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Table of contents

Executive summary 9

Assessment and recommendations 13
Fostering economic recovery 13
Economic rebalancing 18
Capital controls, monetary policy framework and financial stability 25
Fiscal consolidation 31
Government expenditure efficiency 40
Green growth 46
Bibliography 48
Annex A.1. Progress in structural reform 50

Chapter 1. **Promoting effective monetary policy and financial stability** 53
Iceland's immediate policy challenge is removing the capital controls 54
Monetary policy after the removal of capital controls 59
Prudential tools as the third pillar of macroeconomic policy 68
Strengthening the institutional framework for monetary and financial stability . . . 71
Bibliography 76

Chapter 2. **Reinforcing the public debt reduction strategy** 79
Fiscal consolidation 80
Strengthening the legal framework to enhance budget discipline 93
Increasing the efficiency of public expenditure 97
Bibliography 110

Boxes
1. Recommendations to support economic rebalancing 24
2. Recommendations for promoting financial stability and effective monetary policy 31
3. Recommendations to put public finances on a sustainable path 39
4. Recommendations to increase the efficiency of government expenditure 45
5. Recommendations to support green growth 48
1.1. Capital controls and Iceland's international obligations 55
1.2. The experience of other inflation-targeting countries 66
1.3. Prudential policy instruments 69
1.4. G3 experts' recommendations for financial stability in Iceland 72
1.5. Recommendations for promoting financial stability and effective monetary policy 75
2.1. Evidence on the effects of in-kind transfers and indirect taxes on income distribution 86

2.2. The Organic Budget Law provides a credible, integrated budget framework . . 95
2.3. Recommendations to strengthen the government's debt reduction strategy. . 109

Tables

1. The short-term economic outlook 15
2. Iceland's net international investment position, end 2012 21
3. Much of the former government's fiscal consolidation plan has been implemented 34
4. High compensation expenditure for non-teaching staff is a major cause of high annual primary education costs per student 42
2.1. Much of the former government's fiscal consolidation plan has been implemented 82
2.2. Large increases in public health- and long-term care outlays are in prospect . . . 88
2.3. Government contingent liabilities are high 90
2.4. High compensation expenditure for non-teaching staff is a major cause of high annual primary education costs per student 100
2.5. Teacher salaries are very low in Iceland 101
2.6. Improving some legal institutions could increase government effectiveness without increasing expenditure. 108

Figures

1. The domestic demand-led recovery has moderated. 14
2. Output is near its trend level 15
3. Inflation remains above the Central Bank of Iceland's target 16
4. Monetary policy accommodation is being withdrawn 17
5. Iceland's large current account deficits have been eliminated 19
6. The real exchange rate is below its equilibrium value 19
7. Traded sectors' share of value added has expanded since the crisis while that of non-traded sectors' has shrunk 20
8. Household debt has fallen but remains high by international comparison . . . 22
9. Company debt has fallen 23
10. Banks are expanding lending to households but lending to companies is falling 23
11. The ratio of non-performing loans has fallen significantly in Iceland. 24
12. The authorities' programme for the removal of capital controls 26
13. Inflation expectations are not well anchored 27
14. Fiscal gaps in Iceland remain significant 32
15. Public finances are recovering from the large deterioration caused by the financial crisis 33
16. The redistributive effect of the tax/transfer system has increased to near the OECD average 35
17. Disposable income inequality has fallen to low levels in Iceland 36
18. The anchored poverty rate increased more in Iceland than in most other countries during the global financial crisis 37
19. The relationship between government effectiveness and expenditure is broadly in line with that in other OECD countries 40
20. Cumulative primary- and secondary education expenditure per student is high in relation to cognitive skills 41

21. Costs per student are very high in small schools 43
22. Life expectancy is good in Iceland in relation to health-care expenditure, 2010 . . 43
23. Specialist consultations are high relative to GP consultations in Iceland 44
24. Iceland has high numbers of CT- and MR examinations per capita and overcapacity in such machines 44
1.1. The authorities have adopted an official programme for the removal of capital controls 58
1.2. Iceland has struggled with high inflation 59
1.3. Iceland's inflation is high and volatile relative to most other OECD countries . . . 60
1.4. Alternative measures of inflation expectations 62
1.5. Iceland's economic structure implies greater vulnerability to economic shocks . 64
1.6. The trade-off of inflation-output variability is less favourable for Iceland 64
1.7. The impact of the crisis was relatively muted for most inflation-targeting countries 66
2.1. Public finances are recovering from the large deterioration caused by the financial crisis 81
2.2. The redistributive effect of the tax/transfer system has increased to near the OECD average 84
2.3. Disposable income inequality has fallen to low levels in Iceland 85
2.4. The anchored poverty rate increased more in Iceland than in most other countries during the global financial crisis 86
2.5. Government investment has been cut to low levels 87
2.6. The projected increase in pension spending over 2010-30 is relatively small in Iceland 89
2.7. Population ageing causes a smaller increase in pension spending in Iceland than in most other advanced countries 89
2.8. Fiscal gaps in Iceland are mid-ranking among OECD countries 92
2.9. Weak budget discipline at each stage of the budget process has resulted in substantial overspending 93
2.10. Iceland is one of the few OECD countries in which Parliament has unrestricted power to amend the draft budget 94
2.11. The relationship between government effectiveness and expenditure is broadly in line with that in other OECD countries 98
2.12. Cumulative primary- and secondary education expenditure per student is high in relation to cognitive skills 99
2.13. Costs per student are very high in small schools 100
2.14. Life expectancy is good in Iceland in relation to health-care expenditure, 2010 . . 102
2.15. Potential gains in life expectancy and reductions in amenable mortality from moving to the efficiency frontier are low in Iceland 102
2.16. Specialist consultations are high relative to GP consultations in Iceland 103
2.17. The population of doctors is skewed towards specialists in Iceland 103
2.18. Iceland has high numbers of CT- and MR examinations per capita and overcapacity in such machines 105

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 16 May 2013. The draft report was then revised in the light of the discussions and given final approval as the agreed report of the whole Committee on 7 June 2013.

The Secretariat's draft report was prepared for the Committee by David Carey and Wendy Dunn under the supervision of Patrick Lenain. Research assistance was provided by Roselyne Jamin.

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BASIC STATISTICS OF ICELAND, 2012

Numbers in parentheses refer to the OECD average[a]

LAND, PEOPLE AND ELECTORAL CYCLE

Population (million, 2011)	0.3		Population density per km^2 (2011)	3.0	(34.3)
Under 15 (%)	20.6	(18.4)	Life expectancy (years, 2010)	81.5	(79.7)
Over 65 (%)	12.6	(14.9)	Males	79.5	(76.9)
Foreign-born (%, 2010)	10.9		Females	83.5	(82.5)
Latest 5-year average growth (%)	0.2	(0.5)	Last general election	April 2013	

ECONOMY

Gross domestic product (GDP)			Value added shares (%)		
In current prices (billion USD)	13.7		Primary	7.9	(2.5)
In current prices (billion ISK)	1 708.2		Industry including construction	23.7	(27.9)
Latest 5-year average real growth (%)	-1.1	(0.5)	Services	68.4	(69.5)
Per capita, PPP (thousand USD, 2011)	37.9	(35.5)			

GENERAL GOVERNMENT

Per cent of GDP

Expenditure[b]	46.5	(43.0)	Gross financial debt[b]	131.8	(103.6)
Revenue[b]	43.1	(36.6)	Net financial debt[b]	60.5	(66.2)

EXTERNAL ACCOUNTS

Exchange rate (ISK per USD)	125.1		Main exports (% of total merchandise exports)		
PPP exchange rate (USA = 1)	142.2		Food and live animals	42.2	
In per cent of GDP			Manufactured goods	41.1	
Exports of goods and services	59.2	(53.5)	Main imports (% of total merchandise imports)		
Imports of goods and services	52.9	(50.0)	Machinery and transport equipment	32.4	
Current account balance	-4.9	(-0.6)	Mineral fuels, lubricants and related materials	15.0	
Net international investment position (2012)	-522.3		Crude materials, inedible, except fuels	12.4	

LABOUR MARKET, SKILLS AND INNOVATION

Employment rate (%) for 15-64 year olds	79.7	(65.0)	Unemployment rate (%)	6.0	(7.9)
Males	81.5	(73.1)	Youth (%)	13.5	(16.2)
Females	77.9	(57.0)	Long-term unemployed (%, 2011)	1.8	(2.6)
Average worked hours per year (2011)	1 732	(1 776)	Tertiary educational attainment 25-64 year-olds (%, 2010)	32.5	(30.7)
Gross domestic expenditure on R&D (% of GDP, 2008)[c]	2.7	(2.4)			

ENVIRONMENT

Total primary energy supply per capita (toe, 2011)	18.6	(4.3)	CO_2 emissions from fuel combustion per capita (tonnes, 2010)	6.0	(10.1)
Renewables (%)	84.4	(8.2)	Municipal waste per capita (tonnes, 2009)[c]	0.6	(0.5)
Fine particulate matter concentration (urban, PM10, µg/m^3, 2008)	14.5	(22.0)			

SOCIETY

Income inequality (Gini coefficient, 2010)	0.244	(0.304)	Education outcomes (PISA score, 2009)		
Relative poverty rate (%, 2010)	11.2	(17.6)	Reading	500	(493)
Public and private spending (% of GDP)			Mathematics	507	(496)
Health care (2011)[c]	8.5	(9.7)	Science	496	(501)
Pensions (2009)	1.7	(8.2)	Share of women in parliament (%, February 2013)	39.7	(25.3)
Education (excluding tertiary, 2009)	5.2	(4.0)	Net official development assistance (% of GNI)	0.2	(0.4)

Better life index: *www.oecdbetterlifeindex.org*

a) 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.
b) 2011 for the OECD.
c) 2010 for the OECD.

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.

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Executive summary

Main findings

Economic rebalancing

- Monetary policy remains accommodative despite output approaching trend and inflation running above target.
- Domestic demand has fallen during the adjustment period, in particular business and household investment, while exports have risen sharply. Total demand is now more in line with aggregate supply and its composition is more sustainable.
- Household debt has fallen but remains high by international comparison despite substantial write-downs. Default rates have fallen but many low-income households, including those that are not homeowners, still have difficulties meeting basic living costs and debt service obligations. Further write-downs of foreign-exchange linked loans are to be made.
- Banks are expanding lending to households (partly to refinance loans from the Housing Finance Fund) but businesses report difficulty in obtaining credit.

Capital controls, monetary policy framework and financial stability

- Macro-prudential policies are not used sufficiently to mitigate risks to financial stability.
- There are some indications that the capital controls are causing economic distortions.
- The inflation-targeting framework for monetary policy would have been more successful had it been complemented by effective prudential regulation and supervision.
- There is insufficient co-ordination and communication among monetary policy makers and financial system supervisors, with areas of responsibility and authority not clearly defined.

Fiscal consolidation

- Substantial fiscal consolidation has been achieved and the debt-to-GDP ratio has begun to decline, but remains high.
- The focus of fiscal consolidation to date has been on revenue increases and cuts in public investment instead of current expenditure. Such a focus increases the risk that consolidation will not be sustainable.
- A draft Organic Budget law that builds on recent good practices to improve the fiscal framework and the budget process is to be submitted to Parliament by the end of this year.

Government expenditure efficiency

- The government does not undertake systematic spending reviews, even though these can be helpful in increasing efficiency and reorienting resources to their highest priority uses.
- The greatest potential efficiency gains are in education, where cumulative expenditure per student is very high but achievement is average, and health care, where specialist consultations and use of diagnostic equipment are high.

Green growth

- Iceland is on track to meet its Kyoto commitments, but carbon pricing is too weak to meet future goals.
- Electricity capacity has been expanded to power rising exports (mainly aluminium), but the net benefits to Icelanders may not be maximised.

Key recommendations

Economic rebalancing

- Continue to tighten monetary policy as activity recovers to reduce inflation to the target rate and anchor inflation expectations.
- Focus household debt relief on households in financial stress to reduce default risk most effectively. Replace the mortgage interest tax deduction by housing cost subsidies for low-income households to further reduce financial stress, reduce the bias towards owner-occupied housing and enhance equity.
- Remove the government repayment guarantee for the HFF once household finances return to good health to reduce incentives for household leverage.
- Continue to apply high capital adequacy risk weightings on nonperforming business loans to maintain pressure on banks to write-off or restructure them.

Capital controls, monetary policy framework and financial stability

- Macro-prudential policies, such as maximum loan-to-value ratios or cyclically varying loan-loss provisioning requirements, should be used to mitigate risks to financial stability, dampen credit cycles and complement monetary policy.
- Proceed with the established programme for removal of the capital controls at a pace that is conditioned upon economic developments.
- Once capital controls are lifted, maintain an inflation targeting framework for monetary policy with a floating exchange rate. A heightened emphasis on exchange rate stability is warranted, but limit the scope of currency market interventions to smoothing erratic fluctuations.
- Strengthen co-ordination and communication between financial sector supervisory authorities. 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.

Fiscal consolidation

- Take immediate action to ensure that the budget remains on track to reach balance in 2014 and a surplus of 2% of GDP by 2015 to put public debt on a path to more prudent levels. Focus fiscal consolidation measures on current expenditures to increase the likelihood that consolidation is sustained and to make room for a return to stronger infrastructure investment.
- To increase transparency and credibility, adopt a timeline for debt reduction with intermediate targets.
- Pass the proposed Organic Budget Law to strengthen budget discipline.

Government expenditure efficiency

- Undertake strategic spending reviews to seek potential efficiency gains and reorient expenditure towards government priorities.
- To reduce costs and increase returns to education, reduce the duration of primary- and secondary education.
- 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.

Green growth

- Broaden the base for the carbon tax and raise its rate to increase cost-effective abatement of GHG emissions.
- 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.
- Reduce the scheduled increases in the special fisheries resource rent tax to levels that the industry can cope with, especially in the demersal sector.

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Assessment and recommendations

Fostering economic recovery

Iceland is a very small resource-based economy. It is highly volatile and has the smallest floating currency in the world. The labour market is flexible, reducing the costs of coping with this volatility. Icelanders are generally well educated, although the high school drop-out rate is a concern, and typically enjoy good health outcomes. Income inequality is among the lowest in the OECD. Government administration is efficient, especially when allowing for the absence of economies of scale in service delivery, and the overall tax burden is moderate.

Policymaking in recent years has been dominated by the need to work through the legacy left by the collapse of Iceland's three main banks in 2008. This includes an over leveraged private sector, high levels of nonperforming loans, financial stability arrangements that had been found to be wanting, high levels of government debt and capital controls. Considerable progress has been made in deleveraging and reducing non-performing loans as well as in improving financial stability arrangements, although more remains to be done. Government debt has started to decline, but remains high. The biggest risk facing the economy is that the removal of capital controls unleashes a rush for the exit, driving down the exchange rate and weakening the financial system. There is also a risk that Icelandic entities may not be able to roll over the substantial amount of foreign currency debt reaching maturity over the next few years. This risk could be exacerbated if the creditors of the old banks are forced to finance a proposed across-the-board write down of mortgage debt.

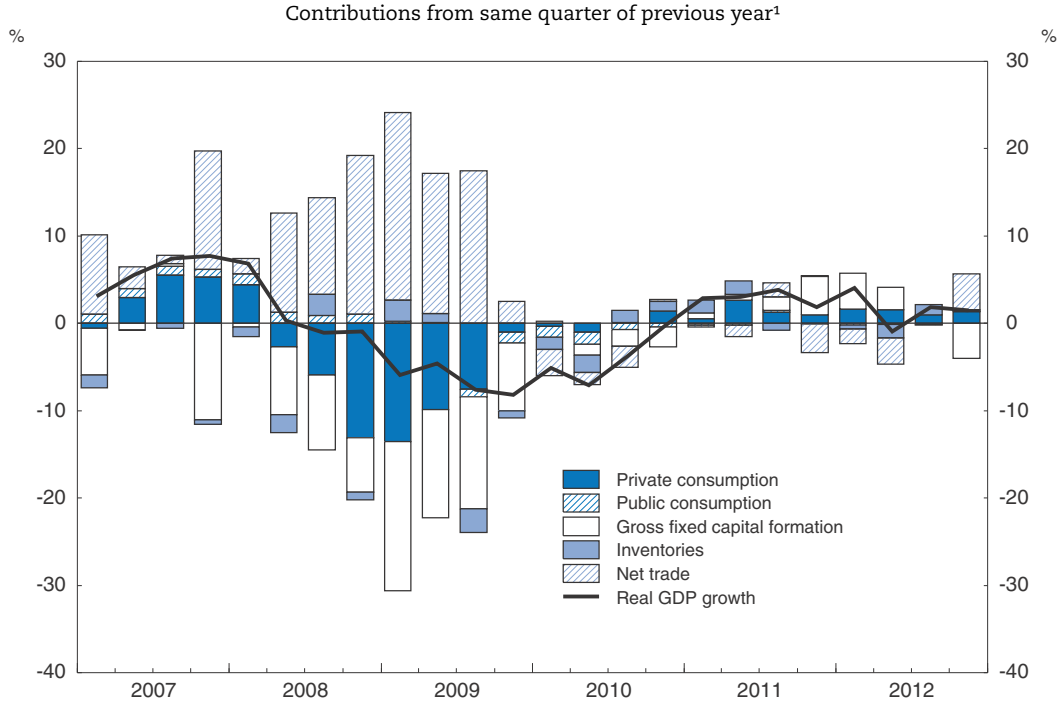
The economy is recovering at a moderate pace

The Icelandic economy continues to recover following the deep recession caused by the collapse of the country's three main banks in October 2008, although growth weakened in 2012 to 1.6% (Figure 1, Table 1). Economic recovery was initially led by private consumption, which has been temporarily boosted by write-downs of household debt, households drawing down their third-pillar pension assets and special payments from banks and government, and residential and business investment. Private consumption expenditure and residential investment continued to expand in 2012 and into 2013, supported by employment growth, wealth gains from rising house prices and the temporary factors mentioned above, but business investment has slowed sharply mainly owing to declines in shipping and aircraft investment and energy-intensive industry investment.

In retrospect, the surge in output during the 2005-07 economic boom was unsustainable because it was based on a very large credit-financed expansion in demand which was itself unsustainable (Figure 2). If a discrete reduction in potential output is assumed following the crisis, production-function based estimates, such as by the Central Bank of Iceland (CBI), indicate that output has now almost recovered to potential. The CBI estimates the

Figure 1. **The domestic demand-led recovery has moderated**

Contributions from same quarter of previous year[1]



1. Contribution to real GDP growth. The sum of the contributions does not add up to the GDP growth rate because the data are chain-linked.

Source: Statistics Iceland.

StatLink http://dx.doi.org/10.1787/888932855088

output gap to be minus 1% of potential GDP in 2013. A similar conclusion is reached when output is compared with its trend. These conclusions are corroborated by the unemployment rate, which is 5¼ per cent (harmonised rate) and close to the OECD's estimate of the point at which labour-market slack will be exhausted. Nevertheless, estimates of the amount of remaining economic slack are subject to considerable uncertainty, not least because an unknown amount of physical and human capital that was valuable during the boom became redundant following the crisis. Moreover, while estimates of potential output allow for migration flows, which are relatively large in Iceland, these too are highly uncertain.

The share of long-term (6 months or more) unemployed in total unemployment has risen from around 7% in 2008 to 38% in 2012 (Statistics Iceland). A programme has recently been launched to offer subsidised temporary jobs to the large numbers of jobseekers who lost rights to unemployment benefits at the end of 2012, when the extension of unemployment benefit rights (to a fourth year) expired. Such programmes have been successful in leading to stable employment in Iceland in the past (*OECD Economic Survey of Iceland*, 2011). The extent to which the long-term unemployed will eventually re-enter employment is unclear, adding to the uncertainty surrounding potential output estimates.

The 12-month rate of wage increases has fallen from 11-12% early in 2012, when large negotiated increases were being implemented, to 5.0-5.5% early in 2013. However, the slowdown in growth in unit labour costs has been less marked because productivity growth has also slowed, to only 0.3% in the 12 months to the fourth quarter of 2012. The OECD assumes that the outcome of wage negotiations in November is compatible with ongoing

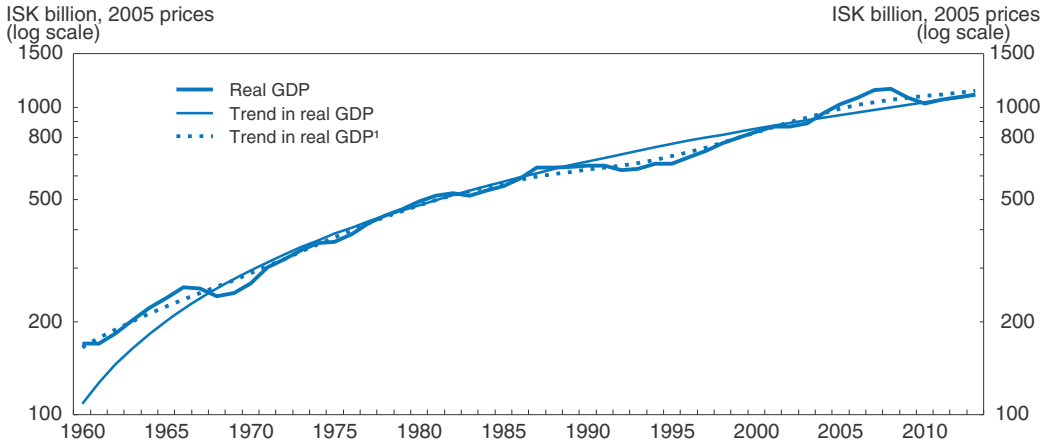
Table 1. **The short-term economic outlook**

	2009	2010	2011	2012	2013	2014
	Current prices ISK billion	Percentage changes, 2000 prices				
GDP	1 497.9	-4.1	2.9	1.6	1.9	2.6
Private consumption	764.5	0.0	2.6	2.7	2.2	2.9
Government consumption	396.9	-3.4	-0.2	-0.2	0.2	0.0
Gross fixed capital formation	207.0	-9.4	14.3	4.4	-3.7	15.3
Business investment	117.2	-1.3	27.9	8.6	-11.6	18.5
Residential construction	40.1	-18.0	5.4	6.9	11.0	16.2
Government investment	49.7	-21.8	-17.1	-17.0	18.7	1.2
Final domestic demand	1 368.4	-2.5	3.5	2.2	0.7	3.9
Stockbuilding[1]	0.7	-0.2	0.6	-0.2	0.0	0.0
Total domestic demand	1 369.1	-2.7	4.1	1.9	0.2	3.9
Exports of goods and services	791.4	0.6	4.1	3.9	2.0	2.1
Imports of goods and services	662.6	4.5	6.8	4.8	0.0	4.5
Net exports[1]	128.8	-1.7	-0.8	-0.1	1.2	-1.0
Memorandum items						
Consumer price index		5.4	4.0	5.2	4.0	3.2
Unemployment rate		7.7	6.9	5.9	5.3	4.8
General government financial balance[2]		-10.1	-5.6	-3.4	-0.2	0.8
General government gross financial liabilities[2, 3]		125.1	133.8	131.8	128.6	124.4
Adjusted current account balance[2, 4]		7.1	3.0	3.1	3.5	2.8

1. Contributions to GDP growth, actual amount in the first column.
2. As a percentage of GDP.
3. Includes funding shortfalls in pension funds for government employees of about 25% of GDP. These liabilities are excluded from the Maastricht definition of general government gross financial liabilities.
4. Excluding calculated income and expense of DMBs in winding-up proceedings but including the effects of the settlement of their estates, and excluding the effects of pharmaceuticals company Actavis on the income account balance.

Source: Statistics Iceland and Central Bank of Iceland for data; OECD, *Economic Outlook 93 Database*.

Figure 2. **Output is near its trend level**



1. Using Hodrick-Prescott filter.

Source: OECD, *OECD Economic Outlook 93 Database*.

How to read this figure: *The difference between real GDP and trend GDP is an indicator of economic slack. Real GDP was well above trend during the economic boom of 2005-07, suggesting overheating. Since then, real GDP has returned to near its long-term trend. The flattening slope of the trend real GDP lines indicates that the sustainable economic growth rate has declined.*

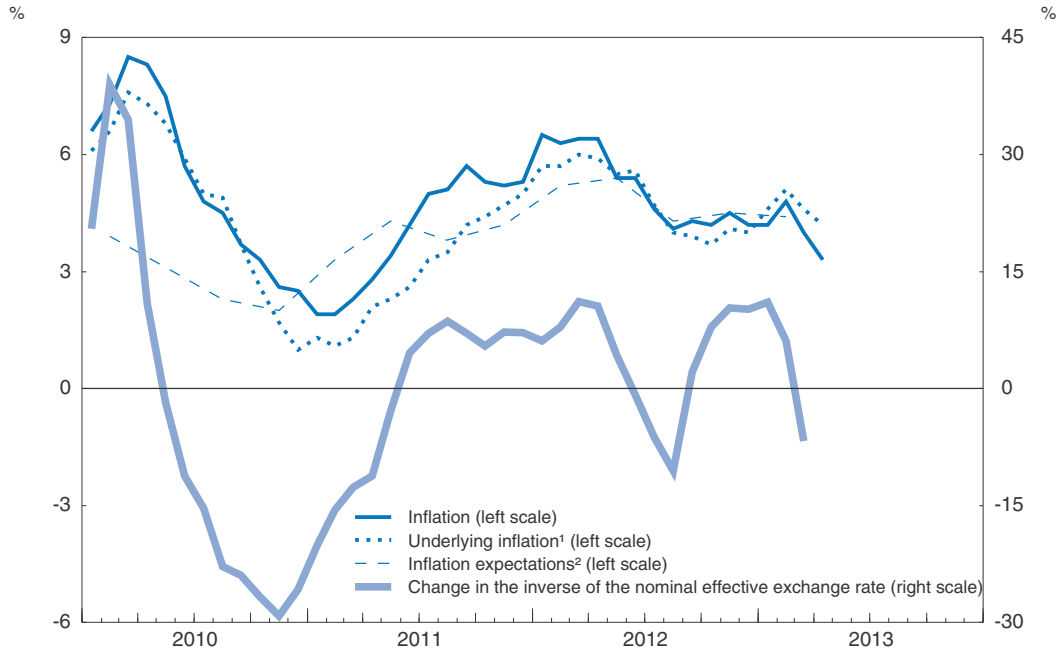
StatLink http://dx.doi.org/10.1787/888932855107

wage moderation and declines in the growth of unit labour costs, although again there is considerable uncertainty about these outcomes.

Inflation has continued to be buffeted by developments in the exchange rate and in commodity prices. A strengthening of the exchange rate since early in 2013 and a decline in oil prices contributed to a decline in the twelve-month headline inflation rate from a recent peak of 6.5% early in 2012 to 3.3% in April 2013 (Figure 3). However, the underlying inflation rate (CBI core index 3 excluding tax effects) has declined less, to 4.2% in April 2013, which remains well above the CBI's 2.5% inflation target. Expectations for inflation one and two years ahead have declined to 4% according to the CBI's market expectations survey carried out in May 2013, slightly below long-term inflation expectations.

Figure 3. **Inflation remains above the Central Bank of Iceland's target**

Percentage change from a year earlier



1. Core index 3 excluding tax effects. Core index 3 excludes from the CPI prices of agricultural products, petrol, public services and the effects of changes in real interest rates on the housing component of the CPI.
2. Based on the median of corporate, household, and breakeven inflation expectations one year ahead and the Central Bank inflation forecast one year ahead.

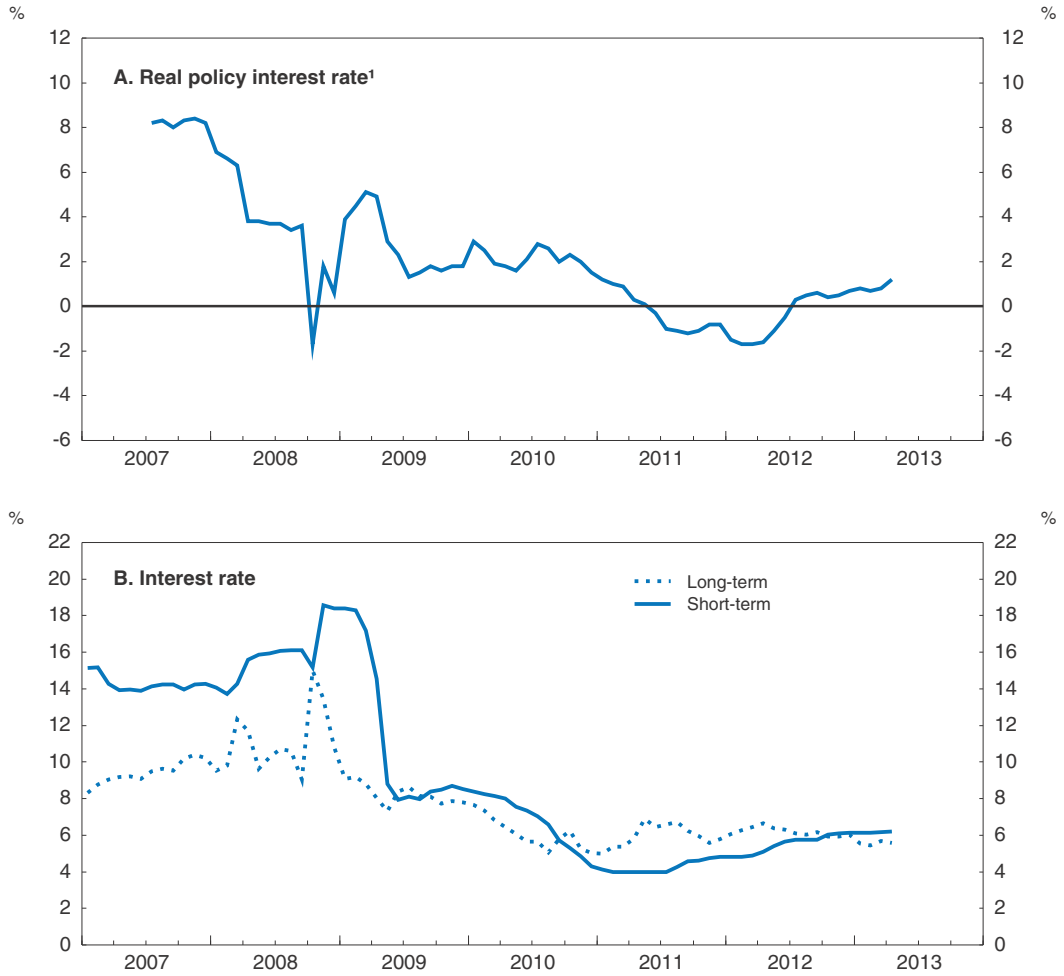
Source: Central Bank of Iceland.

StatLink http://dx.doi.org/10.1787/888932855126

Remaining monetary policy accommodation should be withdrawn

Monetary policy has become less accommodative since late 2011. In real terms, the CBI's intervention rate had increased to around 1¼ per cent by April 2013 (slightly more if financial market participants' inflation expectations, which are only available since February 2012, and the CBI's 12-month inflation projection are included in the calculation of average inflation), from minus 1½ per cent a year earlier (Figure 4). This is still below the CBI's 2 per cent or so estimate of the neutral real policy rate. Taylor rule estimates of the appropriate policy rate, which provide guidance for policy rate decisions by adjusting the neutral rate for deviations in inflation from the target and in output from potential, indicate that a real policy rate above the neutral rate would be required to reduce inflation to the target level (CBI, 2013a). Remaining monetary policy accommodation should be

Figure 4. **Monetary policy accommodation is being withdrawn**



1. Average of the deposit rate and the maximum bid for 28-day CB notes as from September 2009, deflated by the average of consumer price index, business and household quarterly inflation expectations, and, as from January 2009, one-year breakeven inflation expectations based on the difference between the nominal and indexed government bond yield curves.

Source: Central Bank of Iceland; Statistics Iceland; OECD, *Main Economic Indicators*.

StatLink http://dx.doi.org/10.1787/888932855145

withdrawn over the coming months and, if necessary, monetary policy should subsequently be tightened further to reduce inflation to the target level and to help to anchor inflation expectations. Exchange rate and wage rate developments will have an important bearing on the degree of monetary policy tightening required to meet the CBI's inflation target. Higher interest rates would also make króna assets more attractive to hold, providing a more supportive environment for progressively lifting capital controls.

Economic growth should pick up momentum next year

Economic growth is projected to remain near 2% in 2013 but to increase to around 2½ per cent in 2014 (see Table 1). Private consumption expenditure should continue to grow, and residential investment is expected to remain strong due to the buoyant property market and the large backlog of unfinished projects from before the crisis that are now profitable to complete. Business investment, on the other hand, is set to fall sharply, reflecting a decline in investment in ships and aircraft from the very high level in 2012, the

deferral of large energy-intensive investment and a decline in general business investment (excluding ships, aircraft and the energy-intensive industry). Much of the effect of this fall on GDP, however, will be offset by a decline in imports of the investment goods themselves. The pick-up in growth in 2014 is led by a large increase in energy-intensive industry investment. Growth in private consumption expenditure should also strengthen, buoyed by higher growth in employment and real wage rates. Unemployment is projected to fall to 4½ per cent by the end of 2014, leaving little pressure for further disinflation.

The main downside risks to these projections are that in 2014 the delayed energy-intensive investments do not get underway, general business investment does not strengthen or that Iceland's main trading partners do not recover as assumed. With more than half of exports going to the EU, Iceland is particularly dependent on developments in Europe and, therefore, on the course of the euro crisis. The global aluminium industry appears to be suffering from structural oversupply problems, raising questions about the timing of capacity expansion in Iceland. This is less likely to occur in the near future if Europe remains mired in recession or stagnation. Moreover, such overcapacity could cause aluminium prices to decline further, depressing Iceland's terms of trade. If access to finance does not improve, the projected strengthening in general business investment may not occur.

The main upside risks are that the global economy recovers more vigorously and global energy prices rise more than assumed, increasing the attractiveness of adding aluminium smelting capacity in Iceland and boosting Iceland's terms of trade. Inflation could also fall more rapidly than projected if the recent strength in the exchange rate is sustained and importers pass through the resulting price reductions, reducing the degree of monetary policy tightening, and hence the short-term drag on economic activity, required to achieve the CBI's inflation target.

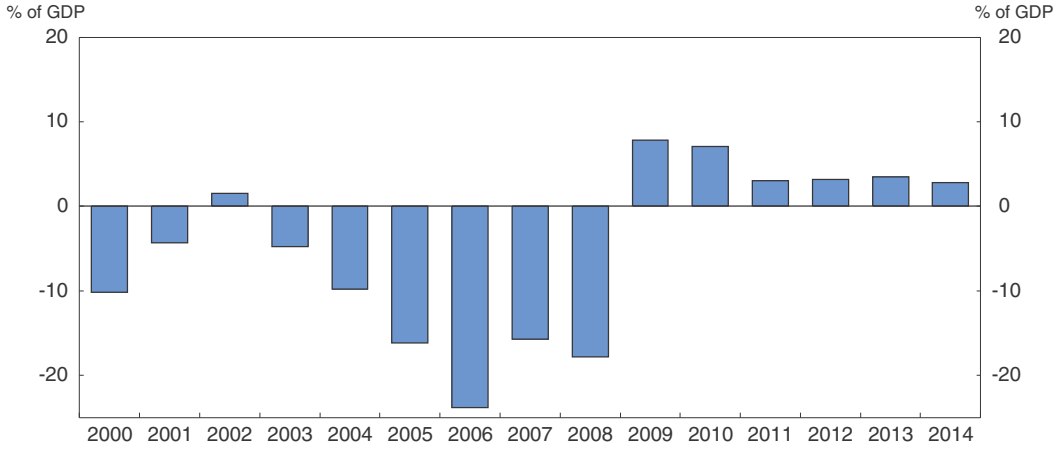
There a number of domestic factors that increase uncertainty about the economic outlook. First, the proposed across-the-board write-down of mortgage debt financed by creditors of the old banks could boost consumption but discourage foreign investment in Iceland and make it more difficult for Icelandic entities to roll over maturing foreign-currency liabilities. Second, the November 2013 wage negotiations could deliver higher increases than assumed, boosting consumption but weakening employment, increasing inflation and obliging the CBI to run a tighter monetary policy than otherwise. Third, there may be less fiscal consolidation than assumed, increasing risk premiums in Icelandic interest rates, obliging the CBI to run a tighter monetary policy than otherwise and reducing fiscal space to stabilise the economy when adverse shocks occur.

Economic rebalancing

The economy is adjusting to a more sustainable balance between aggregate demand and national output

During 2003-07, aggregate demand ran well ahead of output. The current account deficit increased to a peak of 24% of GDP in 2006 (Figure 5). Even after adjusting for investment-good imports for the energy-intensive industry (10% of GDP in 2006), the remaining deficit was clearly unsustainable. The real exchange rate rose far above the CBI's estimate of its equilibrium value (i.e., the rate compatible with a sustainable current account deficit) (Figure 6), encouraging the transfer of resources from the traded to the non-traded sector. Financial and insurance activities (mainly financial), which were the core of the boom, expanded strongly. Construction and real estate activities also expanded,

Figure 5. **Iceland's large current account deficits have been eliminated**[1]

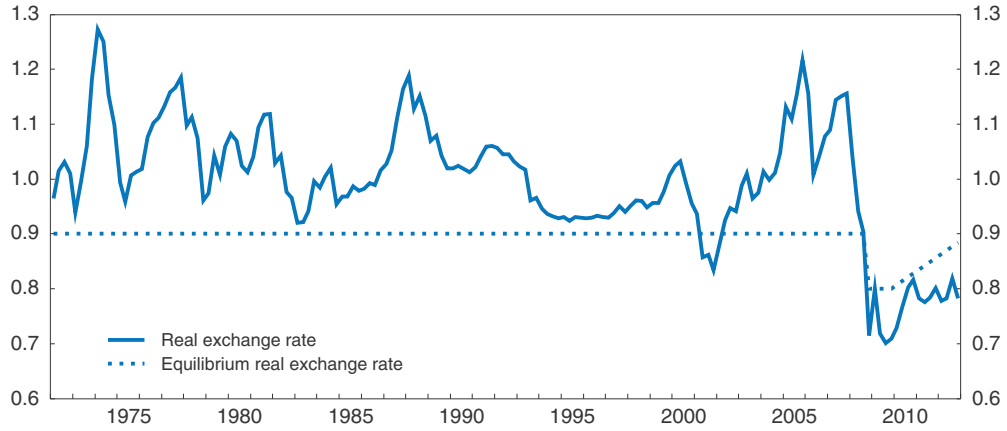


1. Excluding calculated income and expense of Domestic Money Banks (DMBs) in winding-up proceedings, but including the effects of the settlement of their estates; excluding the effects of the pharmaceuticals company Actavis on the income account balance.

Source: Central Bank of Iceland.

StatLink http://dx.doi.org/10.1787/888932855164

Figure 6. **The real exchange rate is below its equilibrium value**[1]



1. Real exchange rate based on consumer prices in Iceland relative to those in competitor countries, all expressed in a common currency. The equilibrium real exchange rate is the rate compatible with a sustainable external position.

Source: Central Bank of Iceland, Quarterly macroeconomic model (QMM).

