

Portugal: Southern or Eastern European Country?

The evolution of period fertility and the economic constrains.





Aim of study

- The objective of our work is to describe and evaluate the Portuguese fertility patterns in the recent decades (1990-2011) and to understand if period fertility behaviour, and its context, are analogous to the countries of South or East Europe.
- The aim of this study is also to understand if the economic and labour market indicators *reflect in the same direction* for the two European regions in analysis.

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 The non-democratic or dictatorial background is one of the similarities between Portugal (South Europe) and the East European countries.

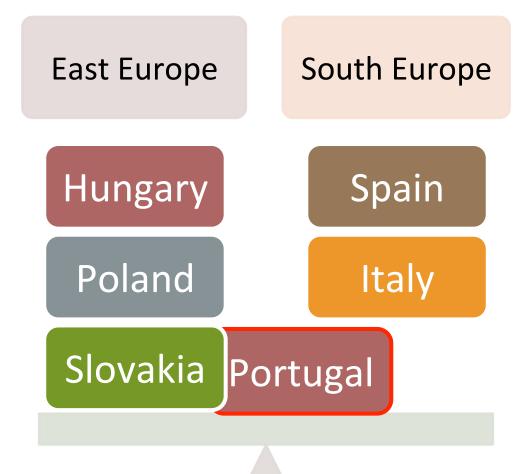
Motivation

South Europe East Europe Hungary Spain Poland Italy Slovakia Portugal

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Data & Methods

- Descriptive analysis:
 - Total Fertility Rate (TFR);
 - Mean age at childbearing (MAC);
 - adjusted TFR;
 - proportion of extramarital births.
- Regression analysis:
 - Total Fertility Rate (TFR);
 - Mean age at childbearing (MAC);
 - female employment rates age 15-24;
 - female employment rates age 25-54;
 - GDP.

Evolution of TFR between 96-00, 01-05 & 06-10 for selected countries with values below 1.5

	1996-2000 (a)	2001-2005 (b)	2006-2010 (c)	Dif % (b)-(a)	Dif % (c)-(b)
Bulgaria	1.22	1.25	1.46	3	20.76
Cz.Republic	1.16	1.20	1.45	4	24.90
Estonia	1.34	1.41	1.62	7	20.75
Germany	1.36	1.35	1.37	-1	1.97
Greece	1.26	1.29	1.46	2	17.00
Hungary	1.35	1.29	1.31	-6	2.18
Italy	1.22	1.29	1.39	7	9.55
Lithuania	1.46	1.27	1.42	-19	15.24
Portugal	1.47	1.43	1.35	-4	-8.32
Poland	1.45	1.25	1.35	-20	10.00
Slovakia	1.39	1.21	1.32	-17	10.89
Slovenia	1.25	1.23	1.46	-2	23.89
Spain	1.18	1.30	1.41	11	10.80

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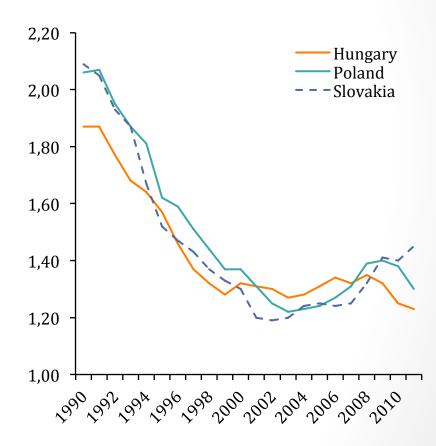
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Evolution of TFR for South and East European countries between 1990 & 2011

