

# Human Capital, Inequality and Tax Reform: Recent Past and Future Prospects

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Coase Lecture

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# Human Capital, Inequality and Tax Reform

- Even before the recent crisis, many economies and their governments around the developed world faced growing inequality and pressure to increase employment and earnings.
- The depth of the recent recession has added to this and brought further pressure on government revenues.
- I focus here on the UK and ask three general questions:
  1. What has happened to living standards and inequality?
  2. Where will tax/welfare reform to have most impact?
  3. How has this changed in the light of the great recession?
- I will conclude with some *prospects for the UK economy and for reform...*

# Human Capital, Inequality and Tax Reform

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- The emphasis will be on the labour market and on personal tax and welfare reforms.
- Many of the key determinants of trends in income inequality and in overall living standards over the past 25 years, including since the financial crisis, have been driven by changes in the labour market, including:
  - huge increase in entry cohorts with at least a BA degree during the 1990s and early 2000s,
  - large relative rise in top ‘earnings’ percentile since the early 1990s,
  - dramatic fall in real wages since 2008, ....
- To which we can add changes in asset prices, in particular housing; immigration; and, of course, reforms to taxes and welfare benefits.

# 1. What has happened to living standards and inequality?

To dig a little deeper into this, and the other questions, I look at three measures that all have something important to say:

- A. Earnings: Employment, Wages, Human Capital (and Productivity)
- B. Incomes: Working-age mainly
- C. Consumption: Durable and Non-durable Expenditures

wages => earnings => joint earnings => income => consumption

To investigate the links between them I draw on some recent research:

- Living Standards, Poverty and Inequality in the UK. *IFS Report Series*
- What Can Wages Tell Us about the Productivity Puzzle? *Economic Journal*
- Household Consumption through Recent Recessions. *Fiscal Studies*
- Female Labour Supply, Human Capital and Tax Reform, *NBER/IFS WP*
- Family Labour Supply and Consumption Inequality, *NBER/IFS WP*

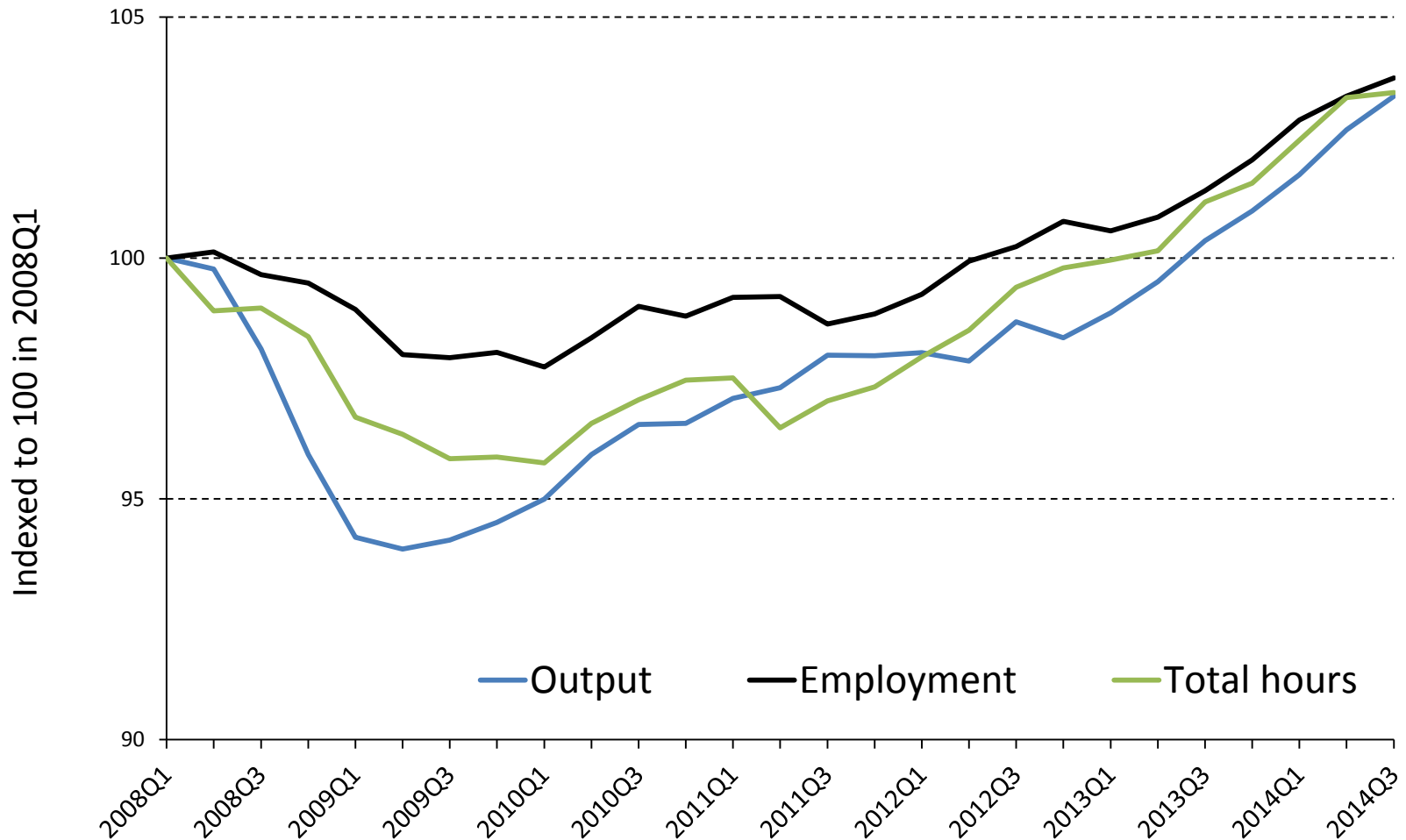
# Prospects preview....

- Younger workers and families are acting as if they expect a long-run fall in relative living standards
  - the pattern of low real wages at the bottom looks set to continue, but with buoyant employment,
  - low skilled workers will increasingly rely on the benefit/tax credit system and family labour supply,
  - longer term earnings growth will mostly come from high-skilled occupations.
- With growing earnings inequality there is increasing pressure on the tax and welfare system.
  - current tax systems raise revenue/redistribute inefficiently and unfairly.
  - some potential big gains from tax/welfare reforms to enhance human capital and earnings, and address inequality.
- Productivity, though, is still the key.

## A. Earnings: wages, employment (and productivity)

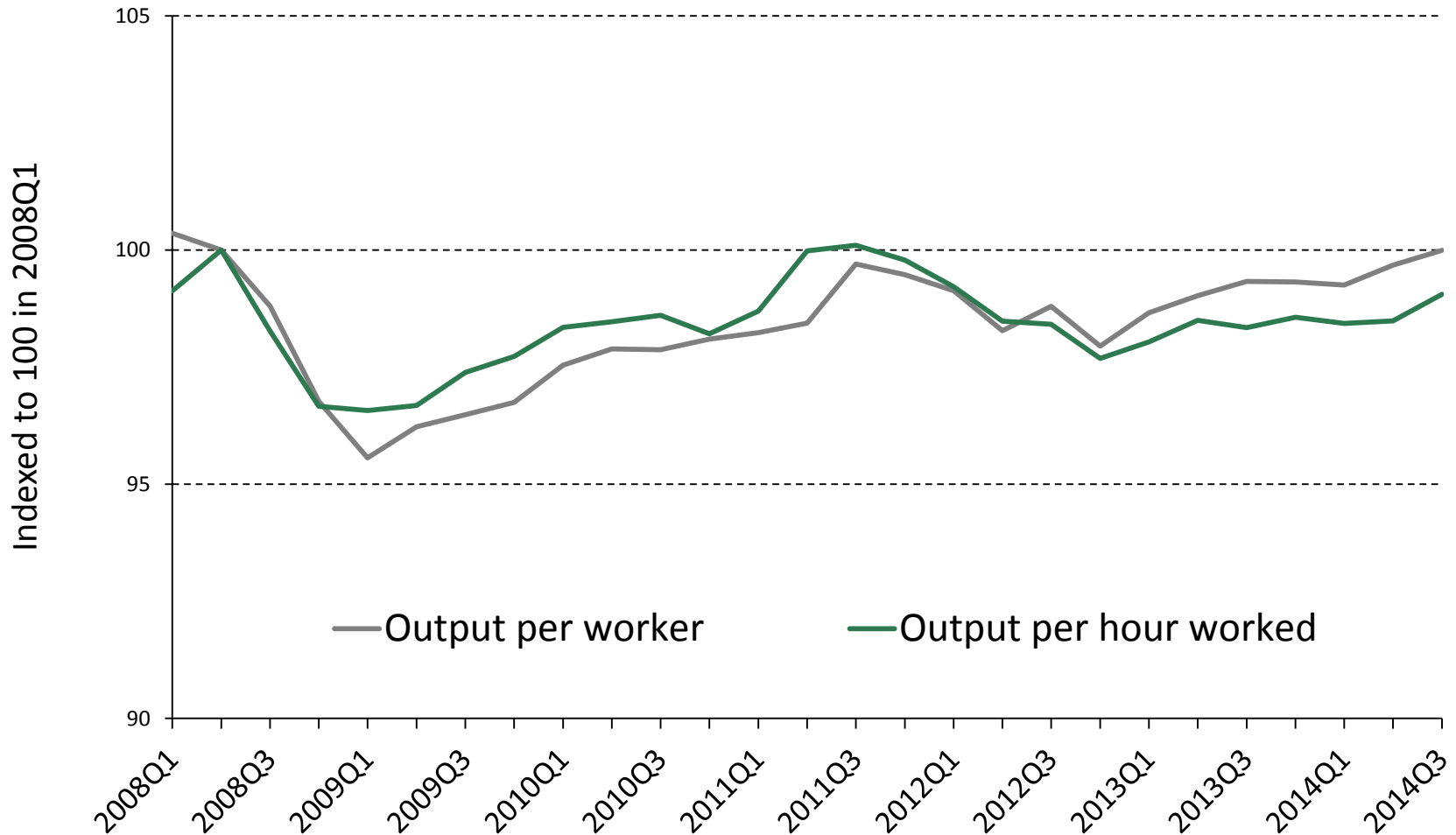
- Average real hourly wages fell back strongly after the onset of the recession
  - even though workforce composition has shifted towards more productive types.
- Real wage falls occurred *within* individuals:
  - unprecedentedly high proportions of employees experienced effectively nominal wage freezes.
- The education premium survived the large increase in those with BAs
  - but real wages have fallen for all groups since the recession.
- ‘Effective’ labour supply, particularly female labour supply, was higher than during previous recessions
  - due partly welfare policy changes and partly to wealth and long run real wage declines.

# Changes to total output, employment and hours worked since 2008Q1



Source: Cribb and Joyce (IFS, 2015)

# Changes to productivity since 2008 (2008Q2=100)

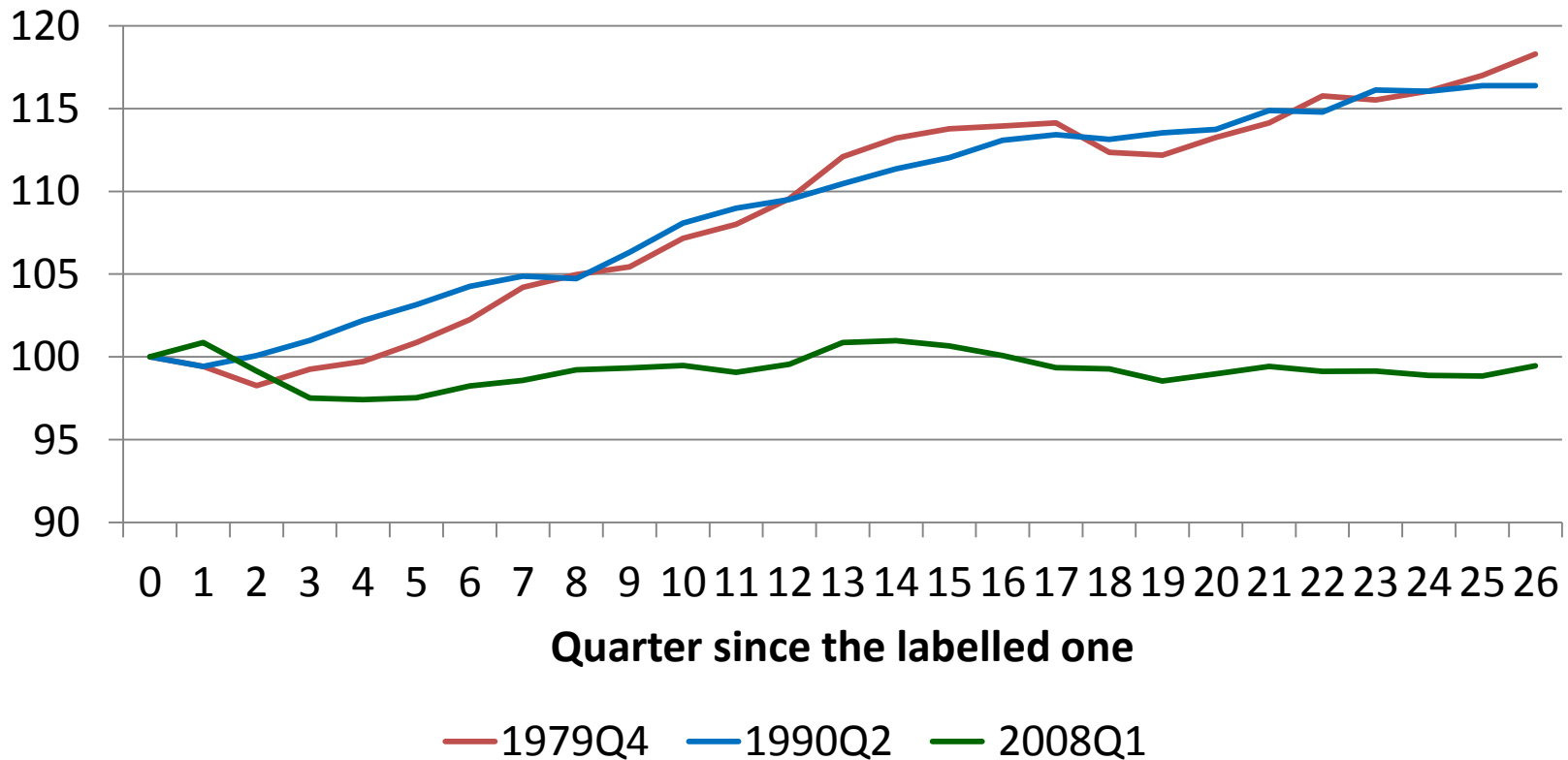


Source: Cribb and Joyce (IFS, 2015)

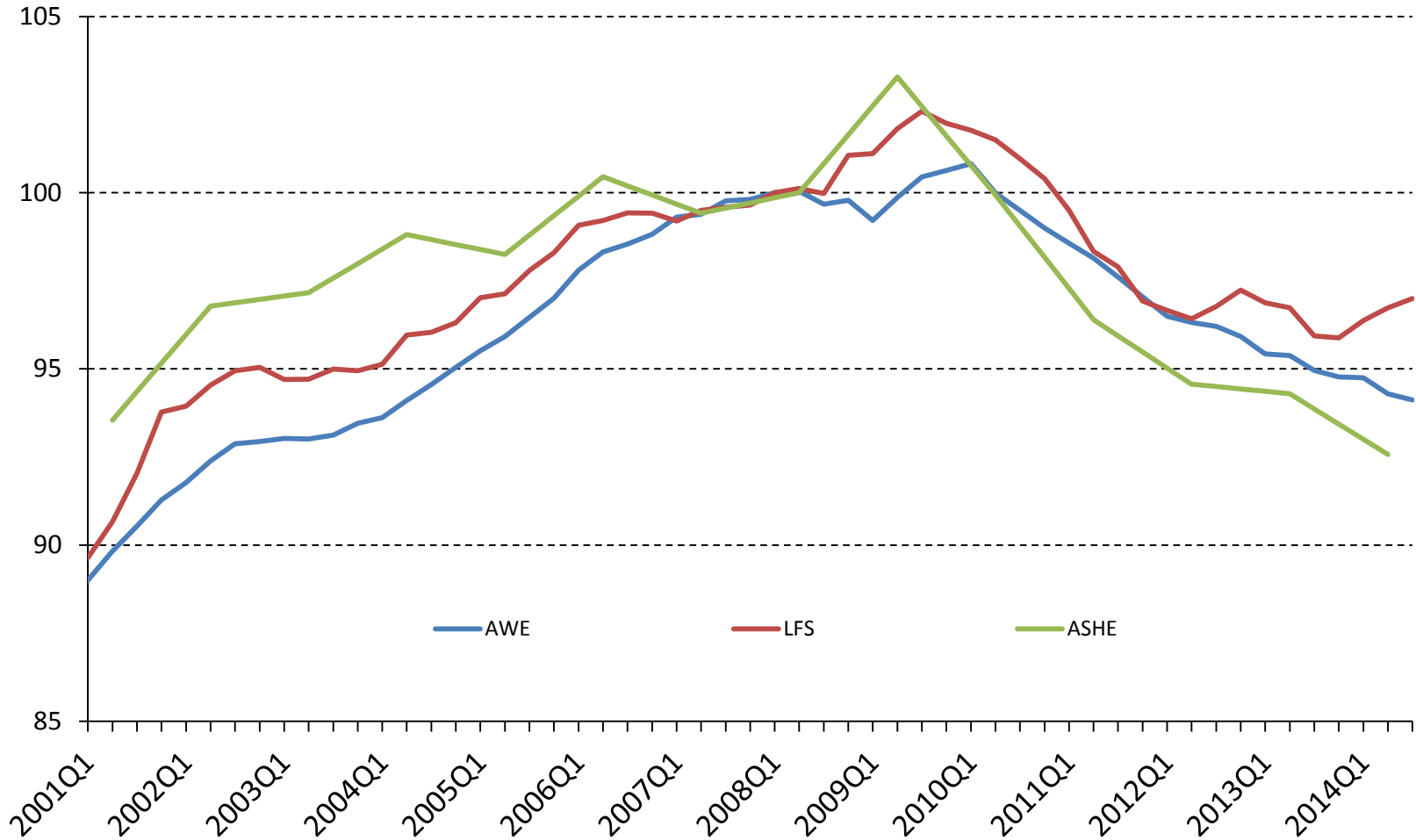


In contrast to previous recessions, real output per hour has at best been quite stagnant since 2008

### Real output per hour

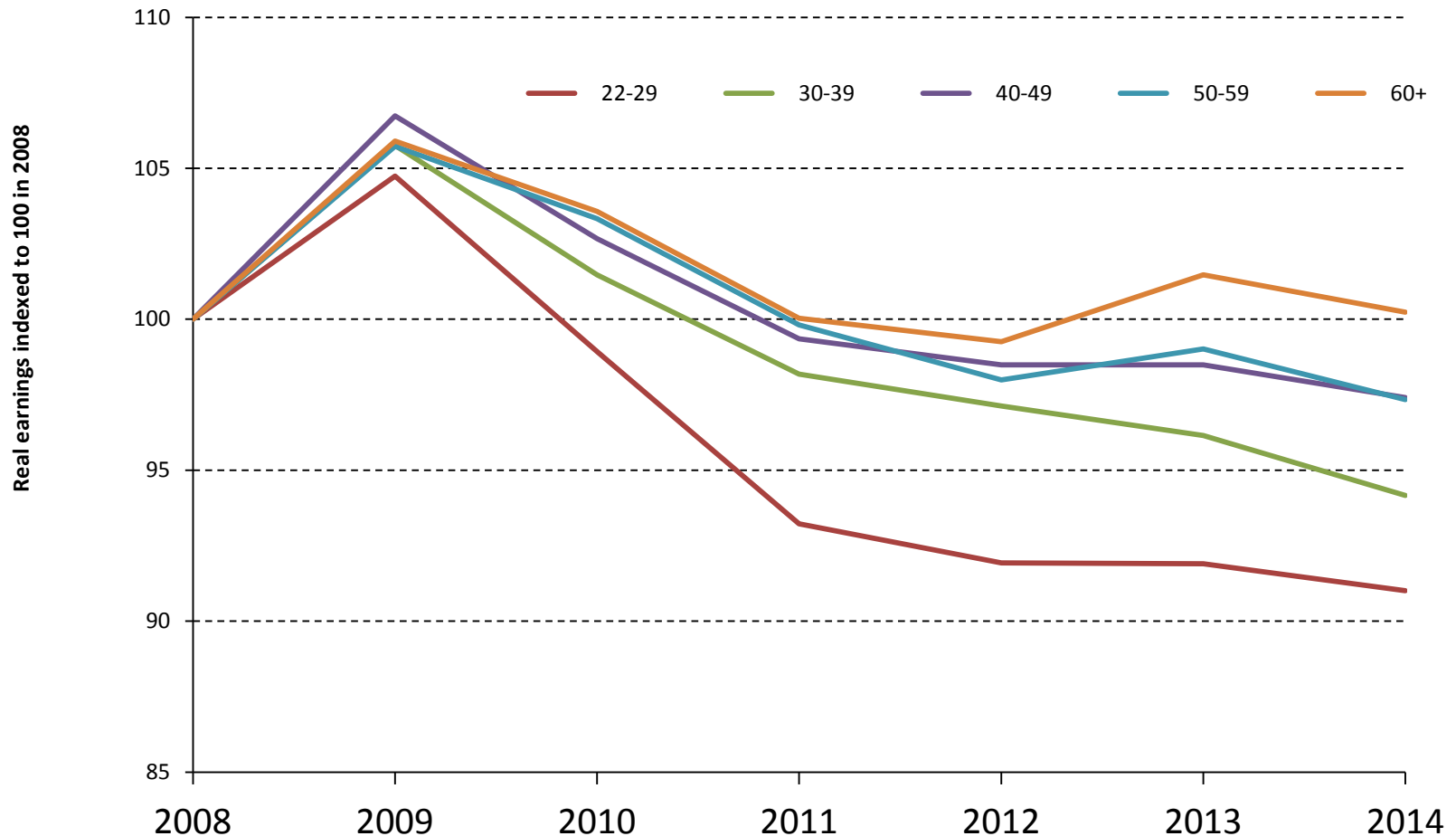


# Mean weekly earnings since 2001 adjusted for RPIJ inflation (indexed to 100 in 2008Q1)



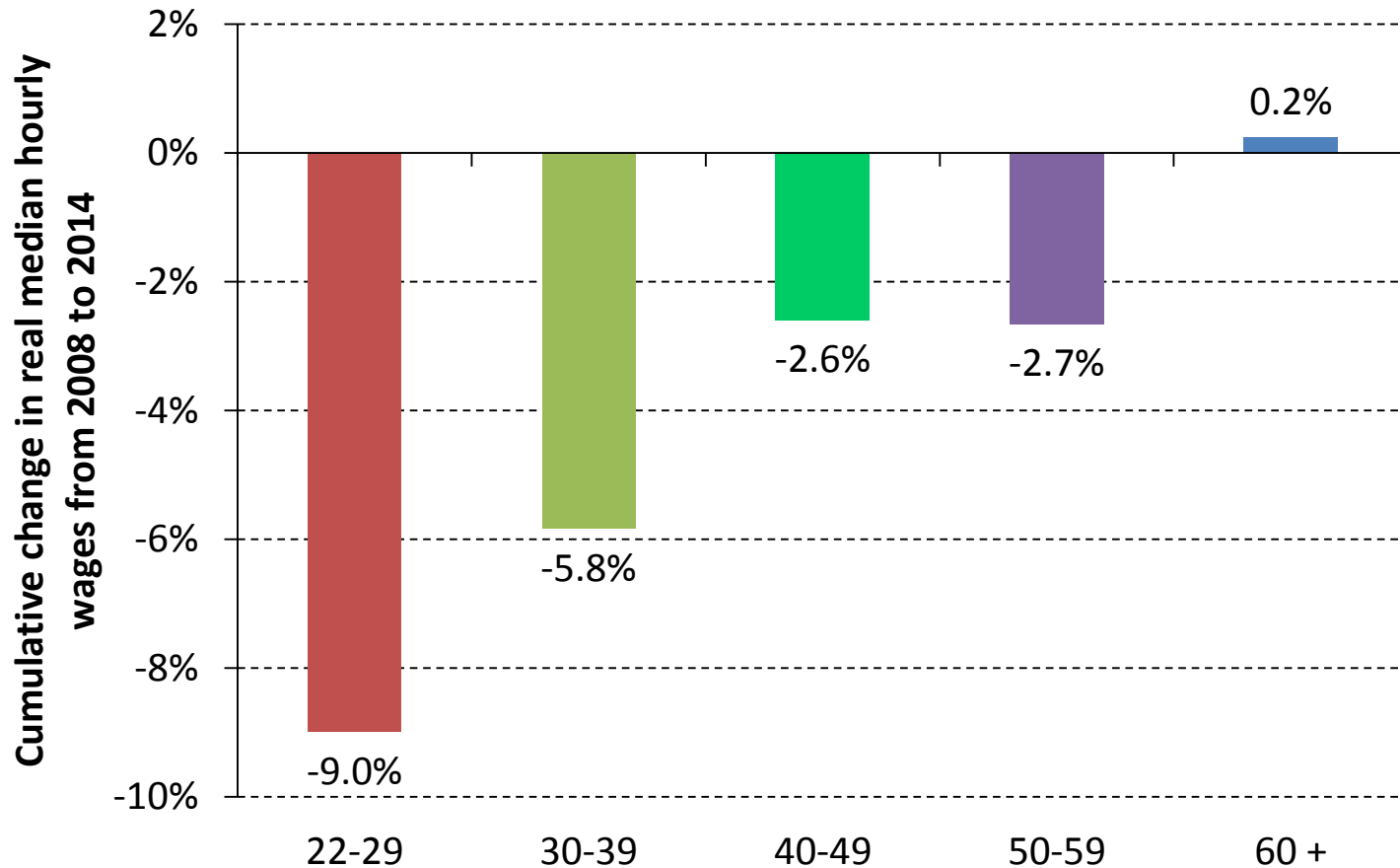
Source: Cribb and Joyce (IFS, 2015)

# Changes to real median hourly wages by age group

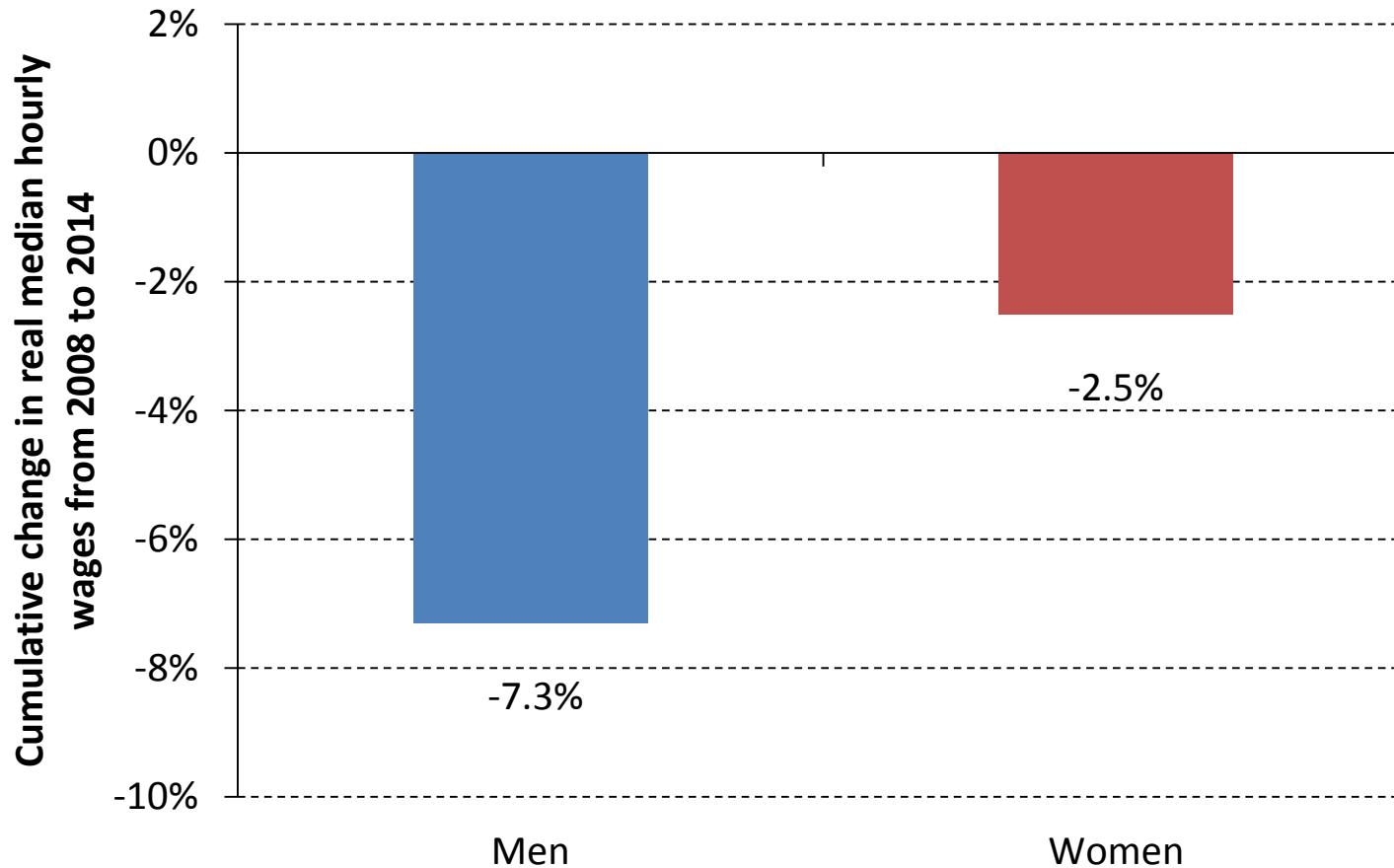


Notes: Results adjusted for methodological changes in 2011. Earnings observed in April of each year.  
Source: Cribb and Joyce (2015), calculations using Annual Survey of Hours and Earnings.

