

Discussion:
“Hours Worked over the Business Cycle
in OECD Countries, 1960-2010”
by Lee E. Ohanian and Andrea R. Raffo

Thijs van Rens
CREI and Universitat Pompeu Fabra

Advances in Labor Market Dynamics
77th Carnegie-Rochester Conference on Public Policy
New York University

April 15-16, 2011

Contributions of the paper

- Construct new dataset
 - Total hours, not employment
 - 14 OECD countries
 - Quarterly, 1960-2010
- Revisit what we thought we knew
 - ① Extensive versus intensive margin of labor adjustment
 - Extensive margin most important (US data)
 - Expect to be less important in Europe because of LM frictions
 - ② Great Recession
 - US looks different from Europe (OECD empl data)
 - Casts doubt on banking crisis as common source (Ohanian 2010)

Construction of the dataset

- Quarterly data on total hours, 1960-2010
 - Official quarterly data on hours per worker (national agencies)
 - Backcast using quarterly data from the ILO
 - Adjust using annual data from the Conference Board TED
- Sample

Table 1. Hours per Worker: Sample

Australia	1970-2010	Italy	1960-2010
Austria	1965-2010	Japan	1960-2010
Canada	1960-2010	Korea	1970-2009
Finland	1960-2010	Norway	1960-2010
France	1960-2010	Sweden	1975-2010
Germany	1960-2010	UK	1971-2010
Ireland	1960-2010	U.S.	1960-2010

- Netherlands, Spain (2008-2010)

Results: Great Recession

- Comovement of labor and output in the Great Recession
 - Employment (Ohanian 2010)
 - US: large increase labor wedge, no change productivity wedge
 - Europe: large decline productivity wedge, no change labor wedge
 - Total hours: Same picture
- Was Great Recession similar across countries?
 - Similar banking crisis, different wedges (Ohanian 2010)
 - Similar drop house prices, similar wedges (US, Spain, Ireland)
- Comment
 - Very interesting, but at most suggestive
 - This is not the main point of the paper, nor can it be

Results: Extensive versus intensive margin

- Unconditional second moments (descriptive statistics)
 - Extensive margin 50% variance total hours in Europe, 60% in the US
Consistent with higher firing costs in Europe
 - Contribution extensive margin decreased post 1984
Consistent with increased labor market frictions
- Business cycle diagnostics
 - Movements labor wedges Europe much larger than US
Inconsistent with higher firing costs in Europe
 - Employment-based wedges relatively large in Europe cf US
Inconsistent with higher firing costs in Europe
 - Difference Europe versus US increased post 1984
Inconsistent with increased labor market frictions in Europe

- 1 Interesting exercise
 - Important question
 - Appropriate data to answer it
- 2 I propose a simpler approach
- 3 I find different results

Business cycle diagnostics

- Absolute size of movements in wedges not informative
“Movements labor wedges Europe much larger than US”
 - Increase in labor wedge \Rightarrow labor falls more than output
 - Other frictions may drive this result (more price rigidity in Europe)
- Relative size employment and hours wedges
“Employment-based wedges relatively large in Europe cf US”
 - Productivity wedge

$$Z_t = \frac{Y_t}{A_t K_t^\theta L_t^{1-\theta}} \Rightarrow \frac{Z_t^H}{Z_t^N} = \left(\frac{L_t^N}{L_t^H} \right)^{1-\theta}$$

- Labor wedge

$$X_t = \frac{(1-\theta)(Y_t/L_t)(1-L_t)}{\phi C_t} \Rightarrow \frac{X_t^H}{X_t^N} = \frac{L_t^N(1-L_t^H)}{L_t^H(1-L_t^N)}$$

