



Seðlabanki Íslands

# Recent economic developments and policy challenges in Iceland

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Visit from Nordic labour union economists

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# Brief recap: the financial crisis in 2008 had enormous effects in Iceland



Metric	Iceland	Some international context	Sources
Output contraction (GDP from peak to trough)	11.2%	GDP contracted by 6.9% on average in 25 advanced economies in the recent crisis and by 5.9% on average in the Nordic banking crisis in the early 1990s	Quarterly OECD data
Market share of distressed institutions (% of total credit) <sup>1</sup>	93.5%	Average share is 46% in the Nordic banking crisis and 40% among a large sample of medium-to-high income countries from 1970-2003	Einarsson et al. (2015) and Caprio et al. (2005)
Peak in non-performing loans (% of total loans)	61.2%	The average peak in the Nordic banking crisis was 14.1%	Laeven and Valencia (2013)
Deterioration of fiscal balance (ratio to GDP) <sup>2</sup>	16.0%	Only Ireland recorded a larger fiscal deterioration in the current crisis, while the average increase in the Nordic banking crisis was 11.3%	Einarsson et al. (2015), Laeven and Valencia (2013), and IMF (WEO)
Increase in government debt (ratio of GDP) <sup>3</sup>	64.0%	Government debt has increased by 24% of GDP on average following banking crises in advanced economies (from 1970-2011) and the average increase in the Nordic crisis was 34%	Einarsson et al. (2015), Laeven and Valencia (2013), and IMF (WEO)

1. Share of distressed financial institutions in total credit by deposit money banks and other lending institutions in year  $T - 1$ , where  $T$  is the starting year of the banking crisis. 2. Change in central government fiscal balance between year  $T - 1$  and the post-crisis trough in the period  $T$  to  $T + 3$ . 3. Change in central government debt between year  $T - 1$  and post-crisis peak in the period  $T$  to  $T + 3$ .

Sources: G. Caprio, D. Klingebiel, L. Laeven, and G. Noguera (2005), "Banking crisis database", in P. Honohan and L. Laeven (eds.), *Systemic Financial Crises*. Cambridge University Press; B. G. Einarsson, K. Gunnlaugsson, T. T. Ólafsson, T. G. Pétursson (2015), "The long history of financial boom-bust cycles in Iceland – Part I: Financial crises", Central Bank of Iceland, *Working Papers* no. 68; L. Laeven and F. Valencia (2013), "Systemic banking crises database", *IMF Economic Review*, 61, 225-270; OECD.

Visit from Nordic  
labour union  
economists

Post-crisis recovery  
and current outlook

# Robust growth and pre-crisis level of GDP attained



- GDP growth measured 4% in 2015 and 2.7% on average over the last 5 years ...
- ... GDP has risen by 16% from its post-crisis trough in early-2010 and was 3% above its post-crisis peak in Q4/2015
- Faster growth than in the other Nordic countries (ranging from 0% in Finland to 2% in Sweden over the last 5 years)

GDP in Iceland and the other Nordic countries 2008-2015

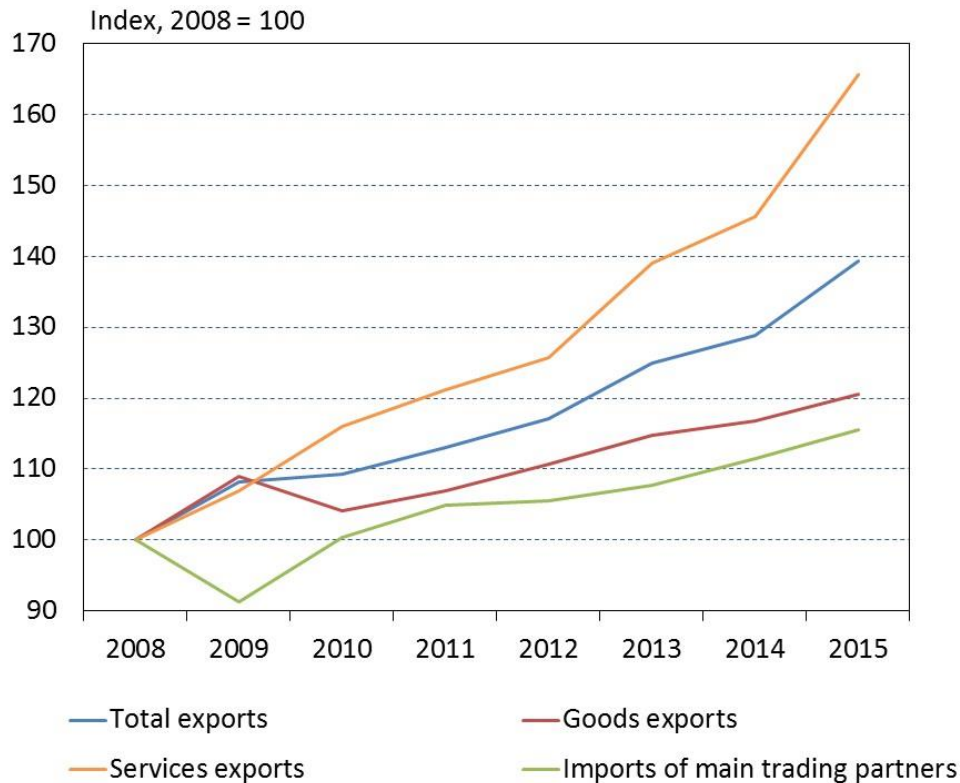


# Strong services exports growth but recovery broad-based

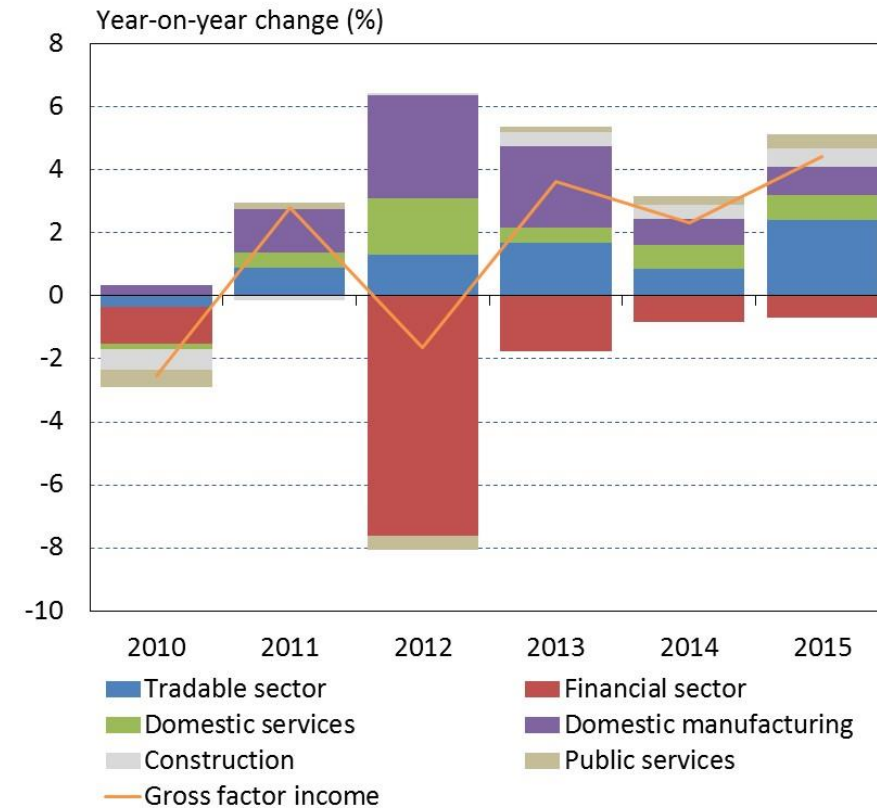


- Strong export growth driven by services exports which increased by 13.7% in 2015 and by 7½% on average last 5 years – while goods exports have grown in line with external demand
- Tradable sector, the tourism sector in particular, contributes heavily to 2015 growth ... but expansion is broadly based with a positive contribution from all sectors except the financial sector (reflecting the continuing debt reduction)

Exports and external demand 2008-2015



Gross factor income and sectoral contributions 2010-2015<sup>1</sup>



1. Gross factor income measures the income of all parties involved in production. It is equivalent to GDP adjusted for indirect taxes and subsidies. Included in the tradable sector are fisheries, fish product processing, manufacture of metals and pharmaceuticals, and 75% of electricity, gas, heat, and water utilities. Other sectors are considered non-tradable and are classified as construction, financial sector, services (excl. financial services), and production.

Sources: Macrobond, Statistics Iceland, Central Bank of Iceland.

# Terms of trade improving and real exchange rate rising

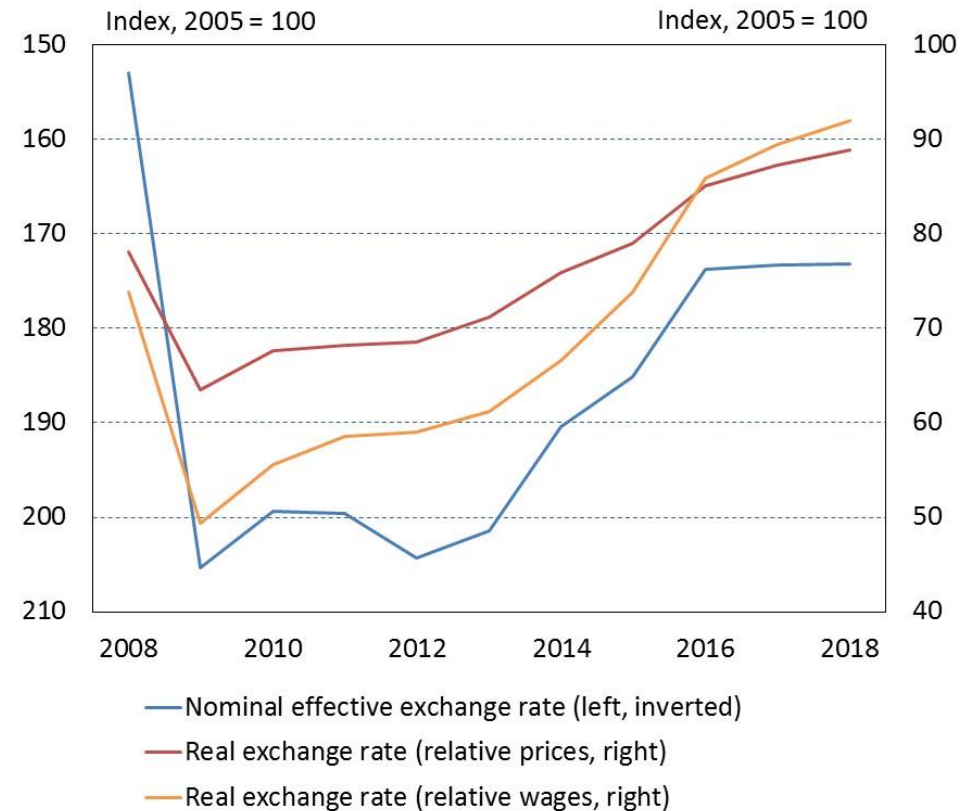


- Terms of trade improved by 10.2% in total 2014-15: large decline in oil and commodity prices at the same time as relative export prices have risen by 12.7% ... terms of trade expected to improve further this year but weaken slightly next 2 years as oil prices pick up and marine prices soften after strong performance in last 2 years
- Real exchange rate has risen sharply and outlook for further appreciation this year – in particular measured in relative wages