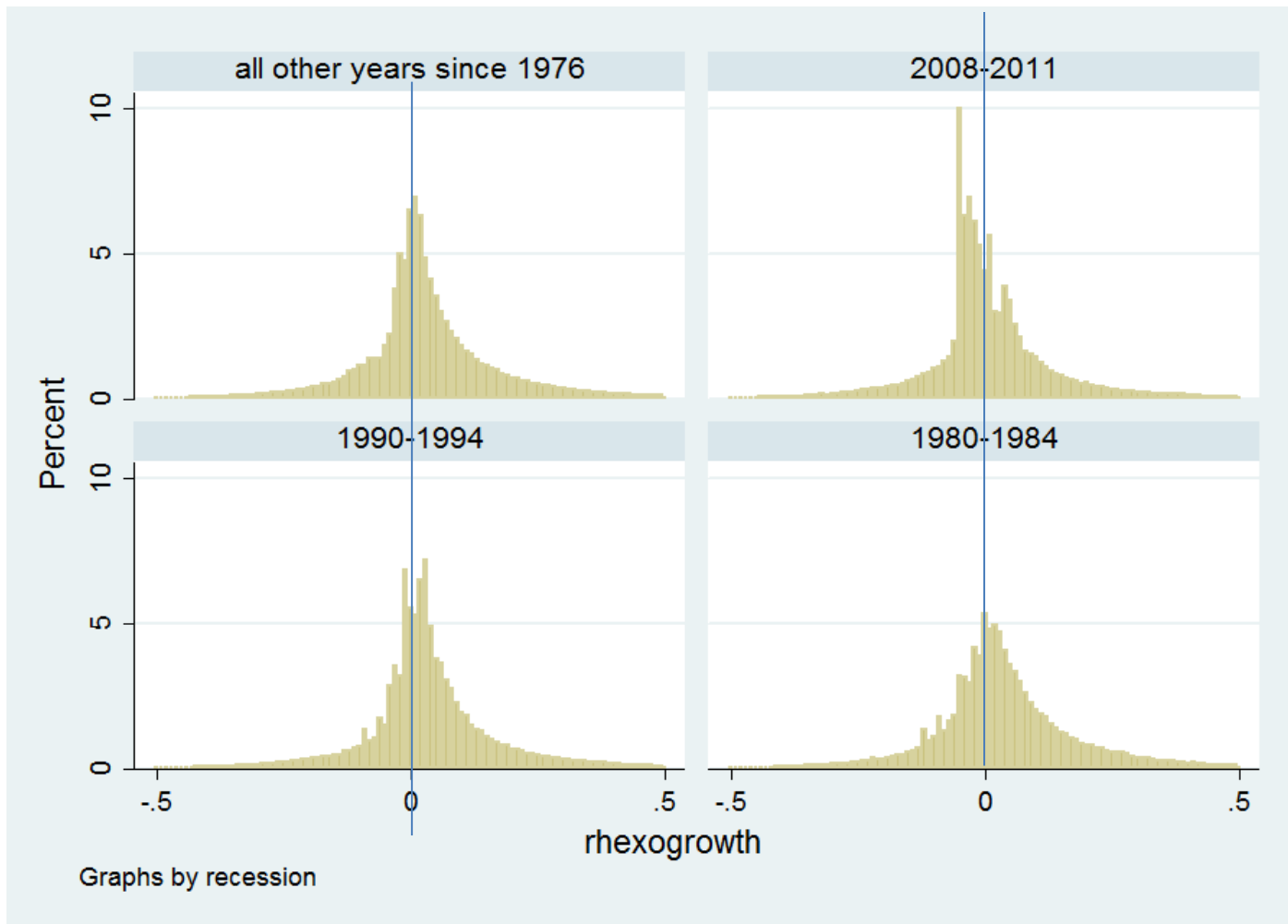
# Change in real median hourly wages by age group since 2008



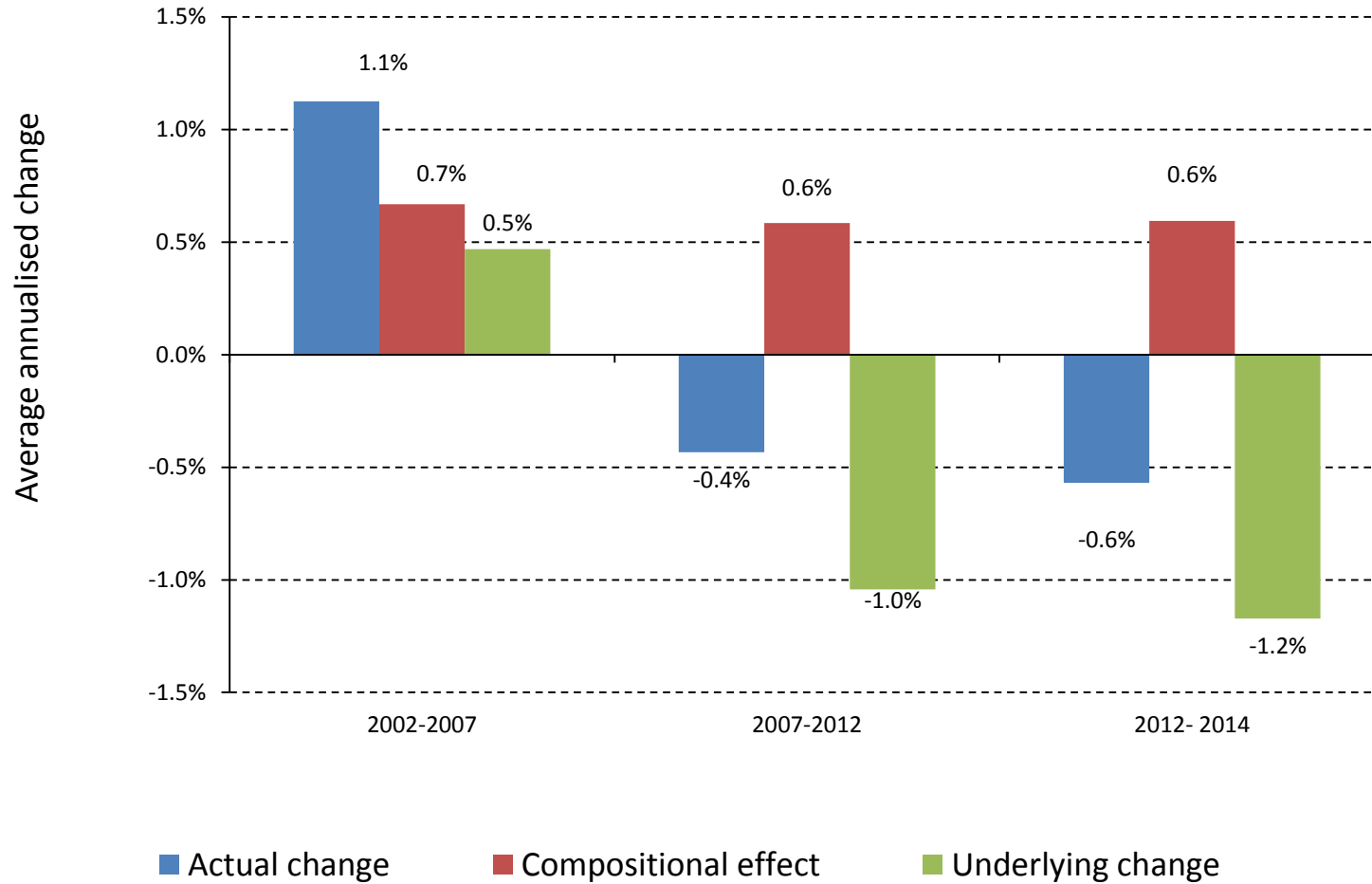
# Change in real median hourly wages by sex since 2008



# % annual change to real hourly wage, by period

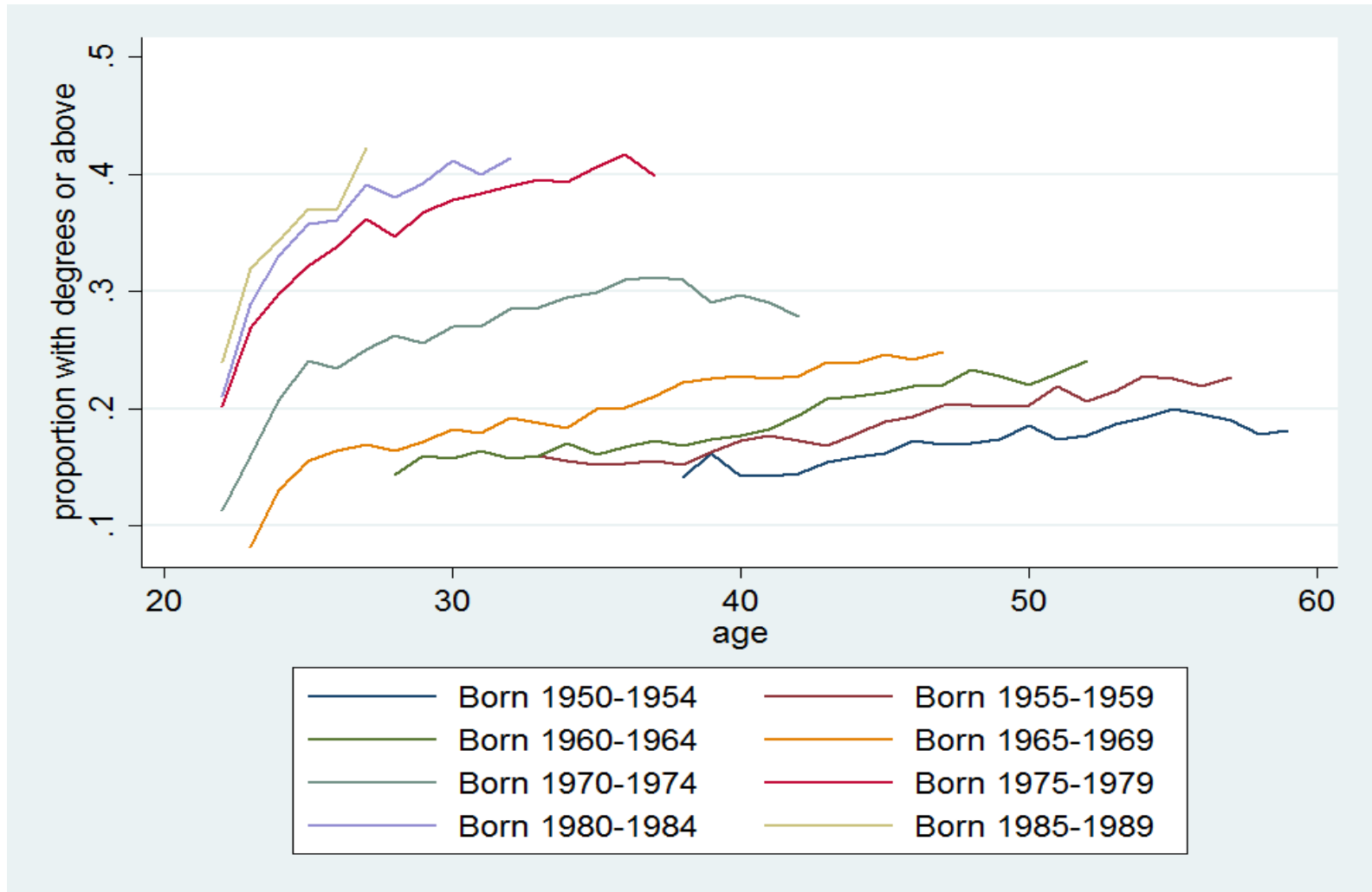


# Falls even greater after allowing for composition changes in mean real hourly earnings



Source: Cribb and Joyce (IFS, 2015)

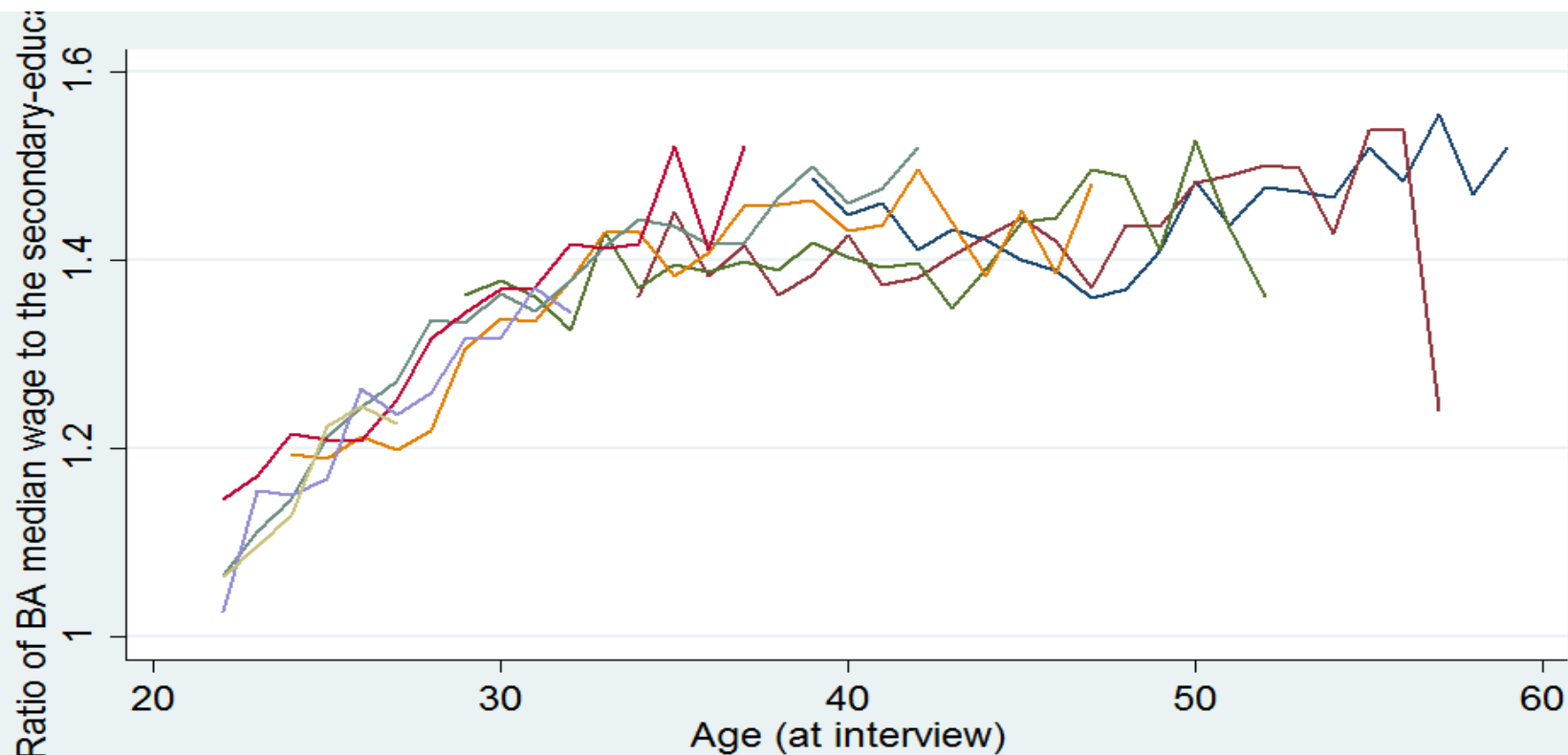
# Growth in proportion with degrees or above by age: all



Source: Blundell, Green and Jin (2014)



# Ratio of BA (equiv.) median wage to that of A-level (equiv.)



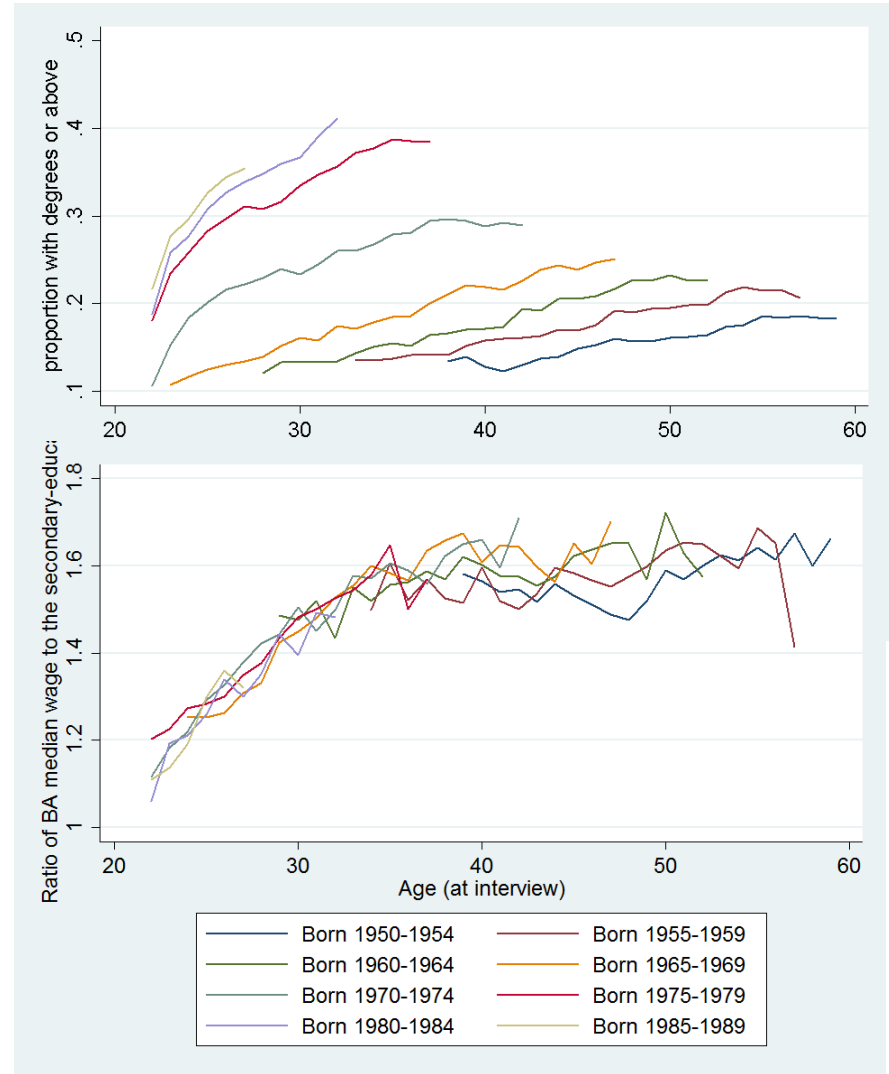
— Born 1950-1954      — Born 1955-1959  
— Born 1960-1964      — Born 1965-1969  
— Born 1970-1974      — Born 1975-1979  
— Born 1980-1984      — Born 1985-1989

Remarkably... no cohort effects!

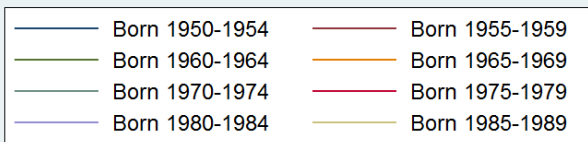
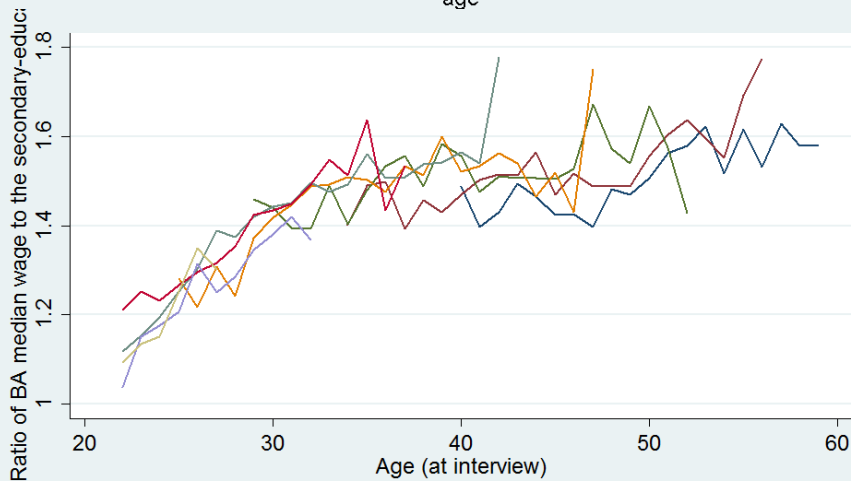
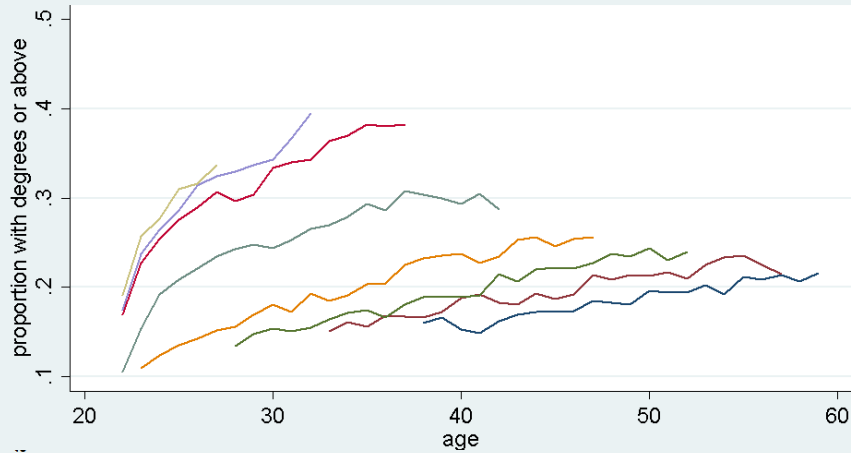
BA premium stayed largely constant, even through the recession.

# Excluding immigrants

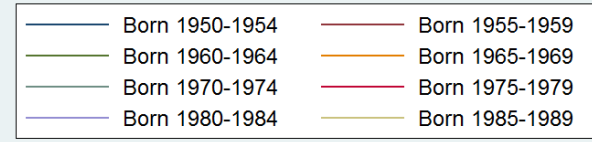
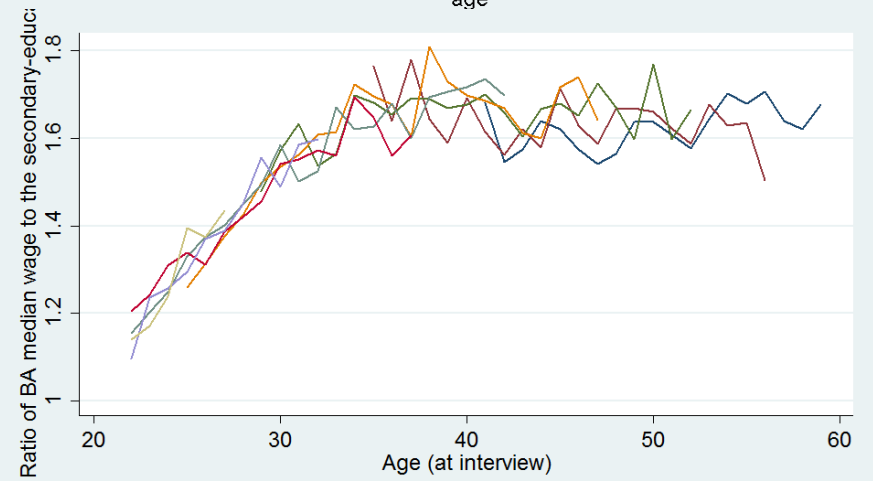
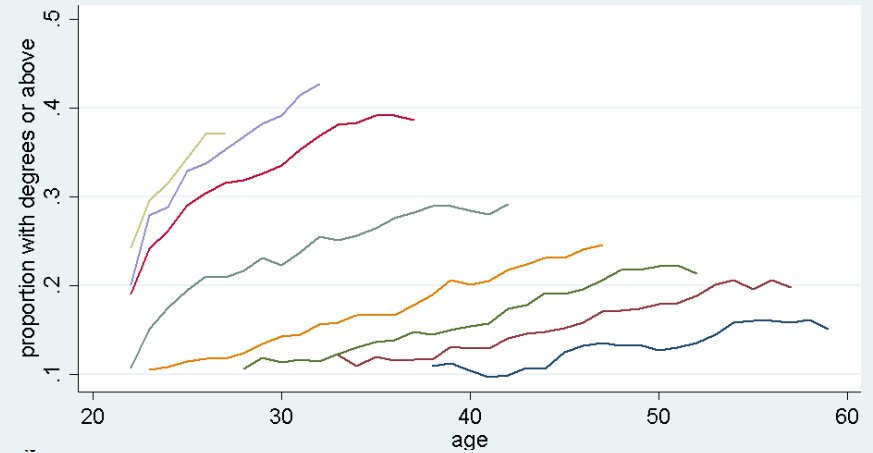
# Including immigrants



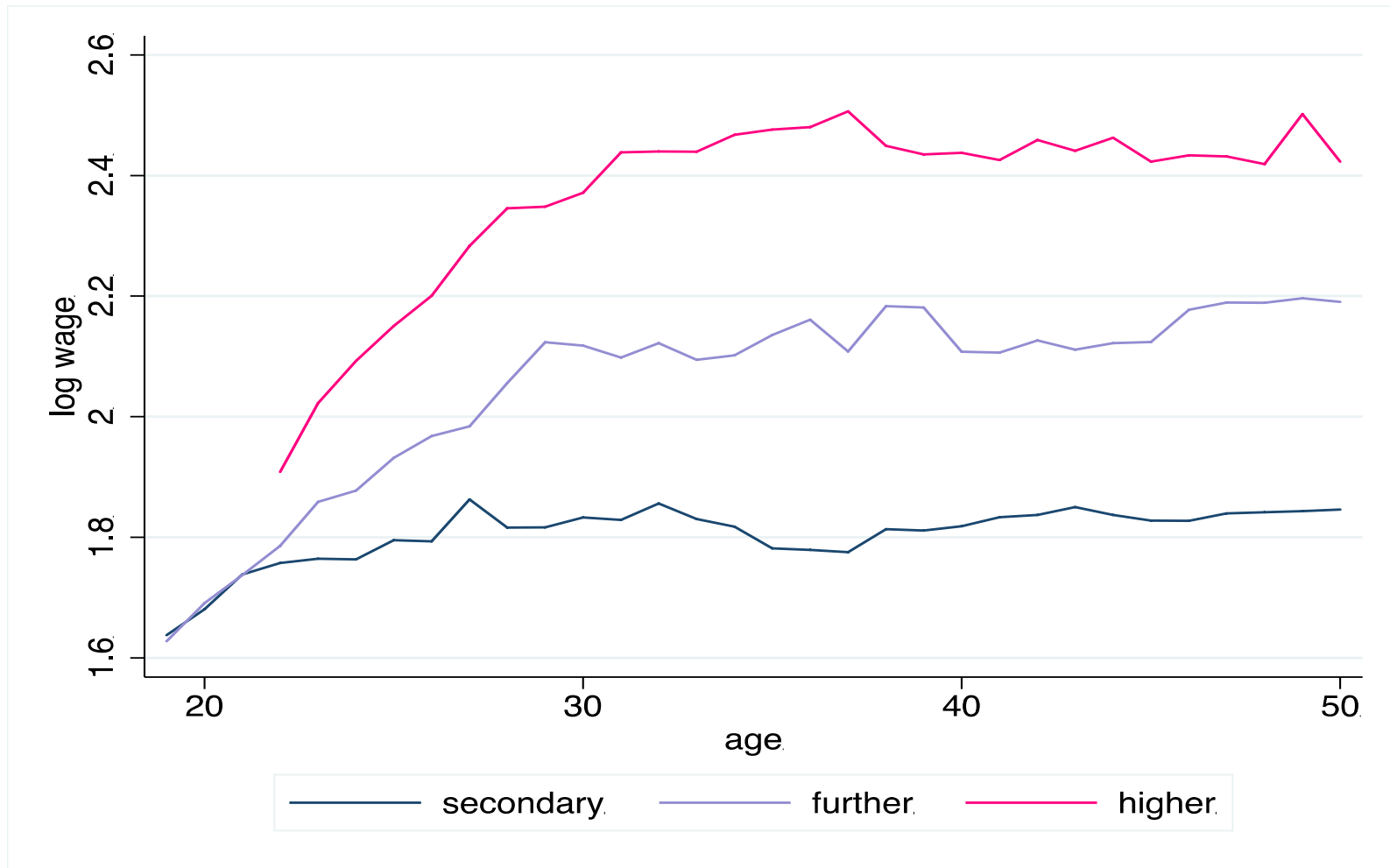
# Male



# Female



# 'Experience' wage profiles show strong complementarity between schooling and on the job human capital - UK Women

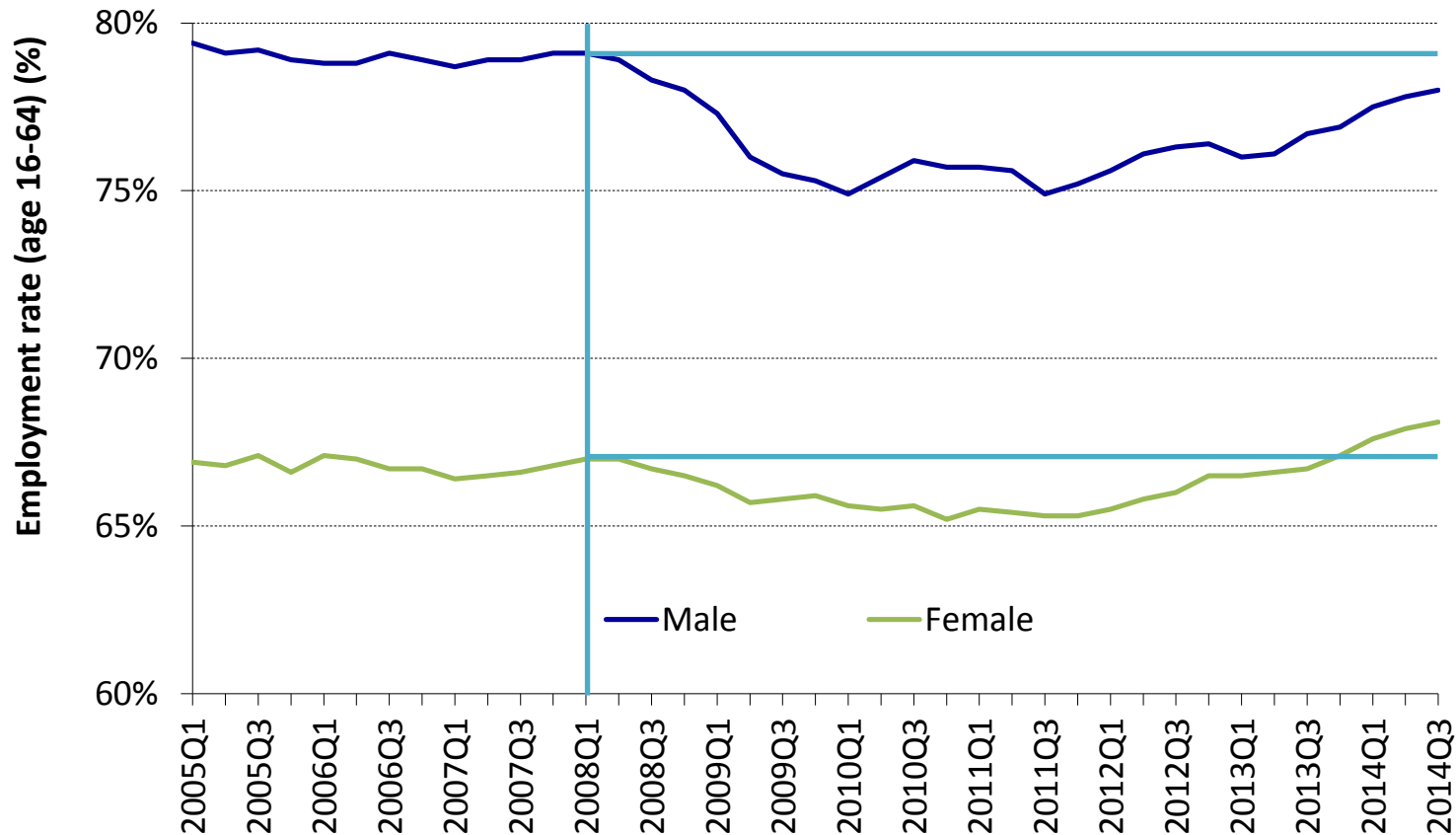


Source: Blundell, Dias, Meghir and Shaw (2014)

