Discussion of "The European Unemployment Experience: Theoretical Robustness"

by

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Genealogy of Papers

- Ljungqvist and Sargent (1998): Turbulence plus institutions explanation of European Unemployment dilemma in 80's and 90's.

- den Haan, Haefke and Ramey: Increase turbulence in a matching model with European welfare state. Unemployment rate *declines*. Thus Ljungqvist and Sargent's explanation of European unemployment dilemma not robust.

- This paper: the turbulence plus institutions explanation is robust to using a matching model (as well as other models).

The Model

- Continuum of fixed size of workers. Exponential life time. Risk-neutral
- Endogenous number of firms (jobs)
- Matching function joins together unemployed workers (quitters or lay-offs) and firms that have posted vacancies

Exogenous Shocks

	Employment Status	
Skill	Unemployed	Employed
$h = 0$	$m(\theta) \longrightarrow$	$\begin{pmatrix} \longleftarrow \pi^o \\ b = 0 \end{pmatrix}$ $(\downarrow \pi^u)$
$h = H$	$m(\theta) \longrightarrow$	$\begin{pmatrix} \nwarrow \pi^d \pi^o \\ b = H \end{pmatrix}$ $\begin{pmatrix} \longleftarrow (1 - \pi^d)\pi^o \\ b = H \end{pmatrix}$

Technology

- Skill matters for distribution of productivity (output) z of a match only
- For new matches: $z \sim Q_h(z)$ with

$$Q_H \succeq Q_0$$

- For old matches: with probability $1-\pi$ we have $z' = z$, with probability π we have $z' \sim Q_h(z')$

Government Policies

- Firing cost - for all endogenously or exogenously destroyed jobs
- Unemployment benefits: 70% of average wages in your skill class *forever.*

Endogenous Decisions

- Mutual decision of firms and workers whether to form or terminate a match. Threshold productivity level $\bar{z}(h, b)$. Key: higher b yields higher outside option of workers, thus higher threshold, thus less jobs are accepted.

- Very important assumption: voluntary quitters do not experience stochastic skill loss (in contrast to den Haan et al.).

- Firms post vacancies at cost μ (per period). Free entry and zero profits. Key: higher benefits make successful match more unlikely. Thus less incentives to post vacancies.

An Increase in Turbulence

- Increase in turbulence is modelled as increase in probability π^d of suffering skill loss upon exogenous separation.

- With higher turbulence: lots of formerly high-skilled households (with high benefits) suffer skill losses. High benefits induce high outside option, high reservation productivity $\bar{z}$. Skill loss induces bad distribution for productivity draws. Thus increase in length of unemployment. Flow into unemployment fairly constant. Higher unemployment rate.

- If quitters also suffer skill losses, then substantially reduced flow into unemployment (potential quitters are too scared of the skill losses with higher turbulence). Decline in equilibrium unemployment rate.

