



OECD Economic Surveys Iceland

June 2017

OVERVIEW



OECD Economic Surveys: Iceland 2017

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

The Economic situation and policies of Iceland were reviewed by the Committee on 29 May 2017. The draft was revised in the light of the discussion and given final approval as the agreed report of the whole Committee on 8 June 2017.

The Secretariat's draft report was prepared for the Committee by Douglas Sutherland and Urban Sila under the supervision of Patrick Lenain. Damien Azzopardi provided the statistical research assistance, and Brigitte Beyeler provided the administrative support. The Survey also benefited from contributions by Julien Daubanes, Alain Dupeyras and Jane Stacey.

The previous Survey of Iceland was issued in September 2015.

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BASIC STATISTICS OF ICELAND, 2015 or latest year available

(Numbers in parentheses refer to the OECD average)*

LAND, PEOPLE AND ELECTORAL CYCLE			
Population (thousand)	329	Population density per km ²	3.3 (37.0)
Under 15 (%)	20.3 (18.1)	Life expectancy (years)	82.9 (80.5)
Over 65 (%)	13.7 (16.2)	Men	81.3 (77.8)
Foreign-born (%)	11.5	Women	84.5 (83.1)
Latest 5-year average growth (%)	0.7 (0.6)	Latest general election	October 2016
ECONOMY			
Gross domestic product (GDP)		Value added shares (%)	
In current prices (billion USD)	16.8	Primary sector	6.3 (2.5)
In current prices (billion ISK)	2,214.0	Industry including construction	22.7 (27.0)
Latest 5-year average real growth (%)	2.7 (1.9)	Services	71.0 (70.6)
Per capita (000 USD PPP)	47.7 (40.8)		
GENERAL GOVERNMENT			
Per cent of GDP			
Expenditure	42.9 (40.9)	Gross financial debt	73.0 (112.2)
Revenue	42.0 (38.0)	Net financial debt**	50.3 (72.7)
EXTERNAL ACCOUNTS			
Exchange rate ISK per USD	131.90	Main exports (% of total merchandise exports)	
PPP exchange rate (USA = 1)	140.34	Manufactured goods	43.1
In per cent of GDP		Food and live animals	42.7
Exports of goods and services	53.7 (28.6)	Machinery and transport equipment	4.2
Imports of goods and services	46.2 (28.3)	Main imports (% of total merchandise imports)	
Current account balance	5.47 (0.16)	Machinery and transport equipment	35.1
Net international investment position	-5.7	Mineral fuels, lubricants and related materials	12.5
		Crude materials, inedible, except fuels	11.7
LABOUR MARKET, SKILLS AND INNOVATION			
Employment rate for 15-64 year-olds (%)	84.7 (66.3)	Unemployment rate, Labour Force Survey (age 15 and over) (%)	4.2 (7.0)
Men	87.1 (74.1)	Youth (age 15-24, %)	8.7 (14.0)
Women	82.3 (58.5)	Long-term unemployed (1 year and over, %)	0.6 (2.2)
Participation rate for 15-64 year-olds (%)	87.9 (71.3)	Tertiary educational attainment 25-64 year-olds (%)	38.8 (35.0)
Average hours worked per year	1 880 (1766)	Gross domestic expenditure on R&D (% of GDP)	2.2 (2.4)
ENVIRONMENT			
Total primary energy supply per capita (toe)	17.5 (4.1)	CO ₂ emissions from fuel combustion per capita (tonnes)	6.3 (9.4)
Renewables (%)	88.5 (9.6)	Water abstractions per capita (m ³)	558 (819)
Fine particulate matter concentration (PM _{2.5} , µg/m ³)	7.2 (14.0)	Municipal waste per capita (kilogrammes)	537 (516)
SOCIETY			
Income inequality (Gini coefficient)	0.244 (0.308)	Education outcomes (PISA score, 2015)	
Relative poverty rate (%)	4.6 (11.2)	Reading	482 (493)
Ratio of incomes of the top 10% vs. Bottom 10%	5.0 (9.6)	Mathematics	488 (490)
Public and private spending (% of GDP)		Science	473 (493)
Health care, current expenditure	8.8 (8.9)	Share of women in parliament (%)	41.3 (28.3)
Pensions	6.3 (9.1)	Net official development assistance (% of GNI)	0.24 (0.39)
Education (primary, secondary, post sec. non tertiary)	4.6 (3.6)		

Better life index: www.oecdbetterlifeindex.org

* Where the OECD aggregate is not provided in the source database, a simple OECD average of latest available data is calculated where data exist for at least 29 member countries.

** Net public debt (according to the Act on Public Sector Finances definition) is defined as gross financial liabilities less unfunded pension liabilities and other accounts payable, as well as the value of currency and deposits.

Source: Calculations based on data extracted from the databases of the following organisations: OECD, International Energy Agency, World Bank, International Monetary Fund and Inter-Parliamentary Union, and Central Bank of Iceland.

Iceland at a glance

- *Macroeconomic indicators*
- *Fiscal indicators*
- *Well-being indicators*
- *Inequality and gender equality indicators*
- *Green growth indicators*

Macroeconomic indicators

Annual % change, volume (2005 prices)

	2011	2012	2013	2014	2015	2016
Gross domestic product (GDP)	2.0	1.2	4.1	1.9	4.1	7.2
Private consumption	2.5	2.0	1.0	2.9	4.3	6.9
Government consumption	-0.1	-1.8	1.0	1.7	1.0	1.5
Gross fixed capital formation	11.6	5.3	-0.1	16.0	17.8	22.7
Housing	5.4	6.9	8.0	14.8	-3.1	33.7
Final domestic demand	3.1	1.4	0.9	4.8	6.0	8.7
Stockbuilding ¹	-0.3	-0.2	0.6	-0.9	-0.9	-0.6
Total domestic demand	2.8	1.2	1.5	4.0	5.1	8.1
Exports of goods and services	3.4	3.6	6.7	3.2	9.2	11.1
Imports of goods and services	6.8	4.6	0.0	9.8	13.5	14.7
Net exports ¹	-1.1	-0.2	3.8	-2.9	-1.5	-0.8
Other indicators (growth rates, unless specified)						
Potential GDP	1.4	1.4	1.5	1.7	2.0	2.4
Output gap ²	-5.9	-6.1	-3.7	-3.4	-1.4	3.2
Employment	0.3	1.1	3.1	2.5	3.4	3.8
Unemployment rate	6.9	5.9	5.4	4.9	4.0	3.0
GDP deflator	3.0	3.3	2.2	4.1	6.0	2.0
Consumer price index	4.0	5.2	3.9	2.0	1.6	1.7
Core consumer prices	2.6	4.6	4.1	2.7	2.1	2.2
Current account balance ²	-5.3	-4.0	6.0	4.0	5.5	8.0
General government fiscal balance ²	-5.6	-3.7	-1.8	-0.1	-0.8	17.2
Underlying general government fiscal balance ²	-1.3	0.4	0.1	3.3	1.3	-0.3
Underlying government primary fiscal balance ²	1.3	3.5	3.5	6.8	5.1	3.2
General government gross debt ²	97.5	95.3	87.2	79.9	73.0	62.3
General government net debt ^{2,3}	61.6	63.8	62.0	55.7	50.3	42.6
Three-month money market rate, average	4.3	5.5	6.2	6.1	5.9	6.3
Ten-year government bond yield, average	6.0	6.2	5.8	6.4	6.3	5.6

1. Contribution to changes in real GDP.

2. As a percentage of GDP or potential GDP.

3. Net public debt (according to the Act on Public Sector Finances definition) is defined as gross financial liabilities less unfunded pension liabilities and other accounts payable, as well as the value of currency and deposits.

Source: OECD (2016), OECD Economic Outlook Database; OECD Analytical Database; and Central Bank of Iceland.

Fiscal indicators

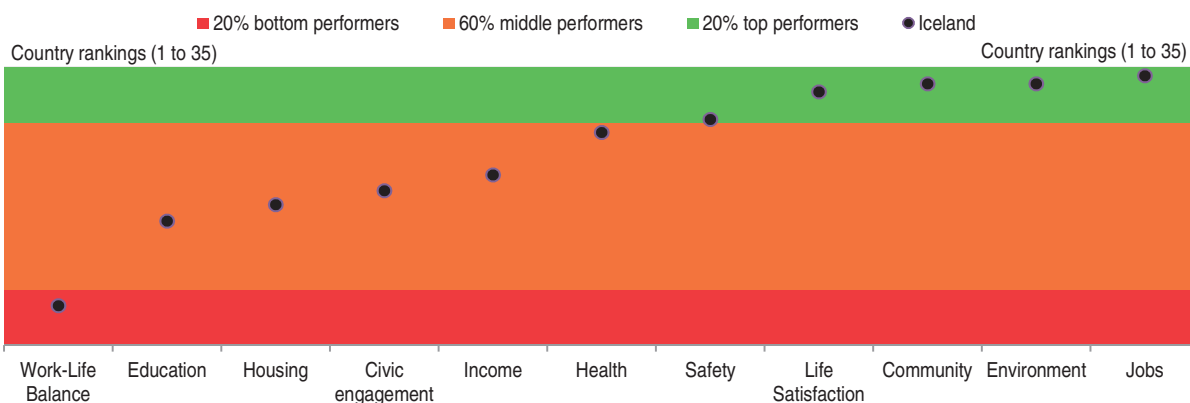
% of GDP or potential GDP, unless otherwise indicated

	2010	2011	2012	2013	2014	2015	2016
Receipts							
Current taxes on income and wealth	15.7	16.7	17.1	17.8	19.1	17.8	18.4
Corporate direct taxes	2.6	2.8	2.9	3.0	4.3	3.5	3.4
Household direct taxes	13.1	13.9	14.3	14.8	14.8	14.3	15.0
Taxes on production and imports	13.6	13.7	14.3	14.1	15.7	15.1	14.2
Social security contributions	3.9	3.9	3.6	3.7	3.7	3.6	3.6
Property income	2.5	2.0	2.7	2.7	3.1	1.9	2.8
Other current receipts	3.7	3.6	3.8	3.6	3.5	3.5	19.2
Current receipts	39.4	40.0	41.5	41.9	45.1	41.9	58.3
Capital taxes and transfers receipts	0.2	0.1	0.1	0.2	0.1	0.2	0.2
Total receipts	39.6	40.1	41.7	42.1	45.2	42.0	58.4
Outlays							
Final consumption expenditure	24.6	24.7	24.5	24.3	24.2	23.6	23.1
Social security benefits	7.5	8.1	7.6	7.1	7.0	6.4	6.2
Property income paid	4.8	4.1	4.7	4.6	4.7	4.6	4.2
Current expenditures	43.5	43.3	43.3	42.2	41.9	40.4	39.0
Gross fixed capital formation	3.4	2.7	2.7	2.9	3.1	2.9	2.8
Capital transfers and payments	4.5	1.8	1.5	0.9	2.3	1.4	1.1
Consumption of fixed capital	2.1	2.1	2.1	2.0	2.0	1.8	1.7
Total expenditures	49.3	45.7	45.4	43.9	45.3	42.9	41.2
Net lending							
Net primary balance	-7.0	-2.9	-0.4	1.6	3.6	2.9	20.6
General government net lending (Billion ISK)	-158.2	-95.0	-66.5	-34.8	-1.2	-18.5	416.8
General government net lending (% of GDP)	-9.8	-5.6	-3.7	-1.8	-0.1	-0.8	17.2
Cyclically adjusted variables							
Cyclically adjusted net lending	-5.6	-1.9	0.0	0.4	2.1	0.0	15.9
Underlying net lending	-2.4	-1.3	0.4	0.2	3.3	1.3	-0.3
Cyclically adjusted primary balance	-3.0	0.6	3.1	3.7	5.6	3.8	19.4
Underlying primary balance	0.2	1.3	3.5	3.5	6.8	5.1	3.2
Cyclically adjusted current disbursements	40.2	40.3	40.2	40.4	40.2	39.7	40.5
Cyclically adjusted current disbursements, excluding interest	35.7	36.4	35.8	35.9	35.6	35.2	36.2
Cyclically adjusted current receipts	39.9	40.6	42.1	42.3	45.4	42.0	58.5
Debt							
Gross debt	90.8	97.5	95.3	87.2	79.9	73.0	62.3
Net debt*	66.2	61.6	63.8	62.0	55.7	50.3	42.6
Memorandum items							
Output gap, whole economy	-6.4	-5.9	-6.1	-3.7	-3.4	-1.4	3.2

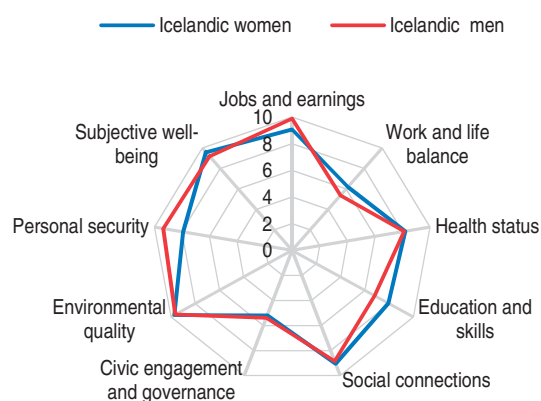
* Net public debt (according to the Act on Public Sector Finances definition) is defined as gross financial liabilities less unfunded pension liabilities and other accounts payable, as well as the value of currency and deposits.

Well-being indicators

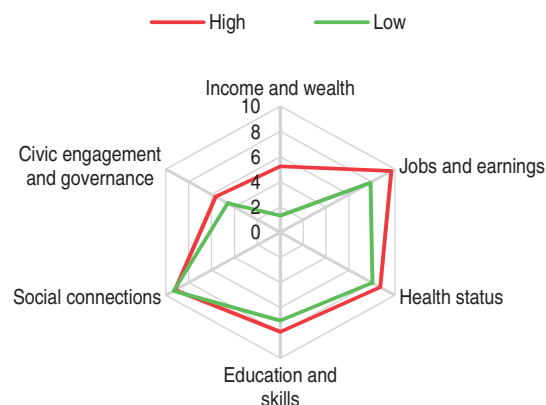
A. Indicators of well-being in Iceland



B. Iceland well-being of men and women



C. Iceland well-being inequalities



D. Iceland well-being sub-indicators selected rankings

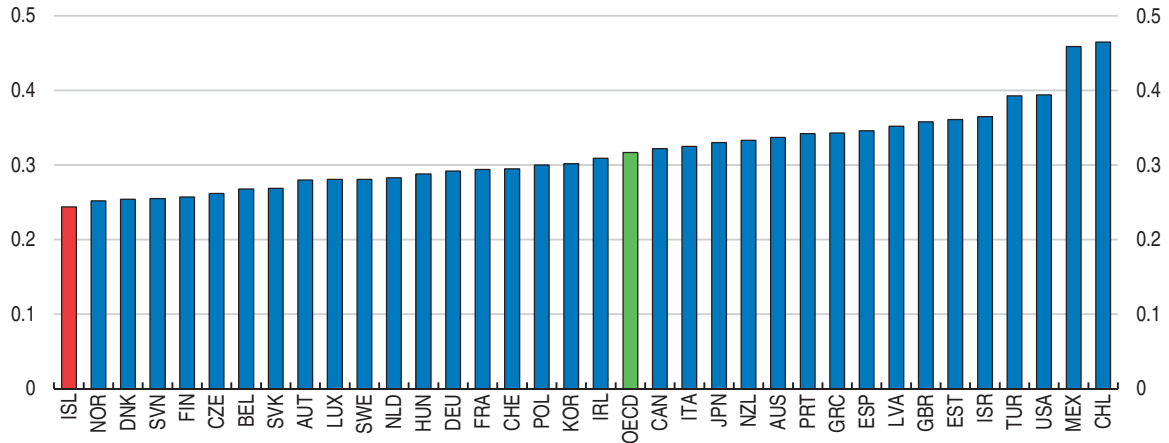
	Sub-indicator	Rank	Measure	Iceland	OECD average
In the OECD top 5	Dwellings without basic facilities	1	% of the population living in a dwelling without indoor flushing toilet	0	2.1
	Employment rate	1	% of the working-age population (aged 15-64)	82	66
	Labour market insecurity	1	% of previous earnings associated with unemployment	0.7	6.3
	Water quality	1	% of satisfaction with water quality	97	81
	Quality of support network	2	% of positive responders to perceived social network support	96	88
	Years in education	2	Years	19.6	17.5
	Air pollution	3	Average PM2.5 particles concentration in µg/m ³	7	14
	Life satisfaction	3	Average score	7.5	6.5
	Homicide rate	3	Age-standardised rate per 100 000 population	0.3	4.1
	Personal earnings	4	US dollars at current PPPs	56 789	40 974
In the OECD bottom 10	Long-term unemployment rate	5	% of the labour force	0.67	2.58
	Educational attainment	28	% of adults holding at least an upper secondary degree	73	76
	Student skills	28	Average score	484	497
	Housing expenditure	29	% of the household gross adjusted disposable income	24	21
	Employees working very long hours	29	% of dependent employees working 50 hours or more	13.79	13.02
	Time devoted to leisure and personal care	31	Hours	14.13	14.91

Source: OECD Better Life Index 2016.

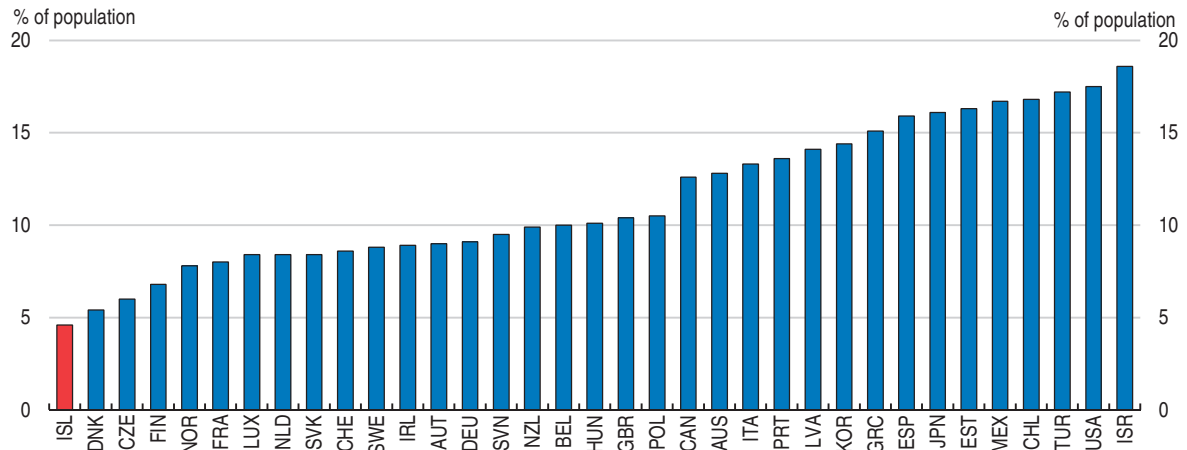
StatLink <http://dx.doi.org/10.1787/888933530053>