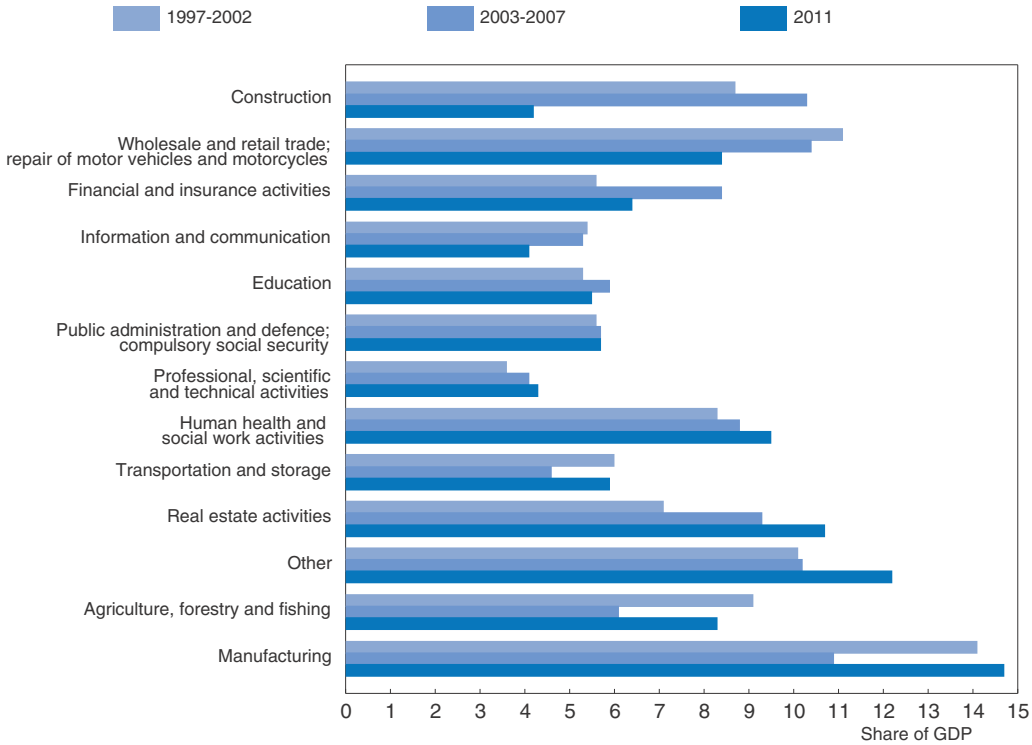
How to read this figure: *Real exchange rate values above the equilibrium rate are not compatible with a sustainable external position whereas rates below the equilibrium, as has been the case since the 2008 banking crisis, are compatible with a sustainable external position.*

StatLink http://dx.doi.org/10.1787/888932855183

while agriculture, forestry and fishing (mainly fishing) and manufacturing (mainly aluminium production) shrank as a share of value added (Figure 7).

As the banking sector's difficulties grew in 2008, the real exchange rate dropped. Following the collapse of the main banks in October 2008, the real exchange rate fell further, to well below the CBI's estimate of the equilibrium real exchange rate (see Figure 6) and domestic demand fell sharply. The current account balance (excluding net factor income of pharmaceuticals company Actavis and of banks in winding-up proceedings but including the effects of the settlement of their estates) moved into substantial surplus (see Figure 5). While some of the real exchange rate depreciation and current account

Figure 7. **Traded sectors' share of value added has expanded since the crisis while that of non-traded sectors' has shrunk**[1]



1. Sectors are ranked from the largest post-crisis contraction to the largest expansion. Preliminary data for 2010 and 2011.

Source: Statistics Iceland.

StatLink http://dx.doi.org/10.1787/888932855202

surplus have since been reversed, the real exchange rate remains well below its equilibrium value and the adjusted current account is still in surplus to the tune of 3 to 3½ per cent of GDP. The turnaround in the current account since before the crisis reflects a greater increase in exports as a share of GDP than imports. A major factor driving the increase in exports has been the coming on-stream of production capacity in energy-intensive industries created by the earlier large investments made. Service exports have grown faster than goods exports, reflecting their greater price elasticity. Transport and tourism services have grown particularly rapidly. The increase in the value of imports as a share of GDP caused by the depreciation of the real exchange rate has been partially offset by a decline in import volumes.

The structure of the economy is adjusting to a lower level of aggregate demand in relation to output (i.e., a stronger current account balance). This adjustment entails the transfer of resources from non-traded sectors, where there has been a relative contraction in demand, to traded sectors, where there has been a relative expansion. Non-traded sectors that now account for a smaller share of GDP include construction and distribution while (mainly) traded sectors that now account for a larger share include manufacturing, fishing and transportation, although the increase in manufacturing mainly reflects the expansion in production capacity that took place in the years leading up to the financial crisis.

Iceland's adjusted net international investment position (NIIP) appears to be sustainable (CBI, 2013b). The CBI estimates that the adjusted NIIP at the end of 2012 was negative 60% of GDP (Table 2), which is comparable to the NIIPs in many other OECD

Table 2. **Iceland's net international investment position, end 2012**

	Króna, billions	Per cent of GDP
Net international investment position (NIIP)	-8 922	-522
NIIP excluding old banks in winding-up proceedings	-1 042	-61
NIIP Including calculated settlement of old banks in winding-up proceedings	-1 839	-108
Underlying NIIP including calculated settlement of old banks in winding-up proceedings but excluding Actavis	-1 133	-66
Underlying NIIP including calculated settlement of old banks in winding-up proceedings, but excluding other firms in winding-up proceedings or firms that have concluded composition agreements and Actavis	-1 016	-60

Source: Central Bank of Iceland (2013b), "Iceland's Underlying External Position and Balance of Payments", *Special Publication*, No. 9, 18 March.

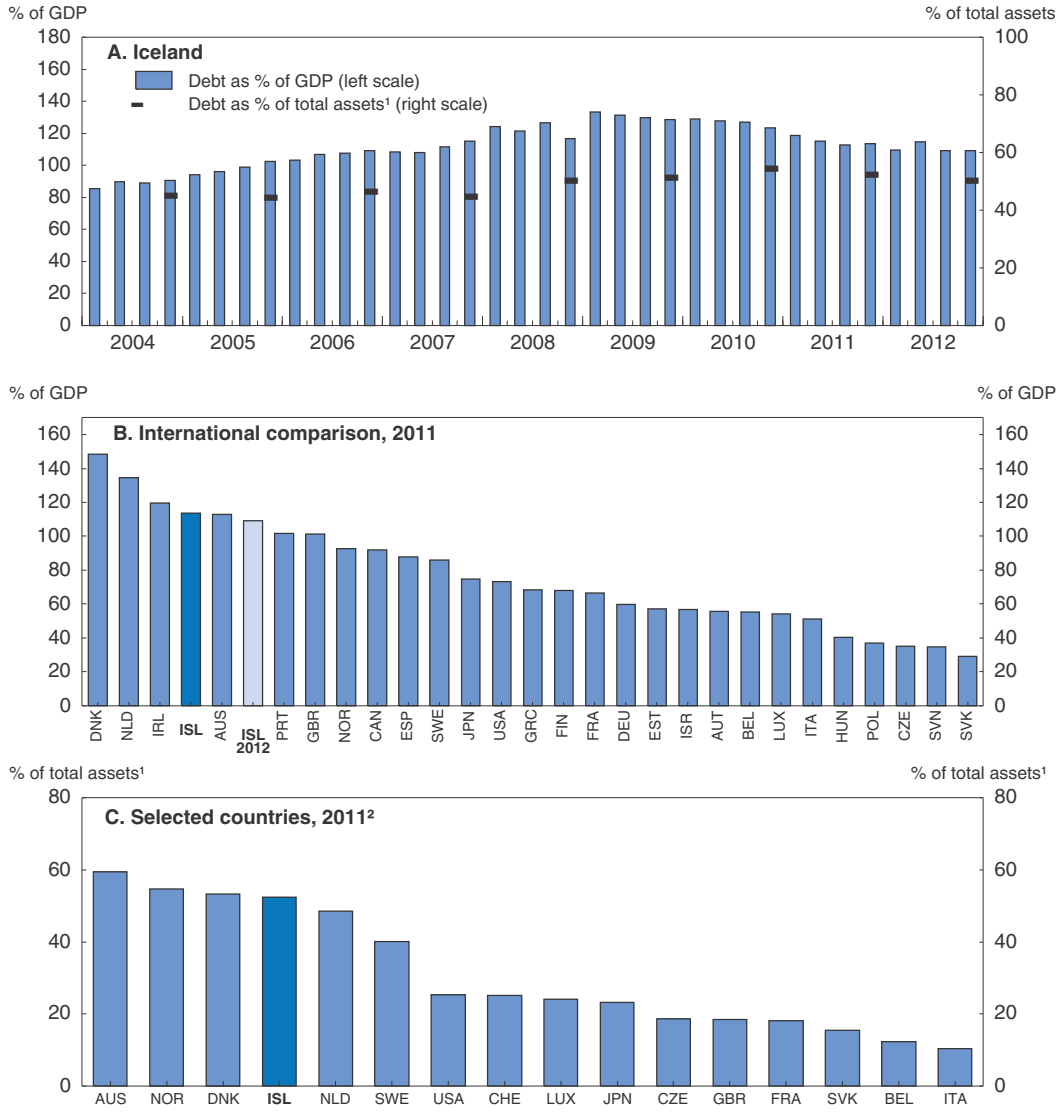
countries. This calculation excludes the NIIP of the old banks but includes the estimated outcome of their winding-up proceedings, and excludes Actavis and non-financial firms (mainly holding companies) in winding-up proceedings or that have concluded composition agreements (i.e., where creditors of bankrupt businesses have already accepted write-downs of liabilities). Provided that at least part of the heavy foreign debt repayment schedule over the next few years can be refinanced, the CBI estimates that the net IIP will improve to negative 42% of GDP by the end of 2017.

Balance sheet repair is well advanced

Household debt has fallen significantly from the crisis peak relative to both GDP and total assets (excluding claims on pension funds), mostly owing to debt write-downs (Figure 8). Household deleveraging has progressed more rapidly in Iceland than in many previous crises in other countries (Ólafsson and Vignisdóttir, 2012). Nevertheless, the current debt-to-income and debt-to-assets ratios remain higher than before the economic boom of 2005-07 and are high by international comparison (partly owing to high house ownership rates and the widespread use of index-linked mortgages, which enable households to borrow at fixed real rates with no inflation risk-premium). Recent changes to the mortgage interest tax deduction, which focuses it more on low-income households, should encourage further deleveraging by reducing incentives for large mortgages. Further deleveraging would be encouraged by removing the government repayment guarantee for new debt issued by the Housing Finance Fund (HFF), which is the principal mortgage lender. This measure, which would discourage borrowing by increasing interest rates on new mortgages from the HFF, should only be implemented when household finances are again sound.

The large decline in household debt has not, however, translated into a large reduction in the proportion of households in financial difficulty, which has only come down from a peak of 52% in 2011 to 48% in 2012 (Statistics Iceland, Annual living standards survey). This reflects the fact that much across-the-board debt relief, such as the 2010 measure to write down mortgages to 110% of current property value, goes to households not experiencing financial difficulties. Ólafsson and Vignisdóttir (2012) estimate that for a hypothetical 20% reduction of the principal of indexed mortgages, 75% of the write-offs would be granted to households not in financial distress while two-thirds of distressed households would remain in distress. Financial distress (i.e., insufficient disposable income to cover debt service and minimum living costs), and hence loan defaults, could be reduced more effectively by using transfers to target debt relief on households in financial distress, which are mainly low-income households. Transforming mortgage interest tax relief for owner occupiers into housing cost subsidies for low-income households, independently of

Figure 8. **Household debt has fallen but remains high by international comparison**



1. Liabilities as a percentage of total assets excluding equity in pension funds.
2. Or latest year available.

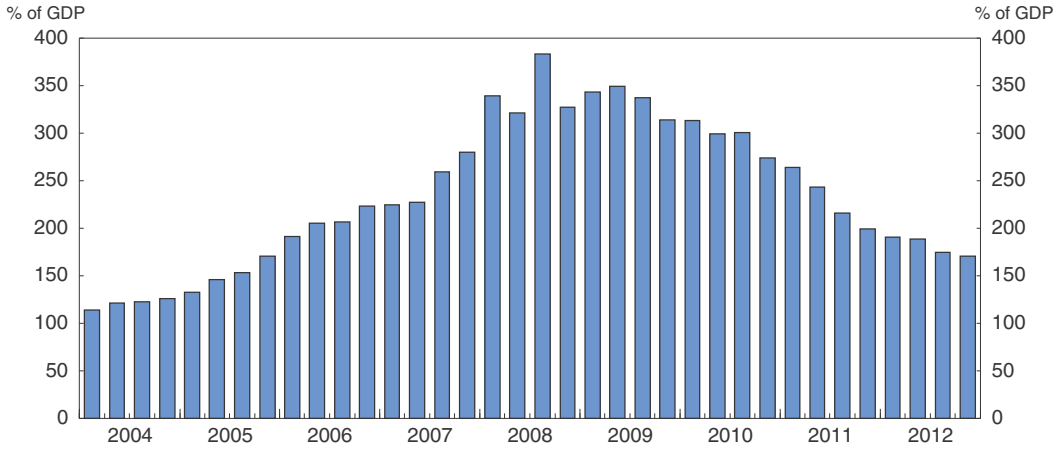
Source: Central Bank of Iceland (2013c), *Financial Stability Report*, 2013-1; OECD, *National Accounts: Volume IIIb – Financial Balance Sheets*.

StatLink http://dx.doi.org/10.1787/888932855221

whether they are owner occupiers or tenants, would also help to reduce financial distress as well as reducing the bias in favour of being an owner occupier instead of a tenant. Such a measure would also enhance equity.

Non-financial sector corporate debt has fallen markedly as a share of GDP, also mostly owing to debt write-downs, but it too remains significantly higher than before the boom (Figure 9). Icelandic companies report that access to finance is one of the top three factors that present barriers to their doing business (World Economic Forum, 2012). Indeed, banks are cutting credit to companies (Figure 10). At the same time, they are expanding it to households, which are partly using the proceeds to refinance CPI index-linked HFF mortgages. While the reduction in corporate credit partly reflects ongoing debt restructuring (insofar as loans are written down below already heavily discounted book

Figure 9. **Company debt has fallen**



1. Data exclude loans from connected companies. No figures are available for domestic connected companies, but at year-end 2012 loans from foreign connected companies amounted to ISK 1 082 billion (63% of GDP), two thirds of which are attributable to the pharmaceutical company Actavis (CBI, 2013c).

Source: Central Bank of Iceland (2013c), *Financial Stability Report*, 2013-1.

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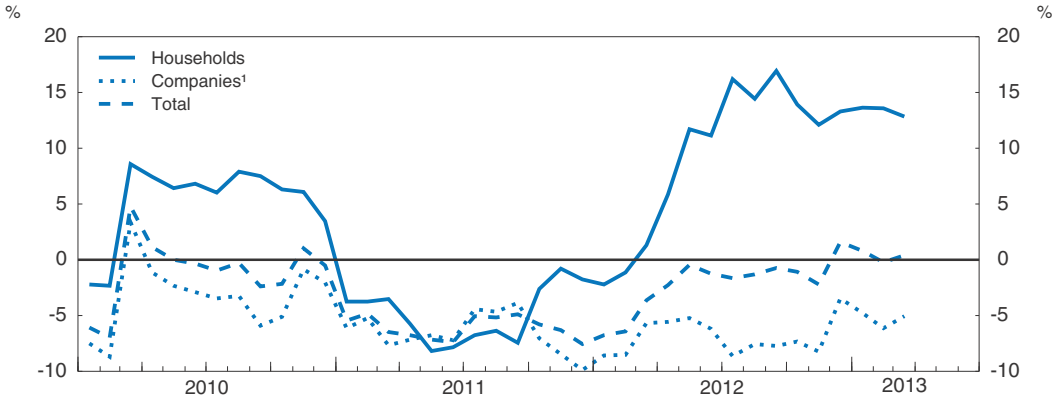
values), it may also be attributable to higher credit risk as perceived by banks. Many firms that have come out of debt restructuring report doubts about being able to meet their current debt obligations (Icelandic Competition Authority, 2012). Even though more foreign-exchange linked debt is likely to be written off following a series of Supreme Court judgements, non-financial sector companies nevertheless may be obliged to go further in deleveraging. Judging by the results of the CBI's recent survey of the 134 largest firms' investment plans, which show that only 20% of planned investment over the coming two years is to be externally financed through borrowing, as in 2011, firms appear to be intent on achieving further deleveraging (CBI, 2013a). This is likely to constrain growth in general business investment.

Figure 10. **Banks are expanding lending to households but lending to companies is falling**[1]

Percentage change from a year earlier



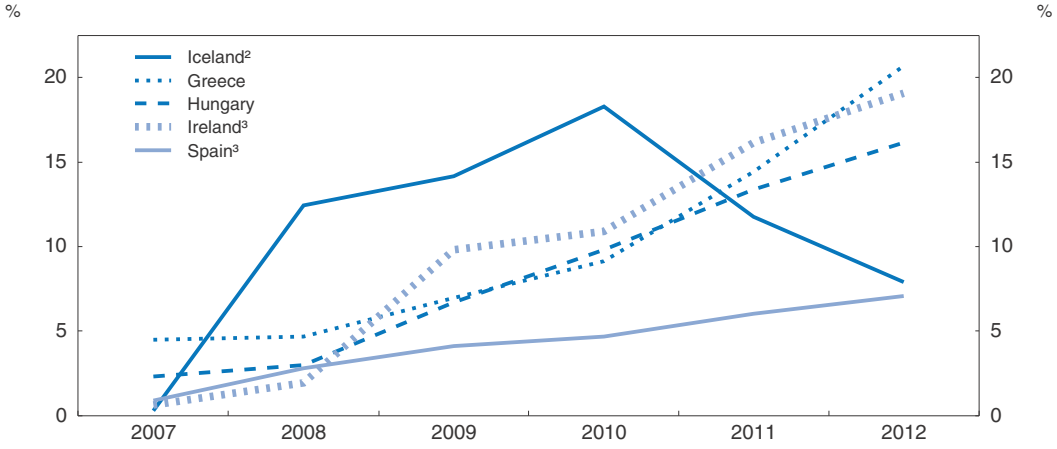
1. Lending at book (not claim) value. Companies including holding companies.

Source: Central Bank of Iceland.

StatLink http://dx.doi.org/10.1787/888932855259

Banks have made considerable progress in debt restructuring but more remains to be done to reduce the share of non-performing loans (NPLs) in total loans to the 1-2% share for a bank with a good loan portfolio. NPLs (excluding performing loans of a customer that has a loan in default) fell from a peak of 18% of all loans in late 2010 to 8% at the end of 2012 (Figure 11). This decline is in contrast to the experience of a number of other countries where severe financial pressures developed more recently. The Financial Supervisory Authority (FME) has maintained pressure on banks to restructure NPLs, notably by setting high capital adequacy risk weights on NPLs.

Figure 11. **The ratio of non-performing loans has fallen significantly in Iceland**[1]



1. Year-end figures 2007-11. 2012; 3rd quarter unless otherwise stated. Banks' non-performing loans as a percentage of gross loan portfolio without write-downs. Non-performing loans are gross loans in default (based on the facility method, which excludes loans not in default to a customer with a loan in default) and not only the amount in default.
2. 2007: Figures estimated from the annual accounts of the failed banks. 2008: Central Bank estimates. 2012: Figures from 4th quarter.
3. 2012 data for Q2.

Source: Central Bank of Iceland (2013c), *Financial Stability Report* 2013-1; Financial Supervisory Authority.

StatLink http://dx.doi.org/10.1787/888932855278

Box 1. **Recommendations to support economic rebalancing**

Key recommendations

- Continue to tighten monetary policy as activity recovers to reduce inflation to the target rate and anchor inflationary expectations.
- Focus household debt relief on households in financial distress to reduce default risk most effectively. Replace the mortgage interest tax deduction by housing cost subsidies for low-income households to further reduce financial stress, reduce the bias towards owner-occupied housing and enhance equity.
- Remove the government repayment guarantee for the HFF once household finances return to good health to reduce incentives for household leverage.
- Continue to apply high capital adequacy risk weightings on non-performing business loans to maintain pressure on banks to write-off or restructure them.

Capital controls, monetary policy framework and financial stability

Removing capital controls is a major policy challenge

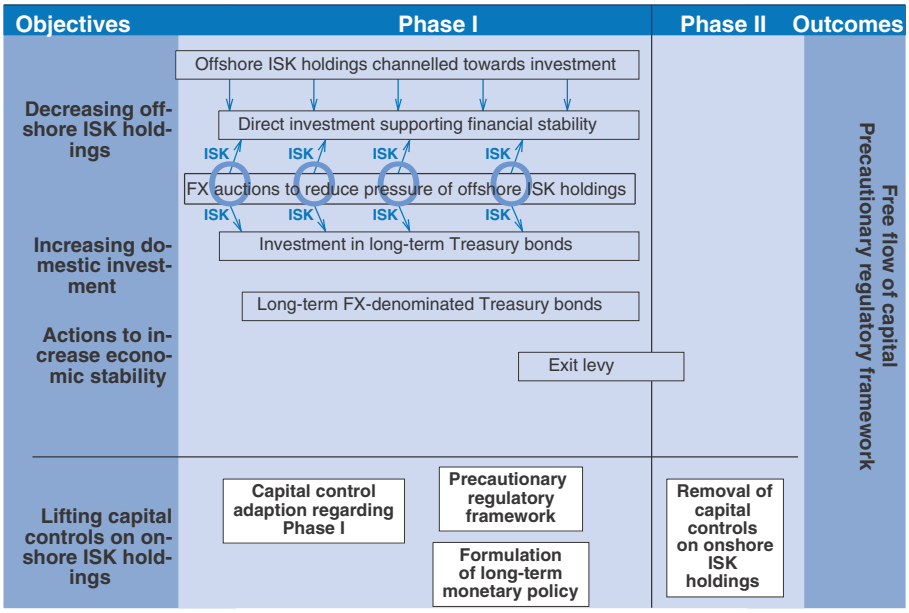
In November 2008, after the country's three largest banks failed, the Icelandic government imposed capital controls. The new rules: *i)* restricted the conversion of funds owned by residents and non-residents into foreign currencies; *ii)* banned the conversion of króna-denominated bonds and other similar instruments to foreign currency upon maturity; and *iii)* required that residents repatriate all foreign currency that they acquire. Businesses must repatriate foreign earnings, although certain companies, including major exporters and firms with large international operations, have been given full or partial exemption from the rules after fulfilment of certain criteria. Since late 2009, all payments linked to the distribution of goods or services and to new inward foreign direct investment (FDI) have been exempt from the rules.

Although the capital controls went against Iceland's existing agreement to abide by the OECD Codes of Liberalisation, given the circumstances at the time the OECD Council and the domestic authorities agreed that the re-introduction of restrictions was justified and necessary for preventing a collapse of the króna, and the OECD Council approved Iceland's request to temporarily derogate from the Codes of Liberalisation. The EFTA court similarly concluded that Iceland had met the necessary conditions for a temporary derogation from its commitment to the free movement of capital under the EEA agreement. The imposition of capital controls enabled Iceland to regain exchange rate stability and hold real interest rates at lower levels than otherwise would have been possible, limiting the extent of the economic contraction and subsequently supporting the economic recovery and government finances. At the same time, capital is not able to flow to investments with the highest returns, reducing permanent income. This problem is most acute for Iceland's pension funds, which provide most retirement income and cannot diversify their investment portfolios when confined to such a tiny domestic capital market. In the *Global Competitiveness Report for 2012-13*, foreign currency regulations were far and away the most problematic factor cited by Icelandic business owners (World Economic Forum, 2012). Icelandic firms wanting to invest abroad must first seek permission from the CBI. The IMF considers the measures were a judicious response to highly disruptive outflows, but that they should be lifted as soon as the country's macroeconomic conditions allow (IMF, 2012b). In its October 2012 post-programme monitoring report, the IMF assumed that capital controls will remain in place through 2015.

The Icelandic authorities agree that the capital controls cannot be lifted immediately but would be economically harmful if maintained for too long. Accordingly, they have approved a programme for their removal (Althingi, 2012a). The programme consists of two phases (Figure 12). The objective of the first phase is to reduce the remaining offshore króna holdings via CBI-intermediated auctions and foreign investment programmes. Following these purchases, a temporary exit surcharge will be levied on capital outflows. The second phase entails lifting controls on resident outflows while encouraging direct investment and reducing the exit surcharge in stages until capital movements are fully liberalised.

The plan does not include a commitment to a specific time frame, and indeed, recently passed legislation removed the expiration date of end-2013 that had been in place. The authorities have specified several conditions that must be met in order to remove the controls without causing financial disruption. Various factors such as the success of the CBI auctions and other programmes in releasing off-shore króna, the strength of the

Figure 12. **The authorities' programme for the removal of capital controls**



Source: Althingi (2012a), *Future Structure of the Icelandic Financial System*, Report of the Minister of Economic Affairs to the Althingi, March 2012.

balance of payments outlook and reserve adequacy will determine the pace of progress toward liberalisation. Given the fact that Iceland's financial risks will be particularly high during the transition period, this cautious and conditional approach is welcome.

Rapid and substantial capital outflows could renew instabilities in the currency market, especially as non-residents still hold a sizable portion of króna-denominated assets that are locked in by the controls. Estimates of non-resident holdings have fallen from almost 50% of GDP in 2008 to approximately 23% of GDP in 2012. However, these figures understate the full scale of potential outflows because they do not take into account any anticipated outflows of currency arising when overseas creditors eventually receive króna-denominated assets as their share in the winding-up settlements of the failed banks. Although subject to great uncertainty, the current value of the estates of the failed banks has been estimated to be as much as 22% of GDP, with the bulk owned by overseas creditors. Although there is some possibility that domestic entities could acquire the assets and thus prevent currency outflow pressures, this outcome is far from certain, and it would leave the portfolios of such entities very concentrated in domestic assets. Furthermore, although the real exchange rate is quite low relative to its historical average, there is still a risk that, when given the opportunity, some of Iceland's residents may choose to reduce their exposure to the domestic currency.

Since 2011, the CBI has conducted several auctions to reduce non-resident króna holdings. Other significant steps have also been taken toward meeting the conditions required for removal of the controls. Monetary tightening is under way and restrictions on new capital inflows have been lifted. A sizable improvement in the government's fiscal position (see below) is helping to increase net saving and to support confidence in Iceland's financial system. In addition, the authorities have accumulated foreign-exchange reserves amounting to about ⅓ of annual GDP, enabling them to intervene, if necessary, to counter

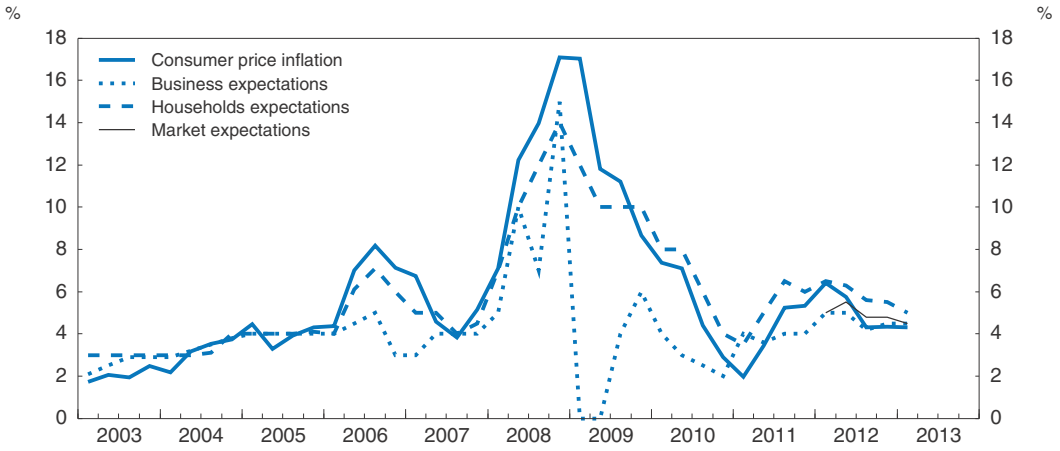
moderate depreciation pressures. The outcome in the Icesave case was favourable to Iceland. The government is not liable for unpaid debts of the Icelandic Depositors' and Investors' Guarantee Fund (DIGF), notably including to the UK and Netherlands governments. This ruling removed an important source of uncertainty, which will improve investor confidence and make it easier to remove the controls. The domestic banks' financial strength has improved, and they appear better able to withstand competition from global capital markets than before.

Nevertheless, some important conditions have yet to be satisfied. While by no means easy, completing the economic re-balancing and strengthening the current account balance will go far in helping Iceland to meet the requirements of its programme for removal of the controls. Additional progress is also needed in making króna assets more attractive to hold. This will entail not only tightening monetary policy further and continuing fiscal consolidation but also building credibility around the government's intent to maintain capital mobility over the long term. In addition, the authorities need to further strengthen prudential supervision and regulation and develop a sound monetary strategy that encourages exchange rate stability. This approach will help fortify financial stability and mitigate the heightened risks of unstable capital flows when the capital controls are ultimately removed.

Inflation targeting after the capital controls have been lifted

Iceland has had long-standing difficulties in balancing its policy objectives within the context of the "impossible trinity" – exchange rate stability, monetary independence and capital mobility. Inflation performance has been uneven throughout a varied history of fixed and floating exchange-rate regimes, in large part reflecting a strong pass-through of exchange-rate movements to domestic price inflation. It is evident that monetary policy lacks credibility and inflation expectations, while fairly accurate in tracking actual inflation, are not well anchored (Figure 13). This will present significant challenges for monetary policy after the restrictions on capital flows have been removed.

Figure 13. **Inflation expectations are not well anchored**[1]



1. The figure depicts actual inflation as measured by the per cent change in the consumer price index (solid line) along with inflation expectations as measured from surveys of businesses (dotted line) and households (dashed line). Surveys of businesses were conducted on an irregular basis before Q3/2006, so observations for that period have been imputed from available data.

Source: Central Bank of Iceland.

StatLink http://dx.doi.org/10.1787/888932855297

Iceland had only seven years of experience with the inflation targeting (IT) framework for monetary policy before the financial crisis erupted, and as such it would be premature to call the approach a failure. Indeed, after adopting IT framework with a floating exchange rate in 2001, Iceland was able to bring inflation down to the CBI target remarkably quickly. But toward the end of 2004, as Iceland's economy began to seriously overheat, inflation moved up above the target and remained there until the financial crisis. The CBI raised its rate considerably but, as was emphasised in previous *Economic Surveys* and as acknowledged by the Icelandic authorities themselves, this proved too little and too late to contain the imbalances in the economy (CBI, 2012). As also mentioned in previous *Surveys*, the effectiveness of monetary policy was weakened by its lack of credibility, political interference in central bank decisions, impaired transmission mechanisms, and large-scale exogenous shocks. There was also a lack of co-ordination between fiscal and monetary policy and insufficient prudential regulation and supervision, which resulted in the massive boom in credit markets that ultimately led to the collapse.

Drawing on these lessons, several steps have been taken in past years to strengthen central bank independence, improve co-ordination with fiscal policy and revamp bank supervision. The CBI has also proposed a modified inflation-targeting approach that it has dubbed "IT-plus" (CBI, 2010). Under the proposed framework, interest rates remain the main policy tool for achieving the inflation target, and the exchange rate is allowed to float, but the central bank conducts interventions in the currency market in order to cushion the impact of short-term capital flows on the exchange rate. The hope is that, by damping swings in the exchange rate, the currency-market interventions will help to stabilise inflation expectations and contribute to financial stability.

The authorities have stated that during the on-going process of removing capital flow restrictions Iceland's monetary policy will keep a heightened focus on exchange-rate stability, and as such it has not yet fully adopted the "IT-plus" framework. Nevertheless, the CBI already has begun conducting active interventions in the foreign-exchange market. Following a pronounced depreciation in the króna in the latter half of 2012, the CBI suspended its programme of regular foreign currency purchases and began supporting the króna with sterilised interventions in the foreign exchange market. In announcing the policy in February, the Monetary Policy Committee highlighted the risk "that self-fulfilling expectations of a depreciation will further weaken the currency" (CBI, 2013). Since that time, the value of the króna has more than reversed its decline over the preceding six months.

So long as the CBI avoids trying to defend a fixed level of the exchange rate, such a strategy of interventions could be beneficial, as it may help stabilise inflation expectations and thereby ease pressures on domestic prices arising from movements in the exchange rate. However, the approach should be undertaken with caution, since even limited interventions can expose taxpayers to risk of significant losses. Moreover, the Icelandic government's resources available for intervention will be limited in relation to those of parties on the opposite side of the market after the capital controls are lifted.

Bearing in mind these limitations, it may be necessary to make additional adjustments to the inflation-targeting framework. In particular, owing to its small size and narrow production base, Iceland will almost certainly continue to experience volatility in economic activity, terms of trade and the exchange rate. As a result, actual inflation is also likely to remain more volatile and therefore to fall outside the tolerance range in Iceland than in other inflation-targeting countries (Breedon et al., 2012). The CBI may therefore

have to tolerate longer-lived deviations from the inflation target. Greater co-ordination between monetary and fiscal policy objectives would also improve the ability of government to promote price stability, although the currently high level of public debt will limit the scope for fiscal policy to be used to stabilise aggregate demand. Most importantly, the credibility of monetary policy must be strengthened, so as to increase its effectiveness, which requires strict respect of the central bank's independence, especially when interest rates have to be increased as inflationary pressures mount.

Even under the best policy framework, a micro-currency such as that of Iceland will always be difficult to manage in a world of large and volatile capital flows. Indeed, Iceland is by far the smallest jurisdiction in the world with its own floating currency. In the longer term, outsourcing monetary policy to the European Central Bank by adopting the euro is an option worth considering. This would stabilise inflation and reduce the exchange-rate risk premium against the euro in domestic interest rates, fostering increased capital intensity and productivity, an area where Iceland has lagged behind the OECD average (OECD, 2013a). On the other hand, Iceland does not appear to be part of an optimal currency area with the euro area, and it would lose the contribution of the exchange rate in absorbing shocks, a role that has been especially important during the post-crisis recovery. Moreover, euro adoption would require joining the EU, which will not be possible until – among others – the capital controls are removed, and which poses challenges of its own unrelated to monetary policy.

Prudential tools as the third pillar of macroeconomic policy

One of the central lessons arising out of the financial crisis is that effective prudential regulation and supervision are essential for maintaining macroeconomic and financial stability. Macro-prudential supervision, which focuses on the stability of the financial system as a whole, rather than individual financial institutions, and sound micro-prudential supervision and regulation are both important. As analysed in detail in the *Economic Surveys* of 2009 and 2011, in the run-up to the financial crisis, the size and complexity of Iceland's banking sector increased at a dangerously rapid pace owing in large part to inadequate prudential regulation.

In the years since the crisis, Iceland has addressed many of these shortcomings. The FME has been granted much broader discretionary powers and has put in place measures for improved risk management and governance of banks. The FME also has imposed strict standards for capital adequacy on the banks. The 16% minimum capital ratio that was imposed temporarily after the crisis has since been replaced based on the results of the ICAAP/SREP process for individual banks in accordance with Pillar 2 of the Basel II/CRD III rules. In its 2012 annual report, Iceland's largest bank reported a capital ratio of 19.5%. New liquidity requirements are tighter than those based on the rules issued by the CBI before the banking crisis.

The CBI and the FME are currently working together on new regulations that will be in compliance with the Basel III and the European Capital Requirements Directive (CRD IV). Given the small size and high concentration of the Icelandic financial market, the authorities should continue to treat the Basel III requirements as a minimum standard. In addition, measures related to capital adequacy and liquidity could be further strengthened by including counter-cyclical components in their design; for example, the size of banks' required capital buffers could be higher when the economy is strong, but could be allowed

to run down when the economy is weak. Such counter-cyclical characteristics would be useful in reducing systemic risks arising from the banking sector.

The incorporation of prudential policies into a broader framework for monetary and financial stability will entail significant operational challenges. While Iceland has made good progress in implementing new regulation and supervisory procedures, there is still insufficient collaboration between the entities involved, most importantly, the CBI and the FME (Althingi, 2012b). Going forward, it is important that the links between the CBI and the FME be strengthened. Furthermore, to minimise the potential for politically-driven incentives to affect policy decisions, the government should establish an explicit mandate for fostering financial stability, define clearly the areas of responsibility for the CBI, the FME and other involved entities, and furnish each of these entities with the statutory authority and instruments necessary to carry out their responsibilities. The authorities have indicated that they are currently working toward organising a framework with many of these features. The proposed Financial Stability Council (FSC) would have oversight responsibilities for all aspects of financial stability policy, including crisis prevention, management and resolution. The new Council would be comprised of the Minister responsible for the Treasury and fiscal policy, the Minister responsible for financial markets, the Governor of the CBI and the Director General of the FME.

Legislation enacted during the 2008 crisis gave the Icelandic authorities important and useful powers for resolving financial institutions in distress, including the ability to intervene in the affairs of a failing institution and put it into resolution. Most of these provisions were transferred into the Act on Financial Undertakings, but on an interim basis only. Permanent legislation still needs to be enacted and its scope expanded to apply to all financial undertakings, not just banks. In addition to establishing well-defined resolution arrangements, the authorities must work to ensure that financial institutions can be wound down easily and without causing disruption to the provision of essential financial services. Financial institutions should be structured and operated such that any critical functions such as investment banking and commercial banking are separable in resolution.

During the financial crisis, the government announced a blanket guarantee of retail deposits when the new Icelandic banks were created. This policy was enacted in an effort to head off a bank run, and it was successful in that regard. However, a blanket guarantee entails many distortions. First, competition between financial institutions is distorted if all institutions do not benefit from the guarantee. This situation may have contributed to the demise of non-bank financial institutions (finance companies) in Iceland. Second, savers generally do not discriminate between banks on the basis of their riskiness, and this has the effect of weakening incentives for banks to control their risks. To reduce such costs, the blanket guarantee should be replaced with deposit insurance with a limit on coverage. Given Iceland's membership in the EEA, the system would have to conform to EU regulations, including the forthcoming EEA directive on deposit guarantees.

The Housing Finance Fund (HFF) is an independent, state-owned agency that has a 50% share of the housing mortgage market. In the run-up to the financial crisis, the HFF's loan portfolio expanded rapidly as the government guarantee enabled the HFF to borrow at lower interest rates than its competitors. In addition to creating distortions and undermining competition, these policies expose taxpayers to the risk of significant losses, and indeed, the HFF incurred significant losses on its loan portfolio during the crisis and has since required financial assistance from the government. Going forward, the best way

for Iceland to address these issues would be to develop a comprehensive housing policy from the ground up and then to re-evaluate the HFF's mandate and institutional setup within the context of this policy. For instance, the HFF's current public-policy objectives could be achieved instead by directly subsidising housing loans for low-income households, irrespective of the financial intermediary making the loans. Phasing out the HFF's policy-related competitive advantages would entail charging the HFF for the value of its loan guarantee on all new HFF bonds or eliminating the guarantee on new bonds, subjecting the HFF to ordinary bankruptcy laws and to corporate and property taxation, increasing the HFF's capital-asset ratio to the levels applying to other financial institutions, and making it subject to prudential regulation and supervision by the FME.

Box 2. **Recommendations for promoting financial stability and effective monetary policy**

Key recommendations

- Macro-prudential policies, such as maximum loan-to-value ratios or cyclically varying loan-loss provisioning requirements, should be used to mitigate risks to financial stability, dampen credit cycles and complement monetary policy.
- Proceed with the established programme for removal of the capital controls at a pace that is conditioned upon economic developments.
- Once capital controls are lifted, maintain an inflation targeting framework for monetary policy with a floating exchange rate. A heightened emphasis on exchange rate stability is warranted, but limit the scope of currency market interventions to smoothing erratic fluctuations.
- Strengthen co-ordination and communication between financial sector authorities. Establish an explicit mandate for maintaining financial stability that clearly defines areas of responsibility and gives supervisors the statutory authority and instruments to carry out their responsibilities.

Other recommendations

- Establish a permanent resolution regime with well-defined procedures that conform with EU regulations.
- To reduce economic distortions, replace the existing blanket deposit guarantee with deposit insurance that is consistent with EU rules.
- Develop a comprehensive housing policy, and pursue public-policy objectives by directly subsidising housing costs for low-income households. Reform the HFF by phasing out its policy-related advantages.

