014 to 2030

Age	Men				Women			
	Baseline	2%	5%	Highest past growth	Baseline	2%	5%	Highest past growth
15 to 19	-2.7	1.4	7.5	7.9	-2.7	2.0	9.0	5.3
20 to 24	-1.0	-0.2	1.0	3.2	-0.8	0.9	3.5	2.5
25 to 29	1.3	1.6	1.9	2.6	2.5	3.4	4.7	0.0
30 to 34	1.5	2.2	3.3	3.3	4.4	5.9	8.3	0.3
35 to 39	1.6	2.4	3.5	0.4	3.8	4.8	6.2	0.0
40 to 44	1.4	2.7	4.5	0.1	2.3	2.7	3.3	0.3
45 to 49	0.9	2.4	4.6	0.5	0.8	0.8	0.8	0.3
50 to 54	2.4	4.2	7.0	-0.1	2.0	2.0	2.0	0.1
55 to 59	2.7	6.7	12.6	3.6	2.7	3.0	3.5	2.6
60 to 64	3.7	9.9	19.2	7.9	3.9	7.2	12.3	5.9
65 to 69	4.3	8.7	15.2	17.8	3.4	6.7	11.6	10.3
70 to 74	5.2	5.3	5.6	37.1	2.9	3.1	3.4	20.4
75 to 99	0.4	0.4	0.4	0.0	0.1	0.2	0.2	0.0

Source: Pareliussen, 2016.

Drivers of skills, employment and earnings

Inequality in Finland, as measured by the Gini coefficient of disposable income, is among the lowest in the OECD and has stayed fairly constant since the turn of the century, following a sharp increase in the 1990s. Other measures, such as the ratio of high incomes to low incomes and middle incomes to low incomes (the S90/S10 and S50/S10 decile shares), have followed similar patterns. Absolute poverty is among the lowest in the European Union, with less than 3% of the population experiencing severe material deprivation, and less than 1% experiencing severe housing deprivation in 2014. With a relatively compressed wage distribution, the main driver of income is whether or not an individual is employed. The non-employed have significantly lower average incomes despite the generous social safety net. The median income is almost 50% lower among the

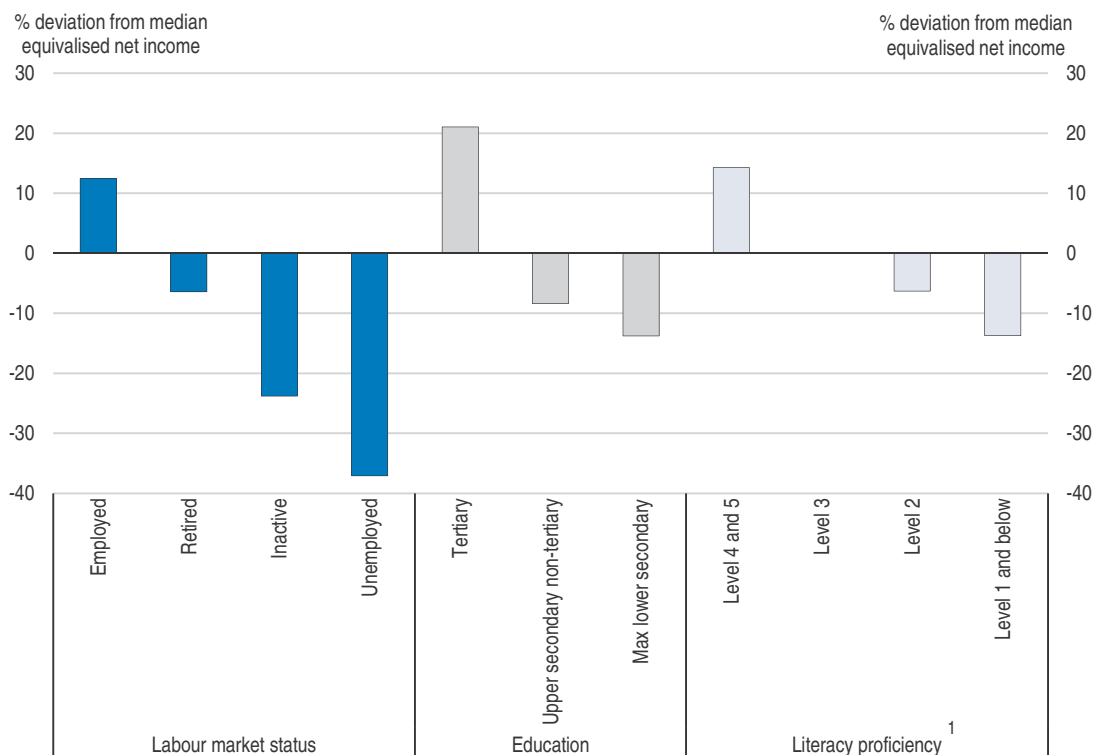
Figure 2.2. **Comprehensive reforms are needed to meet ambitious employment targets**

1. See Box 2.1 for methodology.

Source: OECD calculations based on Johansson et al. (2013).

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unemployed compared to the employed, and 35% lower among the inactive. The retired on the other hand, are less disadvantaged. Income increases with education attainment and skills proficiency, highlighting the importance of equity in access to education and the quality of teaching (Figure 2.3).

Figure 2.3. **Inequalities, work, education and skills in Finland**

1. Average % difference to mean hourly wages of employed persons with skill level 3, 2012.

Source: Eurostat SILC database and OECD Survey of Adult Skills (2012) database.

StatLink <http://dx.doi.org/10.1787/888933317437>

Improving education further

Finland is renowned for the good results in its compulsory schools, even though it spends slightly less than the OECD average per pupil. In the latest PISA survey it ranked sixth among OECD countries in mathematics, fifth in problem solving, third in reading and second in science (OECD, 2014a). Adult skills are also high. Both literacy and numeracy average proficiency are second highest in the OECD behind Japan, and Finland is second only to Sweden in problem solving in technology-rich environments, as measured in the PIAAC survey (Figure 2.4, Panel A; OECD, 2013b). Furthermore, Finland has one of the highest levels of educational attainment in the OECD, with 84% of the 25-64 year-old having at least completed upper secondary education and 39% holding a tertiary degree, against OECD averages of 75% and 32%, respectively.

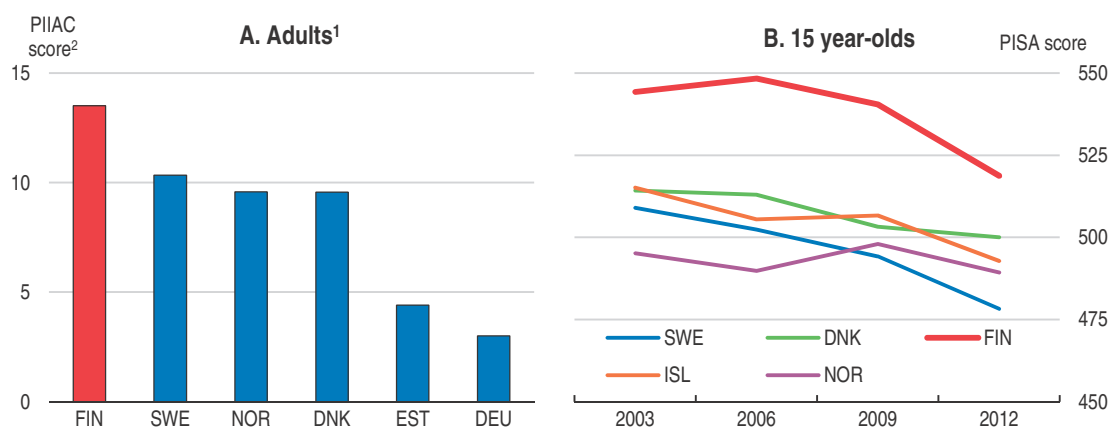
Finland's success in compulsory school is partly because teachers are valued by society and enjoy good working conditions, relatively good salaries, smaller classes and fewer teaching hours than the OECD average (OECD, 2014 b and c). Entry to the five-year teacher education programme is highly competitive, and education is rigorous, research-based and combined with supervised teaching for at least one year in schools associated with the university. The high quality of teachers is crucial to learning and it also permits the decentralised organisation of Finnish schools to function with low administrative costs and without wide variations of quality across schools and municipalities (Sahlberg, 2011; OECD, 2015a).