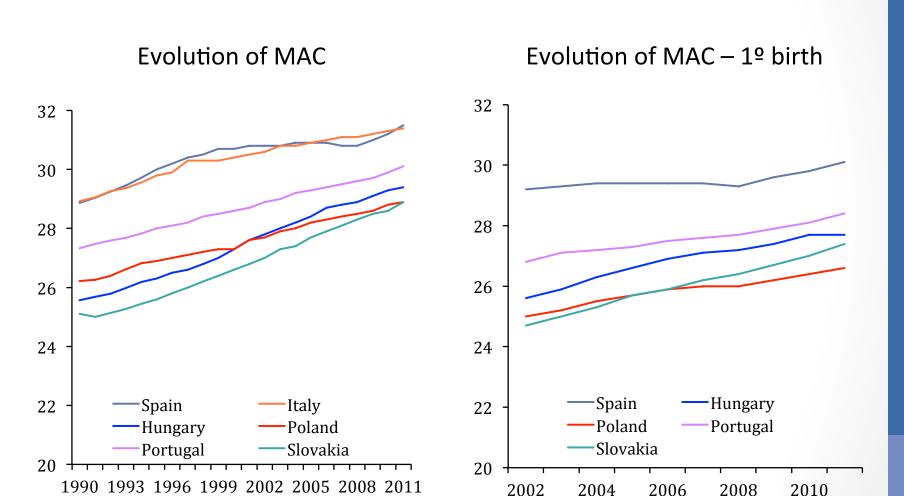
Evolution of TFR – South Europe

2,20 Spain - Italy 2,00 **Portugal** 1,80 1,60 1,40 1,20 1,00

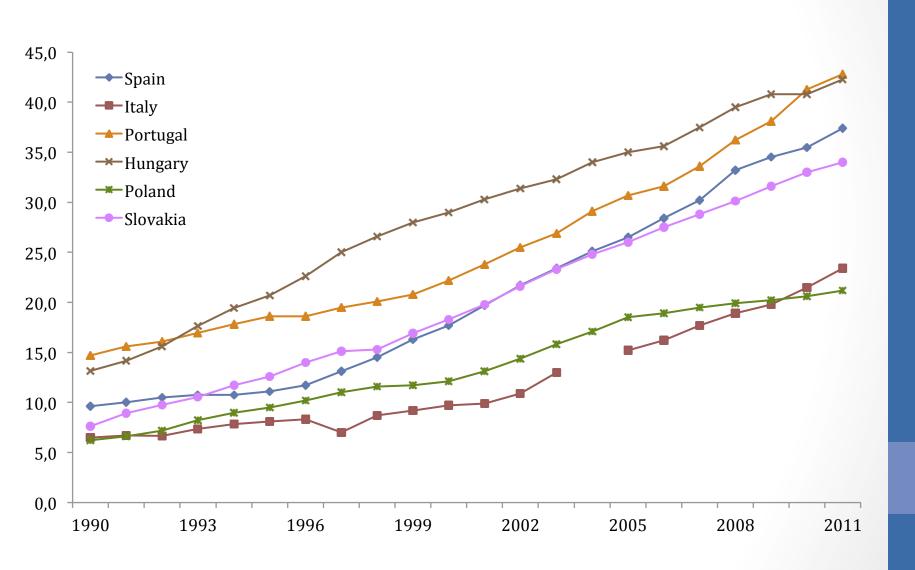
Evolution of TFR – East Europe



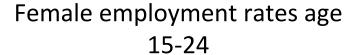
Evolution of MAC for South and East European countries between 1990 & 2011

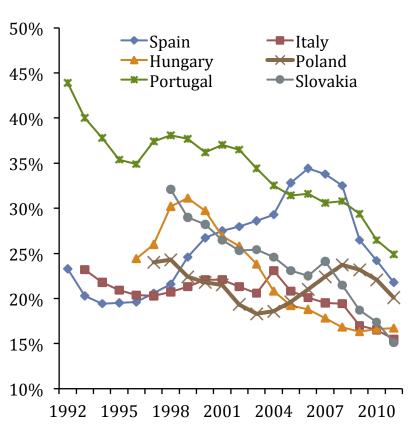


Proportion of live births outside marriage for selected countries between 1990 and 2011

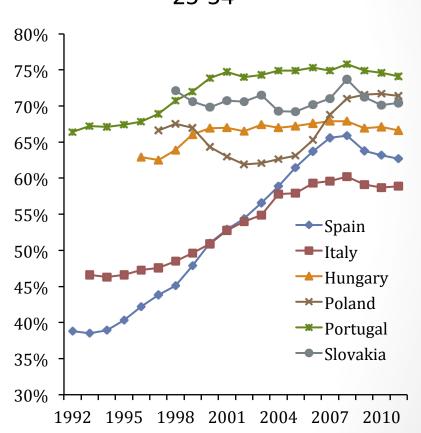


Evolution of female employment rates, between 1992 and 2011

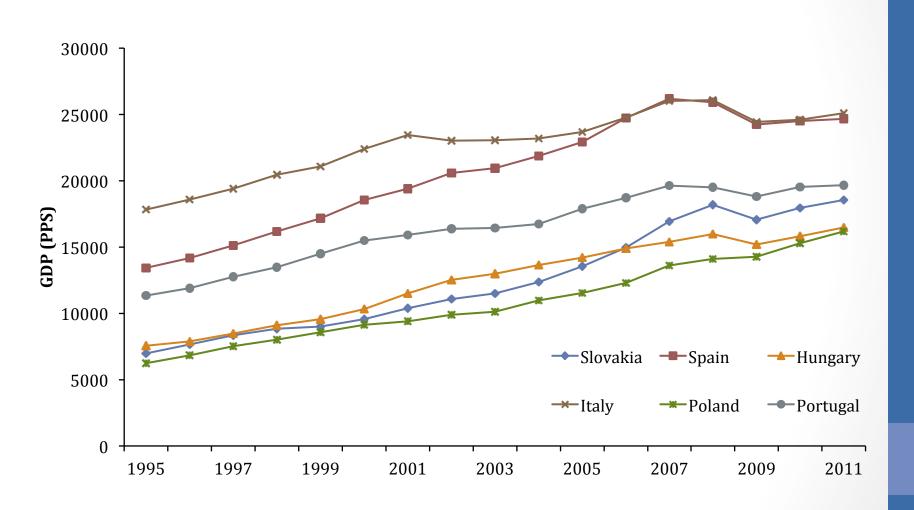




Female employment rates age 25-54



Evolution of GDP to selected countries between 1992 and 2011



Final model with TFR as dependent variable and by country

	Spain	Portugal	Italy	Poland	Hungary	Slovakia
Year	-0,0219*	-	0,0164***	-	-	-
Employment rate between age 15 and 24	-0,0115**	0,0181***	-	0,0366***	-	-
Employment rate between age 25 and 54	0,0279***	-	-	-	-0,0180***	-
GDP (ppt)	-	-	-	-	-	-
\mathbb{R}^2	0.9898	0.8815	0.9781	0.9606	0.3658	-