Inequality and gender equality indicators

A. Gini of disposable income

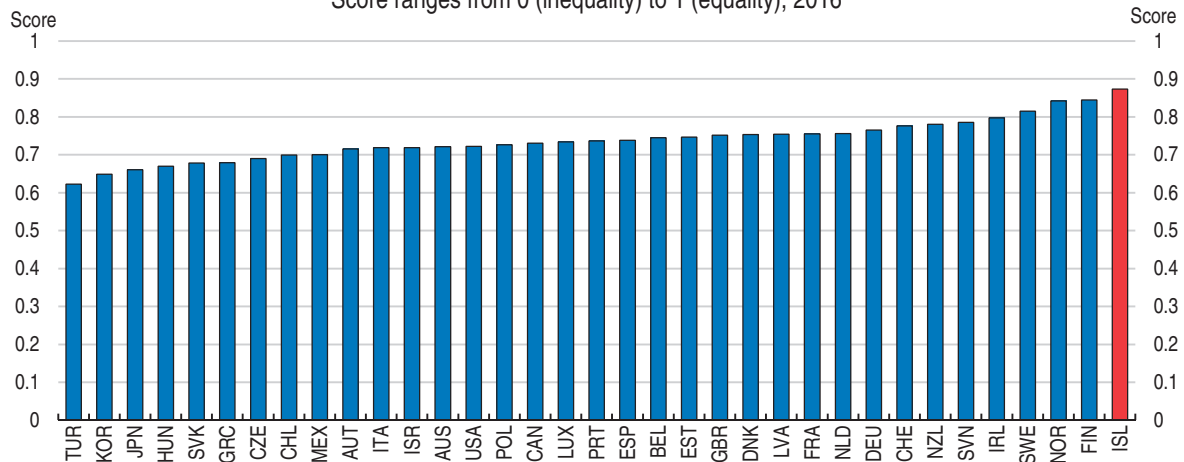


B. Poverty rate after taxes and transfers, Poverty line 50%



C. Global Gender Gap Index

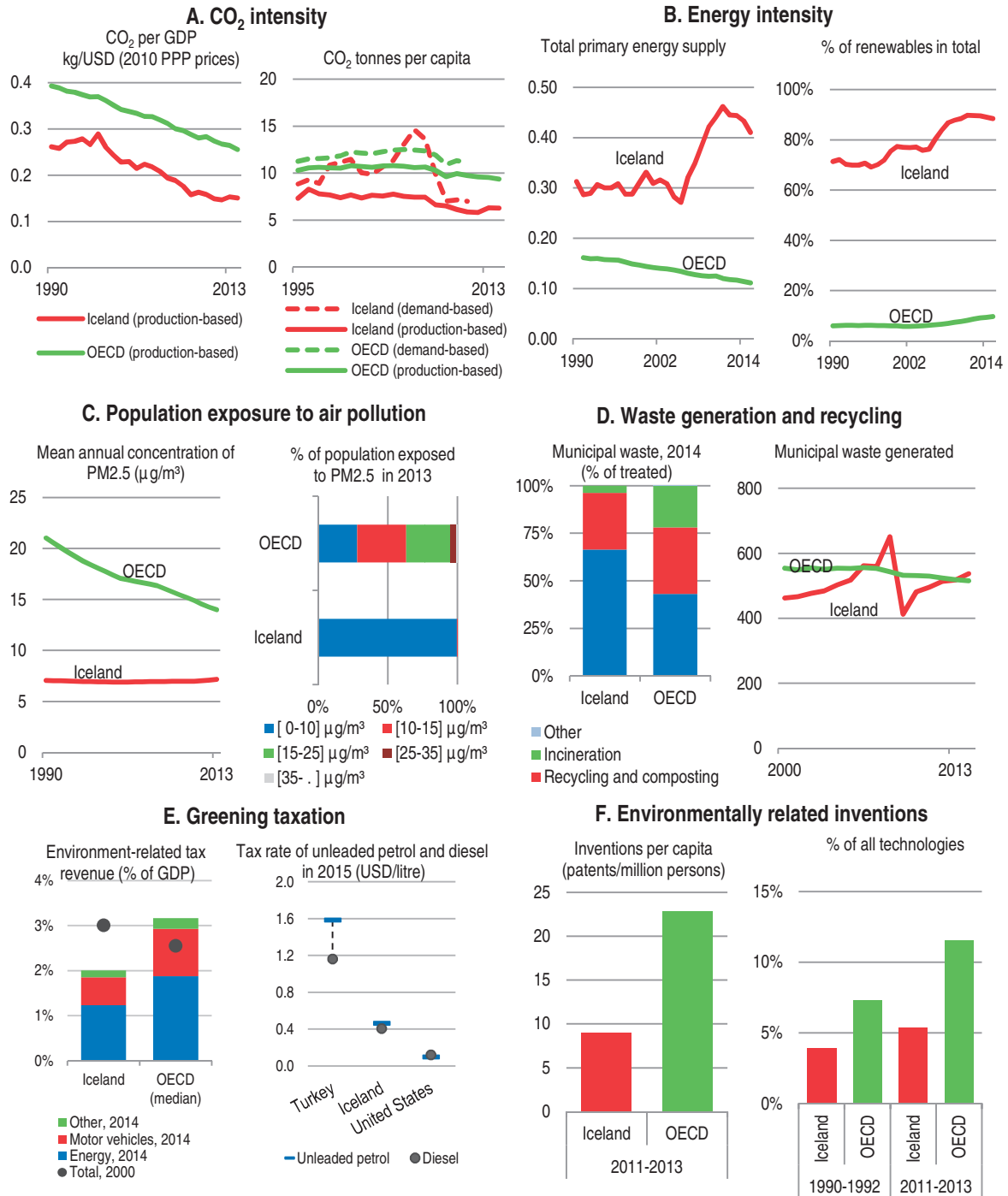
Score ranges from 0 (inequality) to 1 (equality), 2016



Source: OECD Income Distribution Database; and the Global Gender Gap Report 2016 Dataset © 2016 World Economic Forum.

StatLink <http://dx.doi.org/10.1787/888933530072>

Green growth indicators



Source: OECD (2016), *OECD Environment Statistics Database* (Green Growth Indicators, Patents: Technology Development, Municipal Waste); *OECD National Accounts Database*; IEA (2016), *IEA World Energy Statistics and Balances Database*; *IEA Energy Prices and Taxes Database*; OECD calculations based on data from M. Brauer et al. (2016), "Ambient Air Pollution Exposure Estimation for the Global Burden of Disease 2013", *Environmental Science & Technology*, Vol. 50(1), pp. 7.

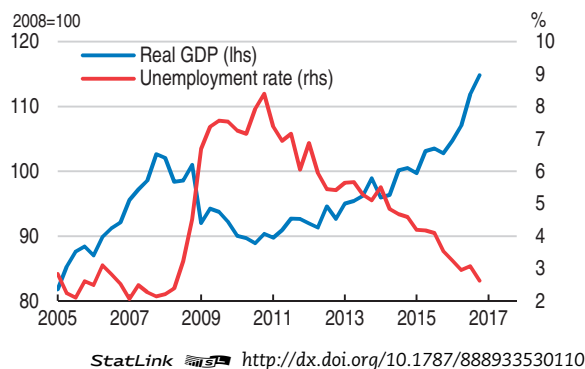
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Executive summary

- *Preserving macroeconomic stability*
- *Making tourism sustainable and inclusive*
- *Effective and inclusive labour relations*

Preserving macroeconomic stability

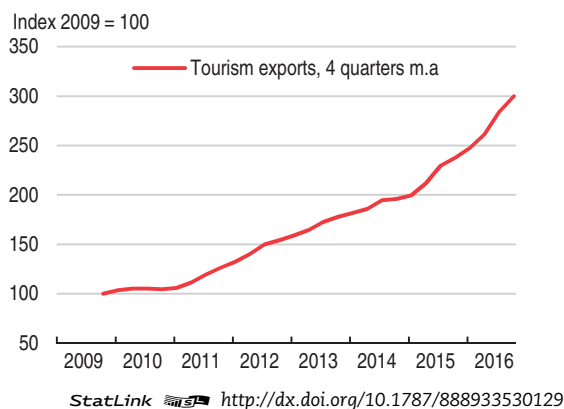
Iceland has made a remarkable turnaround from the crisis



Iceland is currently the OECD's fastest growing economy. It has made a remarkable turnaround from the crisis, helped by staggering growth of tourism, prudent economic policies and a favourable external environment. Imbalances have been corrected and, after 8 years, capital controls have essentially been lifted. Iceland has an egalitarian society with strong trade unions, very low inequality and high gender balance. Nevertheless, as a very small open economy Iceland is prone to boom and bust cycles. Currently, domestic demand is strong and wages and asset prices are rising. Fiscal policy has been easing despite strong growth. Inflationary pressures have built up. Favourable external environment has helped monetary policy achieve low inflation, while it faced constraints during the ongoing capital account liberalisation.

Making tourism sustainable and inclusive

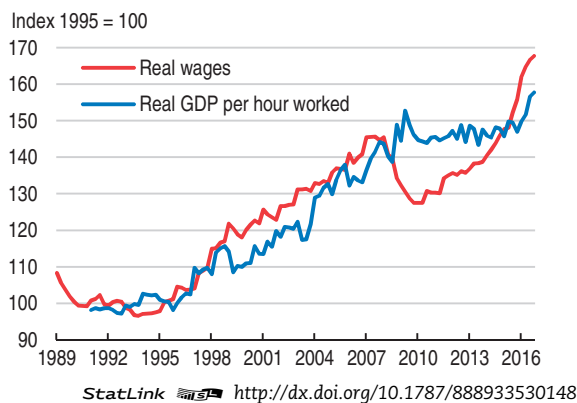
Tourism is booming



Tourism is booming in Iceland. The spectacular growth in tourist numbers has provided new jobs, boosted tax revenues and attracted currency inflows. As the country is adapting to having a much larger tourism sector, it is also experiencing some growing pains with social pressures emerging. Notably, affordability has become an issue in the housing market as supply catches up with demand. The sheer numbers of tourists are putting pressure on the environment and infrastructure is often insufficient. Growing tourist numbers have also contributed to strengthening króna, creating difficulties for other internationally-exposed sectors.

Effective and inclusive labour relations

Steep wage increases have exceeded productivity growth



Iceland has high living standards, low poverty, high inclusiveness and one of the most sustainable pension systems. It is the most highly unionised OECD country. In the past, successful social pacts have protected the lowest paid workers during crises, and on occasion helped fight inflation. Nevertheless, recent disruptive strikes and high wage awards have intensified inflationary pressures and threaten international competitiveness, particularly in times of slowing productivity. Fostering trust among the social partners and increasing wage co-ordination would make collective bargaining more effective and help sustain the benefits of the system for future generations.

POLICY CHALLENGES	KEY RECOMMENDATIONS
Preserving macroeconomic stability	
Overheating and inflationary pressures pose risks to the outlook.	<p>Monetary policy should be ready to tighten, should inflation expectations increase once again.</p> <p>Smooth excess short-term exchange rate volatility. Use macro-prudential tools in accordance with international agreements to manage potentially destabilising short-term capital flows.</p> <p>To reduce the risk of overheating, which would trigger further monetary policy tightening, fiscal policy should be contractionary.</p>
Building buffers is important in a volatile economy prone to substantial shocks.	A sovereign wealth fund should be established and built up over time. Funds should be invested abroad and draw down limited to counteracting substantial shocks.
Making tourism sustainable and inclusive	
Steep growth of tourism has been much faster than anticipated. Tourism is putting pressure on society, nature and infrastructure.	<p>Establish an inter-ministerial tourism strategy focused on making tourism environmentally, socially and economically sustainable. This should include non-government stakeholders.</p> <p>Remove current tax subsidies for tourism-related activities, by taxing them at the standard VAT rate and broadening the base to excluded services.</p> <p>Limit the number of visitors to fragile sites.</p> <p>Introduce user fees to manage congestion and pressure on the environment.</p> <p>Subject infrastructure investment to cost-benefit analysis, including consideration of social and environmental impacts.</p> <p>Ensure transport and tourism policy are consistent.</p> <p>Improve the economic analysis of tourism activity, with better data and research.</p>
Tourism jobs can be low-skilled and low-paying which may hinder the development of a high value tourism sector.	Use vocational and on-the-job training to build skills in the tourism workforce.
Effective and inclusive labour relations	
Wage negotiations can result in unsustainable wage increases. Co-ordination of wage bargaining is low.	<p>To nurture trust all parties need to participate actively in the Macroeconomic Council.</p> <p>Establish a tripartite technical committee to provide reliable and impartial information to wage negotiators.</p> <p>Wage negotiations should begin with an agreement on “wage guidelines” for the negotiation round. State mediator (and arbitration bodies) should also base their proposals on these guidelines.</p> <p>Increase the powers of state mediator, including the power to delay industrial action for a limited period in agreement with the social partners, in an effort to achieve a negotiated agreement.</p>

Assessment and recommendations

- *Economic growth is strong but challenges remain*
- *Monetary policy: taming inflation in roaring times*
- *Exiting exchange controls*
- *Fiscal policy should be contractionary*
- *A tax system conducive to inclusive and green growth*
- *Reforms to improve the business environment*
- *Making the best of the tourism boom*
- *Iceland's labour market*

Iceland is the OECD's smallest economy and, currently, the fastest growing. A boom in financial services and construction led to a deep financial crisis in 2008. However, Iceland has made a remarkable turnaround, helped by spectacular growth of tourism, prudent economic policies and a favourable external environment. In 2011, the country successfully completed its IMF-supported adjustment programme and capital controls, imposed after the crisis, have now essentially been lifted. Today, living standards are higher than before the crisis.

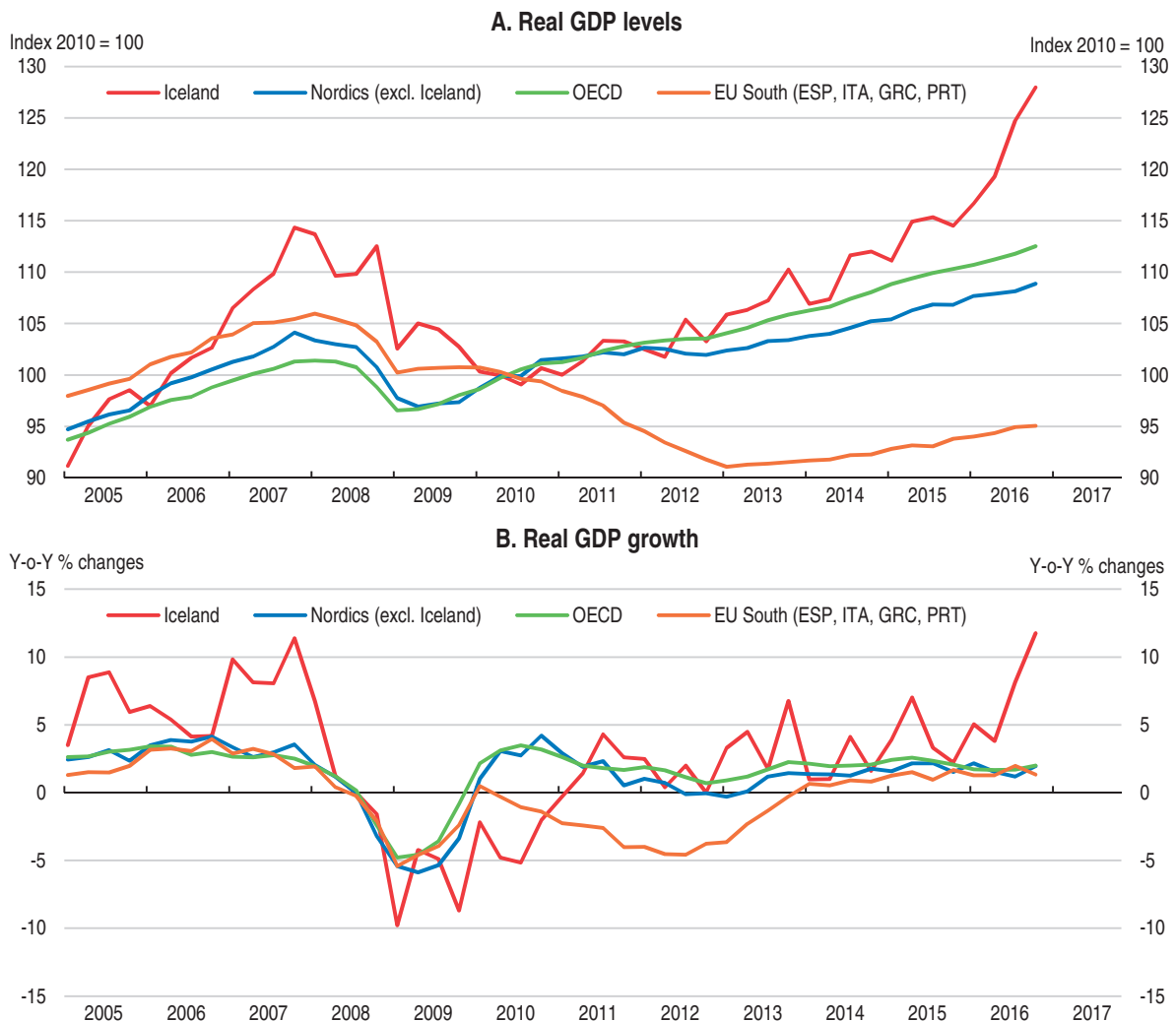
As a very small open economy relying on natural resources, Iceland is prone to boom and bust cycles, but it protects individuals from this volatility with universal health care, free education, and well-designed social benefits. The poverty rate is the lowest in the OECD and life expectancy is among the highest in the world. The labour market is flexible, with historically little unemployment, while strong trade unions have contributed to ensuring that growth has been widely shared. Women are able to realise their potential better than elsewhere, making Iceland a top performer in terms of gender balance. The combination of very high employment and late retirement put the comprehensive Icelandic pension system in a very good position.

Historically, Iceland's prosperity has been built on the sustainable use of its abundant natural resources. The comprehensive fisheries management system based on individual transferable quotas ensures that fish stocks are not over-exploited. The system is science-based and relies heavily on marine research. Iceland is at the forefront in the use of renewable energy resources, relying on its geothermal and hydroelectric energy. More than 90% of homes are heated by geothermal energy (Central Bank of Iceland, 2016a). Today, Iceland's wilderness and unique natural environment are increasingly recognised as an important economic asset and a big pull for tourism, but also a natural heritage needing conservation.


Economic growth is strong but challenges remain

The economy is booming (Figure 1). GDP growth accelerated to 7.2% in 2016, supported by strong private demand, surging investment, booming tourism and expansionary fiscal policy. Household income continues to benefit from employment growth and steep wage increases (Figure 2). The unemployment rate has fallen (2.6% in 2016 Q4) to pre-crisis levels and in-migration is rising again to fill vacancies. Tourism is boosting investment. Inflation has stood below 2% for most of 2016, contained by strong króna appreciation and improvements in the terms of trade, despite a positive output gap and the threat of a wage-price spiral developing. The economic boom is also reflected in rising housing and asset prices. High growth will continue in 2017 (Table 1), supported by strong investment and private consumption. Over time, however, growth will moderate as investment will slow and the positive impact of the terms of trade will dissipate.

Considerable progress has been made in reducing imbalances (Figure 3). Iceland is running a current account surplus, and the net investment position has turned positive for

Figure 1. **Growth after the crisis has been strong**

Source: OECD Analytical Database.

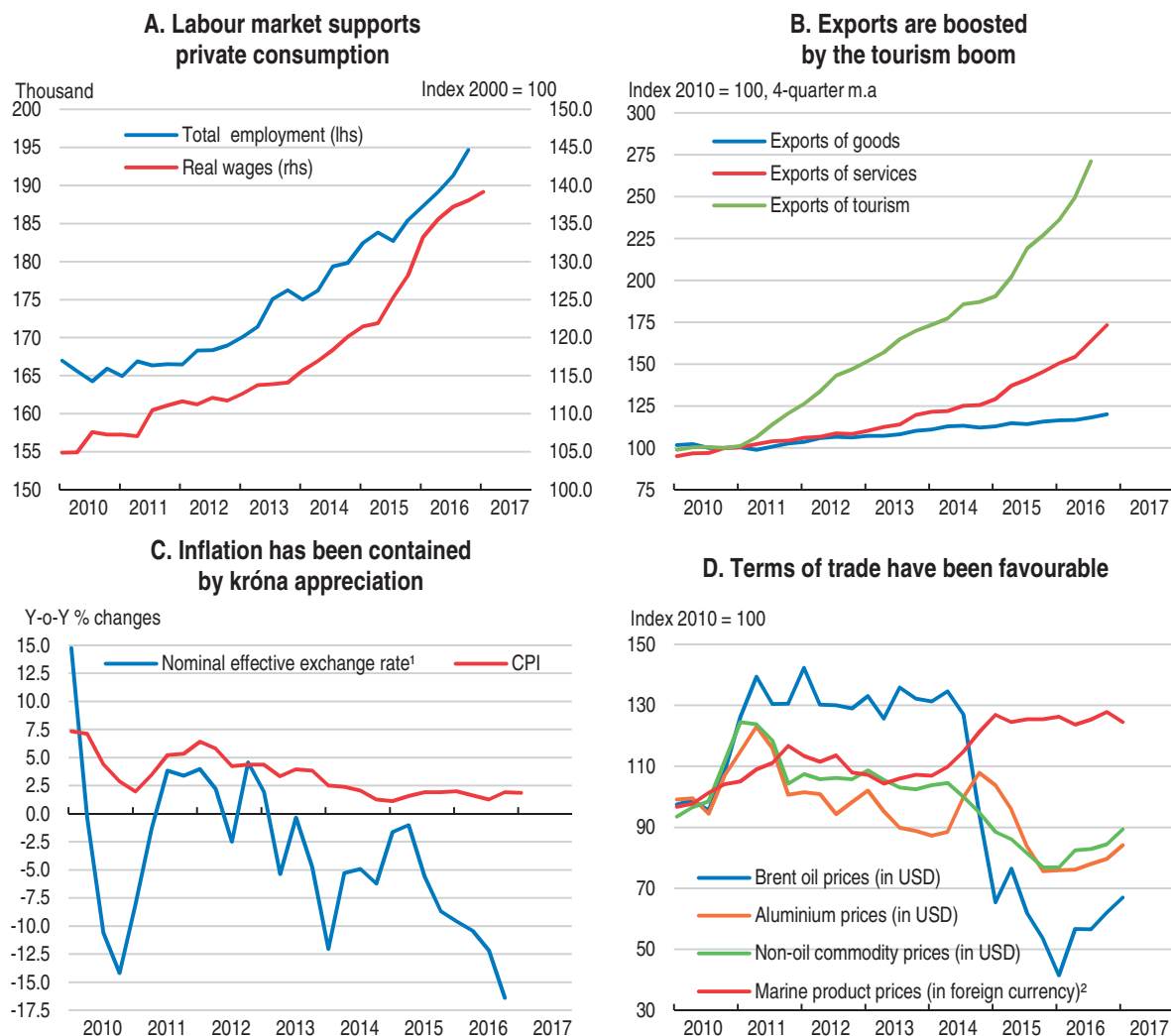
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the first time. The central bank has built up significant foreign exchange reserves. Public and private sector debts have been greatly reduced. Strong growth and deleveraging have helped companies to improve their balance sheets. Debt restructuring, write-offs and debt relief measures have reduced indebtedness of households, while growing disposable incomes and rising asset prices improved their equity position. Current growth is supported by rising profits and incomes, rather than leverage.

