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## What can wages and employment tell us about the UK's productivity puzzle?

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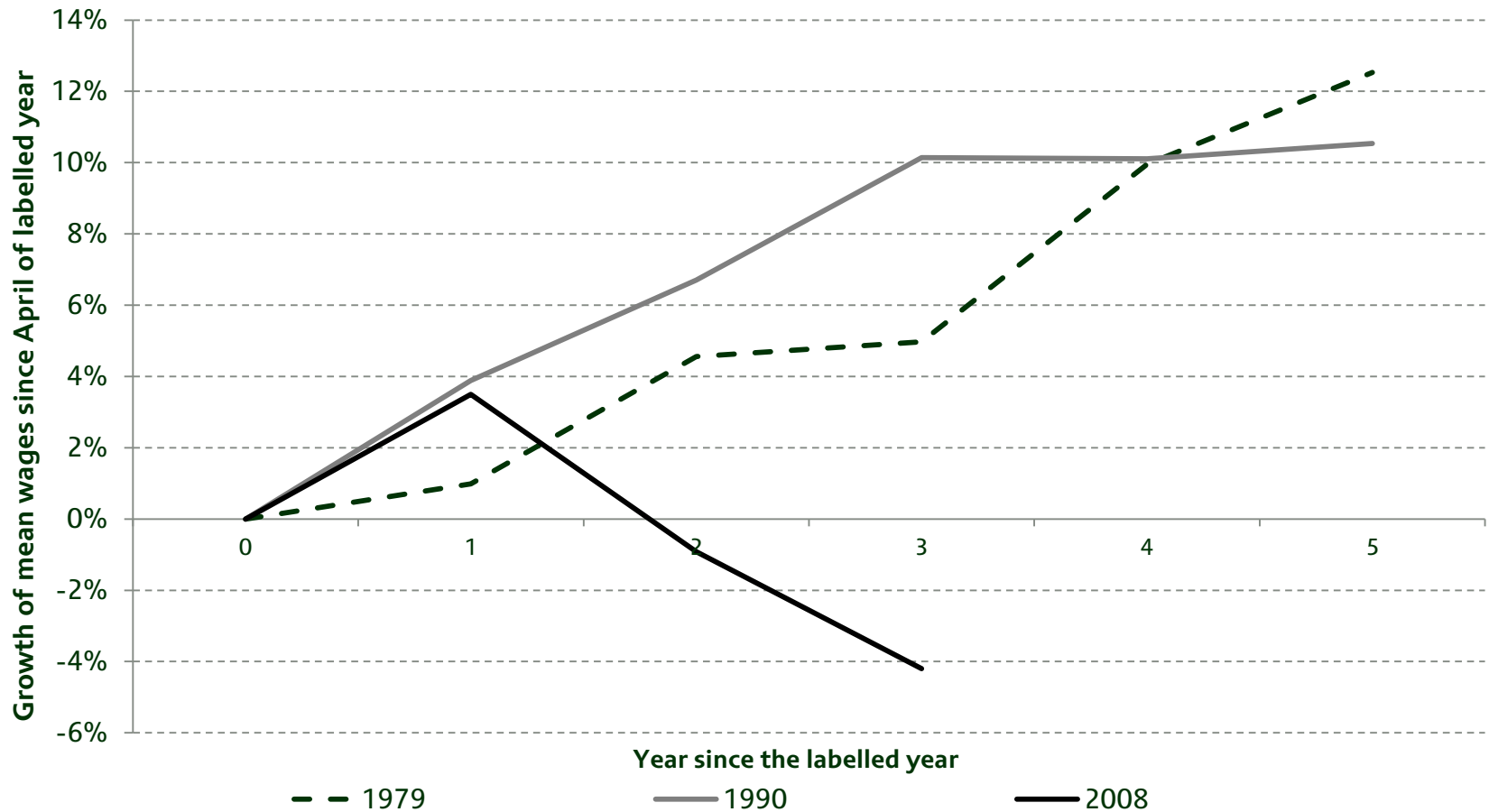
# Re-cap

- We know that productivity has fallen within firms
- In some firms (small ones especially), the wage bill has also fallen
- But unclear whether firms are firing expensive workers and hiring cheaper ones, or if the wages of existing workers have fallen
  - Also unclear whether our sample of firms was representative
- Important when thinking about potential productive capacity in the economy and who has been most affected by the recession

