# Are the Spanish Long-Term Unemployed Unemployable?

Work in Progress

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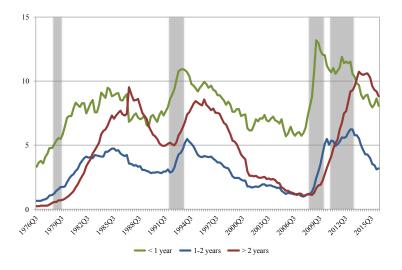
#### Motivation

- The Great Recession has created a enormous buildup of LTU and very long-term unemployment (VLTU).
- Job finding rates of LTU remain low, despite strong job creation.
- Main risks:
  - Economic and social exclusion of the most vulnerable groups
  - High levels of structural unemployment (hysteresis)
  - Inadequate institutional setup to deal with the problem
- We need to understand the causes of the buildup of LTU and low outflow rates to design effective policies

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### Unprecedented levels of (V)LTU

Duration-dependent unemployment rates

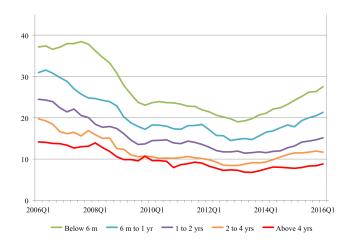


Source: Own calculations based on microdata EPA

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#### Slow and uneven recovery

Job finding rates by unemployment duration

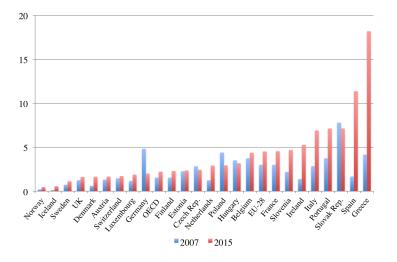


Source: Own calculations based on flow data EPA

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#### International comparison of LTU rates

Concentration of LTU in all program countries



#### Candidate sources of LTU

The factors that explain the rise in the stock of LTU are essentially the same as those that explain the rise in unemployment:

- Steep and persistent drop in aggregate demand ("double-dip recession")
- Collapse of the construction sector inflow of 1.7M mostly low-educated males
- Banking crisis (Bentolila, Jansen and Jiménez, 2015)
- Wage rigidity (Font, Izquierdo and Puente, 2015)

Duality also contributed to the surge in unemployment, but the impact on LTU is *a priori* ambiguous.

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#### Related literature

Classic references on European and Spanish unemployment problem

- Machin and Manning (Elsevier, 1990)
- Layard, Nickell and Jackman (OUP, 1991)
- García-Pérez (1997), Bover et. al. (2002),...

#### LTU in the aftermath of the Great Recession in the US

- Krueger, Cramer and Cho (BPEA, 2014);
- Kroft, Lange, Notowidigdo and Katz (JOLE, 2016);
- Shimer, Alvarez and Brovickova (NBER, 2016);
- Abraham, Sandusky, Haltiwanger and Spletzer (CES, 2016);
- Hornstein (Richmond FED 2012)

#### Descriptive overview for Europe

Bentolila and Jansen (CEPR, 2016)

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### Scope of the paper

- A detailed analysis of the factors that contributed to the rise in LTU in Spain
- We develop and estimate a two-state competing-risks duration model to analyse the factors that explain the LTU inflow and outflow
- The empirical analysis pays close attention to institutional factors:
  - Dual structure of the labour market
  - Unemployment Insurance (entitlement, assistance vs. contributory)
- A discussion of the (potential) role of Active Labor Market Policies (ALMPs)

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#### Sneak preview

- The (conditional) probability of entering LTU is very large and significantly raised by low skill, mature age, low experience and receipt of UI benefits
- Duration dependence and not dynamic selection is the primary source of the low job finding rates of the long-term unemployed
- Temporary contracts help to reduce the risk of LTU conditional on unemployment, but also cause huge inflows into unemployment
- Reservation wages adjust with unemployment duration, but not enough
- Growth alone will not solve the problem. Expanding, and especially, improving ALMPs is key.

#### Contribution

- Not many studies about LTU in Spain for the moment.
- The novelty of analysing LTU in a dual labor market raises interesting issues:
  - Is it reasonable to set the counter to zero for a long-term unemployed who is hired for a very short job?
  - Are Temporary contracts a useful work sharing arrangement during a crisis?
- Improve methodology to address some of the problems found in the previous literature by further considering:
  - Unobserved Heterogeneity
  - Self-selection
  - State-dependence

#### Roadmap

- Long-Term Unemployment and the Great Recession: Some descriptive statistics
- Sources of the increase in LTU: Composition effects or insufficient demand?
- What factors affect the probability of entering and exiting LTU?
- Reemployment wages
- Reservation wages
- Policies to avoid entrenchment

Participation, employment, and unemployment rates, 2007Q2-2016Q2 (%)

	Participa	ation rate	Employn	nent rate	Unemploy	ment rate	LTU	rate	LTU	share
	2007Q2	2016Q2	2007Q2	2016Q2	2007Q2	2016Q2	2007Q2	2016Q2	2007Q2	2016Q2
Total	72.1	74.6	66.4	59.6	8.0	20.0	2.2	12.0	0.28	0.60
Gender										
Male	82.0	79.6	76.9	64.9	6.2	18.5	1.5	10.7	0.24	0.58
Female	62.0	69.5	55.5	54.3	10.4	21.9	3.2	13.4	0.31	0.61
Age										
16-24 years old	52.4	37.3	42.9	20.0	18.1	46.5	2.9	18.7	0.16	0.40
25-34 years old	86.6	87.7	80.1	68.0	7.5	22.4	1.9	12.6	0.25	0.56
35-49 years old	84.5	90.5	78.8	75.4	6.7	16.8	1.8	9.9	0.27	0.59
45-54 years old	76.8	84.5	72.1	69.9	6.1	17.3	2.4	11.8	0.39	0.68
55-64 years old	45.0	55.3	42.4	46.0	5.7	16.9	3.1	12.8	0.54	0.75
Education										
Primary	53.5	54.3	47.8	35.2	10.6	35.2	3.6	22.7	0.34	0.64
Secondary, 1st stage	70.9	69.6	64.1	51.0	9.6	26.8	2.5	16.6	0.26	0.62
Secondary, 2nd stage	74.3	72.6	68.3	58.1	8.0	20.0	2.1	11.1	0.26	0.62
College	85.3	88.0	80.8	77.7	5.3	11.7	1.3	6.6	0.25	0.56
Nationality										
Native	57.1	57.4	52.9	47.1	7.3	17.9	2.3	10.6	0.31	0.59
Foreign	76.2	73.2	67.2	55.1	11.9	24.8	1.8	13.5	0.15	0.54

