Job insecurity, savings and consumption: an Italian experiment

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Job insecurity has consequences outside of the labour market. Using the 2012 Fornero reform as a natural experiment, a difference-in-differences framework based on a firm-size discontinuity and individual data coming from the Italian Survey on Household Income and Wealth, our results suggest that greater job insecurity reduces consumption and increases savings. We also show that the changes in consumption and savings are a function of the family structure and of the rank in the household income distribution. Last, greater job insecurity reduces all types of consumption except food expenditures and the extra-savings are either invested in safe assets or kept on savings account.

1. Introduction

Job insecurity is multifaceted and, unsurprisingly, it has many definitions. For Heaney *et al.* (1994), job insecurity can be defined as the "*perception of a potential threat to continuity in his or her current job*". In Rosenblatt and Ruvio (1996) and Davy *et al.* (1997), job insecurity corresponds respectively to an "*overall concern about the future existence of the job*" and to "*expectations about continuity in a job situation*". Contrary to unemployment, job insecurity is, by nature, forward-looking and it captures the risk (real and/or perceived) of an imminent job loss.We here consider that job insecurity refers to the fear of a worker about job loss. This definition corresponds to what the literature in Industrial and Organizational Psychology calls quantitative job insecurity (Hellgren *et al.*, 1999).

Our objective is to understand what are the decisions and coping strategies adopted by workers when faced with increasing job insecurity caused by major transformations of the labour market. The contributions of Kimball (1990, 1992) lay the theoretical foundation for this research question. Under the standard Permanent Income Hypothesis, consumption smoothing is the solution that maximizes consumer utility. Assuming that the third derivative of the utility function is equal to zero (this is the case with the uncertainty equivalence case of Hall, 1978), savings are simply a residual used to smooth consumption. However, Kimball (1990) shows that the role and amount of savings change with the sign of the third derivative of the utility function. If it is positive (as is the case with a CRRA or CARA utility function), the consumer is considered 'prudent'. According to Kimball (1990), prudence corresponds to the *"propensity to prepare and forearm oneself in the face of uncertainty"*. Prudence is the reason why a consumer may find optimal to have precautionary savings. These savings are not used to smooth consumption *per se*, but to be used as a safety net in case of an income shock.

There are many papers reporting positive associations between objective measures of uncertainty and savings at the macro- (Campbel, 1987; Hahm, 1999; Menegatti, 2007, 2010; Mody et a., 2012; Baiardi *et al.* 2013, 2016) and micro-level (Dardanoni, 1991; Guiso et al, 1992; Carroll, 1994; Hubbard *et al.*, 1994; Guiso *et al.*, 1996; Carroll and Samwick, 1997, 1998; Kazarosian, 1997; Lusardi, 1998; Hahm and Steigerwald, 1999; Banks *et al.*, 2001; Engen and Gruber, 2001; Guariglia and Rossi, 2002; Carroll *et al.*, 2003; Guariglia and Kim, 2003; Ceritoglu, 2013; Chamon *et al.*, 2013, Deidda, 2013). However, the number of articles focusing on employment risk and using individual forward-looking measures of insecurity is much more limited (Guariglia, 2001; Benito, 2006; Lugilde *et al.*, 2018) and none of them relies on identification strategies that allow claiming causality.

Theoretically, an increase in precautionary savings is not the only strategy an individual can adopt when faced with a greater employment shock. In Kimball (1992), a 'temperant' consumer (with a fourth derivative of the utility function strictly negative) would also want to adopt strategies that reduce her overall exposure to risk. Thus, being exposed to increasing job insecurity will have consequences on other dimensions of workers' lives. For example, theoretical models suggest that workers exposed to a greater job insecurity may want to reduce (or delay) their fertility decisions (Ranjan, 1999; Sommer, 2016). Using a reform in the employment protection legislation in France and difference-in-differences regressions, Clark and Lepinteur (2022) show that workers who experienced an exogenous increase in job insecurity are less likely to have a new child. However, the influence of job insecurity on fertility decisions is not the same for all workers. Only those with children before the implementation of the reform or with a relatively high education level reduce their fertility. Chevalier and Marie (2017) find similar results. The decision to get married may reflect an another example of 'temperance' in front of greater employment risk: when exposed

to exogenous increase in job insecurity, workers may seek insurance through marriage and partnership (Weiss, 1997; Hess, 2004). However, a greater likelihood of job loss may also reduce the value of a worker as a potential partner on the marriage market. Consequently, the net effect of job insecurity on marriage is theoretically ambiguous. In Clark *et al.* (2020), only women are more likely to be married when they are in greater job insecurity.

