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BETTER POLICIES FOR BETTER LIVES

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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 Estonia were reviewed by the Committee on 4 September 2012. 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 14 September 2012.

The Secretariat's draft report was prepared for the Committee by Artur Radziwill and Lilas Demmou under the supervision of Andreas Wörgötter. Research assistance was provided by Seung-Hee Koh, Corinne Chanteloup and Margaret Morgan. The Survey *also benefited from valuable background research by Sarah Flèche and Bogdan Zaman.*

The previous Survey *of Estonia was issued in April 2011.*

Information about the latest as well as previous Surveys *and more information about how* Surveys *are prepared is available at* www.oecd.org/eco/surveys.

BASIC STATISTICS OF ESTONIA

The OECD average is reported in parentheses

LAND, PEOPLE AND ELECTORAL CYCLE

Population (1 000 000):	1.3		Population density per km^2	29.6	(34.5)
Under 15 (%)	15.4	(17.5)	Life expectancy (years):	75.6	(79.8)
Over 65 (%)	16.9	(15.3)	Males	70.6	(77.0)
Foreign-born (%)	16.3		Females	80.5	(82.5)
Latest 5-year average growth (%)	0.0	(0.5)	Last general election:	March 2011	

ECONOMY

GDP, current prices (billion USD)	29.4		GDP shares (%): Primary	3.2	(2.3)
GDP, current prices (billion EUR)	16.0		Industry incl. construction	26.3	(25.3)
Latest 5-year average real growth (%)	–1.9	(0.2)	Services	57.6	(62.8)
GDP per capita, PPP (thousand USD)	21.9	(35.1)			

GENERAL GOVERNMENT

Expenditure (% of GDP)	38.2	(45.0)	Gross financial debt (% of GDP)	10.0	(72.9)
Revenue (% of GDP)	39.2	(41.1)	Net financial debt (% of GDP)	–33.4	(23.7)

EXTERNAL ACCOUNTS

Exchange rate (€ per $)	0.72		Main exports (% of total merchandise exports):		
PPP rate (USA = 1)	0.54		Machinery and transport equipment	30.0	
Exports of goods and services (% of GDP)	91.4	(52.4)	Mineral fuels, lubricants and related materials	16.9	
Imports of goods and services (% of GDP)	87.4	(49.4)	Manufactured goods	14.1	
Current account balance (% of GDP)	1.9	(0.2)	Main imports (% of total merchandise imports):		
Net international investment position (% of GDP):	–57.7		Machinery and transport equipment	31.8	
Reserve assets	1.0		Mineral fuels, lubricants and related materials	17.8	
			Manufactured goods	14.9	

LABOUR MARKET, SKILLS AND INNOVATION

Employment rate (%) for 15-64 year olds:	65.1	(64.8)	Unemployment rate (%):	12.8	(8.1)
Males	67.7	(73.0)	Youth (%)	22.3	(16.2)
Females	62.8	(56.8)	Long-term unemployed (>12 months) (%)	7.1	(3.1)
Average worked hours per year (1 000)	1.9	(1.3)	Tertiary educational attainment 25-64 year-olds (%)	35.0	(31.0)
Gross domestic expenditure on R&D (% of GDP)	1.6	(2.4)			

ENVIRONMENT

Total primary energy supply per capita (toe):	4.1	(4.3)	CO_2 emissions from fuel combustion per capita (tonnes)	10.9	(9.8)
Renewables (%)	13.8	(8.2)	Water abstractions per capita (cubic decametres)	1.4	
Fine particulate matter concentration (urban, PM10, µg/m^3)	12.6	(22.0)	Municipal waste per capita (tonnes)	0.3	(0.5)

SOCIETY

Income inequality (Gini coefficient, %)	31.5	(31.4)	Education outcomes (PISA score):		
Relative poverty rate (%)	20.7	(17.7)	Reading	501	(493)
Public and private spending (% of GDP):			Mathematics	512	(496)
Health care	7.1	(9.5)	Science	528	(501)
Pensions	5.2	(8.2)	Share of women in parliament (%)	19.8	(25)
Education	3.8	(3.7)	Net official development assistance (% of GNI)	0.1	(0.4)

Better Life Index: *www.oecdbetterlifeindex.org*

Note: 2011 or latest year available. An unweighted average is used for the OECD average. It is calculated when data for at least 29 countries are available.

Source: OECD.STAT (*http://stats.oecd.org*); *Economic Outlook Database*.

Executive summary

Notwithstanding the deep 2008/9 economic crisis, Estonia has achieved one of the highest medium-term growth rates in the OECD, accompanied by rapid income convergence. The strong recovery from the crisis has benefited from structural strengths of the economy: a flexible labour force, business friendly regulation, well capitalised financial institutions, a successful transition from the currency board to euro area membership, and sustained credibility of fiscal policy.

Nevertheless, the Estonian economy is exposed to considerable volatility, which could threaten growth and well-being and contribute to high long-term unemployment. While this volatility is attributable in part to a series of external shocks, domestic factors have also played a role, both in terms of amplifying external shocks but also in terms of swift reactions favoured by high flexibility of the economy.

Fiscal policy could be made more countercyclical. Automatic stabilisers should be allowed to operate fully and additional discretionary policy action might be needed in the event of another severe boom or bust cycle. Spending ceilings would contain increases in outlays in booms, but would also allow the automatic stabilisers to work, as these are mostly on the revenue side. An independent fiscal institution, which is to be established soon, would play a key role in assessing the fiscal position both over the business cycle and in terms of long-term sustainability. Experience suggests that such institutions work best when they have a clear mandate, are adequately funded and are independent.

While microprudential regulation of financial markets is well established, existing macroprudential instruments turned out to be insufficient during the build-up of the recent boom/bust cycle. Cross-border co-operation of financial sector regulation needs to be further strengthened and the tool-kit for macroprudential intervention needs to be widened. The possible tools should ensure effective and efficient achievement of macroprudential objectives in the integrated regional banking market.

Larger active labour market programmes would accelerate the re-employment of job-seekers, reducing the risk that they leave the job market permanently. Reducing the labour-tax wedge would increase employment opportunities for the low-skilled. Lifelong learning would strengthen employability. Vocational education should be further focused on equipping graduates with employable skills by intensifying co-operation with employers, and access to tertiary education should be widened further. The enterprise support framework should increasingly target innovation, thereby contributing to productivity-driven export growth.

Finally, there will always be a part of the population which will need support. All support programmes should be designed to maximise the prospects of re-integrating beneficiaries into employment. Social benefit recipients should therefore become regular clients of the unemployment insurance offices, and they should benefit from job search assistance and active labour market policies. Scarce resources should be more targeted to those in greatest need. Addressing the large inflows into the disability system is a priority.

Key policy recommendations

Reducing excessive macroeconomic volatility

- Avoid procyclical fiscal policy. Introduce multi-year expenditure ceilings, covering also tax expenditure and local level spending. Be prepared to implement discretionary fiscal policy measures to address long-lasting booms associated with accumulation of imbalances that threaten macroeconomic stability. Ensure sufficient independence of the newly established fiscal institution, while leveraging the analytical capacity of existing institutions.
- Mitigate credit cycles. Calibrate and prepare to implement macroprudential tools, starting with countercyclical capital buffers. With regard to cross-border co-operation, increase efforts to effectively implement a wider set of tools.

Increasing economic resilience

- Increase spending on active labour market policy, and better target spending, while ensuring stronger co-operation among local governments, education institutions and the Unemployment Insurance Fund.
- Increase the financial incentives of employers to invest in lifelong learning. Target public co-financing towards low educated and older workers, as well as towards employees in SMEs.
- Consider establishing an obligation to offer learning opportunities through formal education, workplace training or apprenticeships until the age of 18 for youth neither in education, employment or training.
- Further strengthen co-operation with employers and consider giving subsidies for apprenticeship places for youth in vocational education. Increase the permeability between different educational levels.
- Rebalance public resources for innovation support to prepare Estonian firms to export and make sure the necessary services for small exporting firms are available at reasonable costs.

Reducing poverty through activation and better targeted support

- Refocus the social protection system on activation and return to work, underpinned by stronger inter-agency co-operation. Swiftly conclude the analysis phase in preparation for Internet-based e-services. All working age people with some capacity to work should become clients of unemployment insurance fund offices and be encouraged to participate in job search and activation.
- Benefits should be more targeted to provide sufficient help for those in greatest need.
- Strengthening health spending efficiency, promoting healthy lifestyles and improving access for disadvantaged groups should be priorities to improve health outcomes and reduce health outcome gaps.
- The high labour tax wedge should be reduced by increasing the share of less distortionary taxes, such as property and environmental taxes and excise duties and reducing tax expenditures, like preferential VAT rates. Reductions in direct taxes should be tilted towards low-earners.

Assessment and recommendations

The strong recovery from the crisis has been attributable to structural strengths of the economy: a flexible labour force, business friendly regulation, well capitalised financial institutions, a successful transition from the currency board to euro area membership, and sustained credibility of fiscal policy. Nevertheless, the main macroeconomic aggregates, including output, the labour market, inflation and the current account have shown unusually large fluctuations in the last decade, mainly due to external shocks, which were amplified by domestic factors. Both the range and standard deviation of GDP growth rates were extremely high, even when compared to the smallest OECD economies (Figure 1). The output volatility was reflected in the labour market with large fluctuations in employment and unemployment, as well as large flows of workers both between different branches of the economy, and in and out of the country. These flows were linked to deep structural adjustments between tradable and non-tradable sectors, notably between construction and manufacturing, driven by the accumulation of large external (current account deficit) and internal (excessive loan growth) imbalances prior to the crisis. These imbalances were manifested in a distorted structure of activity and overheating together with high inflation.

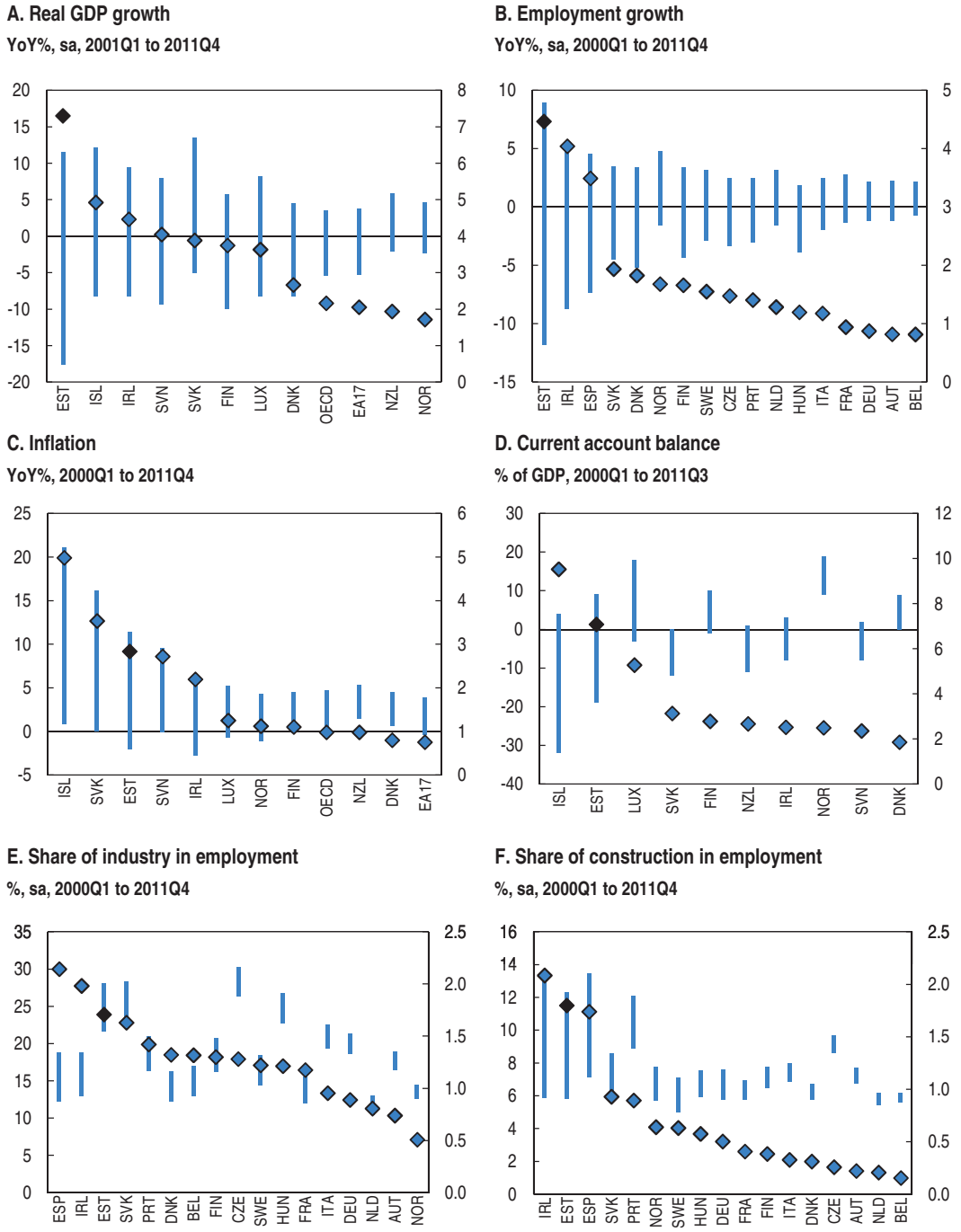
Economic developments since the re-establishment of independence in 1991 should not be interpreted in isolation from the geopolitical environment with its far-reaching changes at different points in time:

- The collapse of central planning and the introduction of a market economy meant a complete change of the regulatory environment and a re-orientation of economic relations.
- The financial crisis of 1997-98 exposed Estonia to contagion from internal default of the Russian government, with grave consequences for some export segments and financial balance sheets.
- The accession to the European Union in 2004 brought a new wave of confidence, not least because of political reassurance.
- The collapse of Lehman Brothers in September 2008 triggered a huge shock to the global economy, including Estonia's exporting sector, which led to a global reassessment of risks, which caused far-reaching private and public spending reductions.

International comparative studies tend to suggest that large business cycle volatility has a negative impact on average growth and total welfare (Jones, 1999; Mendoza, 2000; Epaulard and Pommeret, 2003). Even if a moderate level of volatility may be growth-enhancing, very high volatility is detrimental to growth (Garcia-Herrero and Vilarrubia, 2007), in particular via the negative impact on investment in physical and human capital (Ramey and Ramey, 1995). Econometric evidence suggests that volatility contributes directly to economic insecurity and lower well-being (Wolfers, 2003; Sjöberg, 2010, Chapter 2), even after controlling for income per capita (Figure 2), and might therefore lead Estonians to report being less satisfied

Figure 1. **The Estonian economy is volatile**

Range (left scale) and standard deviation (right scale)



Note: Inflation is based on the EU HICP for EU countries and CPI for New Zealand, OECD. Latest date varies over countries for some variables.

Source: *OECD Quarterly National Accounts Database* and *OECD Main Economic Indicators Database*.

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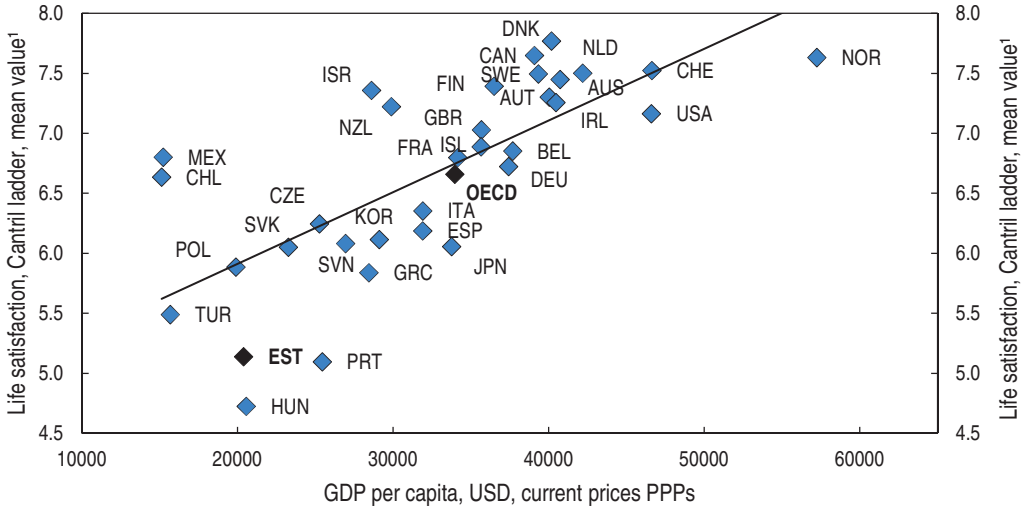
with life. Nevertheless, the political system and voting patterns are characterised by a relatively large degree of stability and support for an overall market minded approach to economic policy, coupled with a high degree of self-responsibility.

Figure 2. **Life satisfaction is very low**

Life satisfaction *versus* GDP per capita, 2010



1. The Cantril ladder is measured on a scale from 0 to 10. Data refer to 2008 for Iceland and Norway; and to 2009 for Estonia, Israel and Switzerland.

Source: Gallup World Poll and *OECD National Accounts Database*.

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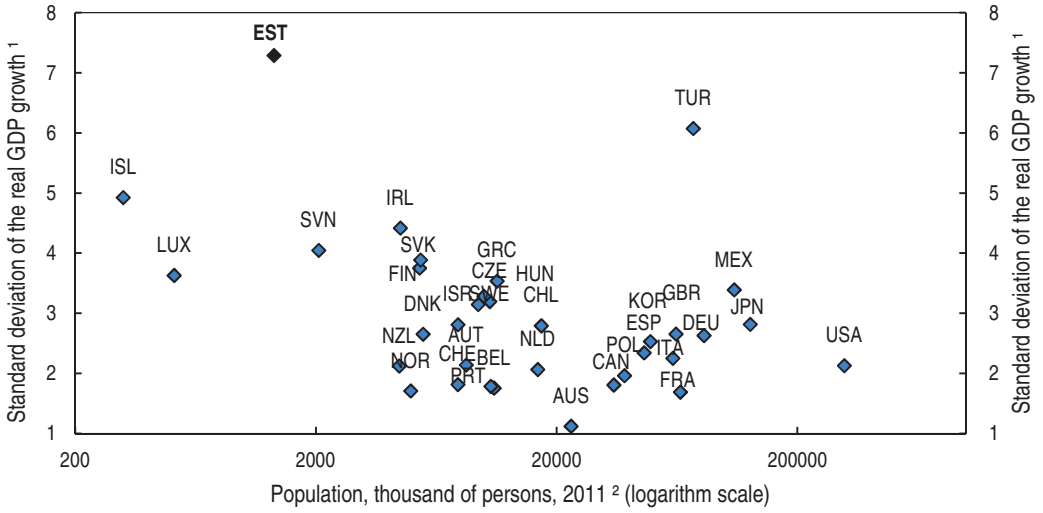
Recent large changes in the global economic environment pose challenges for which traditional economic policy is not well equipped. This *Survey* examines how far domestic macroeconomic policies can be made cyclically neutral or countercyclical and to what extent structural policies can make the economy more resilient, returning to trend growth more quickly after an adverse external shock. Finally, the *Survey* explores ways, in which the most vulnerable parts of the population can be better protected.

While the crisis was externally triggered, domestic factors played an important role

Estonia's generally successful growth model is based on free market principles, external opening and factor flexibility (OECD, 2009a). Growth prospects were boosted by EU accession in 2004 and the prospect of moving from the currency board to euro adoption, greatly reducing borrowing costs in euro. However, in 2008-09, a loan-financed real estate bubble burst at the time of the global financial crisis. While the trigger of the crisis was external, domestic policy settings had allowed the accumulation of macroeconomic imbalances, which were at the heart of the boom and bust cycle (OECD, 2011a). Lending standards were clearly procyclical. Borrowing in euro became very cheap and rising house prices seemed to make every mortgage a safe bet. Since the crisis, banks have become more cautious and borrowing has hardly resumed. Before and during the crisis, fiscal policy was also procyclical. The fiscal stance, which in hindsight was somewhat loose in the boom, was tightened very sharply in the crisis to preserve confidence and comply with euro entry criteria.

Obviously, a small size and large degree of openness can result in higher sensitivity to external shocks, although theoretical arguments are not conclusive and Estonia sticks out even among small economies (Figure 3). Small open economies tend to be characterised by greater volatility of annual growth rates due to higher exposure to global and sectoral shocks, even though openness has a positive net payoff for growth (Easterly and Kraay, 2000; Jansen, 2004; Furceri and Karras, 2007) and both trade and FDI openness can mitigate the impact of domestic shocks (Ahrend *et al.*, 2011). The Keynesian multiplier – an indicator

Figure 3. **The size of Estonia does not explain high volatility**



1. Calculated using the year-over-year growth rates of the real GDP seasonally adjusted from 2010Q1 to 2011Q4.
2. 2010 for Belgium, Czech Republic, Estonia, Germany, Israel, Korea, Luxembourg, Mexico, Netherlands, Portugal, Slovakia, Slovenia, Switzerland, United Kingdom and United States.

Source: OECD National Accounts Database.

StatLink http://dx.doi.org/10.1787/888932716958

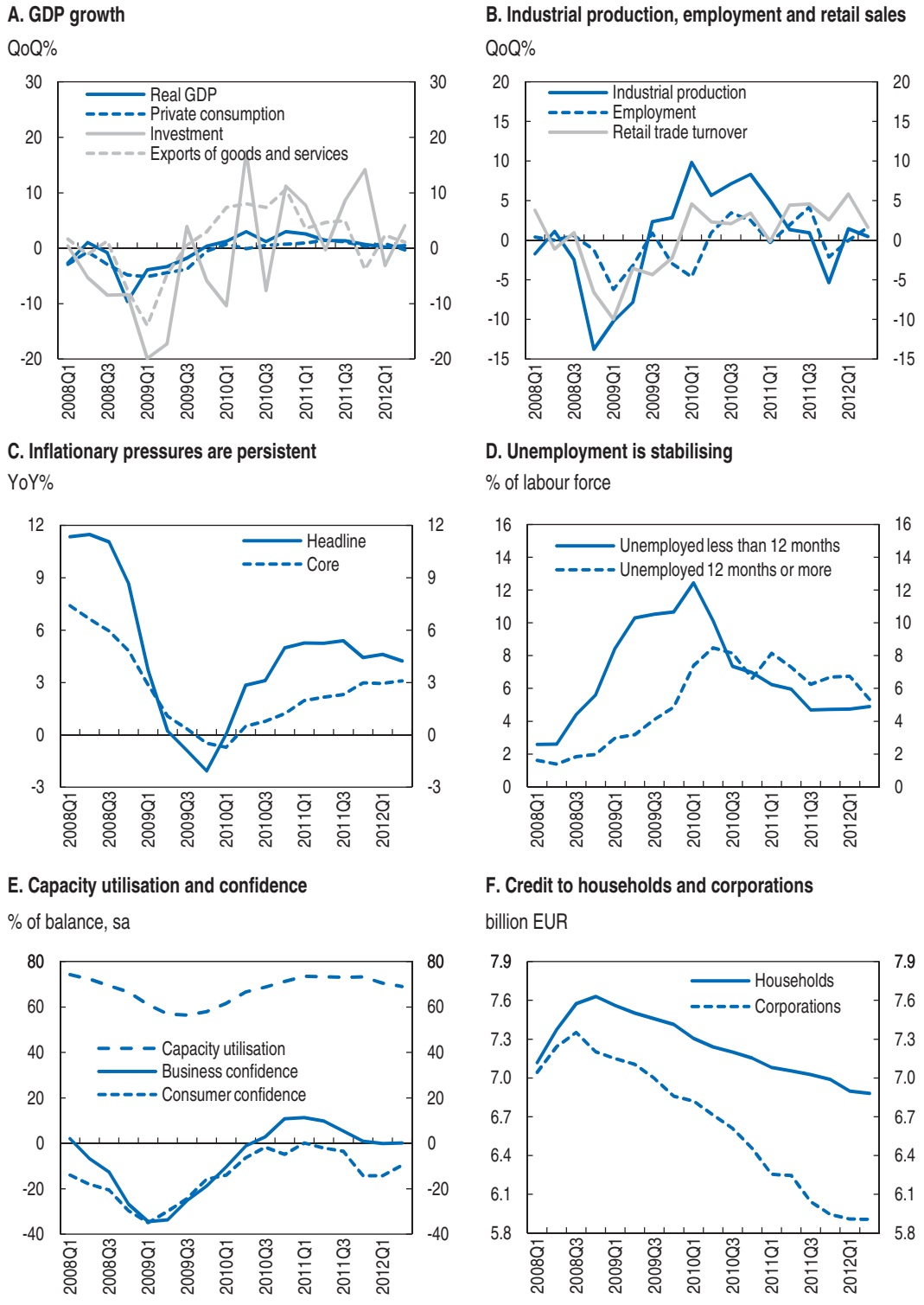
of how much domestic or external demand shocks are propagated throughout the economy – falls with increasing openness, measured by the marginal propensity to import. An empirical investigation decomposing GDP variation comes to the conclusion that the volatility of Estonian economy appears to be mainly explained by shocks specific to the country but common to all sectors of the economy, rather than specialisation of the economy in highly volatile sectors (Koren and Tenreyro, 2007, 2010).

The economic recovery is strong and more balanced

The recovery itself is proceeding well but remains volatile. Following the very deep recession that started in the last quarter of 2007 and ended in the first half of 2010, the economy started to grow more rapidly (Figure 4) on the back of external demand and regained competiveness, achieved by productivity enhancing adjustment and a swift wage response. However, quarterly growth stalled around the end of 2011, but then rebounded in the first quarter of 2012. The sources of growth were also evolving. The slowdown at the end of 2011 was primarily explained by weaker exports, as the global environment deteriorated, but it was also affected by large temporary factors, notably production shifts in one large electronics manufacturing company. When growth resumed in the first quarter of 2012, its structure shifted towards construction and retail activities, relying again on domestic sources of demand. This partly reflects an important stimulus provided by public investment, financed from Kyoto emission permit sales and EU structural funds. The strong recovery has been accompanied by improved external and internal macro balances and domestic financing conditions.

The unemployment rate increased sharply in the crisis, but had fallen to 10.2% in the second quarter of 2012, underpinned by very strong growth in employment, which increased above its pre-boom level. However, employment gains and unemployment reduction have been slowing. Although long-term unemployment rate is decreasing and reached 5.3% in the second quarter of 2012, it remains at relatively high level and labour

Figure 4. **The rapid recovery is uneven**



Note: Capacity and business refer to manufacturing. Credit is stock at end of period. Core refers to the headline harmonised index of consumer prices (HICP) excluding food, energy, alcohol and tobacco.

Source: Bank of Estonia; EC DG Economic and Financial Affairs; Eurostat; *OECD National Accounts Database*; Statistics Estonia; *OECD Economic Outlook Database*.

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market mismatches persist. Following the episode of annual deflation in the beginning of 2010, core inflation has been increasing moderately, and reached the annual rate of 2.6% in the first quarter of 2012. Commodity price shocks pushed up headline inflation to more than 5%, and the subsequent disinflation process has been slow.

The economy has been slowing through 2012 due to deteriorating external conditions, notwithstanding an ambitious public investment programme and a recovery in private consumption. Growth will pick up more strongly in the second half of 2012, when external conditions are projected to improve (Table 1). Moreover, while the economy has regained competitiveness in the aftermath of the crisis, there are important downside risks linked to the external environment. Further intensification of the euro area sovereign debt crisis combined with a slowdown in Nordic countries could push the economy into recession, mainly by weakening export demand, but also through precautionary saving and a declining propensity to invest in an uncertain environment. A deterioration of funding conditions for foreign parent banks could potentially lead to tightened credit standards, dampening further domestic demand growth. Higher oil prices would push up inflation and undermine both consumption and competitiveness, considering the high energy intensity of the economy.

Table 1. **Demand, output and prices**

	2008	2009	2010	2011	2012	2013
	Current prices € billion	Percentage changes, volume (2005 prices)				
GDP	16.2	–14.1	3.3	8.3	2.2	3.6
Private consumption	8.9	–14.8	–2.3	3.5	3.0	2.9
Government consumption	3.1	–1.9	–0.8	1.4	2.4	1.9
Gross fixed capital formation	4.9	–38.3	–7.4	25.7	15.9	4.9
Final domestic demand	16.9	–19.1	–2.9	7.7	5.9	3.2
Stockbuilding[1]	0.0	2.1	4.0	2.1	–1.5	0.1
Total domestic demand	16.9	–21.3	1.3	9.4	4.2	3.2
Exports of goods and services	11.5	–20.6	22.9	23.4	3.8	7.7
Imports of goods and services	12.2	–32.0	21.0	25.0	3.9	7.4
Net exports[1]	–0.7	–9.4	2.5	0.4	0.1	0.6
Memorandum items						
GDP deflator	–	–1.4	0.7	2.9	3.2	2.7
Harmonised index of consumer prices	–	0.2	2.7	5.1	3.9	3.0
Private consumption deflator	–	–1.3	2.6	5.0	2.9	3.0
Unemployment rate	–	13.9	16.8	12.5	11.4	10.4
General government financial balance[2]	–	–2.0	0.3	1.0	–2.0	–0.3
General government debt, Maastricht definition[2]		7.2	6.7	6.1	8.7	8.8
Current account balance[2]	–	3.4	2.9	2.0	1.0	0.7

Note: National accounts are based on official chain-linked data. This introduces a discrepancy in the identity between real demand components and GDP. For further details see *OECD Economic Outlook Sources and Methods*, available at *www.oecd.org/eco/sources-and-methods*.

1. Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.
2. As a percentage of GDP.

Source: Statistics Estonia and *OECD Economic Outlook 91 Database*.

Reducing imbalances by changes in fiscal policy design and financial market regulation

Volatility can be mitigated by avoiding the return of macroeconomic imbalances that led to the boom and bust. The small size of the economy implies that relatively minor

policy mistakes can be magnified by cross-border capital flows. Even a relatively modest increase in asset allocation in a larger economy can dramatically increase the size of resources flowing into a small one, potentially fuelling speculative bubbles (Barnes *et al.*, 2010). Indeed, the availability of international financing allowed domestic borrowing in Estonia to triple in the years prior to the crisis (OECD, 2009a).

Decisive policy adjustment will be needed to keep imbalances in check when confidence in the euro area financial markets improves and Estonia, with its euro membership, very low level of public debt and high potential growth rates, is seen as an attractive investment destination. Two of the most important areas where more can be done in the future to prevent the accumulation of large imbalances include fiscal policy and supervision of the financial services. The appropriate response requires developing an effective warning system. *The European Commission's EU Alert Mechanism Report*, first published in February 2012, is an important step forward that needs to be complemented by stepping-up in-depth country-specific analysis linked to the characteristics of the Estonian economy: its small size, sectoral structure, large migration flows, cross-border work, dependence of the local banking system on foreign sources of funding, and the prevalence of variable interest rate lending. A more integrated and comprehensive approach to the analysis of both economic and financial sector developments need to cover the national, Nordic-Baltic and European levels. In doing so, pooling of available competencies and resources across government agencies will be important.

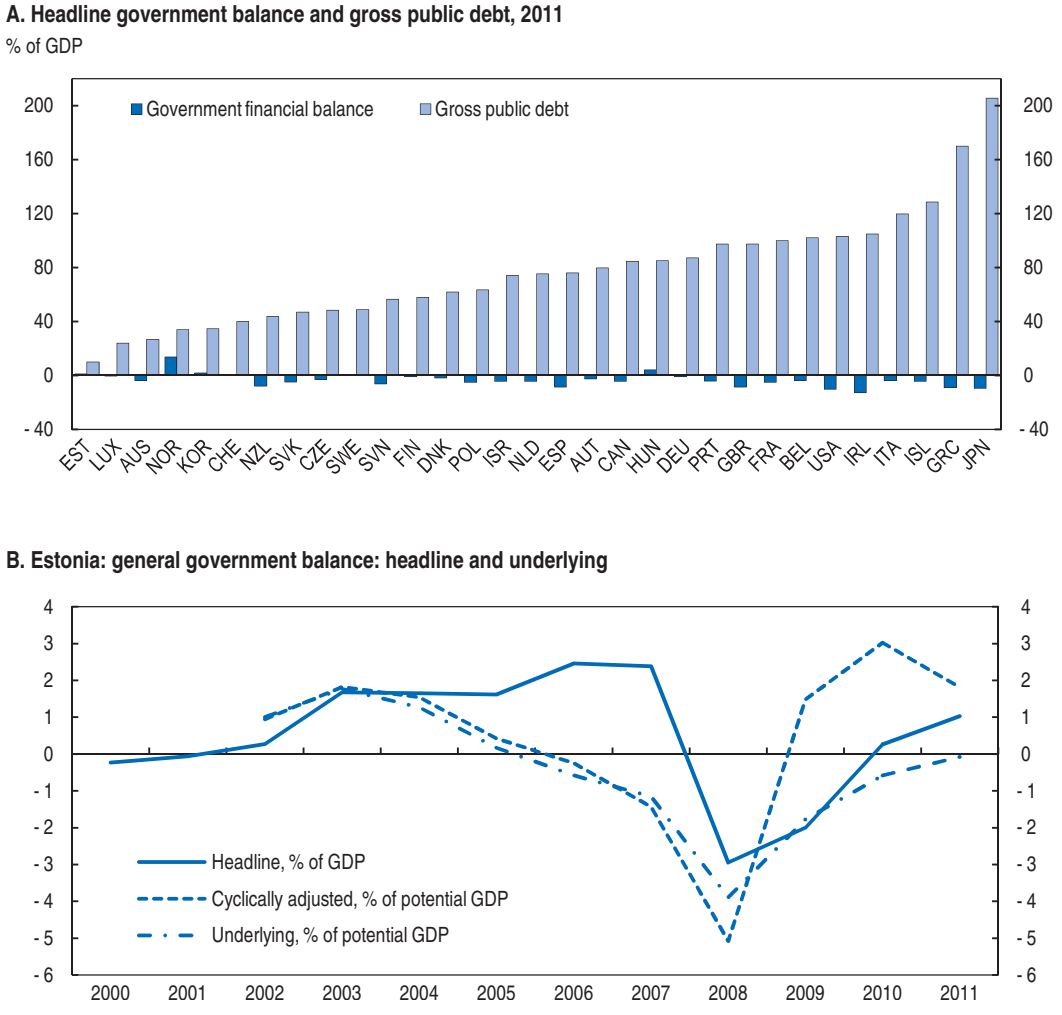
Making fiscal policy less procyclical

Prior to the crisis, fiscal policy in Estonia followed an implicit "balanced budget or better" rule underpinned by strong political commitment to low or zero government debt. As a result, total public gross debt is very low and government net assets are positive (Figure 5). However, it is clear in hindsight that fiscal policy was not restrictive enough prior to the crisis, contributing to the overheating of the economy and requiring procyclical tightening in the crisis (OECD, 2011a). Making fiscal policy less procyclical is challenging, given difficulties in identifying cyclical revenues and fiscal windfalls in a rapidly growing catching-up economy, and given the small size of automatic stabilisers and fiscal multipliers. However, the lesson from the boom period in Estonia is that the price of not tightening enough in a long-lasting boom period can be very high.

The current medium-term fiscal strategy foresees maintaining a budget surplus and therefore gradually reducing debt from 2014 on. Starting in 2015, the government plans to replenish budgetary reserves to maintain the flexibility to react to possible adverse shocks, while at the same time reducing the tax burden to the pre-crisis level. The size of debt and the budgetary reserve to be ultimately targeted should be chosen with a view about expected future volatility, but should also take into account the low return on government financial assets in comparison with the possibly large social returns of growth-enhancing public spending in a catching-up economy (IMF, 2011a).

A well designed fiscal rule could, in principle, help to avoid procyclical policy by letting automatic stabilisers work fully and providing a framework for additional discretionary action. The authorities are currently preparing a concept paper for the strengthening of the fiscal framework required under the EU Fiscal Compact, to be adopted by the end of 2012. The fiscal rule will most likely take the form of a structural budgetary balance requirement in the State Budget Act. Structural budgetary balance constitutes a better measure for assessing the underlying orientation of fiscal policy than the headline deficit. Such a rule

Figure 5. **Fiscal policy should have been less procyclical**



Source: OECD Economic Outlook 91 Database.

StatLink http://dx.doi.org/10.1787/888932716996

is therefore likely to reduce procyclicality. However, its practical implementation will be challenging due to difficulties in identifying the cycle, limiting the effectiveness of the structural balance as a target for guiding fiscal policy (Larch and Turrini, 2009).

Nevertheless, multi-year expenditure ceilings should be implemented, as these are particularly effective in containing spending growth in boom years and maintaining public sector efficiency (OECD, 2011a). Moreover, most automatic stabilisers, weak as they are in Estonia, work through the revenue side. The requirement for keeping expenditure increases in line with potential output growth, agreed at the EU level as part of the strengthening of the preventive arm of the Stability and Growth Pact, is a good starting point. Further tightening borrowing limits on municipalities is also needed. It should follow on the recent law that requires municipalities to prepare medium-term financial planning and to keep primary expenditure in line with primary revenues, imposed limits on net debt and rules for investing liquid assets, accompanied by the possibility of sanctions.

A structural balance rule, coupled with multi-year spending ceilings, allows automatic stabilisers to work fully in both directions. Beyond this, discretionary tightening could be

warranted in the years ahead were another substantial boom to materialise. However, experience in Estonia and elsewhere (see for instance OECD, 2010a) has shown that it is difficult to sustain surpluses in good times, as pressure for (procyclical) tax cuts or spending increases mounts. The government has the possibility to undertake some discretionary tightening by increasing contributions into the second pillar pension funds to restore losses incurred in the recession, as recommended in the *2011 Economic Survey of Estonia*.

An independent fiscal institution would act as a watchdog for the assessment of the cyclical position of the economy and hence facilitate the implementation of the structural balance rule, and, if adopted, a spending ceiling. It could also be charged with the task of making recommendations about discretionary countercyclical policy actions. In this respect, the institution's analysis would help to overcome public resistance to sustained surpluses in boom years, through transparent communication of long-term fiscal challenges and short-term risks. This can be particularly important when estimates of cyclical and underlying position are difficult to pin down. To limit the cost of creating new institutions in a small economy, ways should be sought to use existing resources and competencies for such a mandate. However, the evidence suggests a positive relationship between the perceived impact on fiscal performance and formal guarantees of independence from political influence (Debrun and Kumar, 2008). Such independence requires adequate firewalls, both concerning staffing decisions and its funding (Hagemann, 2010).

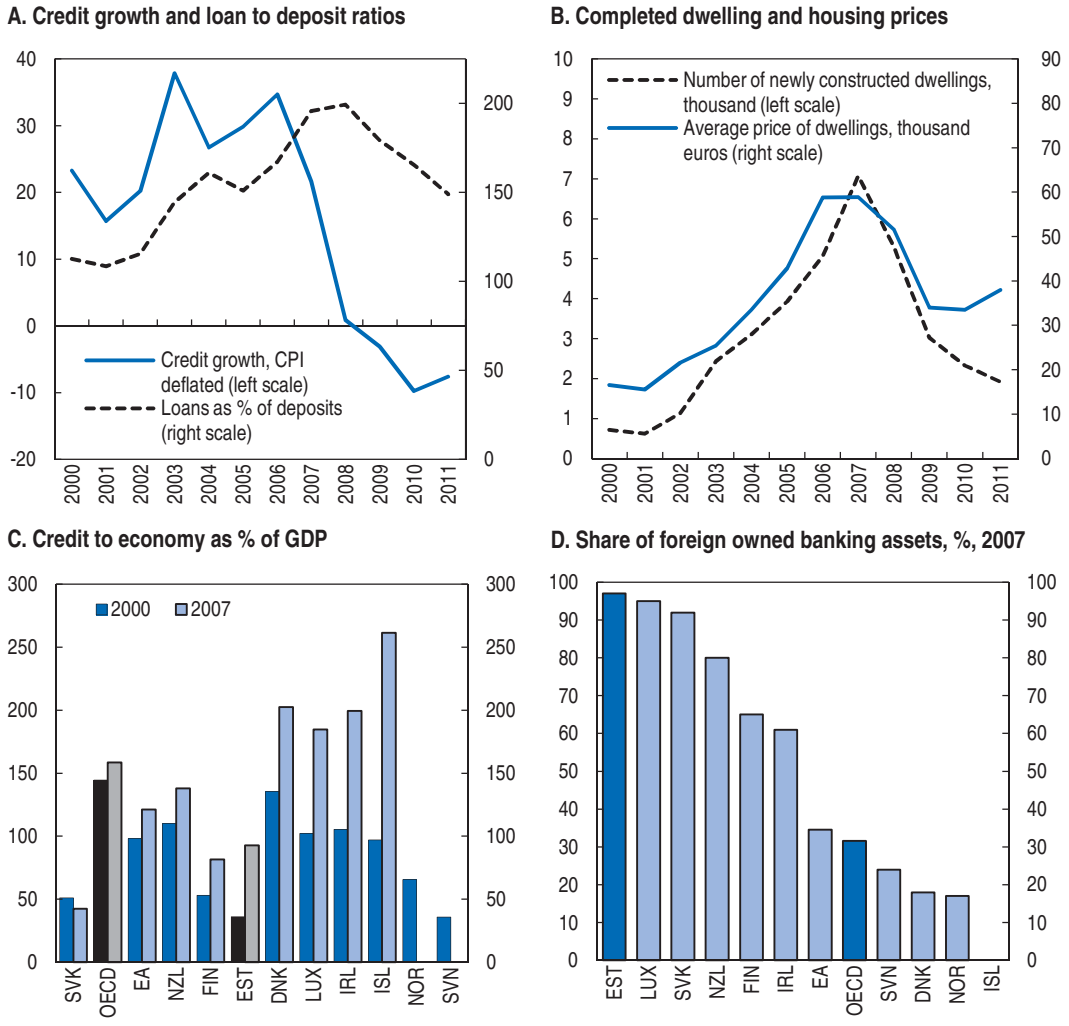
Mitigating credit cycles through macroprudential policies and cross-border supervision

From a low starting point, the level of credit financing to the economy has increased more rapidly than elsewhere to become the highest among new EU members (Herzberg, 2010). Nevertheless, there is scope for further deepening of financial markets. Against this backdrop, macroprudential policy can play an important role in stabilising the banking sector. This is especially important, as banking turmoil tends to be associated with the longest and most severe economic crises (Reinhart and Rogoff, 2010). Foreign ownership of the banking sector by well capitalised Nordic banks contributed to its resilience, but the extraordinary credit cycle fuelled by foreign financing pushed loans to a level almost twice as high as the domestic deposit base (Figure 6), amplifying the business cycle. Since the crisis, bank loans have declined about 17% over a three-year period. Recent data show that overall deleveraging is bottoming out. Estonia is likely to remain exposed to the risk of excessive credit cycles in the future (OECD, 2011a). Although the dependence on foreign funding is falling and credit demand will remain sluggish in the short run, low interest rates and easy financing conditions in the euro area might fuel another spending boom.

Estonia should be prepared to act more decisively if another credit boom materialises. International experience of using macroprudential tools is relatively scarce; only limited number of tools has been used in the EU countries. Figure 7 provides a list of possible tools mentioned by regulators in a survey (Lim *et al.*, 2011). Since the Estonian banking sector is dominated by foreign banks, it is important to work out and implement the tools that ensure effective achievement of macroprudential objectives in such an environment. These instruments can be applied at the aggregate or sectoral (such as housing mortgages) level. They can also be combined. For example, capital surcharges could apply to high LTV lending.

The right calibration will be a major challenge in applying countercyclical financial sector regulation, as the methodology outlined under Basel III guidelines is not well suited for a catching-up country with further scope for financial deepening (Frait *et al.*, 2011).

Figure 6. **Credit growth has been excessive**



Note: Loans and deposits refer to stock for residents in December of each year. Credit to the economy is credit to the private sector that establishes a claim for repayment. For some countries these claims include credit to public enterprises.

Source: Bank of Estonia; IMF (2012), S. Claessens and N. van Horen, *Foreign Banks: Trends, Impact and Financial Stability*, WP 12/10, Appendix Table 2; Statistics Estonia; *World Bank Indicators*.

