Public debt sustainability – the case of Ireland

European Macrohistory Workshop, University of York

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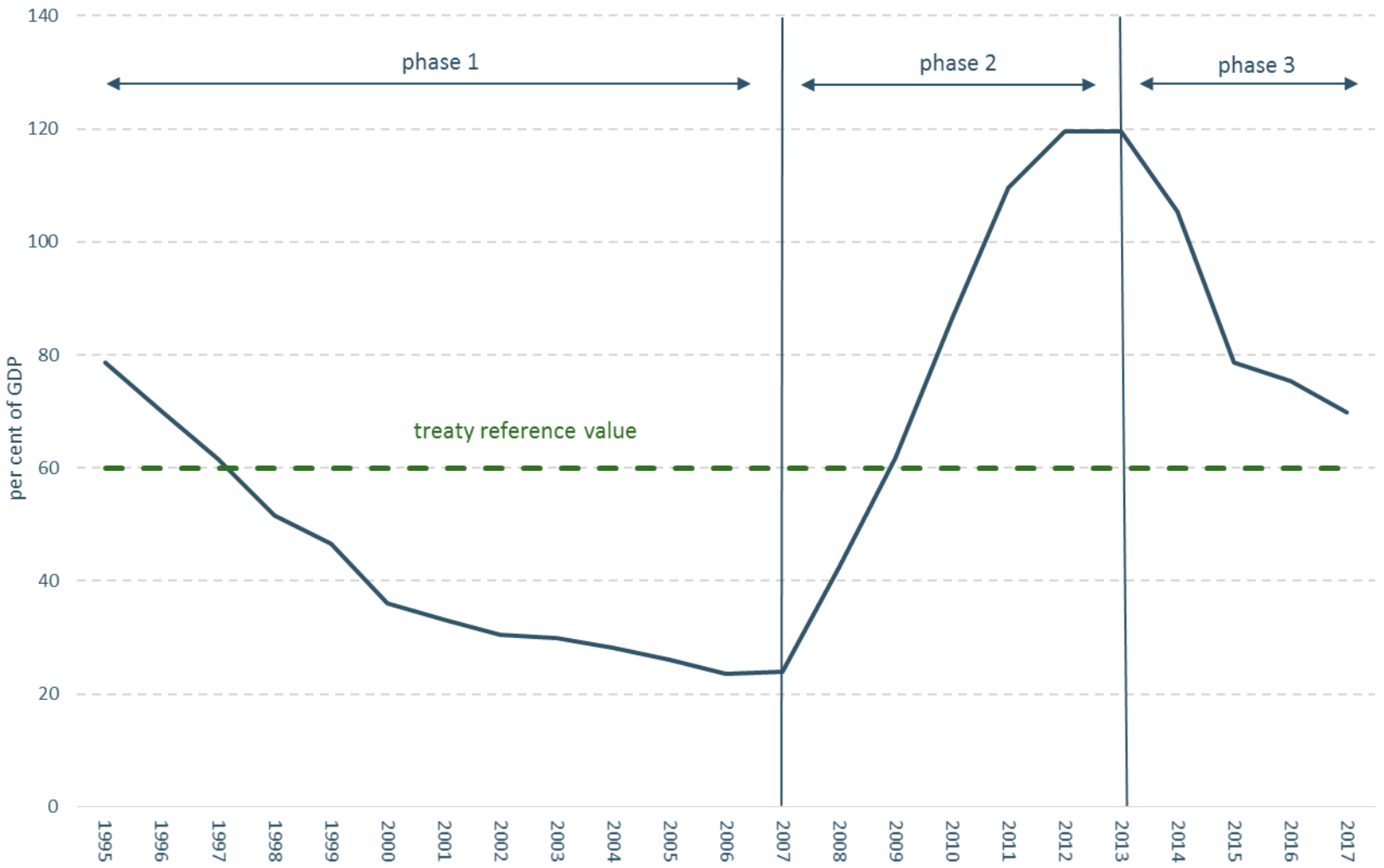
Birds-eye view

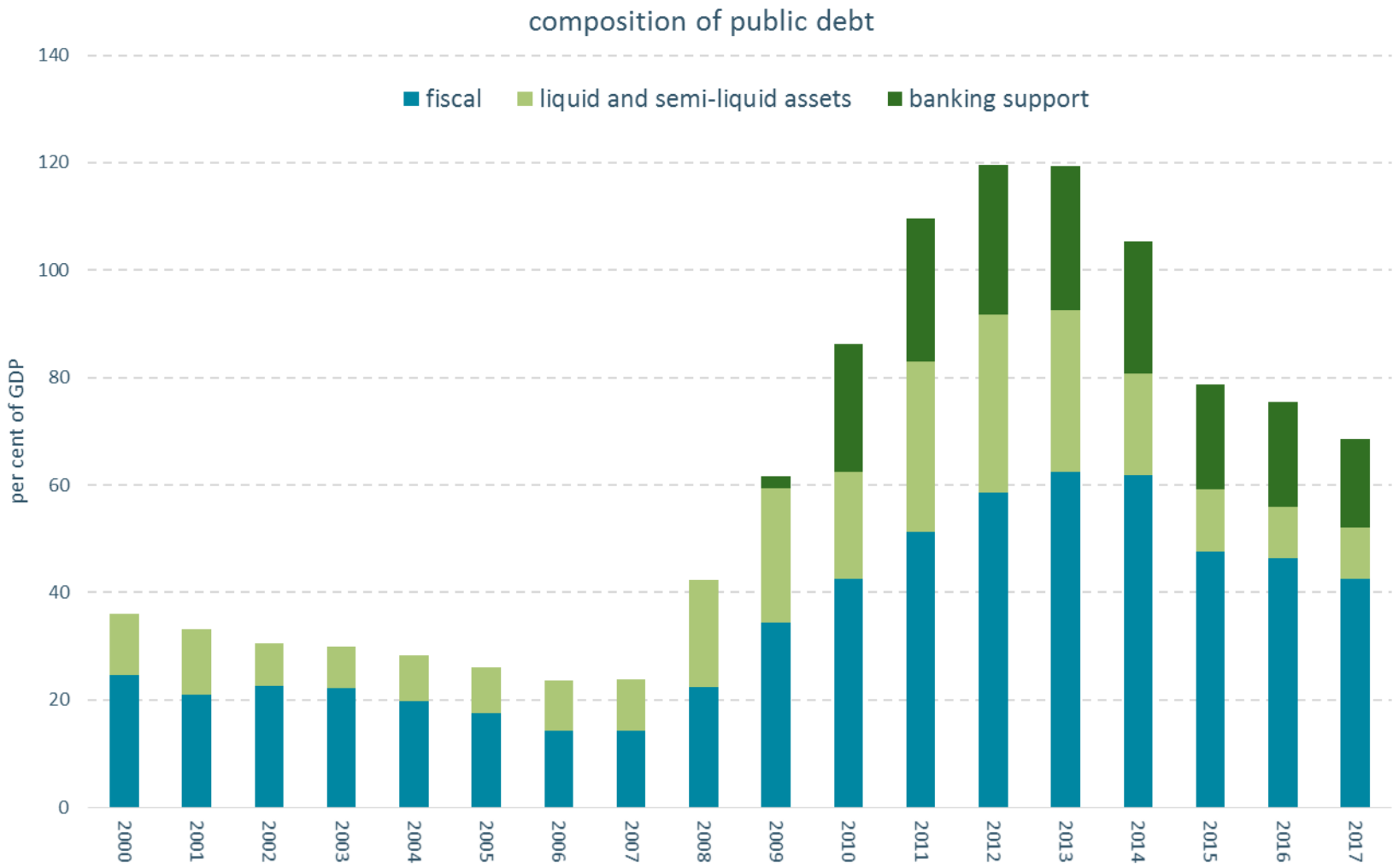
- A brief history of public debt in Ireland
- The role of the snowball: economic recovery in Ireland
- Assessing repayment capacity
- Structural aspects of public debt
- Debt sustainability analysis
- Conclusions

