

Shifts in the employment structure: polarisation, upgrading or ...?

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**IBS Warsaw
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- Introduction to European Jobs Monitor / ‘the jobs approach’
- How are employment structures in developed countries changing?
Polarisation, upgrading ...?
- What are the factors driving these changes?
- Brief conclusions

Rank jobs

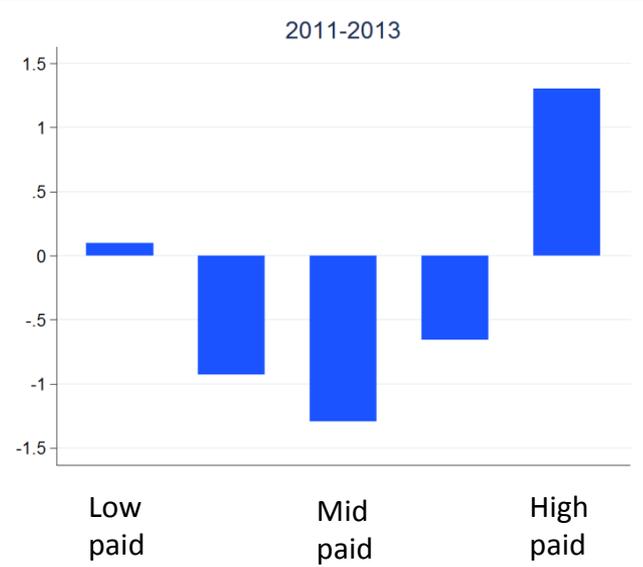
Rank	Occupation	Sector
1	Corporate managers	Financial services
2	Other professionals	Legal/accounting
3	Life science/health professionals	Human health
...		
345	Sales/services elementary occups	Construction
346	Plant/machine operators	Manufacture: auto
347	Sales/services elementary occups	Wholesale retail
...		
823	Personal care workers	Residential care
824	Craft workers	Manufacture: food
825	Sales/services elementary occups	Accommodation

Assign to quintiles

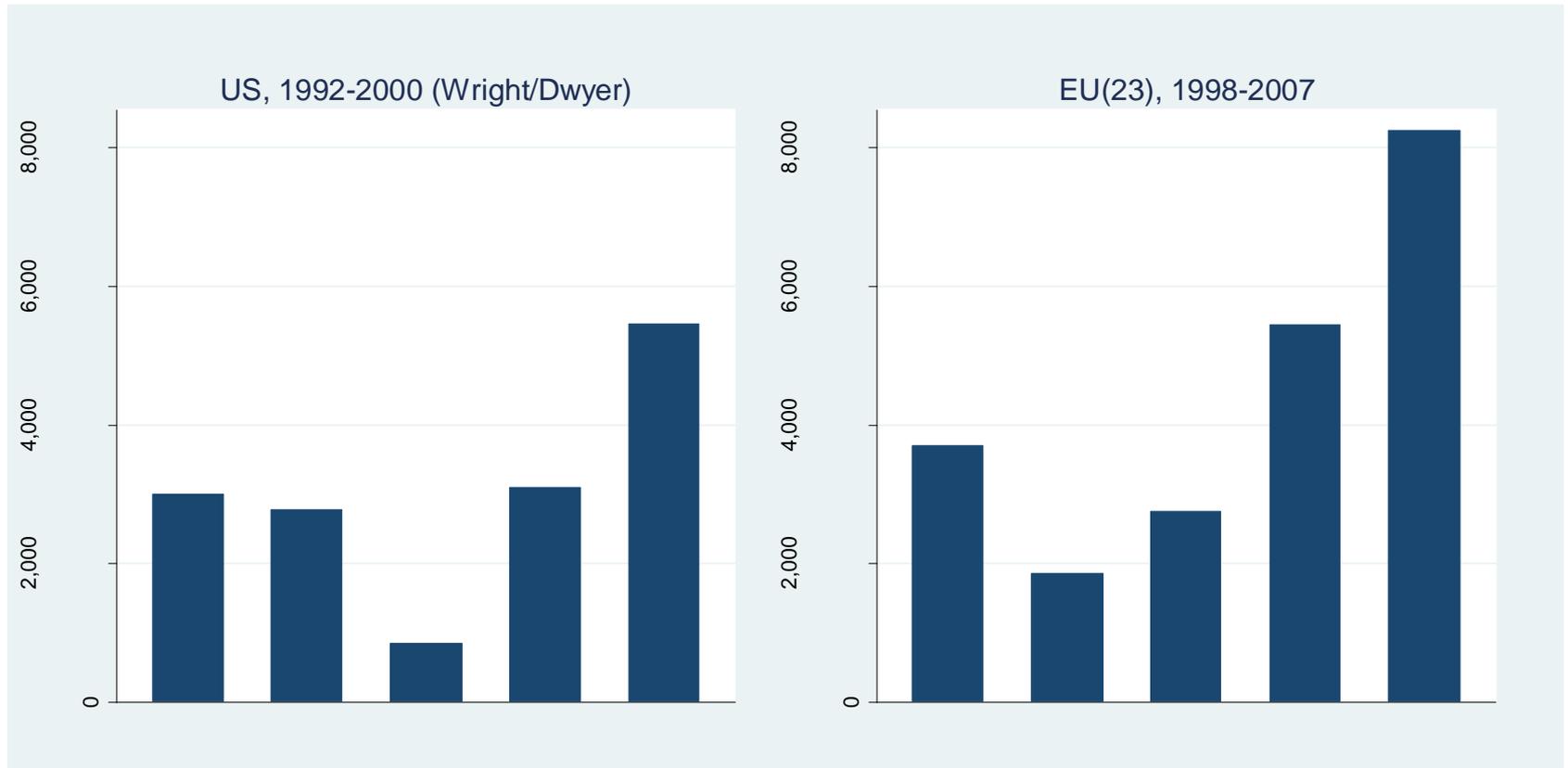
Quintiles
→ High paid
Mid-high
→ Mid-paid
Mid-low
→ Low-paid