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A first look at stock data reveals:

- The unequal impact of employment destruction
- The over-representation of older, low-educated and construction workers among the very long-term unemployed
- The change in the composition of the pool of unemployed only explains a small part of the rise in LTU
- The LTU share is close to 60% for nearly all worker groups, including prime-age workers

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#### Limited role of composition effects

			Unemployed	
		Short-term	Long-term	Very
				long-term
	Employed	(< 1 yr)	(1-2 yrs.)	(> 2 yrs.)
Gender				
Male	54.5	51.3	45.8	48.5
Female	45.5	48.7	54.2	51.5
Age				
16-24 years old	4.4	22.5	18.4	22.5
25-34 years old	20.7	26.0	27.4	26.0
35-44 years old	31.9	26.1	23.7	26.1
45-54 years old	27.5	18.3	19.9	18.3
55-64 years old	15.5	7.0	10.6	7.0
Education				
Primary	6.6	12.4	12.5	16.4
Secondary, 1st stage	27.4	37.6	37.2	42.6
Secondary, 2nd stage	23.9	26.1	23.3	21.5
College	42.1	23.8	26.9	19.5
Industry of previous job				
Primary	4.1	0.1	3.6	3.0
Manufacturing	14.0	8.6	9.7	13.5
Construction	6.1	11.3	9.2	19.3
Wholesale and retail trade	16.6	16.3	16.4	14.5
Finance and real state	3.1	1.5	1.9	1.7
Professional and business serv.	20.5	24.7	19.0	20.5
Education	6.7	3.5	4.1	3.0
Health care	8.1	5.5	5.4	4.6
Leisure and hospitality	7.8	16.5	13.1	4.4
Scientists, artists and other	13.0	12.0	17.6	15.5

Note: Columns add up to 100 by characteristic.

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Shift-share analysis

We use a simple shift-share analysis to calculate the contribution of changes in the composition of unemployment to the rise in LTU.

- Let  $U_{i,t}$  and  $LTU_{i,t}$  the total number of unemployed and long-term unemployed with characteristic *i* in *t*
- Similarly, let  $\alpha_{i,t} = U_{i,t}/U_t$  and  $\beta_{i,t} = LTU_{i,t}/U_{i,t}$

Then

$$\beta_t = \frac{LTU_t}{U_t} = \sum_I \frac{LTU_{i,t}}{U_t} = \sum_I \frac{U_{i,t}}{U_t} \frac{LTU_{i,t}}{U_t} = \sum_I \alpha_{i,t} \beta_{i,t}$$

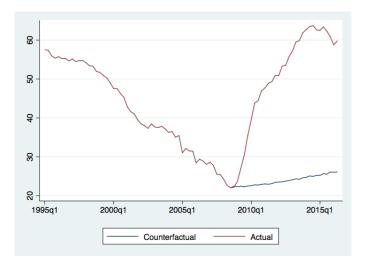
• We fix the shares  $\beta_{i,t}$  at their 2008:Q3 values and calculate

$$\bar{\beta}_t = \sum_I \alpha_{i,t} \beta_{i,2008:Q3}$$

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• We consider gender, age, education, and nationality. Unfortunately, LFS data do not allow us to use industry as well

#### The legacy of the Great Recession Shift-share analysis



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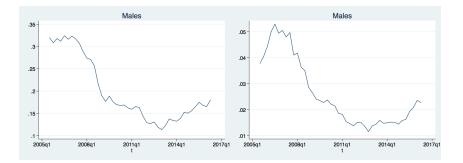
Quarterly flows between unemployment, employment and nonparticipation

Inspection of the flow data reveals a number of important aspects:

- The transition rates between unemployment and employment remain well below pre-crisis levels
- The transition rate between permanent employment and unemployment has almost returned to pre-crisis levels
- Temporary employment, on the contrary, seems much less stable than before the crisis
- Flows to and from nonparticipation are large and cannot be discarded in the analysis (see also Elsby, Hobijn and Sahin, 2015)

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Quarterly transition rates U-E (different scales)

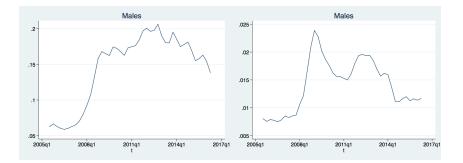


#### (a) Temporary employment

(b) Permanent employment

Source: Own calculations using flow data EPA. Rates in t are expressed as % of stock in t - 1.

Quarterly transition rates E-U (different scales)



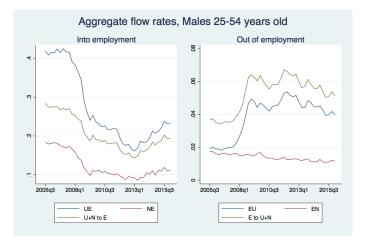
#### (a) Temporary employment

(b) Permanent employment

Source: Own calculations using flow data EPA. Rates in t are expressed as % of stock in t - 1.

