



Seðlabanki Íslands

Crisis responses to a housing bust and households' debt problems

The Icelandic saga

The Nordic housing markets: Main lessons and remaining challenges

Stockholm, 15 November 2013

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The opinions expressed herein are those of the author and do not necessarily reflect the opinions or policy of the Central Bank of Iceland.

Overview of the presentation



Effects of the crisis

- Two types of financial difficulties: (i) financial distress due to payment problems, (ii) over-indebtedness relative to (housing) assets

Policy measures

- Iceland's debt restructuring strategy and household deleveraging
- Does it rise up to its reputation?

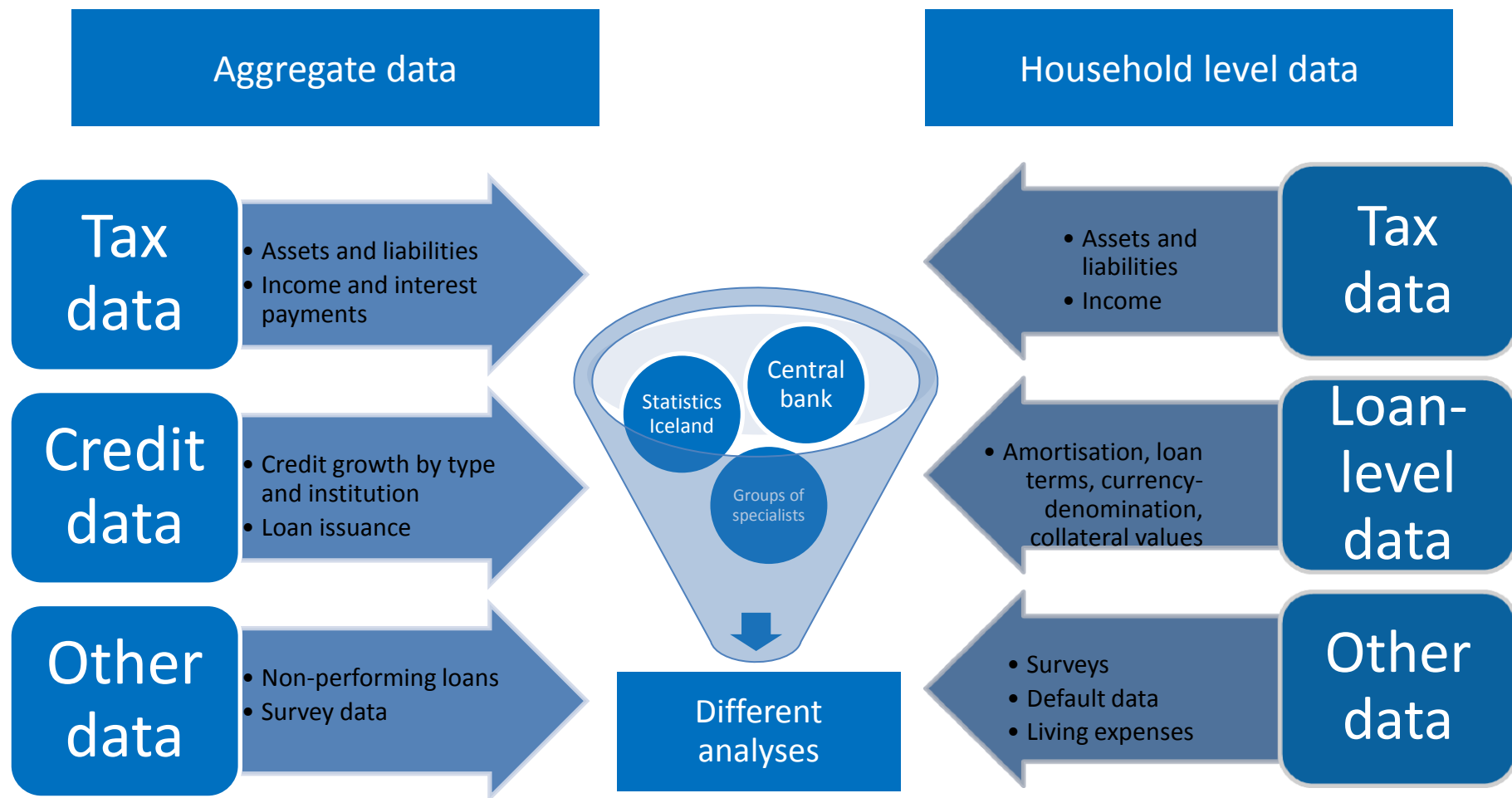
Current status

- Recovery from 2010
- Further measures promised

Data issues



- In the run-up to the crisis, the Central Bank had first and foremost access to aggregate data, samples of micro data were only available late in the cycle and then with a 2 year lag
- Nationwide household-level database built by the Central Bank in response to the crisis
- Statistics Iceland to gather household-level data on a regular basis but only temporarily



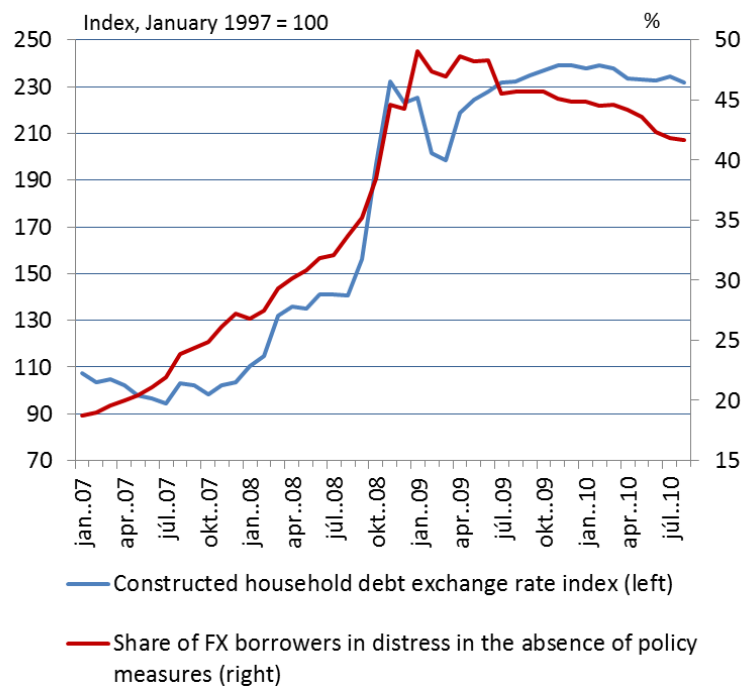
Size of the shocks to households



- From peak-to-trough, the currency depreciation measured 60%, inflation peaked at close to 20%, real wages declined by 13½%, unemployment rose by 8½ pp., real house prices fell by 1/3, stock prices collapsed and financial income decreased by 81%
- These shocks caused large increases in households' debt service burden, debt levels, and living costs, as well as deep declines in wealth and real disposable income