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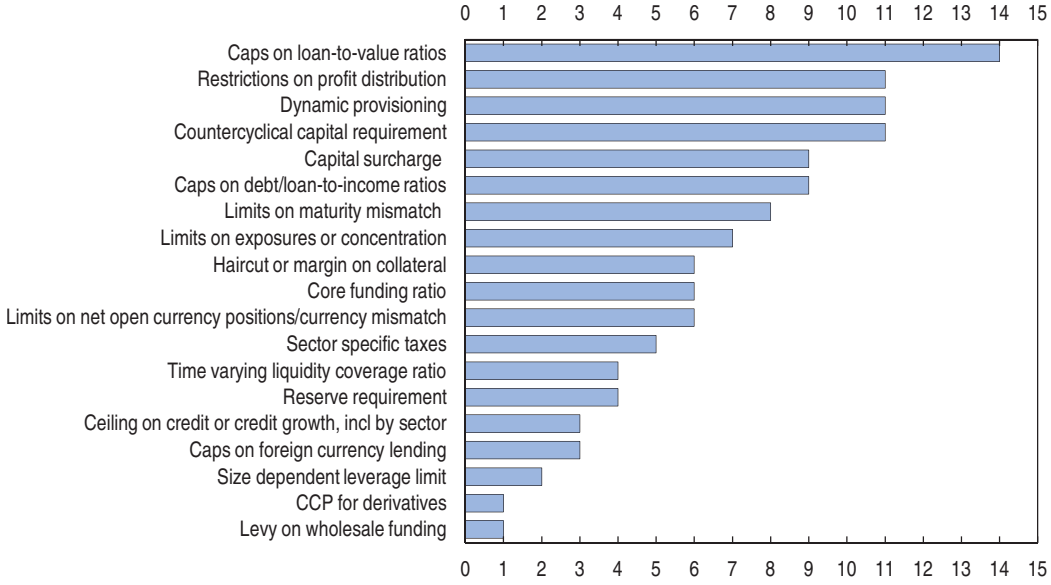
Given the bank ownership by Nordic parents and large cross-border financial flows, prudential policy requires close cross-border supervisory co-operation, notably by ensuring that macroprudential measures are binding for all lending banks, irrespective of their country of residence, through the principle of jurisdictional reciprocity. Joint cross-border stress tests and crisis management exercises in the Nordic-Baltic Stability Group would also help to identify risk in a highly integrated regional financial sector (OECD, 2011a).

At the same time, enhancing financial literacy would mitigate the risk that individuals who cannot evaluate their financial operations find themselves in trouble. They might overestimate the borrowing they could afford, especially under the current low interest rate environment. Estonia has relatively low scores in terms of financial literacy, and those with less education, and lower and unstable incomes are particularly vulnerable (Atkinson, A. and F. Messy, 2012). It is therefore positive that Estonia has begun designing a national strategy for financial education and is an active member of the OECD

Figure 7. **Macroprudential policy tools are gaining importance**

Number of EU countries supporting each measure (based on responses from national financial sector regulators)



Note: 15 countries included in the Survey: Austria, Belgium, Finland, France, Greece, Italy, Netherlands, Portugal, Spain, Sweden, Norway, Poland, Hungary, Bulgaria and Romania.

Source: IMF (2011), *Euro Area Policies: 2011 Article IV Consultation – Selected Issues Paper*; and *Lessons from the European Financial Stability Framework Exercise*, Table III.1 and Table III.2.

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International Network on Financial Education (Grifoni and Messy, 2012). Estonia is also in the process of incorporating financial education into the school curricula. In addition, in the aftermath of the crisis several municipalities and non-government organisations launched debt counselling, notably to advise on loan refinancing and restructuring. These efforts should be supported by the central authorities, in particular in terms of providing relevant information and capacity building.

The Debt Restructuring and Debt Protection Act, which came into force in April 2011, enables debtors to restructure debt more flexibly, notably allowing reducing payment obligations, extended deadlines, repayment by instalments and protection from excessive *interest* or penalties for late payment. Simultaneously, an amendment to the Bankruptcy Act shortened the minimum period after which the court may, under specific conditions, partially relieve a person of remaining obligations. In order to make the restructuring process more efficient and less costly, the authorities should explore whether increasing the role of out-of-court restructuring mechanisms is possible (OECD, 2011a).

Improving resilience by further labour market, education and innovation policy reforms

The labour market has been highly volatile. From 2000 until the beginning of the recession, unemployment fell and in 2007 and 2008 it was around 5%, and lower than the OECD average. The boom allowed vulnerable categories of jobless workers to be brought back into the labour market, such as the low qualified, non-Estonian speakers and older workers. During the boom most of the new jobs were created in the construction sector (OECD, 2011a). The period of job-intensive growth was followed in 2008 by a job-intensive bust: the ratio between the decline of employment and the decline of output was 71%

Box 1. **Recommendations on reducing excessive macroeconomic volatility**

Key policy recommendations

- Avoid procyclical fiscal policy. Introduce multi-year expenditure ceilings, covering also tax expenditure and local level spending. Be prepared to implement discretionary fiscal policy measures to address long-lasting booms associated with accumulation of imbalances that threaten macroeconomic stability. Ensure sufficient independence of the newly established fiscal institution, while leveraging the analytical capacity of existing institutions.
- Mitigate credit cycles. Calibrate and prepare to implement macroprudential tools, starting from countercyclical capital buffers. In regard with cross-border co-operation increase efforts to effectively implement a wider set of tools.

Other policy recommendations

- Prepare a framework for accumulating reserves in social security funds. Task the new independent fiscal institution with assessing the cyclical indicators; monitoring the budget outcomes, and, when appropriate, recommending discretionary policy measures.
- Further enhance cross-border supervisory co-operation, notably by developing joint stress tests and crisis management exercises in the Nordic-Baltic Stability Group. Widen the scope for the role of out-of-court restructuring. Actively promote financial literacy, including awareness about risks of variable interest borrowing.

in 2009 compared with 43% in the old EU members (Masso and Krillo, 2011; Merikull, 2011). As a result, the unemployment rate rose dramatically from 4.7% in 2007 to 16.8% in 2010 before falling again to 12.5% in 2011. The number of Estonian migrant and cross-border workers also increased markedly during the crisis.

The occurrence of high unemployment episodes and the concomitant high risk of structural unemployment require a broad range of measures that improve the resilience of the labour market, such as a lower tax wedge, further reforms of regulation in labour and product markets, and strong activation policies (Blanchard and Wolfers, 2000; Gianella *et al.*, 2008; Duval *et al.*, 2007; OECD, 2009b). The reform of employment protection legislation in mid-2009, and the extension of the activation policies from only 0.05% in 2007 to 0.24% of GDP in 2009 go in the right direction. However, spending needs to be increased further, given the high share of long term unemployed and growing complaints about skill mismatch. Programmes need to be better targeted on the groups facing obstacles to employment, and the results from the built-in monitoring and evaluation efforts should be used to adjust the design and volume of individual programmes to increase spending efficiency.

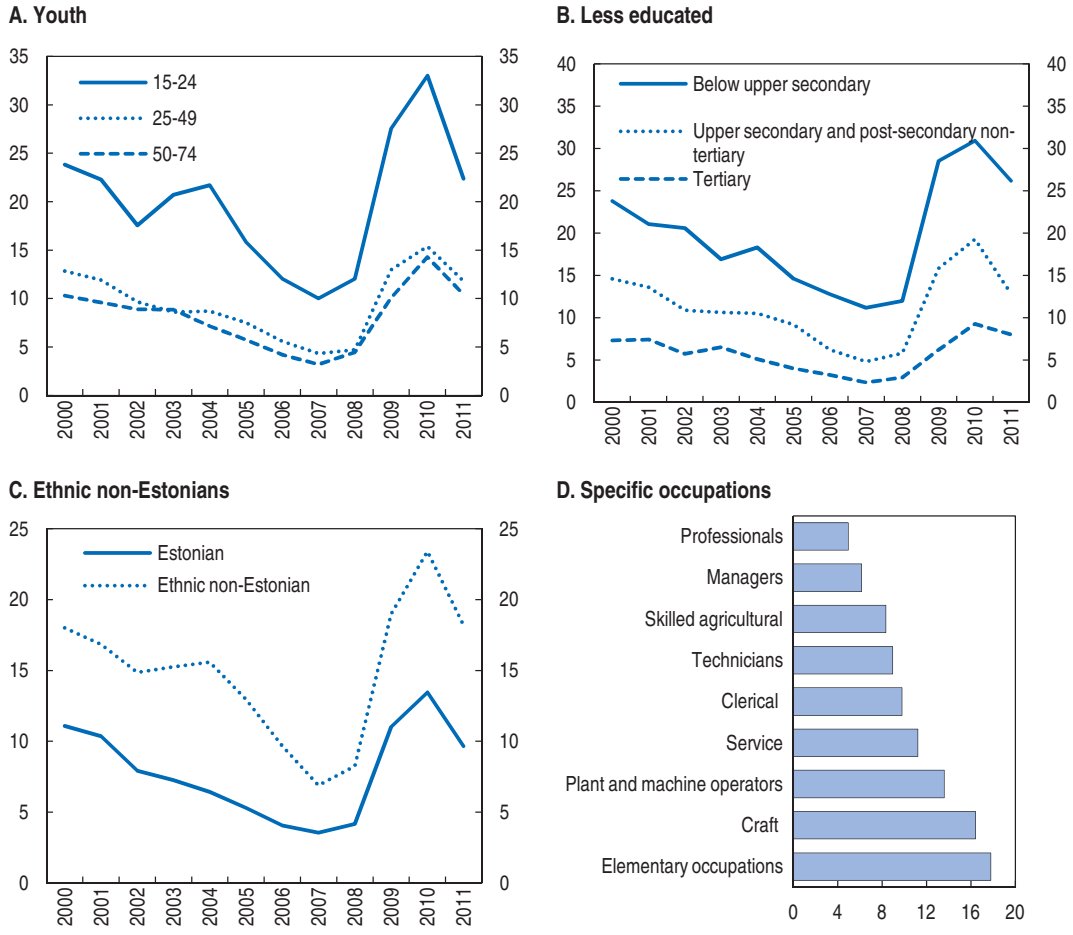
Increasing the initial levels of education and continuing vocational training would also increase employment performance (OECD, 2004) and more generally growth (Vandenbussche *et al.*, 2006). Education policy needs to be balanced between professional and academic goals, avoid skill mismatches in the labour market, early drop-outs from education and inequality of access to education. Improving job-to-job and school-to-job transitions requires an education system which provides formal education and training that fit in with labour market needs. Experience in other OECD countries shows that vocational training is more effective if carried out in co-operation with employers.

Improving labour market resilience by strengthening activation programmes

The crisis deeply hurt some groups of workers, in particular youth, ethnic non-Estonian and poorly qualified workers, whose unemployment rates reached, respectively, 22%, 18% and 26% in 2011 (Figure 8). Unemployment increased in all regions during the last crisis, but reached the highest rate of 25% in the north-eastern part of the country (Merikull, 2011). Vulnerable groups face a higher risk of being excluded from employment and hence require greater support through participation in active labour market programmes (ALMPs).

Figure 8. **Some groups are at a very high risk of unemployment**

Unemployment rate, %



Note: Data for specific occupations refers to year 2011. These are based on the major occupation groups in the International Standard Classification of Occupations (ISCO-08), of which we have shortened the titles for display purposes. "Skilled agricultural" in the present study thus stands for the original major group "Skilled agricultural, forestry and fishery workers" in the ISCO; "Technicians" stands for "Technicians and associate professionals"; "Clerical" stands for "Clerical support workers"; "Services" stands for "Service and sales workers"; "Plant and machine operators" stands for "Plant and machine operators, and assemblers"; and "Craft" stands for "Craft and related trades workers".

Source: Statistics Estonia.

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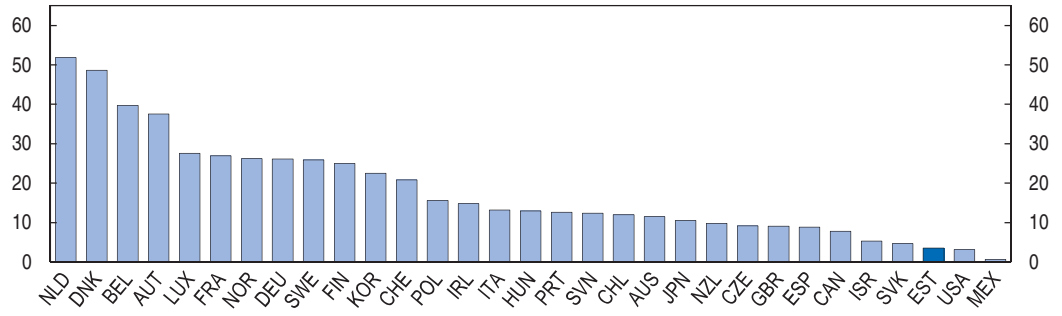
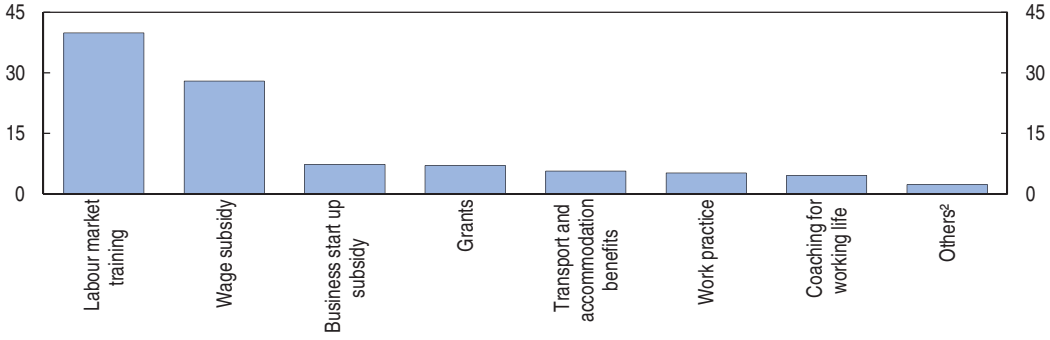
The efficiency of ALMP spending can be increased by ensuring stronger co-operation and clearer division of tasks among local governments, education institutions and the Unemployment Insurance Fund, as well as better targeting; otherwise there is a risk of spreading resources too thinly (Figure 9). Currently, participation in programmes is not

Figure 9. **Active labour market policies need to be reinforced**

A. Active labour market policies per unemployed, % of GDP per capita, 2010[1]



B. Spending by active labour market programme, Estonia, % of total expenses, 2011



1. 2007 for Switzerland and Norway; 2009 for United Kingdom; 2011 for Estonia.
2. Others include: Counselling; Substitute care-giving; Other measures; Special aids and equipment; Adaptation of premises and equipments; Communication support at interviews.

Source: Estonian Unemployment Insurance Fund, *OECD Labour Force Statistics Database*, *OECD Labour Market Programmes Database* and *OECD National Accounts Database*.

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targeted to specific at-risk groups, except for hiring subsidies which are reserved to long term unemployed and – with softened conditions – for youth. Specific needs of each unemployed are identified by the Public Employment Service during the Individual Action Plan, and participation in identified programmes then becomes compulsory for the unemployed. Even if the long-term unemployed tend to participate more in some programmes, there still exists some scope for targeting to better capture the disadvantaged. For instance, participation in training is biased towards the relatively well educated and prime-aged unemployed (Centar, 2012). Efficiency gains could be increased by better targeting programmes to at-risk categories, i.e. youth, older workers, low educated, non-Estonian speakers and long term unemployed.

Estonia-specific studies and international experience suggest that spending in Estonia on wage subsidies, training and work-practice programmes improves labour market outcomes, even if training programmes show only modest effects in the short run (Martin and Grubb, 2001; Card *et al.*, 2010; Kluve, 2010; OECD, 2004, 2005a, 2006 and 2007a). The main strengths and weaknesses of the programmes include:

- Training schemes have increased the employment of participants and contributed to stable and higher quality jobs (Lauringson *et al*, 2011; Centar, 2012). However, the quality of training courses is an area of concern (Centar, 2012). The quality of training courses cannot be observed in advance and the only consequences of a negative outcome of

ex post monitoring and evaluation is the threat of discontinuing procurement. However, continuous procurement relations with one provider are difficult to establish within current procurement regulations.

- Work practice (internships) schemes, in which firms train future employees according to their needs, have been found to be effective in increasing the employability. In 2010, 49% of participants got a job after participating in the programme (Leetma and Nurmela, 2010). However, these schemes are not popular and are often considered by firms as an opportunity to obtain temporary cheap labour (Jurgenson *et al.*, 2010).
- Preliminary results of a study on wage subsidies confirm that those schemes significantly improve the probability of stable employment (Centar, 2012). Wage subsidy schemes provide immediate feedback about the placement of a programme participant, but hiring could have occurred even without the subsidy or could have crowded out other jobs. Targeting subsidies at groups facing difficulties would minimize such risks.

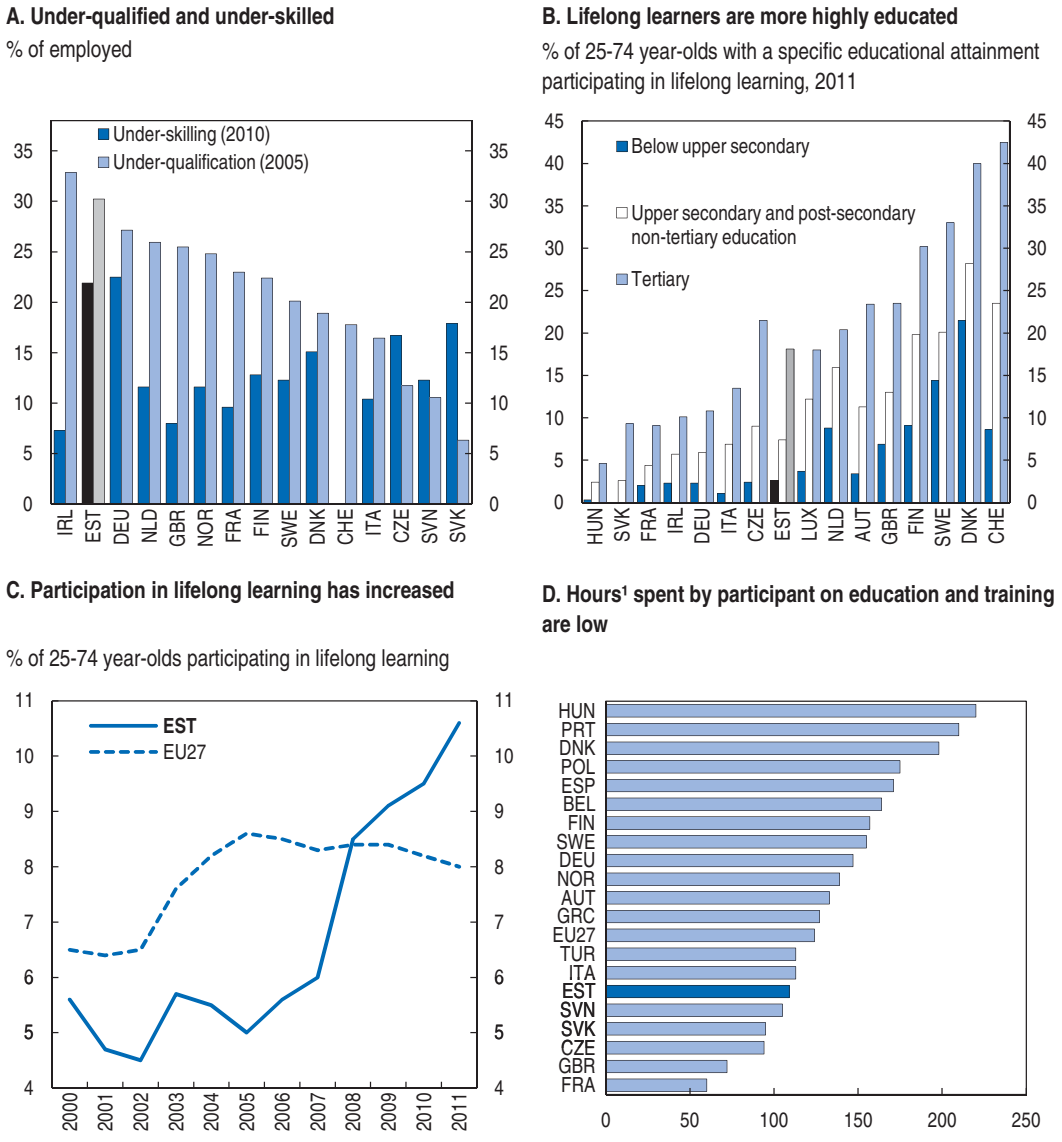
Effectiveness of training programmes could be increased by rebalancing spending and increasing the quality of individual programs. The recent increase in training vouchers (from EUR 950 to EUR 2 500) goes in the right direction by offering greater prospects of acquiring formal qualifications. The UIF should be granted more flexibility to procure training courses by allowing it to choose providers based on course quality, in addition to price. Post-training employment performance evaluation could be used as a tool to judge course quality. The choice of training courses should also directly involve employers, for example through chambers of commerce and employer surveys and, where appropriate, contacts with individual firms. As the situation in the labour market improves, wage subsidy schemes should be increasingly targeted on problem groups (Orszag and Snower, 2003) and linked to net hiring by firms (OECD, 2010b). The attractiveness of work practice schemes in general and apprenticeships in particular, will increase with the quality of training offered by employers, leading to recognizable and certified skills.

Reducing skill mismatches and improving job-to-job transition through lifelong learning

Increasing lifelong learning has been a crucial challenge for Estonia, where 32% of the workforce has no professional (vocational or tertiary) education and the share of under-skilled and under-qualified is one of the highest among OECD countries (OECD, 2012). In the last decade the government managed to increase lifelong learning participation to 12% in 2011, which is above the EU average (Figure 10). This probably helped the workforce to adapt to the rapid structural changes in the economy, consistent with international evidence on positive outcomes of lifelong learning, as reflected in a wage premium or improved employability at every level of education (Ok and Tergeist, 2003; Bassanini, 2004; Bassanini *et al.*, 2005).

Against this backdrop, lifelong learning spells in Estonia are short and do not result in certification (NAO, 2010b; Figure 10). To enhance the quality of lifelong learning, conditions for increasing resources for training need to be created. A recent reform, excluding employers' spending on employees' work-related studies from the fringe benefit tax, is likely to stimulate spending. The authorities should also use the current review of funding schemes for adult education to consider extending the training voucher scheme towards employees, financing them mainly through employers and employees' contributions given the private return associated lifelong learning. Regulatory actions, such as promotion of pay-back clauses, could be another way to improve incentives by reducing the risk of free-riding

Figure 10. **Reducing skill mismatches requires expanding lifelong learning**



Note: Upper secondary is ISCED 3&4, tertiary is ISCED 5&6. Under-qualified workers are those whose qualifications are lower than required by their occupation. Under-skilled are those who reported a need for further training to cope well with their duties.

1. Number of instruction hours in formal or non8formal education and training per participant during 12 months, population aged 25-74, 2007.

Source: OECD (2011), *OECD Employment Outlook*, Figure 4.1 and *European Survey of Working Conditions* (2010); Eurostat.

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among firms (OECD, 2005b). On the other hand, incentives for trainees could be increased by developing certification and providing information about the return from different training programmes (OECD, 2010c).

Participation in lifelong learning is currently biased toward highly skilled persons. In 2011, only 2.6% of the 25-74 year olds with only lower upper secondary education participated in lifelong learning, among the lowest in Europe (Figure 10). While beneficiaries should in principle cover the cost of training, several market failures lead to underinvestment. Firms have lower incentives to pay for basic knowledge of low educated workers (which is highly

transferable between firms) or for training to upskill older workers (who are close to retirement). Small and micro firms, whose number is particularly high in Estonia, face more obstacles when investing in training, including lack of time and resources. As a result, 60% of small firms (10-49 employees) engage workers in continuous vocational training, relative to almost 100% of large firms (Statistics Estonia, 2011). In 2010, spending for on-the-job training has increased, but a significant size-related gap remains. In this context, public funding should be targeted to low educated, older workers and workers in SMEs.

Competence in the Estonian language is important to be able to fully benefit from employment opportunities. Providing Estonian language competencies should therefore continue to be a high priority. In addition to further measures to make sure that all young labour market entrants do not suffer from a lack of Estonian language competency (see below), it should be carefully monitored whether the current intensity of language training in active labour market measures is sufficient.

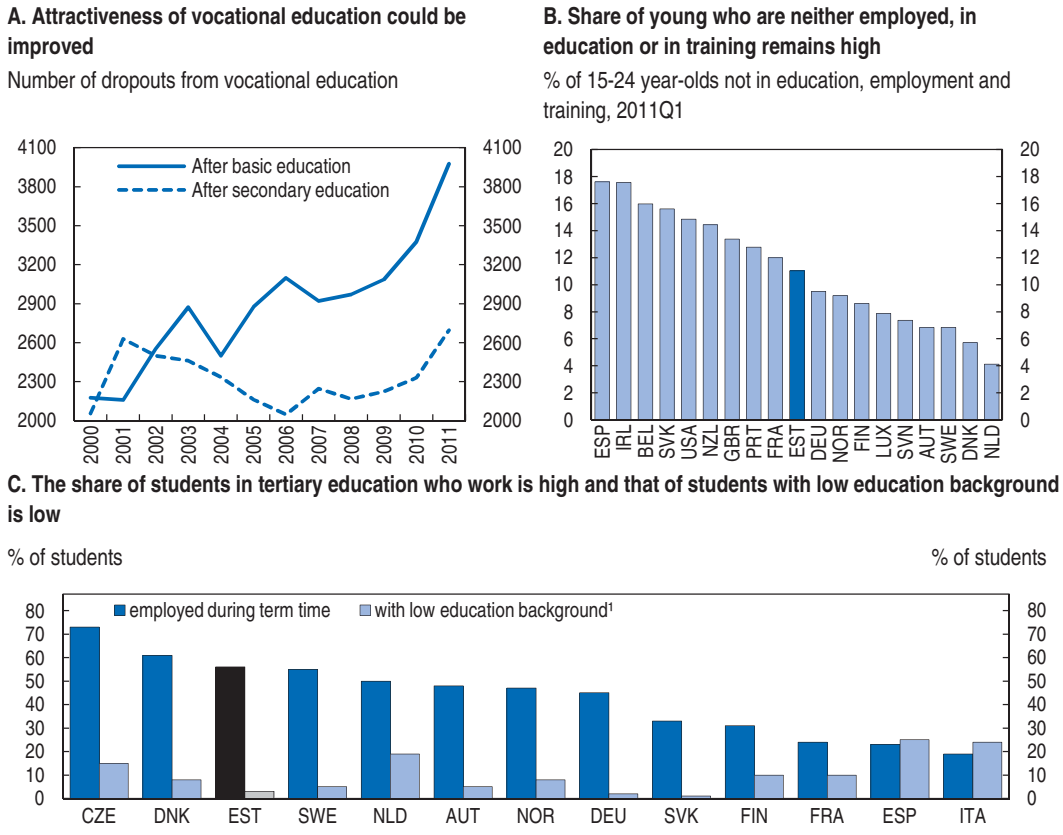
Improving school-to-job transition

The number of young people who are not in education, employment or training (NEET) has led to increasing concerns about school-to-job transition in Estonia (Figure 11). Much of NEET is related to the high drop-out rate from vocational education which reached 19.5% or almost 6 100 students during 2010/11 despite efforts to reduce it and was even higher during the boom at 20%. Measures have been taken to raise the professional background of youth, including the KUTSE programme aiming at bringing back to vocational education 400 pupils who dropped out during the 2000s or are without job or formal qualification. Such a programme goes in the right direction but it is undersized. At the same time some free capacity seems to be available in vocational schools.

Estonia should consider moving towards a model similar to those implemented in the United Kingdom, the Netherlands, Austria and Finland, which require the employment office to offer formal education or apprenticeships to youth not in employment, education or training, at least until the age of 18. Such measures could be combined with financial incentives given to employers for developing apprenticeship places which has proven to be efficient in Denmark (Westergaard-Nielsen and Rasmussen, 1999).

Vocational education suffers from a high number of drop outs and low popularity among good students. This reflects a quality problem. International experience suggests that vocational education should build on the foundation of certified and transferable knowledge and should provide an appropriate balance between practical and academic skills, allowing students to get a start as qualified worker and to continue with post-secondary education at later stages of their employment career (OECD, 2010c). It is therefore important that the proposal to restructure the curriculum of vocational education, by putting more emphasis on professional learning, is coupled with the introduction of the possibility for an extra year of general studies for graduates who want to go to university. This reform is a welcome step to further increase the permeability between the two systems, with 11.6% of vocational education graduates continuing with studies in higher education in 2011. The quality of the professional learning part of vocational studies is also a challenge and the current proposal to require all teachers to have two months of industry experience during the last five years goes in the right direction, although it is far less than in countries with more successful vocational training systems. One way of fostering co-operation with employers is to offer part-time teaching positions, as many vocational education institutions in Estonia do, for practitioners, if possible in middle management positions not too far away from the work floor.

Figure 11. **Improving school-to-job transition is priority**



Note: Tertiary student data refers to ISCED 5A level in 2008-10 depending on the country. The Estonian sample includes students enrolled in professional higher education programmes at ISCED level 5B. The Danish sample includes only ordinary full-time students that do not pay fees.

1. Students whose parents have obtained at most a lower secondary level of education (ISCED 0-2).

Source: Statistics Estonia; OECD (2012), *OECD Employment Outlook*; Orr *et al.* (2011), *Social and Economic Conditions of Student Life in Europe, Synopsis of Indicators, Final Report*, Eurostudent IV 2008–11.

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A lower level of spending in vocational education is likely to harm its quality, which apparently results in high drop-out rate and lower employment perspectives. Spending by student in vocational education currently amounts to 80% of that observed in general upper secondary education and the number of students per teacher is 17 in vocational education, well above the 12 students in general education. Estonia could take the opportunity of declining demographic trends and the resulting reduced educational spending needs to increase the currently relatively low per student spending for vocational training.

To reduce early academic failure related to the lack of proficiency in the Estonian language the authorities should strengthen their efforts to improve the integration of resident non-Estonians. Specific policy measures targeted at this group and aiming at improving their language skills would also improve their opportunities in the labour market. Further widening Estonian language immersion programmes, at least from the first year of primary school and optimally in the kindergarten, should be considered.

Improving access to tertiary education and reforming its funding

The enrolment of students with low socio-economic backgrounds in tertiary studies is particularly low (Figure 11), although a recent reform of the higher education system implements the right to study for free to all students entering tertiary education. It also introduces a system of means-tested income support, which aims at helping students bear the cost of living. This reform goes in the right direction. However, some features of the new system might make cash-constrained students worse off. Full time study is still required to qualify for tuition-free study, as reflected in the requirement to complete the curricula in a given time, but the proposed value of EUR 135 per month for the mean-tested grant is likely to require students without parental support to work to support themselves while studying.

Moreover, the new system raises efficiency issues. High private return from tertiary education justify some cost-sharing (tuition fees), which would free scarce resources for other purposes. While, stronger support for students from weaker socio-economic backgrounds is crucial, cost constraints facing such students would be better addressed through a system of state guaranteed student loans with income contingent payback schemes.

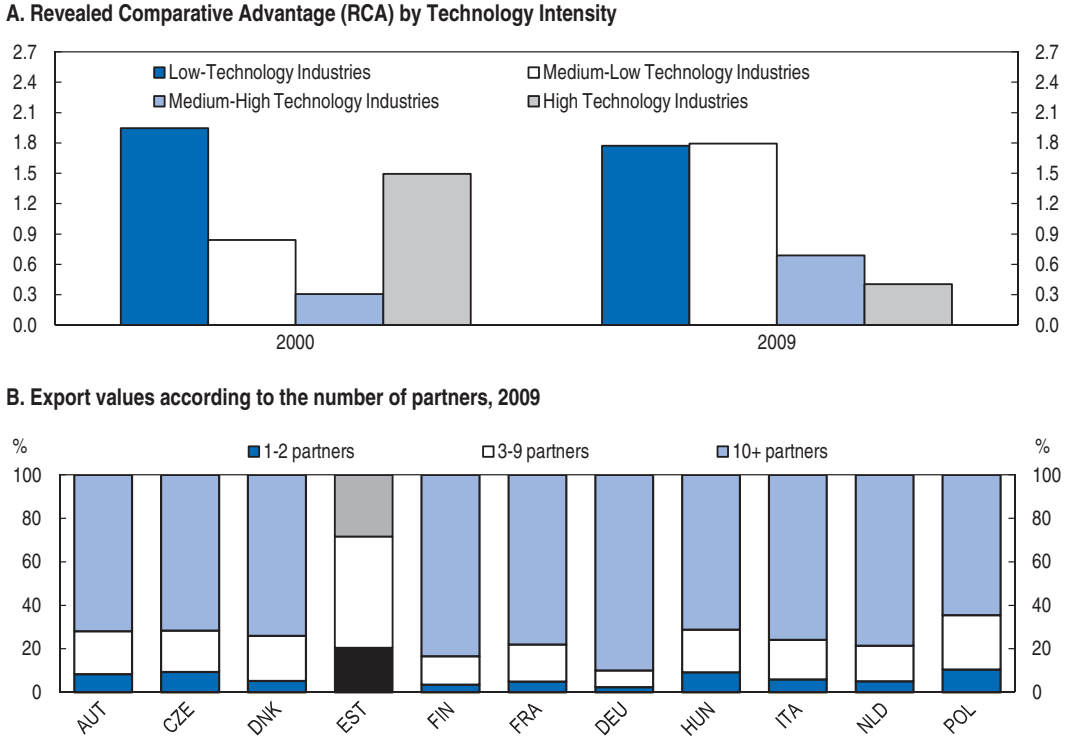
The public funding system of higher education in Estonia has been reformed. Planning of student places in the so-called state-commissioned system has been so far determined at the central level according to the past number of graduates. The distribution of funds among different fields of education was based on a complex and rigid system of 34 coefficients (OECD, 2007b). This funding system has distorted students' choice by reducing the weight of labour market signals (e.g. expected future wage). The reform introduced by the government should increase the flexibility of higher education. Funding for higher education will mostly depend on a set of performance indicators (taking into account the volume, the quality and the efficiency of study programmes) approved by parliament and agreed on a three-year basis between the government and the tertiary education institutions. This leaves more room for the institutions to organize the distribution of study places by field of education.

Improving the enterprise support framework to further develop the export base

A small economy needs to devote a lot of attention to find an appropriate place in the international division of labour (OECD, 2011a). A better allocation of the workforce, more efficient school to work transition, higher human capital accumulation and more participation in tertiary studies would foster the technological catching-up of Estonian firms by increasing their ability to absorb new technology and to innovate (Cohen and Levinthal, 1989). Estonian firms remain mainly specialized in low technology products that are easy to imitate and are most often unprotected by patents. Only limited progress has been realized during the last decade in this area (Figure 12, Panel A). Firms have been found to export relatively low quality products in a small number of varieties (Benkovskis and Rimgailaite, 2011) and to fewer destinations (Figure 12, Panel B). Low technological sophistication interacts with the role of Estonian firms in the global value chain: the domestic value-added content of exports is among the lowest in OECD countries and this share declined during the 2000s (OECD, 2011a).

Estonian firms, which are predominantly small (large firms account for only for 25% of global value added, against 42% on average in the EU) are facing barriers to develop products and services that could be offered on export markets. Small companies usually spend less on innovation, are less engaged in international operations and have higher financing restrictions, in particular when having to rely on a predominantly foreign owned financial sector (Havrylchyk, 2012).

Figure 12. **Estonian firms export low and medium technological goods to a small number of partners**



Note: The revealed comparative advantage (RCA) measures the intensity of trade specialisation of a country within a region or the world (here: within the OECD for trade of goods). If the RCA takes a value less than 1, this implies that the country is not specialised in exports of this industry. The share of this industry within the total exports of goods of this country is less than the corresponding OECD share. Similarly if the index exceeds 1, this implies that the country is specialised in this industry's exports. The export market share by industry measures the degree of importance of a country's industry within the total merchandise exports of the OECD. The indicator is calculated by dividing the exports of goods of the respective industry of the country by OECDs total merchandise exports of this industry (expressed as percentage in the database).

Source: OECD Trade by Enterprise Characteristics Database, *OECD STAN Bilateral Trade Database by Industry and End-Use Category Database*; and *OECD Micro Trade Indicators Database*.

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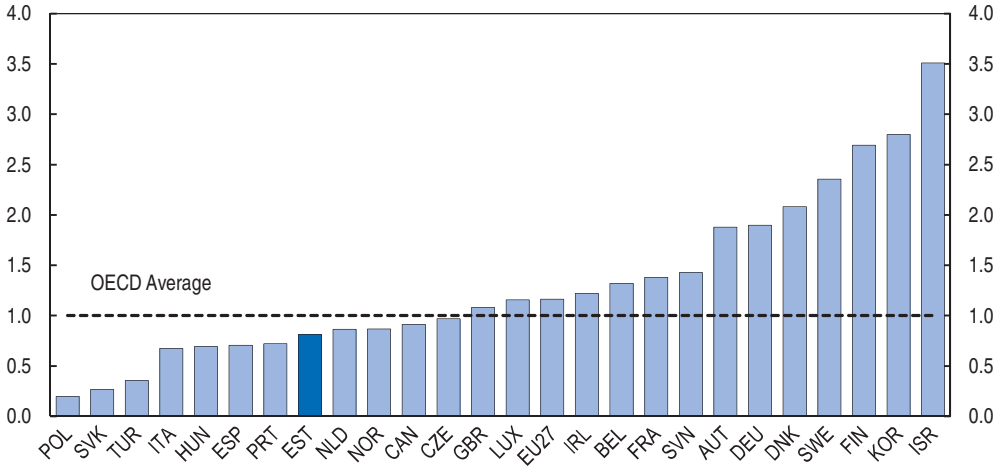
Improving the performance of Estonian firms in terms of technological content would have a positive impact on productivity and export performance (Altomonte, 2012; Krugman, 1989; OECD, 2011a). International studies argue that exporting is a self selected activity: once firms are productive enough they decide whether to export (Stöllinger and Foster, 2012). There is less evidence that increasing exports stimulates innovation. In fact, few exporting firms in Estonia are engaged in innovative activities. Supporting innovation activities and stimulating the differentiation of goods and processes, even in low and middle technology industries, could give Estonian firms a competitive edge in the international division of labour. Innovation support tends to be more efficient than another forms of enterprise support, given the evidence of strong positive externalities (Mohnen, 1996; Griliches, 1992) and it would also have a positive impact on the ability to export (Stöllinger and Foster, 2012). At the same time it is necessary to make sure that small firms have a cost-efficient access to services which are necessary for exporting.

Some progress was realized in Estonia regarding the overall level of R&D spending which rose from 0.6% of GDP in 2000 to 1.63% in 2010 (Figure 13), mainly due to a strong

Figure 13. **Private sector expenditure in R&D remains low**

% of GDP, 2010[1]



1. 2009 for OECD.

Source: OECD Main Science and Technology Indicators Database.

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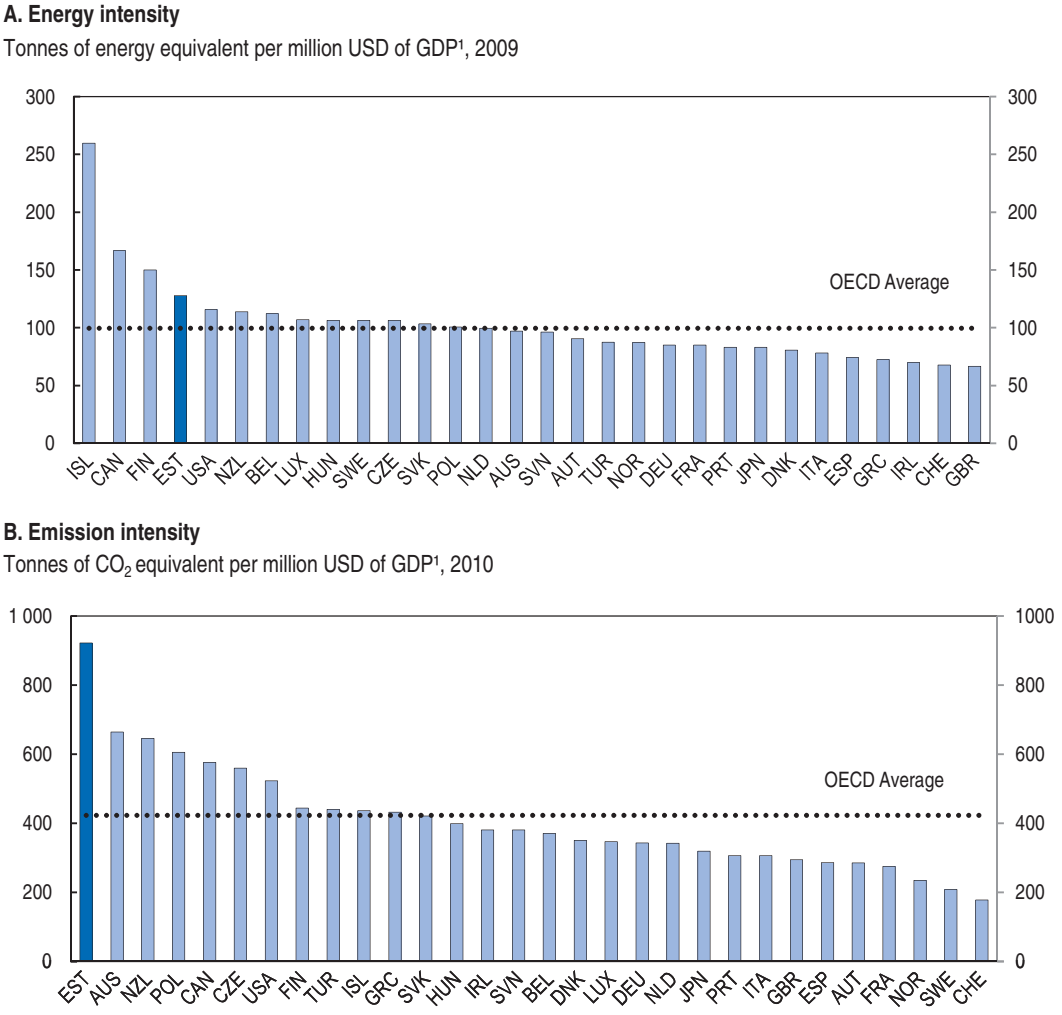
increase in private funding. Nevertheless, the share of private funding is still well below OECD average (44% against 60% in 2010) which might be worrying because public funding is heavily dependent on temporary EU funds (64% of public funding in 2011). Furthermore, the current grant-based scheme could be less effective in allocating high amounts of public funding. Efficiency gains could be expected from streamlining current research and innovation policy, increasing co-operation between ministries and better monitoring and evaluating support schemes (ERAC, 2012).

Export capacity and growth more broadly would be strengthened by increased foreign investment. As discussed in the *2009 Economic Survey of Estonia* (OECD, 2009a), Estonia has a favourable business tax and regulatory environment. Nevertheless there appears to be further room for improvement of the general business environment, in particular concerning public monopolies, procurement regulation and expanding regulatory impact analysis to existing regulation. As discussed in the *2011 Economic Survey of Estonia* (OECD, 2011a), the challenges of globalisation and the lack of economies of scale in the small Estonian economy might require employing a broader set of policy instruments, including support for clusters and technology transfer. Policies to attract technologically advanced FDIs would be especially welcome given the low transfer of foreign technology associated to current inflows, mainly dominated by the financial intermediation industry and low-value added manufacturing goods (Masso *et al.*, 2010). Pilot projects based on the smart specialisation methodology could test the practical feasibility of targeting support towards specific industries in the future and help avoiding the risks of the government trying to pick winners.

Decoupling economic growth from energy consumption and emissions

The high energy intensity of the economy (Figure 14) increases the vulnerability to commodity price shocks and might undermine competiveness. It has also an important environmental dimension, as per capita CO_2 emissions from electricity and heat production were more than twice higher than the OECD average in 2009, even after it had been reduced by 60% since 1990. Energy consumption fell dramatically after the collapse of

Figure 14. **Energy and emission intensities are high**



1. GDP in 2005 constant prices at purchasing power parity.

Source: United Nations Framework Convention on Climate Change (UNFCCC) *http://unfccc.int*; *OECD National Accounts Database* and *OECD World Energy Balances Database*.