# What do we do here?

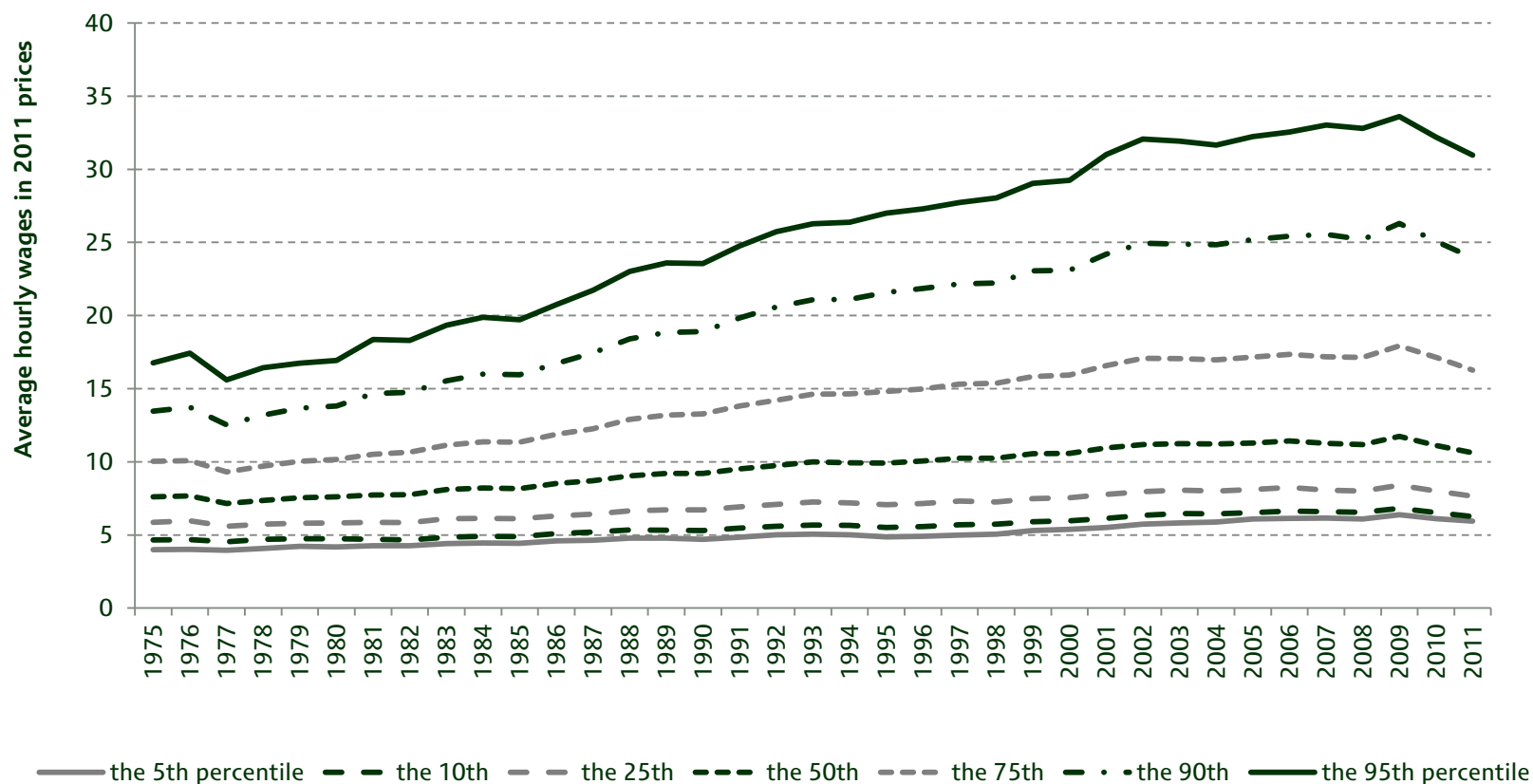
- Show that wages are falling to an unprecedented degree
- Try to explain why. Investigate three possibilities:
- Labour supply: is it higher now than in previous recessions?
  - More individuals willing to work at any given wage
  - Workers might be more willing to accept lower wages than in the past
- Composition of the workforce: is it less skilled/productive?
- Changes to labour market institutions:
  - Perhaps wages are now more flexible and responsive to unemployment (e.g. Machin and Gregg, 2013)

# Changes to average real hourly wages by recession



Source: New Earnings Survey Panel Dataset, excluding employees whose pay was affected by absence, those with non-positive hours or earnings, and overtime. Nominal wages have been deflated using the Retail Prices Index.