Note: 0 '***' 0,001 '**' 0,01'*' 0,05 ',' 0,1 ' ' 1

Final model with MAC as dependent variable and by country

	Spain	Portugal	Italy	Poland	Hungary	Slovakia
Year	0,0600***	0,1242***	0,0897***	0,1321***	0,1427***	-
Employment rate between age 15 and 24	-	-	-	-	-	-0,0652**
Employment rate between age 25 and 54	-	-	-	-	-	-
GDP (ppt)	-	-	-	-	0,0001***	0,0002***
\mathbb{R}^2	0,7995	0,9983	0,9818	0,9952	0,9993	0,992

Note: 0 '***' 0,001 '**' 0,01'*' 0,05 ',' 0,1 ' ' 1

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- In the period under review, and between 1997 and 2008, Portugal
 was the country with the highest fertility rates with 1.5 children per
 women on average.
- The social and economic changes in European societies had change fertility and family patterns. The response to the new dynamics had significant impact at the reproductive level with later childbearing and family formation, fertility decline and changes at childbearing time.

 Although in our analysis was possible to identify, from the descriptive analysis more specifically, the high female participation in the labour market, specially for Portugal, the true is that the regression models were not statically significant.

- Although in our analysis was possible to identify, from the descriptive analysis more specifically, the high female participation in the labour market, specially for Portugal, the true is that the regression models were not statically significant.
- The transitional patterns are the constant characteristic for Portugal. Being still, the country that is leading in the female employment rates and yet is not the country with the highest mean age at birth, and fertility rates are not increasing.

 Yet, further research is needed to better understand the evolution of Portuguese fertility and the implications from the economical recession and the tremendous evolution of female education after the 80s.

References

Bongaarts, J. & G. Feeney, (1998), On the quantum and tempo of fertility, in Population and Development Review, 24: 271-291.

Frejka, T. (2010). Cohort overlays of evolving childbearing patterns: How postponement and recuperation are reflected in period fertility trends, in MPIDR Working paper 2010-026.

Goldstein, J. R., Cassidy, T., (2010). Cohort Postopnment and period measures, in MPIDR Working paper WP 2010-015.

Goldstein, J. R., Myrskyla, M., Schmertmann, C., Zagheni, E., (2011), Recent rises in cohort Fertility in the industrialized World: using baysian methods to extrapolate trends while preserving cohort features, extended abstract presented at Population Association of America 2011.

Goldstein, J. R., **Sobotka** T., **Jasilioniene** A.(2009), The end of lowest-low fertility?, in *Population and Development Review* 35(4): 663-700.

Kohler, H., **Billaril** F., **Ortega** J. (2005), Low and Lowest-Low Fertility in Europe: Causes, Implications and Policy options, in F. R. Harris (Ed.), The Baby Bust: Who will do the Work? Who Will Pay the Taxes? Lanham, MD: Rowman & Littlefield Publishers, 48-109.

Kotowska, I., **Józwiak**, J., **Matysiak**, A., & **Baranowska**, A. (2008). Poland: Fertility decline as a response to profound societal and labour market changes?, in Demographic Research, 19:795-854

Kreyenfeld, M., Andersson, G., & Pailhé, A. (2012). Economic Uncertainty and Family Dynamics in Europe, in MPIDR Working paper, 2012-006.

Potancoková, M., **Vano**, B., **Pilinska** V., **Jurcová**, D. (2008), Slovakia: Fertility between tradition and modernity, in Demographic Research, 19: 973-1018.

Rodriguez, G., (2006), Demographic translation and tempo effects: An accelerated failure time perspective, in Demographic Research 14(6): 85-110.

Ryder, N., (1964). The process of demographic translation, in Demography 1.

Sobotka T., (2004), Is lowest-low fertility in Europe explained by the postponement of childbearing?, in Population and Development Review, 30: 195-220.

Spéder, Z. & **Kamarás**, F., (2008), Hungary: Secular fertility decline with distinct period flactuaions, in Demographic Research, 19:599-664

van de Kaa, Dirk J., (2002), The Idea of a Second Demographic Transition in Industrialized Countries., in *Sixth Welfare Policy Seminar*, Tokyo: National Institute of Population and Social security.

Zeng Yi, Land, K. C. (2002). Adjusting period tempo changes with an extension of Ryder's basic translation equation, in Demography, 39(2):269–285.