- All information can be summarized by L_t^N/L_t^H

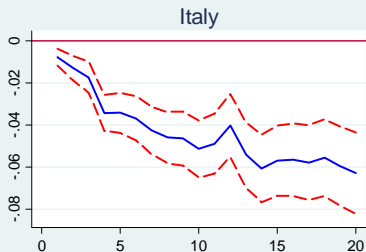
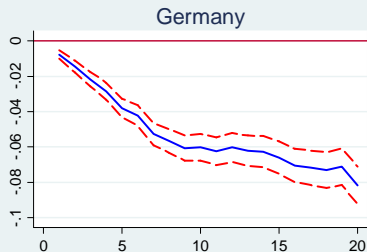
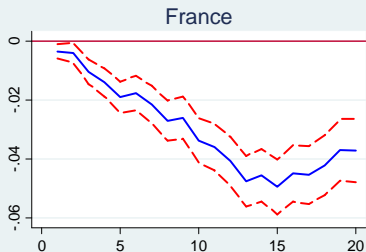
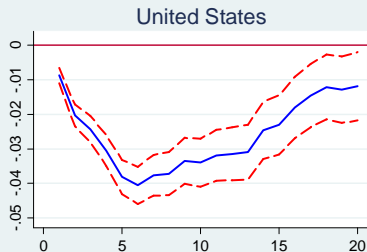
Extensive versus intensive margin

	<i>standard deviation</i>			<i>peak-to-trough</i>		
	Hours	Empl	ext.m.	Hours	Empl	ext.m.
1960:Q1 - 2007:Q4						
US	0.66	0.44	67%	-2.9	-2.1	74%
France	0.57	0.47	82%	-2.7	-1.6	62%
Germany	0.59	0.38	64%	-5.9	-3.6	62%
Italy	0.98	0.64	65%	-3.3	-2.3	72%
Europe ¹	0.66	0.48	74%	-3.8	-2.8	72%
1985:Q1 - 2007:Q4						
US	0.48	0.31	65%	-2.2	-1.6	75%
France	0.38	0.23	61%	-1.8	-1.3	74%
Germany	0.54	0.37	69%	-3.9	-3.2	82%
Italy	0.77	0.43	56%	-2.7	-3.0	113%
Europe	0.59	0.37	64%	-4.6	-4.4	96%

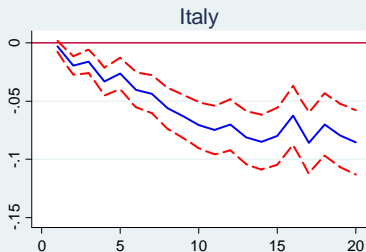
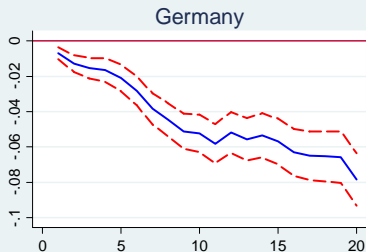
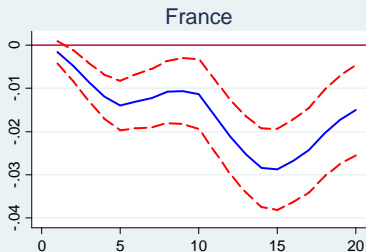
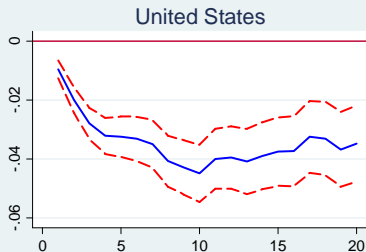
¹France, Germany, Italy + Austria, Sweden and UK

What can we learn from these data?

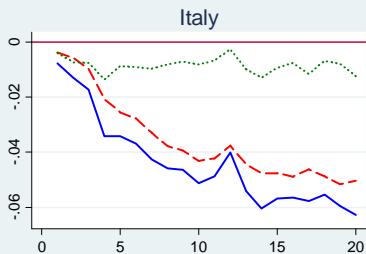
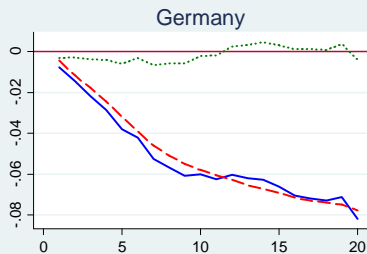
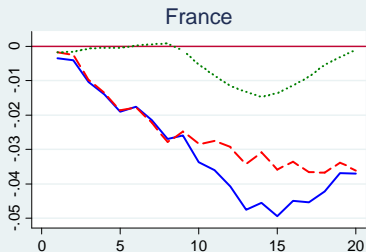
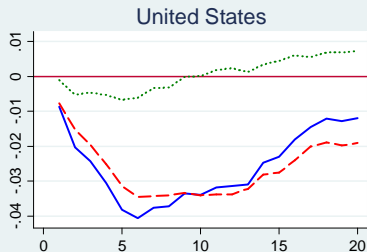
- Labor market frictions
 - Labor market frictions (EPL, unions, ...) higher in Europe
 - Both extensive and intensive margin may be subject to frictions
- ① If frictions extensive margin higher
 - Smaller response extensive margin
 - Larger response intensive margin
- ② If frictions intensive margin higher
 - Slower response extensive margin
 - Extensive margin relatively more important at lower frequencies
- ③ If frictions take the form of firing costs
 - Smaller/slower response extensive margin in recessions
 - Larger/faster response extensive margin in recoveries