Show net employment shift for period by quintile

2011q2-2013q2

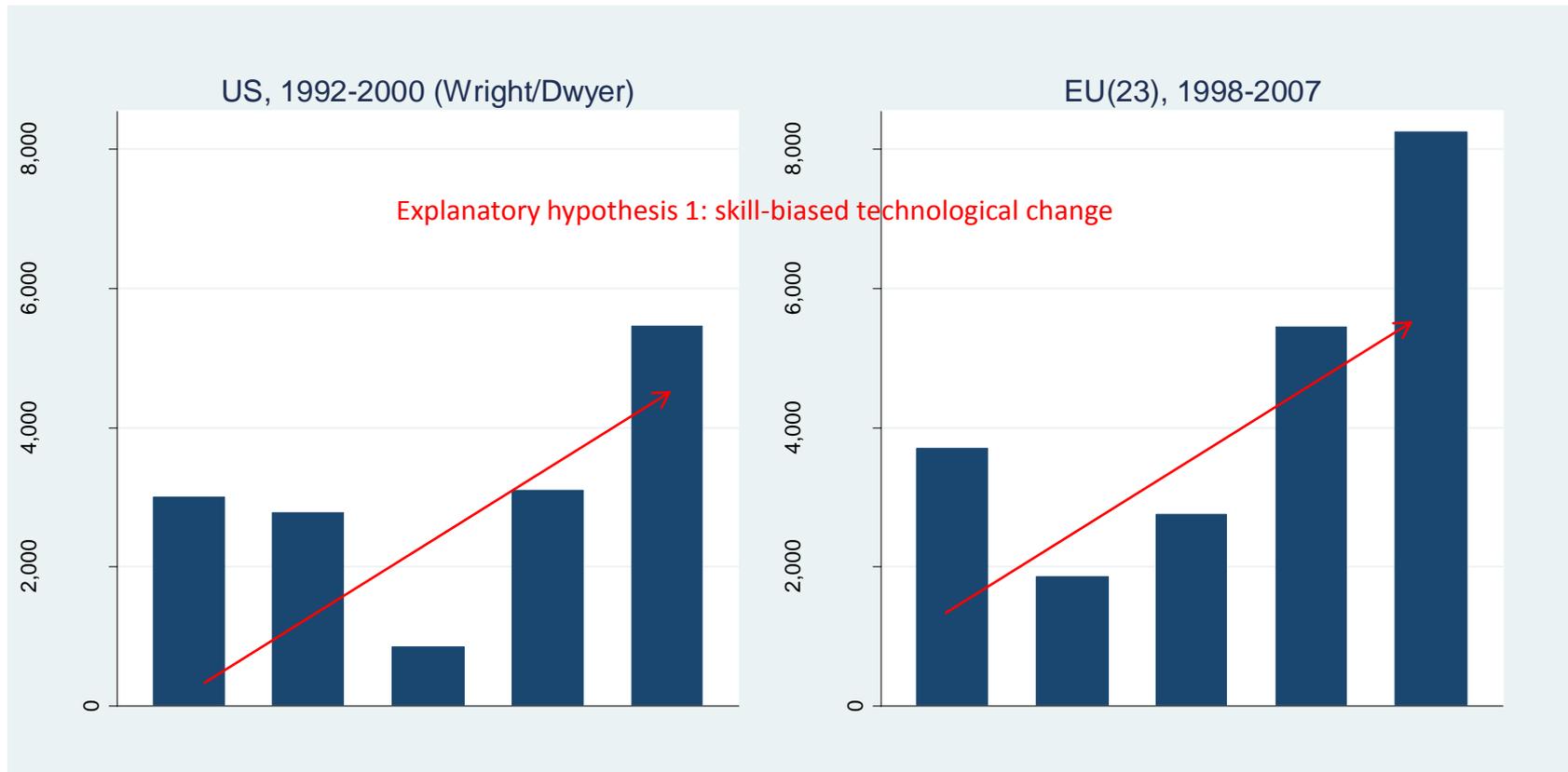


Recent employment expansions in EU and US (different periods)