In this favourable environment, the government reached an agreement with creditors of the failed banks' estates and most of the holders of "off-shore króna", thus reducing the risk of unmanageable capital outflows undermining macroeconomic stability. Capital controls, which were introduced after the crisis, have now essentially been removed.

Iceland nevertheless faces numerous policy challenges. Due to its small size, openness, limited production base and relatively high reliance on natural resources, Iceland has a volatile economy that has been prone to boom and bust dynamics (Central Bank of Iceland, 2010; OECD, 2015a). Overheating and accelerating inflation are the biggest risks to the


Figure 2. Macroeconomic developments



1. A decrease denotes an appreciation.

2. Foreign currency prices of marine products are calculated by dividing marine product prices in Icelandic króna by the trade-weighted exchange rate index. Foreign currency prices of aluminium products are calculated by dividing aluminium prices in Icelandic króna by the exchange rate of the USD.

Source: OECD Analytical Database; Statistics Iceland; Central Bank of Iceland Monetary Bulletin 2017/1; and Thomson Reuters.

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outlook. Tourism has been growing at breakneck speed, putting the housing market, infrastructure and the environment under pressure. The massive inflows of tourists were far in excess of projections, leaving policymakers trying to keep up with events. In addition, a strong króna, while acting as an automatic stabiliser, poses challenges for many businesses. High tensions among the social partners could trigger further wage increases and disruptive strikes, damaging growth and stability.

The authorities are confronting the challenges and have introduced a number of reforms in recent years, including those recommended in previous *Economic Surveys* (Tables 3-6 on past OECD recommendations). The centre-right coalition formed in January 2017 has also set out a reform agenda. It plans to reduce public debt further, partly with the

Table 1. Demand, output and prices projections

	2016	2017	2018
	Percentage changes, volume (2005 prices)		
GDP at market prices	7.2	5.3	2.6
Private consumption	6.9	5.4	3.4
Government consumption	1.5	1.0	1.1
Gross fixed capital formation	22.7	9.2	1.1
Final domestic demand	8.7	5.2	2.3
Stockbuilding ¹	-0.6	0.0	0.0
Total domestic demand	8.1	5.2	2.3
Exports of goods and services	11.1	6.3	3.5
Imports of goods and services	14.7	5.8	2.6
Net exports ¹	-0.8	0.6	0.6
<i>Memorandum items</i>			
GDP deflator	2.0	1.9	3.2
Consumer price index	1.7	2.4	3.5
Private consumption deflator	0.7	0.9	3.1
Unemployment rate	3.0	2.8	3.0
General government net lending ²	17.2	0.9	1.5
Underlying primary balance ²	3.2	0.7	1.2
General government gross debt ^{2,3}	62.3	61.0	59.3
Current account balance ²	8.0	5.2	5.6
Output gap, ² whole economy	3.2	6.0	6.1

1. Contributions to changes in real GDP.

2. As a percentage of GDP or potential GDP.

3. Includes unfunded liabilities of government employee pension plans, which amounted to about 25% of GDP in 2012.

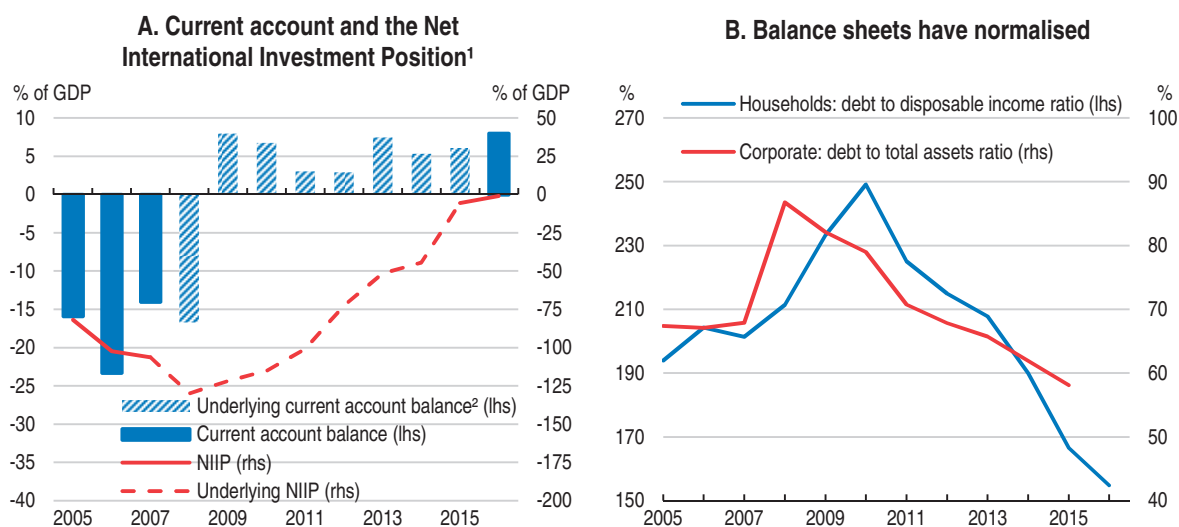
Source: OECD Economic Outlook 101 Database.

help of privatising banks. The government is proposing to introduce a sovereign wealth fund. It also plans to enhance tax enforcement and combat tax avoidance. The new government will make efforts to damp exchange rate fluctuations and review the framework for monetary policy.

In spite of very fast growth, rising wages and improved balance sheets there are popular demands to keep interest rates low and prevent the exchange rate from rising. Needed investment in infrastructure, due to past fiscal restraint and stresses from tourism, also raise demands for higher spending. Moreover, trade unions have threatened to trigger wage renegotiations earlier than anticipated. These pressures, if they were to get out of hand, could derail growth. By contrast, sound macroeconomic policies, financial supervision, and structural reforms would underpin continued strong growth by preventing the return of unsustainable imbalances and another boom-bust cycle. Against this background this report focuses on:

- Macroeconomic policy framework to ensure resilient and stable growth. Fiscal policy and monetary policy should prevent overheating. Building fiscal, liquidity and capital buffers and prudent management of capital flows can ensure a soft landing in case of an unexpected crisis.
- Policies to reap gains from sustainable and inclusive growth of tourism. An inter-ministerial committee should implement a comprehensive tourism strategy, taking into account the effects on the environment and social pressures, to maximise the benefits of tourism for Iceland.

Figure 3. Major imbalances have been corrected



1. The Net International Investment Position (NIIP) is the stock of external assets minus the stock of external liabilities. In other words it is the value of foreign assets owned by private and public sector of a country minus the value of domestic assets owned by foreigners. Based on underlying position from 2008 through end-2015; i.e. adjusted for the effects of settling the failed banks' estates and assuming equal distribution of assets to general creditors. At the end of 2015, the estates of the failed financial institutions reached composition agreements entailing the write-off of a large portion of their debt. As a result, there is no difference any more between the NIIP and the underlying NIIP.
2. The underlying current account balance excludes both the effects of the failed financial institutions in 2008-15 and the effects of pharmaceutical company Actavis in 2009-12 on the primary income balance. Adjustments have also been made for financial intermediation services indirectly measured (FISIM).

Source: OECD Analytical database; Central Bank of Iceland.

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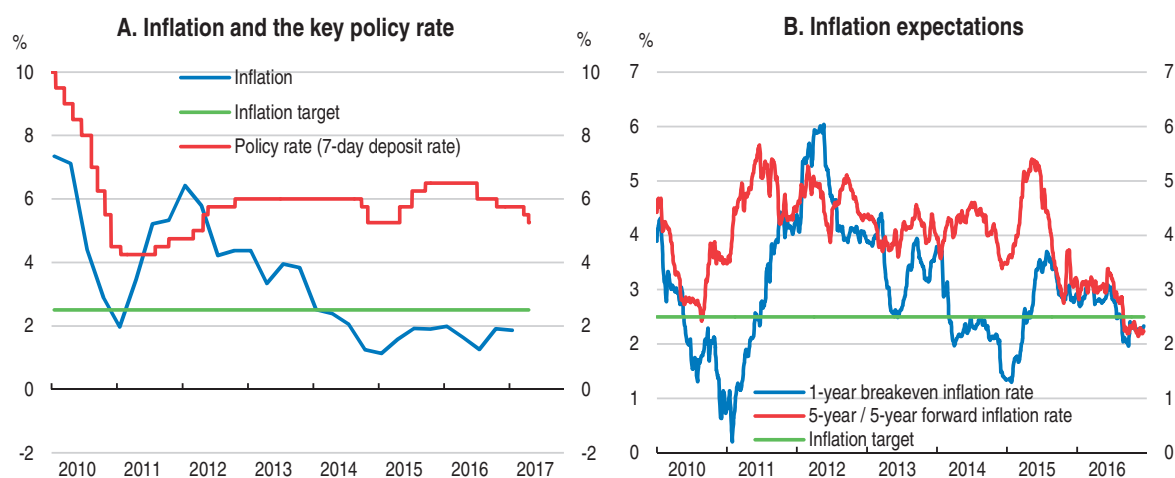
- Reform of collective bargaining and other structural reforms to ensure effective functioning of markets. More trust among the social partners and better wage co-ordination can ensure that benefits of growth are shared widely without disruptive strikes and risks to growth and stability.

Monetary policy: taming inflation in roaring times

Inflation has fallen below its target of 2.5% for the past three years, largely due to króna appreciation, low inflation abroad, and rising terms of trade (export prices have risen more than import prices). At the same time, inflation expectations have fallen sharply (Figure 4). Despite accelerating growth, these developments have allowed the central bank to reduce interest rates four times since the beginning of 2016 (by 125 basis points cumulatively). The exchange rate has been appreciating, reflecting the strong current account and increased foreign direct investment. Arguably, exchange rate developments now more closely reflect changes in the equilibrium exchange rate (Central Bank of Iceland, 2017a and 2016b). The central bank projects further króna appreciation.

But these favourable dynamics could quickly turn if tourism were to drop off, if prices of exports were to fall, if there were a major volcanic eruption or if capital outflows picked up (Table 2). Even with no dramatic change, the impact from the favourable external situation will dissipate over time, putting upward pressure on prices. High inflationary pressures have also developed domestically (Figure 5) due to rising domestic demand (including from expansionary fiscal policy), rising housing prices, a tight labour market and rising wages amidst slowing productivity. Following the crisis, house price rises have been consistent

Figure 4. Inflation and inflation expectations have been low



Note: Breakeven inflation rates are calculated from yield spreads between nominal and index-linked Government and Government-backed bonds (5-day moving averages). Daily data.

Source: OECD Analytical Database, and Central Bank of Iceland.


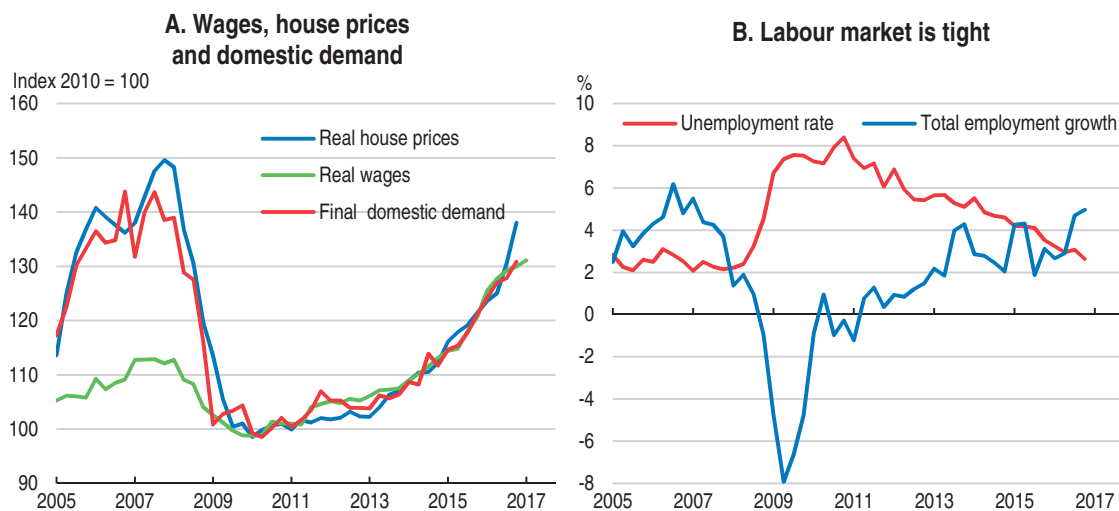
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Table 2. Vulnerabilities that could lead to major changes in the outlook

Vulnerability	Possible outcome
Large terms of trade shock (rises in oil prices, drop in aluminium or fish prices)	Favourable terms of trade have boosted the Icelandic economy and helped inflation stay low. A large negative shock would undermine some of the improvement in the current account balance.
Global weakness	A slowdown in global growth would weaken the demand for Icelandic products. Moreover, lower income abroad could stall the flow of tourists to Iceland that is becoming an increasingly expensive destination.
Financial market turbulence	International financial markets may become more volatile and risk premia could jump. Interest rates are already high in Iceland. These could undermine the progress made in fiscal policy, and affect external position of Iceland.
Natural disaster	Iceland has been periodically affected by volcanic eruptions. Severe eruptions can have damaging impacts on economic activity. However, Iceland has a system of disaster insurance which would mitigate the economic impact.

Figure 5. Domestic inflationary pressures have built up



Source: OECD Economic Outlook 101 Database and Statistics Iceland.

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with income developments, but have been accelerating recently. In this context, tightening micro-prudential policies should be considered to ensure that asset price inflation does not gather additional steam. Although inflation expectations have fallen and there is evidence that they have become more firmly anchored (Central Bank of Iceland, 2017b), Iceland has a history of volatile inflation expectations (OECD, 2015a). If inflation expectations were to become unanchored that would raise the risk of a wage-price spiral developing.

Prudent monetary policy has helped steer the economy through the post-crisis overhang, current tourism boom and the capital account liberalisation, with difficult trade-offs and external pressures. The current monetary policy framework is “inflation targeting plus”, which targets low and stable inflation over the medium term, with a floating exchange rate and foreign exchange interventions only to damp excessive exchange rate fluctuations. The Central Bank over recent years has amassed significant foreign exchange reserves. Maintaining them is expensive and this contributed to the central bank recording a loss in 2016.

The more traditional monetary policy tools have been complemented with new macro-prudential tools and capital flow management measures. Due to Iceland’s small size, such measures are key to safeguard stability, as foreign exchange interventions can at most only smooth erratic and transitory fluctuations (Central Bank of Iceland, 2010; OECD, 2015a). Preserving the credibility of monetary policy would keep inflation expectations anchored over time, which in turn would reduce high exchange-rate pass-through into inflation and the threat of wage-price spiral (OECD, 2015a). The central bank should continue with a prudent monetary stance and stand ready to raise interest rates should inflation expectations increase once again.

There is again pressure in Iceland to rethink and perhaps reform the framework for monetary policy. Pegging the Iceland króna to the euro or another currency is also debated, with the aim to ensure exchange rate stability and reduce uncertainty (see Box 1). A Committee of Ministers will consult with the parliamentary parties and work closely with the Central Bank of Iceland, the social partners and external specialists, who have been tasked with reviewing the framework. Such debate is welcome, as achieving price and financial stability is challenging in Iceland. However, discussion should be careful to avoid undermining the credibility and independence of the central bank and the achievements of lower inflation and inflation expectations.

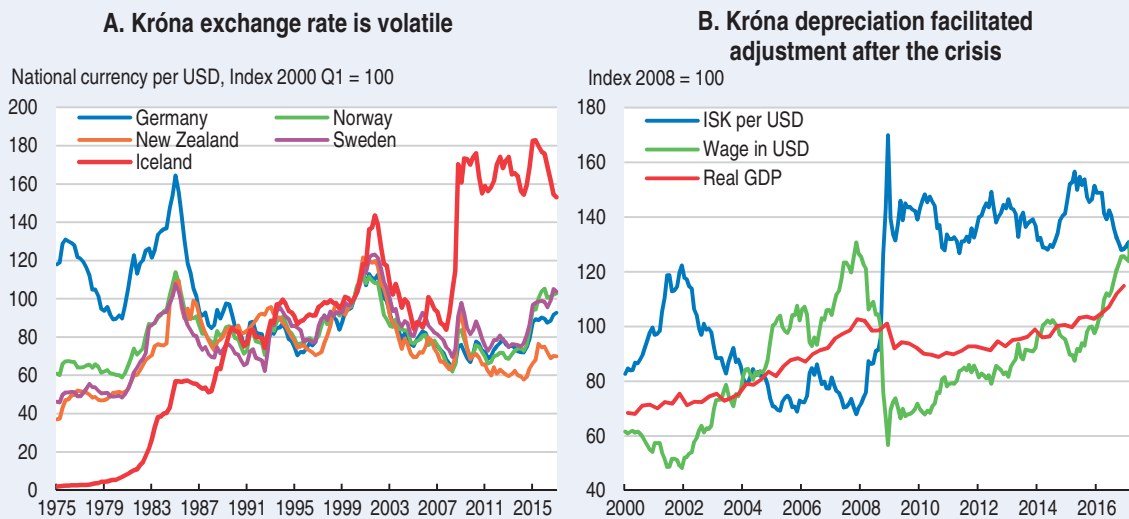
Box 1. Costs and benefits of pegging the króna

As with any small and open economy, Iceland experiences considerable exchange rate volatility (Figure 6, Panel A). At the same time, a floating exchange rate insulates the economy from external shocks and can facilitate economic adjustment, as was the case during the last crisis (Figure 6, Panel B). Iceland has recovered better than many euro area countries (Figure 1), although this was importantly helped also by the introduction of capital controls. In recent times, the boom in tourism has resulted in the strengthening of the króna. Moreover, Iceland’s relatively high interest rates have again increased the risk of disruptive short-term capital inflows in search of yield amid a low interest rate environment elsewhere. In light of these developments, the authorities have commissioned an evaluation of different currency regimes in a bid to preserve long-term economic and financial stability. Iceland needs to weigh carefully the relative costs and benefits of changing its exchange rate (and monetary policy) regime.


No other advanced economy has such a small floating currency (without capital controls). In Iceland, the small size of the economy with its limited production base and strong degree of exchange-rate pass-through

Box 1. Costs and benefits of pegging the króna (cont.)

Figure 6. Icelandic exchange rate



Source: OECD Analytical Database; and Thomson Reuters.

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imply greater volatility in economic activity and inflation (OECD, 2009 and 2015a; Central Bank of Iceland, 2010). Evidence suggests that the free movement of capital, flexible exchange rates and monetary autonomy may not be able to coexist simultaneously (Rey, 2013). A shift from the current floating exchange rate regime to a fixed exchange rate can thus provide greater currency predictability. Fixed exchange rate regimes can also work as anchors to contain domestic inflation pressures and promote price stability (Obstfeld & Rogoff, 1995). In addition, a fixed exchange rate can lessen the costs of foreign exchange transactions and enable firms to benefit from economies of scale and specialisation without concerns of volatility and variation in relative prices (Egebo & Englander, 1993). The Faeroe Islands and Greenland for instance both use the Danish króna, and hence are pegged to the euro. However, while they are geographically close to Iceland and are natural resource based economies, they are much smaller and have very different policy settings.

Pegging the currency, on the other hand, gives rise to a number of challenges. Iceland had a currency peg in the past, but as for many small economies, the peg became unworkable over time in the face of rising pressures from capital market liberalisation and increasing sophistication of financial markets (OECD, 2015a):

- Given the recent removal of almost all capital controls, a fixed exchange rate would impose constraints on other policy instruments and result in the loss of monetary autonomy as interest rates would be obliged to mirror those of the pegged currency. The inability to use monetary policy would create greater need for active counter-cyclical fiscal policy in pursuit of macroeconomic stability. In Iceland, however, fiscal policy did not always adequately counter overheating of the economy (OECD, 2010 and 2015a).
- A peg could make the nation more vulnerable to speculative attacks, which in turn could trigger the need to reintroduce capital controls as a measure of protection (Funke, 1996).
- A currency peg would reduce the capacity to cope with adverse external shocks and would not prevent real exchange rate movements. Economic adjustment would have to occur via domestic wage and price adjustments, which can be both slower and more painful, with larger short-term social costs. While the labour market in Iceland tends to be flexible in terms of employment and working hours, recurrent tense labour relations demonstrate potential limitations in this line of adjustment.

Box 1. Costs and benefits of pegging the króna (cont.)

