

Temporary job position and life satisfaction under different institutional context. Analysis for western and eastern Europe

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Selezneva, Perugini

Previous literature

Data

Descriptive evidence

Estimation results

Conclusions

Outline

- ▶ Previous literature
 - ▶ subjective well-being, labour market status, institutions
- ▶ Data
 - ▶ ESS, institutional indicators
- ▶ Descriptive evidence
 - ▶ life satisfaction (LS), institutional indicators vs LS
- ▶ Estimation results
 - ▶ random coefficient vs random slope model, effect of institutions, interactions (temporary & institutions, temporary & soc.-dem. controls)
- ▶ Conclusions

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(Some) previous literature

- ▶ Robust negative impact of unemployment experience on SWB (Clark and Oswald, 1994; Dolan et al, 2008)
- ▶ The aggregate effect of work on well-being is positive (Raetzl et al, 2012)
- ▶ Perceived job security has a strong impact on life satisfaction (Green, 2011)
- ▶ Global social and political issues are responsible for change in individual well-being (Frey and Stutzer, 2001; Di Tella et al, 2003; Green, 2011)
- ▶ Institutions matter for labour market outcomes; more deregulation in Eastern Europe improves their performance (Lehman and Muravyev, 2012)
- ▶ Labour market institutions (e.g. EPL) change perception of job security (Kompier et al, 2009; Clark et al, 2009)

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Research question

CONVENTIONAL WISDOM:

Temporary employment – > (lower job security etc) – > :(
– > *lower SWB* when compared to those in permanent
employment

OUR STUDY:

- ▶ Is conventional wisdom true in different institutional settings (e.g. union density, labour market deregulation)?
- ▶ Which individual characteristics (e.g. education, income) may improve SWB of temporary workers?

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European Social Survey, ESS (2002 - 2010, cross-sectional, once in two years) + databases of institutional indicators

Sample: working age (15 – 64); in a paid employment; all required variables

We restrict/include in our analysis the following “old” (Austria, Belgium, Germany, Greece, Denmark, Finland, France, United Kingdom, Ireland, Italy, The Netherlands, Spain, Sweden, Portugal) and “new” (Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Poland, Romania, Slovenia, Slovak Republic) European Union member states (23)

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Variables

Dependent variable:

“How satisfied are you with your life as a whole nowadays?”

(0) Extremely dissatisfied to (10) Extremely satisfied

- ▶ employment relationship (employee/self-employed)
- ▶ type of employment contract (temporary/permanent)

Controls: age; income deciles (household income); education (secondary, tertiary); married (officially, or registered union); number of household members; presence of children in household; any degree of disability; gender; year; occupation; sector; member of trade union

Sample of 56645 observations (pooled across countries/years).

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Institutional indicators - I

- ▶ *Union density rate*: net union membership as a proportion of wage and salary earners in employment.

Data Base on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts, 1960-2011 (ICTWSS) by Jelle Visser

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Institutional indicators - II

- ▶ *Hiring regulations and minimum wage.* Component '5bi' of the Economic freedom of the world index (Fraser Institut); (higher difficulty of hiring – > lower index)

(based on) World Bank's Doing Business Difficulty of Hiring Index:

- ▶ whether fixed-term contracts are prohibited for permanent tasks,
- ▶ the maximum cumulative duration of fixed-term contracts,
- ▶ the ratio of the minimum wage for a trainee or first-time employee to the average value added per worker.

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Institutional indicators - III

- ▶ *Mandated costs of worker dismissal*. Component '5bv' of the Economic freedom of the world index (Fraser Institute); (costs of dismissal/level of regulation increase – > index diminishes)

(based on) World Bank's Doing Business data on:

- ▶ the costs of the advance notice requirements,
- ▶ severance payments,
- ▶ and penalties due to dismissing of redundant worker.

