

Household Saving Behaviour in Ireland

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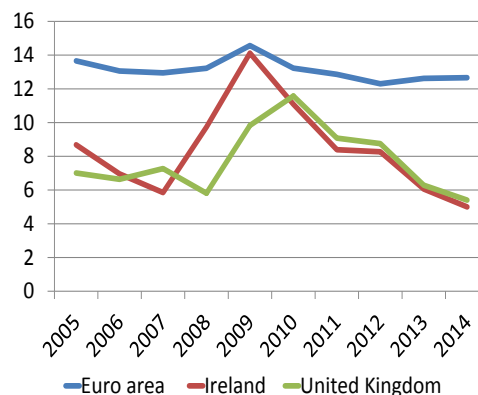
Abstract

This Economic Letter provides an overview of saving motives and behaviour of Irish households in the aftermath of the financial crisis. Precautionary saving is the most commonly reported motive, followed by saving for education and support of children. Highly indebted and credit-constrained households also save to pay down debts. 60% of households are able to save at least occasionally. Wealthier households are more likely to save and less likely to have debt or report to be credit constrained. There is also evidence that some households are in financial distress as they spend more than they earn and leave bills unpaid.

1 Introduction

As in many countries, the household saving rate² in Ireland fell to a record low in 2007 ahead of the financial turmoil and then increased to more than 14% at the height of the crisis in 2009. In recent years, it has declined again (Figure 1). While the aggregate savings rate of the household sector is an important measure of the difference between income and consumption, households respond differently to changes in wealth and income, and their reaction depends on a range of factors such as demographics, income and indebtedness.

Figure 1: Gross Saving Rate of Households in % of disposable income



Source: Eurostat

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²I use the gross saving rate of households which is defined as gross saving divided by gross disposable income. Gross saving is the part of gross disposable income which is not spent as final consumption expenditure.

Many households want to own their home, and they need to save for a downpayment. Once bought, the home is often the largest asset of a household, and mortgages constitute the largest liability. Consequently, households can be substantially affected by fluctuations in house prices, interest rates and their incomes. Household-level data are essential for investigating how specific groups of the population react to shocks and how their behaviour affects aggregate outcomes in the economy in turn.

This Letter looks at household saving behaviour at the micro level, using the Irish contribution to the euro area HFCS.³ I focus on the saving motives of households, how the different motives relate to each other and also analyse actual saving behaviour in light of the different balance sheet positions that households were left in after the crisis. Additionally, this Letter also makes an attempt to shed light on financially fragile households. These households spend more than their income or more than what their typical expenses would predict, a situation termed “negative saving”.

The literature on household saving behaviour is abundant. The notion that saving is an expression of diverse motives that differ within the population and across the life cycle and that also co-exist goes back to Keynes (1936) and has been revived and extended in the survey of Browning and Lusardi (1996).⁴

In a recent paper, Le Blanc et al. (2016) provide an overview of household saving behaviour in the euro area using the Household Finance and Consumption Survey (HFCS). They find that the precautionary motive, i.e. saving for unexpected events, and the old-age motive, i.e. saving for retirement, are the most

commonly reported saving motives across 15 countries in the euro area. Moreover, countries that were hit most severely by the crisis display higher financial stress as the fraction of households with negative savings is higher. The results in this Letter will be compared to this study when possible but I will also present results that are specific to the Irish HFCS.

2 Data and Results

The HFCS is an internationally comparable wealth survey with detailed information on households’ wealth, income and savings behaviour. The reference years for the first wave of the survey range between 2008-2010, and the data covering 15 countries was released in 2013. Ireland did not take part in the first wave, instead the Irish data, collected by the Irish Central Statistics Office in 2013, will be part of the second wave of the HFCS which is expected for the end of 2016.⁵

2.1 Household characteristics

Table A.1 in the Annex compares households in Ireland with the average over the 15 countries in the euro area used in the paper by Le Blanc et al. (2016). Compared to the euro area average, the Irish sample has more female heads of households, and the fraction of younger households is higher. The average household size is slightly larger in Ireland than in the euro area. There are substantially more well-educated households in the Irish sample. The fraction of unemployed households is higher given that Irish households are interviewed right after the recession whereas the survey was carried out between 2008-2011 in

³I thank Reamonn Lydon for help with the Irish HFCS micro data.