## Export prices and terms of trade 2008-2018<sup>1,2</sup>



## Exchange rate developments 2008-2018<sup>2</sup>



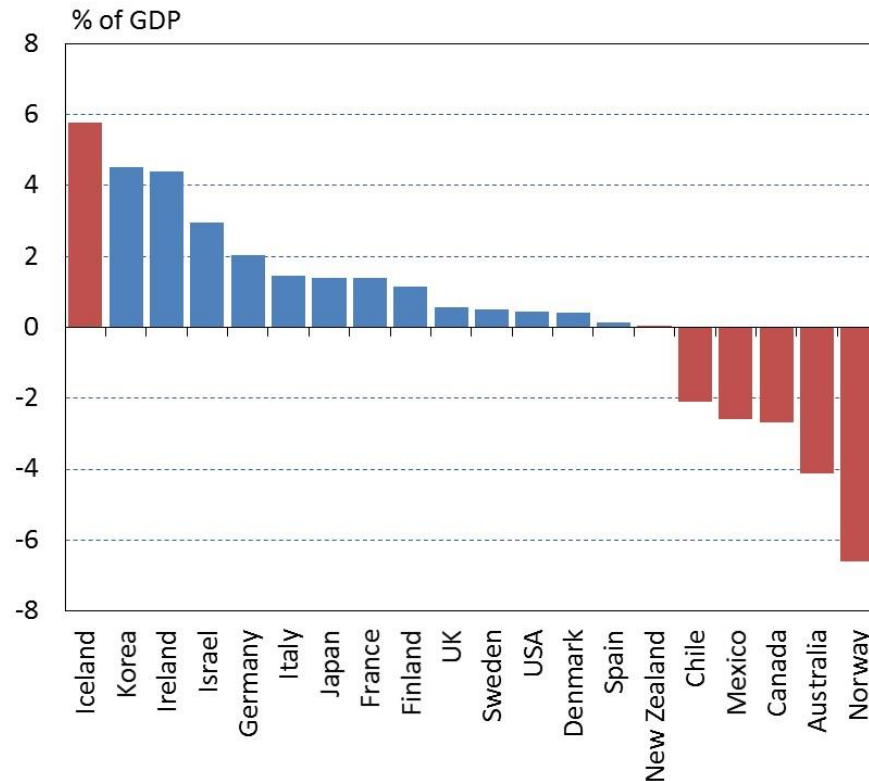
1. Price of Icelandic exports relative to trading partners' export prices (converted to the same currency using trade-weighted exchange rate index). 2. Central Bank baseline forecast 2016-2018.

Sources: Macrobond, Statistics Iceland, Central Bank of Iceland.

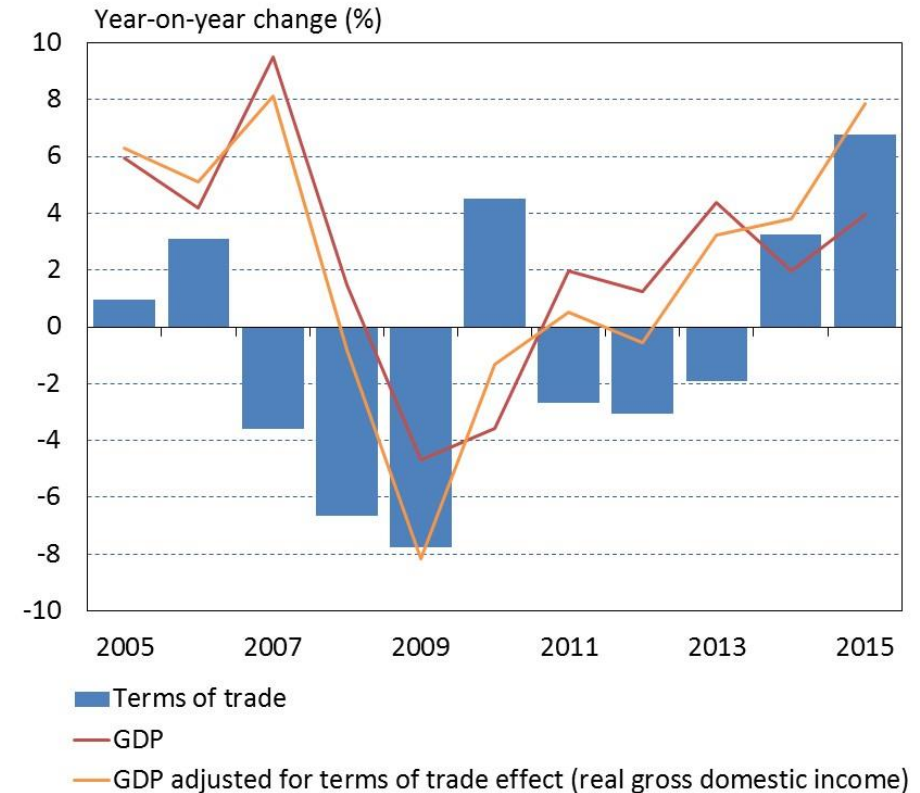
# Prosperity rising faster than captured by GDP growth

- Greater terms of trade improvement over last 2 years than in other OECD countries – in particular compared to other commodity exporters ... economic prosperity has therefore increased by more than captured by the growth rate of GDP
- RGDI has risen by twice as much as GDP (3.8% in 2014 and 7.9% in 2015): helps explain the recent large pay increases and their impact on consumption and savings decisions and their interaction with inflation developments

Terms of trade effect in 20 OECD countries  
2014-2015<sup>1</sup>



GDP growth and growth in RGDI<sup>2</sup>



1. The difference between the purchasing power of exports and export volumes relative to the previous year's GDP. Combined effect for 2014-2015. Countries classified as commodity exporters in terms of weight of commodities in net exports are denoted by red columns. 2. Real gross domestic income (RGDI) is measured as GDP plus the terms of trade effect.

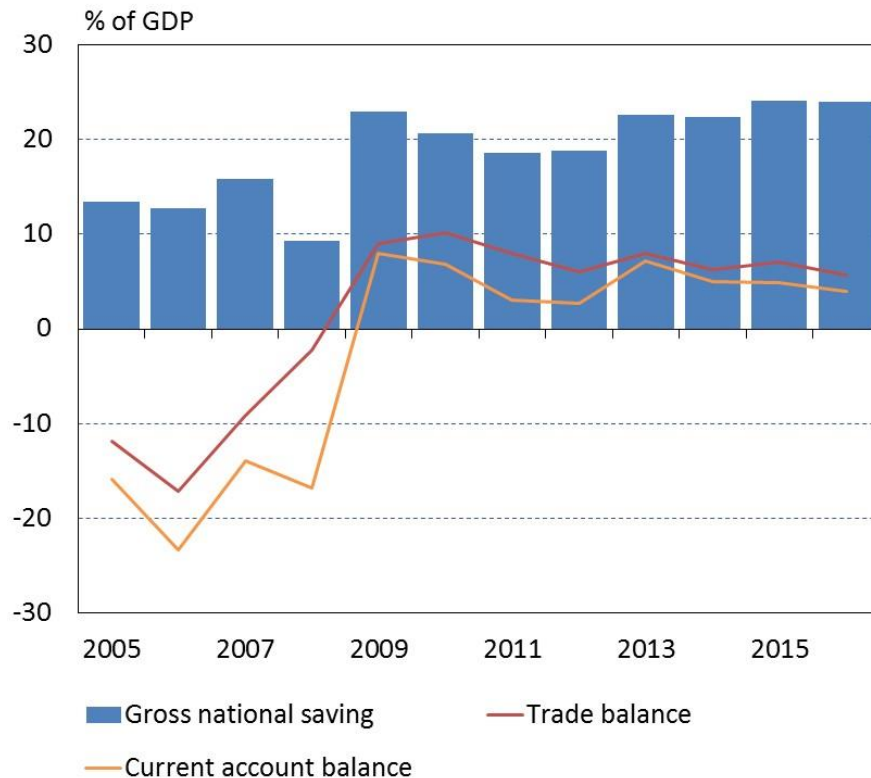
Sources: OECD, Statistics Iceland, United Nations (UNCTAD), Central Bank of Iceland.