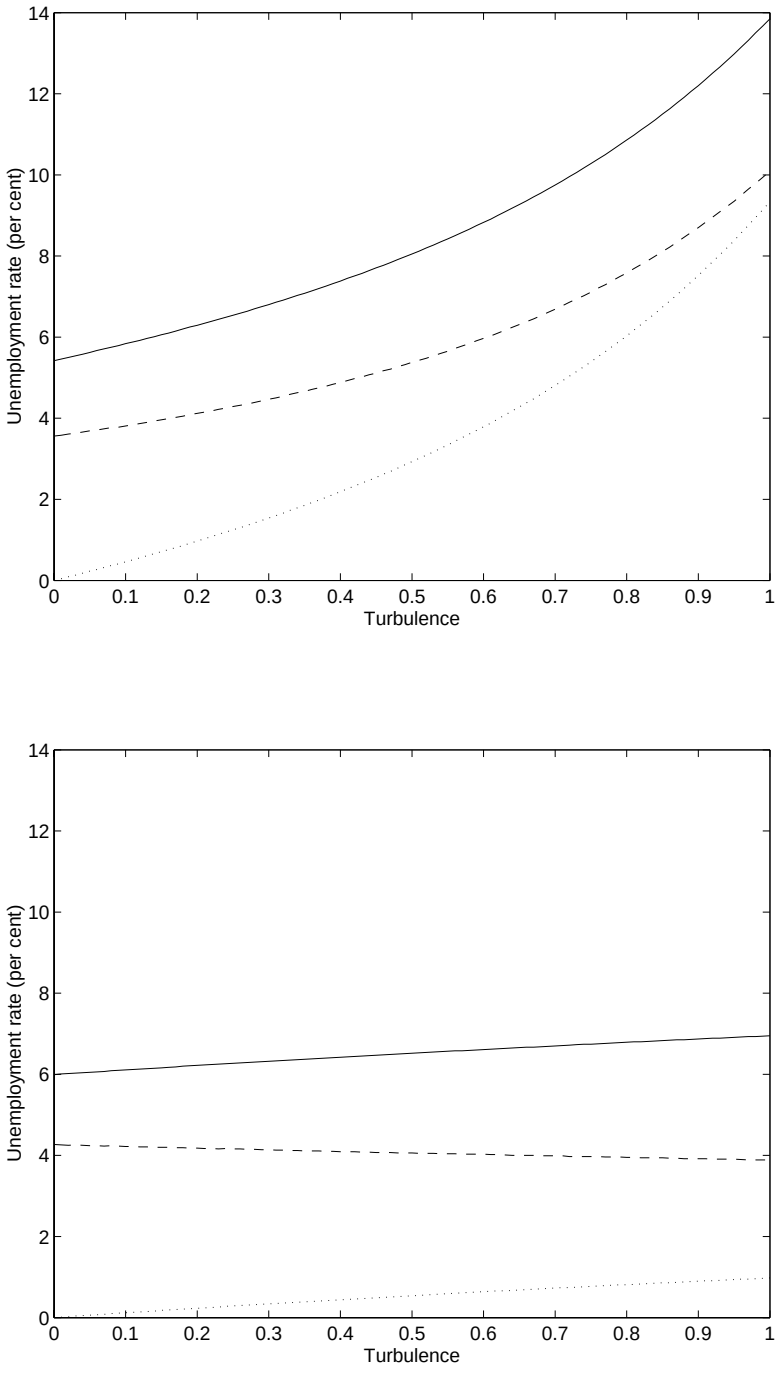


Figure 4. Unemployment rates in the welfare state (upper panel) and the laissez-faire economy (lower panel). The solid line is total unemployment. The dashed line shows the unemployed who have originated from high-skill employment and the dotted line depicts the portion of these workers who have suffered skill loss. The policy of the welfare state is given by $(\eta, \Omega) = (0.7, 12)$.