Quarterly transitions to and from N

Thin line between unemployment and nonparticipation



A two-state duration model with competing risks

- We jointly estimate hazards rates from non-employment to employment and *vice versa*.
- In view of the dual structure of the labour market we distinguish between temporary and permanent jobs.
- We control for unobserved heterogeneity (Heckman & Singer, 1984).
- We deviate from standard proportional hazard models by allowing the impact of some regressors to change with duration.
- Our baseline includes all transitions to employment.
- In an extension we censor exits to employment spells shorter than 30 days.
- We estimate our models separately for the expansion and recession.

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#### The probability of entering and exiting LTU Hazard functions

• We specify the unemployment hazard rate as:

$$h_{u}^{j}(t) = \Pr(T_{u} = t \mid T_{u} \ge t, x(t), b(t), e(t), \eta^{u}) =$$
$$\Pr(\alpha_{0}^{j}(t) + \alpha_{1}^{j}(t)x(t) + \alpha_{2}^{j}(t)b(t) + \alpha_{3}^{j}(t)e(t) + \eta^{u})$$

and the employment hazard rate as:

$$h_{e}^{k}(t) = \Pr(T_{e} = t \mid T_{e} \ge t, x(t), \eta^{e}) = F(\beta_{0}^{k}(t) + \beta_{1}^{k}(t)x(t) + \eta^{e})$$

where:

- (x, t) includes personal characteristics and aggregate variables,
- b(t) is a dummy for assistance benefits,
- $\bullet$  e(t) captures the remaining months of unempl. insurance entitlement.

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# The probability of entering and exiting LTU Competing risks

 Following Bover and Gómez (2004) and García-Pérez and Muñoz-Bullón (2004), the exit from a given state is specified as a multinomial logit model with two alternative risks for each state:

$$h_u(t) = h_u^{e_T}(t) + h_u^{e_P}(t)$$

$$h_e(t) = h_e^e(t) + h_e^u(t)$$

## The probability of entering and exiting LTU Unobserved heterogeneity

We allow a four-mass-point distribution function, namely two different points for each state:

- $\eta_1^u$  and  $\eta_2^u$  for unemployment
- $\eta_1^e$  and  $\eta_2^e$  for employment
- In total four different types may emerge :  $(\eta_1^u, \eta_1^e)$ ,  $(\eta_1^u, \eta_2^u)$ ,  $(\eta_2^u, \eta_1^e)$ , and  $(\eta_2^u, \eta_2^e)$ , with their respective joint probabilities.
- The existence of repeated employment and unemployment spells and, more importantly, of some time-varying covariates allows non-parametric identification (Abbring and Van den Berg, 2004; Gaure et al. 2007).

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## The probability of entering and exiting LTU Data and sample selection

- Our data set is a 20% random sample of all workers whose records appear in at least one of the 2006-2014 Continuous Sample of Working Lives (MCVL) waves.
- This data set does not allow distinction between nonparticipating and unemployed workers.
- Non-employment spells longer than 36 months are censored at month 36 and we do not consider those shorter than 30 days.
- We restrict the sample to native prime-age workers (25-54 years old).
- We also exclude people who appear for the first time in the sample being 30 years old or older.

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# The probability of entering and exiting LTU Individual characteristics

- Age 3 ten-year intervals.
- Education 4 dummy variables for the highest degree attained.
- Skill occupational levels low, medium, and high.
- Actual experience ratio of number of months employed over the number of months of potential experience since entering the labor market.
- Fired from his/her previous job.
- Non-contributive unemployment subsidies 0-1 dummy.
- Contributory benefits remaining months of entitlement at each month (Meyer 1990) computed using previous employment history.

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# The probability of entering and exiting LTU Aggregate variables

- Employment growth: monthly growth rate of the number of employees by province.
- Quarterly national unemployment rate.
- 17 region dummy variables.
- 6 industry dummy variables.
- 12 month dummy variables.
- 2 step dummy variables for labor market reforms of June 2010 and February 2012.

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Descriptive statistics of unemployment spells in the sample, 2001-2014 (%)

	Males	Females
Age		
25-34 years old	71.1	75.9
35-49 years old	26.2	22.6
45-54 years old	2.7	1.5
Education		
Primary or less	12.9	7.1
Secondary, 1st stage	50.1	35.9
Secondary, 2nd stage	23.9	30.1
College	13.0	26.9
Skill		
Low	16.5	14.7
Medium	46.0	29.6
High	37.5	55.7
Experience		
Fraction of potential	77.1	71.8
Dismissal from previous job		
Dismissed	87.5	85.4
Not dismissed	12.5	14.6
Industry of previous job		
Manufacturing	13.0	8.4
Construction	27.2	3.1
Non-market services	8.7	22.0
Trade	11.4	19.1
Hospitality	10.5	14.7
Other services	29.1	32.6
Unemployment benefits		
Contributory	28.0	25.3
Assistance	28.9	27.6
No benefits	43.1	47.1
Number of spells	99,444	93,714

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Descriptive statistics of unemployment spells in the sample, 2001-2014 (%)

	Ma	iles	Ferr	iales
	2001-2007	2008-2014	2001-2007	2008-2014
A. Unemployment duration	on (months)			
Exit to a temporary job				
Median	3.0	4.0	3.0	4.0
Third quartile	6.0	8.0	7.0	9.0
Mean	4.5	6.3	5.6	6.7
Share of spells (%)	76.6	69.9	70.1	62.9
Exit to a permanent job				
Median	3.0	4.0	2.0	3.0
Third quartile	6.0	8.0	3.0	7.0
Mean	5.1	6.2	5.8	6.0
Share of spells (%)	7.9	8.1	11.6	11.5
Censored spell				
Median	5.0	12.0	8.0	16.0
Third quartile	13.0	36.0	22.0	36.0
Mean	9.5	16.6	13.5	18.6
Share of spells (%)	15.5	22.0	18.3	25.6
B. Unemployment benefit	t duration (m	onths)		
Median	8.0	11.0	8.0	10.0
Mean	10.8	12.3	10.3	11.3
C. Hazard rates out of ur	nemployment	(%)		
Exit to a temporary job				
No benefits	16.9	9.3	11.6	7.8
Contributory benefits	9.7	7.2	6.7	5.8
Assistance benefits	11.3	7.9	7.0	5.7
Exit to a permanent job				
No benefits	1.6	1.0	1.9	1.3
Contributory benefits	1.3	1.2	1.4	1.7
Assistance benefits	1.2	0.7	1.1	0.9