⁴Recent literature has analysed particularly the old-age provision motive, the precautionary motive, and the downpayment motive, see for example, Gourinchas and Parker (2002) Carroll and Samwick (1997), Dynan et al. (2004) and the literature therein. For saving behaviour and credit constraints see Deaton (1991).

⁵Between March and October 2013, just over 5,400 household interviews were carried out in Ireland. The data set was released in 2015. See Lawless et al. (2015) for a detailed description of the Irish data set and a comparison of key statistics of the Irish HFCS with the euro area data. Bover et al. (2016) provide an overview of the first wave of the HFCS.

the other euro area countries. Average household income is nevertheless higher than in the euro area.

2.2 Saving motives

The HFCS asks households *why* they save. Multiple answers are feasible (Table 1).

Table 1: *Most important saving motives in the Euro area and in Ireland in %*

	Euro area	Ireland
Purchase own home	9.7	8.7
Other major purchases (other residences, vehicles, furniture)	33.1	9.5
Set up a private business, invest in existing business	1.6	1
Invest in financial assets	3.5	1.1
Provision for unexpected events	52.5	48.2
Pay off debts	7	11.6
Old-age provision	39.8	26.5
Travels/holidays	31.2	29.4
Education/support of children or grandchildren	24.2	31.4
Bequests	5.7	1.2
Take advantage of state subsidies	3.9	n.a.
Other (SPECIFY)	21.4	8.3

Percentages do not sum to 100 as multiple answers are allowed. Answers are weighted.
Euro area excludes Finland, France, and Italy as saving motives are not collected in those countries.

Source: HFCS 2013 and Irish HFCS 2015

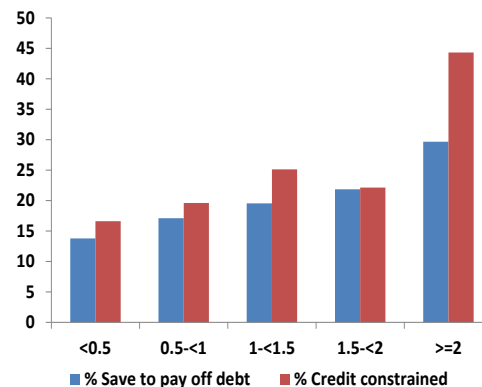
Asked for their most important reasons to save, 48% of households in Ireland report saving for unexpected events, followed by 31% who save for the education of or to support their children. For most categories, Ireland is broadly similar to other euro area countries,

⁶Another difference to the euro area covers the motive saving for major purchases which less than 10% of Irish households list among their main saving motives, possibly pointing to a subdued consumption of expensive durables.

however, it does stand out in two ways: only 27% of households report saving for old age to be an important reason compared with 40% in the euro area, and 12% of households list saving to pay down debts among their most important saving motives, compared with just 7% in the euro area. Only in three countries is the fraction of households who report to be saving to pay down debts higher than in Ireland, namely in the Netherlands, Cyprus and Greece, all countries with a high indebtedness of households coupled with a severe financial crisis (see Le Blanc et al. (2016)).⁶

Figure 2 shows that the motive to pay down debts increases strongly with the debt-to-asset ratio of households. Among the highly indebted households (debt-to-asset ratio >1) 22% of households report saving to pay down debt, and 29% report to be credit-constrained.

Figure 2: *Irish Households saving to pay off debts in % by debt-to asset ratio*



Source: Irish HFCS 2015

Reasons for saving motives are not mutually exclusive but they depend on saving horizon, household balance sheet position and other household features. The pairwise correlations between saving motives (Table A.2 in the Annex) show that the precautionary savings motive is negatively correlated with any other sav-

ing motive, suggesting it is a substitute for these motives. On the other hand, saving for old-age provision is a complement to saving to build up a financial stock and to saving for a bequest.

To understand the main determinants of saving motives, I relate various household characteristics to the probability of saving for home purchase, saving for old age, saving for unexpected events and saving to pay down debts (Table A.3).⁷ I picked these motives as purchasing a house is usually the biggest investment households make and saving for unexpected events is the most often named motive. Additionally, the motives saving for old age and saving to pay down debt are the reasons to save where Ireland clearly displays different behaviour from the rest of the euro area.

