

Is there a link between job polarization and jobless recoveries in Germany?

Definition & Evidence

Job polarization

- Increasing employment in high- and low-wage occupations while jobs in the middle-wage occupations are disappearing
- Evidence for the United States and most European countries
- Potential inequality in earnings and employment distribution (Acemoglu and Autor 2011; Goos et al. 2014)

Jobless recoveries

- Continuous decline in aggregate employment levels after trough of recessions while aggregate output shows rebound
- Evidence for the United States, no concluding research for Europe
- Potential increase and persistence of unemployment rates (Groshen and Potter 2003; Bernanke 2009)

Previous Literature

Link between job polarization and jobless recoveries in the US

- Jaimovich and Siu (2014) find clear evidence for a link using detailed occupational-level data
 - Job polarization is a decline of routine jobs
 - Job polarization has a cyclical component: 88% of routine job loss occurs in recessions
 - Jobless recoveries are accounted by disappearance of routine jobs

Empirical evidence outside the US

- Jaimovich and Siu (2015) confirm clear evidence for a link for 16 European countries using aggregate ELFS employment data
- Gaggl and Kaufmann (2015) find suggestive evidence for 15 countries using annual EU KLEMS employment data; slowdown in recoveries less pronounced outside the US
- Graetz and Michaels (2017) find no evidence in aggregate industry level data for 16 countries

Relevance of the link

- Middle-wage workers are particularly hurt by recessions
- High long-term unemployment risk for middle-wage workers
- Increasing divide between the people at the top and at the bottom of the income distribution

Hypotheses

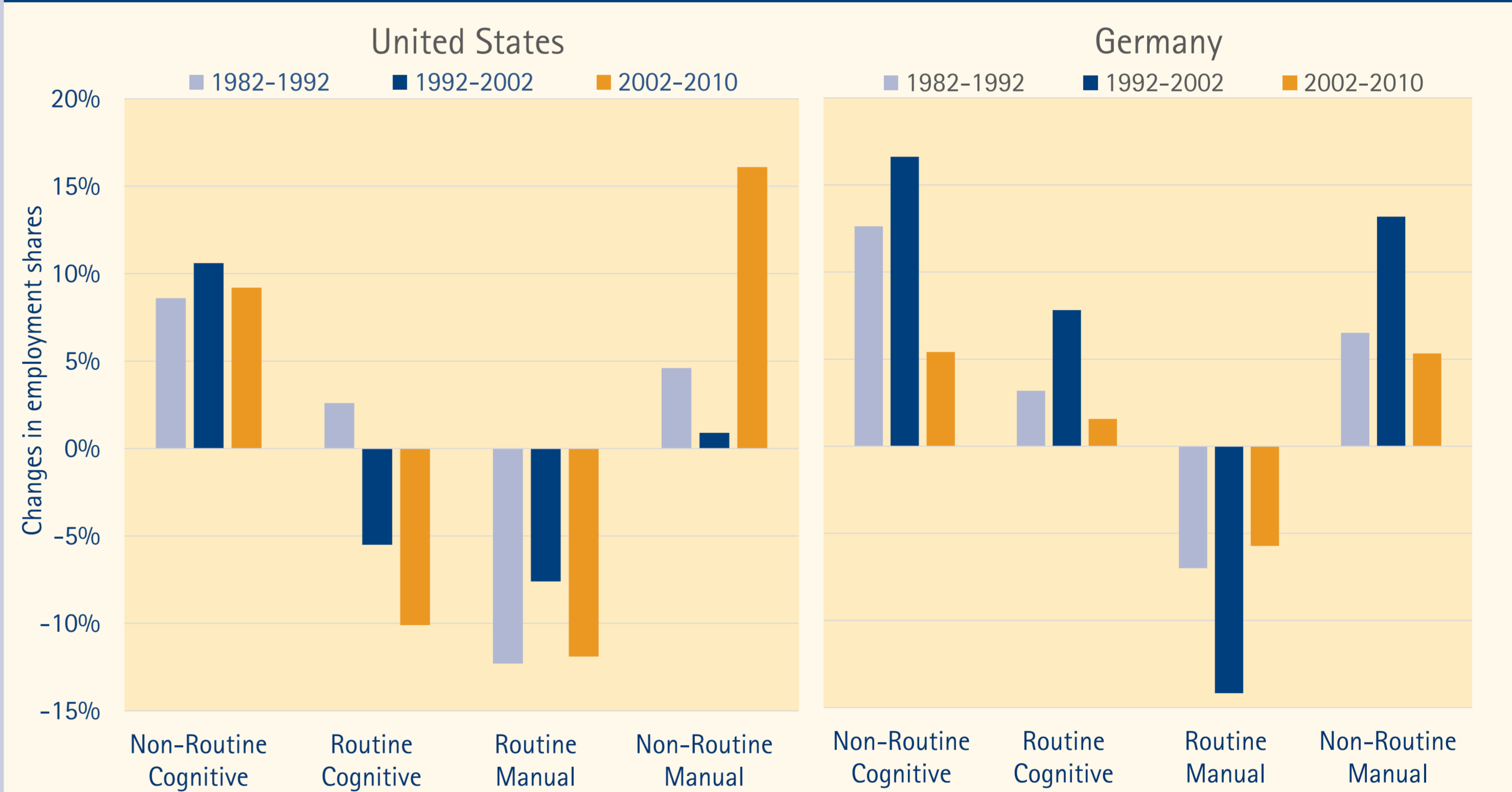
- Conduction of a detailed occupation-level analysis for Germany
 - H1** Job polarization leads to concentrated routine loss in recessions
 - H2** Aggregate jobless recoveries are accounted by displaced routine workers