Using the firm-size discontinuity of the 2012 Fornero reform of the Italian labour market to isolate the causal impact of greater employment risk, our difference-in-differences results show that workers in greater insecurity increase their savings. Provided that their household income remained constant, this increase in precautionary savings translates mechanically into a reduction in consumption. However, the job-insecurity elasticity of consumption depends on the type of goods and services considered: the more essential the good or the service, the lower is the elasticity (e.g. food expenditures). Our results also suggest that workers with children or low household income do not increase their precautionary savings. Although they might be those deriving the greatest utility from additional precautionary savings, the absence of significant change in their level of savings arguably reflect their limited capacity to do so. Last, we show that workers in greater employment risk decide to reduce their overall exposure to risk by adopting portfolio with less risky assets.

Our paper contributes to several strands of the literature. To the best of our knowledge, it is the first empirical assessment of the influence of a forward-looking risk (i.e. the employment risk) on precautionary savings using a natural experiment (as opposed to past contributions who mostly focused on past shocks such as unemployment or household income loss). It is also the first article that produces results that can be arguably read as causal thanks to its identification strategy based on a natural experiment and a difference-in-differences setup. We contribute to the literature by

showing that workers do not only increase their precautionary savings but also adopt safer asset portfolios. From a theoretical perspective, our results show that the concept of prudence and temperance adequately predict workers coping strategies after a fall in the employment protection legislation.

The remaining of the paper is organised as follows. Section 2 describes the institutional context while Section 3 presents the data and the empirical strategy. The main results are described in Section 4. Section 5 concludes.

2. The 2012 Fornero reform of the labour market

Before 2012, the sanctions for employers in case of unfair dismissal were different according to the firm size. In firms with 15 employees and more, the wrongfully dismissed worker could choose between re-instatement accompanied with all forgone wages or a monetary compensation and no re- instatement. In smaller firms, the employer decided whether to re-instate the worker or not. Moreover, the forgone wages were not paid. Since the legal definition of unfair dismissal was not precise, there was many rooms for interpretation and trials lasted for 72 months on average. Overall, layoff costs in case of unfair dismissal were significantly higher in firms with 15 employees or more. Consequently, workers in those large firms were more protected than those in smaller firms.

In 2012, the Italian government implemented a major reform of the labour market. The main objective of this 2012 Fornero reform was to harmonise the rules in case of unfair dismissal across firm size. There were no change for the firms with less than 15 employees. For the larger firms, the employees were no longer asked if they wanted to be re-instated or not, a judge is not taking

this decision. Re-instatement, which was the choice in most cases before 2012, becomes an exception in that it is an option in only a limited set of cases. The legal definition of unfair dismissal got also more precise, leaving less uncertainty as to the outcome of a potential trial. Last, all monetary compensations were capped. In short, the 2012 Fornero reform reduces the layoff costs in forms with 15 employees and more.

Some studies assessed the impacts of the Fornero reform. Ichino and Pinotti (2012) confirmed that the reform did reduce the time spent in court during trial for unfair dismissal as well as diminished the layoff costs in large firms. This is confirmed in Berton *et al.* (2017): using firm data, the authors show that the separation and turnover rates increased in large firms after the implementation of the Fornero reform. The rise in job insecurity caused by the reform can also be seen in the evolution of the OCD index of strictness of employment protection (https://stats.oecd.org/Index.aspx?DataSetCode=EPL_OV). It decreased for the first time in almost 20 years following the 2012 Fornero reform.