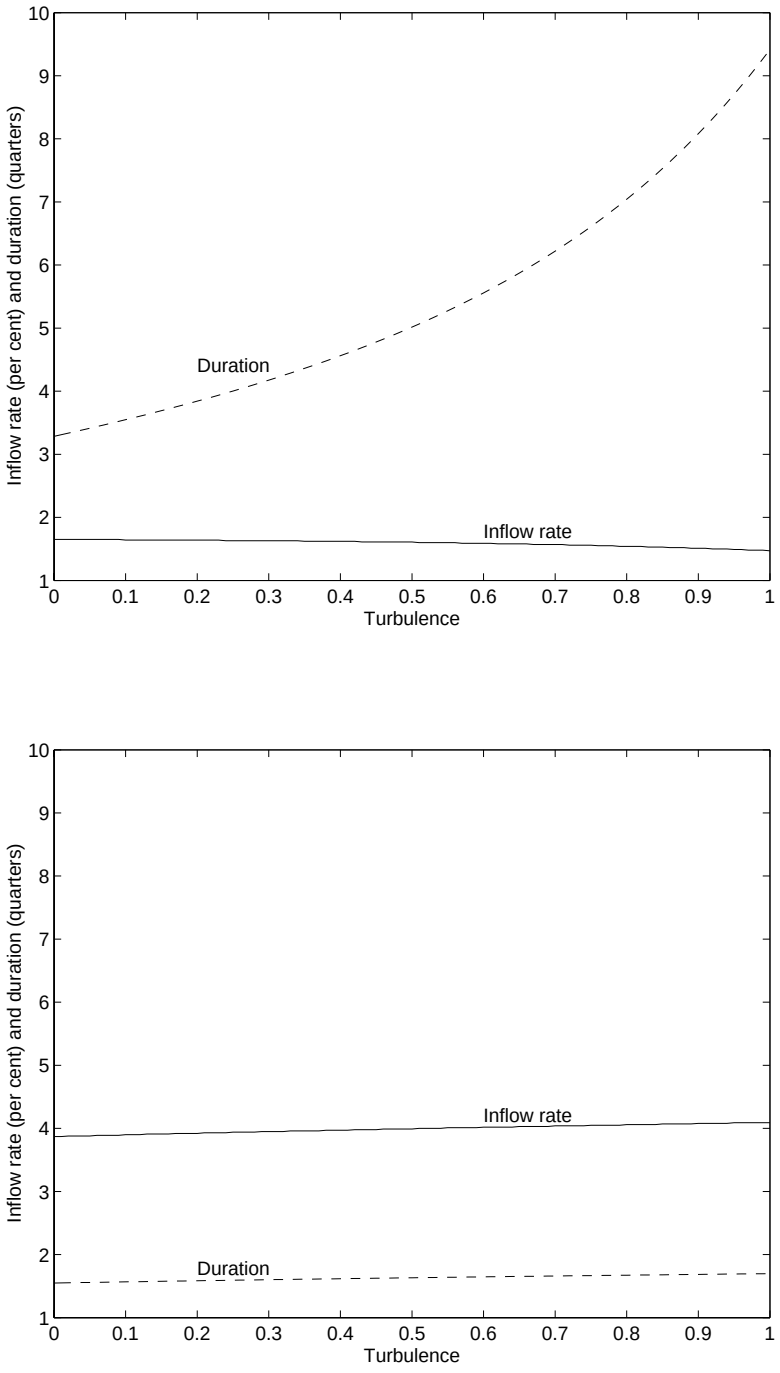


Figure 5. Inflow rate and average duration of unemployment in the welfare state (upper panel) and the laissez-faire economy (lower panel). The dashed line is the average duration of unemployment in quarters. The solid line depicts the quarterly inflow rate into unemployment as a per cent of the labor force. The policy of the welfare state is given by $(\eta, \Omega) = (0.7, 12)$.

Comments about the Comparative Statics

- Driving force of model is exogenous job separation (constant across different levels of turbulence), higher prob. of exogenous skill loss upon separation.

- If separations have really become more costly, would expect that workers do something to avoid these separations (take wage cuts, work harder etc.). Need to model this endogenously.

- Model predicts that long-term unemployed in Europe are workers with high skills on their last job. Counterfactual? In the model, this is due to constant, indefinite unemployment benefits (somewhat counterfactual, too, even for Europe).

Table 2: Distribution of long-term unemployment (one year and over) by age group in 1990

	Distribution of long-term unemployment (per cent of total long-term unemployment)		
	15–24 years	25–44 years	45+ years
Belgium	17	62	20
France[a]	13	63	23
Germany	8	43	48
Netherlands	13	64	23
Spain[a]	34	38	28
Sweden	9	24	67
United Kingdom	18	43	39
United States[a]	14	53	33

a) Data for France, Spain and the United States refer to 1991.

Source : OECD, Employment Outlook (1993), Table 3.3.