There is a clear age dependency of saving for home purchase and saving for old age provision: households headed by younger adults have the highest probability of saving for home purchase, while older age groups are less likely to save for their downpayment. In contrast, saving for old age provision is positively and significantly related to being older.⁸ These results are consistent with a life-cycle model of saving in the presence of uncertainties where households borrow when younger and repay and save as they age.⁹ Household size is significantly and negatively correlated with saving for home purchase, old-age provision and

unexpected events, suggesting a substitutability between these motives and informal (via intrafamily support) ways to insure. Education level plays a minor role for any savings motive. In contrast to the results by Le Blanc et al. (2016) for the euro area, there are significant wealth effects on all savings motives in Ireland, and also the highest income quintile is significant for all motives. Saving to pay down debt is negatively correlated with higher wealth and higher income, which provides evidence for credit constraints of households in low income and wealth quintiles.

3 Direct measures of household saving

Although the HFCS has no direct quantitative information on savings flows, I analyse four indicators of households' economic and financial situation related to the ability and propensity to save: the proportion of households who are able to save, the proportion of households with negative savings, the proportion of households with debt, and the proportion of households that are credit constrained.^{10 11 12}

When asked whether they are able to save regularly, 40% of households claim that they cannot save at all while 27% say they can always save something, and the rest manages to save occasionally (Figure 3).

⁷I run probit regressions and calculate the average marginal effects of socio-demographic and economic household characteristics on reporting the motive home purchase, save for old age, save for unexpected events and save to pay down debts among the most important savings motives.

⁸Households with heads aged 41-55 increase the probability to be saving for old age by 10 p.p., and being in the oldest age group above 71 increases the probability to save for old age by 27.5 percentage points.

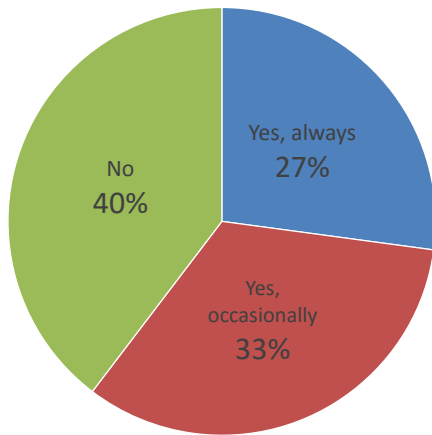
⁹The fact that the probabilities to save for old age are increasing also for the oldest group is a bit surprising because very old and particularly retired households should slowly decumulate assets. Le Blanc et al. (2016) also find significant positive effects for the older age groups, however, the marginal effects for the oldest group are declining.

¹⁰I use the same definition of credit constrained households as Le Blanc et al. (2016): households are credit constrained if they applied for a loan in the last year but were rejected or given a smaller loan than they had wished or if they did not apply for a loan because they anticipated that credit would not be granted.

¹¹Using the Italian SHIW, Jappelli et al. (2014) analyse the same last three indicators but they also have a direct measure of each households' propensity to save which they take as their first indicator.

¹²The groups in the different categories overlap, e.g. households with negative savings can simultaneously report being indebted or credit constrained.

Figure 3: Are you able to save on a regular basis?



Source: Irish HFCS 2015

This indicator is the most basic information on whether households will be able to use accumulated assets to finance consumption in case of a future income drop. Unfortunately for comparisons, this question was only asked in the Irish HFCS.

The proportion of households with negative savings can be inferred from a comparison of expenses to income and to typical expenses. In particular, households are asked to compare their overall expenses¹³ in the last 12 months with the expenses in a “normal year” and with their income. About 60% of Irish households claim that in the previous 12 months their expenses were higher than average expenses, 37% report their expenses to be in line with their expenses in a normal year, and only 3% had lower expenses in the last 12 months. These results are quite different from the euro area results where the overwhelming majority (more than 70% of households) reports their expenses in the last year to be in line with their normal expenses (Table 2).¹⁴

Turning to the comparison of expenses to income, I find that more than 20% of Irish households report that their expenses are higher than their income, while 46% have expenses about the same as income and 33% spend less than they earn.

¹³In this question, “overall expenses” refer to any expenditures, including debt repayments.

¹⁴Given that Ireland had just been in a deep recession preceded by a boom, it might be difficult for households to refer to “normal” expenses.