Another feature of Finnish schools is the well-developed system to detect pupils with special needs early and provide timely interventions. Teachers are well-trained in detecting learning difficulties and in adapting their instruction accordingly. Forty to 45% of students receive extra help during compulsory school, which reduces the stigma that may be attached to receiving such assistance. Each school has at least one special needs teacher, trained to help struggling students. The special needs teacher is tasked with early identification and intervention, helped by a multi-professional student welfare team consisting of the principal, the special needs teacher, the school nurse, the school psychologist, a social worker and the class teacher (OECD, 2015a).

PISA results have declined, and boys fall behind

However, PISA performance has deteriorated since its high point in 2006, which is a cause for concern (Figure 2.4, Panel B). PISA results are also falling in other Nordics. Even though the reasons behind the falling results are not fully understood, some hypotheses, such as the effect of rising immigration, can be ruled out. Furthermore, after having had the highest share of tertiary graduates in the OECD among 25-34 year-olds in 1991, Finland has been overtaken by other countries. Tertiary education attainment of the young is today below the OECD median.

Public spending on education remained steady at about 6.5% of GDP from 2009 to 2013. The education sector was mostly shielded from the consequences of the economic downturn. In 2015, however, the government announced cuts to education spending amounting to 4% of total education expenditure over the next four years. These savings are to come from limiting the right to early childhood education and care if one parent is not working, higher ratios of children per staff in both early childhood education and basic education and unspecified savings measures in upper secondary and tertiary education. The government assumes that cuts to tertiary education funding can be achieved by

Figure 2.4. **Skills are high, but school results are falling**

1. Data refer to 2012.

2. 16-65 year-olds, difference to OECD average.

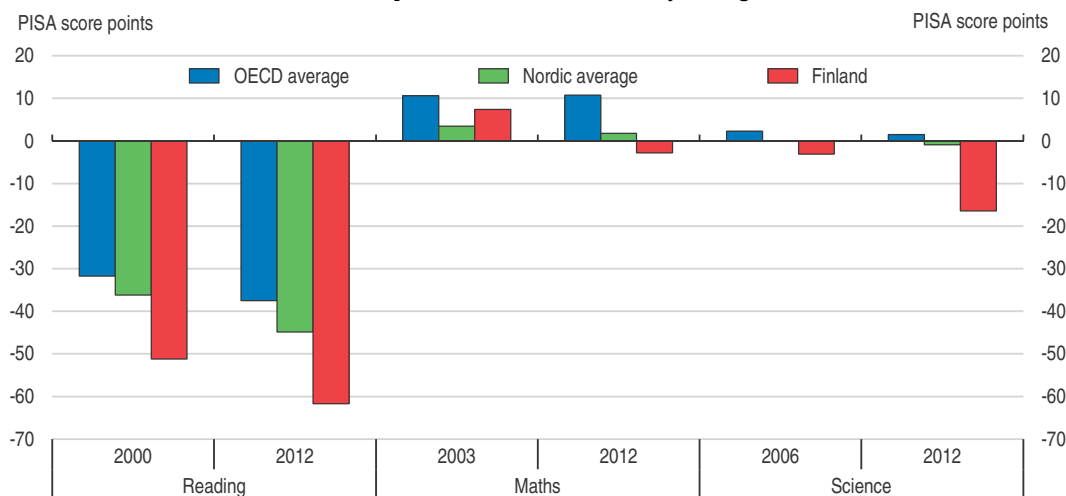
Source: OECD Survey of Adult Skills 2012 database and OECD PISA 2009 and 2012 databases.

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reducing administrative expenditure and increasing the share of students entering working life after completing the Bachelor's degree (Prime Minister's Office, 2015). Municipalities may cut back education spending further than expected, as around half of compulsory school funding comes from municipalities that are also subject to funding cuts. There might be room for efficiency improvement in the education sector, for example by consolidation within the tertiary education sector, but the situation should be monitored closely to avoid reduced quality.

Gender differences in school performance are evolving, and girls now perform significantly better than boys in reading and science, while results are approximately similar in mathematics, a subject where boys used to do better than girls (Figure 2.5). Boys and girls react differently to different instruction methods. On average, girls might do more homework and are more inclined to engage in collaborative activities, while boys are less likely to prioritize school and thus less likely to work systematically when given the responsibility to structure their own learning activities. Low-performing boys are especially likely to lose out under such teaching practices (Dalland and Klette, 2014). Causes of declining results for boys should be further investigated, and teaching practices should be adjusted to foster efficient learning for both girls and boys. "Phenomenon based learning", a teaching method that uses one overarching topic to connect instruction over several different subject areas, will be promoted as the new national curriculum takes effect in the fall of 2016. This can bring advantages as it encourages teacher co-operation as well as students' curiosity and understanding of context, and it can give gifted students the opportunity to better use their potential. The gender impact and the impact on weaker students' learning of basic skills should however be monitored.

Time in the classroom is shorter by 15% than the OECD average, giving teachers better opportunities to coordinate with colleagues, cater for pupils with special needs and plan and prepare courses. Nonetheless, there may be scope for increasing instruction time – on average for countries participating in PISA one extra hour of instruction a week raises scores by about 12 points (OECD, 2015b).

Figure 2.5. **Boys are falling behind in PISA**PISA score point difference between boys and girls¹

1. Start years differ, as they refer to the last year when the subject in question was the main subject of the PISA survey.

Source: OECD (2014d).

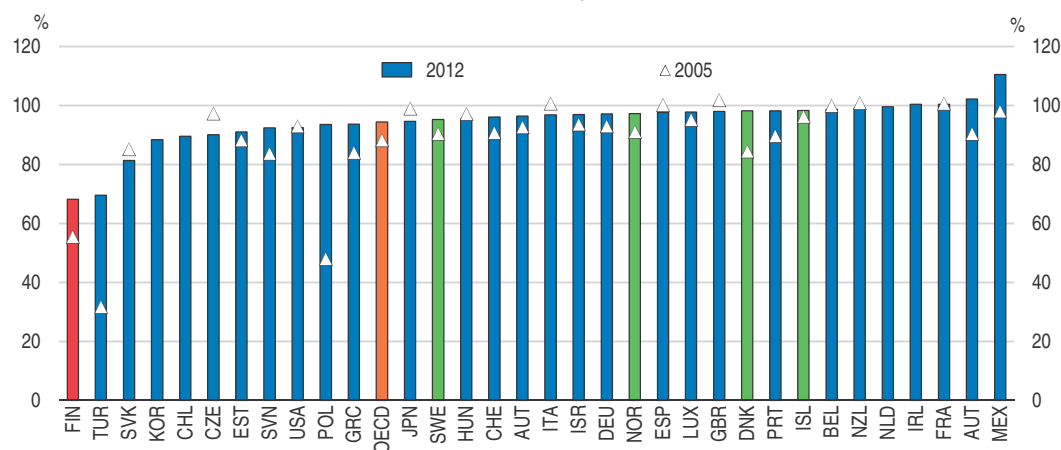
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Higher participation in early education can improve results and equity

Early childhood education and care has expanded in tandem with women's labour participation in most OECD countries, yielding multiple benefits. Enrolment rates for four year-olds vary from over 95% in many OECD countries, including Denmark, Germany, Norway and Spain, to less than 60% in Finland and Turkey (OECD, 2014d). Enrolment in early childhood education and care for five year-olds in Finland is the lowest in the OECD, at 68% (Figure 2.6). Enrolment has increased since 2005, but remains low for all age groups below six. Enrolment reaches 98% for the six year-olds, in line with the OECD average. Pre-primary education for 6-year olds was made compulsory as of 2015, and is guided by a national core curriculum.