3. Data and identification strategy

3.1. SHIW

The Survey on Household Income and Wealth produced by Banca d'Italia began in 1965, with microdata available from 1977 onwards. It currently covers a nationally representative sample of 8,000 Italian families (about 20,000 people), with a variety of information on economic and financial behaviour of individuals, both at the individual and family level. The SHIW was a repeated cross-section until 1989, when a randomly selected sub-sample of about 4,000 previously interviewed families was selected to be part of the panel component of the study. From 1989 onwards data were collected biannually (with the exception of a three-year gap between 1995 and 1998), with the latest available wave dating 2016.

Respondents of the survey were asked to report their household net monthly income as well as their total level of consumption and savings. They were also asked to report the moneys pent in non-durables goods (food expenditures and other) and durables goods (means of transport expenditures and other). The amount of money held on various bank accounts and assets are also recorded.

Since 2008, firm size (as the total number of employees in the firm) is self-reported using the following intervals: [0-4], [5-15], [16-19], [20-49], [50-99], [100-499] and 500+. Although a discrete figure would have been key to run a regression discontinuity design, the intervals used in the SHIW questionnaire are detailed enough to identify the treatment status of the workers.

3.2. Identification strategy

We identify the effect of the Fornero reform using the same identification strategy as in Berton *et al.* (2017). We estimate the following difference-in-differences regression using OLS:

$$Y_{it} = \beta_1 Treat_{it} + \beta_2 \lambda_{2012} + \beta_3 Treat_{it} * \lambda_{2012} + \beta_2 \lambda_{2014} + \beta_3 Treat_{it} * \lambda_{2014} + \beta_6 X_{it} + \epsilon_{it}$$

where Y_{it} is equivalent household monthly savings and consumption with 2010 constant prices (the equivalence scale we used is the square root of the family size). All the dependent variables are standardised to a mean zero and standard deviation one. $Treat_{it}$ is a dummy equal one for workers in firms with 15 employees or more and zero for workers in firms with less than 15 employees. λ_{2012} and λ_{2014} are dummies equal one for respondents who took the survey in 2012 and 2014 respectively. X_{it} is a set of standard individual characteristics (age, age squared, gender, education, marital status, homeownership status, monthly earnings in logs and occupation and regional fixed-effects). We do not control for the equivalent monthly household disposable income

in the baseline model because it could arguably be a "bad control". Nevertheless, we will show later that adding this variable to the vector of controls makes no difference.[1]

The estimates of interest are β_3 and β_5. They respectively capture the impact of the Fornero reform in 2012 and 2014. We estimate these coefficients separately because we suspect the effects of the reform to differ in time. The Fornero reform being implemented in mid-2012 and consumption habits being arguably sticky, we may expect β_3 to be significantly lower than β_5. If the point estimates are positive (negative) in the savings (consumption) regressions, this would suggest that workers have a greater demand for precautionary savings when faced with greater job insecurity.

Our estimation analysis is made of permanent workers in the private sector. We restrict our analysis to workers hired before the announcement of the Fornero reform (July 2012): this selection is important because the reform arguably changed the type of workers treated firms recruited. Were the newly hired workers included in our estimation sample, β_3 and β_5 would have confounded the effect of the reform with the endogenous change in the composition of the treated workers. Our selection procedure produces a sample of 12,502 observations. The average equivalent household disposable income is equal to 1806.74 euros and around 27% of this amount is saved on average, which is slightly larger than national figures (https://data.worldbank.org/indicator/NY.GDS.TOTL.ZS?locations=IT). This is not surprising: following the predictions of the life-cycle hypothesis, our estimation sample (private-sector workers with permanents) arguably belongs to the part of the population with the highest saving rate: the occupied working-age population. Figure 1 displays the kernel density of the equivalent

[1] The influence of family size is somewhat already accounted for because the dependent variables are equivalised using the square root of the family size. This is why we decided not to include family size to the vectors of control variables, although the treatment effects are the same when we control for family size.

consumption and savings in our estimation sample. Consumption is always positive but 5% of our observations report negative levels of savings. Our respondents are 42 years old on average and 60% of them are men.