# Trade surpluses and fast declining net external debt

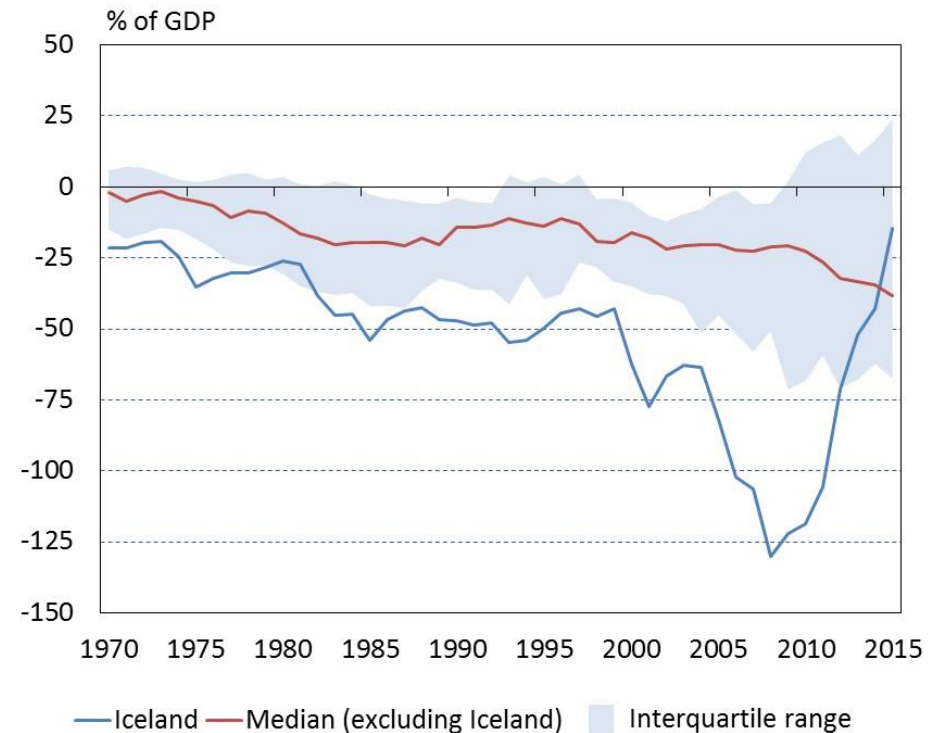


- From large and persistent current account deficits and declining national savings to sizable surpluses ...
- ... which, along with the recent settlement of the failed bank estates, has led to a dramatic improvement in the NIIP: from -130% of GDP in 2008 to -14½% in 2015 – the best position for 50 years and among the best in AEs

Current account balance and gross national saving 2005-2016<sup>1</sup>



Net international investment position in 30 advanced economies 1970-2015<sup>2</sup>



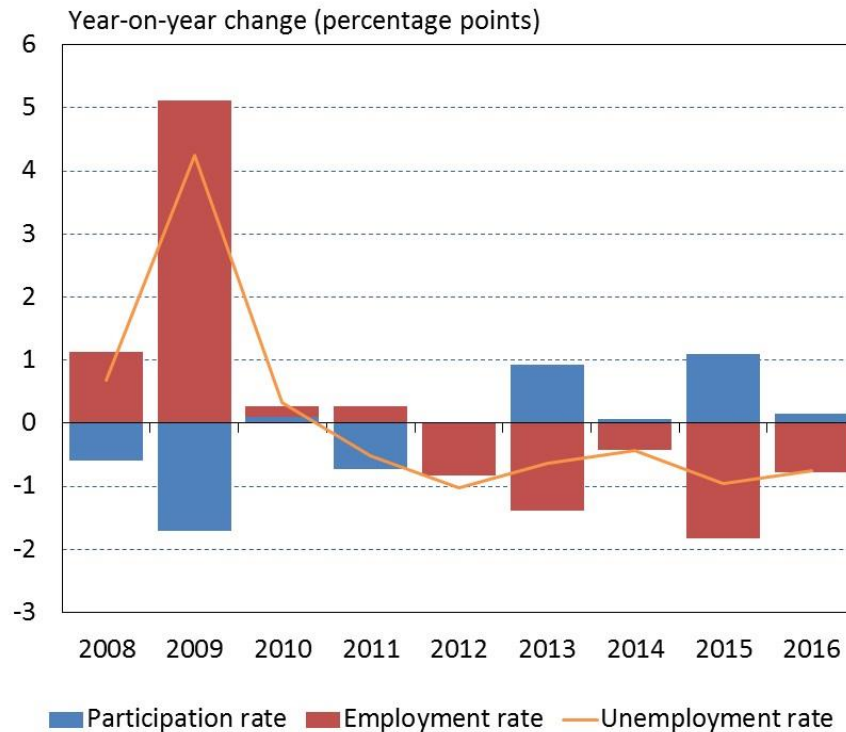
1. Underlying current account balance and gross national saving 2008-2015 and Central Bank baseline forecast 2016. With the recent settlement of the failed banks' estates, as of 2016 there is no longer any difference between headline and underlying current account and gross national saving numbers. 2. Figures for Iceland are from the National Economic Institute (1970-1994) and the Central Bank of Iceland and Statistics Iceland (1995-2015), based on the underlying position during the period 2008-2014. Figures from the other countries are from the Lane and Milesi-Ferretti database for 1970-2011. Their data are extended through 2015 based on developments according to the IMF's international financial statistics (IFS) database. Sources: International Monetary Fund, Lane and Milesi-Ferretti (2007), National Economic Institute, Statistics Iceland, Central Bank of Iceland.



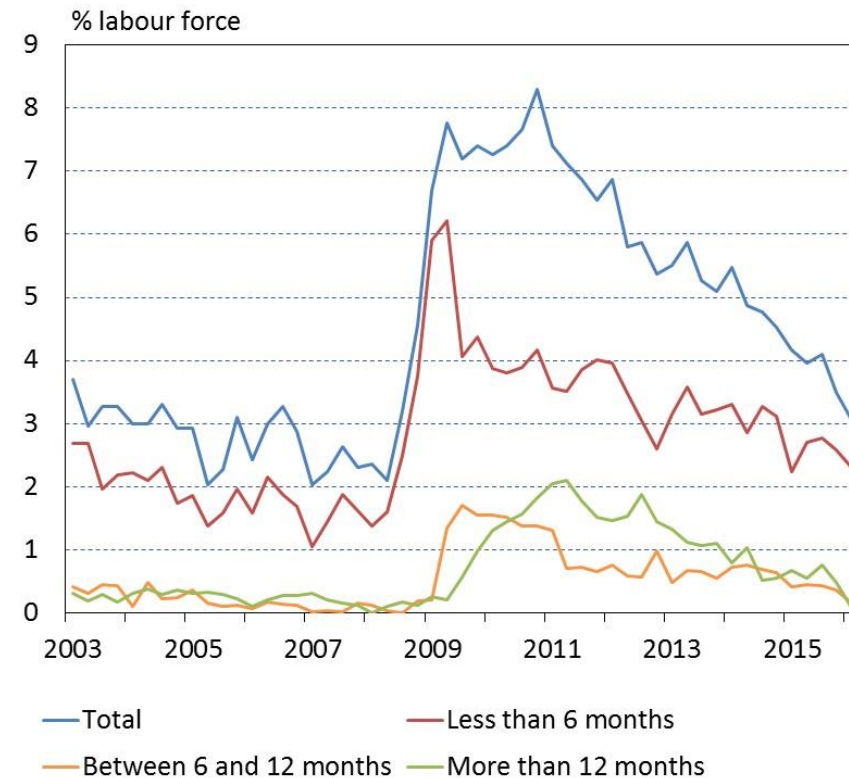
# Unemployment declining rapidly ...

- Unemployment rose sharply in the crisis as the job rate fell – but partially offset by a decline in labour participation
- The fall in unemployment from 2010 was initially driven by falling participation but from 2012 it has mainly been driven by a rising employment rate – with a rising participation rate weighing against the unemployment decline from 2013
- Unemployment measured 3.1% (s.a.) in Q1/2016 – and long-term unemployment has all but disappeared

## Contribution to changes in unemployment rate 2008-2016<sup>1</sup>



## Unemployment by duration<sup>2</sup> Q1/2003 - Q1/2016



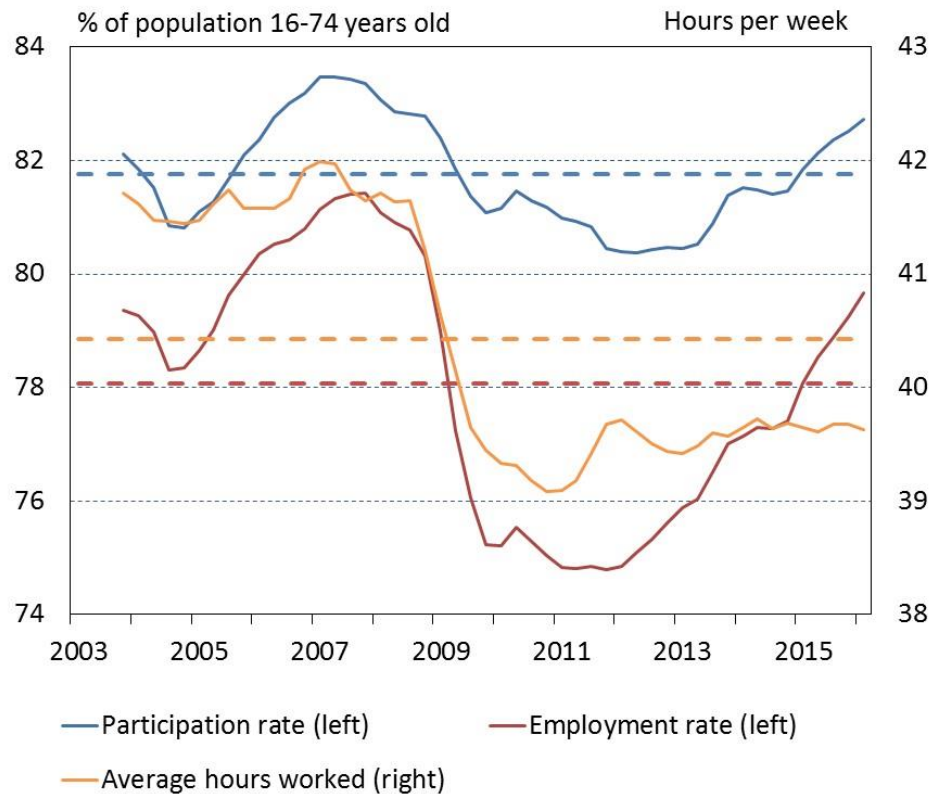
1. Unemployment rate as a % of labour force and labour participation and employment rates as a % of population aged 16-74 years old. An increase in the employment rate shown as a negative contribution to changes in the unemployment rate. Central Bank baseline forecast 2016. 2. Seasonally adjusted data.

Sources: Statistics Iceland, Central Bank of Iceland.

