OECD Labour Markets in the Great Recession

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The Economica Phillips lecture

9 February 2012
Introductory remarks: Timings

• Great Recession started with a downturn in housing markets and financial failures, sometime in late 2007 or beginning of 2008

• Although exact timing differed across countries, by the time of the Lehman collapse in September 2008 all countries of the OECD entered some kind of recession.

• Recession was at its most severe in late 2008 and early 2009. In the UK and US one can identify January 2008 to April 2009 as the downturn in the labour market
Objectives

• I will focus on impact of recession by comparing employment outcomes in 2009 and 2007. I will fit all countries into same framework and use annual data from the OECD.

• No particular new theory – will use ideas from conventional models to evaluate the impact of labour market institutions and policy on the response of employment and unemployment to the recession
Overview of impact on employment and unemployment
Employment response varied across countries

Change in employment, %, 2007-09

Per cent

IRE SPA EST ICE USA HUN NZ OECD CAN FIN ITA UK DEN MEX EURO FRA EU KOR GRE AUS CZE BEL TUR SLV SLO JAP NOR SWE CHI AUT ISR NET GER LUX POL
Allocation of negative shock between persons employed and hours also varied.
Unemployment response very similar to employment
Men suffered more unemployment than women
Most job losses in industry

Job losses, 2007-2009

% population aged 16-64

-0.4 -0.2 0 0.2 0.4 0.6 0.8 1 1.2

industry construction services agriculture

EUROZONE OECD

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But this ignores structural change

- Structural change in both OECD and Eurozone was destroying jobs in industry and agriculture and replacing them with jobs in services

- If we predict where structural change would have taken employment levels (by extrapolating 2000-07 trends for two years) we get completely different story

- Making this correction also implies that the recession caused a lot more job losses: aggregate employment was on an upward trend
No job creation in services is the villain

Predicted job losses compared with employment levels if 2000-07 trends continued to 2009

EURO
OECD
Unemployment dynamics

• To a very good approximation unemployment is equal to the product of (new entry) and (average duration)

• At the onset of recession, usually the cause of the rise in unemployment is an increase in new entry – average duration might even fall

• But as recession takes hold either new entry or duration could be behind unemployment rise (and persistence)
Cause of rise in unemployment, 2007-2010 (smaller sample)
Modelling employment
Modelling employment

• Simplest modelling framework (maximization of profit with Cobb-Douglas production function) gives log change in employment as a linear function of log change in output and log change in cost of employing labour

• Interpret current recession as a negative shock to “organizational capital”. Not necessarily technology but something equivalent, something that facilitates the way that the factors combine to produce output
Modelling cont.

- Financial intermediation plays key role in organizational capital. If it fails there is a negative shock to factor productivity because factors don’t combine as efficiently

- Output falls at given employment level

- The cost of employing labour is a generalized cost concept that might include costs in employment adjustment

- Policy and institutions influence the generalized cost of labour
Aggregate and sectoral shock

If the costs of adjusting employment, policies and institutions were the same across the OECD, then a simple regression of the fall in employment on:

- the fall in GDP to pick up the aggregate shock
- the share of the construction sector to pick up the biased nature of the shock

should explain outcomes well, unless wages responded differently in different countries
## Estimation results for fall in employment

<table>
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<th>Coefficient</th>
<th>Std. Error</th>
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<th>Prob.</th>
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<td>F-statistic</td>
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Comments

• The two independent variables explain a lot of the variation in employment adjustment across the OECD (note endogeneity bias, small number of observations, 33 countries)

• Differences in residuals interpreted as due to different institutional arrangements (omitted variable the generalised cost of employing labour)

• I report residuals both for employment regression and regression for total hours and unemployment
Deviation of employment change from predicted, %

[Bar chart showing deviations for various countries, with deviations ranging from -6 to 6%]
Deviation of change in total hours of work, %
Unexplained rise in unemployment
Country differences
Major economies

• USA consistently shows up as having bigger fall in employment, bigger fall in hours and bigger rise in unemployment than predicted by the fall in its GDP and the size of the construction sector

• Germany (and Japan) experience lower fall in employment and smaller rise in unemployment than predicted but about right in fall in total hours