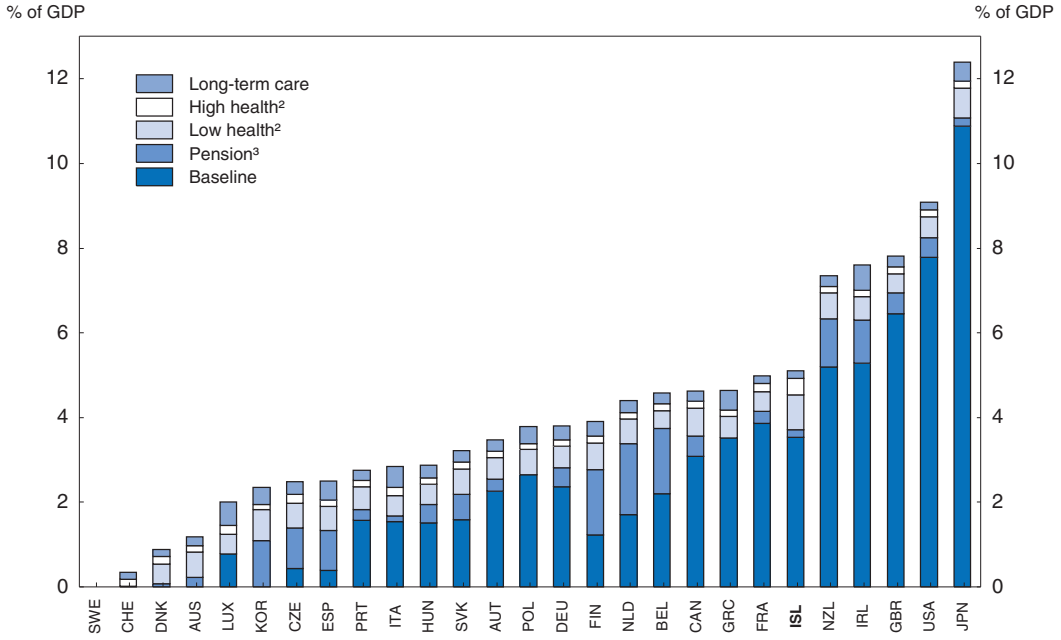
Fiscal consolidation

Budget deficits and government debt soared in the wake of the 2008 crisis. Despite a strong consolidation process, the scale of the challenge still facing Iceland can be summarised in a fiscal gap calculation, which shows the amount of immediate fiscal consolidation that would be enough to achieve a debt objective on subsequently unchanged policies. Iceland's current (2012) fiscal gap to reduce general government gross debt (including funding shortfalls in the pension fund for government employees, which were about 25% of GDP in 2012) to 60% of GDP in 2030, a widely used but arbitrary

benchmark, is around 4½ per cent of GDP in a low health-cost scenario and 5 per cent in a high health-cost scenario (Figure 14). These gaps are larger than in many other OECD countries.

Figure 14. **Fiscal gaps in Iceland remain significant**[1]

Immediate rise in the underlying primary balance needed to reduce general government gross financial liabilities to 60% of GDP in 2030



1. Initial budget balances are underlying primary balances in 2012. For Iceland, this balance is shown in Table 2 (structural primary balance, which excludes write-offs) while for other countries OECD estimates are used.
2. Low health assumes policy action curbs health spending growth. High health is the additional cost pressure in the absence of these policy actions. In the high health-care cost scenario, underlying spending per person grows 1% faster per year than income, which is broadly in line with observed trends in OECD countries over the past two decades.
3. The pension gap for Iceland is based on IMF (2011) pension projections while for the other countries the gap is based on OECD (2011a) pension projections. For Poland, the baseline includes the pension gap.

Source: Merola, R. and D. Sutherland (2012), "Fiscal Consolidation: Part 3. Long-Run Projections and Fiscal Gap Calculations", *OECD Economics Department Working Papers*, No. 934, OECD Publishing; IMF (2011), *The Challenge of Public Pension Reform in Advanced and Emerging Economies*; OECD (2011a), *Pensions at a Glance 2011*.

How to read this figure: The bars show the immediate increase in the underlying primary balance needed to reduce general government gross debt to 60% of GDP by 2030. The baseline contribution mainly reflects starting debt and deficit levels as well as the costs of the normalisation of interest rates. Pensions, health care and long-term care also make contributions to the required increase in the underlying primary balance because these expenditures are projected to grow as a share of GDP.

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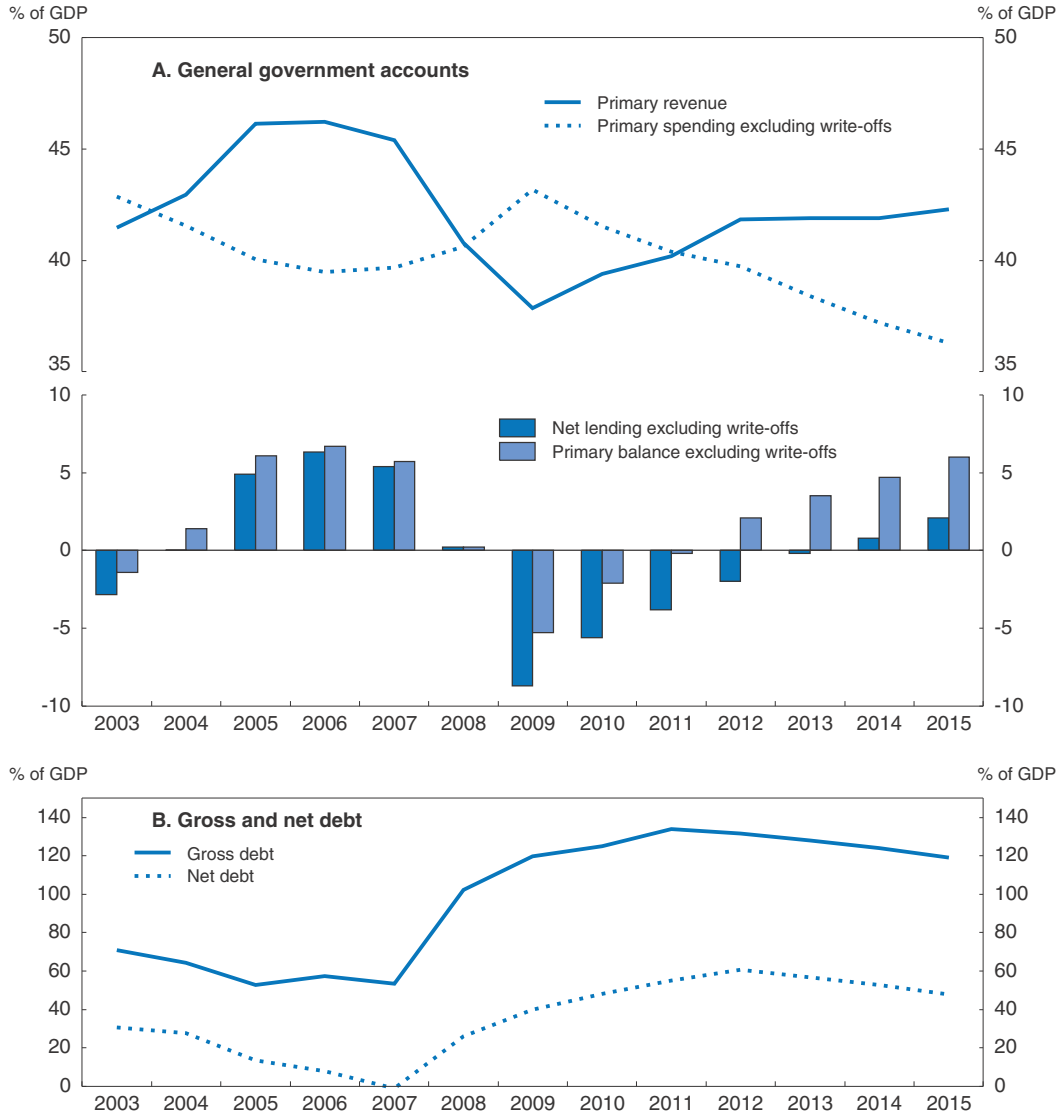
Considerable fiscal consolidation has been achieved but further measures are still required

In the aftermath of the crisis, the general government budget balance (excluding write-offs) fell from a surplus of ¼ per cent of GDP in 2008 to a deficit of 8¾ per cent of GDP in 2009 (Figure 15 and Table 3). Most of this deterioration is estimated to have been structural. Almost half of the estimated structural deterioration in the budget balance is attributable to higher net interest payments. By 2009, the deterioration in the budget position, direct costs of the financial crisis amounting to 20% of GDP (these costs increased to 30% of GDP by 2012) and the revaluation of foreign-currency and indexed domestic debt pushed up general government debt sharply, to 40% of GDP net of financial assets and 120%

Figure 15. **Public finances are recovering from the large deterioration caused by the financial crisis**



Source: OECD, *National Accounts Database*; IMF (2012b), "Iceland: Second Post-Program Monitoring Discussion", *IMF Country Report*, No. 12/309, November, for 2013-15.

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of GDP in gross terms (both figures include funding shortfalls in pension funds for government employees of about 25% of GDP).

To put public finances back onto a sound footing, the former government adopted, initially under the aegis of the IMF Stand-by Arrangement, a demanding fiscal consolidation plan. It aimed to reduce the Maastricht definition of general government gross debt, which excludes the funding deficits in government employee pension schemes, to 60% of GDP without specifying either a timeline or intermediate targets. The plan has been updated over time, to reflect a weaker recovery than initially assumed. The updates also take account of the smaller than expected costs of honouring the unpaid liabilities of the Depositors' and Investors' Guarantee Fund's (DIGF), notably to Icesave depositors – following the recent European Free Trade Association's court decision, these latter costs are

Table 3. **Much of the former government's fiscal consolidation plan has been implemented**[1]

General government, % of GDP

	2008	2009	2010	2011	2012	2013	2014	2015
Primary revenue	**40.8**	**37.9**	**39.4**	**40.2**	**41.8**	**41.9**	**41.9**	**42.3**
of which:								
Taxes on income, profits and capital gains	17.8	16.0	15.6	16.3	16.9	16.3	16.4	16.4
Taxes on property	2.2	2.1	2.3	2.3	2.4	2.5	2.5	2.1
Taxes on sales and services	13.2	11.7	12.0	12.0	12.4	12.5	12.5	12.5
Social security contributions	2.8	3.1	4.1	4.1	3.9	3.9	3.9	4.0
Other	4.9	5.0	5.4	5.5	6.3	6.7	6.6	7.3
Primary expenditure	**54.3**	**44.4**	**46.0**	**42.2**	**41.1**	**38.4**	**37.2**	**36.3**
Write-offs[2]	13.7	1.2	4.5	1.8	1.4	0.0	0.0	0.0
Primary expenditure excluding write-offs	**40.6**	**43.2**	**41.5**	**40.4**	**39.8**	**38.4**	**37.2**	**36.3**
of which:								
Compensation of employees	14.6	15.0	14.8	14.5	14.8	14.3	14.0	13.7
Other collective consumption	11.6	12.5	12.2	11.7	11.4	11.0	10.6	10.4
Social transfers	6.1	8.1	7.9	8.5	8.0	7.6	7.4	7.2
Subsidies	1.8	1.9	1.8	1.8	1.7	1.6	1.5	1.5
Gross fixed capital formation	4.5	3.5	2.9	1.8	1.8	1.9	1.9	1.8
Other	2.1	2.2	2.0	2.1	2.0	2.0	1.8	1.7
Primary balance	**-13.5**	**-6.5**	**-6.6**	**-1.9**	**0.7**	**3.5**	**4.7**	**6.0**
Net interest payments	0.0	3.4	3.5	3.7	4.1	3.7	3.9	3.9
Net lending	**-13.5**	**-9.9**	**-10.1**	**-5.6**	**-3.4**	**-0.2**	**0.8**	**2.1**
Excluding write-offs:								
Primary balance	**0.2**	**-5.3**	**-2.1**	**-0.2**	**2.1**	**3.5**	**4.7**	**6.0**
Net lending	**0.2**	**-8.7**	**-5.6**	**-3.8**	**-2.0**	**-0.2**	**0.8**	**2.1**
Structural primary balance[3]	**-1.0**	**-5.2**	**-0.6**	**0.8**	**2.7**	**3.9**	**4.9**	**5.8**
Structural net lending[3]	**-1.0**	**-8.6**	**-4.1**	**-2.8**	**-1.4**	**0.2**	**1.0**	**1.9**

1. Data from Statistics Iceland for 2008-12, IMF projections thereafter adjusted for differences between IMF estimates for 2012 and outcomes. Projections exclude asset sales.
2. Net capital transfers paid to the non-government resident sector.
3. Cyclical adjustment has been made using Central Bank of Iceland estimated output gaps and an overall budget elasticity of 0.37 (as estimated in Girouard and André, 2005).

Source: Statistics Iceland; IMF (2012b), "Iceland, Second Post-Program Monitoring Discussions", *IMF Country Report*, No. 12/309, November 2012.

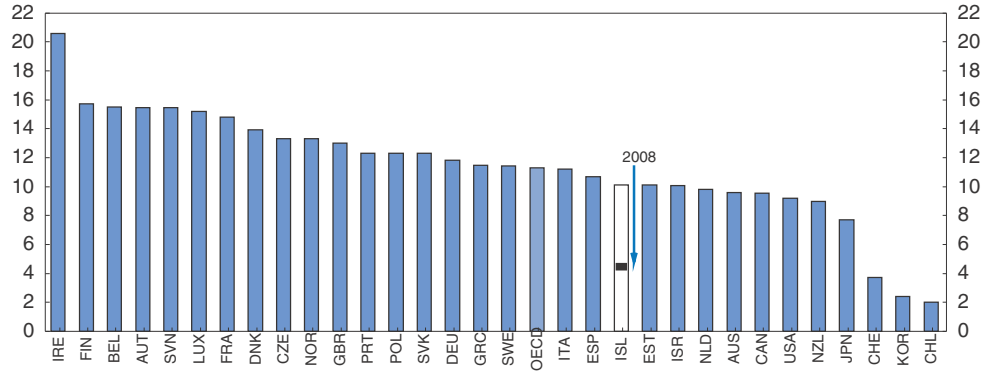
zero for the government. The plan now calls for a budget surplus by 2014 (see Table 3). The planned consolidation represents an increase in the primary surplus (excluding write-offs) of 11% of GDP from 2009 to 2015, approximately two thirds of which is already done. To date, deficit reductions have come slightly more from revenue increases than expenditure cuts. The main expenditure cuts have been in government investment and non-wage consumption. Fiscal consolidation has had little impact on growth because fiscal multipliers are low, as in other small open economies with flexible exchange rates, and Iceland has been able to compensate for fiscal drag by running a more accommodative monetary policy than otherwise (Pétursson, 2013). General government gross debt started to decline in 2012, but at 124% of GDP (96% of GDP on the Maastricht definition) remains uncomfortably high. Foreign currency denominated debt amounts to 27% of GDP and is matched by foreign currency assets.

In undertaking fiscal consolidation, the former government sought to shelter lower-income groups to limit the short-run impact on economic activity and increase the perception that adjustment is fair and hence would prove to be sustainable (IMF, 2012c).

Social spending was subject to much greater use of means testing and the direct tax system became more progressive, notably owing to increases in the progressiveness of the labour income tax and an increase in the flat tax on capital income as well as the reintroduction of a wealth tax. As a consequence, the contribution of the tax/transfer system to reducing income inequality increased considerably to near the OECD average (Figure 16). Inequality in disposable income has fallen to levels in line with other Nordic countries (Figure 17) despite inequality of the distribution of market incomes remaining unchanged. While the share of the population at risk of relative poverty based on current median income did not change, this reflected declines in both low-income households' incomes and in the median income (Figure 18). The anchored relative poverty rate, which provides better guidance on developments in absolute poverty during a recession by fixing median income at the pre-recession level, rose markedly.

Figure 16. **The redistributive effect of the tax/transfer system has increased to near the OECD average**

Percentage point reduction in the Gini coefficient, 2010[1]



1. Percentage point difference between the Gini coefficients for market and disposable household income. The Gini coefficient is defined as the relationship of cumulative shares of the population arranged according to the level of equivalised disposable income (i.e., adjusted for the number of persons in a household taking account of economies of scale in living costs – for example, a 2 person household is counted as a 1½ person household assuming that living costs for a 2 person household are 1½ times those of a single-person household), to the cumulative share of the equivalised total disposable income received by the cumulative population shares. Population aged 18-64. 2009 for countries without 2010 data.

Source: Statistics Iceland; OECD, *Income Distribution Database*.

How to read this figure: *The bars show the impact of the tax and cash transfers system on disposable income distribution. This impact is calculated as the difference between the Gini coefficients for market-and disposable income distribution.*

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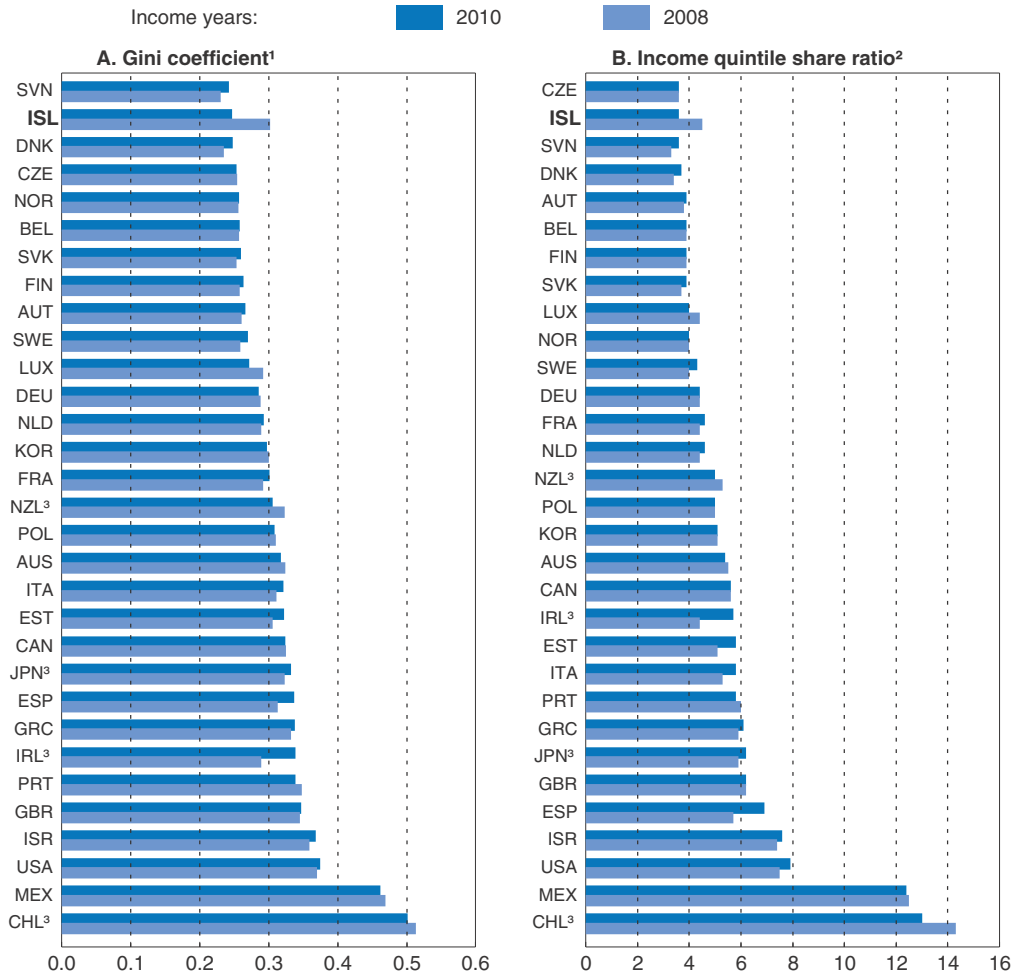
The former government's plan had a greater focus on reducing current expenditures as a share of GDP in coming years (see Table 3). International evidence suggests that this would increase the chances of success in reducing debt (Guichard et al., 2007; Alesina and Ardagna, 2010; and Baldacci et al., 2012).

The projected decline in wage compensation costs as a share of GDP was based on an assumption of far lower real wage increases in the public sector (a total increase over the three years to 2015 of 1.3%) than in the private sector (8.9% over the same period), which is unprecedented in Iceland. This assumed relative decline in public sector wage rates does not appear to be required to correct past excessive increases – public sector wage increases have somewhat lagged private sector increases since data became available in 2005. The assumed future gap is unlikely to be sustained when labour market slack disappears. This

Figure 17. **Disposable income inequality has fallen to low levels in Iceland**



1. See note 1 of Figure 16 for information about the Gini coefficient. Population aged 18-64.
2. The ratio of total income received by the 20% of the population with the highest income (top quintile) to that received by the 20% of the population with the lowest income (lowest quintile). Income is equivalised disposable income. Population aged 18-64.
3. 2009 and 2011 for Chile, 2006 and 2009 for Japan and 2008 and 2009 for Ireland and New Zealand.

Source: OECD, *Income Distribution Database*.

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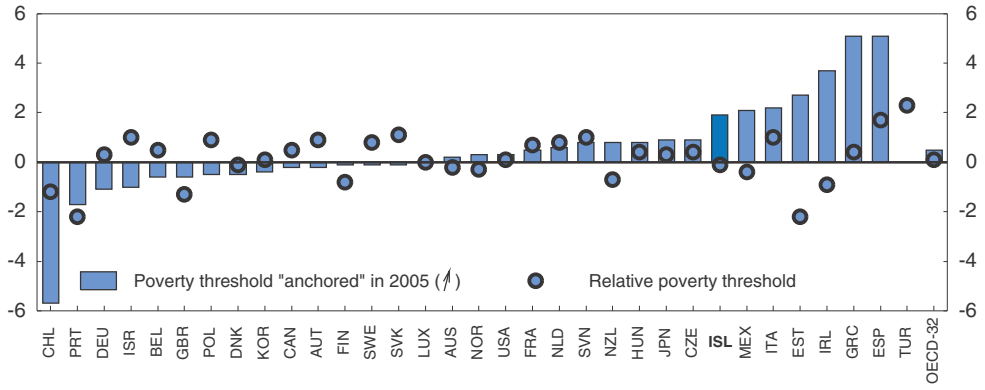
is all the more so in view of the upcoming increase in recruitment that will be required at least partially to replace the large numbers of government employees retiring over the coming decade or so (almost 50% of government employees are aged 50 or more, one of the highest ratios in the OECD [OECD, 2011b]). The projected reduction in social transfers reflects an assumption that real increases in benefit rates remain low and the projected decline in unemployment beneficiaries. It may be difficult to hold the line on real social benefit rates as they have declined in recent years, creating pressure for catch up. Indeed, there is already a bill before Parliament to make first-pillar pensions more generous. Moreover, there is another bill partially transforming student loans into grants, which would also increase social transfers.

If it does not prove possible to restrain relative pay for government workers and growth in real social security benefits to the assumed extent, further consolidation measures, including reductions in government employment levels, would be required to

Figure 18. **The anchored poverty rate increased more in Iceland than in most other countries during the global financial crisis**

Percentage point changes in relative and "anchored" poverty rates between 2007 and 2010[1]



1. Changes in income poverty measured using relative and anchored poverty line based on 50% of current and 2005 median income in each country, respectively. Estimates for anchored poverty are not available for Switzerland and Turkey.

Source: OECD (2013b), Crisis squeezes income and puts pressure on inequality and poverty in the OECD, New Results from the *OECD Income Distribution Database*.

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realise such a decline in current expenditures. As reductions in current expenditures typically have a more adverse effect on income inequality than reductions in investment expenditure or increases in revenues, the government would probably need to adjust the parameters of tax and social transfer policies if it wanted to avoid an increase in income inequality (Paulus, Sutherland and Tsakloglou, 2009).

Underlying the former government's plan until recently was the assumption that public investment will remain at its current depressed level (1.8% of GDP), which is less than half its long-run average and much lower than in most other OECD countries. It is also less than depreciation; transport infrastructure, in particular, is already deteriorating. Maintaining government investment at these low levels could have adverse effects on the economy's future growth potential. Since the estimates in Table 3 were made, the former government announced the 2012-15 Investment Plan, which will increase investment by approximately 0.4% of GDP per year if fully implemented. However, even if the Plan were fully implemented, government investment would still remain low by historical and international comparison. To avoid adverse effects on potential growth and keep debt reduction on track, the new government is likely to have to find further budget savings elsewhere to make room for a return to more normal levels of investment.

Keeping the budget surplus at the target of 2% of GDP will require containing health-care costs. These are projected to grow by 1.6% of GDP by 2030 in a cost containment scenario, but by 2.3% of GDP in a cost pressure scenario, which is still slightly less than the OECD average (OECD, 2012a). Public expenditure on first-pillar and disability pensions is projected to increase by only 0.4% of GDP by 2030, one of the smallest increases in the OECD owing to the low reliance on government for retirement income in Iceland (pensions mainly come from private pension funds, which had assets of 143% of GDP in 2012, similar to the pre-crisis level). Consolidation measures would also be required to compensate for a return to normal interest rates beyond the plan period (up to 2015).

The fiscal consolidation plan balances debt reduction with limiting the impact on growth. It would bring government debt down to more prudent levels, reducing economic risks should Iceland be hit by another large adverse shock, and increase the likelihood that consolidation proves to be durable. The envisaged steady consolidation would also help to restore investor confidence in Iceland, providing a more favourable backdrop for phasing out capital controls, and allow the CBI to maintain less restrictive monetary conditions than otherwise.

But there are risks that the planned consolidation will not be realised. Public sector wage and social benefit rate assumptions may be too optimistic. Realisation of the uncertain revenues – dividends from government-owned enterprises, asset sales and the special fisheries resource rent tax – that were a condition for proceeding with the former government's 2013-15 Investment Plan has become less likely now that the new government has indicated that it intends to reduce the special fisheries resource rent tax from 2013 (0.2% of GDP). Moreover, the government may incur fiscal costs in endeavouring to encourage the social partners to agree to lower wage increases than otherwise in the November 2013 negotiations.

In the event that these risks are realised, the authorities should identify concrete measures to ensure that fiscal consolidation remains on track and that the planned reductions in current expenditure are achieved. Once the budget returns to surplus, the government should resume payments to government employee pension schemes to reduce the funding deficits. Transparency and commitment to reducing debt to more prudent levels could also be enhanced by establishing a timeline with intermediate targets for debt reduction.

The proposed budget framework law would increase fiscal discipline

The prospects of achieving debt reduction objectives would be enhanced by reforming the legal budgeting framework so as to increase budget discipline. According to the IMF (2012d), the current framework (the 1997 Financial Reporting Act) has a number of weaknesses that became evident during the ten years before the crisis, when fiscal policy was characterised by pro-cyclicality, weak budget discipline, lack of co-ordination between levels of government and inadequate surveillance and management of fiscal risks.

To overcome these shortcomings, the Ministry of Finance and Economic Affairs has prepared a new Organic Budget Law (OBL) in consultation with the IMF (2012d) that the authorities expect to submit to Parliament in the autumn of 2013. It introduces a procedural fiscal rule anchored in legally binding principles (stability, sustainability, predictability, prudence and transparency), as in the Nordic countries and Australia and New Zealand. The government is required at the beginning of its term in office to submit a Fiscal Policy Statement to Parliament for approval covering both central and local government that sets out its numerical fiscal objectives (for the long-term stock of liabilities and the medium-term budget balance), which must be consistent with the permanent principles. The government must also present annually a Medium-Term Fiscal Strategy (MTFS) to Parliament for approval covering the next five years. This lays out fiscal performance targets for central and local government in line with the Fiscal Statement, other performance targets, nominal expenditure ceilings for each ministry to use in preparing its budget and a summary of the specific policy measures planned to meet the strategy's targets. Fiscal risks must also be discussed.

To facilitate efficiency gains by making it easier to relate programme/policy benefits to their costs and by enabling ministries to shift resources towards higher priority areas, appropriations are to be at the ministry level, not as now at the agency level, and policy areas will be limited to five per ministry and economic categories to two per policy area. The number of appropriations would fall from over 900 to around 300. The new framework should encourage ministerial accountability for expenditures, raise the standard of Parliamentary discussions, discourage earmarking of revenues, simplify the production and consolidation of the accounts and strengthen the comprehensiveness and integrity of auditing (IMF, 2012d). With government ministers deciding on appropriations within their domain of responsibility, parliamentarians will no longer be able to manipulate expenditures for the benefit of their constituents at the expense of the national interest. Ministries are to be given more managerial flexibility and incentives to improve efficiency. Parliament's powers to amend the budget are to be limited to changes that do not increase central government expenditure, reduce central government revenue or increase public sector liabilities. New Public Private Partnership (PPP) agreements must be approved by Parliament, fall within an annual ceiling on such agreements and conform to the MTFS.

The OBL also tightens rules on budget execution. Retained and earmarked revenues are to be scaled back, carryover of overspending is to be prohibited and carryover of underspending is to occur at the ministry level, not the agency level, and to be limited to 3% of the ministry's total budget from the previous year and to certain kinds of expenditure. Any unbudgeted expenditure that cannot be funded by reallocating resources from within ministries or the contingency reserve will have to be authorised by Parliament through a Supplementary Budget before the expenditure take place. Accounting and reporting is also to be strengthened, notably by requiring both perspective and retrospective reports to be prepared on the basis of International Public Sector Accounting Standards (IPSAS).

Box 3. **Recommendations to put public finances on a sustainable path**

Key recommendations

- Take immediate action to ensure that the budget remains on track to reach balance in 2014 and a surplus of 2% of GDP by 2015 to put public debt on a path to more prudent levels. Focus fiscal consolidation measures on current expenditures to increase the likelihood that consolidation is sustained and to make room for a return to stronger infrastructure investment.
- To increase transparency and credibility, adopt a timeline for debt reduction with intermediate targets.
- Pass the proposed Organic Budget Law to strengthen budget discipline.

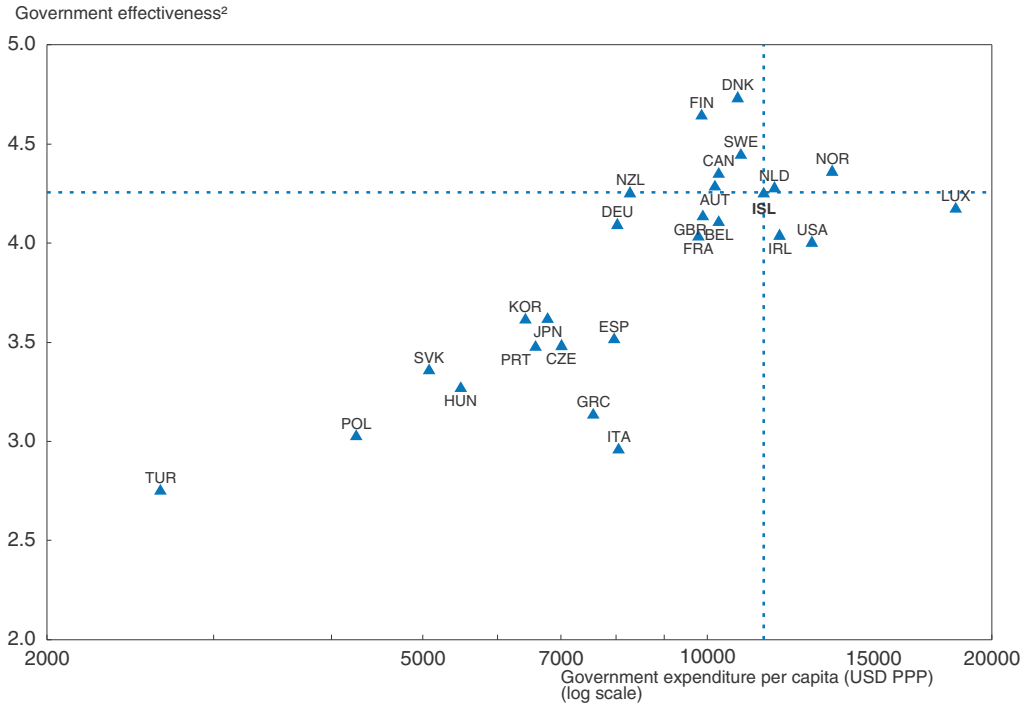
Other recommendations

- Refrain from adopting measures to facilitate wage negotiations that worsen the budget position.
- Resume payments to government employee pension funds to reduce funding deficits once the budget returns to surplus so as to smooth the budget impact of meeting government employee pension obligations.

Government expenditure efficiency

Iceland has one of the highest levels in the OECD of primary government expenditure per capita (converted to USD at PPP exchange rates) excluding social protection transfers (Figure 19). Government effectiveness, measured by the World Bank Government Effectiveness Index (which is based on surveys unlikely to be influenced by interest payments or social transfers), is also one of the highest in the OECD, suggesting that government efficiency is broadly in line with that in most other OECD countries. This is a good performance considering that Iceland benefits less from scale economies in service delivery than larger economies and that population density outside the Reykjavik agglomeration is low. Nevertheless, a number of other small countries have higher government effectiveness scores with similar or less expenditure than Iceland, suggesting that there may be room for improvement. A good place to start when looking for expenditure reductions is the big-ticket items. Education and health-care expenditures each comprise approximately one quarter of total primary expenditure excluding social transfers.

Figure 19. **The relationship between government effectiveness and expenditure[1] is broadly in line with that in other OECD countries**



1. Primary expenditure per capita (2005-10 average) converted to USD at PPP exchange rates excluding social protection transfers and, for Iceland, write-offs.
2. World Bank Government effectiveness index. The World Bank defines government effectiveness as the capacity of the government to effectively formulate and implement sound policies. The Government effectiveness index captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such polices. A variety of surveys are drawn upon to construct this index. For more information, see World Bank (2011), *The Worldwide Governance Indicators,* 2011 Update, *Governance & Anti-Corruption > WGI 1996-2012 Interactive > Home*.

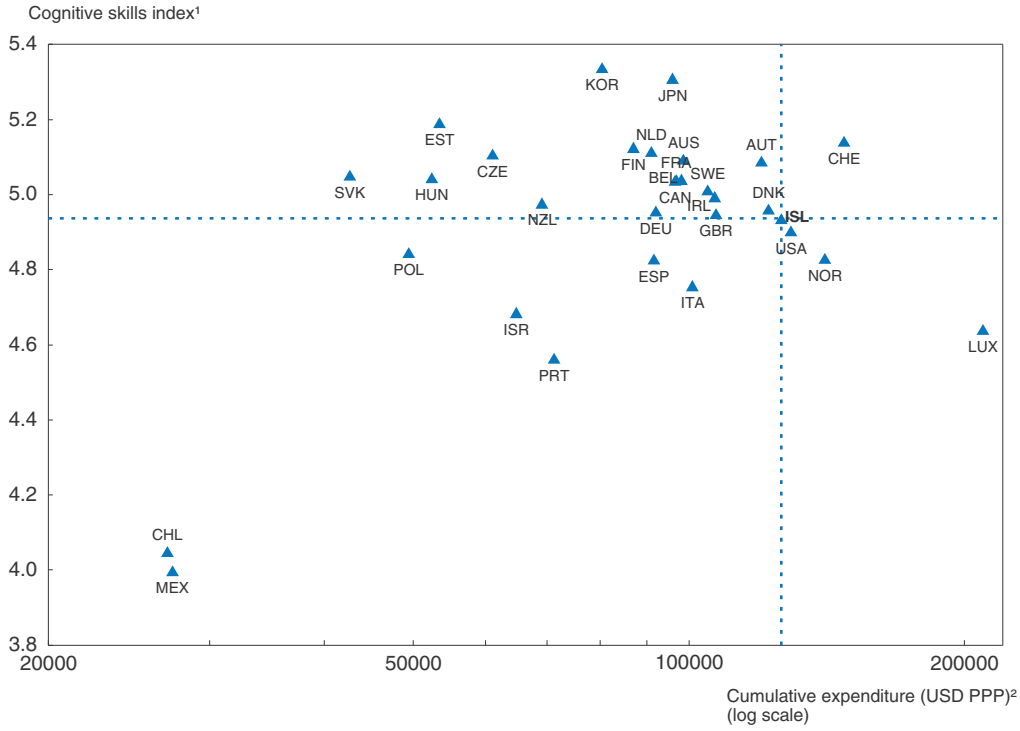
Source: World Bank (2011), *The Worldwide Governance Indicators*, 2011 Update, *Governance & Anti-Corruption > WGI 1996-2012 Interactive > Home*; OECD, *National Accounts Database*.

How to read this figure: *The scatter points show each country's combination of government expenditure per capita and government effectiveness. The higher is effectiveness in relation to expenditure, the more efficient is that country's government.*

StatLink http://dx.doi.org/10.1787/888932855411

Cumulative expenditure (almost all of which is government expenditure) per student over the duration of primary and secondary school is one of the highest in the OECD (Figure 20). Yet students in many other OECD countries reach higher levels of achievement at less cost. One factor contributing to high cumulative expenditure is the long duration of studies, which is 7.0 years for both primary and secondary education compared with OECD averages of 5.9 and 6.5 years, respectively (OECD, 2010). In addition, annual instruction time per student is also above the OECD average.

Figure 20. **Cumulative primary- and secondary education expenditure per student is high in relation to cognitive skills**[1]



1. Cognitive skills index combines the results of numerous international achievement studies.
2. 2007.

Source: Hanushek and Woessmann's (2009), "Do Better Schools Lead to More Growth? Cognitive Skills, Economic Outcomes, and Causation", *NBER Working Paper*, 14633; OECD (2010), *Education at a Glance*.

How to read this figure: *The scatter points show each country's combination of cognitive skills and cumulative expenditure per student. The higher is the level of cognitive skills in relation to expenditure, the more efficient is that country's education system.*

StatLink http://dx.doi.org/10.1787/888932855430

There is widespread agreement in Iceland on the need to reduce the duration of studies toward the OECD average. Not only would this reduce costs, it would also boost private rates of return on education by enabling young people to graduate and start earning sooner, helping to counter the school dropout problem (45% of students successfully complete upper secondary education within four years compared with an OECD average of 68%); improving the quality of vocational education options could also help to reduce the dropout rate. A law passed in 2008 created the possibility of reducing the length of upper secondary school from four years to three, but concerns about job losses have resulted in few schools implementing the reform. The large numbers of teachers retiring over the coming decade or so provides an opportunity to implement this reform without having to lay off teachers. The law should also be changed to allow the duration of primary school to

be reduced by one year, and assistance should be provided to help schools restructure their education programmes accordingly.

Another factor contributing to high costs in primary education is high expenditure on wage compensation for non-teaching personnel (for teachers, annual salaries per student are near the OECD average) (Table 4). These high costs are partly attributable to the large numbers of non-teaching staff hired following the transfer of responsibility for primary education from the central government to municipalities in 1996. Other contributing factors are that many municipalities are too small to enjoy scale economies in system management, that transportation requirements are often high in rural areas and that many schools lack scale economies in the use of non-teaching staff. In general, costs per student are much higher in small schools, although some small schools have much lower costs per student than others, suggesting that there is scope to lower high costs in some small schools through improvements in management (Figure 21). Costs should be reduced by rolling back numbers of non-teaching staff, strengthening the capacity of municipalities to manage and oversee primary education collectively or shifting these responsibilities back to the central government's education ministry and by improving management in high-cost small schools.

Table 4. **High compensation expenditure for non-teaching staff is a major cause of high annual primary education costs per student**

Annual primary education expenditure per student for all services, 2009

	Iceland	OECD average	Difference	% difference
Total	10 099	7 719	2 380	131
Current	9 059	7 017	2 042	129
Capital	1 040	702	338	148
Compensation expenditure for all staff	7 129	5 543	1 586	129
Other current expenditure	1 930	1 473	456	131
Compensation expenditure for teachers[2]	2 724	2 542	182	107
Compensation expenditure for other staff[3]	4 405	3 001	1 404	147

1. Converted to USD at PPP exchange rates, based on full-time equivalents.
2. Average of 2008 and 2010.
3. Difference between compensation of all staff and teacher salary compensation.