Table 2: Subjective measures of household saving in the Euro area and in Ireland (% of households)

	Household expenses in the last 12 months compared with	
	average expenses	household income
Euro area (excluding Finland and France)		
Higher	18.9	11.2
About the same	73.5	47.7
Lower	7.7	41.1
Ireland		
Higher	59.6	21.4
About the same	37.4	45.8
Lower	3.1	32.8

Source: HFCS 2013 and Irish HFCS 2015

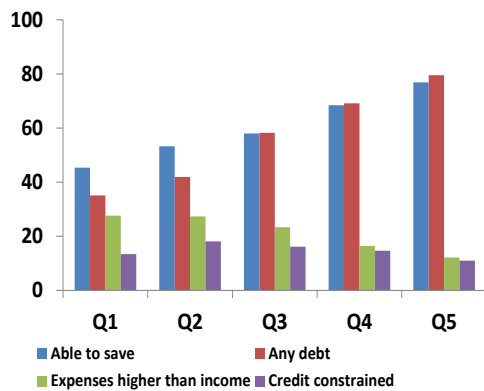
In comparison, only 11% of households in the rest of the euro area report negative savings and 41% report their expenses to be lower than household income. Only Malta reports a higher fraction of households with negative savings than Ireland (see Le Blanc et al. (2016)). The comparatively high fraction of households with negative savings suggests that some households in Ireland are under financial distress in 2013.

The third indicator is the proportion of households with debt. Debt allows households to shift resources from the future to the present and can therefore smooth income volatility and consumption. Consequently, whether households can take debt and get formal or informal loans is a useful indicator of their ability to buffer against negative income shocks. However, taking on too much debt or being highly indebted can also put households in an adverse balance sheet position, in particular if it comes along with a financial crisis or a house price shock that decreases the value of the collateral. Such overindebtedness might make households credit-constrained, i.e. they end up having no access to financial markets and are more exposed to negative income

shocks.¹⁵ In Ireland, the fraction of credit constrained households, the fourth indicator, is 14.6% (in 2013) while in the euro area it is only 8%. Figure 4 plots all four indicators against disposable income quintiles and reveals that the ability to save and the fraction of households in debt increases with income while negative saving are concentrated on the left tail of the income distribution and credit constraints are spread around the income distribution but lower in the highest quintiles.

The four indicators of household saving behaviour do not only depend on income but on many other household characteristics such as education, age, employment status and wealth. Table A.4 in the Annex presents the marginal effects of various household characteristics on the probability of being able to save, having negative savings, having debt and being credit constrained.

Figure 4: Indicators of household saving behaviour in % by income quintile



Source: HFCS 2013 and Irish HFCS 2015

The results confirm the descriptive evidence: being able to save and being indebted increases with the highest income quintile. There is a strong and significant correlation of all indicators with wealth: wealthier households are more likely to save, and are less likely to have negative savings, have debt or report to be credit-constrained. Surprisingly, older households are less likely to be able to

save given income and wealth. Household size plays a negative role for being able to save and is positively correlated with negative savings, indebtedness and credit constraints. Female-headed households, less-educated and unemployed households have a high propensity to have negative savings. Unemployed households have a 21% lower probability to be able to save and a 10% higher probability to report negative savings than employed households.

3.1 Coping with negative household saving and distress

Negative saving can occur when households make large purchases, when they find themselves temporarily out of work or when they need to rebuild their balance sheets after a shock. An important question is how households cope with such periods, whether they have accumulated enough assets in the past, can rely on loans to cover expenses or whether they get into financial distress and have to leave bills unpaid.

Table 3: Financing sources of negative saving in the Euro area and Ireland in %

	Euro area	Ireland
Sold assets	6.7	2.8
Got a credit card/ overdraft facility	20.3	12.8
Got some other loan	16.7	8.6
Spent out of savings	52.1	32.6
Asked for help from relatives or friends	22.8	20.5
Left some bills unpaid	12.7	31.3
Other (SPECIFY)	5.4	13.9

Percentages do not sum to 100 as multiple answers are allowed.
Euro area excludes Finland, France, and Italy as this information is not collected in those countries.
Source: HFCS 2013 and Irish HFCS 2015.