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Results: Estimates of hazard of leaving unemployment, males, 2008-2014

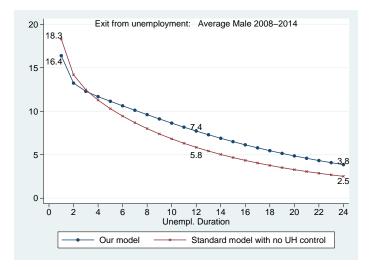
	Exit to	D T C	Exit to	> PC
	Coeff.	z	Coeff.	z
Age 35-44 years old	-0.105	-4.6	0.233	4.38
Age 45-54 years old	-0.293	-4.9	0.440	3.80
Age 35-44 y.o.×log Dur	-0.018	-1.59	-0.136	-4.36
Age 45-54 y.o.×log Dur	-0.067	-2.55	-0.210	-3.07
Secondary education, 1 st.	0.158	4.82	-0.187	-2.43
Secondary education, 2 st.	0.101	2.69	-0.112	-1.33
College education	-0.204	-0.53	0.101	1.05
Secondary ed 1 st.×log Dur	0.004	0.25	0.167	3.45
Secondary ed 2 st.×log Dur	-0.034	-1.80	0.180	3.46
College education×log Dur	-0.026	-1.15	0.193	3.44
High skill	0.274	7.41	0.015	0.18
Medium skill	0.346	10.09	-0.156	-1.93
High skill×log Dur	-0.093	-5.02	0.173	3.48
Medium skill.×log Dur	-0.071	-4.11	0.172	3.51
Dismissal	0.603	26.35	-0.468	-12.14
Experience	1.027	31.38	1.593	22.41
ΔEmployment	4.142	14.25	2.901	3.78
$\Delta Employment \times log Dur$	-0.713	-4.50	-0.005	-0.01
Unemployment rate	-0.017	-5.64	-0.066	-10.63
Unempl. rate×log Dur	0.006	4.87	0.019	6.64
log Dur	-0.694	-13.8	-0.852	-7.08
(log Dur) <sup>2</sup>	0.337	11.35	-0.031	-0.39
(log Dur) <sup>3</sup>	-0.103	-16.69	-0.028	-1.69
Unemployment insurance	-0.382	-37.79	-0.159	-7.12
Unemployment insurance <sup>2</sup>	0.035	25.02	0.014	4.61
Unemployment insurance <sup>3</sup>	-0.001	-20.45	-0.000	-3.85
U. insurance×log Dur	-0.024	-4.94	-0.035	-3.28
U. insurance×(log Dur) <sup>2</sup>	0.009	3.93	0.009	1.84
U. assistance	-1.108	-46.18	-1.287	-18.80
U. assistance×log Dur	0.028	1.86	0.185	4.25

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#### Duration dependence

Strong decay in hazard rates (54.9% in the first 12 months)



Average hazard rate constructed using joint distribution of characteristics at t = 0

#### Results

-	Expansion	(2001-2007)	Recession	(2008-2014)
	12 months	24 months	12 months	24 months
Overall	13.8	33.0	25.5	51.2
Unemployment insurance				
No Benefits	5.7	19.8	12.1	35.8
6 months	12.9	19.8	20.6	35.8
12 months	35.1	19.8	42.0	35.8
18 months	45.3	30.8	52.7	46.8
24 months	53.3	56.1	60.8	65.6
Unemployment assistance				
No	5.7	19.8	12.1	35.8
Yes	31.2	51.5	44.4	71.2
Age				
25-34 years old	13.3	32.0	23.7	48.8
35-44 years old	16.0	38.5	27.5	53.9
45-54 years old	27.3	49.6	34.9	62.9
Education				
Primary or less	13.3	30.8	28.4	51.8
Secondary, 1st st.	11.1	27.6	24.2	47.1
Secondary, 2nd st.	14.6	31.8	26.6	50.7
College	19.7	35.9	27.6	50.5
Industry				
Manufacturing	12.3	30.0	23.8	47.2
Construction	11.8	31.7	23.6	48.2
Non-market services	18.4	39.6	30.9	58.2
Other services	14.5	36.0	25.6	54.7

#### Survival rates in unemployment at 12 and 24 months, males, 2001-2014

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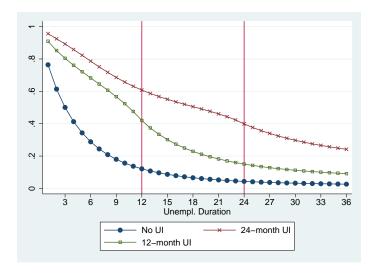
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### Survival rates

#### Unemployment benefits



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### Results when controlling for previous contract type

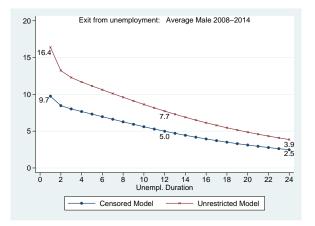
Survival rates in unemployment at 12 and 24 months, males, 2001-2014