Figure 2.6. **Enrolment in early childhood education and care is low**

Enrolment of five year-olds



Source: OECD (2014c).

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Pre-primary education helps pupils succeed in formal schooling. PISA analyses find that in most countries pupils who have attended at least one year of pre-primary education tend to perform better than those who have not, even after accounting for socio-economic background. Many of the inequalities in learning outcomes found in education systems are already evident when pupils enter formal schooling and persist as they progress through the school system (Downey et al., 2004). Inequalities tend to be higher when school is not compulsory, so earlier entrance into the school system may reduce these inequalities (Heckman, 2000; OECD, 2014d).

Vocational education and training: consolidating programmes and building foundation skills

Vocational education and training (VET) focusses on trade-specific skills, and eases the transition from school to working life. But gains in youth employment from vocational education may be offset by reduced adaptability and thus poorer employment and career prospects later in life, as rapid technological change makes occupation-specific knowledge and skills obsolete, while foundation skills like literacy, numeracy and digital skills as well as generic skills like the ability to cooperate and structure one's time facilitate such adaptability (OECD, 2013b). The youngest cohorts of VET graduates in Finland are more likely to be employed than graduates with general qualifications and similar characteristics in terms of socio-economic background and skills, but then fall behind from ages 26-35 (Hanushek et al., 2011). PIAAC data show that education is a strong driver of skills in Finland, but academic secondary and tertiary education is associated with higher literacy skills than vocational education at similar levels, reflecting on the one hand the content and quality of the education, and on the other that students make different choices based on their interests and abilities. Furthermore, education and skills strongly influence earnings among those in employment (Box 2.2).

Around 40% of students entering upper secondary school follow the three-year VET track, in which 119 initial study programmes lead to 53 different vocational qualifications. Following initial vocational qualifications, students can choose from 305 further and specialist qualifications, and they gain eligibility to polytechnic and university studies. Forty per cent of entrants to polytechnics, and 9% of entrants to universities held a VET degree combined with the matriculation exam in 2013 (Statistics Finland, 2015). Efforts to build foundation skills that are necessary to successfully adapt to a changing society should be increased, along with life-long development and training to improve long-term labour market outcomes. Consolidating VET programmes and specialisations could be considered as a part of this effort.

Increasing labour supply

Higher employment can increase equity and well-being in a number of ways, i.e. by reducing poverty directly and through taxes and transfers and by improving work-life balance for both genders if work and domestic responsibilities are shared more equally. The potential to increase labour supply is substantial in Finland, as employment is lower than in the other Nordics across skill levels, age groups and genders. To unlock this potential, the transition from secondary to tertiary education should be streamlined, tertiary completion times shortened, work incentives for women in childbearing age and the unemployed strengthened, work immigration encouraged, and a number of policies should be implemented to prolong working lives for older workers.

Box 2.2. Adult skills and labour market outcomes

The PIAAC Survey measures what adults in the age group 15-64 know and can do within three cognitive skills, namely literacy, numeracy and problem solving in technology-rich environments. Literacy proficiency is measured on a six-level scale ranging from “Below Level 1” up to “Level 5”. Individuals scoring 5 and above are highly skilled and able to search, integrate and utilise complex information on unfamiliar subjects to make high-level inferences, while those scoring at or below level 1 can at best understand short texts on familiar topics and solve simple assignments. This dataset has been used to explore skill formation, the odds of being employed, determinants of earnings and various measures of labour market mismatch in Finland. The results show that skills increase with education, but are relatively low for older cohorts and immigrants from poorer countries. Both literacy skills and education are strong drivers of employment and earnings. Furthermore, the data do not show any ethnic penalties in earnings and employment for the foreign-born when controlling for the other variables. A selection of the results of this study is presented in Table 2.2.

Table 2.2. **Skills formation and labour market outcomes in Finland**¹

	Literacy score (OLS)	Odds of being employed (Logit) ²	Logarithm of earnings (OLS)
Literacy score	2.74	0.12	
		[0.12]**	[0.03]**
Female	-1.95	0.89	-0.33
	[1.58]	[0.08]	[0.02]**
Age below 24	1.70	0.48	-0.86
	[3.16]	[0.18]**	[0.06]**
Age 25-34	4.17	0.74	-0.23
	[2.22]	[0.16]	[0.02]**
Age 45-54	-10.72	0.86	0.11
	[2.57]**	[0.17]	[0.02]**
Age above 55	-28.04	0.24	0.00
	[2.3]**	[0.15]**	[0.03]
Max lower secondary education	-13.65	0.69	-0.25
	[2.77]**	[0.12]**	[0.04]**
Upper secondary general education	24.67	1.2	-0.15
	[2.69]**	[0.16]	[0.05]**
Post-secondary non-tertiary education	5.74	1.51	0.14
	[3.42]	[0.22]	[0.04]**
Tertiary vocational education	22.29	1.66	0.06
	[2.00]**	[0.12]**	[0.03]*
Tertiary academic education	39.91	1.90	0.27
	[1.91]**	[0.14]**	[0.03]**
Foreign born developed country immigrant	6.28	1.38	-0.11
	[6.38]	[0.54]	[0.08]
Foreign born immigrants – other countries	-54.91	1.80	-0.03
	[8.90]**	[0.43]	[0.07]