Table 3 shows that the largest fraction of households with negative saving (33%) spends

¹⁵Le Blanc and Lydon (2016) find that highly indebted and credit-constrained households have reduced their consumption substantially following the house price and income shocks during the Irish recession.

out of past savings. By decumulating assets, these households are able to smooth consumption and cope with negative savings. However, an almost equally large fraction of households (31%) is not able to cope with a period of negative savings and leaves bills unpaid. These households are particularly vulnerable to adverse economic conditions and are at risk of poverty. The average over the euro area countries is less than half of this, indicating that there is an element of financial fragility in some Irish households. A relatively big group of households (21%) reports to get help from family and friends. Table A.5 summarizes the evidence on the different ways to cope with negative saving in a regression framework. Wealthier households are more likely to finance negative savings by decumulating past savings. There is also a strong and significant (negative) correlation of wealth with leaving bills unpaid and receiving informal loans. However, there is no significant wealth effect for asking for formal loans. There is a less clear impact of income on the measures of financing negative saving. Households in the highest income quintile are more (less) likely to use formal (informal) loans to cover negative savings and less likely to leave bills unpaid. Higher educated households are more likely to spend out of past savings and less likely to leave bills unpaid.

4 Conclusion

This Letter has explored different saving motives and indicators of saving behaviour of Irish

households after the crisis. Around 60% of households are saving at least occasionally, and they accumulate assets mostly as a buffer against future unexpected events. Households with low net wealth and credit-constrained households also save to pay down debts and to repair their balance sheets. However, there is also evidence that some households might have difficulty coping with future volatility in income or wealth. In comparison with other countries in the euro area, Irish households in 2013 are more likely to have negative savings and to leave bills unpaid which makes them more vulnerable to idiosyncratic and aggregate shocks.

With the recovery after the crisis under way, rising house prices, improved employment opportunities and strong economic growth are helping Irish households to get back into stronger financial situations. Although aggregate data provide a general overview of how households fare, only data at the household-level allow an assessment of how financial distress is distributed and whether the distribution changes when macroeconomic conditions become less favourable. In turn, changes in the distribution of wealth can affect aggregate variables, as the consumption, saving and investment behaviour of households differs substantially depending on their individual wealth, income and indebtedness. Uncovering which groups of households are able to save to accumulate wealth as a buffer against shocks and which ones remain financially fragile and highly indebted is also an important indicator of possible vulnerabilities in terms of financial stability.

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Table A.1: Summary statistics of household characteristics in the euro area and Ireland

Statistics	Euro area (2008-2011)			Ireland (2013)		
	Mean	Std.Err.	N.Obs	Mean	Std.Err.	N.Obs
Male indicator	0.543	0.004	62,521	0.451	0.007	5,407
<i>Age classes - dummies</i>						
Less than 40 years (Ref. Group)	0.255	0.003	62,521	0.347	0.006	5,407
Between 40 and 54 years	0.300	0.003	62,521	0.301	0.006	5,407
Between 55 and 69 years	0.243	0.002	62,521	0.228	0.006	5,407
Equal/more than 70 years	0.202	0.002	62,521	0.124	0.004	5,407
<i>Marital status - dummies</i>						
Couple (Ref. Group)	0.537	0.003	62,514	0.546	0.007	5,407
Single	0.222	0.003	62,514	0.279	0.006	5,407
Divorced	0.107	0.003	62,514	0.089	0.004	5,407
Widowed	0.134	0.003	62,514	0.086	0.004	5,407
Household size	2.321	0.005	62,521	2.702	0.019	5,407
<i>Education level - dummies</i>						
Low education (Ref. Group)	0.350	0.003	62,370	0.124	0.004	5,407
Mid education	0.414	0.004	62,370	0.538	0.007	5,407
High education	0.236	0.003	62,370	0.448	0.006	5,407
Temporary contract	0.054	0.002	57,930	0.059	0.003	5,407
<i>Employment status - dummies</i>						
Employee (Ref. Group)	0.445	0.003	62,521	0.448	0.007	5,407
Self-employed	0.082	0.002	62,521	0.091	0.004	5,407
Unemployed	0.054	0.001	62,521	0.128	0.005	5,407
Retired	0.309	0.002	62,521	0.184	0.005	5,407
Other	0.103	0.002	62,521	0.149	0.005	5,407
Financial sector	0.020	0.001	62,240	0.029	0.002	5,407
Public sector	0.123	0.003	62,240	0.114	0.004	5,407
Household gross income	37,841	283	62,521	54,478	878	5,407
Household net wealth	230,809	4,244	62,521	212,405	6,234	5,407
Euro area results refer to data in 2008-2010 in the euro area excluding Ireland Personal variables for the reference person are selected according to the financially knowledgeable person, considered to be the main respondent providing financial information for the whole household, since this information is collected together for the whole household instead of by individual persons (HFCN, 2013b). Education dummies - Low education (ISCED-97=0,1,2); Mid education (ISCED-97=3,4); High education (ISCED-97=5,6). Employment sector dummies - Financial sector (NACE-code: K); Public sector (NACE-code: O, P, Q).						

