



# “Carlo F. Dondena”

Centre for Research on Social Dynamics

Università Bocconi

[www.dondena.unibocconi.it](http://www.dondena.unibocconi.it)

## The happiness commonality: Fertility decisions in low-fertility settings

Francesco C. Billari

**G  
G  
P**

Generations & Gender  
Programme

*How generations and gender shape demographic change  
Geneva, 14-16 May 2008*



# Structure

---

- Low fertility in Europe and North America
- The “happiness commonality”
- Macro evidence
- Micro evidence
- Implications





# Low fertility in Europe and North America

---

- Below-replacement fertility:  $TFR < 2.1$
- Low fertility:  $TFR < 1.5$
- Lowest-low fertility:  $TFR < 1.3$



# Low fertility in Europe and North America

## Total Fertility Rate (TFR) 2004-05

<i>Turkey</i>	<b>2.20</b>	<i>Canada</i>	<b>1.71</b>	<i>Malta</i>	<b>1.37</b>	<i>Lithuania</i>	<b>1.27</b>
<i>USA</i>	<b>2.08</b>	<i>Luxembourg</i>	<b>1.70</b>	<i>Spain</i>	<b>1.35</b>	<i>Slovenia</i>	<b>1.26</b>
<i>Iceland</i>	<b>2.05</b>	<i>Belgium</i>	<b>1.64</b>	<i>Germany</i>	<b>1.34</b>	<i>Moldova</i>	<b>1.25</b>
<i>France</i>	<b>1.94</b>	<i>Serbia and Montenegro</i>	<b>1.60</b>	<i>Greece</i>	<b>1.33</b>	<i>Slovak Republic</i>	<b>1.25</b>
<i>Ireland</i>	<b>1.93</b>	<i>Estonia</i>	<b>1.50</b>	<i>Russian Federation</i>	<b>1.33</b>	<i>Poland</i>	<b>1.24</b>
<i>Norway</i>	<b>1.84</b>	<i>Macedonia</i>	<b>1.46</b>	<i>Italy</i>	<b>1.32</b>	<i>Bosnia and Herzegovina</i>	<b>1.23</b>
<i>Denmark</i>	<b>1.80</b>	<i>Switzerland</i>	<b>1.42</b>	<i>Romania</i>	<b>1.32</b>	<i>Ukraine</i>	<b>1.22</b>
<i>Finland</i>	<b>1.80</b>	<i>Austria</i>	<b>1.41</b>	<i>Bulgaria</i>	<b>1.31</b>	<i>Belarus</i>	<b>1.20</b>
<i>United Kingdom</i>	<b>1.78</b>	<i>Croatia</i>	<b>1.41</b>	<i>Hungary</i>	<b>1.31</b>		
<i>Sweden</i>	<b>1.77</b>	<i>Cyprus</i>	<b>1.40</b>	<i>Latvia</i>	<b>1.31</b>		
<i>Netherlands</i>	<b>1.71</b>	<i>Portugal</i>	<b>1.40</b>	<i>Czech Republic</i>	<b>1.28</b>		

# Low fertility in Europe and North America

---

- General trend: postponement of childbearing, or better postponement of the transition to adulthood
- All key events leading to “adulthood” are postponed
- We have children later with:
  - An artificially depressing effect on TFR (which exaggerates the levels)
  - A potential effect on realised fertility if postponement cannot be “recuperated”



# Low fertility in Europe and North America

---

- Lowest-low fertility (Kohler, Billari & Ortega, 2002) emerges as a combination of:
  - high postponement of parenthood (→youth)
  - low level of progression to second and higher order births (→having more than one child)





# Low fertility in Europe and North America

---

- In the era of lowest-low fertility, fertility is higher in less traditional countries (e.g., Billari & Kohler, 2004)
  - where female labour force participation is higher
  - where the share of extramarital births is higher
  - where marriage has a less central role
  - where divorce is more widespread