• Britain: OECD average response on all measures
Others

- Spain (also Ireland, Iceland, Israel) have bigger fall in employment and bigger rise in unemployment than predicted, but not bigger fall in hours
- Portugal and Greece lower response on all three measures
- Luxemburg an outlier defying logic: very strict labour market regulation but immune to recession
United States

• Initial impact of recession similar to previous ones (Hall and others)

• But in 2009 experiences persistence in unemployment, long-term unemployment and jobless recovery (big rise in productivity)

• Unique among OECD in that by 2009 longer durations were contributing more to unemployment persistence than bigger inflow. In the rest of OECD new entry main reason for rise in unemployment
Summarise US

• Compared with OECD average and controlling for the fall in GDP and the size of the construction sector, US experienced:
  – Bigger fall in employment and hours
  – More burden of adjustment on employment than on hours per person
  – Despite this, rise in unemployment due more to longer durations than to new entry
What does it mean?

- Typical response of economy with employment laws that impose no restrictions on firms and offering no incentives for labour hoarding
- But suffering from rigidities on the workers’ side that delay job acceptance
- Combination of employer-friendly flexibility with frictional rigidities in job search
Beveridge curves

- Beveridge curve “breakdown”, as interpreted by some?
- More typical situation of a shifting Beveridge curve in recession, reminiscent of European labour markets in the 1980s recession
- Due to the increase in search frictions
The US Beveridge curve, 2001-11
Interpretation

• Traditionally, US recoveries close to Beveridge curve – in Europe they exhibited bigger loops: more search frictions in Europe than in US

• If this recovery followed previous ones, unemployment in US could be down to 6-7%

• But unemployment not falling – why?
Plausible causes

1. Structural change in recovery. Jobs created in different locations from the locations of those destroyed. Traditional response in US is labour mobility, mobility now down substantially (less than half) due to home ownership and depressed housing markets

2. Extension of unemployment benefit: creating more disincentives than higher replacement rates of limited durations

3. Skill mismatch: financial crisis makes firms cautious about spending on retraining. More uncertainty in this recession
Comparisons with Britain, 2001-2011

The graph illustrates the comparison between the US and the UK in terms of vacancies and unemployment from 2001 to 2011. The x-axis represents unemployment rates, while the y-axis represents vacancies. The red line indicates the US data, and the blue line represents the UK data. The graph shows the trends and differences in labor market conditions between the two countries during this period.
Comments

- Comparable data collection methods since 2001 enable good comparison

- Britain reformed its economy in 1980s and 1990s and the structure of the labour market is now very similar to US

- But reaction to recession very different: Britain exhibiting features of conventional depressed labour market, US features of a labour market with structural problems
Lessons

• In Britain, not much can be done with labour market policy to improve labour market – institutions seem to function well, problem is macro environment

• In US, evidence that extending UI in recession without an active component dangerous for duration of unemployment

• Returning labour market to traditional US-style flexibility requires fixing the housing market
Comparing with Germany: GDP and total labour input

Percentage changes, 2007-09

United States  Britain  Germany

GDP  total hours
Split of labour input between hours and persons

Percentage changes, 2007-09

- United States
- Britain
- Germany

- employment
- hours per worker
Striking facts

• Fall in GDP very similar, fall in overall hours dissimilar: US much bigger fall than Germany

• Fall in hours per person similar in US and Britain, a little more in Germany

• Striking difference is in employment adjustment: much more in US than Germany, Britain in the middle
Productivity as the shock absorber

- Main adjustment that counterbalances labour changes is productivity, not differences in final output

- US had big increase in both hourly and per person productivity, especially in services, Germany big fall in both, Britain small fall
Reasons

• Germany liberalised labour markets in 2000s, similar reforms to Britain two decades earlier (the Hartz I-IV reforms)

• Economy becomes more business-friendly, less restricted by labour regulation and with lower duration of benefits to unemployed, increased active spending and benefit receipt conditional on strict search and work criteria
Main difference between Germany and other two

• Why did German employment fall less?

• Industrial structure: Germany less reliant on financial sector, export demand from Asia continued and in Germany it makes up a bigger share of employment – not likely to be important (fall in GDP similar, etc.)