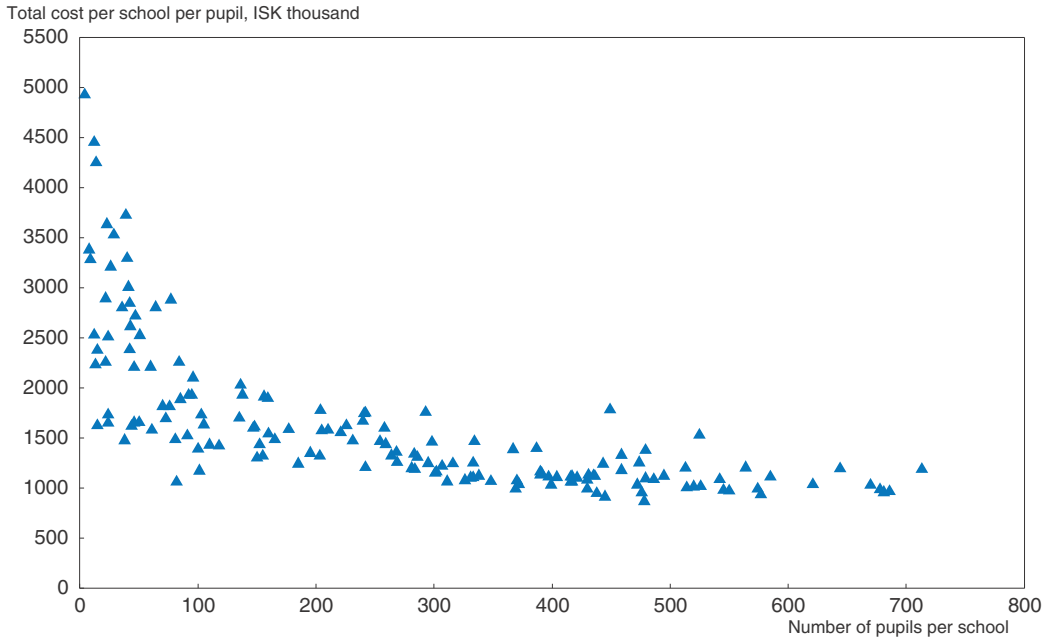
Source: OECD (2012b), *Education at a Glance*.

Health outcomes are good in relation to health expenditure, most of which is government financed in Iceland (as in most other OECD countries) (Figure 22). However, the unusually high proportion of specialists in total physician consultations points to potential savings and quality improvements from introducing gate keeping, as is being considered by the authorities (Figure 23). They estimate that one third of specialist care could be more appropriately provided by general practitioners (GPs). This reform could also help to reduce the high numbers of computer tomography (CT) and magnetic resonance imaging (MR) examinations per capita, which are expensive, as would less generous public payments for such examinations (Figure 24). As gate keeping would raise GP workloads, it might be necessary to increase funding for GPs.

The authorities also plan to increase out-of-pocket costs for annual pharmaceutical expenditure up to a cap of 70 000 króna (about EUR 440) to increase incentives for patients to economise while reducing such costs to zero beyond the cap to protect the chronically ill, whose demand for pharmaceuticals is highly insensitive to cost. This reform is intended to be budget neutral before allowing for induced changes in pharmaceuticals consumption.

Figure 21. **Costs per student are very high in small schools**[1]

2011

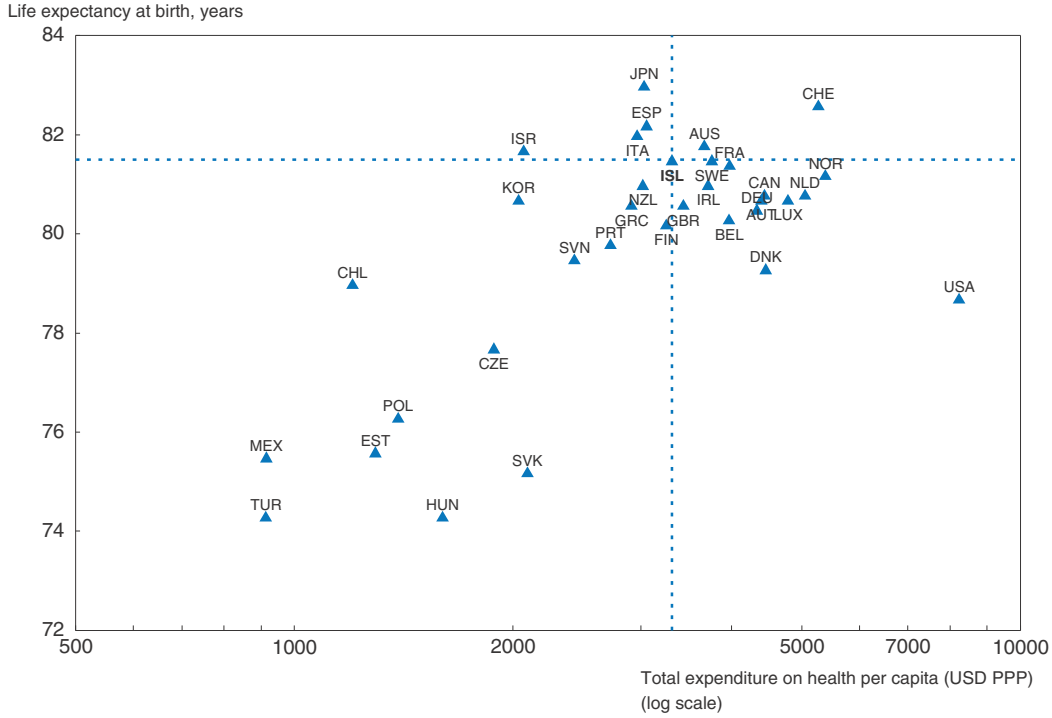


1. Primary education operated by municipalities.

Source: Association of local governments.

StatLink http://dx.doi.org/10.1787/888932855449

Figure 22. **Life expectancy is good in Iceland in relation to health-care expenditure, 2010**[1]



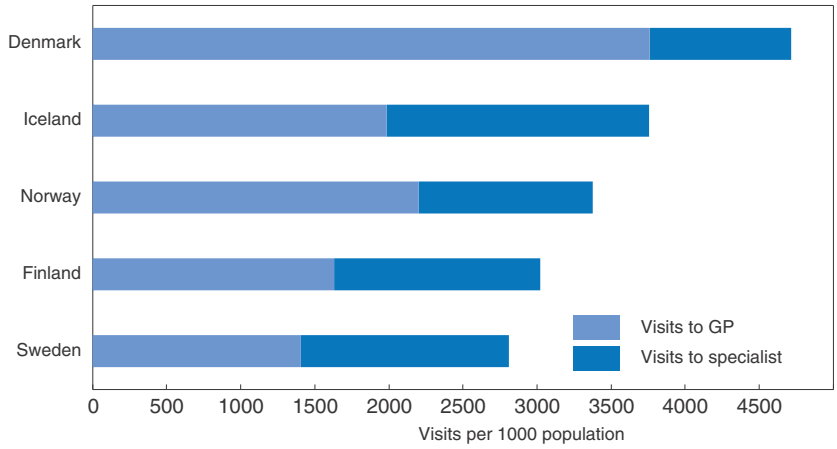
1. Or latest year available

Source: OECD, *Health Database*.

StatLink http://dx.doi.org/10.1787/888932855468

Figure 23. **Specialist consultations are high relative to GP consultations in Iceland**

2010

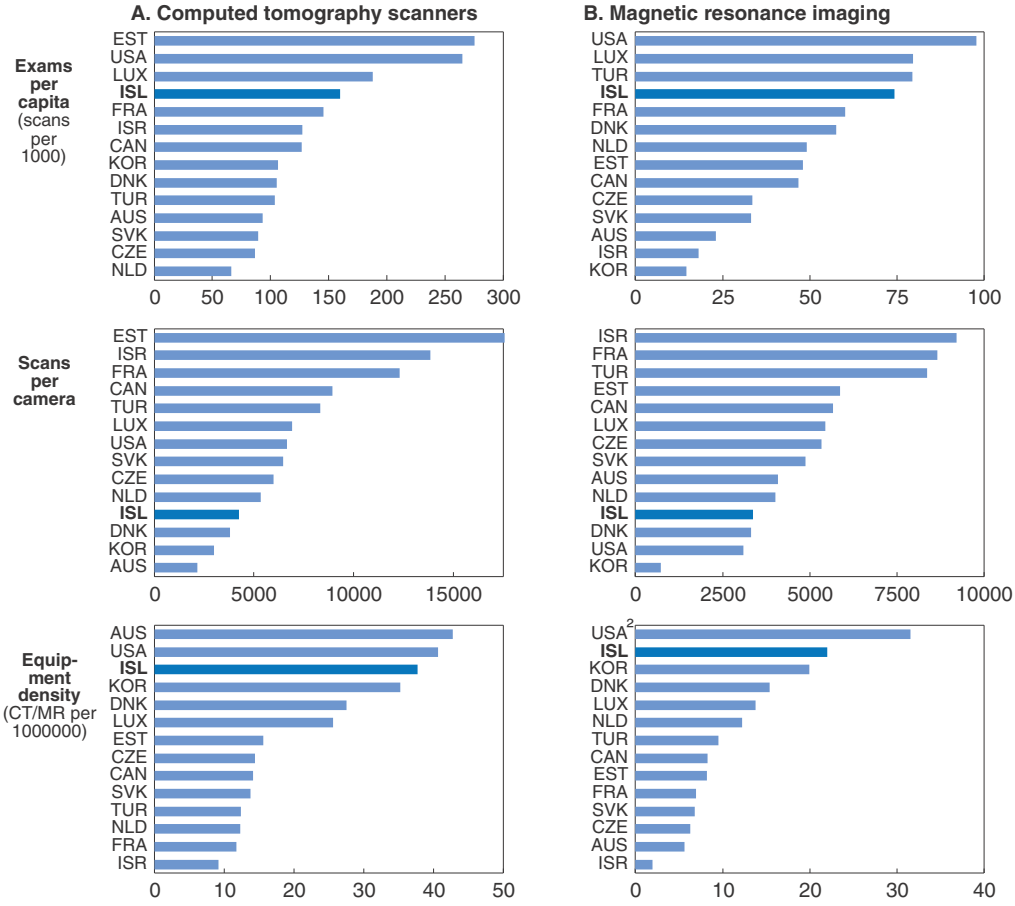


Source: The Boston Consulting Group (2011), *Health Care System Reform and Short-Term Saving Opportunities*, Iceland Health Care system project.

StatLink http://dx.doi.org/10.1787/888932855487

Figure 24. **Iceland has high numbers of CT- and MR examinations per capita and overcapacity in such machines**

2010[1]



1. Or latest year available.
2. 2011 for the United States.

Source: OECD, *Health Database*.

StatLink http://dx.doi.org/10.1787/888932855506

The Icelandic government should also conduct regular strategic public spending reviews to identify savings. Such reviews evaluate the retrospective performance of programmes, policies or organisations to assess how successful or otherwise they have been, the extent to which efficiency could be increased to make room for expenditure cuts and how expenditures could be reallocated to better respond to the government's priorities. These reviews are necessary because line ministries have incentives to come up with good new spending proposals but not saving proposals, unless they are required to meet a binding expenditure ceiling or to make room for a new spending priority. OECD (2011c) reports considerable savings achieved or identified in countries that have undertaken spending reviews, including Australia, Canada, Finland, the Netherlands and the United Kingdom.

Given weak incentives for line ministries to come up with saving proposals, spending reviews should be managed centrally, preferably by the Ministry of Finance (MOF). Ideally, the MOF should run a multi-year cycle of reviews so that all major spending programmes have been reviewed by the year before elections. In this way, the results could feed into political parties' election platforms. A new government would then be in a position to decide on the spending review recommendations and set public expenditure ceilings for its term of office as required under the proposed OBL accordingly.

It would also be helpful to conduct pilot studies before new programmes are rolled out to see if they deliver the promised benefits and how performance could be improved. New programmes should also be subject to sunset clauses, increasing the probability that low value programmes will disappear. In addition, cash limits should be imposed on new programmes to avoid cost overruns. These programmes would be subject to ex-post evaluations, like all other expenditure, in the spending reviews. Furthermore, large government investment projects should only proceed if they pass a transparent and credible cost-benefit analysis, a condition that does not appear to have been met for the biggest infrastructure project (a tunnel in a remote area) included in the former government's 2013-15 Investment Plan.

Box 4. **Recommendations to increase the efficiency of government expenditure**

Key recommendations

- Undertake strategic spending reviews of all programmes to increase efficiency and reorient expenditure towards government priorities.
- To reduce costs and increase returns to education, reduce the duration of primary- and secondary education.
- 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.

Other recommendations

- To reduce costs and improve education quality, strengthen the capacity of municipalities to manage and oversee primary education collectively or shift these responsibilities back to the central government's education ministry. Reduce the payroll for non-teaching staff in primary education. Improve management in small schools with unusually high costs.
- Restructure out-of-pocket costs for pharmaceuticals to strengthen incentives for patients with low annual expenditures to make savings while eliminating such expenditures

Box 4. **Recommendations to increase the efficiency of government expenditure** *(cont.)*

for patients with high annual expenditures, who typically have little scope to make savings as they are chronically ill.

- Aim for strategic spending reviews to be available in the year before the general election so that they can feed into the new government's expenditure ceilings for its term in office that would be required under the proposed Organic Budget Law.
- Only implement government investment projects that pass transparent, credible cost-benefit analyses.

Green growth

Incentives for efficient greenhouse gas emissions abatement should be strengthened

Iceland's Greenhouse Gas (GHG) emissions have increased by around 35% since 1990, mainly owing to the expansion of the aluminium industry. This performance nevertheless is compatible with Iceland's Kyoto commitment to increase GHG emissions by no more than 10% by 2008-12 because CO_2 emissions from new heavy industry after 1990 that complies with Decision 14/CP.7 (these emissions must not exceed 1 600 thousand tonnes per annum and the heavy industry in question must use renewable energy and the best available technology) are not included. GHG emissions in the aluminium industry have increased four-fold since 1990, a good performance considering that production increased eight times; Iceland's smelters are among the most GHG efficient in the world, mainly because they use renewable electricity. Emissions from transportation have also increased strongly.

The 2007 Climate Strategy states that Iceland will fulfil its international obligations to reduce GHG emissions, increase carbon sequestration, support research and innovation in climate mitigation and prepare for adaptation. This was followed up by the 2010 Action Plan that, amongst other things, aims to limit the change in heavy industry emissions, which represent 38% of total emissions, to between -6% and +57% over 2008-20 and to cut emissions in other sectors by 20% (38% including sequestration). If Iceland joins the EU, abatement reductions will be much more challenging: Iceland would be obliged to reduce emissions by 20% between 2005 and 2020 and could not count reductions from sequestration unless this possibility can be negotiated. Whether or not Iceland joins the EU, implementation would be facilitated by not overloading the system with programmes and initiatives. The government will also need to provide funding for many of the initiatives, which it partially proposes to do in the Investment Plan for 2013-15.

As part of the European Economic Area, the authorities have made a joint commitment with the EU to reduce emissions from sectors covered by the EU-ETS. Accordingly, these sectors will have to buy emission permits. Aviation entered the scheme in 2012 and heavy industry (aluminium, ferrosilicon, mineral wool and fishmeal production) enters this year.

For sectors not covered by the EU-ETS, the role of the carbon tax should be expanded to achieve abatement objectives efficiently. Although Iceland introduced a carbon tax in 2010, a substantial share of carbon emissions are still exempt from the tax. Moreover, the tax rate is low, which reduces its impact in encouraging abatement investments. In all, the carbon tax only raised revenues of 0.1% of GDP in 2011. To increase its impact, the carbon tax base should be broadened to include industries, such as the cement sector, that emit substantial

amounts carbon but are currently not charged for their emissions. The tax rate should also be increased to a level compatible with Iceland's abatement objectives. Separately, transport emissions could be reduced by strengthening co-ordination among municipalities in the Reykjavik area in urban planning and infrastructure development to reduce urban sprawl and commuting in private motor vehicles.

Green energy needs to be better managed

One of the pillars of Iceland's economic development strategy has been to increase hydro and geothermal electricity production to sell more electricity to energy-intensive companies. There is considerable debate about the extent to which this strategy has profited Icelanders, as electricity has been sold at low prices on long-term contracts that barely cover costs. Electricity generation should be developed for export (essentially via energy-intensive goods or services such as aluminium) only if long-term marginal costs, including environmental and capital costs, are fully covered. Any rents flowing from Iceland's relatively low-cost and clean power generation should be taxed, as has been proposed.

Improvements in electricity transmission technology may eventually create an opportunity to increase exports by laying an underwater cable to Scotland. Then, electricity could be sold at European green tariff rates, which are four times the price at which electricity is sold in Iceland to energy-intensive companies. However, this option remains some way off as there are formidable technological and financial barriers to overcome.

Iceland has an efficient fisheries management system

As discussed in the *2011 OECD Economic Survey of Iceland* (Chapter 4), Iceland experienced chronic overfishing until the Individual Transferable Quota (ITQ) system was introduced progressively from 1984 to the early 1990s. Under this system each fishing entity owns or has a right to a certain percentage of the Total Allowable Catch (TAC) in various species. This gives fishers an incentive to support the setting of TACs at levels that maximise rents and hence, the value of quotas. Such levels are lower than biologically sustainable levels. TACs have been set at biologically sustainable levels in recent years, based on the recommendations of the Marine Resource Institute, ending the systematic overfishing that occurred before.

Since the introduction of the ITQ system, the industry has become much more efficient, increasing the value of the resource rent and, hence, of licences. To claw back some of this rent, the government introduced a special fisheries resource rent tax in 2012 that is scheduled to take effect in September 2013. According to the law, a tax rate of 50% will be levied on a base that is roughly equivalent to earnings before interest tax and amortisation (EBITA). Although there are some allowances for small operators and deductions for interest costs from debts assumed to acquire fish quotas, the high tax rate in this new legislation is likely to create financial stress in some fishing enterprises, especially those that are in the demersal (seabed) fisheries sector, where firms are financially more fragile than in pelagic (live and feed in open water) fisheries. While taxation of resource rents is appropriate, the tax rate should be adjusted to a more modest rate to reduce its potential adverse impact on the industry. In the context of discussions since the election about changes in tax laws and tax cuts, the new government has signalled that it intends to reduce the special fisheries resource rent tax and change its design to take into account the financial position of different types and sizes of fishing companies.

Box 5. **Recommendations to support green growth**

Key recommendations

- Broaden the base for the carbon tax and raise its rate to increase cost-effective abatement of GHG emissions.
- 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.
- Reduce the scheduled increases in the special fisheries resource rent tax to levels that the industry can cope with, especially in the demersal sector.

Other recommendations

- Strengthen co-ordination among municipalities in the Reykjavik agglomeration in urban planning and infrastructure development to reduce urban sprawl and private car use, thereby also reducing GHG emissions.

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ANNEX A.1

Progress in structural reform

This annex summarises recommendations made in previous *Surveys* and action taken since the last *Survey* was finalised in May 2011.

Past recommendations	Actions taken and current assessment
A. Financial markets	
The plan to adopt the Basel III framework should be implemented and the authorities should continue to phase in portions, such as the leverage ratio, more quickly than envisioned in the Basel III timeline.	The FME has imposed strict standards for capital adequacy on the banks. The 16% minimum capital ratio that was imposed temporarily after the crisis has been replaced by the results of the ICAAP/SREP process for individual banks, in accordance with Pillar 2 of the Basel II/CRD III rules. In its 2012 annual report, Iceland's largest bank reported a capital ratio of 19,5%, which is its currently required minimum.
The authorities should consider merging the FME into the CBI, thereby expanding the CBI's responsibilities to include prudential regulation and supervision, to make macro-prudential regulation and supervision more effective.	Significant steps have been taken to strengthen regulation and supervision, but the activities have involved a number of disparate authorities within the government, with insufficient collaboration between entities. The authorities are currently working toward organising a Financial Stability Council (FSC), which will have oversight responsibilities for all aspects of financial stability policy, including crisis prevention, management and resolution.
The current blanket deposit guarantee should be replaced by the more limited deposit guarantee arrangements already planned and a permanent statutory authority to intervene at an early stage in the operations of financial institutions at risk of failing should be established.	No action. The blanket guarantee that has been in force since October 2008 still needs to be replaced.
Strengthen incentives for banks to restructure non-performing loans (NPL)s by raising capital adequacy risk weights on NPLs that have not yet been restructured.	Incentives have been strengthened. Significant progress has been made in re-structuring. The percentage of NPLs (excluding performing loans of a customer that has a loan in default) fell from a peak of 18% of all loans in late 2010 to 8% at the end of 2012.
Increase the Housing Finance Fund's (HFF's) capital adequacy ratio to the levels applying to other financial institutions, subject it to prudential regulation and supervision by the FME, and charge the HFF for the value of its loan repayment guarantee.	No action. The government repayment guarantee for new debt issued by HFF is still in place. The government injected ISK 33 billion (2.1% of GDP) into the HFF in 2010 and ISK 13 billion (0.8% of GDP) in 2012 but capital remains well below the long-term target of 5% of risk-weighted assets. Continued losses from operations make it likely that further capital injections will be required. The authorities are currently conducting a comprehensive review of the HFF's operations and its role in the future financial system. Their findings are expected to be released by the middle of 2013.
Prohibit pension funds from making mortgage loans to members. Rather, pension funds should only be allowed to make such loans if they are secured against a proportion of the member's claims on the fund, thereby reducing the risk of there being insufficient collateral readily available to cover the loan in the event that it becomes non-performing.	No action.
Take steps to neutralise the overhang of non-resident liquid króna holdings so as to pave the way for the removal of capital controls as quickly as possible.	The CBI has organised several auctions to purchase domestic currency from non-residents and auction them to investors willing to buy long-term government bonds or other domestic assets and hold them for a minimum of five years. At the end of 2011, the authorities also introduced a programme that enabled foreign investors to purchase half of the króna required to perform their investment through auctions, and to finance the remainder on the Icelandic financial market (the so-called "50/50 option").

Past recommendations	Actions taken and current assessment
B. Monetary policy	
Promote low inflation by moving to an inflation-targeting regime which places greater weight on smoothing fluctuations in the exchange rate and is supported by fiscal policy and macro-prudential regulation.	The CBI has begun augmenting interest-rate policy with active interventions to support the exchange rate. Macro-prudential regulation needs to be strengthened, and there is little co-ordination between fiscal and monetary policy.
In the event that Iceland joins the EU, adopt the euro as quickly as possible.	Accession to the EU is still being debated in the Icelandic population. Although adoption of the euro still appears to be the best course for Iceland over the long run, it would be prudent for Iceland to wait until the institutional foundations of the euro are strengthened before seeking to join the EU and adopt the euro.
C. Fiscal policy	
Adopt a fiscal framework emphasising spending control and medium-term sustainability. Set debt reduction targets and adopt budget balance rules consistent with them. Back up these rules with fiscal responsibility legislation along the lines of that in Australia and New Zealand. Make the 2010 fiscal institutional reforms permanent and strengthen them by making each government minister responsible for ministry performance before Parliament.	A new Organic Budget Law (OBL) is to be submitted to Parliament in September 2013 that implements these recommendations. It introduces a procedural fiscal rule anchored in legally binding principles, as in Nordic countries, Australia and New Zealand. Governments will have to formulate numerical fiscal objectives (for the long-term stock of liabilities and the medium-term budget balance) that are consistent with the permanent principles. Ministries will be subject to nominal expenditure ceilings. Ministers will be responsible for ministry performance.
Reform the tax system over time to increase revenues in a growth-friendly way by widening the tax base, imposing corrective taxes and closing loopholes.	The scope for closely held corporations to shelter labour income from higher personal income taxation has been reduced but remains significant. The carbon tax has been increased but remains low. The mortgage interest tax deduction has been more tightly targeted on lower-income households but should be replaced by housing-cost subsidies for low-income households. More revenue could be raised in a growth- and equity friendly way by increasing the lowest rate of VAT (7%) and using part of the proceeds to shelter low-income earners from the effects.
Implement fiscal rules for municipalities. Nominal ceilings should be set for a specific multi-year period, rather than over an undefined business cycle. Reduce the cyclicality of local revenues in order to smooth the path of local expenditures over the business cycle.	With the exception of reducing the cyclicality of local government revenues, these recommendations were implemented in the 2011 law reforming the framework for local government finances.
D. Labour market	
Guarantee access to the traditional education system for those attempting to re-enter to complete their secondary education.	Access was made available to all such persons.
Better align job skills training programmes with the needs of the labour market. Expand internship opportunities as conditions permit.	No action taken.
Phase out the temporary extension of unemployment benefit duration to four years as the labour market improves.	Extension of unemployment benefit duration expired at the end of 2012.
E. Education and training	
Focus on teacher quality rather than quantity and increase class size to reduce cost pressures. Increase the focus of teaching on sciences and languages.	While teacher qualification requirements have been tightened, teacher pay remains low relative to pay for other occupations with similar qualification levels, making it difficult to attract and retain high quality candidates. Class sizes have not been increased. There is greater potential to reduce costs without harming education quality by reducing the duration of school education, which is considerably longer than in other OECD countries. A law was passed in 2008 permitting the duration of upper secondary education to be reduced but few schools have adopted this reform. There has been no change in the focus of teaching.
F. Product market competition	
Consider whether divestiture of the National Power Company's generation activities would help create a level playing field in power generation by avoiding cost-of-capital differentials between the incumbent and entrants.	No action.
Reduce agricultural support, especially in the area of policies that provide incentives to increase production, at least to EU levels.	No action.
Reduce ownership restrictions, notably in the energy and fisheries sectors.	No action.

Past recommendations	Actions taken and current assessment
F. Green growth	
Make explicit use of cost-benefit analysis to improve policy effectiveness and coherence, especially in deciding on the merits of major power-intensive investments.	Policymakers use survey-based information to assess perceived environmental costs of projects. There needs to be a greater focus on maximising rents from energy resources. Such rents should be taxed.
Total Allowable Catches (TACs) should be set at levels that maximise the sustainable fisheries resource rent and the government should raise the special fisheries resource rent tax to ensure that it receives this increase in resource rent. The government should also raise the fisheries resource rent tax to take a larger share of current rent, although such an increase should not go so far as to undermine the Individual Transferable Quota (ITQ) system.	The government introduced a special fisheries resource rent tax in 2012 that increases in three steps to 50% of earnings before interest, tax and amortisation. If fully implemented, such a level of taxation would cause considerable financial stress and drastically reduce the value of ITQs, undermining the system. The new government plans to reduce the tax and change its design to take into account the financial position of different types and sizes of fishing companies.
The government should be cautious in making amendments to the Fisheries Act that weaken the ITQ system by issuing additional fishing rights.	The government has not made any further such amendments.

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Chapter 1

Promoting effective monetary policy and financial stability

Like other small, open economies with independent currencies, Iceland has long struggled with balancing its policy objectives within the context of the "impossible trinity" – exchange rate stability, monetary independence and capital mobility. Even after the move to inflation targeting, monetary policy failed to stave off the overheating economy in the run-up to the 2008 crisis, and weak financial regulation enabled the destabilising expansion of the banking system. The subsequent fall in the exchange rate caused great pain for Icelandic households and businesses, but also has paved the way for Iceland to work its way out of the recession. The restrictions on capital outflows helped Iceland to regain exchange-rate stability during the crisis, but they risk causing distortions, and ensuring their orderly removal will be Iceland's key policy challenge in the years ahead. When capital mobility is restored, sound monetary policy and prudential supervision and regulation will be essential. Policies to reduce exchange rate volatility may help anchor inflation expectations, but their scope is limited. Strong prudential supervision and regulation are instrumental for enhancing financial stability and, by discouraging the build-up of financial imbalances, macro-prudential policies hold some promise of augmenting the effectiveness of traditional monetary and fiscal policies.

Iceland's immediate policy challenge is removing the capital controls

At the onset of the global financial crisis as the value of the Icelandic króna plummeted, the Icelandic government imposed limitations on foreign-exchange transactions to help avoid destabilising outflows of currency and further depreciation of the already-weak exchange rate. Then in November 2008, after the country's three largest banks failed, the government enacted formal capital controls to replace the *de facto* limitations. The new rules: *i)* restricted the conversion of funds owned by residents and non-residents into foreign currencies; *ii)* banned the conversion of króna-denominated bonds and other similar instruments to foreign currency upon maturity; and *iii)* required that residents repatriate all foreign currency that they acquire. Businesses must repatriate foreign earnings, although certain companies, including major exporters and firms with large international operations, have been given full or partial exemption from the rules after fulfilment of certain criteria. Since late 2009, all payments linked to the distribution of goods or services and to new inward foreign direct investment (FDI) have been exempt from the rules. The rules were tightened in early 2012 to eliminate loopholes, remove exemptions on some bond payments and to regulate payments made by the estates of the old banks. And in early 2013, further amendments were enacted that removed any specific expiration date for the controls, expanded authorisation requirements for smaller transactions, tightened supervision of foreign-exchange transactions and imposed heavier penalties for violations.

Although the capital controls went against Iceland's existing agreement to abide by the OECD Codes of Liberalisation (Box 1.1), given circumstances at the time the OECD Council and the domestic authorities agreed that the measures were justified and necessary for stabilising the króna, and the OECD Council approved Iceland's request to temporarily derogate from its obligations under the Codes of Liberalisation. At the time, a further deterioration in the value of the króna would have been highly destructive for government finances and for domestic balance sheets, especially in light of the high exchange-rate pass through to inflation and the widespread inflation-indexation of home mortgage loans in Iceland. Following the imposition of the controls, the exchange rate stabilised fairly quickly, and since then it has remained relatively steady. Consumer price inflation has dropped well below the highs of almost 20% recorded at the height of the crisis.

The maintenance of capital controls also has been a central element supporting the economic recovery. Early in the recovery as the exchange rate stabilised, the controls provided room for monetary policy to be eased to support domestic activity. For several years, low real interest rates have facilitated debt reduction in both the private and public sectors and have supported the profitability of the Icelandic banks, which have been partly insulated from funding risk since depositors and other creditors cannot transfer their funds abroad. Although monetary policy has been tightened in preparation for the eventual removal of the controls, borrowing costs remain much lower than would otherwise be necessary to make Iceland's domestic assets attractive to hold. In addition,

Box 1.1. **Capital controls and Iceland's international obligations**

Iceland requested a derogation from its obligations under the OECD Codes of Liberalisation to cover the exceptional measures taken for reasons of serious economic and financial disturbance (OECD, 2011). The derogation procedures have provided ample flexibility for Iceland in responding to the crisis and its dialogue process has enabled Iceland's authorities to keep Code adherents informed about the measures taken and to obtain international support for the course of action they have adopted. Following an Investment Committee examination, the OECD Council endorsed the conclusion that Iceland was justified in adopting the capital controls, while encouraging Iceland to remove restrictions that have been introduced as soon as made possible by progress in strengthening the financial system. In April 2013, the Advisory Task Force on the OECD Codes of Liberalisation (ATFC) conducted a review of Iceland's derogation and concluded that the prior Council recommendation is still valid. Iceland is requested to provide periodic notifications to the OECD regarding progress toward eventual lifting of the derogation under the OECD Codes, and the ATFC will review this issue again in no later than 18 months.

Similarly, Iceland's capital controls go against the rules for free movement of capital stipulated in the EEA agreement. However, the EFTA court concluded that Iceland met the necessary conditions for derogating from these commitments. Restrictions on capital movement also are not in line with the EU's principle of free movement of capital and thus will impede Iceland's accession to the EU. In light of these challenges, the Icelandic authorities and the European Commission Services have established an ad hoc working group that also includes representatives from the IMF and the ECB in order to assess the state of play and prospects for lifting of the controls in the context of the government's liberalisation strategy and assist in forming a common understanding of the challenges in the process.

the risk of the CBI depleting its foreign-exchange reserves in an effort to defend the exchange rate has been reduced, albeit temporarily.

Looking back on these developments, most observers agree that the imposition of capital controls allowed Iceland to avoid a much deeper economic contraction than otherwise would have occurred. At the same time, however, there have been a variety of negative consequences. While not directly observable, the greatest economic damage caused by the controls likely is embodied in the investments and economic growth that never came to fruition. Restrictions on the flow of capital prevent economic resources from being directed toward projects with the highest marginal value, which in turn implies a reduction in investment and permanent income (e.g. Lucas, 1990). And indeed, there is evidence that such economic distortions are already occurring in Iceland. For example, given the very low yields on government bonds and a lack of diversified domestic investment options, households are investing a disproportionate share of their savings in domestic real estate. Similarly, Iceland's pension funds have been constrained to poorly diversified portfolios. This issue in particular is worrisome because Icelandic households rely mainly on privately-funded pension funds for their retirement income.

Iceland is highly reliant on investment from abroad as a source of growth, especially in the energy-intensive sectors, yet foreign direct investment (FDI) has been subdued even since the restrictions on new capital inflows were lifted. Investment is held back by the harmful effects of the controls on investor confidence, which is not limited to those foreign investors that have had their holdings of deposits and securities locked in Iceland. Although

the CBI has given non-resident holders of ISK assets the opportunity to convert their holding into foreign currency, the take-up has been low given the highly unfavourable exchange rates that were offered. These attempts to reduce the overhang of foreign deposits have contributed to weak investor confidence by raising the possibility that additional changes to rules and regulations might, ex post, devalue their asset holdings in Iceland. The uncertainty about the eventual removal of the controls has undermined the credibility of the Icelandic government, and this again contributes negatively to investors' perceptions. Evidence of this can be seen in the results of the World Economic Forum (WEF)'s latest survey on global competitiveness, in which Iceland scored poorly against other countries with regard to the protection of property rights (World Economic Forum, 2012).

In addition to limiting access to global finance, the capital controls have made it more difficult and costly for Icelandic businesses and households to conduct cross-border activities. The significance of these difficulties is highlighted in WEF survey, in which Icelandic businesses identified foreign-currency regulations as by far the most problematic factor for doing business (ibid., 2012). Icelandic firms wanting to invest abroad must seek permission from the CBI, and these requests are usually granted if it is estimated that the investments will generate foreign-exchange revenues. In addition, multinational businesses and those with sizable exports will tend to make adjustments to their own internal product and capital markets to maximise avoidance of the capital controls, and these adjustments give rise to various distortions and reduced local profitability. The longer the controls are in place, the more costly these adjustments will be to unwind. Over the medium-term, capital controls can have significant distributional consequences as well, since these internal markets are not available to all firms.

Although there is no clear consensus on the issue, empirical studies have found evidence that unrestricted capital flows offer substantial economic benefits for many countries. For example, Quinn and Toyoda (2008) presented evidence of a positive relationship between financial openness and growth. Another study by Desai, Foley and Hines Jr. (2005) found that countries' property, plant and equipment grew at significantly faster rates following capital account liberalisations. That said, the events of recent years have led many economists to re-evaluate the importance of the associated trade-offs, especially those related to financial risks. A commonly-cited argument is that unrestricted capital flows can increase vulnerability to domestic credit booms, asset price bubbles, excessive foreign currency lending to un-hedged borrowers, and a more vulnerable external liability structure (e.g. Reinhart and Reinhart, 2008; Barajas et al., 2007). Recent theoretical work has made the case for capital controls by essentially transposing to international capital flows the closed-economy analysis of the macroprudential policies that aim to dampen the boom-bust cycle in credit and asset prices. Korinek (2011), for example, finds that prudential controls on capital flows to emerging economies may be desirable from a welfare theoretic perspective because they reduce the incidence and severity of financial crises, which in turn reduces the pecuniary externalities that arise during such crises. Empirical support for these ideas, however, is still quite thin.

Certainly in Iceland's case, the financial crisis provided painful evidence of the consequences when these financial risks are realised, and from this perspective it is reasonable to consider whether at least limited usage of capital controls over the long-term would be beneficial. Restrictions on capital inflows may well have prevented the tremendous boom in domestic bank credit and subsequent bust that occurred over the past decade, but they would be ill-advised in the present situation. Moreover, for a small

country like Iceland with a specialised production base, capital-account restrictions entail offsetting financial risks. Without the opportunities for risk diversification provided by globalised capital markets, the country is likely to be more vulnerable to volatility in domestic activity. Such risks may be especially relevant for Iceland, where supply shocks have long been an important source of economic volatility.

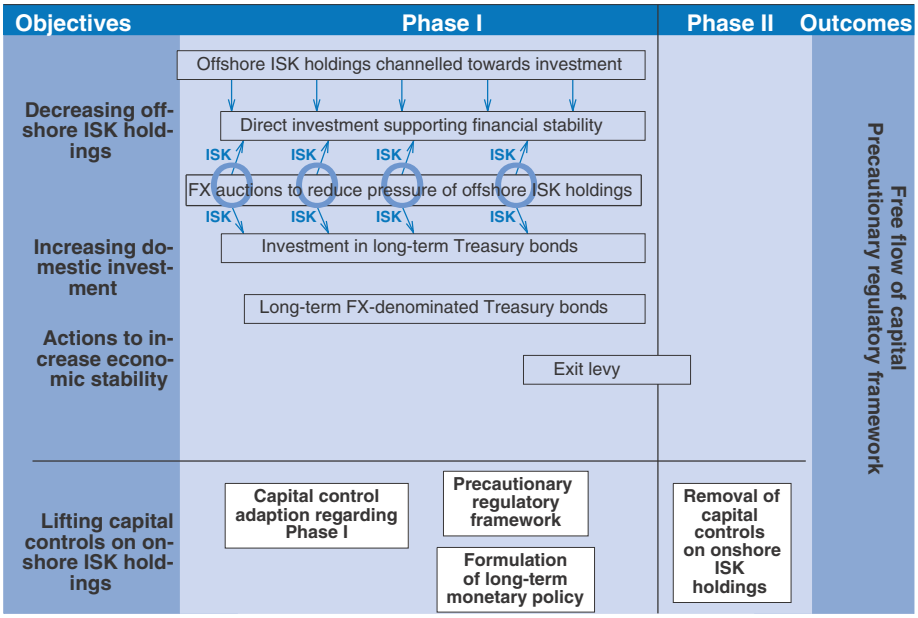
In November 2012, the IMF released a paper outlining its updated "institutional view" on capital account liberalisation and the management of capital flows. The new view was based on countries' recent experience as well as myriad analyses included in previously-published IMF policy discussion notes (IMF, 2012a; Ostry et al., 2010 and 2011). The IMF recognised the important benefits of unrestricted capital flows but also emphasised the risks, including heightened macroeconomic volatility and vulnerability to crises. The IMF view is that risk arises because financial openness creates incentives for financial institutions to take excessive risks which, in the absence of adequate financial regulation and supervision, can lead to volatile flows that are prone to sudden reversal. After weighing the relevant factors, the IMF concluded that full liberalisation of the capital account may not be the right goal for all countries at all times. Along with this view came with several important caveats, perhaps most importantly, that capital flow management should not be used as a substitute for good macroeconomic and financial supervision policies. For Iceland's case, the IMF concluded that, while capital controls were a judicious response to highly disruptive outflows, they should be lifted as soon as the country's macroeconomic conditions allow (IMF, 2012b). In its October 2012 post-programme monitoring report, the IMF assumed that capital controls will remain in place through 2015.

The Icelandic authorities have maintained the view that it would be harmful for Iceland to maintain the capital controls indefinitely, and to that end, the government has approved a well-articulated programme for the removal of capital controls (Althingi, 2012a). The programme consists of two phases (Figure 1.1). The objective of the first phase is to reduce the remaining offshore ISK holdings via CBI-intermediated auctions and foreign investment programmes. Following these purchases, a temporary exit surcharge will be levied on capital transfers from Iceland. The second phase will entail lifting controls on resident outflows while encouraging direct investment and reducing the exit surcharge in stages until capital movements are fully liberalised.

The authorities' plan does not include any commitment to a specific time frame, and legislation passed in early 2013 removed the expiration date that had been in place. The authorities have specified several conditions that must be met in order to remove the controls without causing financial disruption. Various factors such as the success of government programmes to release off-shore króna, the strength of the balance of payments outlook and reserve adequacy will determine the pace of progress toward liberalisation. Given the fact that Iceland's financial risks will be particularly high during the transition period away from the capital controls, this cautious and conditional approach is well advised.