# ... and spare capacity in the economy is fully absorbed

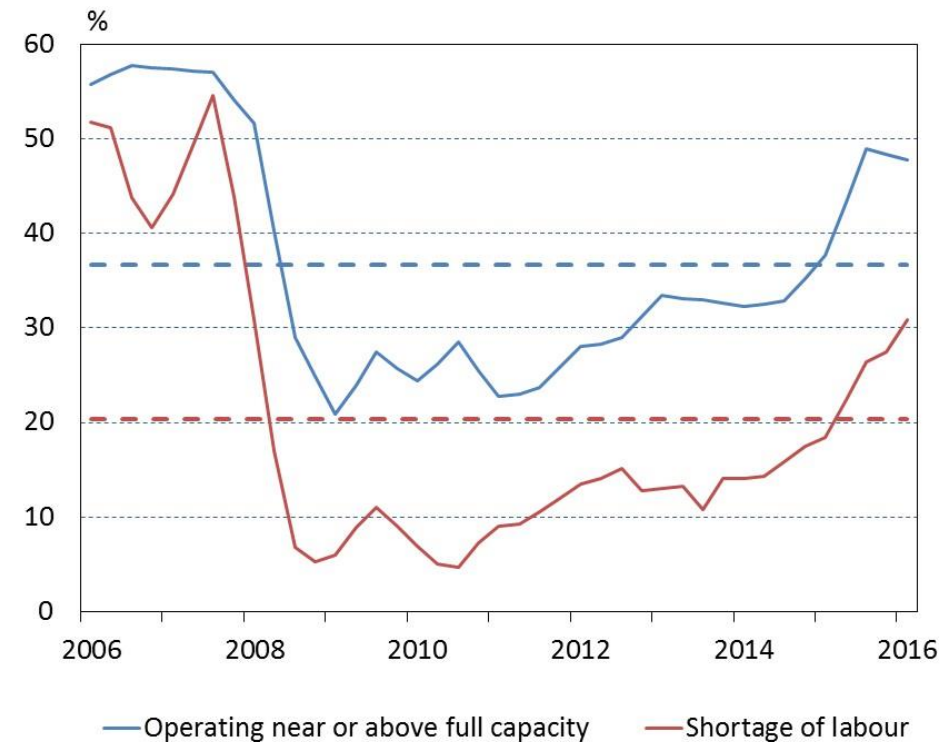
- Labour participation measured 82.9% in Q1/2016 (s.a.) – close to its pre-crisis peak and is 1.1pp above its average since 2003 – employment rate has also risen sharply while average hours have been broadly flat
- Survey indicators suggest that a rising share of firms are operating at full capacity and are having increasing difficulties in recruiting new staff

### Labour participation, employment, and hours<sup>1</sup>



### Indicators of factor utilisation<sup>2</sup>

Q1/2006 - Q1/2016



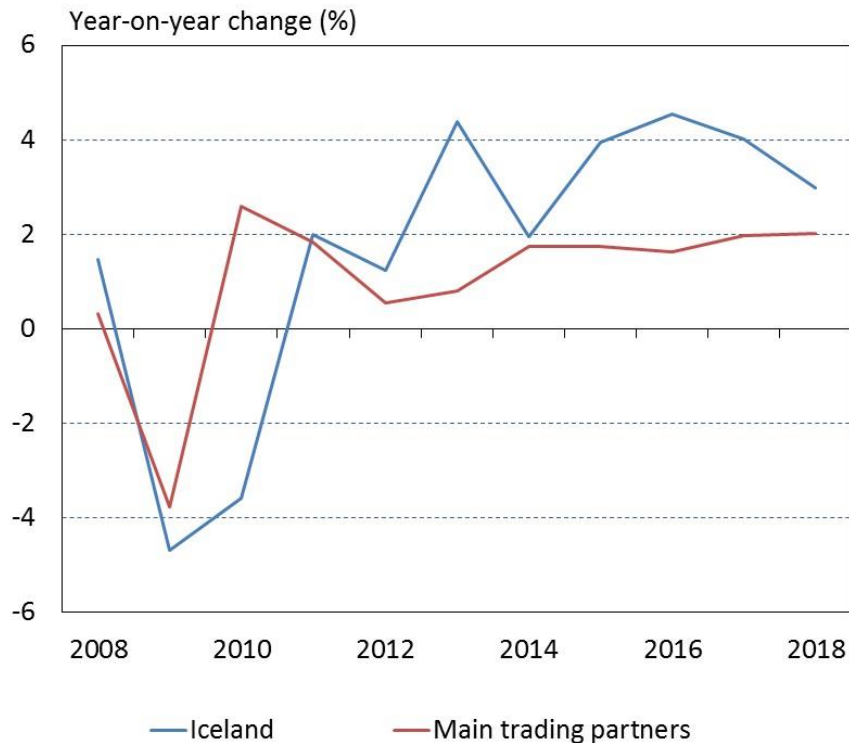
1. Four-quarter moving average. Broken lines show Q1/2003 - Q1/2016 average. 2. According to Gallup Sentiment Survey among Iceland's 400 largest firms. Seasonally adjusted data. Data on the operation level relative to production capacity is reported semiannually. Quarterly data is generated via interpolation. Broken lines show period averages.

Sources: Gallup, Statistics Iceland, Central Bank of Iceland.

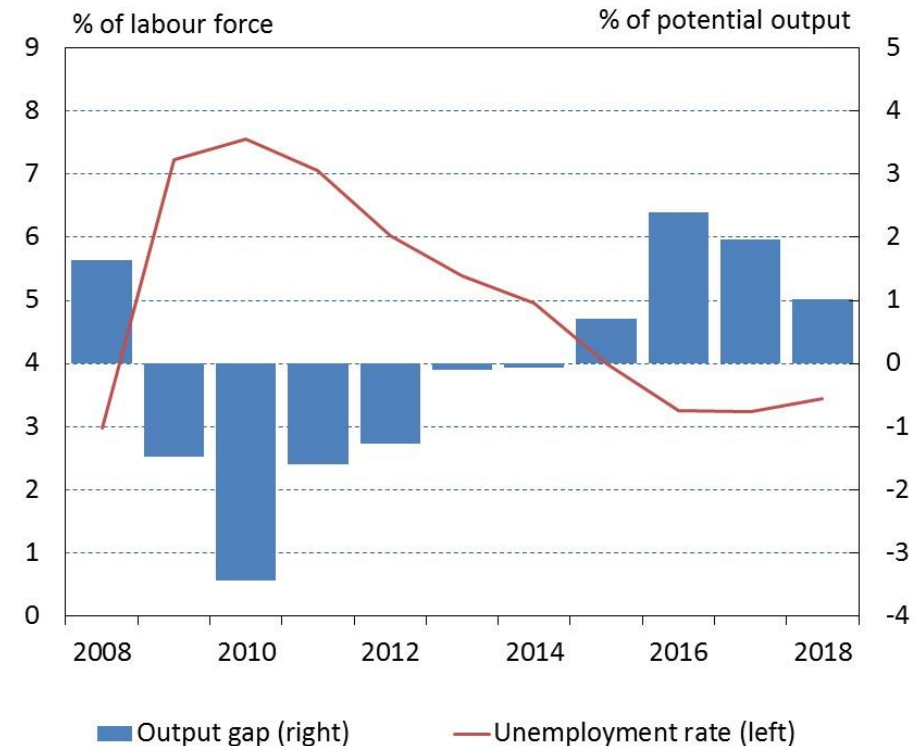
# Strong GDP growth and widening output gap ...

- Outlook for continued strong growth: 4.5% growth in 2016 and 4% in 2017 – would be the third year in a row with 4% growth or more ... before easing to 3% in 2018 – well above trend growth and main trading partners average
- Unemployment rate expected to decline further this year and average 3¼% in 2016-17 ... and the output gap – that emerged early 2015 – to widen to 2½% of potential output this year before gradually narrowing again over the forecast horizon

### GDP growth in Iceland and main trading partners 2008-2018<sup>1</sup>



### Unemployment rate and output gap 2008-2018<sup>1</sup>



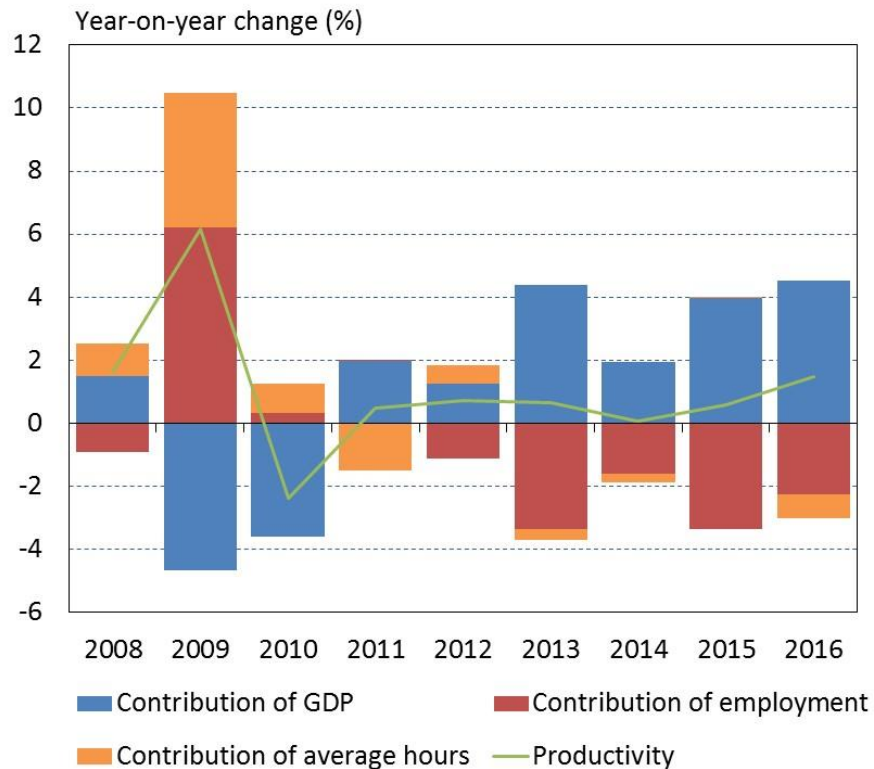
1. Central Bank baseline forecast 2016-2018.

Sources: Macrobond, Statistics Iceland, Central Bank of Iceland.