Table 3: Net unemployment benefit replacement rates[a] in 1994 for single-earner households by duration categories and family circumstances

	Single			**With dependent spouse**		
	First year	Second & third year	Fourth & fifth year	First year	Second & third year	Fourth & fifth year
Belgium	79	55	55	70	64	64
France	79	63	61	80	62	60
Germany	66	63	63	74	72	72
Netherlands	79	78	73	90	88	85
Spain	69	54	32	70	55	39
Sweden[b]	81	76	75	81	100	101
United Kingdom[b]	64	64	64	75	74	74
United States	34	9	9	38	14	14

a) Benefit entitlement on a net-of-tax and housing benefit basis as a percentage of net-of-tax earnings.

b) Data for Sweden and the United Kingdom refer to 1995.

Source : Martin (1996), Table 2.

Can the Data settle the dispute?

- Who has the right formulation of turbulence? Do quitters suffer less severe declines in future wages than exogenously separated workers?

- Is increased probability of skill depreciation upon separation the right way to model increased turbulence? Evidence?
  - Gottschalk & Moffitt (1994), Katz & Autor (1999)?
  - Jacobsen, Lalonde and Sullivan (1993)?
  - Maybe Kambourov and Manovskii (2002)

European Employment Dilemma

Unemployment? That's not part of my language!

[Edward C. Prescott, Private Conversation, 1995]

European Employment Dilemma: Rogerson 2004

- Relative employment rates ($\frac{\#\text{ of Employed}}{\#\text{ of Population, 15-64}}$) of Europe deteriorate by 18 percentage points between 1956 and 2000. Process starts in the 50's and continues at fairly constant speed. Relative unemployment rates of Europe deteriorate by 6 percentage points in same period. More than 100% due to the 80's and 90's.

- Rogerson's (2004) explanation: failure to develop an equally sized service sector in Europe.

- Prescott's (2004) explanation: different paths of marginal labor tax rates (between 70's and 90's).

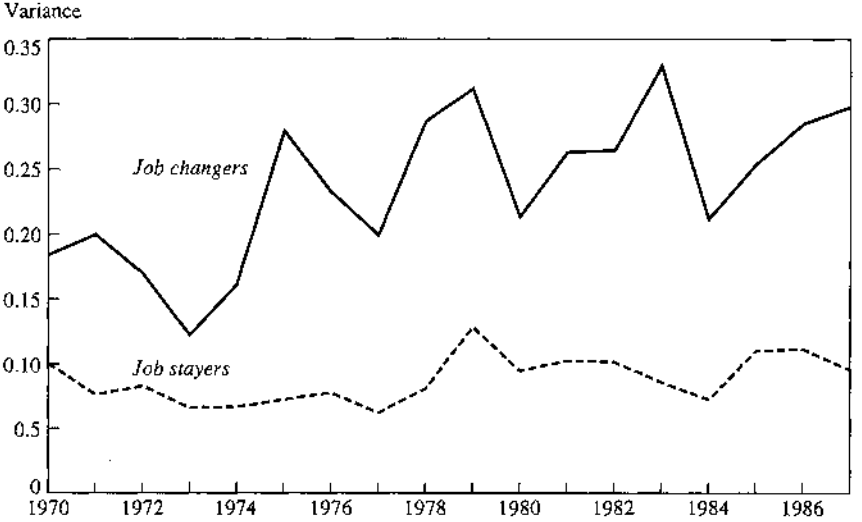
To sum up

- Paper argues convincingly that the turbulence plus institutions explanation of the European unemployment dilemma is robust to the use of different models

- I am not convinced that the increase in "turbulence" is modelled appropriately, and that results are robust to different specifications of "turbulence".