	Expansion	(2001-2007)	Recession	(2008-2014)
		24 months		24 months
Baseline Model				
Unemployment insurance				
No Benefits	5.7	19.8	12.1	35.8
6 months	12.9	19.8	20.6	35.8
12 months	35.1	19.8	42.0	35.8
18 months	45.3	30.8	52.7	46.8
24 months	53.3	56.1	60.8	65.6
Unemployment assistance				
No	5.7	19.8	12.1	35.8
Yes	31.2	51.5	44.4	71.2
With previous contract control				
Unemployment insurance				
No Benefits	6.3	21.0	13.5	37.8
6 months	13.8	21.0	22.3	37.8
12 months	35.0	21.0	42.4	37.8
18 months	42.2	31.5	49.1	47.6
24 months	45.4	54.0	49.4	62.3
Unemployment assistance				
No	6.3	21.0	13.5	37.8
Yes	32.4	52.4	48.9	71.2
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#### Results with censoring

• What happens if we do not consider exits to jobs shorter than 30 days?



## Results with censoring

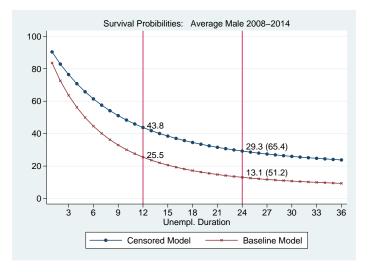
#### Survival rates in unemployment at 12 and 24 months, males, 2001-2014

	Expa	nsion	Rece	ssion
	12 months	24 months	12 months	24 months
Overall	26.3	47.7	42.3	65.4
Unemployment insurance				
No benefits	15.6	35.1	27.7	52.9
6 months	25.1	35.1	36.4	52.9
12 months	45.8	35.1	54.4	52.9
18 months	55.0	45.5	63.5	63.4
24 months	63.4	65.8	71.4	75.3
Unemployment assistance				
No	15.6	35.1	27.7	52.9
Yes	43.3	61.7	59.0	76.4
Age				
25-34 years old	25.8	46.9	40.2	63.2
35-44 years old	27.9	51.6	44.7	67.7
45-54 years old	39.6	63.4	52.0	75.3
Education				
Primary or less	27.0	47.5	47.1	67.4
Secondary, 1st st.	23.6	43.8	42.2	63.2
Secondary, 2nd st.	27.1	46.3	42.2	63.6
College	30.5	48.0	39.3	60.8
Industry				
Manufacturing	21.7	41.9	37.8	60.6
Construction	22.8	45.7	39.5	62.1
Non-market services	30.8	51.7	46.8	41.6
Other services	30.4	53.0	45.9	69.8

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# Results with censoring

Survival Probabilities now much larger



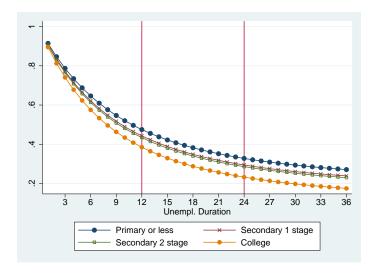
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## Results with censoring

Survival rates: Education



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## Summary

- Overwhelming evidence of negative duration dependence
- Between boom and recession we observe a strong deterioration in unemployment outflows for low-educated
- Higher education provides better access to stable jobs in the recession
- Temporary jobs reduce the incidence of LTU substantially (around 20pp)
- Striking disincentive effects from benefit entitlements pointing at weak activation

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## Reservation wages

- Much has been written about the rigidity of real (negotiated) wages in Spain
- The 2012 reforms seems to have raised the elasticity of initial wages (Font et al. 2015; Izquierdo and Puente, 2015)
- Here we provide complementary evidence on the relationship between reservation wages and unemployment duration

Two proxies reservation wages:

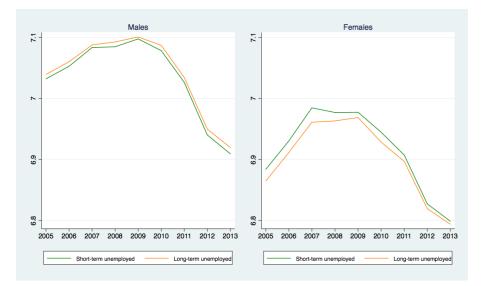
- Real re-entry wages (MCVL) according to duration
- ② Declared reservation wages (Survey of Household Finances, EFF)

#### Re-entry wages

- Same sample selection criteria as in duration analysis
- Re-entry wages correspond to first full month of wage income (April)
- To avoid bottom- and top-coding we focus on wages between 5th and 95th percentile
- We control for observable worker characteristics using a Mincer-type regression
  - Age, experience, education, industry, province, year dummies
  - Men (51,303 observations) Women (48,365 observations)

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#### Re-entry wages: Results



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## Reservation wages

Survey of Household Finances

- We exploit the survey question: At what gross monthly wage would you be willing to work?
- We pool four waves (2002, 2005, 2008, 2011)
- Small sample size (2,810 observations) and panel dimension
- We estimate the following specification:

$$log(\omega_{it}) = \alpha_t + \beta log(\textit{Dur}_{it}) + \gamma \textit{UI}_{it} + \delta \textit{UA}_{it} + \textit{X}'_{it} \mu + \textit{u}_{it}$$

- We control for personal characteristics, household composition and finances, aggregate labour market conditions (through year dummies)
- The coefficient of interest:  $\beta$