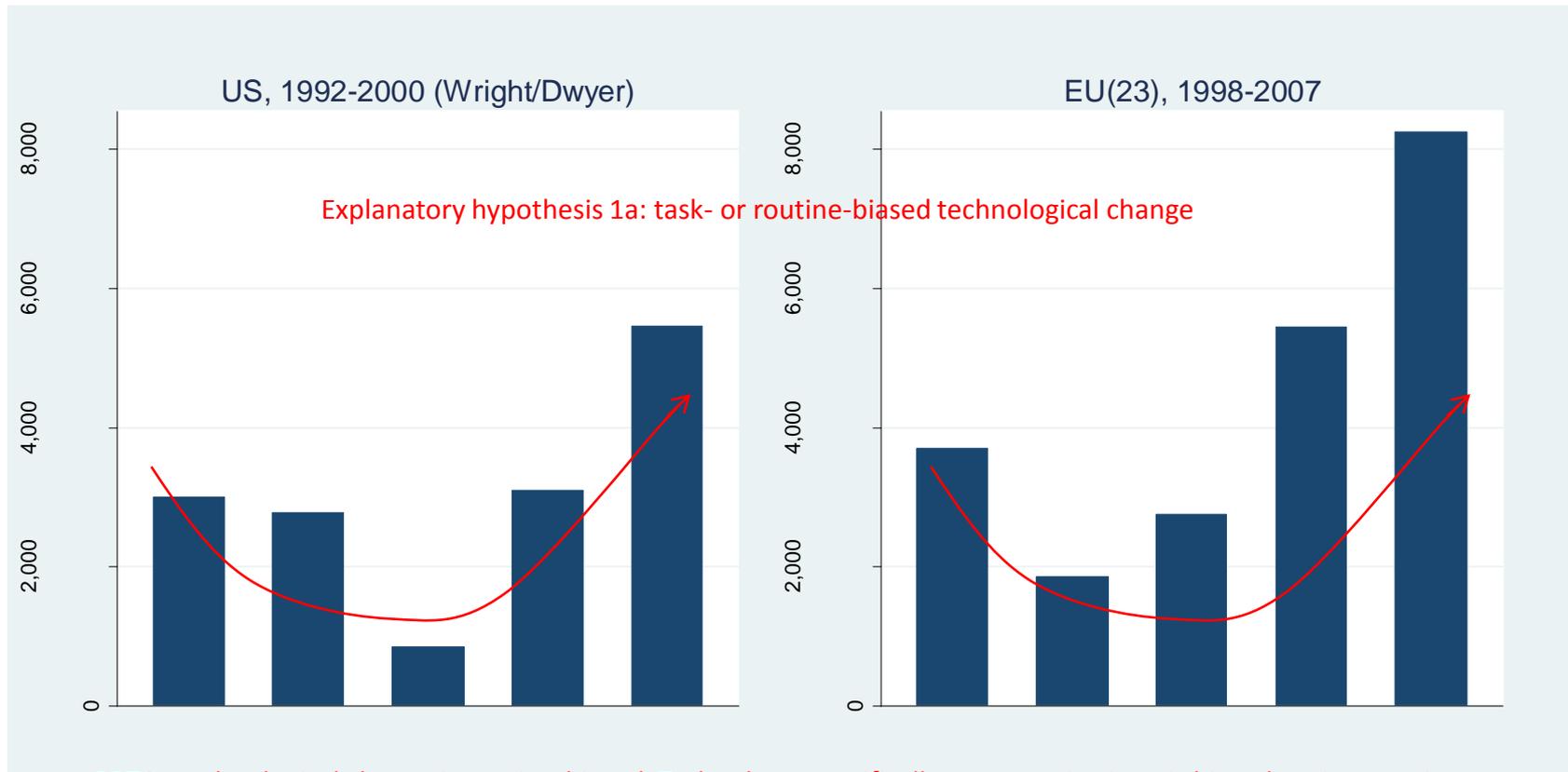
Sources: Wright and Dwyer, 2003; Eurofound 2008, 2013

Recent employment expansions in EU and US (different periods)

