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DOES SIZE MATTER? IMPLICATIONS OF HOUSEHOLD SIZE FOR ECONOMIC GROWTH AND CONVERGENCE

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Does size matter? Implications of household size for economic growth and convergence

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Abstract

We assess the effects of changes in household size on the long-run evolution of living standards and on cross-country convergence. When the observed changes in average household size across countries are taken into consideration, growth in living standards is slower throughout the 20th century as compared to a measure based on per capita GDP. Furthermore, the speed of divergence between different countries before 1950 is faster and the speed of convergence after 1950 is slower after adjusting for the evolution in household size.

JEL classification: J11, O11, O47.

Keywords: divergence, convergence, long-run growth, changing household size, demography.

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1 Introduction

If average household size changes over time, there are obvious implications for the long-run evolution of living standards and for cross-country convergence. Large households generate economies of scale (Deaton and Paxson, 1998; Ravallion, 2016) such that measuring the well-being of a large household in terms of income *per member* leads to a downward bias as compared to smaller households with the same income *per member*. Since rich countries tend to have smaller households than poorer countries (Bradbury et al., 2014), a similar effect distorts the measure of cross-country dispersion in living standards. While studies on the evolution of inequality have incorporated these insights into their theoretical models and empirical analyzes (see, for example, Burkhauser et al., 2012), the macroeconomic literature has not yet taken a full account of the size-related heterogeneity of households. Rather, it has conserved a focus on *per capita* GDP which may not adequately reflect the actual evolution of living standards within countries (economic growth) and the actual dispersion in living standards across countries (convergence).

In this paper, we use two different measures to address this issue and to gauge the quantitative importance of the effect: income *per household* and income *per adult equivalent*. Using the income data from the Maddison (2010) dataset for the 20th century, we show that our adjustments to the denominator lead to slower growth rates than in case of *per capita* incomes with the difference being roughly 1/3. The reason is that, as *per capita* incomes have been growing, household size has been declining. This is due to various demographic changes such as declining fertility, the trend to single households, and increasing divorce rates. As a consequence, economies of scale with respect to household size have weakened over time. In our second contribution, we assess the effects of accounting for the size heterogeneity of households on cross-country convergence dynamics. We find that, once adjusted for household size, the pace of divergence between different countries from 1890 to around 1950 is faster, while the pace of convergence after 1950 is slower than in case of *per capita* incomes.

2 The data

We use the GDP data of Maddison (2010) for Australia, Canada, England, Finland, France, Greece, Hungary, Ireland, Japan, the Netherlands, New Zealand, South Korea, Sweden, and the United States between 1890 and 2000. To construct the *household* and the *adult equivalent* series, we use the data from Bradbury et al. (2014) on changing household size. Following Buhmann et al. (1988), Citro et al. (1995), and Geloso et al. (2016), we use the square root of the number of household members as the adult equivalence scale.

The number of the household members exhibits several features that are worth mentioning (see Figure 1): the downward trend is observed for all countries; yet the differences between countries seem to be persistent. While the average household size has decreased from 5.1 members to 2.7 members from 1890 to 2000, the gaps between country values did

not vanish. The reasons for the decline in household size are mainly the increase in the marriage age and in the divorce rate such that there is a trend to single-person households (see [OECD, 2011](#), p. 19) and the ongoing fertility transition towards having fewer but better educated children ([Galor, 2005](#)).

These demographic developments have substantial implications (see [Figure 2](#) as an illustration for the US): *GDP per capita* is lower than *GDP per household* and *GDP per adult equivalent*. However, *GDP per capita* has a steeper upward trend than *GDP per household* and *GDP per adult equivalent* because – for the latter two – the denominator has decreased over time. Consequently, the differences in household size affect the distribution of available resources among households and have implications for the long-run evolution of well-being as well as for its dispersion between countries.