Figure 5.1a

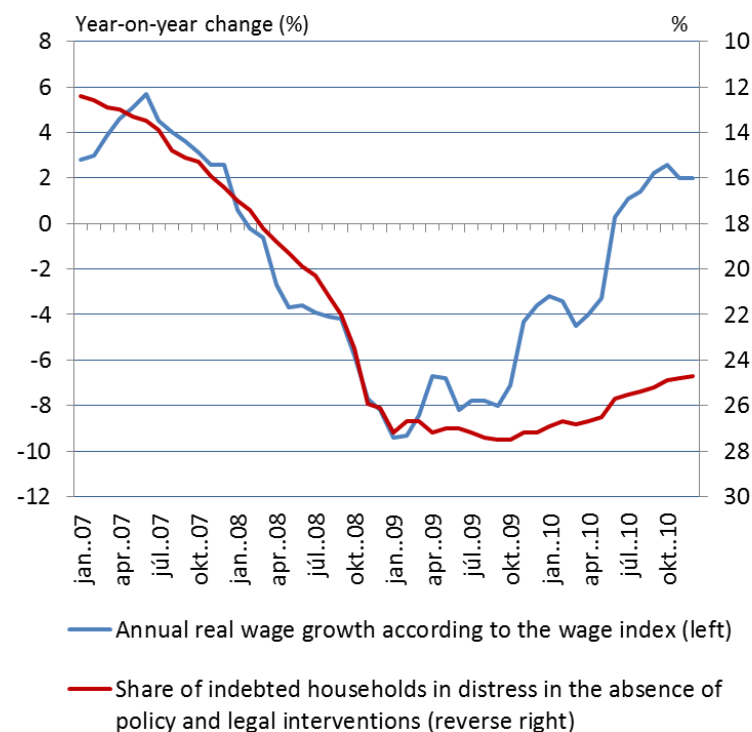
Exchange rate developments and the share of FX borrowers in distress in the alternative scenario¹



1. Constructed exchange rate index reflecting each currency's share of households foreign currency-denominated debt according to constructed payment profiles.
Source: Central Bank of Iceland Household Sector Database.

Figure 5.1c

Real wage developments and share of households in distress in the absence of policy and legal interventions¹



Sources: Statistics Iceland, Central Bank of Iceland Household Sector Database.

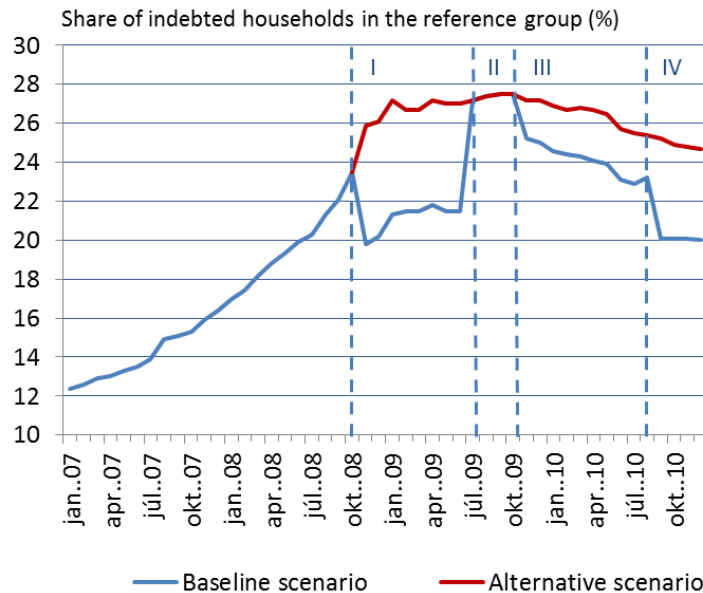
Financial distress and underwater mortgages



- Share of indebted households in distress nearly doubled in the run-up to the banking collapse as the currency depreciated and inflation increased, the share of acutely distressed households nearly quadrupled, and the share of households with underwater mortgages rose rapidly
- The share in distress peaked at 27½% in the autumn of 2009 but decreased thereafter to 20% due to debt restructuring measures, wage increases and recalculation of illegal FX-linked loans

Figure 4.1a

Share of indebted households in distress in the baseline and alternative scenario¹

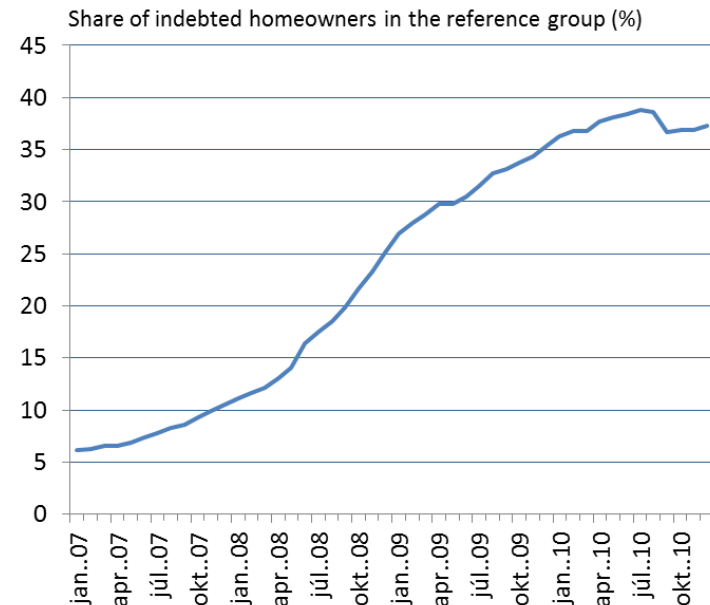


1. Share of households in the reference group with negative margin taking the 60 per cent buffer on the minimum living expenses into account. I: Freezing of many foreign-denominated loans begins, II: freezing ends and payment smoothing of foreign-denominated mortgages begins, III: payment smoothing of indexed ISK mortgages begins, IV: recalculation of foreign-denominated loans takes place.

Source: Central Bank of Iceland Household Sector Database.

Figure 4.6a

Share of indebted homeowners in negative housing equity in the baseline scenario¹



1. Share of homeowners in the reference group in negative housing equity, i.e. with outstanding balance on their mortgages according to constructed payment profiles for the baseline scenario exceeding the value of their dwellings according to constructed housing wealth. The baseline scenario allows for recalculation of foreign-currency denominated mortgages in August 2010.

Source: Central Bank of Iceland Household Sector Database.