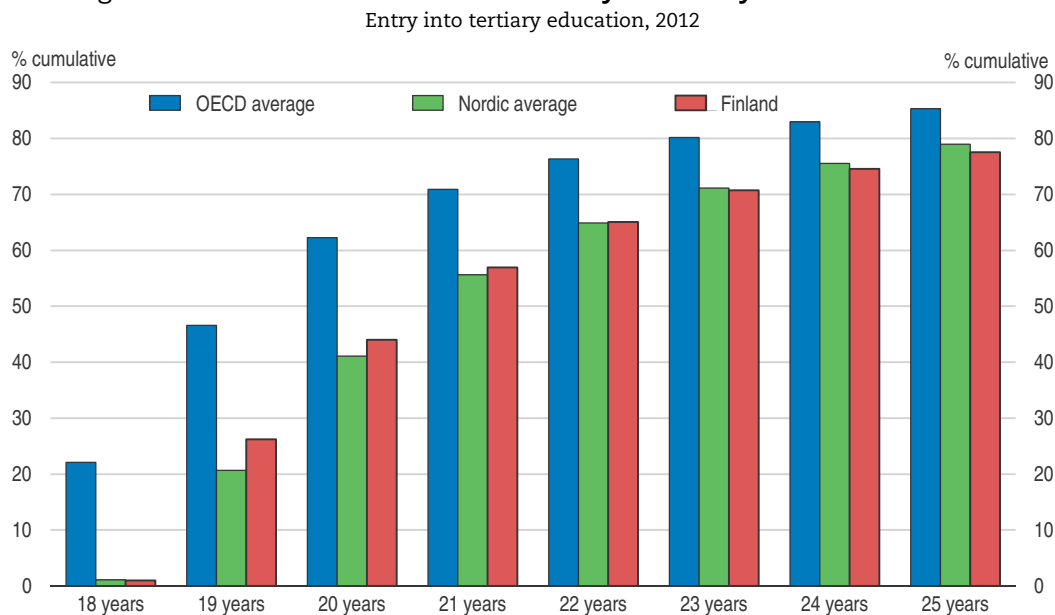
1. The reference category for all three regressions is a native born man aged 35-44 with upper secondary vocational education. Standard errors of the coefficients are included in brackets, with * and ** indicating significance at the 90 and 95% level, respectively. Further control variables, statistics and the methodology are presented in Pareliussen (2016).
2. Coefficients are odds ratios. Coefficients with a value below 1 indicate that there is less chance of an event occurring for a particular group compared to the reference group, and coefficients greater than 1 represent greater chances. The literacy score variable is scaled by its standard deviation.

Source: Pareliussen, 2016.

Speed up labour market entry of the young

Employment prospects for tertiary graduates are good, despite recent increases in unemployment also in this group. However, the transition from upper secondary school to tertiary education could be more efficient. The transition of qualified (matriculated) students to tertiary studies is in line with the other Nordics, but slow compared to the OECD average (Figure 2.7), and it has slowed between 2005 and 2013 (Statistics Finland, 2015).

Figure 2.7. **The transition from secondary to tertiary education is slow**



Source: Eurostat, Database (Last accessed 8 April 2015).

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Entrance exams commonly differ between universities and faculties in Finland, especially at the undergraduate level. Candidates who fail the entrance exams to their preferred faculty may have to take a break of two to three years before obtaining a place in tertiary education (OECD, 2013c). The implementation of a joint national application process in 2014 is a step in the direction of facilitating faster entry and better resource utilisation. However, the new system still relies on entrance exams. A system where applications are assessed using matriculation results only would facilitate the entry into tertiary education in the year in which students matriculate. The Open University and polytechnics could be strengthened as alternative routes to university for those with poor matriculation results (OECD, 2010).

Those who enter tertiary education tend to stay in studies for a long time. The average duration of tertiary education is 6.5 years, considerably higher than the OECD average of 5.0 and the Nordic average of 4.8 years. Moreover, one in ten university entrants in 2013 already held a university degree in another field (Statistics Finland, 2015). Long completion times may to some extent reflect preferences and add value to society. Around half of students work part time, which may both give young people useful experience and fill needs in the labour market. Some may take sabbaticals and develop personal skills, and individuals with complementary double degrees are valuable in the labour market. Nonetheless, timelier

graduation would in general increase Finland's growth potential. Furthermore, slowly progressing students occupy study places that could have been made available to others, slowing transition into tertiary education. Student aid and university financing were reformed in recent years to encourage faster completion, and the government plans to go further in this direction (Ministry of Finance, 2014; Prime Minister's Office, 2015).

Encouraging female participation

The employment rate of Finnish women (68%) is close to that of men (69%) but considerably lower than in the other Nordics. Despite a second place in the Global Gender Gap Report, only 24% of science, technology, engineering and mathematics students are female. Furthermore, the Finnish labour market is sharply gender-segregated. Just 30% of legislators, senior officials and managers are female, and women are 70% more likely than men to be in part-time work (WEF, 2014), contributing to a gender wage gap of 19% (Eurostat, 2015).

Women are less likely to show low literacy proficiency, defined as scoring at or below level 2 in literacy in the PIAAC Survey (Figure 2.8, Panel A). But women of childbearing age with low literacy proficiency are significantly less likely to be employed than men with the same level of proficiency (Figure 2.8, Panel B). Furthermore, the employment gap between women with secondary and those with tertiary education is also markedly higher for women in childbearing age than for men. Older women are on the other hand more likely to be employed than men across skill levels except in the oldest age group.

Figure 2.8. **Low-skilled young women are unlikely to be employed**¹



1. Low skills are defined as PIAAC level 2 or lower in literacy. Data were collected in 2012.

Source: OECD Survey of Adult Skills, 2012.

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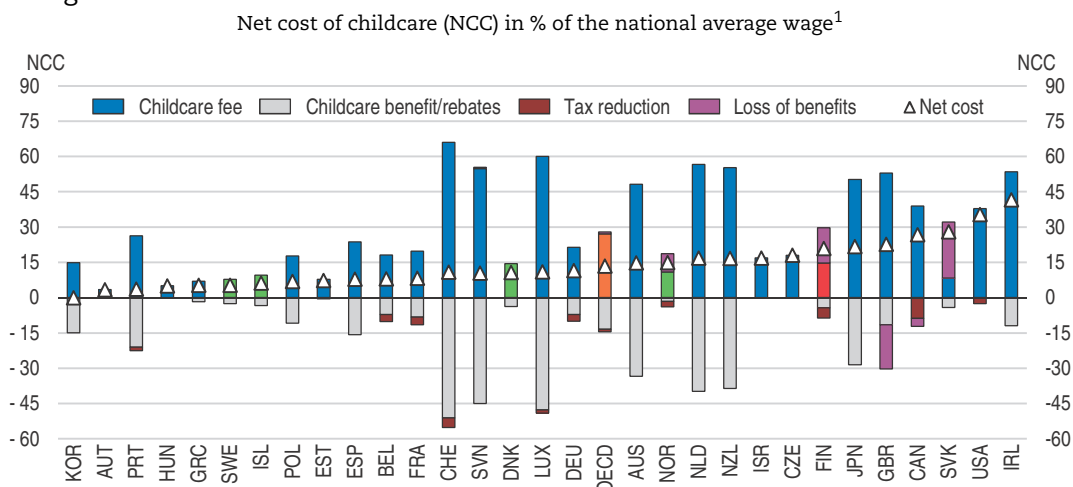
Gender differences are also reflected in rates of youth who are neither in employment, education or training (NEET). The NEET rate for individuals aged 20 to 34 with lower secondary education is 37% for women and 33% for men. 15% of women with upper secondary education or higher are NEET, 5 percentage points higher than the NEET rate for men with a similar education level.

Labour force participation among Finnish mothers with children below three years of age is the lowest in the Nordics, some 20 percentage points below that of Sweden and Denmark despite the legal entitlement to public day-care at rates capped below 10% of average monthly wages. One reason for low participation among mothers is the home-care allowance, a benefit which follows parental leave and is available for up to two years per

child not attending public day-care. The benefit is especially attractive to persons with relatively low potential earnings, a group in which immigrants are over-represented, since it offers a flat rate subsidy for staying at home. However, the bulk of recipients are natives. The basic allowance is comparable in generosity to similar allowances in Norway and Sweden, but take-up rates among parents of two- and three-year olds are higher (50%) in Finland than in Norway (25%) and in Sweden (5%), where it is available only in some municipalities. High take-up reflects the multiple supplements available. There is a supplement for older siblings and a means-tested supplement. Furthermore, 46 out of 320 municipalities, covering more than half of Finnish pre-school children, offered top-ups to the allowance as of March 2015, partly because encouraging women to stay at home can be less expensive for municipalities than offering day-care (Ellingsaeter, 2012; Kela, 2015). As with parental leave, the home-care allowance can be combined with the right to return to one's previous workplace.