# Employment and labour market participation

- Labour market participation held up better during this past recession than previous ones. For example:
  - Employment rates fell less (and unemployment rates increased less)

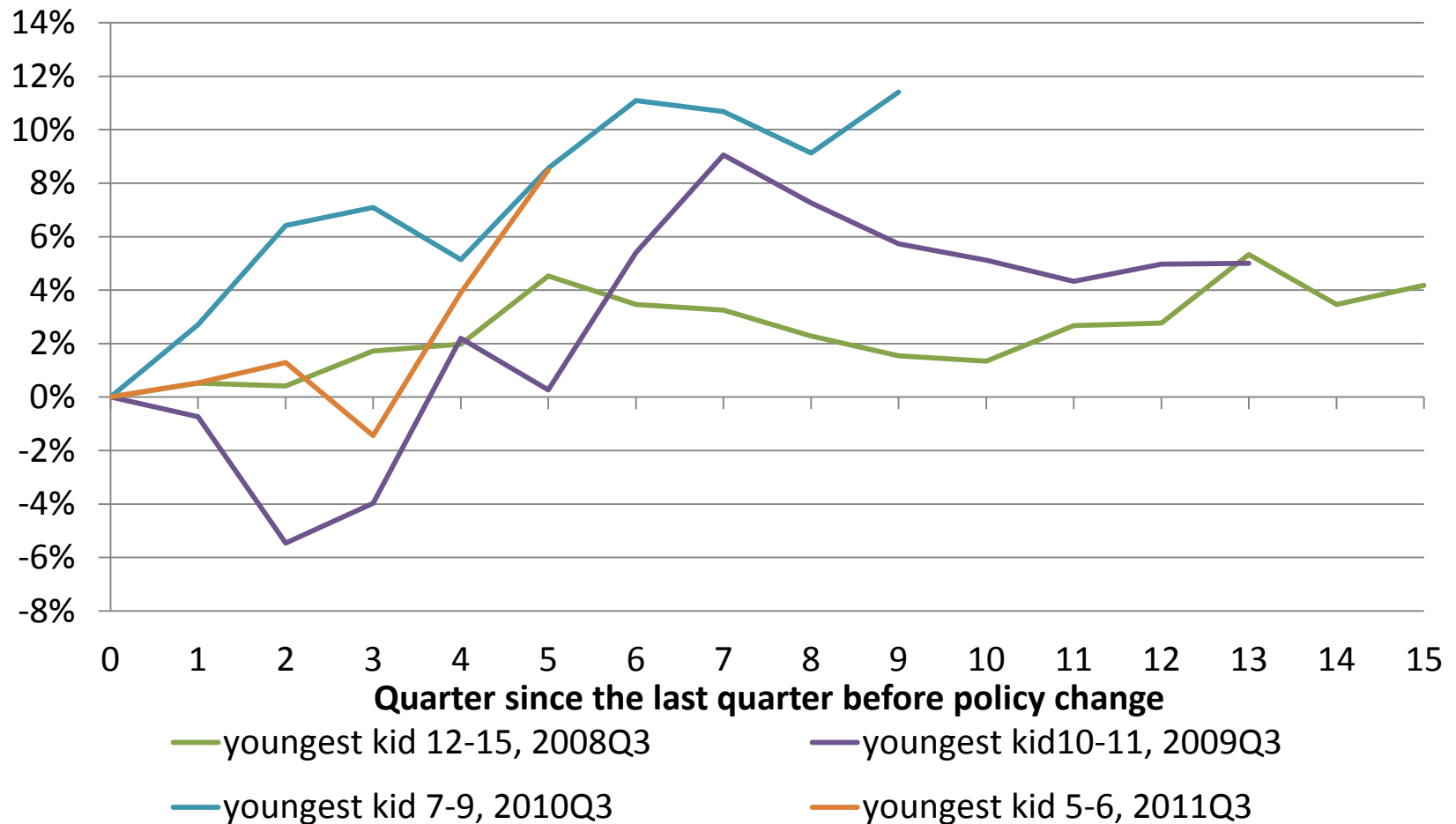
# Female employment stronger than male employment since the recession



# Employment and labour market participation

- Some increase of participation can be attributed policy changes, e.g. :
  - Labour supply has increased among lone parents as a result of job search conditions attached to benefit claims
  - Older workers are retiring later as a result of increased SPA for women

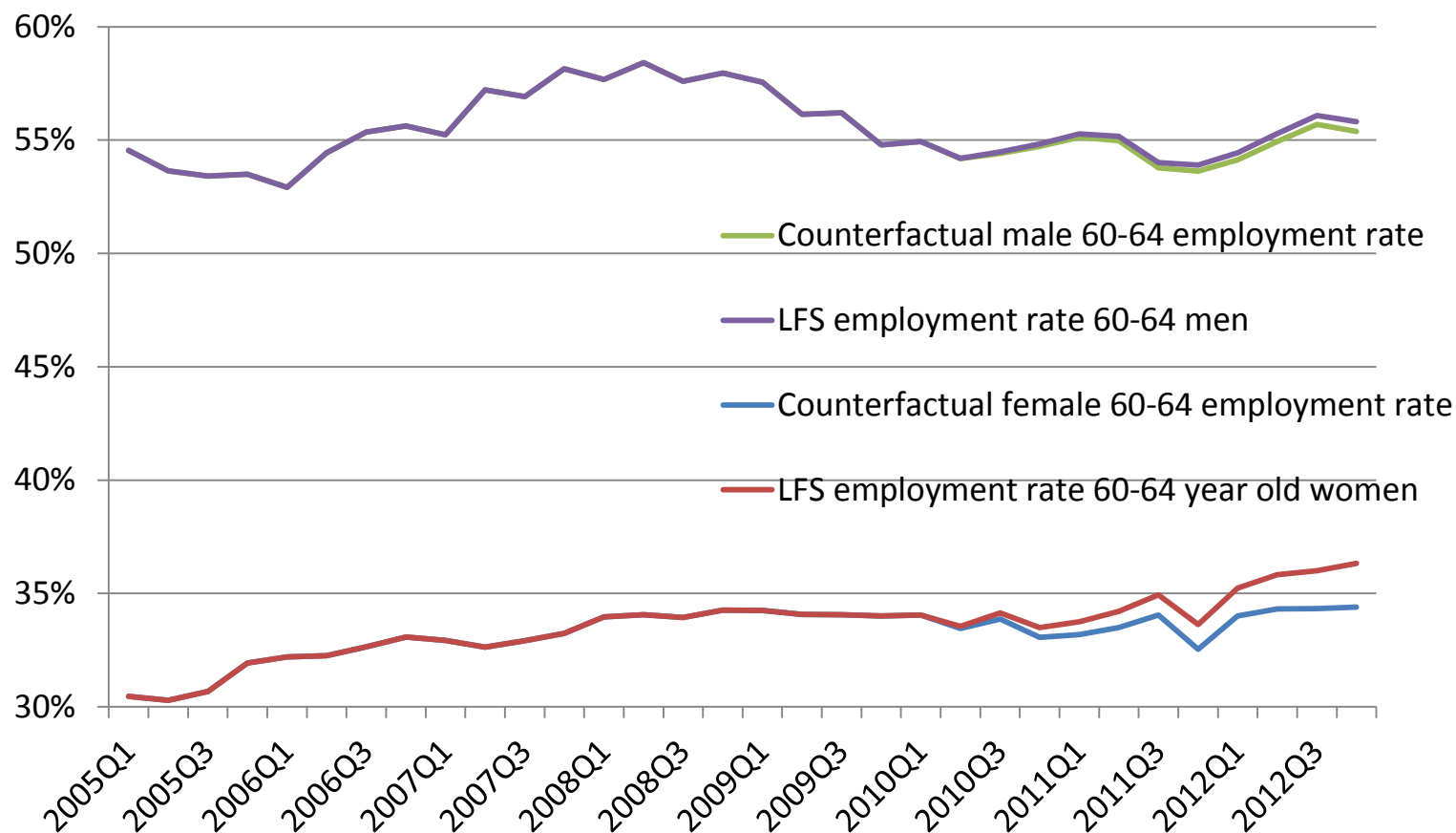
# Change to lone mothers' participation rate since policy change



Source: Blundell, Green and Jin (2014)

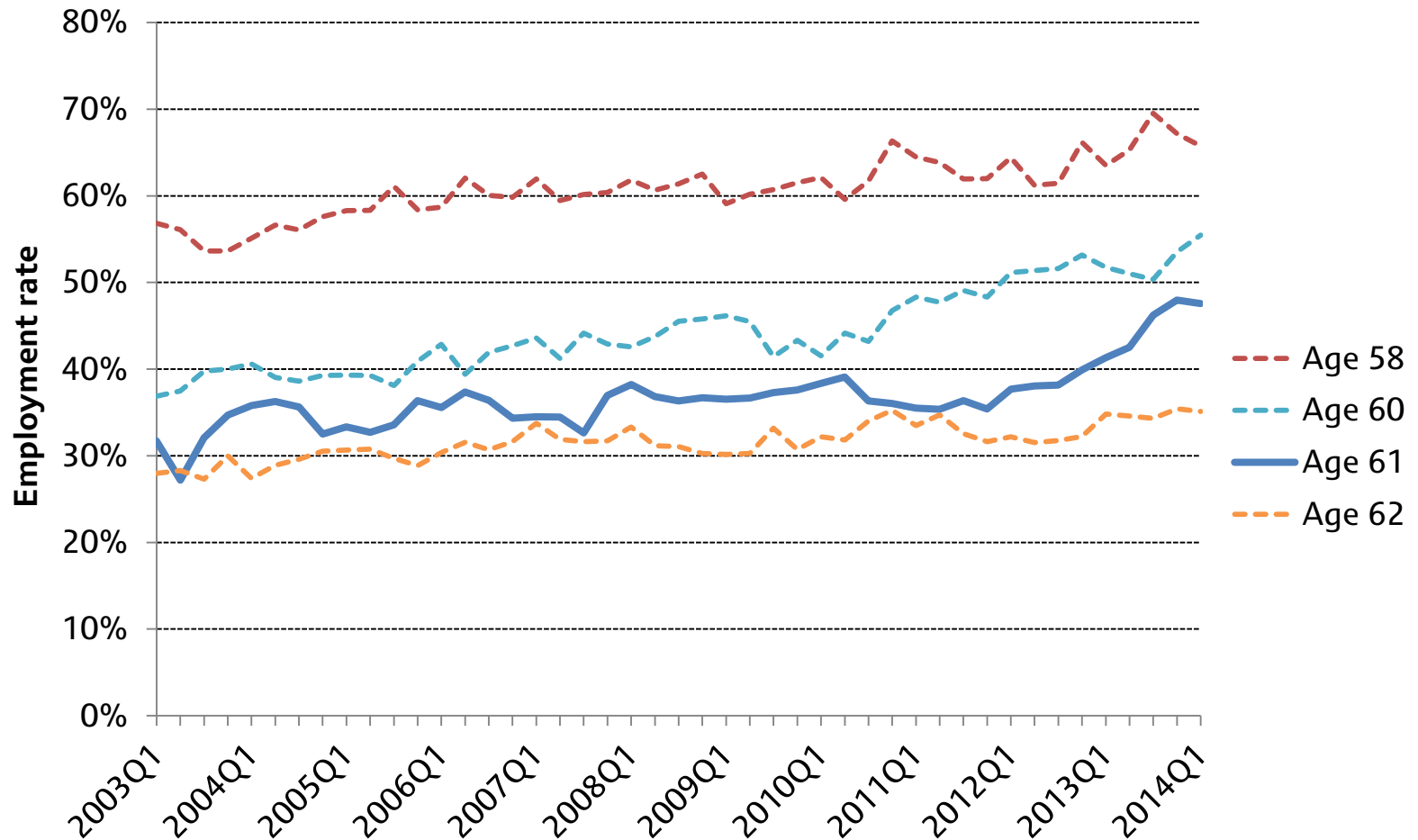


# Impact of SPA increase for women on employment



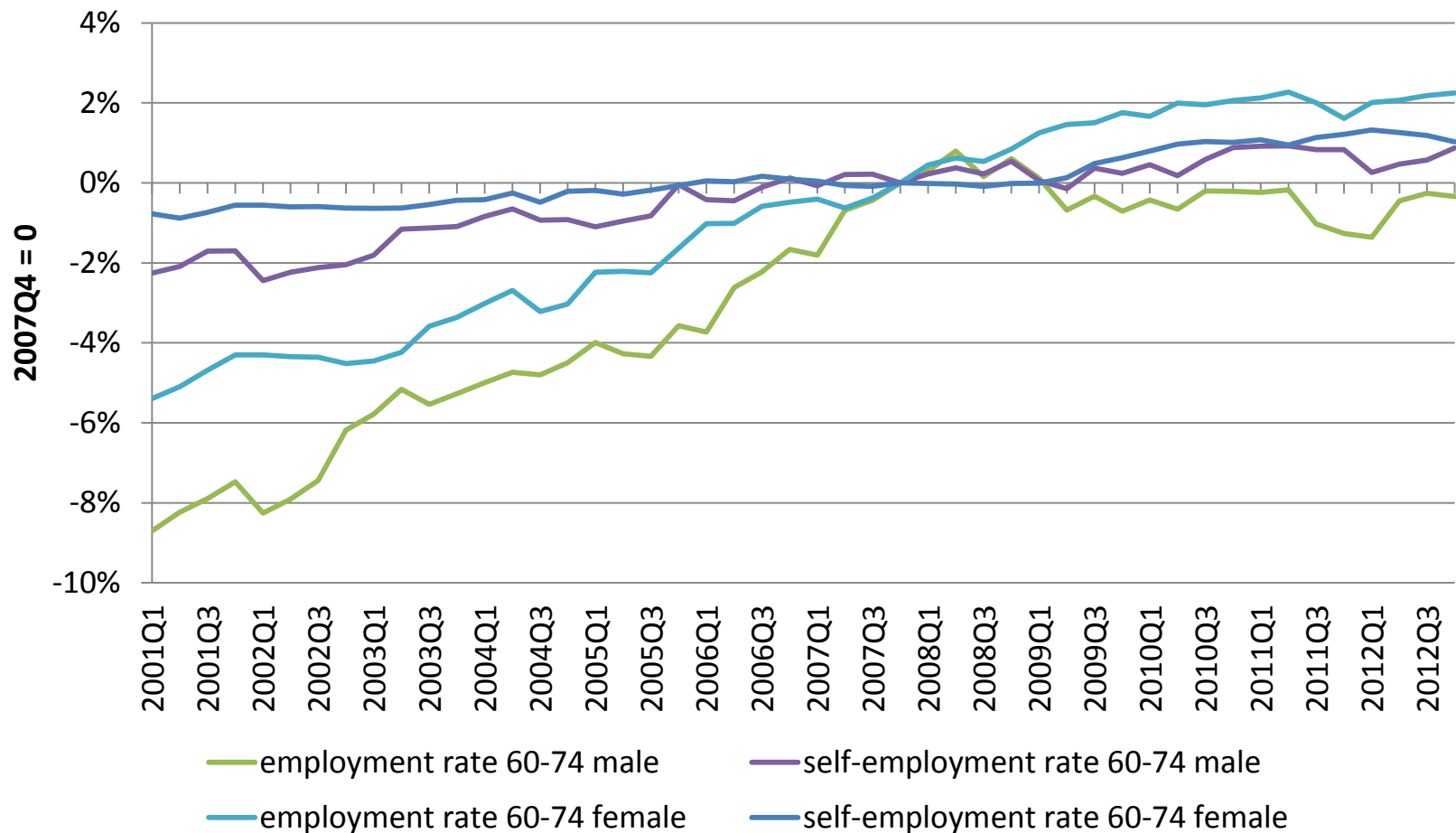
Note: counterfactual employment rates are estimated. See Cribb et al (IFS, 2013) "Incentives, shocks or signals: labour supply effects of increasing the female state pension age in the UK"

# Focus on employment rates of older women, 2003 to 2014

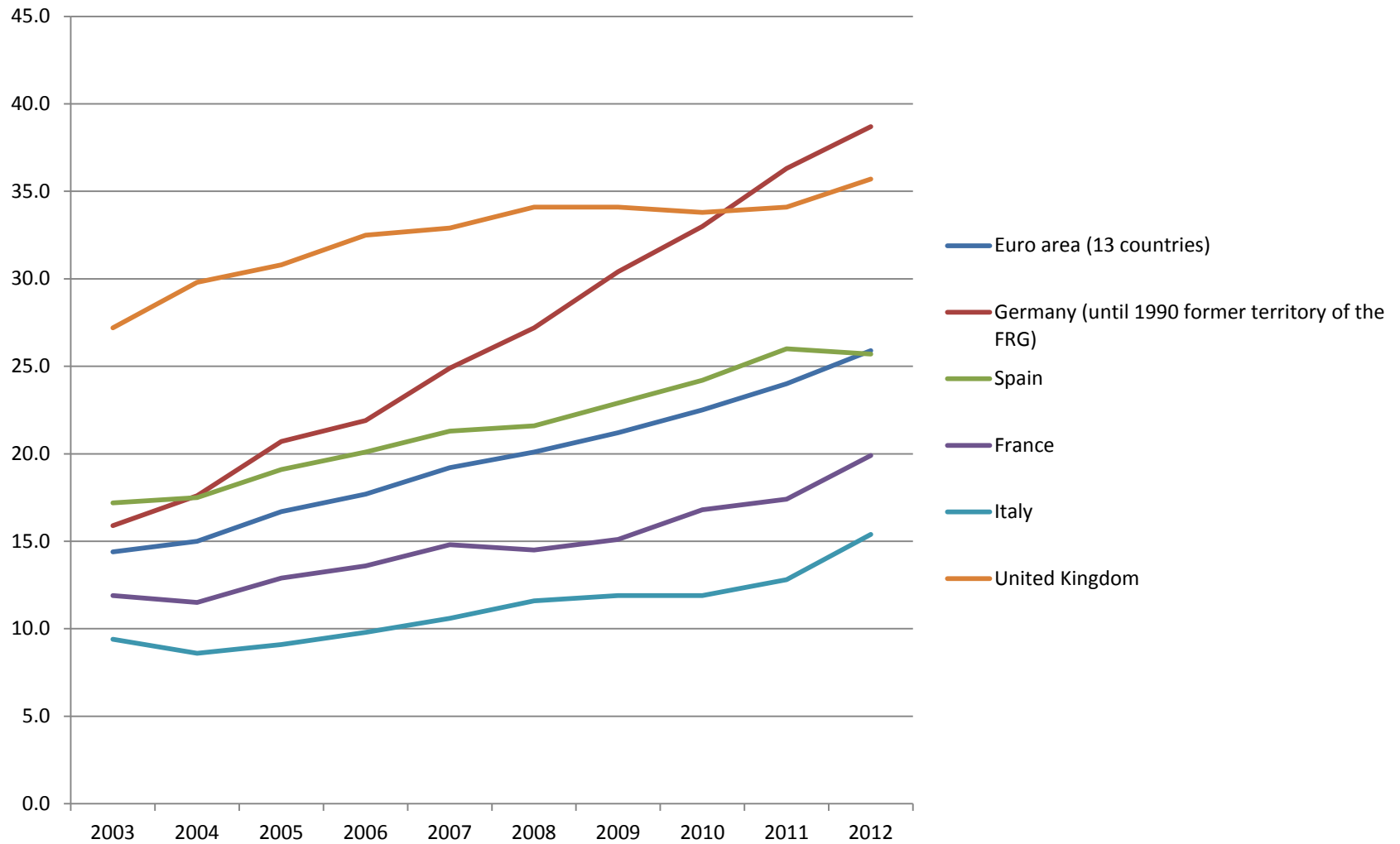


Source: Fig 1 of Cribb, Emmerson and Tetlow (2014) "Labour supply effects of increasing the female state pension age in the UK from age 60 to 62" IFS Working Paper WP 14/19

# Employment and self-employment rate of older people (wealth and wage effects?)

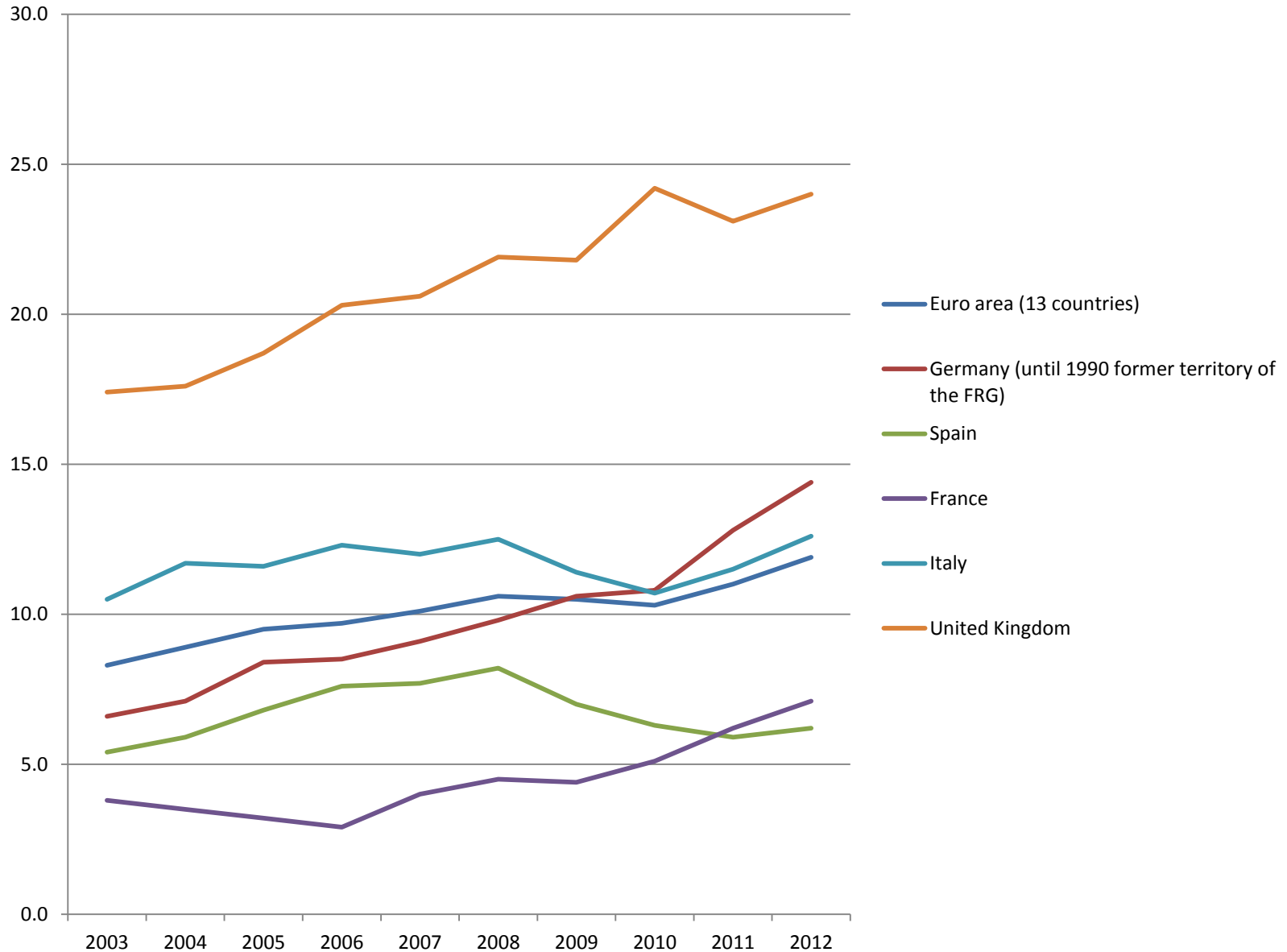


# Employment rate for older workers: women aged 60-64



Source: Blundell, Green and Jin (2014)

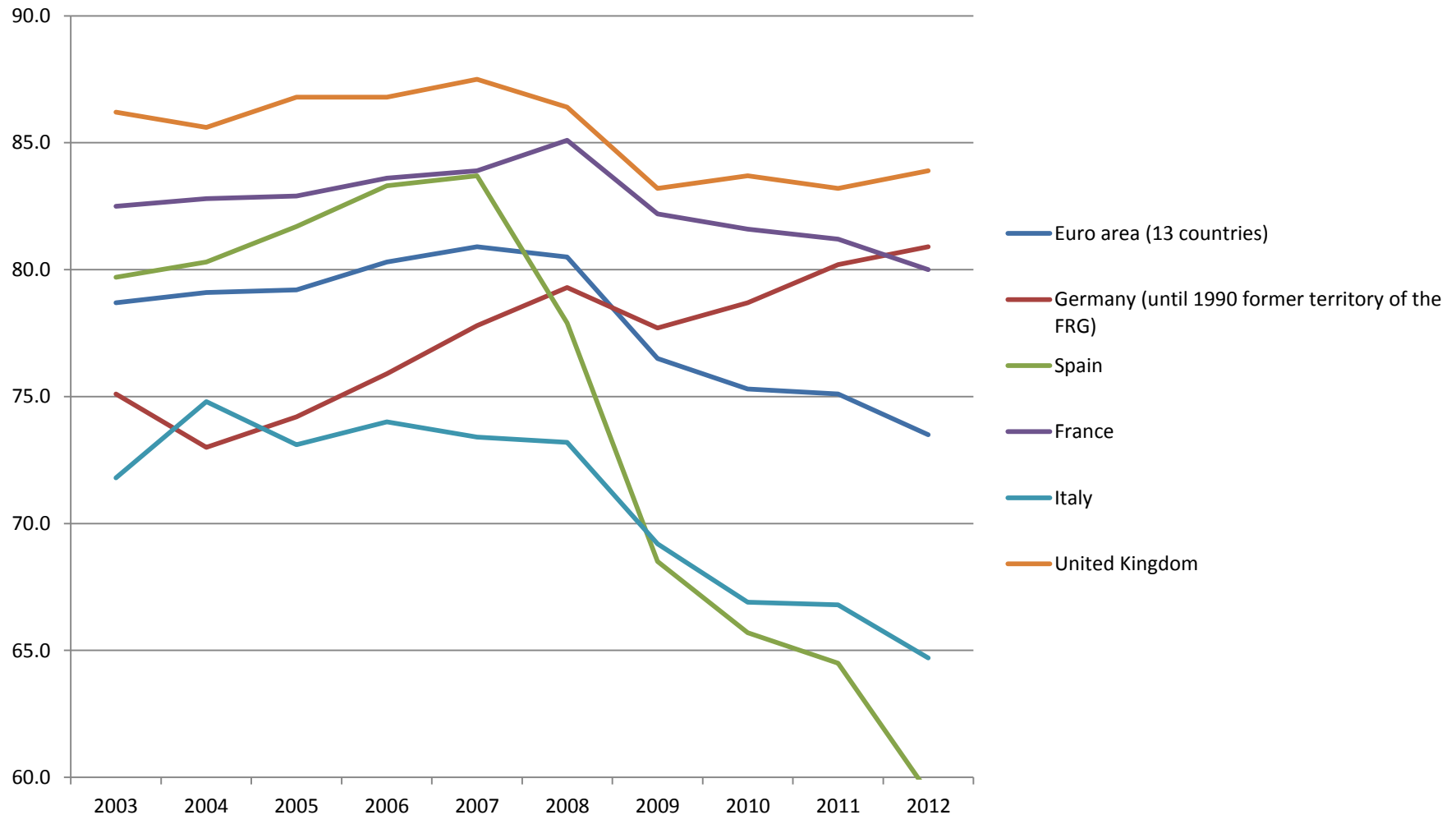
# Employment rate for older workers: men aged 65-69