Rapid and substantial capital outflows could renew instabilities in the currency market, especially as non-residents still hold a sizable portion of króna-denominated assets that are locked in by the controls. Estimates of non-resident holdings have fallen from almost 50% of GDP in 2008 to approximately 23% of GDP in 2012; however, these figures understate the full scale of potential outflows because they do not take into account any anticipated outflows arising when overseas creditors eventually receive króna-

Figure 1.1. **The authorities have adopted an official programme for the removal of capital controls**



Source: Althingi (2012), *Future Structure of the Icelandic Financial System, Report of the Minister of Economic Affairs to the Althingi*, March 2012.

denominated assets as their share in the winding-up settlements of the failed banks. Although subject to great uncertainty, the current value of the failed estates has been estimated to be as much as 22% of GDP, with the bulk owned by overseas creditors. There is some possibility that domestic entities with foreign currency assets could acquire the assets and thus prevent currency outflow pressures. However, this outcome is far from certain, and it would leave the portfolios of these entities highly concentrated in domestic assets. Furthermore, although the real exchange rate is quite low relative to its historical average, there is still significant risk that, when given the opportunity, some of Iceland's residents may choose to reduce their exposure to the króna.

The authorities already have taken several steps to significantly reduce off-shore holdings of ISK. Since the middle of 2011, the CBI has organised several auctions to purchase domestic currency from non-residents and then in turn sell the currency to investors who are willing to buy long-term government bonds or other domestic assets and hold them for a minimum of five years. Thus far, these auctions have succeeded in reducing off-shore holdings by less than 10% of the initial estimated stock. At the end of 2011, the authorities also introduced a programme that enabled foreign investors to purchase through auctions half of the ISK required to perform their investment, and to finance the remainder on the Icelandic financial market (the so-called "50/50 option").

Progress toward the eventual removal of the controls has occurred in other areas as well. Monetary policy has been tightened, and restrictions on new capital inflows generally have been lifted. A sizable improvement in the government's fiscal position is helping to increase net saving and is helping to support confidence in Iceland's financial system. The authorities have accumulated large foreign exchange reserves, enabling them to intervene as necessary to counter moderate devaluation pressures. The favourable outcome in the

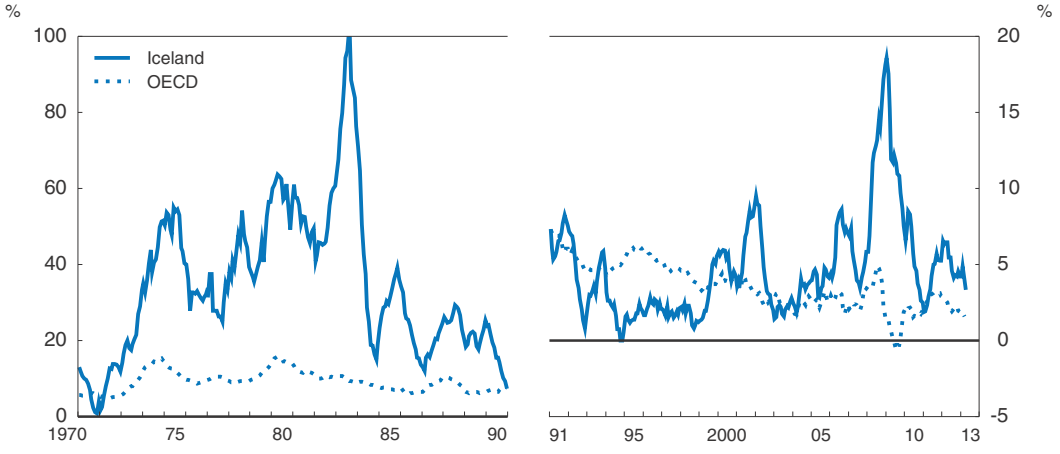
Icesave case reduced pressure on the Icelandic authorities and removed an important source of uncertainty, which also will improve investor confidence and make it easier to remove the controls. The domestic banks' financial strength has improved, and they appear better able to withstand competition from global capital markets than before.

Nevertheless, some important conditions have yet to be satisfied. While by no means easy, completing the economic re-balancing and strengthening the current account balance will go far in helping Iceland to meet the requirements of its programme for removal of the controls. Additional progress is also needed in making króna assets more attractive to hold. This will entail not only tightening monetary policy further and continuing fiscal consolidation but also building credibility around the government's intent to maintain capital mobility over the long term. In addition, the authorities need to further strengthen prudential supervision and regulation and develop a sound monetary strategy that encourages exchange rate stability. This approach will help fortify financial stability and mitigate the heightened risks of unstable capital flows when the capital controls are ultimately removed.

Monetary policy after the removal of capital controls

Iceland has had long-standing difficulties in balancing its policy objectives within the context of the "impossible trinity" – exchange rate stability, monetary independence and capital mobility. Inflation performance has been uneven throughout a varied history of fixed and floating exchange-rate regimes (Figure 1.2), in large part reflecting a strong pass-through of exchange-rate movements to domestic price inflation. It is evident that monetary policy lacks credibility and inflation expectations, while fairly accurate in tracking actual inflation, are not well anchored. This will present significant challenges for monetary policy after the restrictions on capital flows have been removed.

Figure 1.2. **Iceland has struggled with high inflation**[1]

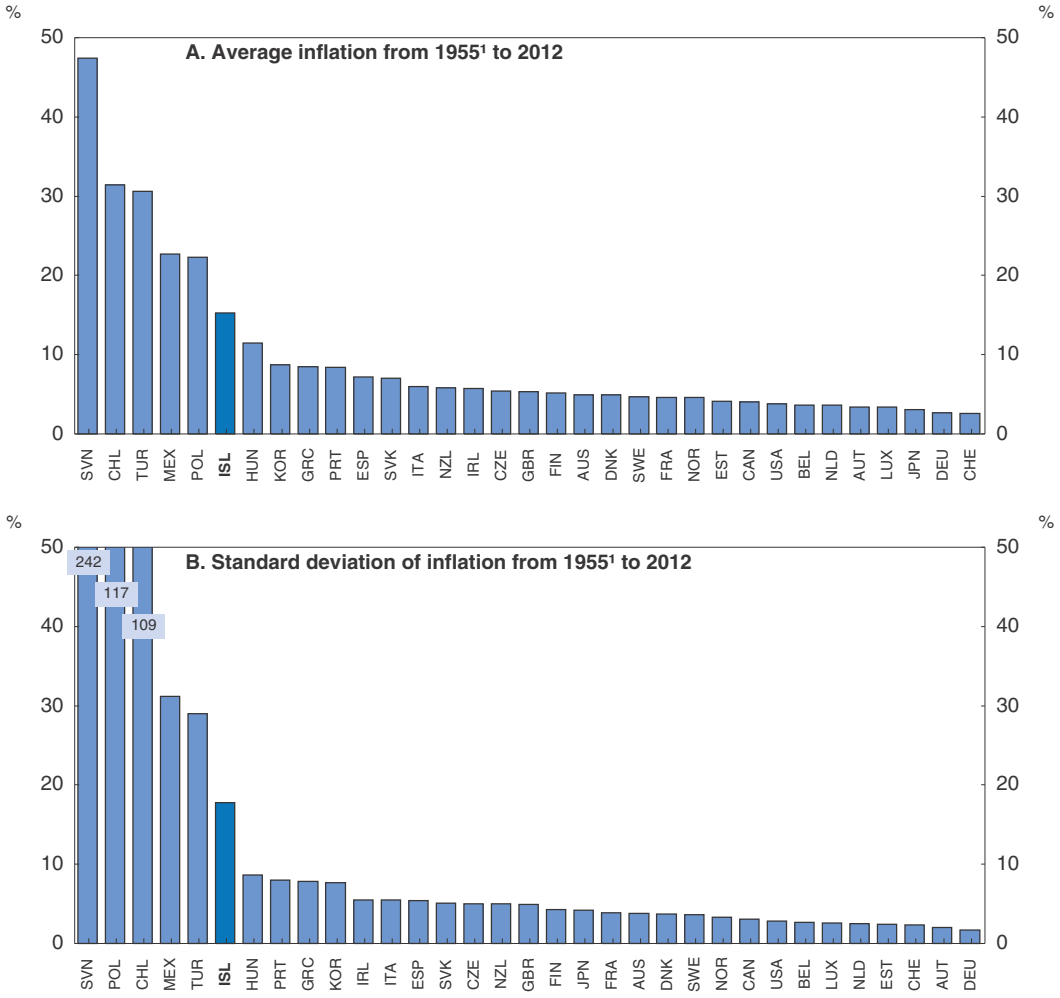


1. Consumer price index, all products.
Source: OECD, *Main Economic Indicators*.

StatLink http://dx.doi.org/10.1787/888932855525

Average inflation over the post-war period (as measured by the average annual rate of increase in the harmonised consumer price index) compares poorly with most other OECD countries (Figure 1.3). Iceland's inflation volatility also ranks at the upper end of the range of OECD countries. While studies have shown that inflation tends to be more volatile in

Figure 1.3. **Iceland's inflation is high and volatile relative to most other OECD countries**



1. First year available in the database.
Source: OECD, *Analytical Database*.

StatLink http://dx.doi.org/10.1787/888932855544

small open economies, volatility in Iceland also has been high relative to these small countries. Volatile inflation can be harmful because it distorts price signals and can reduce the productivity of the investment that is undertaken (Al-Marhubi, 1998).

An evolving framework for monetary policy

Iceland's lacklustre inflation performance has occurred against a backdrop of various fixed and floating exchange-rate regimes. In the 1970s and early 1980s, Iceland had no formally defined monetary policy framework, and various forms of managed floating exchange-rate policies were used. Problems began to emerge after a series of policy actions revealed a significant devaluation bias and a generally accommodating monetary stance, and Iceland's monetary authorities seemingly maintained an exclusive focus on full employment. The real side of the economy adjusted well to external shocks and unemployment was kept low, but inflation moved up and then stayed extremely high, an average of almost 50% annually over the ten years ending in 1983.

Beginning in 1983, the Icelandic authorities increased the emphasis on exchange-rate stability and implemented a broad array of policy measures, including several devaluations of the króna, to reduce inflation and the external imbalance. Iceland's monetary policy orientation explicitly shifted towards using an exchange-rate target as the nominal anchor, with the króna pegged to a trade-weighted basket of 17 currencies. Inflation quickly stabilised under this regime, and for some time after its adoption, the authorities successfully kept the exchange rate within a narrow range of 2½ per cent around the target.

In the 1990s, however, financial market liberalisation and innovation led to rapid growth in the Iceland's financial market, a widening current-account deficit and increases in capital inflows, all of which necessitated a progressive widening of the range around the exchange-rate target. In 1995, it was widened to 6 per cent, and in early 2000 it was widened again, to 9 per cent. By the late 1990s, the over-heating economy and the large current-account deficit made it clear that maintenance of the exchange-rate target was incompatible with internal balance.

In 2001, following a particularly sharp depreciation of the króna, the CBI announced that it would move to an inflation-targeting (IT) monetary policy regime and allow the nominal exchange rate to float freely. Under the new framework, interest-rate policy was to be the main policy tool for maintaining inflation at the target inflation rate of 2½ per cent, as measured by the twelve-month change in the consumer price index (CPI). The CBI also defined a "tolerance limit" as the point at which CBI must submit a special report to Icelandic authorities explaining the reasons for deviations from the target. After an initial adjustment period, the tolerance limit was set at 1½ percentage points on either side of the target. Other changes were implemented subsequently in an effort to improve central-bank transparency and independence and to strengthen the policy framework.

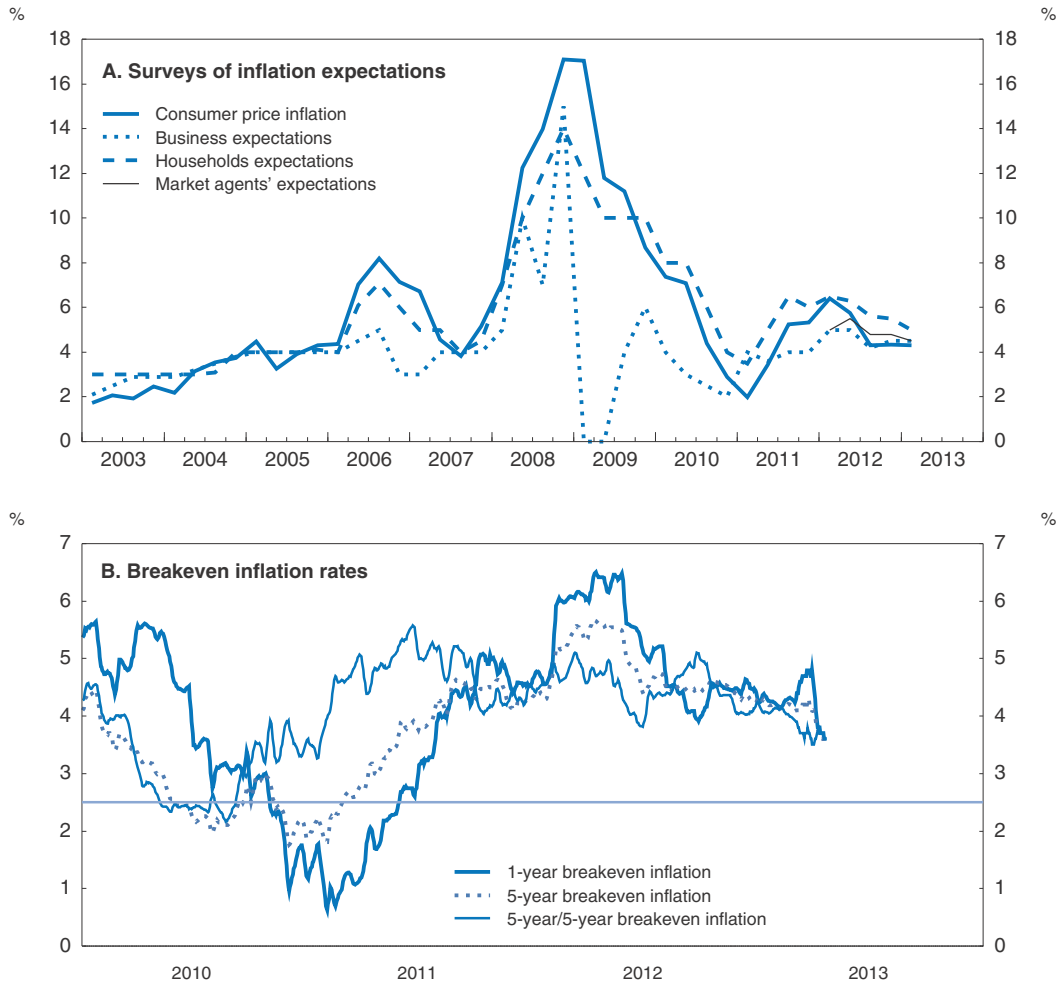
After adopting the IT policy framework in 2001, Iceland was able to bring inflation down to the CBI target remarkably quickly. But toward the end of 2004, as the economy began to seriously overheat, inflation moved up above the target and remained there until the financial crisis. Inflation targeting was officially suspended in 2008 after the exchange rate plunged and Iceland's financial markets imploded, and the domestic authorities agreed with the IMF that stabilising the value of the króna should be a fundamental element of the programme for economic recovery.

A strong pass-through of exchange rate movements to inflation

Much of Iceland's poor inflation performance likely reflects the very strong pass-through of exchange rate movements to both headline and core inflation. Evidence of this is demonstrated in a recent paper (IMF, 2012) that used a flexible vector-autoregression (VAR) model to estimate the impulse-response of domestic and imported prices to a nominal effective exchange rate shock. The empirical results showed large and statistically significant effects over the three quarters following a shock to the nominal effective exchange rate. The results indicated that that imported and domestic components of the CPI appear to react almost identically and simultaneously to large exchange rate shocks. The cumulative responses also showed evidence of overshooting in the domestic and imported components of prices following exchange rate shocks; after three quarters, the cumulative response of domestic price to a 10% exchange rate depreciation was close to 15% for imported prices and 17% for domestic prices.

There are various measures that suggest Iceland's inflation expectations are poorly anchored. The CBI regularly publishes two different estimates of inflation expectations, one based on a survey of households, and another based on a survey of Iceland's 400 largest businesses. Both surveys are carried out by Capacent Gallup and the CBI. Participants are asked about their inflation expectations one and two years ahead. Although the two survey-based measures can vary somewhat, they show a strong correlation with actual inflation developments, and they exhibit pronounced volatility (Figure 1.4). Moreover, their measures of expected inflation have been persistently above the target rate of 2½ per cent. Indeed, the readings from surveys conducted in May 2013 indicate that survey respondents expect inflation to be 5% (based on households' responses) or 4½ per cent (based on businesses' responses) in two years, which, given the standard error bands around these estimates (and an assumption that survey responses are normally distributed), implies a very low probability that expectations will drop to the target within the next two years.

Figure 1.4. **Alternative measures of inflation expectations**[1]



1. Breakeven inflation expectations are calculated from yield spreads between nominal and index-linked Government and Government-backed bonds (5-day moving averages). Daily data. Latest: 26 Feb.

Source: Central Bank of Iceland, *Economic Indicators*.

StatLink http://dx.doi.org/10.1787/888932855563

The Icelandic authorities also have begun conducting quarterly surveys of market agents' expectations, which includes questions on projections for a variety of economic variables, including inflation, output, interest rates and other variables (Central Bank of Iceland, 2012b). Various bond-market participants, including banks, pension funds, mutual and investment funds, securities brokers, and licensed asset management firms, are included in the sample of this new survey. The survey also includes questions about projected nominal and real interest rates, making it possible to calculate inflation expectations indirectly based on the so-called breakeven inflation rate, which equates nominal interest rates to real rates plus inflation expectations (Fisher, 1930). The May 2013 responses to this survey indicated annual inflation will be 4% both one and two years ahead. Further ahead, they expect inflation to average 4.2% over the next five years and 4% over the next 10 years. These levels are all well above the central bank's long-run target rate of 2½ per cent. It should be noted that the new survey is a welcome addition to the current body of expectation measurements, and should prove useful to the CBI in future assessments of monetary policy.

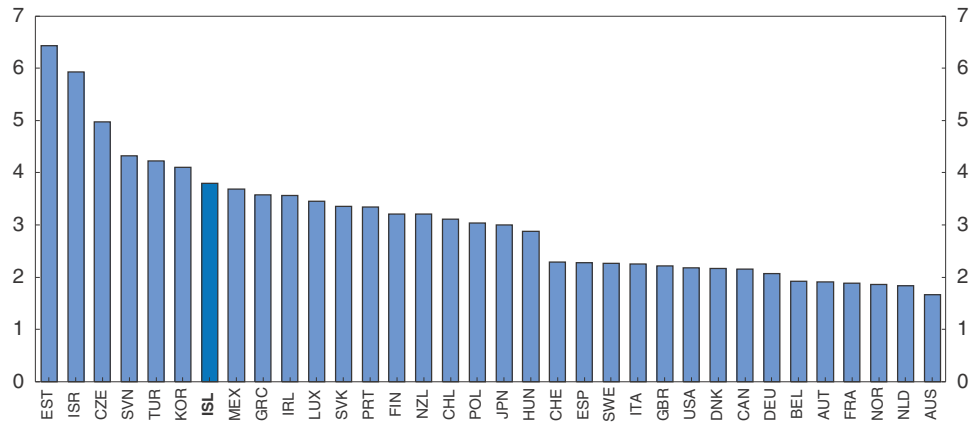
Other studies that analyse indirect measures of inflation expectations using yield curves also find evidence that Iceland's expectations are not well anchored. For example, a 2012 study by the IMF applied the methodology laid out in previous work by Rudebusch and Wu (2003) to Iceland and found that inflation surprises significantly raise the level of long-term nominal and break-even yields in the short run, although there was little evidence of significant effects over a longer time period. Without well anchored inflation expectations, temporary shocks to exchange rates and other prices feed more readily into market participants' expectations, and hence, into realised inflation outcomes. The lack of confidence in the stability of prices also results in higher inflation-risk premia on interest rates, which in turn pushes down investment and productivity.

Features of Iceland's economy make independent monetary policy challenging

Iceland has long had high volatility in economic activity relative to most other OECD countries (Figure 1.5). Much of this volatility can be attributed to the country's small size and to its economic structure, in particular its heavy reliance on natural resources as the main source of exports. Stiglitz (2001) has referred to Iceland the most extreme case of a small open economy: with just over 320 000 inhabitants, Iceland's population is smaller than that of a typical European city. Iceland's GDP was valued at only 8½ billion USD in 2012, and its stock market capitalisation was only one-tenth the market capitalisation of a moderately-sized US company. Iceland's exports are especially vulnerable to supply shocks originating from natural fluctuations in fish stocks, as well as to shocks in the terms of trade. Iceland's production base is quite specialised, and the volatile, commodity-based exports represent a larger share of overall GDP than they do for other OECD commodity exporters.

Economists have argued that Iceland's small size and specialised production structure present the country with significant policy challenges. Honjo and Hunt (2006), for example, constructed empirical estimates of the efficient monetary policy frontier (first described by Taylor [1979]) for Iceland) (Figure 1.6 below). The efficient monetary policy frontier traces out the locus of the lowest combinations of inflation and output variability that are achievable under a range of alternative rules for operating monetary policy when the economy is subjected repeatedly to economic disturbances. Using simple inflation-forecast-based monetary policy rules for Canada, New Zealand, the United Kingdom and

Figure 1.5. **Iceland's economic structure implies greater vulnerability to economic shocks**[1]

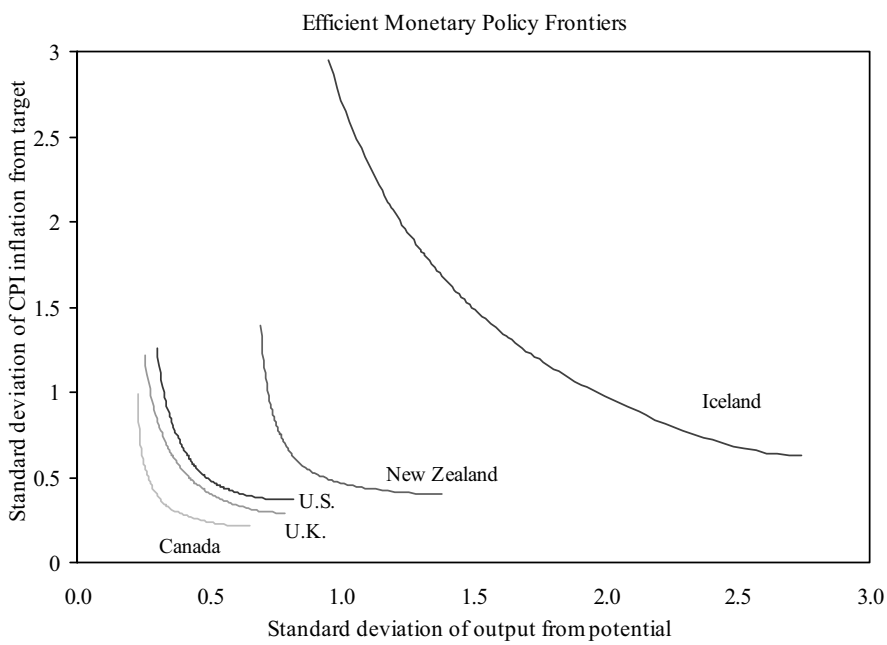


1. Real GDP volatility measured as the standard deviation of GDP growth from 1970 to 2011, Korea as from 1971, Chile as from 1987, Czech Republic, Poland and Slovenia as from 1991, Hungary as from 1992, Greece as from 1993, Slovak Republic as from 1994 and Estonia as from 1996.

Source: OECD, *National Accounts Database*.

StatLink http://dx.doi.org/10.1787/888932855582

Figure 1.6. **The trade-off of inflation-output variability is less favourable for Iceland**



Source: Honjo and Hunt (2006).

the United States, the authors showed that the inflation-output variability trade-off faced is considerably less favourable for Iceland than it is for other countries. This suggests that inflation in Iceland is more likely to be outside the tolerance range than in other inflation-targeting countries.

Breedon et al. (2012) conducted an empirical analysis of the economic performance of 37 small, high-income countries with their own currencies under three different nominal

exchange-rate regimes – fixed, intermediate, and floating (the classification scheme was originally developed by Levy-Yeyati and Sturzenegger [2003]). They found that countries that float their currency tend to have systematically higher exchange rate volatility, but only barely distinguishable differences in both average economic growth and growth volatility, relative to countries with other exchange-rate regimes. Their conclusion was that while floating exchange rates imply higher exchange-rate volatility, there is no observable benefit in terms of reduced fundamental macroeconomic volatility.

Nevertheless, drawing comparisons of Iceland's experience with that of similar countries is quite difficult, given the fact the Iceland is one of only a very few very small countries that maintains its own independent currency and a floating exchange rate. Among the 37 countries and territories in the Breedon et al. (2012) study, only five were classified as maintaining something other than a fixed exchange-rate regime. From a theoretical perspective, the dearth of small countries with floating exchange rate regimes should not be surprising. Arguments tend to favour fixed exchange-rate regimes for small countries, based mainly on the idea that there are fixed costs associated with running a monetary authority, and it is more difficult for small countries to absorb these costs. Smaller countries also trade more than larger ones and may also reap larger trade benefits from lower exchange rate volatility, especially in the face of imperfect financial markets which raise the cost of hedging foreign-exchange risk.

On the other hand. many countries, even large ones, have experienced painful failures in their attempts to peg the exchange rate. Most often, the reason for the collapse of the fixed exchange-rate regime was that the economy was developing differently from the country to which it fixed its exchange rate. The breakdown of the regime often entails very large, abrupt movements in the exchange rate and damaging consequences for the involved countries. Recent examples are the Southeast Asian countries in the late 1990s and Argentina in the early 2000s. Both episodes saw the breakdowns of the countries' fixed exchange rate policies and were followed in both cases by severe recessions. On balance, given the limited evidence, the appropriate exchange-rate regime for Iceland in the long term is still subject to debate.

Adjustments to the inflation-targeting policy framework

Iceland had only seven years of experience with the inflation targeting (IT) framework for monetary policy before the financial crisis erupted, and as such it would be premature to call the approach a failure. Indeed, other inflation-targeting countries appear to have fared better than Iceland during the crisis (Box 1.2). As was emphasised in previous *Economic Surveys* and as acknowledged by the Icelandic authorities themselves, suboptimal monetary policy was partly to blame for the over-heating economy in the 2000s, as interest rates were raised too little and too late to contain the imbalances (Central Bank of Iceland, 2012). Moreover, as also mentioned in previous *Surveys*, the effectiveness of monetary policy was weakened by its lack of credibility, political interference in central bank decisions, impaired transmission mechanisms, and large-scale exogenous shocks. There was also a lack of co-ordination between fiscal and monetary policy and insufficient prudential regulation and supervision, which resulted in the massive boom in credit markets that ultimately led to the collapse.

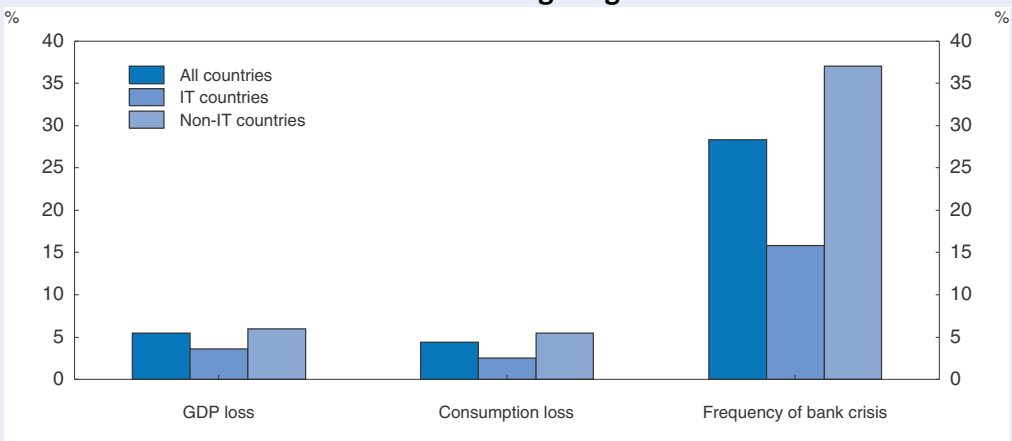
Drawing on these lessons, several steps have been taken in past years to strengthen central bank independence, improve co-ordination with fiscal policy and revamp bank supervision. The CBI has also proposed a modified inflation-targeting approach that it has

Box 1.2. **The experience of other inflation-targeting countries**

Interest in the inflation-targeting policy framework has risen in recent years, especially since many of the countries that moved to this regime appear to have improved their economic performance. New Zealand, in particular, was the first to formally adopt an inflation-targeting framework in 1990, and its inflation performance has gone from being among the worst among advanced countries to being near the middle of the range. After many years in which New Zealand's inflation rate was markedly higher than that in Australia, in the 22 years since New Zealand adopted inflation targeting, its inflation rate has been slightly lower than Australia's (2.6% vs. 2.8%). Since the move to inflation targeting by New Zealand, more than 20 countries have formally adopted similar policy regimes. A number of empirical studies have been published showing that the adoption of an inflation target has been followed by reductions in both the level and variability of inflation in the adopting countries, even after controlling for movements in other economic variables (e.g. Pétursson [2004]; Vega and Winkelried [2005], and Mishkin and Schmidt-Hebbel [2007]). Corbo et al. (2001) found that the adoption of an inflation target has tended to make inflation more predictable and reduced its persistence, and Pétursson (2009) found that the exchange rate pass-through in many countries became smaller in size after the adoption of inflation targeting.

Another notable characteristic of inflation-targeting countries is that they appear to have fared better, on average, during the global financial crisis than non-targeting countries. For instance, a recent cross-country analysis by Ólafsson and Pétursson (2010) found that, after adjusting for various pre-crisis variables and country characteristics, the contraction in output and consumption was smaller for the inflation-targeting countries (Figure 1.2). By contrast, however, the global financial crisis had a relatively large impact in Iceland: the contraction in economic activity was more severe than for most other countries, and the banking crisis was more pervasive than elsewhere.

Figure 1.7. **The impact of the crisis was relatively muted for most inflation-targeting countries**



Source: Ólafsson and Pétursson (2010).

StatLink http://dx.doi.org/10.1787/888932855601

dubbed "IT-plus" (Central Bank of Iceland, 2010). Under the proposed framework, interest rates remain the main policy tool for achieving the inflation target, and the exchange rate is allowed to float, but the central bank conducts interventions in the currency market in order to cushion the impact of short-term capital flows on the exchange rate. The hope is

that, by damping swings in the exchange rate, the currency-market interventions will help to stabilise inflation expectations and contribute to financial stability.

The authorities have stated that during the on-going process of removing capital flow restrictions Iceland's monetary policy will keep a heightened focus on exchange-rate stability, and as such it has not yet fully adopted the "IT-plus" framework. Nevertheless, the CBI already has begun conducting active interventions in the foreign-exchange market. Following a pronounced depreciation in the króna in the latter half of 2012, the CBI suspended its programme of regular foreign currency purchases and began supporting the króna with sterilised interventions in the foreign exchange market. In announcing the policy in February, the Monetary Policy Committee highlighted the risk "that self-fulfilling expectations of a depreciation will further weaken the currency" (Central Bank of Iceland, 2013). Since that time, the value of the króna has more than reversed its decline over the preceding six months.

So long as the CBI avoids trying to defend a fixed level of the exchange rate, such a strategy of interventions could be beneficial, as it may help stabilise inflation expectations and thereby ease pressures on domestic prices arising from movements in the exchange rate. However, the approach should be undertaken with caution, since even limited interventions can expose taxpayers to risk of significant losses. Moreover, the Icelandic government's resources available for intervention will be limited in relation to those of parties on the opposite side of the market after the capital controls are lifted.

Bearing in mind these limitations, it may be necessary to make additional adjustments to the inflation-targeting framework. In particular, owing to its small size and narrow production base, Iceland will almost certainly continue to experience volatility in economic activity, terms of trade and the exchange rate. As a result, actual inflation is also likely to remain more volatile and therefore to fall outside the tolerance range in Iceland than in other inflation-targeting countries (Breedon et al., 2012). The CBI may therefore have to tolerate longer-lived deviations from the inflation target. Greater co-ordination between monetary and fiscal policy objectives would also improve the ability of government to promote price stability, although the currently high level of public debt will limit the scope for fiscal policy to be used to stabilise aggregate demand. Most importantly, the credibility of monetary policy must be strengthened, so as to increase its effectiveness, which requires strict respect of the central bank's independence, especially when interest rates have to be increased as inflationary pressures mount.

The implementation of inflation targeting in Iceland is unusual in that the headline CPI index, on which the target is based, includes the market price of residential housing, through the imputed rent subcomponent. This reflects the high proportion of home ownership in Iceland (over 80%) and the correspondingly small rental market with rental prices frequently subject to official intervention. The fact that the housing component of the price index reflects current house prices and mortgage rates has the undesirable effect that monetary tightening raises the targeted index. Adopting a rental equivalence approach for owner-occupied housing is difficult because the rental market in Iceland is very small, but New Zealand and other countries have overcome this issue by adopting measures based on the cost of capital for buildings and land development (OECD, 2009).

Even under the best policy framework, a micro-currency such as that of Iceland will always be difficult to manage in a world of large and volatile capital flows. Indeed, Iceland is by far the smallest jurisdiction in the world with its own floating currency. In the longer

term, outsourcing monetary policy to the European Central Bank by adopting the euro is an option. This would stabilise inflation and reduce the exchange-rate risk premium against the euro in domestic interest rates, fostering increased capital intensity and productivity, an area where Iceland has lagged behind the OECD average (OECD, *Going for Growth*, 2013). On the other hand, Iceland does not appear to be part of an optimal currency area for the euro, and it would lose the contribution of the exchange rate in absorbing shocks, a role that has been especially important during the post-crisis recovery. Moreover, euro adoption would require joining the EU, which will not be possible until – among other things – the capital controls are removed, and which poses challenges of its own unrelated to monetary policy.

Prudential tools as the third pillar of macroeconomic policy

One of the central lessons arising out of the financial crisis is that traditional monetary policy may be insufficient to ensure both monetary and financial stability. The recent experience of many countries suggests that macro-prudential supervision and regulation can be essential in this regard. Macro-prudential policies focus on the stability of the financial system as a whole, rather than individual financial institutions. A central idea is that the various and complex inter-connections between individual entities within the financial system can give rise to endogenous risks for the system as a whole. The objective of macro-prudential policies is to limit these systemic risks and to minimise the adverse effects of financial shocks on real activity. By discouraging the build-up of financial imbalances, prudential policies also hold some promise of increasing the effectiveness of monetary and fiscal policies.

An area where macro-prudential instruments hold some promise is in pre-empting the build-up of credit bubbles. Credit markets are well developed in Iceland, and positive asset price cycles are often accompanied by rising credit and credit-driven spending growth, because in good times there is a tendency for agents to underestimate the possibility of a downturn and thereby distort the pricing of risks. The pattern of asset-price inflation fuelling credit expansion can become self-reinforcing and lead to an unsustainable credit boom, which ends when the asset price bubble eventually bursts. The result is that credit cycles have the tendency to magnify business cycles and cause significant damage and strain in the country's financial system.

Another area where macro-prudential policies could be beneficial for Iceland is in reducing the risks presented by volatile international capital flows. This is because macroeconomic and financial stability and real exchange rate developments are very closely intertwined. Unstable capital inflows may develop in good economic times and put upward pressure on asset prices and the exchange rate, thereby contributing to overheating in the economy and inflationary pressures. Conversely, capital outflows that result from sudden reversals in investors' expectations and appetite for risk will put downward pressure on the exchange rate that can amplify or even trigger a contraction in real activity. Given the important contribution in the past of speculative capital flows to the overheating economy and subsequent financial crisis, as Iceland relaxes its existing capital flow restrictions and once again becomes more financially integrated with other countries, it will be important to have in place policies that can help mitigate sudden surges of capital in either direction.

Some of the tools aimed at damping credit cycles and managing capital flows include caps on the loan-to-value ratio (LTV), caps on the debt-to-income ratio (DTI), cyclically varying loan-loss provisioning requirements, and ceilings on credit or credit growth (see Box 1.3). Although

Box 1.3. **Prudential policy instruments**

Micro-prudential policies attempt to improve individual institutions' resilience to risks (including those arising from international capital flows), but they may also reduce systemic risk by mitigating externalities arising from individual institutions' behaviour. These include the following:

- Forward-looking provisioning of expected losses.
- Valuation reserves to cover the risk of mean reversal in prices of marked-to-market assets.
- Caps on LTVs/minimum collateral haircuts.
- Higher risk weights on specific types of exposures (such as real estate lending).
- Minimum capital requirements, including better quality of capital (as in Basel III).
- Leverage ratios.
- Capital conservation buffer (Basel III).
- Liquid assets buffer (Basel III).
- Limits on currency and maturity mismatches (Basel III NSFR).

Macro-prudential policies are aimed explicitly at systemic risk. Often, the macro-prudential toolkit will be based on existing micro-prudential tools, but with settings that are conditioned on macro-financial developments or indicators of systemic risk, either in a rule-based or a discretionary fashion. Some examples of such policies are:

- Cyclically varying provisioning requirements.
- Cyclically varying LTVs.
- Countercyclical capital buffer (Basel III).
- Capital/liquidity surcharge/levies on systemically important financial institutions.
- Tax on volatile funding.
- Caps on credit growth.
- Higher reserve requirements.

Source: Ostry *et al.* (2011).

credit-based rules have been used by Iceland and other countries in the past for micro-prudential reasons, they are being applied increasingly to reduce systemic risk, especially in real estate markets. Many countries, including Canada, China, Korea, Singapore, Malaysia, Thailand, and New Zealand have implemented these types of measures, and some have made discretionary adjustments in response to economic developments. Canada, for instance, has implemented macro-prudential measures to tighten regulations of government-backed mortgage insurance, including lowering the maximum LTV ratios needed to qualify for government guarantees, as well as reducing the maximum permissible amortisation period for new mortgages (OECD, 2012a). New Zealand is working to link financial institutions' capital adequacy requirements to maximum LTV ratios, so that a higher LTV ratio would be accompanied by a higher capital requirement, which would facilitate lending in downturns and tend to restrict credit growth in upswings. Spain has developed a formula for loan-loss provisioning requirements that factors in credit growth.

Given countries' limited experience with these tools, it is somewhat difficult to gauge their overall effectiveness, but there is some encouraging evidence thus far. Unsal (2011) showed that the combination of macro-prudential measures used conjunction with monetary policy mitigated the risks associated with capital inflows better than when either

of these policies were used in isolation. Simulations carried out in Fátas et al. (2009), illustrate that such macro-prudential policy can be more effective in pre-empting credit bubbles than simply raising policy rates. Evaluation studies have shown that macro-prudential policies can be effective in damping cyclical forces and smoothing out the business cycle. For example, using cross-country data, Lim et al. (2011) found that the macro-prudential tools aimed specifically at preventing credit market overheating significantly reduced the correlation between the credit growth and GDP growth. Caps on the LTV ratio, for example, were shown to reduce the cyclicality of credit growth by 80 per cent.

In IMF surveys on the usage of macro-prudential policies, country authorities have cited many advantages of using these tools, including that macro-prudential instruments are less blunt than monetary tools and more flexible than most fiscal tools (IMF, 2011b). Respondents to the IMF surveys also have noted that many instruments can be tailored to risks of specific sectors or loan portfolios without causing a generalised reduction of economic activity, thus limiting the cost of policy intervention.

There are economic costs associated with the use of macro-prudential tools. Financial institutions are likely to pass on their higher funding costs in the form of higher interest rates, which will imply costs in terms of foregone investment and productivity. Design and calibration of the instruments is likely to be difficult, especially since for many macro-prudential tools there is limited international experience that can be drawn upon, and side effects are not well understood. If not handled carefully, overly restrictive policies could hamper growth or generate unintended distortions. Caution should be taken to ensure that the measures used do not incentivise agents to circumvent regulations be channelling financial services out of the regular banking system and into the shadow financial system. In addition, prudential policies are not one size fits all – countries need to assess for themselves which risks are most pertinent, and weigh the relative benefits of advantages of various policies in addressing those risks.