- Identifying a currency to peg against (and determining the appropriate exchange rate) is a challenge given Iceland's resource-based trade composition and high exposure to idiosyncratic shocks. Export destinations and import providers are not the same, thus no obvious currency peg exists to achieve the economically desirable effect.
- The expected predictability of a fixed bilateral exchange rate would not remove the significant component of uncertainty against other currencies that are also pertinent to the domestic economy.
- If Iceland pegged its currency unilaterally it would lack the support of another monetary authority (such as enjoyed by Denmark in its ERM2 arrangement with the ECB), and it would be practically impossible to withstand a speculative attack on the currency. Joining a larger monetary union as a part of a bilateral agreement however, brings with it an institutional framework and support. Renewed political will to join the European Union would hence change the picture as it would eventually lead to membership of the eurozone. In this case, Iceland would benefit from the credibility of euro-area monetary policy, which could be a stabilising influence and may lower interest rate premia (OECD, 2010).

In view of the above, maintaining the existing exchange rate arrangement appears to be the most viable option available to Iceland at the current time.

Exiting exchange controls

Since the last Economic Survey the authorities have made considerable progress in dismantling capital controls and developing a new regulatory architecture governing capital flows. The authorities adopted a three step approach to removing capital controls that first dealt with the estates of the failed banks, then addressed offshore króna and finally relaxed restrictions for households and businesses.

Gradually removing capital control restrictions**Bank estates and offshore króna**

Capital controls were introduced in 2008 following the collapse of Iceland's three largest commercial banks (see also Box 2). In response to a proposal by the authorities, the estates of the failed banks in late 2015 made "Stability Contributions" worth around 16% of GDP in order to be exempted from the capital controls (Baldursson et al., 2016; OECD, 2015a). The government now owns two of the commercial banks. When conditions become amenable, the government should pursue privatisation as stated in the new government's economic programme. However, this should be approached cautiously. The authorities should target strategic investors to ensure that sound ownership and management emerges and to minimise the threat of government bailout in the future.

Box 2. Banks have re-emerged from the crisis

In the 2008 crisis the three major Icelandic banks collapsed. Like many financial institutions, they were highly leveraged and relied excessively on wholesale funding. Due to their sheer size, bailout was impossible, and the government carved out domestic deposits and loan portfolios from the banks to salvage the domestic banking system. To protect financial stability and stem capital outflows, the Icelandic authorities also introduced capital controls.

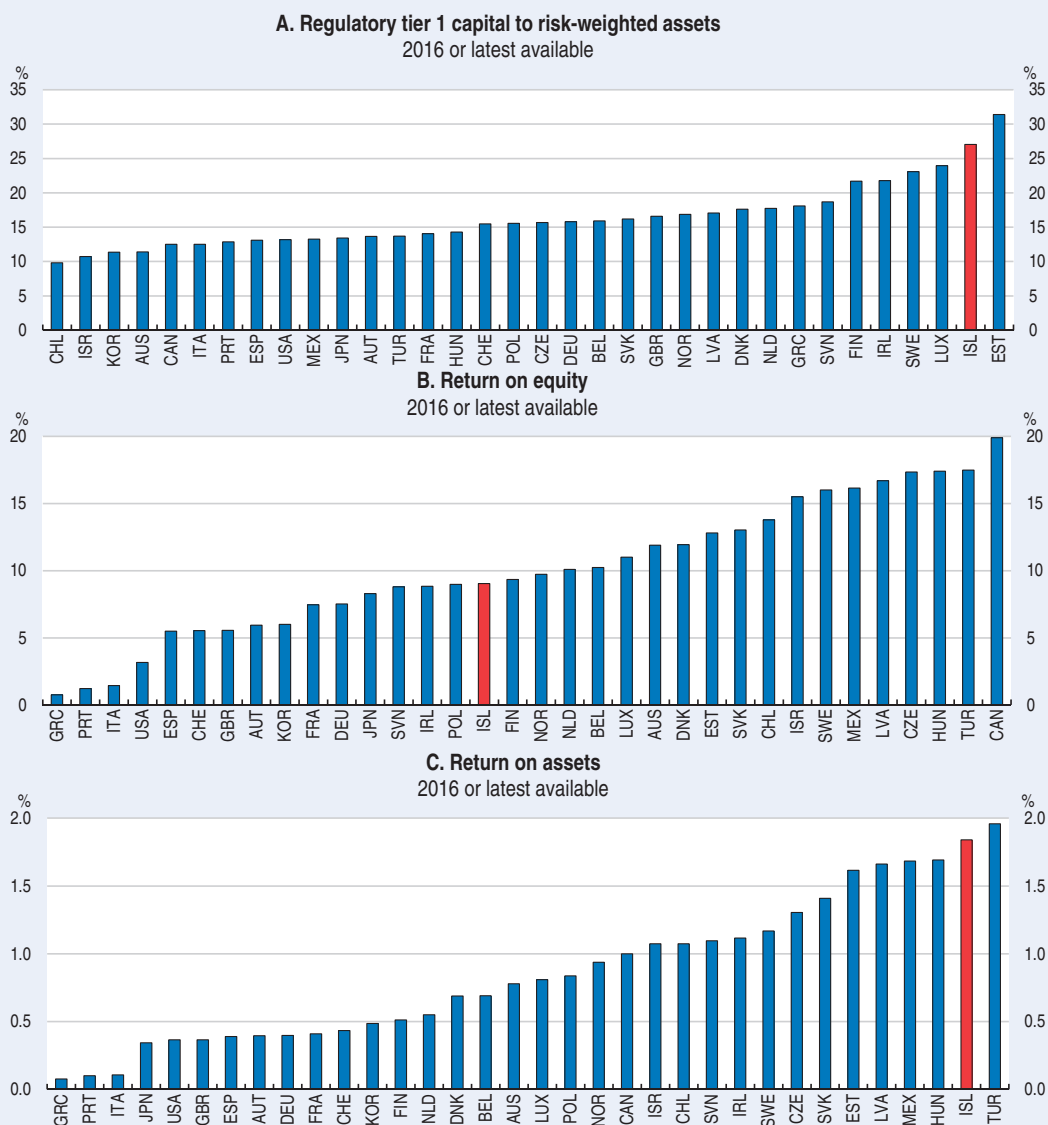
In 2011 the authorities elaborated a liberalisation plan to lift the controls gradually, while aiming to neutralise the threat of destabilising outflows. Key measures were introduced in 2015 that encouraged the estates of the failed banks to negotiate composition agreements amongst the creditors. The measures were

Box 2. Banks have re-emerged from the crisis (cont.)

conceived in a way that would avoid threatening the balance of payments or financial stability from the unwinding of the insolvent institutions (OECD, 2015a). Creditors subsequently successfully reached agreements amongst themselves, paving the way for lifting most of the remaining capital controls.

The direct public outlays for carving out the domestic assets from the failed estates, re-capitalising the financial system, and fulfilling asset guarantees such as domestic deposit insurance amounted to about 45% of GDP (Laeven and Valencia, 2012). However, the net costs will be lower as a result of the stability contributions, the recovery of prices of the failed banks' assets and the ultimate re-privatisation of the banks, in line with government plans. Domestic banks have since built substantial buffers and they now show solid business performance (Figure 7). Capital ratios (capital as a percentage of assets weighted by risk) have been

Figure 7. Banks have re-emerged from the crisis



Note: Iceland refers to the three largest deposit money banks.

Source: Central Bank of Iceland; and IMF Financial Soundness Indicators.

StatLink  <http://dx.doi.org/10.1787/888933530281>

Box 2. **Banks have re-emerged from the crisis** (cont.)

rising, and the combined capital ratio of domestic systemically important banks stood close to 28% at year-end 2016 (Central Bank of Iceland, 2017c), well above the regulatory minimum and very high in international comparison. The three major banks have posted robust profits and solid returns on assets and on equity. The liquidity position (liquid assets in comparison to liquid liabilities) of banks is also strong.

Significant progress has been made to re-orient the domestic financial system toward a more resilient capital structure and the reliance on wholesale markets has faded. Due to cyclical conditions, capital requirements have been tightened further by the financial supervisory authority. Similarly, the regulatory minimum for the liquidity ratio was raised, from 90% to 100% on 1 January 2017. Based on its stress tests published in the Financial Stability Report, the Central Bank of Iceland considers that the banks are well equipped to face potential shocks, such as sizable capital outflow, economic contraction among Iceland's trading partners, further króna appreciation, and a steep drop in the number of tourists (Central Bank of Iceland, 2016c).

The second major issue in removing capital controls lay with offshore króna, which were carry trade inflows trapped in Iceland when capital controls were introduced. The offshore króna initially accounted for around 40% of GDP in 2008. A series of currency auctions and agreements with offshore króna holders has gradually whittled the amount of offshore króna to around 4% of GDP in March 2017, which have been transferred to special accounts with restrictions, neutralising the threat of disorderly currency outflows stemming from these assets.

Households and pension funds

In October 2016, parliament passed a bill permitting all current account transfers and raising or revoking limits on other types of transactions, such as the purchase of foreign exchange or investing in real estate. New changes to the capital controls came into effect at the beginning of 2017, expanding the ability of households and businesses to transfer deposits and securities to and from Iceland, to trade in securities overseas and to withdraw foreign currency, and then in March 2017 the majority of restrictions were removed.

Pension funds were also affected as the capital controls reduced their ability to diversify portfolios internationally. Pension funds have gradually been granted greater scope to invest abroad, reducing exposure to idiosyncratic risk, and easing some of the pressure for exchange rate appreciation. The pension funds have benefited from the booming domestic market and exchange rate appreciation, leaving the share of foreign assets in their portfolios roughly unchanged at around one-quarter and far below a target range of 30% to 40%.

Pension funds are important shareholders accounting for half of all shares in listed companies, which the competition authorities fear may distort corporate governance. Against this background, pension funds should continue rebalancing their portfolios internationally. With the lifting of capital controls, risk-based supervision should act to reduce geographical concentration in their investment portfolios.

Dealing with a resumption of capital flows

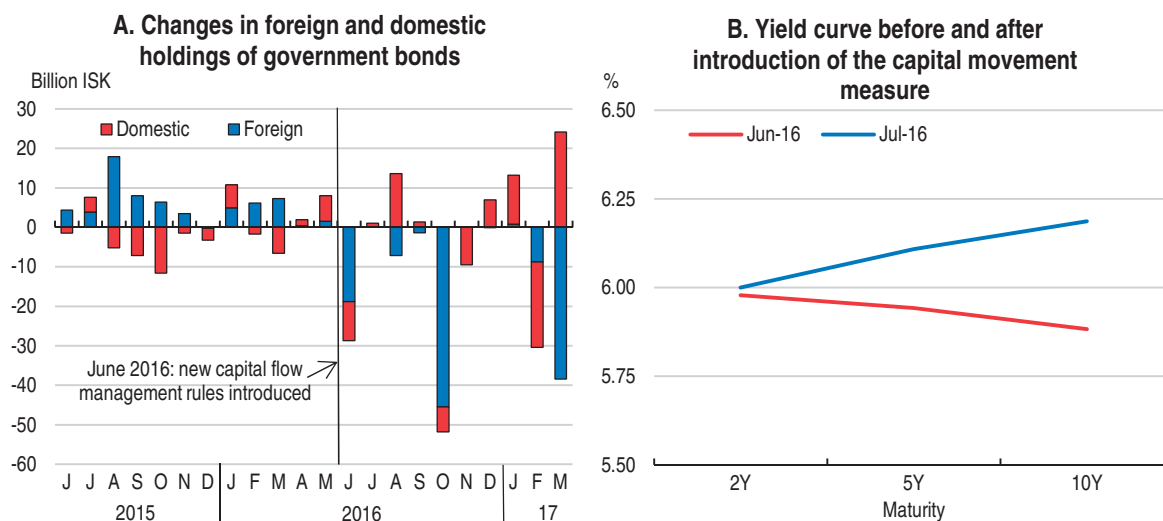
The government's plan to relax capital controls has been successful. Considerable progress has been made in dismantling controls in the framework of the OECD's Code of Liberalisation of Capital Movements, from which Iceland received a derogation in March 2011.

At present, only a handful of restrictions remain in place, introduced to protect Iceland from short-term capital inflows that seek to profit from the large interest rate differential with the rest of the world. However, with the lifting of capital controls, the resumption of free-flowing capital movements once again exposes Iceland to the vagaries of international capital markets. Unpredictable foreign currency flows and a re-emergence of the carry trade – now that growth and interest rate differentials have opened up – could potentially destabilise the domestic financial market and undermine progress in cementing greater monetary policy credibility. To counter this, the authorities created a new regulatory architecture to govern capital flows and introduced new means to deal with potentially destabilising capital flows.


The most important innovation has been the Financial Stability Council, which brings together the Finance Minister, the Central Bank governor and the Financial Supervisory Authority director general to consider financial stability and macro-prudential policy. The Systemic Risk Council, which supports the Financial Stability Council, decided at its meeting in January 2016 to require banks and systemically important financial undertakings to hold capital for systemic risk. The financial supervisory authority has required counter-cyclical buffers in accordance with recommendations from the Financial Stability Council. These actions are improving the resilience of the financial sector to possible shocks.

Large capital inflows through 2015 into early 2016 put pressure on the government bond market. To help insulate the economy from volatile currency flows, the Central Bank of Iceland introduced a new capital flow management measure in June 2016. It works by requiring special reserve requirements for investments in certain types of securities with a pre-determined holding period (currently set at 40% for one year). After introducing the new tool, the currency inflows stopped, the yield curve again sloped upwards (Figure 8) and foreign holdings of government bonds dropped after the 2016 bond reached maturity in October. Other currency flows, such as direct investments, were not affected.

Figure 8. **The new capital flow management measure had a sharp effect on the bond market**



Note: The yield curve traces the interest rate paid on bonds of different maturities. In normal times, the curve is upward sloping reflecting expectations of growth and inflation. A downward sloping yield curve can indicate expectations of a recession or disinflation. In other cases, the yield curve can be influenced by international capital flows taking advantage of higher returns offered in some markets.
Source: National Debt Management Agency, Iceland (NDMA); and Thomson Reuters.

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A new policy proposal is to create a sovereign wealth fund composed of revenues from natural resources (energy-intensive industry). The government is expecting to receive a much higher stream of payments from the main electricity-generating company for some time. While plans remain preliminary, such a fund could build up buffers for very large shocks, such as major volcanic eruptions destroying infrastructure, and the realisation of sizable contingent liabilities. Establishing such a fund and investing overseas, along the lines of sovereign wealth funds created by countries with substantial natural resource rents, such as Norway, would help diversify risks, act as a counterweight to capital inflows, offset Dutch disease pressures, and help fiscal policy from becoming too expansionary in the short term. The fund would need careful design so that assets are only invested abroad and draw down limited to counteracting a substantial shock.

Fiscal policy should be contractionary

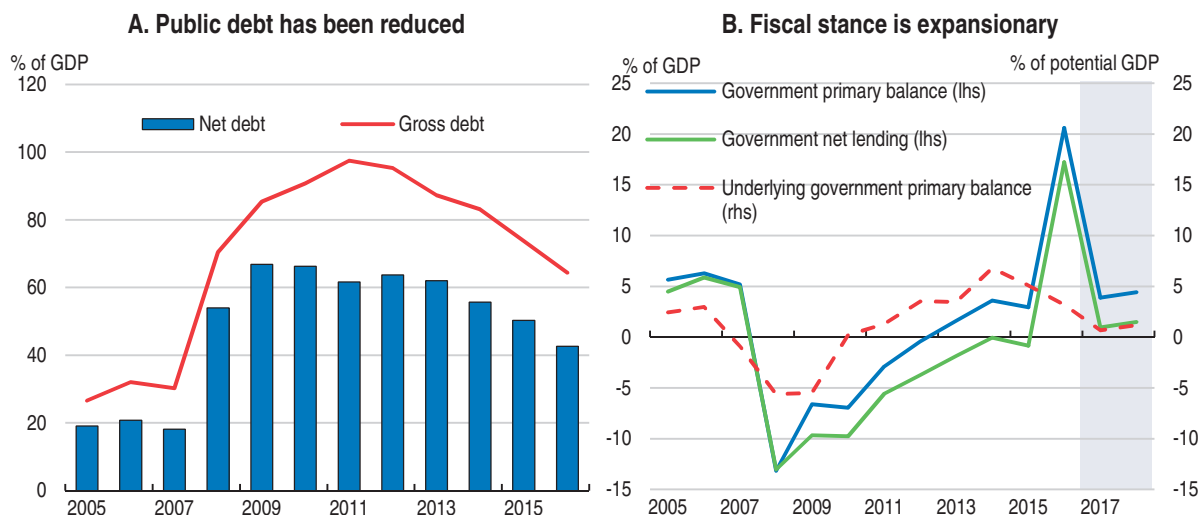
The budgetary situation has improved significantly since the crisis. Fiscal tightening reduced public debt and consequently interest payments, and public debt is on a steep downward trajectory (Figure 9). In 2016, the government received one-off receipts from the failed banks of around 16% of GDP which is being used to pay down debt. These developments have created some fiscal space to address spending priorities that have emerged after several years of restraint (IMF, 2016 and 2015). Fiscal policy was expansionary in 2015 and 2016. The budget for 2017 is also expansionary, with higher spending on social benefits, health care and investment (Figure 9).

Table 3. Past OECD recommendations on monetary policy and financial stability

Main recent OECD recommendations	Actions taken
Monetary policy needs to raise interest rates to ensure that a wage-price spiral does not develop, as already stated by the Monetary Policy Committee. The focus should remain on low and stable inflation over the medium term, while allowing the exchange rate to float apart from limited interventions to smooth erratic fluctuations.	Monetary policy has remained at an appropriate stance. Inflation has fallen below target. The new government proposed to examine means to reduce exchange rate fluctuations.
Progress is needed in lifting Iceland's capital controls and the current plan is a welcome step in this direction. Maintaining a robust macroeconomic stability framework will help avoid a disorderly outcome.	Significant progress has been made in lifting capital controls. Restrictions remain on Offshore króna accounts and on transactions that may give rise to the carry trade, such as unhedged derivatives trading.
Strengthen the macro-prudential policy framework, incorporating tools to address large swings in capital flows unrelated to fundamentals, while respecting international commitments.	A new macroprudential tool was launched in June 2016
To protect the economy from unavoidable shocks and reinforce confidence, buffers should be built up including ample fiscal space, foreign exchange reserves and bank capital and liquidity.	Progress has been made in building up buffers. The plans of the new government to reduce debt further will also create greater fiscal space. The new government is considering establishing a sovereign wealth fund.
Establish an explicit mandate for maintaining financial stability that clearly defines responsibility and gives supervisors the statutory authority and instruments to carry out their responsibilities.	The mandate has been established and the authorities are developing necessary instruments.


However, high growth and rising inflationary pressures call for a more prudent fiscal stance. Even though Iceland has succeeded in greatly reducing public debt, this is no time for complacency. Moreover, as capital controls have been lifted, monetary policy reaction to the fiscal loosening could induce strong capital inflows. To reduce the risk of overheating, which would trigger further monetary policy tightening, fiscal policy should be more contractionary. Spending growth should be brought under firmer control and tax cuts should be avoided. Improved spending efficiency could be pursued to mitigate the effects of lower spending growth.

Figure 9. **The fiscal position has greatly improved but has become expansionary recently**
General government



Note: Net public debt (according to the Act on Public Sector Finances definition) is defined as gross financial liabilities less unfunded pension liabilities and other accounts payable, as well as the value of currency and deposits.

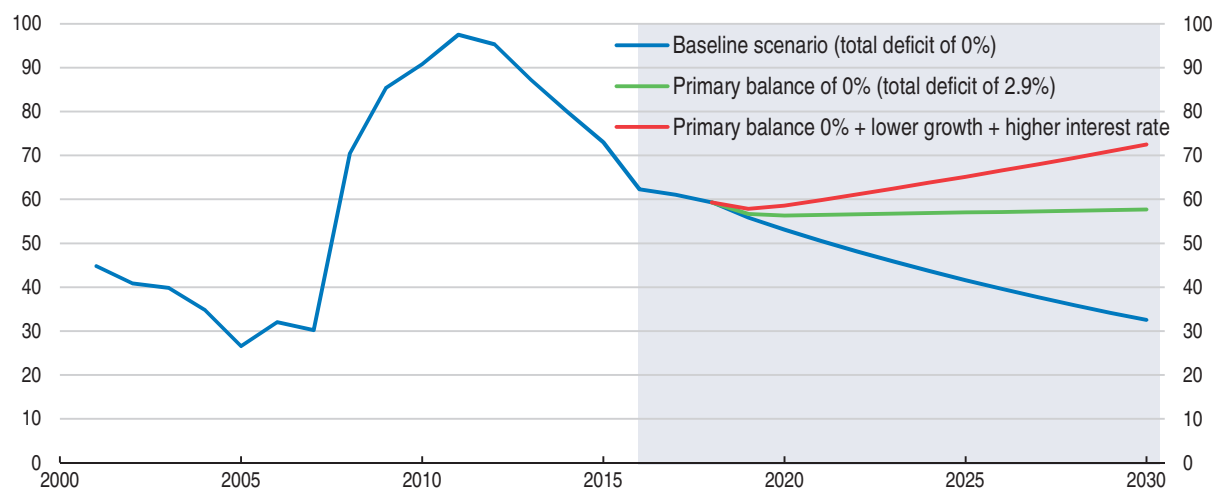
Source: OECD Economic Outlook 101 Database; and Ministry of Finance.