Source: Blundell, Green and Jin (2014)

# For the young employment fell back....

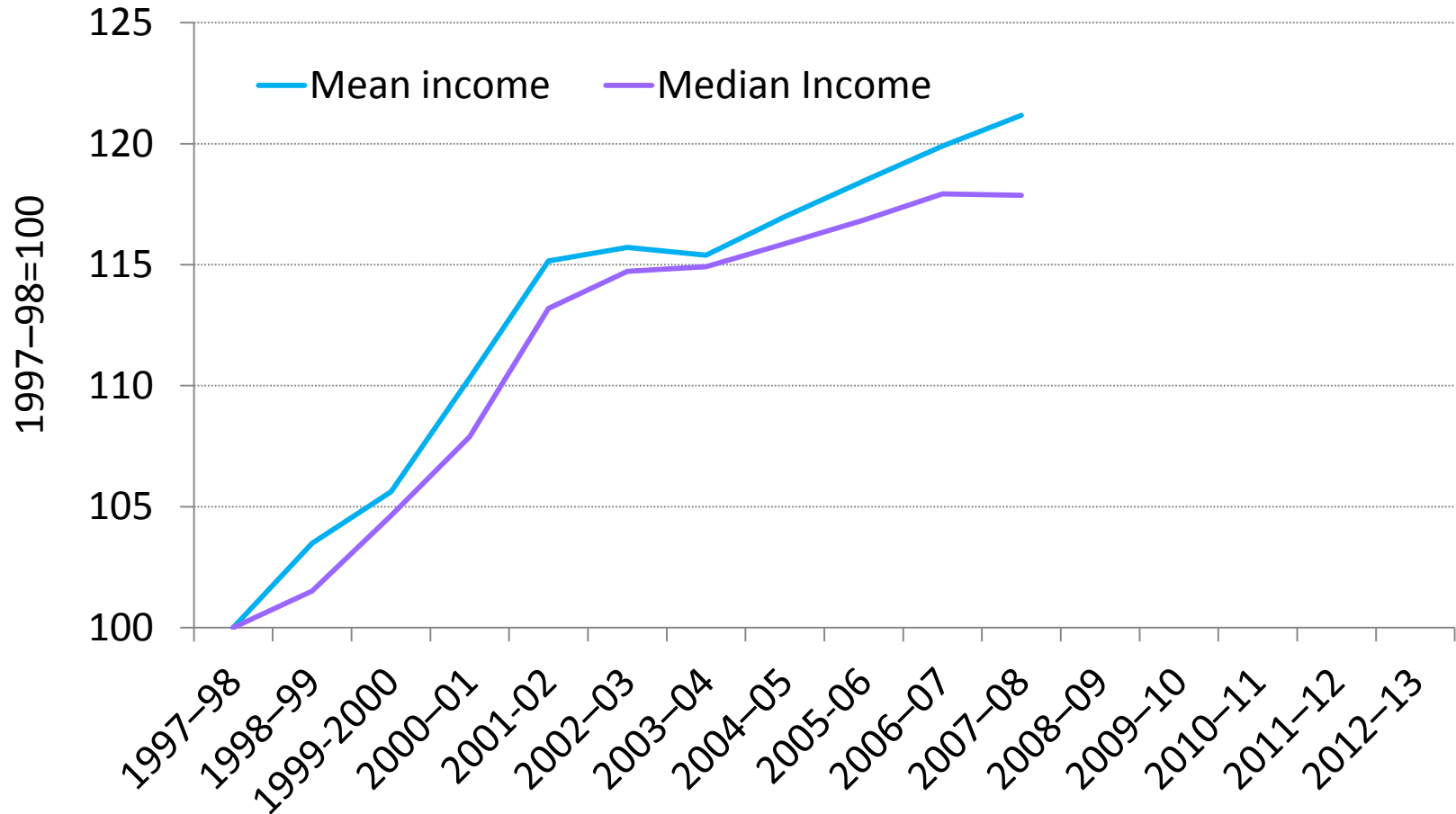
## Employment rate: men aged 25-29



## B. Income Growth and Income Inequality: setting the scene

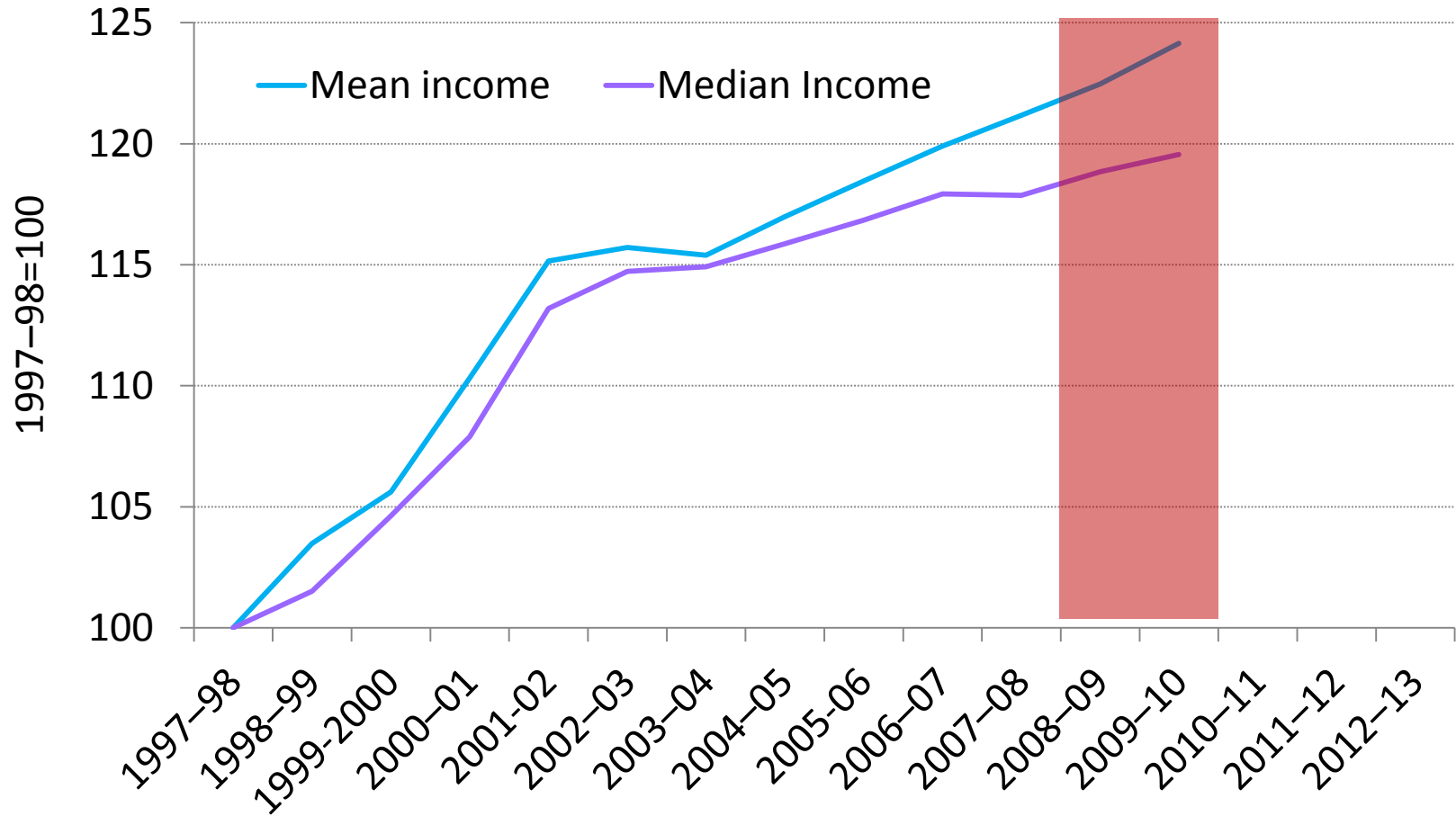
- Leading up the recession:
  - income growth had slowed in early 2000s.
  - pensioners/ working-age childless were doing relatively well/badly
- During recession and immediately afterwards:
  - real earnings for those in work fell
  - employment rates fell for low skilled young adults but not for older ones
  - benefits/tax credit incomes were working harder
- As a result
  - income inequality fell (despite rise in earnings inequality among workers)
  - low educated young adults did worst; pensioners did best
- Average incomes have now stabilised
  - but significant falls in previous years leave mean income 8.5% below peak
  - reflects sharp drop in real earnings, large falls in pre-tax earned income of households between, despite higher employment

# Income growth slowed from the early 2000s...

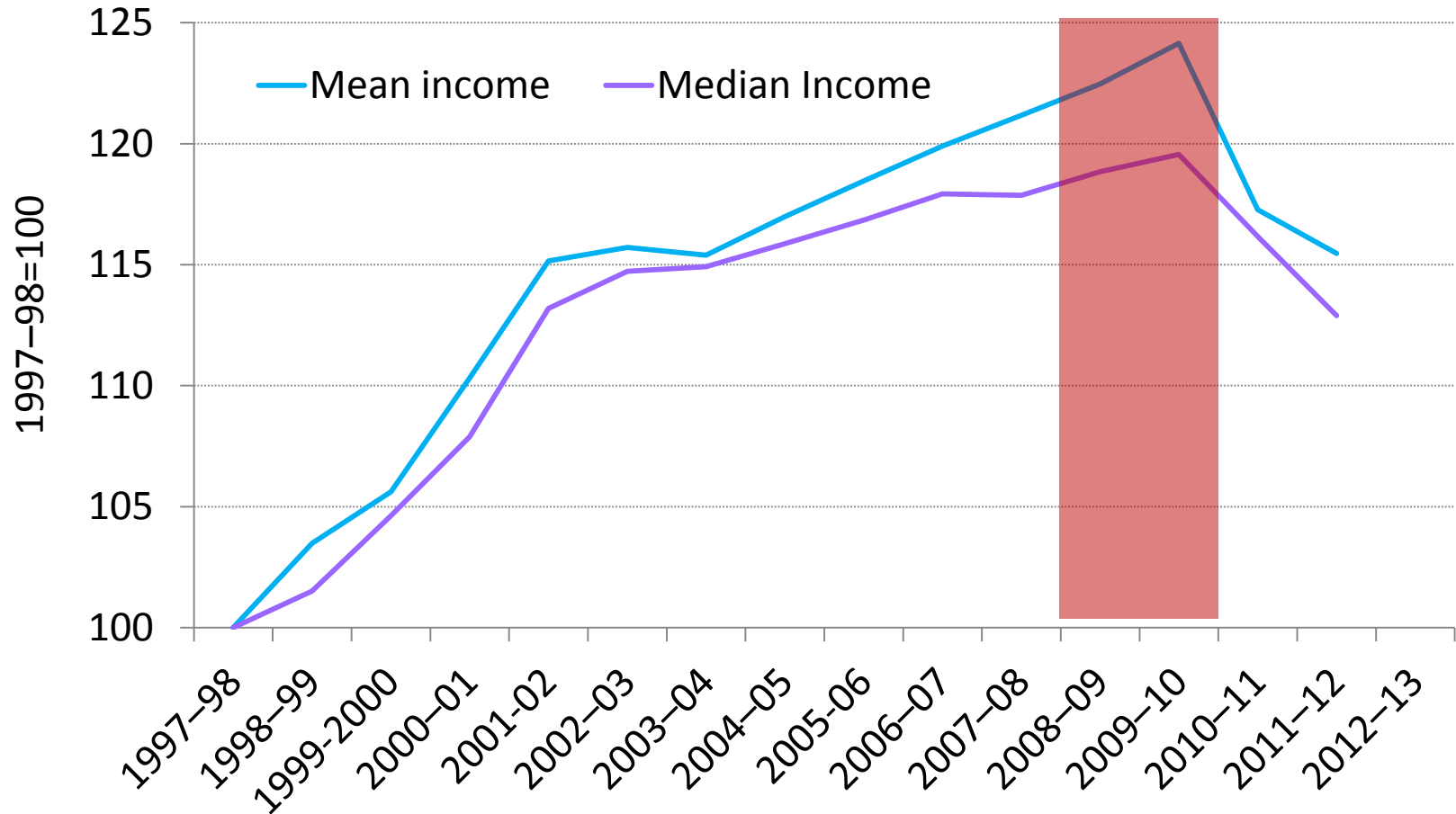




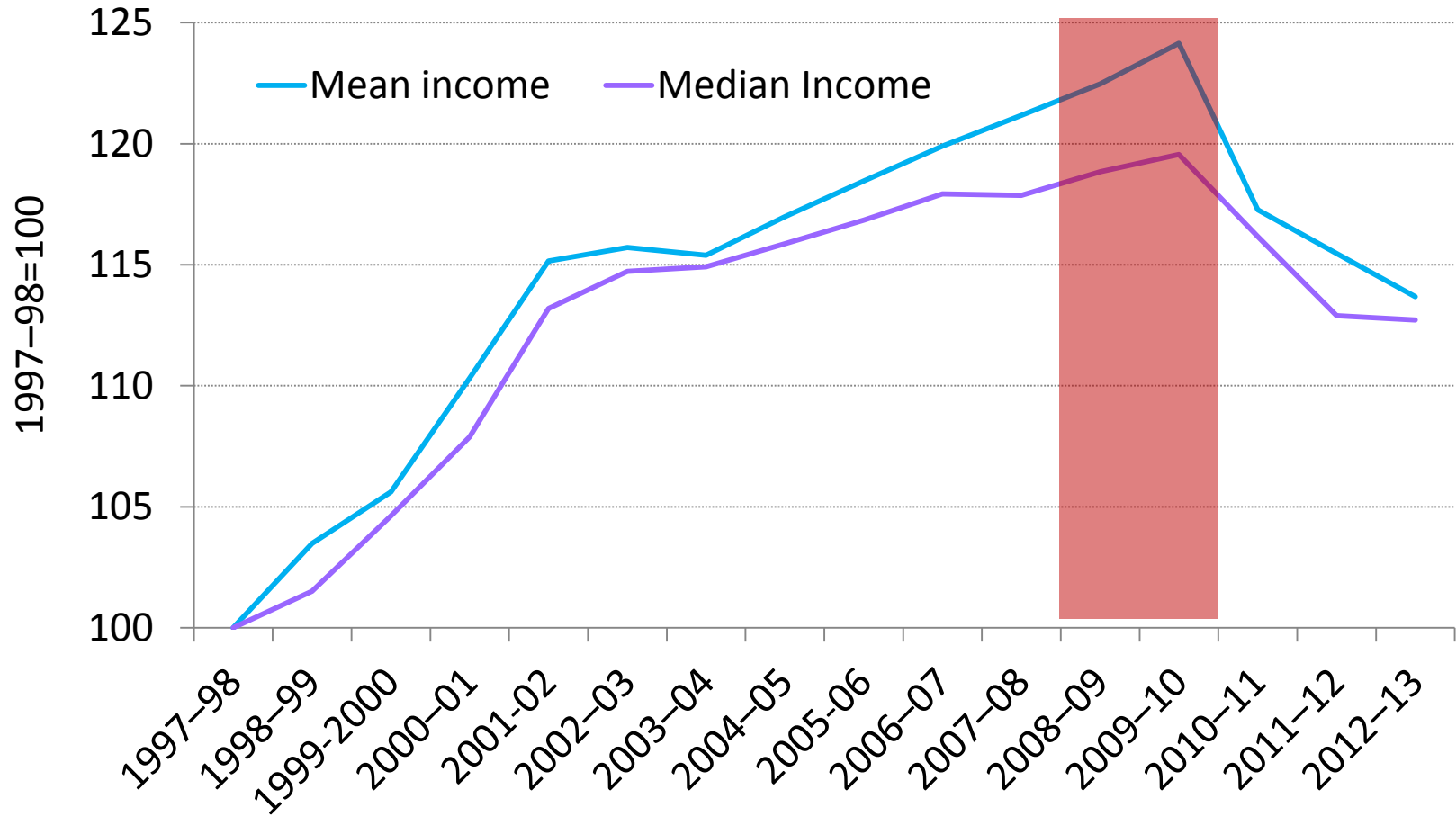
# Income growth slowed from the early 2000s...



... followed by large falls in 2010–11 and 2011–12...



## ... before average incomes began to stabilise



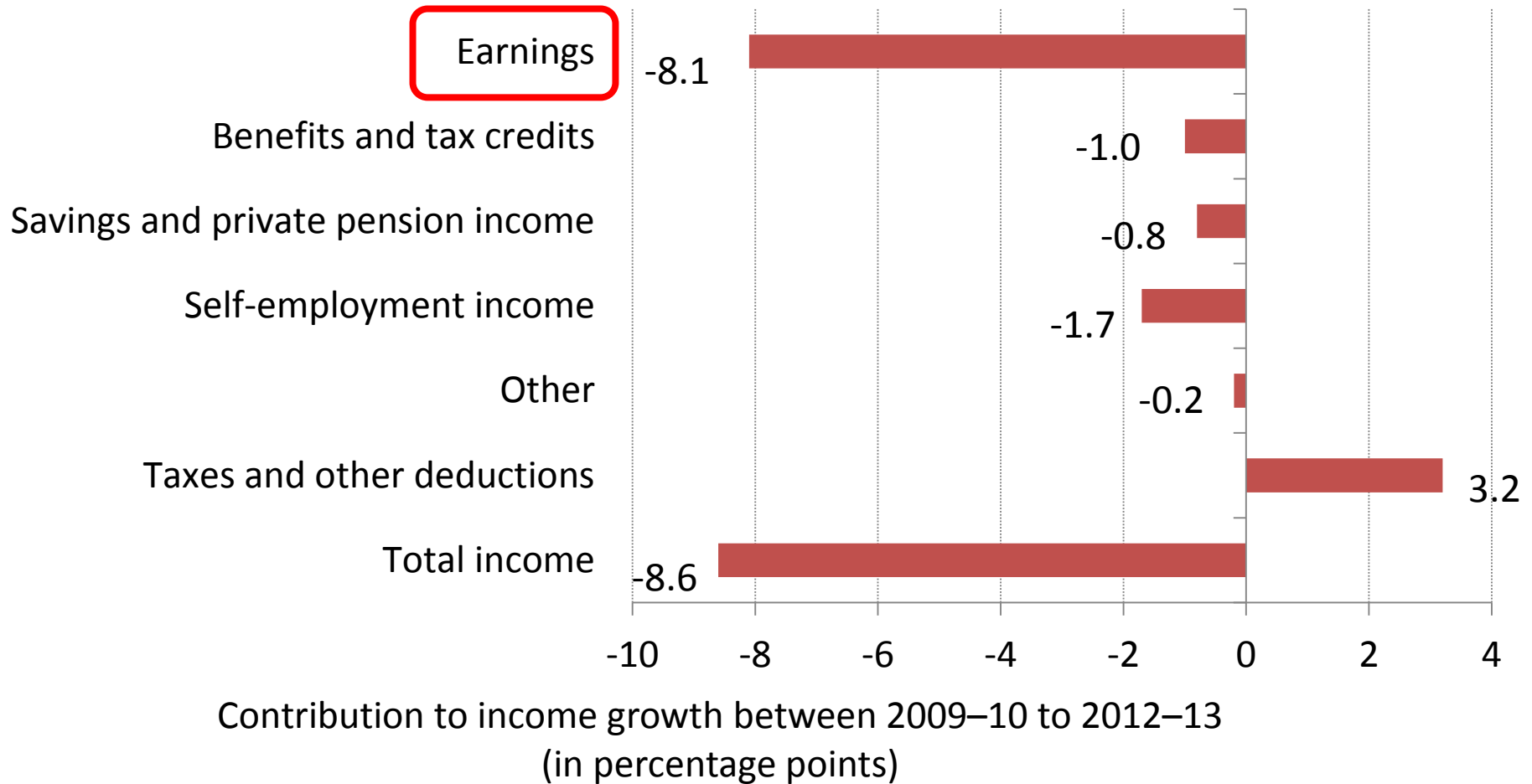
# Income sources, 2007–08 to 2009–10: steady income growth due to benefits/tax credits



Source: Table 2.3 of *Living Standards, Poverty and Inequality: 2014*

Notes: This is a very slightly different sample to the overall income statistics. Households with negative incomes are dropped. This makes a small difference to falls in income

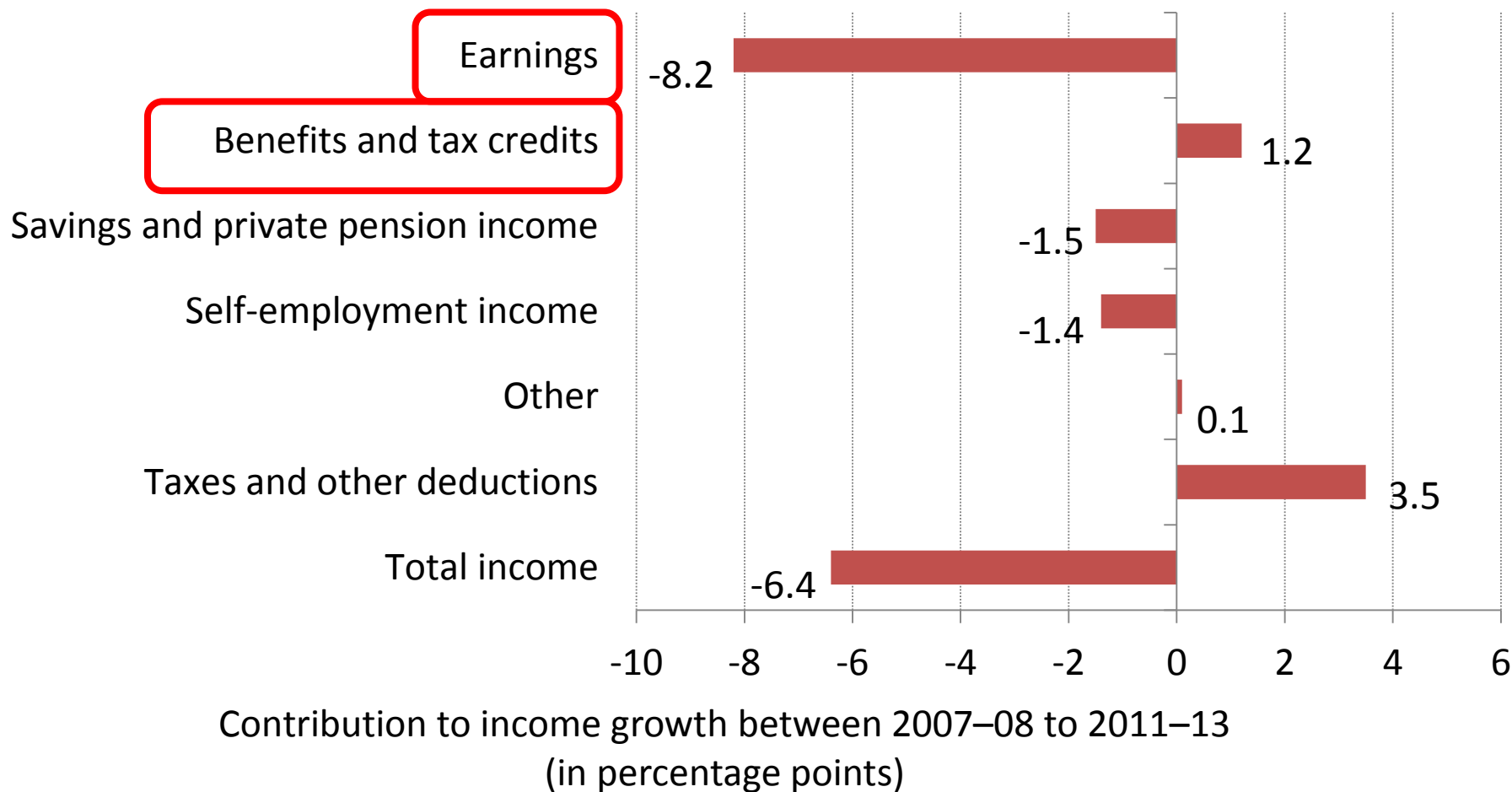
# Income sources, 2009–10 to 2012–13: large income falls due to falling earnings



Source: Table 2.3 of *Living Standards, Poverty and Inequality: 2014*

Notes: This is a very slightly different sample to the overall income statistics. Households with negative incomes are dropped. This makes a small difference to falls in income

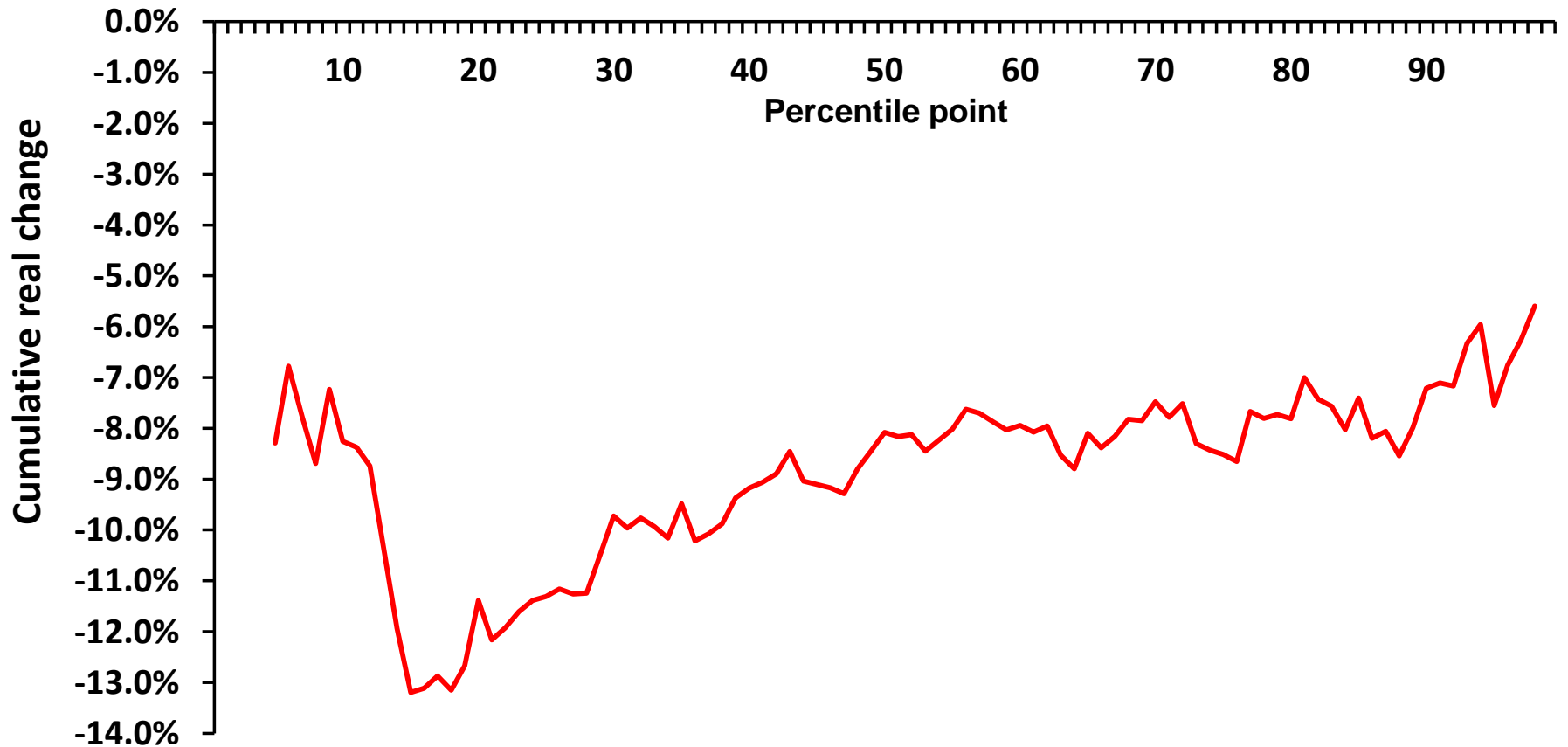
# Income sources: 2007–08 to 2012–13



Source: Table 2.3 of *Living Standards, Poverty and Inequality: 2014*

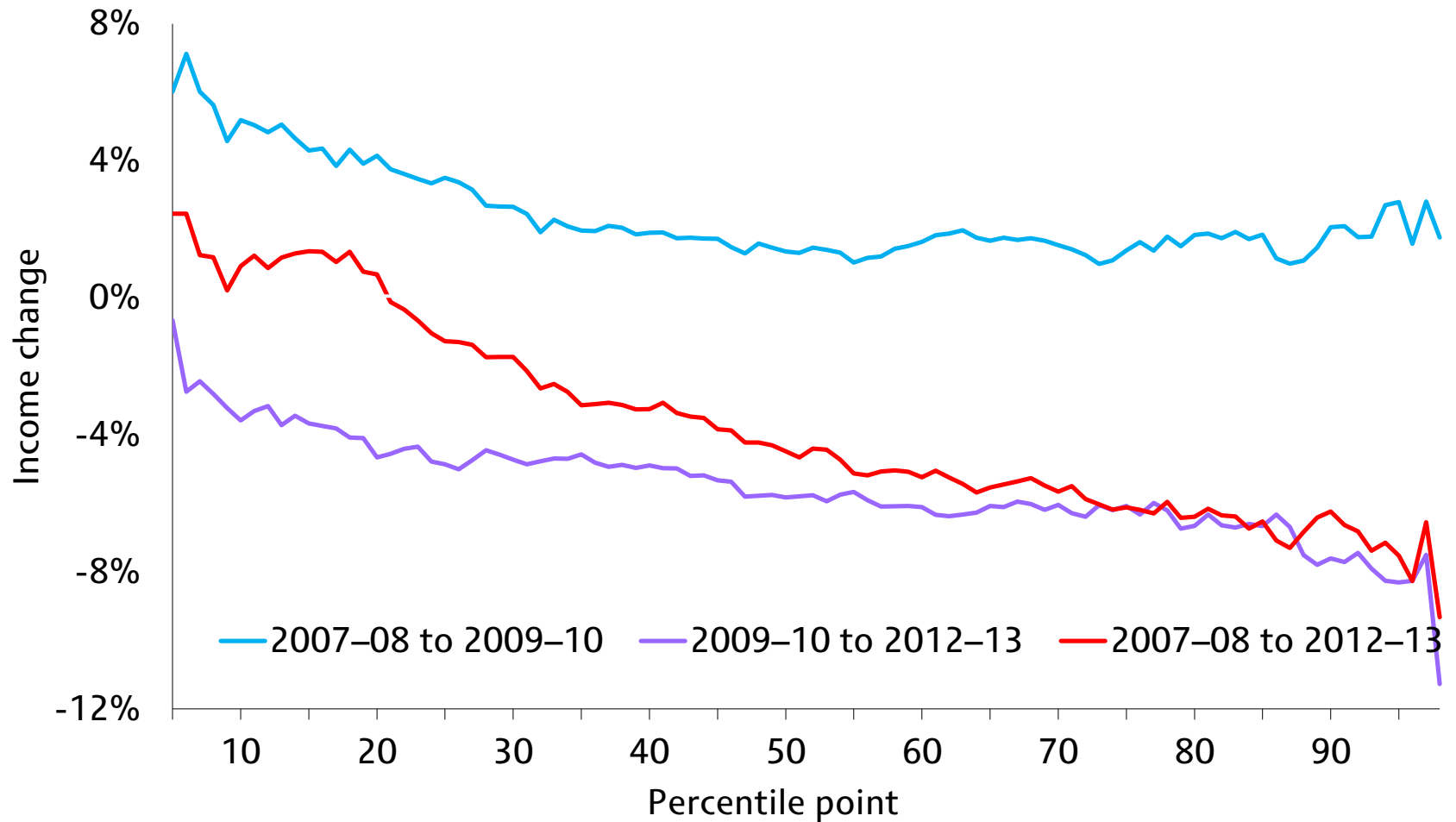
Notes: This is a very slightly different sample to the overall income statistics. Households with negative incomes are dropped. This makes a small difference to falls in income