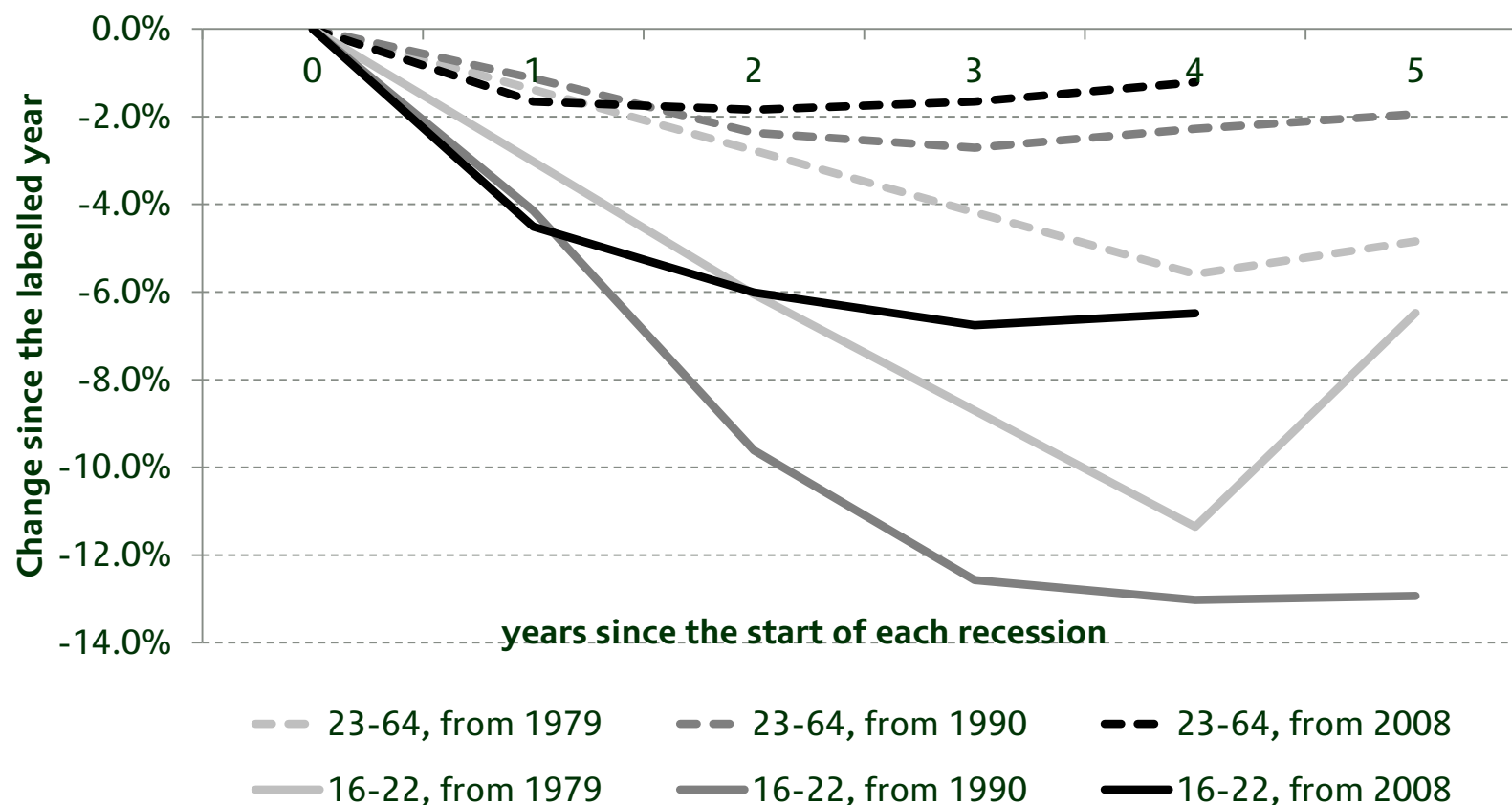
# Distribution of real hourly wages over time



# The labour market perspective

- Compared to past recessions, in this recession:
  - Participation and employment rates have remained higher, even amongst groups hardest hit in this recession (e.g. young people)