A brief history of public debt in Ireland

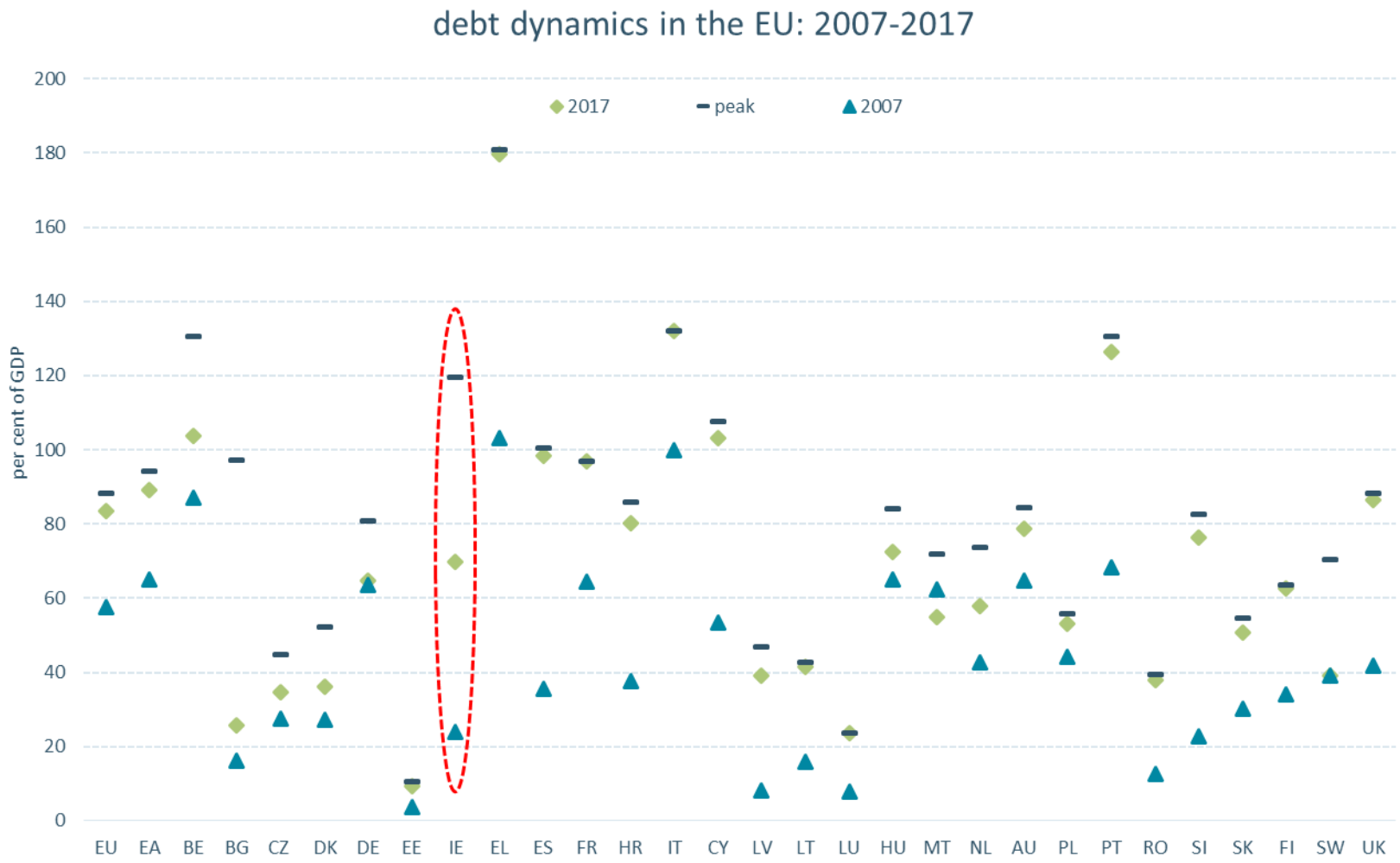
Maastricht debt – three distinct phases



2008 – 2013 "twin crises": banking and fiscal



sovereign debt crisis: IE debt = largest increase and largest decline



Standard debt accumulation /decumulation equation

- debt at time t : $D_t = D_{t-1} + [i * D_{t-1}] + PB_t + SFA_t$
- re-arranging : $D_t = (1+i) * D_{t-1} + PB_t + SFA_t$

  $= (1+i) D_{t-1} * \left(\frac{GDP_{t-1}}{GDP_{t-1}}\right) + PB_t + SFA_t$

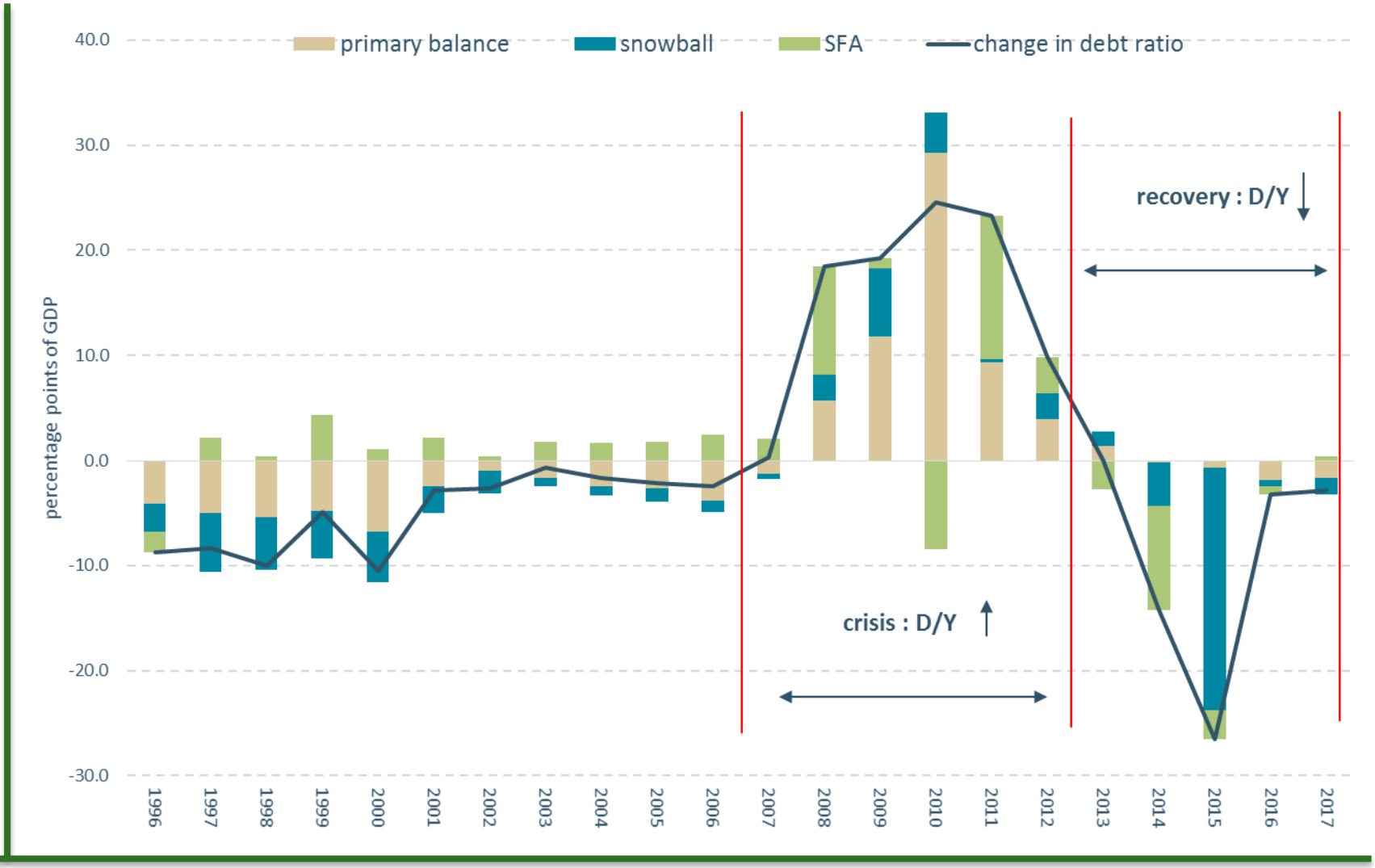
headline balance

- as a share of output: $\frac{D_t}{GDP_t} = (1+i)\frac{D_{t-1}}{GDP_t} * \frac{GDP_{t-1}}{GDP_{t-1}} + \frac{PB_t}{GDP_t} + \frac{SFA_t}{GDP_t}$
- let lower case denote share and noting $\frac{GDP_t}{GDP_{t-1}} - 1 = g$ = nominal growth
- then: $d_t = \frac{(1+i)}{(1+g)} d_{t-1} + pb_t + sfa_t$
- subtracting d_{t-1}: $d_t - d_{t-1} = \frac{(1+r)}{(1+g)} d_{t-1} - d_{t-1} + pb_t + sfa_t$
- re-writing: $\Delta d = \left[\frac{(1+r)}{(1+g)} - 1\right] * d_{t-1} + pb_t + sfa_t$