# The “happiness commonality”

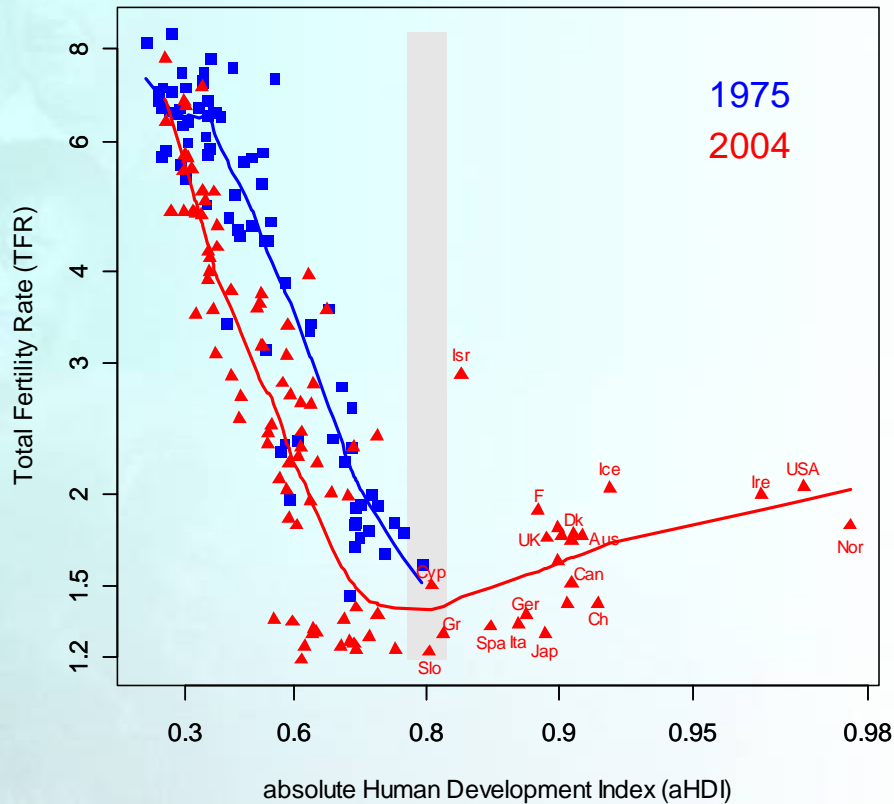
---

- Among advanced societies, fertility is becoming positively related to development (Myrskila, Kohler & Billari, 2008)





# The “happiness commonality”



	HDI	TFR
Norway	0.98	1.81
United States	0.97	2.04
Ireland	0.97	1.99
Iceland	0.92	2.03
Switzerland	0.92	1.42
Australia	0.91	1.75
Denmark	0.91	1.76
Canada	0.91	1.51
Netherlands	0.91	1.73
Austria	0.90	1.42
Sweden	0.90	1.75
Belgium	0.90	1.62
Finland	0.90	1.80
United Kingdom	0.89	1.74
Japan	0.89	1.29
France	0.89	1.90
Germany	0.88	1.37
Italy	0.88	1.33
Spain	0.86	1.32
Israel	0.83	2.90
Greece	0.82	1.29
Cyprus	0.81	1.50
Slovenia	0.80	1.22

## 2004 correlations for countries with aHDI >= .8:

TFR – aHDI rank correlation: +.57 (p < 0.01)

TFR – aHDI rank correlation: +.26 (p = .22)

Transformed(TFR) – transformed(aHDI) correlation: +.37 (p = 0.08)