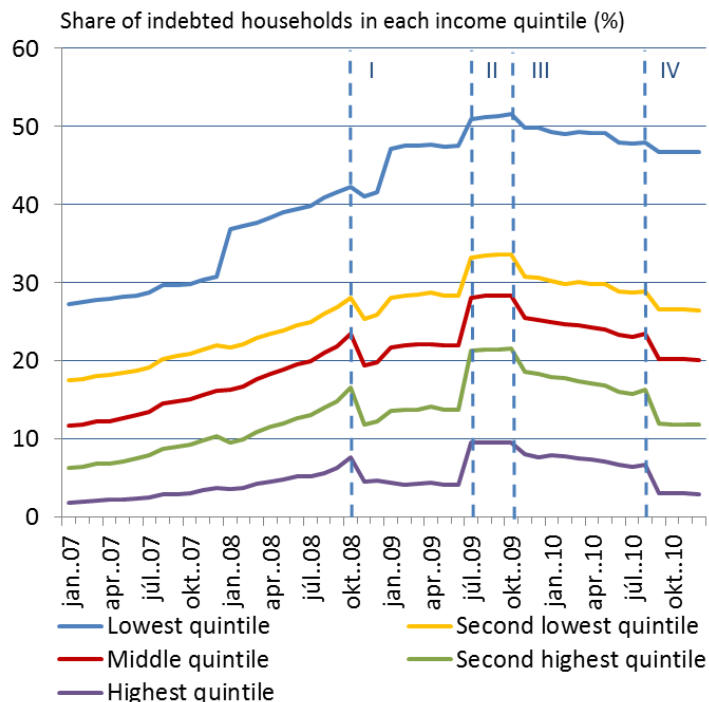
... distress by income and debt-denomination



- Most households in distress were low income households and distress was more widespread among FX borrowers than ISK borrowers, although recalculation had a large effect
- Recalculation of FX loans had more effects on high-income households as they were more likely to have borrowed in foreign currency

Figure 4.1c

Share of indebted households in distress by income quintiles in the baseline scenario¹

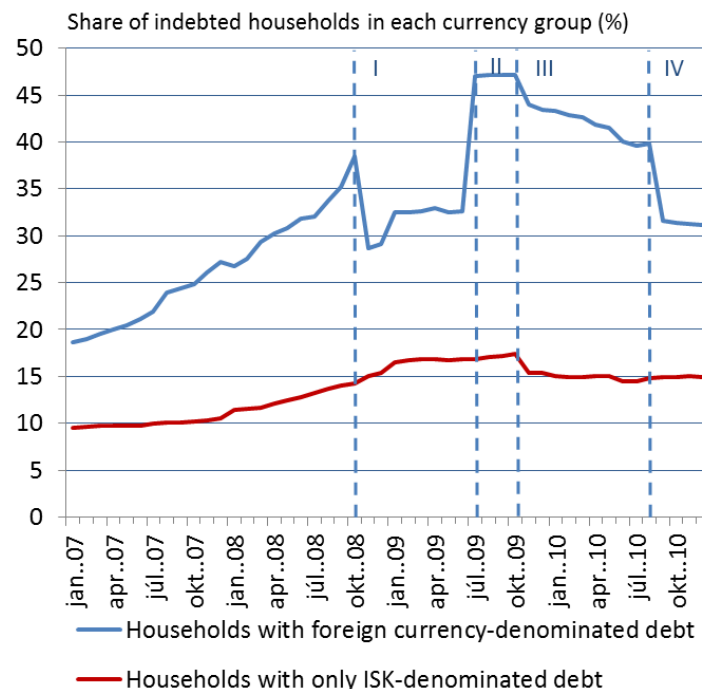


1. I: Freezing of many foreign-denominated loans begins, II: freezing ends and payment smoothing of foreign-denominated mortgages begins, III: payment smoothing of indexed ISK mortgages begins, IV: recalculation of foreign-denominated loans takes place.

Source: Central Bank of Iceland Household Sector Database.

Figure 4.1d

Share of indebted households in distress by currency-denomination of debt in the baseline scenario¹



1. I: Freezing of many foreign-denominated loans begins, II: freezing ends and payment smoothing of foreign-denominated mortgages begins, III: payment smoothing of indexed ISK mortgages begins, IV: recalculation of foreign-denominated loans takes place.

Source: Central Bank of Iceland Household Sector Database.

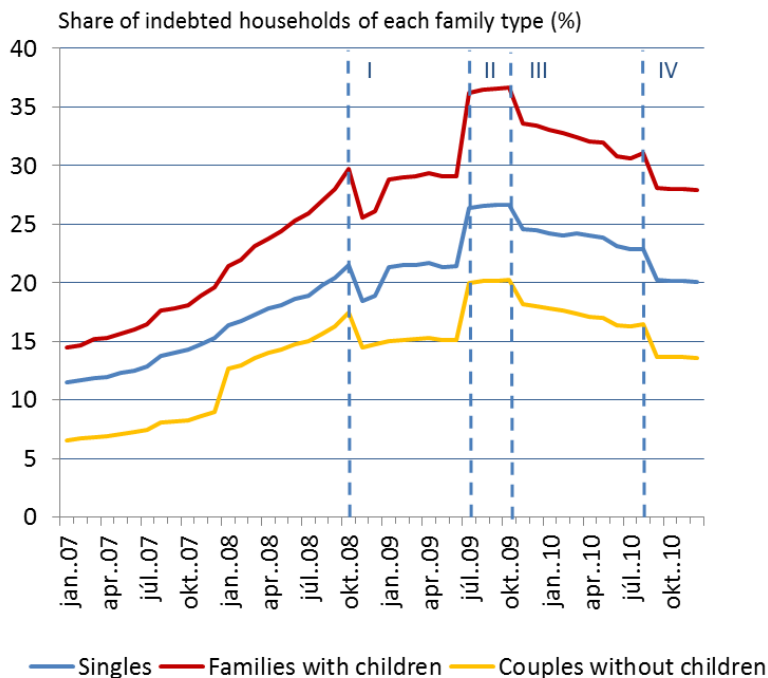
... and family type



- Financial distress was more widespread among families with children than childless households, young families who bought late in the housing boom exceptionally vulnerable
- 28 per cent of families with children in distress at year-end 2010, corresponding to parents of one out of every fifth child

Figure 4.2a

Share of indebted households in distress by family type in the baseline scenario¹

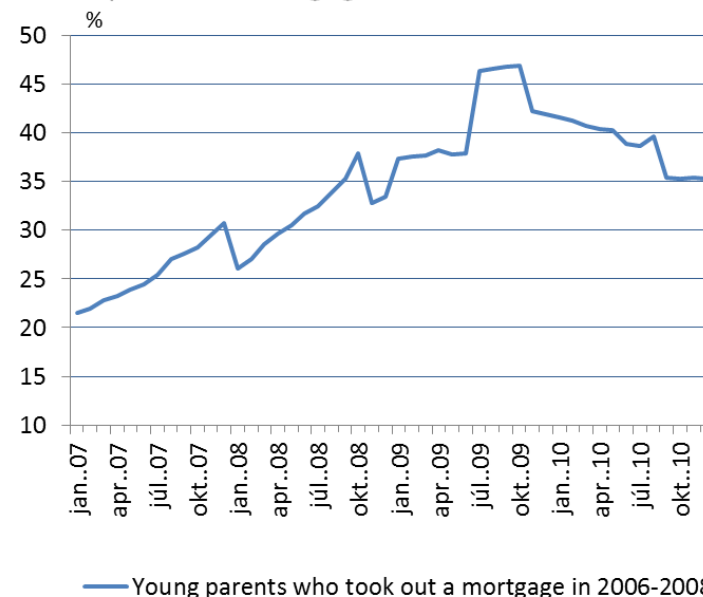


1. I: Freezing of many foreign-denominated loans begins, II. freezing ends and payment smoothing of foreign-denominated mortgages begins, III. payment smoothing of indexed ISK mortgages begins, IV: recalculation of foreign-denominated loans takes place.