# Weekly *earnings* inequality (among workers) rose between 2007-08 to 2012-13...



Note: Excludes self-employment income  
Source: Family Resources Survey, various years

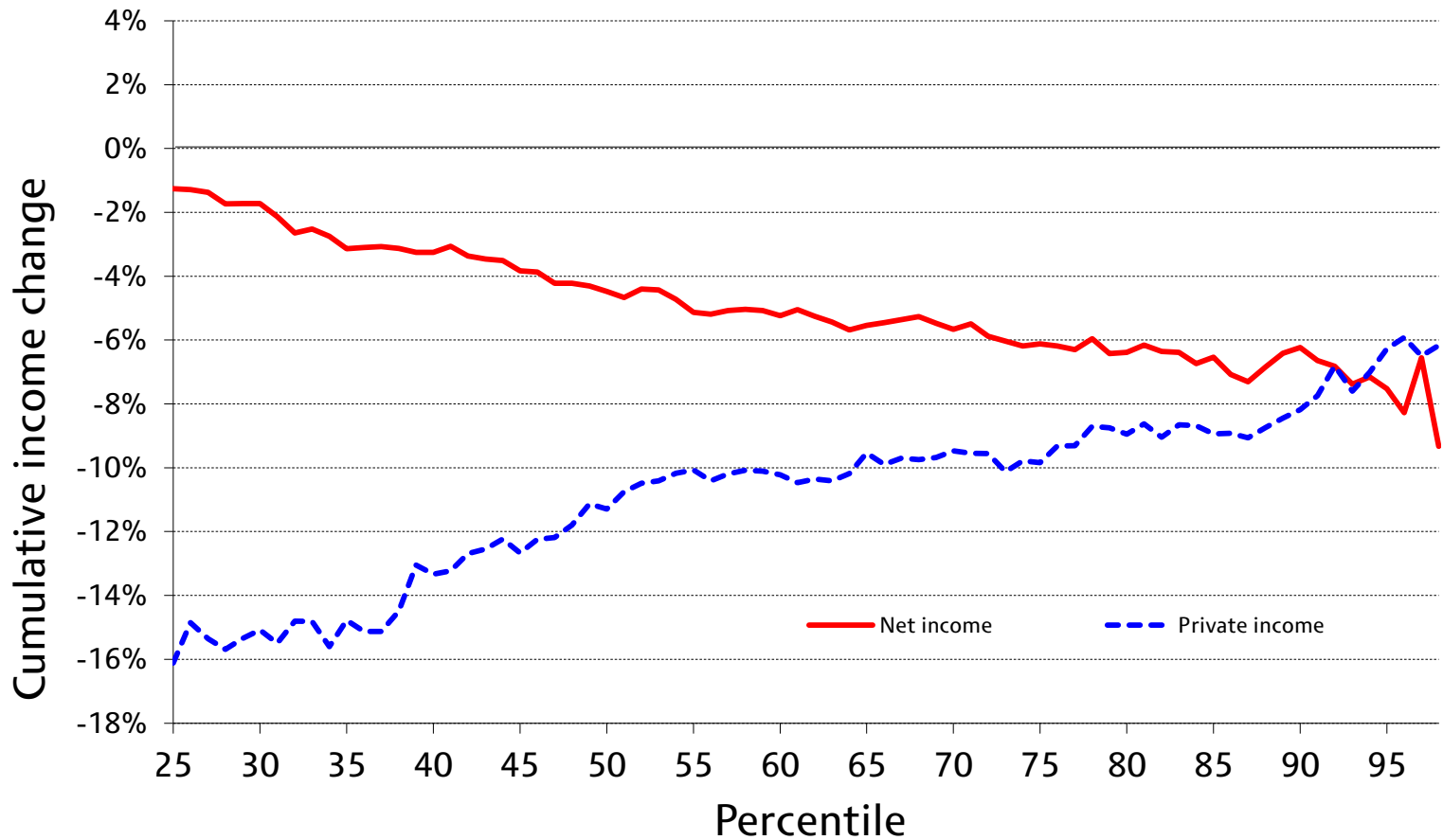
## ...but net result was still a fall in income inequality



Source: Family Resources Survey, various years

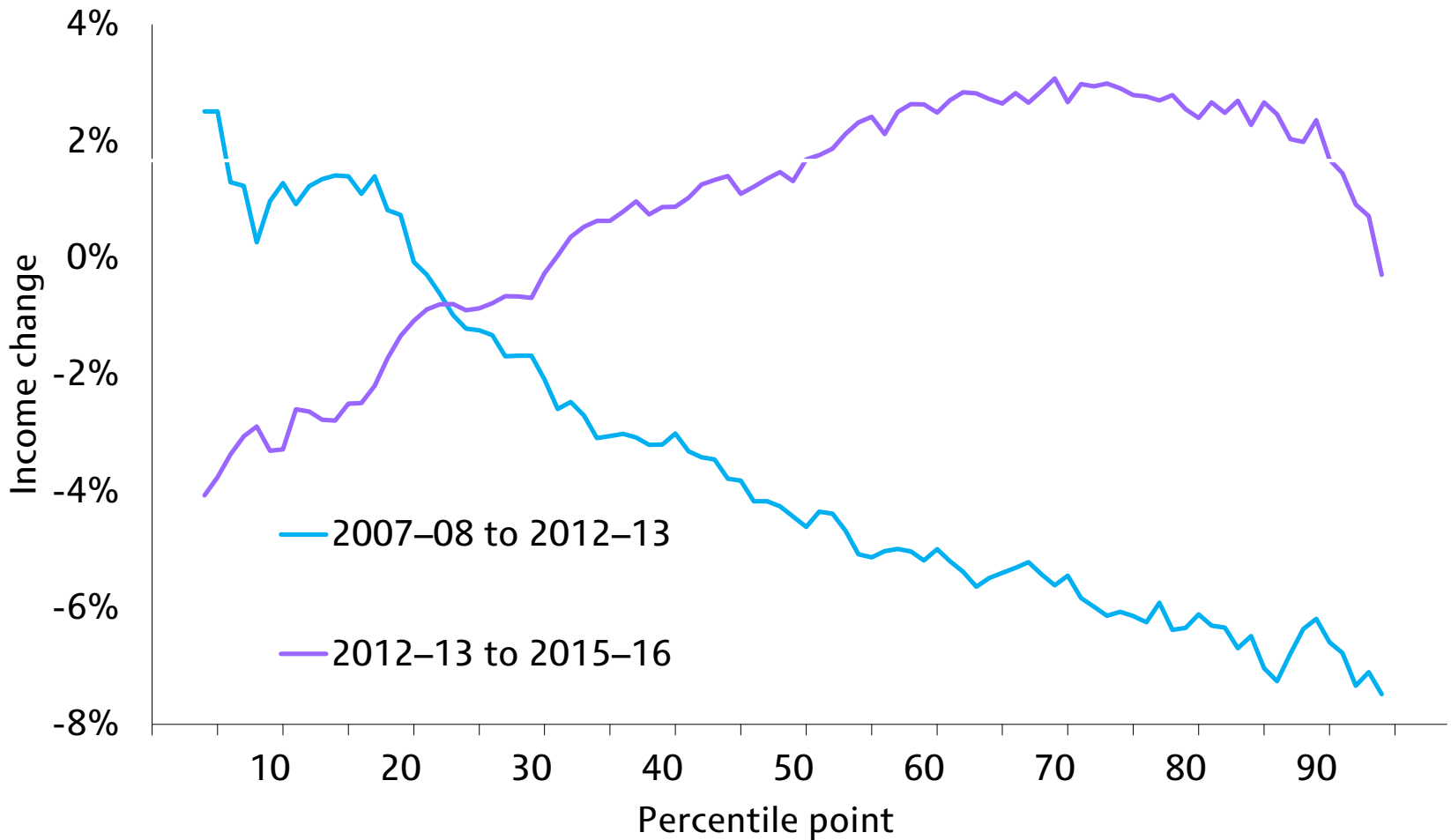


# Transfer system doing more work: Real private and net income growth, 2007–08 to 2012–13



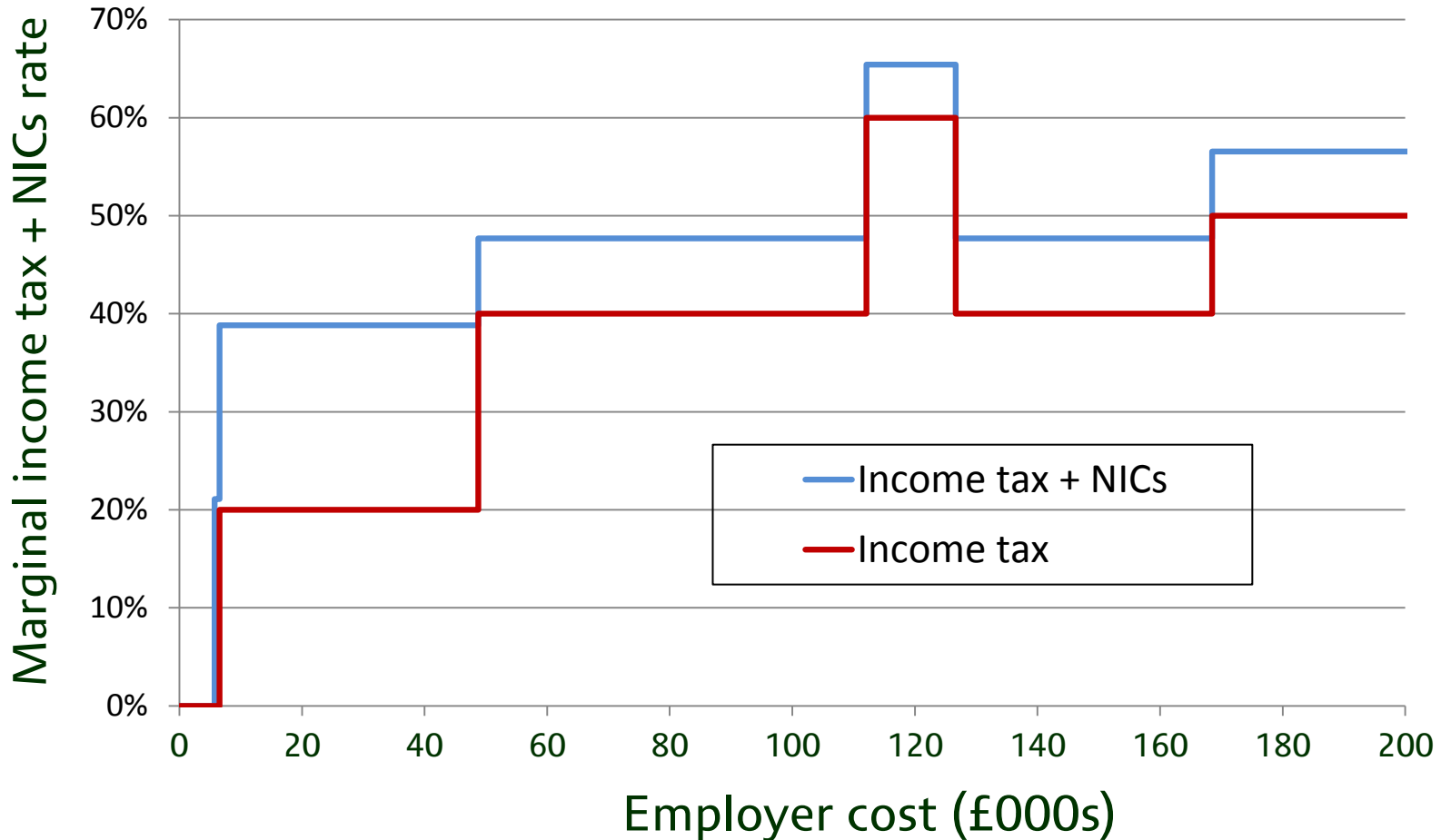
## Will it continue?

Future benefit and tax changes are important drivers in income distribution, **Simulations up to 2015–16:**



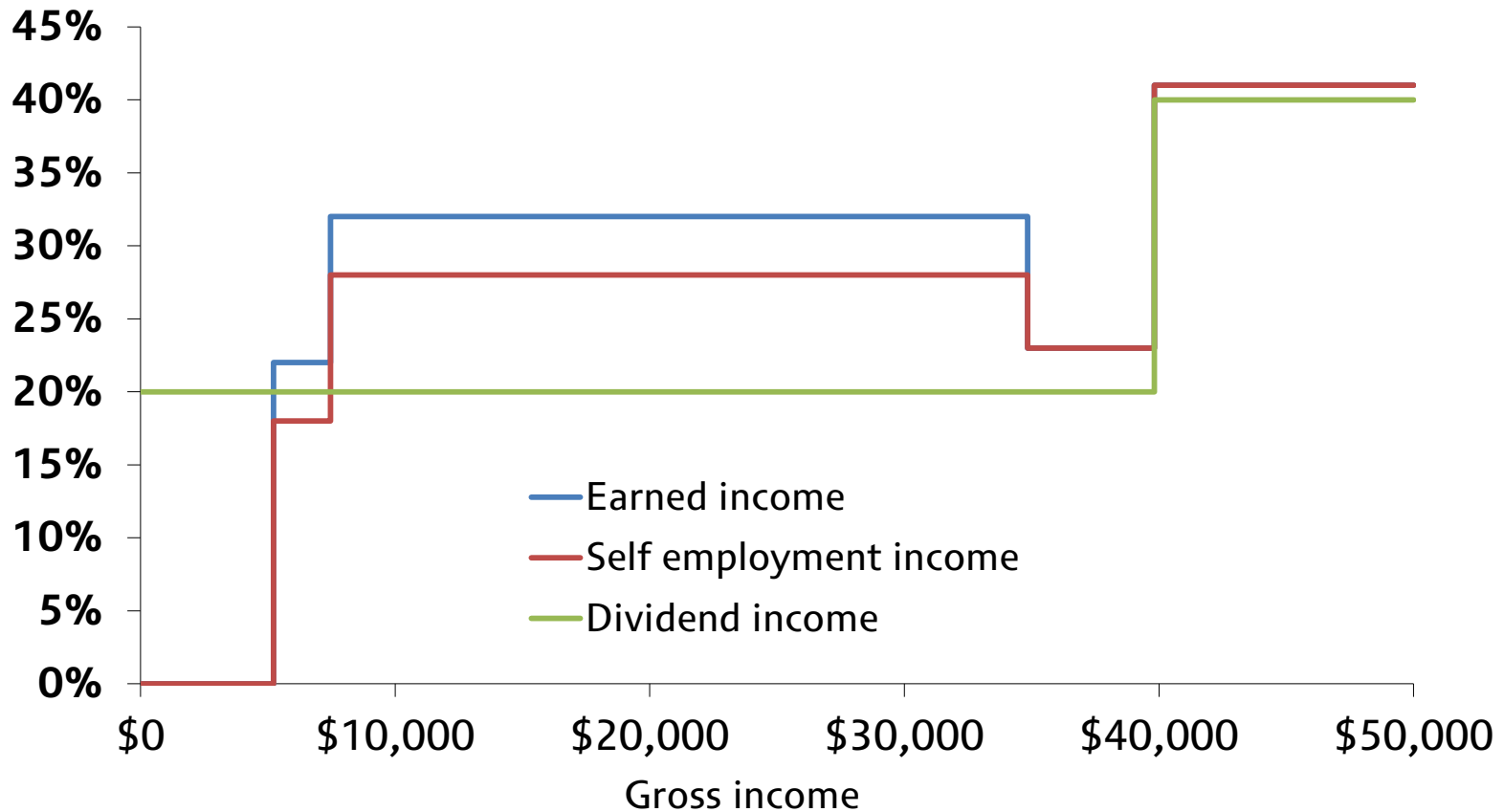
Note: Figure is an update of that in Brewer et. al. (2013), *Fiscal Studies*, Vol. 34, No. 2, pp. 179–201.

# Two aspects of the Tax System: 1. Effective taxes on Higher Incomes. Marginal tax rates by income level 2011



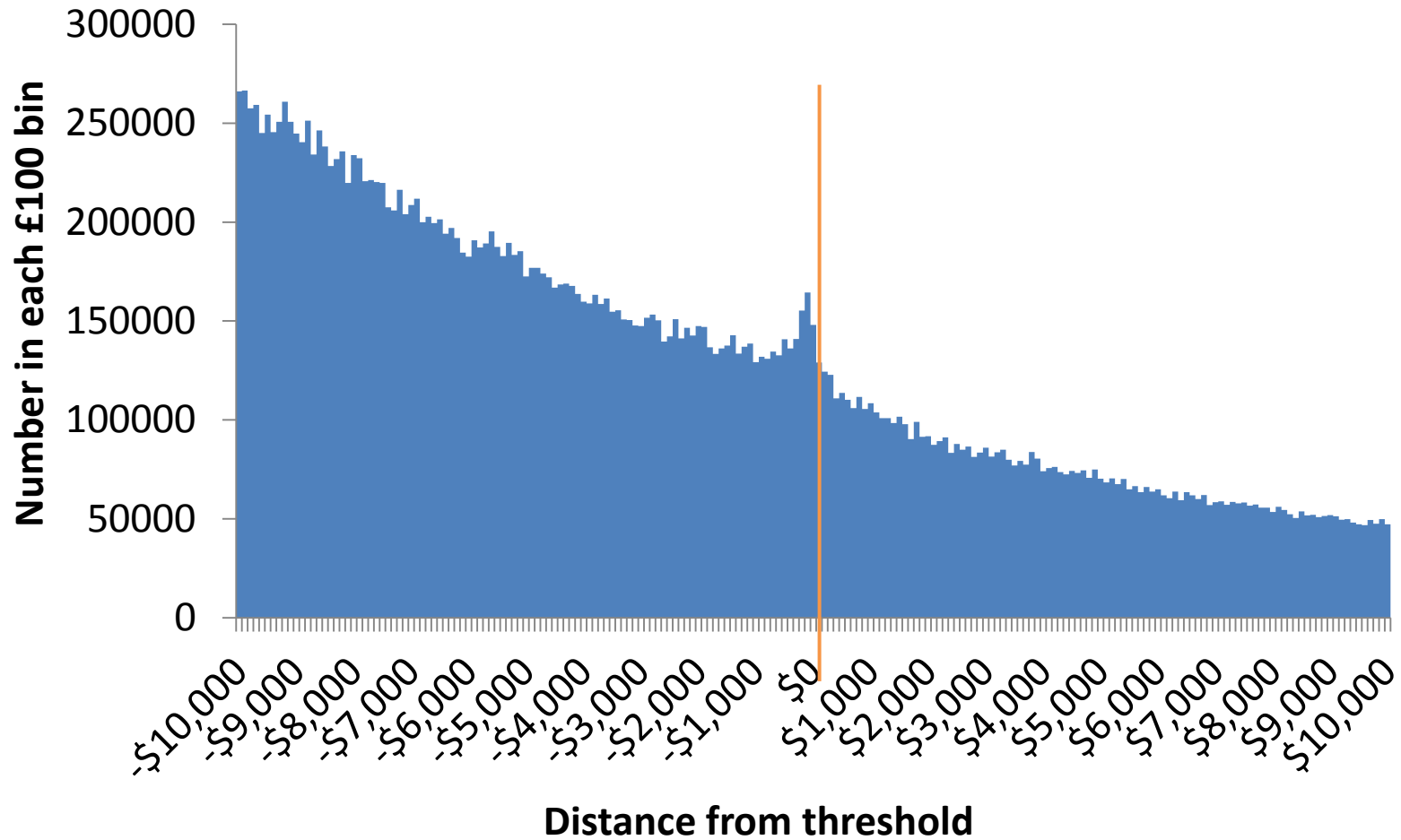
Source: Mirrlees Review

# Two aspects of the Tax System: 1. Effective taxes on Higher Incomes. Marginal tax rates by income level, UK

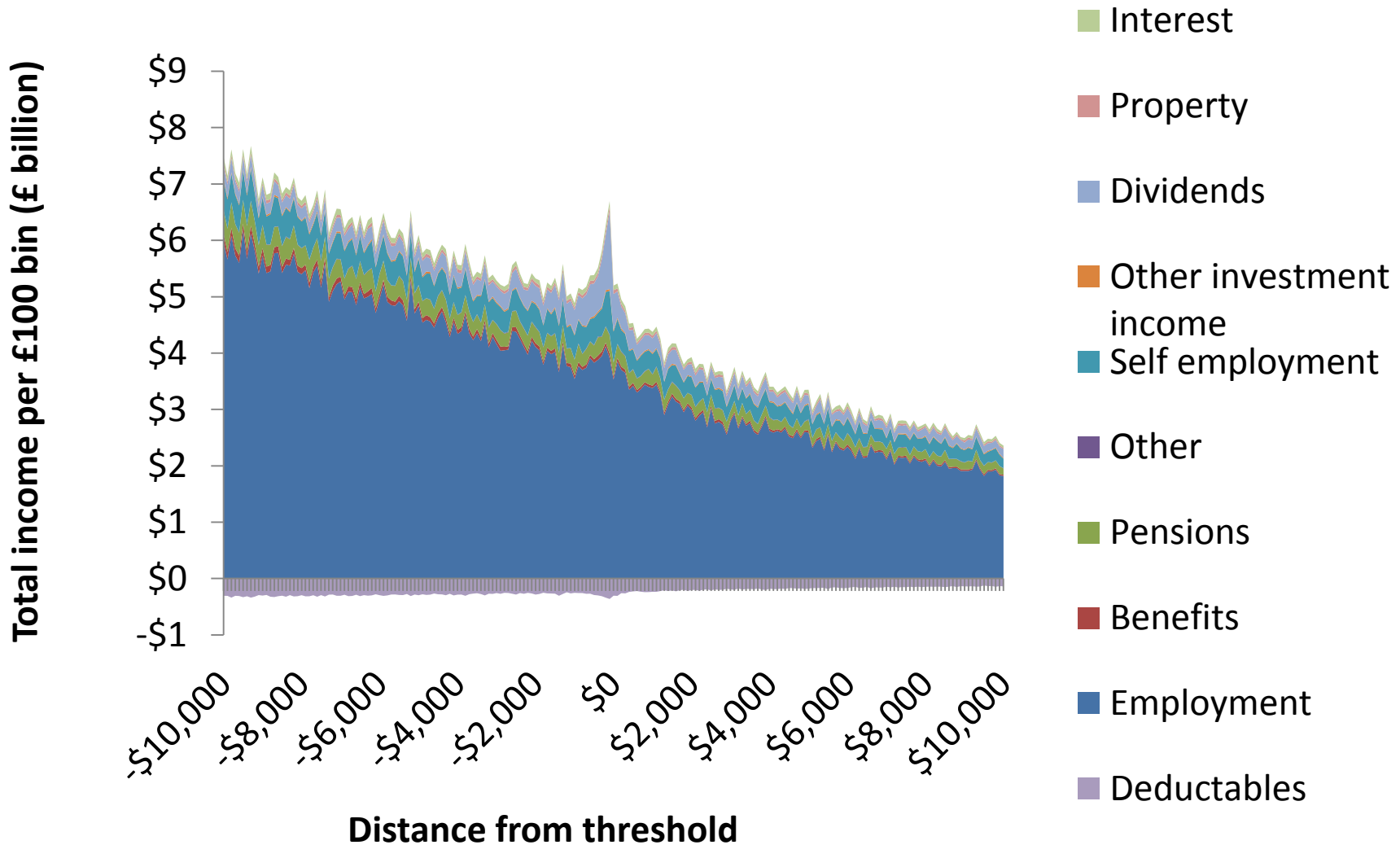


Note: assumes dividend from company paying small companies' rate. Includes income tax, employee and self-employed NICs and corporation tax.