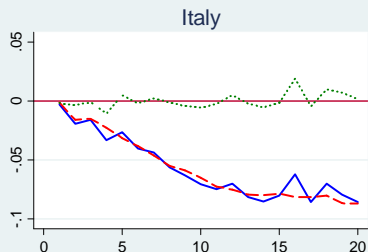
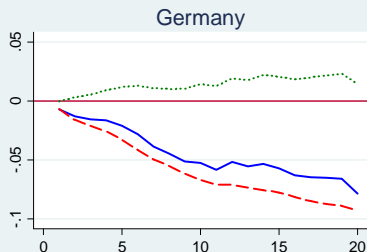
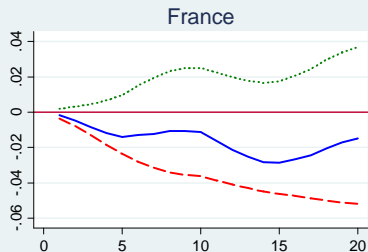
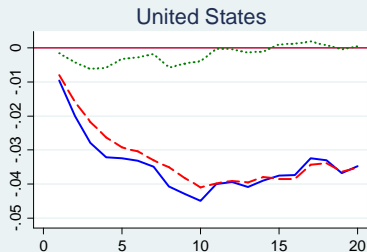
Response total hours in ECRI recession, 1960:Q1 - 2007:Q4



