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A first look at the links between aggregate household wealth and some macroeconomic variables

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Motivation

During the last decade wealth has been subject of
increasing interest. Why?

- Global financial crisis in 2008 led to a household wealth
  reduction
- Piketty contribution revamped the interest of
  economists for wealth and its distribution

Introduction

Household wealth is not a new topic . . .

Literature review

- wealth effects (Poterba [2000], Guiso Paiella & Visco [2005])
- portfolio choices-retirement savings link (Group of ten[2005])
- financial system analysis (Babeau & Sbano [2003], De Bonis & Pozzolo [2012])
- measure of economic development (Fitoussi et al. [2010])

. . . but

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Literature review

- while all these papers use wealth as a tool
- we will try to look into it. . .
- there are few "macro" works that study wealth:

- Davies et al [2011]: cross section to estimate global wealth level and its distribution
- Zinni [2013]: identifies drivers of financial wealth accumulation

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What we do

1. we study the relationship between wealth and some macro variables from a long term viewpoint

unempl. rate	saving rate	social expend./gdp
self-employment rate	interest rate	public debt/gdp

together with other controls (elderly, trade, taxation . . .)

2. we also look at wealth components:

$$\text{Net Wealth} = \text{Real Assets} + \underbrace{\text{Net financial assets}}_{\text{Fin. assets} - \text{Fin. liabilites}}$$

macro variables may be linked with each wealth component in a different way

Introduction

Main results

- saving (+) and unemployment (-) seem to be more related with total wealth
- public debt (+), social expenditure (-), self-employment (+), interest rate (-) more linked with financial wealth
- ⇒ component analysis matters

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Definition and stylized facts

Dataset sources

- 8 developed countries from 1980 to 2013 (CAN, FRA, GER, JAP, ITA, SPA, U.K., U.S.A.)
- Real assets: Piketty-Zucman Dataset
- Net financial wealth: Financial accounts published by OECD integrated by De Bonis et al [2013]
- Other variables: OECD

Definition and stylized facts

Stylized facts:1

In the last 30 years the ratio of **total net wealth** to GDP
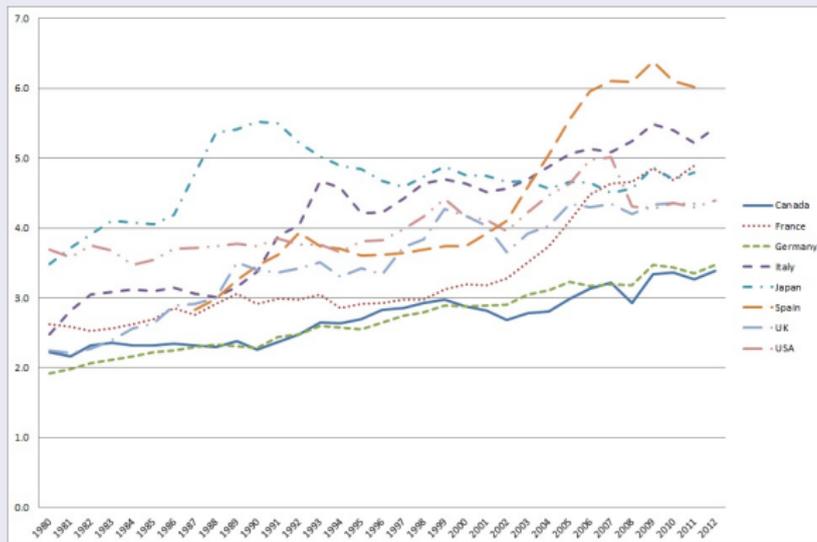increased in all countries

Figure: Total net wealth on GDP

Definition and stylized facts

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Stylized facts:2
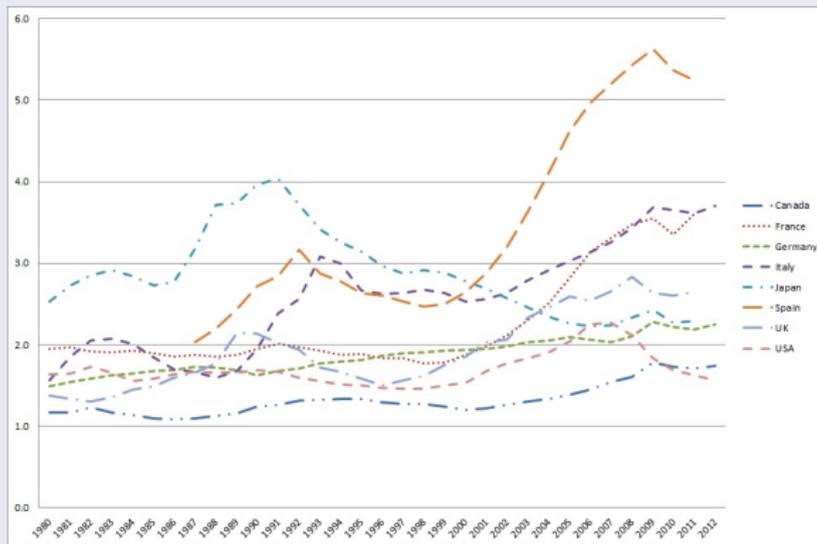
Real assets are generally greater than financial assets