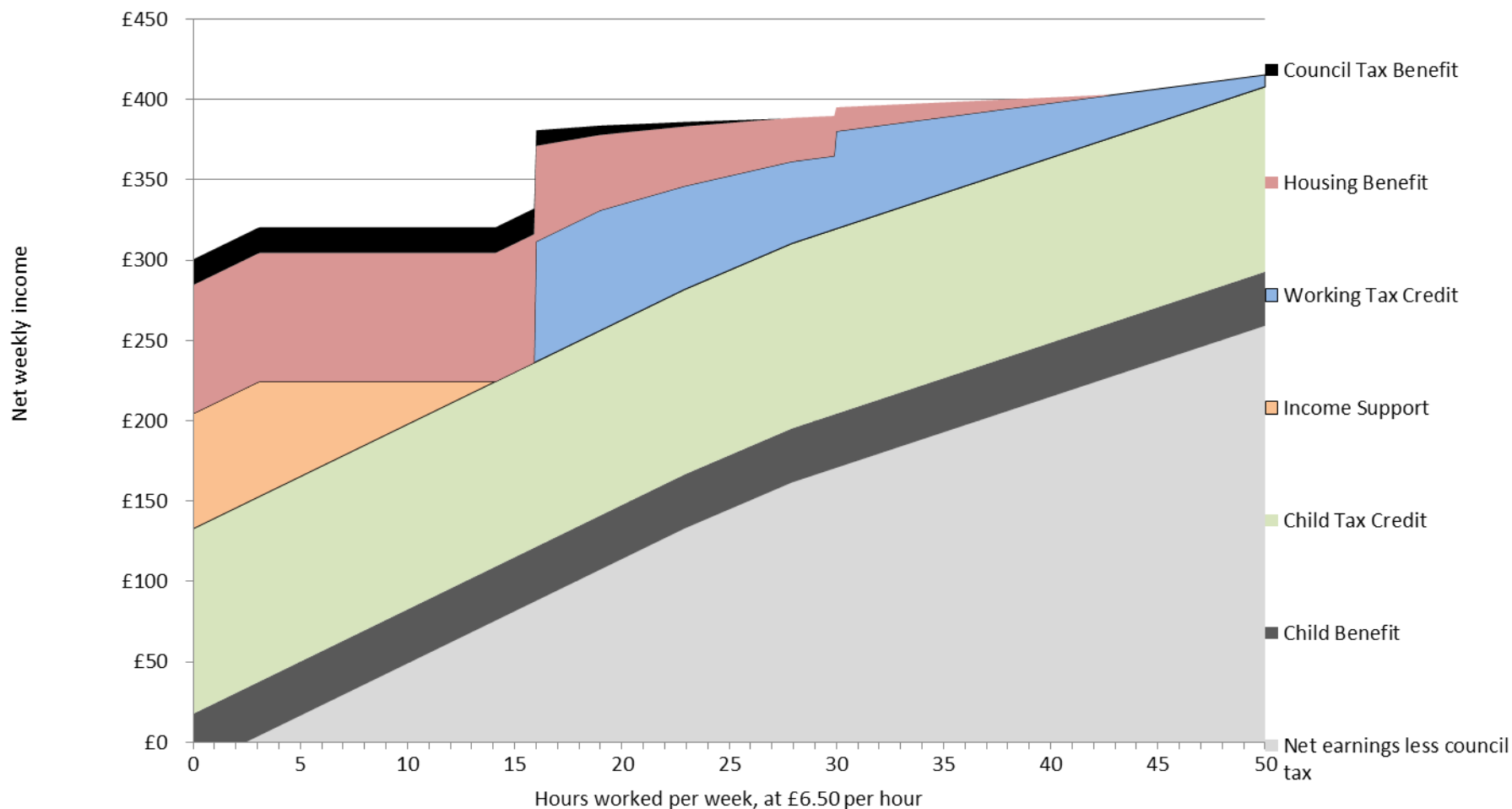
# Bunching at the higher rate threshold, UK



# Composition of income around the higher rate tax threshold

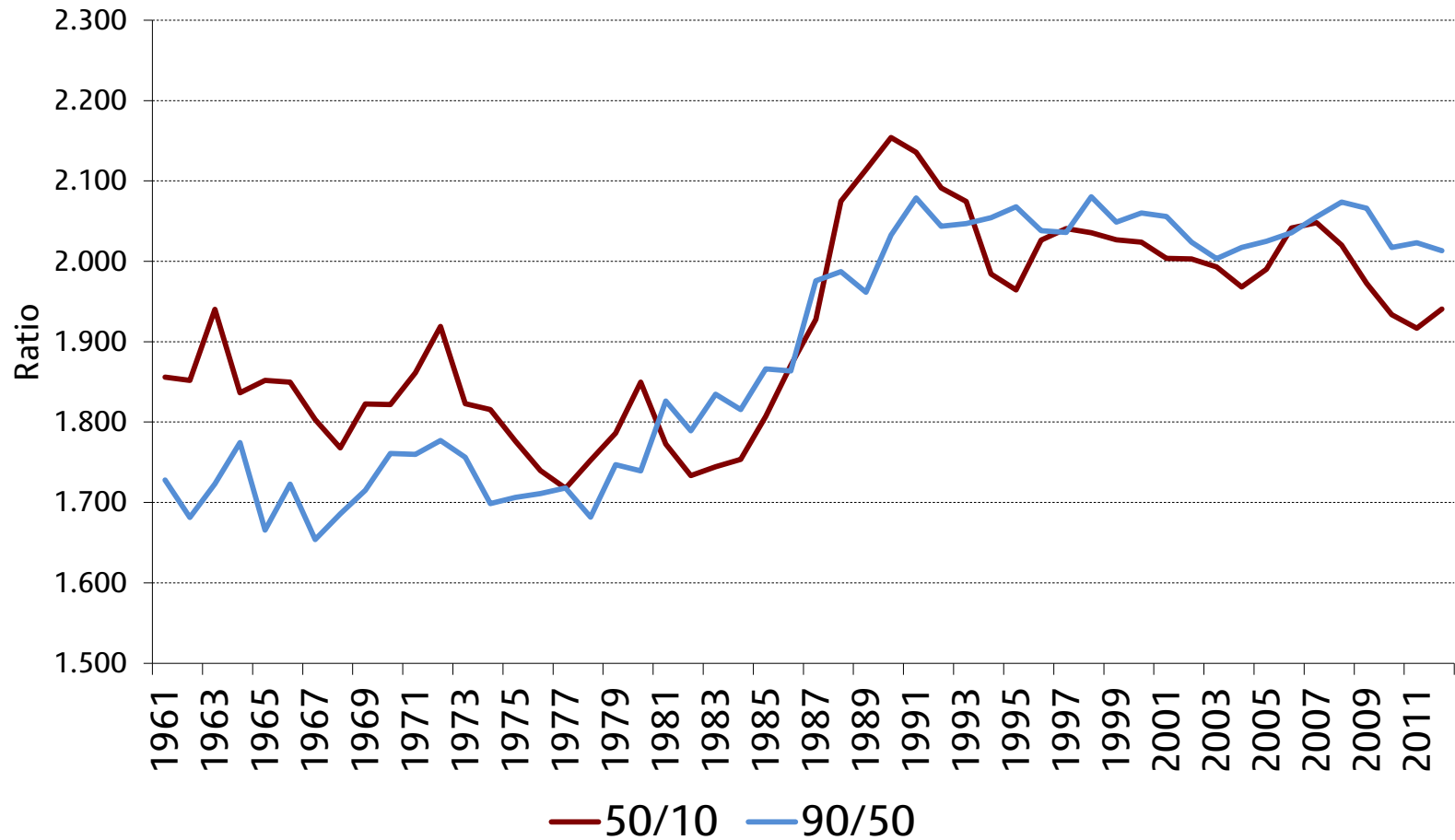


## 2. Effective Taxes for families at the Bottom: Complex but redistributive, budget constraint for single parent in 2011



**Notes: wage £6.50/hr, 2 children, no other income, £80/wk rent. Ignores council tax and rebates**

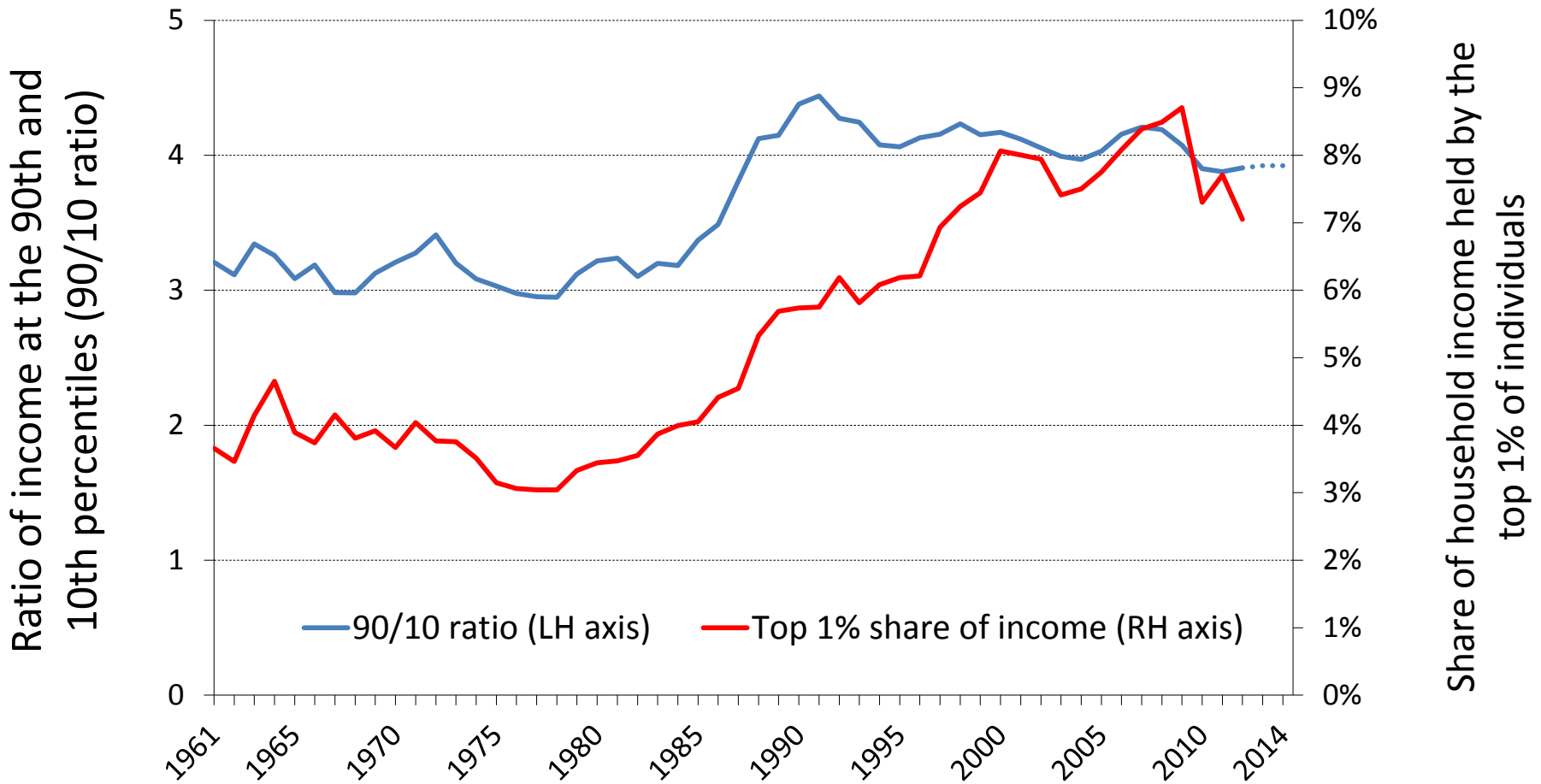
# Measures of inequality: 50/10, 90/50 ratios





# But top 1% share continued to grow dramatically

## 90/10 ratio and top 1% income share

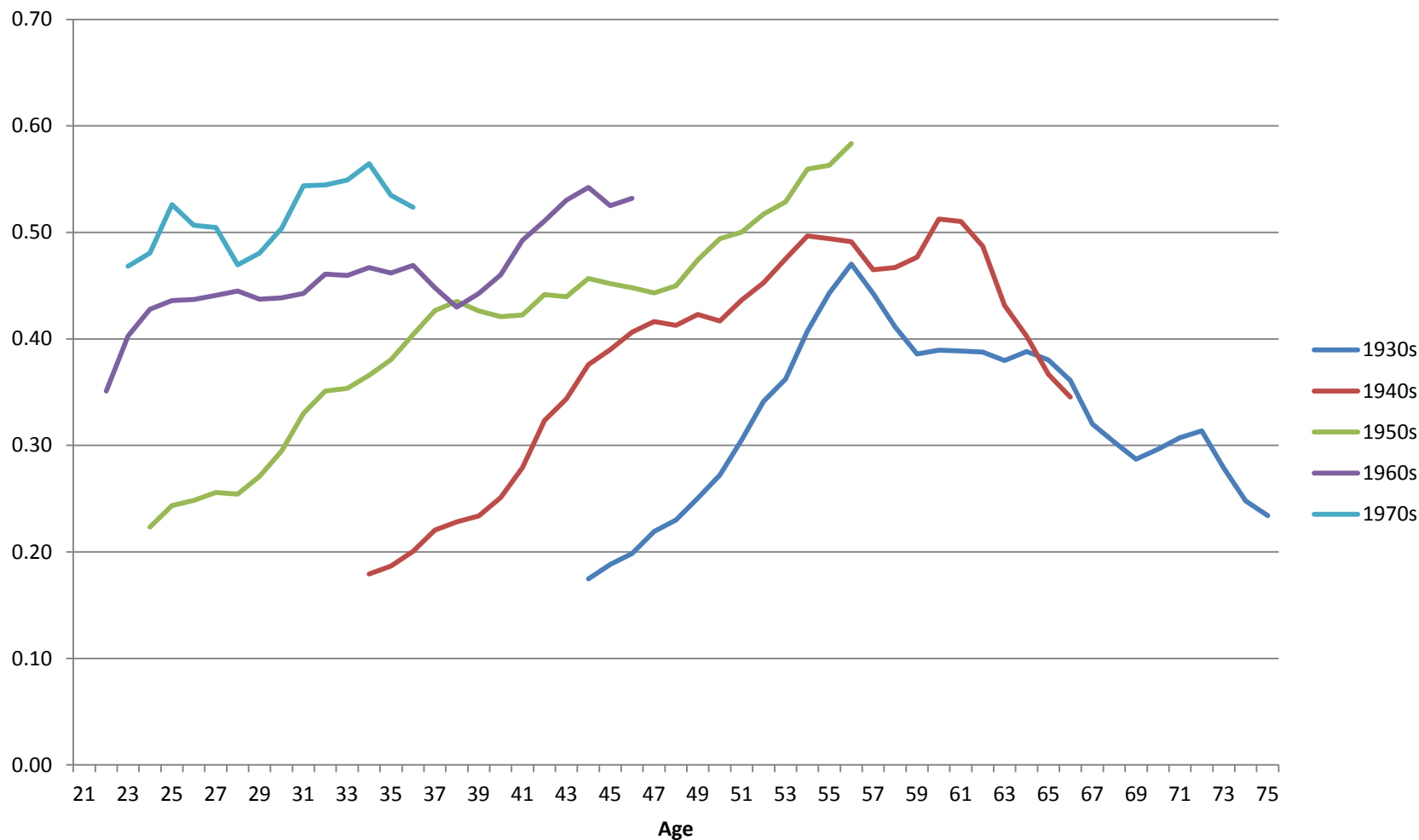


# Inequality in context

- Since the mid 1990s over much of the income distribution, from the 10<sup>th</sup> percentile to the 90th percentile, inequality is stable
  - although this masks growing inequality for younger cohorts.
- At the same time the welfare benefit system has had to do more work to maintain the incomes of individuals and families with low earnings
  - but will it continue to do so?
- Note too the remarkable increase in inequality at the very top of the income distribution
  - in UK over two-thirds of the richest 0.1% of working-age adults work in ‘real estate, renting and other business activities’ or ‘financial intermediation’.
- Wealth transfers across generations accentuate inequality
  - a growing proportion of younger individuals think they will receive inheritances, and are also those who already have the highest net wealth.

# Income Inequality by Age and Birth Cohort – UK

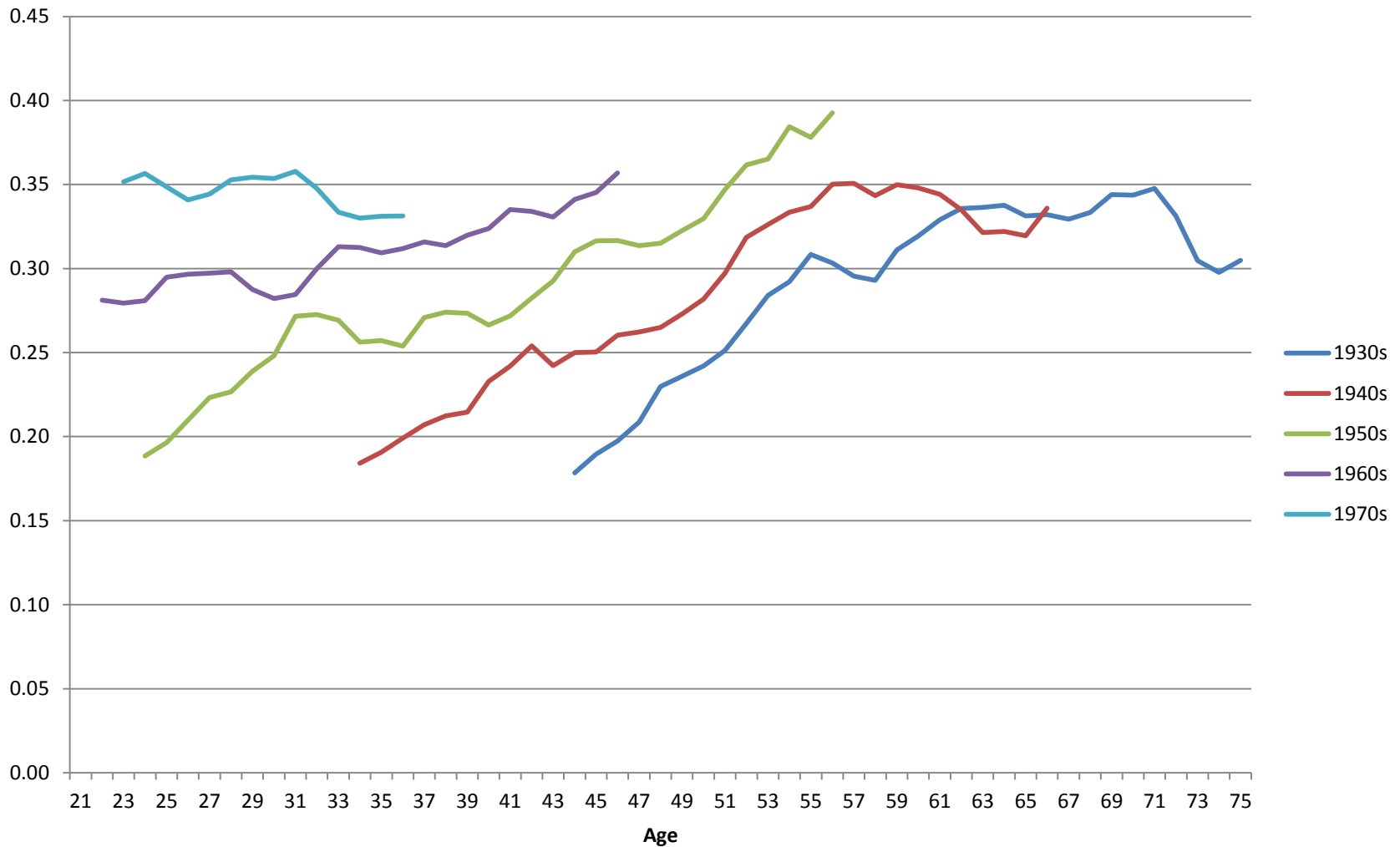
## Younger cohorts facing increasing inequality:



Source: Blundell and O'Dea (2014).

# Consumption Inequality by Age and Birth Cohort – UK

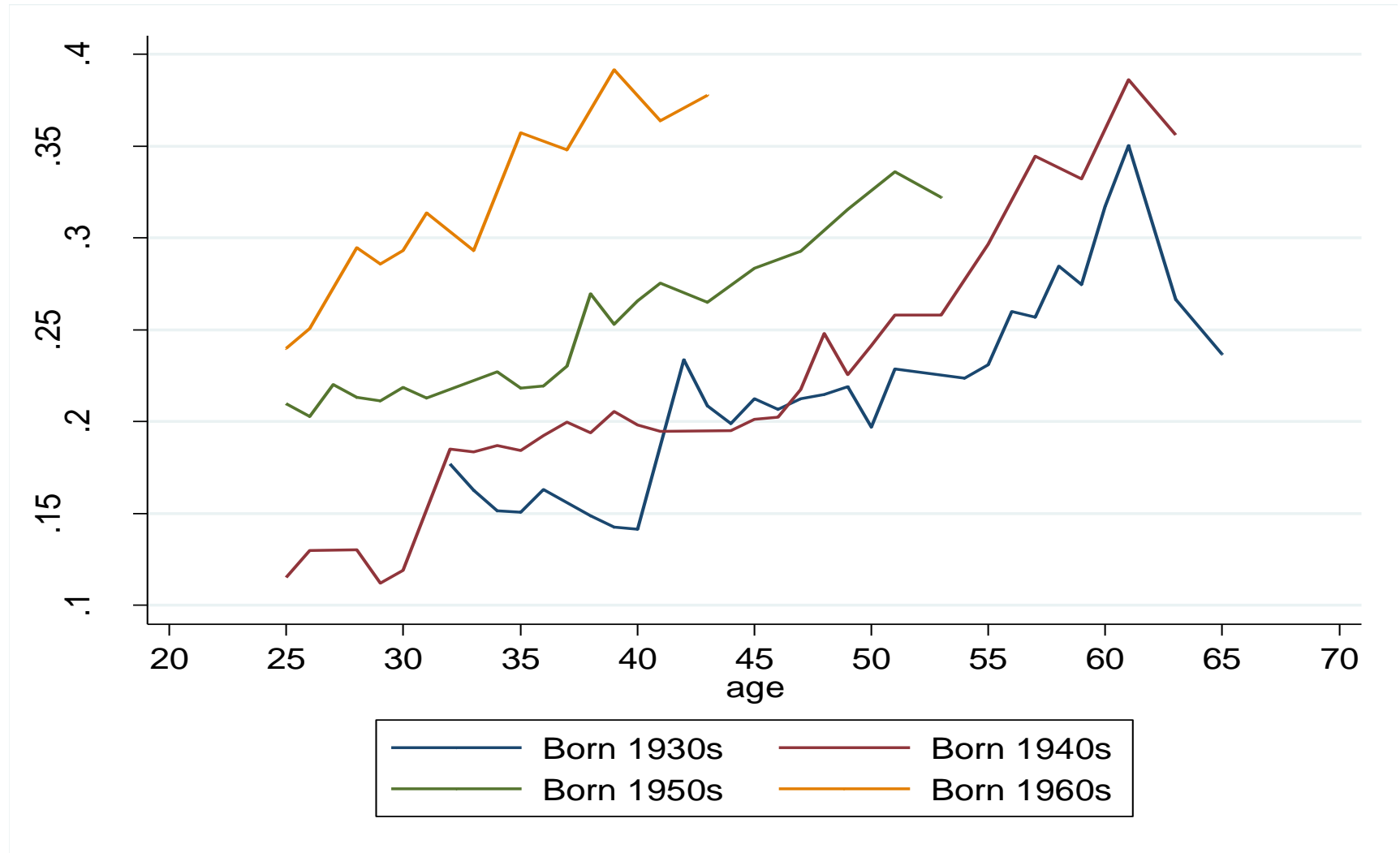
## Younger cohorts facing increasing inequality:



Notes: younger cohorts entering with much larger inequality than previous cohorts....

Source: Blundell and O'Dea (2014).

# Consumption Inequality by Year and Birth Cohort - US

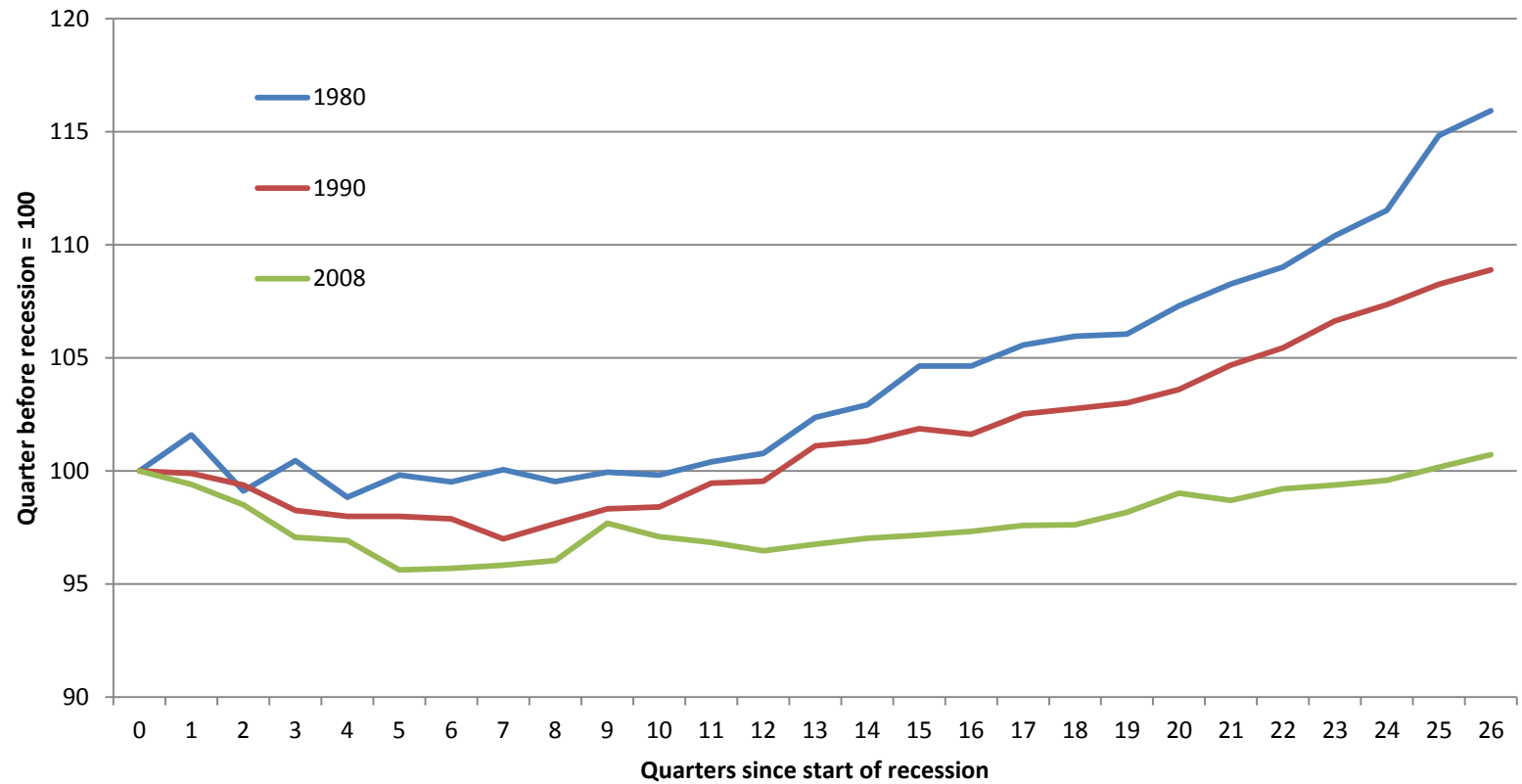


Source: Attanasio and Pistaferri (2014)

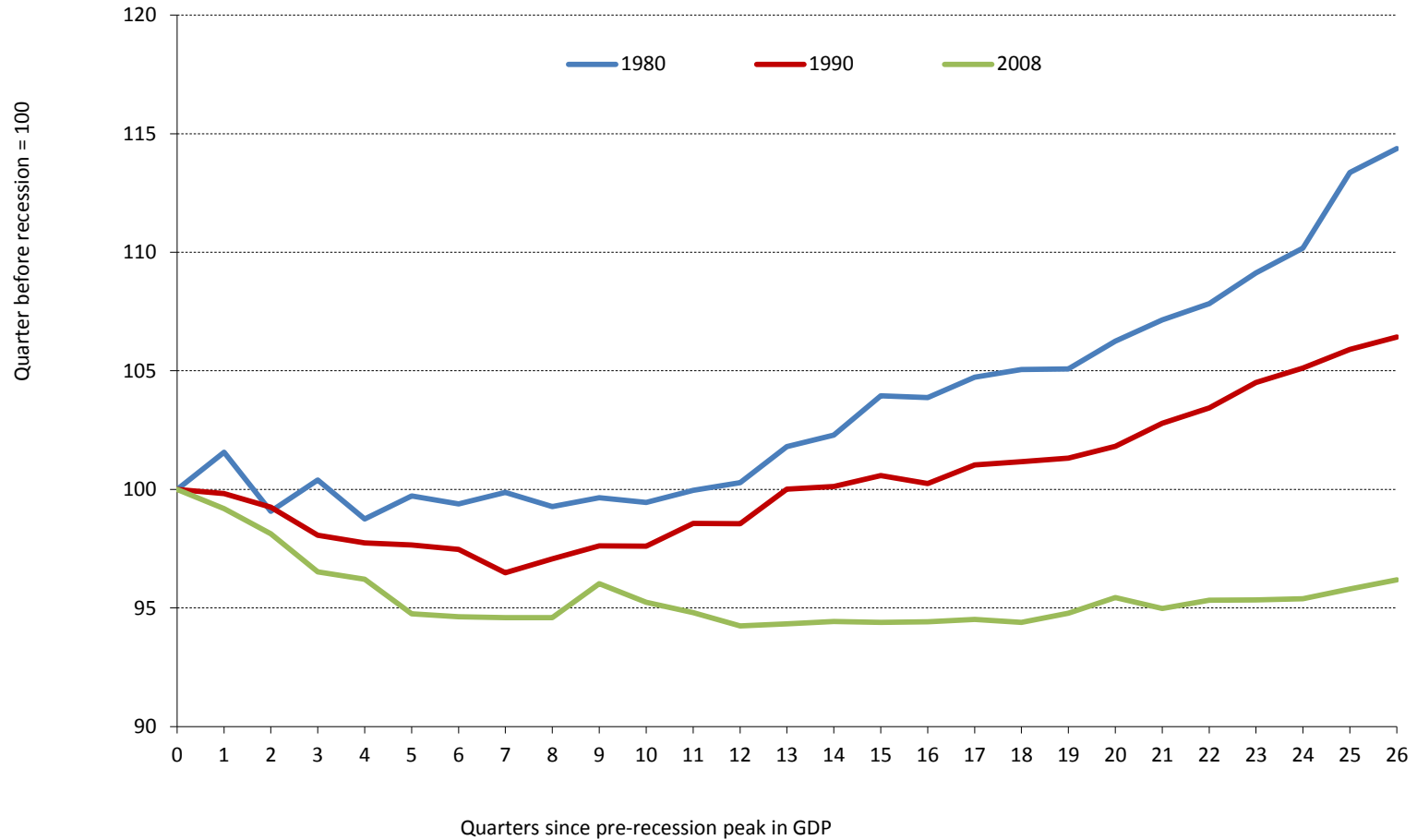
## C. Consumption – the final piece of evidence

- Expenditure falls were deeper than in previous recessions.
  - Note that the start of the fall is coincident with the fall in GDP (not income).
  - Saving rates rise.
- Unusually expenditure on consumer nondurables fell most
  - Especially among the young and to some extent among the middle aged, less for the old.
  - Temporary VAT reduction?