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Mean scores and dispersion of life satisfaction

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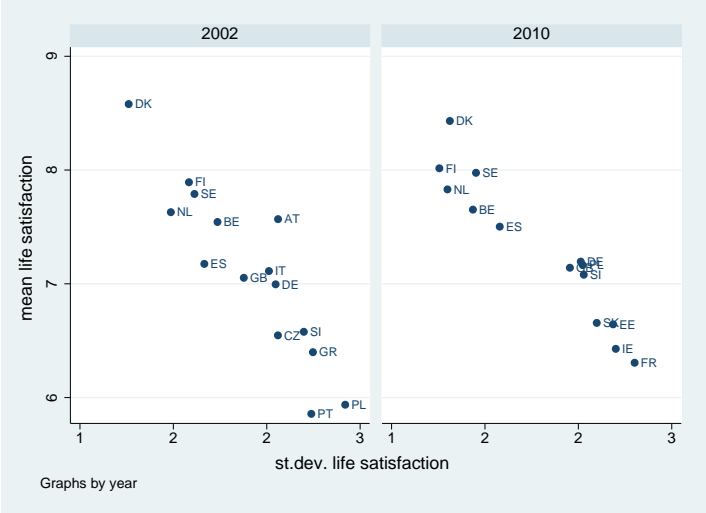
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Graphs by year

Hiring regulation (f5bi) vs. mandated costs of dismissal (f5bv)

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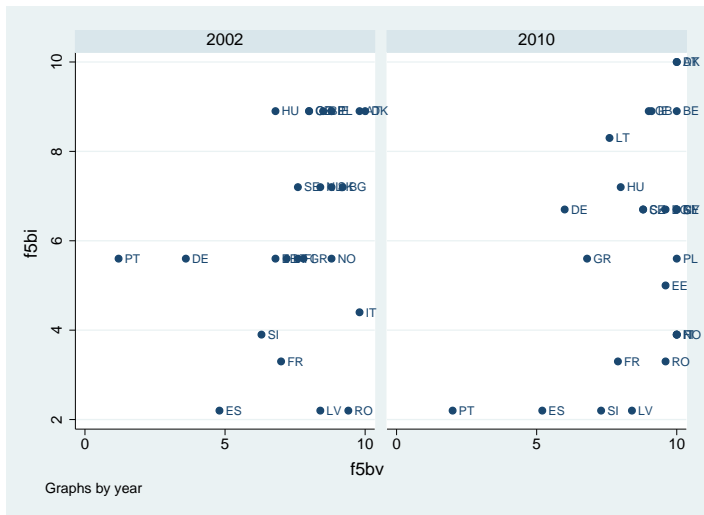
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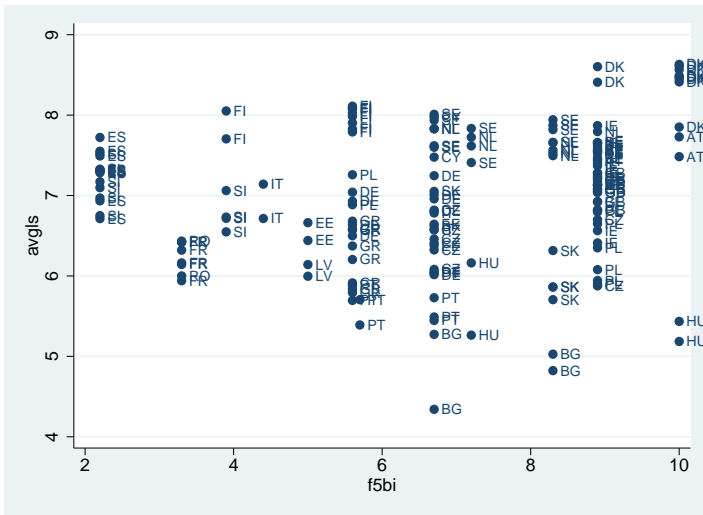
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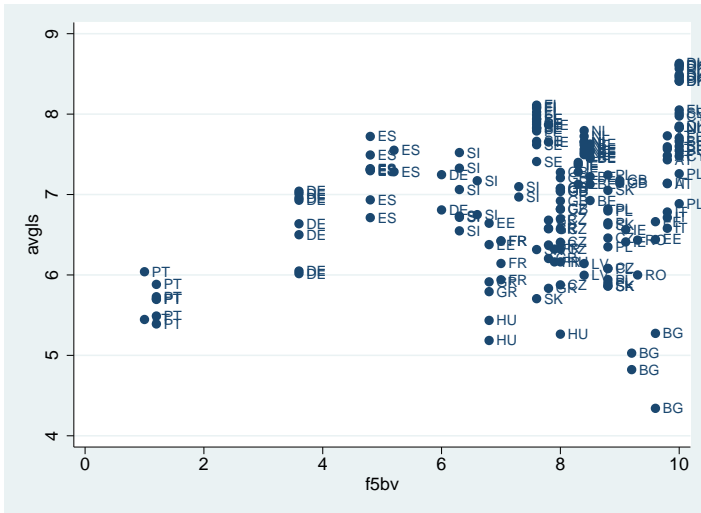