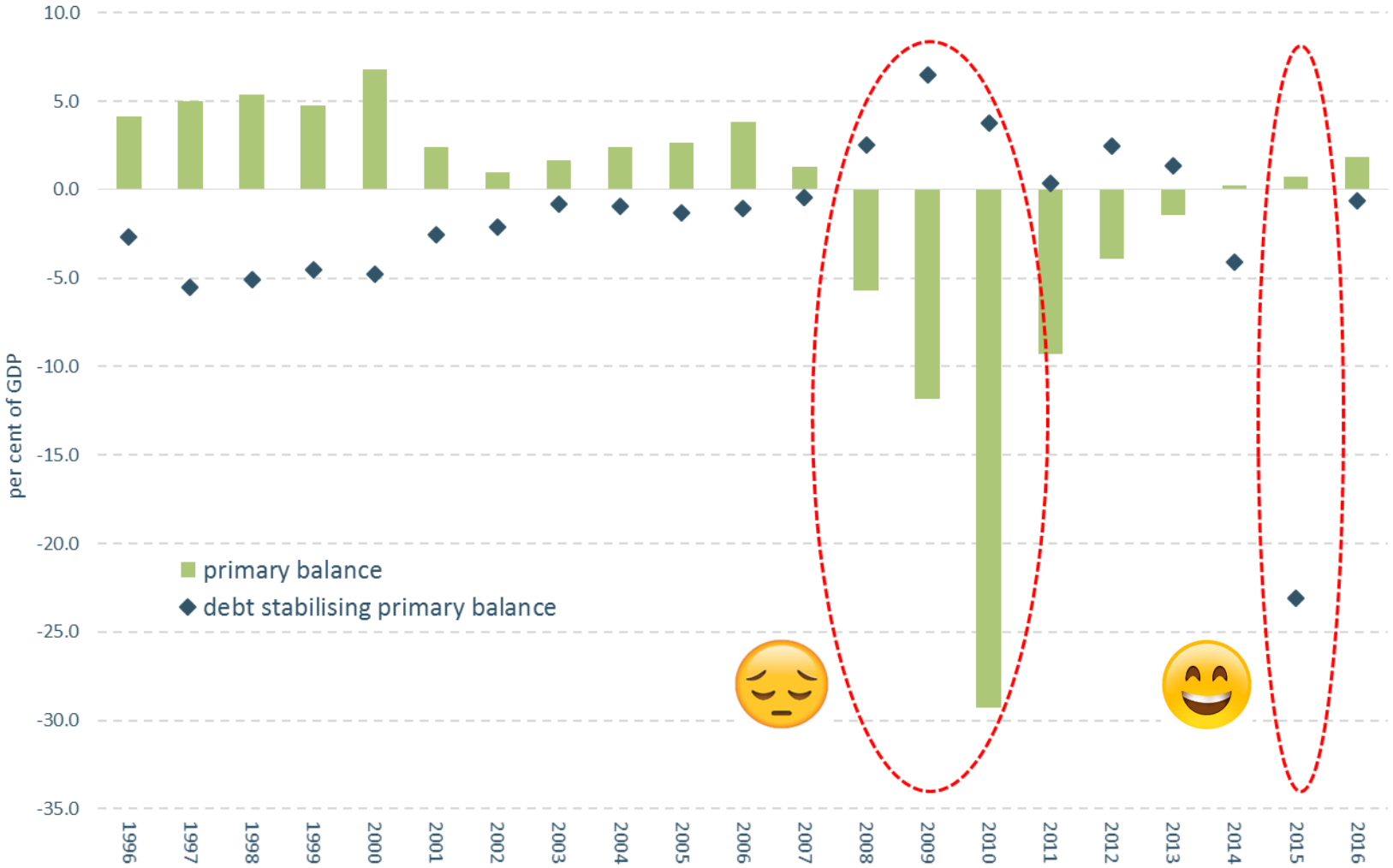
"snowball"