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the Soviet Union, but increases in energy efficiency have slowed since 2000 and practically stopped since 2005 (Odyssee, 2011). Energy consumption per unit of gross domestic product was still three times larger in Estonia than in the EU on average in 2008 (EEA, 2011). The potential for energy savings have been estimated at 30% for heat and 10% for electricity generation, but even larger savings could be achieved by improving the efficiency of buildings and the transport sector (government of Estonia, 2012).

So far, policy directed at improving energy efficiency and reducing the environmental impact of economic activity had limited scale, is fragmented among different programmes, financed from different sources, and there were no clearly established and measurable saving objectives (NAO, 2009). In particular, current investments in transport aimed at energy efficiency, including recent purchases of electrical cars and more efficient busses and trams, are not sufficient to reduce the growth of emissions due to the continued shift of freight from rail to road, and personal transport from public transport to private cars, which are among the least fuel-efficient in the EU (European Commission, 2012). For

example, the number of trips by public transport has fallen by more than 10% in recent years against an increase targeted in the Transport Development Plan for 2005-13. This may complicate meeting Estonia's 2020 emission reduction targets (EEA, 2011).

Instruments promoting energy efficiency therefore need to be strengthened, but they should also be more rigorously evaluated and better co-ordinated. Apart from investment in transport infrastructure, targeted support for energy conservation in building and the adoption of low-energy technologies in industry, it would be essential to provide the right price incentives in sectors outside the EU Emission Trading System. Tax rates on all energy sources, including diesel, should therefore be harmonized according to the externalities they generate, increasing the aggregate revenues from environmental taxation and creating room to reduce more distorting taxation (OECD, 2011a).

More positively, while still highly dependent on shale oil as a main energy source, Estonia seems to be on track for meeting its target on the 25% share of renewable energy sources, with 24% share achieved already in 2010, although further gains could be achieved by improving grid capacity to absorb increasing wind electricity generation (European Commission, 2012).

Box 2. **Recommendations on improving resilience**

Key recommendations

- Increase spending on active labour market policy, and better target spending, while ensuring stronger co-operation among local governments, education institutions and the Unemployment Insurance Fund.
- Increase the financial incentives of employers to invest in lifelong learning. Target public co-financing towards low educated and older workers, as well as towards employees in SMEs.
- Consider establishing an obligation to offer learning opportunities through formal education, workplace training or apprenticeships until the age of 18 for youth neither in education, employment or training.
- Further strengthen co-operation with employers and consider giving subsidies for apprenticeship places for youth in vocational education. Increase the permeability between different educational levels.
- Rebalance public resources for innovation support to prepare Estonian firms to export and make sure the necessary services for small exporting firms are available at reasonable costs.

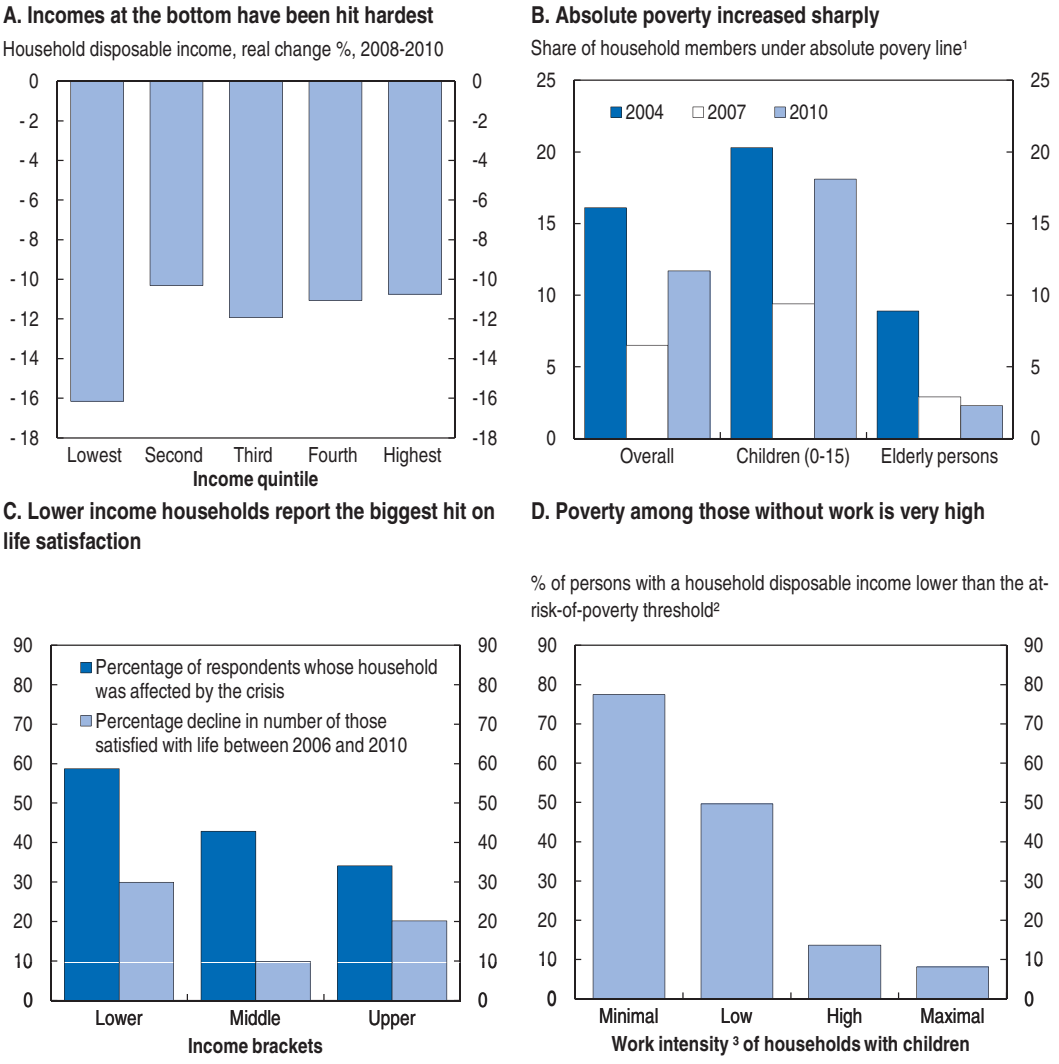
Other recommendations

- Increase the effectiveness of activation programmes by allowing public procurement to take greater account of the quality of training courses, encouraging greater involvement of employers, and by targeting hiring subsidies to firms committed to net hiring.
- Make lifelong learning more attractive for adults by insuring that training leads to the acquisition of qualification and by providing information about the return from different programmes.
- Ensure that the new means-tested support to tertiary education students is sufficient, and expand the student loan scheme so that students with weaker socio-economic background can stop working during study.
- Strengthen policies to reduce energy and resource intensiveness through appropriate pricing and setting better incentives for energy saving programmes.

Reducing poverty through activation and better targeted support

In the crisis, the poor were hit particularly hard (Figure 15). The fall in disposable incomes of the lowest quintile was large in absolute terms and relative to higher income quintiles. The share of population living below the absolute poverty line, i.e. with expenditures below the subsistence minimum increased from 6.5% in 2007 to 11.7% in 2010, and among children it increased from 9.4% to 18.1%. Those who lost employment were most badly affected, as households without work are at a very high risk of poverty. In contrast, pensioners, who were protected from the turbulence in the labour market, were less hard hit in the crisis. Negative changes in incomes were reflected in subjective

Figure 15. **Economic crisis had a strong negative impact on the poor**



1. Absolute poverty line is calculated by Statistics Estonia on the basis of three components of expenses: food, housing and non-food needed to maintain the minimum level of welfare. Data for 2010 is not directly comparable to the previous data due to the methodological change in 2010.
2. The at-risk-of-poverty threshold is 60% of the median disposable income adjusted for household size.
3. Work intensity in a household is the number of months spent by working age household members (aged 16-64) in employment or self-employment divided by the maximum number of months which could have been worked.

Source: EBRD-World Bank, *Life in Transition Survey* 2010, LiTS II; Statistics Estonia and *Estonian Social Survey*.

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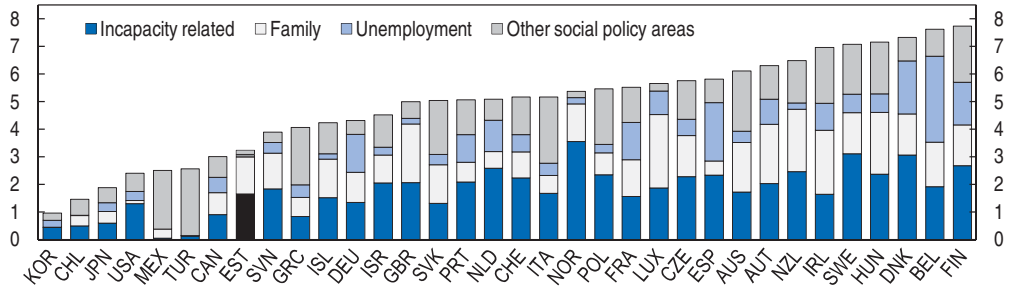
assessments of well-being, with large losses in life satisfaction concentrated at the bottom of the income distribution.

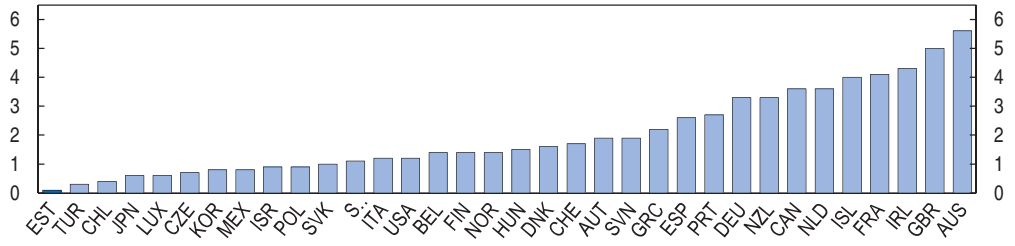
While volatility-induced employment insecurity feeds into poverty risk, Estonia stands out both in terms of low social spending and the low proportion of means-tested transfers (Figure 16). Limited income support contains short-term fiscal costs and is in line with the social policy stance that emphasizes self-responsibility and work incentives rather than redistribution. However, low income earners have little opportunity to insure themselves against shocks through savings (Ahrend *et al.*, 2011). The current policy set-up contributes also to the outflows of individuals to subsistence benefit and disability systems (Praxis, 2011), which do not provide sufficient activation and skill-enhancement opportunities, generating

Figure 16. **Transfers (other than pensions) are small and untargeted with limited impact on inequality**

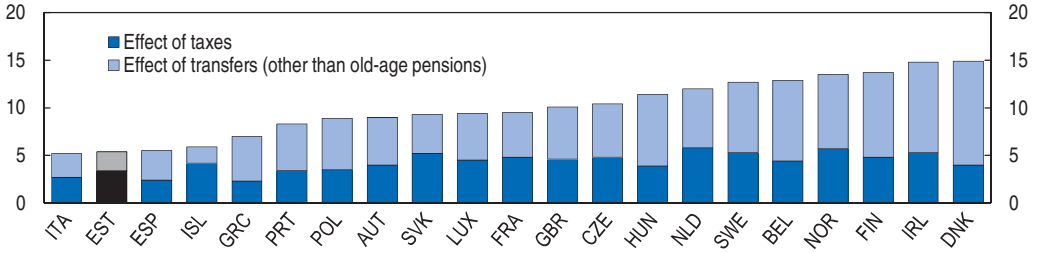
A. Public cash transfers (other than old-age pensions) to household, % of GDP, 2007



B. Public social expenditure on income-tested programmes, % of GDP, 2007



C. Impact of taxes and transfers (other than old-age pensions) on income inequality, percentage point reduction of Gini coefficient, 2007



Source: OECD Social Expenditure Database; Eurostat (2010), *Income and Living Conditions in Europe*, Table 16.1B; OECD (2011), *Social, Employment and Migration Working Papers*, No. 124, Table I.1.

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longer-term dependence. Hence, changes in social policies should reflect the following considerations:

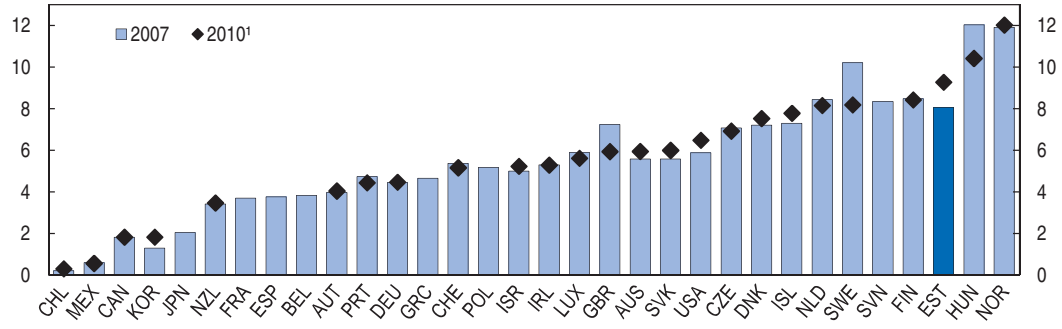
- Striking a better balance between short and medium term costs of social policies, by reducing inflows and increasing outflows.
- Targeting benefits and public services to better use scarce resources to help those in greatest need, rather than spreading scarce resources widely but thinly, and generating high deadweight losses.
- Moving towards a more integrated approach to activation and social policies, including overcoming the current problem of segmentation among several institutions – unemployment insurance fund, social insurance fund, health insurance fund, municipalities and educational establishments – operating without sufficient policy co-ordination.

Reforming the disability support system

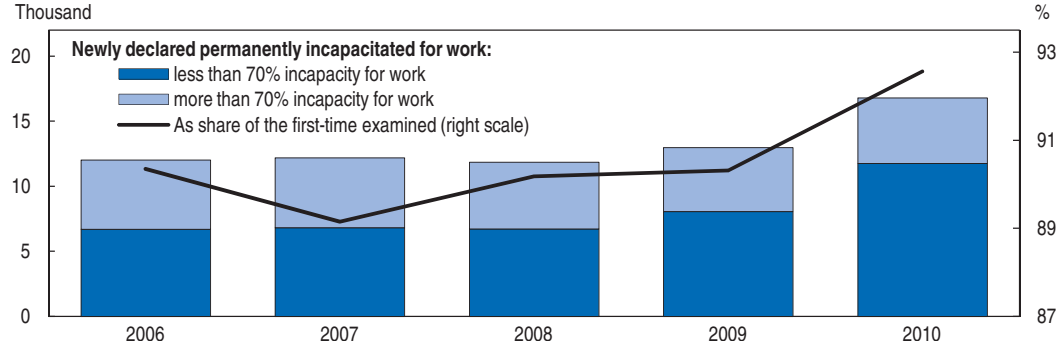
Reforming the disability support system is of the highest priority for the government. Estonia had the largest increase in disability-related benefit entitlements among all OECD countries in recent years, and almost 10% of the labour force is receiving some sort of disability-related benefit (Figure 17). Inflows into the disability system were particularly high during the slump in the labour market, primarily among those with a higher capacity to work (Statistics Estonia, 2011). This suggests that in the crisis the disability system was

Figure 17. **The number of permanent incapacity to work benefit recipients increased rapidly in the crisis**

A. Disability benefits recipiency rates, % of population aged 20-64



B. Permanent incapacity for work



1. 2009 for the Czech Republic, Germany, Finland, Mexico, Norway, New Zealand, Switzerland and the United Kingdom.

Source: OECD (2011), *OECD Employment Outlook*, Box 1.3; Statistics Estonia (2011), *Statistical Yearbook of Estonia*.

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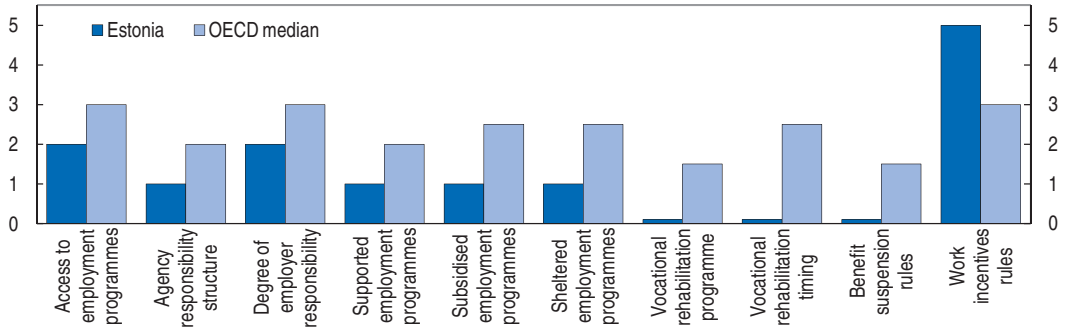
used as the income support system of last resort, reflecting very tight entitlements for other working age benefits (OECD, 2010d). The underlying, structural problems include (NAO, 2010a; Praxis, 2011):

- Spending on prevention is insufficient. There is no accident and occupational sickness insurance scheme. Entitlements for incapacity of work and other disability benefits are only based on a medical assessment and there is no involvement of occupational specialists.
- The system does not promote activation policies, rehabilitation measures are insufficient and none of the institutions involved is responsible for promoting return to work. Employers are not involved (Figure 18).
- Those who are truly incapable of working may not receive benefits that are sufficient for preventing them from falling into poverty, as resources are spread thinly.
- The current disability system is fragmented among different institutions and schemes, which partly overlap.

Figure 18. **The disability system provides few integration measures**

Integration policy dimension: country scores (0-5), around 2007[1]



1. 2012 for Estonia.

Source: OECD (2010), *Sickness, Disability and Work*, Table 3.A2.1B and Estonian authorities.

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The planned reform intends to integrate different schemes, tighten entry and periodic assessments so as to limit inflows into and increase outflows out of the system, while putting the focus on rehabilitation and activation, and strengthening the role of employers. Much closer co-operation with the unemployment insurance offices would be needed and participation in activation programmes should be encouraged. Finally, strengthening of well targeted and activation-oriented short-term income support schemes should complement the reform.

Strengthening short-term targeted income support programmes that involve activation

The unemployment assistance benefit should be increased and play a more prominent role in the social protection system (Box 3). Currently the size of unemployment assistance is only about one third of the absolute poverty line, so it is too small to prevent poverty among those who lost jobs but did not qualify for or have exhausted their unemployment insurance benefit (Figure 19). The planned increase in the unemployment assistance agreed in 2009, but suspended until 2013, would have an impact on poverty at a relatively low cost due to its strict targeting (OECD, 2010d). Eligibility conditions and duration are also relatively tight and should be expanded so that long-term unemployed are also provided

Box 3. **Short-term income support in Estonia**

The short-term income support system in Estonia involves a two-tier unemployment protection scheme; unemployment insurance benefit and unemployment assistance, as well as subsistence benefit scheme that provides targeted social assistance:

- Unemployment insurance provides contribution-financed and earnings-related benefits, under relatively tight eligibility criteria, with the initial replacement rate of 50% and maximum duration of 360 days.
- Unemployment assistance is a flat rate benefit that is financed from the state budget. It is addressed to those unemployed who are not eligible to insurance benefit or exhausted their unemployment insurance entitlement, but only if their other sources of income are lower than the size of the benefit, which is fixed annually in the state budget, and it is currently EUR 64 per month. The maximum duration is 270 days.
- The subsistence benefit is a means-tested benefit paid to needy persons by a local municipality and financed from the state budget. It aims to bring incomes excluding housing costs to the minimum guaranteed level established by the parliament each year, currently at EUR 77 for the first household member and EUR 61 for other household members.

some basic income protection and access to effective job search support and training coupled with a strict job search requirement (OECD, 2011b). Scarce resources should be targeted at those with the highest risk of poverty. Unemployment assistance should be means-tested, using existing IT capacities that allow checking across different databases to overcome practical barriers to implementation. At the same time, an opportunity to combine benefits and work should be allowed to promote part-time low-paid jobs as an activation tool (Vork, 2009; Praxis, 2011).

In contrast, the role of unemployment insurance in mitigating the poverty impact of shocks is likely to stay limited, given the high budgetary costs of easing eligibility criteria due to the relatively generous replacement rates and the lack of means testing. To free resources and enhance work search incentives, the relatively high caps on unemployment insurance benefits could be lowered and the duration of unemployment insurance benefits could be reduced in the upswing when job opportunities are more widely available and disincentive effects are most important (Landais *et al*., 2010; Lauringson, 2010 and 2011; Praxis, 2011).

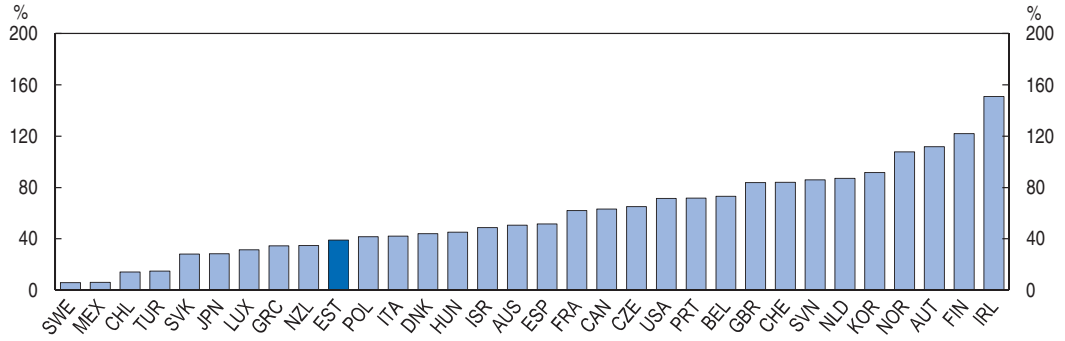
The primary challenge is to activate those who did not find a job but lost their entitlement to unemployment insurance and assistance benefits. Many become recipients of subsistence benefits administered by municipalities. Activating them would require more job-search and activation programme participation and stronger co-operation between unemployment insurance offices and local municipalities (OECD, 2010d). Current pilot projects supporting such co-operation provide valuable lessons, but, ultimately, all benefit recipients with some remaining work capacity should become clients of employment offices, an arrangement that was successfully implemented in Germany (OECD, 2010e). In turn, municipalities should focus deeper on other problems, such as social exclusion and pathologies.

One area where income support is relatively generous, is the parental benefit. It offers a high replacement rate for an extensive period of time, indeed one of the most generous in the OECD (OECD, 2011c). There are questions about its efficiency, given its very high fiscal cost: family benefits account for almost half of all social transfers other than old-age

Figure 19. **The size of unemployment assistance benefit should be increased**

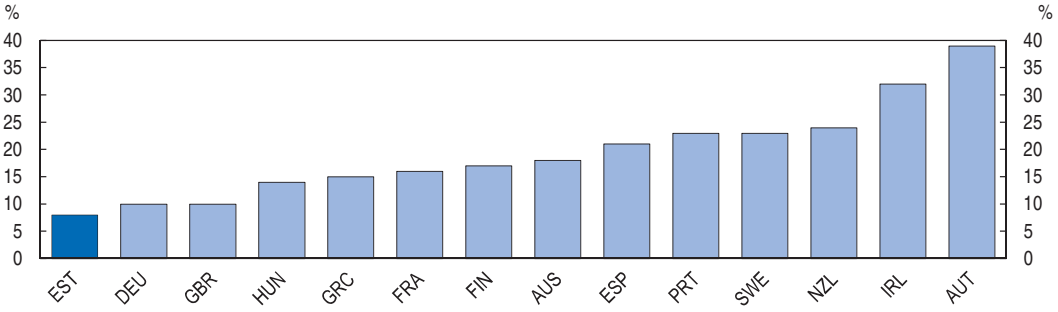
A. Unemployment benefits coverage is low

Change in the number of unemployment benefit recipients as a percentage of the change in the number of unemployed persons[1]



B. Size of unemployment assistance benefit is very low

Maximum benefit relative to average wage[2], 2010



1. During first year since the onset of the crisis. Total unemployment benefits including extended benefits and unemployment assistance.
2. For a 40-year-old single worker without children, with a 22-year employment record. For Germany, as of 1st January 2005, unemployment assistance and social assistance for persons who are able to work were combined into one benefit, the basic jobseekers allowance (unemployment benefit II). Available for persons who are able to work and whose income is not sufficient to secure their own and their family's livelihood.

Source: OECD (2011), *OECD Employment Outlook*, Figure 1.17B and *www.oecd.org/els/social/workincentives*.

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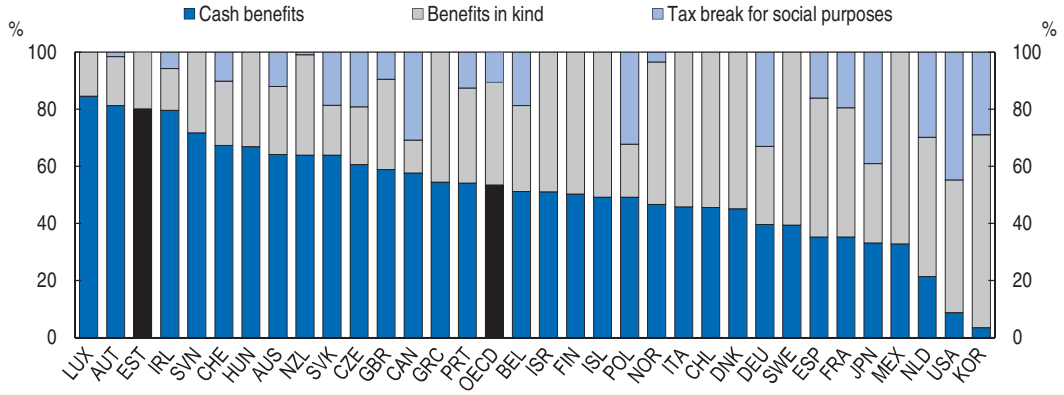
pensions. While Estonia succeeded in raising the fertility rate above the European Union average and has relatively high female employment rates, several countries with less generous entitlements, notably the Nordic neighbours, have achieved a much better outcome on both the fertility rate and female employment. The fact that poverty among children remains high also should not be ignored. International evidence suggests also that financial transfers – temporary or permanent – seem to accelerate the timing of births but their effect on completed family size is limited at best (Adsera, 2004). The availability of formal childcare solutions appears to be a more important factor in explaining cross-national differences in fertility. The countries with the highest female employment rates have also high fertility rates and policies which support the reconciliation of work and care responsibilities have proven to have a positive effect on fertility patterns (OECD, 2011c). Simultaneously, promoting labour participation of the second household member (usually a woman) is a very effective insurance against household poverty (Ahrend *et al.*, 2011).

Relatively more resources could therefore be channelled to childcare provision with income-related childcare copayment fees to ensure the maximum impact, while family spending in Estonia seem to be biased towards cash benefits (Figure 20). In contrast, a planned

Figure 20. **Family benefits are high relative to the spending on childcare services**

Share of family oriented expenditure, 2007



Note: Expenditure in Estonia includes child payments and allowances, parental leave benefit and child support. No data on tax breaks for Chile, Estonia, Greece, Hungary, Israel, and Slovenia. Tax breaks are not used in Denmark, Finland, Iceland, Italy, Luxembourg, Mexico and Sweden.

Source: OECD (2011), *Doing Better for Families*, Figure 2.1B.

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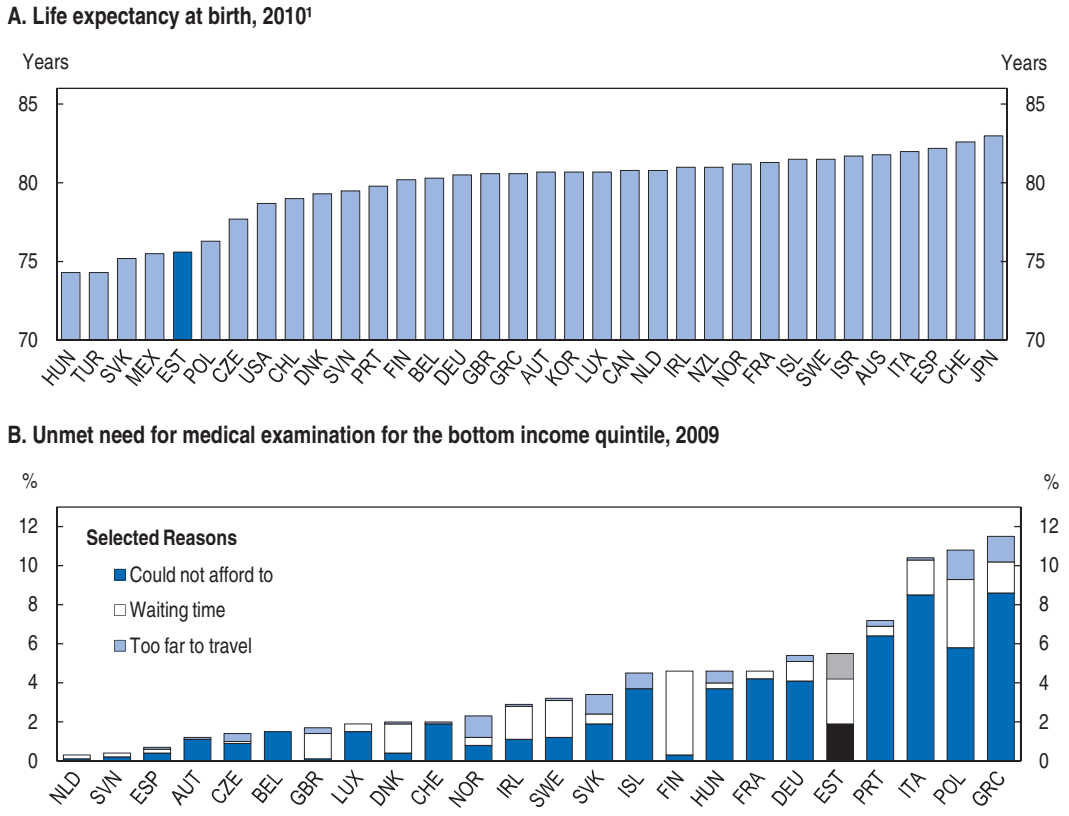
state-financed pension contribution for child-caring periods up to three years is a rather costly and inefficient way of promoting fertility given international evidence (OECD, 2011c. Also, a better way to address old-age poverty among females is to improve childcare, thereby helping mothers to reconcile work and family life and contribute to the pension system.

Improving access to public services, especially for health care

The impact of volatility and related job and income losses on poverty and well-being can be mitigated by good access to essential public services. Among those, access to healthcare services is probably the most important. Unfortunately, health outcomes in Estonia are relatively poor (Figure 21; OECD, 2011d). Moreover, health status is strongly correlated with education, employment and incomes (Hernandez-Quevedo *et al.*, 2010). Estonia also has the highest gap in life expectancy between men and women. In this respect, the following reform priorities would be essential (OECD, 2011a):

- While the fiscal space for increasing health expenditure above its current, very low level, is limited, there are opportunities for spending efficiency improvements, notably through enhancing primary care to eliminate avoidable hospitalisation and allow further rationalisation of the hospital network.
- Relatively high out-of-pocket payments for healthcare, especially for pharmaceuticals and dental care, risk excluding low-income households from appropriate healthcare. The introduction of a means tested cap on out-of-pocket payments on prescribed pharmaceuticals and more effective promotion of generic drugs could improve the situation.
- Health insurance is currently an important motivation for registering as an unemployed at the unemployment insurance office, and the loss of insurance has therefore become a sanctioning instrument against non-compliance with associated job-search requirements. However, the loss of insurance might lead to the frequent use of state-funded emergency care, the accumulation of health problems and, ultimately an exit from the labour force.
- The poor health status among groups with lower social-economic background, and primarily males from these groups, is accompanied by unhealthy living habits. Smoking,

Figure 21. **Health outcomes are weak**



1. 2008 for Canada; 2009 for Italy.

Source: *OECD Health Database*; OECD (2011), *Health at a Glance*, Figure 6.1.1.

StatLink http://dx.doi.org/10.1787/888932717300

alcohol abuse, lack of physical activity, bad diet, and drunk driving are all widespread among disadvantaged groups and contribute to bad health outcomes. Comprehensive programmes promoting healthy lifestyles, in particular for high-risk groups, are therefore needed.

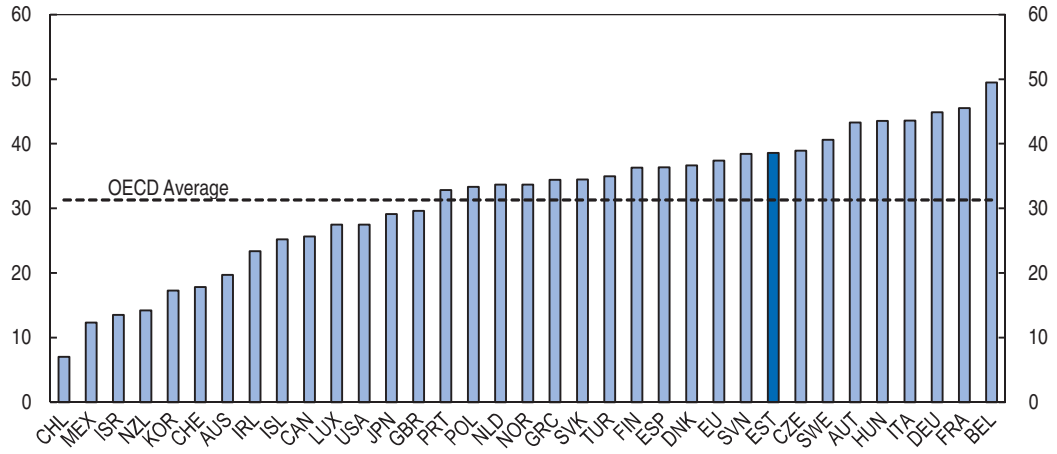
Better provision of social protection and many other essential public services are dependent on increasing capabilities of municipalities. While all municipalities are in principle expected to provide the same basic services, municipalities vary greatly in population size and wealth (OECD, 2011e). Many have very limited fiscal, administrative and service delivery capacity, and the poorest municipalities tend to face the highest social protection needs. This results in very large differences in municipal expenditure per capita and raises equity concerns about access and the quality of public services. Sub-national administrative reform, including municipal consolidation, is often politically difficult to implement. This highlights the importance of creating incentives that encourage municipal co-operation for efficient service provision (OECD, 2011e). The framework for monitoring and ensuring the quality of services needs to be strengthened, including through establishment of national service provision standards, and should be underpinned by some adjustments to the equalisation grant and block grant system (OECD, 2011a).

Reducing the labour tax wedge for low wage earners

The labour tax wedge is high driven mainly by social contributions. It is an important barrier for employment among low-wage earners who face an average tax wedge well above the OECD average (Figure 22). Yet planned reforms of social security contributions

Figure 22. **Low-earners face high labour tax wedge that discourages employment**

Average tax wedge on labour[1] at 67% of average worker earnings, single person without children, % of total labour compensation, 2010



1. Measured as the difference between total labour compensation paid by the employer and the net take-home pay of employees, as a ratio of total labour compensation. It therefore includes both employer and employee social security contributions.

Source: OECD (2012), *Going for Growth*, Figure 3.3A.

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and personal taxation are not tilted towards the low-wage earners. Social insurance contributions are to be capped in 2014, which provides tax relief to those who are relatively well-off, and whose labour supply is less elastic, making the expected labour market impact rather limited (Hamermesh, 1993). Partial subsidisation of social contributions for low-wage earners would be more effective, as evidenced by the generally successful programme run in 2009-10. Similarly, a planned reduction of the personal income tax rate from 21 to 20% in 2015 should be reconsidered in favour of increasing the personal income tax exemption, which is currently low by international comparison.

The high dependence on labour taxation to finance the social protection system could be reduced by using alternative, less distorting sources. Increases in excise taxes that are planned in 2012 and 2013 are welcome, both as an important revenue source and also as a disincentive to alcohol and tobacco consumption. Phasing out remaining exemptions and reduced VAT tax rates could yield substantial fiscal revenues, while the efficiency of such tax expenditures is low, as they are not targeted at those in greatest need. While increased in the crisis, standard VAT tax rate is still lower than in most OECD countries, and Nordic countries in particular, so there is scope for further increase. Other sources were discussed in the previous *Economic Survey* (OECD, 2011a).

Property taxation is the least distortionary taxation source (Johansson *et al*., 2008), and yet its level in Estonia is currently the lowest in the OECD. Tapping its potential would require aligning the tax assessment of land more closely with its market value. Taxing houses and apartments would also substantially expand the property tax base and allow a reduction in more distorting taxation.

Another opportunity for rebalancing the tax structure is linked to the taxation of environmental externalities. Despite high emissions and low energy efficiency, which are among important structural problems of the Estonian economy (government of Estonia, 2012), the share of environmental taxation and the implicit tax rate on energy is well below

the EU average. Ensuring that the costs of all negative externalities are fully internalised by taxes on petrol, diesel and other fossil fuels will provide more room to make the tax structure better balanced in favour of employment-rich and sustainable growth.

Box 4. **Recommendations on social protection**

Key recommendations

- Refocus the social protection system on activation and return to work, underpinned by stronger inter-agency co-operation. Swiftly conclude the analysis phase in preparation for Internet-based e-services. All working age people with some capacity to work should become clients of unemployment insurance fund offices and be encouraged to participate in job search and activation.
- Benefits should be more targeted to help those in greatest need.
- Strengthening health spending efficiency, promoting healthy lifestyles and improving access for disadvantaged groups should be priorities to improve health outcomes and reduce health outcome gaps.
- The high labour tax wedge should be reduced by increasing the share of less distortionary taxes, such as property and environmental taxes and excise duties and reducing tax expenditures, like preferential VAT rates. Reductions in direct taxes should be tilted towards low-earners.

Other recommendations

- Start preparing the reform of the disability pension system by opening activation measures to disability benefit recipients and strengthen the role of employers in prevention and rehabilitation measures.
- The role of subsistence benefits should be reduced and municipalities should focus on addressing other problems such as social exclusion, while unemployment assistance should become the main source of basic income support and be subject to tight job-search and training conditionality by unemployment insurance offices.
- Family support should be more oriented to better reconciling the obligations from parenthood and labour force participation, including through better provision of childcare services.
- Public sector delivery capacities of municipalities should be strengthened, including through incentives for service provision co-operation, including over a broad territorial area, and setting national service quality standards.

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ANNEX A1

Progress in structural reform

FISCAL POLICY	
Improving the fiscal framework	
Augment the work on estimates of the structural balance. Publish more detailed information about the business cycle and the underlying fiscal position, reflecting associated uncertainties.	Methodology, assumptions, risk scenarios and comparison with other forecasts are presented in the economic forecast, national stability programme and state budget strategy.
Enhance the budgetary framework with multi-year expenditure ceilings, also including tax expenditure.	An obligation to fix 4-year expenditure ceilings in budget strategy is foreseen to be included in the new base budget law draft to be sent to the parliament in January 2013. Detailed tax expenditures for the next two years are presented in the stability program.
Publish a detailed old-age income replacement sustainability report.	A detailed report on the efficiency and sustainability of the social security system was finalised in 2011 complementing an earlier report.
Set up an independent entity to: provide an input into macroeconomic assumptions underlying the budget preparation; assess the cyclical indicators; monitor the budget outcomes and raise public awareness about the directions of fiscal policy, in particular regarding sustainability.	A mandate for a regularly convening fiscal council is foreseen to be included in new base budget law draft to be sent to the parliament in January 2013.
Enhancing the tax system	
Reduce the labour tax wedge, particularly for low-income workers, provided that new revenue sources can bridge the revenue gap.	The flat personal income tax rate is planned to be decreased to 20% from 21% in 2015. The unemployment insurance rate will be lowered from 4% to 3.2% starting from 2013. The obligation to pay the pension component of the social tax on wages higher than EUR 4 000 will be abolished starting from 2014.
Further strengthen VAT administration, phase out exemptions from VAT and apply the standard rate to all goods and services in order to compensate reductions in more distorting taxes.	Measures are taken to increase the Tax Board efficiency, including e-receipts.
Continue with ecological tax reform pursuing both environmental and revenue-raising objectives. Consider introducing a tax on the use and the registration of motor vehicles differentiated by air pollution and energy consumption characteristics.	The tax burden will be increased by the full implementation of the fiscally marked fuel tax reform in 2013, whereby excise incentives will be replaced with direct aid. The excise duty payable on oil shale used for the production of heat will be increased.
Align the tax assessment of land value more closely with the market value by regularly updating assessments and bringing buildings into the tax base.	The decision to abolish in 2013 taxation of land under homes is motivated by the government to reduce the tax burden of homeowners.
Consider phasing out the tax deductibility of mortgages in the medium term to avoid further amplifying the cycles in the housing markets. Consider phasing out the loan guarantee programme to reduce distortions in housing investment.	No action taken.

LABOUR MARKET POLICIES	
Strengthening the Public Employment Service (PES)	
Develop a PES network of mentors (for example, retired business people, accountants) who could act as advisors on an ongoing basis for the unemployed in the business start-up schemes.	PES organises mentor clubs for those who have started their business with the help of the business start-up scheme. Also further training and individual counselling are available within 2 years from receiving the business start-up grant.
Continue to develop and roll out without delay the new PES IT system as the current need for good job and skills matching is large and acute.	A modern services IT system has been developed and launched, including a registration and job-search plan module and an automatic matching module. By the end of 2012, provision of all the services to both employers and job-seekers will be supported by the system.
As an interim measure, relax the requirement to draw up individual action plans for the client immediately on registration at the PES. Introduce a standard mutual obligations agreement on registration and leave creating an individual action plan until later on.	The Individual action plan was simplified and requirements relaxed since 1 May 2011. PES is required to open up the plan within 30 days from registration, and they are reviewed and developed continuously throughout the job seeking period.
Build-up the competence of the PES to effectively contract out and explore the scope for an out-sourcing programme to help alleviate pressure on the PES and tap into private sector expertise.	Competence has been built up. Quality requirements have been reviewed. Joint meetings and seminars with potential service provides are regularly organised to improve the quality of outsourced services.
Training	
Make participation in activation measures and training compulsory where a need has been identified by a Public Employment Service counsellor.	It is compulsory to participate in measures where the need has been identified and participation agreed in the Individual Job Search Plan.
Expand the voucher training scheme to help ensure training choices are tailored to individual needs.	The voucher training scheme was expanded in 2011 and adjusted so that can be used also for retraining.
Ensure by providing PES consultant assistance to employers that the PES Internet portal is used by employers to regularly notify not just current vacancies but also the kind of skills shortages that they have or would have once demand picks up.	Information of perceived skills shortages is received through partnerships/ co-operation with employers, Estonia Enterprise, training institutions.
Prioritise training funds for language training as a lack of language skills is a serious impediment in the labour market for ethnic non-Estonians.	Priority has been given to integrating a language module into training programmes.
Expanding and enhancing skills	
Complete the pedagogic and curricular reforms aimed at reducing drop-outs and enhancing secondary education completion.	In January 2011, new national curricula for basic schools and upper secondary schools were adopted by the Estonian government.
Financially encourage entry into scientific disciplines to foster the spread of "knowledge-based" skills.	Extra financing was provided to schools for the improvement of the learning environment for math, science and technology studies (MTS), including digital equipment for learning science. The new curriculum for gymnasium (upper secondary academic track, preparing for tertiary studies) gives students the opportunity to obtain new skills and competences through technology-rich multidisciplinary optional courses. The Ministry of Education has financed the development of educational materials and teacher training for those courses.
Increase the integration of the vocational and mainstream education systems.	One element of the currently prepared curricular reform in Estonian VET is a much higher level of integration of general subjects and knowledge into professional studies. It is planned to introduce also an extra year of general studies for those graduates from VET who want to go on to university studies.
Explore whether the distribution of scholarships and free study places is appropriate. Consider offering study places with mixed financing together with student loans with income contingent repayment schemes.	According to the draft reform law all students who have fully satisfied the requirements of their curriculum can study for free in Estonian-language curricula. The merit based study allowance system is planned to be changed into a needs-based one to raise the access rate. In the future, the student support scheme will include 3 components: study loans, needs-based study allowance and hopefully also topic related scholarships in areas of MTS, among others.
PUBLIC SECTOR EFFICIENCY	
Realising efficiency gains in the healthcare system	
An update of the hospital network plan for active treatment should reflect changing healthcare consumption patterns of the population.	In progress as part of preparation for the new period of EU structural funds, which will support the reorganisation process.