Figure: Non Financial Assets on GDP

Definition and stylized facts

Stylized facts:3

Net financial wealth increased in the last 30 years but
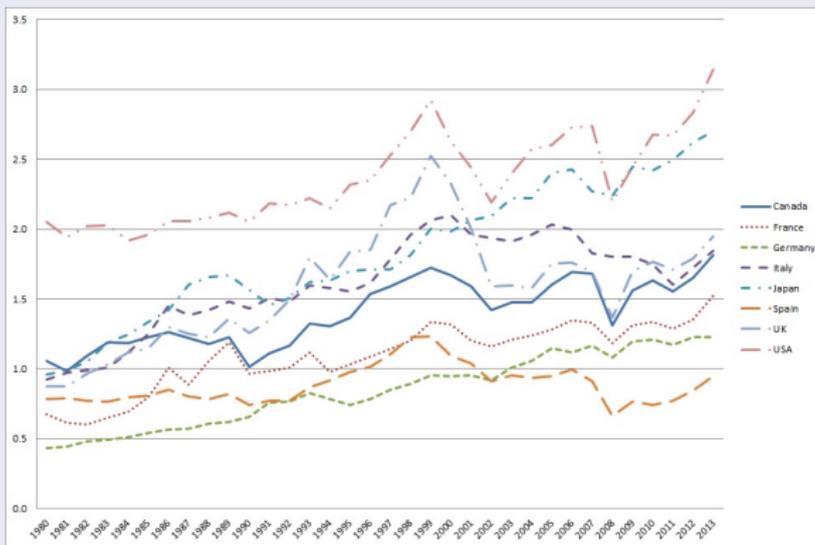bubbles and burst were frequent

Figure: Net Financial Assets on GDP

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Empirical strategy

- the inertia of wealth and its components makes the exogeneity of the errors assumption invalid
- ⇒ FE estimation not reliable (even though T is large)
- ⇒ Arellano-Bond estimation
- Two specification tests
  1. Sargan (over-identifying restrictions)
  2. Arellano-Bond (for serial error autocorrelation)

Main results

Table: Wealth analysis (controls in the paper)

	Net Wealth	Net Financial	Real
unempl	-2.8***	.38	-2.2***
	(3.8e-06)	(.26)	(2.2e-07)
saving	1.4*	.37	.75*
	(.091)	(.18)	(.076)
soc.exp./gdp	2.7**	-1.3***	1.4**
	(.013)	(1.3e-06)	(.032)
selfempl	.4	1**	-1.2
	(.87)	(.034)	(.32)
stinterest	-.13	-1.3***	.62
	(.87)	(.0011)	(.27)
pubdebt/gdp	-.087	.26***	-.18**
	(.35)	(7.9e-06)	(.035)
N	192	196	189
chi2	106	2973	129
p	6.8e-20	0	8.1e-25
Sargan Test	(0.1105)	(0.2014)	(0.2061)
Arellano-Bond Test (t-1)	(0.0229)	(0.0567)	(0.0316)
Arellano-Bond Test (t-2)	(0.8175)	(0.7782)	(0.1474)
Significance levels: ∗ : 10% ∗∗ : 5% ∗ ∗ ∗ : 1%			

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Concluding remarks

Motivation

- global financial crisis 2008 + Piketty raise interest toward household wealth
- while it is used as a tool, the analysis of wealth is rare
- we study the links between household wealth and some macroeconomic variables
- . . . disentagling these relatioships between financial and real wealth

Concluding remarks

Main results

- saving (+) and unempl. (-) related with wealth
- public debt (+) social expenditure (-), self-employment (+), interest rate (-) more linked with financial wealth

$\Rightarrow$ component analysis matters

Concluding remarks

Research path

- rethinking on some variables/adding new ones (e.g. financial education)
- improve the dataset: larger country sample/improve balancing of the dataset
- per capita analysis
- . . . ?

THANK YOU!