$$\Delta d = \frac{(r-g)}{(1+g)} * d_{t-1} + pb_t + sfa_t$$

Debt dynamics – contributions to annual change in debt ratio

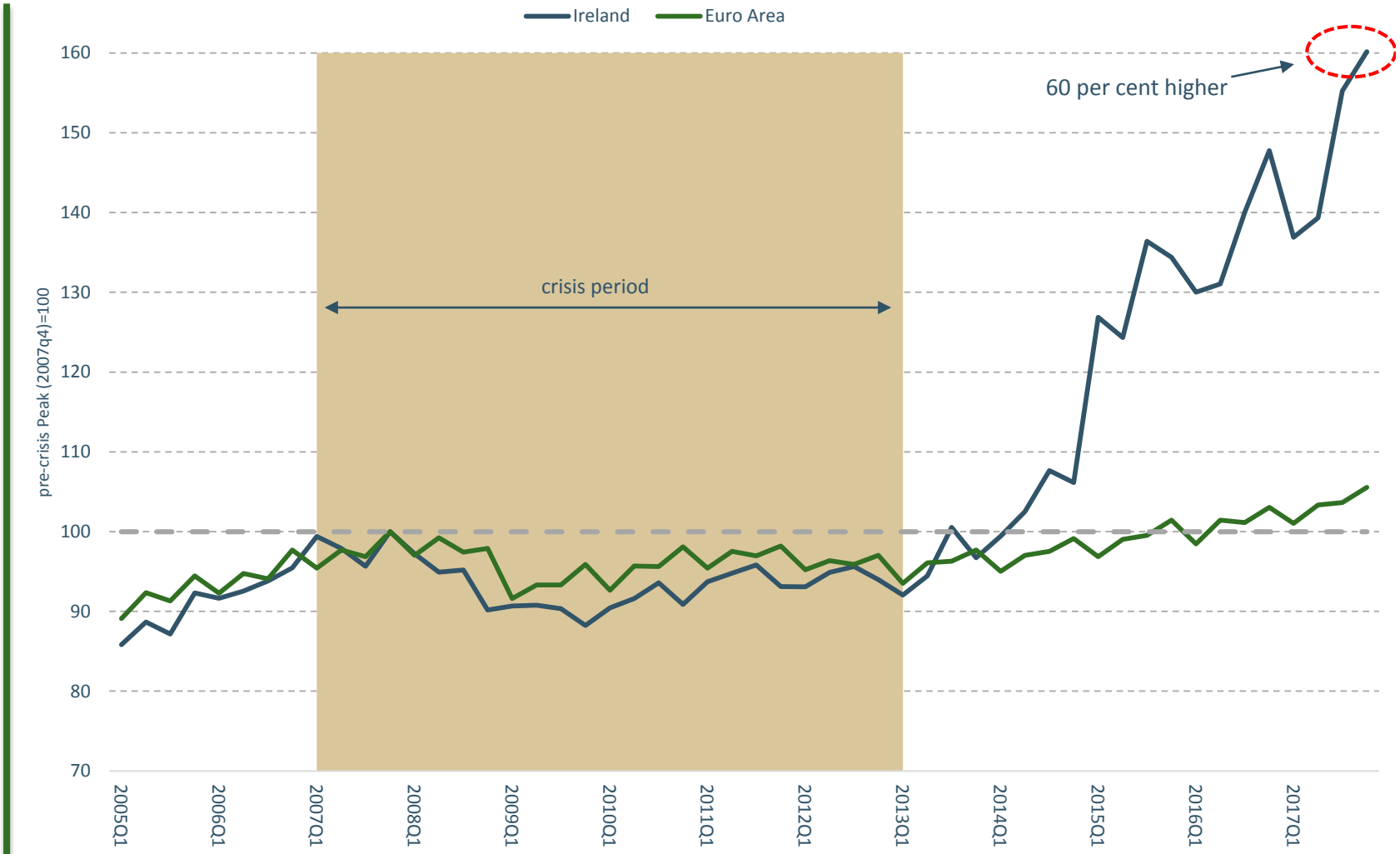


Debt dynamics – primary balance vs. debt-stabilising primary balance

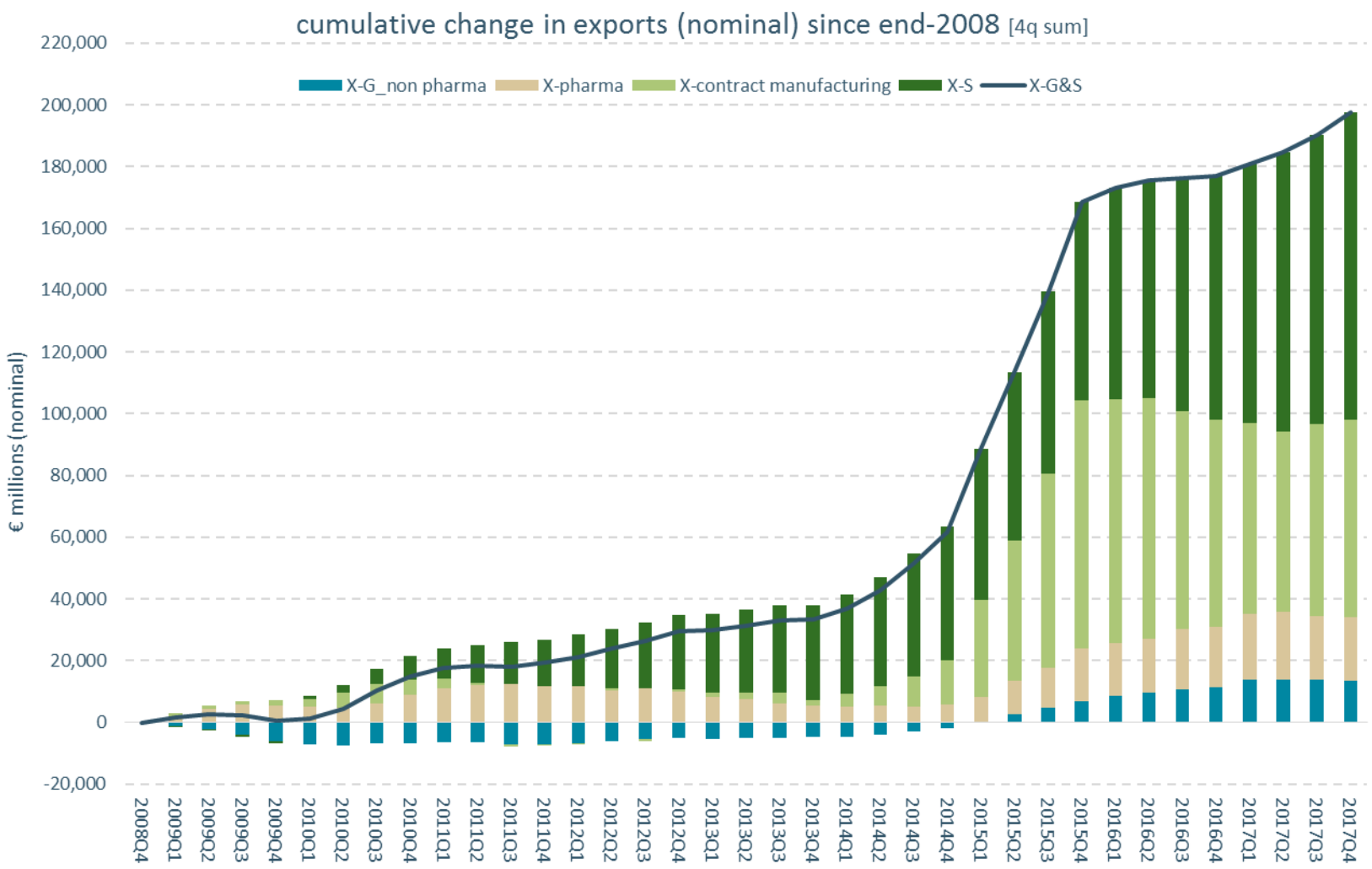


The role of snowball: economic recovery in Ireland

Rebound in activity has been extra-ordinary



Mainly reflected in the balance of payments

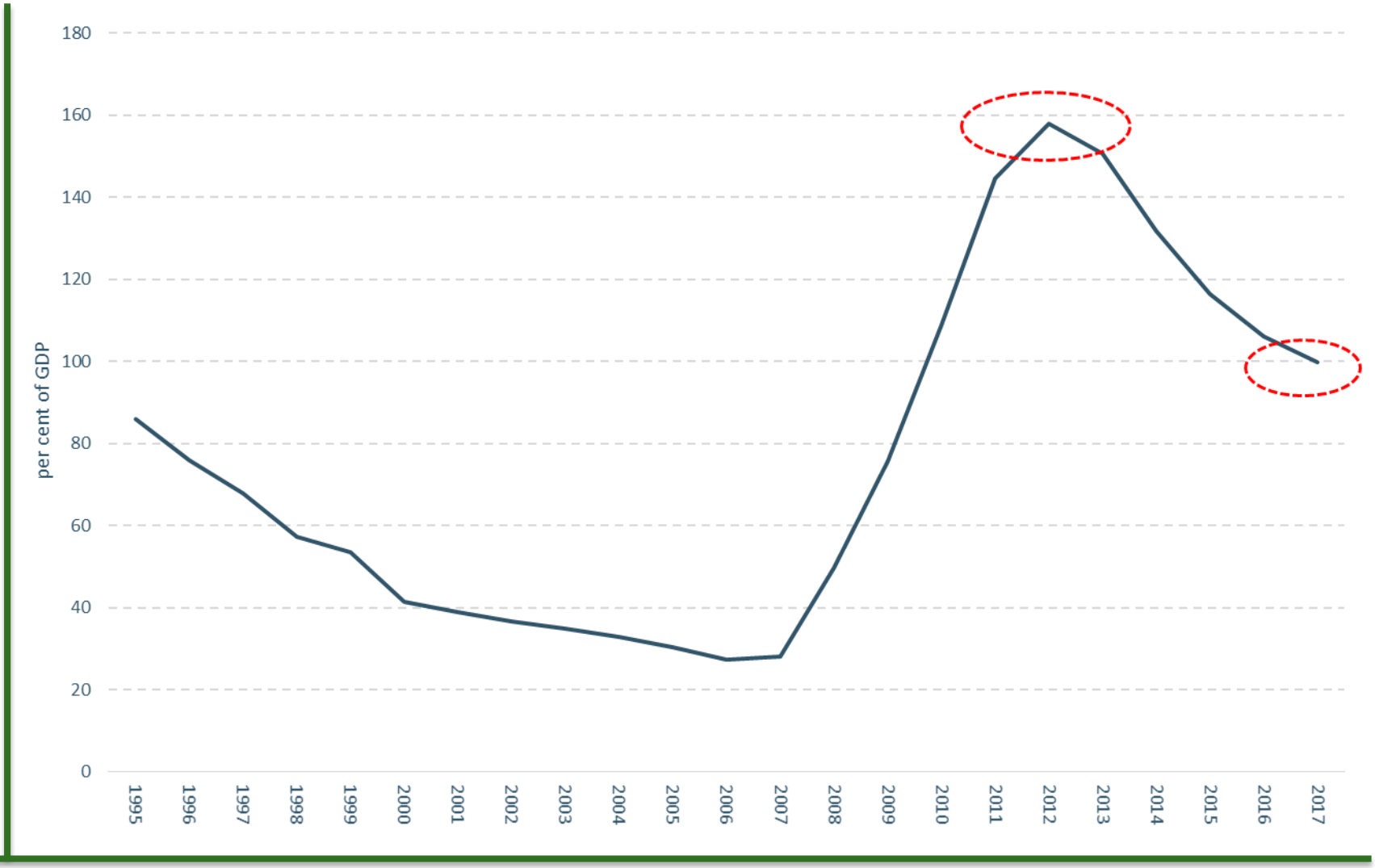


Unique features of the Irish economy

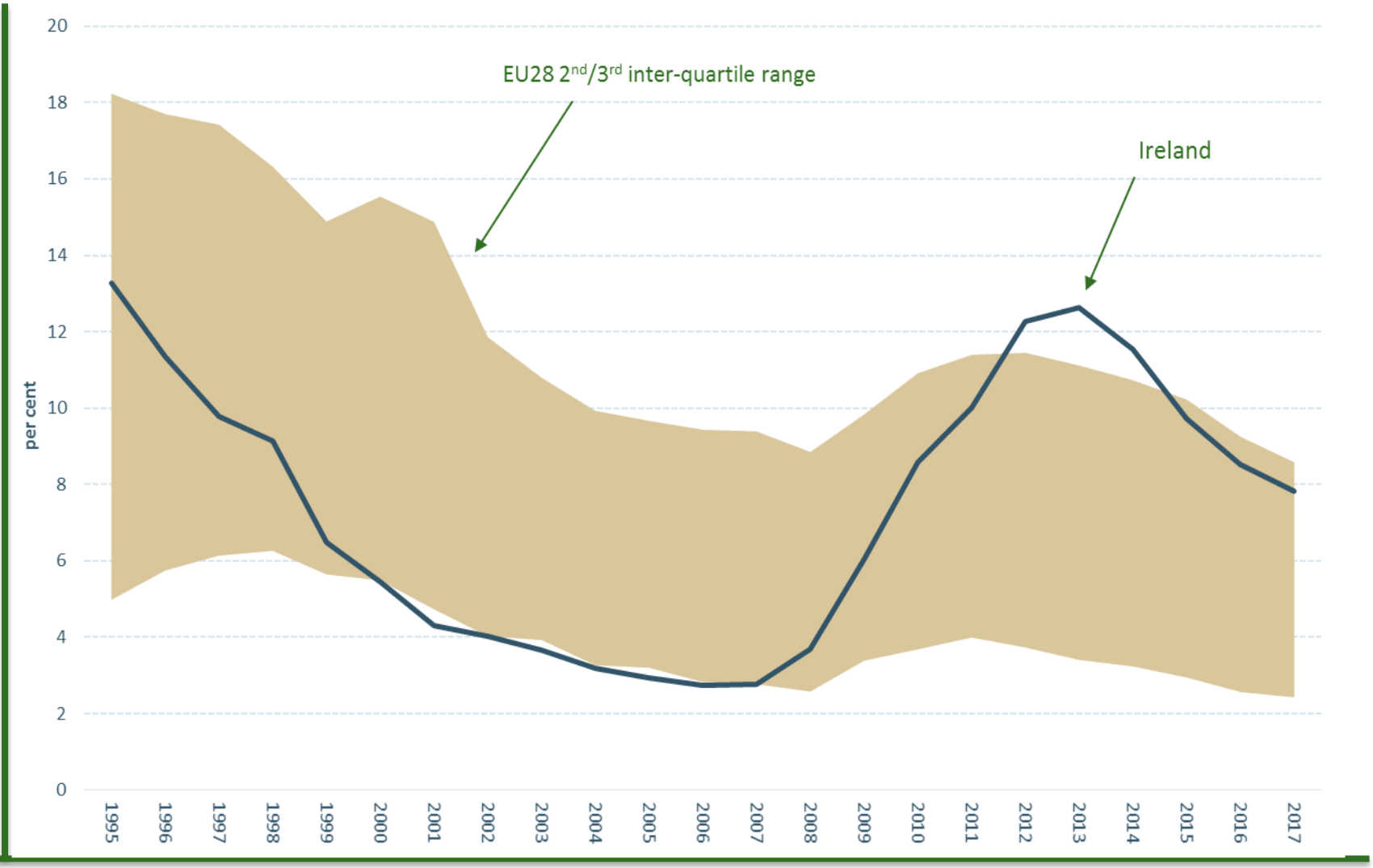
- Concentration of activity