Several other guiding principles have been recommended for the implementation of macro-prudential tools (e.g. Lim et al. [2011]; Committee on the Global Financial System, [2010]). First, as has been emphasised by the FSB and others, the policy instruments should be simple to implement and straightforward to enforce. Ideally, the design and calibration of policy instruments should be guided by data rather than judgment. Policy instruments also should be specifically linked to, and where possible, adjust automatically in response to, developments in specific economic variables. Put another way, good policies are designed in such a way that they operate like "automatic stabilisers" in the fiscal policy sphere. It is also important that the effectiveness of the tools be symmetric in that they are helpful in counteracting both upturns and downturns.

Further strengthening micro-prudential regulation

In the run-up to the financial crisis, the size and complexity of Iceland's banking sector increased at a dangerously rapid pace. From 2003 to 2008, the ratio of Iceland's banking system assets to its GDP rose from 200 per cent to nearly 1 000 per cent. This rapid expansion in bank balance sheets could be traced directly to inadequate restrictions on the Icelandic banks' ability to use borrowed capital to invest in risky financial assets. The largest owners of all the big banks had abnormally easy access to credit at the banks they owned, apparently in their capacity as owners. The banks, in turn, had exposures to their owners, which along with connected parties and key management personnel amounted to 70% or more of each bank's capital base. In addition, these borrowers had obtained large

loans from the other banks. The result was that the banks' equity positions were much weaker than they appeared on the surface.

In the years since the crisis, Iceland has addressed many of these shortcomings in micro-prudential regulation. Most notably, Iceland passed the Act on Financial Undertakings in 2010, which gave the FME much broader discretionary powers and put in place measures for improved risk management and governance of banks. The problem of excessive reliance on wholesale funding was solved with the creation of the new banks, which are almost entirely funded by deposits. Even so, the FME also has imposed strict standards for capital adequacy on the banks. The 16% minimum capital ratio that was imposed temporarily after the crisis has since been replaced based on the results of the ICAAP/SREP process for individual banks in accordance with Pillar 2 of the Basel II/CRD III rules. In its 2012 annual report, Iceland's largest bank reported that its current minimum capital ratio was 19.5%. New liquidity requirements are tighter than those based on the rules issued by the CBI before the banking crisis.

Experience with these emerging standards is very limited, and there is still significant debate over whether the international guidelines are well-calibrated, i.e., whether banks' failure to meet the minimum requirements are a reliable predictor of future insolvencies. Nevertheless, given the small size and high concentration of the Icelandic financial market, the authorities should continue to treat the Basel III requirements as a minimum standard. It is therefore recommended that Iceland retain its tighter capital requirements and work toward full compliance with other Basel III standards. In addition, measures related to capital adequacy and liquidity could be further strengthened by including counter-cyclical components in their design; for example, the size of banks' required capital buffers could be higher when the economy is strong but could be allowed to run down when the economy is weak. Such counter-cyclical characteristics would be useful in reducing systemic risks arising from the banking sector.

Strengthening the institutional framework for monetary and financial stability

The incorporation of prudential policies into a broader framework for monetary and financial stability will present analytical and operational challenges. While Iceland has made good progress in implementing new regulatory procedures, the activities have involved a number of disparate authorities within the government, with little collaboration between entities. Going forward, it is important that the relationships between these entities be strengthened and formalised within an explicitly-defined, over-arching framework. Clear areas of responsibility for each authority need to be defined. To minimise the ability for politically-driven incentives to affect policy decisions, an explicit mandate for fostering financial stability should be established, and the authorities need to be furnished with the statutory authority and instruments necessary to carry out the mandate.

These requirements are fully consistent with the final recommendations of the so-called "G3 experts" (see Box 1.4), who advocated that financial stability should be considered a public good and an important "third pillar" of economic management alongside monetary and fiscal policy. In order to construct a solid institutional framework for this third pillar in Iceland, the G3 experts recommended several important steps, which include enacting legislation to codify the objectives of financial stability policy (dubbed the "Systemic Stability Act"), and creating a Financial Stability Council (FSC) with oversight responsibilities for all aspects of financial stability policy, including crisis prevention, management and resolution. The FSC would be designed to replace the present Committee on Financial Stability and would be comprised of the Minister responsible for the Treasury and fiscal policy, the

Box 1.4. **G3 experts' recommendations for financial stability in Iceland**

In the Fall of 2011, the Icelandic authorities commissioned three outside experts to prepare a comprehensive report on Iceland's present financial system and its future development, with the aim of initiating informed discussions among policy makers on ways to address deficiencies in the current regulatory framework. Following the publication of this report in March 2012, the government appointed a three-member panel of banking experts to examine the report and prepare proposals for a comprehensive legal and regulatory framework for Iceland's financial system (Althingi, 2012b).

Incorporating international experience and based on consultations with a broad set of stakeholders, the group made the following key recommendations:

a) Establish an overarching statutory framework for the financial system by enacting financial stability framework legislation to enhance and preserve the stability of an efficient and effective financial system for Iceland as a public good.

b) Create the necessary institutional framework for the "third pillar of macroeconomic policy' by establishing a Financial Stability Council (FSC) and providing a common platform for the operations of the central bank (CBI) and the financial supervisory authority (FME), with the aim of bringing them within three years under the roof of a single institution that will serve as Iceland's integrated monetary and financial stability authority.

c) Bring all financial sector legislation as well as the CBI and the FME under a single ministry in order to strengthen governance of this important policy area and to clarify the lines of accountability and responsibility for financial stability.

d) Address the structural problems of concentration, complexity, lax competition and distorted incentives in the Icelandic financial system by:

- making all financial undertakings subject to a common core set of rules for comparable activities;
- correcting distortions that lead to excessive leverage and divert the focus of financial institutions from intermediation of finance between ultimate borrowers and savers and provision of financial services to households and companies;
- replacing the blanket state guarantee of deposits in Icelandic banks, in force since October 2008, with a deposit guarantee scheme in line with the EU/EEA directives and giving permanent priority to covered deposits in resolution;
- requiring that all financial undertakings be structured and operated so that they can be wound down easily, quickly and without causing contagion or triggering a crisis;
- making different critical functions such as investment banking and commercial banking separable in resolution, and consider requiring legal separation of certain particularly risky financial activities from deposit-taking operations of banks if such activities amount to a significant share of a bank's business;
- using regulatory powers and control rights that arise from public ownership to address distorted incentives, for example, by requiring variable compensation of key staff and management to be paid in the form of nonvoting equity or nonnegotiable junior subordinated instruments;
- placing the relevant parts of the temporary emergency legislation of 2008 on a permanent footing in a manner which gives the FME the power to resolve any financial undertaking in a manner that assures the continued performance of critical functions and the stability of the financial system;
- encouraging foreign ownership/entry in the financial market, subject to conditions that underpin financial stability.

Minister responsible for financial markets, the Governor of the CBI and the Director General of the FME. The FSC would organise co-ordination and co-operation among the various public authorities dealing with the financial sector and would take the lead as the national macro-prudential authority entrusted with responsibility for systemic stability policy.

The council setup to oversee macro-prudential policy is similar to that used in some other OECD countries, including Norway and the United States. In the United States, the Financial Stability Oversight Council (FSOC) is composed of officials from several financial regulatory agencies. Committee members vote on specific changes to macro-prudential policy, and member agencies of the FSOC are then tasked with implementing the group's desired policy changes. It is important to establish channels for all involved parties to co-operate, share information, and inform other authorities of developments or actions relevant for their particular sphere of responsibility. This will help ensure that action can be taken without delay when instabilities emerge.

As noted in earlier OECD surveys (OECD, 2009, 2011), the lack of information sharing among the authorities created problems in the run-up to the financial crisis in Iceland. Since then, significant improvements have been made. For example, oversight of individual financial institutions has improved with the creation by the FME of a statutory credit register for large borrowers. This register could also be useful for macro-prudential oversight, such as detecting whether the financial system as a whole is becoming overly reliant on the solvency of a handful of entities. However, the IT system for processing and analysing the information received from the supervised entities needs further enhancements, and it needs to be shared more widely among the relevant financial authorities. Close co-operation with the CBI is encouraged in the development of the IT system, and the resulting information resources need to be shared with all those authorities that have financial oversight responsibilities. The authorities also may want to consider whether it is enough that government agencies are utilising these information resources internally, or if there is a case for releasing more information about the distribution of debt to the public so that these issues can be discussed among a broader audience of stakeholders.

Finally, while there has been a sizable increase in recent years in the number of government employees dedicated to financial surveillance and regulation in Iceland, it would also be beneficial if employees at the FME and other authorities were provided with additional opportunities to obtain training and share experience with their peers in other countries. Given scarce resources, co-operative agreements between the Icelandic authorities and their counterparts in other countries could facilitate this process. Some such arrangements already have been made; for example, the FME has obtained assistance and funds via the Technical Assistance and Information Exchange (TAIEX), a service for partner countries and applicants to the EU that is managed by the Directorate-General Enlargement of the European Commission. The FME is also in the process of building a risk assessment system and have sought examples and knowledge of such system to the Irish Financial Supervisory Authority. Further development of these types of relationships is encouraged.

Strengthening the resolution regime

As was painfully evident during the financial crisis, many countries, including Iceland, needed a resolution authority with statutory powers to intervene in financial institutions' operations to reduce the risk of failure or to oversee the orderly liquidation of a failed institution. Such an authority can help ensure that the social costs of bankruptcy are minimised, and that emerging problems are resolved quickly, efficiently, and with minimum government intervention. The establishment of a strict resolution regime increases the

likelihood that institutions in distress can be wound down without the use of public money and without triggering contagion, thereby minimising disturbances to the whole economy. Having a credible resolution authority also reduces uncertainty and moral hazard, and thus would help limit fear-induced transfers abroad and a resulting instability in the exchange rate.

During the crisis, Iceland enacted emergency provisions that gave the financial supervisory authority important and useful powers for resolving financial institutions in distress, including the ability to take special measures to intervene in the affairs of a failing institution and put it into resolution. Importantly, the new provisions applied to all types of financial institutions and not just banks. Most of these emergency provisions were then transferred into the Act on Financial Undertakings in 2010, but on an interim basis only. Permanent legislation is currently being drafted by the financial authorities in Iceland, to be finalised in the third quarter of this year. In addition to establishing well-defined, permanent resolution arrangements, the authorities should work to ensure that failed institutions can be wound down easily and without causing disruption to the provision of essential financial services. To this end, the G3 experts recommended that all financial undertakings be structured and operated such that any critical functions, notably investment banking and commercial banking, are separable in resolution. Iceland's resolution regime should incorporate features outlined in previous proposals from the EC and the FSB (European Commission [2012]; Financial Stability Board [2011]).

Establishing a sustainable deposit guarantee system

During the financial crisis, the government announced a blanket guarantee of retail deposits when the new Icelandic banks were created to replace the ones that collapsed. This policy was enacted in an effort to head off a bank run, and it was successful in that regard. However, a blanket guarantee entails many distortions. First, competition between financial institutions is distorted if all institutions do not benefit from the guarantee. This situation may have contributed to the demise of non-bank financial institutions (finance companies) in Iceland. Second, savers generally do not discriminate between banks on the basis of their riskiness, and this has the effect of weakening incentives for banks to control their risks. To avoid the costs of these distortions to competition, the blanket guarantee that has been in force since October 2008 should be replaced by a deposit guarantee arrangement that is not subsidised and has limited coverage. Given Iceland's membership in the EEA, the system would have to conform to EU regulations, including the forthcoming EEA directive on deposit guarantees.

Reforming the Housing Finance Fund

The Housing Finance Fund (HFF) is an independent state-owned agency that is the dominant player in the residential mortgage market (it has about a 50% market share). During the financial crisis, the HFF incurred significant losses on its loan portfolio and had to be recapitalised by the government. Unfortunately, the current policies provide the HFF with advantages that undermine competition in the mortgage market and distort the allocation of resources between financial institutions. Further, as was made evident during the financial crisis, these policies also expose taxpayers to the risk of significant losses. The best was to address these problems would be for Iceland to develop a comprehensive housing policy from the ground up and then to re-evaluate the HFF's mandate and institutional setup within the context of this policy. For instance, the HFF's current public-policy objectives could be achieved instead by directly subsidising housing costs for

low-income households. Phasing out the HFF's policy-related competitive advantages would entail charging the HFF for the value of its loan guarantee on all new HFF bonds or eliminating the guarantee on new bonds, subjecting the HFF to ordinary bankruptcy laws and to corporate and property taxation, increasing the HFF's capital adequacy ratio to the levels applying to other financial institutions, and subjecting it to prudential regulation and supervision by the FME.

Raising financial literacy to improve financial decision-making

Enhancing financial literacy in Iceland would mitigate the risk that individuals who cannot evaluate their financial operations find themselves in trouble. They might overestimate the borrowing they can afford, or misunderstand how exchange rate or interest rate movements will affect their balance sheets and household budgets. In December 2011, the Institute for Financial Literacy in Iceland (IIFL) surveyed adult financial literacy, incorporating many questions from a prior survey conducted by the OECD/INFE, and compared results with the 14 countries that piloted the initial OECD/INFE survey (Atkinson and Messy, 2012). The results of IIFL survey were somewhat encouraging in that 87% of the Icelandic respondents maintained that they kept a close watch on their financial affairs, which was the second highest proportion when compared with the countries surveyed previously by the OECD. However, relatively few of the Icelandic respondents appeared to have adequate basic knowledge of key financial concepts; for instance, only 40% of respondents knew how much money they would have if they earned 2% interest on 10 000 króna. Further, only a small percentage of respondents indicated that they create a household budget to manage their finances. Given these shortcomings, it is encouraging that Iceland's Institute for Financial Literacy has initiated research on this topic and is an active member of the OECD International Network on Financial Education (Grifoni and Messy, 2012). Further efforts to incorporate OECD recommendations regarding national strategies for financial education are encouraged (OECD, 2012b).

Box 1.5. **Recommendations for promoting financial stability and effective monetary policy**

Key recommendations

- Macro-prudential policies, such as maximum loan-to-value ratios or caps on foreign-currency lending, should be used to mitigate risks to financial stability, dampen credit cycles and complement monetary policy.
- Proceed with the established programme for removal of the capital controls at a pace that is conditioned upon economic developments.
- Once capital controls are lifted, maintain an inflation targeting framework for monetary policy with a floating exchange rate. A heightened emphasis on exchange rate stability is warranted, but limit the scope of currency market interventions to smoothing erratic fluctuations.
- Strengthen co-ordination and communication between financial sector authorities, and establish an explicit mandate for maintaining financial stability that clearly defines areas of responsibility and provides entities with the statutory authority and instruments to carry out their responsibilities.

Box 1.5. **Recommendations for promoting financial stability and effective monetary policy** *(cont.)*

Other recommendations

- Establish a permanent resolution regime with well-defined procedures that conform with EU regulations.
- To reduce economic distortions, replace the existing blanket deposit guarantee with deposit insurance that is consistent with EU rules.
- Develop a comprehensive housing policy, and pursue public-policy objectives by directly subsidising housing costs for low-income households. Reform the HFF by phasing out its policy-related advantages.

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Chapter 2

Reinforcing the public debt reduction strategy

In the wake of the financial crisis, the Icelandic government adopted a multi-year fiscal consolidation programme to lower public debt to more prudent levels and hence to reduce vulnerability to future adverse shocks. Considerable progress has been made in implementing the programme and debt has begun to decline. Remaining consolidation is mainly to come from reducing current expenditure. This, and the adoption of a budget law to increase discipline, would make the consolidation more sustainable. There are opportunities to reduce current expenditure by increasing efficiency, notably in the area of school education. More generally, the conduct of regular strategic spending reviews would help to identify savings, including by shifting resources to the government's highest priorities.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Government debt shot up to 120% of GDP in the wake of the financial crisis. The government and the IMF agreed that bringing debt down to more prudent levels needed to be a central pillar in the economic recovery programme. Accordingly, the government embarked on a substantial, multi-year fiscal consolidation programme aimed at reducing general government gross debt (Maastricht definition, which excludes funding deficits in government employee pension schemes) to 60% of GDP. Considerable progress has been made in implementing the programme, with consolidation to date primarily achieved through increasing revenue and reducing government investment and non-wage government consumption. Over the remainder of the programme, the focus of consolidation shifts to current expenditure. If implemented, this would increase the chances of consolidation being durable. Steps are also being taken to put in place a legal framework for budgeting that would increase discipline. There are significant opportunities to reduce government expenditure without undermining service outputs by increasing efficiency, particularly in school education. Undertaking regular strategic spending reviews would help to unearth other opportunities for efficiency gains and to reallocate expenditures to the highest priorities.

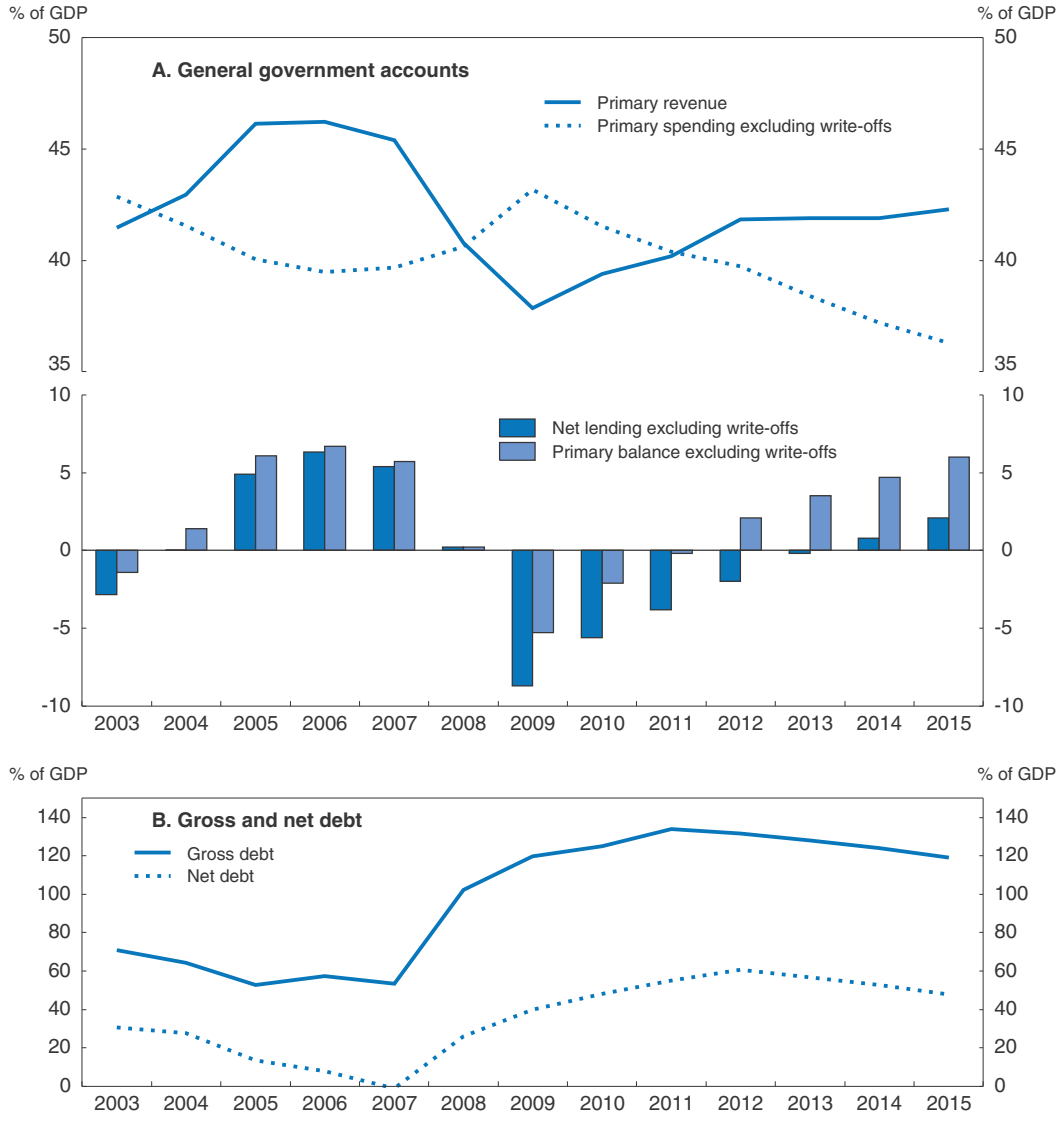
The chapter begins with a discussion of progress to date in implementing the fiscal consolidation programme and remaining consolidation requirements. This is followed by a review of the proposed law to increase fiscal discipline. The chapter finishes by considering possibilities for reducing current expenditure through savings from efficiency gains, particularly in education and health care, the two largest components of government expenditure.

Fiscal consolidation

Considerable fiscal consolidation has been achieved since the financial crisis

The government's budget position deteriorated markedly in the wake of the financial crisis, with the general government budget balance (excluding write-offs) falling from a surplus of ¼ per cent of GDP in 2008 to a deficit of 8¾ per cent of GDP in 2009 (Figure 2.1). Almost one half of this deterioration reflected increased net interest costs (Table 2.1). The rest was evenly split between lower primary revenues (especially income tax and VAT) and higher primary expenditures (mainly unemployment benefits and non-wage government consumption). Three quarters of the increase in the primary deficit (excluding write-offs) is estimated to have been structural. Budget deficits and revaluation of foreign-currency- and indexed-domestic debt pushed up general government net debt from near zero in 2007 to around 40% of GDP by 2009. Gross debt increased by considerably more to finance increased foreign exchange reserve holdings and claims on the new banks, reaching 120% of GDP by 2009. These are high debt levels by international comparison, although the difference with most other countries is somewhat overstated as the Icelandic data include funding deficits in government-employee pension schemes at both the central- and local levels of government (amounting to around 25% of GDP) whereas the equivalent liabilities in countries with pay-as-you-go schemes are not included.

Figure 2.1. **Public finances are recovering from the large deterioration caused by the financial crisis**



Source: OECD, *National Accounts Database*; IMF (2012a), "Iceland: Second Post-Program Monitoring Discussion", *IMF Country Report*, No. 12/309, November, for 2012-16.

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Putting public finances back onto a sustainable path was a central element of the comprehensive recovery programme (Stand-By Arrangement, SBA) agreed with the IMF to overcome the economic problems left in the wake of the financial crisis. Doing so was intended to reduce government-credit-risk premiums and enhance confidence in the lender of last resort standing behind the financial system, giving the government renewed access to global capital markets and providing a more favourable environment for investment. It would also contribute to a reduction in Iceland's high net external debt and take pressure off interest rates, especially when the economy recovers, reducing the risk of disruption from a sudden stop in net capital inflows and further enhancing the investment environment. Moreover, the government would eventually regain room for manoeuvre to provide short-term support to economic activity during periods of cyclical weakness. While all of these effects should increase economic growth, empirical evidence remains ambiguous.

Table 2.1. **Much of the former government's fiscal consolidation plan has been implemented**[1]

General government, % of GDP

	2008	2009	2010	2011	2012	2013	2014	2015
Primary revenue	**40.8**	**37.9**	**39.4**	**40.2**	**41.8**	**41.9**	**41.9**	**42.3**
of which:								
Taxes on income, profits and capital gains	17.8	16.0	15.6	16.3	16.9	16.3	16.4	16.4
Taxes on property	2.2	2.1	2.3	2.3	2.4	2.5	2.5	2.1
Taxes on sales and services	13.2	11.7	12.0	12.0	12.4	12.5	12.5	12.5
Social security contributions	2.8	3.1	4.1	4.1	3.9	3.9	3.9	4.0
Other	4.9	5.0	5.4	5.5	6.3	6.7	6.6	7.3
Primary expenditure	**54.3**	**44.4**	**46.0**	**42.2**	**41.1**	**38.4**	**37.2**	**36.3**
Write-offs[2]	13.7	1.2	4.5	1.8	1.4	0.0	0.0	0.0
Primary expenditure excluding write-offs	**40.6**	**43.2**	**41.5**	**40.4**	**39.8**	**38.4**	**37.2**	**36.3**
of which:								
Compensation of employees	14.6	15.0	14.8	14.5	14.8	14.3	14.0	13.7
Other collective consumption	11.6	12.5	12.2	11.7	11.4	11.0	10.6	10.4
Social transfers	6.1	8.1	7.9	8.5	8.0	7.6	7.4	7.2
Subsidies	1.8	1.9	1.8	1.8	1.7	1.6	1.5	1.5
Gross fixed capital formation	4.5	3.5	2.9	1.8	1.8	1.9	1.9	1.8
Other	2.1	2.2	2.0	2.1	2.0	2.0	1.8	1.7
Primary balance	**-13.5**	**-6.5**	**-6.6**	**-1.9**	**0.7**	**3.5**	**4.7**	**6.0**
Net interest payments	0.0	3.4	3.5	3.7	4.1	3.7	3.9	3.9
Net lending	**-13.5**	**-9.9**	**-10.1**	**-5.6**	**-3.4**	**-0.2**	**0.8**	**2.1**
Excluding write-offs:								
Primary balance	**0.2**	**-5.3**	**-2.1**	**-0.2**	**2.1**	**3.5**	**4.7**	**6.0**
Net lending	**0.2**	**-8.7**	**-5.6**	**-3.8**	**-2.0**	**-0.2**	**0.8**	**2.1**
Structural primary balance[3]	**-1.0**	**-5.2**	**-0.6**	**0.8**	**2.7**	**3.9**	**4.9**	**5.8**
Structural net lending[3]	**-0.6**	**-8.0**	**-3.9**	**-2.9**	**-1.5**	**0.2**	**0.8**	**1.9**

1. Data from Statistics Iceland for 2008-12, IMF projections thereafter adjusted for differences between IMF estimates for 2012 and outcomes. Projections exclude asset sales.
2. Net capital transfers paid to the non-government resident sector.
3. Cyclical adjustment has been made using Central Bank of Iceland estimated output gaps and an overall budget elasticity of 0.37 (as estimated in Girouard and André, 2005).

Source: Statistics Iceland; IMF (2012a), "Iceland, Second Post-Program Monitoring Discussions", *IMF Country Report*, No. 12/309, November.

To put public finances back on a sound footing, the former government embarked on an ambitious fiscal consolidation plan. It aimed to reduce the Maastricht definition of general government gross debt to 60% of GDP without specifying either a timeline or intermediate targets. Following a revision in 2012 to account for less debt assumption by the government than initially assumed (notably because the Landsbanki estate will be able to cover a higher proportion of priority claims than initially expected) and a weaker recovery, the plan aims for an overall budget surplus by 2014 (see Table 2.1). The planned consolidation represents an increase in the primary surplus excluding write-offs of 11% of GDP from the low point in 2009 to 2015.

The government has made considerable progress to date in implementing this (revised) plan. The primary balance excluding write-offs was 2.1% of GDP in 2012, an improvement of 7.4% of GDP since 2009. This increase represents approximately two thirds of the planned budget consolidation. Slightly more than half of the improvement was achieved through revenue increases. Most of the reduction in expenditures (excluding write-offs) was achieved by cutting government investment and non-wage consumption.

These consolidation measures, aided by low interest rates and economic recovery, have been sufficient to turn the tide from a rapidly rising government debt-to-GDP following the financial crisis to a declining ratio starting in 2012, when gross general government fell to 132% of GDP (96% of GDP on the Maastricht definition) (see Figure 2.1); foreign currency denominated debt amounts to 27% of GDP and is matched by foreign currency assets. Fiscal consolidation has had little impact on growth because fiscal multipliers are low, as in other small open economies with flexible exchange rates, and Iceland has been able to compensate for fiscal drag by running a more accommodative monetary policy than otherwise (Pétursson, 2013).

Fiscal consolidation measures have reduced income inequality

Fiscal consolidation has been undertaken in such a way as to reduce income inequality, both limiting the short-run impact on economic activity and increasing the likelihood that adjustment is seen as fair and hence proves to be sustainable (IMF, 2012b). Social spending was subject to much greater use of means testing and the direct tax system became more progressive, notably owing to increases in the progressiveness of the labour income tax system and an increase in the flat tax on capital income as well as the reintroduction of a wealth tax. As a consequence, the contribution of the tax/transfer system to reducing income inequality increased substantially to near the OECD average (Figure 2.2). Disposable-income inequality fell substantially to levels in line with other Nordic countries (Figure 2.3), despite inequality of the distribution of market incomes remaining unchanged. The ratio of disposable incomes of the top quintile to bottom quintile also declined to low levels by international comparison. While the share of the population at risk of relative poverty based on current median income did not change, this reflected declines in both low-income households' incomes and in the median income (Figure 2.4). The anchored relative poverty rate, which provides better guidance on developments in absolute poverty during a recession by fixing median income at the pre-recession level, rose markedly.

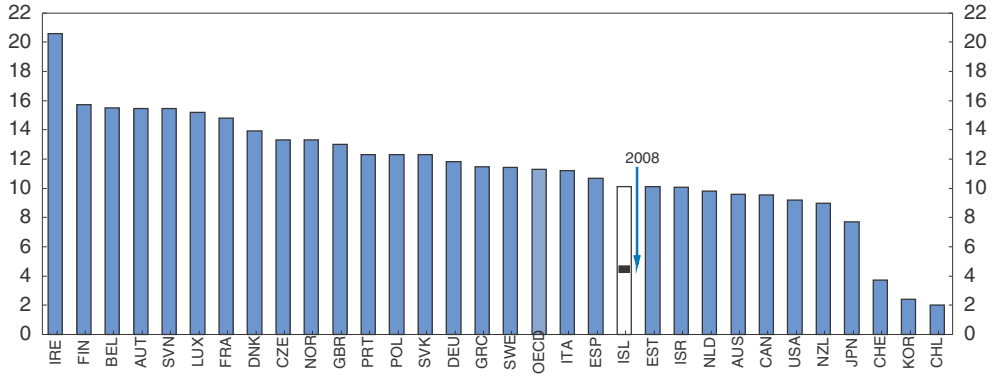
However, elements of the overall redistributive impact of fiscal policy not captured in these measures are likely to have increased inequality somewhat, partially offsetting the reduction achieved through cash transfers/direct taxes. In-kind transfers (health, education, public housing), which are highly redistributive, have declined and VAT and excise taxes, which tend to be regressive when measured in terms of income (though not expenditure), have increased (Box 2.1). Nevertheless, the former government sought to limit the effects of these changes on income inequality, including by not increasing the preferential VAT rates on necessities.

Further consolidation measures would likely be required, especially in current expenditures, to achieve the plan's goals

The remaining increase in the primary balance (excluding write-offs) in the plan was to be achieved mainly through reducing expenditures as a share of GDP (see Figure 2.1). Primary expenditure (excluding write-offs) was projected to decline by 3.5% of GDP between 2012 and 2015, similar to the reduction achieved since 2009. Whereas half of the expenditure reduction since 2009 was achieved by cutting government investment, all of the projected reduction over 2012-15 was to be achieved by reducing current expenditure (see Table 2.1). Most of the projected reduction in current expenditures was to be achieved through declines in government employment compensation, collective consumption and

Figure 2.2. **The redistributive effect of the tax/transfer system has increased to near the OECD average**

Percentage point reduction in the Gini coefficient, 2010[1]



1. Percentage point difference between the Gini coefficients for market and disposable household income. The Gini coefficient is defined as the relationship of cumulative shares of the population arranged according to the level of equivalised disposable income (i.e., adjusted for the number of persons in a household taking account of economies of scale in living costs – for example, a 2 person household is counted as a 1½ person household assuming that living costs for a 2 person household are 1½ times those of a single-person household), to the cumulative share of the equivalised total disposable income received by the cumulative population shares. Population aged 18-64. 2009 for countries without 2010 data.

Source: Statistics Iceland; OECD, *Income Distribution Database*.

How to read this figure: *The bars show the impact of the tax and cash transfers system on disposable income distribution. This impact is calculated as the difference between the Gini coefficients for market-and disposable income distribution.*

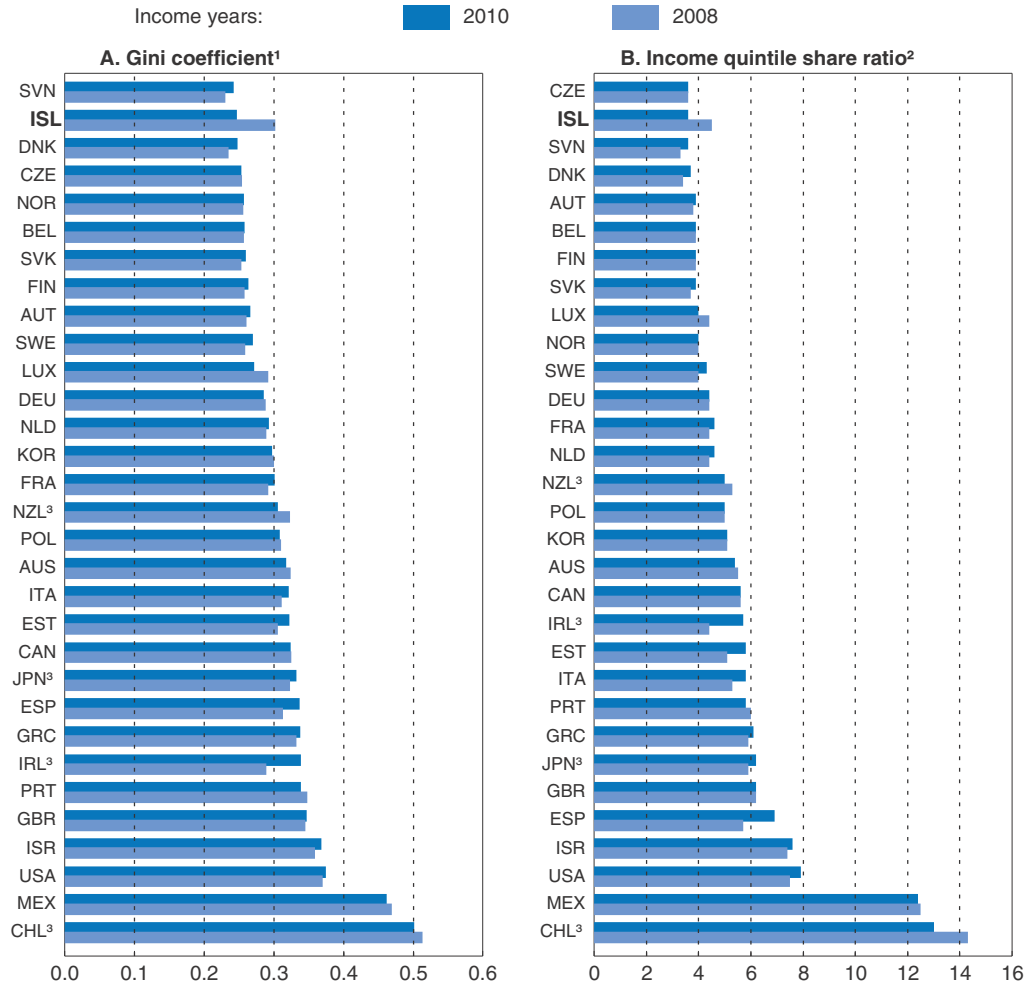
StatLink http://dx.doi.org/10.1787/888932855354

social transfers. The projected declines in employee compensation and in social transfers are based on wage and benefit-rate restraint while the measures to achieve the decline in collective consumption have not yet been spelled out.

The rebalancing in the plan towards greater reliance on reductions in current expenditure increases the chances of success in reducing debt. Evidence from consolidation episodes in a variety of countries suggests that reductions in current expenditures are an indispensable element of successful debt reduction strategies (Guichard et al., 2007). Fiscal adjustments that rely on current expenditure cuts and increase the share of spending for capital projects are more likely to succeed (ibid.; Alesina and Ardagna, 2010). Such changes in the composition of expenditure have a beneficial impact on sovereign-credit premiums by strengthening market confidence that governments can ensure fiscal solvency (Baldacci et al., 2011). They also enhance growth, making debt dynamics more favourable still by further reducing the interest rate-growth differential (Baldacci et al., 2012). Moreover, when adjustment needs are large (such as after a banking crisis), success in debt reduction is even more likely when cuts in current expenditure (while protecting capital expenditure) are complemented by revenue increases, as have already occurred in Iceland (ibid.). Such an approach reduces the need for inefficient across-the-board expenditure cuts, which may lead to unsustainable and unfair outcomes that could jeopardise public support for reforms and harm fiscal consolidation efforts in the medium term.

The projected decline in wage compensation costs was based on an assumption of far lower real increases in the public sector than in the private sector. The plan assumes that public-sector wage rates increase by 3.5% per year over 2013-15. Based on the inflation projections in the 2013 Budget, this implies a cumulative rise in real wage rates of 1.3% over the three years to 2015. At the same time, the Budget assumes that real wage rates in the whole economy will rise by 6.8%, from which it can be deduced that private-sector wage

Figure 2.3. **Disposable income inequality has fallen to low levels in Iceland**



1. See note 1 of Figure 2.2 for information about the Gini coefficient. Population aged 18-64.
2. The ratio of total income received by the 20% of the population with the highest income (top quintile) to that received by the 20% of the population with the lowest income (lowest quintile). Income is equivalised disposable income. Population aged 18-64.
3. 2009 and 2011 for Chile, 2006 and 2009 for Japan and 2008 and 2009 for Ireland and New Zealand.

Source: OECD Income Distribution Database.

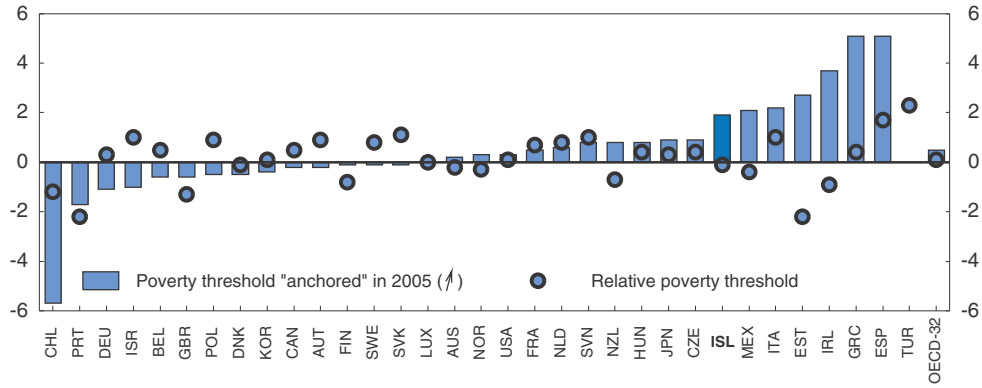
StatLink http://dx.doi.org/10.1787/888932855373

rates rise by 8.9% (government compensation is 27% of total compensation). There is no precedent in Iceland for such a large gap between pay increases in the public- and private-sectors over such a short period.

Moreover, this widening gap does not appear to be required to correct past excessive public-sector wage increases – indeed, they have already lagged behind private-sector increases in 2011-12 after increasing broadly in line with private rates in previous years for which data are available (from 2005). The assumed future gap is unlikely to be sustained when labour market slack disappears. This is all the more so in view of the upcoming increase in recruitment that will be required at least partially to replace the large numbers of government employees retiring over the coming decade or so (almost 50% of government employees are aged 50 or more, one of the highest ratios in the OECD [OECD, 2011a]). The evidence is that such pay cuts don't last – they tend to be reversed over the medium term (Baldacci et al., 2012).

Figure 2.4. **The anchored poverty rate increased more in Iceland than in most other countries during the global financial crisis**

Percentage point changes in relative and "anchored" poverty rates between 2007 and 2010[1]



1. Changes in income poverty measured using relative and anchored poverty line based on 50% of current and 2005 median income in each country, respectively. Estimates for anchored poverty are not available for Switzerland and Turkey.

Source: OECD (2013), "Crisis Squeezes Income and Puts Pressure on Inequality and Poverty in the OECD, New Results from the *OECD Income Distribution Database*".