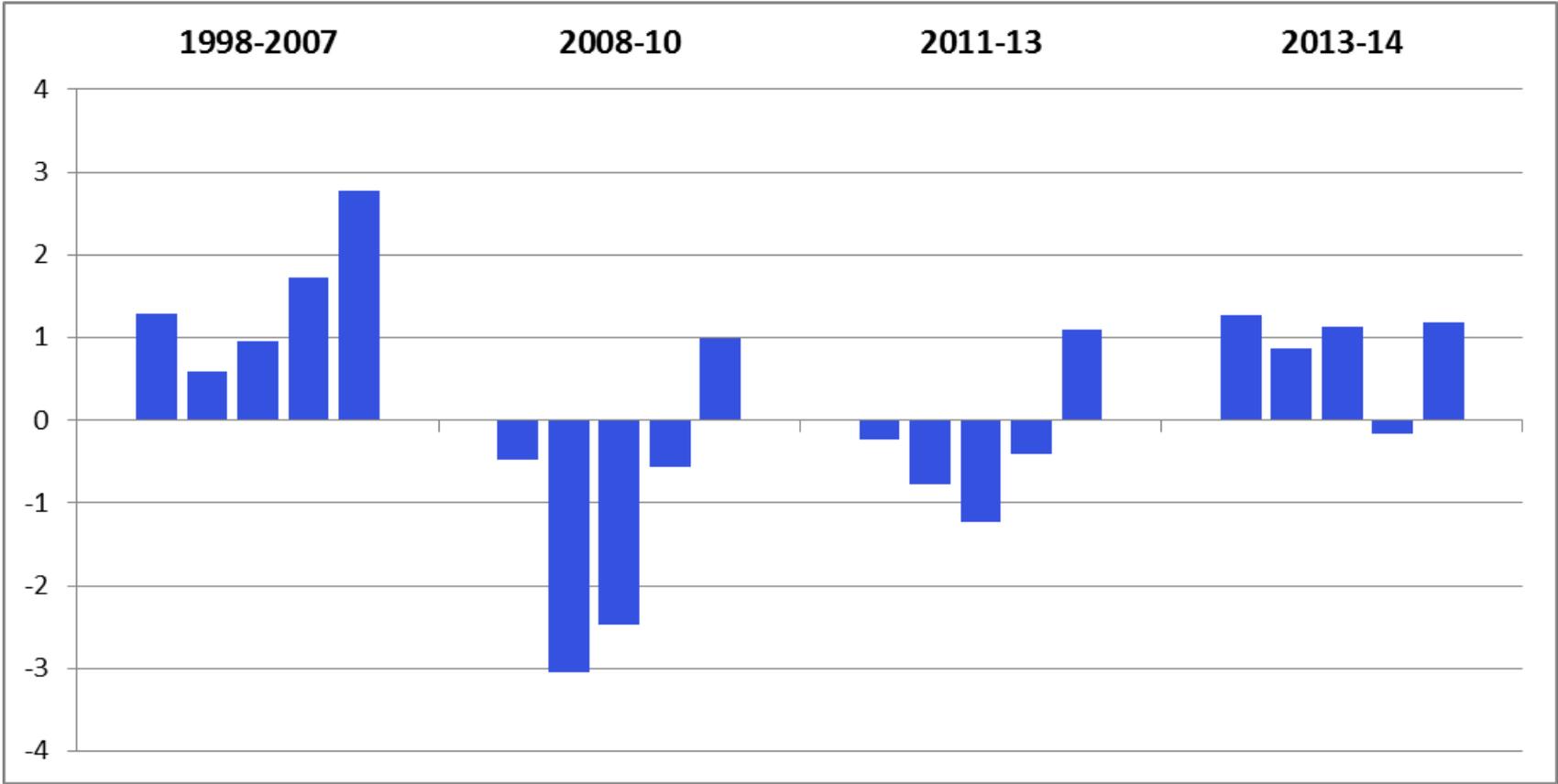


SBTC: technological change is skill-biased. Technology is complementary to high-skill jobs, makes them more productive and increases demand for them but substitutes for and reduces demand for low skilled jobs. The effect is linear across the wage distribution.

Recent employment expansions in EU and US (different periods)



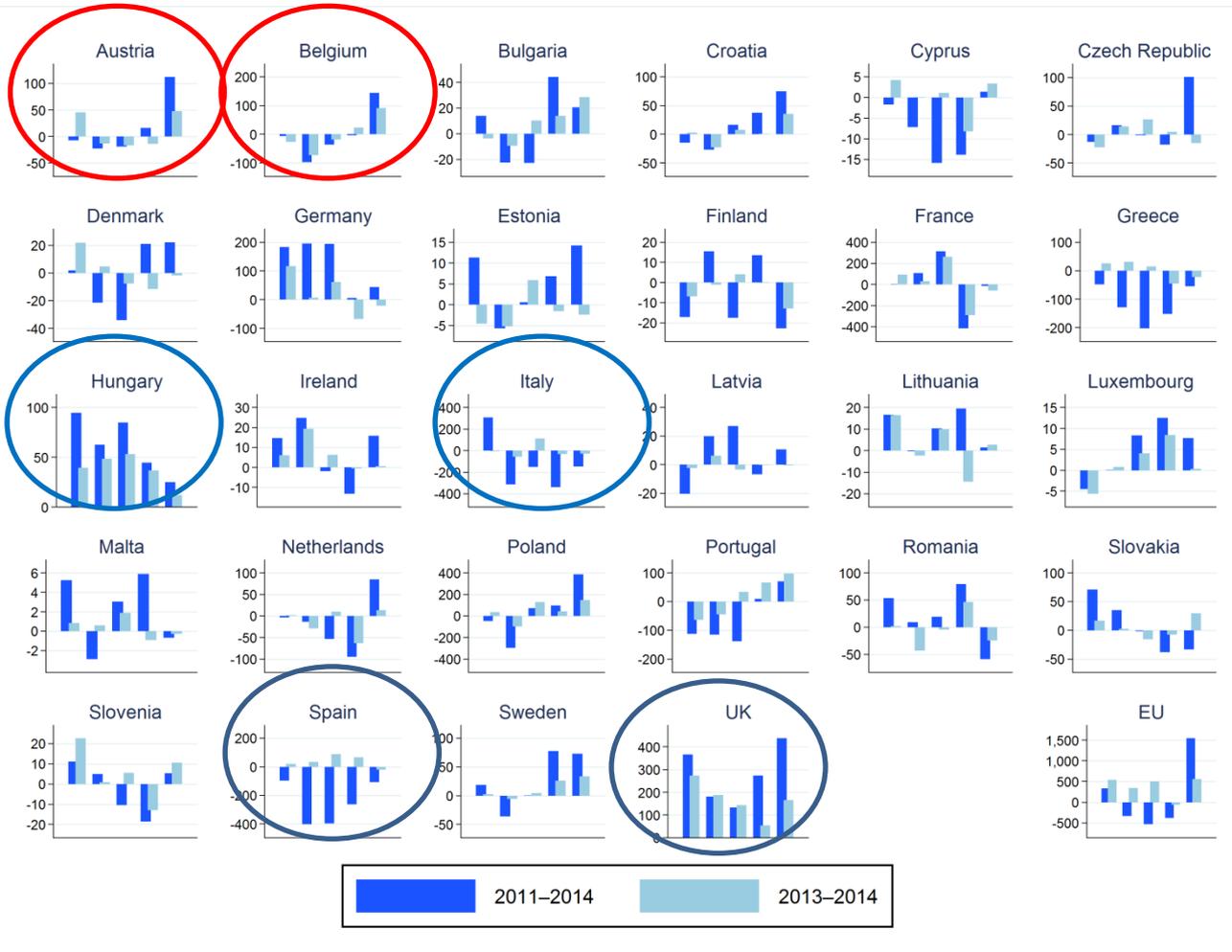
RBTC: technological change is routine-biased. Technology, specifically computerisation, is biased against routine jobs, those comprising tasks that are easily codifiable. These can be displaced easily, by automation or by offshoring. Two axes: routine and cognitive. Routine jobs, both high and low-cognitive, predominate in the middle of the wage structure. Decreasing relative demand for them generates employment polarisation.