Figure 1: The evolution of household size among OECD countries (as in [Bradbury et al., 2014](#))

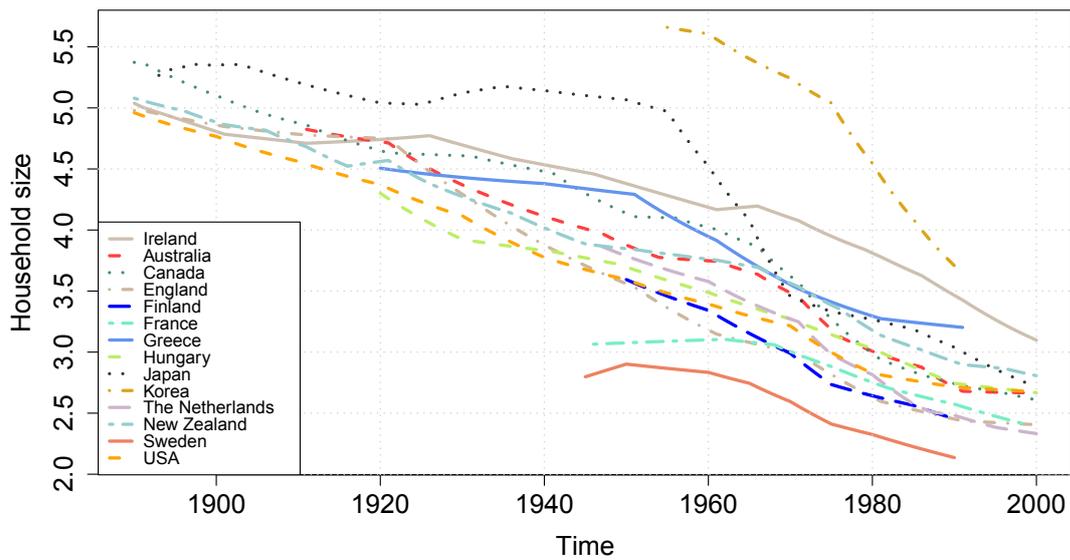
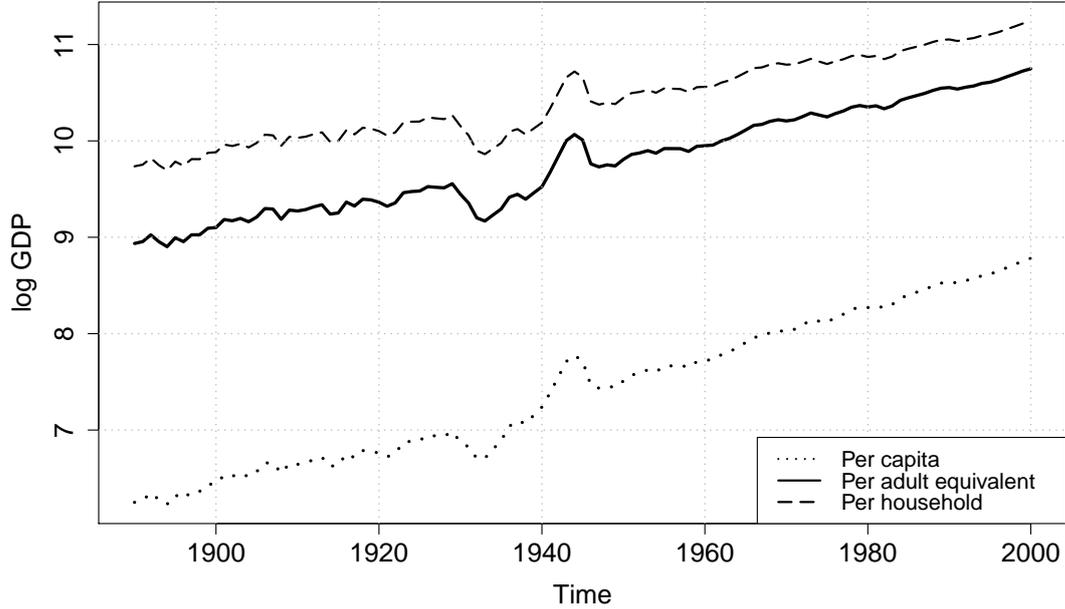


Figure 2: A closer look: GDP *per capita*, GDP *per household*, and GDP *per adult equivalent* (in logs) in case of the US



3 Main results

One of the two central implications of considering changing household size can be observed with respect to the economic growth (see Table 1): for GDP *per household* and GDP *per adult equivalent*, the growth rates are substantially lower. Given that the number of households increased faster than the overall population, this is to be expected for the former. The latter suggests that there were reductions in economies of scale that mitigated the actual increase in living standards. Over the whole time period, the difference between growth rates in GDP *per capita*, GDP *per household*, and GDP *per adult equivalent* amounts to 1–1.35 percentage points.