Source: Central Bank of Iceland Household Sector Database.

Figure 4.2b

Share of young parents who entered the mortgage market in 2006-2008 in distress compared to mortgagors in total¹



1. Share of households with the oldest member under the age of 40 who took out a mortgage in 2006-2008 with negative margin taking the 60 per cent buffer on the minimum living expenses into account. The baseline scenario allows for explicit debt restructuring and legal interventions.

Source: Central Bank of Iceland Household Sector Database.

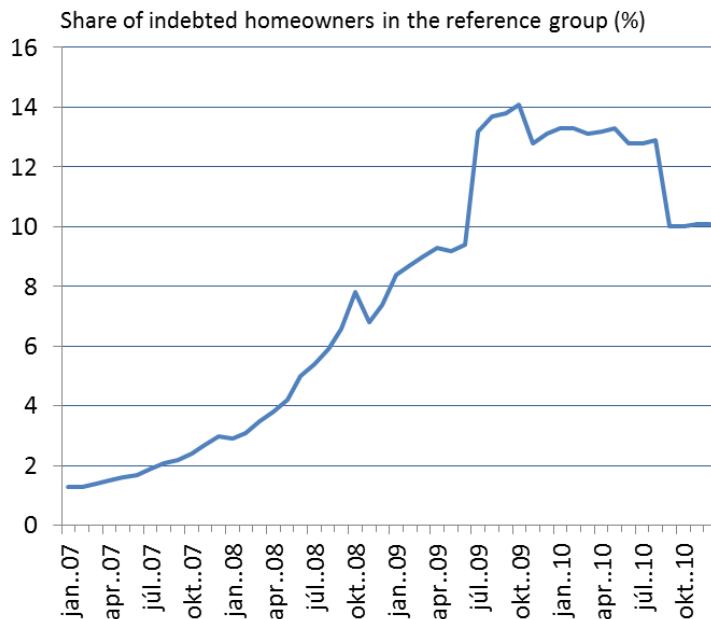
Simultaneous payment and debt problems



- One out of ten indebted homeowner was both in distress and negative housing equity at year-end 2010
- FX borrowers and families with children were far more likely to be in this highly vulnerable position than ISK borrowers

Figure 4.11a

Share of indebted homeowners in both financial distress and negative housing equity¹

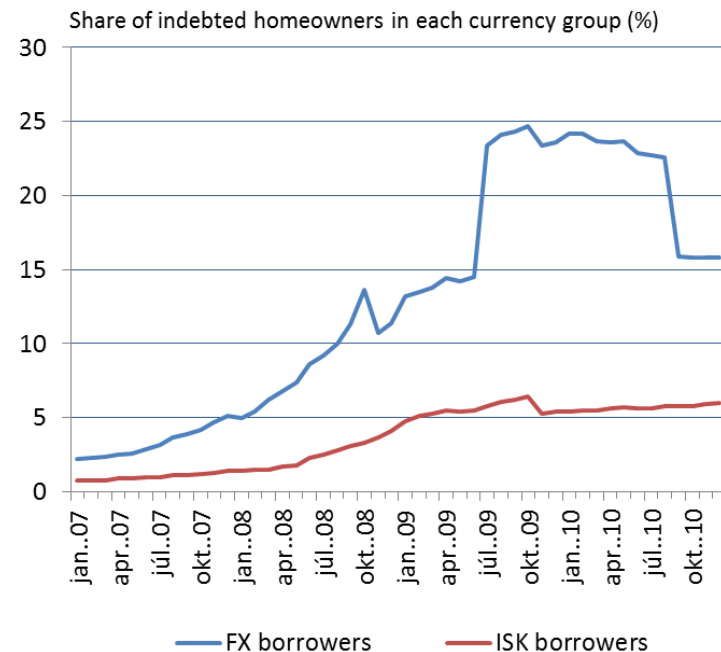


1. Share of homeowners with both a negative financial margin (when the 60 per cent buffer is taken into account) and in negative housing equity, i.e. with outstanding balance on their mortgages according to constructed payment profiles for the baseline scenario exceeding the value of their dwellings according to constructed housing wealth. The baseline scenario allows for explicit debt restructuring measures and recalculation of foreign-currency denominated mortgages.

Source: Central Bank of Iceland Household Sector Database.

Figure 4.12c

Share of indebted homeowners in both financial distress and negative housing equity by debt currency-denomination¹



1. Share of indebted homeowners in each currency group with both a negative financial margin and in negative housing equity in the baseline. The baseline scenario allows for explicit debt restructuring measures and recalculation of foreign-currency denominated mortgages.

Source: Central Bank of Iceland Household Sector Database.

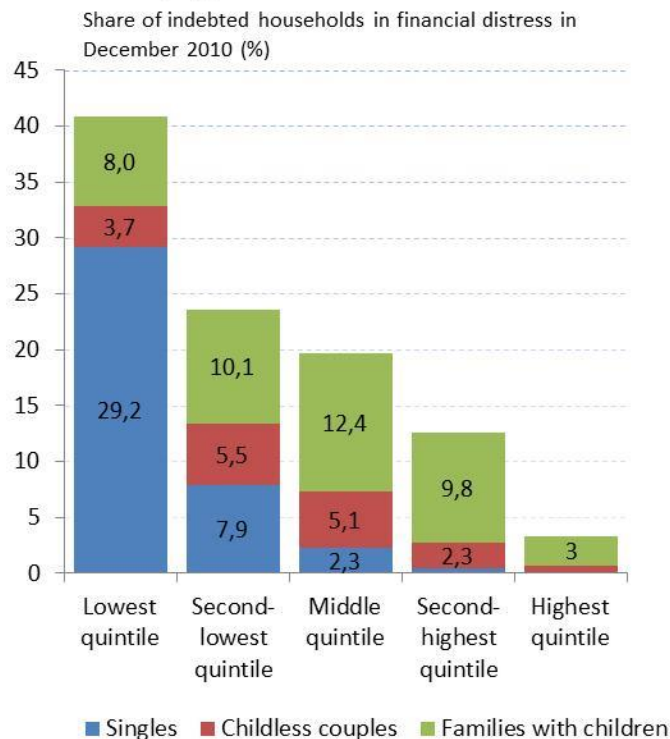
Characteristics of vulnerable households



- Roughly a third of households in distress at year-end 2010 were middle-income families with children, while 37% were low-income singles
- Almost half of households in negative housing equity were high-income families while one-in-six were low-income singles

Figure 5.3a

Composition of households in financial distress in December 2010 by income and family type¹



Source: Central Bank of Iceland Household Sector Database.