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At the end of January, the government presented to parliament the 5-year fiscal policy statement, in accordance with the new Act on Public Finances (the “Organic Budget Law”) (see also Table 4). The new fiscal framework introduces discipline for longer-term sustainability while recognising the need for counter-cyclical stabilisation. Fiscal rules limit the annual deficit to 2.5% of GDP and require the cumulative balance over a 5-year period to be positive. The rules establish a public (net) debt target of 30% of GDP (for the purpose, public debt is defined as gross financial liabilities less unfunded pension liabilities and other accounts payable, as well as the value of currency and deposits). When debt is above the target, the government must reduce the part in excess of the target by 5% per year on average for each three-year period. That said, as net debt is currently close to 40% and fiscal revenues and GDP are rising, the fiscal rules do not effectively prevent expansionary fiscal policy.

An independent fiscal council has also been created, as stipulated by the new law. The role of the Council is to form an opinion whether fiscal policy and the fiscal strategy adhere to the fiscal rules and the following five principles: sustainability, prudence, stability, predictability and transparency. The authorities are required to provide the Council with any information and data necessary to carry out its tasks. Assessing progress of fiscal policy against the fiscal rules, and evaluating the policy stance and longer-term fiscal sustainability are areas where the fiscal council is currently developing its role. The authorities should ensure that the fiscal council has adequate resources and is independent enough to perform its role according to the law.

Iceland’s fiscal policy and framework are currently on track to achieve sustainability and lower debt, but relaxing fiscal policy risks reverting to unsustainable trends. Simulations of fiscal scenarios can shed light on the consequences (Figure 10); they are based on macroeconomic assumptions for growth and interest rates, and evaluate the path of gross debt. Keeping the budget balanced (in line with the Organic Budget Law) would steadily reduce gross debt towards 30% of GDP in 2030. If fiscal policy reverts to past performance by

Figure 10. **Relaxing fiscal policy risks reverting to unsustainable trends**General government debt, per cent of GDP¹

1. The projections are based on the Economic Outlook No. 101 until 2018. From then on, long-term GDP growth is assumed to stand at 2.5% and inflation at target (2.5%). Implicit interest rate on public debt is assumed to be 5%. The baseline scenario assumes adherence to the Organic Budget Law and assumes a deficit of 0% in the long run. The second scenario assumes instead the primary balance of 0% (which results in a total deficit of 2.9% in the long run). The third scenario adds on top of this 1 percentage point lower GDP growth and 1 percentage point higher interest rate on debt.

Source: OECD Economic Outlook 101 Database and OECD calculations.

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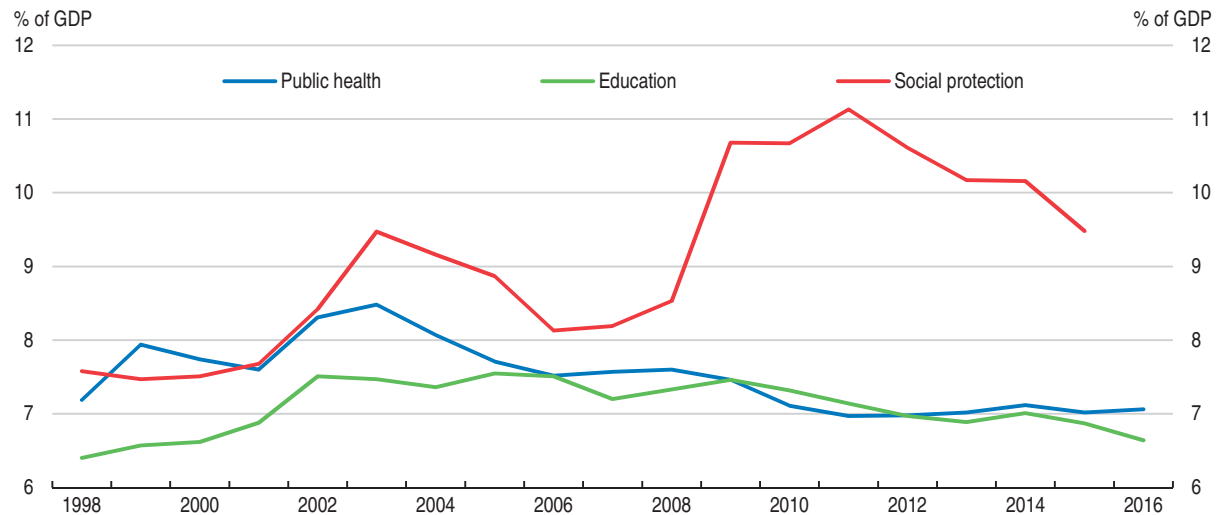
running a rough primary balance (equivalent to a 2.9% deficit in the long run), gross debt would stabilise at close to 60% of GDP. If at the same time economic outcomes worsen, with a lower growth and higher interest rate, gross debt will start rising again.

Iceland faces a number of fiscal challenges in the future. It is not immune to demographic pressure increasing health and pension related expenditures, even though spending on these items is low in international comparison. Taking advantage of one-off fiscal revenues, the government injected funds of 4.8% of GDP into the part of public pension funds switching them from unfunded- to funded-based, to become harmonised with the private sector funds. Furthermore, in Iceland large contingent liabilities in the form of state guarantees remain even though they have had fallen from 75% of GDP in 2012 to slightly above 40% at the end of 2016 (Central Bank of Iceland, 2017d), see Box 3.

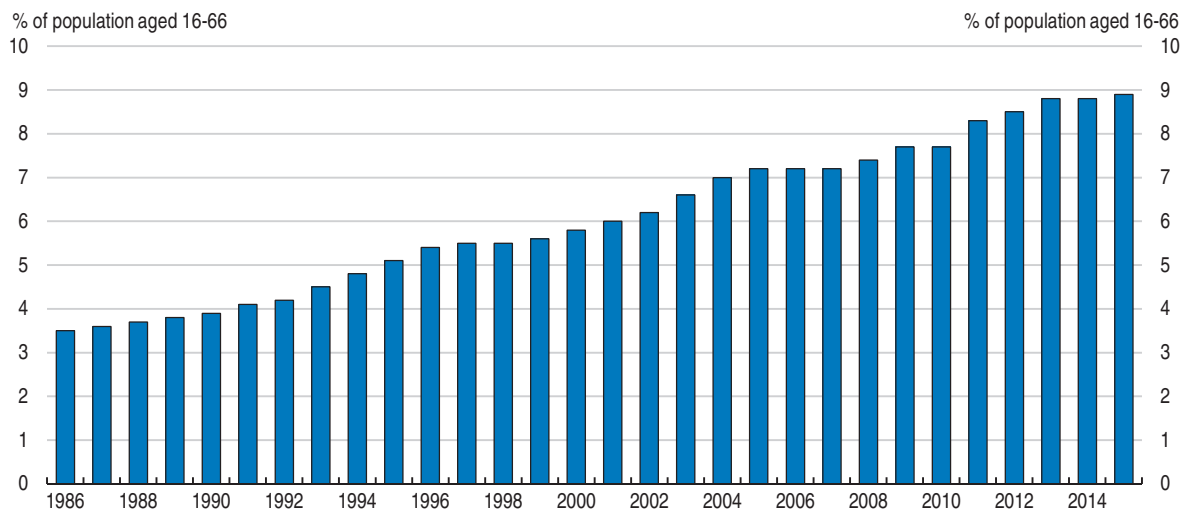
Improving public spending efficiency can contribute to making better use of resources. Spending on social protection jumped around the crisis and has only gradually descended to pre-crisis levels (Figure 11). As expected, payments on unemployment benefits increased substantially during the crisis and have subsequently dropped back to pre-crisis norms, reflecting the healthy recovery of the labour market. The remaining increase in social protection spending largely reflects an increase in spending on old age pensions and growing spending on disability. Since the early 1990s, disability rolls have more than doubled reaching almost 9% of the working-age population (Figure 12). In part, this reflects population ageing, as incidence tends to increase with age. Nonetheless, in 2015, one-sixth of people in pre-retirement cohorts received a disability benefit, suggesting that disability is being used as a pathway into early retirement. Against this background, conducting spending reviews to identify opportunities to ensure greater spending efficiency would free resources for other spending priorities.

Figure 11. **Spending on social protection jumped after the crisis**

Public spending as % of GDP



Source: Statistics Iceland.

StatLink <http://dx.doi.org/10.1787/888933530357>Figure 12. **Disability rolls continue to rise**

Note: Invalidity and rehabilitation pensioners and invalidity allowance recipients.

Source: Social Insurance Administration (Tryggingastofnun).

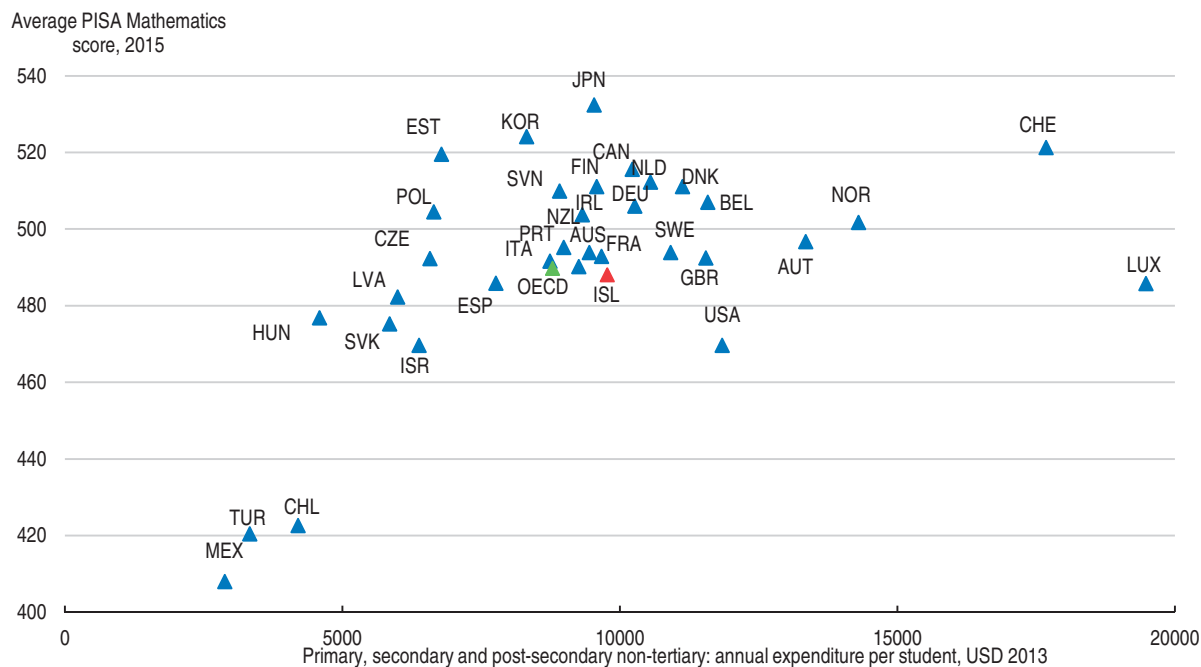
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The authorities have made progress in restraining spending growth in health and education. However, there is scope to improve educational performance. As measured by PISA, many other countries spend similar amounts but student performance is closer to the frontier (Figure 13). Indeed performance in the PISA tests has been slipping over time. Iceland does perform well in ensuring equity in performance for both gender and social background, but performs relatively poorly in terms of immigrant students. Iceland has successfully reduced alcohol and drug abuse among students by introducing community-based interventions when risk-factors were observed (Sigfusdottir, et al., 2009). The authorities should build on this targeted approach to improve student performance, while


continuing to shorten the time students typically need to finish schooling (amongst the longest in the OECD) and improving literacy.

A major change in government policy affects the housing market. Government housing policy is being rebalanced, as recommended in past *OECD Economic Surveys*, with less provided by mortgage support and more from direct provision of housing for low-income households. This more targeted approach increases public spending efficiency at a time when low-income households are facing considerable difficulties in finding affordable housing.

Figure 13. **Spending efficiency in education appears comparatively low**



Source: OECD, Education at a glance 2016: Educational finance indicators.

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Box 3. State guarantees

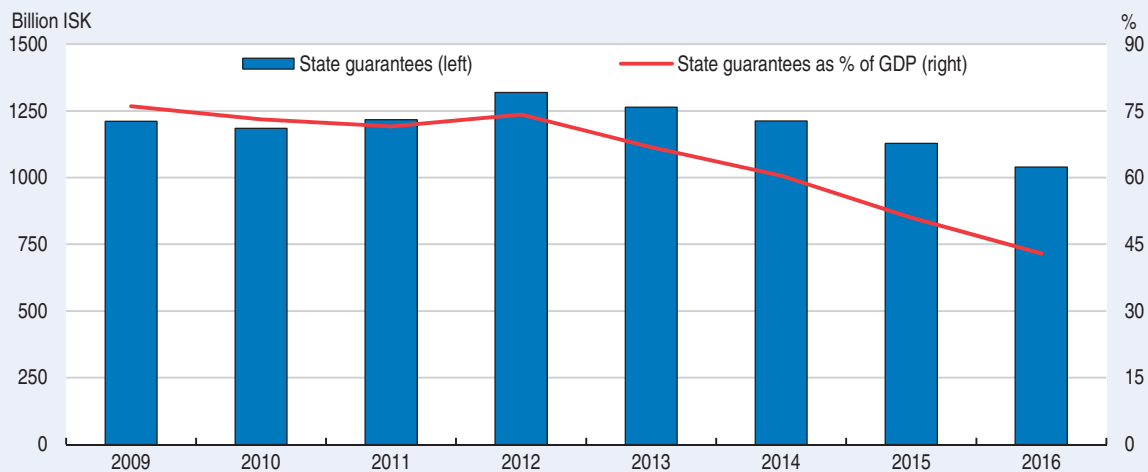
Iceland has sizable contingent liabilities in the form of state guarantees. Nevertheless, progress has been made, as state guarantees fell from above 75% of GDP (1.2 trillion krónas) in 2012 to slightly above 40% (1 trillion krónas) at the end of 2016 (Central Bank of Iceland, 2017d), Figure 14.

The largest part of the state guarantee – 820 billion krónas or 35% of GDP in 2016 – goes to the Housing Financing Fund (HFF). Bonds issued by HFF, backed by a state guarantee, are used to issue mortgage loans. Nevertheless, after some financial struggle and recurrent recapitalisations, it has been decided that HFF would be wound down, as also recommended in past *Economic Surveys*. No HFF bonds have been issued since January 2012.


State guarantees are in place also for the largest energy company, National Power Company (Landsvirkjun, 195 billion krónas or 9% of GDP). As around one third of revenues are directly linked to the aluminium price, the company (and indirectly the government) is therefore exposed to commodity price risks or the failure of a contract with an aluminium plant. However, over time Landsvirkjun has renegotiated contracts and expanded its customer base leading to its credit rating being raised and non-guaranteed debt is now classified as investment grade. No further state guarantee to such industrial development should be undertaken as has been the case also with Landsvirkjun.

Box 3. State guarantees (cont.)

Figure 14. State guarantees



Source: National Debt Management Agency, Iceland (NDMA).

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State guarantees are, among others, also in place for the Regional Development Fund, Farice (Telecommunications service provider), National Broadcasting Service, Nordic Investment Bank, Iceland State Electricity and ISAVIA (airport operator).

Table 4. Past OECD recommendations on fiscal sustainability

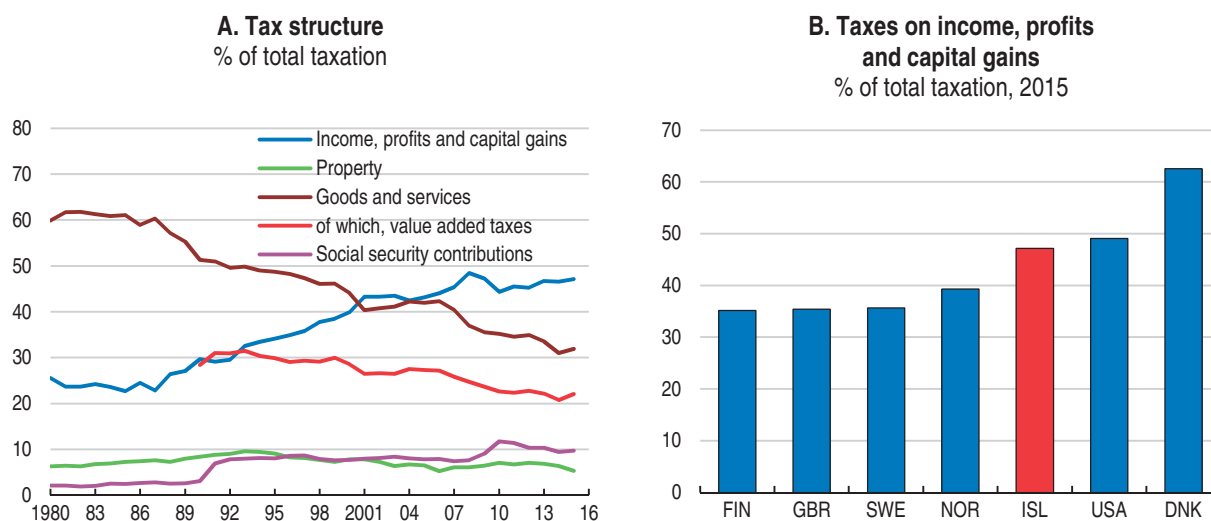
Recommendations	Actions taken
Pass and implement the Organic Budget Law, including enacting the balanced budget rules and establishing an independent Fiscal Council to assess progress towards sustainability.	Achieved.
Use windfall gains and one-off revenues to pay down debt, including any proceeds from lifting the capital controls.	The government's plans incorporate proposals to pay down debt. Receipts from stability contribution from the failed banks' estates in 2016 will be used to repay debt.
Avoid accumulating further contingent liabilities, including by closing the Housing Financing Fund (HFF).	Reforms introduced in mid-2016 limited the ability of HFF to authorize new loans. Reforms to public pensions significantly reduced the implicit guarantee to cover for the unfunded part of public pension scheme. The new government's plan also includes privatising the banks.
Further shift tax revenue from income taxes to VAT, while preserving equity.	In 2015, the standard and reduced rate structure was changed from 25.5%/7% to 24%/11%. In 2016, many tourist services previously exempt became taxable at 11%.
Undertake strategic spending reviews to seek potential efficiency gains and reorient expenditure towards government priorities.	No action taken.
To reduce costs and increase returns to education, reduce the duration of primary- and secondary education.	Partially achieved. The authorities acted to reduce the length of schooling, shortening upper-secondary school by one year.
Strengthen gate-keeping in health care to reduce specialist consultations, guide patients to more appropriate care and reduce examinations using expensive diagnostic equipment. As this would raise GP workloads, increase funding for GPs.	In May new regulations on patient payment and on referrals for children entered into force. According to the regulations children that seek health care services from specialists after being referred from primary health care do not have to pay fees. Those who seek this service without a referral pay a fee.

A tax system conducive to inclusive and green growth

Progress has been made to reduce distortions in the tax system, which will help underpin fiscal policy while reducing the costs of taxation on the economy. The structure of taxation remains too reliant on income taxes, but reforms to consumption taxes will increase their relative importance in the overall tax structure.

Personal income taxation alone accounts for over one-third of total revenue (while social security contributions are low by international comparison). The share of income taxes in total taxation over recent decades has increased (Figure 15). By contrast, in many other OECD countries the structure of taxation has been shifting away from income towards consumption and other taxes, which OECD analysis suggests is less harmful for growth (Arnold, 2008). In 2016 and 2017, personal income taxation was adjusted with the elimination of the middle tax band and a modest reduction of the bottom band from 22.86% to 22.50% while the top band remained at 31.08%. Tax rates on labour income are above the OECD average and reducing these and corporate income tax rates may offer some scope to mitigate the effect of a higher equilibrium exchange rate on internationally-exposed sectors. Future reforms should consider adjusting the tax mix by reducing reliance on income taxes.