### Reservation wages: results

						F 1	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		All		Males		Females	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Log duration		***		**		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$							
Assistance benefits         0.011         -0.027         0.047           Age         (0.019)         (0.026)         (0.029)           Age         0.003         (0.004)         (0.005)           Age <sup>2</sup> (*)         -0.005         -0.007         (0.006)           Female         -0.016         ***         -0.005           Married         0.058         ***         0.078         ***           Married         0.059         **         0.004         (0.044)           Unmarried partner         0.059         **         0.003         (0.024)           Household head         0.031         **         0.047         **         0.002           Secondary education, 2nd stage         0.068         **         0.051         ***         0.008           College         0.222         ***         0.013         (0.016)         (0.020)           College         0.222         ***         0.008         **         0.008           College         0.222         ***         0.013         **         0.017           Household size         -0.014         ***         0.013         **         0.017           Total income         0.016         ** </td <td>Contributory benefits</td> <td></td> <td>***</td> <td></td> <td></td> <td></td> <td>***</td>	Contributory benefits		***				***
Age         0.006         **         0.006         **         0.006           Age <sup>2</sup> (*)         0.003         (0.004)         (0.005)         -0.005           Age <sup>2</sup> (*)         -0.005         -0.007         (0.004)         (0.005)         -0.007           Female         -0.161         ***         (0.005)         (0.006)         (0.006)           Married         0.058         ***         0.078         ***         0.044         *           Unmarried partner         0.059         **         0.108         ***         -0.004           Household head         0.031         **         0.047         **         0.002           Gollage         0.222         **         0.184         **         0.012           Gollage         0.222         **         0.184         **         0.012           Gollage         -0.014         **         -0.013         **         0.014         **           Goldo         (0.002)         (0.003)         (0.002)         (0.002)         (0.002)           Household size         -0.014         ***         -0.013         **         -0.017         **           Gologi         0.0011 </td <td>Assistance benefits</td> <td>0.011</td> <td></td> <td>-0.027</td> <td></td> <td>0.047</td> <td></td>	Assistance benefits	0.011		-0.027		0.047	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		(0.019)		(0.026)		(0.029)	
Age <sup>2</sup> (*) $-0.005$ $-0.005$ $-0.007$ Female $-0.161$ ***           (0.012)         Warried         (0.023)         (0.004)           Married         0.058         ***         0.044         **           Unmarried partner         0.059         **         0.018         ***         -0.004           Unmarried partner         0.059         **         0.108         ***         -0.004           Household head         0.031         **         0.047         **         0.002           Secondary education, 2nd stage         0.068         ***         0.016         (0.029)         (0.027)           College         0.222         **         0.184         ***         0.246         ***           Household size         -0.013         (0.016)         (0.029)         (0.027)         +           Household size         -0.016         **         0.028         ***         0.001         +         0.001         +         0.013         +         0.017         ***         0.017         +         0.013         +         0.022         +         0.011         +         0.021         +         0.021         +         <	Age	0.008	**	0.009	**	0.009	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		(0.003)		(0.004)		(0.005)	
Female         -0.161         ***         (***         (***           Married         (0.012)         (0.078)         ***         0.044         *           Married         (0.017)         (0.023)         (0.024)         (0.024)           Unmarried partner         0.059         **         0.044         *           (0.017)         (0.023)         (0.024)         (0.034)           Household head         0.031         **         0.047         **         0.002           Secondary education, 2nd stage         0.068         ***         0.013)         (0.016)         (0.029)           College         0.222         ***         0.104         ***         0.046         ***           Goldsize         -0.014         ***         -0.013         **         0.002         ***           Household size         -0.016         **         0.028         ***         0.008         ***           (0.005)         (0.001)         (0.002)         (0.007)         ***         0.001         ***           for adjuster         -0.014         ***         -0.011         ***         0.007         ***           for adjuster         0.013         **         0.001	Age <sup>2</sup> (*)	-0.005		-0.005		-0.007	
Tentate         -0.014           (0.012)         (0.017)           Married         0.058         ***         0.078         ***         0.044           (0.017)         (0.023)         (0.024)           Unmarried partner         0.059         **         0.108         ***         0.004           Household head         0.031         **         0.044         *         0.002           Secondary education, 2nd stage         0.068         **         0.051         ***         0.082         ***           College         0.222         ***         0.0184         ***         0.019         college         ***           College         0.222         ***         0.013         ***         0.019         ***           Household size         -0.014         ***         -0.013         **         0.019         **           Total income         0.016         ***         0.008         ***         0.001         ***         0.001         ***           Piancial assets         0.001         (0.002)         (0.002)         **         0.003         **         0.001         ***         0.013         ***         0.017         ***         0.013         *** <td></td> <td>(0.004)</td> <td></td> <td>(0.005)</td> <td></td> <td>(0.006)</td> <td></td>		(0.004)		(0.005)		(0.006)	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Female	-0.161	***	. ,		. ,	
Wallieu         0.003         0.016         0.044           (0.017)         (0.023)         (0.024)           Jumarried partner         0.059         **         0.108         ***         -0.004           (0.025)         (0.031)         **         0.002         (0.034)           Household head         0.031         **         0.047         **         0.002           Secondary education, 2nd stage         0.068         ***         0.016         (0.029)         (0.027)           College         0.202         **         0.114         ***         0.246         ***           College         0.202         **         0.013         (0.029)         (0.027)           Household size         -0.014         ***         0.246         ***         0.016         (0.007)           Total income         0.016         **         0.003         (0.007)         ***         0.008           Real assets         0.001         (0.002)         (0.002)         (0.003)         ***         0.001           Debt         0.005         ***         0.004         **         0.005         ***           R2         2.810         1.534         1.276         R2		(0.012)					
Unmarried partner         0.059         **         0.108         ***         0.004           Household head         0.031         **         0.047         **         0.002           Household head         0.031         **         0.0184         **         0.002           Secondary education, 2nd stage         0.068         **         0.051         ***         0.082         ***           College         0.222         ***         0.184         **         0.013         (0.020)         (0.020)           College         0.222         ***         0.013         **         -0.017         **         -0.019         **         -0.019         **         -0.019         **         -0.019         **         -0.019         **         -0.019         **         -0.019         **         -0.019         **         -0.019         **         -0.019         **         -0.019         **         -0.019         **         -0.019         **         -0.019         **         -0.019         **         -0.019         **         -0.010         **         -0.010         **         -0.011         **         -0.011         **         -0.011         **         -0.011         **         -0.011	Married	0.058	***	0.078	***	0.044	*