Figure 5.3b

Composition of homeowners in negative housing equity in December 2010 by income and family type¹



Source: Central Bank of Iceland Household Sector Database.

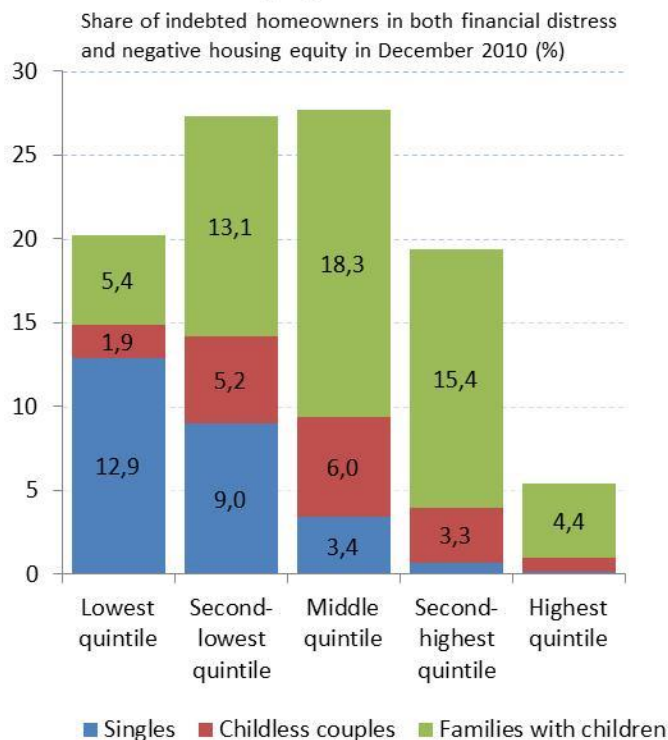
Characteristics of vulnerable households



- Just shy of 47% of households in simultaneous payment and debt problems were middle-income families with children, of which 2/3 were FX borrowers
- Roughly 22% of households in this highly vulnerable position were low-income singles, split evenly between being FX and ISK borrowers

Figure 5.3c

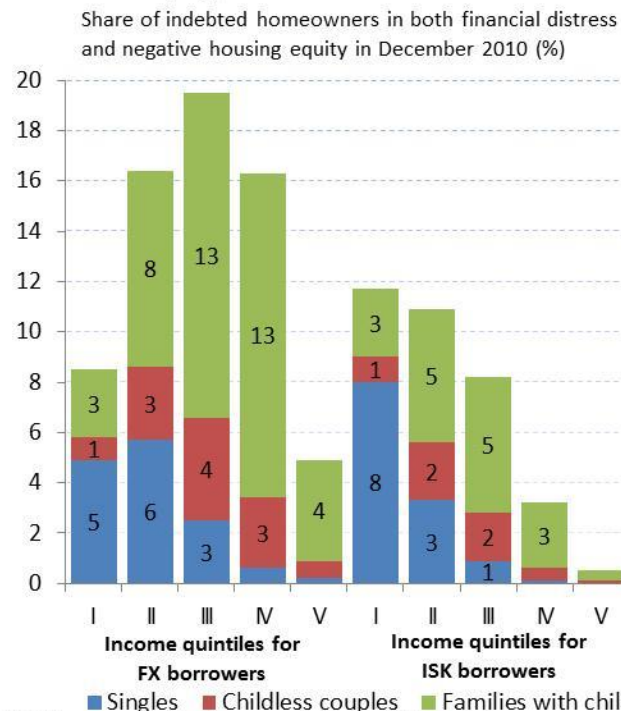
Composition of homeowners in financial distress and negative housing equity by income and family type¹



Source: Central Bank of Iceland Household Sector Database.

Figure 5.3d

Composition of homeowners in financial distress and negative housing equity by currency-denomination of debt, income and family type¹



1. I-V represents the income quintiles within each borrower group, from the lowest (I) to the highest (V).

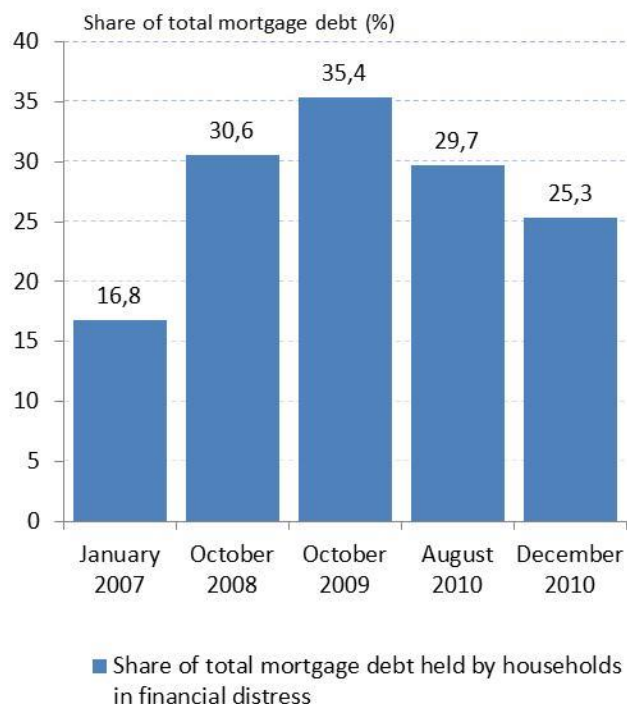
Source: Central Bank of Iceland Household Sector Database.

Characteristics of vulnerable households



- Households in distress seem to have an unusually large share of total motor vehicle debt which indicates that their motor vehicle purchases seem to have played an important role in bringing them into distress
- Total debt-at-risk was 26 per cent at year-end 2010.

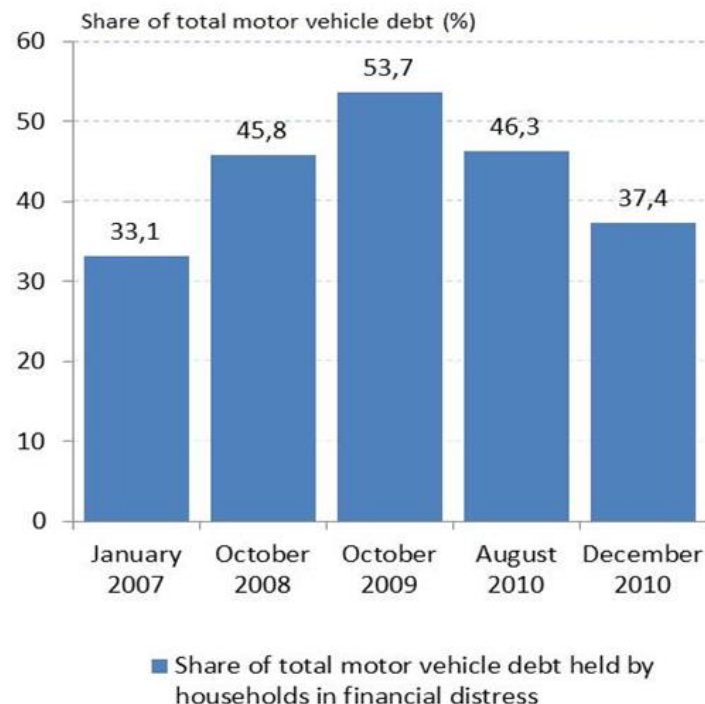
Figure 5.4a
Mortgage debt-at-risk ¹



1. Debt-at-risk is defined as debt held by households in financial distress.

Source: Central Bank of Iceland Household Sector Database.