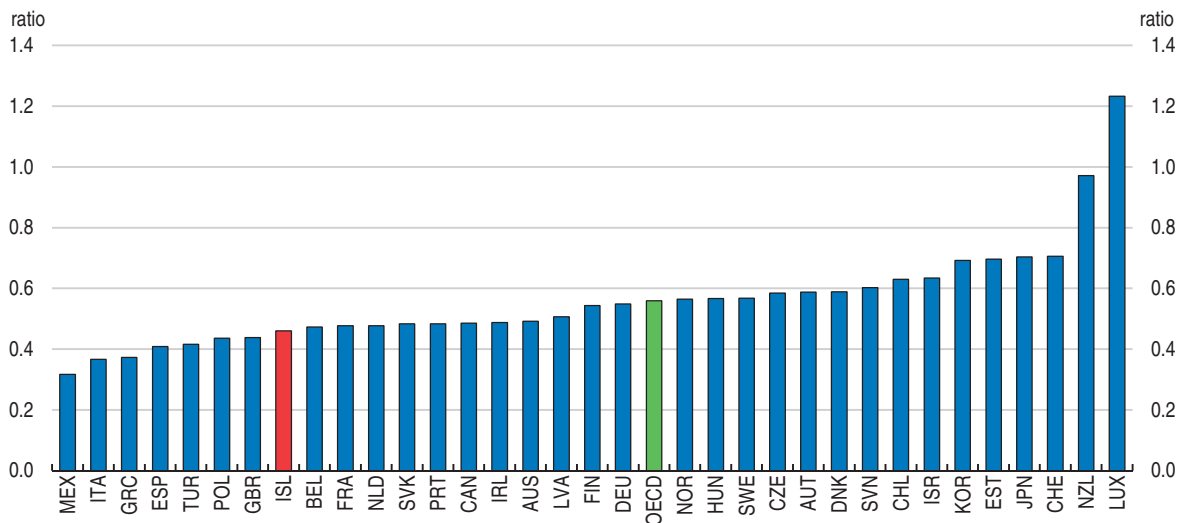
Figure 15. **Income taxes account for an increasingly large share of tax revenue**



Source: OECD Revenue Statistics.


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Consumption taxes have fallen as a share of revenue and the efficiency of the value-added tax as measured by the VAT Revenue Ratio, which gives an indication of the impact of exemptions and reduced rates as well as tax compliance, has been amongst the lowest in the OECD (Figure 16). Evidence suggests that the redistributive effect of exemptions and the reduced rate has not been large in Iceland (Escolano et al., 2010; Matheson and Swistak, 2015), as they applied to restaurant meals, hotel stays, and many other types of tourism activities (e.g. snowmobiling, whale watching) which represent a small share of the consumption basket of low-income households. In 2015 and 2016, reforms were introduced to broaden the tax base and reduce the difference between the standard and reduced rates and in 2017 the government announced further reforms to apply the standard rate for most tourism services and reduce the standard rate from 24% to 22.5%. Further narrowing the difference between the standard and reduced rates is welcome.

Figure 16. VAT revenue is low as a share of the tax base, 2014¹

1. The VAT revenue ratio (VRR) is defined as the ratio between the actual value-added tax (VAT) revenue collected and the revenue that would theoretically be raised if VAT was applied at the standard rate to all final consumption with perfect compliance and enforcement. This ratio gives an indication of the efficiency and the broadness of the tax base of the VAT regime in a country compared to a standard norm. It is estimated by the following formula: $VRR = \text{VAT revenue} / ([\text{consumption} - \text{VAT revenue}] \times \text{standard VAT rate})$. VAT rates used are standard rates applicable as at 1 January. The fact that public consumption is VAT-exempt under EU rules places an upper bound on the attainable VRR, especially in countries with a large public sector. The OECD aggregate is an unweighted average of data shown. Data for Canada cover federal VAT only.

Source: *Consumption Tax Trends 2016, VAT/GST and excise rates, trends and policy issues*, Table 3.A3.1.

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There is also scope to shift revenue sources towards user fees, by introducing them in areas where congestion and environmental damage occur. In some cases this is already done through levying parking charges for the main tourist attractions, but wider application can be considered in areas where the damage is not being taken into account in decision making (in which case the user fee would be closer to a tax). In other cases, particularly where organised tourism is a dominant player, adopting a concession model would potentially lower the administration costs. At present, revenues raised directly from tourist activities include a tax on accommodation rental (but not the number of people). This tax has been levied since 2012, with the rate of just 100 króna per night (€0.9). In 2017, the tax rate is rising to 300 króna.

The share of environmentally-related taxes is about one percentage point of GDP below the OECD average, though this excludes a levy on the fishing industry (See Panel E in Green Growth Indicators in the Iceland at a Glance section). The effective rate of taxation on carbon dioxide emissions is the same for most sectors, with an average price of €13.5 per tonne levied for these sectors (OECD, 2016c; OECD, 2015c). In the transport sector, which is the largest source of carbon dioxide emissions (accounting for around 40% of the total), the tax rate is €166 per tonne. On the other hand, in industry and agriculture (but not fisheries) many emissions are not taxed at all due to exemptions, accounting for around 30% of total carbon dioxide emissions in Iceland. In line with current government intentions to move towards a greener economy, the scope of the tax should be expanded to the extent possible, even though other countries, notably New Zealand, have found it difficult to use taxes to reduce agricultural pollution. The new government has proposed to double the carbon tax from January 2018 and to consider further changes to green taxation (Table 5).

Table 5. **Past OECD recommendations on green growth**

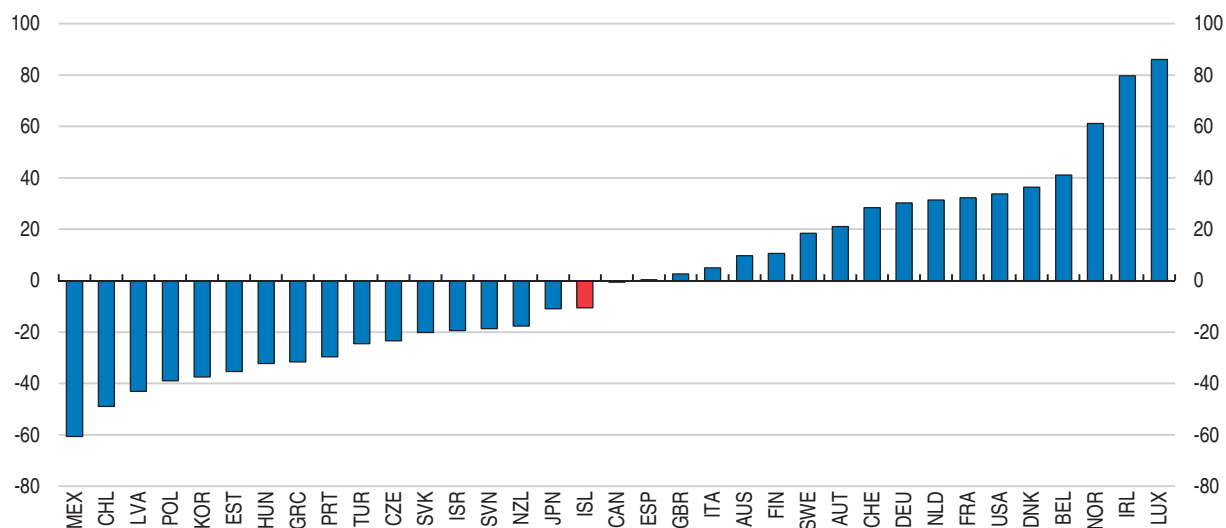
Main recent OECD recommendations	Actions taken
Broaden the base for the carbon tax and raise its rate to increase cost-effective abatement of GHG emissions.	Partially achieved. A carbon tax was introduced in 2010 and levied on liquid fossil fuels. The base has not been broadened beyond liquid fuels to other carbon-based fuels (except liquefied petroleum gas). Rates have not been raised although they have been adjusted for inflation. However, current plans are to double rates and consider further reforms.
Develop exported electricity capacity (notably through energy-intensive industries) if long-run marginal costs (including the return on capital) are fully covered. If there are resource rents, tax them.	No action taken.

Reforms to improve the business environment


Labour productivity is low compared to other Nordic countries and living standards are raised by high labour force participation and work effort (Figure 17). In part, the small size of the economy limits the scope for exploiting economies of scale and as a result most Icelandic firms are small by international comparison. As a consequence, Icelandic firms can show up in standard measures as being relatively inefficient. In addition, as many other OECD countries, Iceland has recently experienced a significant slowdown in productivity growth (Figure 18). Although there has been a jump in productivity in most recent quarters, Central Bank of Iceland (2017b) argues that this may be an overestimation, stemming from underestimated immigrant labour. The current tourism boom, while assisting in the impressive economic turnaround, has put upward pressure on the króna, which combined with wage increases over and above productivity growth has hurt competitiveness (Figure 19).

Figure 17. **Labour productivity is low compared to peers¹**

GDP per hour worked, % gap to OECD average, 2015

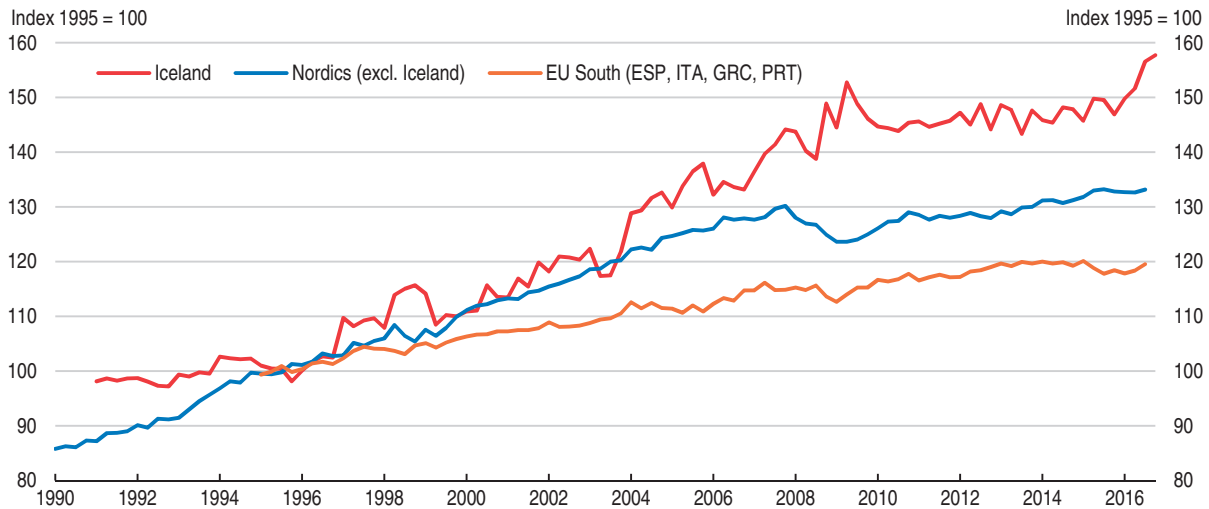


Source: OECD Productivity Database.

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A healthy business sector not only increases the resilience to shocks, but also underpins long-term prospects by supporting productivity growth. Furthermore, in combination with labour market institutions that help share the gains from productivity growth widely, promoting a healthy business environment and productivity also supports inclusiveness.

Figure 18. **Productivity growth has slowed**¹
Real GDP per hour worked



Source: Central Bank of Iceland: Quarterly Macroeconomic Model database (seasonally adjusted); and OECD Analytical Database.


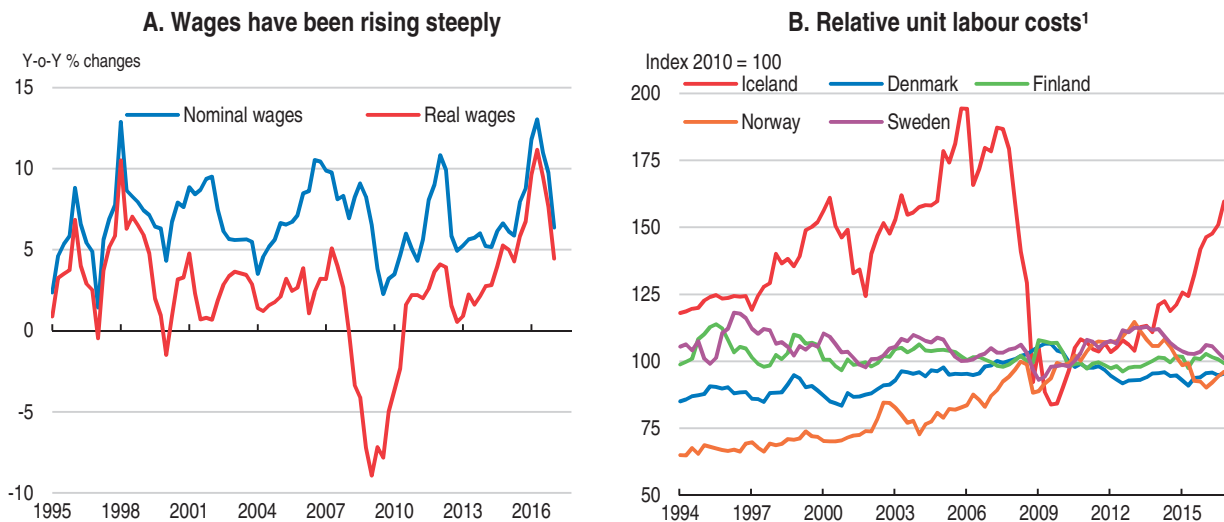

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Figure 19. **Competitiveness has been eroded**



1. Labour costs adjusted for productivity and exchange rates in comparison with the country's trading partners. A rise in the indices represents deterioration in that country's competitiveness.

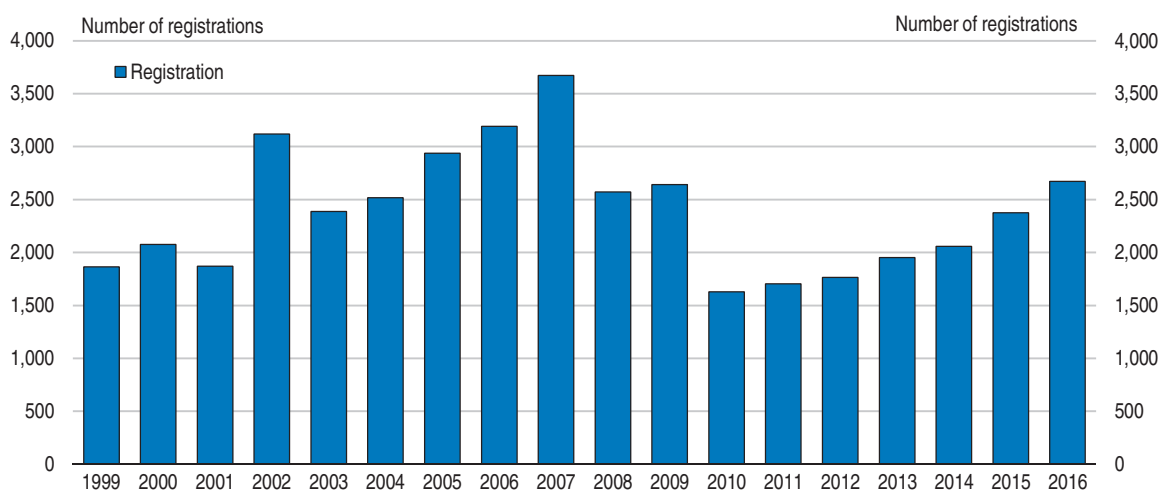
Source: Statistics Iceland; and OECD Analytical Database.

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The government has continued to push forward on the recommendations of the Growth Forum (which brings together politicians, business and union leaders and academics), OECD Economic Surveys and Going for Growth. For example, the government has addressed overly long secondary education, it somewhat reduced (comparatively high levels of) agricultural support, and the competition authority has investigated the fossil fuel market, identifying areas of possible competition concern. Continuing to pursue the productivity agenda as advocated in the previous *Economic Survey* would ensure that possible avenues to boost productivity are exploited.

New firm creation has gradually picked up after the crisis (Figure 20). Around two-fifths of the new registrations in 2016 were in construction, real estate and finance, reflecting the booming real estate market. The government has continued to provide resources to venture capital funds in order to support different clusters, such as technology, that may offer future sources of productivity growth. However, start-ups in a very small economy face problems in scaling up their activities, which tends to be an important source of productivity growth (Adalet McGowan et al., 2015). More recently, exchange rate appreciation and the impact of collective bargaining agreements have further dented their prospects.

Figure 20. **Firm creation is picking up again**



Source: Statistics Iceland.

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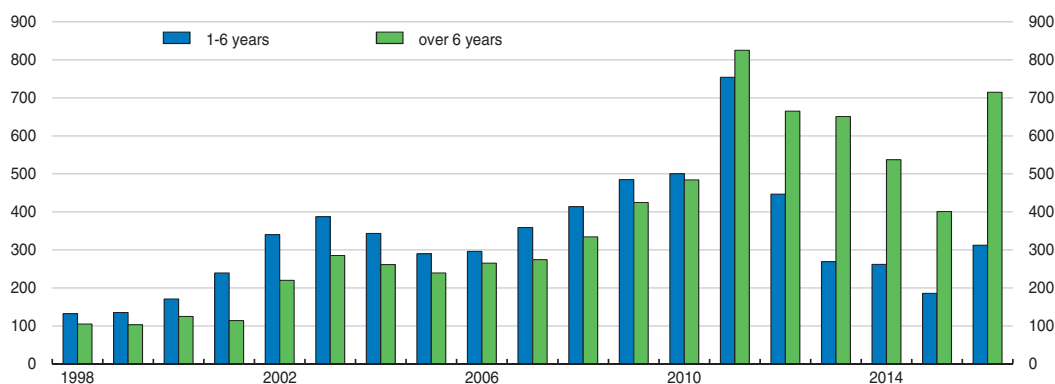
Insolvencies increased in 2016, partly because a backlog of cases was cleared (Figure 21). Since the crisis the firms undergoing insolvency are predominately more established firms (older than 6 years old), whereas in the past firm failure was more common amongst younger firms. The insolvencies are largely concentrated in wholesale and retail trade. Recent OECD research suggests that barriers to orderly insolvency procedures can hinder productivity growth by locking resources in weak firms and damping the effect of competition (Adalet McGowan et al., 2017). In general, Iceland compares favourably with other OECD countries in the speed of bankruptcy procedures. In this light, policy should continue to ensure that non-viable firms are not sustained.

Robust competition can also support a healthy business environment that is conducive to productivity growth. As noted in the last *Economic Survey*, competition in services is weak, often due to artificial barriers to entry. The Icelandic Competition Authority has continued to counter abuse of dominant positions and collusions, which are particular problems for very small economies where it is common for a single firm or handful of firms to dominate the market. The authorities are considering using the OECD's Competition Assessment Toolkit to undertake a review of existing laws and regulations as recommended in the previous survey (Table 6).

A number of barriers to competition remain. The OECD's measure of trade restrictiveness in services has been above the OECD average, in part because of the capital controls (Figure 22). However, progress in lifting capital controls will not have a large impact. For example, lifting

Figure 21. Firm insolvency has risen

Number of young and more established firms going through insolvency proceedings



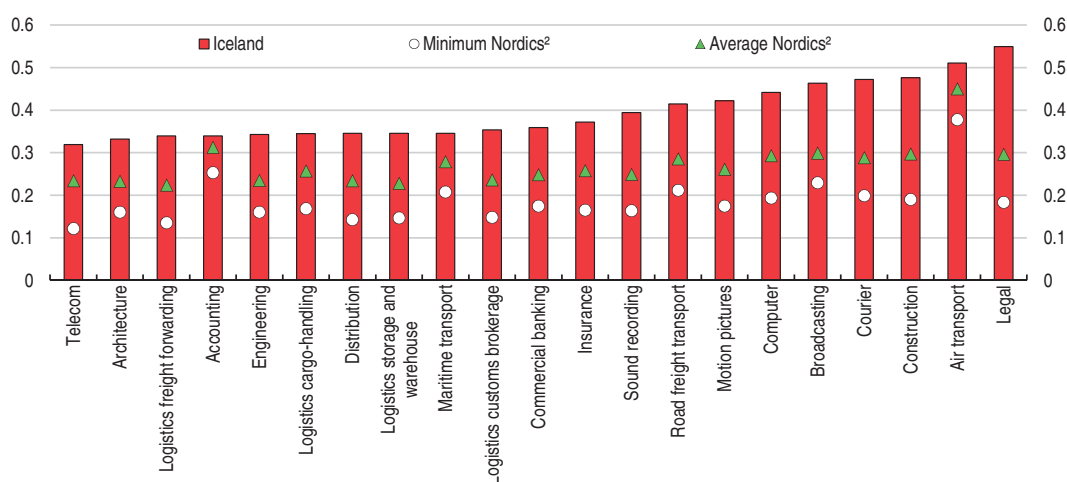
Source: Statistics Iceland.

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Table 6. Past OECD recommendations on productivity growth


Main recent OECD recommendations	Actions taken
Adopt an ongoing productivity agenda, including following up on the priorities identified by the recent growth forum.	The Icelandic authorities have been active in international productivity fora.
Lower barriers to entry including by removing legal barriers to entry in particular sectors	The Growth Forum has followed up by discussing barriers to entry.
Support innovation, including by encouraging links with universities. Ease funding access, notably with public investment funds that can finance firm expansion. Evaluate support measures.	A bill was passed in May 2016 supporting innovation. Measures included new tax incentives to individuals investing in growing innovative companies. The existing R&D tax support was also increased.
Toughen competition policy implementation to ensure that abuse of dominant position or cartel/tacit collusion does not stifle competition. Use the OECD's Competition Assessment Toolkit to refine law and enforcement.	Consultation is on-going with the OECD.