  - c. 190,000 enterprises
  - just 5 account for 1/3rd of exports
- "Contract manufacturing"
  - ESA2010
- Intellectual property on-shoring
  - 26 per cent growth rate in 2015
  - OECD BEPS process
- Aircraft leasing
  - 50 per cent of all leased aircraft
- Re-domiciled plcs / inversions
  - GDP unaffected but GNI inflated
- New metric = GNI*
  - removes some MNE-related distortions
  - level of GNI* = one-third lower than GDP

Assessing repayment capacity : a suite of metrics

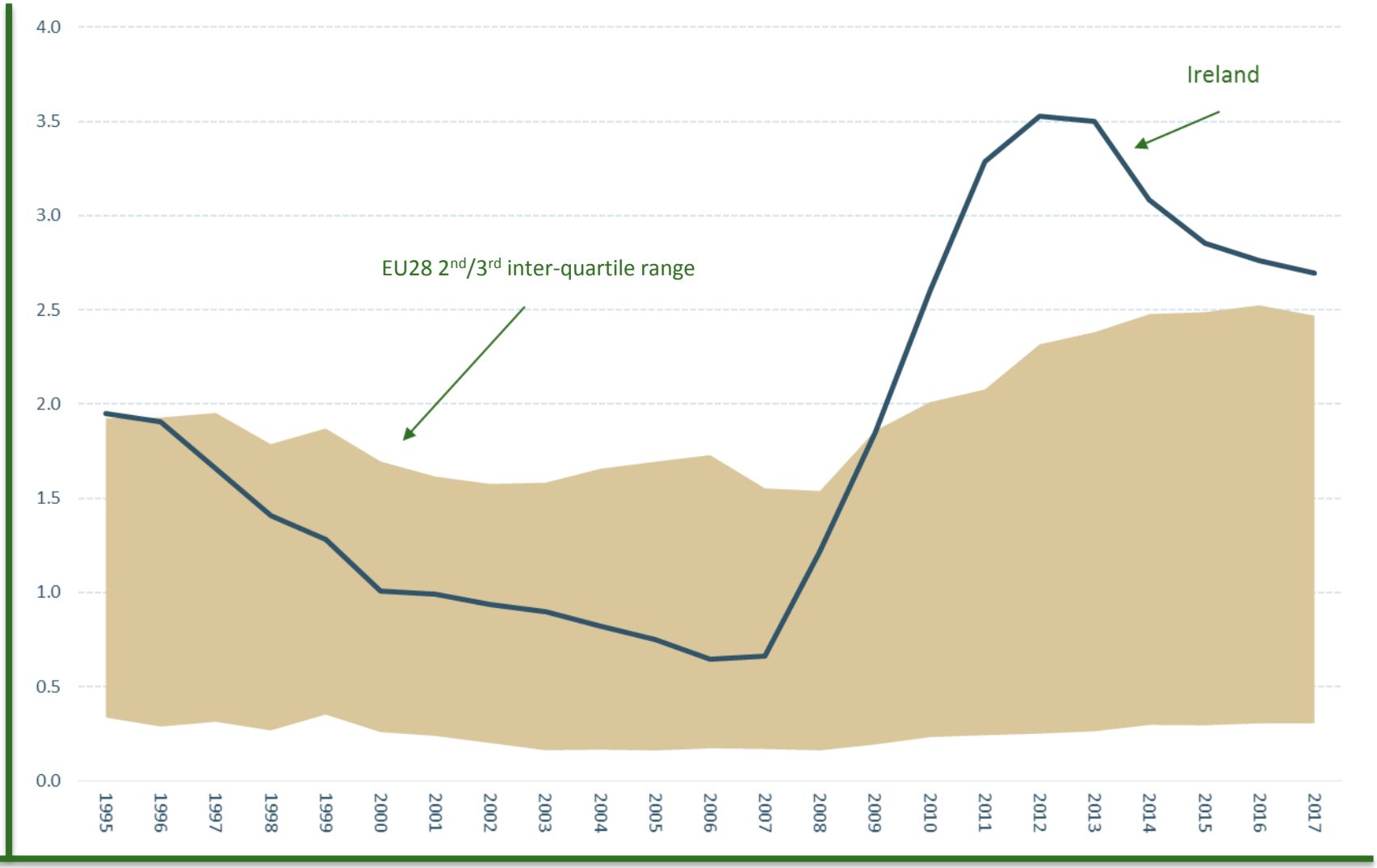
Debt/GNI* better measure of repayment capacity than debt/GDP