StatLink http://dx.doi.org/10.1787/888932855392

Box 2.1. **Evidence on the effects of in-kind transfers and indirect taxes on income distribution**

Paulus, Sutherland and Tsakloglou (2009) estimate that in-kind transfers reduced the Gini coefficient by 5.8 percentage points on average in five European countries (Belgium, Germany, Greece, Italy and the United Kingdom), with health (3.6 points) and education (2.2 points) accounting for virtually all of this impact.

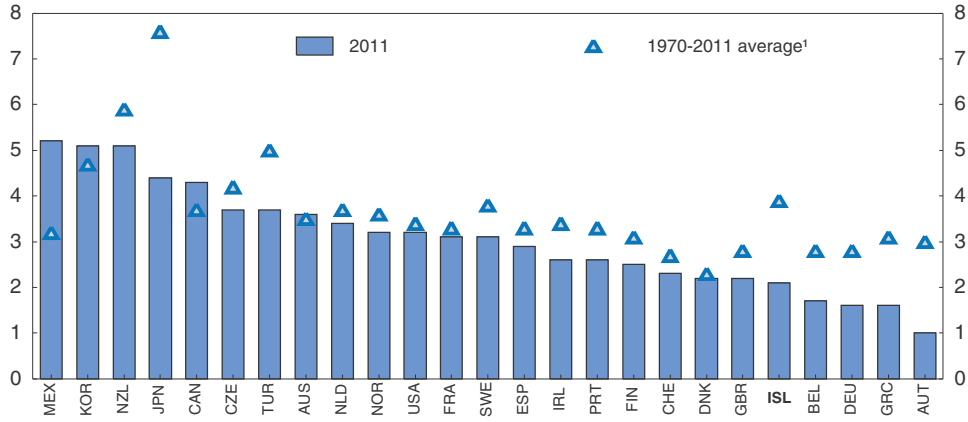
O'Donoaghue, Baldini and Mantovani (2004) find that the effective indirect tax rate (the share of consumption taxes in total household income) in 12 EU countries is on average three times higher for the bottom decile than for the top decile. Both VAT and excise duties are regressive in all of these economies. Excise taxes are especially regressive: their share in total income is four times higher in the bottom income decile than in the top decile. On the other hand, IFS (2011) finds that while VAT is regressive in terms of income in all nine countries studied, it is either proportional or progressive in eight of them when measured as a proportion of expenditure. Similar results are obtained for five countries in Decoster et al. (2010).

The projected decline in social transfers as a share of GDP reflects an assumption that real increases in benefit rates remain low and the projected decline in unemployment beneficiaries. It may be difficult to hold the line on real social benefit rates as they have declined in recent years, creating pressure for catch up. Indeed, there is already a bill before Parliament to make first-pillar pensions more generous. Moreover, there is another bill partially transforming student loans into grants, which would also increase social transfers. To make lasting savings on social transfers, it would be preferable to focus on programmes where cuts would not cause undue hardship to beneficiaries and where there could be favourable effects from strengthening work incentives. Such an approach would also protect low-income households from cutbacks as far as possible. Otherwise, there is a high risk of across-the-board reductions in replacement rates being reversed when the economy is stronger.

If it does not prove possible to restrain relative pay for government workers and growth in real social security benefits to the assumed extent, further consolidation measures, including reductions in government employment levels, would be required to realise such a decline in current expenditures. As reductions in current expenditures typically have a more adverse effect on income inequality than reductions in investment expenditure or increases in revenues, the government would probably need to adjust the parameters of tax and social transfer policies if it wanted to avoid an increase in income inequality (Paulus, Sutherland and Tsakloglou, 2009).

Another risk to the plan is that government investment is assumed to remain around current depressed levels. At 1.8% of GDP, government investment is less than half its long-run average, much lower than in most other OECD countries and insufficient to maintain the government capital stock let alone to expand it as the economy grows (Figure 2.5). Transport infrastructure, in particular, is deteriorating. Investment is unlikely to be held at these low levels as this would have adverse effects on economic growth and, ultimately, the debt-reduction strategy. Indeed, since the estimates in Table 3 were made, the former government announced the 2012-15 Investment Plan, which would increase investment by approximately 0.4% of GDP per year if fully implemented. However, even if the Plan were fully implemented, government investment would still remain low by historical and international comparison. To avoid adverse effects on potential growth and keep debt reduction on track, the new government is likely to have to find further budget savings elsewhere to make room for a return to more normal levels of investment. If the shift towards reliance on expenditure cuts for fiscal consolidation signalled in the plan is to be realised, further cuts in current expenditures are likely to be required to compensate if government investment is to return towards more normal levels.

Figure 2.5. **Government investment has been cut to low levels**



Source: OECD, *National Accounts Database*.

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Long-term budget pressures

The main source of long-term budget pressure comes from rising spending on health- and long-term care, as in most other countries. OECD (2012a) projects an increase in such expenditures of 1.6% of GDP by 2030 in a cost containment scenario and 2.3% of GDP in a cost-pressure scenario, mostly reflecting developments in health-care expenditures (Table 2.2). These increases are slightly less than the OECD average, reflecting smaller

projected increases in long-term care in Iceland than in most other countries. The main driver of growth in health-care expenditures is the appearance of new, expensive but more effective treatments. Assuming healthy ageing, whereby increases in life expectancy are translated into equivalent additional years in good health, population ageing is estimated to contribute only 0.5% of GDP to the combined increase in health- and long-term-care spending, in line with the OECD average.

Table 2.2. **Large increases in public health- and long-term care outlays are in prospect**

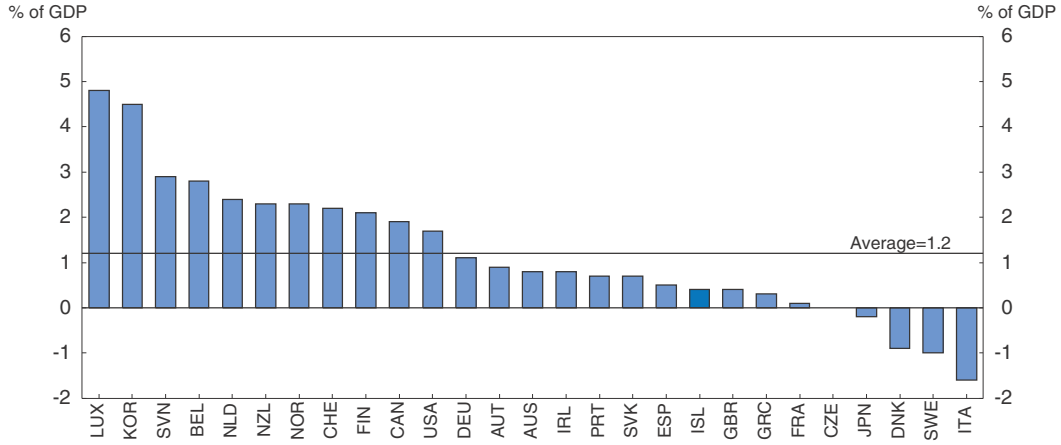
	Health care			Long-term care			Total		
	Average 2006-10	2030		Average 2006-10	2030		Average 2006-10	2030	
		Cost-pressure	Cost-containment		Cost-pressure	Cost-containment		Cost-pressure	Cost-containment
Australia	5.6	7.6	7.1	0.0	0.6	0.3	5.7	8.2	7.5
Austria	6.6	8.7	8.3	1.1	1.6	1.4	7.8	10.3	9.7
Belgium	5.8	7.6	7.2	1.7	2.3	2.1	7.5	9.9	9.2
Canada	5.8	8.1	7.6	1.2	1.7	1.5	7.1	9.8	9.1
Chile	3.1	5.3	4.8	0.0	1.0	0.6	3.1	6.3	5.5
Czech Republic	5.5	7.4	6.9	0.3	0.9	0.5	5.8	8.3	7.5
Denmark	6.3	8.4	7.9	2.2	2.6	2.5	8.5	11.0	10.4
Estonia	4.3	5.9	5.4	0.2	0.9	0.5	4.5	6.8	5.9
Finland	5.2	7.2	6.7	0.8	1.3	1.0	6.0	8.5	7.8
France	7.4	9.3	8.8	1.1	1.6	1.4	8.5	10.9	10.2
Germany	7.3	9.4	8.9	0.9	1.5	1.3	8.2	10.8	10.2
Greece	5.4	7.3	6.8	0.5	1.1	1.0	5.9	8.4	7.8
Hungary	4.8	6.4	5.9	0.3	0.9	0.6	5.0	7.3	6.5
Iceland	**5.8**	**7.8**	**7.4**	**1.7**	**2.1**	**1.9**	**7.6**	**9.9**	9.3
Israel	4.0	6.0	5.6	0.5	0.9	0.8	4.5	6.9	6.4
Ireland	5.5	7.6	7.1	0.4	0.9	0.7	5.9	8.5	7.9
Italy	6.1	8.2	7.7	0.7	1.2	1.1	6.9	9.4	8.8
Japan	6.1	8.4	7.9	0.7	1.2	1.0	6.8	9.5	8.9
Korea	3.3	5.9	5.5	0.3	1.1	0.8	3.6	7.0	6.2
Luxembourg	4.4	6.6	6.1	0.9	1.4	1.3	5.3	7.9	7.4
Mexico	2.5	4.6	4.1	0.0	0.7	0.5	2.5	5.3	4.6
Netherlands	6.4	8.6	8.2	2.3	2.9	2.7	8.7	11.6	10.9
New Zealand	6.4	8.5	8.1	1.3	1.7	1.5	7.7	10.3	9.6
Norway	5.1	6.9	6.5	2.1	2.5	2.3	7.2	9.5	8.8
Poland	4.1	6.0	5.5	0.4	1.1	0.7	4.5	7.0	6.2
Portugal	6.5	8.5	8.0	0.1	0.5	0.4	6.6	9.0	8.4
Slovak Republic	5.4	7.3	6.9	0.0	0.8	0.4	5.4	8.1	7.3
Slovenia	5.2	7.3	6.9	0.7	1.3	1.0	5.8	8.6	7.9
Spain	5.6	7.6	7.2	0.5	1.2	1.0	6.1	8.8	8.2
Sweden	6.6	8.4	7.9	0.7	1.1	0.8	7.2	9.4	8.7
Switzerland	5.7	7.8	7.3	1.2	1.7	1.4	6.9	9.4	8.8
Turkey	3.8	5.8	5.4	0.0	0.7	0.4	3.8	6.5	5.7
United Kingdom	6.5	8.4	8.0	0.9	1.2	1.1	7.4	9.7	9.0
United States	7.1	9.1	8.6	0.6	0.9	0.7	7.6	10.0	9.4
OECD average[1]	***5.5***	**7.5**	**7.0**	**0.8**	**1.3**	**1.1**	**6.2**	**8.8**	8.1

1. Note to come.

Source: OECD (2012a), "Public Spending on Health and Long-Term Care: A New Set of Projections", *ECO/CPE/WP1(2012)23*.

Public expenditure on first-pillar (old-age and survivors) and disability pensions is projected to increase by only 0.4% of GDP between now and 2030, one of the lowest increases among advanced countries (Figure 2.6, Figure 2.7). The projected increase is small because public expenditure on pensions is low at 3.3% of GDP in 2010, compared with an advanced-country average of 8.2% of GDP (IMF, 2011). This, in turn reflects the dominance of mandatory-private-funded schemes in retirement-income provision in Iceland; pension funds had assets of 143% of GDP in 2012, similar to the pre-crisis level. The other factors influencing projected pension expenditures are similar in Iceland and advanced countries except for the eligibility rate, which declines significantly in advanced countries owing to increases in the retirement age, but has virtually no impact in Iceland because the retirement age is not being increased from the current 67.

Figure 2.6. **The projected increase in pension spending over 2010-30 is relatively small in Iceland**



Source: IMF (2011), *The Challenge of Public Pension Reform in Advanced and Emerging Economies.*

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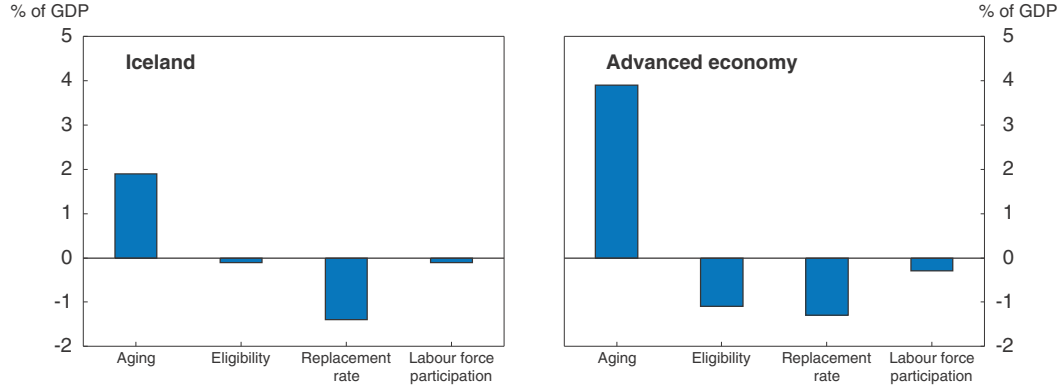
Figure 2.7. **Population ageing causes a smaller increase in pension spending in Iceland than in most other advanced countries**



Source: IMF (2011), *The Challenge of Public Pension Reform in Advanced and Emerging Economies.*

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Combining these projections, the share of spending on public pensions and health- and long-term care in GDP could rise by 2-2¾ percentage points in Iceland by 2030. This is a much greater increase than has occurred over recent decades but is nevertheless only

two thirds of the average increase projected for advanced countries. Net interest outlays are also likely to rise as interest rates return to more normal levels.

Contingent liabilities could further increase debt

Contingent liabilities pose a risk that debt could turn out to be higher than projected above. Such liabilities are substantial: state- and municipal-government debt guarantees amount to almost 100% of GDP (Table 2.3). The largest of these guarantees are for the debts of the government-owned Housing Finance Fund (HFF) and government-owned electricity companies. The central government has already put 2.9% of GDP into recapitalising the HFF and further injections will be required to cover operating losses and increase the capital ratio to the statutory rate of 5% of total assets. On the other hand, it is unlikely that central government will need to bail out Landsvirkjun, the National Power Company, as its financial position is strong, especially following the reduction in its exposure to aluminium-price risk (new supply contracts are indexed to the US CPI, not the global aluminium price as in older contracts). The financial position of Reykjavik's electricity company, however, is more fragile. In addition, there are state guarantees of bank liabilities made under the Emergency Act of 2008 that amount to 90% of GDP, bringing total contingent liabilities to 190% of GDP.

Table 2.3. **Government contingent liabilities are high**

	ISK million	% GDP
Non-bank state guarantees (2013)[1]		
Housing Finance Fund	948 872	56
Landsvirkjun (National Power Company)	323 942	19
Other	33 995	2
Total	**1 306 809**	**77**
Municipalities (2011)		
Guarantees (Part B)[2]	328 953	19
General government guarantees	**1 635 762**	**96**
Other State guarantees (2013)		
Arion Bank, takeover of SPRON/Drómi debt[3]	70 600	4
State guarantee on all domestic bank deposits[4]	1 540 317	90
Total	**1 610 917**	**94**
Total contingent liabilities (general government guarantees plus other state guarantees)	**3 246 679**	**190**

1. Total state guarantees in March, 2013.
2. Part B in municipalities' budget accounts refers to debt of companies owned by municipalities.
3. The Treasury has guaranteed the indemnity of Arion bank hf regarding the takeover of deposits from SPRON Savings Bank, amounting to ISK 70.6 billion including accrued interest as at 31 March 2003.
4. Total deposits other than from deposit money banks. These state guarantees are not granted under the state-guarantee law but are a political statement made by the Minister of Finance when the main banks collapsed in 2008.

Source: Government Debt Management, Iceland.

On a positive note, there is little risk that shortfalls in the funding of private second-pillar pension schemes will become a government liability. These schemes are currently cutting pension benefits to reduce funding shortfalls, which are estimated to be about 10% on average in 2011 (FME, 2012). This policy seems both prudent and sustainable given the high second-pillar replacement rates – net replacement rates for a worker on average earnings with a full contribution record are around 100% of lifetime average earnings, one of the highest replacement rates among OECD countries (OECD, 2011b) – and the reliance

of low-income earners on the first-pillar scheme. Another positive element is that, following the EFTA court's Icesave decision, the Icelandic government is not liable for unpaid debts of its national deposit guarantee scheme.

Additional consolidation measures would be required to cut general government gross debt to 60% of GDP by 2030

The scale of fiscal consolidation required to achieve a given debt objective can be summarised in a fiscal-gap calculation. This shows how much the primary-budget balance would need to rise immediately to achieve the debt objective. Given the 2012 starting position of a structural primary surplus of 2.7% of GDP and general government gross debt of 132% of GDP, and allowing for future spending pressures (but not contingent liabilities), the fiscal gap to reduce gross debt (including funding shortfalls in the pension fund for government employees, which were about 25% of GDP in 2012) to 60% of GDP in 2030 is around 4½ per cent of GDP in a low health-cost scenario and 5 per cent of GDP in a high-cost scenario (Figure 2.8). Three and a half percentage points of the gap reflects the starting position – even in the absence of long-term spending pressures, a significantly higher primary surplus would be required to drive down debt from the current level to 60% of GDP in 2030. Rising health- and long-term care costs account for most of the remainder of the fiscal gap. These gaps are larger than in many other OECD countries (Merola and Sutherland, 2012). In terms of contributions, the baseline is high in Iceland (reflecting high initial debt), the pension contribution is low (reflecting the small scale of the public pension system) and the health expenditure contributions are average.

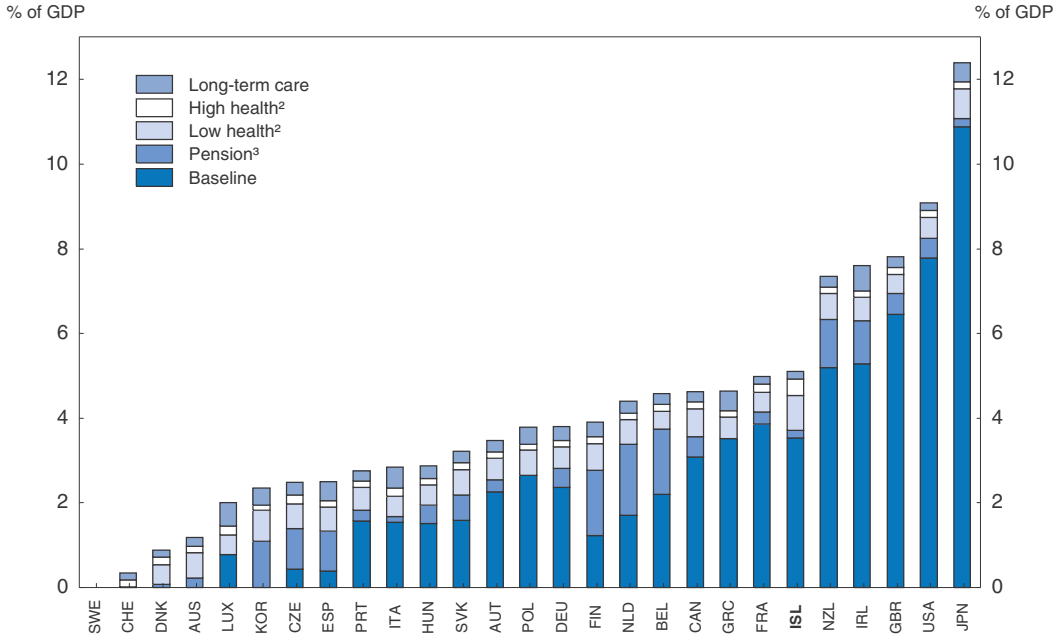
If consolidation did not occur immediately, as would be reasonable to avoid short-term disruption in economic activity, the amount of consolidation required to achieve the debt targets would be greater. For example, if consolidation were to occur at the rate of 1% of GDP per year, the total increase in the primary balance required to reduce gross debt to 60% of GDP by 2030 in the high health cost scenario would be 6% of GDP.

Iceland's fiscal gap could in part be closed by making public-sector reforms to increase productivity. If, for example, these reforms reduced non-ageing related expenditures linearly over the simulation period by 0.5 percentage point per year, Iceland's fiscal gap to reduce general government gross debt to 60% of GDP by 2030 would decline by around 1.2% of GDP. On this basis, the consolidation in the budget plan up to 2015 would be almost sufficient to close the fiscal gap in the low health-cost scenario. Achieving such productivity growth indefinitely, however, would probably be difficult.

The former government's fiscal plan entailed broadly enough fiscal consolidation up to 2015 to close the baseline component of the fiscal gap for reducing general government gross debt to 60% of GDP by 2030. Based on these fiscal gap calculations, additional consolidation of only 1 to 1½ per cent of GDP would have been required to hit the (arbitrary) debt objective once rising public pension and health-care costs are taken into account. The plan balanced debt reduction with limiting the impact on growth and increased the focus on primary expenditure. This would have brought public debt down progressively to more prudent levels, reducing economic risks should Iceland be hit by another large adverse shock, and increased the likelihood that consolidation proved to be durable. It would also have helped to restore investor confidence in Iceland, providing a more favourable backdrop for phasing out capital controls.

Figure 2.8. **Fiscal gaps in Iceland remain significant**[1]

Immediate rise in the underlying primary balance needed to reduce general government gross financial liabilities to 60% of GDP in 2030



1. Initial budget balances are underlying primary balances in 2012. For Iceland, this balance is shown in Table 2.2 (structural primary balance, which excludes write-offs) while for other countries OECD estimates are used.
2. Low health assumes policy action curbs health spending growth. High health is the additional cost pressure in the absence of these policy actions. In the high health-care cost scenario, underlying spending per person grows 1% faster per year than income, which is broadly in line with observed trends in OECD countries over the past two decades.
3. The pension gap for Iceland is based on IMF (2011) pension projections while for the other countries the gap is based on OECD (2011b) pension projections. For Poland, the baseline includes the pension gap.

Source: Merola, R. and D. Sutherland (2012), "Fiscal Consolidation: Part 3. Long-Run Projections and Fiscal Gap Calculations", *OECD Economics Department Working Papers*, No. 934, OECD Publishing; IMF (2011), *The Challenge of Public Pension Reform in Advanced and Emerging Economies;* OECD (2011b), *Pensions at a Glance 2011*.

How to read this figure: *The bars show the immediate increase in the underlying primary balance needed to reduce general government gross debt to 60% of GDP by 2030. The baseline contribution mainly reflects starting debt and deficit levels as well as the costs of the normalisation of interest rates. Pensions, health care and long-term care also make contributions to the required increase in the underlying primary balance because these expenditures are projected to grow as a share of GDP.*

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But there are risks that the planned consolidation will not be realised. Public sector wage and social benefit rate assumptions may be too optimistic. Realisation of the uncertain revenues – dividends from government-owned enterprises, asset sales and the special fisheries resource rent tax – that were a condition for proceeding with the former government's 2013-15 Investment Plan has become less likely now that the new government has indicated that it intends to reduce the special fisheries resource rent tax from 2013 (when it was supposed to raise 0.2% of GDP). Moreover, the government may incur fiscal costs in endeavouring to encourage the social partners to agree lower wage increases than otherwise in the November 2013 negotiations.

In the event that these risks are realised, the authorities should identify concrete measures to ensure that fiscal consolidation remains on track and that the planned reductions in current expenditure are achieved. Once the budget returns to surplus, the government should resume payments to government employee pension schemes to reduce the funding deficits. Transparency and commitment to reducing debt to more

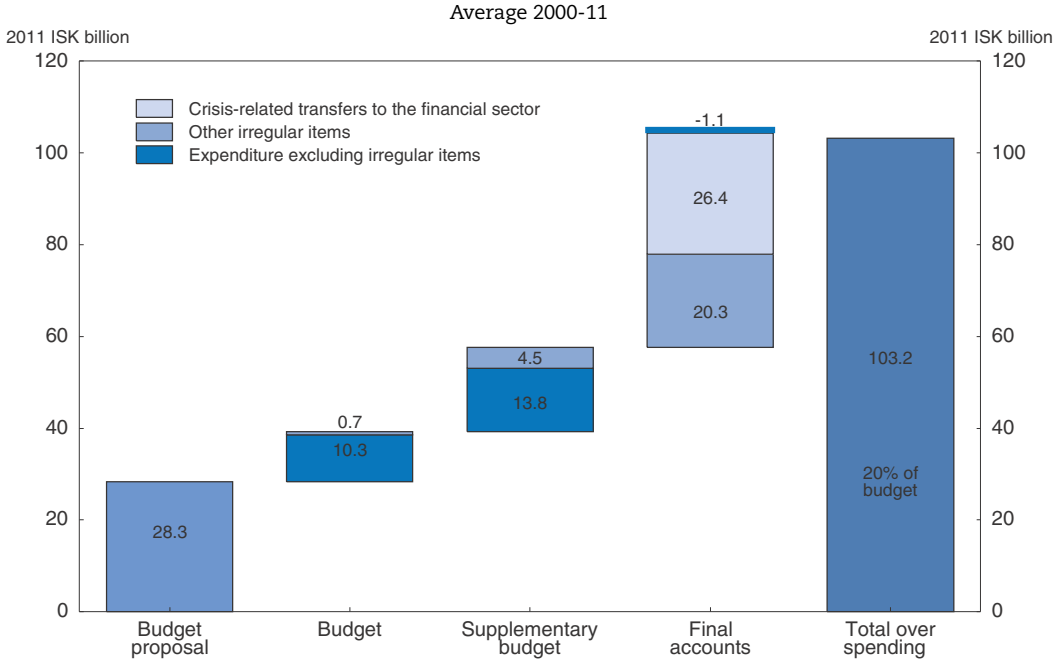
prudent levels could also be enhanced by establishing a timeline with intermediate targets for debt reduction.

Strengthening the legal framework to enhance budget discipline

A stronger legal framework for budgeting would help to keep the debt reduction strategy on track. The current framework is set out in the 1997 Financial Reporting Act (FRA). Its weaknesses were exposed during the ten years before the crisis. According to IMF (2012c), fiscal policy was characterised by pro-cyclicality, weak budget discipline, lack of co-ordination between levels of government and inadequate surveillance and management of fiscal risks. Weak budget discipline occurred at each stage of the budget process, resulting in substantial overspending on average compared with the previous year's medium-term plan (Figure 2.9). Liabilities built up in the public-corporations sector, including in entities, such as Reykjavik Energy, owned by municipalities, which became or are likely to become a drain on government finances.

Figure 2.9. **Weak budget discipline at each stage of the budget process has resulted in substantial overspending**

Average 2000-11



Source: IMF (2012c), "Iceland: Technical Assistance Report on a New Organic Budget Law", *IMF Country Report*, No. 12/4.

How to read this figure: *The bars represent overspending compared with the previous year's medium-term expenditure frames from the budget proposal to the final accounts stage. Thus, there is overspending during budget preparation when the multi-year expenditure frames set in the previous budget are exceeded by around ISK 28 billion. Further overspending occurs during budget approval, when amendments add another ISK 11 billion, and so on. Total overspending compared with the multi-year expenditure frames in the previous budget amounts to ISK 103 billion.*

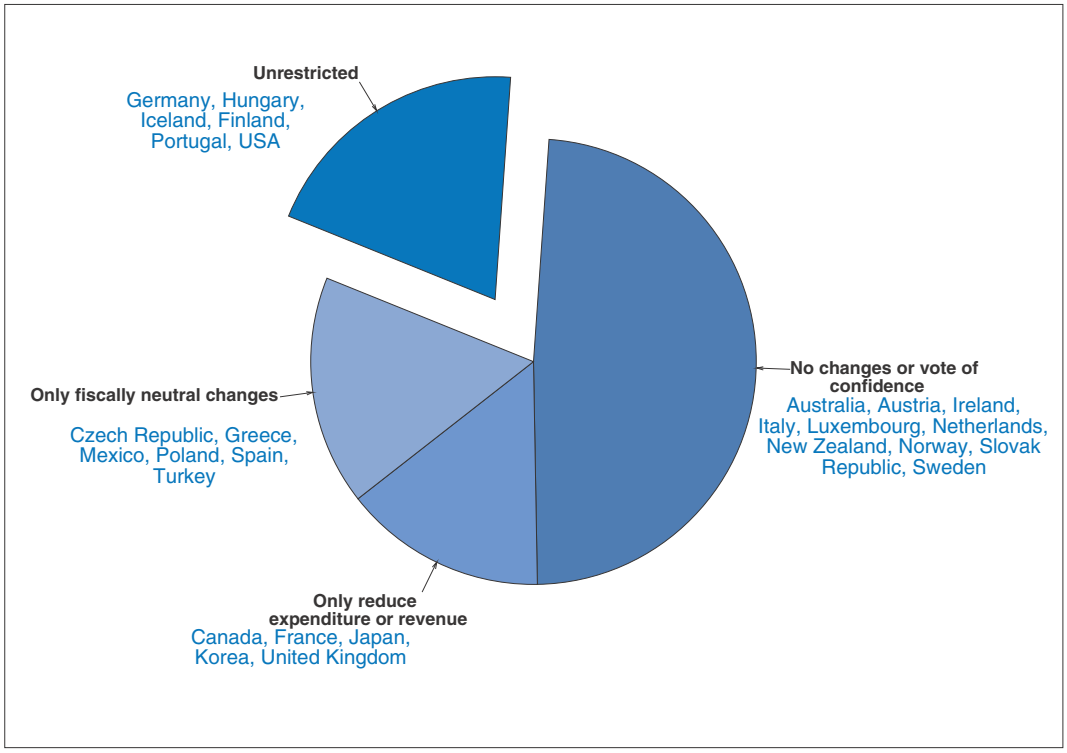
The IMF (2012c) identifies a number of shortcomings in the FRA that result in it not providing a credible, integrated framework for budgeting:

- it does not cover municipalities and their corporations and focuses primarily on *ex post* financial accounting and reporting;

- it is silent on the principles and procedures for macroeconomic forecasting, fiscal policymaking and their link to the budget;
- it provides for budget formulation that is fragmented (the country's 260 agencies rather than their parent ministries are the focus of discussions) and relatively unconstrained (Iceland is one of the few OECD countries in which Parliament can amend the budget as it likes [Figure 2.10]);
- it includes budget execution provisions with loopholes that enable the government to overspend its budget with impunity; and
- it does not require comprehensive and timely information to inform fiscal decisions.

Figure 2.10. **Iceland is one of the few OECD countries in which Parliament has unrestricted power to amend the draft budget**

Per cent of countries



Source: IMF (2012c), "Iceland: Technical Assistance Report on a New Organic Budget Law", *IMF Country Report*, No. 12/4.

In order to overcome these shortcomings, codify the good budget practices that Iceland has developed since the crisis and provide a firm legal framework for sustainable fiscal policy going forward, the Ministry of Finance and Economic Affairs has prepared a new Organic Budget Law (OBL) in consultation with the IMF (2012c) that is expected to be submitted to Parliament in the autumn of 2013 (Box 2.2). It establishes a permanent set of principles that must be respected in fiscal policy formulation and establishes a medium-term focus. Appropriations are to be at the ministry, as opposed to the agency level, and to be for a limited number of programmes or policy areas. This should facilitate efficiency gains by making it easier to relate programme/policy benefits to costs and by enabling ministries to shift resources towards higher priority areas. This reform, together with those to macro fiscal policymaking, budget formulation and approval, budget execution and reporting should strengthen budget discipline.

Box 2.2. **The Organic Budget Law provides a credible, integrated budget framework**

The Organic Budget Law (OBL) is intended to overcome lacuna in the current law that resulted in it not providing a credible, integrated framework for budgeting. To correct these shortcomings, the OBL reforms macro fiscal policymaking, budget formulation and approval, budget execution and accounting and reporting.

Macro fiscal policymaking

The OBL introduces a *procedural fiscal rule* anchored in legally binding principles (stability, sustainability, predictability, prudence and transparency) as in the Nordic countries and Australia and New Zealand. A procedural rule was preferred to a precise numerical rule to accommodate the high volatility of the Icelandic economy. This follows practice in the Nordic countries (and Australia and New Zealand), where fiscal rules are principle-based, and numerical objectives are not set out in law, but represent high-profile political commitments of the government (IMF, 2012c).

At the beginning of its term, the government is required to submit a *Fiscal Policy Statement* to Parliament for approval. It covers both central- and local government (agreement first must be reached with local government) and sets out numerical fiscal objectives for the long-term stock of liabilities and the medium-term budget balance for at least the life of the Parliament. The objectives must be consistent with the legal principles. Revision is permitted under certain circumstances.

The government is also required each year to present a *Medium-Term Fiscal Strategy* (MTFS) to Parliament for approval. It covers the next five years and lays out fiscal performance targets for central and local government in line with the Fiscal Statement. It also lays out nominal expenditure ceilings in policy areas for each ministry to use in preparing its budget, and a summary of the specific policy measures planned to achieve the strategy's targets. In preparing the MTFS, it will be necessary to reach agreements with local governments on their targets. The MTFS must also include a discussion of fiscal risks. Disclosure and plans to manage these risks help to demonstrate that fiscal policy is based on prudent macroeconomic and fiscal assumptions.

A Committee of three wise persons is to assess whether the Fiscal Statement conforms to the principles and whether the MTFS is in line with the Statement and is credible and sustainable.

Budget formulation and approval

The basic unit of budget appropriation changes from 374 agencies to 10 ministries, policy areas are limited to five per ministry, and economic categories are reduced to two per policy area. The number of appropriations will fall from over 900 to around 300. This will reduce the high degree of budget fragmentation, which has discouraged ministerial accountability for expenditures (as parent ministries have no power to move resources between individual agencies for which they are responsible), lowered the standard of Parliamentary budget discussions, encouraged earmarking of revenues, complicated the production and consolidation of the accounts and undermined the comprehensiveness and integrity of auditing (IMF, 2012c). With government ministers deciding on appropriations within their domain of responsibility, parliamentarians will no longer be able to manipulate expenditures for the benefit of their constituents at the expense of the national interest.

To provide ministers with more managerial flexibility and incentives to improve efficiency, ministries will be able to reallocate resources between programmes or policy areas, amounting to up to 3% or 5%, respectively, of the total approved budget of the ministry.

Box 2.2. **The Organic Budget Law provides a credible, integrated budget framework** *(cont.)*

To reduce the risk of expenditure exceeding the budget, the OBL requires a contingency reserve of 1% of total expenditure to be included in the budget to fund temporary, unforeseeable, unavoidable and non-absorbable expenditures.

Parliament's powers to amend the budget are to be limited to changes that do not increase central government expenditure, reduce total central government revenue or increase net public sector liabilities in either the budget year or over the medium term. This will ensure consistency with the MTFS already approved by Parliament in the spring.

To make Parliamentary budget deliberations more disciplined and predictable, debate and voting will follow a top-down approach, starting with the total levels of expenditure, revenue and liabilities before moving on to the annual budget limit for each ministry and programme/policy area.

New public-private partnership (PPP) agreements will need to be approved in the Budget Bill. There will an annual ceiling on such agreements and they must be consistent with the MTFS.

Stricter budget execution – ministerial responsibility and accountability

Revenues retained by ministries and agencies (such as from the sale of goods and services or assets and fees charges) and earmarked revenues, which are very high by international comparison, are to be scaled back to strengthen budget planning, expenditure control and accounting (IMF, 2012c).

Carryover of overspending is to be prohibited. Carryover of under-spending is to occur at the ministry, not the agency level and to be restricted to 3% of the ministry's total budget from the previous year and to certain kinds of under spending (non-wage non-transfer operating spending, capital expenditure, and under spending attributable to efficiency gains or justifiable delays in expenditure execution).

Any unbudgeted expenditure that cannot be funded by reallocating resources within ministries or from the contingency reserve will have to be authorised by Parliament through a Supplementary Budget before the expenditure takes place. This will significantly strengthen budget discipline as the government can currently overspend its budget and legitimise the unbudgeted expenditure *ex post*. In a related measure, the power to authorise above-budget wage agreements retrospectively via a Supplementary Budget will be repealed.

The Iceland National Audit Office (INAO) is to be charged with reporting any overspending or financial regularities to Parliament, which will investigate and decide whether to authorise or sanction them. The OBL gives Parliament and the government a broader range of sanctions than the current soft (internal written reprimand) or nuclear (dismissal) options available.

Accounting and reporting

Fiscal reporting is designed to show whether the government has complied with the budget law, whether it is meeting its fiscal objectives and whether it policies are sustainable. Currently, prospective reports (such as the budget) are not prepared on the same accounting basis as retrospective reports, resulting in large, systematic deviations between the Supplementary Budget and the Final Accounts (IMF, 2012c). The OBL requires prospective and retrospective reports to be prepared on the same accounting basis and adopts International Public Sector Accounting Standards (IPSAS).

In accordance with IPSAS 6, the government's financial statements will cover central government and all of the commercial entities that it controls.

Box 2.2. **The Organic Budget Law provides a credible, integrated budget framework** *(cont.)*

Estimates of interest expense in the government's financial accounts and statistics currently exclude inflation-linked increases in the value of the outstanding principal of inflation-indexed debt. In accordance with IPSAS 29, the OBL requires estimates of interest expense to be based on projected internal rates of return (thus including inflation-linked payments).

Governments will be required to publish audited annual financial statements no more than four months after the end of the financial year.

Increasing the efficiency of public expenditure

Iceland has one of the highest levels in the OECD of primary expenditure per capita (converted to USD at PPP exchange rates) excluding social protection transfers (and in Iceland, write-offs) (Figure 2.11). Government effectiveness, as measured by the World Bank Government Effectiveness Index (which is based on surveys unlikely to be influenced by interest payments or social transfers), is also one of the highest, suggesting that government efficiency is broadly in line with that in most other OECD countries. This is a good performance considering that Iceland benefits less from scale economies in service delivery than larger economies and that population density outside the Reykjavik agglomeration is low. Nevertheless, a number of other small countries have higher government effectiveness scores with similar or less expenditure than Iceland, suggesting that there may be room for improvement.

As in other countries seeking to restrain expenditure, the biggest savings are likely to come from focusing on the big-ticket items. The largest categories of expenditure in Iceland, as elsewhere, are education and health, which each comprise around one quarter of total expenditure.

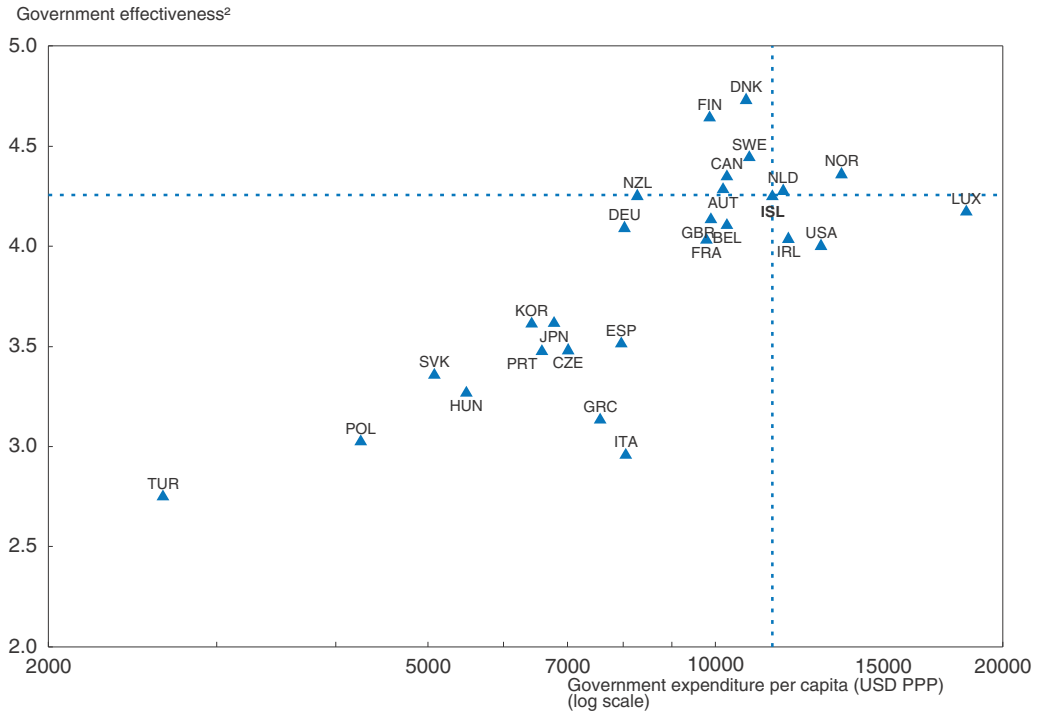
There is scope to achieve the same education outcomes with less expenditure

Public education expenditure appears to be particularly high in Iceland – it is the third highest per capita (converted to dollars at PPP exchange rates), the highest in relation to GDP, and the second highest as a share of primary government expenditure excluding social transfers after Canada. Cumulative expenditure per student over the theoretical duration of primary and secondary school is one of the highest in the OECD (Figure 2.12). This relatively high expenditure level mainly reflects primary-school spending.

