

Intergenerational Time Transfers and Internal Migration.

Accounting for Low Spatial Mobility in Southern Europe

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Large differences in inter-regional mobility rates

- ▶ Lower in Europe than in the U.S.
- ▶ Particularly appealing: Southern European countries.
- ▶ Previous research:
 1. Unemployment insurance system: Hassler *et al.* (2003), Antolin and Bover (1997), Barnow and Mellon (1979), Tatsiramos (2004).
 2. Homeownership structure: Barcelo (2003), Gobillon (2001), Gardner *et al.* (2001).
- ▶ **Hypothesis:** intergenerational time transfers deter migration of young couples with children.

T1. Gross internal migration flows. Working-age population. 2001(3).

Country	Total	Inter-regional						Intra-regional
		Age groups		Educational attainment				
		15-24	25-64	Primary or less	Upper second.	Tertiary		
Greece	0.21	0.56	0.13	0.12	0.25	0.44	2.38	
Italy	0.58	n.a.	n.a.	n.a.	n.a.	n.a.	2.48	
Portugal	0.54	n.a.	n.a.	n.a.	n.a.	n.a.	3.33	
Spain	0.20	0.23	0.19	0.13	0.23	0.33	3.90	
France	2.11	3.79	1.70	1.16	1.98	4.13	4.21	
Germany	1.36	2.27	1.18	0.97	1.35	1.97	2.58	
Sweden	1.79	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
United Kingdom	2.28	3.80	1.94	1.16	1.93	3.90	4.08	
Australia	2.01	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Canada	0.95	1.55	0.8	n.a.	n.a.	n.a.	n.a.	
Japan	2.21	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
United States	3.05	4.09	2.77	2.34	3.00	3.53	n.a.	

Developed countries with the lowest inter-regional migration rates are those with the highest...

1. Percentage of women living close to their mothers.
2. Help flows from the mother to emancipated daughters.
3. Intergenerational gap in female labour force participation, employment and educational attainment.
4. Rationing in the provision of formal childcare services.
5. Percentage of women with at least one child at the end of their fertile period.

Conversely, intra-regional migration rates are close to those for other countries.

T2. Grandparenting and the location of emancipated women. 2004.

Country	Daughters living close (%)	Grandparenting (weekly hours)				
		Grandparenting		Daughters living		
		Frequency	Daily basis	All	Close	Far
Greece	82.0	56.6	51.8	36.0	36.6	14.9
Italy	82.3	66.5	63.1	25.3	26.2	8.2
Spain	83.7	54.0	55.2	24.4	25.2	9.5
France	57.4	53.7	18.2	14.9	15.3	8.8
Germany	67.4	65.4	22.1	9.4	10.6	4.7
Sweden	57.3	59.5	5.4	5.9	6.3	5.2
United States	44.4	35.8	n.a.	5.2	6.7	6.6

T3. Granparenting time received by couples living close. 2004.

Country	Mother's labour status		Age youngest grandchild					
			All			Employed mothers		
	Employed	Non-employed	< 3	3 to 6	≥ 6	< 3	3 to 6	≥ 6
Greece	40.1	28.8	41.0	32.7	27.1	43.3	40.2	29.2
Italy	29.3	22.6	20.8	26.3	34.1	30.7	30.2	31.5
Spain	28.2	18.3	32.9	27.7	12.4	43.4	30.7	15.1
France	15.9	10.7	16.2	13.5	17.7	16.0	14.4	20.5
Germany	13.1	6.6	10.0	12.9	8.7	14.0	14.9	11.2
Sweden	5.6	5.7	4.3	9.2	6.3	4.4	9.0	5.9
United States	7.5	3.3	6.7	6.7	6.7	7.6	7.5	7.5

T4. Labour force participation rates by sex and age groups. 1994-2000.

Country	Females					Males				
	25-34	35-44	45-54	55-64	(3) over (1)	25-34	35-44	45-54	55-64	(7) over (5)
	(1)	(2)	(3)	(4)		(5)	(6)	(7)	(8)	
Greece	66.1	61.7	45.3	24.5	68.6	95.0	97.0	91.4	59.3	96.3
Italy	60.7	58.9	44.2	15.2	72.8	87.9	96.0	87.4	44.9	99.4
Portugal	81.1	78.7	65.8	38.1	81.1	92.7	95.1	90.8	63.2	97.9
Spain	69.6	59.6	42.3	20.8	60.8	92.4	95.2	90.7	57.5	98.2
Finland	77.6	87.8	87.3	41.5	112.5	90.9	92.7	87.3	45.4	96.0
France	78.0	79.2	75.6	31.6	96.9	94.1	96.4	93.4	42.0	99.2
Germany	74.3	77.1	72.8	32.8	97.9	91.1	96.0	92.7	54.2	101.7
Norway	80.2	84.4	81.6	59.5	101.8	90.8	93.3	91.0	73.8	100.2
Sweden	82.0	88.4	88.5	64.5	107.9	89.2	92.4	91.6	71.8	102.7
United Kingdom	73.2	76.6	75.4	40.8	102.9	93.7	93.1	88.8	63.2	94.7
OCDE	66.2	69.7	66.2	37.4	100.1	93.5	94.7	90.5	63.1	96.8
Std. Dev	6.4	9.7	14.4	14.2		2.1	1.8	2.6	12.3	
Australia	68.3	70.9	68.4	31.3	100.1	92.8	92.2	87.9	60.9	94.7
Canada	77.7	79.0	73.2	38.0	94.2	91.4	92.4	88.8	59.4	97.1
Japan	62.1	65.8	69.8	49.2	112.3	97.0	97.9	97.4	84.9	100.5
United States	75.6	77.3	75.7	50.4	100.2	93.1	92.6	89.0	67.1	95.6