# Employment rate of those aged 16-22 vs. 23-64 in the UK by recession

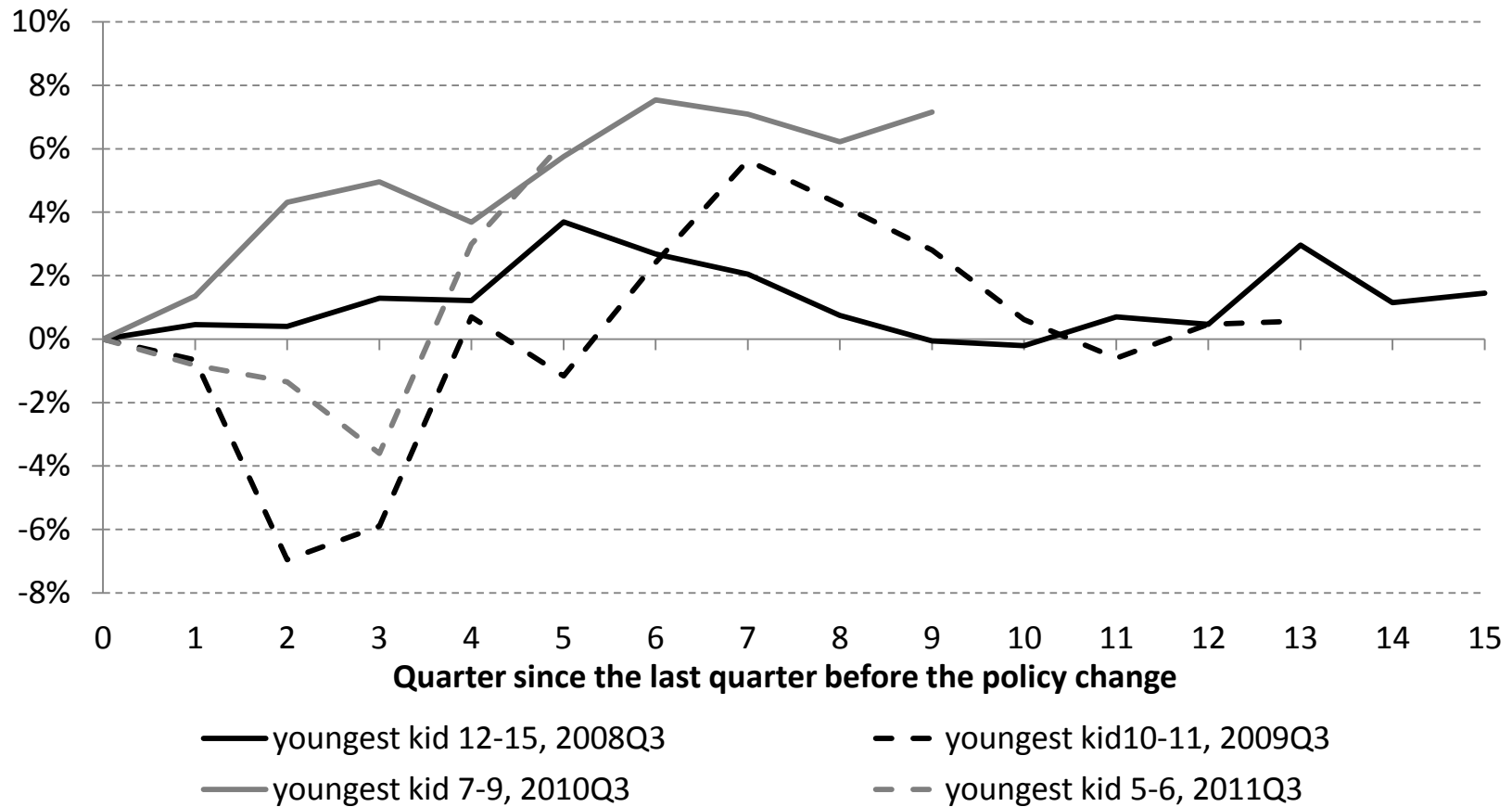


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  - Participation has increased amongst groups typically thought of as furthest from labour market, e.g. lone parents
    - Possibly as a result of changes to job search conditions attached to benefit claims



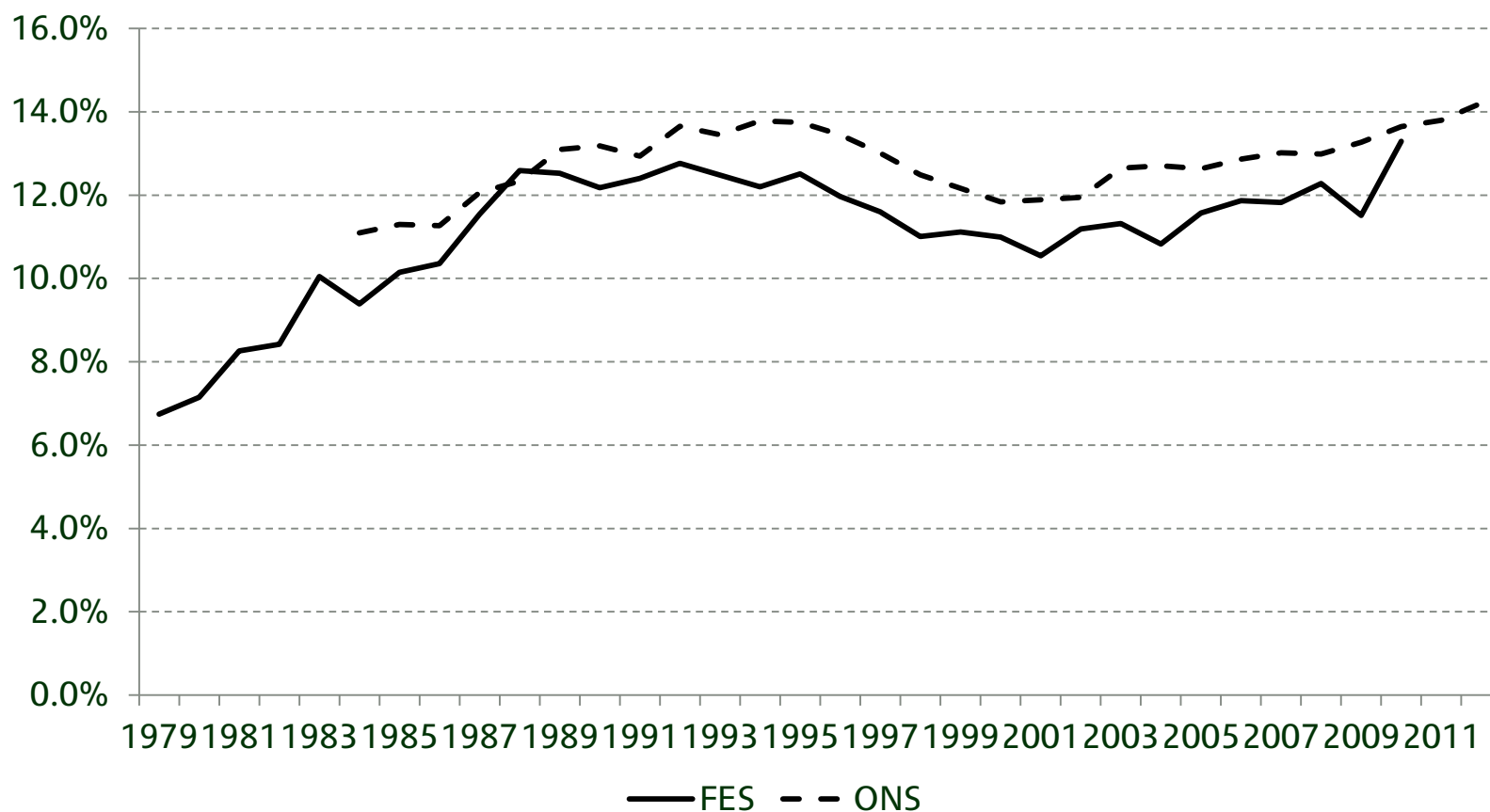
# De-trended change in lone mothers' labour market participation rates since the policy change, by age of youngest child



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  - Self-employment has been higher
    - Though some suggestion this might be disguised unemployment