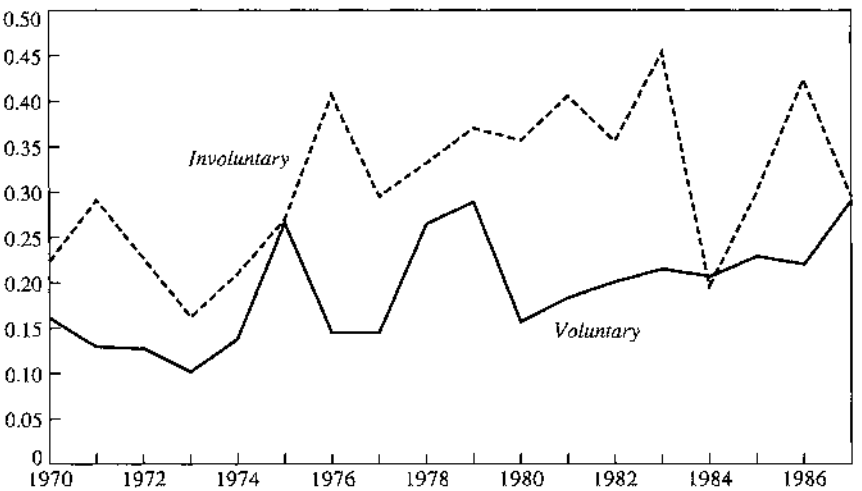
- I am not sure that when discussing European labor markets one should focus on unemployment rather than employment.

Figure 7. Variance of Transitory Earnings by Job Status, 1970–87[a]



Source: Authors' tabulation of annual earnings of white male heads of households in the PSID.
a. Job status is determined by whether an individual reported changing "main-job" employer in the previous year.

Figure 8. Variance of Transitory Earnings by Voluntary and Involuntary Job Change, 1970–87[a]



Source: Authors' tabulation of annual earnings of white male heads of households in the PSID.
a. Involuntary job changers are defined as individuals who left their previous main job because the company folded, they were laid off or fired, or the job was "completed."

Table 4. Variance of Transitory Earnings by Job Status, Education, and Age, 1970–87[a]

	Did not change jobs within the period			*Changed jobs at least once within the period*		
Sample definition	*1970–78*	*1979–87*	*Change*	*1970–78*	*1979–87*	*Change*
All	0.047	0.064	0.017	0.122	0.174	0.052
Years of completed education						
Fewer than 12	0.042	0.064	0.012	0.157	0.289	0.132
12 or more	0.049	0.065	0.016	0.109	0.149	0.040
16 or more	0.040	0.050	0.010	0.098	0.114	0.016
Age						
20–29	0.079	0.093	0.014	0.142	0.195	0.053
30–39	0.041	0.065	0.024	0.113	0.147	0.034
40–49	0.039	0.044	0.005	0.097	0.168	0.071

Source: Authors' calculations from the PSID.
a. Earnings data deflated to 1988 dollars.

cording to whether the move was voluntary or involuntary.[38] Before the early 1980s, the variance of transitory earnings for job stayers showed no clear trend. However, during the 1980s, fluctuations in transitory earnings were higher than in the 1970s for both movers and stayers. The fact that men who stayed in the same job had larger fluctuations in earnings in the 1980s than in the 1970s suggests that job shifting was not the sole cause of the increased transitory earnings variance.

Table 4 shows transitory variances for both those who did *not* change their job within each of our nine-year subperiods and those who did change jobs within the subperiod. The most important result is that the variances for those who did not change jobs increased markedly between the periods, by more than a third (from 0.047 to 0.064). Increases in transitory variances also appear for those who changed jobs.

Was this increase in earnings fluctuation concentrated on the young or the less educated? As shown in the rest of table 4, the increase was widespread. All age and education groups found themselves with larger fluctuations in the 1980s than in the 1970s, whether or not they changed jobs. The fact that the young were not the only group to experience greater instability of earnings indicates that we are witnessing more than just an increased difficulty of the young in settling down into stable jobs.

38. The figure shows the variance of the transitory components of those who changed jobs in the year in question and those who did not. For the reasons noted above, there is some error in the calculation of these variances, but we presume that the job-stayer trends are not affected.