T5. Tertiary education attainment by sex and age group. 2003.

Country	Females					Males				
	25-34 (1)	35-44 (2)	45-54 (3)	55-64 (4)	(3) over (1) (5)	25-34 (5)	35-44 (6)	45-54 (7)	55-64 (8)	(7) over (5) (9)
Greece	27.5	23.9	15.0	7.9	54.6	21.8	25.6	22.8	15.6	104.6
Italy	17.1	12.6	10.6	5.7	62.3	12.1	11.3	11.3	8.7	93.7
Portugal	23.5	15.1	11.0	6.7	46.7	13.7	10.4	8.5	6.7	61.9
Spain	42.4	29.0	17.4	8.4	41.1	34.1	27.7	21.5	16.6	63.1
Finland	46.7	47.1	35.6	23.7	76.3	29.7	32.9	29.4	27.0	99.1
France	41.5	24.7	18.5	13.5	44.5	34.7	22.4	17.3	15.3	50.0
Germany	22.5	23.1	21.4	14.6	95.0	23.3	30.5	31.0	31.1	132.8
Norway	45.8	36.6	30.3	20.2	66.0	32.8	31.7	28.5	26.3	86.8
Sweden	47.1	38.3	36.1	28.8	76.6	37.7	33.2	29.8	25.8	79.0
United Kingdom	34.6	28.8	26.2	21.0	75.8	34.7	30.0	28.4	23.6	81.8
OECD	37.0	30.0	25.0	18.0	67.6	29.0	27.0	24.0	21.0	82.8
Australia	40.7	32.4	32.0	22.2	78.6	31.5	29.8	29.6	23.8	93.8
Canada	59.8	50.7	43.4	34.7	72.5	46.8	43.3	39.3	34.3	83.9
Japan	54.0	44.0	29.0	14.0	53.7	49.4	46.5	36.1	24.3	73.2
United States	41.9	41.1	40.8	33.1	97.4	36.2	37.8	40.5	39.6	111.9

T6. Indicators of childcare arrangements. 2003(5).

Country	Publicly provided slots per hundred children	Proportion of children using formal childcare
Greece	3	3
Italy	6	6
Portugal	12	12
Spain	2	5
Finland	21	n.a.
France	23	29
Germany (Western)	3	10
Germany (Eastern)	36	36
Sweden	33	48
United Kingdom	2	34
Australia	2	15
Canada	5	45
Japan	n.a.	13
United States	1	54

T7. Family size among women aged 40-64 with completed fertility. 2002.

Country	Distribution by number of children (%)				Total
	Average	None	1 or 2	3 or more	
Greece	2.00	7.6	65.2	27.2	100
Italy	1.86	11.0	65.4	23.6	100
Portugal	2.61	8.7	53.0	38.3	100
Spain	2.25	8.4	55.7	35.9	100
Finland	2.14	16.0	48.7	35.3	100
France	2.31	6.8	55.6	37.7	100
Germany	1.85	12.0	64.3	23.7	100
Sweden	2.03	10.1	60.3	29.6	100
United Kingdom	2.33	7.5	57.5	34.9	100
Canada	2.00	15.6	55.1	29.4	100
United States	1.93	17.9	n.a.	n.a.	n.a.

The model

- ▶ Partial equilibrium job search model (Barceló, 2003).
- ▶ Childless couples make fertility, female labour supply and inter-regional migration choices taking as given the availability of childcare arrangements.
- ▶ Inputs for childcare services: maternal time, transfers from close relatives and formal services.
- ▶ Rationing only affects public childcare (Wrohlich, 2006).
- ▶ Close relatives do not migrate with the couple.
- ▶ "Tied stayers couples"(Mincer, 1978).

Simulation results:

1. Largest elasticities of migration, female employment and fertility: price of private childcare services.
2. Southern European countries will experience an increase in internal migration...
3. at the expense of further lowering the fertility rate.