Childcare is available to all, and free of charge for very low income households. However, the combined economic incentive of the benefit and foregone childcare fees amounts to €626 per month for one child and €984 for two children, not taking into account municipal or other supplements, which may be substantial. The loss of the benefit results in the highest net cost of childcare in the Nordics (Figure 2.9). By comparison, the average monthly earnings for women are around €3000. The participation tax rate – i.e. the extent to which taxes and benefits reduce the financial gain of moving into work including childcare costs and loss of the allowance – exceeds 70% for low-earning lone parents and women in low-earning couples who receive the home care allowance for two children. Facing such strong incentives, four in ten women with children aged below seven receive the home-care subsidy rather than making use of public day-care. Kosonen (2013) finds that increasing the allowance by €100 per month reduces maternal labour supply by 3%. Female employment rates in a panel of OECD countries fall sharply if combined parental- and home-care leave entitlements exceed two years (Thévenon and Solaz, 2013). A longitudinal study of Swedish

Figure 2.9. **The home care allowance doubles the cost of childcare in Finland**



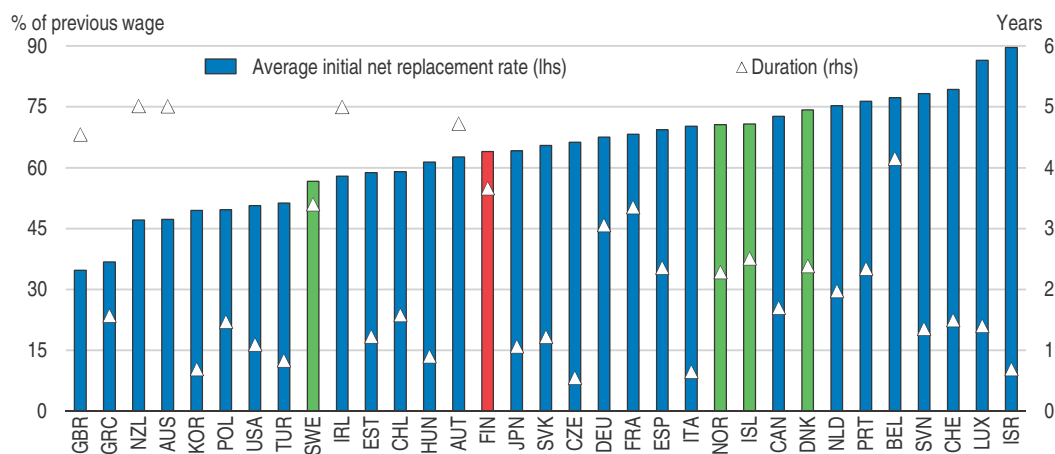
1. The NCC is calculated for the year 2012, as the difference in family net income of a double-earner family with two children, aged two and three, who uses centre-based childcare and an otherwise identical family who does not. Family net income is the sum of gross earnings plus cash benefits minus income taxes and social contributions paid by workers for a family with two earners, earning 67% and 50% of the national average wage, respectively. Source: OECD Tax-Benefit Models, www.oecd.org/els/social/workincentives (last accessed 27 July 2015).

women shows that women taking 16 months leave or more are less likely to progress in their careers once back on the job (Evertsson and Duvander, 2011). Lower participation and earnings imply lower pensions. Limiting the combined duration of parental leave and the home-care allowance to between one and two years would likely generate significant gains in children's enrolment and mothers' employment, which would increase childcare expenditure, but also boost tax receipts.

Shortening unemployment spells

The unemployment rate stands at 9.4%, which is high compared to Denmark (6.0%), Sweden (6.8%) and Norway (4.6%). Unemployment was already higher than in the other Nordics before the recession but the difference with Sweden has widened since. The combination of slow tapering of benefits and late activation of the unemployed distinguishes Finland from the other Nordics, as it reduces job search intensity and prolongs unemployment spells. The unemployment benefit replacement rate is only slightly higher than the OECD average and close to the Nordic average, but contrary to most OECD countries with generous replacement rates, the benefit is tapered only slowly in Finland. Belgium is the only OECD country with both higher replacement rates and slower tapering (Figure 2.10). The 2015 government programme includes a €200 million cut to the unemployment insurance which among other things will imply reducing the maximum duration of unemployment benefits by 100 days to 400 days for those with at least three years of work history, and to 300 days for those with a shorter work history. Those aged 58 or above would retain the current 500 days. Introducing a reduction of replacement rates in steps over the unemployment spell could strike a balance between income security and improved work incentives, and may increase job search intensity as a behavioural response to benefit reductions (Pang et al., 2014).


Figure 2.10. **Relatively generous unemployment benefits are tapered slowly**¹



1. Replacement rates are calculated for four family types; single, lone parent, couple and couple with children. Rates are from 2013.

Source: OECD, Tax-Benefit Models.

How to read this figure: The initial net replacement rate refers to benefits received during the first 12 months of unemployment as a percentage of the previous wage. Persistence is calculated as the sum of replacement rates over five years divided by the initial replacement rate. A low value means that the initial benefit is tapered relatively quickly.

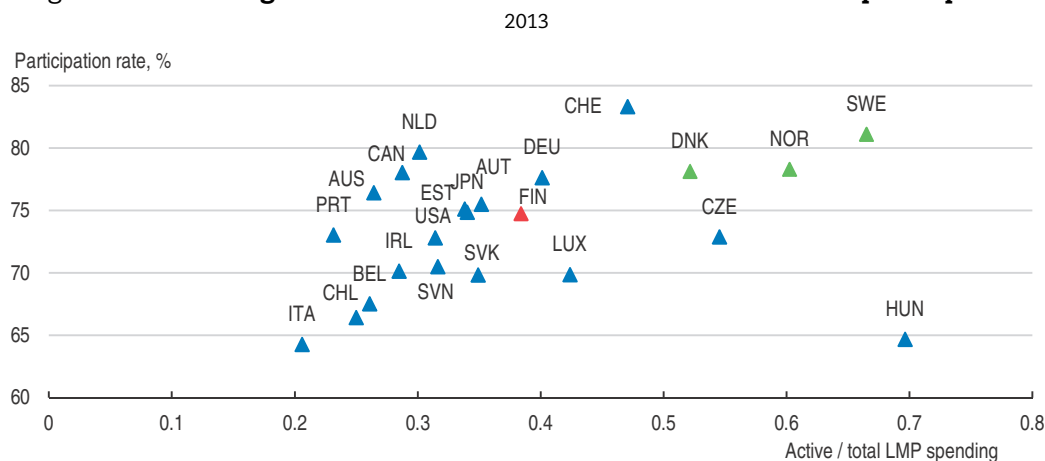
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However, for low-income households, the means-tested Basic Income Support (BIS) may still reduce work incentives. While BIS covers only a fraction of the original wage, it covers 100% of housing expenditures up to a threshold. For households and individuals who expect wages close to the minimum levels and who have high housing costs, replacement rates can be close to 100% (OECD, 2010). The government has announced a reduction in labour taxation and coordination of tax and social security measures to remove inactivity traps. As part of these measures, work incentives should be safeguarded by better coordinating different benefits. One option to achieve such coordination is to pool working-age benefits into one single benefit that is progressively tapered off as income increases, as has been done in the United Kingdom. Pooling benefits also holds the potential to reduce administrative costs, fraud and error (Pareliussen, 2013).