The authorities need to remain vigilant on issues of quality of care and consider developing a wider system of quality indicators, looking also into a broader international context for establishing these benchmarks and co-operation for specialised care.	The creation of quality indicators is in process, including amendments in quality requirements for nursing services, special quality guidelines for cancer care and for the treatment of cardiovascular diseases.
The role and importance of primary care should increase by boosting the responsibilities and oversight of family doctors.	Special efforts are made to emphasize the role of preventive care and family nurses. In 2010, already 90% of family physicians participated in the quality performance pay system.
Introduction of a means tested cap on out-of-pocket payments should improve the situation of low income households and protect the chronically ill. Alternatively, this issue should be addressed under existing benefits such as the subsistence minimum. Adequate accessibility of healthcare, in particular dental care, for financially distressed households needs to be ensured.	Local municipalities have the right to pay supplementary social benefits from a local government budget, and many pay benefits to those who need it to buy products for medical treatment.
Continue with the promotion of generics and least expensive drugs both among patients as well as doctors: monitor prescribing and dispensing patterns and investigate and sanction those that deviate excessively from norms. Oblige pharmacists to always supply the cheapest generic drug.	According to the law, pharmacists must offer the cheapest substance. Monitoring is carried out by the State Agency of Medicines.
Re-thinking sub-national government	
Reform local governments either by merging or requiring greater co-operation; in this context, consider imposing minimum population requirements.	The financial management reform of local authorities currently being elaborated by the Ministry of Finance foresees steps that target more financially capable local authorities: the financial capacity of a local authority should be one of criteria in applying for investment support from the government.
Strengthen the revenue raising possibilities by providing the local municipalities with more scope for setting the land tax. One possibility for enlarging its revenues is to bring buildings into the tax base.	Financial management reform of local authorities currently being elaborated by the Ministry of Finance foresees increased role of local governments in designing their own tax revenues.
Develop further indicators and monitor quality standards of public service provision to help to build up an argument for consolidation of local government, especially for those municipalities that would be underperforming.	No action taken.
Tightening the equalisation scheme is another option and in the Estonian context for example looking at real costs as well as normative ones set uniformly by the central government could help. Reviewing the existing earmarking and block grants would be warranted in order to ensure that there are no overlaps.	No action taken.
MAKING THE MOST OF GLOBALISATION	
Maintaining the essentials of economic openness	
Ensure that the vigilance of competition policy enforcement is not reduced by the fact that the competition authority is now smaller than in 2007.	Since 2008, the number of employees increased from 52 to 61, and an increasing share is working directly with cases, so that number of case handlers did not decrease compared with 2007.
Contain the threats to competition emanating from public monopolies and local authority sectors.	The Competition Authority has the powers and resources to deal with public monopolies and many are regulated *ex ante* In the case of local authorities, the Competition Authority has used and will use its advocacy powers.
Regularly evaluate the need for maintaining publicly owned shares in companies operating on contestable markets.	Evaluation of the need for maintaining government's ownership in state-owned companies is in the pipeline, based on Estonian government's Action Plan.
Maintaining and enhancing an entrepreneurially friendly business environment	
Start a broad-based consultation process to find out why a business-friendly regulatory environment does not deliver better results in terms of innovation led growth.	Ministry of Economic Affairs and Communications has started a broad-based consultation for the preparation of Estonian innovation and entrepreneurship strategies for the years 2014-20 to be presented for government's approval by May 2013.
Maintain the relatively light regulatory burden and extend the regulatory impact analysis to existing regulations and the *ex post* assessment of new regulatory interventions.	A new code on fair legislation and rule of law has been put in effect. In 2011, a survey was finalized to assess the impact of the e-annual accounting report system. An administrative burden assessment calculator was launched in 2011.
Assess the range of start-up and export promotion measures designed to propitiate enterprise growth and improve export performance.	Enterprise Estonia evaluated economic results of all completed support projects conducted between 2006 and 2010.

Subsidize part of the fixed costs of co-operation and networking among small firms via the development of clusters in order to overcome the constraints of Estonia's small size. Make adequate seed capital available by removing constraints for private venture capital investor. Nurture the development of the service sectors in the context of the Foresight Action Plan strategies.	Already implemented through different programmes led by Enterprise Estonia and the Estonian Development Fund.
Promoting growth through high technology	
Do not adhere to numerical targets for R&D spending; projects should be pursued according to their intrinsic worth.	The policy-mix is monitored using different indicators, including the European Innovation Scoreboard, targeting effective usage of money.
Consider introducing tax incentives for R&D, the returns on which are easier to assess than subsidies.	No action taken.
Switch resources to the promotion of non-high tech areas which can benefit from high-tech inputs.	In progress and planned for the innovation and entrepreneurship strategies for the years 2014-20.
FINANCIAL SECTOR POLICIES	
Macroprudential regulation	
In order to keep the economy on a sustainable growth path in the future, work towards developing new macroprudential tools tailored to Estonia's small open economy and financial linkages to better deal with a situation of excessive credit growth.	The assessment and development of potential macroprudential tools is ongoing. Well-functioning stability groups and Nordic-Baltic co-operation enhance quality of cross-border supervision.
Efficiently resolving non-performing loans	
Introduce a specialist bankruptcy court to improve the expertise applied to debt restructuring and bankruptcy proceedings; ensure that the court has the capacity to determine whether company directors have met their obligations to petition for bankruptcy. Develop as a stop-gap measure quantitative indicators to determine whether these obligations have been met.	No action taken.
Give the existing court the power to require the creditor to pay for experts, particularly in more intricate corporate cases.	No action taken.
Introduce a debt restructuring procedure for individuals. Develop a more detailed set of economic and financial principles for judges to take account of when deciding whether a plan should be approved or not.	The Debt Restructuring and Debt Protection Act, that came into force in April 2011, enables debtors to restructure debt more flexibly. An amendment to the Bankruptcy Act shortened the minimum period after which the court may partially relieve a person of remaining obligations.

Chapter 1

Matching skills and jobs

The labour market in Estonia is volatile, increasing the risk that groups with some obstacles to enter the labour market (youth, non-Estonian speakers and workers with no upper secondary graduation certificate) may become long-term unemployed, due to the aggravating skills mismatch in the wake of structural change. Avoiding a permanent exit from the labour force makes a multi-pronged strategy necessary, including strengthening activation policies, a better school-to-job transition, improving the co-operation with employers to improve vocational training programmes, stepping up targeting life-long learning support, and improving the access of tertiary studies for students from weak social backgrounds.

Despite a strong recovery in the labour market in 2010 and 2011, scars from the last economic crisis have not fully healed. The number of employed persons in the first quarter of 2012 was 5% lower than in the first quarter of 2008, when the employment rate reached its peak. The adjustment of the labour market during the crisis fell disproportionally on the youth, the low educated and ethnic non-Estonian, all groups that had benefited from strong employment growth in the construction sector during the period 2000-07. Mobility from job-to-job has been low during the crisis, thereby increasing the risk of skill mismatches in the economy (Masso and Krillo, 2011). Overall, matching skills and jobs is becoming a growing concern in Estonia; unemployed skills are not demanded in the labour market, while the education system faces challenges in providing the right skills, hampering school to job transition.

Beyond the good framework conditions in Estonia provided by the current institutional arrangements in labour and product markets, more efforts are needed to tackle high unemployment rates of at-risk groups, in particular by improving their skills to match labour market needs. While the change in labour demand by sector and by type of occupation implies a rise in skill requirement, skill shortages might compromise future growth if they reduce the rate at which more efficient technology and organisational changes can be adopted.

Against this background, this chapter analyses important aspects of current education and labour market policies and aims at identifying the measures that would help to make the most of the potential of Estonian people, by acting simultaneously on the skills of the jobless, workers and students. Areas of action include: *i)* increasing activation, in particular directed at risk-groups; *ii)* improving the general level of skills of workers and their fit with labour market needs; *iii)* strengthening the school to job transition in reformed vocational education; and *iv)* improving access to and the functioning of tertiary education.

Overcoming remaining challenges in the labour market

Despite progress, the overall level of unemployment remains high

Market-friendly institutional arrangements have increased the resilience of the economy (Gianella *et al.*, 2008; Duval *et al.*, 2007; OECD, 2009b; OECD, 2012c). They have allowed a rapid adjustment in the labour market in response to the very profound structural change in the economy in the wake of the crisis. The adjustment was characterised by a high level of job destruction, especially in the construction sector, and a rapid increase of employment afterwards. Dismissals were the main adjustment mechanism in the downturn even though the increase in part-time work, from 7.2% to 10.5%, softened the extent of job destruction (Masso and Krillo, 2011). The separation rate increased from 17% to 27% between 2008 and 2010 (Table 1.1). The high job losses were also reflected in the high correlation between the decline of GDP and changes in unemployment (Figure 1.1). The ratio between the decline of employment and the decline of output rates was 71% in 2009 compared with 43% in the old EU member countries (Masso and Krillo, 2011).

Table 1.1. **Flows between employment and unemployment in 2008 and 2010**

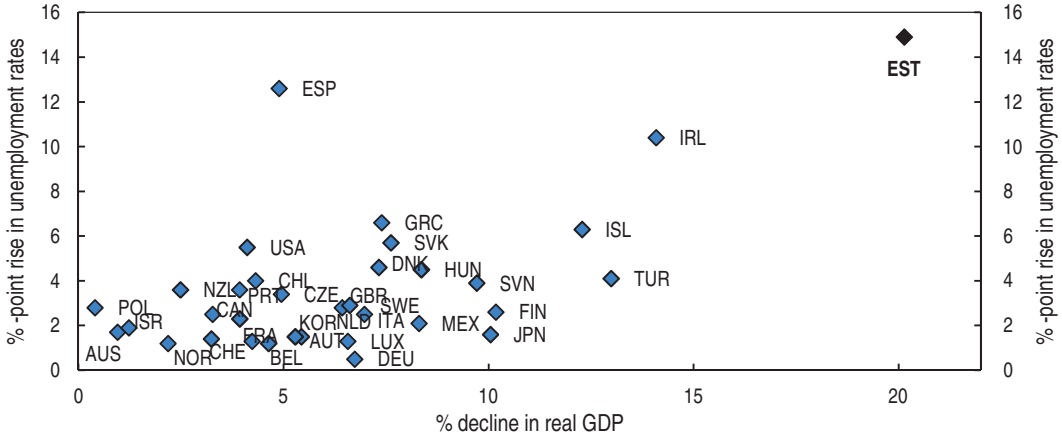
Percentages

	Job-to-job mobility	Flow from employment to unemployment	Flow from unemployment to employment	Separation rate	Hiring rate
2008	7.5	2.1	49.8	16.8	17.0
2010	6.3	10.3	25.7	26.6	16.3

Note: The first column denotes the share of employees who moved from one job to another job (*EE*). The second column refers to movement from employment to unemployment (*EU*) and the third column from unemployment to employment (*UE*), divided by the level of employment in $t-1$. The separation rate is defined as the overall flows from employment towards unemployment (*EU*), inactivity (*EI*) and from job-to-job (*EE*), divided by the overall level of employment in $t-1$, $(EE + EI + EU)/E(t-1)$. Symmetrically, the hiring rate is calculated as the sum of flows towards employment from unemployment (*UE*), inactivity (*IE*) and from job-to-job (*EE*), divided by the level of employment in $t-1$, $(EE + IE + UE)/E(t-1)$.

Source: Masso and Krillo (2011).

Figure 1.1. **A high level of job destruction during the crisis**



Note: Cyclical impacts are calculated using percentage-point increase from pre-crisis trough to peak for unemployment rates and percentage declines from pre-crisis peak to trough for real GDP. Trough (peak) dates are defined as the start of the longest spell of consecutive increase (decrease) of the quarterly OECD harmonised unemployment rates since 2006Q1.

Source: OECD (2011), *OECD Employment Outlook*, Figure 1.3.A.

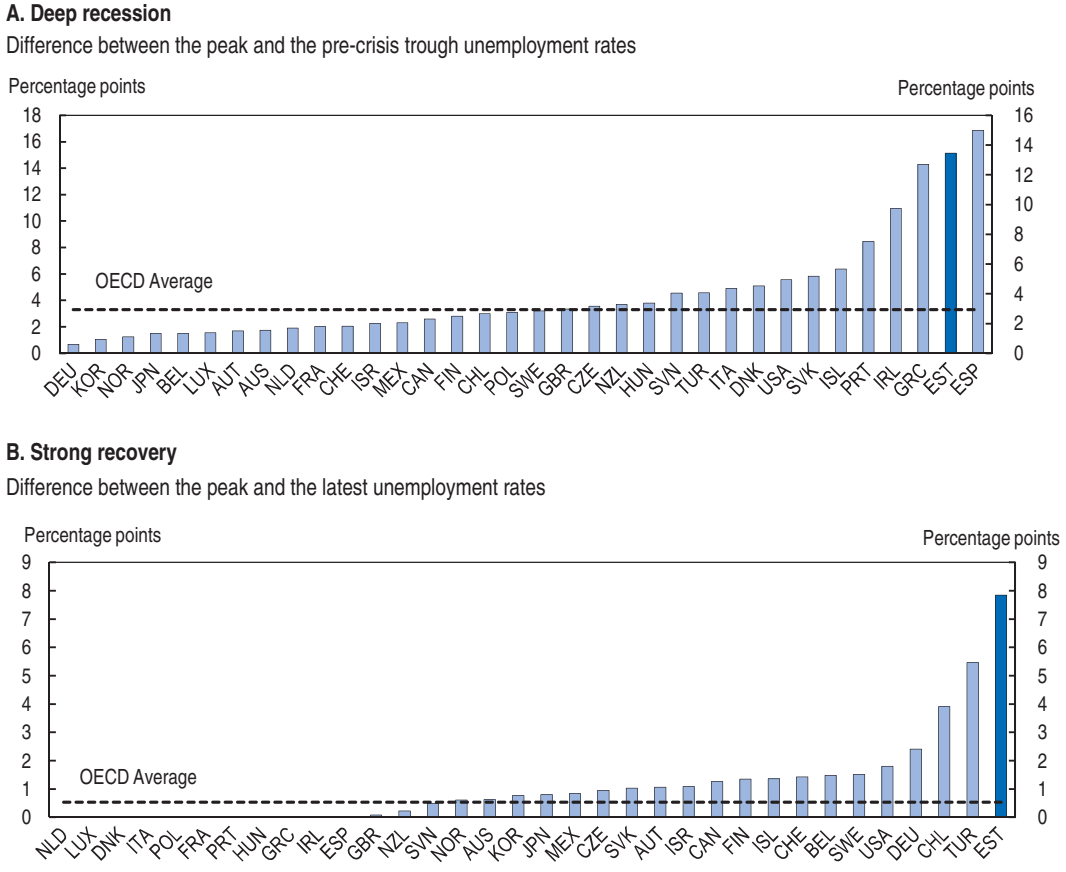
StatLink http://dx.doi.org/10.1787/888932717338

Employment has risen by about 12% since the first quarter of 2010 when the employment rate was at its lowest level. While the high degree of flexibility in product and labour markets has posed no obstacle for immediately reducing employment as demand fell, it permitted rapid hiring of workers in the recovery. A non-binding level of the minimum wage (for only 3% of workers) has facilitated the hiring of workers at lower wages. Despite this strong bounce-back, Estonia remains far from its pre-crisis labour market performance (Figure 1.2), likely because of a mismatch between available and required skills.

Sectoral rebalancing comes together with changing skills requirements

The rise of employment accompanying output recovery could stall because available stock of skills that were employed during the pre-crisis period is different from the skills demanded after the crisis. This is likely to be the case given the strong sectoral shift away from construction, which lost 41% of its employment (Figure 1.3; OECD, 2011a). Those job losses are unlikely to be recovered. It is difficult for the unemployed who were laid off from shrinking

Figure 1.2. **Despite strong recovery, labour market has not fully recovered**



Note: Data refers to the period 2006Q1 to 2012Q2 or 2012Q1.

Source: OECD (2011), *OECD Employment Outlook* and *OECD Labour Force Statistics Database*.

StatLink http://dx.doi.org/10.1787/888932717357

sectors to re-enter employment without requalification. The increasing employment opportunities in manufacturing offer a positive outlook in this respect, to the extent that available workers are retrained when necessary to acquire the skills needed by firms.

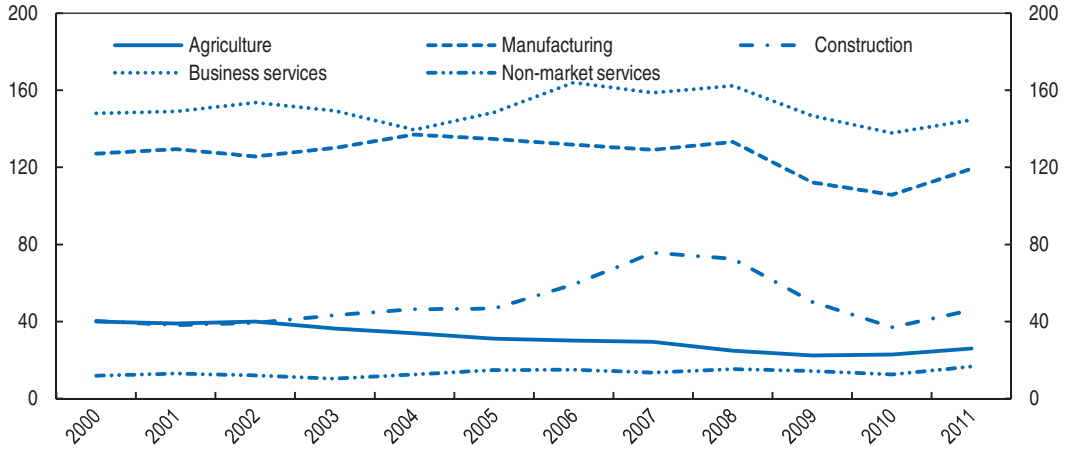
The difficulties for the unemployed to find a job in the same occupation as before the crisis vary across occupation categories. Overall, the adjustment of the economy following the boom and bust period has resulted in stronger needs for technology-related jobs including professional technicians, health and education specialists, and a lower demand for unskilled, craft and related workers (Figure 1.4).

At-risk groups face specific challenges

Labour market performance of non-Estonian speakers, youth and the low educated was affected particularly strongly during the boom and bust. Ethnic non-Estonian were the most hurt during the crisis; their unemployment rate was higher than the Estonians rate by almost 9 percentage points in 2011, while this difference was only around 3 percentage points in 2007 (Figure 1.5). The Northeastern region, which is mainly populated by ethnic non Estonians, has suffered the most from unemployment, which in 2011 was almost twice as high as the average. However, the increase of unemployment is also related to the

Figure 1.3. **Recovery is accompanied by a strong reallocation of labour**

Employment number in Estonia, thousand of persons



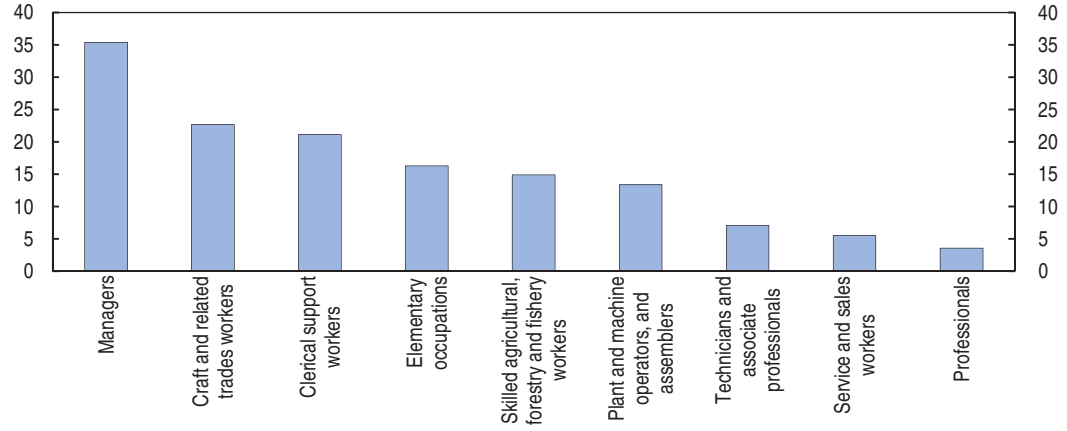
Note: Business services are: Wholesale and retail trade; Hotels and restaurants; Transport, storage and communication; Financial intermediation; and Real estate, renting and business activities. Non-market services include: Public administration and defence; Social Security; Education; Health and social work; and Other economic activities.

Source: Eurostat.

StatLink http://dx.doi.org/10.1787/888932717376

Figure 1.4. **Unemployed-to-vacancy ratio**

Number of registered unemployed per vacancy, 2011Q4



Source: Estonian authorities.

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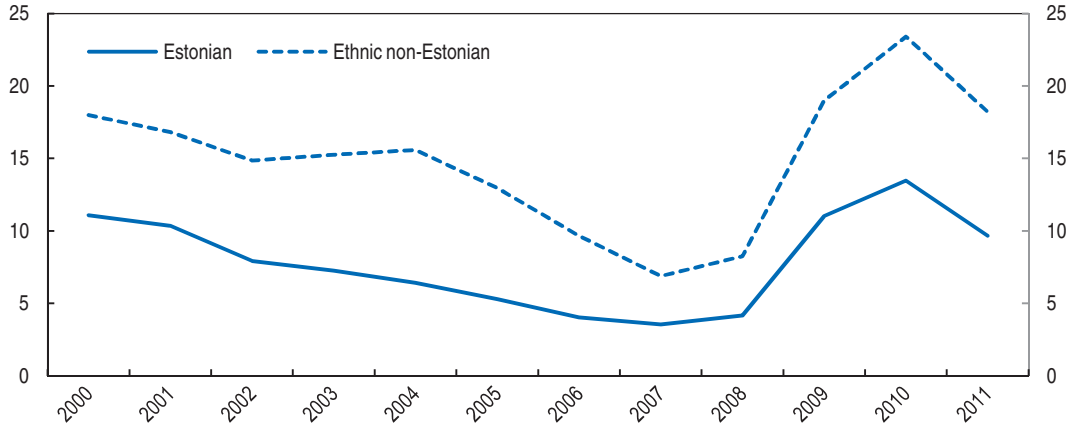
concentration of manufacturing activities, which lost 20% of jobs during the crisis. Even if youth benefited the most from the boom, with an unemployment rate which decreased from 16% in 2005 to 10% in 2007, their performance in the labour market was still particularly weak when compared with the 5% average unemployment rate in 2007. This reflects the difficulties of absorbing the large cohort born at the end of the 1980s. In the crisis, the situation deteriorated as the youth unemployment rate peaked at 35%, more than twice as high as the average (Figure 1.6).

Education appears to be the best protection against unemployment (Figure 1.6), even among youth and ethnic non-Estonians. Comparing to international benchmarks, Estonia stands out with an unemployment rate of people with basic education and secondary

Figure 1.5. **Ethnic non-Estonians were strongly hurt during the crisis**

Unemployment rate, %



Source: Statistics Estonia.

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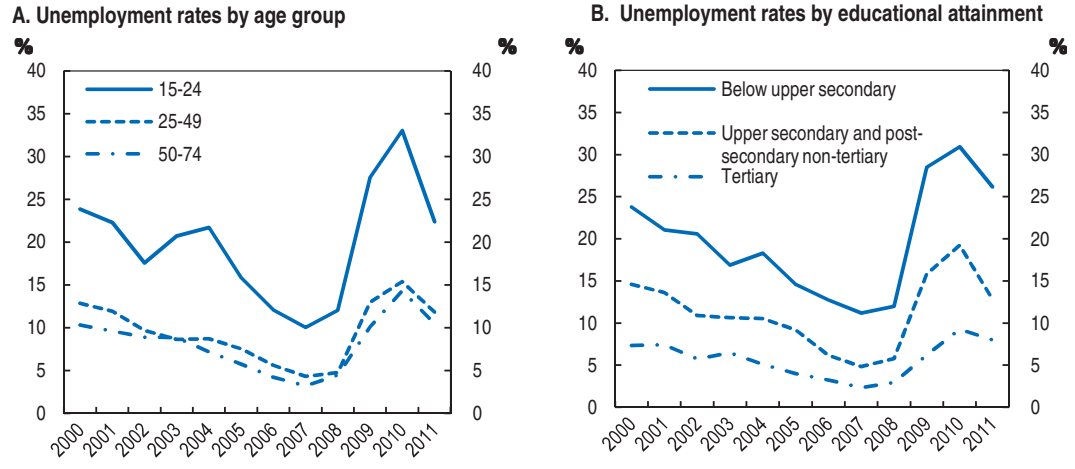
education about two times higher than the EU average, while the rate is similar when it comes to those with a higher level of education. Individuals with higher education levels and Estonian language speakers were found to exit unemployment more quickly during the crisis (Merikull, 2011). In contrast, low educated people who benefited strongly from the previous construction boom now have difficulties to find a new job. Also, the difference between female and male unemployment, which reached almost 10 percentage points in 2010 in favour of women, corresponds to the higher level of education of women (Masso and Krillo, 2011).

Figure 1.6. **Youth and low educated were strongly hurt during the crisis**



Source: Statistics Estonia.

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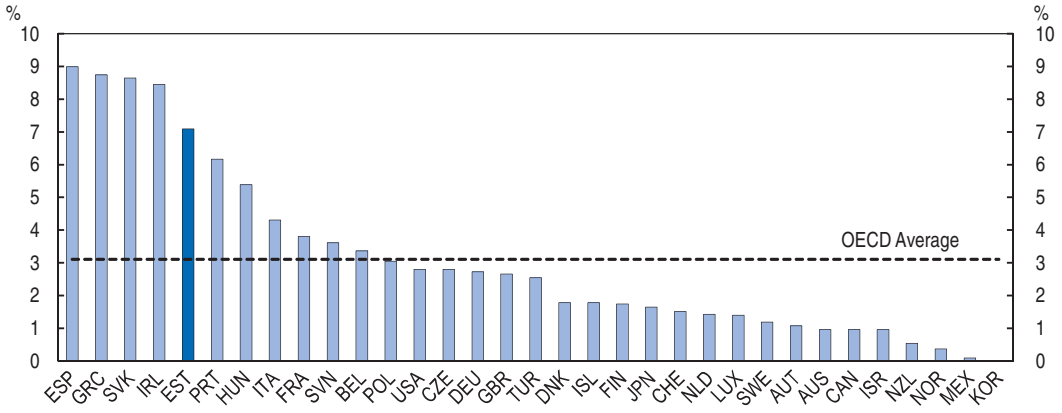
Long term unemployment is a growing concern

The exit rate from unemployment to employment deteriorated in the crisis, from 50% of unemployed finding a job in 2008 to only 25% in 2010 (Table 1.1). In 2011, almost 60% of unemployed were looking for a job for more than one year against 30% in 2008, with 7% of the working age population being long-term unemployed. The share of long term unemployed is

Figure 1.7. **Long term unemployment rate is high**

Long term unemployment rate[1], 2011



1. Persons unemployed for one year or more.

Source: OECD Labour Force Statistics Database and *OECD Economic Outlook Database*.

StatLink http://dx.doi.org/10.1787/888932717452

at one of the highest levels among OECD countries (Figure 1.7). Youth, low educated and ethnic non-Estonian have been found to have the lowest probability to exit unemployment during the crisis and have accordingly a higher probability of long term unemployment (Merikull, 2011). Following the 1998 Russian crisis, it took more time for the youth unemployment rate to return to the pre-crisis level (seven years) than for prime age workers (four years).

Strengthening and better targeting activation measures

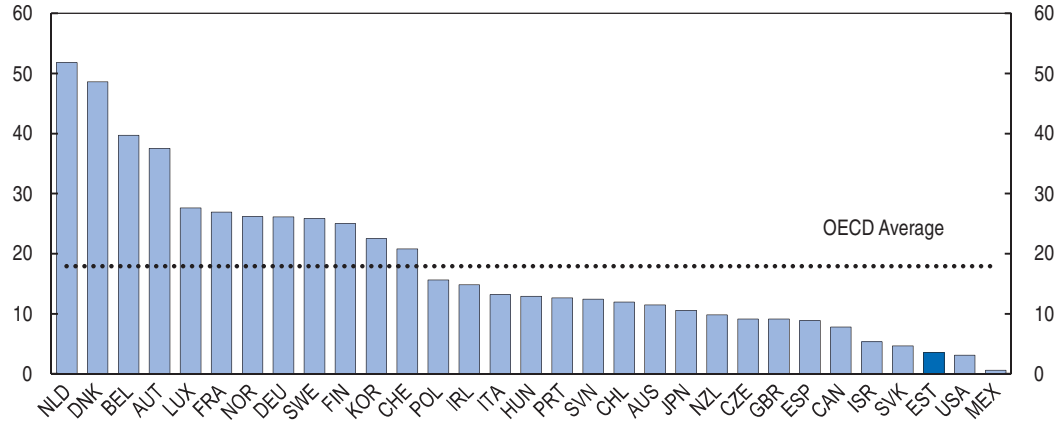
The high level of unemployment and the associated risk in terms of long-term unemployment require strong activation policies to minimise the increase in structural unemployment. Even though the generosity of unemployment benefits in Estonia is low and entitlement strict compared to other OECD countries (Venn, 2012; Vork, 2009, Chapter 2), there is evidence that benefits tend to increase the duration of unemployment due to a disincentive effect and a longer job-search process (Lauringson, 2010, 2011). In response, the authorities scaled up activation measures aimed at bringing back jobless to the labour market from 0.05% in 2005 to 0.24% of GDP in 2010. Despite this increase, the level of spending on active labour market policies (ALMP) remains low, and it is unlikely to be sufficient to tackle the unemployment problem (Figure 1.8). A further increase in expenditures would require finding other sources of funding given the decline in European Structural Fund (ESF), from 62% of spending in 2011 to 25% in 2012. Estonia has started addressing this challenge by financing ALMP from unemployment insurance contributions, and increasing the contribution rate to the Unemployment Insurance Fund (UIF).

Other challenges discussed in the next paragraphs include improving the cost-efficiency of each programme through better targeting the early personalised interview, training courses and wage subsidies to at-risk groups. Such targeting at those in greatest need should be implemented while maintaining strong conditionality and job search requirements for all unemployed, in a so called “mixed strategy” (Gueron and Hamilton, 2002).

The changes in the Labour Market Service and Benefit Act, implemented in May 2011 (Box 1.1), have likely improved the efficiency of job search by strengthening the requirement that benefit recipients engage in active job search and participate in

Figure 1.8. **Expenditures on active labour market policies are low**

Active labour market policies per unemployed, % of GDP per capita, 2010[1]



1. 2007 for Switzerland and Norway; 2009 for the United Kingdom; 2011 for Estonia.

Source: OECD National Account Database, *OECD Labour Force Statistics Database* and Estonian Unemployment Insurance Fund.

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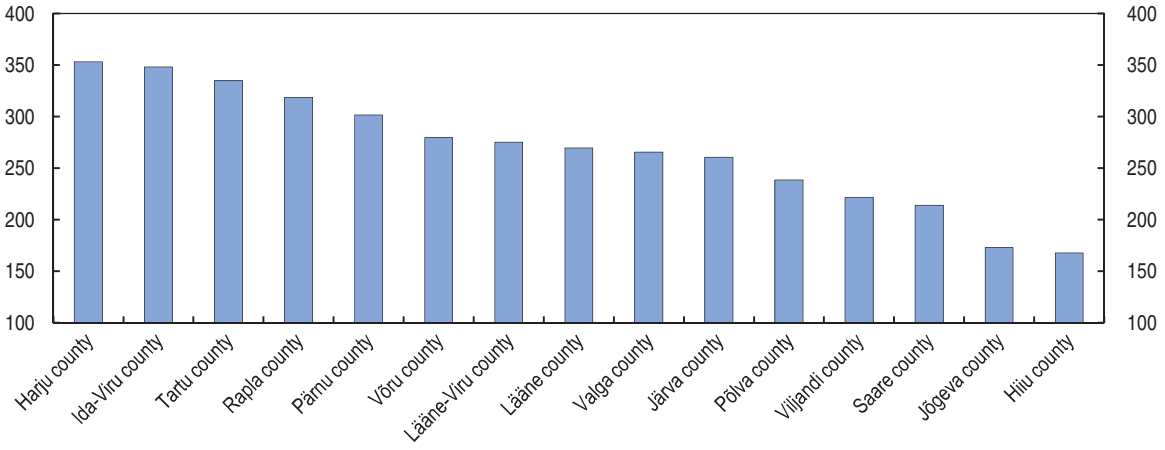
activation programmes, in exchange for receiving efficient employment services and benefit payment ("mutual obligation" requirement). Registered unemployed are henceforth required to participate in labour market services identified as necessary, with gradual sanctions applied otherwise. The main requirements include: *i)* to comply with measures in the Individual Action Plan agreed during the first month of unemployment; *ii)* to contact the UIF every thirty days after the preparation of the Individual Action Plan; *iii)* to accept a suitable work offer and to promptly commence work; and *iv)* to seek employment independently. Job-search requirement is consistent with successful international experience suggesting that employment services can contribute to improving the labour market performance. Job search reporting, regular interviews, and monitoring of benefits have been found to increase the probability of being hired. Overall, it is considered that a full programme of public employment service intervention might increase the unemployment exit rate by 30% to 50% (Martin and Grubb, 2001).

An adequate staff/unemployed ratio is crucial for the efficiency of public employment services. While this ratio has been reduced when compared with the peak of the crisis, from 407 unemployed by job mediation counsellor in 2010 to 275 in 2011, there are still regions where the number of unemployed by counsellor is higher than 250 (Figure 1.9). The requirement to provide an individual action plan to each unemployed person within 30 days of registration might overburden public employment services staff that should focus on at-risk groups. Some resources could be freed up by promoting early electronic registration of the unemployed and delaying the "face-to-face" discussion of the Individual Action Plan. There is some scope to delay the Individual Action Plan when comparing to most OECD where staff-intensive activities are generally postponed until three months of unemployment spell (OECD, 2010a). Resources could then be redeployed for deeper and more frequent interviews with at-risk groups. Such reform would be in line with the additional flexibility introduced in 2011 regarding the obligation to appear every thirty days after the preparation of the Individual Action Plan; this can now be done by phone or through an online system. Such saving of resources could be especially welcome in counties where the caseload per counsellor is high (Figure 1.9). Electronic registration of the initial action plan would be a step in further broadening the use of IT tools in public employment services (Box 1.1).

Figure 1.9. **Job mediation counsellors' caseload is still high in many counties**



Source: Estonian Unemployment Insurance Fund.

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Box 1.1. **Main reforms regarding the provision of labour market services**

- The Labour Market Board and the UIF were merged in 2009. This was to consolidate the management of benefits and the provision of employment services to improve the effectiveness of public employment services, increase the resources, and share responsibility with social partners. The supervisory board of the new institution includes representatives of the employers, trade unions and the government.
- Using insurance premiums to finance employment services was allowed in 2010 to secure funding, especially when it turned out that the amounts from the European Structural Fund and State Budget would be insufficient.
- The changes in the Labour Market Services and Benefits Act were implemented in May 2011 and established the general objectives, the targets, and the main labour market services provided. In addition, a temporary Employment Programme finances the labour market services and benefits according to current labour market needs (e.g. introduction of additional services, widening the range of clients of public employment services and benefit recipients).
- Since May 2011, public employment services are required to provide an individual action plan to each unemployed person within 30 days of registration, compared to 7 days prior to the change. This allows freeing up some resources to monitor more closely jobseeker with specific difficulties while putting less emphasis on newly registered unemployed.
- The development of IT tools has been promoted for many years and already includes several major services: *i)* the registration and job-search plan module since autumn 2009; *ii)* the automatic job and skills matching module since July 2010; *iii)* the availability of job vacancies through online database since January 2011; and *iv)* the provision of all the services/measures (referrals, contract administrations, related payments, monitoring, etc.) by the end of 2012.

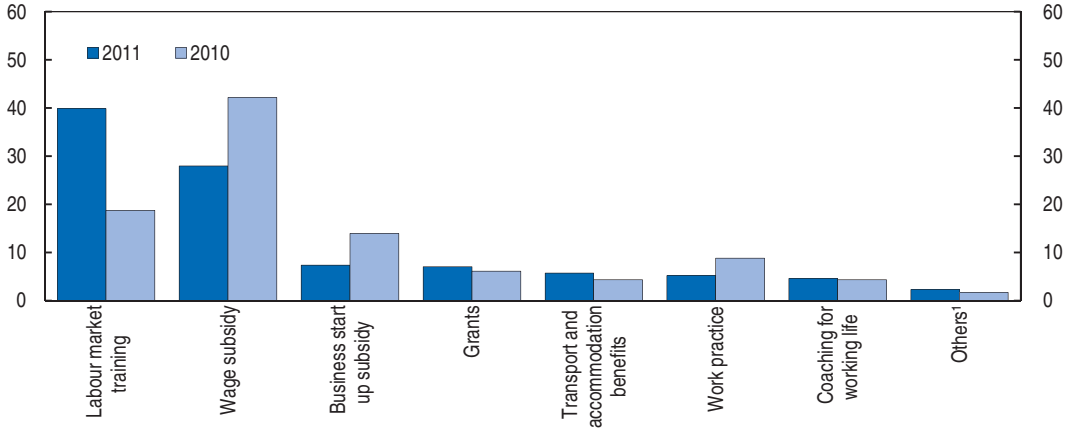
Making work subsidies more efficient by targeting net hiring and at-risk groups

Wage subsidies, which were the largest programme during the crisis, have been scaled back in 2011. Under the wage subsidy scheme, 50% of the salary of a long term unemployed can be reimbursed for a 6-month period, up to a limit of the minimum monthly wage. Wage

subsidies have been particularly accessible during the crisis when eligibility conditions were softened: the criterion of unemployment duration was lowered from 6 to 3 months for young people in 2010, while for other groups it was brought down from 12 to 6 months. As a result, wage subsidies accounted for more than 40% of active labour market spending in 2010. The restoration of the 6 and 12 months unemployment duration contributed to reducing the size of the program to 28% of ALMP spending in 2011 (Figure 1.10).

Figure 1.10. **The distribution of activation programmes is skewed towards training and wage subsidies**

% of total expenses



1. Others include: Counselling; Substitute care-giving; Other measures; Special aids and equipment; Adaptation of premises and equipments; Communication support at interviews.

Source: Estonian Unemployment Insurance Fund.

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While wage subsidies are effective at bringing people into employment (Kluve, 2010), the economic literature points out the risk that hiring could have occurred even without the subsidy (deadweight losses) or could have crowded out other jobs, resulting in only small net employment increase (Martin and Grubb, 2001; Boone and van Ours, 2004). Targeting subsidies at groups facing difficulties would minimize these risks because the cost advantage is granted to the unemployed who would not be employed otherwise given their low level of productivity (Orszag and Snower, 2003). The efficiency of the wage subsidies schemes could also be further strengthened by ensuring that it supports the creation of additional jobs at the firm level. By ensuring, for instance, that the new employee does not replace someone who was dismissed, the risk of crowding-out is reduced. However, this kind of scheme could be difficult to administer effectively and Estonia could take inspiration from recent experience in Belgium, Finland or Ireland that implemented subsidies to net hiring (OECD, 2010b). The net hiring requirement tends to favour small firm that have a higher tendency to hire new employees than large firms. For instance, the schemes implemented in Belgium and Finland explicitly aim at helping small firms to grow by subsidising the first and second employees (OECD, 2010b).

Quality of work practice schemes should be further strengthened

Work practice (internship) schemes, which improve the labour market performance of participants by increasing their skills through practical on-work training, have been found to be particularly successful in Estonia. Forty per cent of participants got a job after

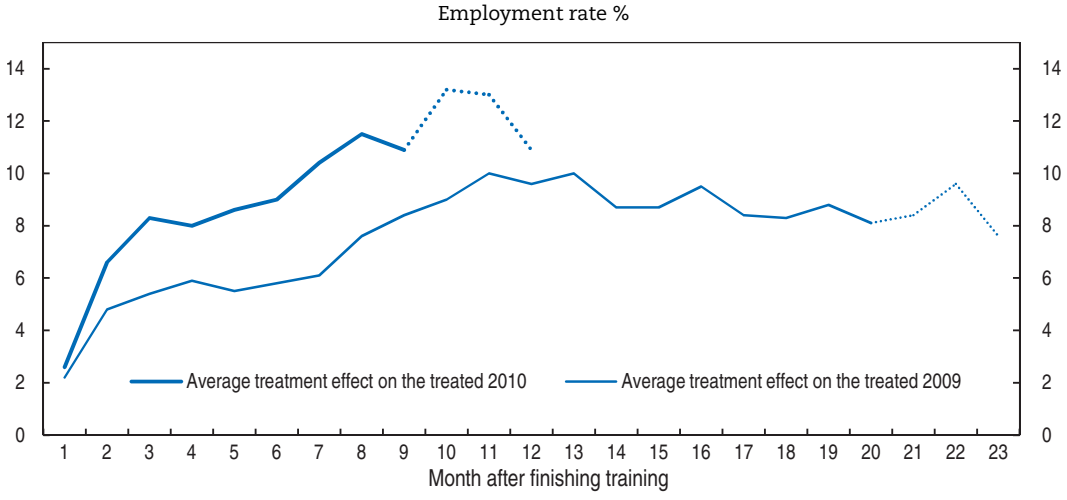
participating in the programme in 2009 and 49% in 2010 (Leetmaa and Nurmela, 2010). This programme therefore appears well suited to reducing the skills mismatch by allowing employers to train potential employees according to company specific needs, and to provide youth a first job experience. To support participation in this programme, training grants and transport compensation have been increased since the third quarter of 2009.

Although internship increases the probability of employment, an unattractive characteristic of this scheme in Estonia has been the low quality of training and the instability of the jobs created. During the economic crisis these schemes were often used especially to keep people in temporary unpaid employment (up to four months), while no substantive training was provided (Jurgenson *et al.*, 2010). In that context, authorities should ensure a better monitoring of post-internships employment performance, while increasing employers' compensation for the cost of supervision and instruction. However, there is a balance to be found between the close monitoring of employers and the associated administrative burden which reduces the willingness of employers to participate in such measures.

Training should be market oriented, targeted toward specific groups and more intensive

Current rebalancing of spending toward training programmes, from 20% in 2010 to 40% in 2011, appears justified given the importance of skill mismatches and empirical evidence that those programmes are effective at bringing individuals into employment. Training increases the probability to be employed by around 7% (15%) one year (two years) after completing the training (Leetmaa *et al.*, 2003). The impact is slightly higher (around 10% after one year) in a more recent analysis carried out by the UIF (Figure 1.11). A positive effect on the wage of participants has also been found (Lauringson *et al.*, 2011). While other studies in Estonia found similar effects (Centar, 2012), international experience suggests that positive effects of training may take a longer time to materialise (Box 1.2).

Figure 1.11. **Impact of training on employment rate**



Note: Average treatment effect is the difference in the unemployment rate between the participants of labour market training and a control group. The dotted line marks estimations based on many fewer observations (hence less reliable).
Source: Lauringson *et al.* (2011).

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Box 1.2. **Impact of training on labour market performance: Overview of international experience**

While training programmes are less effective at increasing employment in the short term than job search or wage subsidies, they have positive effects over longer time periods, provided that they are well designed.

- Training may decrease labour market performance in the short-term because of the lock-in effect: the trained unemployed is devoting less time to job search, while it takes time for human capital accumulated to materialise in labour market outcomes (OECD, 2006, 2007a; and Card *et al.*, 2010).
- Positive outcomes appear when looking at a time period longer than one year and at post-unemployment earnings (Meager, 2009), while a first strand of papers in the 1980s and 1990s found only modest positive effects of training on employment performance in the short term.
- At the macro level, training reduces unemployment and increases employment (Boone and van Ours, 2004). There is also strong evidence at the international level of a positive relationship between the level of initial education and employment (OECD, 2005a).

Training courses, like other labour market services in Estonia, are currently offered according to the individual needs of the unemployed, but they are not explicitly targeted at specific risk-groups. This system appears *a priori* well suited to covering at-risk categories as reflected in the higher participation of long term unemployed in training programmes: in 2011, two thirds of long-term unemployed participated in training compared with one fifth among registered unemployed. However, there may be a case for better targeting. There is evidence that participation in training is biased towards relatively highly educated individuals: the share of participants with the lowest level of education turns out to be lower than their share in overall unemployment (Centar, 2012). It would be useful to target training programmes more explicitly toward this group. More specific attention should also be given to youth who, because they are generally not entitled to unemployment benefits, tend to have fewer contacts with the UIF whereas they have stronger needs for training: 60% of youth unemployed are not contacting the UIF against 47% on average in Estonia (Statistics Estonia website).