Debt interest absorbs c. 8 per cent of revenue

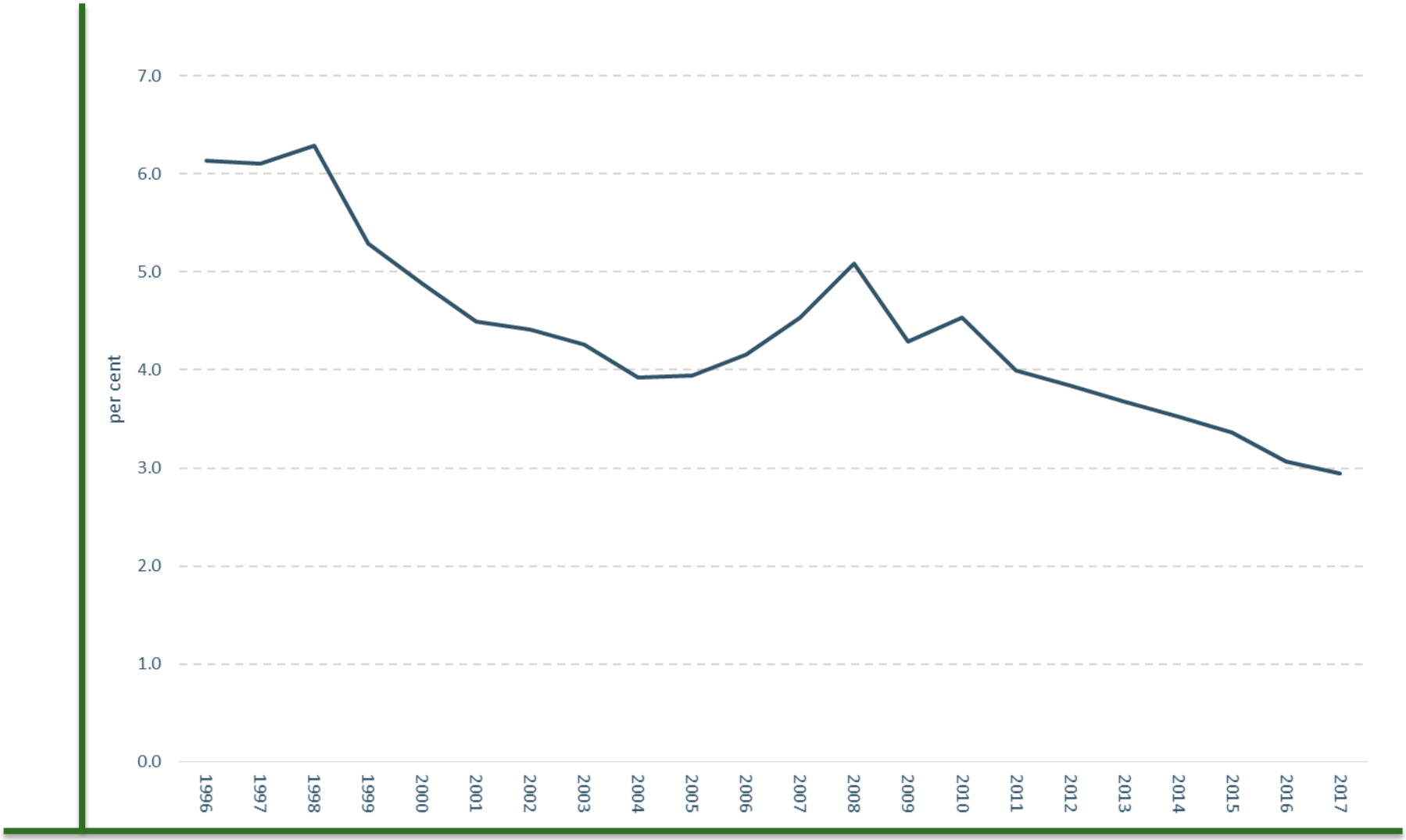


Repayment capacity: debt-to-revenue ratio

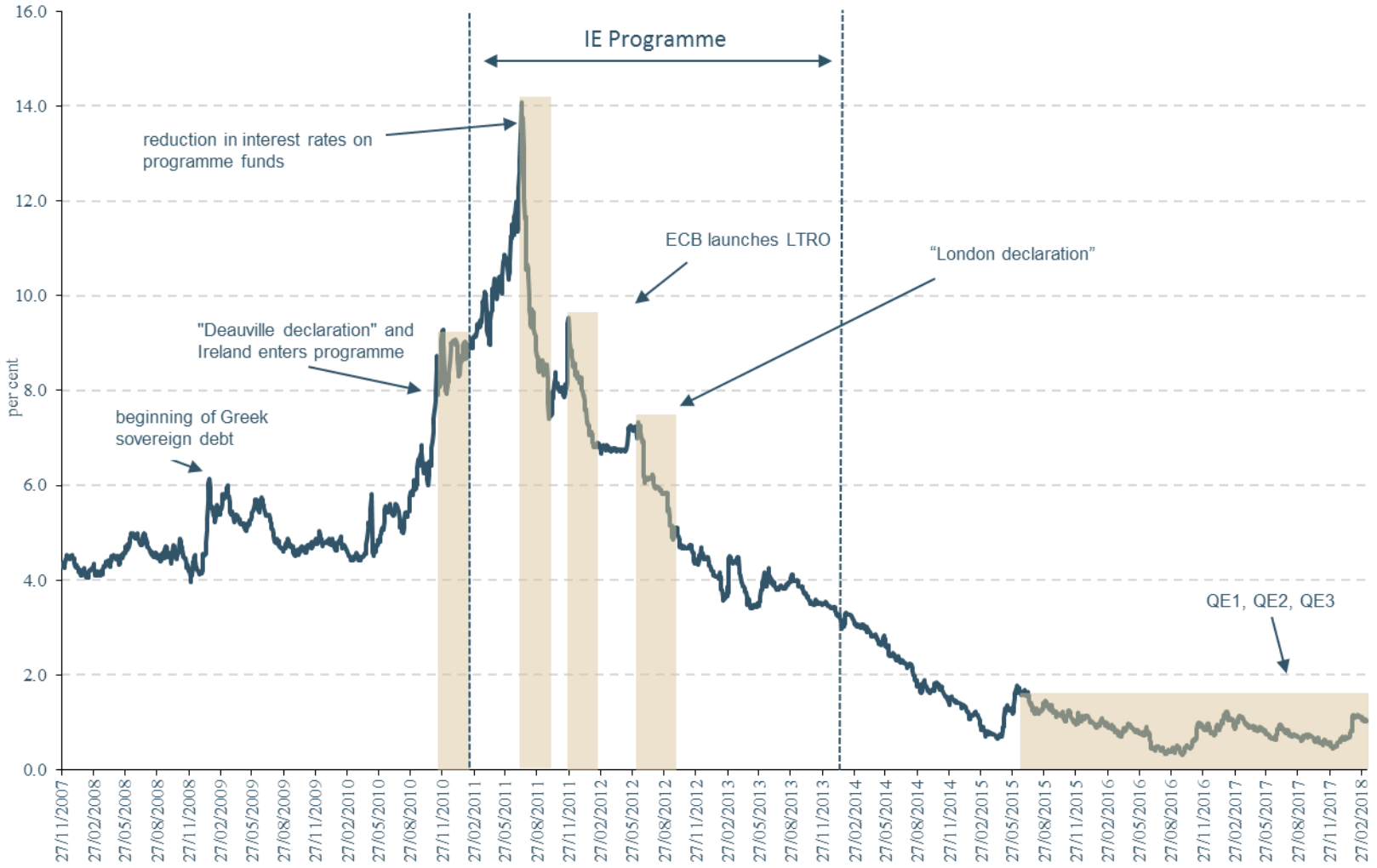


Structural aspects of Irish public debt

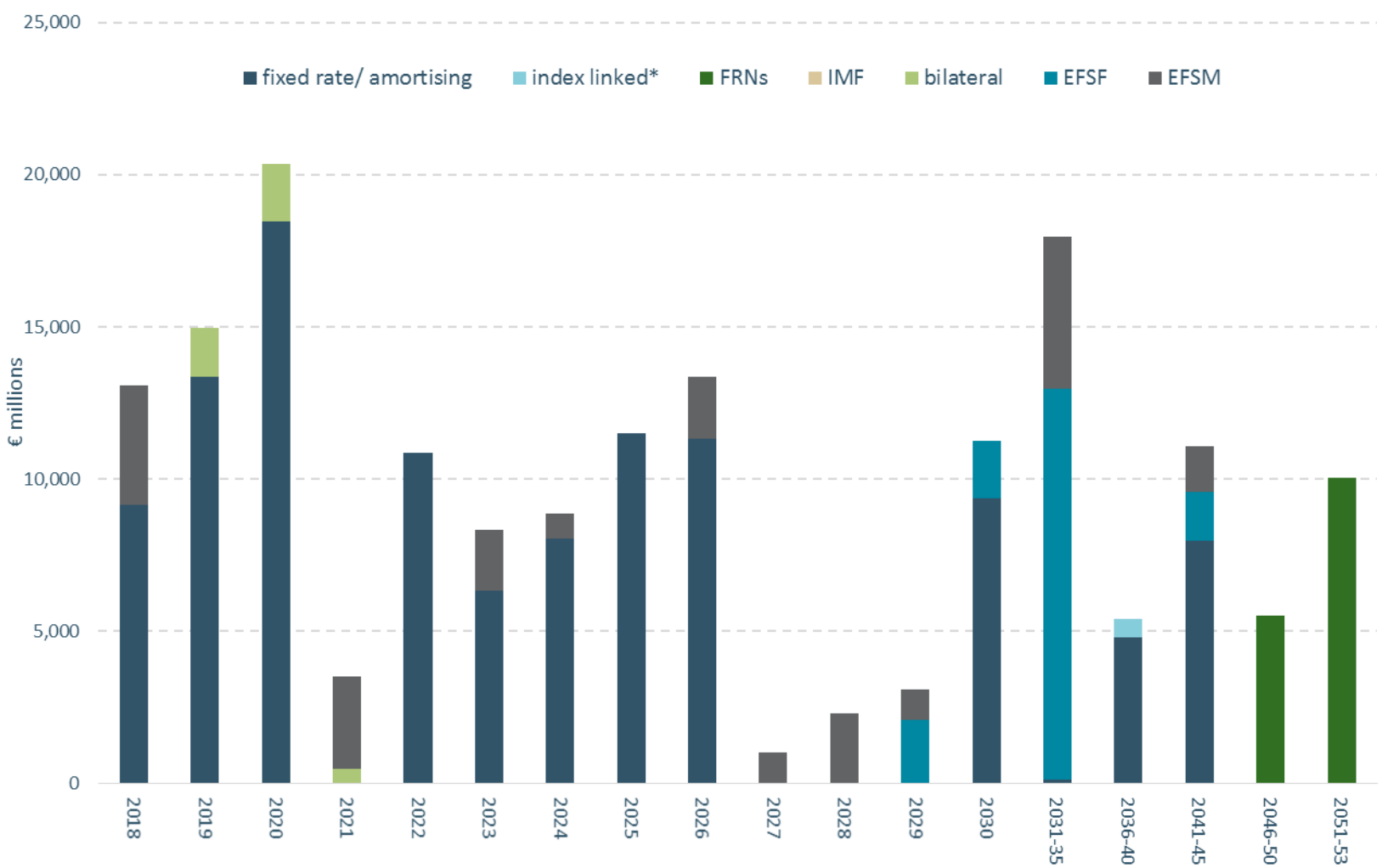
Effective interest rate: concessional lending and non-standard monetary