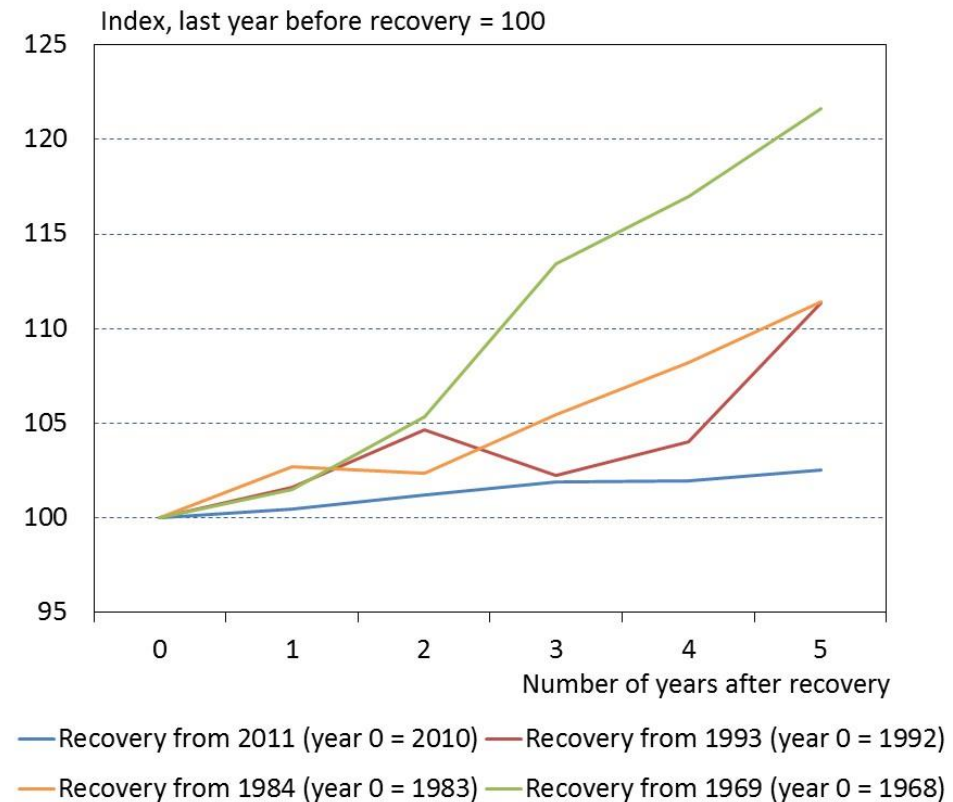
# ... but productivity growth remains muted

- Productivity rose sharply at the onset of the crisis as firms shed jobs and reduced hours aggressively ...
- ... but productivity growth has been weak in the post-crisis period – with strong output growth mirrored by a similar rate of job creation: average post-crisis productivity growth about ½% - compared to a long-term average of roughly 2%
- This low productivity growth has also been seen in other AEs – but is unlike previous economic recoveries in Iceland

Labour productivity 2008-2016<sup>1</sup>



Labour productivity in economic recoveries<sup>2</sup>



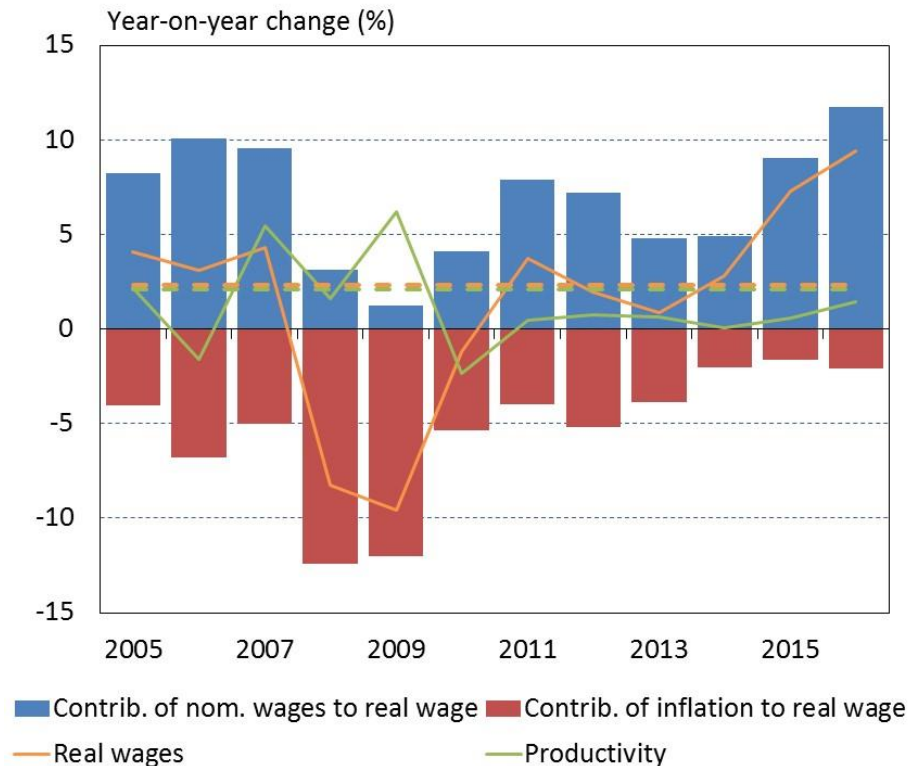
1. Labour productivity measured as GDP divided by total hours. Increases in employment and average hours shown as a negative contribution to changes in productivity. Central Bank baseline forecast 2016. 2. From 1991, the ratio of GDP to total hours worked; before 1991, the ratio of GDP to man-years. The four contractions are periods featuring a significant contraction in GDP.

Sources: Statistics Iceland, Central Bank of Iceland.

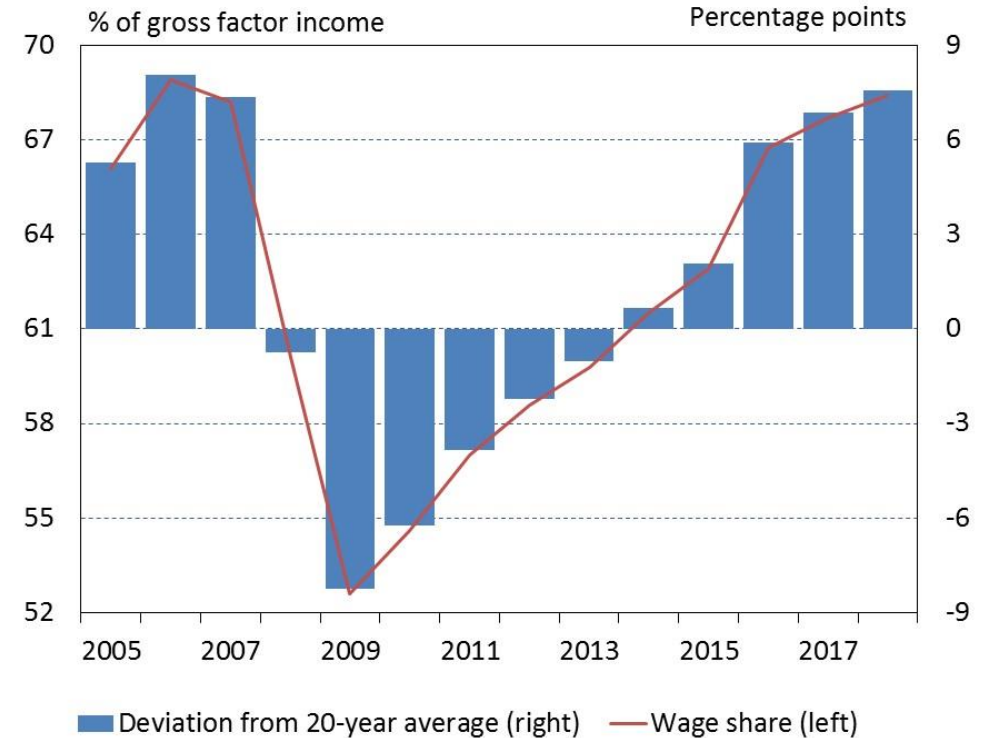
# Wages rising fast and wage share well above average

- Real wages fell sharply in crisis – mainly due to rising inflation although nominal wage growth slowed significantly
- Real wage growth has picked up significantly, especially following the wage settlement in 2015: average increase in 2015 7.3% and will rise even further to 9.4% in 2016 (National Accounts measure)
- Wage share rising fast and is estimated to be almost 6pp above its long-term average in 2016 and set to rise further

Real wages and productivity 2005-2016<sup>1</sup>



Wage share 2005-2018<sup>2</sup>



1. Wages based on National Accounts measure. Real wages measured as nominal wages over consumer prices. Productivity measured as GDP divided by total hours. Broken lines show 20-year averages (1996-2015). Central Bank baseline forecast 2015-2016. 2. Wages and related expenses as a share of gross factor income. The 20-year average is 60.8% (1995-2014, base 1997). Central Bank baseline forecast 2015-2018.

Sources: Statistics Iceland, Central Bank of Iceland.

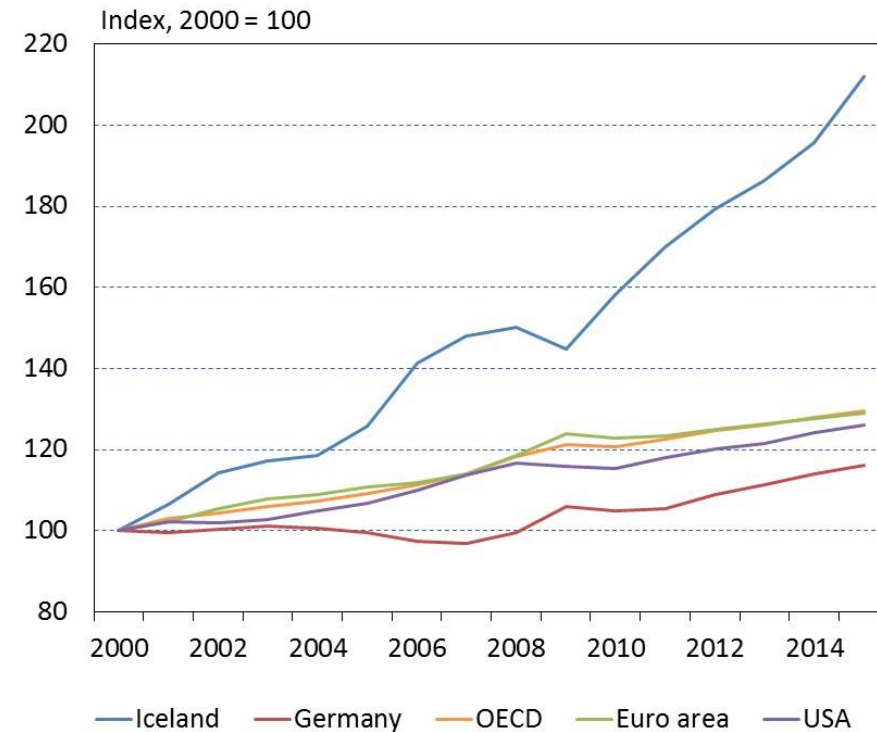
# Large increases in unit labour costs ...