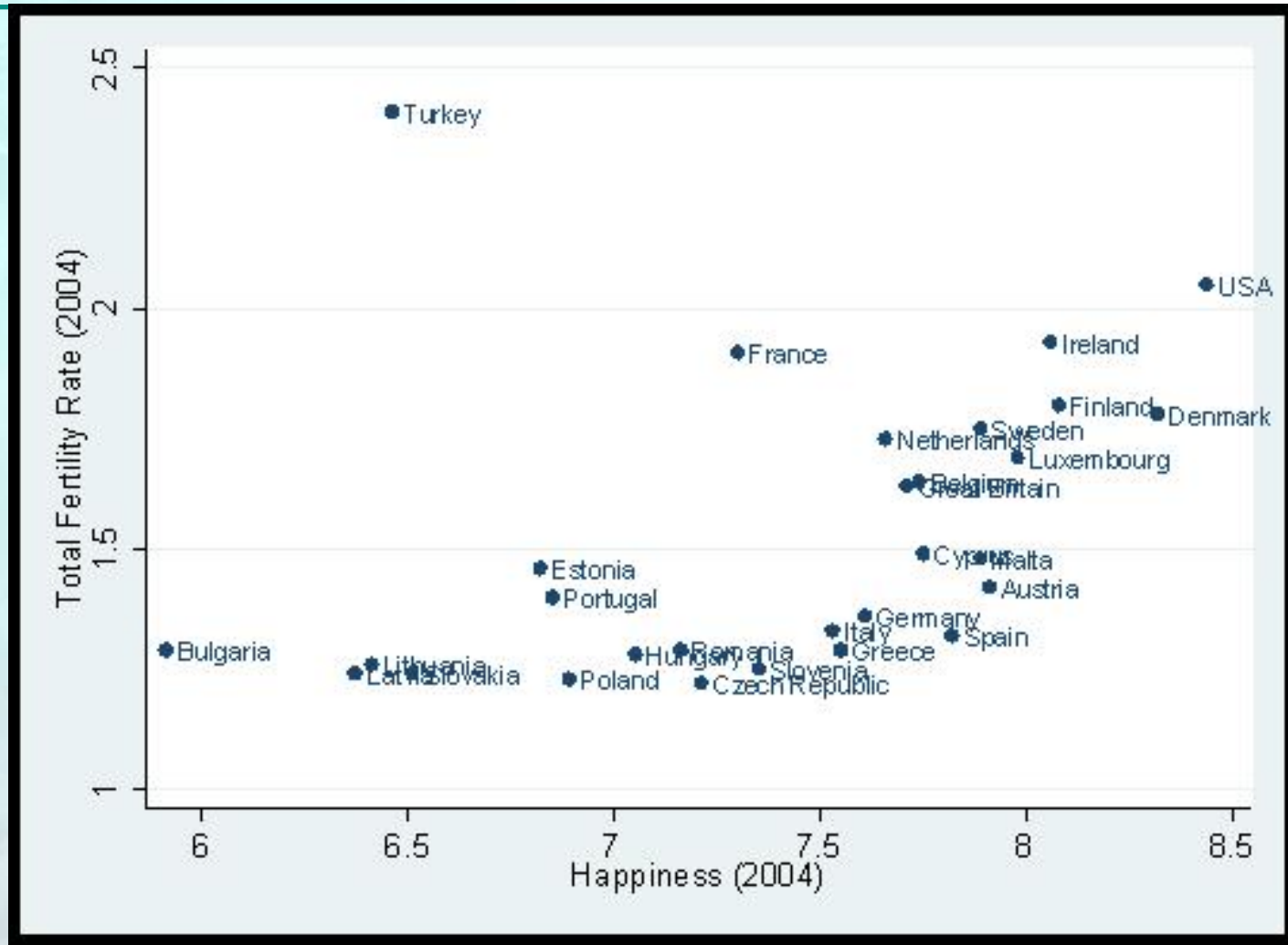
# The “happiness commonality”

---

- General idea: the key to understand fertility differences today is happiness
  - both in general (high subjective well-being as a *prerequisite*)
  - and specific to children (one needs to think to become happier if having a(nother) child)
- *Macro and micro specification*
- Hypothesis 1 (general, macro): in rich societies, fertility is positively related with happiness at the cross- country level (*World Happiness Database, Erasmus University Rotterdam. Happiness on 1-10 scale*)



# The “happiness commonality”



# The “happiness commonality”

---

- Hypothesis 2 (general, micro): individuals who are happier are more prone to have children (happiness as a *prerequisite*... e.g. Hobcraft & Kiernan, 1995)
- Data on fertility intentions and happiness: European Social Survey 2

# The “happiness commonality”

Logit model on fertility intentions as a function of happiness (individuals living with a partner). Controls for age (squared) of both partners, education, dwelling quality, country fixed effects. Source: own elaboration on ESS-2