Efficient activation policies early in the unemployment spell hold the potential to mitigate the negative effect on job search intensity from high benefits that are tapered slowly. Despite major improvements to the Finnish activation regime since the 1990s, notably by better aligning financial incentives to the decentralized structure of employment offices and abolishing a job placement guarantee that cemented high unemployment levels (OECD, 2013a), there is room for further improvements.

Finland spends a smaller share of labour market policy expenditure on active measures than the other Nordics, and activation generally comes late in the unemployment spell, compounding the negative effects of generous replacement rates and slow tapering (Figure 2.11). Local Public Employment Service (PES) offices enjoy a high degree of flexibility. Job search requirements can be set in an individual action plan, which is formulated within the first weeks of unemployment, and there are rules for continued contact if unemployment persists. But mandatory activation requirements are systematically implemented only after 100 weeks. A notable exception is youth below 25 and recent graduates below 30 who are offered a study, work trial or workshop place or a job within three months of registration as unemployed under the youth guarantee (Ministry of Finance, 2014). Facing resource constraints, employment offices tend to prioritise activation of persons covered by the guarantee at the detriment of other unemployed. The PES, municipalities and the Social Insurance Institution (Kela) are

Figure 2.11. **Strengthened activation could boost labour market participation**



Source: OECD Labour Market Statistics, Database.

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responsible for helping the individuals who are the hardest to employ under single Employment Service Centres. This should improve coordination and better align the level of service provision and financing.

New Public Employment Service guidelines, which came into force in late 2013, toughened requirements on the unemployed to accept job offers and widened the geographical search area. An amendment to the Unemployment Security Act took effect in the beginning of 2015, further increasing the search area (Ministry of Finance, 2014). Job referrals are widely used, but job-search requirements are not sufficiently enforced early in the unemployment spell. Introducing mandatory job search and reporting from the beginning of the unemployment spell, combined with an improved sanction regime would be an effective and low-cost way to shorten unemployment spells for those who are relatively close to the labour market (Martin, 2014). Finland has a profiling tool that categorizes the unemployed according to their risk of long-term unemployment, but its use is not mandatory, and the impact of the tool has been limited. Improving the profiling tool, and making its use mandatory holds the potential to give quicker and more targeted support to those who are further away from the labour market (OECD, 2013a).

Failure to carry out an activation plan, refusal of suitable work or refusing or quitting an activation activity is normally sanctioned by two months of benefit suspension. This sanction may be too strict for minor infractions, such as late submission of an activity report or first-time failure to document job search, for two reasons. First, experience from Sweden shows that severe sanctions lead Public Employment Service (PES) staff to side with clients and under-report minor infractions (OECD, 2015a). Second, those who lose unemployment benefits for an extended period of time are entitled to Basic Income Support (BIS) subject to a means test, reducing incentives to comply. Reforming the sanctions regime in the direction of more gradual but consistently applied sanctions would therefore facilitate the introduction of a universal job-search requirement. The job-search requirement and sanctions regime should be made fully operational also for those BIS recipients who are subject to labour market conditionality.

Expanding the application of activation policies to groups of benefit claimants who are less intensively targeted in the current system holds some potential, especially for older workers and lone parents. OECD experience with expanding activation to people on disability and long-term sickness benefits are mixed, as it is challenging to develop and apply criteria that successfully re-classify and direct resources towards those who are capable of working. Tightening inflows to such benefits is less controversial, but these groups are nonetheless harder to activate, and their activation should not come at the expense of more easily employable groups (OECD, 2013a).

Encouraging work immigration

Work immigration could help address Finland's demographic challenges. Only 5% of the population is foreign-born and gross inflows are 0.3% a year, of which half is work immigration, almost exclusively from other EU countries. But immigrants fare worse than natives in the labour market on average. They have 8 percentage points lower employment rates than natives, rising to 14 percentage points for immigrants with tertiary education. Unemployment rates are double that of natives, and particularly high for women (OECD, 2014e).

The nature of immigration has a strong bearing on labour market performance. Developed country immigrants, who are to a large extent work immigrants, are generally skilled, as measured by the PIAAC Survey, and their labour market performance is not significantly different from natives when accounting for skills, education and other relevant factors (Pareliussen, 2016). Abolishing the “work test”, that stipulates that non-EU work immigrants can only immigrate if their job offer is in an occupation where there is a lack of supply from the Finnish workforce, as stipulated by the public employment service, would allow for somewhat higher work immigration. Effective integration of work immigrants depends on good systems for recognition of foreign qualifications and bridging courses, as well as systems to accept and integrate their families.

Immigrants from poorer countries, who often immigrate for humanitarian reasons or family reunion, tend to come from less advantaged socio-economic backgrounds than natives, to be less educated and to have lower literacy for each educational level, and are hence disadvantaged in the labour market (Pareliussen, 2016). Furthermore, they are more likely to be overqualified for their jobs, more likely to be poor, and more likely to live in overcrowded accommodation (OECD/European Union, 2015). The number of asylum seekers has increased drastically during 2015, notably from Iraq, Somalia and Afghanistan. Tailored integration plans increase the efficiency of integration and improve labour market outcomes (Sarvimäki and Hämäläinen, forthcoming; Musset, 2015). An integration centre of expertise has been founded in association with the Ministry of Employment and the Economy. The centre supports the expertise of local actors to promote integration and employment. Furthermore, the centre assembles and disseminates information and good practices, and supports the work of NGOs (Ministry of Finance, 2014).

Finland does fairly well in up-skilling immigrants. The literacy proficiency of newly arrived immigrants is low, but the mean score level of foreign-born adults who have lived more than five years in the country is higher than the OECD average (Bussi and Pareliussen, 2015). However, the scale of current inflows is at an unprecedented level, and scaling up the integration apparatus while maintaining high quality will be a challenge. Furthermore, second generation immigrant youth score lower than natives on the PISA test, and only at par with first generation immigrants (NAO, 2015). Lower enrolment than natives in early education, encouraged by the home-care allowance, may partially explain their low performance, but more research is needed to identify causes and secure that these children are given a fair treatment and the support they need to succeed in school.

Postponing retirement

As discussed in the *OECD Economic Survey of Finland 2014*, the population is ageing more rapidly in Finland than in most OECD countries. Ageing carries with it significant fiscal challenges related to increased pension and health care expenditure, but also opportunities connected to lengthening working careers and developing a competitive edge in age-related goods and services. Labour participation among people aged 55-64 has increased during the past decade, but is still significantly lower than in the other Nordics. As the share of older workers, whose labour participation is low, grows, the overall participation rate tends to decline (OECD, 2014f; Box 2.1).