- Wage inflation well above productivity growth – leading to very large increases in unit labour cost: rose by 8.4% in 2015 and expected to rise by 9.8% this year – before moderating to roughly 5% per year in 2017-18
- Well above increases in labour costs in other AEs leading to a deterioration of competitiveness (the average 2000-15 increase in Iceland is 5.2% but ranging from 1% in Germany to 1.6-1.7% in the US, the euro area, and OECD)

## Unit labour costs and productivity 2008-2018<sup>1</sup>



## Unit labour costs in advanced economies 2000-2015



1. Productivity measured as GDP divided by total hours. Central Bank baseline forecast 2015-2018.

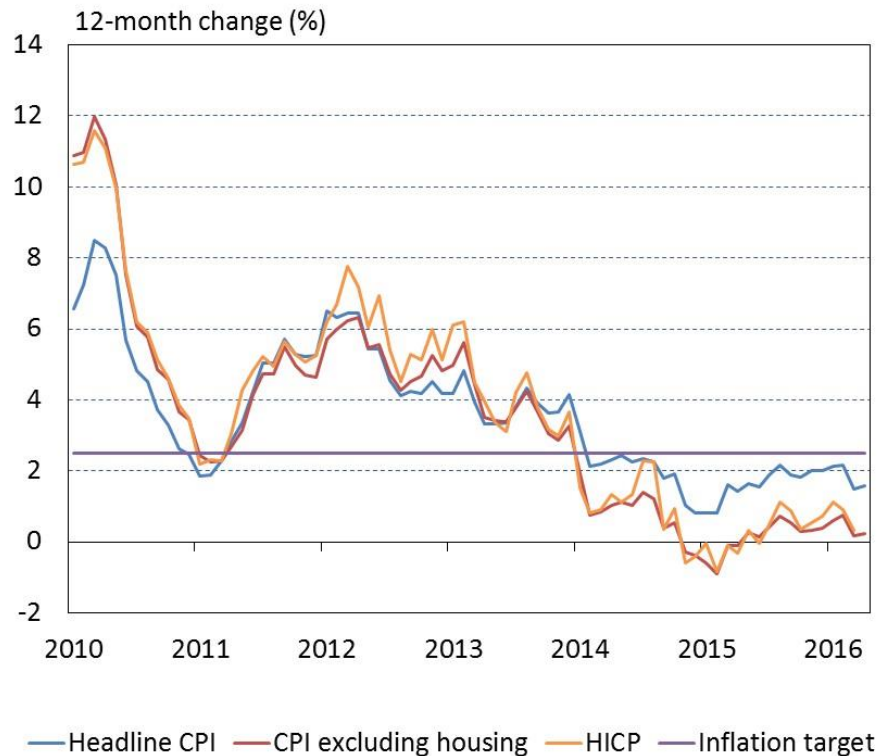
Sources: Macrobond, Statistics Iceland, Central Bank of Iceland.

# ... but inflation remains below target

- Inflation measured 1.6% in April – down from 2.1% in January but up slightly from April 2015 ... been below target for more than 2 years – the longest period of target undershooting since the start of the inflation targeting regime 15 years ago
- Inflation measures even lower using the HICP: 0.3% in March
- Imported deflation pushing against domestic inflation pressures – in particular house price inflation

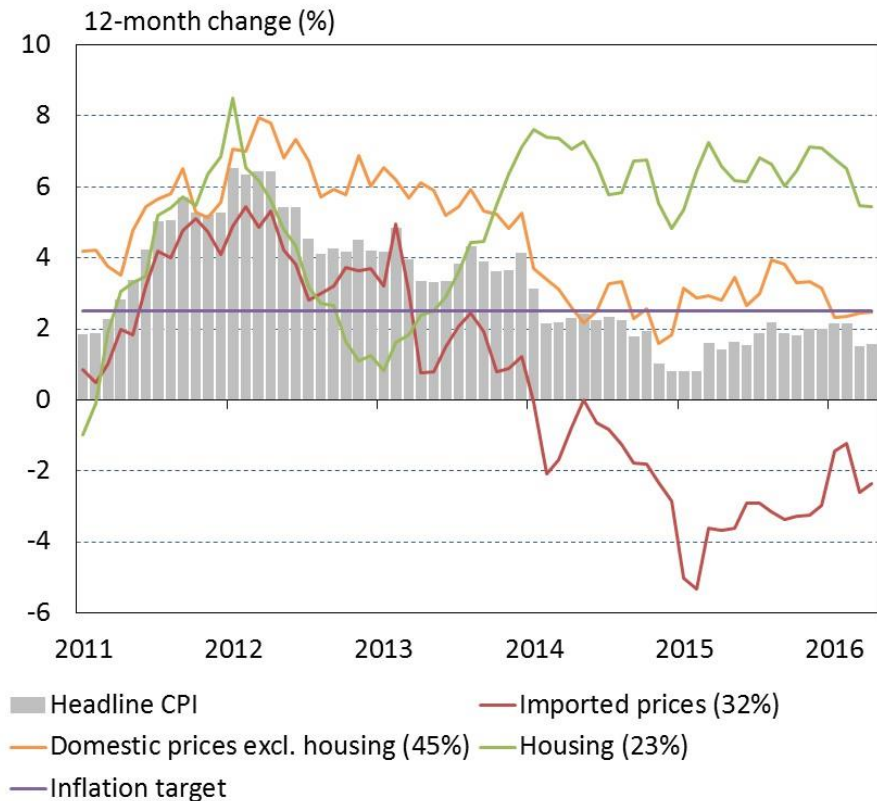
### Various measures of inflation

January 2010 - April 2016



### Imported and domestic inflation<sup>1</sup>

January 2011 - April 2016



1. Imported inflation is estimated using imported food and beverages and the price of new motor vehicles and spare parts, petrol, and other imported goods. Domestic inflation is estimated using the price of domestic goods and the price of private and public services. The figures in parentheses show the current weight of these items in the CPI.

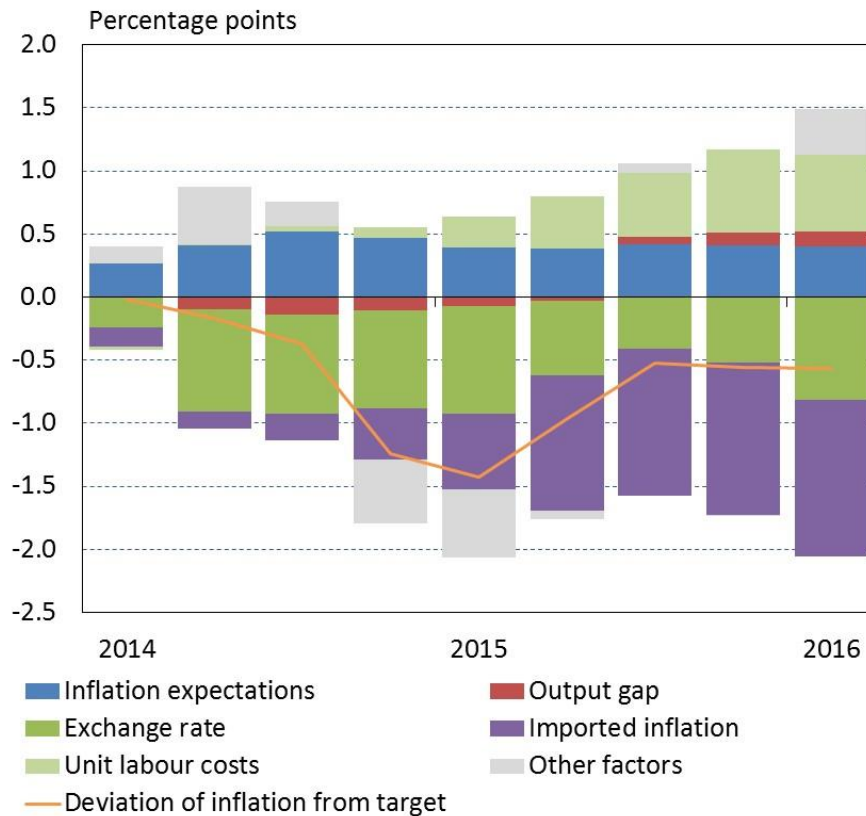
Sources: Statistics Iceland, Central Bank of Iceland.

# Rising inflation expected as imported deflation tapers off

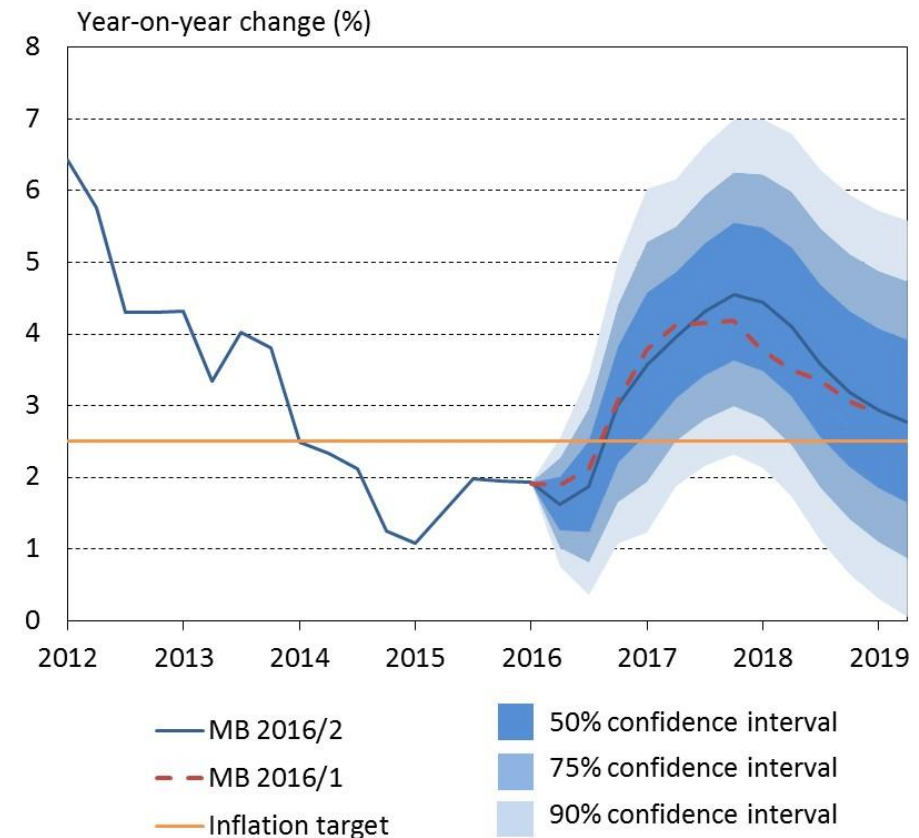


- Appreciating króna and low global inflation key reasons for target undershooting – offsetting domestic inflation pressures
- The risk is therefore that inflation starts picking up once the effects of imported deflationary pressures start tapering off – leaving the more persistent effects of a positive output gap and above-target inflation expectations
- Current forecast assumes that inflation gradually picks up and peaks at 4½% in late-2017 before gradually easing back

Deviation of inflation from target and contribution of underlying factors<sup>1</sup>



Inflation forecast and confidence interval  
Q1/2012 - Q2/2019



1. Deviation of inflation from target and contribution of underlying factors based on the inflation equation in the Central Bank of Iceland's macroeconomic model. "Other" factors is the share of the deviation not explained by the model.  
Sources: Statistics Iceland, Central Bank of Iceland.