Data

Sample of Integrated Labor Market Biographies (SIAB)

- 2 % random sample drawn from the social security records
- Not included are civil servants, students or self-employed
- Restricted to West Germans aged 16 years and over
- Sample period: 1975-2010

Job Polarization

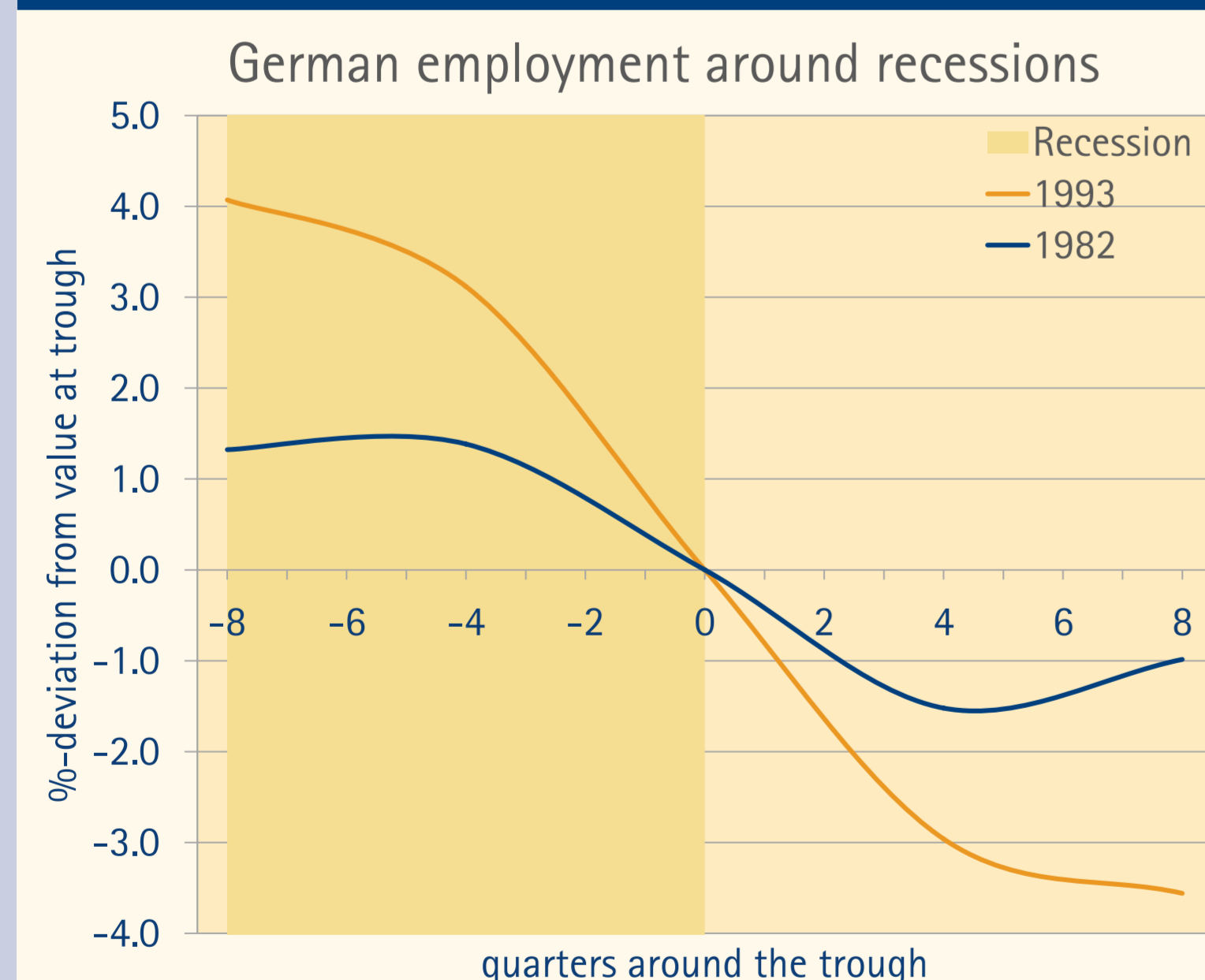


Occupational Groups

Group	Activities	Job examples
Non-routine manual	physical activity, demand flexibility	janitors; manicurists; personal care workers