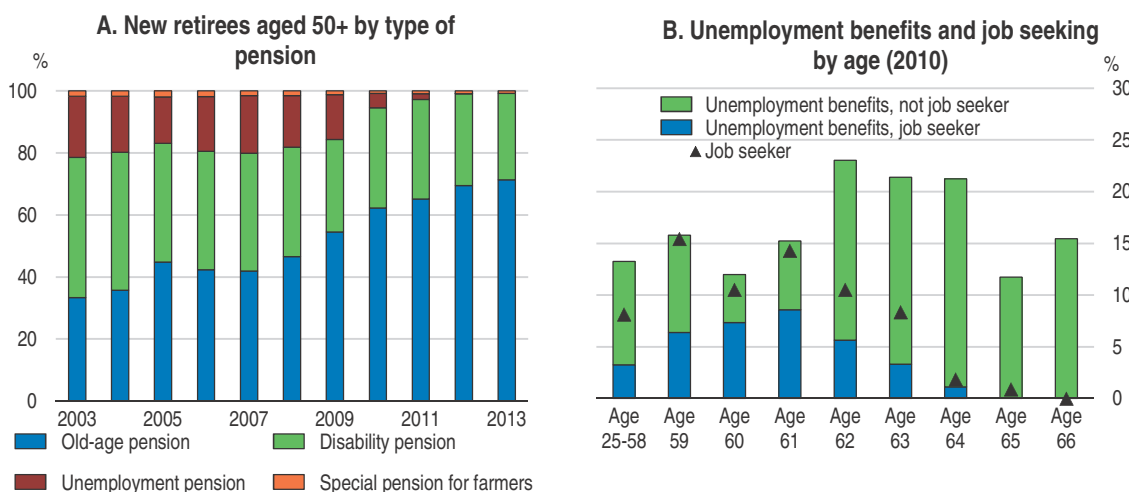
Aside from labour demand and working conditions, the employment rate for older workers depends fundamentally on the design of the pension system and pathways to early retirement. The social partners agreed on a pension reform in September 2014. Key elements of the reform include gradually raising the lower pension age limit from 63 to

65 years and linking it to longevity thereafter. The expected benefits of the reform are substantial, with pension expenditure reduced by around 6% and the budget balance strengthened by approximately 1% of GDP when the reform has been fully implemented (Economic Policy Council, 2015).


However, the two-year increase in the pension age limit is expected to raise the effective retirement age by only one year, and time in employment by less than five months. This is because individuals are expected to use early retirement options more and more. The incentives to seek early retirement increase significantly with the reform, both because accrual rates for workers over 53 are reduced, and because the value of bypassing the extended accrual period by opting for early retirement increases. Disability benefits and the extended unemployment benefit (“the unemployment tunnel”) are the two main routes to early retirement today. A third route, a years-of-service pension, to be introduced as part of the reform, will provide an option to retire at the age of 63 after a working career of 38 years in mentally or physically demanding jobs (Economic Policy Council, 2015).

Inflows into disability have been on a downward trend since 2008 (Figure 2.12, Panel A). Disability benefit recipients continue to earn pension rights as if they had continued in work. The attractiveness of the disability benefit therefore increases as accrual rates are reduced and the accrual period for pensions rights increases with the reform. The unemployment pension was completely phased out during 2012, but is replaced by the extended unemployment benefit (“the unemployment tunnel”), where the unemployed who pass the age of 61 can continue on unemployment benefits until pension age. Many use this option, and the unemployment rate peaks around the age of 62. The rate of unemployment benefit claimants who actively search for jobs peaks for the age groups 59-61. High rates of active job search may partly indicate a strong incentive to comply with activation requirements set by the PES in order to extend their benefit spell until the 61 year limit (Figure 2.12, Panel B). The eligibility age for the unemployment tunnel will only increase by one year (to 62 years) under the new pension reform. Time in employment is expected to rise by only three months if the minimum age for the unemployment tunnel is not raised by one year as foreseen (Economic Policy Council, 2015).

Figure 2.12. **Disability and unemployment benefits are the main routes to early retirement**



Source: Finnish Centre for Pensions, Database (accessed 29 July 2015), LIS Data Centre, fi10p, Database (accessed 29 June 2015).

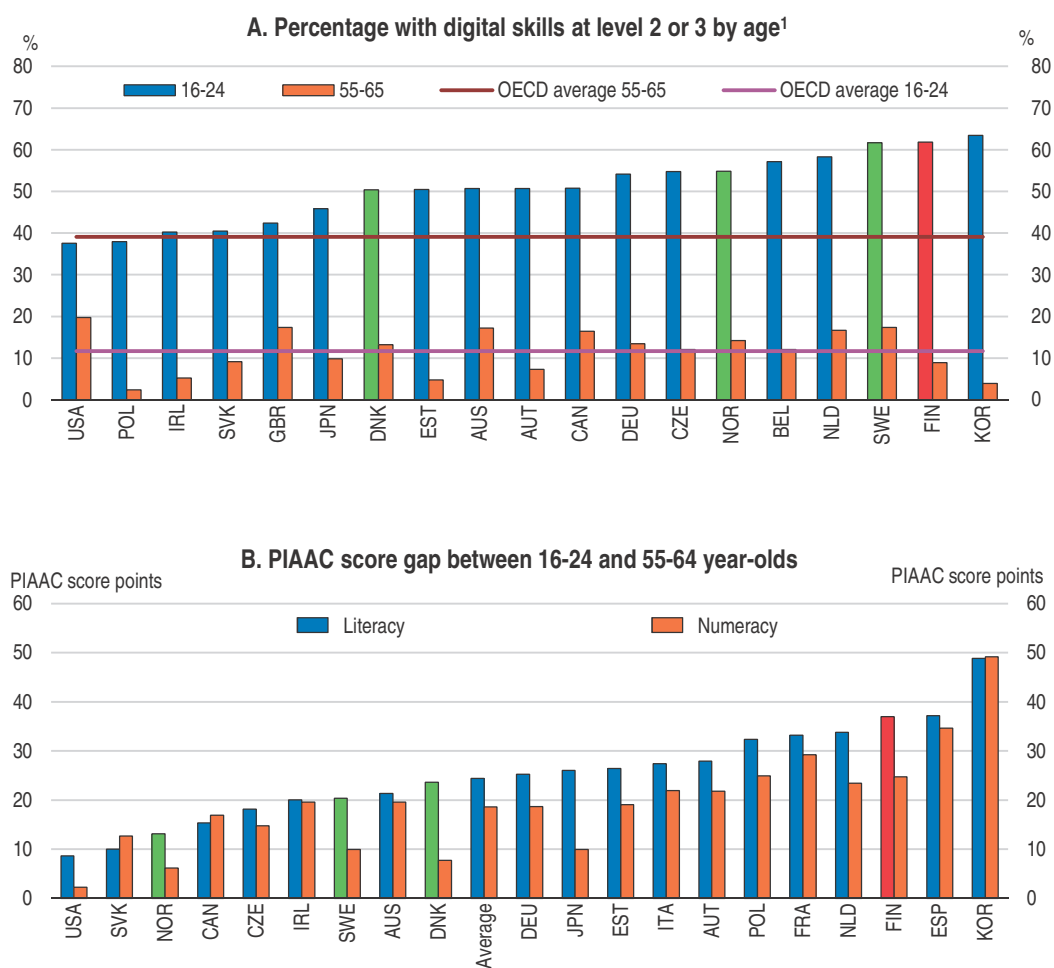
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In order to reap the full benefits of the reform, the definition of mentally or physically demanding jobs in the years-of-service pension should be narrow, the 63 year age limit and the 38 year career limit should be adjusted to longevity, the unemployment tunnel should be closed, and access to disability pensions should be limited to medical reasons only.

Negative attitudes towards older workers are more prevalent in Finland than in the other Nordic countries, and older workers are perceived as having low technological skills and lacking openness to new ideas (OECD, 2014f). Indeed, the skills gap between the young and the old is high, as the latter have not benefitted from the rise to excellence of Finnish compulsory school and rising educational attainment (Figure 2.13). The PIAAC Survey shows a pattern of qualification mismatches, where the oldest tend to be under-qualified while the youngest tend to be over-qualified. Furthermore, workers in the age group 55 to 64 have more than six times higher odds of being under-skilled, and six times lower odds of being over-skilled, than 35-44 year-olds (Pareliussen, 2016). These findings reflect to a


Figure 2.13. **The skills gap between young and old is high**

2012



1. Skills in problem solving in technology-rich environments (“digital skills”) are assigned to four levels, ranging from “below level 1” to “Level 3”, where those scoring at or below level one are at best able to solve well-defined problems involving only one function within a generic interface to meet one explicit criterion without any categorical or inferential reasoning or transformation of information.