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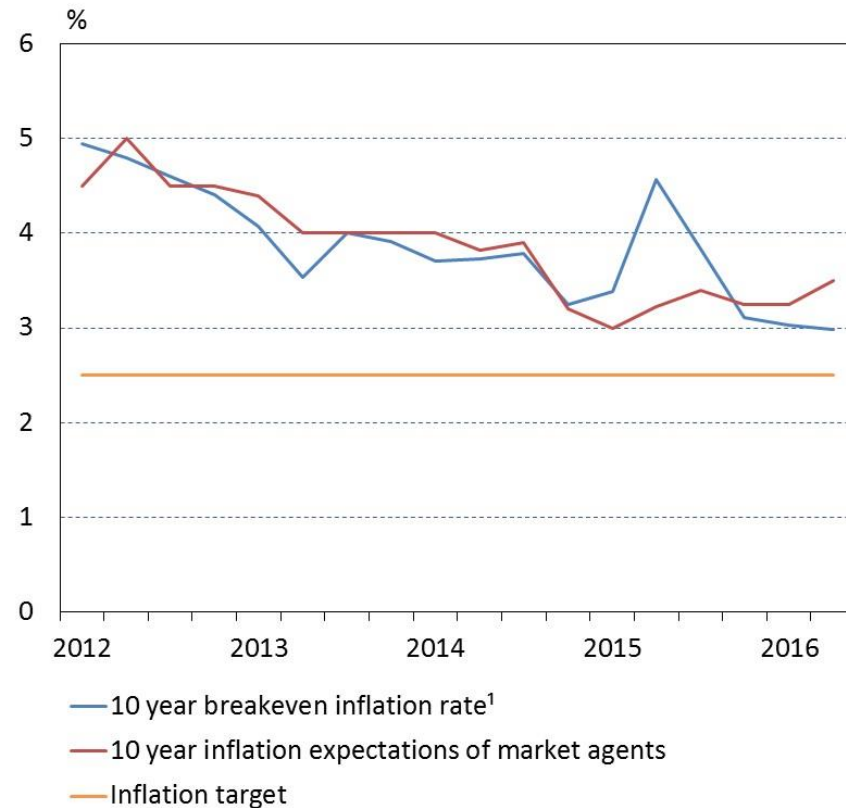
Policy challenges

# Weaker anchor and less favourable policy trade-offs

- Inflation expectations have declined but remain persistently above target – reflecting legacy stemming from poor past policy outcomes ... volatility trade-offs less favourable and fluctuate over time while inflation has firmer anchor in other Nordics
- Sharp increase in inflation and output volatility in Iceland following the crisis ... but volatility has declined again in the latest 5-year period – with Iceland currently facing trade-offs more similar to those of the other Nordic countries than before

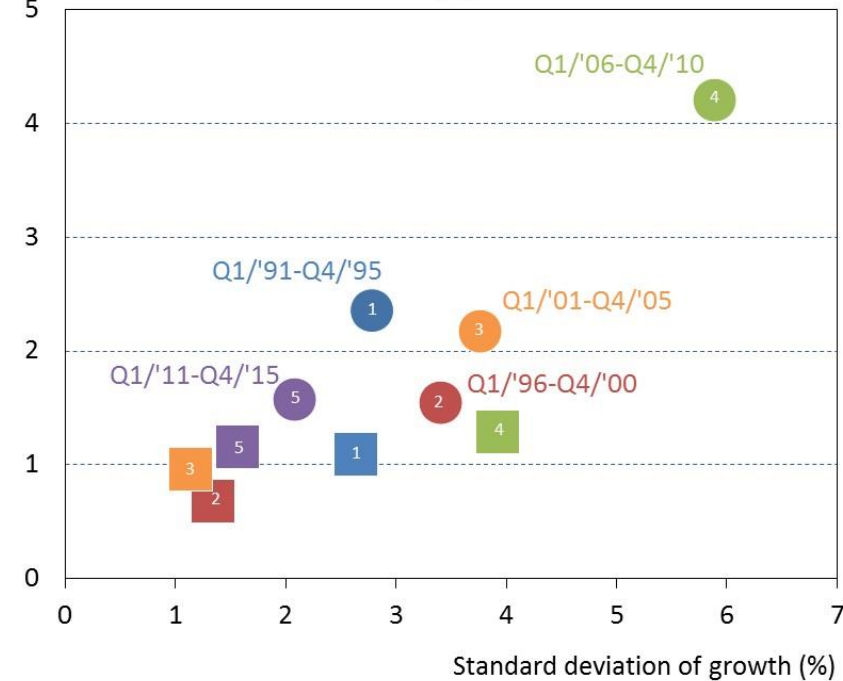
### Long-term inflation expectations

Q1/2012 - Q2/2016



### Inflation-output volatility tradeoffs in Iceland and other Nordic countries<sup>2</sup>

Standard deviation of inflation (%)



1. The value for Q2/2016 is the Q2 average to date. 2. Circles denote standard deviations of inflation and GDP growth in Iceland and squares the corresponding median values for the other Nordic countries. The 25 year period Q1/1991-Q4/2015 is split into five equally long five year periods.

Sources: OECD, Statistics Iceland, Central Bank of Iceland.

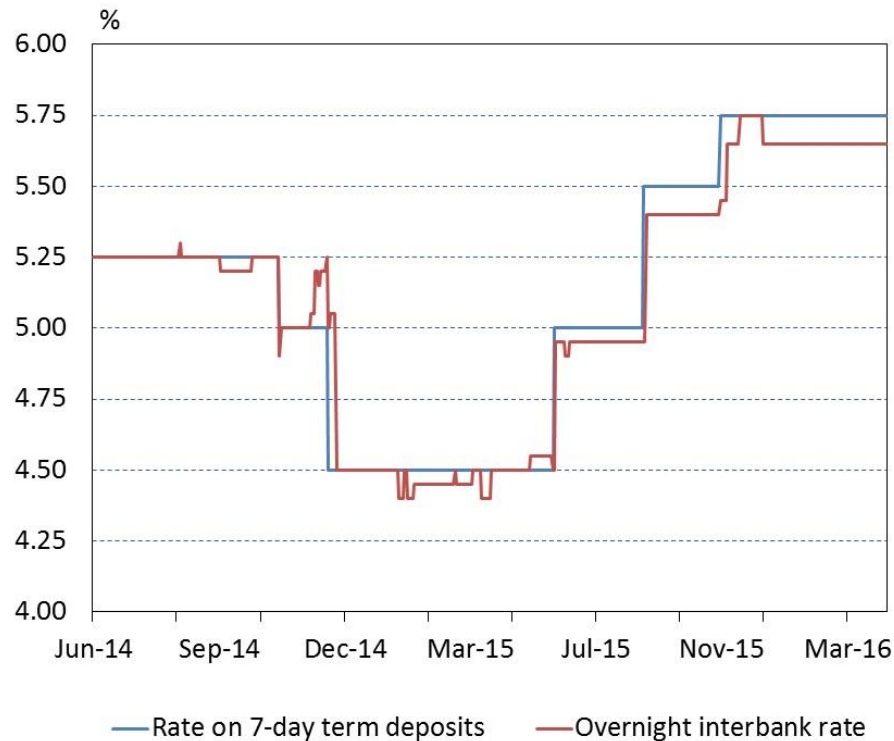
# Insufficient coordination of monetary and fiscal policy



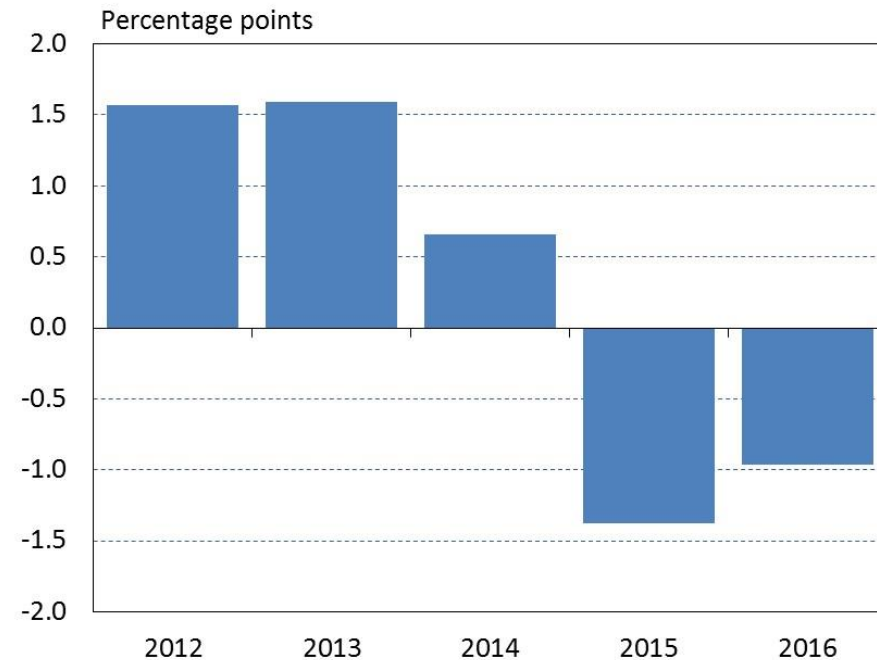
- Facing a widening output gap and the mounting inflationary risks from the generous wage settlements in mid-2015, the MPC started tightening monetary policy in August 2015 ... raising the policy rate to its current level of 5.75% in November 2015 ...
- ... at the same time fiscal policy eased by an equivalent of almost 1.5% of GDP and is expected to ease further by almost 1% of GDP this year

### Central Bank policy rate

1 June 2014 - 6 May 2016



### Change in central government cyclically adjusted primary balance 2012-2016<sup>1</sup>



1. Central Bank baseline forecast 2016.

Sources: Financial Management Authority, International Monetary Fund, Central Bank of Iceland.