Figure 22. Service trade restrictiveness index (STRI)

The indices take values between zero (the least restrictive) and one (the most restrictive)¹

1. The index includes regulatory transparency, barriers to competition, other discriminatory measures, restrictions on movement of people and restrictions on foreign entry. The STRI methodology takes into account different market and trade cost structures across sectors to ensure that they reflect the relative restrictiveness of each sector. Nevertheless, the indices may not be perfectly comparable across sectors. The indicators are for 2016.
2. Nordics include Denmark, Finland, Iceland, Norway and Sweden.

Source: OECD Services Trade Restrictiveness Index (STRI).

StatLink  <http://dx.doi.org/10.1787/888933530566>

capital controls would reduce the indicator for commercial banking from 0.36 to 0.35. Other general restrictions include the requirement that half of the board and the CEO of corporations are resident in Iceland or European Economic Area (EEA) member countries, and access to public procurement is limited. Specific restrictions are fairly onerous for auditing, which favours locally-licensed auditors, and in the air transport sector where limits exist on foreign equity participation. In addition, landing and take-off slots are allocated based on historical rights and commercial exchange of slots is not allowed. Slot allocation at Keflavik airport has been a concern for the competition authorities.

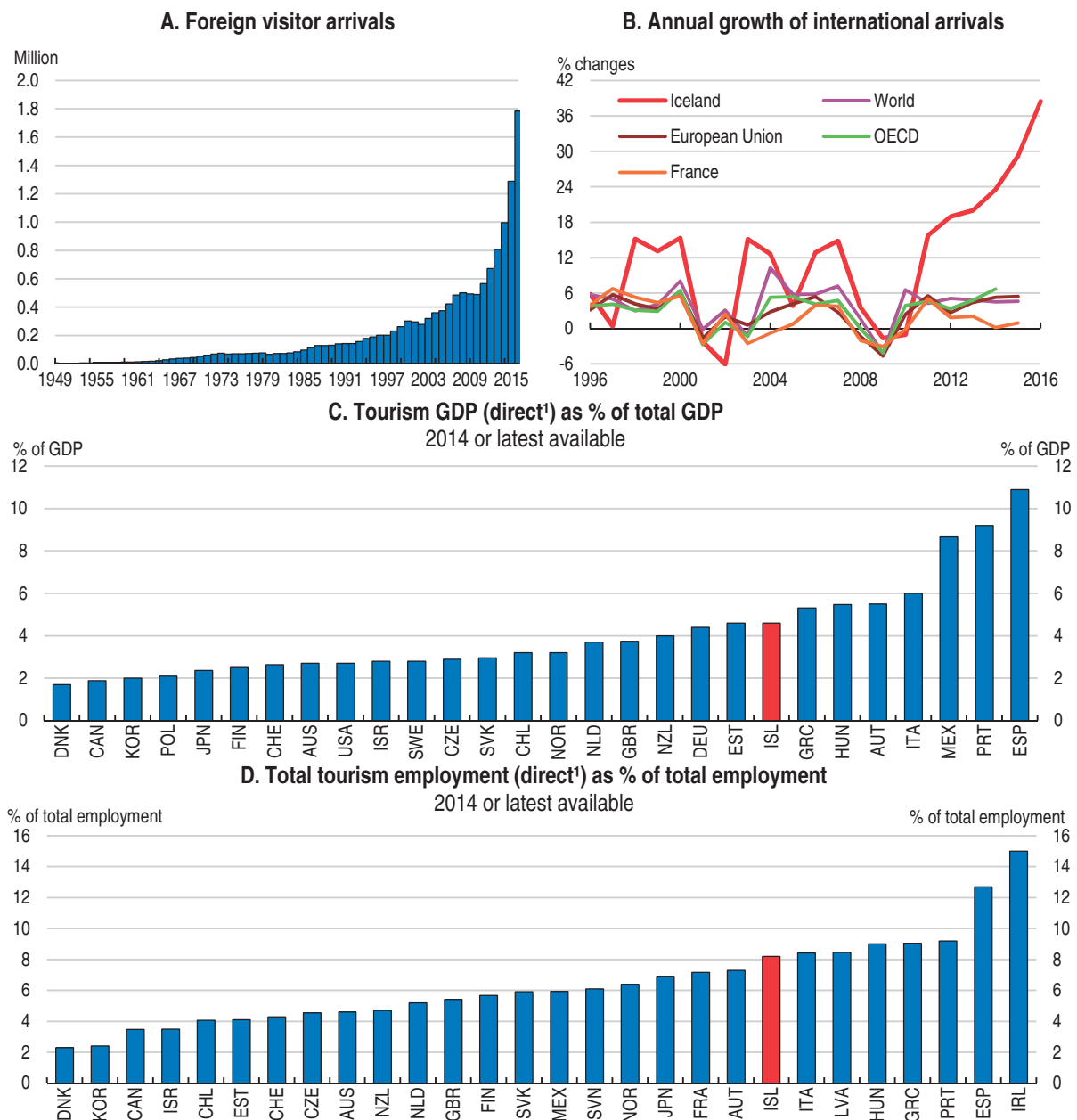
Making the best of the tourism boom

Iceland is experiencing a tourism boom, with tourist numbers growing annually on average by more than 20% since 2010. The number of foreign visitors quadrupled between 2010 and 2016, reaching 1.8 million. The surge in tourist numbers has boosted the economy, helping to unwind some of the impacts of the financial crisis. New jobs have been created, foreign currency earnings have risen – easing financing constraints on the balance of payments – while the boost to tax revenues has contributed to improved public finances. While tourism brings many benefits, there are also downsides. The pace of growth has caught the authorities by surprise. A clear strategy needs to be developed to foster good co-ordination amongst the different actors and to maximise the benefits for Iceland (OECD, 2014).

Output in tourism related sectors has increased particularly fast in recent years (Figure 23). This in large part has been facilitated by the expansion of the international airport at Keflavik, its development as a hub for transatlantic routes and growing competition between air carriers. Tourism has risen from being a small part of economic activity to becoming the major export earner. Tourism-related services are now estimated to account for around two fifths of goods and services exports. This growth has helped maintain the positive trade balance and current account surplus that emerged in 2009. Demand for labour has risen substantially as a result of increased tourism. Well over 4 000 (or around one fifth of new jobs) have been created in the tourism-related sectors since 2010, with additional indirect impact on employment elsewhere in the economy. The rapid expansion of the tourism sector has contributed to an upswing in in-migration as migrant workers come to fill, often relatively low-skilled, jobs in the tourism sector. The full impact on GDP and employment is difficult to assess as data from tourism satellite accounts is only available with a considerable delay. Improving the quality and timeliness of tourism-related data would provide the basis for improved economic analysis of the sector and assist policymakers.

Government revenues are also being boosted by tourism. Since 2010, turnover in tourism-orientated sectors rose significantly and reforms to the VAT will lead to increased revenue from the sector. The reforms introduced since 2015 broaden the tax base and narrow the difference between the standard and reduced rates and reduce some of the tax preferences offered to tourism services (such as accommodation, restaurants, snowmobiling and whale watching). New proposals made in early 2017 will raise the tax rate on most tourism activities to the standard rate, while lowering the standard rate from 24% to 22.5%. There are a small number of tourism-related services that continue to lie outside the VAT base (including salmon fishing and taxis) and which the authorities should bring into line with other tourism-related services.

Since the tourism boom began gathering pace, the króna has appreciated by around 40%, significantly offsetting the large depreciation that accompanied the financial crisis. Foreign

Figure 23. **Tourism is rapidly becoming one of the pillars of the economy**

1. Tourism GDP corresponds to the part of GDP generated by all industries in response to internal tourism consumption. Tourism direct GDP is generated by industries directly in contact with visitors, while indirect tourism GDP is generated by industries supplying inputs to industries directly in contact with the visitors.

Source: Iceland Tourism Board; OECD Key tourism indicators Database; and World Bank WDI database.

StatLink  <http://dx.doi.org/10.1787/888933530585>

currency inflows from tourism account for a large share of the upward pressure in the exchange rate. In part the appreciation will choke off some of the break-neck growth in tourist numbers in coming years. At the same time, internationally-exposed sectors of the economy are finding the operating environment much more difficult due both to the króna appreciation and to the impacts of the wage agreements. With resources shifting to tourism these developments are threatening to undermine the efforts of the authorities to support

innovation and develop new technology-driven sectors. To maintain competitiveness, policy needs to continue supporting productivity-enhancing innovation, including in the tourism sector as this has become an important pillar of the economy. Against this background, maintaining high skill levels is crucial, both in developing a productive tourism sector and in building resilience to shocks that can hit a resource-based economy. Vocational and on-the-job training can help individuals develop skills, particularly for workers drawn into employment before completing high school. Expanding apprenticeship-like schemes to tourism would help to raise skill levels, which will help develop a higher value tourism sector and improve opportunities for individuals who leave school with limited skills (Musset and Valle, 2013).

Preserving the attraction of nature

The pristine state of nature in Iceland is a major attraction for tourists, but the development of tourism has put nature under additional pressure. Some (often popular) sites have suffered environmental degradation. The soil is largely volcanic and particularly susceptible to erosion, while plant life is also vulnerable. Preserving the attraction of nature requires careful land use planning to avoid significant loss of wilderness. The loss of these locations will likely be irreversible, particularly in areas where anthropogenic impacts can persist for hundreds of years. Some tourists also appreciate low numbers of other tourists. However, as numbers mount and more explore outside the capital region, the relative attraction of the wilderness areas begins to diminish. Survey evidence already suggests that almost one-third of visitors feel that tourist numbers exceed desired levels in some parts of the Central Highlands.

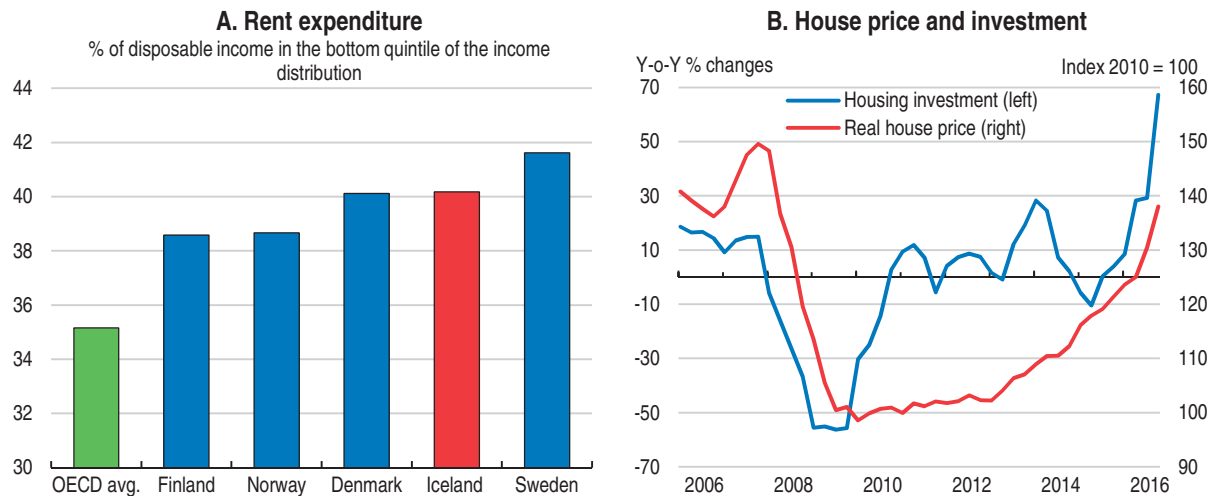
The attraction of wilderness creates trade-offs between the need to provide necessary infrastructure to enable tourism and the need to preserve wilderness and ensure relative solitude. Other countries control the human footprint by setting quotas and pricing access to particular areas. However, these schemes can be costly to administer and enforce and conflict with the Icelandic principle of right to roam. Nonetheless, user fees to manage congestion and harmful impacts on the environment should be introduced in areas under greatest pressure. Current approaches, such as relying on parking charges, may be a suitable option at some sites and using concession models where organised tours are creating externalities offer an alternative approach. Better managing the distribution of tourists around the country may also help, but care should be taken to ensure that this does not lead to widespread development eating into remaining areas of wilderness. The plan of promoting point-to-point international travel outside Keflavik would help ease congestion, but this approach has met with limited success in other countries, such as Mexico. Developing domestic air travel from Keflavik may be an alternative to examine in a cost-benefit analysis.

Enhancing short-term flexibility while minimising externalities


Over time, tourist accommodation in private houses has been growing, partly as sufficient hotel rooms have not been available. The demand for accommodation combined with new technologies has spurred the development of the sharing (so-called “gig”) economy in Iceland, notably through Airbnb rentals. The flexibility of the short-term rental market can reduce the need to invest in hotel accommodation, which may become a liability if projected tourist numbers fail to materialise. After the crisis, investment in tourism accommodation and housing was weak. As a result supply has lagged behind the growth in demand driven by

tourism, immigration and the fast economic recovery in general. At present, the under-supply of housing and tourist accommodation and the growth of the short-term rental market have made housing less affordable, particularly in the centre of the capital. Even before the most recent house price increases, the cost burden for low-income households in private rentals was amongst the highest in the OECD although on par with other Nordics (Figure 24). While real house prices have risen further, greater supply will ease these pressures over time and residential investment has been picking up more recently (Figure 24).

Figure 24. **House prices have risen and affordability can be a challenge**



Source: OECD Affordable Housing Database and OECD Analytical database.

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In line with the current approach, housing policy needs to be better targeted than it has been in the past, supporting greater supply of housing units for vulnerable groups, who may otherwise face obstacles in finding suitable jobs elsewhere, and become marginalised. The spread of the short-term rental market to meet tourist demand has changed the character of residential housing and led to complaints from the hotel sector about ensuring a level playing field between hotels and these new short-term rentals. In response, the authorities from the beginning of 2017 have introduced limits on the short-term rental market, in part to protect residents in apartment blocks.

One particular concern that has arisen with the gig economy has been whether individuals renting their apartments have been declaring income and paying the occupancy tax. Airbnb automatically collects occupancy taxes and VAT in some countries or cities sending them directly to the tax authorities, which minimises the differences between hotels and the rental sector, where unreported income is a concern (though by its nature very hard to quantify). New rules on renting in Iceland are intended to remove untoward advantage and level the playing field in business taxes and health and safety requirements for owners who are actively involved in the short-term rental market. The limits being placed on short-term rental accommodation, such as limits on the number of days an apartment can be rented during a year, should be reconsidered or recalibrated if they choke off competition from this segment of the market.

The policy challenges facing the Icelandic authorities lie in how to maximise the benefits from the current interest in tourism while preserving the natural attractions that are

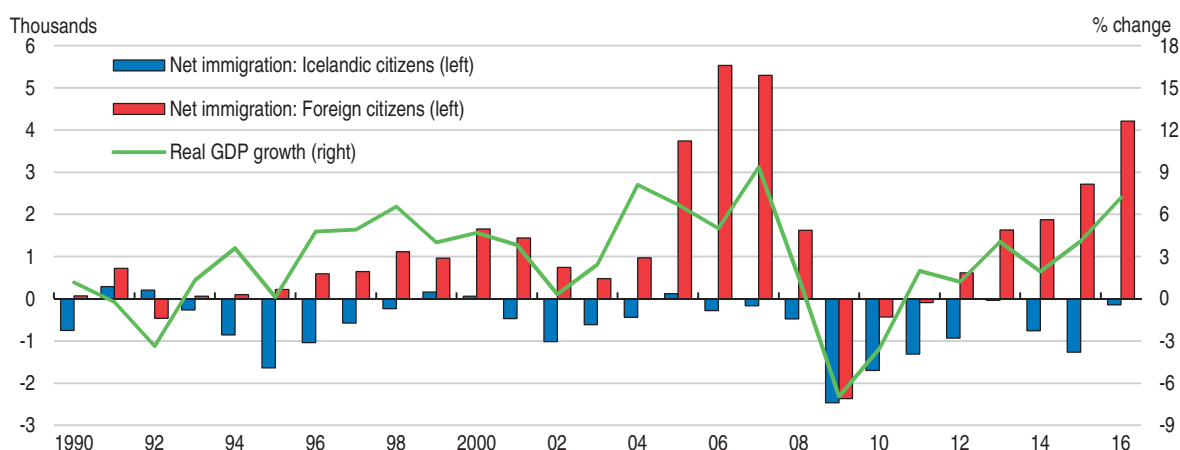
largely responsible for tourist arrivals and ensuring that the gains are shared across the population, including future generations. A task force was established in 2015, bringing together the Ministers responsible for tourism, finance, interior and environment, and charged with implementing a Road Map, which prioritises several policy areas. Working with local authorities and industries, the Task Force seeks to improve skills and quality in the tourism sector as well as study the consequences of tourism on nature conservation. As tourism affects so many different parts of the economy and public policy, establishing an inter-ministerial tourism strategy would help ensure that tourism is environmentally, socially and economically sustainable. Given the importance of the sector to the economy, co-ordination should also include non-government stakeholders. An inter-ministerial group, building on the current Ministerial co-ordination committee headed by the Prime Minister's Office, would help implementation of tourism policy.

Effective use of the inter-ministerial group could be supplemented by forging agreement on a long-term strategy for tourism that co-ordinates planning and management across Iceland and ensures the consistency of planning with transport policy. This would establish a framework to make the growth of nature-based tourism sustainable in terms of environmental and social impact, while maximising the economic gains. The framework should aspire to learn from the successful management of the fishing sector, avoiding the boom and bust of the banking sector, and ensuring that natural rents are better captured and distributed among the Icelandic population than has been the case for metallurgy.

Iceland's labour market

The Icelandic labour market is quite flexible. The strictness of Iceland's employment protection is very low, companies can easily adjust their labour force, and labour-market needs are fulfilled by large variation in employment and migration flows (Figure 25). Iceland has also traditionally maintained high labour force participation (the percent of the working age population available for work, Figure 26), including in population groups facing employment difficulties in other OECD countries such as young workers, older workers, and women (Box 4). Together with long working hours, this has contributed to high living standards.

Figure 25. **Migration flows are heavily influenced by the economic cycle**



Source: Statistics Iceland; and OECD Analytical Database.


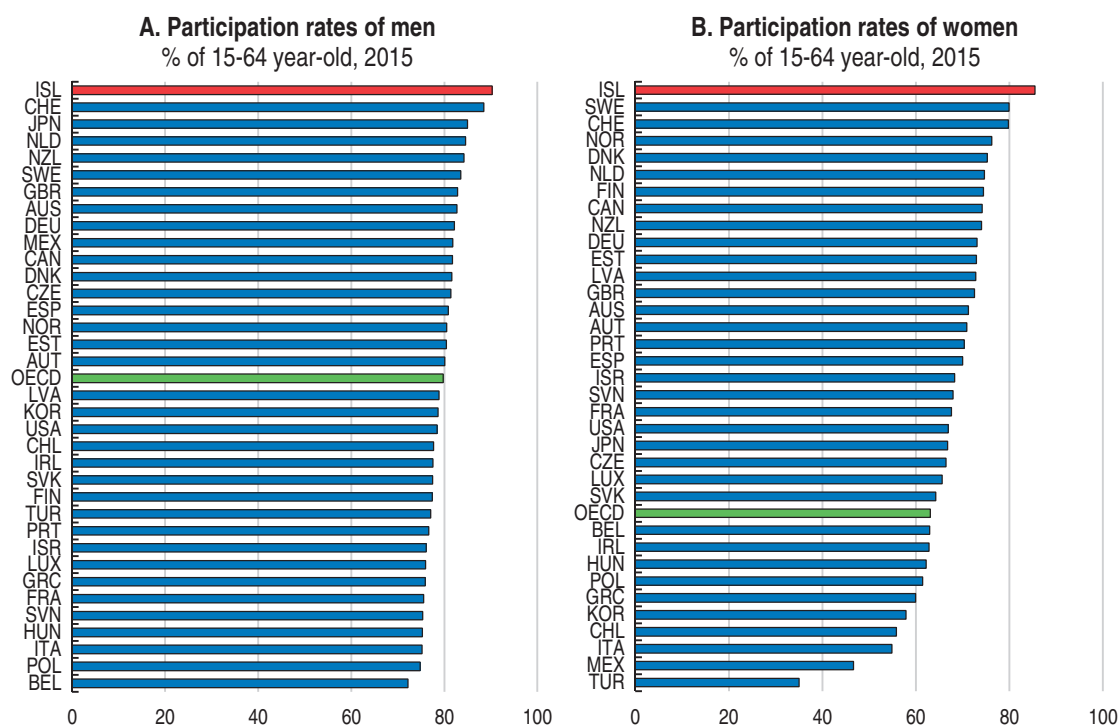
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Figure 26. Labour force participation is high



Source: OECD Labour Force Statistics.