Source: Eurofound EJM annual reports, authors' calculations based on EU-LFS, SES data.
 Note: EU23 for 1998-2007; EU27 for 2008-14

Employment shifts by job-wage quintile, EU28

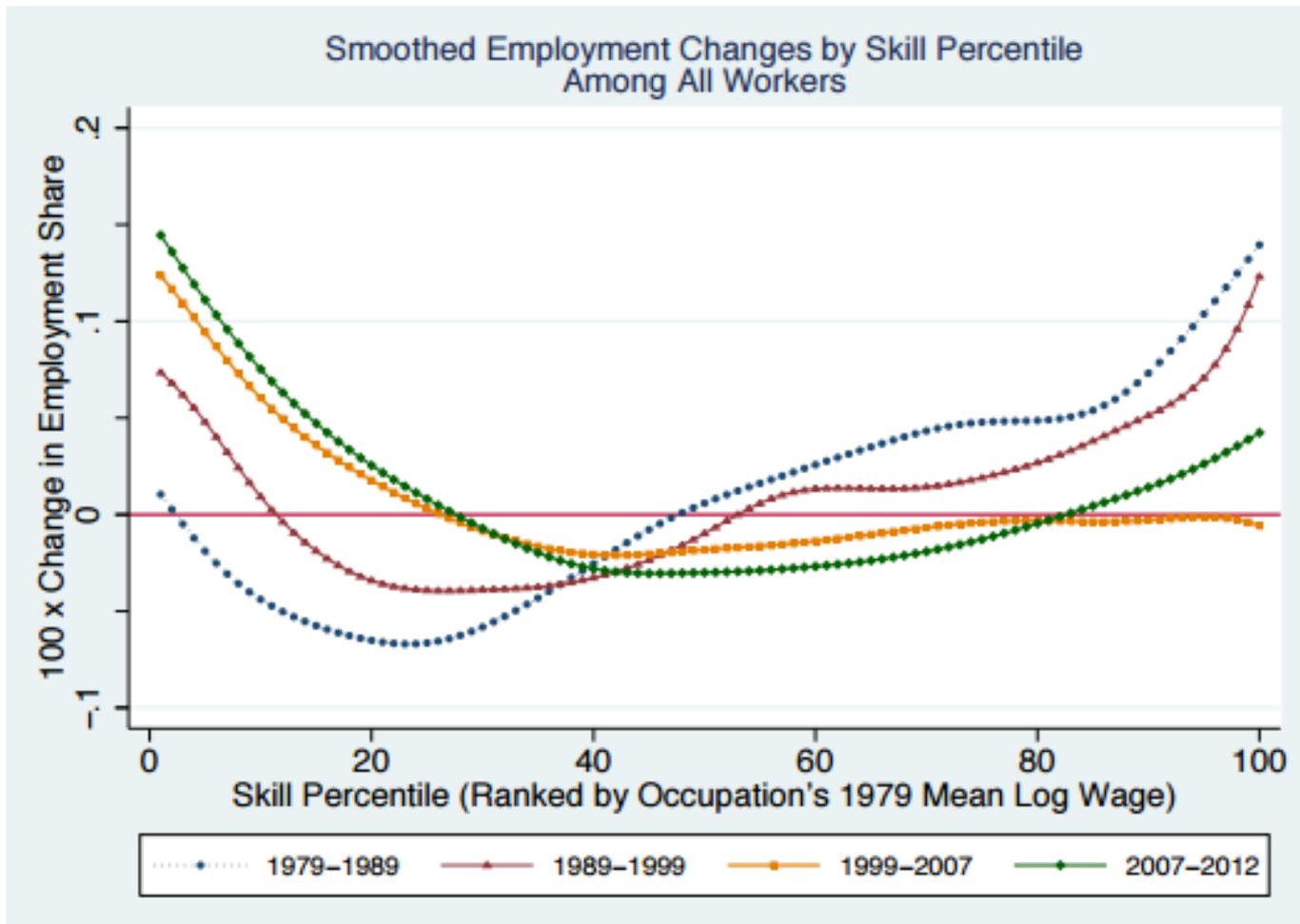
Upgrading



Note: German data for 2012-14 only. Source: EJM annual report 2015, authors' calculations based on EU-LFS, SES data. Coordinating the Network of EU Agencies 2015