# Non- and semi-durables

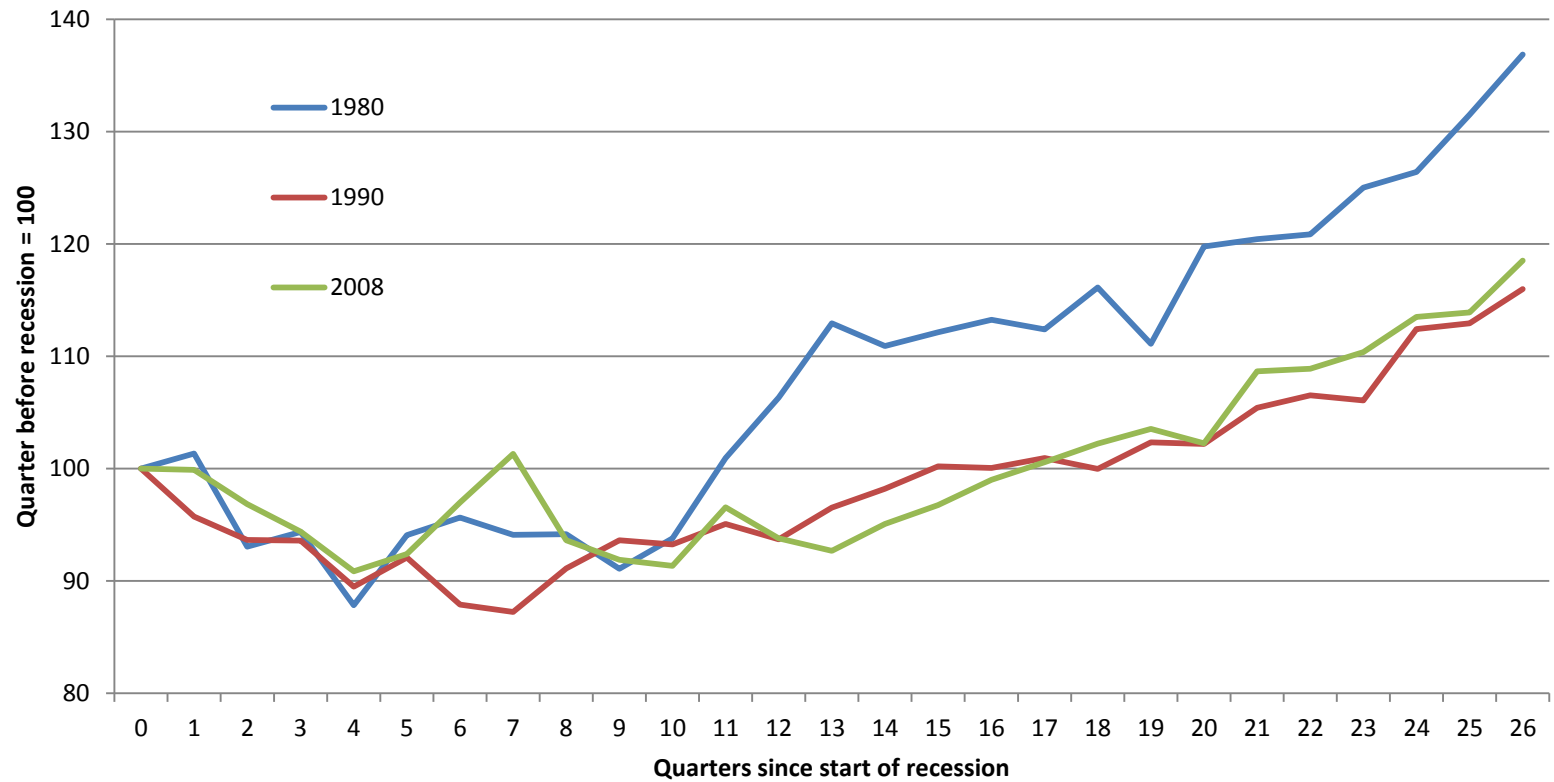


# Non- and semi-durables per head

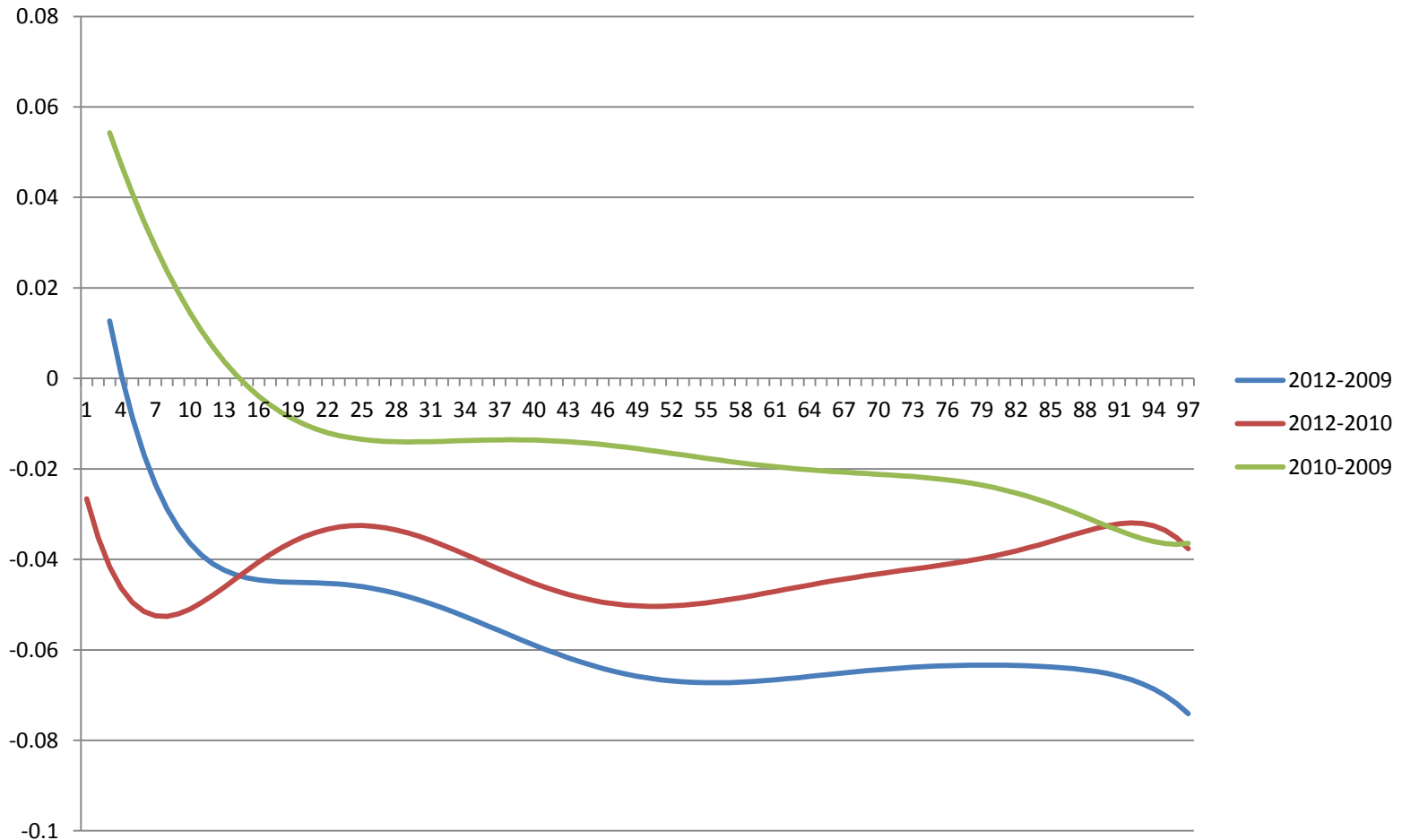




# Durables



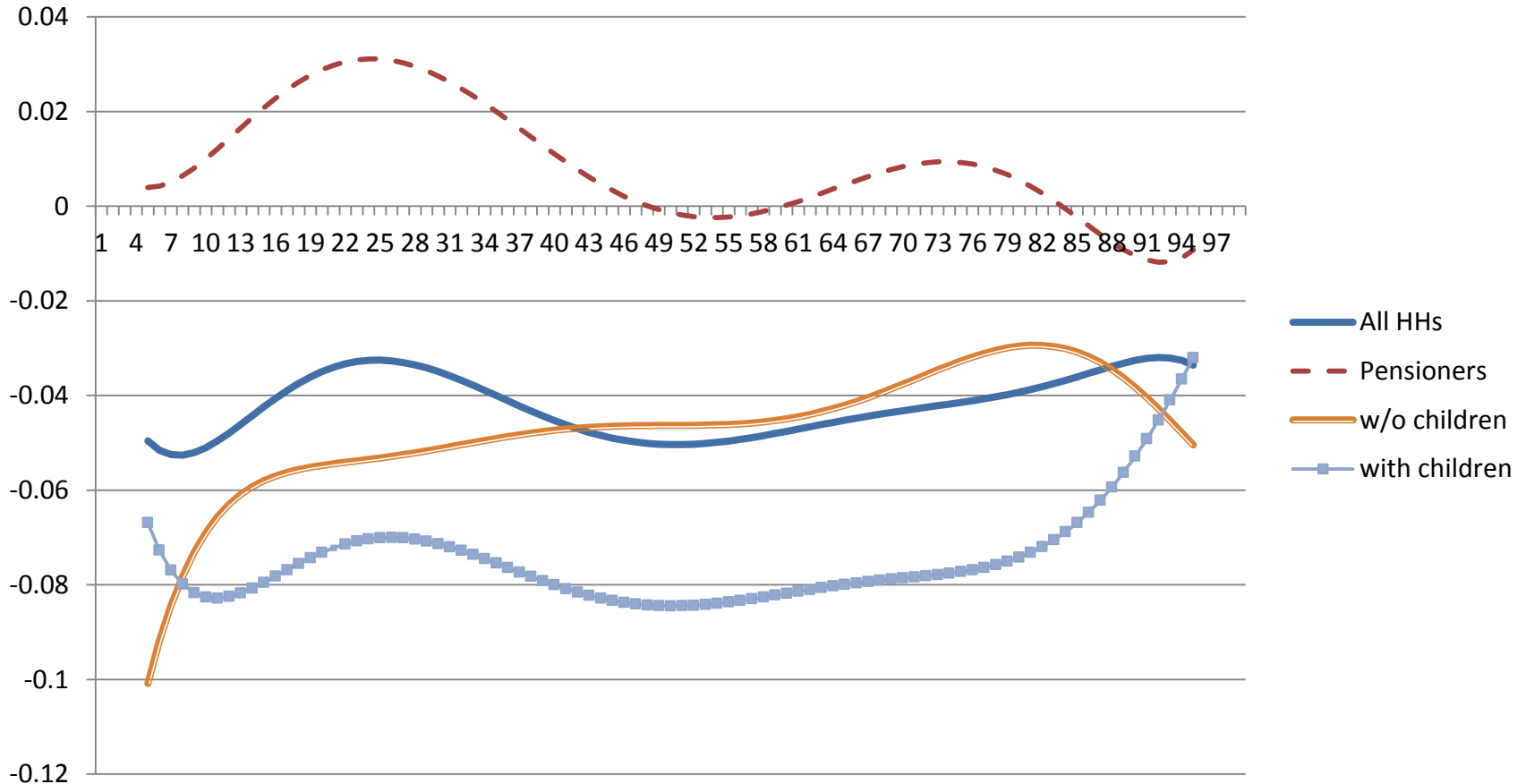
# Percentage Change in Food Expenditure by centile: UK



Notes: Understanding Society  
Source: Blundell and Etheridge, 2014

# Percentage Change in Food Expenditure: 2010-2012 UK

## Change in Food Expenditure by Centile and HH type: 2010 to 2012

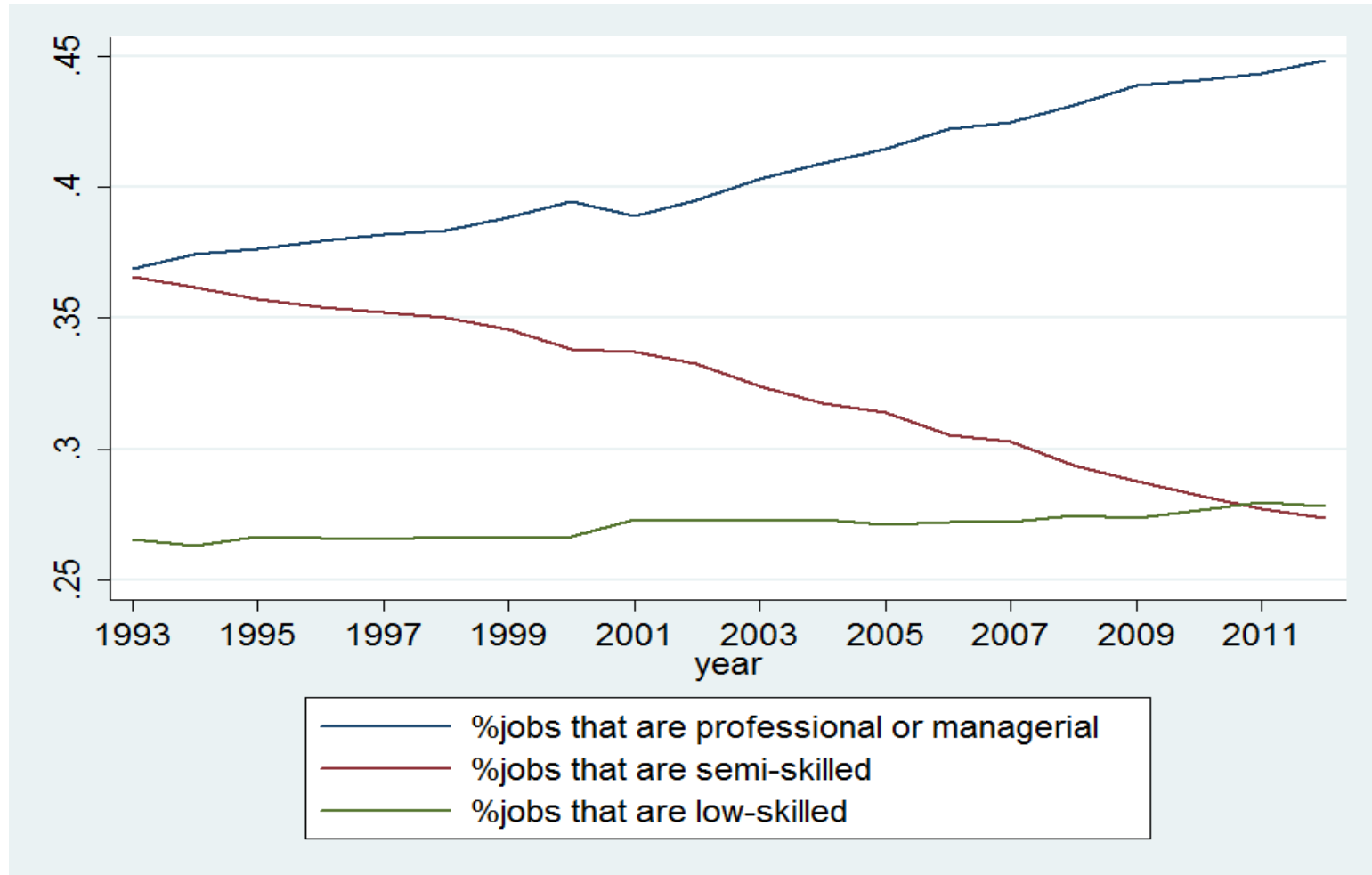


Notes: Understanding Society  
Source: Blundell and Etheridge, 2014

# Prospects for the Economy

- Younger workers and families are acting as if they expect a long-run, persistent fall in relative living standards
  - evidence from consumption and saving.
- Real wages, productivity and investment have been slow to pick up
  - we can expect the pattern of lower real wages at the bottom to continue, but with fairly buoyant employment due to increased supply.
- Most actual *falls* in real earnings have happened
  - but fiscal contraction implies large benefit cuts.
- Appears the number of routine jobs near the middle of the earnings distribution has declined steadily
  - more jobs are now professional or managerial. In the 90s and 2000s wages grew fastest for high (and mid-skilled) occupations, and BA premium maintained.
- Suggests longer term earnings growth will mostly come from high-skilled occupations, with perhaps some at the very bottom.

# Employment shares of occupation groups



Source: Blundell, Green and Jin (2014)

# Prospects for the Economy II

- Still much to do in focussing on older workers in general, on return to work for parents/mothers, and on entry into work.
- There are still some potential big gains here,
  - for example, as (higher skilled) women age in the workforce.
- Growing complementarity between human capital and ‘on the job’ wage/productivity
  - little evidence of earnings progression for lower skilled and part-time workers,
  - Families with low skilled workers increasingly relying on the tax credit/benefit system and family labour supply.
- Productivity and wages are closely related
  - but note the growing importance of pensions in the UK.
- Productivity (and education) is still the key.

# Prospects for Reform

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- With growing earnings inequality there is increasing pressure on the tax and welfare system.
  - current systems raise revenue and redistribute inefficiently and unfairly.
- Some potential big gains here with tax/welfare reforms to enhance earnings and address inequality (many from *Mirrlees Review*)
  - focus incentives on transition to work, return to work for women with children and on enhancing incentives among older workers,
  - reduce disincentives at key margins for the educated - enhancing working lifetime and the career earnings profile,
  - align tax rates at the margin across income sources to make taxation at the top more effective; e.g. dividends and capital gains
  - reform taxation of housing and wealth transfers.
- But these reforms will not be easy! To quote Tim Besley, '*high levels of inequality can skew the priorities of the state by limiting its capacity to act effectively*'.

But that's all for now!

# Human Capital, Inequality and Tax Reform: Recent Past and Future Prospects

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Coase Lecture 2015

Richard Blundell\*

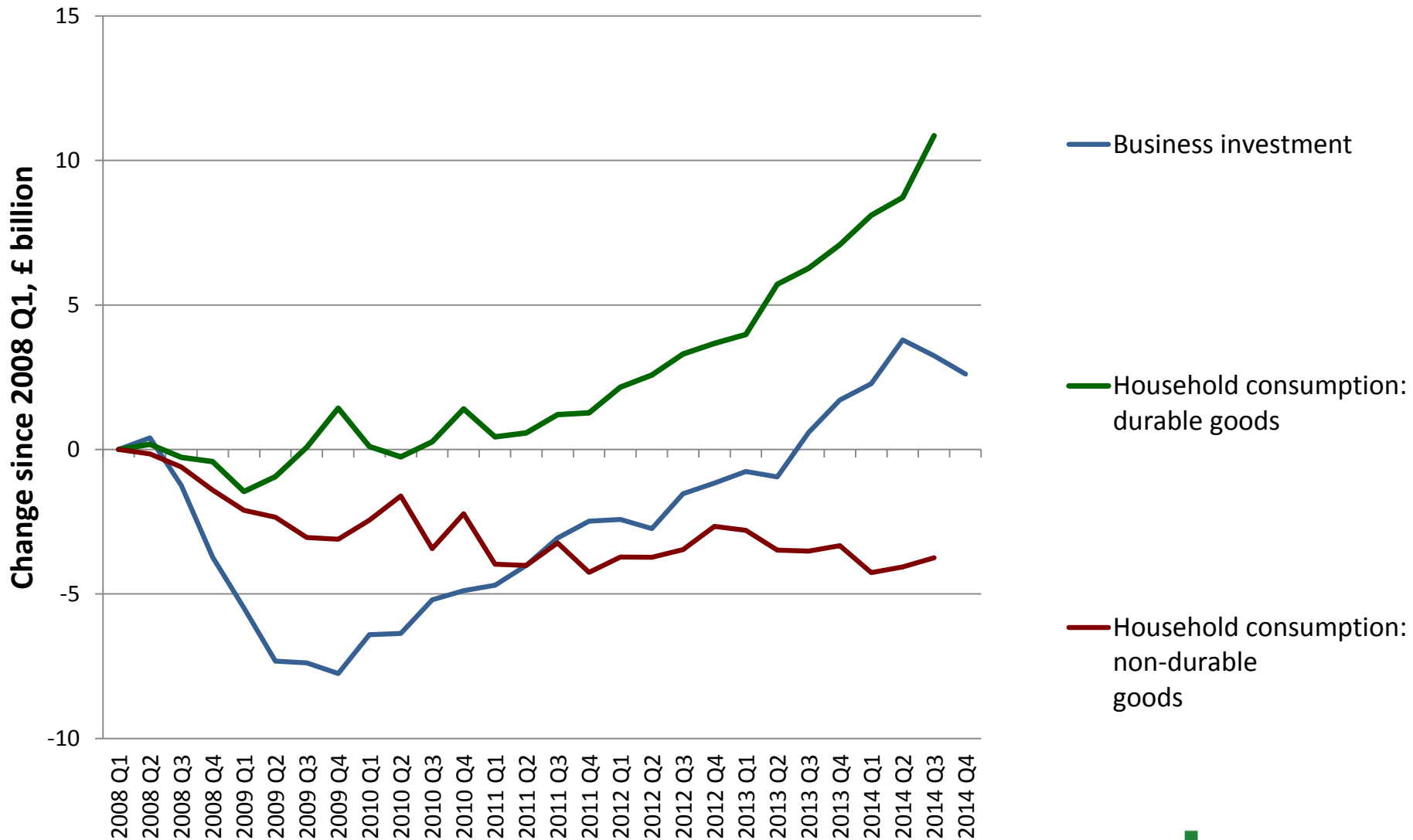
*University College London and Institute for Fiscal Studies\*\**

Slides on my website <http://www.ucl.ac.uk/~uctp39a/>



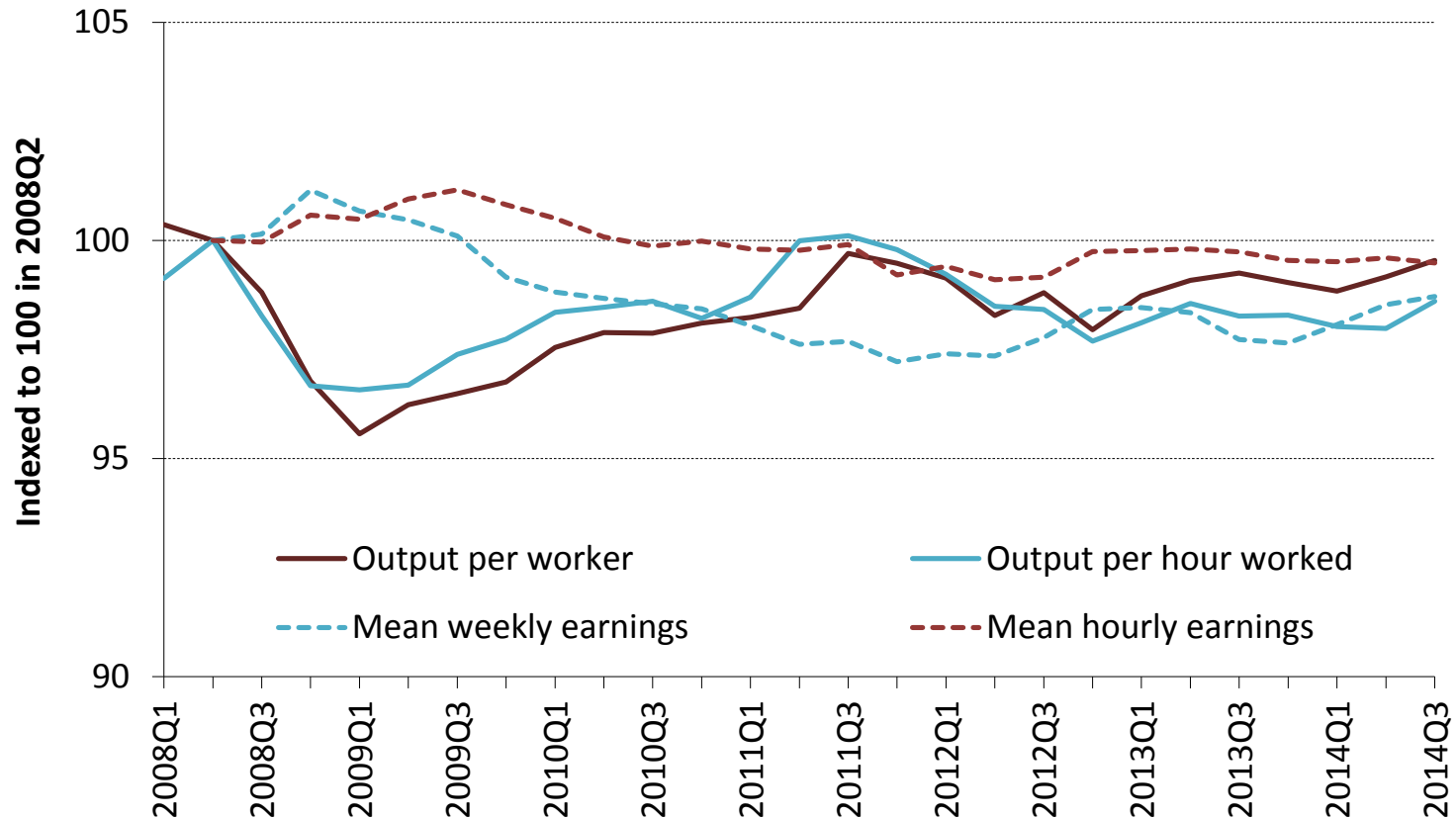
# Extra Slides

# Business investment has been very slow to pick up

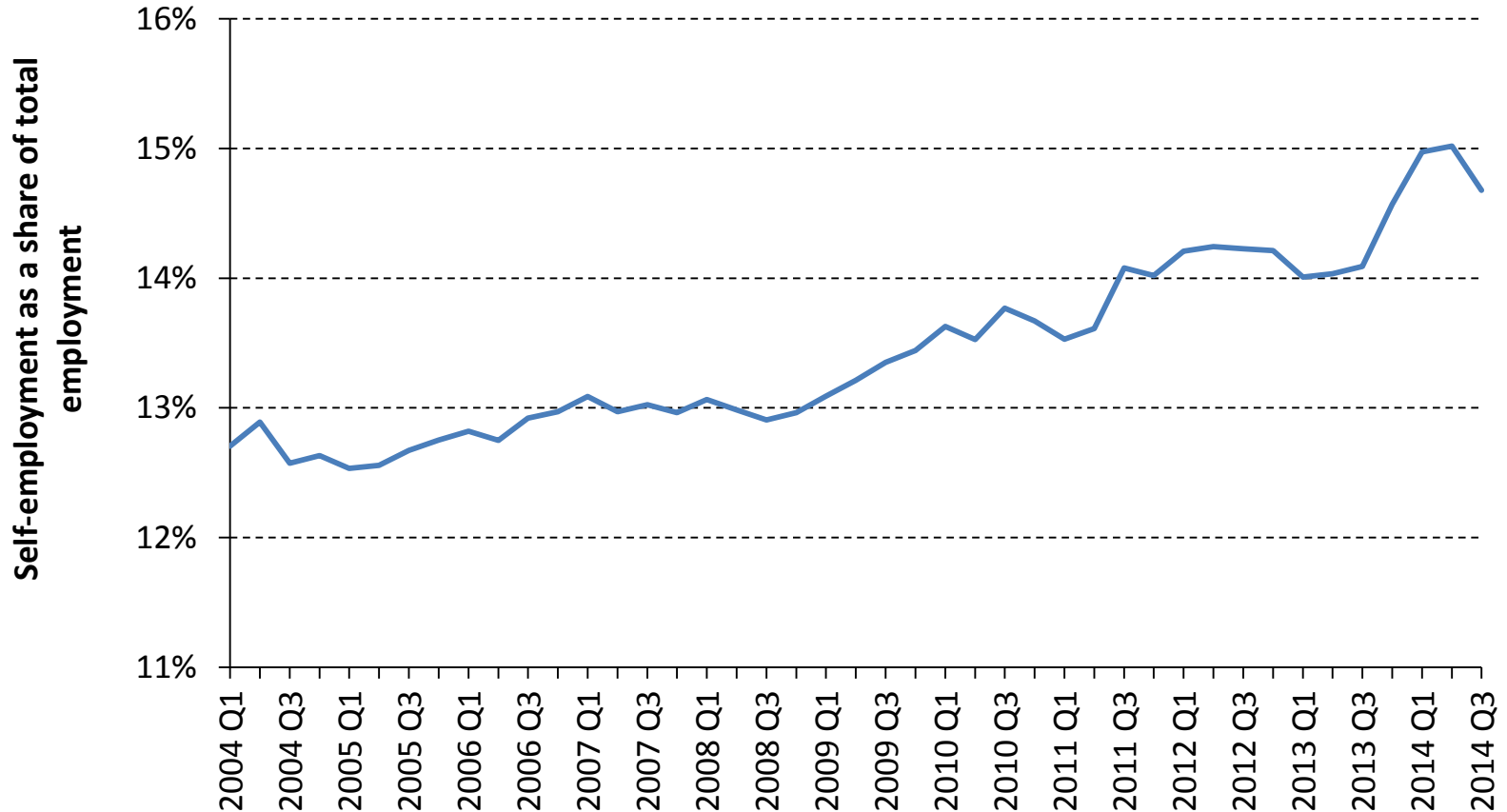


# Earnings in line with productivity growth, particularly when using LFS measures of earnings

Output per hour and worker compared to mean earnings in LFS (GDP deflated) since 2008Q2



# Self employment as a share of total employment

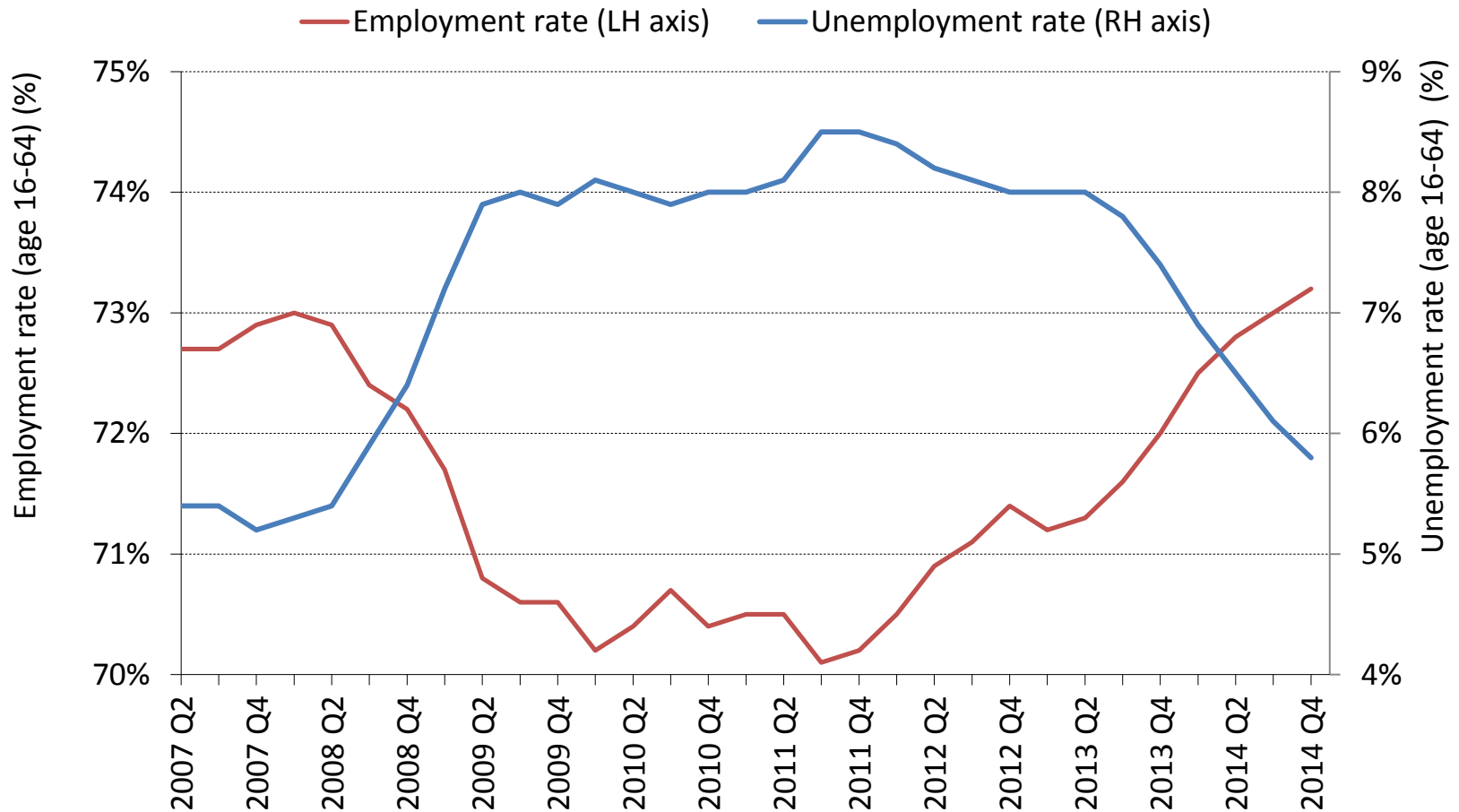


Source: Authors' calculations using Labour Force Survey (ONS series MGRQ and MGRZ).

