Household saving behaviour and Credit Constraints in the Euro Area

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This paper

- Research questions
  - Why do households save?
  - How much heterogeneity in savings motives is there across households and countries?
  - How do liquidity constraints affect household behaviour across countries?
- Methodological approach
  - individual preferences
  - household characteristics
  - institutional aspects
- Data
  - Eurosystem Household Finance and Consumption Survey (HFCS)
  - Several other sources (OECD, World Bank, ESCB)

This paper

- Main findings
  - Some degree of homogeneity across countries with respect to saving preferences and the relative importance of alternative motives for saving
  - More heterogeneous impact of credit constraints, that are perceived to be binding for specific groups of respondents and geographic regions
  - Household characteristics and institutional macroeconomic variables are significant and economically important determinants of both saving preferences and credit constraints household face
- Caveats
  - Descriptive paper
  - Qualitative assessments
- Relevance
  - recent financial crisis on the household sector
  - country-specific institutional settings
  - different degree of development of formal lending channels

Roadmap of talk

1. Topics and empirical results
   - Self assessed measures of household saving
   - Saving motives
   - Liquidity constraints
2. Concluding remarks

Self assessed measures of household saving

Table 2: Subjective measures of household saving

	Household expenses in the last 12 months compared with					
	average expenses			*household income*		
Statistics	**Freq.**	**Perc.**	**Cum. perc.**	**Freq.**	**Perc.**	**Cum. perc.**
Higher	6,832	18.87	18.87	4,067	11.19	11.19
About the same	26,597	73.47	92.35	17,325	47.67	58.86
Lower	2,770	7.65	100	14,951	41.14	100
	36,199	100		36,342	100	

Self assessed measures of household saving

Households with expenses higher than income - probit estimates

- Households whose head is **female** and **divorced** (ME: 1.4 and 3.7 percentage points, respectively)
- **Ageing and Wealth/Income** are negatively correlated with having expenditures exceed income $\Rightarrow$ stochastic LCM partially validated
- **Household size, being self-employed, unemployed, or retired**

Self assessed measures of household saving

Table 4: Summary statistics for financing sources of negative saving

Statistics	**Mean**	**Min.**	**Max.**	**N.Obs**
Sold assets	0.050	0	1	3,654
Got a credit card / overdraft facility	0.229	0	1	3,654
Got some other loan	0.154	0	1	2,732
Spent out of savings	0.550	0	1	3,654
Asked for help from relatives or friends	0.221	0	1	3,654
Left some bills unpaid	0.127	0	1	2,590
Other (SPECIFY)	0.044	0	1	3,654

Self assessed measures of household saving

Negative saving can be financed:

- out of wealth/past saving
- out of loans, both formal (credit cards/overdraft facilities) and informal (family and friends)
- out of unpaid bills

Self assessed measures of household saving

Financing negative saving - probit estimates

- Very significant (at the 1-percent level) **wealth effect** for all three sources of financing and with the expected sign.
- We also find an **income effect**, even if some findings are less intuitive than for the wealth effect.
- The households who leave bills unpaid are significantly more likely to be **low educated, and self employed**.

Saving motives

Now I'd like to ask you some questions about your attitudes about savings. People have different reasons for saving, even though they may not be saving all the time. What are your (household's) most important reasons for saving?

- *Purchase own home*
- *Other major purchases (other residences, vehicles, furniture, etc.)*
- *Set up a private business or finance investments in an existing business*
- *Invest in financial assets*
- *Provision for unexpected events*
- *Paying off debts*
- *Old-age provision*
- *Travels/holidays*
- *Education/support of children or grandchildren*
- *Bequests*
- *Taking advantage of state subsidies (for example, a subsidy to building society savings)*
- *Other (SPECIFY)*

Saving motives - summary of relevance

1. Precautionary saving is the mostly reported motive in all countries (btw 89% in NL and 42% in DE)
2. Saving for retirement is the second mostly reported motive in almost all countries (btw 71% in NL and 28% in ES)
3. Preferences for other motives are then rather heterogeneous across countries
4. Relevant role for education and support of children and grandchildren, home purchase and other major purchases
5. Focus on saving for home purchase, saving for old age provision, and precautionary saving

Links among saving motives - probit estimates

- *Precautionary saving* is negatively related to saving for *home purchase* and saving for *old-age provision*, indicating that these motives for saving are substitutes.
- A positive effect is nevertheless observed between saving for *unexpected events* and saving to *invest in financial assets*, suggesting a complementarity between precautionary saving and building up a wealth stock intended to be used as buffer against adverse financial shocks.
- The *bequest motive* is positively linked on *precautionary saving*. Bequests can be unintentional, so that a (risk-averse) household may decide to save for "rainy days" and leave the amount of savings left to its offsprings.

