Unemployment Insurance in Europe: Unemployment Duration and Subsequent Employment Stability

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Motivation

► The disincentive effect of UI is the conventional wisdom in modern labor economics

► Fails to take into account the potential beneficial effects of UI on post-unemployment outcomes

► By allowing more time and more resources for search, UI may improve job matching

► These positive features of the UI system are relevant in the European context
  ▶ Full employment is a long-term target
  ▶ Not only attracting more workers in the labor market but also ensuring employment stability
Theoretical Arguments and Evidence

- Standard search theory predicts that an increase in UI increases unemployment duration

- UI benefit generosity may also affect post-unemployment outcomes by improving job matching
  - On wages - Ehrenberg and Oaxaca (1976), Addison and Blackburn (2000)

- The Macro literature has also pointed to the positive effects of UI
  - Hansen and Imrohoroglou (1992); Gruber (1997); Acemoglu and Shimer (1999); Burdett (1979); Marimon and Zilibotti (1999)
This Paper

- Focus on the effect of benefit receipt on
  - unemployment duration and on
  - subsequent employment duration – as a measure of employment stability

- Consider a number of European countries
  - vary in the generosity of the UI systems
  - belong to different institutional regimes
  - allows to examine to what extent the effect of UI differs across countries
Data I

- ECHP (1994-2001)
- Panel data
- Standardized questionnaire
- Calendar of activities
  - construct event history
Data II

- DK, FR, DE, GR, IE, IT, ES, UK

- Countries can be classified in **four regimes / welfare states** (Esping-Andersen, 1990; Bertola, 2000)
  - **Universal (DK)** – flexible LM and generous welfare
  - **Conservative (DE, FR)** – transfers are related to previous earnings, generosity comparable to Universal
  - **Southern European (GR, IT, ES)** – family ties rather than social insurance, limited insurance
  - **Liberal (IE, UK)** – flexible LM, means tested social transfers and flat rate payments
Sample

► All flows from employment into unemployment
► 20-60-year-old males

► Transitions out of labor force are treated as continued unemployment spells
  ► sensitivity – treat them as censored spells
Information on UI

- Distinguish between recipients and non-recipients

- Construct a time-varying indicator of receiving benefits during each month of unemployment

- Observe unemployment duration, employment duration and benefit entitlement duration
Econometric Methodology

- Estimate a multivariate discrete-time hazard model addressing two important issues:
  a) the endogeneity of benefit receipt
  b) the endogeneity of previous unemployment duration on subsequent employment duration due to dynamic selection

- The first is addressed by specifying a reduced form process for the benefit receipt indicator (similar to Bover et al. 2002 and Ham and LaLonde 1996)

- The second is addressed by allowing for correlated unobserved heterogeneity across transitions
Identification I

- Identification for a general class of univariate single spell discrete-time duration models is discussed by Cameron and Heckman (1998)
  - Identification is enhanced if the index varies with duration and with finite mixture distributions

- With endogenous benefit indicator, identification relies on observing multiple unemployment spells
  - provide within-worker variation of the benefit indicator
  - this variation is due to the eligibility criteria for UI
Identification II

- By exploiting variation at the individual level (multiple spells)
- By allowing unobserved heterogeneity in the selection equation to be correlated with the unemployment transitions
- The selection into benefits is identified separately from the causal effect of receiving benefits on unemployment duration
Empirical Findings

- Estimation of the model is performed separately by country

Variables of interest

- **Unemployment duration**: time varying indicator of receiving benefits

- **Employment duration**: two different specifications
  - An indicator of having received benefits during unemployment spell / exit unemployment while receiving benefits
  - Interaction of benefits indicator with previous unemployment duration
Unemployment Hazard I

- Receiving unemployment benefits has a significant negative effect on the unemployment hazard

- The effects vary in a way which is correlated with the generosity of the UI system
  - Higher effects for DK, DE, FR compared to IT, GR
## Unemployment Hazard II

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Employment Hazard I

- Having received benefits during the previous unemployment spell has a negative effect on the hazard from subsequent employment.

- Similarly with the unemployment hazard the effect is higher in those countries with relatively more generous UI.

- The effect of benefit receipt in these more generous regimes is higher for those who exit unemployment after 6 months.
### Employment Hazard II

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Simulations - Unemployment

- Benefit recipients exhibit a higher survival with the effect being larger in countries with more generous UI

- The difference in unemployment survival rates between recipients and non-recipients after 6 months in unemployment is
  - 16 pp - 18 pp for Denmark and Germany, 14 pp for France and Spain, 10 pp for Italy and Greece

- After 12 months in unemployment the difference is similar
Simulations - Employment

- Recipients exhibit *also a higher survival* in employment

- The magnitude of this effect varies across countries similarly to the way it varies in unemployment

- The difference in the employment survival rates between recipients and non-recipients *after 6 months* in employment is:
  - 17 pp for Denmark, 22 pp for France, 15 pp for Germany, 9 pp for Spain
  - 3 pp for Greece, 5 pp for Italy

- After 12 months in employment the difference between the two groups of employed is:
  - 30 pp in Denmark, France and Germany, and 14 pp in Spain
  - below 10 pp in Greece and Italy
Net Effect

- For the group of countries which belong to the more generous welfare regimes the net effect is zero after 6 months in employment and becomes positive after 12 months.

- This suggests that the beneficial effect of UI is sizeable.
New Evidence from German Data
(joint with Marco Caliendo and Arne Uhlendorff)

► We make use of **sharp discontinuities** in the maximum duration of benefits in Germany at different ages
  ► Increase of benefit duration by 6 months at age 45

► Employ administrative data for an inflow sample of West-German unemployed aged between 44-46

► We can identify how unemployed worker’s behavior changes close to benefit exhaustion

► Assignment into treatment (longer benefit duration) is determined exogenously
Findings

- We find a spike in the unemployment hazard for both men and women
  - Extending benefits from 12 to 18 months reduces the exit rate at month 12

- Extending benefits reduces the employment hazard for both men and women
  - The effect is significant for jobs found after benefits for the non-treated are exhausted at month 12
  - Non-treated accept jobs that would otherwise reject
  - Treated accept jobs that are of better quality and last longer

- Wages of non-treated are significantly lower around benefit exhaustion
Conclusion

► This paper contributes to the discussion on the beneficial effects of UI

► Findings from a number of European countries that differ in terms of the generosity of UI suggest that:
  ► more generous benefits although postpone re-employment lead to more stable employment (better matches)

► Findings based on richer data from Germany also suggest that:
  ► There is a spike in the unemployment exit rate at benefits exhaustion
  ► Extending benefits leads to better matches
    ► Accept jobs while having the possibility to reject because of being insured
Policy Implications

► **Low generosity countries**: increasing generosity might generate positive effects in terms of employment stability (better matching)

► **High generosity countries**: reforms to reduce generosity due to the disincentive effect should not ignore the matching effect

► **Optimal Policy**: Generous benefits that deliver beneficial post-unemployment outcomes coupled with measures that increase the efficiency of the search process as a way to minimize the disincentive effects of UI

► In line with Blanchard and Tirole (2008) on the joint design of UI and EPL

► Making UI more explicitly conditional on search and acceptance of jobs can bring not only better insurance, but also lower employment protection and lower production inefficiencies