Recent employment shifts in the US



Source: Autor 2014

1. Technology:

- Skills-Biased Technical Change
- Routine-Biased Technical Change

2. Trade:

- Offshorability and trade competition effects

3. Institutions:

- Labour market regulation and policies. State as employer etc

4. Labour market supply factors / broad dimensions of social change:

- Increased female participation, migration, educational upskilling

5. Macro-economic variables:

- Growth rate, stage of economic development, stage of business-cycle

6. Consumption spillover effects:

- Marketisation of domestic, household services.

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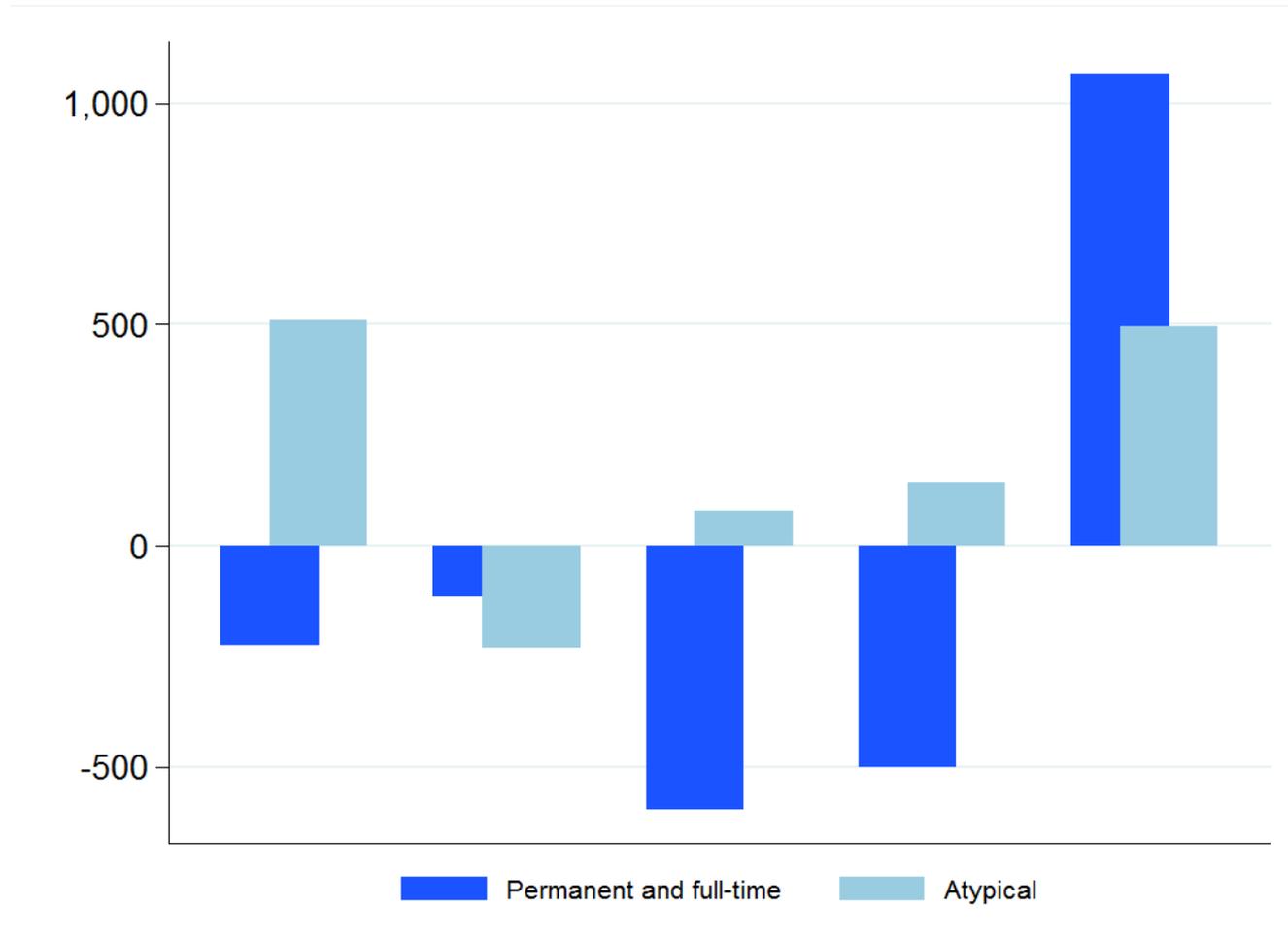
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How was (non-)standard employment change (,000s) distributed across the wage distribution (EU28, 2011-14)



Note: EU28, 2011-14. Source: EJM annual report 2015, authors' calculations based on EU-LFS, SES data.