Table 1: Geometric average growth rates of GDP *per capita* (PC), GDP *per adult equivalent* (AEQ), and GDP *per household* (HH)

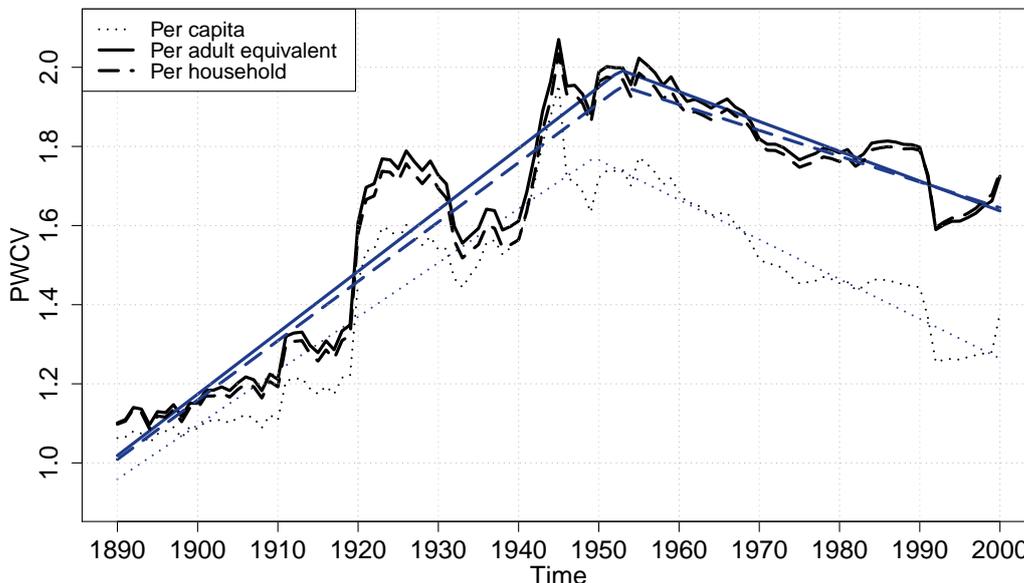
Period	PC	AEQ	HH
1890–1941	1.3555%	0.7825%	0.5915%
1945–2000	3.8009%	2.6174%	2.2193%
1890–2000	3.0278%	2.0003%	1.6556%

Next, we focus on income dispersion (see Figure 3). From our previous results, it follows that there are differences in the levels and in the trends when we account for the differential evolution of household size. The dotted lines refer to the coefficient of variation for population-weighted (*PWCV*) GDP *per capita*. The dashed and the solid

lines denote the coefficient of variation for GDP *per household* and *per adult equivalent*, respectively. The dispersion of incomes is typically higher if households are accounted for in the denominator. The only exceptions are the short period after WWI, several years in the 1920s during the Great Depression, and the peak during WWII. Afterwards, we observe a breakpoint in the trend and an increasing gap between the three series. The trend for the coefficient of variation of GDP *per household* and GDP *per adult equivalent* is not as steep as the trend for the coefficient of variation of GDP *per capita*. In other words, while convergence of per capita income is strong, convergence in actual living standards is much weaker. This observation can be validated by testing for a breakpoint and estimating the slopes for each type of measured income dispersion.

In so doing, we follow [Kufenko et al. \(2017\)](#) and start with the structural break test of [Bai and Perron \(2003\)](#), where we set the minimal size of segments to 30 and the number of structural breaks to one. The Bai–Perron test yields 1942 as the initial breakpoint. Based on this result, we perform a segmented regression as in [Muggeo \(2003, 2008\)](#). This procedure yields a final value of the breakpoint of 1949 for the *per capita* population-weighted coefficient of variation (see [Kufenko et al., 2017](#)). For the *per household* and the *per adult equivalent* series, the breakpoint coincides in the year 1953.