# Proportion of workers who are self-employed



# Self-employed people not earning much?

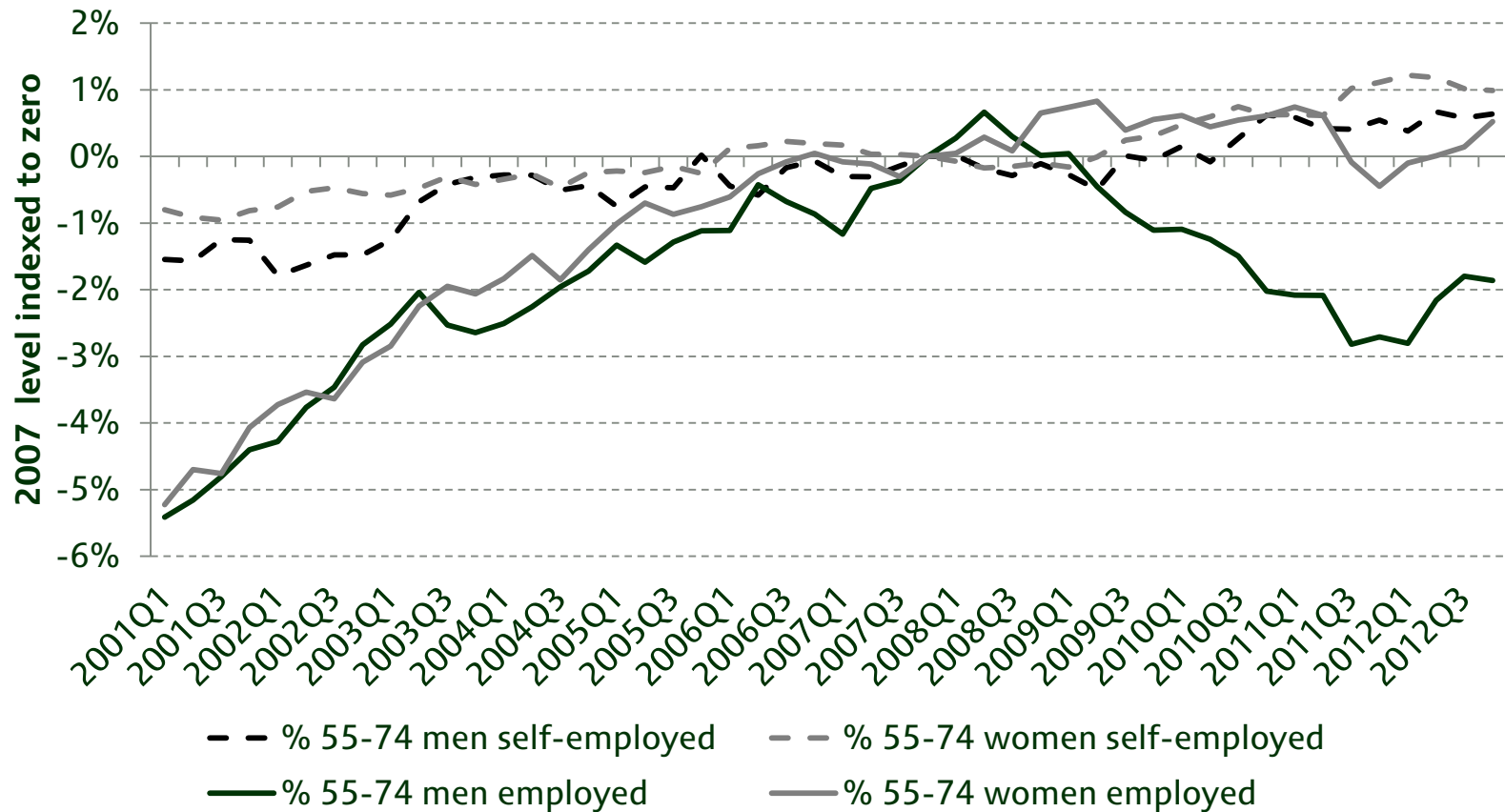


Source: authors' calculation from the Family Expenditure Survey

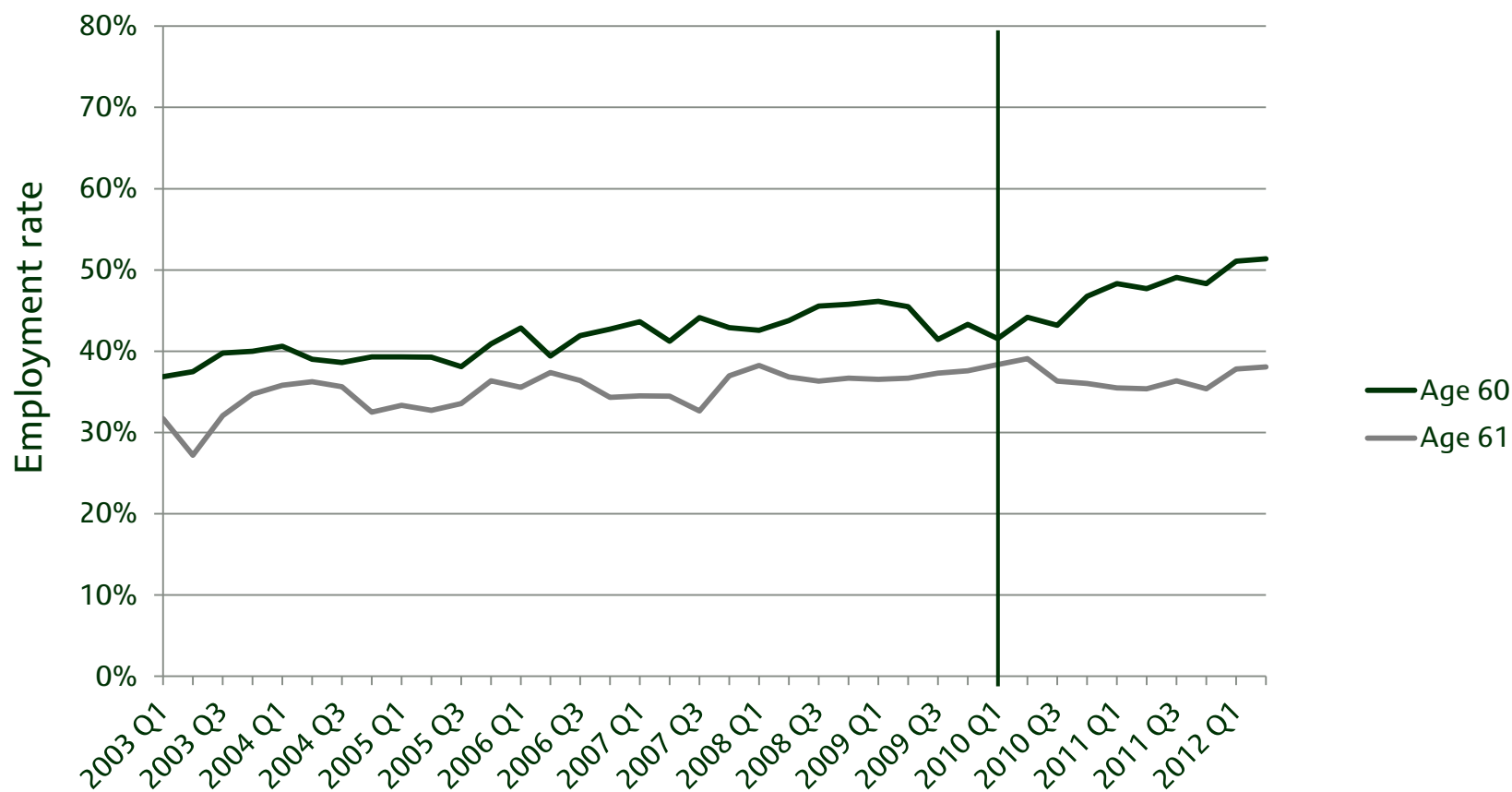
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    - Possibly as a result of changes to job search conditions attached to benefit claims
  - Self-employment has been higher