Graphs by year

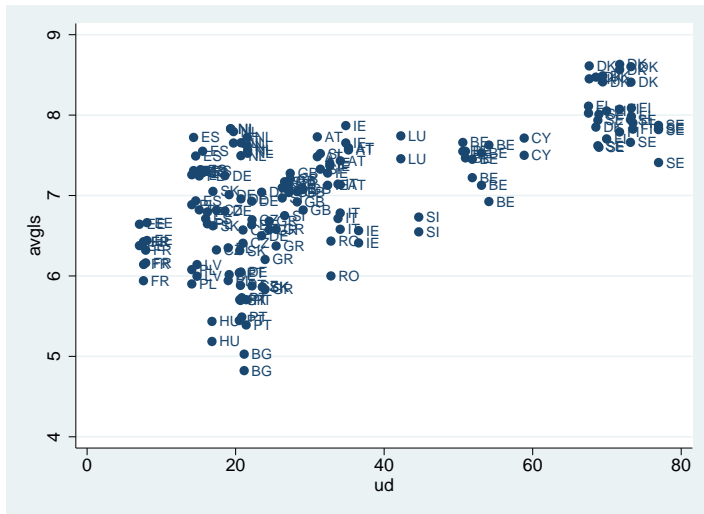
Hiring regulation (f5bi) vs (average) life satisfaction (avgls), 2002 - 2010



Dismissal costs (f5bv) vs (average) life satisfaction, 2002 - 2010



Average life satisfaction scores and trade union density, 2002 - 2010



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Corr. coefficient between institutional indices

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	2002	2004	2006	2008	2010
f5bi and f5bv	0.289	0.389	0.265	0.270	0.422*
f5bi and ud	0.178	0.426	0.304	0.172	0.286
f5bv and ud	0.310	0.293	0.284	0.143	0.402*

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$;

Hiring regulation (f5bi), mandated costs of dismissal (f5bv), union density (ud)

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Estimation technique

Reasons to use multilevel modelling:

- ▶ bringing together variables from individual and country level (individual observations are nested within countries) => possible violation of the independence assumption required by OLS
- ▶ we think that the (strength of) impact of being temporary might be different in different countries/institutional contexts
- ▶ substantive interest in group effects (e.g. identification of groups-outliers)

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One-way analysis of variance (ICC), life satisfaction

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	2002	2004	2006	2008	2010
pooled-EU	0.13	0.16	0.17	0.15	0.11

Aged 15 – 64, in paid employment

$ICC = \text{cluster variance} / \text{total variance}$.

Pooled sample: $ICC(\text{country})=0.154 \Rightarrow 15\%$ of total variance comes from country level

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'Random intercept model' vs 'random coefficient model'

- ▶ *Random intercept model*: in all groups an effect of the explanatory variable on the response is the same.
- ▶ We assume that the impact of the temporary employment status should vary across countries
 - *random coefficient model*: coefficient for *temporary* composed of a “fixed part” ($\beta_{temporary} * temporary$) and “random part” ($u_1 * temporary$).
- ▶ u_1 : random effect for ‘temporary-permanent difference’ for countries in sample; u_0 : predicted error terms at country level
- ▶ LR $\chi^2(2)=13.66$ (Prob > $\chi^2 = 0.0011$) – > effect of being temporary is likely to be different across countries

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Estimation results - I: effect of institutions

	(1)	(2)	(3)	(4)	(5)
Temporary	-0.16*** (0.04)	-0.16*** (0.04)	-0.16*** (0.04)	-0.15*** (0.04)	-0.16*** (0.04)
Union density		-0.01 (0.00)			-0.00 (0.00)
Hiring regulation			-0.04** (0.01)		-0.04** (0.01)
Costs of dismissal				0.07** (0.02)	0.06* (0.02)
Constant	5.64*** (0.16)	5.83*** (0.22)	5.93*** (0.18)	5.14*** (0.23)	5.50*** (0.28)
sd(Residual)	1.80***	1.80***	1.80***	1.80***	1.80***
sd(temporary)	0.13***	0.13***	0.13***	0.13***	0.13***
sd(cons)	0.73*	0.81	0.75	0.71*	0.74
corr(temp, cons)	-0.02	-0.01	0.02	-0.20	-0.13
N	56645	56645	56645	56645	56645

Aged 15-64. Pooled sample of 23 EU-countries. Random slope on 'temporary'.