Table A.2: Correlations between Savings Motives

	Purchase Own Home	Other major Purchases	Set up/ Invest in Private Business	Invest in Financial Assets	Provision for Unexpected Events	Pay off Debts	Old-age Provision	Travels/ Holidays	Education /Support of (Grand) Children	Bequests
Purchase Own Home	1									
Other major Purchases	-0.00371 (0.785)	1								
Set up/ Invest in Private Business	0.0667*** (0.000)	0.00962 (0.479)	1							
Invest in Financial Assets	0.0209 (0.125)	0.0367** (0.007)	0.0711*** (0.000)	1						
Provision for Unexpected Events	-0.0811*** (0.000)	-0.0130 (0.338)	-0.0334* (0.014)	-0.0116 (0.393)	1					
Pay off Debts	-0.00465 (0.733)	-0.0332* (0.015)	0.00423 (0.756)	-0.0133 (0.330)	-0.0425** (0.002)	1				
Old-age Provision	-0.121*** (0.000)	-0.0703*** (0.000)	-0.0116 (0.396)	0.0315* (0.021)	-0.0559*** (0.000)	-0.0862*** (0.000)	1			
Travels/ Holidays	0.0249 (0.067)	0.128*** (0.000)	0.0300* (0.028)	0.0302* (0.026)	0.00283 (0.835)	-0.0238 (0.081)	-0.0809*** (0.000)	1		
Education /Support of (Grand) Children	-0.0198 (0.145)	-0.0185 (0.173)	0.0117 (0.390)	0.0124 (0.364)	-0.0423** (0.002)	0.0257 (0.059)	-0.0907*** (0.000)	0.0255 (0.061)	1	
Bequests	-0.0203 (0.136)	0.0122 (0.372)	0.00444 (0.744)	0.0463*** (0.001)	-0.0292* (0.032)	-0.0199 (0.143)	0.0465*** (0.001)	-0.0131 (0.336)	-0.0298* (0.028)	1

p-values in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A.3: Determinants of Main Savings Motives

	(1) Home Purchase	(2) Old-Age Provision	(3) Unexpected Events	(4) Pay down Debt
Male	0.029*** (3.60)	0.009 (0.72)	-0.022 (-1.34)	-0.001 (-0.12)
Age 41–55 years	-0.073*** (-7.33)	0.104*** (5.50)	-0.006 (-0.30)	0.019 (1.46)
Age 56–70 years	-0.158*** (-7.57)	0.186*** (7.93)	-0.016 (-0.57)	-0.021 (-1.14)
Age 71 years and more	-0.191*** (-5.46)	0.275*** (8.94)	-0.047 (-1.14)	-0.029 (-1.08)
Single	0.015 (1.45)	-0.034* (-1.76)	0.022 (0.97)	-0.003 (-0.19)
Divorced	0.006 (0.38)	-0.035 (-1.40)	-0.062** (-2.11)	-0.007 (-0.38)
Widowed	-0.014 (-0.44)	-0.020 (-0.79)	-0.006 (-0.17)	-0.042* (-1.74)
Household size	-0.013*** (-3.62)	-0.037*** (-5.66)	-0.018** (-2.46)	0.010** (2.14)
Mid education	-0.020 (-1.01)	-0.046** (-2.31)	0.041 (1.54)	-0.016 (-0.97)
High education	-0.004 (-0.18)	-0.032 (-1.40)	0.056* (1.87)	-0.036* (-1.90)
Temporary Contract	0.008 (0.57)	-0.035 (-1.23)	-0.003 (-0.08)	-0.007 (-0.35)
Self employed	-0.000 (-0.01)	0.017 (0.70)	-0.007 (-0.23)	0.028 (1.51)
Unemployed	-0.007 (-0.59)	-0.034 (-1.39)	-0.033 (-1.18)	-0.005 (-0.27)
Other	-0.026* (-1.70)	0.035 (1.59)	-0.040 (-1.46)	-0.044** (-2.54)
Retired	-0.029 (-0.98)	0.042* (1.76)	-0.026 (-0.83)	-0.023 (-1.04)
Financial sector	-0.013 (-0.76)	0.037 (1.02)	0.024 (0.57)	-0.022 (-0.85)
Public sector	-0.010 (-0.83)	-0.015 (-0.65)	0.007 (0.26)	-0.001 (-0.06)
HH income: 2nd quintile	0.004 (0.29)	-0.033* (-1.82)	0.016 (0.73)	-0.013 (-0.95)
HH income: 3rd quintile	0.002 (0.21)	-0.015 (-0.83)	0.047** (2.18)	-0.026* (-1.90)
HH income: 4th quintile	0.012 (1.21)	-0.013 (-0.78)	0.022 (1.05)	-0.005 (-0.37)
HH income: 5th quintile	0.014*** (3.45)	0.023*** (3.50)	0.027*** (3.29)	-0.011** (-2.05)
HH net wealth: 2nd quintile	0.067*** (6.48)	0.017 (0.75)	-0.038 (-1.57)	-0.044*** (-3.06)
HH net wealth: 3rd quintile	0.041*** (3.52)	0.071*** (3.12)	0.041 (1.57)	-0.034** (-2.27)
HH net wealth: 4th quintile	0.000 (0.02)	0.107*** (4.65)	0.075*** (2.74)	-0.096*** (-5.74)
HH net wealth: 5th quintile	-0.063*** (-3.35)	0.157*** (6.57)	0.078*** (2.68)	-0.064*** (-3.39)
<i>N</i>	5,407	5,407	5,407	5,407