    - Though some suggestion this might be disguised unemployment
  - Labour supply amongst older workers has gone up
    - Maybe due to State Pension Age increase and negative wealth shocks

# Employment and self-employment rates among 55-74 year olds



# Employment of 60 year old women has risen



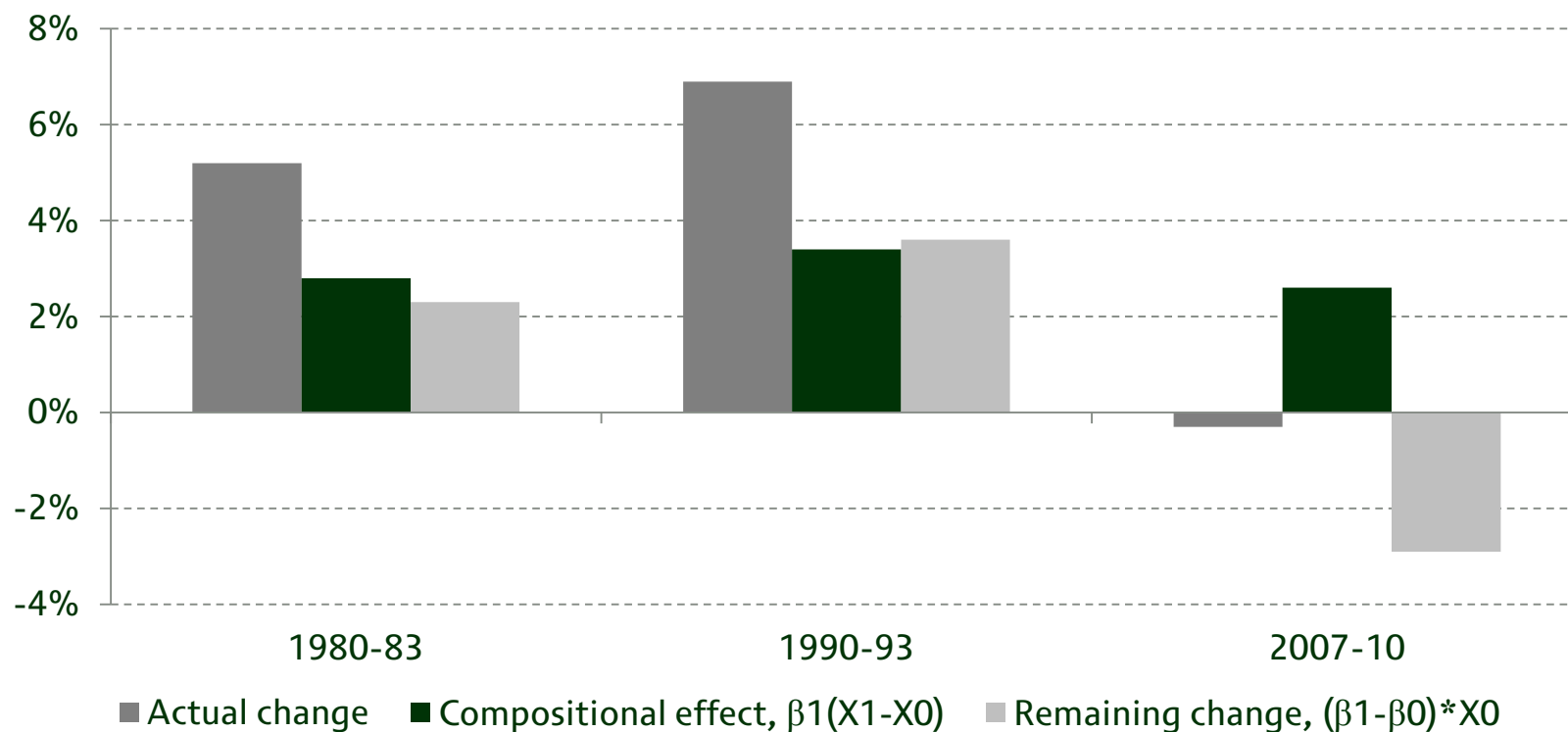
Sources and Notes: Figure 2.2 of Cribb, Emmerson and Tetlow (2013)