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Estimation results - II

	(1)	(2)	(3)	(4)	(5)
Age, centered at mean	-0.01*** (0.00)	-0.01*** (0.00)	-0.01*** (0.00)	-0.01*** (0.00)	-0.01*** (0.00)
Female	0.08*** (0.02)	0.08*** (0.02)	0.08*** (0.02)	0.08*** (0.02)	0.08*** (0.02)
Trade union member	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)
HHIncome decile	0.15*** (0.00)	0.15*** (0.00)	0.14*** (0.00)	0.15*** (0.00)	0.15*** (0.00)
Married	0.34*** (0.02)	0.34*** (0.02)	0.34*** (0.02)	0.34*** (0.02)	0.34*** (0.02)
Higher edu.	0.08*** (0.02)	0.08*** (0.02)	0.08*** (0.02)	0.08*** (0.02)	0.08*** (0.02)
Children in HH	-0.16*** (0.02)	-0.16*** (0.02)	-0.16*** (0.02)	-0.16*** (0.02)	-0.16*** (0.02)
HH members	0.03*** (0.01)	0.03*** (0.01)	0.03*** (0.01)	0.03*** (0.01)	0.03*** (0.01)
Disability	-0.60*** (0.02)	-0.60*** (0.02)	-0.60*** (0.02)	-0.60*** (0.02)	-0.60*** (0.02)
2004	0.01 (0.03)	0.01 (0.03)	0.02 (0.03)	0.01 (0.03)	0.02 (0.03)
2006	0.09*** (0.03)	0.07** (0.03)	0.10*** (0.03)	0.08*** (0.03)	0.10*** (0.03)
2008	0.13*** (0.02)	0.11*** (0.03)	0.14*** (0.02)	0.13*** (0.02)	0.14*** (0.03)
2010	0.26*** (0.03)	0.24*** (0.03)	0.24*** (0.03)	0.17*** (0.04)	0.16*** (0.04)

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Estimation results - III

	(1)	(2)	(3)	(4)	(5)
Agriculture	-0.15** (0.05)	-0.15** (0.05)	-0.14** (0.05)	-0.15** (0.05)	-0.14** (0.05)
Mining	0.05 (0.06)	0.04 (0.06)	0.04 (0.06)	0.04 (0.06)	0.04 (0.06)
Manufacture	0.02 (0.12)	0.02 (0.12)	0.02 (0.12)	0.02 (0.12)	0.02 (0.12)
Construction	-0.04 (0.02)	-0.04 (0.02)	-0.04 (0.02)	-0.04 (0.02)	-0.04 (0.02)
Trade	0.04 (0.04)	0.04 (0.04)	0.04 (0.04)	0.04 (0.04)	0.04 (0.04)
Hotel/Restaur.	-0.06* (0.03)	-0.06* (0.03)	-0.06* (0.03)	-0.06* (0.03)	-0.06* (0.03)
Transports	-0.16*** (0.04)	-0.16*** (0.04)	-0.16*** (0.04)	-0.16*** (0.04)	-0.16*** (0.04)
Bussines serv.	-0.04 (0.04)	-0.04 (0.04)	-0.04 (0.04)	-0.04 (0.04)	-0.04 (0.04)
Semi-skilled worker	-0.07 (0.07)	-0.07 (0.07)	-0.07 (0.07)	-0.07 (0.07)	-0.07 (0.07)
Unskilled worker	-0.09** (0.03)	-0.09** (0.03)	-0.09** (0.03)	-0.09** (0.03)	-0.09** (0.03)
Farm worker	-0.15*** (0.03)	-0.15*** (0.03)	-0.15*** (0.03)	-0.15*** (0.03)	-0.15*** (0.03)