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		(0.017)		(0.023)		(0.024)	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Unmarried partner	0.059	**	0.108	***	-0.004	
Household head         0.031         **         0.047         **         0.002           (0.013)         (0.013)         (0.0184)         (0.019)         (0.019)           Secondary education, 2nd stage         0.068         ***         0.061         ***         0.082         ***           College         0.029         (0.013)         (0.016)         (0.020)         College         0.222         ***         0.466         ***         0.246         ***         0.246         ***         0.013         *         0.013         **         0.013         **         0.013         **         0.229         **         0.084         ***         0.216         ***         0.013         **         0.013         **         0.013         **         0.013         **         0.013         ***         0.014         ***         0.013         ***         0.014         ***         0.011         ***         0.001         (0.002)         (0.002)         ***         0.001         (0.002)         ***         0.001         ***         0.011         ***         0.011         ***         0.011         ***         0.011         ***         0.011         ***         0.011         ***         0.011         *** <td></td> <td>(0.025)</td> <td></td> <td>(0.036)</td> <td></td> <td>(0.034)</td> <td></td>		(0.025)		(0.036)		(0.034)	
Secondary education, 2nd stage         0.068         ***         0.051         ***         0.082         ***           (0.013)         (0.016)         (0.020)         (0.029)         (0.029)         (0.027)           College         0.202         ***         -0.013         ***         0.013         ***         0.019         **           Household size         -0.014         ***         -0.013         **         -0.019         **           (0.005)         (0.006)         (0.007)         (0.007)         **         0.008         ***         0.008           Total income         0.016         **         0.028         ***         0.001         (0.002)         ***         0.001           Real assets         0.002         0.003         *         -0.001         ***         0.002         ***         0.001         ***         0.001         ****         0.001         ****         0.011         ****         0.011         ****         0.011         ****         0.011         ****         0.017         ****         0.011         ****         0.017         ****         0.017         ****         0.011         ****         0.017         ****         0.013         ****         0.017	Household head		**	0.047	**	0.002	
Secondary education, 2nd stage         0.068         ***         0.051         ***         0.082         ***           (0.013)         (0.016)         (0.020)         (0.029)         (0.029)         (0.027)           College         0.202         ***         -0.013         ***         0.013         ***         0.019         **           Household size         -0.014         ***         -0.013         **         -0.019         **           (0.005)         (0.006)         (0.007)         (0.007)         **         0.008         ***         0.008           Total income         0.016         **         0.028         ***         0.001         (0.002)         ***         0.001           Real assets         0.002         0.003         *         -0.001         ***         0.002         ***         0.001         ***         0.001         ****         0.001         ****         0.011         ****         0.011         ****         0.011         ****         0.011         ****         0.017         ****         0.011         ****         0.017         ****         0.017         ****         0.011         ****         0.017         ****         0.013         ****         0.017		(0.013)		(0.0184)		(0.019)	
$ \begin{array}{c} (0.013) & (0.016) & (0.020) \\ 0.022 & \cdots & 0.184 & \cdots & 0.246 & \cdots \\ (0.020) & (0.022) & (0.027) \\ \text{Household size} & -0.014 & \cdots & -0.013 & \cdots & -0.019 \\ 0.005 & (0.005) & (0.007) \\ 0.006 & (0.007) \\ 0.006 & (0.011) & (0.008) \\ 0.006 & (0.011) & (0.008) \\ 0.006 & (0.001) & (0.002) \\ 0.002 & 0.003 & \cdots & 0.001 \\ 0.002 & (0.002) & (0.003) \\ 0.001 & (0.002) & (0.003) \\ 0.002 & (0.003) & (0.003) \\ 0.005 & \cdots & 0.004 & \cdots & 0.005 \\ 0.005 & \cdots & 0.004 & \cdots & 0.005 \\ 0.005 & \cdots & 0.004 & \cdots & 0.005 \\ 0.025 & (0.022) & (0.036) \\ 0.025 & (0.022) & (0.036) \\ 0.025 & (0.256 & 0.263 & 0.216 \\ \end{array} $	Secondary education. 2nd stage		***		***		***
$ \begin{array}{c} \mbox{College} & 0.222 & \cdots & 0.184 & \cdots & 0.246 & \cdots \\ (0.020) & (0.029) & (0.027) \\ \mbox{Household size} & -0.014 & \cdots & -0.013 & \cdots & -0.019 & \cdots \\ (0.005) & (0.006) & (0.007) \\ \mbox{Total income} & 0.016 & \cdots & 0.028 & \cdots & 0.008 \\ (0.006) & (0.011) & (0.008) \\ \mbox{Real assets} & 0.002 & 0.003 & \cdots & -0.001 \\ (0.001) & (0.002) & (0.002) \\ \mbox{Financial assets} & 0.013 & \cdots & 0.011 & \cdots & 0.017 & \cdots \\ (0.020) & (0.003) & (0.003) & \cdots & 0.001 \\ \mbox{Financial assets} & 0.002 & (0.003) & (0.003) \\ \mbox{Debt} & 0.005 & \cdots & 0.004 & (0.005 & \cdots \\ (0.026) & (0.002) & (0.036) & \cdots \\ \mbox{Observations} & 2,810 & 1,534 & 1,276 \\ \mbox{R}^2 & 0.256 & 0.263 & 0.216 \\ \end{array} $							
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	College		***		***		***
Household size         -0.014         ***         -0.013         ***         -0.016         **         -0.015         ***         -0.015         ***         -0.015         ***         -0.015         ***         -0.015         ***         -0.015         ***         -0.016         ***         -0.015         ***         -0.016         ***         -0.015         ***         -0.008         (0.007)         (0.008)         (0.008)         (0.008)         (0.001)         (0.002)         (0.002)         (0.002)         (0.002)         (0.002)         (0.003)         ***         0.001         ***         0.001         ***         0.001         ***         0.001         ***         0.001         ***         0.001         ***         0.001         ***         0.001         ***         0.001         ***         0.001         ***         0.005         ***         0.004         ***         0.005         ***         0.004         ***         0.005         ***         0.004         ***         0.005         ***         0.006         ***         0.005         ***         0.006         ***         0.005         ***         0.006         ***         0.007         ***         0.017         ***         0.016         ***	8-						
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Household size		***		**		**
$\begin{array}{cccc} \mbox{Total income} & 0.016 & ** & 0.028 & *** & 0.008 \\ (0.006) & (0.011) & (0.008) \\ (0.006) & (0.012) & (0.008) \\ (0.001) & (0.002) & (0.002) \\ (0.002) & (0.002) & (0.003) \\ (0.002) & (0.003) & (0.003) \\ 0.005 & ** & 0.004 & ** & 0.005 \\ 0.005 & *** & 0.004 & ** & 0.005 \\ 0.005 & *** & 0.004 & ** & 0.005 \\ (0.026) & (0.022) & (0.036) \\ 0.005 & (0.026) & (0.036) \\ 0.005 & ** & 0.004 & ** & 0.005 \\ 0.025 & (0.026) & (0.036) \\ 0.005 & ** & 0.004 & ** & 0.005 \\ 0.025 & (0.026) & (0.036) \\ 0.025 & (0.026) & (0.036) \\ 0.025 & (0.026) & (0.036) \\ 0.025 & (0.026) & (0.036) \\ 0.025 & (0.026) & (0.036) \\ 0.025 & (0.026) & (0.036) \\ 0.025 & (0.026) & (0.036) \\ 0.025 & (0.026) & (0.026) \\ 0.0$							
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Total income		**		***		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$							
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Real assets				*		
$ \begin{array}{ccccc} \mbox{Financial assets} & 0.013 & & 0.011 & & 0.017 & & & \\ (0.002) & (0.003) & (0.003) & (0.003) & \\ \mbox{Debt} & 0.005 & & 0.004 & & 0.005 & & & \\ (0.026) & (0.002) & (0.036) & & & \\ \mbox{Observations} & 2,810 & 1,534 & 1,276 & \\ \mbox{R}^2 & 0.256 & 0.263 & 0.216 & & \\ \end{array} $							
$\begin{array}{ccccccc} (0.002) & (0.003) & (0.003) \\ 0.005 & \cdots & 0.004 & \cdots & 0.005 & \cdots \\ (0.026) & (0.002) & (0.036) & \cdots \\ \end{array}$	Financial assets		***		***		***
Debt         0.005         ***         0.004         **         0.005         ***           (0.026)         (0.002)         (0.036)         (0.036)         ***         0.005         ***           Observations         2,810         1,534         1,276         1,263         0.216	- monetal assets						
(0.026)         (0.002)         (0.036)           Observations         2,810         1,534         1,276           R <sup>2</sup> 0.256         0.263         0.216	Debt		***		**		***
Observations         2,810         1,534         1,276           R <sup>2</sup> 0.256         0.263         0.216	Debt						
R <sup>2</sup> 0.256 0.263 0.216		(0.020)		(0.002)		(0.000)	
R <sup>2</sup> 0.256 0.263 0.216	Observations	2.810		1.534		1.276	
	R <sup>2</sup>						
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Banco de España, Dec. 2016