Based on international experience, successful characteristics that could be better reflected in the design of training programmes in Estonia include:

- strong market-orientation, ideally through training in a real workplace (Martin and Grubb, 2001);
- targeting programmes at specific skill needs (Meager, 2009);
- favouring an intensive approach, with high cost per head, rather than extensive approach that covers a large share of unemployed with low intensity (Meager, 2009; Martin and Grubb, 2001);
- formal certification (Poppe *et al.*, 2003).

In the Estonian case, strengthening the link between training and labour market needs could be particularly challenging due to the weakness of social partners (Masso and Krillo, 2011). Measures giving incentives to firms for creating workplace training, such as subsidies, should be strengthened. Regarding the quality of training, the recent increase in the level of support of training vouchers, from EUR 959 up to EUR 2 500 should contribute

to improving the access to intensive training courses leading to certifications. However, procurement rules prevent authorities from discriminating explicitly among providers based on their past co-operation, resulting sometimes in low quality courses (Centar, 2012). The quality of training courses cannot be observed in advance and the only consequences of a negative outcome of *ex post* monitoring and evaluation is the threat of discontinuing procurement. The UIF should be granted more flexibility to procure training courses by allowing it to choose providers based on course quality, in addition to price. Post-training employment performance evaluation could be used 0 as a tool to judge course quality. The choice of training courses should also directly involve employers, for example through chambers of commerce and employer surveys and, where appropriate, contacts with individual firms. From an operational point of view, Estonia could also get inspiration from the specific professional skills and technique (SPST) training programme in Germany, which includes workplace experience, which ends up most often with a certificate, and which has been found to improve the employment rate by about ten percentage points a year after the beginning of the programme (Meager, 2009).

Reinforcing the impact of lifelong learning

Skills mismatch has become a growing concern in Estonia following the last boom and bust episode which lead to a sharp reallocation of labour between sectors and a change in the kind of skills needed by firms. 22% of workers self-reported as under-skilled in Estonia in 2010 which is one of the highest levels of skill shortage among the OECD countries (*European Working Condition Survey*, 2010). Comparing the level of qualification of a worker and the occupation code of her job gives the same picture (Quintini, 2011). The prevalence of under-skilling and under-qualification in Estonia might reflect the large share of the workforce (32%) who left education without any professional education (i.e. without vocational or higher education). This might also be related to the rapid structural change characterising a catching-up economy like Estonia, which could result in rapid skill obsolescence, especially for older workers.

Participation in lifelong learning increased strongly in Estonia, from 6.3% in 2000 to 12% in 2011, which should contribute to improving the overall level of skills, less skill shortage, and better employment prospects. A 10% increase in time spent by an adult on education or training is associated on average with an increase in the probability of being active of almost 0.4% and a decrease in the probability of being unemployed by 0.2% (OECD, 2004; Bassanini, 2004). As the number of participants in lifelong learning is already above the EU average, Estonia should consider giving less importance to quantitative objectives such as those identified in the National Programme of Reform (government of Estonia, 2012) according to which Estonia should reach 15% (20%) of adults participating in lifelong learning by 2015 (2020). More attention should be given to developing more sustainable financing sources and raising quality.

Funding of lifelong learning is a source of concern. Sixty per cent of small firms (10-49 employees), which constitute a big share in Estonia, engage workers in continuous vocational training, relative to almost 100% of large firms (Statistics Estonia website). The dependency on EU funds is high, Estonia having received EUR 130 million for lifelong learning programmes over the period 2008-13 (NAO, 2011). In the context of the development of a new Plan for Adult Education that expires in 2013, challenges for the future discussed in the next paragraphs include improving incentives to invest in training for firms and workers, targeting public support, and increasing the quality of training.

Improving incentives to engage in lifelong learning

While lifelong learning improves employment performance and productivity, there are reasons to assume that market failures, such as the fears of poaching the trained worker by other firms, or credit constraints, prevent firms and workers to invest sufficiently in this area (Ok and Tergeist, 2003; Box 1.3). International experience suggests different practices to stimulate investment (Table 1.2). A recent reform, excluding employers' spending on employees' work-related studies from the fringe benefit tax, is likely to stimulate spending. Corporate tax-based schemes that deduct part of the cost of training from firms' profits have proved to be quite effective at raising investment in training in OECD countries (OECD, 2005b), but they are not well-suited for Estonia where only distributed dividends are taxed. Compulsory contribution (payroll taxes or contribution to individual learning accounts) would increase firms' investment in training but would add to the tax wedge.

Box 1.3. **Who should pay for training? A brief overview of lifelong training theories**

- According to traditional human capital theory, based on the assumption of a perfectly competitive labour market and efficient capital markets without liquidity constraints, a worker should pay for general training because he could sell the newly acquired skills. However, credit rationing may prevent him from investing optimally.
- Specific training, valuable for specific firms, should be financed by a sharing mechanism involving employers and employees, which would ensure that both parties have an interest to maintain the employment relationship after training.
- The "new training literature", based on oligopsonistic wage-setting, puts emphasis on the fact that return to employees of general training appears lower than gains in productivity. Firms may therefore find it profitable to pay for it. This approach is more consistent with practice: firms are the main funders of training, workers don't generally bear a wage cut during training, but bear indirectly part of the costs when courses are organized outside the working hours.
- There is a case for direct public funding when the private return (at the firm or the worker level) is lower than the social return. Firms under-invest when training leads to generic knowledge or in case of complementarities between innovation and human capital. Regulatory measures could be insufficient to resolve these market failures and these might have to be complemented by subsidies.
- Specific support could be devoted to low educated workers, older workers and workers from small firms whose employers can expect to capture only a low share of the total social return, resulting in underinvestment.

Source: Bassanini *et al.*, 2005; Ok and Tergeist, 2003.

Good practices, specific to the Estonian economy, should be developed progressively by implementing some pilot projects. Estonia could extend the training voucher scheme towards employees and finance them through employers and employees' contributions, but also by direct public support in areas where there is evidence of underinvestment. Some regulatory measures could also be strengthened; pay-back clauses would reduce the risk of free-riding among firms, thereby stimulating firms' investment, by specifying a period during which future employers and trained adults are obliged to pay back training

Table 1.2. **Overcoming barriers to investment in training: What tool in which country?**

Main tools	Example of countries where tools are implemented
Income tax deduction	Austria, Denmark, Germany, the Netherlands
Payroll tax-based training grants	Japan, Korea, Spain
Individual learning account	Canada, the Netherlands, Spain, the United Kingdom and the United States
Vouchers or allowance	Austria, Germany, Italy
Individual loans	Korea, New Zealand, Norway, United Kingdom
Regulatory measures (e.g. apprenticeships contracts, pay-back clauses, loan guarantees for employees)	Most countries institute these kinds of measures through collective agreements

Source: Promoting Adult Education, OECD, 2005b.

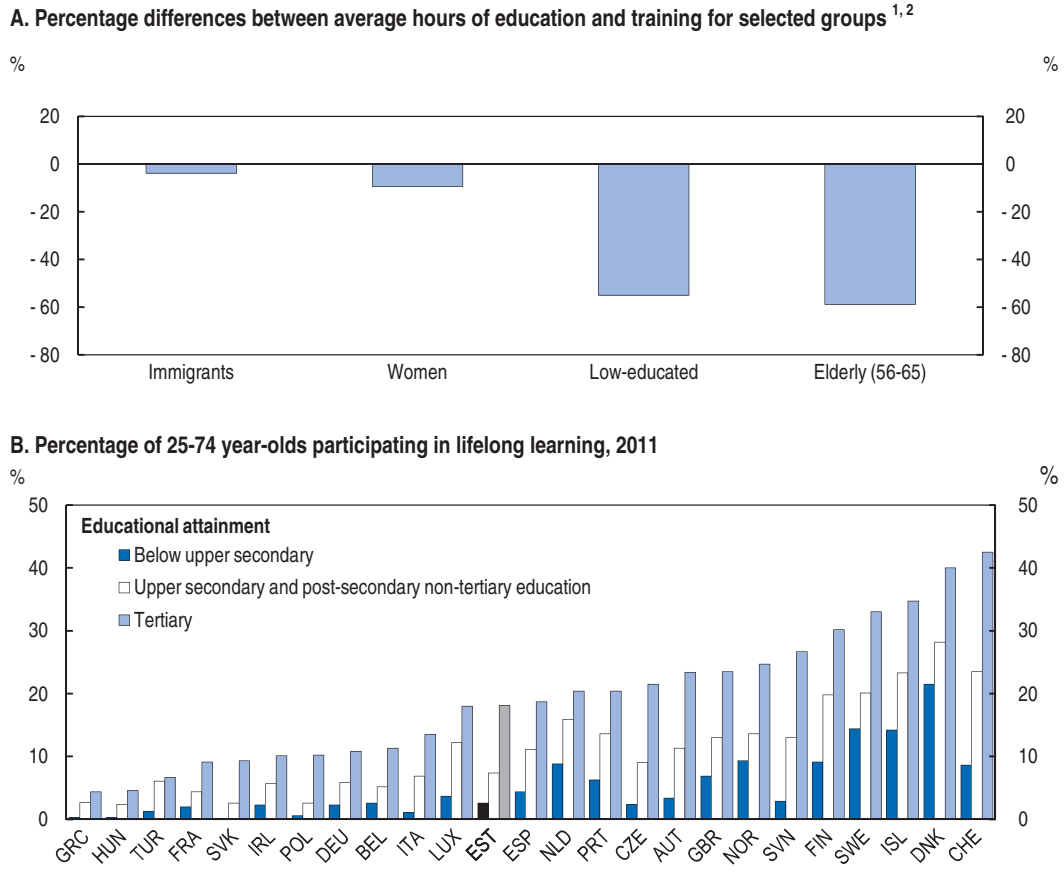
costs after voluntary quits. This kind of measures does exist already, but on a limited scale, and should be further promoted. Another tool is training loans guaranteed by the government. In this respect, the plan to make study loans also accessible to part-time students could be a stimulus to adult learning.

Co-ordination between social partners is also a way to promote lifelong learning by aligning training courses with labour market needs and co-ordinating firms and employees' incentives to invest. The Adult Education Council provides advice to the government and brings together key partners of adult education: the UIF, the employers, the trade unions confederation, the providers of adult education, and the ministries of Education and Research, Social Affairs, Economy and Communication, and Finance. This is a useful institution but it should be complemented by similar institutions at the local level aiming at matching lifelong learning system with local needs of employers. The weakness of social partners in Estonia (Masso and Krillo, 2011) and the resulting difficulties in co-ordination could however be a source of concern.

Better targeting public support to workers in need

While studies based on international data associate positive labour market outcomes to lifelong learning irrespective of the initial level of education (Ok and Tergeist, 2003), participation in training is skewed toward the better educated in Estonia. Only 2.6% of adults with an education level below upper secondary engage in lifelong learning, against 18.1% of those with tertiary education (Figure 1.12). The positive outcomes of training can be realised through a wage premium or greater employment security. The latter is mainly observed for low qualified and older worker who are more likely to be subject to skills obsolescence in a world of rapid structural change. Lifelong learning would enable low productivity workers to improve their skills and hence to maintain employment (Bassanini *et al.*, 2005; OECD, 2004). However, firms may find it less profitable to train the low qualified workers (because of the need for general education before acquiring firms' specific competencies) or older workers (because of approaching retirement). Among measures already taken to improve participation of low-educated adults to lifelong learning, the government has extended their access to local counselling centres, which was previously restricted to the unemployed. It has also extended the KUTSE programme which aims at helping drop-outs from vocational education to resume their studies, to adults without any professional education or qualification by establishing specific study groups for adult learners in vocational institutions. The authorities could go beyond these measures by offering training vouchers targeted at low productivity workers. In Austria, adult courses

Figure 1.12. **At-risk groups in the labour market engage less in lifelong learning**



1. Persons aged 26 to 65, excluding those in full-time education or retired.
2. Weighted average for Australia, Belgium (Flanders only), Canada, the Czech Republic, Denmark, Finland, Hungary, Ireland, Italy, the Netherlands, New Zealand, Norway, Poland, Switzerland, the United Kingdom, and the United States.

Source: OECD (2006), OECD *Employment Outlook*, Figure 3.16; Eurostat.

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are subsidized by vouchers whose amount varies according to the location and other characteristics of adults, with poorly educated adults being favoured (OECD, 2005b).

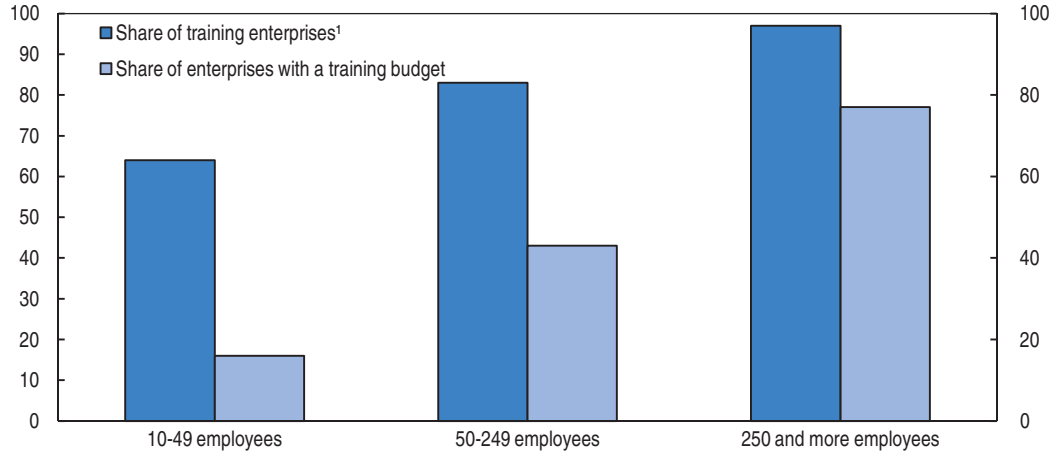
Participation in training activities is significantly lower in SMEs than in large firms. Seventy-seven per cent of large enterprises, but only 16% of small enterprises (10-49 employees), devote a specific budget to training (Figure 1.13). As a result, the share of small firms providing continual vocational training programmes is lower relative to large firms (60% against almost 100%). This might be related to practical difficulties, such as the lack of resources to replace the missing worker or the lack of customised training (OECD, 2012a, 2012b). Specific support could hence be targeted at small firms.

Increasing the return from training

Training participation increased by 4 percentage points between 2007 and 2010 (Table 1.3). However this might not directly reflect an overall increase in workers' productivity given the type and the length of courses which contributed the most to this increase. While the Plan for Estonian Adult Education aimed at promoting participation in formal education, notably by allowing adults to enter institutions or universities on the basis of professional competencies, formal education increased only by 0.6 percentage points

Figure 1.13. **Small firms invest less in lifelong learning**

Enterprises with training courses and a training budget by size,% of total enterprises, 2010



1. Enterprises providing continuing vocational training (CVT).

Source: Statistics Estonia.

StatLink http://dx.doi.org/10.1787/888932717566

Table 1.3. **Participation in lifelong learning increased mainly in professional conferences and seminars and hobby-related training**

	2007	2010
Participating in formal education		
General education or vocational education	0.5	0.5
Institution or higher education	3.1	3.7
Participating in training		
Professional in-service training or retraining	2.4	3.4
Professional conference, hobby-related training and other training	1.4	3.9
Total	**7.4**	**11.5**

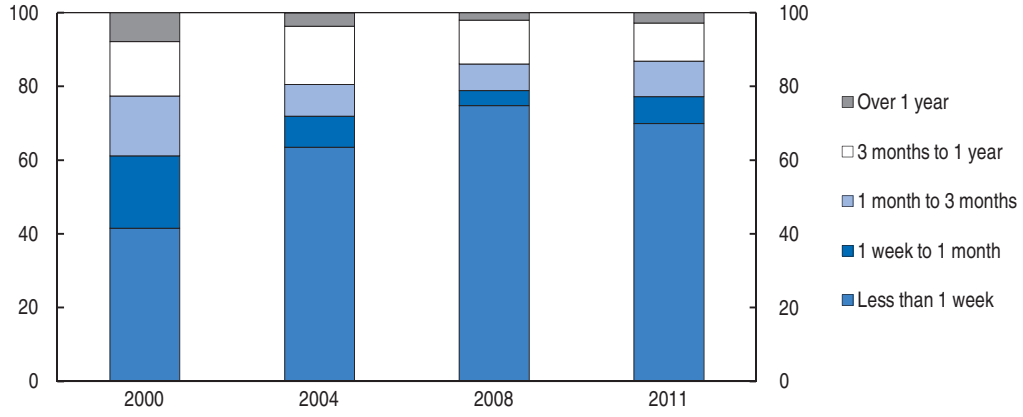
Note: People aged 25-64. The sum of participant is higher than what usually reported (11.5% in 2010 instead of 10.9%) because the table reports the participation in each programme and not the number of participant.
Source: Statistics Estonia.

between 2007 and 2010. The participation of adults in training programmes aimed at developing skills needed by the worker in his current job (in-service training) or needed to take a job in another area (retraining) also rose by only one percentage point. In contrast, more than half of the total increase in training participation (2.5 percentage point) was due to participation in professional conference and hobby-related training. These programmes accounted for 3.9% out of a total of 11.5% of workers involved in adult training in 2010, and might not yield specific professional skills (NAO, 2011). This is in line with another observation that very short courses increased over the period: 75% of courses for adults training were shorter than one week in 2010 against 42% in 2000 (Figure 1.14).

Another related issue is the low proportion of training courses which end up with a professional examination (NAO, 2010, 2011). This may generate inefficiency by reducing job-to-job mobility if it increases the uncertainty for employers to predict skills of the candidates for a job. In this context, devoting more resources to longer courses ending with professional examination, or at least certification would contribute to improving skills matching.

Figure 1.14. **Participation in lifelong learning became skewed to very short courses**

Share of training according to duration, people aged 25 to 64



Source: Statistics Estonia.

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Improving the quality of vocational education for a successful employment career

While youth unemployment deserves special attention, with 22% of youth being unemployed in 2011, tackling this problem is not an easy task. International experience suggests that the most efficient way to avoid youth unemployment is through a timely and sustained intervention to reduce early drop-out from education and to provide competencies and skills recognised by employers (Grubb, 1999). Strong emphasis needs to be devoted to programmes having an appropriate mix of academic education, occupational skills and on the job training.

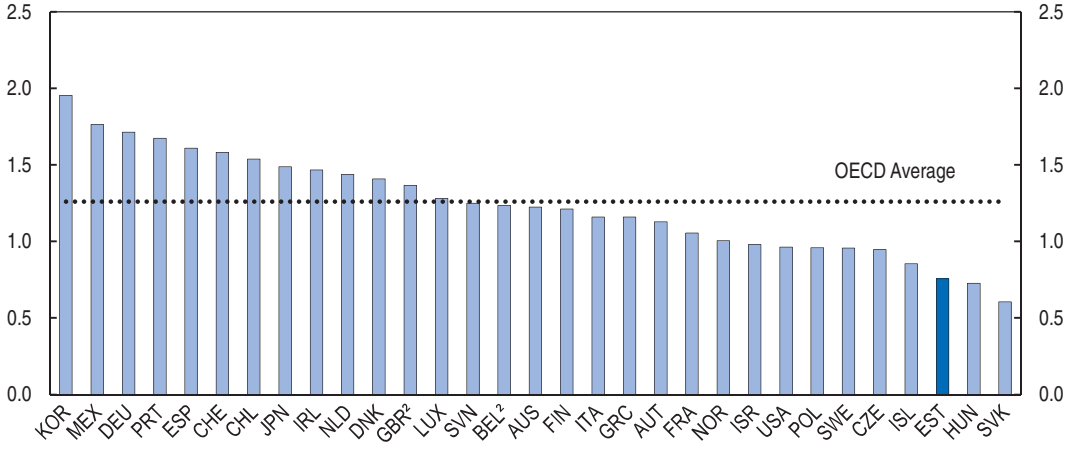
Demographic trends add to the sense of urgency, as Estonia cannot afford to waste the potential of youth given the prospects of its shrinking workforce and the expected decline in the number of new job market entrants (OECD, 2009a). Since 2000, the number of persons enrolled in education decreased by about 70 000, or by 22%. The decline has so far mainly taken place in general education, where the number of students has fallen by 34% while it has decreased by only 10% in vocational education, also thanks to an increase of adults entering formal education in VET and obtaining professional qualification. However, according to the authorities' forecasts, the declining trend is expected to affect the whole education system. Streamlining and merging educational institutions should therefore be continued as well as efforts to attract more adults in formal education to obtain professional qualification.

Recent national surveys of vocational schools graduates 6 months after graduation suggest that the reformed VET education system offers improved job perspectives. In 2011, 10.8% of vocational secondary school graduates and only 8.3% of post-secondary vocational graduates were unemployed six months after graduation. The main concerns with regard to the quality of vocational education are the high number of drop-outs and the higher unemployment rate of secondary vocational education graduates relative to general education graduates (Figure 1.17). VET graduates are quite successful in getting a first job with a wage, which is increasingly similar to what is paid on jobs occupied by general education graduates. However, VET graduates face problems to cope with

structural change and find it more difficult to find a new job after having become unemployed. This amounts to a failed opportunity to build upon the success of basic education, as reflected in high PISA scores among all social groups (OECD, 2011b). Measures to improve the quality of vocational education institutions have been taken and include the adoption of the new Vocational Education Institutions Act to be implemented in 2013. This encompasses measures for improving teachers training by requiring minimal industry experience; for improving the quality of tuition and VET curricula, especially by strengthening work-based parts of it; and for increasing the financing of vocational education, currently 20% lower per student than spending on general education. A related issue is the level of teacher salaries (relative to GDP per capita), which is among the lowest in OECD countries, making teaching unattractive (Figure 1.15). Other challenges, discussed in the next paragraphs, include the strengthening of key competencies (like numeracy and literacy) in the curricula, the promotion of workplace training, and the need for a commitment by the authorities to offer youngsters not in education, employment or training an apprenticeship until the age of 18.

Figure 1.15. **Teacher salaries remain one of the lowest of the OECD**

Ratio of salaries[1] after 15 years of experience to GDP per capita, 2009



1. Ratio of salaries after 15 years of experience to GDP per capita; Salaries after 11 years of experience for Switzerland; Actual salaries for Ireland, Scotland, Finland, Norway, United States, Sweden and Hungary.
2. Average of the salaries of two regions for the United Kingdom (Scotland and England) and Belgium (Flemish and French regions).

Source: OECD (2011), *Education at a Glance*, Chart C_D3.3.

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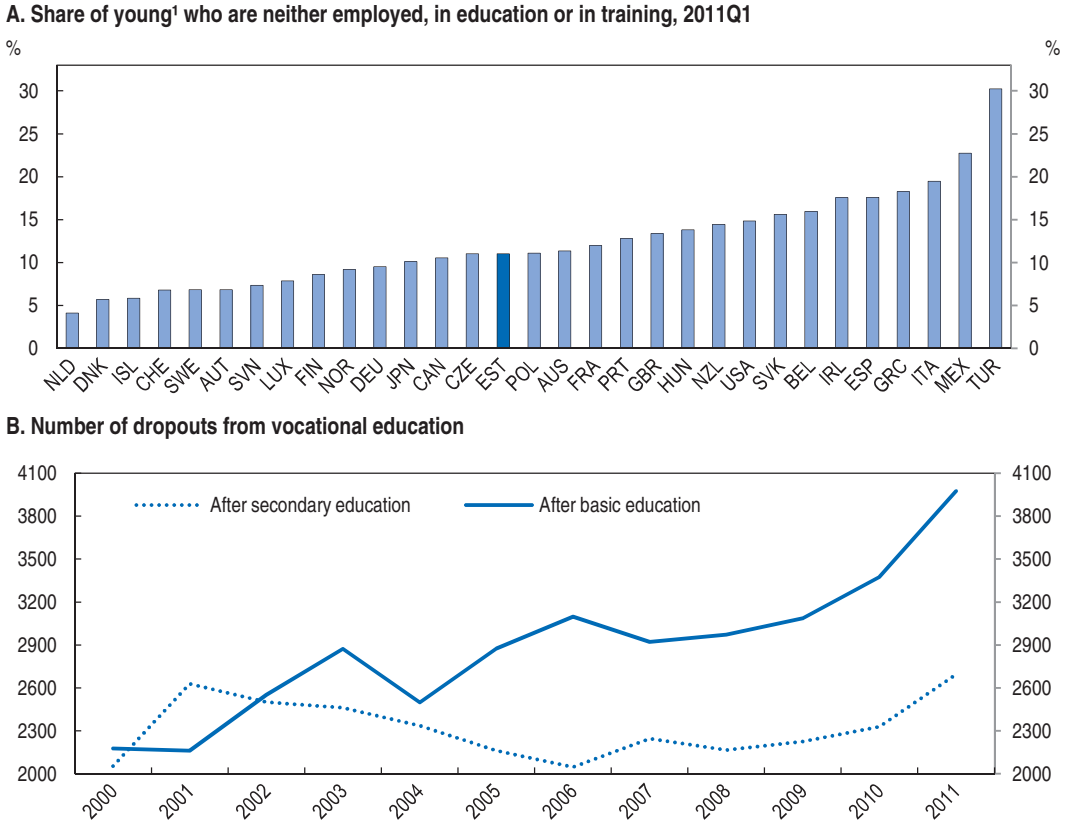
VET suffers from a high number of drop-outs and a relatively low ability to cope with structural change

With 11.6% (in 2010) of youth, who haven't reached at least secondary education, early school leaving is a source of concern for the authorities. Early dropouts are costly, as they contribute to a permanent loss of productivity. The rate of return on an additional year of schooling is estimated at around 10% (Card, 1999). Reducing by half the numbers of early drop-out in Estonia would entail a gain estimated to 0.7 per cent of GDP (Anspal *et al.*, 2012). While the dropout phenomenon is also noteworthy in the third stage of basic school studies, the majority of drop-outs occur in secondary vocational education (Figure 1.16; government of Estonia, 2012). Reasons behind that could be the weak preparedness of basic school graduates for vocational studies and future job career, as well as an insufficient

Figure 1.16. **Completion rate in education could be improved**



1. Population aged 15 to 24.

Source: OECD (2012), *OECD Employment Outlook*, Table C4.3; Statistics Estonia.

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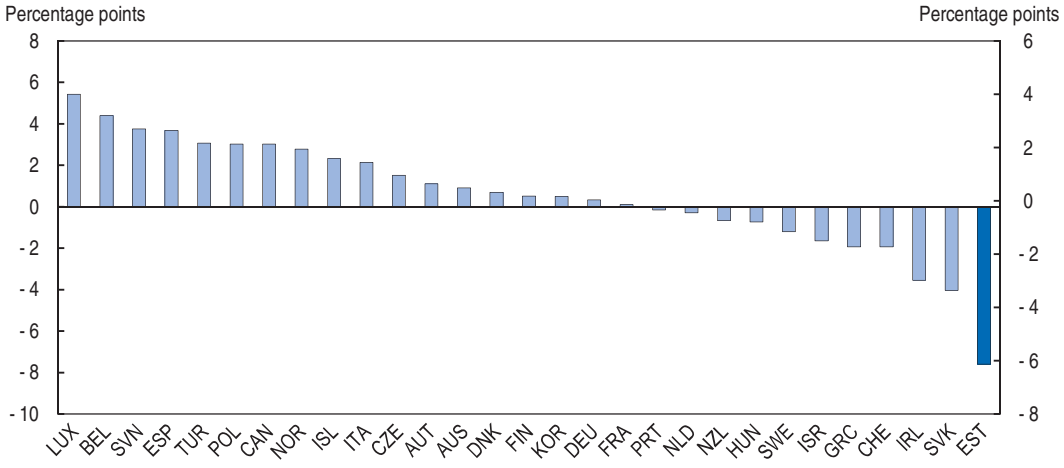
support for successful completion of studies. Consequently, Estonia performs better than the OECD average when looking at the completion rate in secondary general education but not in secondary vocational education (OECD, 2011b).

Although vocational education offers good possibilities to gain secondary education and qualification for jobs, this field of education needs improvement especially regarding job perspectives for its graduates. The unemployment rate of 25-34 years-old graduating from secondary vocational education is higher than those with secondary general education (Figure 1.17), and the gap has remained sizeable at 6.8 percentage points in 2011. Previous studies have shown that the probability of finding a job within a year is significantly higher for unemployed with secondary general education compared with those with secondary vocational education (0.62 *vs.* 0.39) (Saar and Helemäe, 2006).

Part of the lower performance of graduates from vocational education might come from a congestion effect as fewer graduates from general secondary education go directly into the labour market relative to graduates from vocational education (43% *versus* 79%). Therefore the difference in unemployment rates between graduates from vocational and general education appears much lower when considering the general population (15-74 years old) rather than the young population (25-34 years old). The gap tends also to be cyclical; people with upper vocational secondary education suffered more during the crisis whereas they have more strongly benefited from the recovery (Statistics Estonia). Part of

Figure 1.17. **Youth with vocational education perform weakly relative to those with general education**

Difference in unemployment rates between graduates from general and vocational upper and post secondary education,[1] 2010



1. Population aged 25 to 34, ISCED (3/4).

Source: *NEAC database on labour force status by National Educational Attainment Categories* (NEAC), developed by the OECD Education Directorate.

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the gap can be also explained by the fact that some of the general secondary education graduates gained additional years in higher and post-secondary institutions. However, the most important reason for this gap seems to be that VET graduates face difficulties to find a job for which they have not been trained. A similar phenomenon is also observed in other countries, even with successful school-to-job transition programmes like Germany (OECD 2012c, Annex Table D).

An analysis of net salaries between 2005 and 2009 does lead to the conclusion that the relative performance of vocational education in terms of compensation catches up to general education (Table 1.4). Wages are higher for individuals with secondary vocational education than for those with basic education. They are still lower than for graduates from general secondary education, but the wage premium for vocational education graduates has increased faster than for other graduates. This means that jobs for VET graduates have an increasingly similar quality as for general education graduates. The challenge therefore is after getting a job, keeping it, or if it is lost in the course of structural change, to find a new job, even outside the original profession.

Table 1.4. **Earning premium relative to basic education**

	2005	2006	2007	2008	2009
Master's degree or PhD	66.5	65.8	66.8	62.2	61.5
Higher education	48.2	46.0	42.7	42.4	46.6
General secondary education	12.9	10.0	14.7	12.6	12.2
Vocational secondary education	7.9	6.1	11.6	9.6	10.7

Note: Based on a regression analysis. Percentage increase in income relative to basic education. Vocational secondary education refers here to professional secondary education obtained after basic education.
Source: Nestor (2011).

Strengthening general learning and work practice opportunities

While the authorities are preparing a curricula reform of vocational education and training, some lessons could be drawn from OECD reviews in this area (OECD, 2010c). Among characteristics identified as a source of success in the building of vocational education is the strong foundation of basic and transferable skills (like numeracy and literacy). The current plan for better integrating basic knowledge into professional studies goes in the right direction. However, the bridge between secondary vocational education and higher education still needs to be strengthened, allowing good students to pursue higher studies if they wish. In this respect, the use of an extra year of general studies for those graduates from vocational education who want to go on to university should be further promoted.

Vocational programmes should include an essential element of workplace training to provide labour market experience for students, to obtain better signals about firms needs and to facilitate the transition from school to job. Workplace training amounts currently to 25% of curriculum (20 weeks during three years of studies in vocational secondary programmes). However, the success of practical training elements will depend on close co-operation with employers (see Table 1.5) and strict quality assurance.

Table 1.5. **Level of investment by firms in VET programmes across OECD countries**

Share of upper secondary students enrolled in VET with a work-based component	Importance of investment by firms in upper secondary VET[1]		
	Low	Medium	High
High (> 30%)	Czech Republic, Denmark, Estonia	Austria	Germany, Switzerland
Medium (6-30%)	Australia, Finland, Iceland, Norway, the Slovak Republic	France, Hungary, Luxembourg, the Netherlands, the Russian Federation, the United Kingdom	
Low (< 6%)	Belgium, Brazil, Canada, Chile, Greece, Ireland, Israel, Italy, Japan, Korea, Mexico, New Zealand, Poland, Portugal, Slovenia, Spain, Sweden, Turkey and the United States		

1. The importance of investment by firms is an index that reflects the time that trainees spend in the workplace, the intensity of training (weekly instruction time) in the workplace, and public expenditure.

Source: Education at a Glance, 2011.

The challenge to promote workplace training is to find a balance among the productive work in workplace training, the wage paid to the trainee and the level of subsidies (Box 1.4). The proper balance may change from one sector to another. Estonia should consider promoting a system where subsidies provided to firms are accompanied by quality control ensuring that part of the time spent in firms is devoted to instruction and not only productive work. To the extent that apprenticeships are used by firms to secure their future recruitment (Westergaard-Nielsen and Rasmussen, 1999), other accompanying measures include granting training companies the right to hire first the trainee. In this case, the non-training companies would be forced to pay back part of the training cost if they poach (OECD, 2010c).

International experience suggests that an efficient vocational education system is generally associated with strong co-ordination between social partners, who contribute collectively to the identification of future needs in the labour market and investments in

Box 1.4. **Net cost of training and subsidies: Lessons from international experience**

The decision to create workplace training is most often determined by the willingness to secure future hiring of workers with adapted skills, especially when the sector suffers from skill shortage. However, enterprises still consider the net cost of training which includes the wage paid, subsidies and productive work. The contribution of apprentices to the production depends on the firm's size (Fougere and Shwert, 2002).

Impact of subsidies and wage: Lessons from Denmark

In Denmark, the government guarantees that apprentices who cannot be placed in a firm would be trained at a vocational school. However, this training is more costly and measures were taken to stimulate more workplace training. Subsidies and grants for a trainee in a vocational school were financed by a tax levied on all employers. The main lessons from Denmark's experience include (Westergaard-Nielsen and Rasmussen, 1999):

- Subsidies are an efficient way to promote apprenticeships at firms. The result depends on the industry. The highest effect is found in the sectors of offices, followed by manufacturing and trade, while it seems insignificant in other industries.
- The wage paid to a trainee doesn't seem to impact the demand for apprenticeships except for the sector of restaurants, probably because of the higher substitutability between apprentices and unskilled workers in that case. In other industries, apprenticeship seems to be used as a way to secure the recruitment of the future skilled workforce and to screen future employees.
- The major determinants for creating apprenticeships are the actual hiring rate in the company (the demand for apprentices is positively related to the entry rate of employees), the number of skilled workers and the size of the plant.

The role of productive work: Lessons from Switzerland and Germany

The net cost of apprenticeships is higher in Germany than in Switzerland, despite higher wages in the latter. The main explanations are (Dionisius *et al.*, 2009):

- Swiss apprentices spend more days per year in firms, so that the share of time devoted to productive activities is much higher than in German firms (where time for instruction is higher). Swiss apprentices had spent 468 days at the workplace with 83% of productive tasks, while German ones had spent 415 days with 57% of their time devoted to productive tasks.
- Outcomes appear comparable in terms of learning as the productivity of apprentices performing skilled work increased by the same amount in both countries.

specific skills. Involvement of employers can be achieved by various institutional arrangements; in the United States, for example, through the certification provided by the chambers of commerce. Advisory councils for vocational education, bringing together employers, associations and national authorities may also promote a better co-operation between social partners and schools. While such a council exists in Estonia at the national level, involving different ministries and aiming at discussing the overall structure of the education system, it could be worth extending this institutional set up to the local/school level. Parents, employers, union employees and local politicians would benchmark employment performances of post-vocational studies and present an action plan for promoting skills adapted to local labour market needs. Initiatives of school management are essential for maintaining close, day-to-day contacts with the local business community that

result in higher employers' involvement, while performance evaluation should promote such initiatives as much as possible (OECD, 2008). The involvement of employers into schools would also allow feeding career guidance and counselling services with up-to-date labour market information. Providing high quality information in that area is useful for all students, notably in VET, preparing their future career decision (Watts, 2009). An interesting initiative, so-called "inspiring the future", has been developed recently in the United Kingdom and connects volunteers from industry and schools to help the young achieving their potential. Good practices, specific to the Estonian economy, should be developed by implementing some pilot projects. In this context, a VET review by the OECD could be helpful.

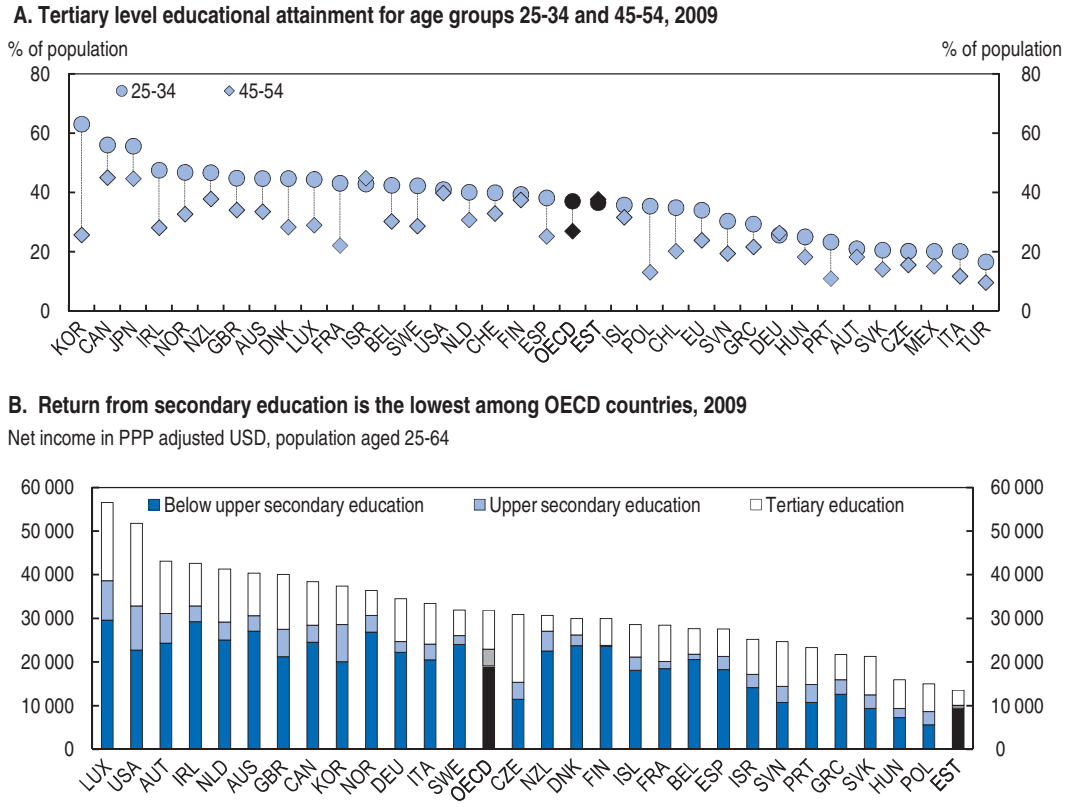
Providing youth guarantee for drop-outs

Tackling the problem of school drop-outs Estonia should consider moving towards a model similar to those implemented in the United Kingdom, the Netherlands, Austria and Finland, which require the employment office to offer formal education or apprenticeships to youth not in employment, education or training, at least until the age of 18. Such measures could be combined with financial incentives given to employers for developing apprenticeship places which has proven to be efficient in Denmark (Westergaard-Nielsen and Rasmussen, 1999). Another step to be considered in the future would be an education reform making learning compulsory until the age of 18 like in the Netherlands and the United Kingdom. The rationale for such a measure is the need to upgrade the overall level of skills in the economy while reducing school drop-outs. Making learning compulsory does not necessarily imply formal education, with apprenticeship being an alternative. This kind of measure would be accompanied by counselling to cope with the specific needs of drop-outs, including lack of study habits and other problems hindering their performance in standard courses. International experience suggests that more demanding programmes have higher completion rates and that students in need should be put in advanced programmes and that their specific needs, such as recuperation and tutoring courses, be accommodated (Lyche, 2010). The Job Corps programmes for disadvantaged youth in the United States, which provides overall the equivalent of one additional year in school, has been found to increase educational attainment and increase post-programme earning (Schochet *et al.*, 2008).

Insuring good access to tertiary education and reforming its funding

Estonia performs well regarding higher education. Higher education has been characterized by good governance, with a strong autonomy in terms of managing staff and funding. With 33% of the working age population holding a tertiary education degree, enrolment rates are significantly above the OECD average (OECD, 2011b). But while low unemployment of graduates suggests that their qualifications are well recognized by employers, the return to tertiary education in terms of wage premium is low in international comparison (Figure 1.18). Also, the share of the tertiary educated among the young is similar to older cohorts, unlike most other OECD countries where this share has grown strongly between generations (Figure 1.18). The next paragraphs focus on two problems of higher education system: a lack of flexibility regarding the allocation of funding, as well as by a lack of equity in the access to higher education. These two problems have been acknowledged in the recent reform of higher education.

Figure 1.18. **Tertiary education attainment is high in Estonia, but the dynamic has stalled and the return from education is low**



Source: OECD (2012), *Going for Growth*, Figure 3.23B; OECD (2012), *Education at a Glance*, Chart A10.6.

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The recent reform of higher education will increase the flexibility of the system

In the so-called state-commissioned system, the distribution of funds among different fields of education was based on a complex and rigid system of 34 coefficients. The provision of funding from the budget to individual education institutions relied on an explicit contract where the government purchased a certain number of graduations and the higher education institutions provided them after receiving funding (OECD, 2007b). Eligible students studied for free. However, institutions could also accept fee-paying students in addition to those contracted with the government. The aim of the state-commissioned system was twofold: encourage access to higher education, and ensuring that higher education institutions provide a sufficient number of students in areas viewed as strategic for labour market needs. However, this system had the disadvantage of distorting students' choice by offering free places in fields where they were initially not willing to study, increasing the risk that they will not work in that field after completing their studies. Also, it was characterised by an inadequate recognition of the mixed set of skills needed in a knowledge based economy by focusing excessively on hard disciplines, such as science and technology (OECD, 2007b).

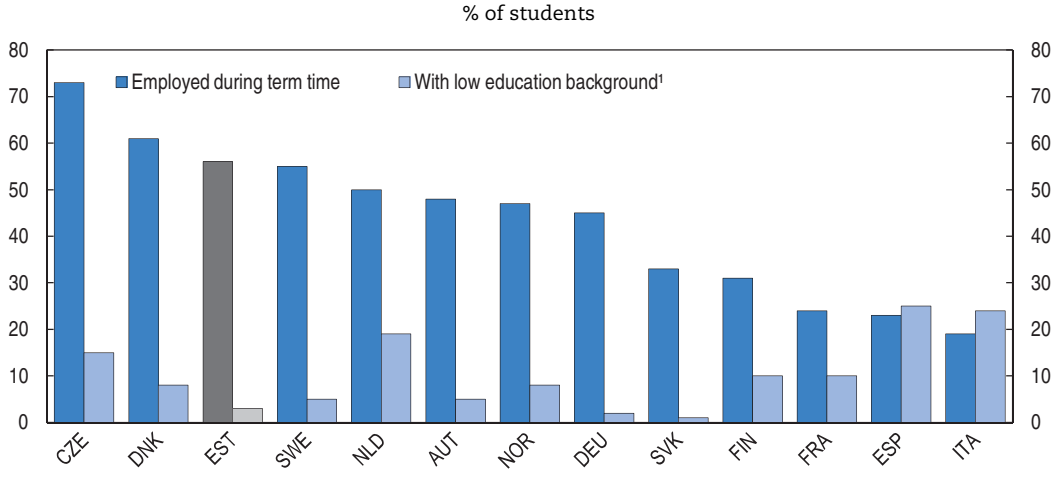
Recent reform of higher education, which suppressed the state-commissioned place system and made all full-time study tuition free, should contribute to improving the flexibility of higher education and strengthen the link with the labour market. The choices regarding the allocation of places between fields of study will be under the responsibility of

higher education institutions. This should enable institutions to better adjust to students' choices, which have been proven to be sensitive to labour market signals, including expected wages (Rosen and Ryoo, 2004). In the new system, universities will be financed on the basis of a contract covering a period of three years including indicators of performances such as the number of graduates, the quality of education, and accessibility of counselling services for students. However, the indicators, reflecting the quality of education, are difficult to identify in practice, which is likely to raise issues regarding the monitoring of these institutions (NAO, 2011). Some inspiration could be taken in this respect from the United Kingdom which has implemented a quality monitoring system for higher education with the so-called Quality Assurance Agency for Higher Education that publishes the UK Quality Code for Higher Education. Further efforts in this direction are under way in Austria and the Netherlands, both of which use performance contracts with higher education institutions to steer the provision of high quality, labour market relevant tertiary education.