Source: OECD (2013b).

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certain extent the accumulation of job specific skills that are neither reflected in educational attainment nor in the generic skills measured by the PIAAC Survey. It is therefore a pattern that many countries have in common, but it is particularly strong for Finland. Life-long learning to acquire new skills and upgrade existing ones can prevent workers from falling behind as they age. Life-long learning is already well developed in Finland, the OECD country where job-related training is most widespread (OECD, 2015c). The introduction of financial incentives in 2014, where the government covers up to half of the cost to employers who provide their employees with up to three days of training per year (Ministry of Finance, 2014) is a step in the right direction.

Increasing labour demand

In Finland, as in the other Nordics, the wage structure is compressed, reflecting egalitarian values and the high coordination of wage bargaining (OECD, 2015a). High minimum wages makes jobs attractive for the low-skilled, but they also create a wedge between the remuneration low-productivity workers are entitled to and the value they add for their employer. High taxes on labour income widen this wedge (see Chapter 1). The employment impact of the wedge is compounded by regulations which reduce the flexibility for employers to adjust their labour force as a consequence of a changing external environment or to dismiss inefficient workers, limiting employment growth (OECD, 2015d; Blanchard et al., 2013). Low-skilled young individuals are especially at risk of unemployment as a result of high minimum wages (OECD, 2010). Youth unemployment, which includes a significant share of students searching for summer- or part-time jobs, is nonetheless on the rise and stood at 21.3% in July 2015, 3.4 percentage points higher than one year previously.

A compressed wage structure makes it attractive to hire high-skilled workers, whose productivity does not fully translate into higher wages. The low-skilled are relatively well paid if they find employment, but high minimum wages make employers reluctant to hire them, and their probability of employment is therefore drastically lower. The 11% of the adult population at level 1 or below on literacy in the OECD Survey of Adult Skills (PIAAC) and the 27% at level 2, have higher wages, but lower employment rates than the PIAAC average (Figure 2.14).


Strengthen wage bargaining institutions

The tradition of centralised negotiations between union and employer confederations and the government often leads to equal wage increases for 90% of workers covered by a central agreement. This model has contributed to macro-level wage flexibility, but little microeconomic flexibility (OECD, 2010; Böckerman et al., 2010). The wage bargaining model is contested, especially by employers, but attempts to decentralise in the period 2007-10 contributed to eroding competitiveness, as the coordination between the exporting industries and other sectors broke down. Furthermore, allocations to bargain locally were used in a fairly mechanical way, contributing little to aligning wages with local productivity conditions. The parties went back to the centralised model in 2011 to secure wage moderation. The government that took office in May 2015 proposed a social contract which included an increase of 5% in working time for the same pay. This would have improved cost competitiveness, but the social partners failed to reach an agreement. The government is now pushing forward measures to shorten annual leave, convert two public holidays into unpaid holidays, reduce sick-leave benefits and cut employer social security contributions.

Figure 2.14. **High wages hold back employment of the low-skilled**¹

1. Hourly wages among employed individuals, PPP adjusted USD, 2012.

Source: OECD (2013b).

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A “two-tier” collective bargaining framework in which a centrally coordinated framework is combined with firm-level flexibility can secure both macroeconomic coordination and some flexibility to adjust relative wages to better reflect productivity developments in different industries and local circumstances. Such a framework has been followed successfully for a long time in Sweden, Denmark and Norway, where coordinated industry-level bargaining is combined with substantial local wage flexibility.

To avoid industries breaking out of the two-tier model, with loss of competitiveness as a consequence, core institutions must be in place and functioning. Firstly, employers and unions should agree on underlying facts and analyses about the economic situation and on a reasonable overall wage outcome in line with economic fundamentals. The price and incomes working group with members from unions and employers, chaired by the Ministry of Finance, plays a key role in this process in Finland. Secondly, negotiations should be sequenced such that trade-exposed industries settle before the others. Mediation is compulsory in Finland following the announcement of industrial action from either of the parties, but there is no mechanism to impose an agreement on the parties if mediation fails and industrial action threatens vital society interests. Such a system exists in Norway for example and may give the parties an added incentive to reach a reasonable agreement. Finally, the local wage setting process with negotiations between the employer and local union representatives needs to be institutionalised. The tradition of central settlements has left local wage setting institutions and employer-employee co-operation underdeveloped in Finland compared to other Nordics. However, the government plans to improve conditions for local agreement on issues like pay, working hours, flexible working hours and well-being at work by means of legislative changes to strengthen the employees’ position in companies’ decision making (Prime Minister’s Office, 2015).

Loosening employment protection

Employment protection legislation (EPL) for regular workers in Finland is at a similar level as in the other Nordics, which in itself is not a great cause for concern. Additional regulation on temporary workers and collective dismissals is fairly modest, and well below the OECD average (OECD, 2015e). However, the current regulations give employers little opportunity to test the capabilities of new employees before taking a final decision on keeping them on the payroll, since the trial period is fairly short (four months) and the use of fixed-term contracts and workers employed through temporary work agencies are restricted. Lengthening the trial period and loosening restrictions on fixed-term contracts for assignments shorter than a year, as proposed by the government (Prime Minister's Office, 2015) would help.

While collective dismissals connected to larger reorganisations or company-specific difficulties are fairly straightforward in Finland, individual dismissals are more strictly regulated. A definition of unfair dismissal that leaves considerable room for judgement, combined with fairly high compensations, the possibility to post claims up to two years after dismissal and settlement of such cases in ordinary courts increase the uncertainty related to dismissal. This may in turn increase the reluctance to hire, harming employment and productivity growth not only within firms that need to shed workers, but also in companies that need these competencies, and are reluctant to hire when operating in an uncertain environment. Young businesses' reluctance to hire is a particular concern, as their growth is important to boost productivity (Chapter 1; OECD, 2013d; OECD, 2013e). The government has pledged to ease a requirement to offer employment to earlier laid-off employees, and ought to go further in easing restrictions on individual dismissals.

Recommendations to increase employment and enhance skills

Key recommendations

- Reduce the combined duration of parental leave and the home-care allowance to encourage female labour market participation.
- Shorten the duration of the unemployment benefit and reduce benefits over the unemployment spell. Systematically enforce mandatory job-search and reporting requirements starting early in the unemployment spell.
- Extend working lives by phasing out the option to extend unemployment benefits until retirement, by limiting rights to disability pensions to medical reasons only, and by adjusting the new years-of-service pension to life expectancy.
- Strengthen the roles of the state mediator and of the local level of unions in the wage setting process to raise local flexibility without compromising competitiveness.
- Strengthen foundation skills in vocational education and training.

Other recommendations

- Continue to streamline admission procedures to tertiary education and to tilt incentives towards faster graduation.
- Encourage work immigration by streamlining the recognition of foreign qualifications and the provision of bridging courses, phasing out the work test for non-EU immigrants and streamlining systems to accept and integrate their families.
- Increase the trial period for new hires, ease regulations on individual dismissals and remove the obligation to re-hire laid-off employees.

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