Figure 5.4b
Motor vehicle debt-at-risk ¹



1. Debt-at-risk is defined as debt held by households in financial distress.

Source: Central Bank of Iceland Household Sector Database.

Overview of the presentation



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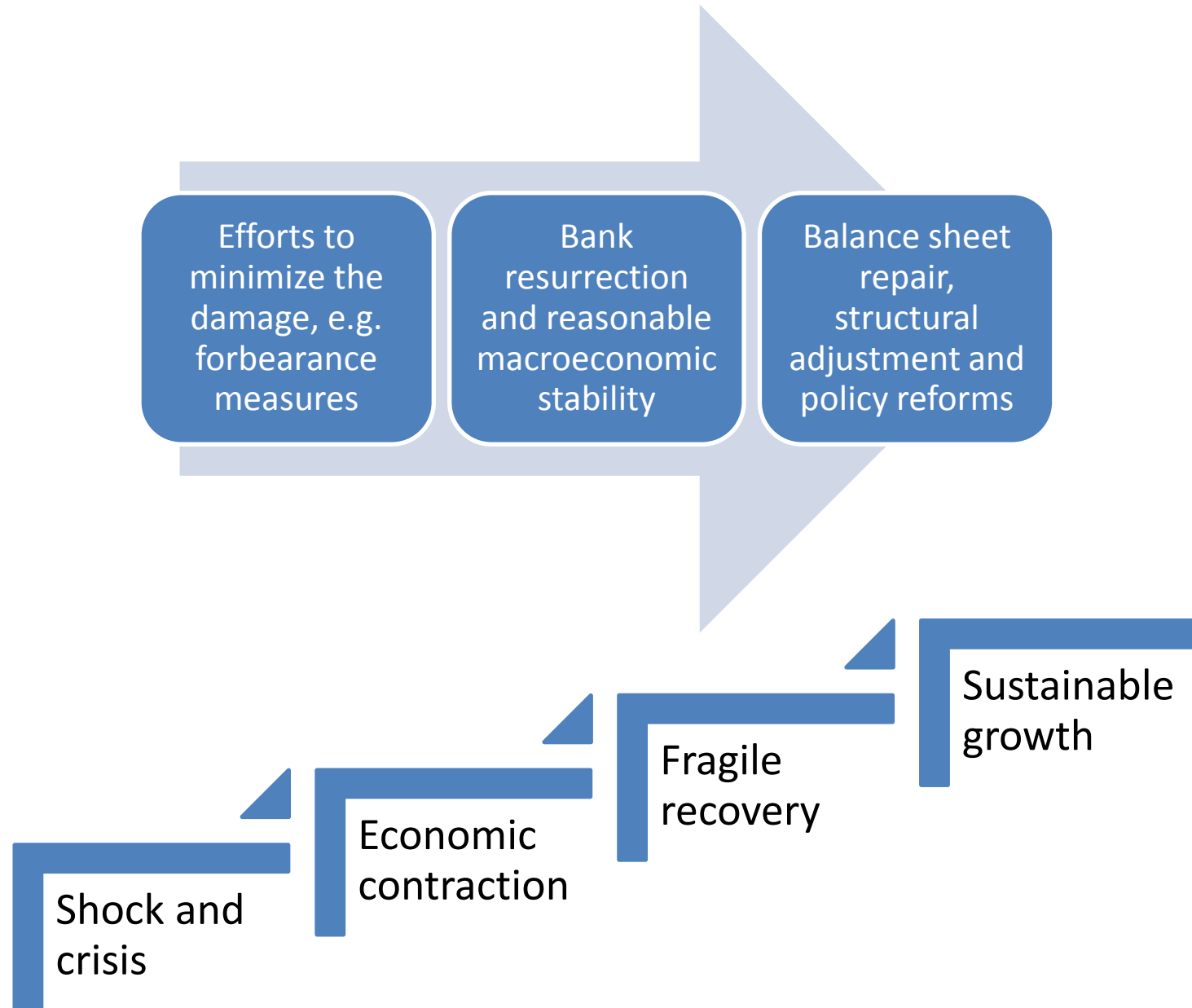
Policy measures

- Iceland's debt restructuring strategy and household deleveraging
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Current status

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- Further measures promised

Three stages of crisis response



First stage: Damage control



Emergency law

- Extensive powers to the FSA
- Bank resolution: domestic/foreign



IMF program

- Capital controls to ensure exchange rate stability
- FX reserves, clear economic program, enhanced credibility



Forbearance efforts

- Freezing of debt payments
- Moratorium on foreclosures



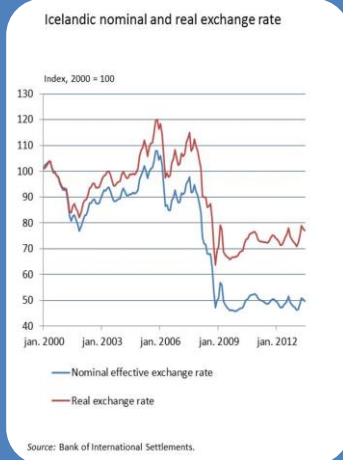
Macroeconomic stimulus measures

- Automatic stabilisers until mid-2009, no monetary stimulus
- 3rd pillar pension fund pay-outs

Second stage: stability and the banks



Macroeconomic stability



- A fair level of exchange rate and price level stability was attained in the latter half of 2009
- Economic recovery began in mid-2010



Delays in bank resurrection

- Scale of the collapse and its cross-border aspects
- Determination of fair value of transferred assets and liabilities
- Supreme Court rulings regarding exchange rate-linked loans

Third stage: debt restructuring strategy



Centralised measures

Payment rescheduling
(payment smoothing)

Changes to benefit schemes

3rd pillar pension fund pay-outs

Aimed at rather lightly distressed households

De-centralised measures

Bank-administered out-of-court
voluntary debt restructuring

Debtor's Ombudsman-
administered in-court debt
restructuring

Banks' own initiatives

Aimed at households in complex
difficulties which would otherwise
end in bankruptcy