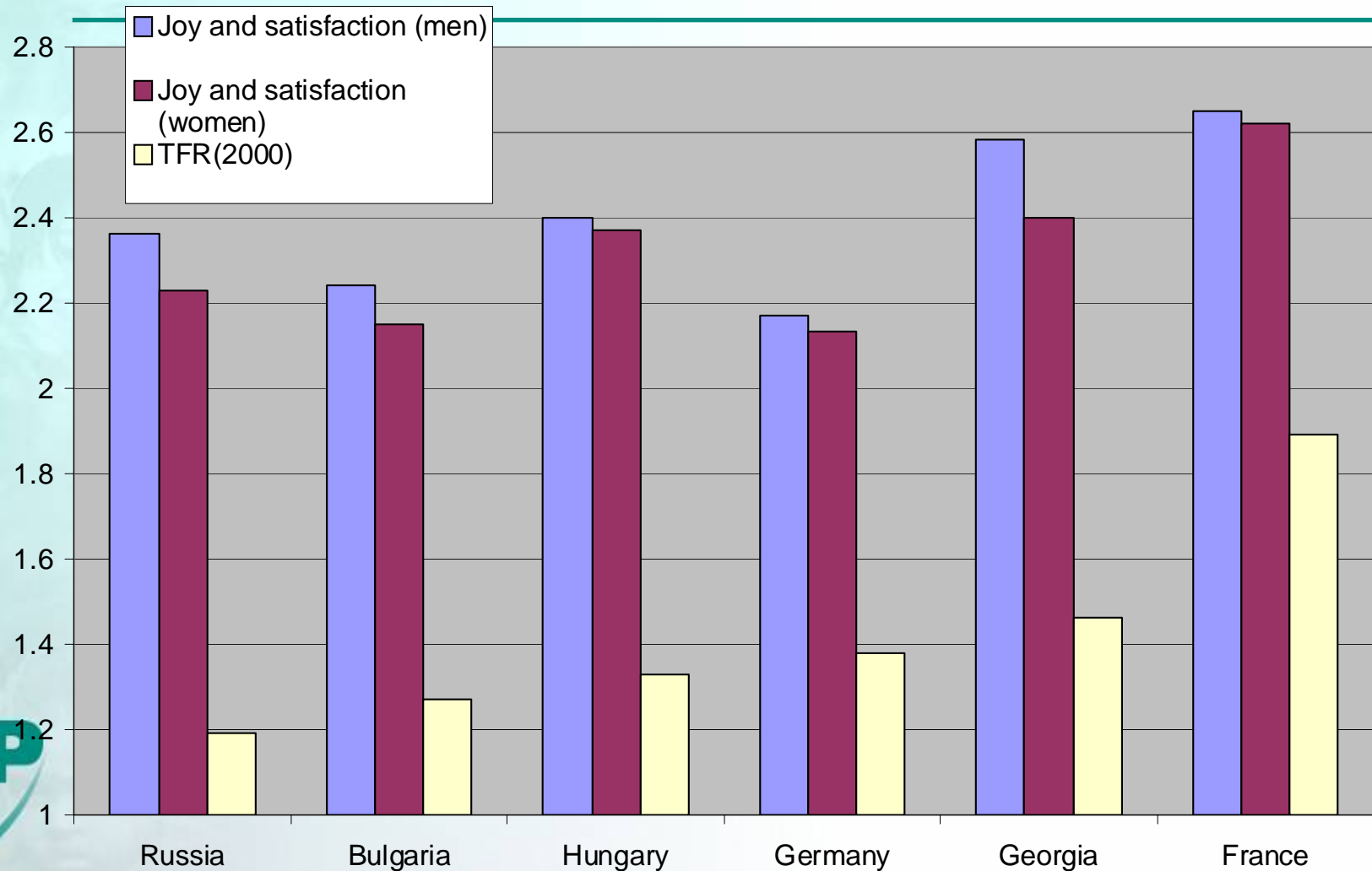
	<i>Childless</i>	<i>One child</i>	<i>Two children</i>
<i>Males</i>	0.1477*** (0.0491)	0.0782* (0.0413)	-0.0125 (0.0490)
<i>Females</i>	0.1245*** (0.0445)	0.1439*** (0.0363)	0.0682 (0.0448)

# The “happiness commonality”

---

- Hypothesis 3 (specific, macro): in high-fertility societies individuals more frequently perceive that children make them happier
- Hypothesis 4 (specific, micro): individuals who perceive that children would make them happier are more prone to have children (subjective utility maximization)
- Data: Generations and Gender Survey (harmonized data files)

# The "happiness commonality"



# The “happiness commonality”

Logit model on fertility intentions as a function of the extent to which a(nother) child is thought to decrease “joy and satisfaction you get from life”. Several controls. Source: own elaboration on GGS harmonized data files

	<i>Bulgaria</i>		<i>France</i>		<i>Georgia</i>		<i>Germany</i>		<i>Hungary</i>		<i>Russia</i>	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Men 18-50: coefficient	-0.796	-0.807	-0.717	-0.284	-0.458	-0.478	-1.120	-1.558	-1.451	-1.561	-0.450	-0.521
Women 18-45: coefficient	-0.714	-0.760	-0.939	-0.901	-0.660	-0.864	-0.709	-0.813	-1.070	-1.501	-0.497	-0.666





# Implications

---

- Bucharest (1974) “Socioeconomic Development is the Best Contraceptive” (John D. Rockefeller III, ?)
- Today: Socioeconomic development (→happiness) is the most fertility-friendly factor (in rich societies)

# Implications

---

- General socioeconomic policies are key to explaining fertility (e.g. US puzzle)
- Perception of happiness brought by children is policy-related (need further research) but is key to fertility choices
- More need to focus on happiness (both general and specific to childbearing)