Figure 3: Population-weighted coefficient of variation for GDP *per adult equivalent* and *per household*; breakpoint and segmented trend estimation



The slope estimates confirm the findings from the visual inspection: before the estimated breakpoint, the slope is positive, implying divergence; after the breakpoint, the slope is negative, implying convergence. For the *per capita* series, [Table 2](#) resembles the findings of [Kufenko et al. \(2017\)](#). However, it appears that divergence is more pronounced

Table 2: Segmented regression estimates of the slopes

Variables	Dependent variable: PWCV of GDP		
	(1)	(2)	(3)
	<i>per capita</i>	<i>per</i> AEQ	<i>per</i> HH
$t < \textit{breakpoint}$	0.0139*** (0.0006)	0.01553*** (0.00063)	0.015*** (0.00063)
$t > \textit{breakpoint}$	-0.00972*** (0.00072)	-0.00754*** (0.00094)	-0.00653*** (0.00095)
Estimated <i>breakpoint</i>	1949	1953	1953
Adjusted R sq.	0.8829	0.901	0.8968

Standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

when changing household size is accounted for: the slopes are 0.015 (*per household*) and 0.01553 (*per adult equivalent*) against 0.0139 for the *per capita* series. Convergence after the breakpoint is less pronounced once that changing household size is accounted for: the slopes are -0.00653 (*per household*) and -0.00754 (*per adult equivalent*) against -0.00975 for the *per capita* series. Consequently, considering changing household size in the analysis of the dispersion of living standards between different countries has strong quantitative implications.

4 Conclusions

We assess the effects of changes in the size of average households on long-run economic growth and on the cross-country dispersion of living standards. We show that economic growth is slower over the 20th century when appropriate adjustments for changes in household size are made. Furthermore, the dispersion in living standards is underestimated when relying on *per capita* income. Finally, the *per capita* figures overestimate the speed of convergence after around 1950 and underestimate the speed of divergence prior to that point.

References

- Bai, J. and Perron, P. (2000). Computation and Analysis of Multiple Structural Change Models. *Journal of Applied Econometrics*, Vol. 18(No. 1):1–22.
- Bradbury, M., Peterson, M. N., Liu, J. (2014). Long-term dynamics of household size and their environmental implications. *Population and Environment*, Vol. 36(1):73–84.
- Buhmann, B., Rainwater, L., Schmaus, G., and Smeeding, T.M. (1988). Equivalence scales, well-being, inequality, and poverty: Sensitivity estimates across ten countries using the Luxembourg Income Study (LIS) database. *Review of Income and Wealth*, Vol. 34:115–142.
- Burkhauser, R.V., Larrimore, J., and Kosali, S. (2012). A Second Opinion on the Economic Health of the American Middle Class. *National Tax Journal*, Vol. 65(No. 1):7–35.
- Citro, C.F., and Robert T.M, eds. (1995). *Measuring Poverty: A New Approach*. , National Academies Press: Washington, D.C.
- Deaton, A. and Paxson, C. (1998). Economies of scale, household size, and the demand for food. *Journal of Political Economy*, Vol. 106:897–930.
- Galor, O. (2005). *Handbook of Economic Growth*, chapter 4. “From Stagnation to Growth: Unified Growth Theory”, pages 171–293.
- Geloso, V., Kufenko, V., and Prettnner, K. (2016). Demographic change and regional convergence in Canada. *Economics Bulletin*, Vol. 36(No. 4):1904–1910.
- Maddison, A. (2010). *Statistics on World Population, GDP and Per Capita GDP, 1-2008 AD*. Url <http://www.ggdc.net/maddison/oriindex.htm>.
- Muggeo, Vito M. R. (2003). Estimating Regression Models with Unknown Break-points. *Statistics in Medicine*, Vol. 22(No. 19):3055–3071.
- Muggeo, Vito M. R. (2008). Segmented: an R package to fit Regression Models with Broken-line Relationships (Ver. 0.5-2.1). *R News*, Vol. 8(No. 1):20–25.
- OECD (1995). *The Future of Families to 2030*. OECD Publishing: Paris.
- Ravaillon, M. (2016). *The Economics of Poverty: History, Measurement and Policy*. Oxford University Press.
- Kufenko, V., Prettnner, K., Geloso, V. (2017). Divergence, convergence, and the history-augmented Solow model. Hohenheim Discussion Papers in Business, Economics and Social Sciences, Working Paper 11-2017.

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