The determinants of family migration

- ▶ European Community Household Panel, 1994-2001.
- ▶ Couples in which she (both) is (are) aged 25-45.
- ▶ Covariates measured in the year preceeding the year of the move.
- ▶ Account for unobserved heterogeneity at the family level using random and fixed effects estimators.

T8. Family migration estimates.

	Random effects		Fixed effects	
	Inter-regional	Intra-regional	Inter-regional	Intra-regional
Husband employed	0.198 [1.85]	0.157 [2.87]	-0.248 [-0.72]	0.344 [2.32]
Wife employed	-0.096 [-1.37]	-0.041 [-0.91]	0.041 [0.21]	0.069 [0.58]
Wife employed, children	0.015 [0.20]	0.090 [1.78]	0.244 [0.99]	0.237 [1.61]
Wife employed, children, SE	-0.265 [-1.90]	0.041 [0.76]	-1.872 [-2.69]	-0.372 [-2.08]
Children (presence)	-0.085 [-2.99]	-0.014 [-0.85]	-0.123 [-0.85]	0.036 [0.54]
Homeowners	-0.522 [-10.51]	-0.804 [-29.10]	-1.084 [-5.07]	-1.759 [-15.90]
N	24314	27904	2007	9533

T8b. Family migration estimates (II).

	Random effects		Fixed effects	
	Inter-regional	Intra-regional	Inter-regional	Intra-regional
Husband employed	-0.327 [-2.48]	0.165 [2.30]	-0.542 [-1.83]	0.301 [2.20]
Wife employed	0.015 [0.19]	0.055 [1.24]	0.180 [0.93]	0.220 [2.35]
Wife employed, childless	-0.154 [-1.61]	-0.160 [-2.67]	-0.344 [-1.22]	-0.476 [-2.79]
Wife employed, childless, SE	-0.144 [-0.95]	-0.017 [-0.26]	0.288 [0.63]	0.458 [2.41]
Childless	0.328 [3.65]	0.053 [1.02]	0.723 [2.57]	0.136 [0.98]
Homeowners	-0.580 [-6.00]	-0.752 [-15.86]	-1.022 [-5.06]	-1.878 [-17.72]
N	24314	27904	2007	9533

T9. Family migration and spouses migration records.

	Random effects		Fixed effects	
	Inter-regional	Intra-regional	Inter-regional	Intra-regional
Husband employed	0.195 [1.82]	0.159 [2.91]	-0.248 [-0.72]	0.344 [2.31]
Wife employed	-0.095 [-1.36]	-0.042 [-0.94]	0.043 [0.22]	0.074 [0.62]
Wife employed, children	-0.053 [-0.59]	0.133 [2.32]	0.174 [0.60]	0.118 [0.69]
Wife employed, children, NM	0.122 [1.26]	-0.085 [-1.35]	-0.030 [-0.08]	0.113 [0.54]
Wife employed, children, NM and SE	-0.508 [-2.46]	0.093 [1.51]	-2.254 [-1.99]	-0.357 [-1.61]
Children (presence)	-0.084 [-2.94]	-0.015 [-0.92]	-0.122 [-0.84]	0.036 [0.54]
Homeowners	-0.517 [-10.40]	-0.805 [-29.14]	-1.087 [-5.10]	-1.759 [-15.90]
N	24314	27904	2007	9533

T10. Husband's employment status and children. FE estimates.

	Inter-regional		Intra-regional	
	(1)	(2)	(1)	(2)
Wife employed	0.074	0.062	0.135	0.137
	[0.47]	[0.39]	[1.55]	[1.58]
Husband employed	0.035	0.005	0.327	0.325
	[0.09]	[0.01]	[1.90]	[1.89]
Husband employed, children	-0.413	-0.294	0.295	0.260
	[-1.43]	[-0.87]	[1.84]	[1.46]
Husband employed, children, NM		-0.470		-0.044
		[-1.14]		[-0.19]
Husband employed, children, NM and SE	-0.110	0.949	-0.591	-0.615
	[-0.21]	[1.42]	[-3.25]	[-2.67]
Children (presence)	0.034	0.042	0.045	0.047
	[0.23]	[0.27]	[0.62]	[0.63]
Homeowners	-1.070	-1.075	-1.765	-1.772
	[-5.03]	[-5.06]	[-15.93]	[-15.97]
N	2007	2007	9533	9533

Conclusions

1. Living close to the *family* is optimal for S.E. couples with children in which the wife works.
2. Reconciling motherhood and work might also result in a higher inter-regional mobility rate.
3. The inter-regional migration effect of WW+CH+SE is larger than that for homeownership.

Future/current research

1. Why do grandmothers take care of their grandchildren? Altruism versus social norms (Rangel (2003) and Cigno (1993)).
2. Immigration and the labour force participation, fertility and mobility of Spanish natives.
3. What about *culture*? Alesina and Giuliano (2007).

Thanks!!!