Ensuring adequate support for low socio-economic background students

Free student places in the state commissioned system were allocated only on the basis of performance on an entry exam, contributing to weak access by low socio-economic background students (Figure 1.19). Some grants were available but they were mostly restricted to students in state-commissioned places, and only a small fraction of these grants was means-tested. Hence, students who didn't meet the performance criteria in the entrance exams had to carry the full cost of studies (fees plus cost of living) without any support, and often had to work full-time. Work was also often necessary for student with free study places who could not afford the cost of living.

Figure 1.19. **Participation in tertiary education is low for students with weak socio-economic backgrounds**



1. Students whose parents have obtained at most a lower secondary level of education (ISCED 0-2).

Source: Orr *et al.* (2011), *Social and Economic Conditions of Student Life in Europe, Synopsis of indicators, Final Report*, Eurostudent IV 2008-2011, Figures 3.4 and 6.5.

StatLink http://dx.doi.org/10.1787/888932717680

The recent reform makes all full-time study places free. It also introduces for the first time a system of means-tested income support. However, full time study is required to maintain the free study place as the institutions have the right to demand that students compensate part of the study cost if all curriculum requirements are not met. Such a

scheme has the advantage of linking funding and graduation, and in this way increases incentives to complete studies in time. However, students with low socio-economic background might not be able to maintain their initial right to study for free if the means-tested grant aimed at supporting their cost of living is too small. The proposed value of EUR 135 for the mean-tested grant is likely to require students without parental support to work to support themselves while studying.

The current student loan scheme has both advantages and some unattractive characteristics. Loans are provided by financial institutions at a subsidised interest rate of 5%. Government provides guarantees to the relevant financial institution against the risk of default. Loans are repayable only after completing studies. Among negative characteristics is the fact that loans are targeted only to students who are studying full-time and who can provide two guarantors or other assets as collateral. This can directly reduce the access to credit to low socio-economic background students. Also, while banks take few risks because they benefit from the state-guarantee, the students are not protected as re-payment is not contingent on income. This could contribute to reducing the enrolment of low socio-economic background students, who may have a higher aversion to debt. While authorities plan to reform the student loan scheme, the main possible areas of improvement include opening access to part-time students, increasing the maximum amount that the student can borrow so that it actually covers full costs of living during the whole study period, and eventually making repayment contingent on incomes.

Making all study places free raises some cost-efficiency issues. As students without credit constraints could and would pay for their studies, given high returns from such investment, universally free higher education entails large dead-weight losses. Given tight fiscal constraints, public support to education should therefore be used mainly to address educational underinvestment, primarily among students with low socio-economic backgrounds. Consistent with international experience, cost-efficient equity of access to education would be best achieved in a mixed system of loans and means-tested grants available to students for covering tuition fees and the cost of living, with only a moderate reliance on work and family support (OECD, 2012a, 2012b).

Box 1.5. **Main recommendation on labour market and education policies**

Increasing the resilience of the labour market by increasing size, efficiency and targeting of ALMPs

- Increase spending on active labour market policy, and better target spending, while ensuring stronger co-operation among local governments, education institutions and the Unemployment Insurance Fund.
- Increase the effectiveness of activation programmes by allowing public procurement to take greater account of the quality of training courses, encouraging greater involvement of employers, and by targeting hiring subsidies to firms committed to net hiring.
- Develop electronic registration of the initial action plan in their first month of unemployment while delaying the face-to-face part of the Individual Action Plan to after 3 months for the large share of unemployed. Meanwhile devote more resources to at-risk groups from the first month.

Box 1.5. **Main recommendation on labour market and education policies** *(cont.)*

- Monitor the quality of work practice schemes while increasing employers' compensation for the cost of the supervision and instruction. Measures given to firms for creating workplace training, such as subsidies, should be strengthened.

Reducing skills mismatches in the labour market through lifelong learning

- Increase the financial incentives of employers to invest in lifelong learning. Target public co-financing toward low educated and older workers, as well as toward employees in SMEs.
- Make lifelong learning more attractive for adults by insuring that training leads to the acquisition of qualification and by providing information about the return from different programmes.

Improving the school-to-job transition

- Consider establishing an obligation to offer learning opportunities through formal education, workplace training or apprenticeships until the age of 18 for youth neither in education, employment or training.
- Further strengthen co-operation with employers and consider giving subsidies for offering apprenticeship places for youth in vocational education. Increase the permeability between different educational levels.
- Develop quality assurance for apprenticeship places and ensure that the time for instruction is sufficient relative to the productive work and reduce the funding gap between vocational and general education.
- Strengthen student counselling by providing high quality information about labour market needs on every educational level.

Improving access to tertiary education and reforming its funding

- Ensure that the new means-tested support is sufficient, and expand the student loan scheme so that students with weaker socio-economic background can stop working during study.

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Chapter 2

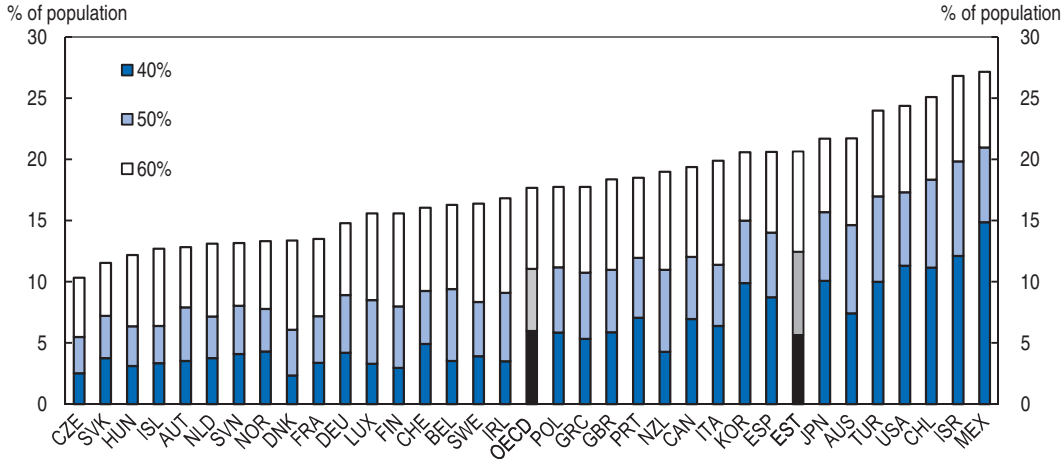
Reducing poverty through activation and better targeting

The crisis revealed the need for a strategic review of the existing social protection system. Extreme income fluctuations on one side and low social benefits on the other side exposed fragile groups in the population to a significant poverty risk. The government has recently commissioned several studies to prepare a systematic reform of the system. The spectrum of options is wide and includes increased generosity, further efficiency gains, strengthening incentives, better access to services and, in particular, more ambitious activation.

The strategic goal of Estonia is to lower poverty to 15% by 2020. Relative poverty equalled 21%, as measured at 60% of median income adjusted for household size, which was above the OECD average in 2008 (Figure 2.1). More positively, the poverty gap, which measures mean income necessary to reach the poverty threshold, is in fact narrower than OECD average, and material deprivation is also moderate. The risk of poverty is strongly determined by educational attainment and employment status, which also largely explain high regional disparities (Annex 2.A1). Households without work are by far the most exposed to poverty. However, people above 65, whose relative poverty rates were highest and deteriorating prior to the crisis, are currently at lower poverty risk, reflecting the robustness of old age income replacement schemes despite the deep crisis.

Figure 2.1. **Poverty in Estonia is higher than the OECD average**

Relative poverty rates[1] at 40, 50 and 60% of median income thresholds, latest year[2]



1. Measured as the share of individuals with disposable income adjusted for household size after transfers and taxes less than 40, 50 and 60% of the median for the entire population.
2. Data refers to 2008; 2006 for Japan, 2007 for Denmark, Hungary and Turkey; 2009 for Canada.

Source: OECD Income Distribution-Poverty Database.

StatLink http://dx.doi.org/10.1787/888932717699

Income inequality is substantially higher than in a number of continental European countries. The gap in the standard of living of the poorer parts of population can be illustrated by comparing poverty in Estonia at the fixed EU-wide threshold of EUR 10 per day, respectively, adjusted for purchasing power parity. In such comparison, and even prior to the crisis, Estonia had one of the highest rates of poverty in Europe, with about 15% of persons living on less than EUR 10 a day compared with less than 1% in Finland (Lelkes and Zolyomi, 2008). Using an EU-wide poverty indicator is problematic because of the interaction with general income differences (Fusco *et al.*, 2010). However, in the case of

Estonia and Finland this comparison may be justified, because of the close relation between the two countries. A high perceived poverty risk might be relevant for subjective well-being assessments, which can also be influenced by high income and unemployment volatility (Box 2.1). In this respect, Estonians are among the nations reporting the lowest life satisfaction, even controlling for the relatively low income per capita (OECD, 2011a).

Box 2.1. **Volatility and well-being**

Macroeconomic fluctuations entail important consequences for well-being. In recent years, a large body of theoretical and empirical research has examined the determinants of household satisfaction with the financial situation, income, job and life as a whole. One important finding is that economic insecurity and greater unemployment volatility significantly undermines perceived well-being (Wolfers, 2003; Sjoberg, 2010). An empirical analysis was carried out using both country panel macrodata and individual microdata to better understand what drives self-reported satisfaction in OECD European countries and identify the impact of macroeconomic volatility on Estonia's well-being, based on methodology described in Fleche *et al*. (2011). The regression results confirm that macroeconomic volatility significantly undermines life satisfaction, also in Estonia, even when controlled for other key determinants of well-being, including self-evaluated health, education, income and employment status (Table 2.1, Annex 2.A2). While volatility in unemployment does not have significant impact in any specification, being unemployed strongly decreases life satisfaction, more in Estonia than in other OECD European countries.

Table 2.1. **Regression results: Determinants of life satisfaction**[1]

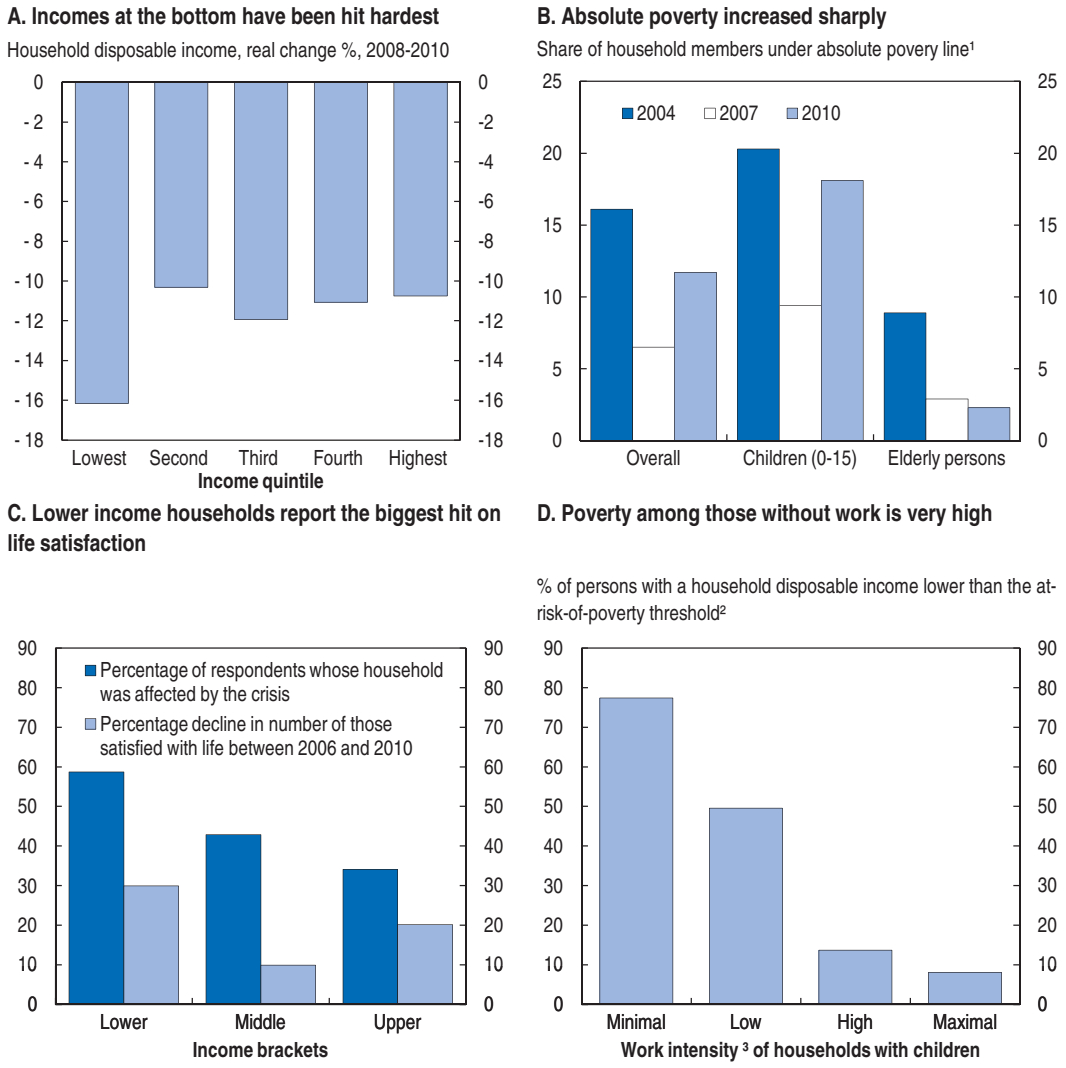
	OECD countries 1996-2008	OECD countries 1996-2008	Estonia 1996 – 1999-2008
	Macrodata	Microdata	
	Mean life satisfaction	Life satisfaction	
Macroeconomic conditions			
Household disposable income	0.116* (0.047)	0.280* (0.014)	0.538* (0.085)
Household disposable income standard deviation	–0.010* (0.003)	–0.006* (0.000)	–0.005* (0.000)
Unemployment rate	–0.119* (0.022)	–0.043* (0.003)	–0.065* (0.003)
Unemployment rate standard deviation	0.017 (0.065)	–0.003 (0.009)	–0.017 (0.012)
Perceived income inequality		–0.016* (0.003)	–0.045* (0.013)
Being unemployed		–0.489* (0.038)	–0.725* (0.150)
Observations	**118**	**52 692**	**3 223**
R-squared	**0.31**	**0.27**	**0.39**

Note: Robust standard errors in parentheses.
* Denotes significantly different from zero at 5% level.
1. List of control variables and full specification in the Annex 2.A2.
Source: Annex 2.A2.

Working-age poor were hit hard in the crisis

In the crisis, the working-age poor were hit particularly hard (Figure 2.2). The impact is less visible in the aggregate relative poverty rates (Annex 2.A1) because the median income fell deeply for the whole population, but disposable incomes at the bottom of the distribution fell more than for higher income brackets. The share of population living in

Figure 2.2. **Economic crisis had a strong negative impact on the poor**



1. Absolute poverty line is calculated by Statistics Estonia on the basis of three components of expenses: food, housing and non-food needed to maintain the minimum level of welfare. Data for 2010 is not directly comparable to the previous data due to the methodological change in 2010.
2. The at-risk-of-poverty threshold is 60% of the median disposable income adjusted for household size.
3. Work intensity in a household is the number of months spent by working age household members (aged 16–64) in employment or self-employment divided by the maximum number of months which could have been worked.

Source: EBRD-World Bank, *Life in Transition Survey 2010*, LiTS II; Statistics Estonia; and *Estonian Social Survey*.

StatLink http://dx.doi.org/10.1787/888932717718

absolute poverty, i.e. with expenditures below the subsistence minimum increased from 6.5% in 2007 to 11.7% in 2010. A similar increase in relative poverty measured at the unchanged threshold confirms that this was not a result of methodological changes (Statistics Estonia, 2012). The youth were most strongly hit. This is consistent with international evidence showing that negative macroeconomic shocks tend to have a regressive impact on the income distribution, and on the youth in particular (Ahrend *et al.*, 2011). This is because the earning volatility is highest for young, male and low skilled workers, often with non standard work contracts, or self-employed, who face the highest risk of income loss and have a weak attachment to the social insurance system and little

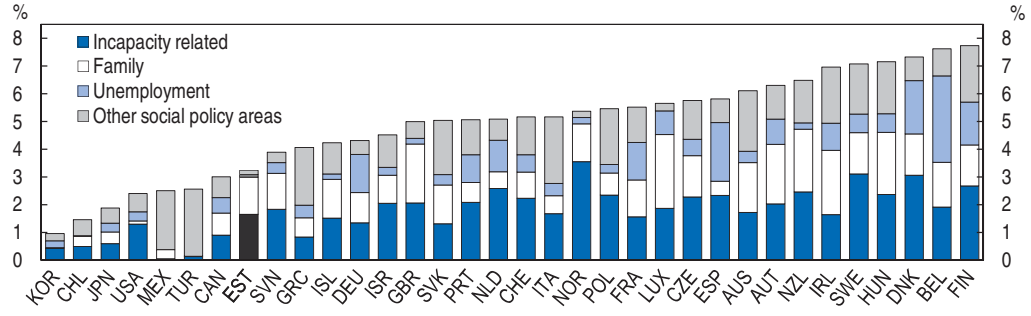
resources for self-insurance (OECD, 2011b). The impact on households with children was lower than on average, partly because of family support policies (Statics Estonia, 2012). However, the absolute poverty among children increased substantially from 9.4 to 18.1% (Figure 2.2). Not surprisingly, those losing jobs suffered the most, as households without work are at a very high risk of poverty, while those working at lower wages were hit less hard (Statistics Estonia, 2012). Also survey responses confirm that households at the bottom of income distribution reported most often a loss of life satisfaction between 2006 and 2010 (EBRD, 2011).

Strengthening activation and targeting income support

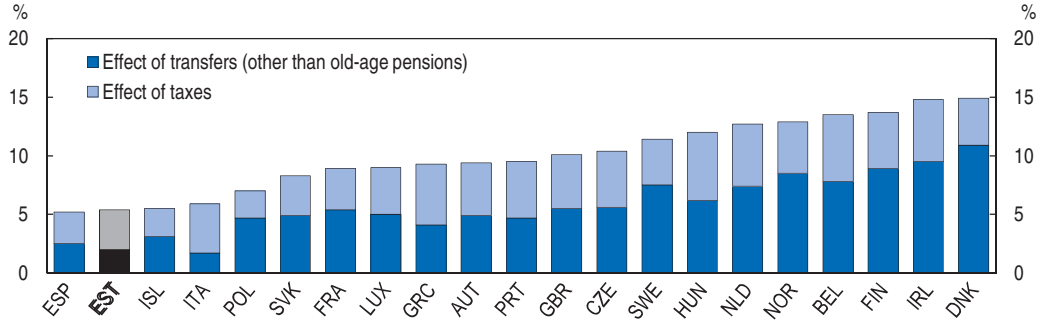
While poverty risk is high, Estonia stands out in international comparison in terms of low social spending, including that directed at the working-age population (Figure 2.3). This reduces the scope for poverty and inequality reduction. Social transfers other than pensions reduced the share of population at-risk-of-poverty from 25 to 16%, which is one of the lower reductions across European OECD countries (EU-SILC, 2012). The measured inequality is not only one of the highest in Europe, but also the impact of transfers and taxes on reducing inequality is among the lowest in the EU (Figure 2.3).

Figure 2.3. **Transfers (other than old-age pensions) are small and untargeted with limited impact on inequality**

A. Public cash transfers (other than old-age pensions) to household, % of GDP, 2007



B. Impact of taxes and transfers (other than old-age pensions) on income inequality, percentage point reduction of Gini coefficient, 2007



Source: OECD Social Expenditure Database; Eurostat(2010), *Income and Living Conditions in Europe*, Table 16.1B.

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Social spending for the working-age population is not only low, but also its structure is biased against short-term income support schemes (Box 2.2), as the large majority of spending is directed at family and disability policies, and the share of unemployment

Box 2.2. **Two tier unemployment protection and social assistance**

Unemployment insurance provides contribution-financed and earnings-related benefits. The benefit is available to registered unemployed who have contributed for at least 12 over the last 36 months to the Unemployment Insurance Fund. Voluntary job separations and separations due to poor performance are not covered. The benefit is 50% of the previous wage during the first 100 days of benefit period and 40% thereafter. The minimum benefit is fixed at half of the previous calendar year minimum wage, the maximum at 1.5 times the previous year's average wage. The maximum benefit duration is 180 days if the contribution period is less than 56 months; 270 days if it is between 56 and 110 months and 360 days if it is higher than 110 contribution months. No supplementary income from work is allowed. An eventual severance pay has to be consumed before the unemployment insurance benefit can be collected.

Unemployment assistance is a flat rate non-contributory benefit that is financed by the general budget and addressed to those unemployed who are not eligible for the insurance benefit or have exhausted their unemployment insurance entitlement. A claimant has to work or study full time for at least 180 days during 12 months prior to registration. Unemployment assistance is available in cases of unemployment after voluntary job quits and job separation because of bad performance. The maximum duration of unemployment assistance is 270 days, or 210 days following voluntary quits. The size of the benefit is fixed annually in the budget and has stood at EUR 64 per month since 2008. It is planned to increase it to the 50% of minimum wage in 2013, which means more than doubling it. Other income is allowed up to the size of the unemployment assistant benefit.

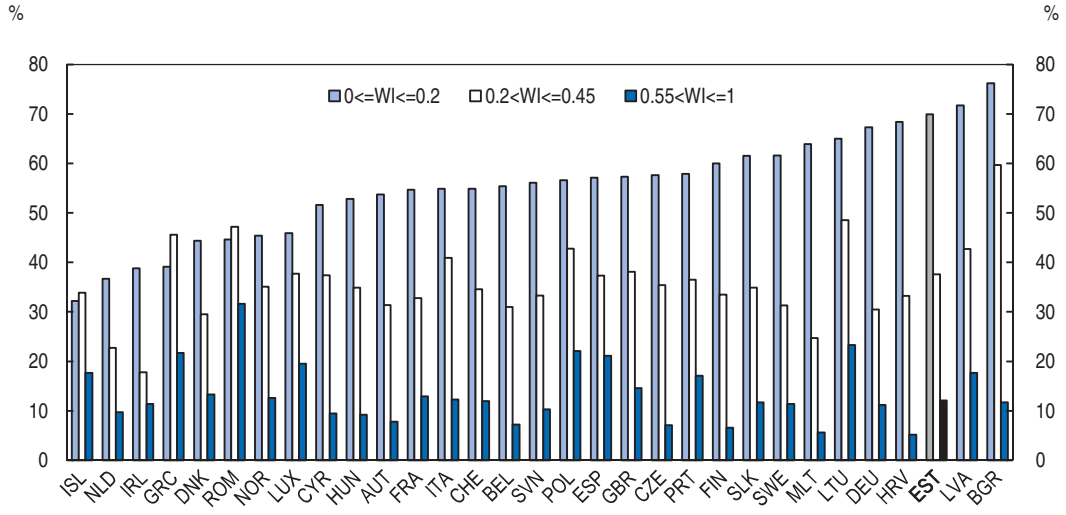
The **subsistence benefit** is a support to needy persons, paid by a local municipality, to bring incomes to the minimum subsistence level. It is financed from the general budget. The subsistence level is established by Parliament each year and is calculated to cover minimum expenditure for consumption of food, clothing, footwear and other goods and services, after payment of housing costs. Housing and heating costs are also covered up to the limit fixed by each municipality. Municipalities can also decide to pay additional subsistence benefit over and above the centrally determined level. For example, the high costs of pharmaceuticals can be compensated, or fees for services such as day-care can be waived.

support and social assistance is very small. This reflects a social policy stance that is focused on self-responsibility and work incentives, and deemphasises the role of redistribution. Although these principles may result from social choice, the low level of short-term income support means that the poverty among those without work is among the highest in the European Union (Figure 2.4), with70% of households without work at the risk of poverty, while employment losses in the crisis were also the highest.

While high economic volatility involves a high rate of job destruction, elements of flexicurity can help overcome the tension between aggregate economic adjustments and limit the negative impact on individuals (Ahrend *et al.*, 2011; OECD, 2011b). It is achieved by enabling employability and protecting the most vulnerable rather than preserving jobs themselves. This has been the guiding principle of labour market and social policy reforms across OECD countries, guided by the *OECD Jobs Strategy* (OECD, 2006). Temporary income support is needed, as some employment shocks are large and low earners have little opportunity for self-insurance (Ahrend *et al.*, 2011). In Estonia, very limited income support restricts cash-poor households from more effective job search and making better employment choices. Similarly, access to active labour market measures may be

Figure 2.4. **The poverty among unemployed is among the highest in the EU**

At-risk-of-poverty rates[1] by work intensity[2] of the household, population aged 0 to 59, 2010



1. At-risk-of-poverty rate is share of persons with an equalised yearly disposable income lower than the at-risk-of-poverty threshold.
2. Work intensity (WI) in a household is defined as the total number of months spent household members in employment or self-employment during income reference period relative to the maximum number of months the household members could have spent in employment or self-employment. This indicator ranges from zero (no working age member worked) to one (all working age members worked throughout the income reference period).

Source: EU-SILC 2012.

StatLink http://dx.doi.org/10.1787/888932717756

hampered. In Estonia, the increase in the number of persons who are willing to work and available for work, but who do not search actively for a job was among the highest across OECD countries (OECD, 2012a).

Designing short-term income-support schemes is not easy, because they have negative effects on incentives, potentially leading to a trade-off between short-term poverty reduction and risks of long-term deactivation, (Ahrend *et al.*, 2011). This is less of a problem in Estonia since benefits there are currently so low that they usually do not pose large disincentive effects. Moreover, examples of Nordic and other countries demonstrate that the trade off is actually not as steep as one might think, and it is possible to combine high employment rates with strong poverty mitigation policies (Figure 2.5). In contrast, Estonia is currently in the group of countries with high employment and poverty rates. Reducing poverty while maintaining and improving positive employment outcomes requires, however, that any increases in benefit generosity are supported with a further step up in activation policies.

Increasing activation role of social system

As only 50% of registered unemployed receive unemployment benefits, the risk of poverty due to unemployment is in practice addressed by other benefits, where gatekeeping is weaker. These other benefits are frequently sought by individuals who were not eligible for, or have exhausted their unemployment benefit entitlements. The current policy set-up therefore contributes to the outflow of individuals from unemployment benefit, the only social programme with strong activation, to programmes which do not provide sufficient activation and skill-enhancement opportunities, potentially generating longer-term dependence (Praxis, 2011). In particular, disability in its current design is the

Figure 2.5. **There is scope to simultaneously lower poverty and increase employment**

Level of employment and poverty, 2008

Note: Latest poverty data refer to 2008 for the majority of countries; 2006 for Japan; 2007 for Denmark, Hungary and Turkey; 2009 for Canada.

Source: OECD Labour Force Statistics Database and *OECD Income Distribution Database.*

StatLink http://dx.doi.org/10.1787/888932717775

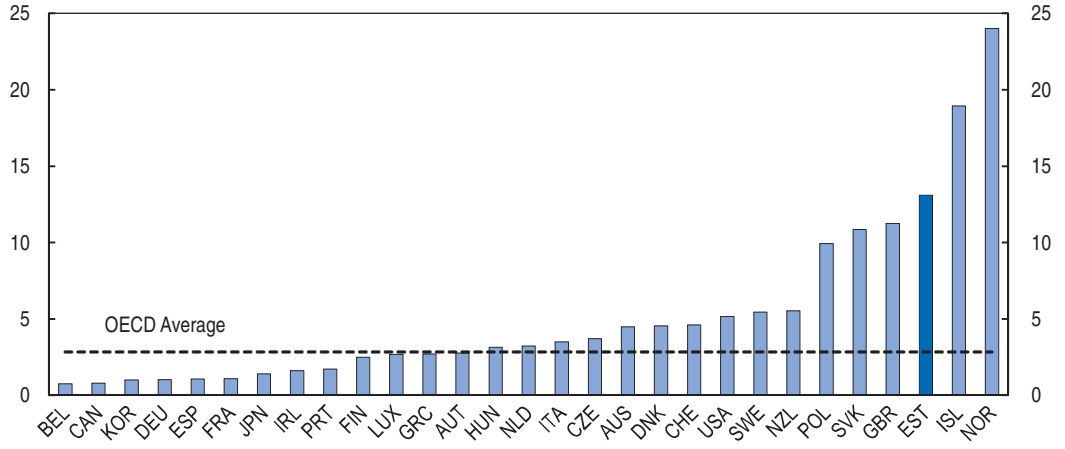
benefit of last resort for many, and is provided without restrictions for work income. However, it is not allowing employed workers with some disability access to any activation measures, and so without perspectives for better utilising the remaining work capacity. Activation of subsistence benefit recipients is also weak.

Spending on disability and sickness benefit actually dwarfed unemployment support prior to the crisis, and the ratio between these two categories was much higher in 2007 than the OECD average (Figure 2.6). Estonia is scoring very unfavourably in terms of self-reported disability prevalence (OECD, 2010a; Figure 1.1). This means that there is a large pool of potential disability benefit applicants. It underscores the importance of stepping up the promotion of healthier lifestyles, prevention, and rehabilitation. Once on a disability benefit scheme the risk is that without proper activation measures the remaining work capacity will not be fully utilised, meaning an avoidable income loss and higher poverty risk.

Moving towards a more integrated approach to activation and social policies is therefore an important challenge. Passive and active policies are only strongly linked together in the case of unemployment benefits. But important other benefits for the working-age population are in fact playing a role of compensating work income losses, but doing this without activation measures. Countries like Germany have made good progress with broadening the access to activation measures, together with a job search obligation, for all unemployed and inactive with some remaining work capacity (OECD, 2010c). The ambition in Estonia should be the same. In the short run, all benefit programmes for working age population with some remaining work capacity, should be linked to job search requirements if not already working and being offered the full catalogue of ALMPs in order to improve the income from the remaining work capacity. Activation should therefore become an important element of programmes addressing sickness and disability, and its role should be strengthened in the case of subsistence benefit. Family support can also be more directed at employment promotion, in particular through improving the availability

Figure 2.6. **Ratio between spending on disability and unemployment is high**

Ratio of expenditure on disability and sickness to unemployment benefit spending, 2007



Note: Disability refers to public and private disability pensions; sickness refers to public and private paid sick.

Source: OECD (2010), *Sickness, Disability and Work*, Table 2.1 and *OECD Social Expenditure Database*.

StatLink http://dx.doi.org/10.1787/888932717794

of child care institutions. The additional costs of extending activation policies widely might seem high, especially when added on top of existing passive spending. However, it is important to consider the full costs of long-term unemployment and underutilisation of work capacity, possible deactivation and human capital depreciation, including the net present value of lost taxes and additional social transfers.

Reducing fragmentation of social policies

Strengthening activation is complicated by the fragmentation of social policies that makes it more difficult to case-manage individuals. There are currently several interlinked programmes and schemes, operated by different institutions, and their co-operation is far from perfect. The unemployment insurance fund, social insurance fund, health insurance fund, municipalities and vocational education establishments all play essential roles in providing support to individuals who could benefit from activation, but who are now shifted across schemes or can be clients of several institutions at the same time. The unemployment insurance fund, which should be the centre of activation-based social policies, is not connected well enough with other parts of the system. In the long term, a one-stop shop for all clients with some capacity to work should be created and make referrals to different service providers. In the short run, it is important to swiftly conclude analysis phase to prepare Internet-based e-services. In reforming the system, the limited human and material resources of the municipalities need to be recognised (Box 2.3), and incentives need to be put in place to encourage enough co-operation among municipalities as well as other institutions to provide efficient services provision, including through experimentation with multi-service co-operation over a broad territorial area, even while more fundamental sub-national administrative reform is politically difficult to implement (OECD, 2011c). Establishing national minimum service standards would also be important to ensure both more equal access and the quality of social services (NAO, 2010a), and should be underpinned by some adjustments to the equalisation grant and block grant system (OECD, 2011d).

Box 2.3. **Increasing municipal capacity to provide social services**

Increasing the capacities of municipalities and improving the quality of municipal spending is an important challenge, not least for increasing the effectiveness of activation and social protection (OECD, 2011c). Estonian municipalities are in charge of a wide variety of tasks. The largest spending item is primary and secondary education, followed by culture and leisure, social services, and housing services, as well as municipal transport in bigger cities. Some services are financed by the state budget, others are covered form own budgets. In the crisis the revenues of local government declined by 15% on average between 2008 and 2010 with a considerable variation among municipalities, including a one third fall in the most badly affected municipalities. In response, the municipalities tended to postpone investments and infrastructure spending, while protecting health, education and social services. Indeed, local governments' expenses on social benefits have grown during the economic crisis, while overall expenditures decreased. Many municipalities increase services targeted at the very poor, often in co-operation with non-governmental organisations and often on an *ad hoc* basis, including free meals, clothing, and shelters for homeless people. However, according to the survey of local governments, municipalities still spent on average over 70% of the total expenses of social benefits on non-means-tested benefits (Kriisk, 2012).

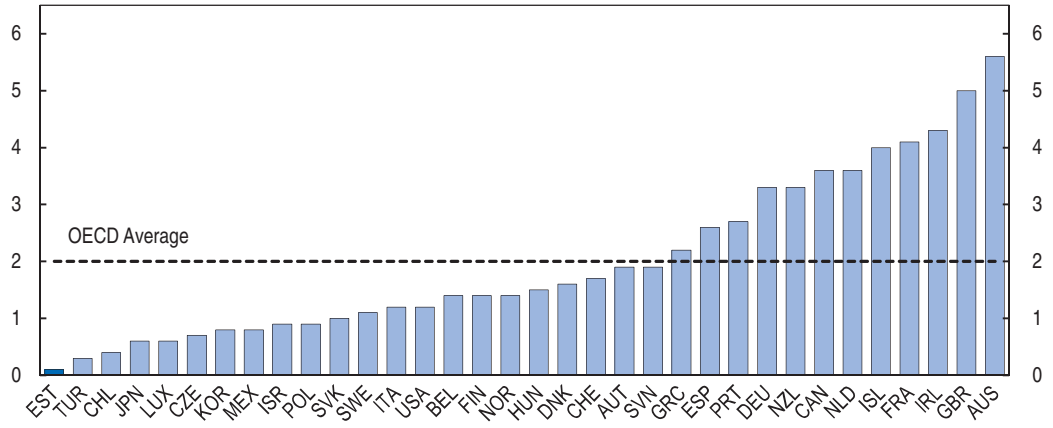
There are equity concerns about the uneven level and quality of public services across municipalities (OECD, 2011c). All municipalities are in principle expected to provide the same basic services. However, municipalities vary greatly in population size and wealth. In particular many of municipalities are very small, as there are 226 elected local governments. While the average size of municipalities is several times smaller than in Nordic countries, half of the municipalities have a population of under 2 000 inhabitants. There are very large difference in municipal expenditure per capita, which varied between EUR 510 and EUR 2 690 in 2009, and in types of local social benefits that are being provided. Moreover, the poorest municipalities tend to face the highest social protection needs, while they have very limited fiscal, administrative and service delivery capacity. Detailed analysis of municipal spending patterns shows that while almost all local governments allocate some social benefits for those "in-need", almost half of them have never clearly defined the criteria for such assistance (Kriisk, 2012). Many local governments do not even keep detailed accounts of the costs of various local social benefits and services.

Strengthening targeting

Another important characteristic of social policy in Estonia is the low share of means-tested transfers (Figure 2.7). This means that support is spread thinly, with much being spent on supporting more affluent families. This assessment is confirmed by an analysis of the distribution on transfers (other than old-age pensions) and taxes among income groups, and the contribution they make to the disposable incomes of households in these groups (Figure 2.8). Subsistence (housing) benefits are very well targeted, as about 75% of transfers are directed at households in the first quintile. However the very small size and coverage, which translates into overall spending of only 0.1% of GDP in 2011, means that its importance for aggregate disposable income at the bottom of the income distribution is small. Disability benefits are effectively quite well targeted at the poorest parts of population, with 40% of spending going to households in the first income quintile, and because of the wide coverage and aggregate size of 1.5% of GDP, it makes a visible difference to average incomes of the bottom quintile. In contrast family benefits, which

Figure 2.7. **The size of spending on income-tested programmes is the lowest in the OECD**

Public social expenditure on income-tested programmes, % of GDP, 2007



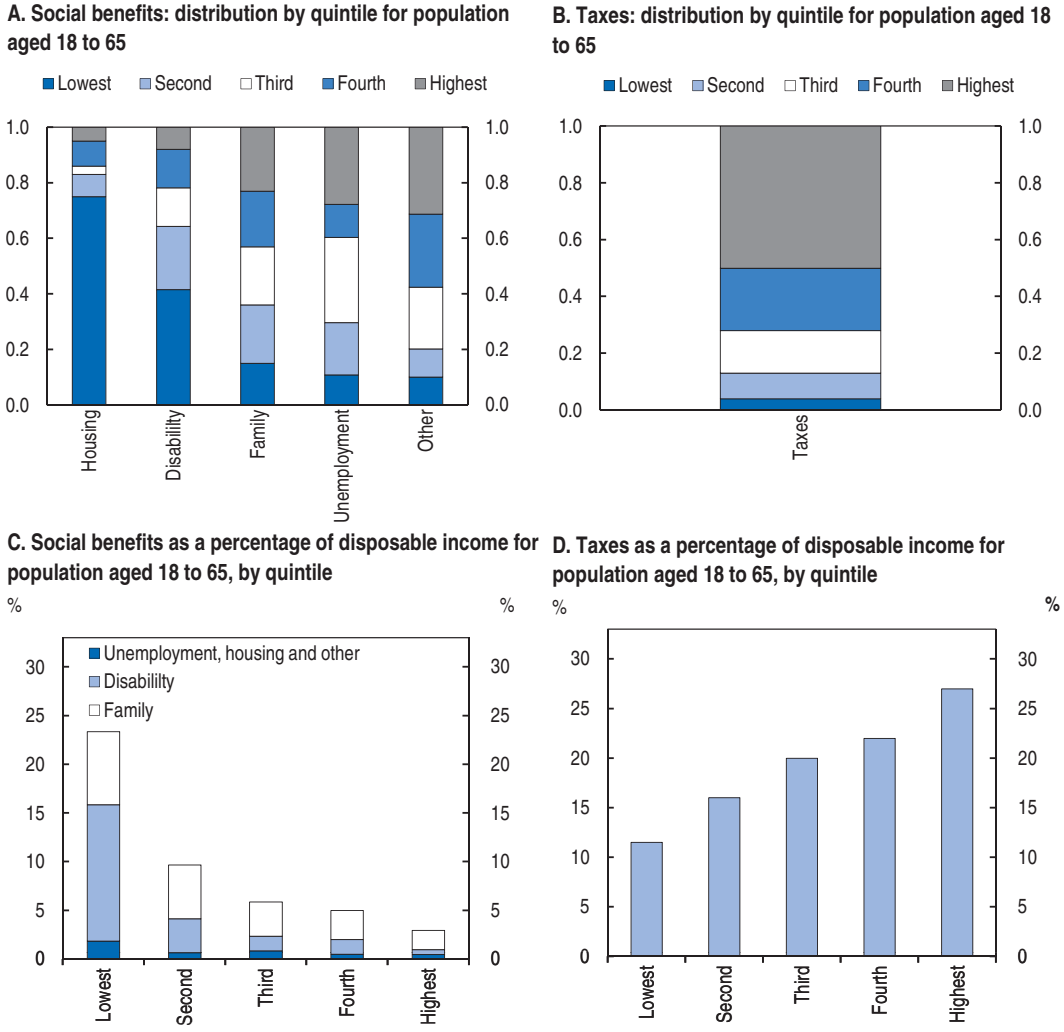
Source: W. Adema *et al.* (2011), *OECD Social, Employment and Migration Working Paper* No. 124, Table I.1.

StatLink http://dx.doi.org/10.1787/888932717813

amount to around 1.3% of GDP, have a rather regressive character, as the largest share goes to the top income quintile due to generous maternity and paternity replacement rates. The same is true of unemployment insurance benefits (spending on income-tested unemployment assistance at 0.04% of GDP is small compared to unemployment insurance benefit at 0.2% of GDP in 2011). At the same time, these two programmes represent only a small share of income for the top quintile. In aggregate, transfers other than old-age pensions are almost equally distributed among income quintiles, and hence provide little redistribution. In fact in Estonia such transfers are the second least distributive in the EU (Atta-Darkua and Barnard, 2010). Even the flat income tax rate system provides higher degree of redistribution. In sum, the tax-benefit system contributes relatively little to the reduction of inequality and poverty among working-age population.

Better targeting of both benefits and services could be another element in making the social protection model more successful at reducing poverty at relatively low cost. The experience of several countries, including emerging countries, suggests that problems in implementing targeting can be overcome and that investing in better means-testing, including proxy mean-testing, is worthwhile (OECD, 2011b). Relatively high administrative capacity and high IT sophistication in Estonia provide good foundations for such investments (OECD, 2011c). To minimise the problem of undeclared work, as well as to maintain good work incentives, it might make good sense to use non-income testing, including material deprivation and asset wealth, as is usually done under targeted social protection schemes in advanced economies. Including financial asset, real estate and car ownership in means-testing would be among the first and obvious steps in this direction. More generous assistance could also be directed to certain groups with weaker ability to adjust, including single parents and families with many children.

Figure 2.8. **Disability is the only large transfer program that redistributes to the poor**



Note: How to read the figure: According to Panel A, 15% of total spending on family benefits are received by households in the first quintile in terms of disposable income adjusted for household size. According to Panel C, family benefits accounted for 7% of disposable income of the average household in the same quintile.

Source: OECD (2010), *Reviews of Labour Market and Social Policies: Estonia*, Table 3.A1.2.

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Reforming the disability system to promote the earnings capacity

Almost 10% of the labour force in Estonia receives a disability-related pension or benefit (Box 2.4), compared to 6.6% in the OECD on average (Figure 2.9). The number of people receiving a pension for work incapacity increased by three quarters between 2001 and 2010, and the number of those receiving a disability allowance increased by almost 40%. This rate of increase of disability-related entitlements is among the highest across OECD countries. The social and economic costs of this trend may become substantial, although current spending is still below OECD average. Even though a relatively high share of the disabled is working, disability reduces the return on human capital without proper rehabilitation and requalification measures (OECD, 2010a) and comes on top of the burden of a labour force that is already shrinking at high speed due to demographic trends.

Box 2.4. **Incapacity to work, disability and sickness**

There are two ways of defining invalidity in Estonia, disability and incapacity for work. A person of working-age can be disabled, incapable for work, or both at the same time. The determination of the degree of disability is independent from the determination of incapacity for work, although the two assessments are usually done simultaneously. Correspondingly, there are two parallel schemes offering invalidity-related support.

Permanent incapacity is assessed as total if a person has a serious functional impairment caused by an illness or injury, due to which he or she is not able to work. It is assessed as partial (10-90%) if a person is able to work but is not able to perform a suitable job to full extent. Incapacity pension is paid by the social insurance fund in case of 40-100% loss of work capacity, and its size is calculated as a respective per cent of the full old-age pension entitlement, which is linked to the contribution record. By definition this benefit is only paid for persons with a minimum employment career.

Disability can be moderate, profound or severe, depending on the degree of restriction on daily activity or participation in social life. Disability benefits are paid out of the state budget at flat rates dependent on the intensity of restrictions on daily activity and participation in social life. The purpose of the benefit is to cover additional expenses to overcome these restrictions, including expenses on medical products, transport, maintenance of medical devices, personal care and household management, use of the means of communication, clothing and footwear.