- Variation of employment shifts across time and across countries ... polarisation and upgrading
- More recent data from EU and US indicates (emerging?) pattern of employment downgrading ... which has some echoes in low levels of productivity growth, the 'secular stagnation' hypothesis...
- Permanent, full-time status increasingly the privilege of well-paid jobs
- Technology / computerisation is an important vector of change ... but cannot be the only explanation

Thank you for your attention!

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Main source: European Jobs Monitor

www.eurofound.europa.eu/observatories/european-monitoring-centre-on-change-emcc/european-jobs-monitor

1. Technology:

- **Skills-Biased Technical Change:** computerization increases the relative demand of high-skilled labour. Implies a more or less linear upgrading occupational change.
- **Routine-Biased Technical Change:** on top of the skills bias, there is a routine-bias in computerization (routine tasks are easier to do with machines). Since routine tasks are more frequent in the middle of the skills continuum, there is a non-linear, polarizing effect.

2. Trade:

- **Offshorability and trade competition effects:** some jobs are more tradable than others, and thus more affected by the increasing levels of trade openness. Jobs requiring more social interaction are less affected by trade and they are often in the top and bottom (thus contributing to polarization).

3. Institutions:

- **Labour market regulation and policies** interact with other factors producing different patterns of structural change. Examples: deregulation of employment contracts, minimum wages, collective bargaining. Also, directly, state as employer.

4. *Labour market supply factors / broad dimensions of social change:*

- *Increased female participation, migration, educational upskilling*

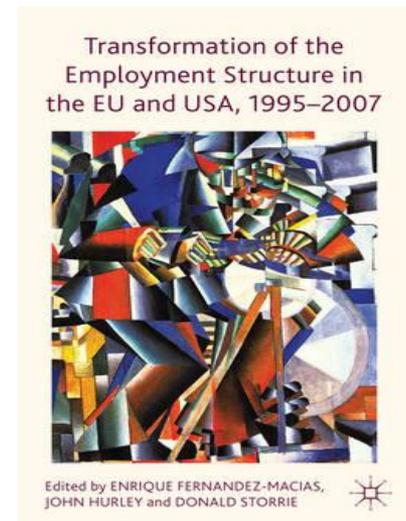
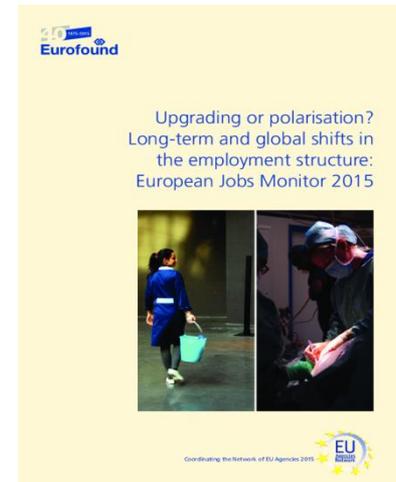
5. **Macro-economic variables:**

- *Growth rate, stage of economic development, stage of business-cycle*

6. **Consumption spillover effects:**

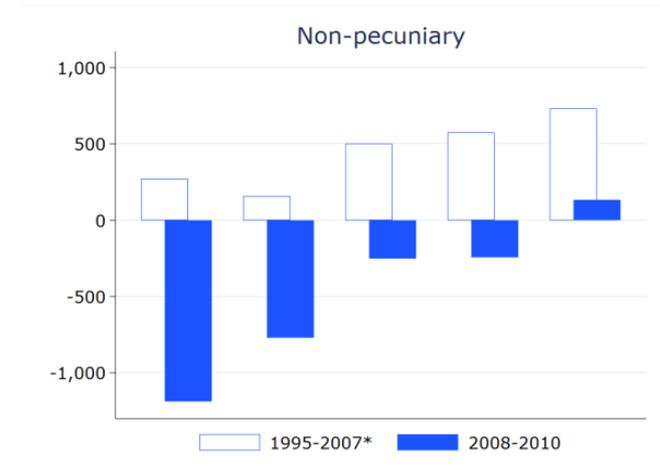
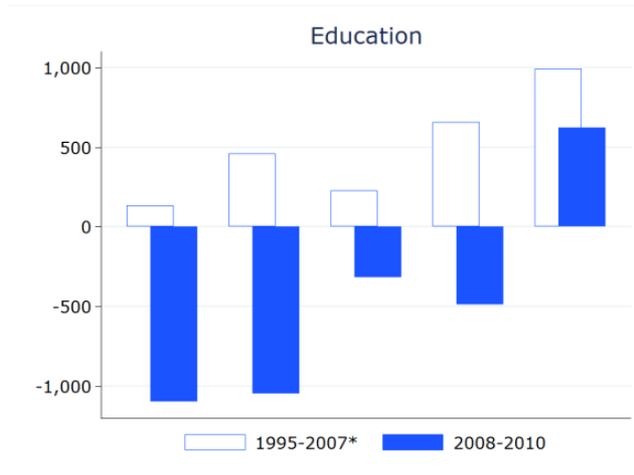
- *Marketisation of domestic, household services.*