# Workforce composition

- Labour supply was higher during this recession than in the past
  - Especially amongst older workers, lone mothers
- If these individuals were on average lower productivity than existing workers – and they could find work – then might expect workforce composition to help explain lower productivity
- Is the compositional effect more negative in this recession than historically?



# Decomposing changes in real log hourly wages

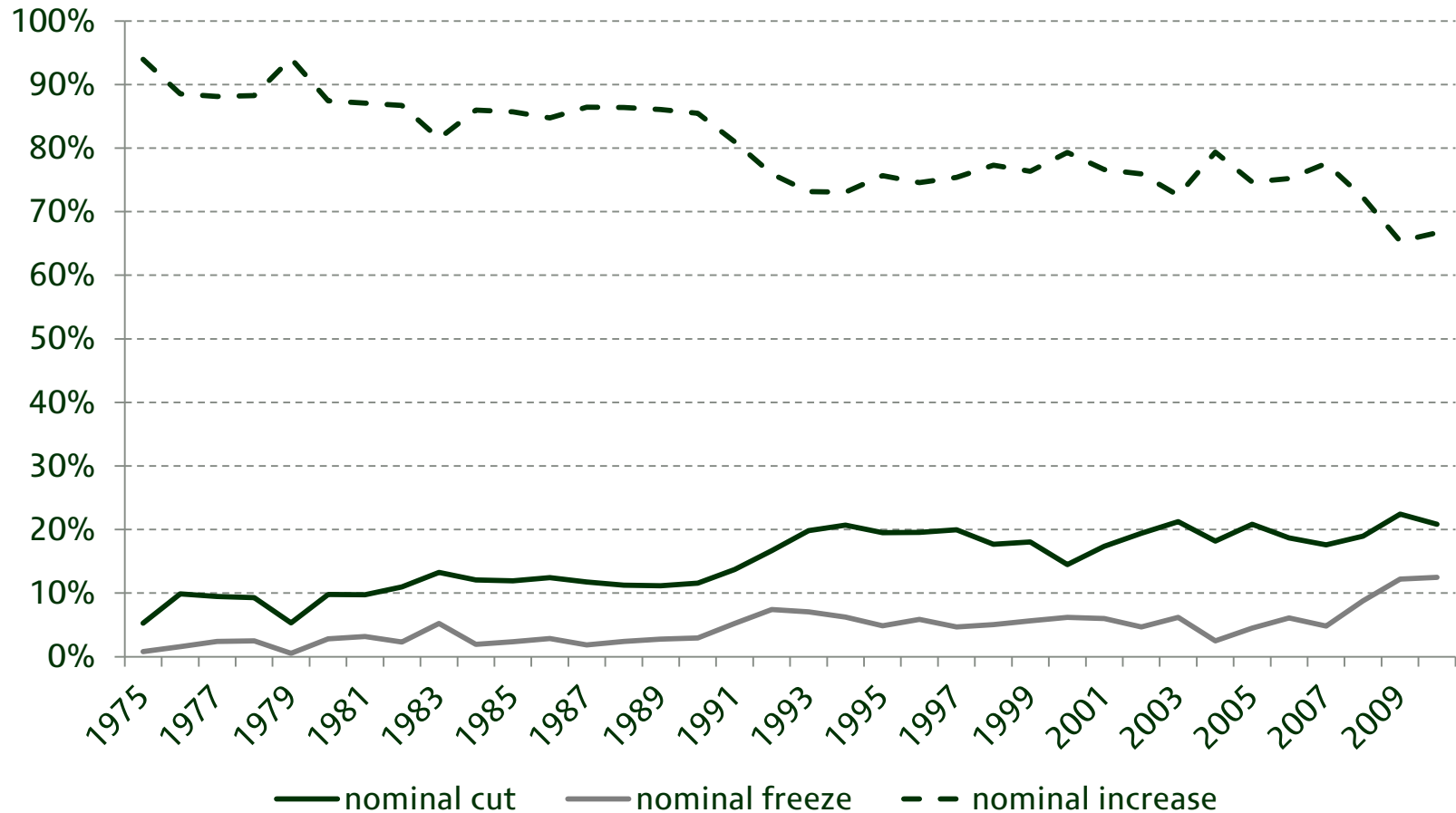


Note: analysis based on the family expenditure Survey. Details of the method can be found in Blundell et al 2013