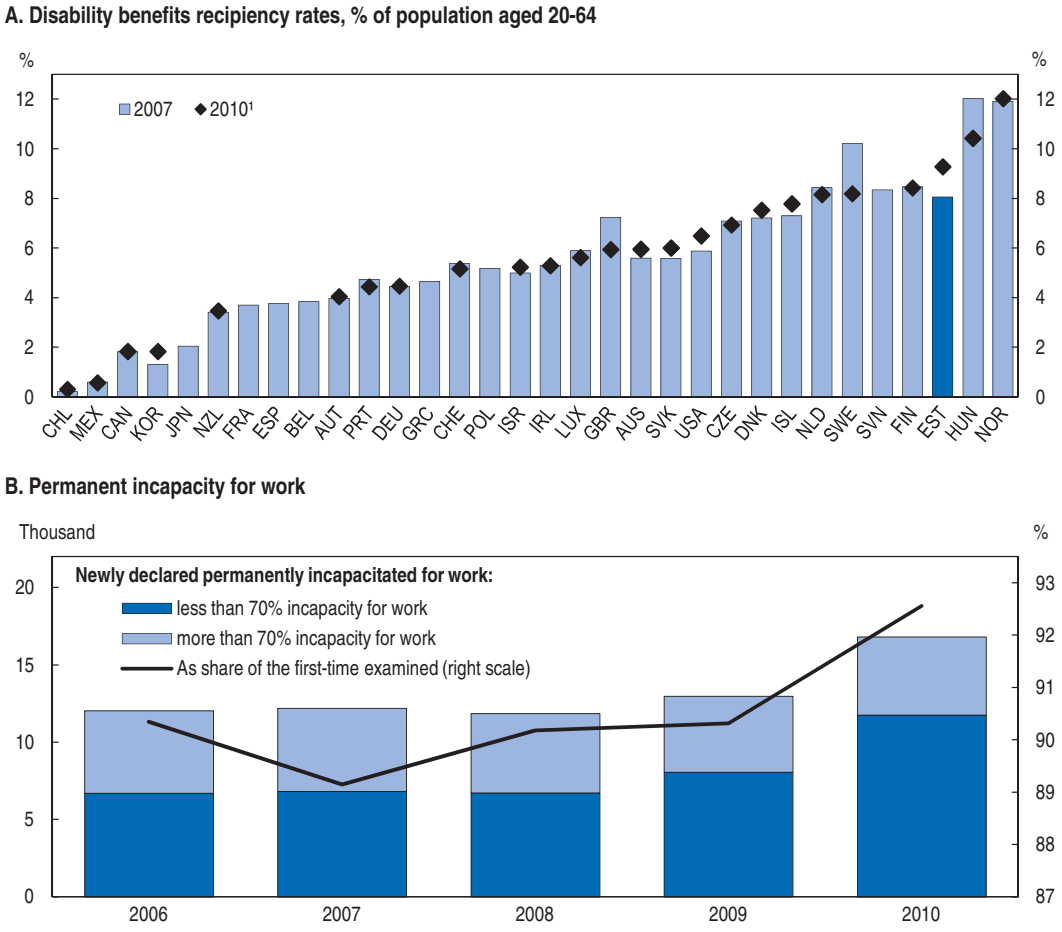
Work is allowed under both schemes and neither the size of the disability benefit nor the incapacity pension is dependent on own sources of income. In 2011, expenditures on incapacity pensions at around 1.3% of GDP were almost four times larger than those on disability benefits, with total below the OECD average but with the rapid growth rate. Both benefits are granted on a temporary basis, although positive re-assessments are very rare.

The maximum period of sickness benefit is 6 months, which is relatively restrictive by OECD standards. Expenses on sickness benefits actually fell dramatically after adjustment in the crisis when the sickness benefit replacement rate was reduced from 80 to 70% of salary, and own liability increased to 3 days, and for employers to 4 to 8 days.

Disability is also associated with higher unemployment and inactivity, which is bad for one's health, in particular mental health, while returning to work is usually associated with improved health (OECD, 2010a). Doctors report that preparing documents for disability is actually a major distraction from treating people (NAO, 2010b).

Rapid increases in the number of benefit recipients are partly driven by powerful forces outside the disability system. Firstly, ageing contributes to deteriorating health in the population. The prevalence of self-reported disability in Estonia is the highest across all OECD countries, which is also a reflection of unhealthy lifestyles but also difficult working conditions during the communist times, although general health outcomes in Estonia have been systematically improving. Secondly, post-communist transition and skill-based technological change make old qualifications increasingly unfitted to new needs, and reduce the chance of low-skilled in the labour market. Increases in the retirement age and the closing of avenues to early retirement have made problems with changing skill requirements more visible and workers with difficulties in coping with these changes have increased the pool of applicants for invalidity-related benefits. This contributes to a higher share of people with lower education among the disabled.

Figure 2.9. **The number of permanent incapacity to work benefit recipients increased rapidly in the crisis**



1. 2009 for the Czech Republic, Germany, Finland, Mexico, Norway, New Zealand, Switzerland and the United Kingdom.

Source: OECD (2011), *OECD Employment Outlook*, Box 1.3; Statistics Estonia (2011), *Statistical Yearbook of Estonia*.

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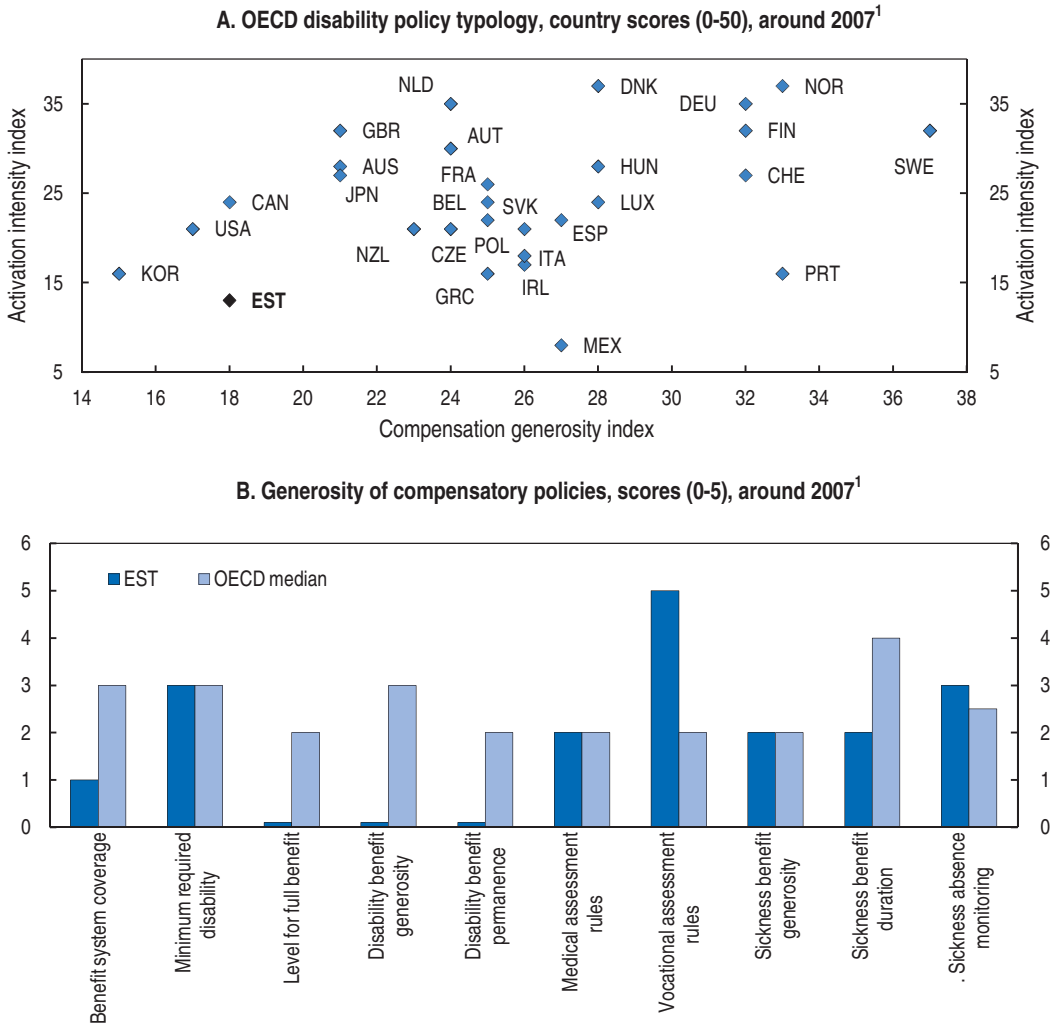
Importantly, there are only limited alternative sources of income support for those in economic hardship. Entitlements for other working-age benefits are very tight and spending on disability-related benefits dwarf all other working-age income support programmes other than family benefits, notably unemployment and social assistance. Disability has therefore emerged as the benefit of last resort for parts of the working-age population. In practice, disability-related benefits play a strongly redistributive role, even though that was not enforced through means-testing. As many beneficiaries are working, benefits in practice also play the role of an in-work benefit. A surge in inflows happened during the crisis among those with a relatively high work capacity, where applications are most likely driven mainly by economic and not by medical factors. Inflows were particularly high in regions with the worst labour market outcomes. Males, who were more significantly affected by the recession, were overrepresented compared to usual patterns (Statistics Estonia, 2011).

Income support through disability-related benefits has been found to imply high long term fiscal and social costs (OECD, 2010a). It is particularly inefficient in a highly volatile economy, when people should be expected to acquire new skills and facilitate structural

change. In contrast, disability in Estonia does not include an explicit activation role, which aims at making most out of the remaining work capacity, and the only significant outflow from disability is towards the pension system (Praxis, 2011). So while costs of inflows into unemployment insurance are more visible in the short-term, the longer term burden of disability will be higher.

Spending on disability as a share of GDP is lower than the OECD average of 2% of GDP, mostly because benefits are generally low. More broadly, several aspects of disability compensation are fairly restrictive, at least on paper (Figure 2.10). Unlike in most other OECD countries, a 100% disability level is necessary to claim the full benefit. Disability and incapacity status are both granted for a fixed term from 6 months to 5 years, which is among the most restrictive regulation in the OECD, even though it does not lead to actual exits from the system. The restrictiveness of disability benefit entitlements is only marginally lower than that of work incapacity pensions, but with benefits rates much

Figure 2.10. **Disability system is not generous, but does not promote outflows**



1. 2012 for Estonia.

Source: OECD (2010), *Sickness, Disability and Work*, Figure 3.1 and Table 3.A2.1A.

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lower in international comparison. However, high inflow and low outflows remain the main problem of the system.

Given the already low generosity of compensatory policies, further tightening in the existing system would not be sufficient to improve the efficiency of the system. Reducing the currently high inflow requires more attention to prevention, employer responsibility and rehabilitation. Increasing outflows could be the result of a switch to an activation based model with a strong commitment to regain or even improve incomes from the remaining work capacity. The need for reform has been recognised domestically (Praxis, 2011; NAO, 2010b) and the authorities seem ready to act. The following paragraphs comment in more detail on the main direction of changes. The reorientation of the disability system should be complemented by strengthening of well targeted and activation-oriented short-term income support schemes.

Addressing increasing inflows

Inflows into the disability and incapacity to work system increased already before the crisis, suggesting a relationship with the bad health status of the Estonian population (OECD, 2010a; Figure 1.1). A role may also have been played by the large inflows of inexperienced and untrained workers into the construction sector during the boom periods before the crisis. Employers do not play an integrated role in preventing work related invalidity beyond the relatively minor co-sharing of sickness related pay during the first days. Consequently prevention does not receive the necessary attention. Finally, unhealthy lifestyles are not addressed aggressively enough and the relatively high tobacco and alcohol consumption is taxed only relatively lightly.

The planned introduction of a work accident and occupational sickness insurance is a welcome opportunity to step up prevention activities and establish a stronger responsibility for employers. In-depth monitoring should provide the necessary empirical evidence to design targeted information campaigns and achieve better compliance with respect to protection, prevention and precaution at the workplace and elsewhere, in particular when driving.

Supporting voluntary outflows

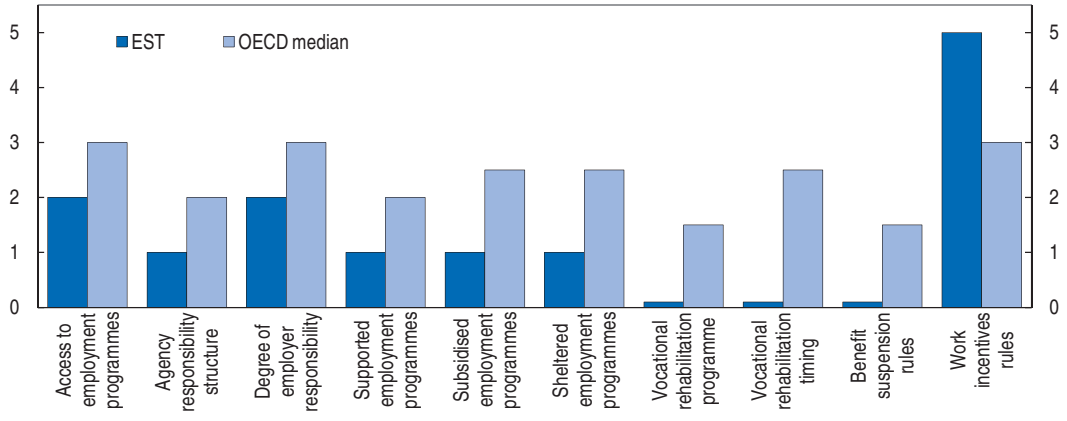
Currently outflows from disability or work-incapacity status are very low. Entitlements are granted for a fixed term from 6 months to 5 years and need to be re-assessed, which is line with international best practices and should encourage outflow from the disability system. As such, they are unlikely to change the conclusion of the previous assessments. In practice, it is very uncommon in Estonia to lose the disability and incapacity to work status (Praxis, 2011): in 2009, only 0.1% of benefit recipients who underwent assessment lost their entitlement. This is not surprising, because assessment is purely medical and a medically diagnosed handicap, which lasted already for some time is unlikely to go away by itself. On the other side, no support is provided to make most out of the remaining work capacity. There are no targeted rehabilitation services provided and benefit recipients are not offered requalification opportunities. It is therefore not surprising that benefit recipients even when working are not making enough money to escape the risk of poverty. In most other countries activation measures are aiming at generating an income generation capacity, which allows benefit recipients to leave the disability status (OECD, 2010a). Adopting such an approach is necessary to increase voluntary outflows but would require additional competencies to properly design prevention, activation, rehabilitation and re-integration measures.

Implementing reactivation functions

The current system does not actively support the return to the labour market among those who need help and encouragement. It does not involve any organised activation policies and none of the participating institutions is responsible for promoting employment (NAO, 2010b). Spending is almost entirely restricted to passive benefits. This characteristic is shared by disability and incapacity to work schemes, as well as sickness benefit schemes, whose role in stimulating work-oriented rehabilitation measures at early stages of emerging permanent health problems should be essential. In this respect, Estonia stands in contrast to other countries (Figure 2.11). For example, several countries spend above 10% of total spending on disabled on active labour market programmes. Many countries have implemented a rehabilitation-before-benefit principle, and some are now trying to implement a rehabilitation-instead-of-benefit principle (OECD, 2010a). In contrast, in Estonia there is no training support, and there are no incentives for those with partial loss of work capacity to participate in re-qualification measures. Rehabilitation takes place very late, when health problems are already aggravated, and it is not directed at facilitating return to work. The effectiveness of existing support that has some activation dimension should also be monitored, for example only 15% of persons who received the special benefit for purchasing technical aid to facilitate their participation in social life (and presumably professional life) in fact purchase such goods or services (NAO, 2010b). Employers are weakly involved in activation measures and no motivation is provided for employers to re-employ people with a health problem or partial incapacity.

Figure 2.11. **The disability system provides few integration measures**

Integration policy dimension: country scores (0-5), around 2007[1]



1. 2012 for Estonia.

Source: OECD (2010), *Sickness, Disability and Work*, Table 3.A2.1B and Estonian authorities.

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An overhaul of the disability system would need to focus on providing rehabilitation, training and specialised support facilitating return to work from the early stage of health problems. Much closer co-operation between institutions operating the system and the unemployment insurance fund would be needed to achieve such a change. Opportunities should be given to learn a new profession in line with the new health status to prepare for re-entry into work, and the take-up should be encouraged, starting with those on long-lasting sickness leaves, who face a high risk of losing a high share of income generating capacity. Individual return to work action plans should be routinely prepared. Participation

in activation programmes should be part of a disability benefit catalog, especially among those with lower incapacity for work. In other words, benefits should be rebalanced between cash and in-kind forms. The role for employers in reactivating workers and creating more suitable working conditions for those who return to the market also needs to be foreseen and actively supported. For example, in some countries, employers are obliged to develop, follow and update reintegration plans. It must be financially profitable for employers to retain workers with health problems or to reintegrate them efficiently into the same or another job.

Reducing institutional complexity and case-managing clients

The current disability system is fragmented among different institutions, and Estonia also stands out by international comparison in this respect. Many agencies are involved in benefit and service provision. The disability allowance and the incapacity to work schemes overlap (NAO, 2010b). The permanent incapacity to work scheme administered by social insurance fund also interacts with sickness scheme administered by health insurance fund. There is no effective co-ordination between those programmes, regarding the challenge of keeping benefit recipients close to the labour market. While people are being shifted across different schemes, it is more difficult to case-manage each client, providing tailor-cut support at the right moment. In addition, currently the types of support provided by local authorities to the disabled vary greatly, depending on their financial capacities. No national standards, financing or capacity building is available (NAO, 2010b).

Improving the system would be best achieved through the full integration of permanent incapacity to work pensions, disability allowances and sickness benefits into one system administered by one institution oriented to activation (OECD, 2010a; NAO, 2010b). This would ease problems of effective control, policy planning and implementation, as well as harmonisation of assessment methodologies. In particular, all clients should be case-managed through the system, with their profile reviewed early and then making every effort to support their earnings capacity. This would also help to improve linkages with other parts of the social system, which would play an important role in preventing permanent disability: *i*) a more employment-oriented occupational health service that encourages doctors to monitor sickness absences and engage employers to avoid the aggravation of health problems through workplace conditions; *ii*) an unemployment insurance fund that provides activation measures; and *iii*) municipalities that provide social benefits and additional social services.

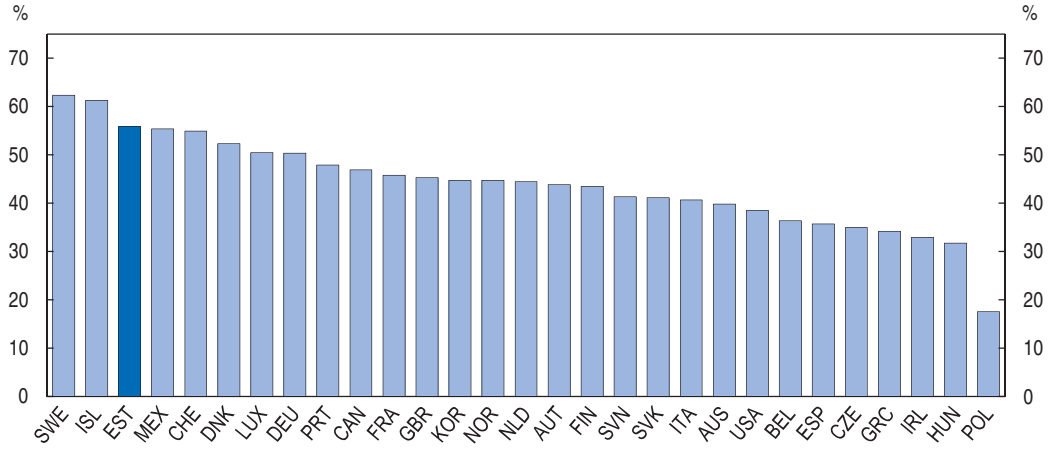
Occupational disease and work accident insurance, which is still absent in Estonia, should also become part of the reformed disability system, with differentiated risk premium leading to stronger prevention efforts among employers and greater incentives to bring people back to work.

Targeting transfers without negative work incentives

One positive outcome of the disability system in Estonia is a relatively high rate of employment among the system recipients, especially prior to the crisis (Figure 2.12). This is partly explained by the fact that the size of the disability benefit and incapacity pension does not depend on working income. Secondly, the actual size of the benefit is small, establishing the need to mobilise the remaining earnings capacity. Both imply strong work incentives. In making the best use of limited financial resources, there might be a case for providing invalidity-related benefits to some extent in-kind in order to optimise the benefits from the remaining work and earnings capacity.

Figure 2.12. **Employment rate among the disabled is high**

Employment rates of people with disability, late-2000s



Source: OECD (2010), *Sickness, Disability and Work*, Figure 2.1.

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Providing more effective support to the unemployed

The high volatility of the economy and overall labour market flexibility mean rapid unemployment increases at times of a general slowdown or sectoral employment shifts. It is therefore important that the unemployment protection system provides adequate short-term income support, mitigating poverty risk among those losing a job and facilitating active job search. At the same time the system should maintain strong work incentives and prevent transition to inactivity, including through other parts of the social protection schemes, notably disability. The current labour market outcomes include a large share of long-term unemployed, who should be more effectively activated. These multiple policy objectives are currently met only partially by the existing two-tier system of unemployment protection complemented by the social assistance scheme, suggesting scope for changes within the system. Challenges include:

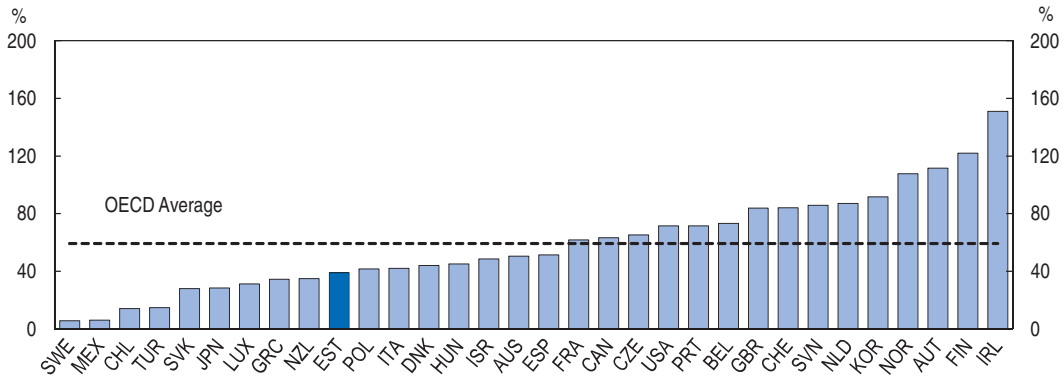
- The poverty prevention effect is weak, as coverage of the unemployment insurance benefit and the size of the unemployment assistance benefit are low (Figure 2.13). Unemployment assistance recipients are therefore frequently recipients of subsistence benefit (30% in 2009 and 10% in 2011), as it is possible to combine benefits.
- Work incentives under unemployment protection schemes are generally strong, but many of those losing work and unemployment entitlements make transitions to the disability system or become recipients of subsistence benefits, where they are not systematically activated.
- The system withstood the recent crisis financially, but required a substantial increase in contribution rates to the Unemployment Insurance Fund (UIF), directly increasing the labour tax wedge. The system is again in surplus.

Fine-tuning unemployment insurance

Effective coverage of the unemployment insurance benefit is low. Prior to the crisis less than a quarter of registered unemployed received the benefit. This share increased during the initial phase of the crisis, as almost half of the newly registered had a right to the benefit. However it is now very low again, including by international standards (Figure 2.14). Most registered unemployed are not eligible for the benefit because they have

Figure 2.13. **Unemployment benefits coverage is low**

Change in the number of unemployment benefit recipients as a percentage of the change in the number of unemployed persons[1]



1. During first year since the onset of the crisis. Total unemployment benefits including extended benefits and unemployment assistance.

Source: OECD (2011), *OECD Employment Outlook*, Figure 1.17B.

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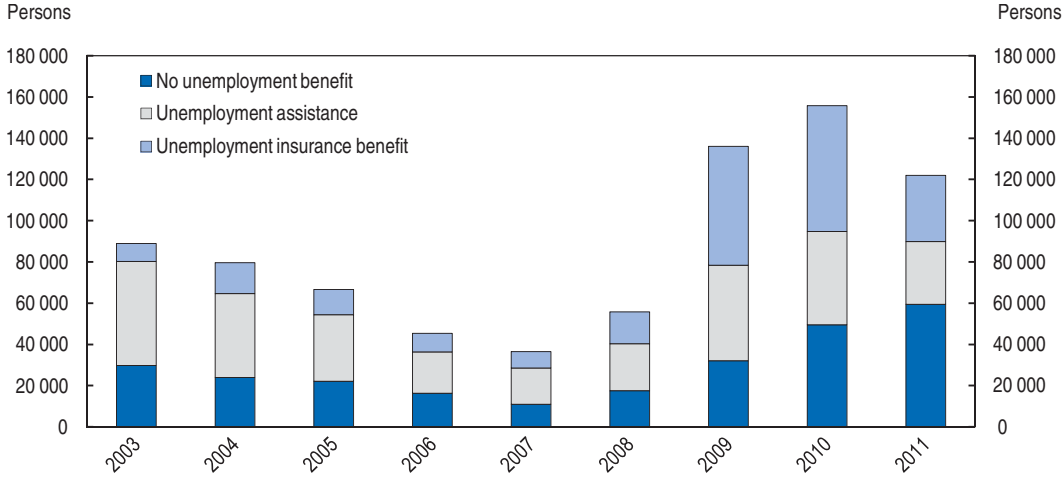
exhausted their rights. Others did not work as contributing employees, or they are considered as voluntarily unemployed. The requirement of 12 month contribution during last 36 months is stricter than in most OECD countries (Figure 2.15A). Loosening the eligibility conditions could therefore be considered to provide more income support in the initial phase of the downturn (OECD, 2010b). Indeed, the amendment to cover those unemployed whose employment contract was terminated by mutual agreement was to be implemented in 2009, but was postponed until 2013 as part of the crisis response. It is now likely to be abolished. Resistance to relaxing eligibility criteria is linked to the large fiscal costs due to the relatively high level of unemployment insurance benefits and there are more efficient ways of mitigating the social costs of labour market shocks as discussed below.

Figure 2.14. **Half of registered unemployed do not receive any benefits**



Source: Estonian Unemployment Insurance Fund.

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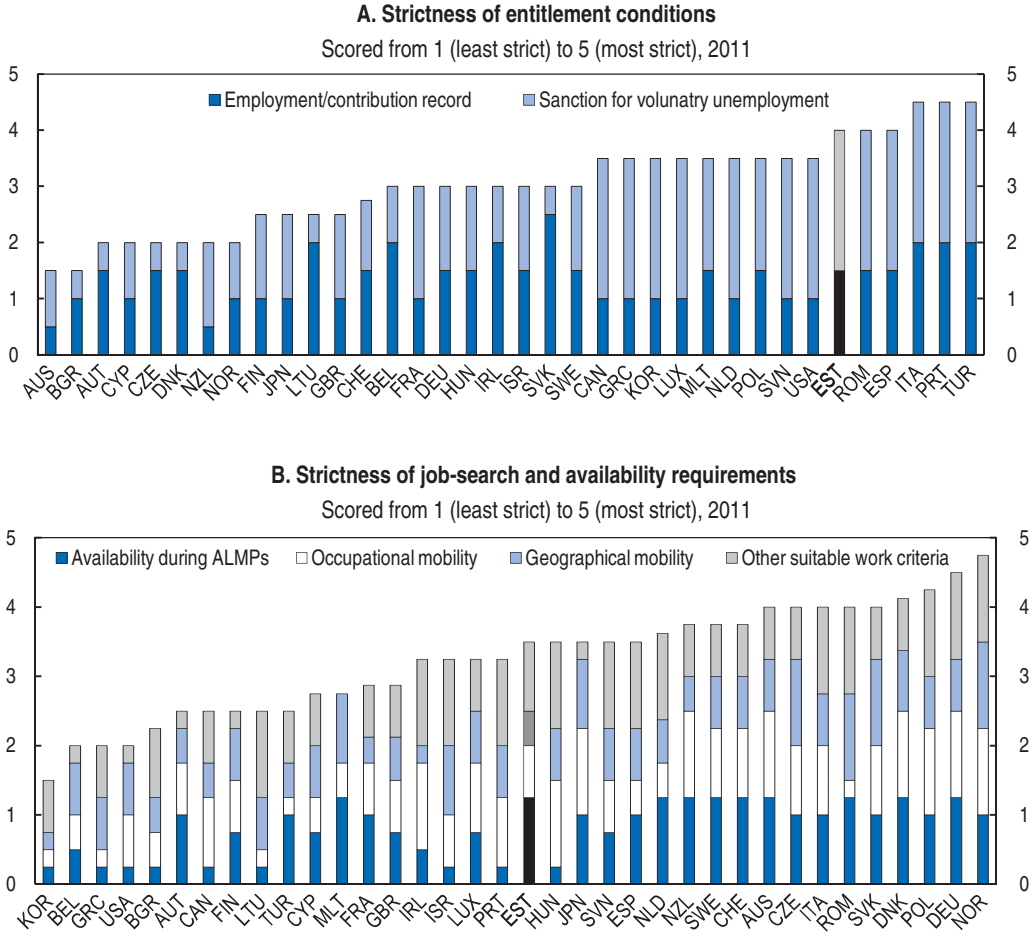
The length of the unemployment insurance benefit is broadly appropriate and similar to the OECD median level. It could be reduced in upturns, when the general unemployment

Figure 2.15. **Employment record requirements are relatively strict compared to job search obligations**



Source: D. Venn (2012), *Eligibility Criteria for Unemployment Benefits*, Figures 2 and 3.

StatLink http://dx.doi.org/10.1787/888932717965

rate is low. This would provide some additional budgetary space to lessen eligibility criteria, reduce contribution rates or to reduce net public debt. More importantly, this would further reduce job search disincentives, which are more important in upturns (Landais *et al.*, 2010; Lauringson, 2011) and hence reduce the average length of unemployment spells. Changing the duration of unemployment benefits would have a stabilising role, with public outlays falling more strongly in the upturn and increasing the effectively available labour force during times of shortages. By reducing the reservation wage, a shortened duration would reduce wage pressures in the boom phase of the cycle. Current benefit duration should continue to apply in downturns when finding employment is much more difficult and competition among job seekers is the highest, so the disincentive impact is less important. But a duration increase in the downturn does not seem needed if income support after insurance benefit exhaustion were stepped up as discussed below.

The length of the unemployment insurance benefit period is effectively increased for recipients of severance payments, as the unemployment insurance benefit period begins only after months during which the severance is paid. This changed since mid-2009 to avoid accumulation of payments in the early phase of the unemployment spell: before

then the unemployed could receive both severance and unemployment insurance at the same time. However, the maximum period of severance pay was cut from four to three months (with only one month being covered by the employer) in the case of workers with 10 years tenure, and is lower for the large majority of workers. It remains important that, especially in this initial period, job search requirements not to be relaxed.

The unemployment insurance benefit system offers strong incentives for job search in terms of job search requirements (Figure 2.15). This is important because theoretical and empirical studies confirm that job search requirements and associated sanctions influence both search intensity and the reservation wage, and hence unemployment outcomes (Fredriksson and Holmlund, 2006; Lalive *et al.*, 2005; Hofman, 2009). If an unemployed person refuses a suitable employment offer without good reason, the payment of the unemployment insurance can be terminated immediately. Also, the unemployed person must remain available and actively looking for a job during the ALMP participation, which is quite strict in international comparison (Venn, 2012). Job search has to be proven monthly. However, the definition of suitable work could be tightened. In particular, requirements of geographical mobility are less strict than in most OECD countries: an unemployed person can refuse a job if travel costs are higher than 15% of the monthly salary, or daily commuting time exceeds two hours. Secondly, the definition of suitable work during the first 20 weeks includes only jobs that correspond to the beneficiary's professional qualification, education level and previous professional experience. The unemployed person can reject an offer due to family obligations or if it entails a salary that is more than 40% lower than the past average. These conditions are relatively liberal by OECD standards (Venn, 2012). It is only after 20 weeks that an unemployed person has to accept any job that is available, but even then the salary has to be higher than the unemployment benefit, which constitutes a disincentive for low-pay jobs, which can be important for activation.

Replacement rates are in line with international benchmarks and indeed more generous relative to other social programmes in Estonia. Making them even more generous, as initially planned in 2009, would have been costly and could have damaged job search incentives (OECD, 2009; Lauringson, 2010). Therefore, decisions to first suspend the replacement rate increase until 2013 and then to abolish it seems justified. Other changes to benefit calculation could be considered. The benefit is capped at a relatively high level of 150% of the country's average wage from the previous year, which is well above international averages (OECD, 2012a) and this ceiling could be lowered. The replacement rate could also be reduced progressively, while the minimum benefit should remain at around half of the minimum wage. It should also be added that neither private insurance, nor individual accounts are likely to provide adequate protection for the low-skilled, who face high risks of losing jobs and low capacity to accumulate sufficient resources (Praxis, 2011).

Increasing the role of unemployment assistance

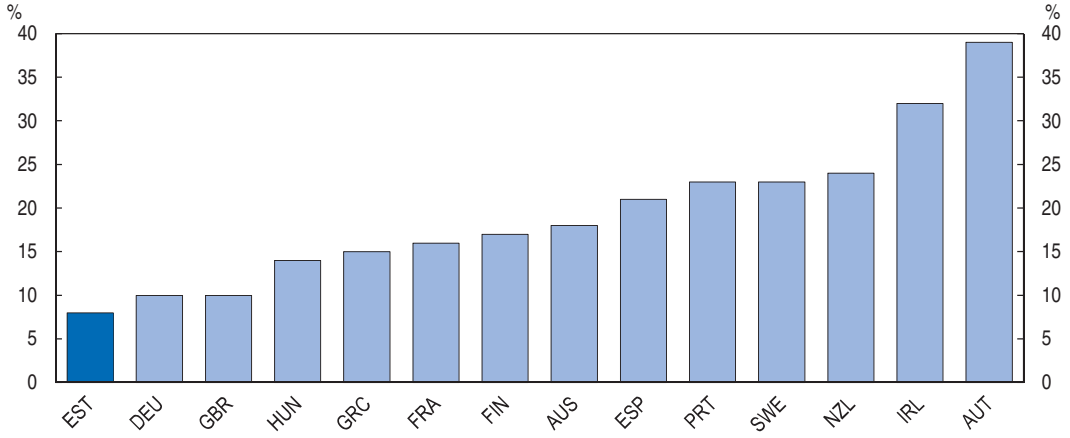
A large share of the unemployed do not qualify for the unemployment insurance benefit, nor for unemployment assistance. This left half of the unemployed without any income support from local UIF offices in 2011. While it provides strong job search incentives, it also leads to flows into other schemes that do not provide activation services. There is also the risk that these clients do not receive the same attention as benefit recipients. Entry conditionality and duration of unemployment assistance could therefore be relaxed to allow for wider coverage and enhance its role as the main employment-

promoting income support scheme. The expansion of unemployment assistance would be particularly useful in combination with reforming disability system, which currently often provides a benefit of last resort to those who lost other entitlements. Fiscal costs would be lower than expanding the unemployment insurance benefit, and can be covered from general taxation rather than more distortive labour taxation.

The size of the benefit should be also stepped up to the level that minimises the risk of poverty and allows for covering expenses in looking for a job. Higher benefits would also raise the cost of reneging on job search and training requirements. They would also minimise the need to combine both unemployment assistance and subsistence benefit, which was happening for 30% of recipients in 2009. It is therefore welcome that the increase in the size of benefit that was originally planned for 2009, but suspended in the crisis, will finally happen in 2013. Doubling the size of the benefit would have an important impact on poverty. The impact on incentives to work – present even at the times of downturn (Lauringson, 2011) – should be modest as current replacement rates are very low (Figure 2.16) and, even after the increase, unemployment assistance would be only half of the minimum wage and 15% of the average wage. At the same time this benefit could be income-tested replacing the existing simple cut-off rule that own income cannot exceed the size of the benefit, and the test could be household-based, as is the case in most countries that provide unemployment assistance (Table 2.2). This would allow an increasing poverty reduction impact at limited fiscal cost. However, benefits should be reduced only gradually while household income is increasing, to avoid disincentives for spouse employment. Tests on assets could be also considered, as these are likely to reduce distortions, even though they can be more difficult to administer (OECD, 2011b).

Figure 2.16. **Unemployment assistance benefit is very low**

Maximum benefit as a share of average wage[1], 2010



1. For a 40-year-old single worker without children, with a 22-year employment record. For Germany, as of 1st January 2005, unemployment assistance and social assistance for persons who are able to work were combined into one benefit, the basic jobseekers allowance (unemployment benefit II). Available for persons who are able to work and whose income is not sufficient to secure their own and their family's livelihood.

Source: OECD Benefits and Wages Indicators (*www.oecd.org/els/social/workincentives*).

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Sanctions for non-compliance with job search requirements should be increased for recipients of unemployment assistance. According to the Labour Market Services and Benefits Act, all registered unemployed have the same job-search and activation

Table 2.2. **Means-testing of unemployment assistance in OECD countries**

No means-testing	Spain
Income-testing, individual	Estonia, Hungary, Sweden
Income-testing, family	Australia, Austria, Finland, France, Germany, Greece, Ireland, New Zealand, Portugal, United Kingdom
Asset-testing, family	Australia, Austria, Germany, United Kingdom

Source: www.oecd.org/els/social/workincentives.

requirements. However, sanctions for non-compliance are somewhat lower for recipients of unemployment assistance compared with recipients of unemployment insurance benefits. While missing an appointment at the UIF office or rejecting a job offer without a good reason leads to the immediate loss of the unemployment insurance benefit, these lead to only short-term suspension of unemployment assistance, and loss only in case of repeated non-compliance. These less restrictive sanctions might reflect the mutual obligation principle, in which the recipient of much higher unemployment insurance benefits can be expected to do more to return to employment. On the other hand, recipients of unemployment assistance face a higher risk of longer term unemployment, so similarly strict sanctions should therefore be extended to them and activation policies stepped up.

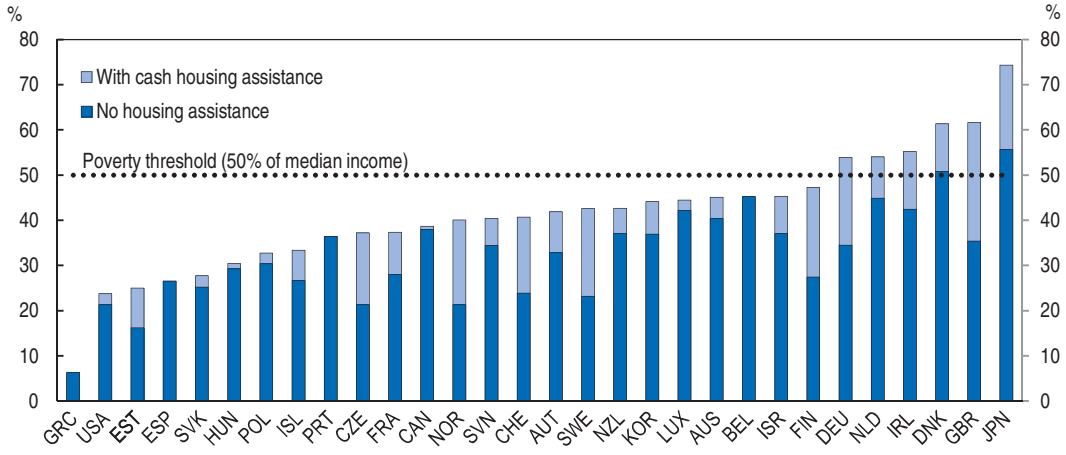
Activating recipients of subsistence benefits

Some 1% of the population receive subsistence benefit, and almost three quarters of recipient households have members registered as unemployed, including long-term unemployed for whom subsistence benefit can be the sole source of income. While the number of recipients was falling prior to the crisis, the number of new claims almost tripled between 2008 and 2010, reflecting increasing unemployment. At about one quarter of the median household income, the average amount of the benefit is among the lowest in the OECD (Figure 2.17), and well below the standard relative poverty line. This results in a very low level of spending on social assistance in Estonia (only 0.05% of GDP prior to the crisis and roughly 0.1% of GDP in 2010, compared to an average of around 1% of GDP spending in both EU and OECD countries). The poverty reduction role of the subsistence benefit is therefore limited, even though the benefit is well targeted, and – not surprisingly – Estonia has one of the highest share of beneficiaries that remain in poverty. Poverty and liquidity constraints among beneficiaries might constrain job search (OECD, 2011b), so an increase in subsistence benefits could help the most cash-poor individuals to engage more successfully with the labour market, especially, if coupled with stronger activation policies. Asset testing could be considered to reduce the risk of unjustified claims.

The lack of binding job-search requirements and assistance is an important problem of this scheme. Municipalities can, according to the Social Welfare Act, refuse to grant a benefit to a person of working age who is neither working or studying and has declined repeatedly to take suitable job offers, or to participate in education or rehabilitation programmes offered by the municipality. However, in practice it is very rare for municipalities to sanction recipients with the loss of benefit. Incentives to do so are even lower because the benefit is administered locally but financed from the central budget. The practice in most of the OECD countries is to make social assistance and household cash transfers strictly conditional on participation in programmes proposed by the local UIF office or municipality (Table 2.3), as recommended by the *Reassessed OECD Jobs Strategy* (OECD, 2006). Such strict conditionality should be considered in Estonia.

Figure 2.17. **Subsistence benefits are low in international comparison**

Net income value as a percentage of median household incomes, lone parent with 2 children, 2010



Note: Median net household incomes adjusted for household size are for a year around 2008 expressed in 2010 prices and are before housing costs (or other forms of "committed" expenditure). Results account for all relevant cash benefits (social assistance, family benefits, housing-related cash support as indicated). Calculations for families with children assume two children aged 4 and 6 and neither childcare benefits nor childcare costs are considered. The "cash housing assistance" indicates the range of benefit levels in countries where they depend on actual housing expenditure.

Source: OECD Benefits and Wages Indicators (*www.oecd.org/els/social/workincentives*).

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Table 2.3. **Job-search requirements in social assistance schemes**

Job search/registration with PES/integration activities/Work requirement	
Required	Australia, Austria, Canada, Czech Republic, Denmark, France, Germany, Hungary, Ireland, Israel, Japan, Korea, Luxembourg, Netherlands, New Zealand, Norway, Poland, Portugal, Slovenia, Spain, Sweden, Switzerland, United Kingdom, United States
Discretionary	Estonia, Finland
None	Belgium, Greece, Iceland, Italy, Slovak Republic, Turkey

Source: www.oecd.org/els/social/workincentives.

Increasing the activation function of the subsistence benefit would require better co-ordination between municipalities and the Unemployment Insurance Fund. Such co-operation has been promoted recently through pilot projects bringing together staff from the local UIF offices and social workers, and targeted a selected group of long-term unemployed. The focus has been on practical job search and work skills, training, counselling, boosting motivation and seeking direct contact with employers. In 2011, one municipality in every county participated and, given the success of the projects, participation has been increased to 3 municipalities in every region. It is important that lessons from these pilot projects are mainstreamed into normal work patterns. One practical problem for day-to-day co-operation that needs to be overcome is the complexity of public procurement requirements, triggered when the local UIF office wants to engage municipalities in activation policies.

In considering an optimal allocation of the tasks of activating and supporting the unemployed with multiple obstacles for employment, the limited resources of municipalities need to be recognised. This suggests shifting responsibility increasingly towards the UIF local offices. This should be first supported by compulsory UIF registration for subsistence benefit recipients so that those with some capacity to work should all

become clients of the unemployment insurance fund. This would reduce the burden of work on social workers and would allow them to tackle the deeper determinants of inactivity, including social exclusion and behavioural pathologies. In a more radical reform scenario, the minimum income guarantee programme could be provided by more accessible but a means-tested unemployment assistance allowance with strict job search conditionality, allowing transferring all able to work out of the subsistence benefit programme. Such a model of fully integrated social assistance and labour market polices has been successful in countries such as Australia and New Zealand (Box 2.5), with important elements implemented in Germany with the introduction of the basic jobseekers allowance (OECD, 2010c).

Box 2.5. **Unemployment assistance in Australia and New Zealand**

Unlike most OECD countries, Australia and New Zealand provide a flat (non-earnings related) means-tested allowance to meet social risks, which may be paid for an unlimited period and is not subject to employment record conditions, but which has strong job search obligations. No unemployment insurance benefit scheme linking benefits with past wages is available. There are no other comprehensive social assistance benefits. The maximum amount of benefit corresponds to 18 and 24% of the average wage respectively in each country. To prevent disincentive against work, the benefit is withdrawn only gradually, as the work income increases. In Australia, there is a 50% benefits withdrawal rate up to the first income threshold, and 60% up to the second threshold. In New Zealand, the benefit withdrawal rate is at 70% above a single threshold.