StatLink <http://dx.doi.org/10.1787/888933530642>**Box 4. Reducing gender gaps in the labour market**

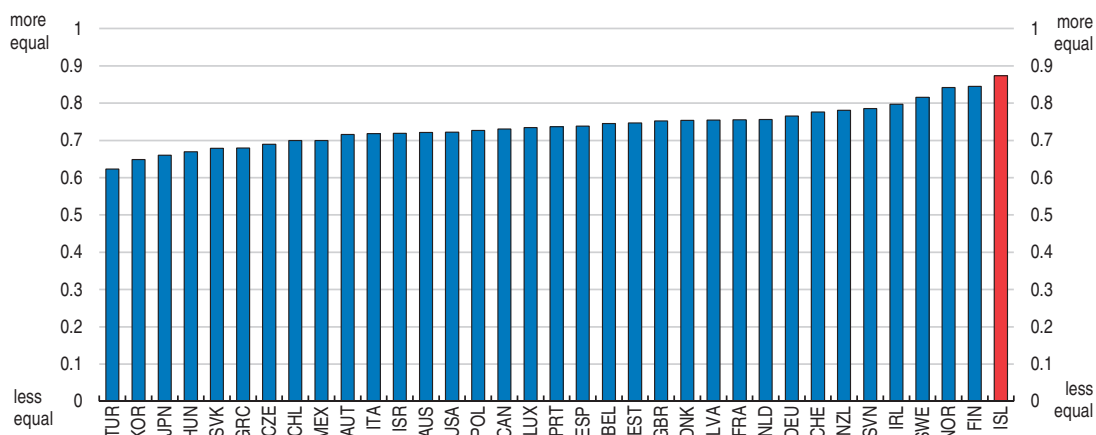
Participation of women in the labour market is the highest among the OECD countries (as seen in Figure 26), and women continue to work until late in their lives. On the Global Gender Gap Index, Iceland ranks first (Figure 27; World Economic forum, 2016). It is the top performer on political empowerment and educational attainment and in the top ten on economic participation and opportunity. Iceland also has a high number of women among legislators, senior officials and managers. Snævarr (2015) finds that the “unexplained” gender wage gap (after controlling for other factors) was about 5.1% in 2011-13 and has been decreasing over time. It lies above Sweden, but is lower than in Denmark and Norway.

Iceland was the first Nordic country to enshrine in law (in 1975) the equal status and equal rights of men and women. For publicly owned companies and public limited liability companies with at least 50 employees, boards of more than three members must be composed of at least 40% of each gender. Moreover, companies with 25 or more employees are required to disclose the gender composition of the employed and those in management positions. Despite a low gender gap the authorities are determined to reduce it further. The government wants to make it compulsory for all companies with 25 employees or more to develop a certification scheme for gender pay equality, with the aim that all jobs of equal value are paid the same. The obligation imposes implementation costs for the enterprises, such as auditing requirements. In this light, rolling out the scheme gradually, first for bigger firms and then for smaller ones, as proposed by the government, and monitoring the impact will allow the policy to be modified to avoid excessive burdens.

Towards effective and inclusive labour relations

Iceland is one of the most highly unionised countries in the world (Figure 28), bucking the trends elsewhere in the OECD (OECD, 2017 and 2004; Hayter et al., 2015; Visser, 2016), and

Figure 27. The Gender Gap Index

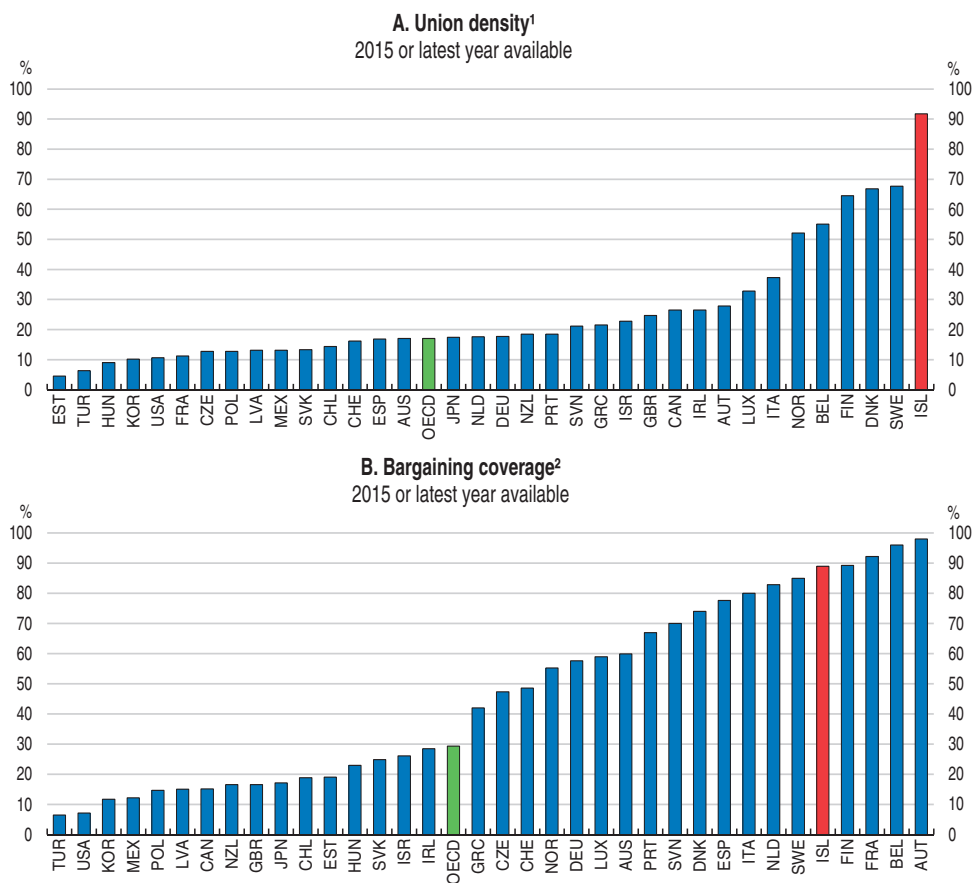


Note: The Global Gender Gap Index measures the relative gaps between women and men across four key areas: health, education, economy and politics.

Source: The Global Gender Gap Report 2016 Dataset © 2016 World Economic Forum.

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Figure 28. Union density in Iceland is the highest in the OECD



1. Union density rate: net union membership as a proportion of wage earners in employment.

2. Adjusted bargaining coverage rate: proportion of all wage earners with right to bargaining.

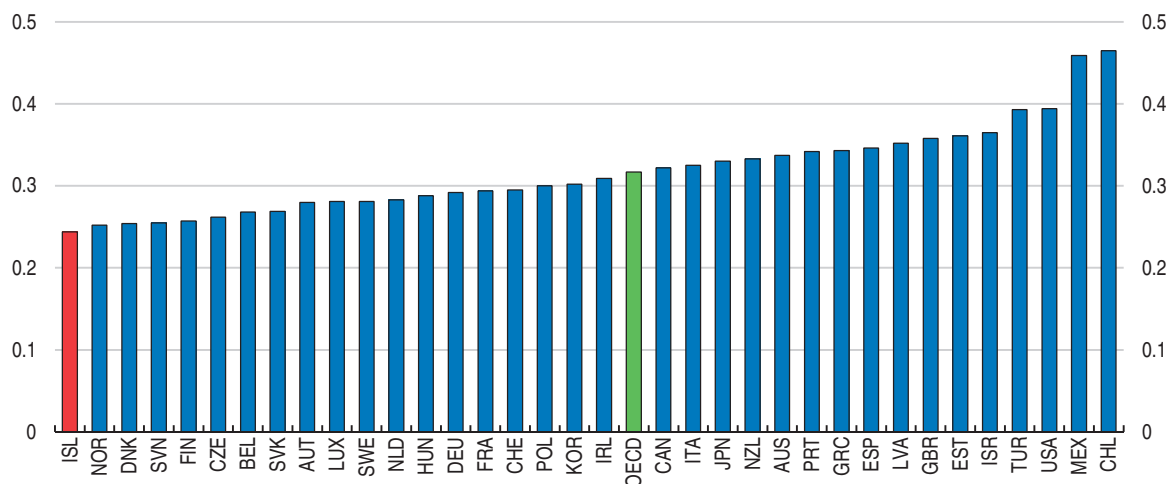
Source: J. Visser, ICTWSS Database version 5.1. Amsterdam: Amsterdam Institute for Advanced Labour Studies (AIAS), University of Amsterdam. September 2016 completed with the OECD Policy Questionnaires.

StatLink <http://dx.doi.org/10.1787/888933530680>

collective bargaining plays a key role in wage formation. The strong presence of trade unions has contributed to promoting income equality and increasing inclusiveness (Figure 29). This system has had many successes and social partners have co-operated, particularly during times of crisis. For example, in the early 1990s the social partners together with the government contributed to bringing down inflation, and a social pact played an important role in minimising the impact of the financial crisis by protecting the lowest paid workers (Pétursson, 2002; Ólafsdóttir and Ólafsson, 2014). Moreover, the labour market partners have joint custodianship of many welfare payments, including the mandatory occupational pension system.

Figure 29. Inequality is the lowest in Iceland

Gini of disposable income, 2014 or latest year available

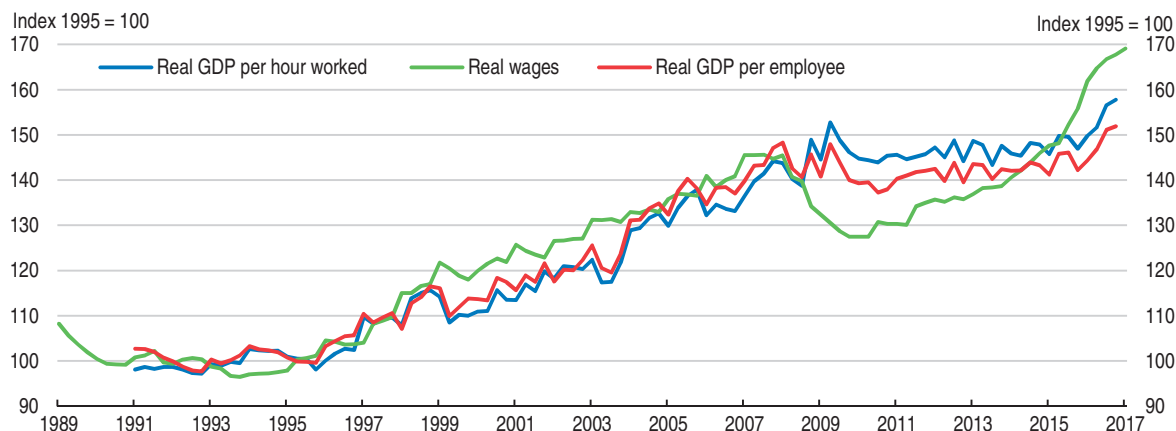


Source: OECD Income Distribution Database.

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Yet, the Icelandic bargaining model has been less successful in times of boom. Trade unions have often approached collective rounds fragmented, without taking into account wider consequences of their demands. In the private sector, employees negotiate additional individual wage awards at annual meetings with their supervisors, contributing to wage drift, but this does not happen to the same extent in the public sector. Thus, unions in the public sector often negotiate with “the need to correct wage developments of past years”. Nevertheless, large catch-up demands by some unions trigger high wage demands by others, unleashing leap-frogging of wage demands (SALEK, 2016; Holden, 2016; OECD, 2015a). This has led to recurrent breakdowns in wage negotiations, disruptive strikes and high wage awards, which undermine competitiveness and create inflationary pressures. In addition, the government is frequently required to grant tax concessions or social transfers to facilitate a final settlement between the social partners.

In 2015, wage bargaining conflicts exploded resulting in negotiated nominal wage awards – which set the minimum for all workers covered by the agreement – of more than 20% over three years. Coupled with a booming economy and wage drift, wages have been rising steeply. The size of the awards reflected the need for some wages to catch up after a period of restraint, but they have risen over and above the catch-up levels, especially in light of productivity growth slowing recently (Figure 30). Along with the strengthening króna, this has eroded external competitiveness.

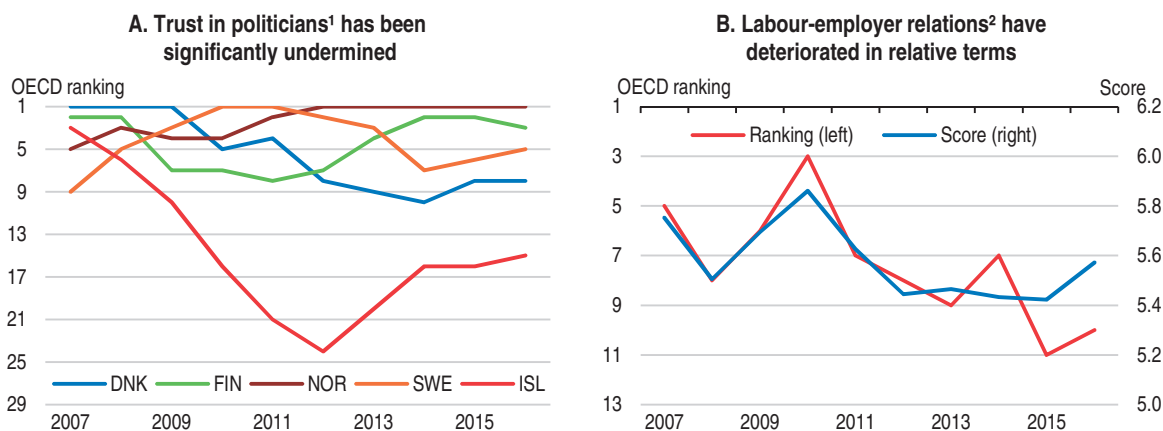
Figure 30. **Wage awards have exceeded productivity growth**

Source: OECD Analytical Database; Statistics Iceland; and Central Bank of Iceland: Quarterly Macroeconomic Model database (seasonally adjusted).
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The confederation of employers in the private sector, government (including municipalities) and major confederations of workers have recently entered a so-called SALEK agreement to improve wage formation and co-ordination (based on Nordic examples). As part of this framework it was also agreed to harmonise public sector pensions with the private sector. Nevertheless, some public sector unions are unhappy, including a teachers' union that considered suing the government. Against this backdrop, further implementation of the SALEK agreement has been put on hold.


Iceland has had a challenging decade during which trust has been undermined. Based on a survey from the Global Competitiveness Report on trust in politicians, Iceland dropped from a top performing OECD country in 2007 to the bottom third in 2012 (Figure 31), and it is still ranked far below its previous standing and below other Nordic countries. There has also been a falling trend in Iceland's ranking in the quality of labour-employer relations (Figure 31). While Iceland remains among the top 1/3 of the OECD, it ranked better in the years right after the crisis. This is consistent with the past tendency for labour relations to sour particularly in times of economic boom. Nevertheless, while interesting, such data should be interpreted with caution, as they are based on limited surveys of business executives, and hence they cover only one side of labour relations.

Negotiations often break down because parties differ in their view of the economy or even in their understanding of what was agreed in the past. Regular and active contact among the social partners to exchange views on issues of collective bargaining as well as issues of welfare policy and social reform can help build trust and develop mutual respect (ILO, 2015). The setting up of a macroeconomic council was a step in this direction. However, labour unions have so far refused to join the council. Another means to foster greater trust is to forge a common understanding of the economic situation. Such information should be perceived as impartial, providing an accurate reflection of sectoral trends that can be used as a reference point in negotiations. For instance, in Norway the "Technical calculation committee for wage settlements" brings together labour market partners, government and Statistics Norway; it submits two main reports, before and after the wage negotiations (Holden, 2016; Andersen et al., 2015). In Japan a tripartite non-profit organization, the Japan Productivity Centre (JPC), provides labour productivity statistics that are used by the social partners in negotiations (ILO, 2015).

Figure 31. **Trust has been undermined**

1. Business executives responding to the question: “in your country, how do you rate the ethical standards of politicians? [1 = extremely low; 7 = extremely high]”.
2. Business executives responding to the question: “in your country, how do you characterize labour-employer relations? [1 = generally confrontational; 7 = generally co-operative]”.

Source: World Economic Forum. The Global Competitiveness Index dataset 2007-2016.

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Establishing a “technical committee” that brings together the social partners, Statistics Iceland, and other relevant institutions could build the basis of understanding between partners. This technical committee would regularly provide impartial, relevant and reliable statistical information for collective bargaining, in particular before major negotiating rounds. Moreover, the committee could identify gaps in available data and request improvements. Wage statistics currently cover only a subset of companies and are not representative for all sectors or types of employees.

Better wage co-ordination

Labour unions in Iceland are often very small. A large number of agreements need to be reached (almost 200), sometimes covering very few workers. This creates the potential for co-ordination failure. The situation is exacerbated as unions are often organised along occupational lines, because labour demand is less elastic for workers within one occupation (Holden, 2016).

In Norway, Denmark and Sweden the co-ordination across sectors is based on the pattern-setting agreements negotiated in the manufacturing export industries. In Belgium, pay increases take into account wage forecasts in neighbouring countries – Germany, France and the Netherlands – so that competitiveness is maintained. Government has the power to intervene to ensure that wages do not grow excessively (Fulton, 2015). In the Netherlands, the main union confederations issue an annual recommendation on maximum wage increases, depending on past developments in inflation and productivity (Visser, 2016).

Iceland shares many institutional similarities with other Nordic countries, but due to its small size and the volatile nature of the economy it can be challenging to implement the pattern-setting model based on one sector. Instead, at the beginning of a negotiation round, peak organisations could issue “wage guidelines” for the round. In this, they should take on board the relevant statistical information provided by the technical committee. For the wage guidelines to enjoy high trust and broad buy-in from labour market participants, the

guidelines could come from a tripartite forum, or just involving SA-Business Iceland (the largest confederation of employers) and ASÍ (the largest confederation of trade unions).

A strong role of the state mediator is needed to underpin a system based on “wage guidelines”. In other Nordic countries mediating institutions are strong and play important role in providing largely uniform outcomes (Andersen et al., 2015, 2014a and 2014b). The state mediator should be seen as a promotor and protector of the wage guidelines and when issuing conciliation proposals, they should be in line with the wage guidelines. This should likewise be the case for any potential industrial arbitration body. The Swedish National Mediation Office is explicitly tasked by law to “ensure sound wage developments” (Ibsen, 2013) and in Norway both the National Mediator and compulsory arbitration, when convened, follow the main framework given by the trend-setting industries agreement (Andersen et al., 2015).

Compared to other Nordic countries the Icelandic state mediator is relatively weak. The mediator should have powers to postpone industrial action for a limited period, in agreement with the social partners, when the mediation process is progressing towards a negotiated solution, as in Norway, Sweden and Denmark. Sometimes, the date for industrial action is already set, but discussions among the two sides and the mediator are ongoing. If the state mediator judges that there is progress towards a negotiated solution, he/she could propose to postpone industrial action. This can help by “cooling down” the parties. Besides, by delaying industrial action in one sector, another sector could reach an agreement first, potentially affecting the outcome in the sector where industrial action is postponed (Holden, 2016). It can also encourage the parties to be better prepared and try harder to reach an agreement. The Danish mediation institution has strong powers that could serve as a good example for Iceland, where there is a large number of very small unions. In Denmark, if mediation fails, the bargaining area where agreement has not been reached is “linked” with areas with agreements. All involved unions then vote together on the settlement, making it harder for small unions to overturn the agreement (Ibsen, 2013 and 2015; Andersen et al., 2015).

The future of work and collective bargaining

The nature of work and careers is changing dramatically. New technologies have polarized jobs by reducing demand for routine and manual tasks and increasing demand towards low- and high-skilled tasks. New technologies help match workers to tasks, but the growth of the gig economy (e.g. Airbnb) presents challenges in how best to integrate these workers into tax and social security systems, as they are often engaged in different forms of non-standard employment: self-employed, part-time or temporary work. It also raises questions about wages and labour rights. Regulation and policy measures such as statutory working hours, minimum wages, unemployment insurance, taxes and benefits are still modelled on the notion of a traditional and unique employer-employee relationship.

Around one-third of workers in Iceland are in non-standard employment, close to the OECD average (OECD, 2015b). In many OECD countries, these workers tend not to be covered by collective agreements, have fewer rights to social protection, receive less training, often have weaker career progression, and face greater insecurity (OECD, 2016a and 2015b). In Iceland, however, the rights agreed during collective bargaining are automatically extended to all workers, including temporary agency workers. Only the self-employed are excluded, but they are, by law, still covered by unemployment insurance and the occupational pension system (SALEK, 2016). This has protected workers from many of the negative consequences of job polarisation and changes in work organisation seen elsewhere.

Recent technological change has shifted skill demand predominantly towards high-level skills. Moreover, information and communication technologies (ICT) skills will not be enough in the future. Other complementary skills, such as problem-solving, literacy and numeracy skills, interpersonal skills and ability to work flexibly will also be very much needed. Workers need to be prepared to constantly evolve their skills and to change jobs over their working life (OECD, 2016b). The social partners should be actively thinking about these issues. The education system should equip workers with adequate ICT and other problem-solving skills. At the same time, through the existing education funds managed jointly by the unions and employers, the labour market partners should ensure that life-long learning teaches relevant skills to those who most need them, and in particular to the low-skilled.

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