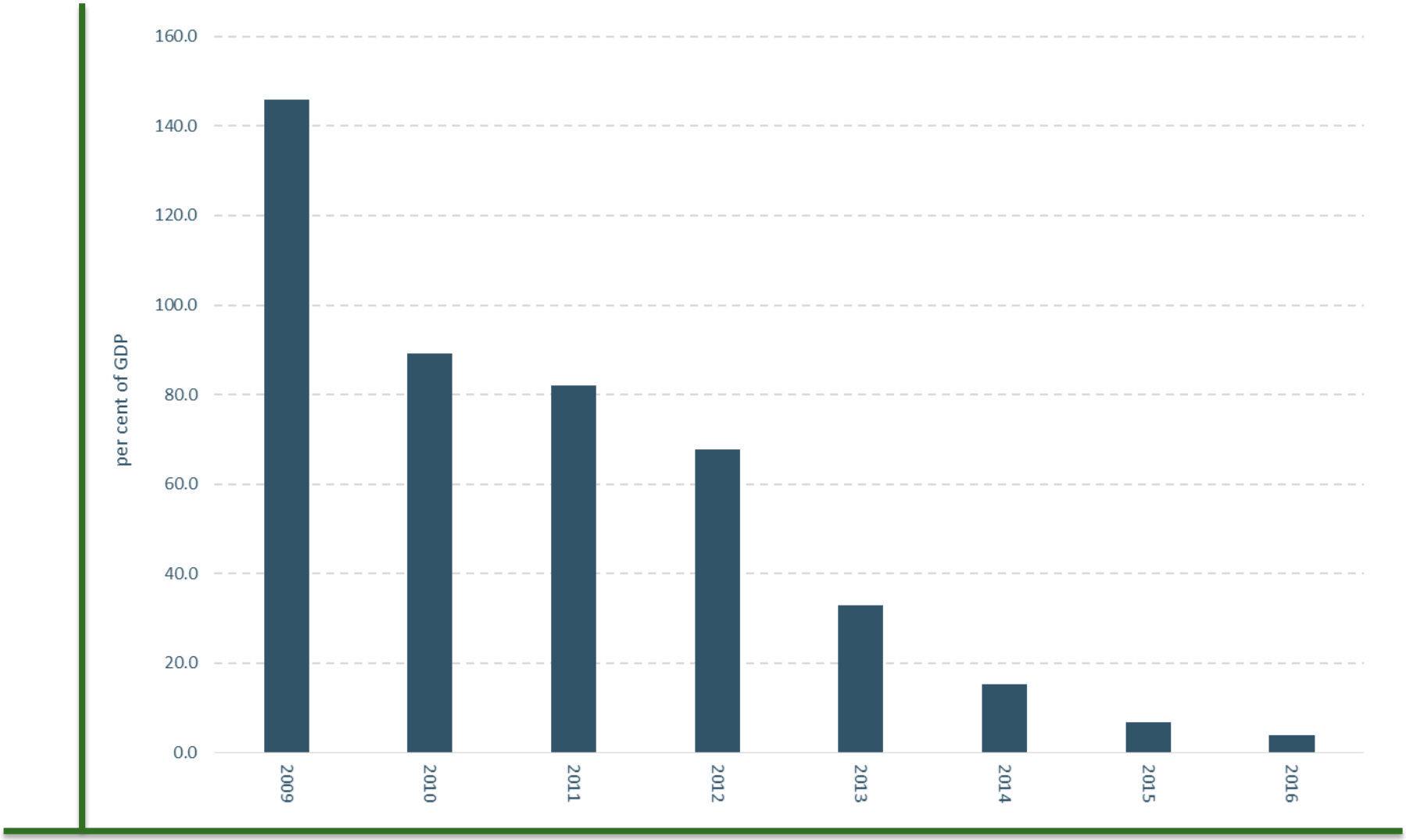
Risk premium – trading inside 'semi core'



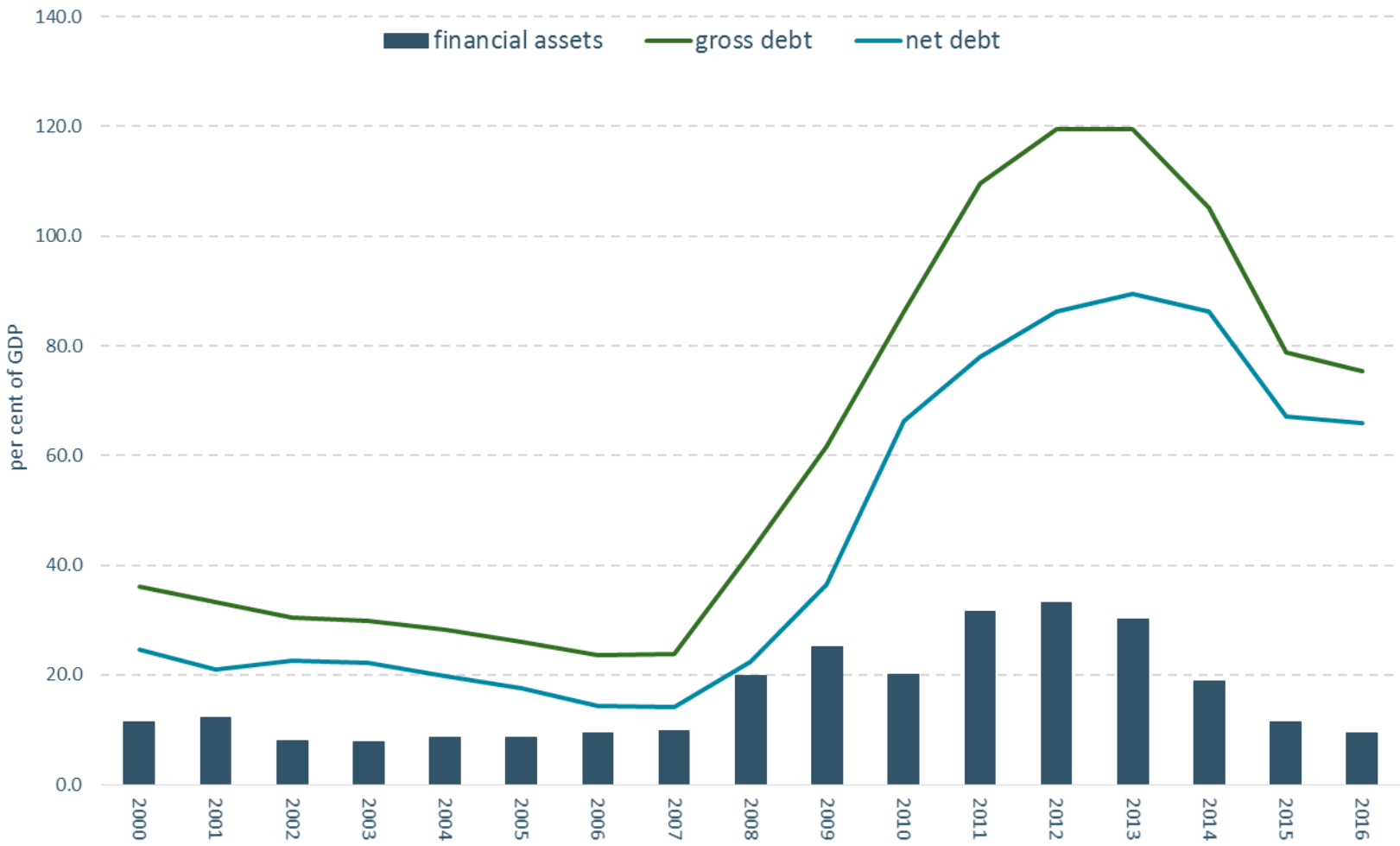
Elongated maturity profile limits rollover risk