Source: OECD (2010d).

Re-adjusting different social benefit schemes addressed to the working-age population

Increasing the effectiveness of the social protection system would require adjustment across different social spending schemes, as discussed above. Table 2.4 provides a summary overview of what would be necessary to move towards a system of more activation-oriented and more targeted social benefits.

Table 2.4. **Reforming income-support: The possible road map**

	Incapacity to work benefit	Unemployment insurance benefit	Unemployment assistance	Subsistence benefit
Entry eligibility requirements	Tighten	No change	Relax	Asset testing
Length of benefit	Tighten	Shorten in booms	Lengthen	No changes
Job search requirements	Introduce	Tighten	Tighten	Make compulsory
Activation policies	Introduce	Strengthen	Strengthen	Make compulsory
Average size of benefit	No changes	No changes	Increase	Increase
Determining the size of benefit	No changes	Flatten	Partial withdrawal	No changes

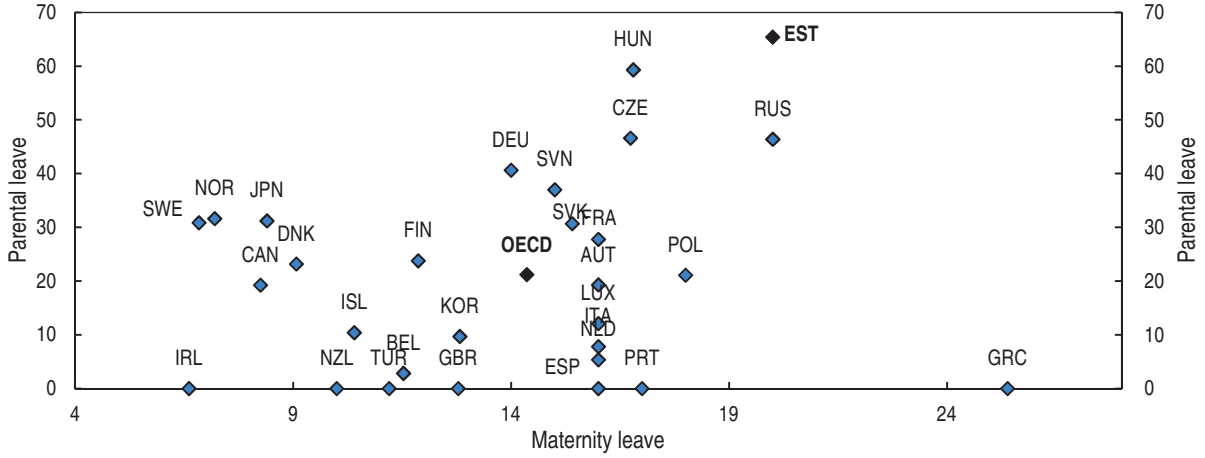
Source: OECD analysis.

Refocusing family support policies

Estonia offers the most generous maternal and parental leaves in the OECD (Figure 2.18), which explains why family policies account for almost half of all social transfers in Estonia, apart from old-age pensions. This generosity is in striking contrast to

Figure 2.18. **Maternity and paternity leaves are exceptionally generous in Estonia**

Full-rate equivalent length[1] of maternity and parental leaves for the average worker, weeks, 2008



1. Full-rate equivalent length is the product of the total length of leave and the average replacement rate.

Source: OECD (2011), *Doing Better for Families*, Figure 4.1.

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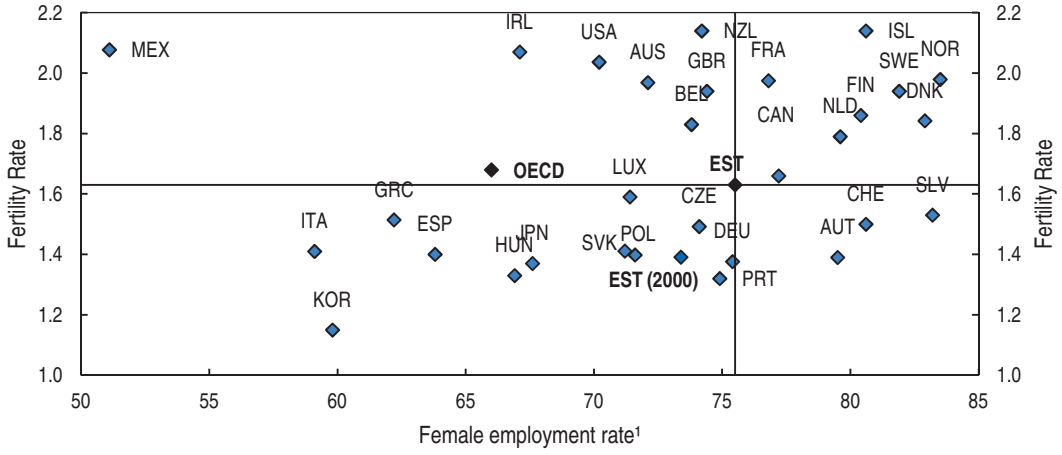
the rest of the social protection system, including on other family policies such as income support to poorer families with children and spending on formal childcare provision, where Estonia spends relatively little. Although the duration of maternity leave in Estonia is around the OECD average of 19 weeks, the 100% replacement rate throughout the leave is substantially more generous than in most other countries. When the maternity leave is completed, women can take a parental leave which is paid for 62 weeks, again with a 100% replacement rate, as well as subsequent prolonged periods of leave to care for young children. The total length of leave can go up to 136 weeks, among the highest in the OECD in terms of duration and average replacement rates. This is despite the fact that cross-country studies have not produced convincing evidence regarding the influence of paid and unpaid leave entitlements on fertility. While the impact of duration and generosity can have a different sign dependent on the study, the overall effects of fertility are generally considered as being small, even if they can affect the timing of births (Adsera, 2004). This is because temporary financial transfers can cover only a small part of the life-cycle opportunity cost of having children (Thévenon and Gauthier, 2011).

Expenditures on maternity and paternity leaves might therefore not be the most efficient for meeting the most important goals of family policies: increasing fertility rates and reducing child poverty. According to the international evidence these are best supported by policies facilitating the employment of mothers (OECD, 2011e). While Estonia succeeded in raising the fertility rate above the European Union average and reports relatively high female employment rates (Figure 2.19), several countries with less generous entitlements, notably the Nordic neighbours, have achieved a much better outcome on both the fertility rate and female employment. At the same time, child poverty in Estonia remains high by international standards. Absolute poverty among children increased sharply in the crisis and is more than twice as high as the total population average. It is particularly high for sole parent families with children. But in contrast to generous parental and maternity leaves, flat-rate family allowances are modest, especially at EUR 19 monthly for the first and second child, and also for a single parent, and do not seem to contribute sufficiently to the reduction of child poverty. This suggests the need for a

Figure 2.19. **There is still much scope to increase both fertility and female employment rates**

Fertility and female employment rates, 2009



1. Female population aged 25 to 54.

Source: OECD (2011), *Doing Better for Families*, Figure 3.8 and Statistics Estonia.

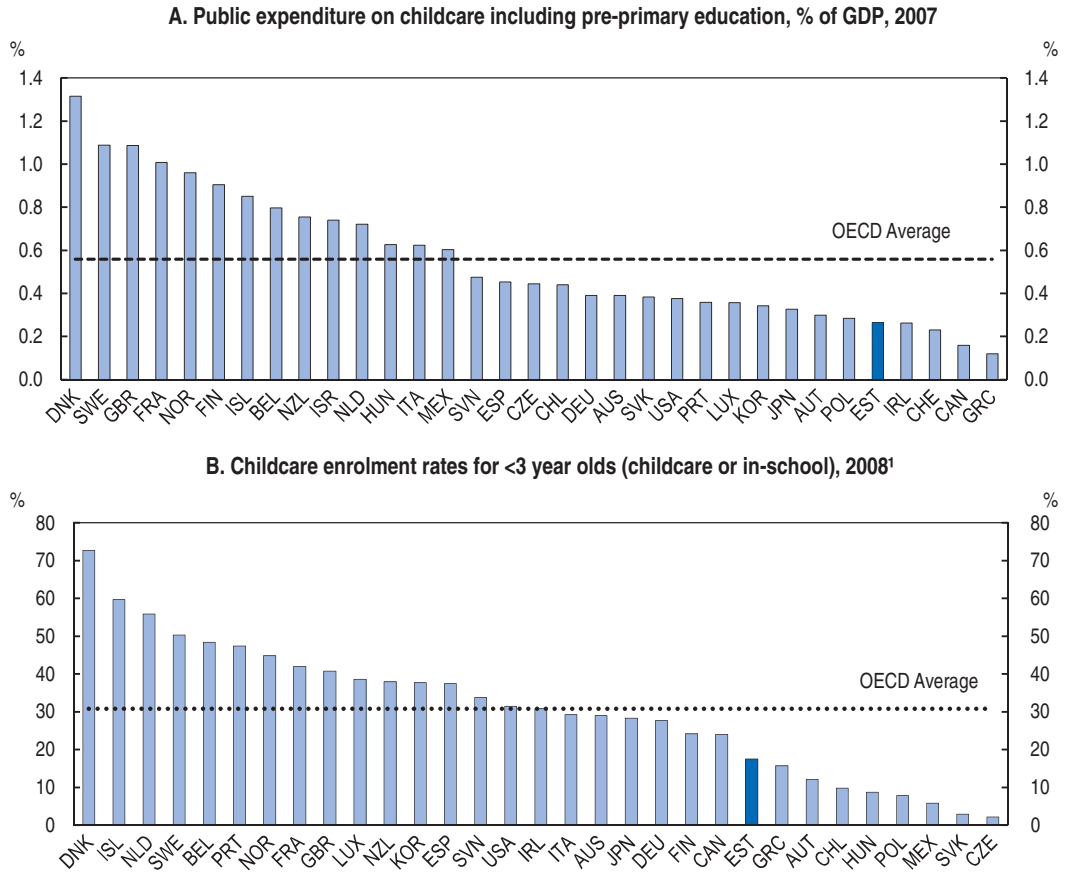
StatLink http://dx.doi.org/10.1787/888932718041

readjustment of family spending from maternal and paternity leave entitlements towards targeted child allowances and childcare provision.

Estonia spends relatively little on public childcare provision (Figure 2.20), although the availability of childcare institutions is one of the main factors explaining cross-national differences in fertility between countries. Cross-country and national studies conclude that the overall development of childcare across the OECD since the early 2000s has significantly increased second and higher order births for women (Hilgeman and Butts, 2009). Although the effect of public spending on childcare services is less certain, it seems that reductions in the parental fee paid for affordable good-quality childcare can have a positive effect on fertility rates (Rindfuss *et al.*, 2010). Part-time employment opportunities have a positive effect on fertility rates, particularly among women with a higher level of educational attainment, although the effects are likely to be country-specific (d'Addio and Mira d'Ercole, 2005). At the same time, spouse employment is an important family insurance policy against macroeconomic risks (Ahrend *et al.*, 2011). Access to affordable formal childcare allows participation in paid work, reducing poverty risks. Although pre-primary education is not compulsory in Estonia, most working parents have access to day-care for their children, organised as baby groups or nursery schools up to age 3 and pre-primary institutions for children aged 4 to 6, which are usually open for 10-12 hours a day to facilitate work. The fee paid by the parents is decided by local municipalities and cannot exceed 20% of the minimum wage, although the institution can decide upon the amount paid for catering costs. Fees do not seem to be a barrier, with the usage rate by low-income parents actually higher than average, unlike in other OECD countries. Nevertheless, it seems that the number of available places has not fully kept pace with the increasing number of children between 18 and 36 months old, indicating that not all of them can be guaranteed a place, despite high demand. The need to expand childcare should therefore be examined.

The government has recently prepared changes to the pension system that would increase replacement rates in case of child-bearing career breaks. However, a planned government-financed pension contribution for child-caring periods up to three-years is a

Figure 2.20. **Low spending on childcare might contribute to low enrolment rates**



1. 2005 for the United States; 2006 for Canada; 2009 for Mexico.

Source: *OECD Family Database*; OECD (2011), *Doing Better for Families*, Figure 4.5.

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costly and inefficient way of promoting fertility or reducing old-age poverty. First, there is no clear international evidence on the relation between pension systems and fertility. Second, a better way to address old-age poverty among females is to improve childcare and promote more fair child burden sharing among parents, helping mothers to reconcile work and family life and contribute to the pension system.

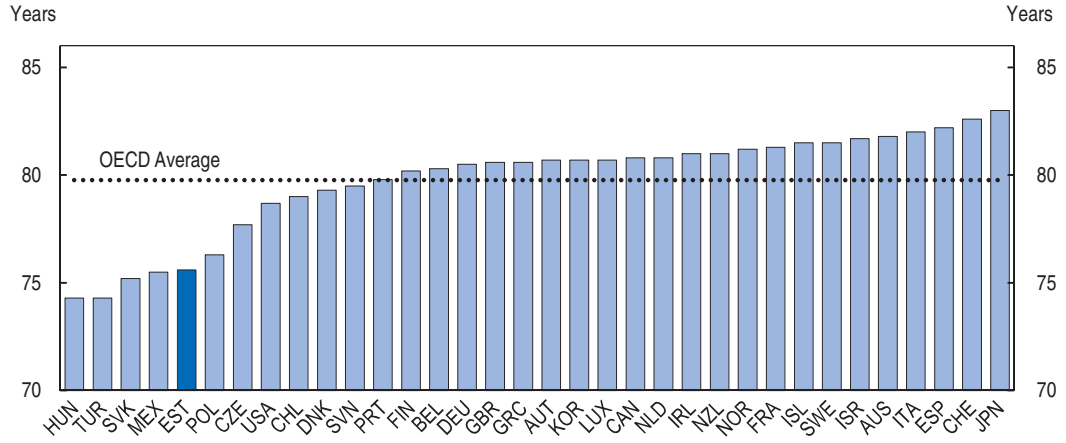
Improving access to quality health care

Access to good quality healthcare services contributes directly to the better health status and ability to participate actively in social and economic life. It can have an important role in mitigating the impact of income volatility on individual well-being. Unfortunately, health outcomes in Estonia are generally among the weakest in the OECD (Figure 2.21). Despite strong recent gains, life expectancy in Estonia at 75 years is still well below the OECD average at 79.5, or Finland at 80 and Sweden at 81.4 (OECD, 2011f).

The gap in health status of those with less advantageous social backgrounds is also very large by international standards (Figure 2.22); in particular it is strongly differentiated by education, employment status and incomes (OECD, 2011a). Estonia has large income-related inequalities in health service use (Devaux and de Looper, 2012). This suggests that negative economic shocks can lead to health difficulties. A person at the top quintile is

Figure 2.21. **Health outcomes are weak**

Life expectancy at birth, 2010[1]



1. 2008 for Canada; 2009 for Italy.

Source: OECD Health Database.

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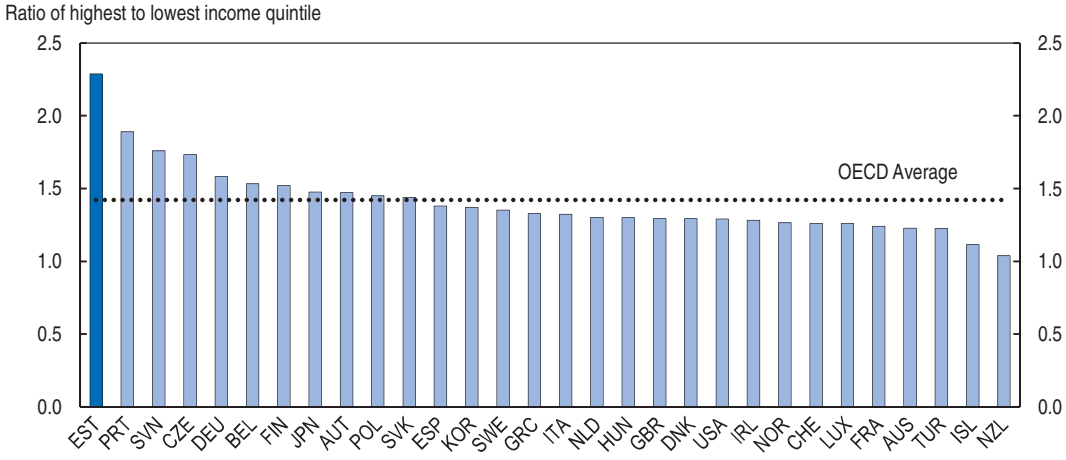
Figure 2.22. **There is a large health gap due to income status**

Adults reporting good or very good health by income quintile, 2009 or latest available year[1]



Note: Values refer to the ratio between the share of adults in the top income quintile reporting good or very good health to the corresponding share of adults in the bottom income quintile. Adults are generally defined as individual over 15 years old.

1. 2008 for Turkey; 2007 for Australia, Japan and New Zealand.

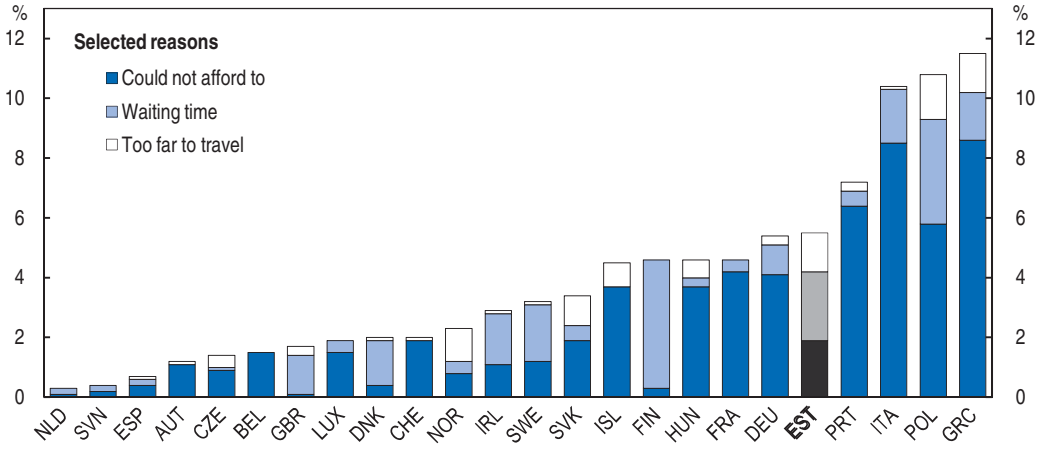
Source: OECD (2011), *How's Life? Measuring Well-Being*, Figure 5.8.

StatLink http://dx.doi.org/10.1787/888932718098

twice more likely to report good health than at the bottom quintile, while a person at the age of 30 with high education attainment has a life expectancy 17 years longer than one with low attainment. Estonia also has one of the highest premature mortality rates for males, double those of the country with the lowest rates, and as a consequence also the highest gap in life expectancy between men and women. While determinants of weak health outcomes and high health inequalities are complex and deeply rooted, improvement in access to public health services could make a positive difference (Figure 2.23; OECD, 2011f).

Figure 2.23. **Access to adequate healthcare is an issue**

Unmet need for medical examination for the bottom income quintile, 2009



Source: OECD (2011), *Health at a Glance*, Figure 6.1.1.

StatLink http://dx.doi.org/10.1787/888932718117

Estonia's spending on healthcare, at 6.7% of GDP, was well below the OECD average of 9.6% in 2009. There is scope for a more efficient use of limited resources (OECD, 2011d). Expenditure was reduced in the crisis, and while the total number of cases was not reduced, waiting times doubled, co-payments were increased, dental care compensation was abolished and the quality of services has probably suffered. But while the fiscal space for expenditure increases remains limited, especially given strong spending pressures expected in the future due to ageing, there are significant opportunities for spending efficiency improvements. The priorities are to continue strengthening the primary care to eliminate avoidable hospitalisation cases, combined with further rationalisation of the hospital network and prudent financial management.

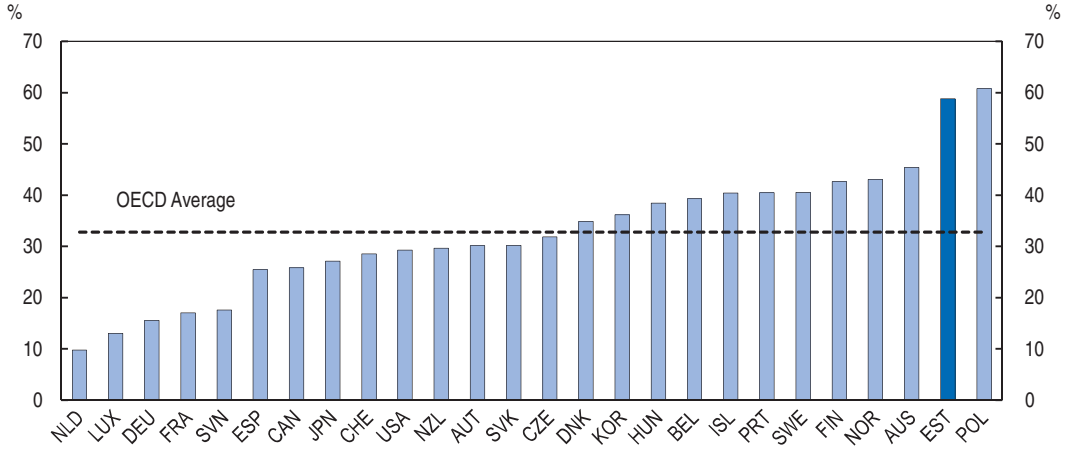
- While the number of practicing physicians is above the OECD average, the number of nurses is lower. This is linked to a traditionally doctor-centred health system that is currently changing. As a result of empowerment of family nurses in the primary health care team, the number of independent consultations of family nurses increased 15%, while the number of preventive consultations of family doctors increased 2% and number of consultation because of health problems decreased by around 7%. Positive changes also include a more effective quality performance pay system that is covering already 90% of family physicians. The gatekeeping function should be further enhanced to reduce the number of referrals (NAO, 2011). Shifting even more medical tasks to qualified nurses could make the provision of services more efficient while reducing waiting times, especially given the increasing lack of doctors in rural areas.
- The streamlining of the hospital network has been implemented since 2000, but while initial plans aimed at 19 hospitals with 2.2 beds per 1 000 persons by 2015, the changes stalled recently and there are still 3.6 beds per 1 000 persons. The number of county hospitals remains high, considering the increased usage of regional and central hospitals by the rural population, and ensuring consistent resources and quality among local hospitals remains an important challenge. Converting some of the county hospitals into out-patient facilities therefore seems to be warranted (OECD, 2011d). EU structural funds in the new financial perspective 2014-20 could be used to support the reorganisation process.

- Prudent financial management, including using the pricing power of national health insurance and fully implementing e-Health should continue to contribute to improving the efficiency of public health expenditures.

Low-income households face problems in accessing appropriate healthcare because of relatively high out-of-pocket payments (OECD, 2011d). While the share of such payments in total health spending is at the OECD average, the share of copayment for pharmaceuticals is particularly high, with households covering around 60% of costs compared with less than 20% in some countries (Figure 2.24). Introducing a means tested cap on out-of-pocket payments could therefore improve the access, as current caps are quite high and only pregnant women and children are exempted from copayments. Many municipalities choose to pay supplementary benefits to those who need them to buy medicinal products; however their financial capacities differ and lack of national guidelines might lead to unequal and insufficient access. The prescription and sales of generic drugs should be promoted more decisively to reduce the overall pharmaceutical bill. Access to dental care, which is not covered for adults, poses the most acute accessibility problem for those with limited means, so means-targeted financing could be considered.

Figure 2.24. **High share of out-of-pockets spending on pharmaceuticals contributes to unequal access**

Out-of-pocket expenditure as a share of total pharmaceutical expenditure, 2009



Source: OECD (2011), *Health at a Glance*, Figure 7.4.2.

StatLink http://dx.doi.org/10.1787/888932718136

Health care insurance requires contributions in the form of social tax, except for special groups – pensioners, pregnant women, persons below 19 years, students, and dependent spouses of insured persons. All registered unemployed are also automatically covered by health insurance. Health insurance therefore acts effectively as a compliance instrument for unemployment registration, and provides strong incentives for meeting associated requirements. It also mitigates the risk of free-riding on the public health system by those who work abroad and thus avoid paying taxes in Estonia. However, the current system also limits the access of some vulnerable groups. Municipalities are theoretically obliged to fund health care for the uninsured and in fact some health care costs are already being reimbursed to general physicians. However there are large regional differences in access, notably due to limited and regionally differentiated municipal resources. This policy might have negative medium-term consequences: lack of insurance

might explain frequent use of state-funded emergency care in Estonia (NAO, 2011), accumulation of health problems and permanent deactivation, which can eventually lead to higher long-term costs. Extending coverage to the whole population should be therefore considered in line with a concept paper proposed by the Ministry of Social Affairs. Such a change could be accompanied by switching to tax based financing, with the potential benefit of reducing the labour tax wedge.

Bad living habits contribute to poor health status, especially among males with lower social-economic background (OECD, 2011f). High rates of heart diseases and cancer are, in particular, linked to smoking, alcohol abuse, lack of physical activity and bad diet. Estonia is among countries with the highest consumption of alcohol, with 12.0 litres per adult per year in 2009 compared to 9.1 litres in the OECD on average. One in two men with only primary education smokes, while the share falls to one fifth for those with higher education. Comprehensive public health policies are therefore needed to reduce the health gap, starting from the programmes promoting healthy lifestyles at schools. Other types of socially harmful behaviour, such as drunk driving and speeding that contribute to high premature death rates, need also to be addressed more aggressively. Work-related accidents and diseases constitute an important health risk, particularly for those in low-skill occupations. Currently the system is based on the principle that the side proved guilty is paying, but this does not provide enough incentives for prevention as proving the responsibility is difficult (Praxis, 2011). This should be changed when a new insurance scheme is set up, so that the contribution is higher for employers and occupations with higher incidence rates.

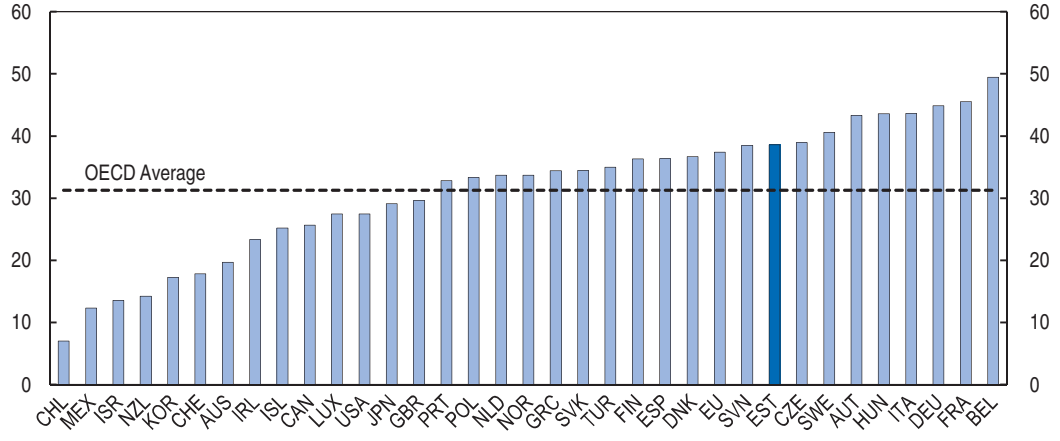
Reducing the labour tax wedge for the most vulnerable

A high labour tax wedge is an important barrier for employment in Estonia, and reducing it especially for low-wage earners whose labour supply is usually more elastic, should be a policy priority. The average tax wedge is well above OECD norms (OECD, 2012b) due to high social security contributions and despite a relatively low level of personal income taxes. While the authorities consistently worked toward labour tax reduction in the boom period, the labour tax wedge was increased during the crisis, when the contribution rate to the Unemployment Insurance Fund was increased from 0.9 to 4.2% to provide funds for the increase in unemployment benefit spending and co-financing of active labour market policies. Beyond the reduction of the overall level of spending using existing but limited efficiency improvement opportunities, reducing relative taxation of low income earners and increasing the share of non-labour taxes should be pursued.

Authorities are currently planning a reduction of the unemployment contribution rate from 4.2% to 3% in 2012 and the personal income tax rate from 21 to 20% in 2015. Social insurance contributions will be capped at the level of three time the average wage, or EUR 4 000 per month, in 2014. These are important steps confirming the commitment to lower the overall labour tax wedge. However, these changes do not do enough to address the most important challenge of average tax rates for low wage earners that are high in international comparison (Figure 2.25). The tax-benefit system also leads to an inactivity trap for persons with low earnings who could consider part-time work (Vork, 2009). In contrast, the marginal tax rate for high income individuals is below the OECD average. The greater labour market and social impact could be therefore achieved if the non-taxable tax allowance was increased instead of the reduction of the flat tax rate and social contribution capping. Such a reform would benefit disproportionally those at the bottom of the wage

Figure 2.25. **Low-earners face high labour tax wedge that discourages employment**

Average tax wedge on labour[1] at 67% of average worker earnings, single person without children, % of compensation, 2010



1. Measured as the difference between total labour compensation paid by the employer and the net take-home pay of employees, as a ratio of total labour compensation. It therefore includes both employer and employee social security contributions.

Source: OECD (2012), *Going for Growth*, Figure 3.3A.

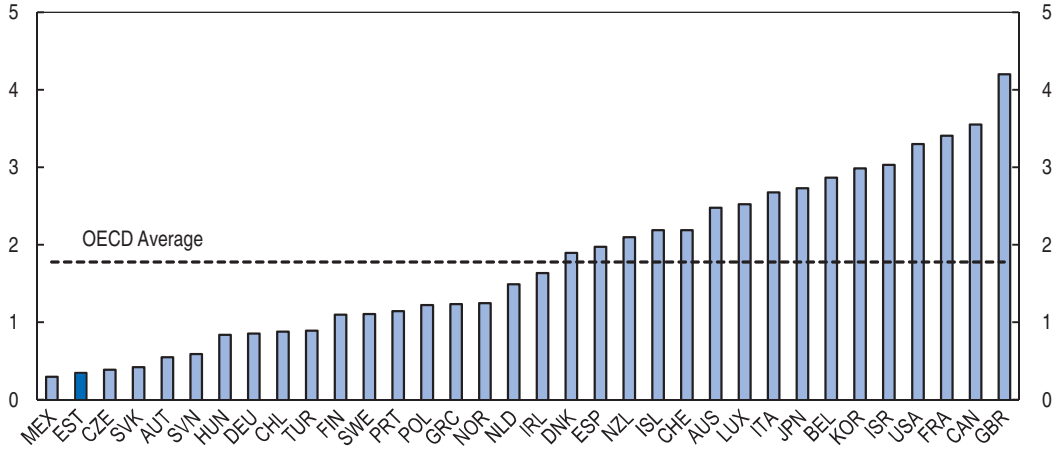
StatLink http://dx.doi.org/10.1787/888932718155

distribution. Similarly, partial subsidisation of social and unemployment insurance contributions for low earners could be effective in improving labour market outcomes, as evidenced by the generally successful programmes run in 2009-10.

Alternative sources for additional budgetary revenues exist and were discussed in previous *Surveys* (OECD, 2011d). They include property taxation, which is believed to be the least distortionary among all fiscal revenues (Johansson *et al.*, 2008). In Estonia, the share of property taxation is currently the second lowest in the OECD (Figure 2.26), partly because only land is taxed and buildings are not. Increasing property taxes would not only bring additional

Figure 2.26. **Property taxation is the source of potentially large non-distortionary revenues**

Taxes on property, % of GDP, 2009



Source: *OECD Revenue Statistics Database.*

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non-distortive revenues, but it would also remove existing inefficiencies: under-taxation of property ownership is socially unfair, and it contributed to the previous housing boom.

Increasing land tax revenues would require aligning the property assessment more closely with the market value of land by more regular and market based updating assessments. Large scale revaluation, while not straightforward, is possible and it is for example being implemented in Portugal, where most of the housing stock is to be revalued by the end of 2012. In this respect, the decision to abolish taxation of land under individual houses in 2013 so as to reduce tax burden of homeowners seems counterproductive, limiting the efficiency of the tax system, and reducing the scope for the reduction of labour taxation.

Taxing buildings and apartments could also substantially expand the property tax base. Such change is, however, opposed partly because it would have a redistributive impact, in particular by taxing large number of beneficiaries of housing privatisation programme who sometimes do not have incomes corresponding to the market value of the acquired assets. However, such change could be implemented gradually, and the poorest could be initially protected. Such a change would have important positive side benefits: more efficient allocation of housing space, and reinvigorating the tenant market, which could also help to increase geographical mobility. Less favourable tax treatment of owner occupied housing could also reduce the risk of another housing price bubble (André, 2010). In this respect, limiting capital-gains-tax exemption to the sale of one permanent residence during a period of two years was a step in the right direction. The deductibility of mortgage interest payments should also be phased out (OECD, 2011d). This tax expenditure is equivalent to all spending on subsistence benefits.

Taxation of environmental externalities offers another opportunity for rebalancing the tax structure and addressing high emissions and low energy efficiency, important structural problems of the Estonian economy (government of Estonia, 2012). The share of environmental taxation continues to be below the EU average and ensuring that the costs of all negative global and local externalities are fully internalised by taxes will in itself increase the overall tax intake. In particular diesel seems to be under-taxed relative to petrol, when taking into account its environmental footprint. The existing lower excise duty rate on diesel fuel for specific purposes and on light heating oil should also be carefully reconsidered, its cost being close to 0.3% of GDP and being one of more important tax expenditures. The exemption in excise taxes for fuels used in the production of electricity is not appropriate, as it prevents a level playing field between small installations and large installations covered by the ETS. Exceptions for fuels for industrial, notably metallurgical and mineralogical processes should also be reviewed. Finally, the exemption for natural gas used for the purpose of operating the network might lead to an insufficient incentive for preventing network losses. In the longer term, designing appropriate road pricing could be considered to generate additional revenues, while being an effective tool in managing local externalities from transport, such as local pollution, congestion, noise and accidents (OECD, 2011d).

Although indirect taxation was increased as part of the fiscal consolidation in the crisis, and revenues are already at a relatively high level, there is still room to increase them. Further increases in excise taxes that are planned in 2012 and 2013 are welcome, both as important revenue sources as well as part of the struggle against health problems linked to alcohol and tobacco consumption. VAT administration could be further improved to reduce the gap between potential revenues and actual intake (ES, 2011). Phasing out

remaining exemptions and reduced VAT tax rates could further increase the efficiency of the tax system, even if the list is relatively short compared to other EU member countries. The preferential 9% tax rate on accommodation services, periodical publications, books, and medicine and medical equipment should be abolished. The efficiency of such tax expenditures is low, as they are not targeted at those in greatest need, while their overall cost is twice as high as all targeted expenditure on unemployment assistance and subsistence benefits taken together. While increased in the crisis, standard VAT tax rates are still lower than in most OECD countries, and Nordic countries in particular, so there is scope for further increase.

Box 2.6. **Recommendation on social protection**

Activation

- Refocus the social protection system on activation and return to work, underpinned with stronger inter-agency co-operation. Swiftly conclude analysis phase to prepare internet-based e-services. All working-age people with some capacity to work should become clients of local unemployment insurance fund offices and be encouraged to participate in job search and activation activities. In particular:
  - Start preparing the reform of the disability pension system by opening activation measures to disability benefit recipients and strengthen the role of employers in prevention and rehabilitation measures.
  - The role of subsistence benefits should be reduced and municipalities should focus on addressing other problems such as social exclusion, while unemployment assistance should become the main source of basic income support and be subject to tight job-search and training conditionality by unemployment insurance offices.
  - Family support should be more oriented to better reconciling the obligations from parenthood and labour force participation, including through better provision of childcare services.

Targeting

- Benefits should be more targeted to help those in greatest need.

Public services

- Strengthening health spending efficiency, promoting healthy lifestyles and improving access for disadvantaged groups should be priorities to improve health outcomes and reduce health outcome gaps.
- Public sector delivery capacities of municipalities should be strengthened, including through incentives for service provision co-operation, including over a broad territorial area, and setting national service quality standards.

Tax incentives

- The high labour tax wedge should be reduced by increasing the share of less distortionary taxes, such as property and environmental taxes and excise duties and reducing tax expenditures, like preferential VAT rates. Reductions in direct taxes should be tilted towards low-earners.

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ANNEX 2.A1

Risk-of-poverty rates by main categories

Table 2.A1.1. **Risk-of-poverty rates by main population groups**

	2003	2004	2005	2006	2007	2008	2009	2010
Estonia	20.2	18.3	18.3	19.4	19.5	19.7	15.8	17.5
By region								
Northern Estonia	12.5	10.9	11.9	11.1	11.1	11.3	10.1	10.4
Central Estonia	21.2	23.9	22.9	22.7	23	24.3	18.3	23.1
Northeastern Estonia	29.8	25.2	27.9	32.6	31.6	30.8	24.6	29.7
Western Estonia	21.8	20.1	19.6	21.6	23.8	24.1	19.2	15.9
Southern Estonia	25.8	23	20.8	23	22.8	23.2	17.7	20.8
By education								
Below upper secondary education	27.7	27	25.2	26.8	24.1	27.1	26.3	29.3
Upper secondary education	19.1	17.3	16.7	17.1	16.7	18.1	18.4	20.8
Tertiary education	11.5	9.4	8.8	7.5	6.1	5.3	6	7.9
By age group								
0-15	19.8	21.5	19.8	17.3	17.1	20.4	16.3	19.4
16-64	18.4	17.1	16.2	16.4	15.1	16	15.9	18.1
65 and older	16.7	20.3	25.1	33.1	39	33.9	15.1	13.1
By employment								
Employed	9.6	7.5	7.5	7.7	7.3	8.1	6.4	7.9
Wage employee	9.1	5.4	5.7	6.2	5.8	6.9	5.4	6.1
Self-employed	. .	31.1	31.1	28.2	29.5	24.4	19.5	29.2
Not at work	27.1	29.7	31.6	35.9	38	35.4	25.9	26.8
Unemployed	49	60	59.5	61.7	60.6	55.2	46.7	52.1
Retired	19.4	22.8	28.7	36.9	43.3	37.9	17.9	14.9
Other inactive	30.9	29.2	28.8	30.1	29.1	28.4	26.9	30

Note: The at-risk-of-poverty threshold is 60% of the median disposable income adjusted for household size.
Source: Statistics Estonia.

ANNEX 2.A2

Macroeconomic volatility and life satisfaction in Estonia: Regression results

According to the results of the surveys, the satisfaction with life as a whole and with the financial situation in Estonia was among the lowest across OECD countries, with the job satisfaction slightly below OECD average during the period 1996-2008 (OECD, 2011). In recent years, a large body of theoretical and empirical research has examined the determinants of household satisfaction (Fleche *et al.*, 2011). According to some studies, economic insecurity and greater unemployment volatility significantly undermines perceived well-being (Wolfers, 2003; Sjöberg, 2010). This aversion to volatility can arise from several sources, although they are all based on convexity in individual preferences which induces an aversion to business cycle volatility.

To better understand what drives self reported satisfaction in Estonia, relative to other OECD European countries, and identify the impact of macroeconomic volatility on Estonia's well-being, additional empirical analysis was carried out. Research on determinants of well-being has been facilitated by the development of internationally comparable databases; the *World Values Survey* and the *European Values Study* provide answers to questions on life satisfaction in general, on satisfaction with financial situation, and on job satisfaction. For each question, the wording is roughly the same and its takes a format: "All things considered, how satisfied are you with your life as a whole these days?" The answer ranges from "dissatisfied" to "very satisfied" translated into 0-10 scale.

The effects of various explanatory variables on overall life satisfaction were estimated using macrodata and the data from the *World Values Survey* and the *European Values Survey* between 1996 and 2008. Unfortunately, more recent survey results, necessary to measure the impact of the economic crisis that started in 2008, are not available. Macroeconomic volatility is captured by standard deviations of real household disposable income and unemployment rates, computed for 5-year rolling periods between 1996 and 2008. Ordinary least squares were used for estimation, as the use of ordered probit makes little difference for life satisfaction data (Ferrer-i-Carbonnel and Frijters, 2004). The use of robust standard errors reduces heteroskedasticity problems, and inclusion of year fixed effects reduces the risk that macroeconomic shocks are also driving the correlations.

Main results

Table 2.A2.1 presents main results. The OECD cross-country panel macrodata regression (Column 1) confirms that income volatility is affecting negatively mean life satisfaction across OECD countries, on top of widely reported positive impact of average disposable

Table 2.A2.1. **Detailed regression results: Determinant of life satisfaction**

	OECD countries 1996-2008	OECD countries 1996-2008	Estonia 1996 – 1999-2008
	Macro data	Micro data	
	Mean life satisfaction	Life satisfaction	
Macroeconomic conditions			
Household disposable income	0.116* (0.047)	0.280* (0.014)	0.538* (0.085)
Household disposable income standard deviation	–0.010* (0.003)	–0.006* (0.000)	–0.005* (0.000)
Unemployment rate	–0.119* (0.022)	–0.043* (0.003)	–0.065* (0.003)
Unemployment rate standard deviation	0.017 (0.065)	–0.003 (0.009)	–0.017 (0.012)
Perceived income inequality		–0.016* (0.003)	–0.045* (0.013)
Labour force status			
Being employed		Omitted	Omitted
Being unemployed		–0.489* (0.038)	–0.725* (0.150)
Being out of labour force		0.090* (0.022)	0.103 (0.101)
Being student		0.140* (0.036)	0.291 (0.163)
Demographic characteristics			
Male		Omitted	Omitted
Women		0.073* (0.015)	0.221* (0.068)
Age		–0.047* (0.003)	–0.048* (0.013)
Age squared/1 000		0.520* (0.033)	0.557* (0.140)
Single		Omitted	Omitted
Married		0.397* (0.024)	0.090 (0.093)
Divorced		–0.133* (0.039)	–0.356* (0.129)
Separated		–0.324* (0.058)	–0.356 (0.209)
Widowed		–0.129* (0.043)	–0.286* (0.149)
Education			
Low education		Omitted	Omitted
Middle education		–0.056* (0.021)	0.076 (0.124)
High education		–0.069* (0.024)	0.136 (0.139)
Health			
Very good health		0.816* (0.024)	0.787* (0.137)
Good health		0.355* (0.021)	0.638* (0.086)
Satisfactory health		Omitted	Omitted
Bad health		–0.856* (0.050)	–0.936* (0.143)
Very bad health		–1.435* (0.184)	–1.660* (0.405)
Community			
Trust		0.188* (0.016)	0.338* (0.071)
Satisfaction with friends		0.162* (0.012)	0.024 (0.052)
Work-life balance			
Freedom of choice		0.345* (0.004)	0.382* (0.018)
Fixed effects	Yes	Yes	Yes
Observations	118	52 692	3 223
R-squared	0.31	0.27	0.39

Note: Robust standard errors in parentheses.
* Denotes significantly different from zero at 5% level.
Source: *World Values Survey* and the *European Values Study*; OECD calculations.

income, and negative impact of aggregate unemployment rate. However, volatility in unemployment rate has insignificant impact on life satisfaction across the panel of countries. These patterns are confirmed by cross-country micropanel regressions that estimate determinant of life satisfaction at the level of individuals (Column 2), including all

the most important individual characteristics (Fleche *et al*., 2011), and also for individual observations restricted only to Estonians (Column 3). In Estonia, however, the negative impact of unemployment volatility is significant at 10% significance level, unlike in the panel of OECD countries.

The two regressions based on microdata provide a source of further interesting observations, shedding light of specificities of life satisfaction determinant in Estonia that can be related to organisation of social services in Estonia. Reported life satisfaction in Estonia seems to be more strongly correlated with individual level of income and employment status than in OECD on average. In particular, it is much more costly in terms of life satisfaction to be unemployed in Estonia than in other OECD countries. The negative impact of perceived inequality also seems higher than elsewhere. Being in good health is more important.

To sum up, macroeconomic fluctuations seem to entail consequences for the well-being of society, and the results suggest that, apart from increasing income and reducing unemployment rate, life satisfaction could be probably enhanced by smoothing business cycles, and strengthening social safety net to reduce fluctuations in household disposable incomes.

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