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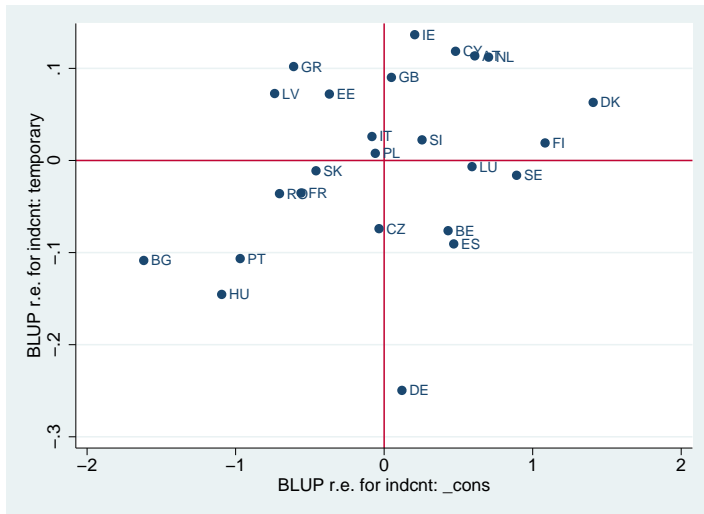
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Predicted u_0 and u_1 for random coefficient model (temporary), Model (1)



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Interactions: temporary and institutions

	(1)	(2)	(3)	(4)
Temporary	-0.16*** (0.04)	-0.18** (0.07)	-0.25* (0.10)	-0.52*** (0.10)
Union density		-0.01 (0.00)		
tempXud		0.00 (0.00)		
Hiring regulation			-0.04** (0.01)	
tempXf5bi			0.01 (0.01)	
Costs of dismissal				0.06** (0.02)
tempXf5bv				0.05*** (0.01)
Soc.-dem. var.s	Yes	Yes	Yes	Yes
Constant	5.64*** (0.16)	5.83*** (0.22)	5.94*** (0.19)	5.19*** (0.23)
sd(Residual)	1.80***	1.80***	1.80***	1.80***
sd(temporary)	0.13***	0.13***	0.12***	0.08***
sd(cons)	0.73*	0.81	0.75	0.72*
corr(temp, cons)	-0.02	-0.10	-0.05	-0.48
N	56645	56645	56645	56645
Log lik	-113648.36	-113647.54	-113642.96	-113639.21

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Interactions: temporary and soc.-dem. controls

	(1)	(2)	(3)	(4)	(5)
Inst. indices	Yes	Yes	Yes	Yes	Yes
Temporary	-0.16*** (0.04)	-0.26*** (0.07)	-0.23*** (0.04)	-0.17*** (0.04)	0.06 (0.16)
Age, centered at mean	-0.01*** (0.00)	-0.01*** (0.00)	-0.01*** (0.00)	-0.01*** (0.00)	-0.01*** (0.00)
Female	0.08*** (0.02)	0.08*** (0.02)	0.08*** (0.02)	0.08*** (0.02)	0.08*** (0.02)
HHIncome decile	0.15*** (0.00)	0.14*** (0.00)	0.15*** (0.00)	0.15*** (0.00)	0.14*** (0.00)
Higher edu.	0.08*** (0.02)	0.08*** (0.02)	0.06** (0.02)	0.08*** (0.02)	0.09*** (0.02)
tempXincdec		0.02 (0.01)			
tempXedhigh			0.24*** (0.05)		
tempXfem				0.02 (0.05)	
tempXage1524					0.03 (0.16)
tempXage2534					-0.13 (0.16)
tempXage3544					-0.38* (0.16)
tempXage4554					-0.37* (0.16)
tempXage5564					-0.11 (0.17)
N	56645	56645	56645	56645	56645
Log lik	-113640.43	-113638.76	-113629.32	-113640.34	-113615.84

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Conclusions -I

- ▶ Negative effect of temporary status (vs. permanent and self-employed) changes across both individuals and countries
- ▶ The countries in the sample may be roughly divided into two groups: (1) negative SWB effect of temporary status is compensated by the country specific (e.g. Ireland, Great Britain, Scandinavian countries); (2) is amplified by the country specific (e.g. Spain, Portugal, Hungary, Romania, Germany).
- ▶ The 'new' EU member states do not form a separate group of a specific 'Eastern European' model

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Conclusions - II

- ▶ Life satisfaction drop for temporary workers becomes even deeper in case of strengthening of the mandatory dismissal costs regulation and further liberalization of the hiring regulation.
- ▶ The negative impact of temporary status on life satisfaction diminishes for those with higher education.
- ▶ Workers in the age of 35 - 54 appear to be the most penalized in satisfaction terms by a temporary status.

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Thank you for your attention!

For questions and comments:

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