• Crucially: Germany had in place generous system of wage subsidies and other active labour market policies
German policy successes

- Active policies in the form of
  - Training, short term (e.g., how to apply for jobs and present oneself to employers) and longer term (skill acquisition)
  - Targeted wage subsidies
  - Start-up subsidies (support for 9 months, UI benefits plus some more)
  - Job creation schemes in public sector

- Targeted wage subsidies
  - Given to employers
  - Cover 50% of wage for 12 months with another 12 months “protection period”
  - Tailored to unemployed and disadvantaged groups
Results of evaluation studies

• Programmes effective in getting unemployed, especially long-term unemployed and others with some other disadvantage, back to work

• But probably no effect on re-employment probabilities in non-subsidised employment

• Pay off fiscally because of saving of unemployment benefit and revenue from social security contributions
Germany 2005-2010: impact of reforms on Beveridge curve

- Recovery 2005-2006, following reforms (Hartz)
- Fast recovery 2007-2008M9 (up to Lehman collapse)
- Recession 2008M9-2010 but response of unemployment small
- Example of economy becoming more flexible in 2007
Evaluation

• Unrestricted labour markets like the US and UK can give rise to big increases in unemployment in recession

• Long-term unemployment builds up, especially if benefits are of long duration

• German example shows that wage and start-up subsidies can mitigate the impact of recession on employment
To be recommended?

• German policy good because it checks the growth of structural unemployment – keeps people in work, even if it is at reduced hours and pay

• But productivity falls

• Is this bad for recession years? Would you give up productivity gains for less unemployment
Spanish labour market

• Spain is an outlier in the other direction from Germany’s: massive fall in employment and rise in unemployment, no fall in hours per person, with big productivity gains

• All countries with very minor exceptions managed to keep unemployment rise below GDP fall

• In Spain unemployment increased by much more than GDP fall
Is the construction sector to blame?

Employment in the construction sector

Per cent of working age pop.

Spain
Eurozone

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Building bubbles

- Employment in the construction sector up to 1996 follows same patterns as Eurozone
- In 1996 it takes off, increase by 4 percentage points in 11 years
- Quick return to Eurozone level by 2010
Compare like for like

- If we put both unemployment and the construction sector on comparable basis, e.g., as fractions of total employment, then
  - Unemployment up by 16 points (even more for men)
  - Construction employment down by 4.2 points
  - Numbers don’t add up!
Wealth effects

- Housing wealth a very large fraction of total wealth in Spain (about 80%)

- Is fall in wealth associated with construction bust to blame?

- If this were the case the impact would be on GDP, not on employment over and above GDP
Clear message

- Clear message is that in Spain there is an institutional structure in the labour market that leads to excess employment volatility
  - It affects women more than men
  - Young workers even more
Employment protection

- Spain is the most regulated labour market in Europe (with the exception of Luxembourg)
- Regulation is not only in legislation but also in trade union agreements
- It applies to permanent employees but also various other forms of regulation apply to temporary contracts
Employment contracts

- Spain still has dual structure of contracts: older male workers have too much protection at high wages
- Employers too cautious about offering this type of contract to new employees
- Could cause a lot of volatility in times of uncertainty. Employers rotate employees to avoid getting tied in to long-term contracts
- Security of permanent contracts encourages unions to negotiate high wages, and apply them to all workers
Spanish reforms 2010-11

- Worker dismissals for economic reasons made easier, with 15-day notice

- New more comprehensive employment-promotion permanent contract introduced, with express dismissal procedure (33 days’ wages paid as compensation for each year of service)

- Temporary contracts’ dismissal costs gradually raised from 8 to 12 days’ wages for each year of service
Further reforms

- Non-wage costs of short-hour working reduced, following successful policy in Germany
- Private placement offices encouraged
- Firm-level agreements with workers take precedent over industry-wide agreements with unions but the latter can prohibit it
Prospect of success

- Reforms in the right direction but two key problems remain

- The dualism in the Spanish labour market is retained, permanent contracts have more benefits than others

- Collective bargaining still applies to all workers in the industry

- Unions need to be socially motivated for this system to succeed; No evidence for this, real wages sticky even in the crisis
Two reforms that could make a difference

- Reforms in Spain have been piecemeal and on the margin, have created a very complex system with different rules applying to different workers

- Not good for employment – need to simplify contracts and move economy to flexible free market

- Introduce single contract – gets rid of dualism. Can have gradually rising protection

- Give priority to firm-based agreements over union collective bargaining – effectively remove right of union to apply collective agreements to all industry
谢谢！
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