Public outcry in 2010



- This debt restructuring strategy was gradually introduced in 2009-2010 and efforts made to manage expectations
 - The design of de-centralised debt restructuring measures took moral hazard issues seriously
- But the debt restructuring strategy was partly derailed by the Supreme Court ruling in 2010 finding exchange rate-linked loans illegal
- Nearly unprecedented public resistance emerged in the autumn of 2010



Protests in front of the parliamentary building in October 2010

Two measures introduced at year-end 2010



The 110% option

- Allowing households with mortgages exceeding 110% of their underlying property value to apply for write-offs
- Resulted in write-offs corresponding to approximately 3% of GDP



Special interest rebate

- General measure, dependent on mortgage indebtedness and independent on income
- Financed by a tax levied on financial institutions
- Amounted to close to 1% of GDP

110% option and special interest rebate

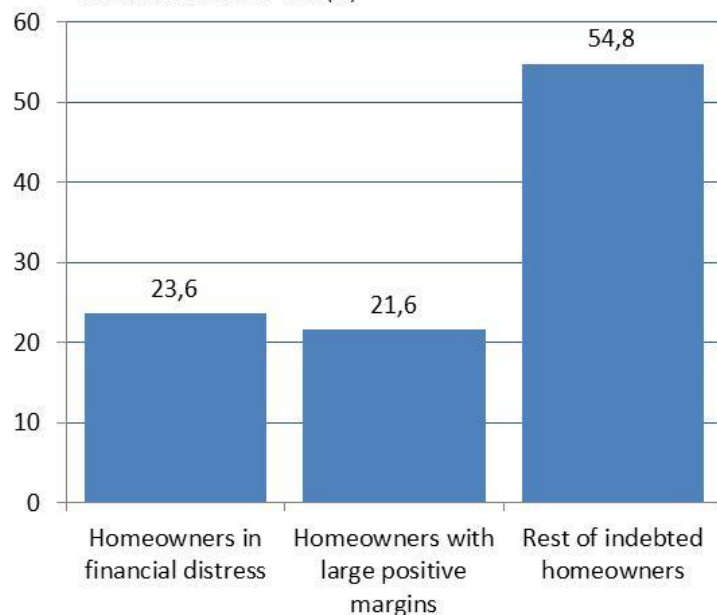


- Households in distress received only 23½% of the write-offs due to the 110% option and 27% of the special interest rebate
- The share of households in distress declined by only 1½ percentage points due to these measures

Figure 4.14a

Distribution of write-offs due to the 110% solution across homeowners in distress, those with large margins, and the rest

Share of total write-offs (%)



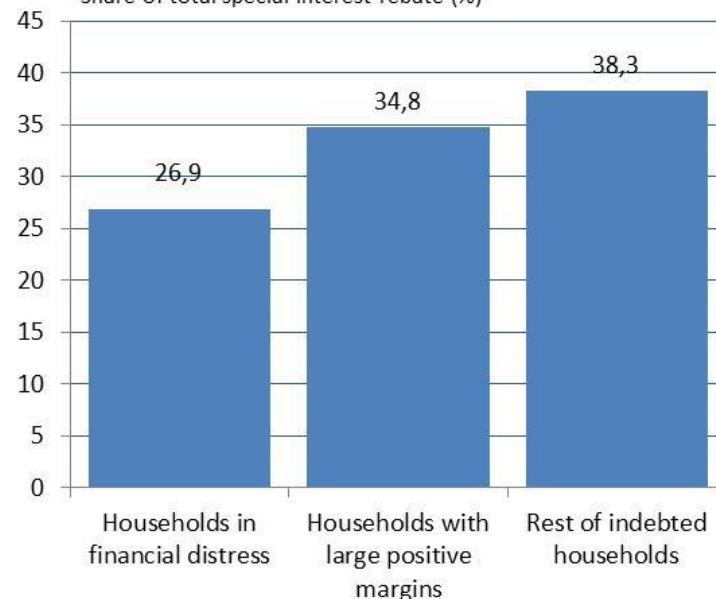
1. Maximum nominal amounts in write-offs are taken into account but not further restrictions, for instance, related to other assets and borrowed collateral. Homeowners with large positive margins are those with more than 200 t.kr. leftover after debt payments and minimum living expenses (with the 60 per cent added buffer).

Source: Central Bank of Iceland Household Sector Database.

Figure 4.14b

Distribution of the special interest rebate across households in distress, those with large positive margins, and the rest¹

Share of total special interest rebate (%)



1. The special interest rebate is calculated for each household according to their debt and equity position based on their payment and housing wealth profiles in December 2010. Households with large positive margins are those with more than 200 t.kr. leftover after debt payments and minimum living expenses (taking the added buffer into account).

Source: Central Bank of Iceland Household Sector Database.

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Evidence from new data



- New data indicates that a large share of the increase in debt service has been unwound
- Decline driven by the policy and legal interventions as well as the income recovery
- Less improvement for households in the highest income group due to loss of financial income

Figure 8
Average debt service ratio 2003-2012¹

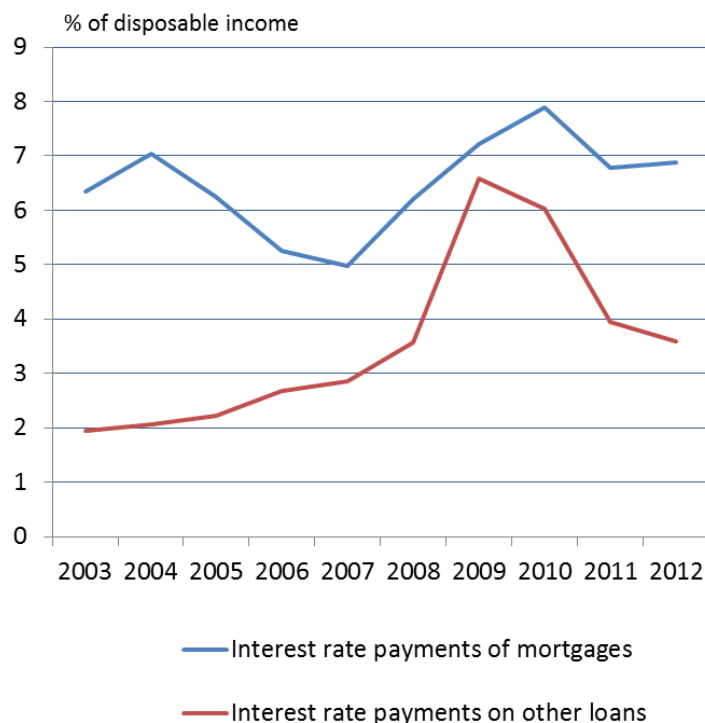
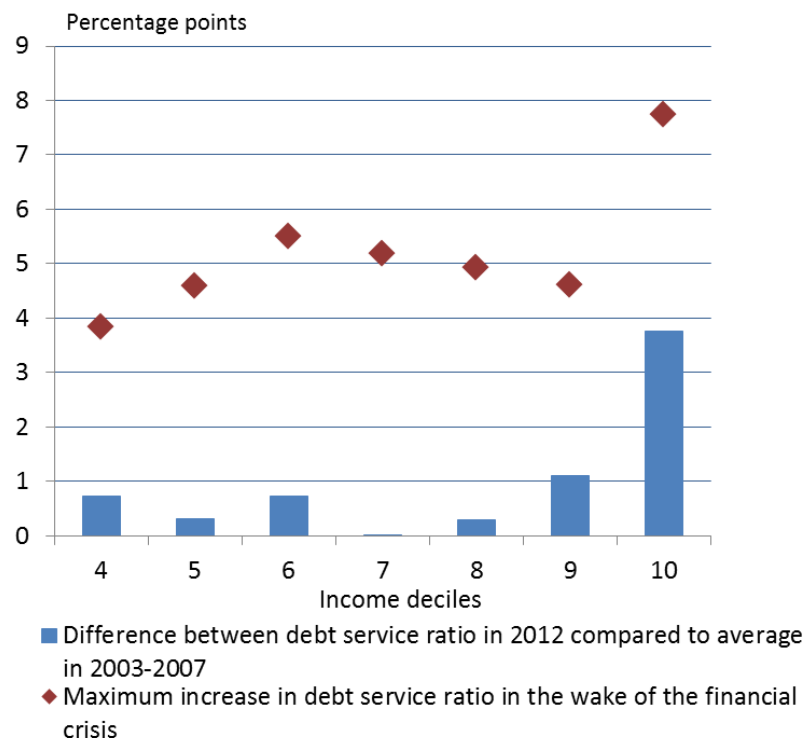