Iceland's education sector does not appear to be very efficient at transforming this high expenditure into student achievement, whether measured by Hanushek and Woessmann's (2009) cognitive skills index (which combines the results of numerous international achievement studies) (see Figure 2.12) or PISA scores. Students in many countries reach higher levels of achievement with less cumulative expenditure.

A factor contributing to high cumulative expenditure per student is the duration of studies, as indicated by the average theoretical durations (the "standard" scholastic path, rather than the number of years students actually stay in school, on which there are no comparative data) of both primary and secondary studies are long by international comparison, especially at the primary school level. The theoretical durations of primary- and secondary school studies are both 7 years, compared with OECD averages of 5.9 and 6.5 years, respectively (OECD, 2010). If the duration of studies were reduced by 1.6 years while

Figure 2.11. **The relationship between government effectiveness and expenditure[1] is broadly in line with that in other OECD countries**



1. Primary expenditure per capita (2005-10 average) converted to USD at PPP exchange rates excluding social protection transfers and, for Iceland, write-offs.
2. World Bank Government effectiveness index. The World Bank defines government effectiveness as the capacity of the government to effectively formulate and implement sound policies. The Government effectiveness index captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such polices. A variety of surveys are drawn upon to construct this index. For more information, see World Bank (2011), The Worldwide Governance Indicators, 2011 Update, *Governance & Anti-Corruption > WGI 1996-2012 Interactive > Home*.

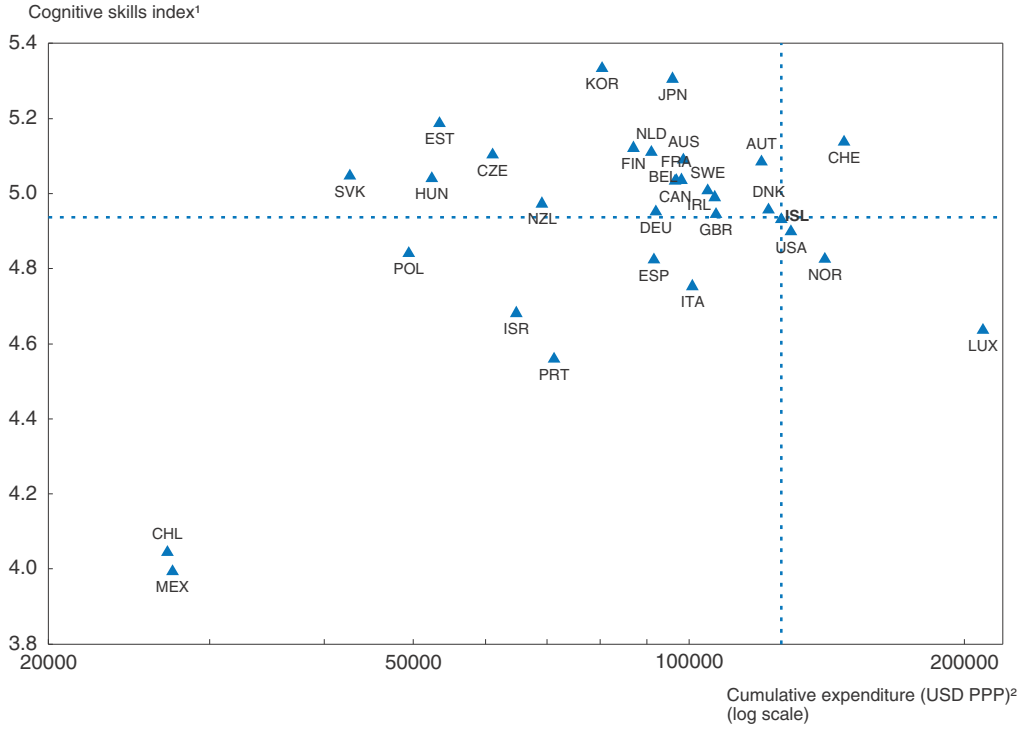
Source: World Bank (2011), *The Worldwide Governance Indicators*, 2011 Update, *Governance & Anti-Corruption > WGI 1996-2012 Interactive > Home*; OECD, *National Accounts Database*.

StatLink http://dx.doi.org/10.1787/888932855411

leaving all other factors affecting cost (including annual intended instruction time per student) unchanged, that could reduce the cumulative costs per student over the theoretical duration of education from three quarters above the OECD average for primary school to less than one half above and from 10% above the OECD average for secondary school to only 2% above. As annual intended instruction time per student is slightly above average in both primary- and secondary studies, so too would be total instruction time to complete school.

There is widespread agreement in Iceland on the need to reduce the duration of studies; young people are typically aged 20 years when they complete upper secondary school, an OECD record. Not only would it reduce costs, it would also boost private rates of return on education by enabling young people to graduate and start earning sooner, helping to counter the school dropout problem; only 45% of students successfully complete upper secondary education within four years compared with an OECD average of 68%. Improving the quality of vocational education options could also help to reduce the dropout rate (OECD, 2012b). A law passed in 2008 created the possibility of reducing the length of upper secondary school from four years to three, but concerns about job losses in the education sector have resulted in few schools implementing the reform. The large

Figure 2.12. **Cumulative primary- and secondary education expenditure per student is high in relation to cognitive skills**



1. Cognitive skills index combines the results of numerous international achievement studies.
2. 2007.

Source: Hanushek, E. and L. Woessmann (2009), "Do Better Schools Lead to More Growth? Cognitive Skills, Economic Outcomes, and Causation", *NBER Working Paper*, 14633; OECD (2010), *Education at a Glance*.

How to read this figure: *The scatter points show each country's combination of cognitive skills and cumulative expenditure per student. The higher is the level of cognitive skills in relation to expenditure, the more efficient is that country's education system.*

numbers of teachers retiring over the coming decade or so provides an opportunity to implement this reform without having to lay off teachers. The law should also be changed to allow the duration of primary school to be reduced by one year, and assistance should be provided to help schools restructure their education programmes accordingly.

Even if the duration of studies were reduced, expenditure per student in primary education would remain high by international comparison: annual expenditure per student (converted to USD at PPP exchange rates) was one third above the OECD average in 2009 (Table 2.4). Most of this difference is due to high wage compensation costs for non-teaching personnel, as teacher salary costs per student are near the OECD average. These high non-teacher compensation costs are partly attributable to the large numbers of non-teaching staff hired following the transfer of responsibility for primary education from the central government to municipalities in 1996. Other contributing factors are that many municipalities are too small to enjoy scale economies in system management, that transportation requirements are often high in rural areas and that many schools lack scale economies in the use of non-teaching staff. Costs per student are much higher in schools with fewer than 100 students (Figure 2.13), although some of these schools have much lower costs per student than others suggesting that there is scope to lower high costs in some small schools through improvements in management. Capital costs are also considerably higher than the OECD average, perhaps also reflecting lack of scale economies, although this

factor makes a smaller contribution to the cost difference because these are only a small part of total costs. Costs should be reduced by reducing numbers of non-teaching staff, strengthening the capacity of municipalities to manage and oversee primary education collectively or shifting these responsibilities back to the central government's education ministry and by improving management in high-cost small schools.

Table 2.4. **High compensation expenditure for non-teaching staff is a major cause of high annual primary education costs per student**

Annual primary education expenditure per student for all services, 2009

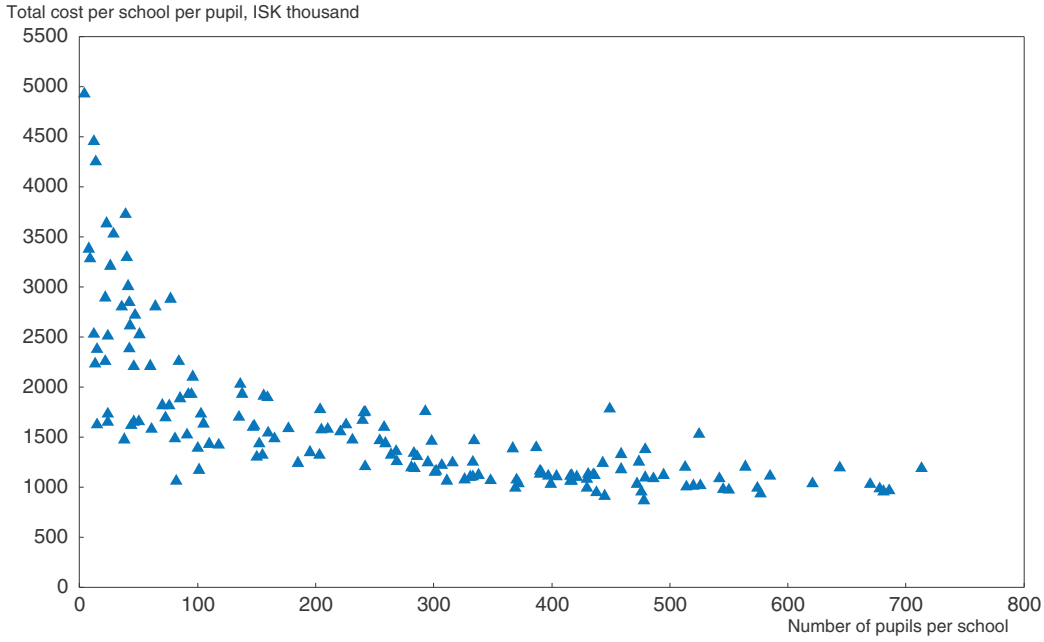
	Iceland	OECD average	Difference	% difference
Total	10 099	7 719	2 380	131
Current	9 059	7 017	2 042	129
Capital	1 040	702	338	148
Compensation expenditure for all staff	7 129	5 543	1 586	129
Other current expenditure	1 930	1 473	456	131
Compensation expenditure for teachers[2]	2 724	2 542	182	107
Compensation expenditure for other staff[3]	4 405	3 001	1 404	147

1. Converted to USD at PPP exchange rates, based on full-time equivalents.
2. Average of 2008 and 2010.
3. Difference between compensation of all staff and teacher salary compensation.

Source: OECD (2012c), *Education at a Glance*.

Figure 2.13. **Costs per student are very high in small schools**[1]

2011



1. Primary education is operated by municipalities.

Source: Association of local governments.

StatLink http://dx.doi.org/10.1787/888932855449

There is also scope to increase efficiency in both primary and secondary schools by reorganizing the way that resources are spent. Currently, Iceland pays teachers very low salaries – they are only 50-60% of salaries for full-time, full-year workers with tertiary education, a much lower ratio than in most other OECD countries (Table 2.5). This makes it difficult to attract high-quality graduates to teaching, although PISA results suggest that

Table 2.5. **Teacher salaries are very low in Iceland**

	Iceland	OECD average	Iceland, per cent of the OECD average
Teacher salary cost per student			
Primary education	2 718	2 604	104
Lower secondary education	2 718	3 263	83
Upper secondary education	2 477	3 301	75
Annual intended instruction time in hours for students			
Primary education	889	843	105
Lower secondary education	969	924	105
Upper secondary education	987	949	104
Estimated annual number of teaching hours for teachers			
Primary education	624	782	80
Lower secondary education	624	704	89
Upper secondary education	544	658	83
Ratio of students to teachers			
Primary education	10.3	15.7	66
Lower secondary education	10.3	14.0	74
Upper secondary education	11.3	13.6	83
Estimated class size			
Primary education	14.6	17.1	85
Lower secondary education	16.0	17.9	89
Upper secondary education	20.6	19.9	104
Ratio of salary to earnings for full-time, full-year workers with tertiary education aged 25-64			
Primary education	0.50	0.82	61
Lower secondary education	0.50	0.85	59
Upper secondary education	0.61	0.90	68

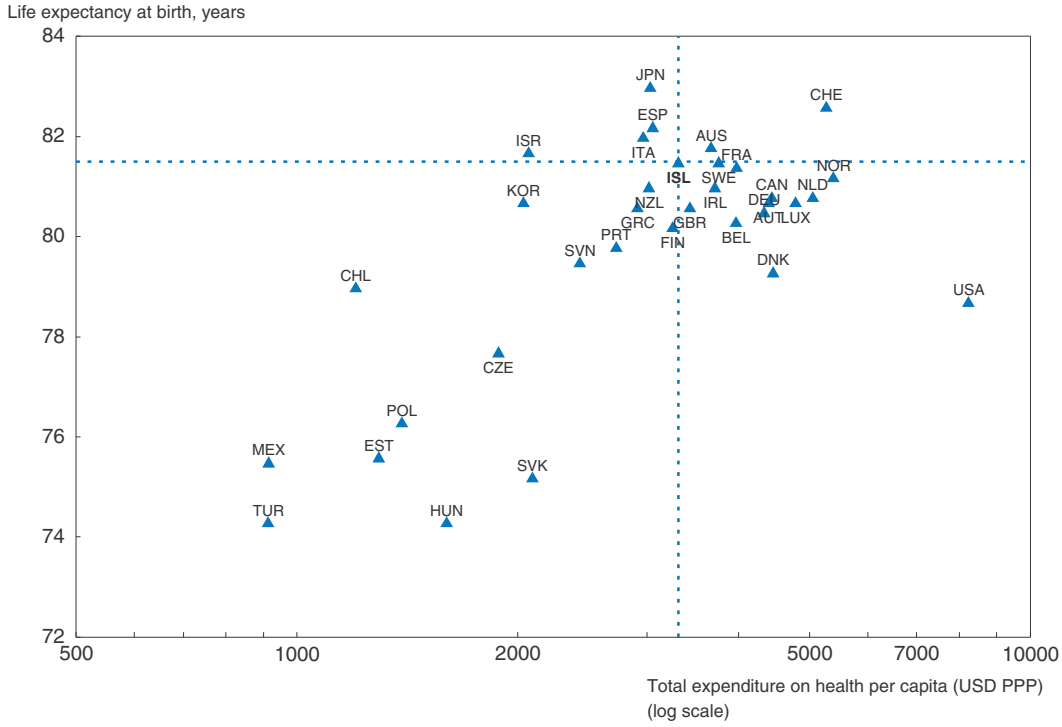
Source: OECD (2012), *Education at a Glance*.

teacher quality is more important for achievement than class size (OECD, 2005). With the large numbers of teachers that will be retiring over the coming decade or so, this problem is likely to become more acute. At the same time, the estimated annual number of teaching hours for teachers is low, especially for primary-school teachers. If teaching hours were to be increased to the OECD average, it would be possible to make corresponding reductions in teacher numbers and use the savings to increase teacher pay. At the primary school level, such a change would make possible a 25% increase in teacher pay without increasing the teacher wage bill. This would close half of the gap between the ratio of teacher to tertiary educated workers' pay in Iceland and the OECD average. Savings to increase teacher pay could also be made by increasing class size, notably in lower secondary education. Such increases in class size may not, however, increase efficiency if made in primary education or in the education of disadvantaged children (OECD, 2005).

There is scope to increase efficiency in health expenditure

Output indicators suggest that Iceland's health-care system is effective. Life expectancy at birth is one of the highest in the OECD and the amenable mortality rate and health inequality are among the lowest (Joumard et al., 2010). At the same time, health expenditure per capita (converted to USD at PPP exchange rates), 80% of which is publicly financed, is not unusually high, suggesting that the health-care system is also relatively efficient (Figure 2.14). This is confirmed by DEA analysis, which indicates that the potential

Figure 2.14. **Life expectancy is good in Iceland in relation to health-care expenditure, 2010**[1]



1. Or latest year available.
Source: OECD, *Health Database*.

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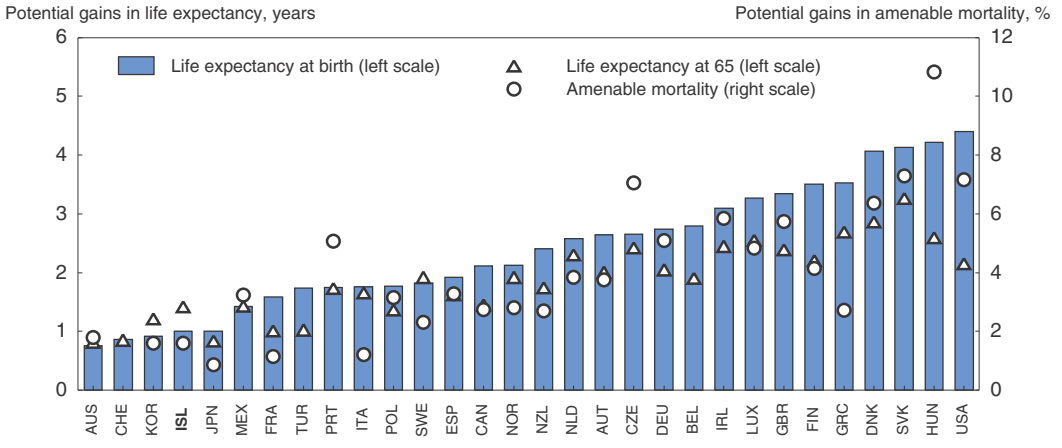
gains in life expectancy and amenable mortality from increasing expenditure efficiency to the OECD efficiency frontier are among the lowest in the OECD area (Figure 2.15).

Nevertheless, an unusually high proportion of physician consultations are with specialists, which may be raising costs unnecessarily (Figure 2.16). A major factor contributing to this outcome is the almost total absence of gate-keeping, which is highly unusual for a largely tax financed system. The introduction of gate-keeping, as is being considered by the

Figure 2.15. **Potential gains in life expectancy and reductions in amenable mortality from moving to the efficiency frontier are low in Iceland**

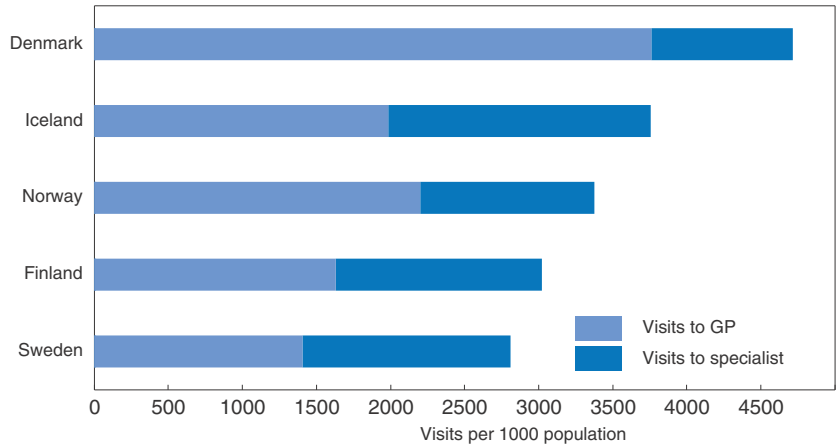


Source: Joumard, I., C. André and C. Nicq (2010), "Health Care Systems: Efficiency and Institutions", *OECD Economics Department Working Papers*, No. 769, OECD Publishing.

StatLink http://dx.doi.org/10.1787/888932855677

Figure 2.16. **Specialist consultations are high relative to GP consultations in Iceland**

2010



Source: The Boston Consulting Group (2011), *Health Care System Reform and Short-Term Saving Opportunities*, Iceland Health Care system project.

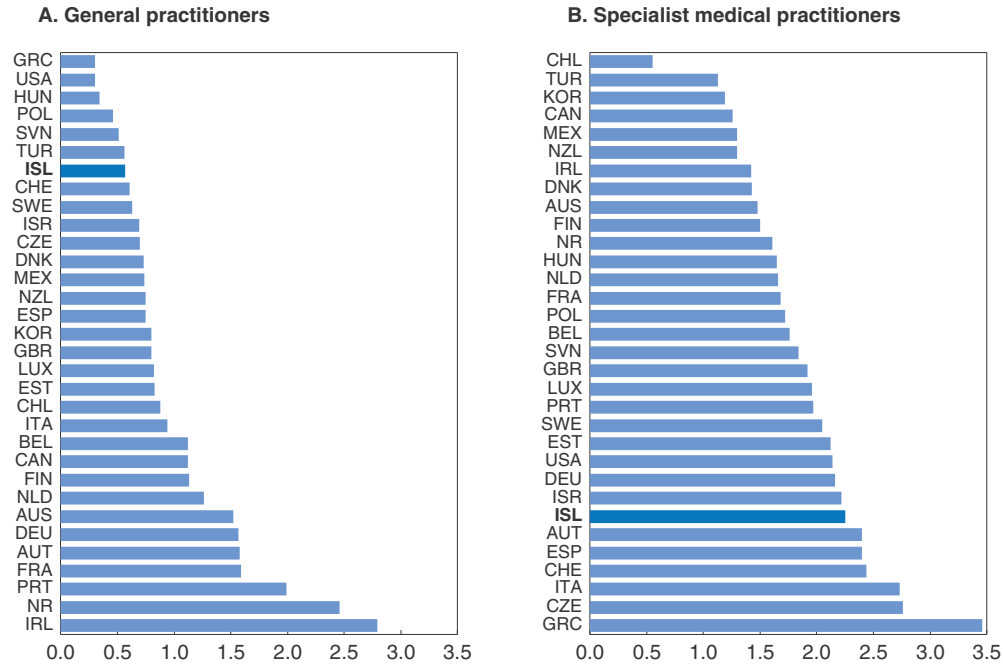
StatLink http://dx.doi.org/10.1787/888932855487

authorities, would reduce costs and enhance the quality of care by helping to direct patients to the most appropriate care. The authorities estimate that one third of specialist care could be more appropriately provided by general practitioners (GPs).

The high rate at which Icelanders consult specialists relative to GPs is mirrored by the relatively high number of specialists relative to GPs (Figure 2.17). Specialist numbers are

Figure 2.17. **The population of doctors is skewed towards specialists in Iceland**

Density per 1 000 population, 2010[1]



1. 2009 for Australia, Denmark, Italy, Netherlands and Sweden.

Source: OECD, *Health Database*.

StatLink http://dx.doi.org/10.1787/888932855696

particularly high for diagnostic specialities, anaesthesiologists, paediatricians and ophthalmologists. Upgrading the role of GPs to include gate-keeping and co-ordination of non-specialised care and narrowing the pay gap relative to specialists would encourage more doctors to become GPs as opposed to specialists. As gate keeping would raise GP workloads, it might be necessary to increase funding for GPs.

One of the consequences of the high numbers of diagnostic specialists is that there are high numbers of examinations per capita using computer tomography (CT) and magnetic resonance (MR) machines, which are expensive (Figure 2.18). Despite this, these machines are underutilised because there is so much capacity. This overcapacity has built up in private clinics, even as hospitals have been reducing their own capacity. Introducing gate-keeping would help to reduce the high rate at which such examinations are undertaken, as would less generous public payments for them.

Other factors adding to costs are the high share of after-hours GP visits and overuse of emergency room care. On the latter, 30 000 out of 70 000 emergency room visits could be handled by a GP (Boston Consulting, 2011). The combination of capitation payments for daytime GP consultations and fee-for-service for after-hours consultations makes it attractive for doctors to encourage patients to consult after hours (including in emergency rooms), weakening daytime productivity. Doctors' incentives to encourage patients to consult after hours could be weakened by incorporating an activity-based component to the existing salary system, as is being considered by the authorities.

The authorities also plan to increase out-of-pocket costs for annual pharmaceutical expenditure up to a cap of 70 000 króna (about EUR 440) to increase incentives for patients to economise while reducing such costs to zero beyond the cap to protect the chronically ill, whose demand for pharmaceuticals is highly insensitive to cost. This reform is intended to be budget neutral before allowing for induced changes in pharmaceuticals consumption.

In addition to the reforms discussed above to increase efficiency, the Boston Consulting Group (2011) identifies a number of other areas reforms to enhance efficiency, including reducing excessive use of drugs that act on the nervous system (notably psycholeptics and psychoanaleptics) and shifting the elderly to less care-intensive housing, which could both increase quality and reduce costs (following, for example, the Finnish model). The authorities are preparing reforms based on the Boston Consulting Group's recommendations.

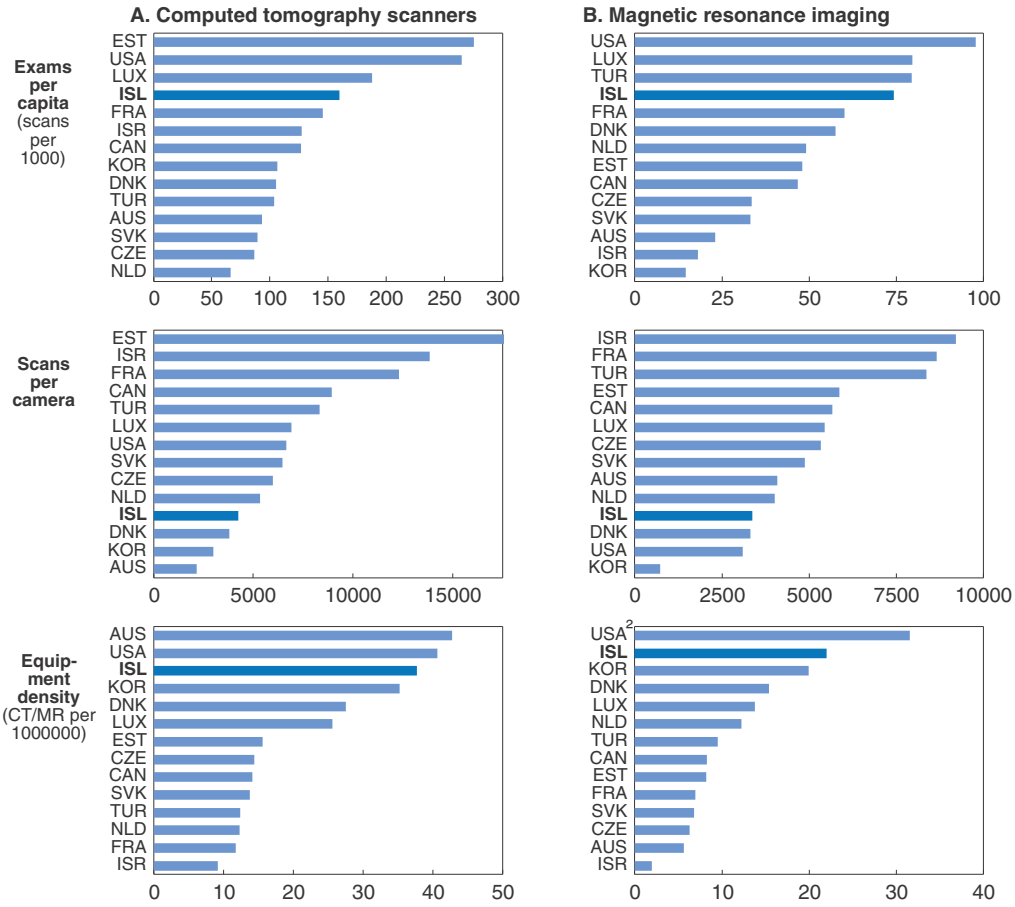
Regular public spending reviews to identify savings

Iceland could increase the efficiency of government expenditure by conducting regular spending reviews, as in a number of other OECD countries (Australia, Canada, Denmark, the Netherlands and the United Kingdom). Spending reviews are a variety of performance evaluation, which is defined as "[…] retrospective analysis of a programme, policy or organisation to assess how successful or otherwise it has been, what challenges may exist to improving performance, and what lessons (good or bad) can be learnt for the future" (OECD, 2007). The main difference from other kinds of performance evaluation is that they aim to identify expenditure savings. Spending reviews are necessary because line ministries have incentives to come up with good new spending proposals but not saving proposals, unless they are required to meet a binding expenditure ceiling or to make room for a new spending priority. OECD (2011c) reports considerable savings achieved or identified in some of the countries that have undertaken spending reviews:

- Canada reduced programme spending by over 10% in absolute terms between 1994/95 and 1996/97;

Figure 2.18. **Iceland has high numbers of CT- and MR-examinations per capita and overcapacity in such machines**

2010[1]



1. Or latest year available.
2. 2011 for the United States.

Source: OECD, *Health Database*.

StatLink http://dx.doi.org/10.1787/888932855506

- Finland reduced the public administration by 9 645 person-years (i.e., 7.9% of total central government person-work years) over 2005-11;
- the Netherlands identified savings of EUR 35 billion (6% of GDP) in the 2009 review; and
- the United Kingdom identified GBP 203 billion in discretionary spending cuts (about 13% of total discretionary expenditure) for the period 2011-15.

The greatest savings could be achieved by implementing strategic spending reviews, which review both the objectives of the policies and programmes being implemented and their resource use. The ultimate objective of such reviews is to prioritise programmes on the basis of policy objectives and/or performance. Of the six countries undertaking spending reviews discussed in OECD (2011c) all but Finland undertake strategic spending reviews (OECD, 2011c). Finland undertakes functional spending reviews, which aim to identify how existing government services and programmes can be delivered with fewer resources. Functional spending reviews would be an attractive option if a coalition government were unable to agree on spending priorities.

In view of the lack of incentives for line ministries to come up with savings proposals, spending reviews need to be managed centrally. Usually, the Ministry of Finance (MOF) is responsible for them (OECD, 2011c). Based on country experiences, OECD (2011c) makes the following best-practice recommendations for spending reviews:

- Ideally, there should be a permanent unit in the MOF that undertakes analysis to come up with recommendations.
- The MOF should decide on the areas to investigate without the need for line ministry approval; the need for such approval frustrated the review process in the past in the Netherlands. In order to undertake this analysis, information on the outcomes of expenditures is needed, with line ministries providing inputs as required.
- The MOF should run a multi-year cycle of spending reviews so that all major spending programmes have been reviewed by the year before elections, as is now planned in the Netherlands. The results of these reviews should then be made publicly available so that they can feed into political parties' policy platforms and, in particular, coalition agreements. A new government would then be in a position to decide on the spending-review recommendations and set public expenditure ceilings for the Parliamentary term accordingly. This process would complement the proposed OBL, which requires a new government to set expenditure ceilings for its term in office.
- Decisions on strategic-spending review recommendations need to be made at the cabinet level as they are highly political (some programmes will be expanded, others will be cut), necessitating government commitment for successful implementation.

Public management reforms could help to increase efficiency

OECD (2011d) identifies common themes of public sector management reforms currently underway to increase efficiency, some of which emerge from spending reviews, which could help Iceland to increase public sector efficiency. The overarching theme of these reforms, which are referred to as "basic government" to distinguish them from previous phases of reform ("receding government" over 1980-90 and "new public management" over 1990-2005), is "more front office, less back office". Common features of these reforms are:

- reallocation of resources from administration to service delivery;
- better integration of executive and professional expertise in policymaking;
- amalgamation of executive agencies or establishment of common process units;
- support service sharing ministries and executive agencies (which would be very important in a country as small as Iceland);
- more emphasis on standards of operational management in all areas;
- concentration of standard setting for operational management in one or a few ministries;
- separation of financing of agencies from steering and control of outputs;
- steering and control of outputs through a permanent performance dialogue rather than on the basis of output indicators;
- reduction of output and outcome information in budget documentation; and
- more emphasis on meeting individual citizens' preferences by greater variety of public supply and tailor-made solutions for individual citizens and businesses.

It would be helpful to conduct pilot studies before new programmes are rolled out to see if they deliver the promised benefits and how performance could be improved. New

programmes should also be subject to sunset clauses, increasing the probability that low value programmes will disappear. In addition, cash limits should be imposed on new programmes to avoid cost overruns. These programmes would be subject to *ex post* evaluations, like all other expenditure, in the spending reviews. Furthermore, large government investment projects should only proceed if they pass a transparent and credible cost-benefit analysis, a condition that does not appear to have been met for the biggest infrastructure project (a tunnel in a remote area) included in the former government's 2013-15 Investment Plan.

Appropriate use of Public-Private Partnerships could increase the efficiency with which capital assets are procured and operated

Public-Private Partnerships (PPPs), which are rare in Iceland, are long-term contractual agreements between the government and a private partner whereby the latter delivers and funds public services using a capital asset, sharing the associated risks. The private partner receives either a stream of payments from the government for services provided or at least made available, or user charges or a combination of both. The potential increase in efficiency compared to traditional forms of procurement arises from the private sector's expertise in combining the design and operation of such assets. Such increases in efficiency could be important for Iceland in view of the need to restore infrastructure investments to more normal levels in coming years.

However, there are many challenges to implementing successful PPPs. First, they require capacities in government in terms of skills, institutional structures and legal frameworks to cope with their complexity. Where PPPs are employed in the delivery of infrastructure facilities with natural monopoly characteristics, the role, design and organisation of regulators is important to secure value for money. Second, there needs to be a robust system in place for assessing value for money, defined as an optimal combination of quantity, quality, features and cost expected over the whole of the project's lifetime. For a PPP bid to represent value for money, it must offer greater benefits at lower cost in risk-adjusted terms than public delivery of the project. Third, it is necessary to classify, measure and contractually allocate risk to the party best able to manage it. Fourth, the government must be able to monitor the PPP contract throughout its life. Fifth, government needs to have sound accounting and budgeting practices.

PPPs should not be used simply to push public investment off budget. Their fiscal consequences should be fully accounted for and reported, including explicit or implicit guarantees. Such public reporting would encourage the authorities to prioritise projects irrespective of how they are procured and financed.

Further consolidation of municipalities could yield savings

Efficiency gains could also be made by consolidating municipalities covering a single conurbation, notably in the capital region. Currently, there is weak co-ordination in infrastructure development, urban planning (which has resulted in excessive urban sprawl, congestion problems and increased GHG emissions) and duplication of services. In addition, social assistance policy and financing should be moved up to the central government level to ensure that there is a socially acceptable safety net throughout the country and to avoid beggar-thy-neighbour policies (municipalities offer very low benefits and/or use land use regulations to discourage beneficiaries from moving in).

There are some possibilities to increase government effectiveness without increasing expenditure

There may also be scope to enhance government effectiveness without increasing expenditure. Iceland has considerable scope to improve performance as regards a number of legal institutions that contribute to the World Economic Forum's assessment (World Economic Forum, 2012) of a country's global competitiveness and are highly correlated with the World Bank's government effectiveness index (Table 2.6). In particular, strengthening protection of property rights and of minority shareholders' interests and increasing the efficiency of the legal framework for private businesses in settling disputes and in challenging the legality of government actions and/or regulations could enhance government effectiveness.

Table 2.6. **Improving some legal institutions could increase government effectiveness without increasing expenditure**

Index scale 1 = very weak to 7 = very strong, 2011-12 weighted average

Protection of property rights		Protection of minority shareholders' interests by the legal system		Efficiency of the legal framework for private businesses in settling disputes		Efficiency of the legal framework for private businesses in challenging the legality of government actions and/or regulations	
Finland	6.5	Finland	6.1	Finland	6	Finland	5.9
Luxembourg	6.2	New Zealand	5.8	New Zealand	5.9	Netherlands	5.6
United Kingdom	6.2	Norway	5.8	Netherlands	5.6	New Zealand	5.5
New Zealand	6.1	Sweden	5.6	Norway	5.6	Sweden	5.5
Canada	6	Canada	5.4	Sweden	5.6	Luxembourg	5.3
Netherlands	6	Netherlands	5.4	Canada	5.4	Norway	5.3
Norway	5.9	Luxembourg	5.2	United Kingdom	5.4	Canada	5.1
Sweden	5.9	United Kingdom	5.2	Luxembourg	5.2	United Kingdom	5.1
Austria	5.8	Austria	5.1	Denmark	5.1	Germany	5
Germany	5.8	Denmark	5	Germany	4.9	Austria	4.6
Ireland	5.8	Belgium	4.9	Austria	4.8	Denmark	4.6
Japan	5.8	Germany	4.9	**Iceland**	**4.7**	France	4.5
France	5.7	Japan	4.9	Ireland	4.6	**Iceland**	**4.5**
Denmark	5.5	United States	4.8	Japan	4.5	Ireland	4.5
Belgium	5.3	Ireland	4.7	United States	4.5	Belgium	4.2
Iceland	**5.1**	France	4.6	France	4.4	United States	4.2
United States	5	**Iceland**	**4.4**	Belgium	4.2	Japan	4
Portugal	4.8	Greece	4.3	Turkey	3.8	Turkey	3.9
Spain	4.8	Portugal	4.3	Spain	3.7	Spain	3.8
Korea	4.7	Spain	4.2	Korea	3.6	Korea	3.2
Turkey	4.5	Turkey	4.2	Poland	3.1	Poland	3.2
Poland	4.4	Czech Republic	4.1	Czech Republic	3	Portugal	3.2
Italy	4.3	Hungary	4	Hungary	3	Czech Republic	2.9
Greece	4.2	Poland	4	Portugal	2.9	Greece	2.6
Czech Republic	4.1	Slovak Republic	3.8	Greece	2.5	Italy	2.6
Slovak Republic	4.1	Korea	3.7	Italy	2.5	Hungary	2.5
Hungary	3.8	Italy	3.5	Slovak Republic	2.4	Slovak Republic	2.4

Source: World Economic Forum (2012), *The Global Competitiveness Report 2012-2013*.

Box 2.3. **Recommendations to strengthen the government's debt reduction strategy**

Key recommendations

- Take immediate action to ensure that the budget remains on track to reach balance in 2014 and a surplus of 2% of GDP by 2015 to put public debt on a path to more prudent levels. Focus fiscal consolidation measures on current expenditures to increase the likelihood that consolidation is sustained and to make room for a return to stronger infrastructure investment.
- To increase transparency and credibility, adopt a timeline for debt reduction with intermediate targets.
- Pass the proposed Organic Budget Law to strengthen budget discipline.
- Undertake strategic spending reviews of all programmes to increase efficiency and reorient expenditure towards government priorities.
- To reduce costs and increase returns to education, reduce the duration of primary- and secondary education.
- 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.

Other recommendations

- Refrain from adopting measures to facilitate wage negotiations that worsen the budget position.
- Resume payments to government employee pension funds to reduce funding deficits once the budget returns to surplus so as to smooth the budget impact of meeting government employee pension obligations.
- To reduce costs and improve education quality, strengthen the capacity of municipalities to manage and oversee primary education collectively or shift these responsibilities back to the central government's education ministry. Reduce the payroll for non-teaching staff in primary education. Improve management in small schools with unusually high costs.
- Use part of the savings from reducing the duration of primary- and secondary education (and hence staff numbers) to increase teacher salaries so as to be able to recruit higher quality candidates. Generate further savings to finance increases in teacher pay by increasing teaching hours.
- Introduce a service-related component to GP pay to reduce incentives to encourage patients to consult after hours on a fee-for-service basis, which increases costs and reduces daytime productivity.
- Restructure out-of-pocket costs for pharmaceuticals to strengthen incentives for patients with low annual expenditures to make savings while eliminating such expenditures for patients with high annual expenditures, who typically have little scope to make savings as they are chronically ill.
- Aim for strategic spending reviews to be available in the year before the general election so that they can feed into the new government's expenditure ceilings for its term in office that would be required under the proposed Organic Budget Law.
- Implement public management reforms, such as shared services to increase efficiency.
- Only implement government investment projects that pass transparent, credible cost-benefit analyses.
- Consider using Public Private Partnerships to procure and finance infrastructure investments provided that the institutional structure to manage them can be developed and they represent value for money. Fully and publicly account for their fiscal implications.

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