# Can workforce composition help to explain the fall in wages/productivity?

- Short answer: no
- Compositional effect was positive
  - i.e. workforce become more highly skilled, etc
- And no less positive than in previous recessions
- On this basis would have expected average wages/productivity to rise
- Fact that it didn't means that wages/productivity must have fallen within individuals
- In fact, real wages fell for a majority of individuals who stayed in the same job and nominal wages fell for a third of them

# % employees in same job whose nominal hourly wages were cut/frozen/raised in coming year

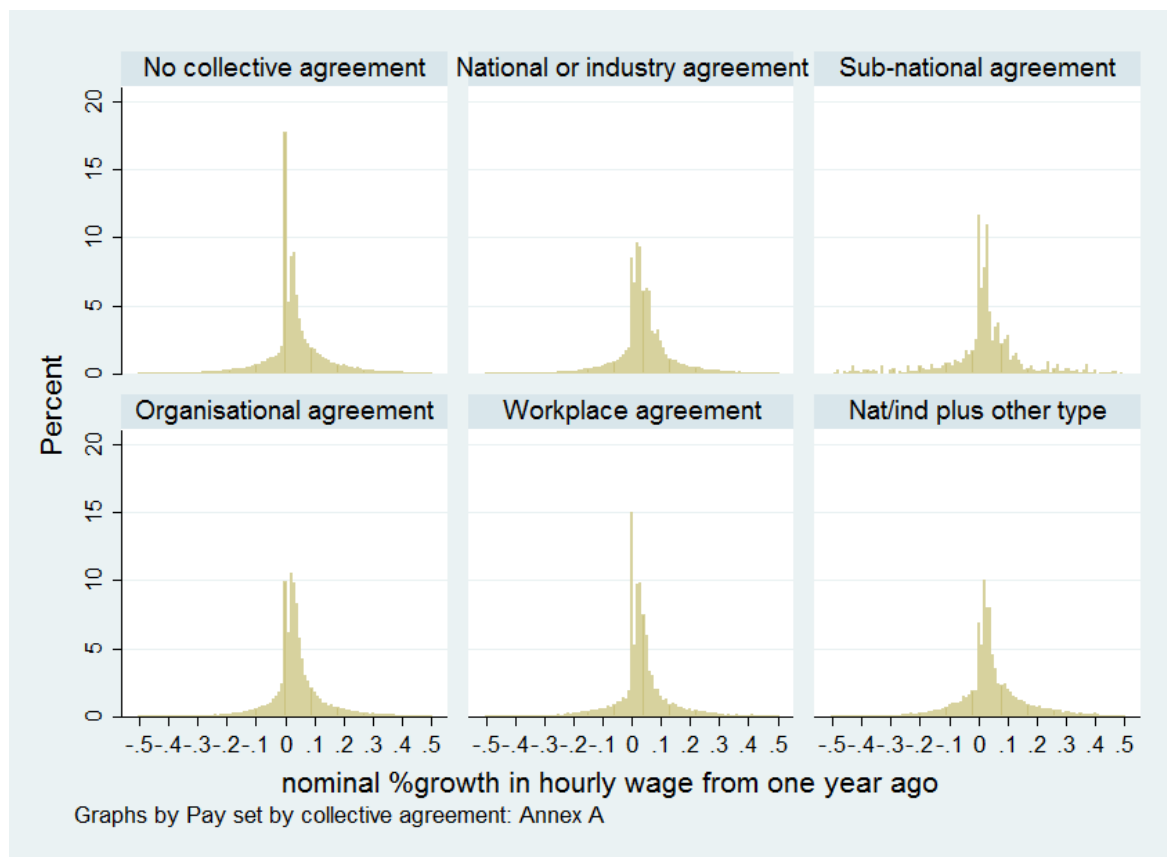


Source: New Earnings Survey Panel Dataset 1975-2011. Freeze defined as  $|\% \text{change}| < 0.1\%$ .

# Why have wages fallen?

- Labour supply has been increasing over time and remained higher in this recession than in previous ones
- Changes to labour market institutions
  - Perhaps workers are less protected from wage falls than they were?

# Distribution of individuals' year-on-year nominal hourly wage growth by type of collective agreement, 2008-11



Source: New Earnings Survey Panel Dataset. Conditional on employees being in the same job as the preceding year. Each of the six distributions pool together observations from 2008 to 2011.

# Summary

- Labour supply seems to have been more robust during this recession
  - Welfare policy changes (e.g. tougher job search conditions attached to benefit claims, raising of state pension age for women)
  - Effects of the financial crisis (e.g. wealth shocks)
- But no evidence that these changes have reduced average quality of labour in this recession (and composition no less positive than in past)
  - Strong evidence against the workforce composition hypothesis
- Substantial reductions in wages (and hence productivity) occurred *within individuals*
- It's arguably better to have within-individual wage reduction and within-firm productivity stagnation than adverse compositional shifts.