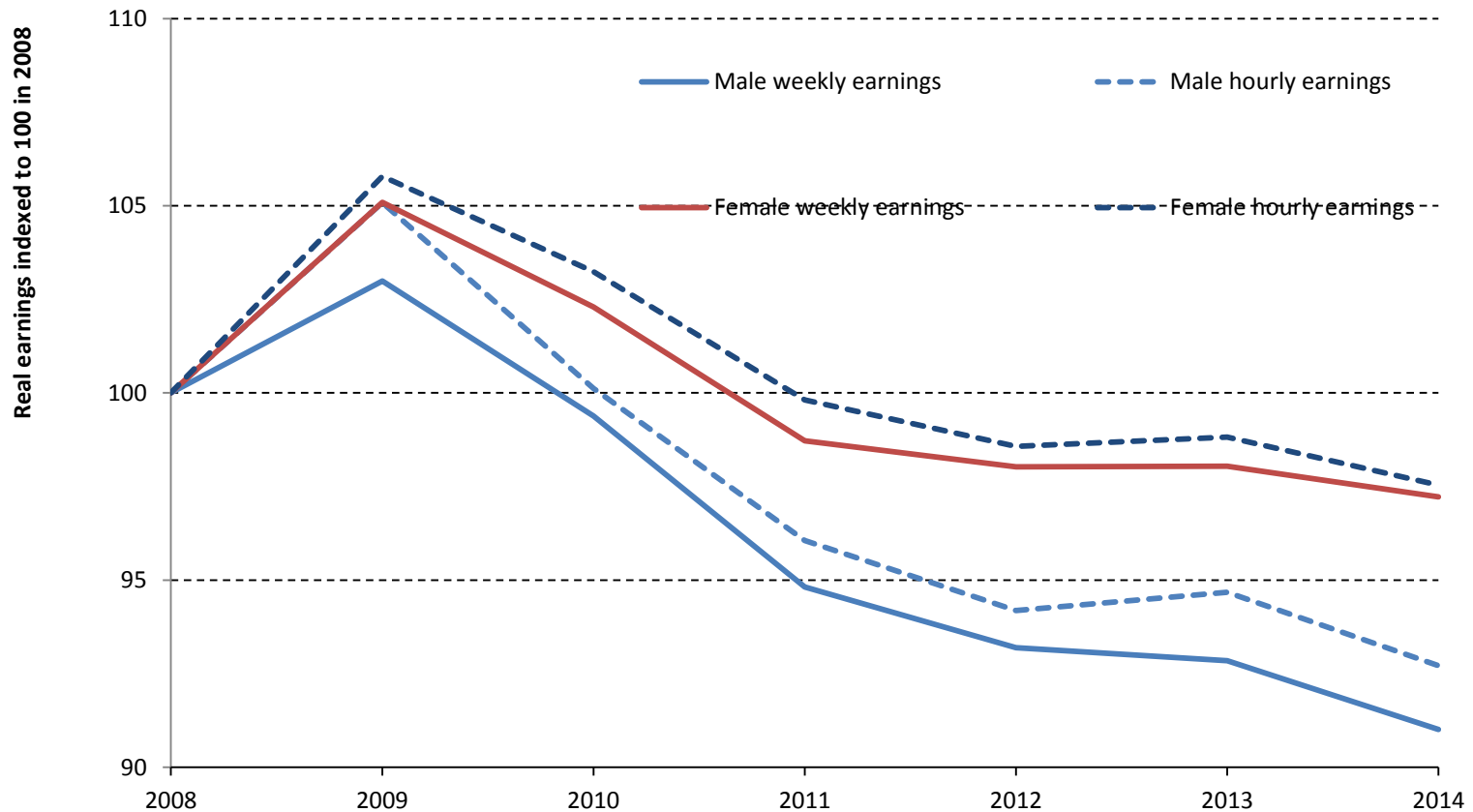
# Earnings for employees and the self employed



# Employment and unemployment rates since 2007

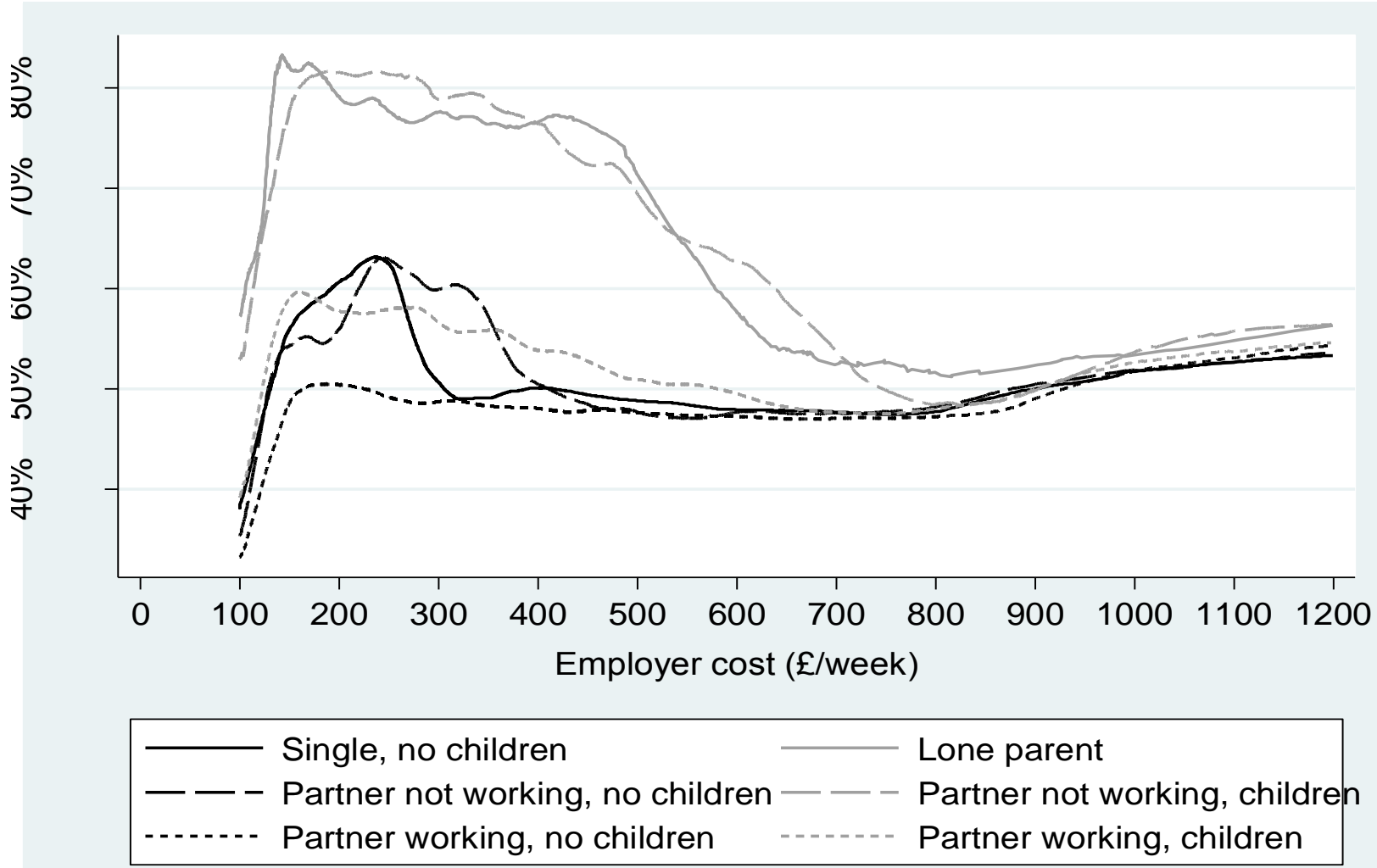


# Changes to real median weekly and hourly wages by sex



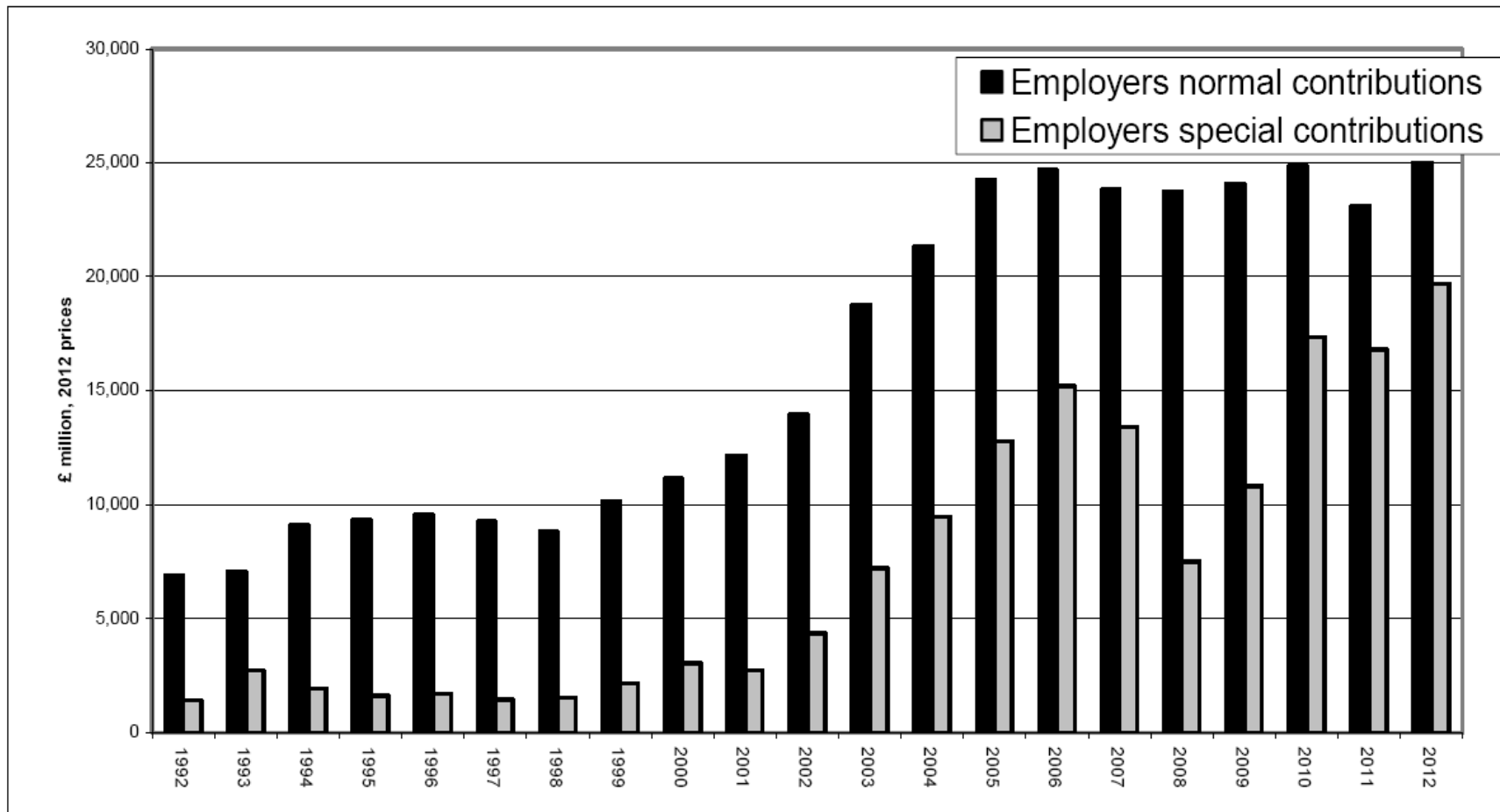
Notes: Results adjusted for methodological changes in 2011. Earnings observed in April of each year.  
Source: Cribb and Joyce (2015), calculations using Annual Survey of Hours and Earnings.

# Average EMTRs for different family types





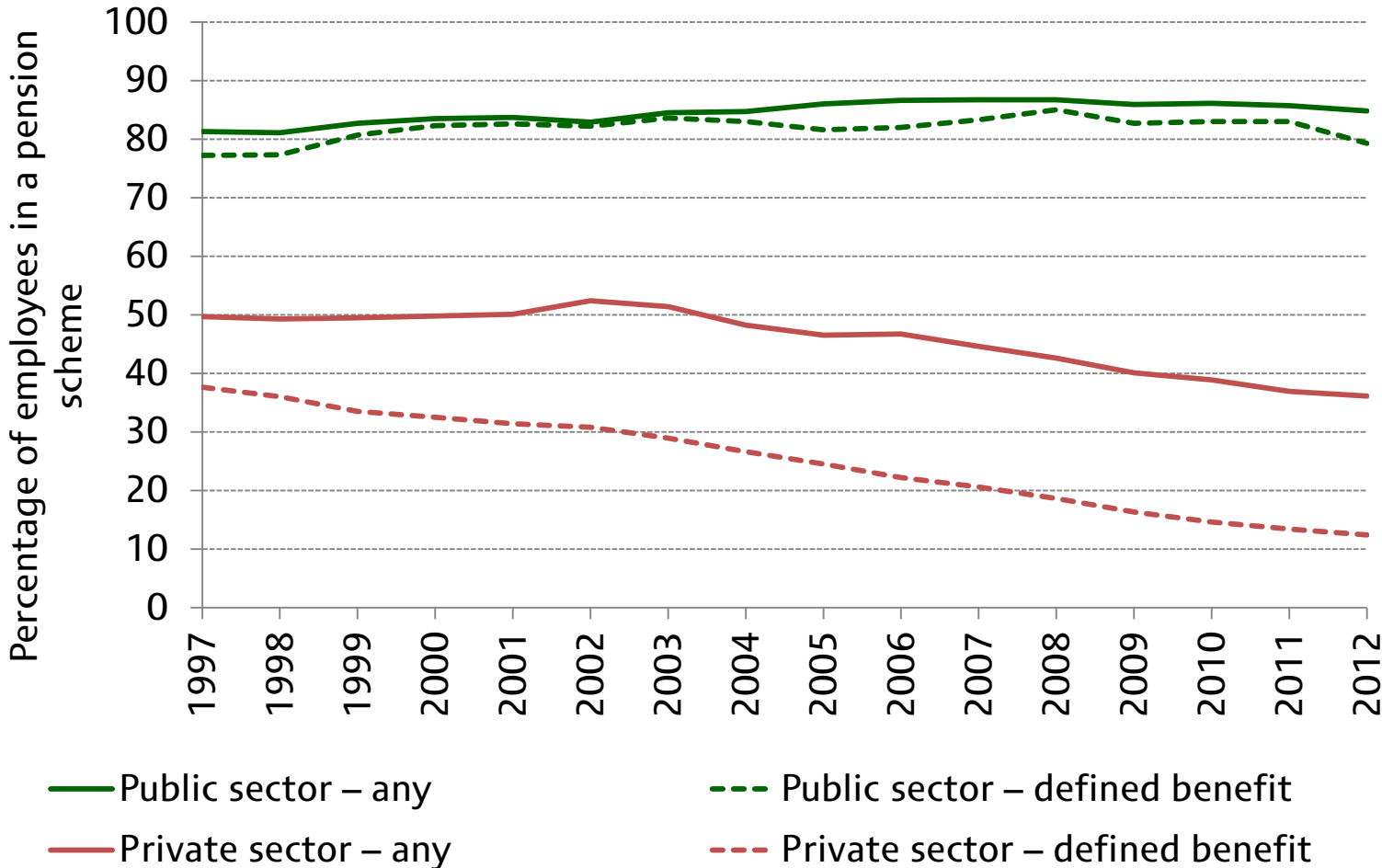
# Employer contributions to pension funds – in constant prices terms



Source: Office for National Statistics

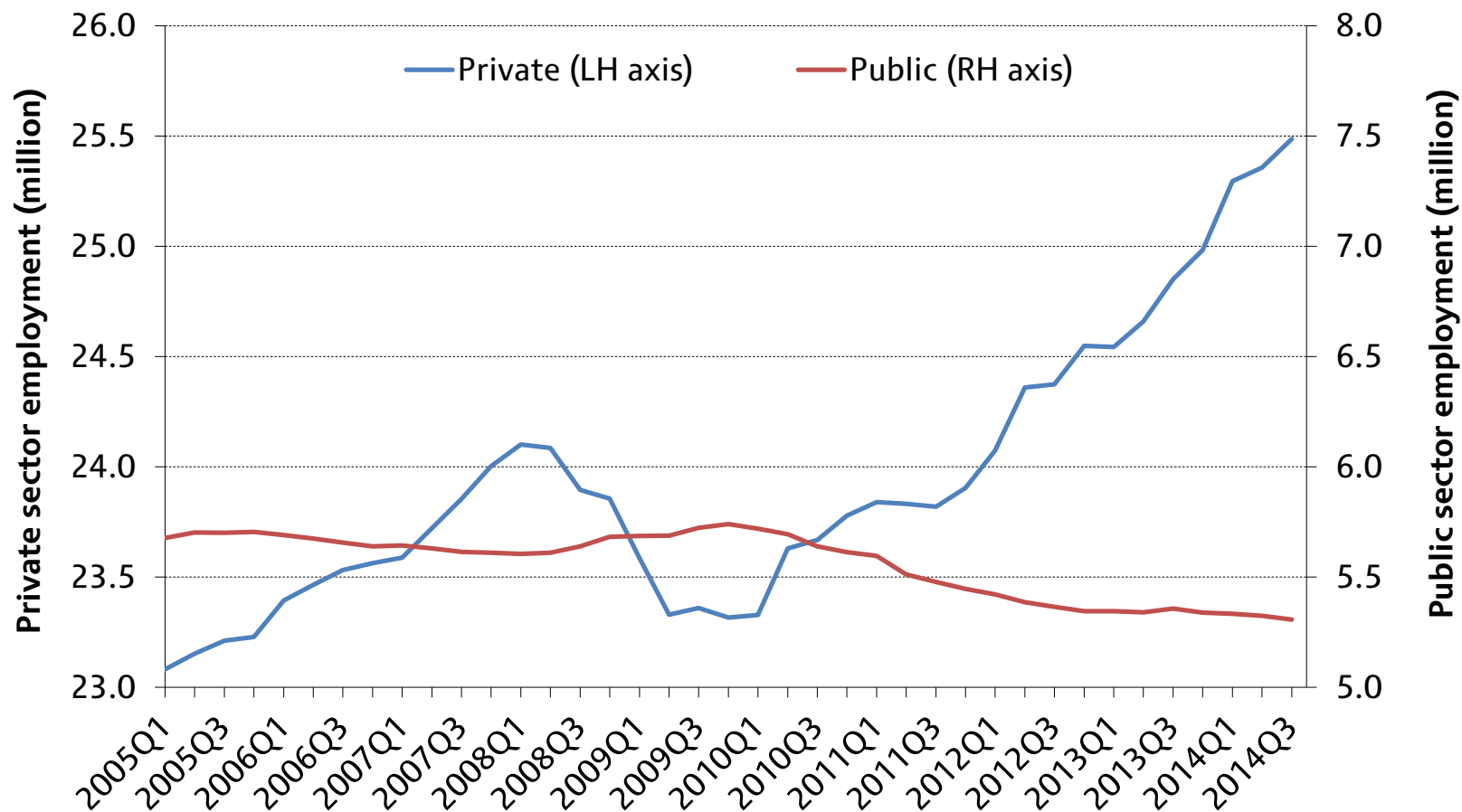
Notes: Data for Q4 2012 is not yet published so has been estimated based on Q4 2011 to Q3 2012 data

# But recent falling membership of pensions schemes

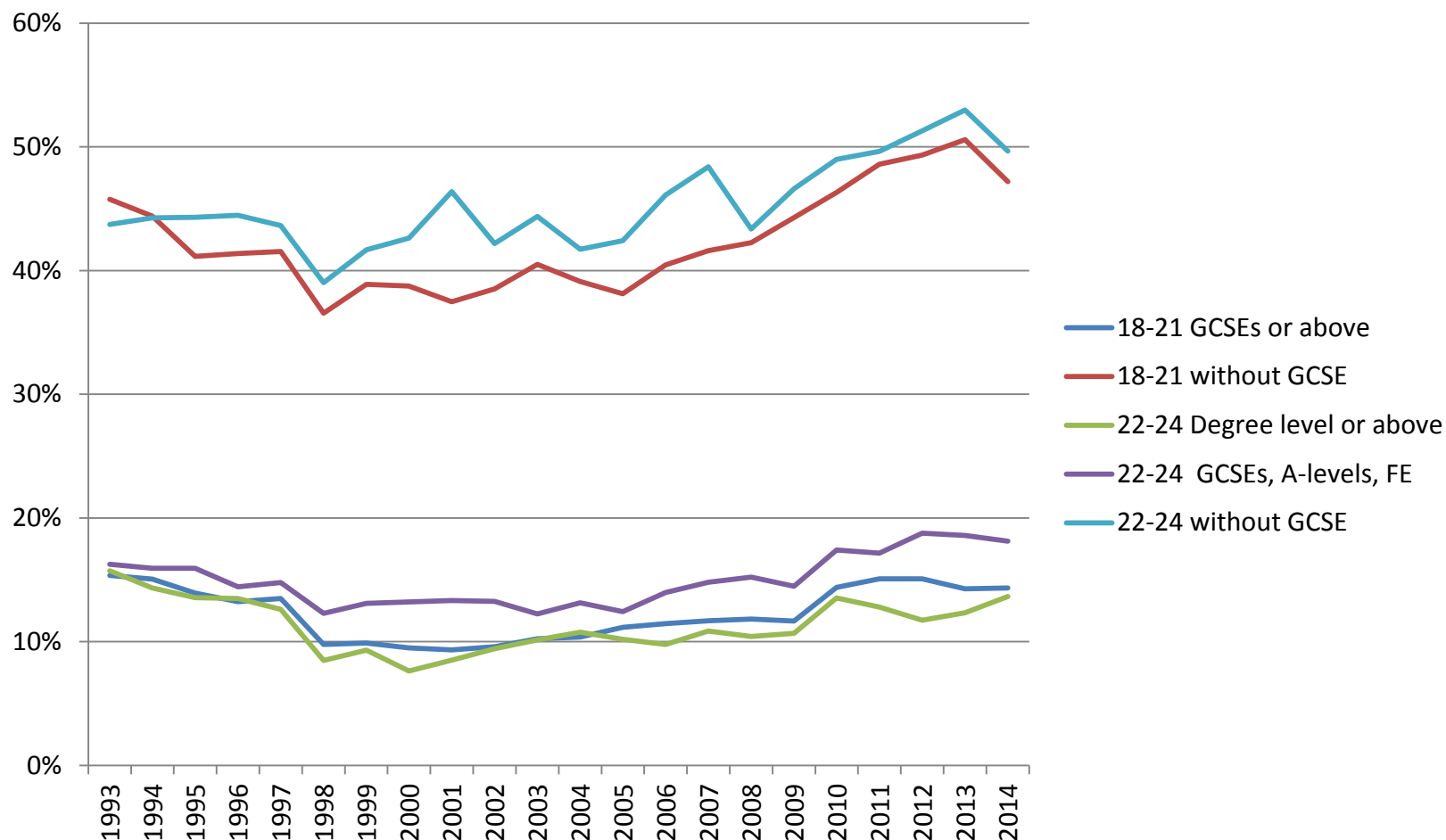


Source: Fig 1 of *Cribb and Emmerson (2014)* "Workplace pensions and remuneration in the public and private sectors in the UK"

# Particularly strong growth in private sector

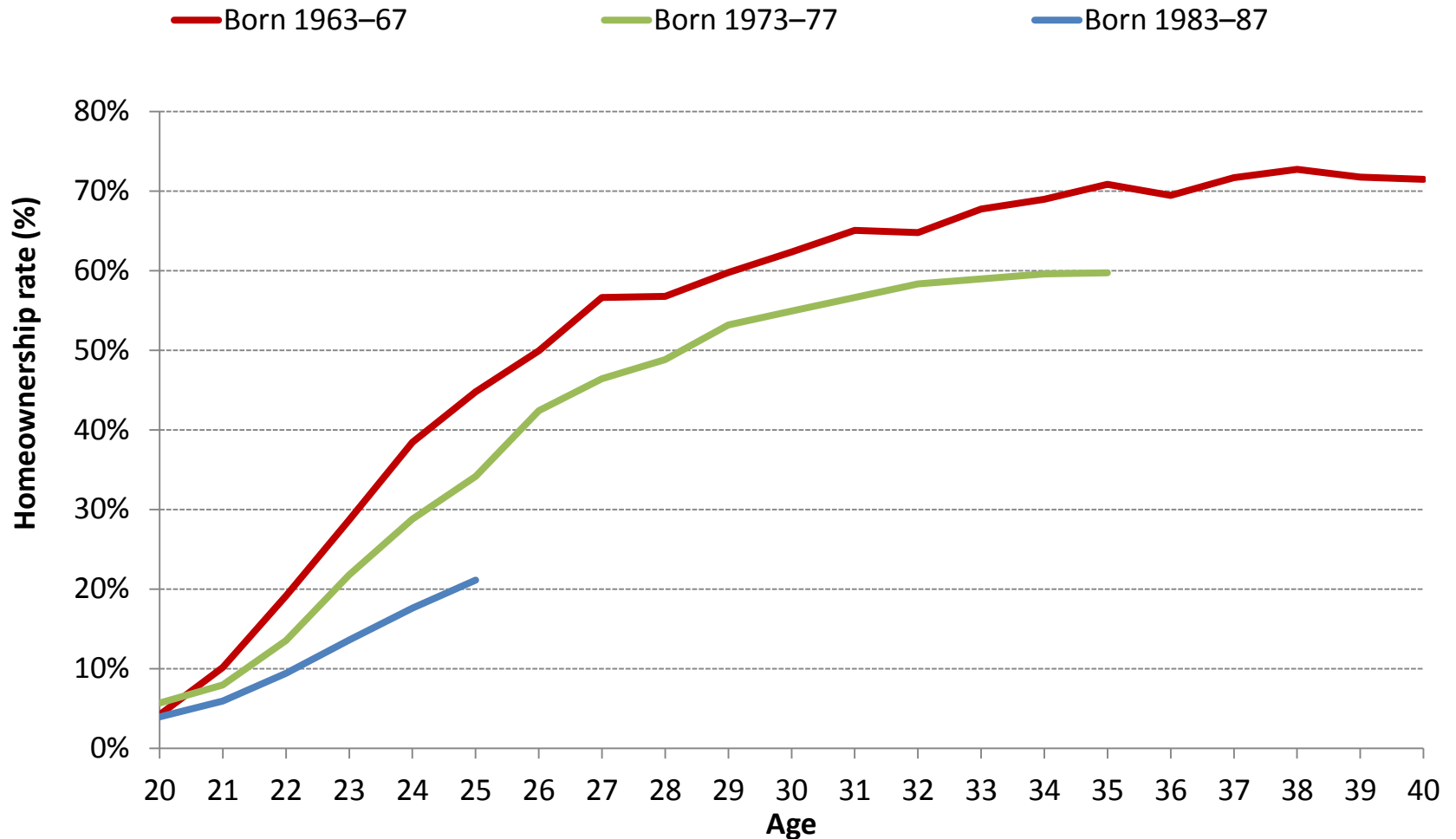


# NEET rate among young people



Source: Blundell, Green and Jin (2014)

# Recent cohorts are also less likely to own a home



Source: Figure 3.13 of *Living Standards, Poverty and Inequality: 2014*