Figure 11
Average debt service ratio in 2012 compared to 2003-7 by income deciles¹



Sources: Statistics Iceland, Central Bank of Iceland.

1. Based on data on average interest payments on all loans and average disposable income for different income deciles. Income deciles 1-3 are excluded as they only hold a small share of total debt.

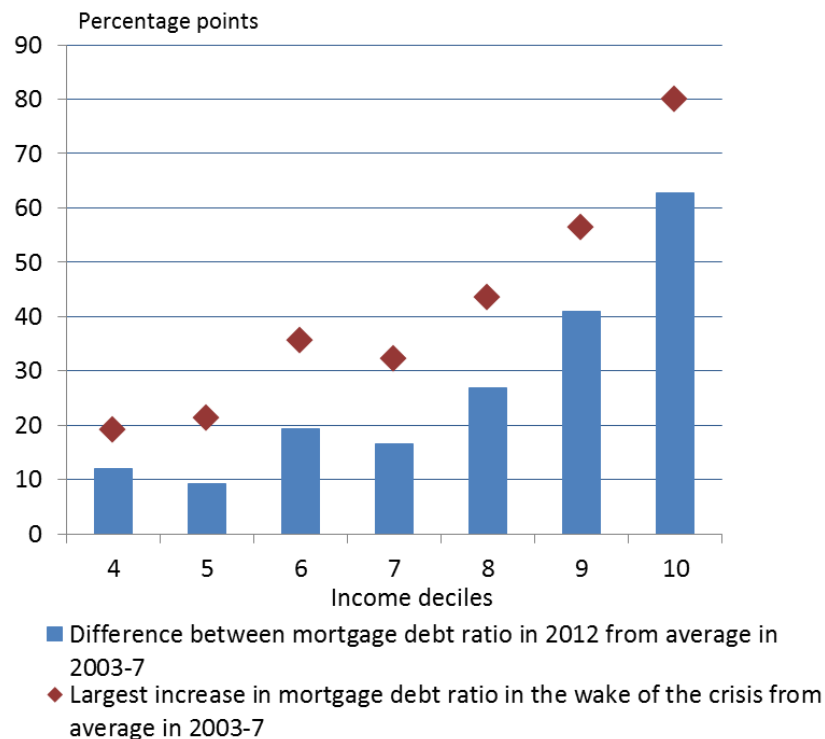
Sources: Statistics Iceland, Central Bank of Iceland.

Evidence from new data



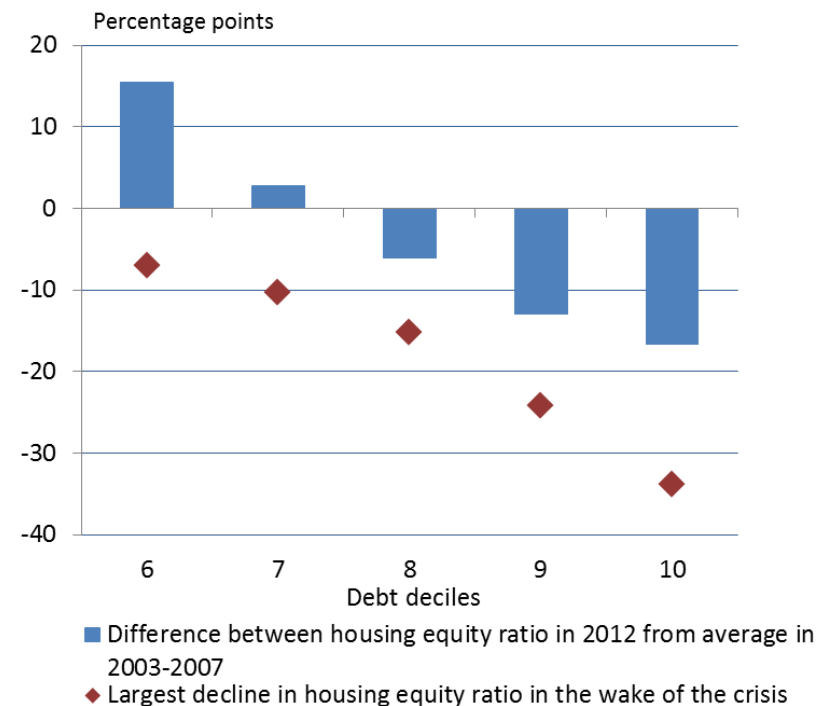
- Housing equity ratios have also improved due to increase in house prices and reduction in debt, but household continue to be more heavily indebted than before the crisis
- Number of underwater households decreased considerably
- House prices have risen by 8% in real terms from their 2010 trough

Average mortgage debt ratio in 2012 compared to 2003-2007¹



1. Income deciles 1-3 are excluded as they only have 8% of total mortgage debt.
Sources: Statistics Iceland, Central Bank of Iceland

Figure 12
Housing equity ratio in 2012 compared to average in 2003-2007¹



1. Debt deciles 1-5 are excluded as they only hold 5% of total household debt.
Heimildir: Hagstofa Íslands, Seðlabanki Íslands.

Further measures promised



- Households' position was the major theme of the recent Parliamentary elections
- The parties forming the current Government have promised substantial additional debt relief
- Especially to households with indexed mortgages, which were untouched by the debt relief measures resulting from Supreme Court rulings on FX loans
- Measures to be presented later this month