4. Results

4.1. Main results

Table 2 reports the mains results. Column (1) and (4) show respectively the treatment effects on equivalent monthly savings and consumption without controls. The effects on savings and consumption are significantly different form zero at the 5% level in 2014 only. The treatment effect in 2012 are not different from zero. This is what we expected: it took time for the savings and consumption habits to adjust to the new employment protection legislation. Yet, the fact that a lower level of employment protection translate into a reduction of consumption and higher levels of savings is consistent with the theory of precautionary savings. In columns (2) and (5), we drop the 2012 survey of the estimation sample to check the robustness of our results. When we do so, our results remain similar.

Estimating the treatment effect separately for savings and consumption would be redundant if the reform had no impact on the household income remained. The standard deviations of the savings and consumption being almost the same (see Table 1), the similarity of the magnitude of the treatment effects suggests that the household income did not change. We formally investigate this question in the first two columns of Table A1 where we estimate the effect of the treatment (without and with controls) on the standardised equivalent household disposable income. It is unambiguously nil. This explains why the introduction of the equivalent household disposable

income as a control in our baseline regressions does not affect the treatment effects. This is shown in the last four columns of Table A1.

Our estimates suggest that the Fornero reform, by reducing the protection of workers in firms with 15 employees or more, increased the equivalent savings (or reduced equivalent consumption) by 10% of a standard deviation. This is slightly larger than the differences attracted by marital status and education in column (4) of Table A1. This is also equivalent to the effect of being a homeowner or occupying a managerial position. For a worker living in a family of average size - 3.2 in our estimation sample, an increase of 10% of a standard deviation in equivalent monthly savings corresponds to roughly 100 euros (0.10*550.61*sqrt(3.2)).

4.2. Identification assumptions

The estimates in Table 2 can be read as the causal effects of the 2012 Fornero reform under several conditions. As with any difference-in-differences model, the parallel trend assumption needs to hold. We check whether this is likely in two ways. First, we plot in Figure 2 the average equivalised savings and consumption over time separately for the treatment and control group. It shows that the evolution of these variables before the 2012 Fornero reform (the grey-dashed vertical line) was fairly parallel. We also estimate the effect of placebo assuming that the reform was implemented in 2010 and restricting our estimation sample to the period 2007-2011. Results are shown in columns (3) and (6) of Table 2: none of the placebo estimate is significantly different from zero.

Although the evidence above support that the parallel trend assumption holds, it is a necessary but not sufficient condition. The estimates in Table 2 may well capture the influence of a confounding event that *(i)* happened between 2012 and 2014 and *(ii)* affected systematically the treatment and/or the control group differently. Because the assignment to the treatment and control group is on the

basis of the firm size, the most plausible confounding events should be labour market reforms. From 2008 to 2014, more than 50 amendments and reforms of various importance were implemented. We reviewed them all and only three were implemented differently according to the firm size (as was the 2012 Fornero reform). However, none of these changes was based on the same firm-size discontinuity and temporal difference, which constitute the base of our identification. Moreover, the three aforementioned reforms changed aspects of the labour market that are arguably unrelated to precautionary savings or temperance because they were about the working conditions of apprentices and the conditions to work on Sunday.

For the estimates in Table 2 to only reflect the effect of the 2012 Fornero reform, we also need to make sure that the sample composition remained the same over time. Although we restricted our estimation to workers hired before the announcement of the reform to avoid endogenous selection through hiring, difference in firing decisions between the treatment and control group from 2012 onwards might have changed the composition of the sample and, to some extent, bias our main estimates. We investigate this issue in Table A2 in Appendix where we compare the differences in observable characteristics between the two groups before and after the Fornero reform. Table A2 reveals that workers in treated firms (firms with 15 employees or more) are positively selected: they have higher levels of education and earnings and are more likely to be homeowners and managers. They are also slightly older and more likely to be men. It is important to keep in mind that such differences are not important in a difference-in-differences regression as long as they remain constant over time. This is what the column of Table A2 shows: out of ten differences in observable characteristics, nine are the same. We did not report the results for the sixteen dummies for the region of residence but the differences between the treatment and control group remained also the same before and after the Fornero reform (results are available upon request). The only

exception is age: the treated workers are the oldest but the difference with the control group is lower. This difference being marginal in Table A2 (and no longer significant after adopting typical family-wise error rate approaches such as the Bonferroni correction), we can arguably conclude that the reform did not produce significant changes in the sample composition.