t statistics in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A.4: Determinants of Saving and Debt in Ireland

	(1) Able to save	(2) Negative savings	(3) Has any debt	(4) Credit constrained
Male	-0.021 (-1.57)	-0.047*** (-4.08)	-0.026** (-2.06)	-0.008 (-0.78)
Age 41–55 years	-0.105*** (-6.08)	0.041*** (2.83)	0.019 (1.15)	-0.007 (-0.58)
Age 56–70 years	-0.114*** (-4.82)	0.035* (1.70)	-0.099*** (-4.64)	-0.043** (-2.36)
Age 71 years and more	-0.081** (-2.43)	-0.040 (-1.32)	-0.244*** (-7.69)	-0.112*** (-3.55)
Single	-0.014 (-0.78)	0.001 (0.04)	-0.082*** (-4.96)	0.009 (0.69)
Divorced	-0.140*** (-5.97)	0.047** (2.36)	0.034 (1.53)	0.032* (1.84)
Widowed	-0.031 (-1.15)	0.028 (1.17)	-0.043 (-1.59)	-0.046 (-1.61)
Household size	-0.056*** (-9.43)	0.045*** (9.19)	0.038*** (6.75)	0.020*** (4.76)
Mid education	0.043** (1.98)	-0.052*** (-2.85)	0.056*** (2.63)	0.004 (0.20)
High education	0.084*** (3.46)	-0.054** (-2.57)	0.104*** (4.44)	0.004 (0.19)
Temporary contract	-0.052** (-1.98)	0.025 (1.10)	-0.030 (-1.19)	0.013 (0.74)
Self employed	-0.068*** (-2.79)	0.034 (1.60)	0.080*** (3.48)	0.068*** (4.00)
Unemployed	-0.214*** (-9.86)	0.106*** (5.90)	-0.050** (-2.49)	0.007 (0.43)
Other	-0.090*** (-4.17)	0.044** (2.42)	-0.074*** (-3.69)	-0.026 (-1.57)
Retired	-0.023 (-0.87)	0.011 (0.49)	-0.108*** (-4.59)	-0.070*** (-2.96)
Financial sector	0.053 (1.39)	0.012 (0.37)	0.052 (1.57)	-0.014 (-0.57)
Public sector	0.006 (0.26)	0.023 (1.21)	0.057*** (2.69)	0.010 (0.64)
HH income: 2nd quintile	0.009 (0.48)	0.007 (0.45)	-0.047*** (-2.78)	0.020 (1.51)
HH income: 3rd quintile	-0.021 (-1.24)	0.033** (2.24)	-0.015 (-0.96)	0.014 (1.13)
HH income: 4th quintile	-0.021 (-1.19)	0.027* (1.72)	-0.004 (-0.23)	0.010 (0.74)
HH income: 5th quintile	0.065*** (9.93)	-0.048*** (-8.13)	0.045*** (7.51)	-0.017*** (-3.30)
HH net wealth: 2nd quintile	0.168*** (8.66)	-0.105*** (-6.46)	-0.216*** (-12.47)	-0.028** (-2.23)
HH net wealth: 3rd quintile	0.129*** (6.22)	-0.061*** (-3.54)	-0.056*** (-2.85)	-0.076*** (-5.20)
HH net wealth: 4th quintile	0.215*** (9.85)	-0.114*** (-6.09)	-0.148*** (-7.22)	-0.119*** (-7.15)
HH net wealth: 5th quintile	0.176*** (7.65)	-0.106*** (-5.40)	-0.213*** (-9.86)	-0.124*** (-7.07)
<i>N</i>	5,402	5,402	5,402	5,402