Response total hours in ECRI recession, 1985:Q1 - 2007:Q4

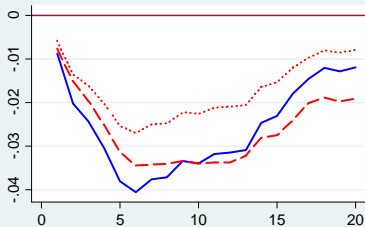


Total hours, employment (dash) and hours/worker (dot), 1960:Q1 - 2007:Q4

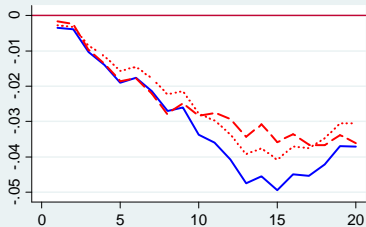


Total hours, employment (dash) and hours/worker (dot), 1985:Q1 - 2007:Q4

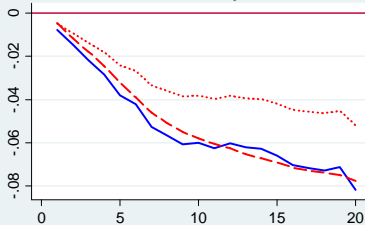
United States



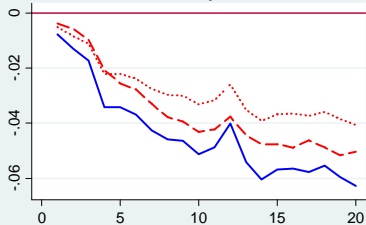
France



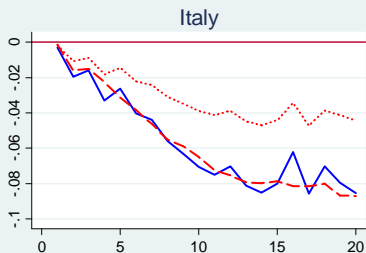
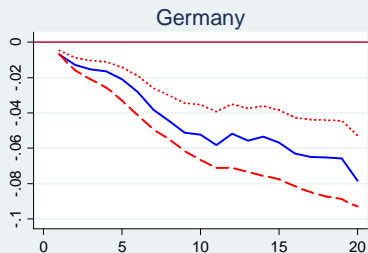
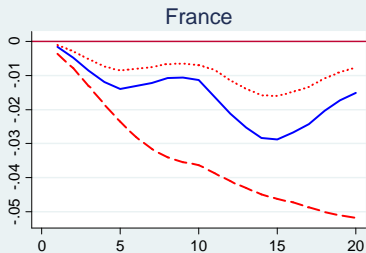
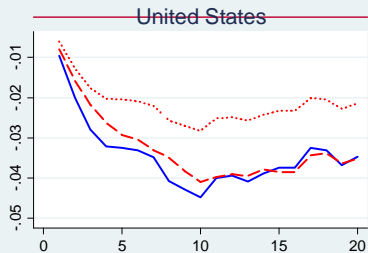
Germany



Italy

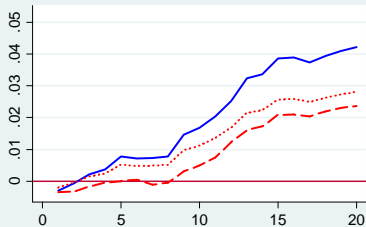


Total hours and employment (dash), 1960:Q1 - 2007:Q4

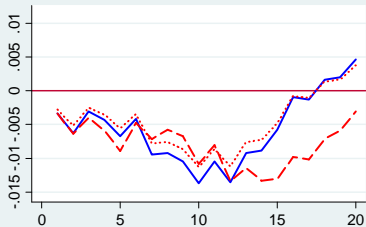


Total hours and employment (dash), 1985:Q1 - 2007:Q4

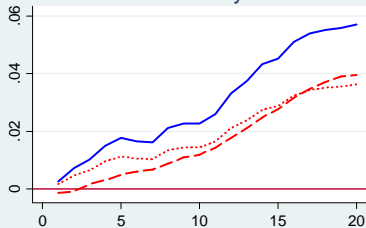
United States



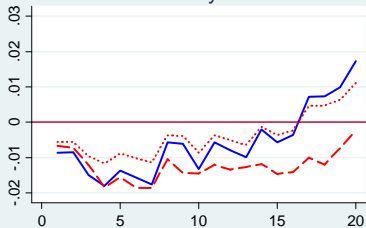
France



Germany

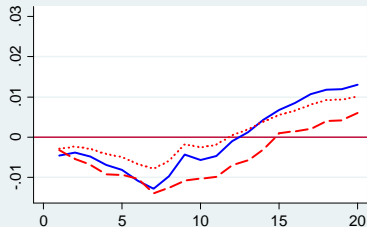


Italy

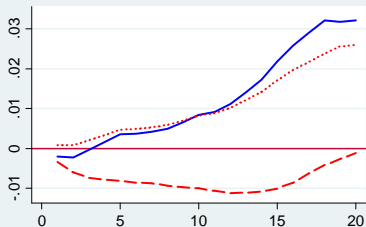


Total hours and employment (dash) in recovery, 1960:Q1 - 2007:Q4

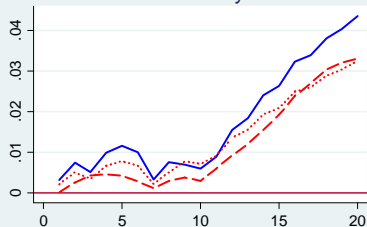
United States



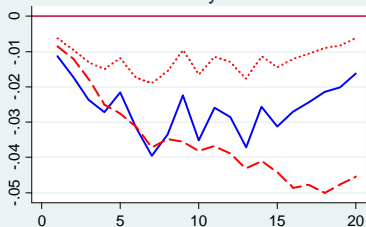
France



Germany



Italy



Total hours and employment (dash) in recovery, 1985:Q1 - 2007:Q4

- 1 Interesting exercise
 - Important question
 - Appropriate data to answer it
- 2 I propose a simpler approach
- 3 I find different results
 - No striking difference Europe vs US in relative importance margins
Almost all adjustment along extensive margin
 - No striking difference adjustment at different frequencies
 - No striking asymmetry between recessions and recoveries
 - No striking differences post vs pre 1984
 - Labor adjustment is much slower in Europe vs US

⇓

 - Frictions intensive margin seem very high
 - Frictions seem higher in Europe along both margins