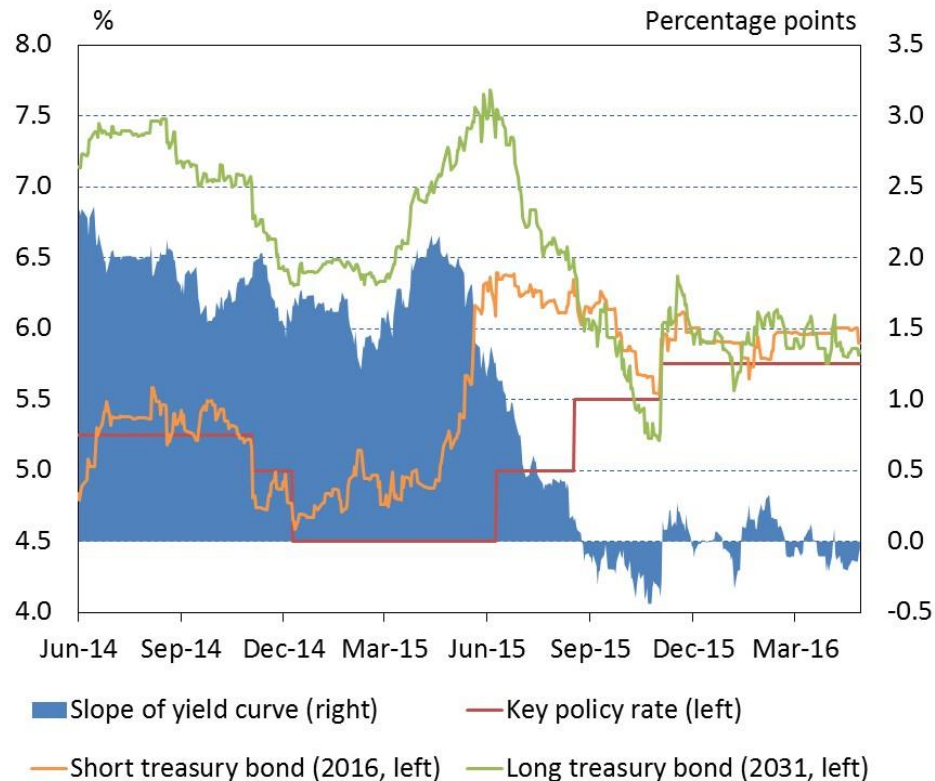
# Capital inflows creating further policy challenges



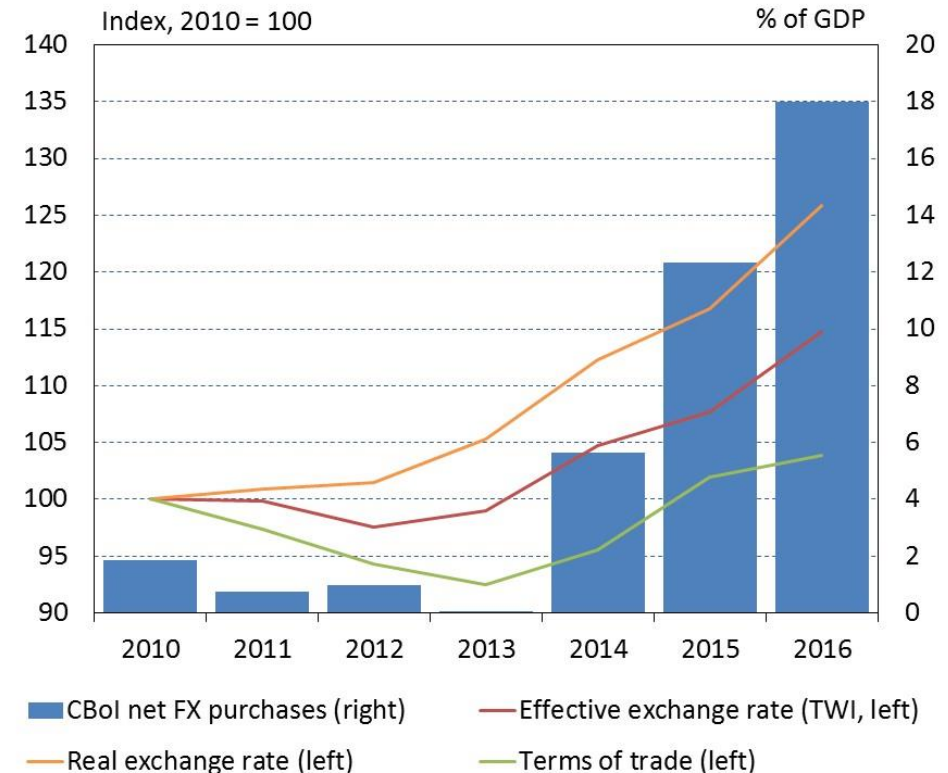
- Strong growth and widening interest rate differential vis-à-vis abroad have created further policy challenges as capital inflows have increased – inverting the yield curve and jamming to some extent the interest rate channel of monetary policy
- The inflows have appreciated the currency – which to some extent is warranted given the strong economic fundamentals – but inflows have largely been absorbed to build up reserves in the run up to the liberalisation of the capital account

Central Bank policy rate and bond yields

1 June 2014 - 29 April 2016



Exchange rate, terms of trade, and FX interventions<sup>1</sup>



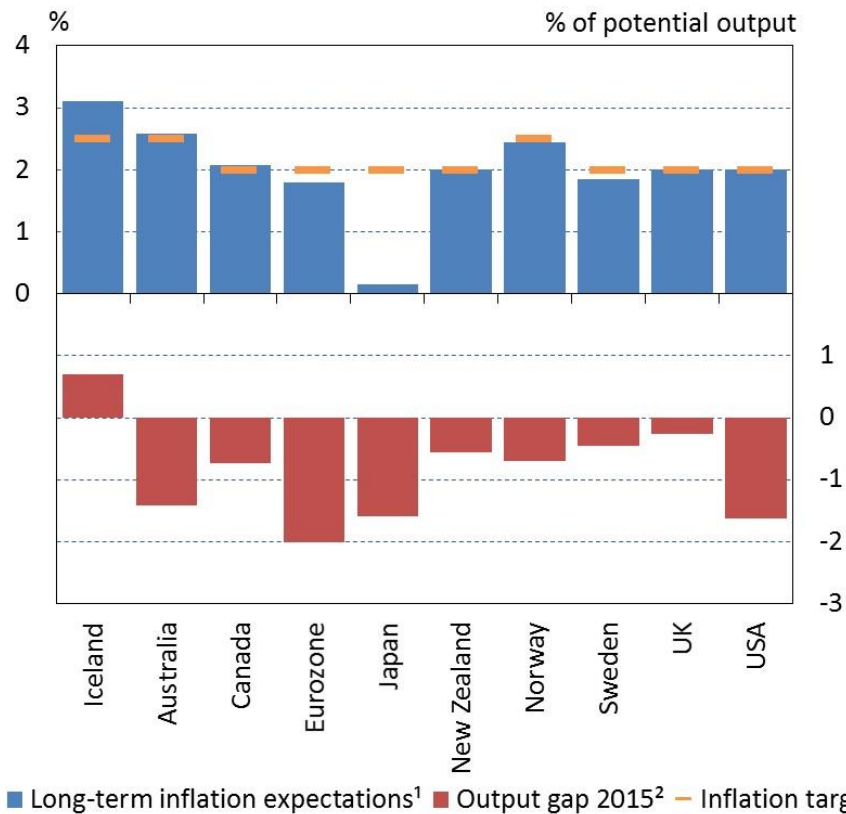
1. 2016 figure based on Q1 data on FX interventions and nominal GDP (Central Bank of Iceland estimate).  
Sources: Statistics Iceland, Central Bank of Iceland.

# So, why are rates higher in Iceland than in other AEs?

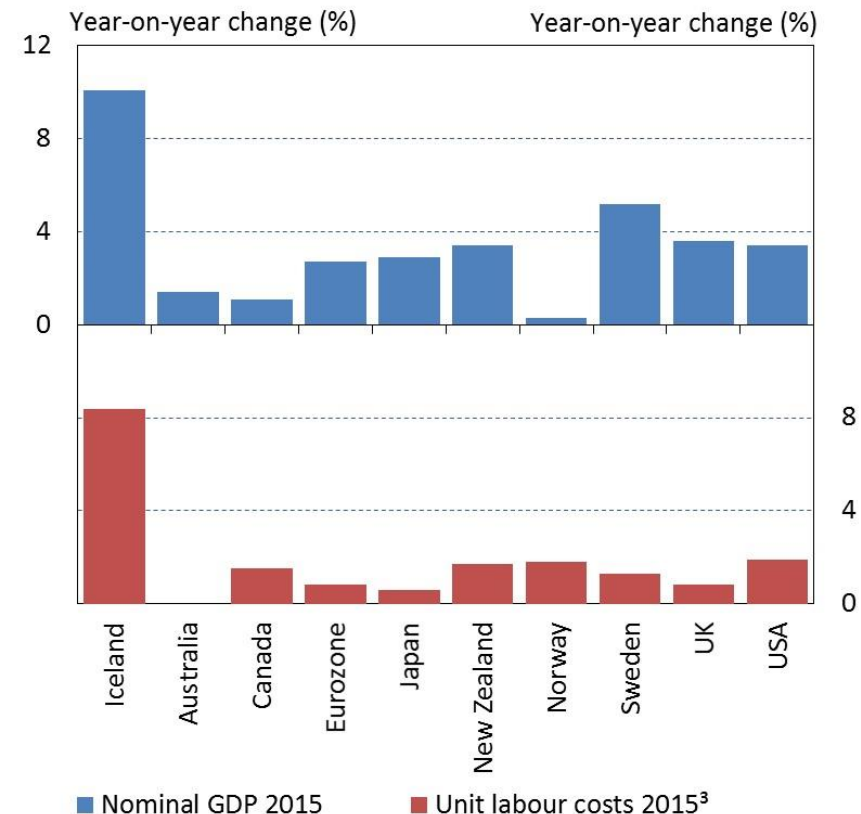


- Despite inflation being similar to other AEs, the Central Bank policy rate is significantly higher ... why?
- Long-term inflation expectations persistently above target but are firmly anchored or have started sliding down in other AEs
- A positive output gap has emerged while significant spare capacity remains in other AEs (with a larger difference this year)
- The growth rate of nominal demand and unit labour costs remain well above what is observed in other AEs

Inflation expectations and output gap in advanced economies



Growth rate of nominal GDP and unit labour costs in advanced economies



1. Market agents' four- to five-year inflation expectations (based on IMF forecast four years ahead for UK and Canada and five-year inflation swap agreements five years ahead for Japan and Australia). 2. Central Bank estimate for Iceland and IMF estimate for other countries. 3. Figure for Iceland based on *Monetary Bulletin* 2016/2.

Sources: Bloomberg, IMF, OECD, Statistics Iceland, websites of the relevant central banks, Central Bank of Iceland.