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### Weak response of reservation wages

- Re-entry wages started falling as early as in 2009, but very small differences between short- and long-term unemployed
- The elasticity of the reservation wage with respect to duration is very low once we control for benefit entitlement.
- This finding, however, cannot be directly linked to the probability of leaving unemployment, which depends also on search effort (*supply*) and the arrival of job offers (*demand*).
- Acceptance probabilities may well be close to one for LTU (see García-Pérez 2006).
- The problem for them is that offers may not arrive.

# **Concluding Remarks**

ALMPs: A Policy shift towards labor market integration

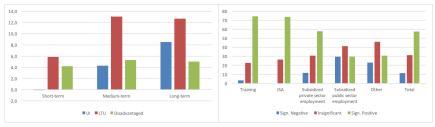
After long inaction, there is an apparent shift in policy orientation:

- Council recommendation for the integration of the long-term unemployed (Febr. 2016)
- Programa de acción conjunta para desempleados de larga duración (June 2016)
- Individual integration plans for 1M long-term unemployed until 2018
- Evidence suggests that well-designed intensive support to long-term unemployed pays off (Csillag and Fertig, 2015)
- Indeed, the average observed program impacts are typically largest for long-term unemployed (Card, Kluve and Weber, 2015)

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# **Concluding Remarks**

ALMPs: A Policy shift towards labor market integration



#### (a) Average program effects (b) Program effects by type

Results based on Card et al. (2015) and reprinted in Bentolila and Jansen (2016)

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# **Concluding Remarks**

ALMPs: A Policy shift towards labor market integration

- Recent data coming from SEPE reveals a poor performance in Spain:
  - Overall participation rates are low (about 10%) and even less in the case of long-term unemployed (7.5%)
  - The Spanish PES shows a very limited capacity to offer individualized support (Jansen, 2016)
  - First activation measures usually happens on average after 9 months
  - Only 4.9% of LTU with contributive benefits and just 3.3% with assistance benefits participated in ALMPs in 2015.
- Our results point out that most of the LTU have suffered a serious lack of demand.
- They would benefit the most from expanding and improving ALMPs.
- The link of these policies to the receipt of unemployment benefits is also crucial to reduce the risk of entering into LTU.

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