Contingent liabilities (mainly financial sector related) almost eliminated

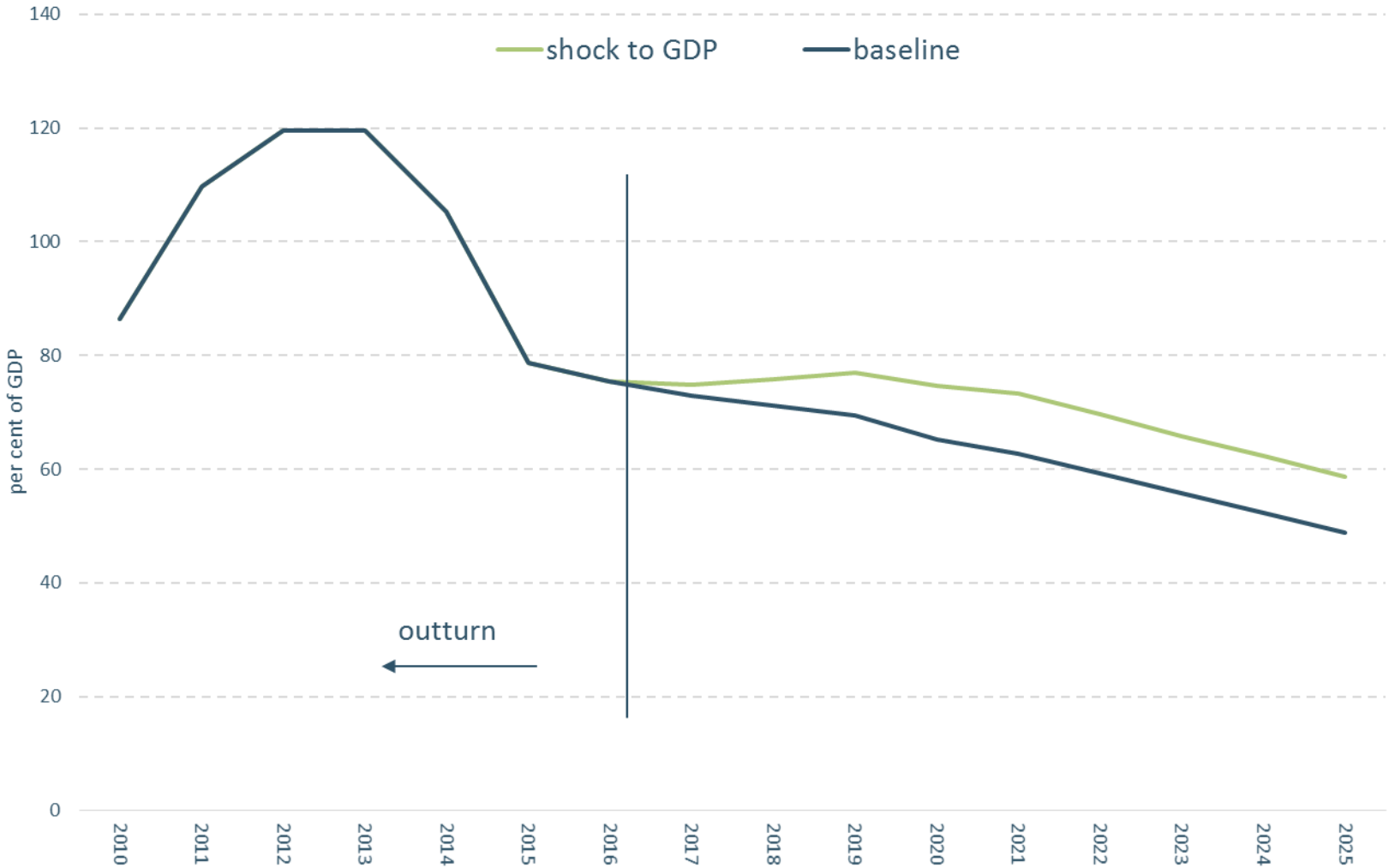


Need to look at both sides of GG balance sheet

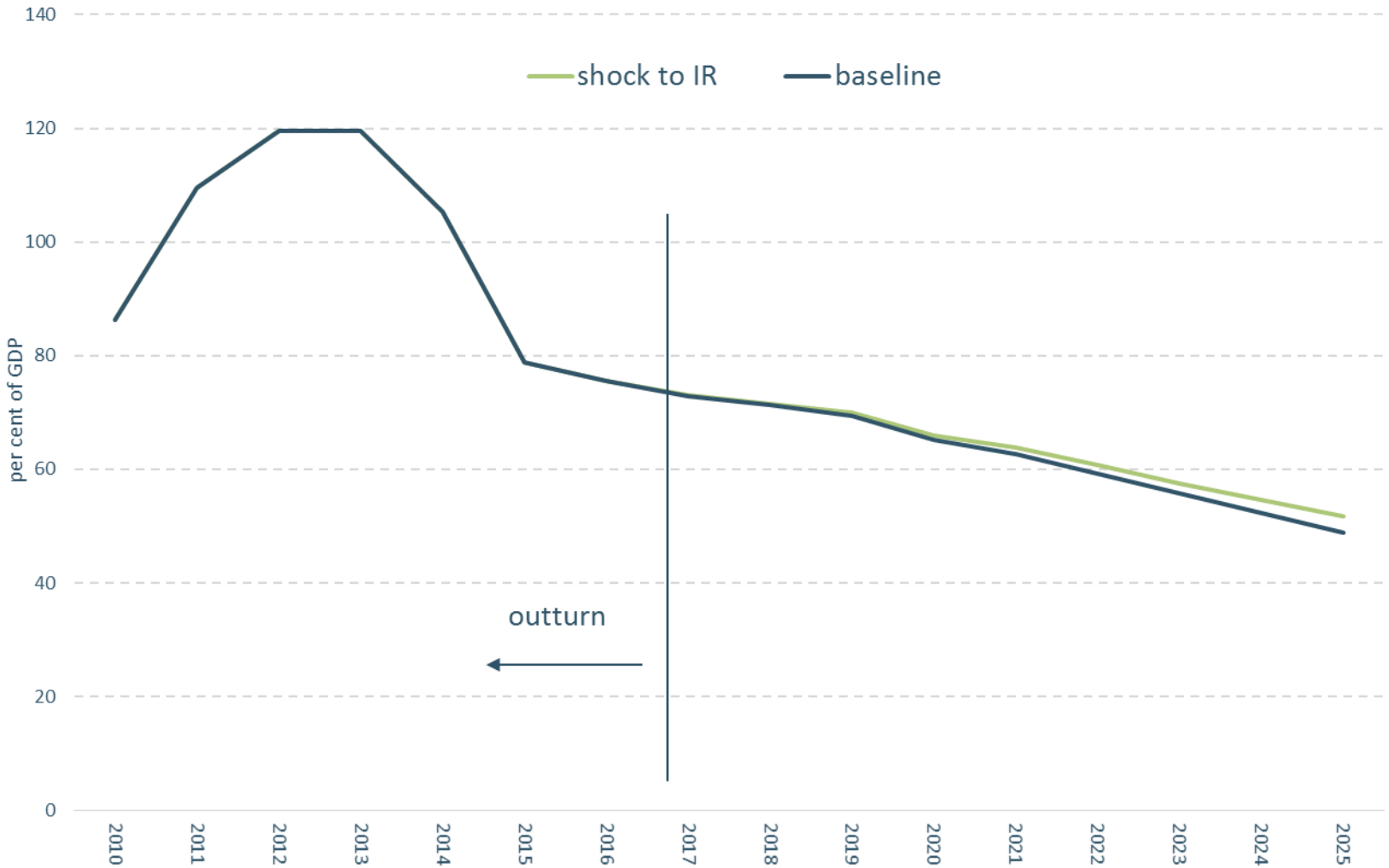


Debt sustainability analysis

Nominal growth shock (half standard deviation of actual growth over past decade)



Interest rate shock (100 bps higher than baseline at end-period)



Conclusions

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- For small economies, deeply integrated into GVCs:
  - output is highly volatile
  - fiscal variables also volatile → premium on policy caution
- Assessing debt sustainability complicated
  - no 'one size fits all' variable
  - need to assess suite of indicators
- Structural aspects of debt matter
- Importance of undertaking and communicating DSA
- http://www.finance.gov.ie/updates/department-of-finance-annual-report-on-public-debt-in-ireland-2017/