Routine manual	physical activity, well-defined repeated set of procedures	machine operators; mechanics; dressmakers
Routine cognitive	mental activity, well-defined repeated set of procedures	sales personnel; secretaries; bank tellers
Non-routine cognitive	mental activity, demand flexibility	physicians; financial analysts; computer programmers

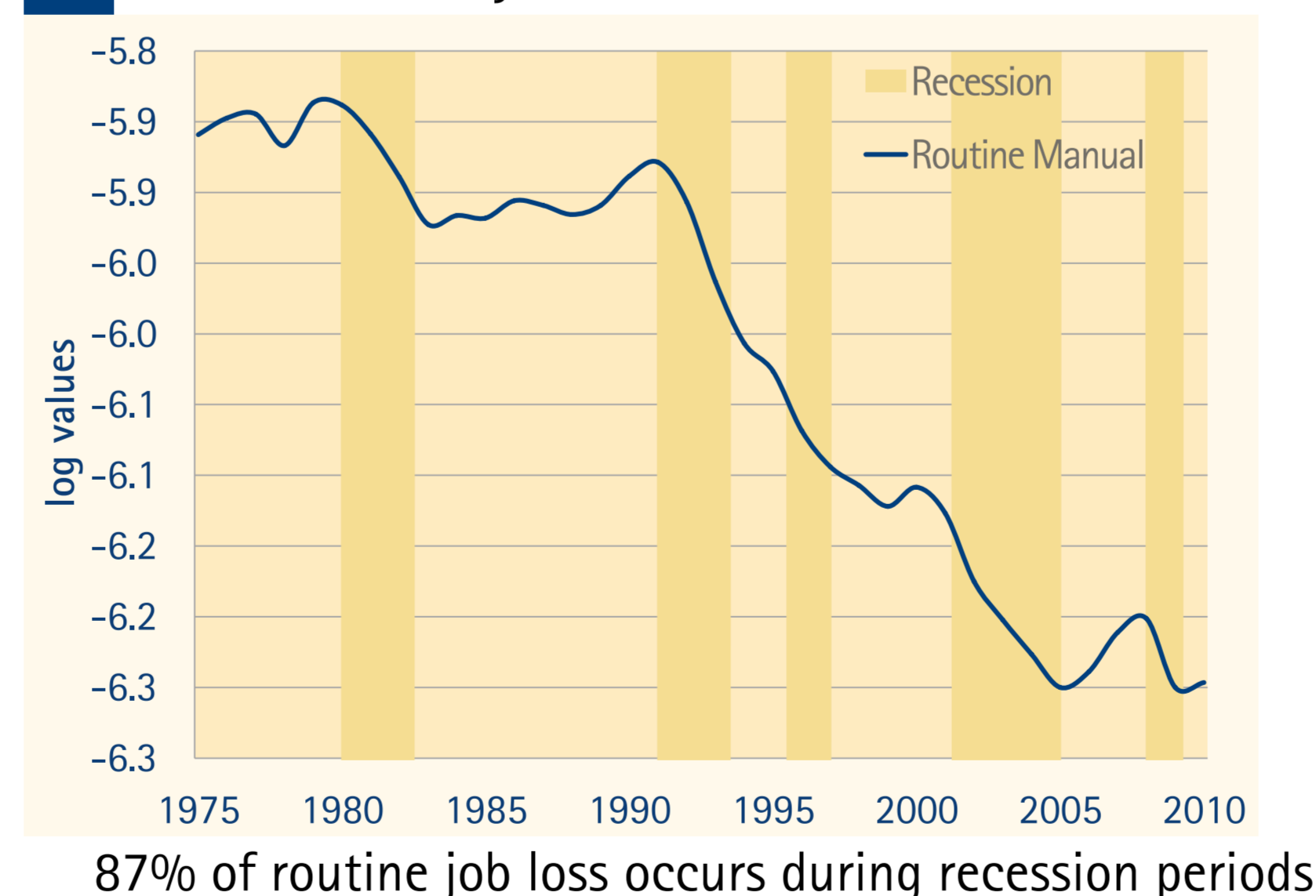
Note: Occupational classification following Jaimovich and Siu (2014)