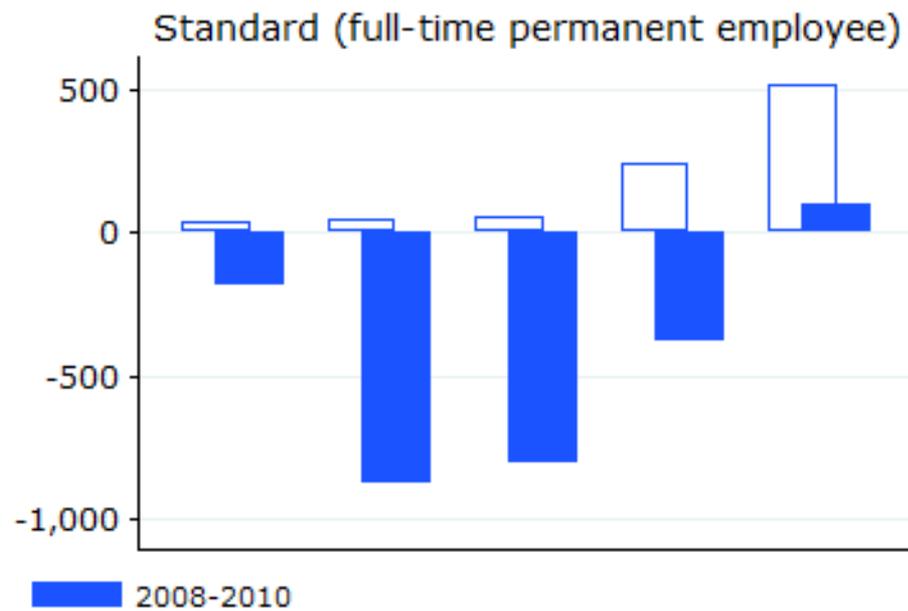
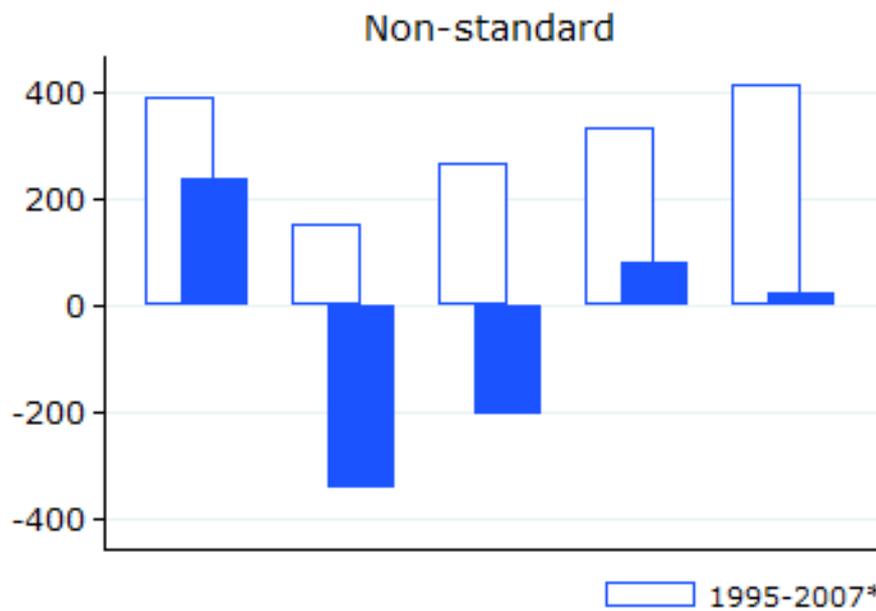
- **Annual reports**
 - ▶ 2008: First comparative Europe-wide application of the jobs approach
 - ▶ 2011-ongoing: European Jobs Monitor annual reports. Next report: 2016q2
- **Research papers**, eg: Fernández-Macías, E. "Job polarization in Europe? Changes in the employment structure and job quality, 1995-2007." *Work and Occupations* (2012)
- **Chapter contributions** to European Commission flagship reports, eg. Employment and Social Developments in Europe 2011
- **Academic publication:** Fernandez-Macias, E., Hurley, J. and Storrie, D., eds. (2012). *Transformation of the Employment Structure in the EU and USA, 1995-2007* (London: Palgrave Macmillan)



- Variety of outcomes across member states. There is no ‘pervasive polarisation’. This suggests a role for institutional variables, especially as the cross-country variation relates mainly to low and mid-paid employment; ie. where labour market policies / institutions tends to impact employment
- Income inequality: both polarisation and upgrading likely (ceteribus paribus) to contribute to growing wage inequality.
- “Hollowing” middle: one of the main underlying stories is the relative decline of good quality, mid-paid, often male, jobs not requiring 3rd level education.
- More recent data from EU and US indicates (emerging?) pattern of employment downgrading ... which has some echoes in low levels of productivity growth, the ‘secular stagnation’ hypothesis...
- Technology / computerisation is an important vector of change ... but not the only explanation

Polarisation: it's mainly about wages!





Source: EJM annual report 2013, authors' calculations based on EU-LFS, SES data.