t statistics in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A.5: Financing Negative Saving

	(1) Out of Wealth	(2) Out of formal loans	(3) Out of informal loans	(4) Unpaid Bills
Male	0.029 (0.94)	-0.013 (-0.48)	-0.033 (-1.14)	0.024 (0.78)
Age 41–55 years	-0.012 (-0.31)	-0.015 (-0.49)	-0.032 (-1.00)	0.103*** (2.88)
Age 56–70 years	0.002 (0.03)	0.013 (0.30)	-0.048 (-1.04)	0.057 (1.10)
Age 71 years and more	-0.043 (-0.55)	0.097 (1.33)	0.003 (0.03)	-0.004 (-0.05)
Single	-0.011 (-0.27)	0.054 (1.52)	0.069* (1.89)	0.024 (0.61)
Divorced	-0.111** (-2.27)	0.004 (0.11)	0.120*** (2.95)	0.103*** (2.30)
Widowed	-0.014 (-0.21)	-0.034 (-0.58)	0.129** (2.23)	-0.018 (-0.26)
Household size	-0.044*** (-3.35)	0.016 (1.49)	0.031*** (2.74)	0.044*** (3.63)
Mid education	0.142*** (3.24)	0.031 (0.79)	0.007 (0.17)	-0.076* (-1.77)
High education	0.227*** (4.68)	0.069 (1.59)	-0.010 (-0.22)	-0.164*** (-3.23)
Temporary contract	0.124** (2.11)	0.000 (0.01)	0.098* (1.77)	-0.147** (-2.45)
Self employed	0.086 (1.41)	-0.000 (-0.01)	0.050 (0.90)	-0.166*** (-2.79)
Unemployed	0.049 (1.08)	0.009 (0.25)	0.022 (0.55)	-0.130*** (-2.94)
Other	0.098** (2.13)	-0.010 (-0.25)	0.043 (1.04)	-0.144*** (-3.16)
Retired	0.260*** (4.32)	-0.103* (-1.77)	-0.044 (-0.74)	-0.170*** (-2.64)
Financial sector	0.230*** (2.69)	-0.068 (-0.92)	0.005 (0.05)	-0.223* (-1.88)
Public sector	0.089 (1.64)	0.063 (1.52)	-0.011 (-0.22)	-0.157*** (-2.79)
HH income: 2nd quintile	0.055 (1.47)	-0.019 (-0.57)	-0.076** (-2.19)	0.072** (1.98)
HH income: 3rd quintile	-0.019 (-0.49)	0.015 (0.49)	-0.054 (-1.51)	-0.008 (-0.20)
HH income: 4th quintile	0.015 (0.34)	0.006 (0.18)	-0.064 (-1.40)	0.025 (0.49)
HH income: 5th quintile	0.021 (1.33)	0.046*** (3.66)	-0.025* (-1.67)	-0.065*** (-4.07)
HH net wealth: 2nd quintile	0.122*** (2.88)	-0.036 (-1.05)	-0.088*** (-2.58)	-0.131*** (-3.27)
HH net wealth: 3rd quintile	0.212*** (4.92)	-0.021 (-0.59)	-0.082** (-2.27)	-0.212*** (-5.30)
HH net wealth: 4th quintile	0.268*** (5.83)	0.002 (0.05)	-0.097** (-2.30)	-0.241*** (-4.96)
HH net wealth: 5th quintile	0.336*** (6.68)	0.022 (0.47)	-0.167*** (-2.84)	-0.175*** (-3.37)
<i>N</i>	1,121	1,121	1,121	1,121

t statistics in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$