Jobless Recoveries

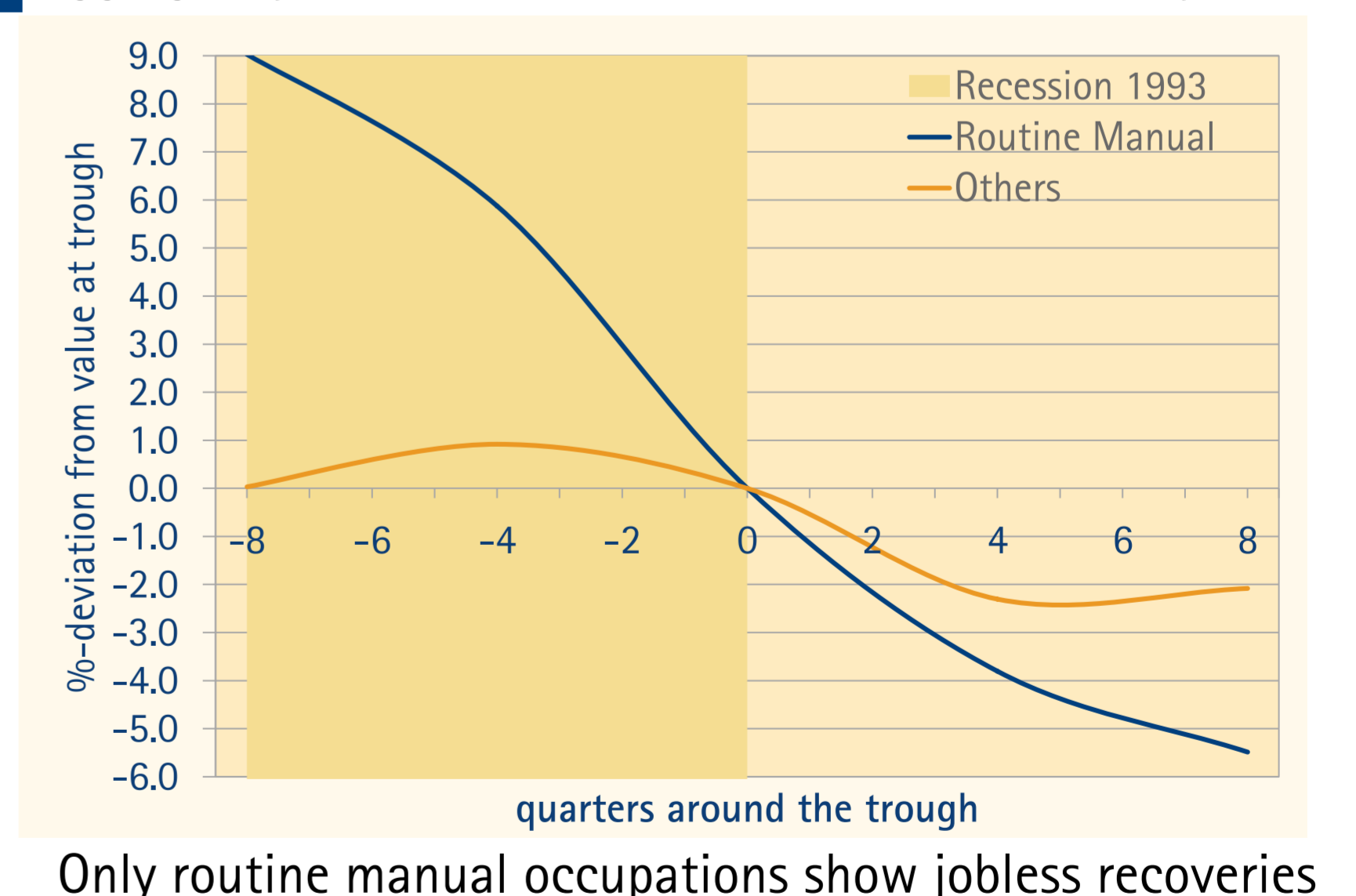


Link between Job Polarization and Jobless Recoveries in Germany

H1 Routine manual job loss concentrates in recessions



H2 Aggregate jobless recoveries due to routine manual job loss



Only routine manual occupations show jobless recoveries

Conclusion

Summary

- Job polarization in Germany differs from the US: only routine manual occupations are disappearing
- Jobless recoveries occur after recessions in the 1990s
- Link between job polarization and jobless recoveries can be established for Germany
 - 87% of routine manual job loss from 1991 to 2006 in Germany occurs during recession periods
 - Only routine manual occupations show jobless recoveries

Outlook

- Inclusion of the task dimension as an alternative measurement of occupational groups
- Conduction of multivariate analyses in order to examine the role of job polarization for a change in recoveries from recessions