Saving for home purchase - probit estimates

- Saving for buying a home is monotonically decreasingly important with **age** (ME $\simeq$ 10 percentage points)
- Being **retired** is negatively related to the importance of saving for buying a house $\Rightarrow$ In line with LCM
- **Tax deductibility** of interest payments has a significant (at the 1-percent level) and positive effect on the importance of saving for home purchase in two out of four regressions (ME $\simeq$ 10 percentage points)
- **Higher property taxes, higher transaction costs and higher tax reliefs on the debt financing cost** of home ownership decrease the relevance for this saving motive.
- We also find evidence of a significant complementarity between the home-purchase saving motive and saving for old-age provision. The **dependency ratio** always has a positive and significant impact on saving for buying a house, even if the quantitative effect is very low. In addition, there is also a strong role of (partial) substitutability among the two saving motives, as **gross replacement rates from the first (public) pillar** have negative and significant estimated coefficients in two regressions out of three.

Liquidity constraints

1. "Turned down/discouraged" - The first indicator includes households who gave an affirmative answer to any of the following questions:
    - *In the last three years, has any lender or creditor turned down any request you [or someone in your household] made for credit, or not given you as much credit as you applied for?*
    - *In the last three years, did you (or another member of your household) consider applying for a loan or credit but then decided not to, thinking that the application would be rejected?*
2. "Turned down/discouraged and no credit card/line" - The second indicator excludes from the constrained group all households that report that they have a credit card or a line of credit.
3. "No credit card/line" - The third indicator of liquidity constraints considers only those households that have neither a credit card nor a line of credit.
4. "Low assets" - The fourth indicator includes households whose net liquid assets are worth less than six months' gross income.

- Jappelli, T., Pischke, J. and Souleles, N. (1998) "Testing For Liquidity Constraints In Euler Equations With Complementary Data Sources", *The Review of Economics and Statistics*, MIT Press, 80(2), 251-262, May.

Liquidity constraints

Geographic areas

1. *Continental* - Austria, Belgium, Germany, France, Luxembourg, Netherlands
2. *Southern* - Cyprus, Spain, Greece, Italy, Malta, Portugal
3. *Other* - Slovakia, Slovenia, Finland

- Arts, W. and Gelissen, J. (2002) "Three Worlds Of Welfare Capitalism Or More? A State-of-the-art Report", *Journal of European Social Policy*, 12(2), 137158.
- Esping-Andersen, G. (1990) *The Three Worlds of Welfare Capitalism*, Oxford: Polity Press.

Liquidity constraints

Table 10: Mean values for liquidity constraints indicators

Area	**(1)**	**(2)**	**(3)**	**(4)**
Full sample	0.082	0.014	0.229	0.438
Jappelli et al. (1998)	*0.144*	*0.058*	*0.237*	*0.621*
Continental	0.082	0.011	0.116	0.460
Southern	0.073	0.032	0.473	0.506
Other	0.144	0.051	0.462	0.593

(1) - Turned down/discouraged
(2) - Turned down and no credit card
(3) - No credit card or credit line
(4) - Low assets
Finland and Italy are excluded from the sample in the calculation of (1) as data are not collected.
Finland, France and Italy are excluded from the sample in the calculation of (2) as data are not collected.
Finland and France are excluded from the sample in the calculation of (3) as data are not collected.

Liquidity constraints by geographic area - probit estimates

- The effect of **background characteristics** is similar between Continental and Mediterranean countries
- Credit constraints are perceived to be binding for specific groups of respondents (namely the young, least educated, divorced and more numerous households, as well as the self-employed and the unemployed individuals)
- On the contrary, all the **institutional variables** we control for have opposite signs between the two geographic areas.
- This finding confirms our prior that Continental and Mediterranean countries differ substantially in the structure of their formal lending markets, therefore leading to a different role and a different degree of development of informal credit channels.

Concluding remarks

- Analysis the role of household saving behaviour, of individual motives for saving and that of perceived liquidity constraints on household finances in 15 Euro Area countries.
- Rather similar perception of household saving behaviour and dynamics across countries.
- Some degree of homogeneity across countries with respect to saving preferences and the relative importance of alternative motives for saving.
- More heterogeneous impact of credit constraints, that are perceived to be binding for specific groups of respondent(namely the young, least educated, divorced and more numerous households, as well as the self-employed and the unemployed individuals). We also find that households living in Mediterranean countries report to be more subject to liquidity constraints than households living in Continental Europe.
- Policy implications if interpreted in light of the recent financial crisis, the country-specific institutional settings, and the different degree of development of formal lending channels.