4.3. Robustness checks

We run below a battery of robustness checks and show the results in Table 3 for both savings and consumption. Column (1) of Table 3 replicates the baseline estimates for comparison purposes.

Rather than using the square root of the family size, we could have used the used the OECD equivalence scale. When we do so, the treatment effects are somewhat smaller, as revealed by column (2) of Table 3, although they do not significantly differ for the baseline estimates. In a similar vein, we do not use any equivalence scale in column (3) and find qualitatively similar estimates.

We could have also estimated the effect of the Fornero reform on the logged values of the equivalent savings and consumption. However, savings can be negative in our estimation sample and this is why we chose to use an Inverse Hyperbolic Sine transformation. The results are shown in column (4). The sign of the estimates remain comparable to the baseline ones. However, the treatment effects are now only marginally significant (the p-value for the treatment effect on savings is 0.11).

Figure 1 shows that the distributions of savings and consumption have long tails. To make sure that our results are not influenced by potential outliers (which could explain why the treatment effects in column (4) are lower), we trimmed the bottom and top 1% of the income distribution.

Results, in column (5), are unchanged. We find similar estimate when we trim the bottom and top 5% of the income distribution or when we trim the distribution of savings or consumption.

Firm size being self-reported, it is prone to measurement errors and workers could wrongly be assigned to the treatment or control group. To attenuate this concern, we re-estimate our main regressions excluding workers in firms at the discontinuity. We show the treatment effects in column (6): they are very similar to the baseline estimates.

4.4. Heterogeneity

4.4.1. By type of workers

Some workers may be more prone to change their precautionary savings than others. In Kimball (1990), individual with greatest risk aversion are those with the greatest demand for precautionary savings. We explore this hypothesis in Table 4 where we interact our treatment effect with several individual characteristics.

Although risk aversion is higher for women and for the oldest, we do not find a significant difference on the basis of gender or age. The same applies to education: the increase in savings (and the reduction in consumption) is the same for those with or without a post-Secondary education. We do not find significant differences in column (5) where we account for the type of occupations.

Last, we find significant differences in the columns (4) and (6) of Table 4. Parents and poor workers are less likely to reduce their consumption and increase their savings. Although they would certainly derive utility from precautionary savings, these segments of the working population may be more constrained than others in the sense that they may not have enough resources to adjust their savings.

4.4.2. By type of expenditures

The gradient between job insecurity and consumption my depend on the nature of the good and services. We address this question in Table 5 where we decompose the total consumption into non-durables (food expenditures and other) and durables (means of transport expenditures and other). The results indicate that the more essential the expenditures are, the lower is the gradient with job insecurity.

4.5. The composition of asset portfolio

In Table 6, we ask how precautionary savings are used. The SHIW questionnaire asks repondents to report the exact amount of money held by type of asset. We use this information to build two variables: one measuring the amount held in safe assets and one for the amount in risky assets.

When we reproduce our main specification, we find that workers in greater employment risk holds less risky assets and more safe assets. This behaviour is consistent with the concept of temperance of Kimball (1992): workers in greater risk on one market (the labour market here) reduce their overall exposure to risk by changing their decisions on another market (the financial here).

5. Conclusions

Using the firm-size discontinuity of the 2012 Fornero reform of the Italian labour market to isolate the causal impact of greater employment risk, our difference-in-differences results show that workers in greater insecurity increase their savings. Provided that their household income remained constant, this increase in precautionary savings translates mechanically into a reduction in consumption. However, the job-insecurity elasticity of consumption depends on the type of goods and services considered: the more essential the good or the service, the lower is the elasticity (e.g. food expenditures). Our results also suggest that workers with children or low household income do not increase their precautionary savings. Although they might be those deriving the

greatest utility from additional precautionary savings, the absence of significant change in their level of savings arguably reflect their limited capacity to do so. Last, we show that workers in greater employment risk decide to reduce their overall exposure to risk by adopting portfolio with less risky assets.

Our results have several important implications. First, it shows that greater employment risks increases the search for insurance of workers. Second, less employment protection implies a reduction in consumption and less resources invested in risky assets.

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Figures and Tables:

Figure 1: Distributions of consumption and savings – Estimation sample

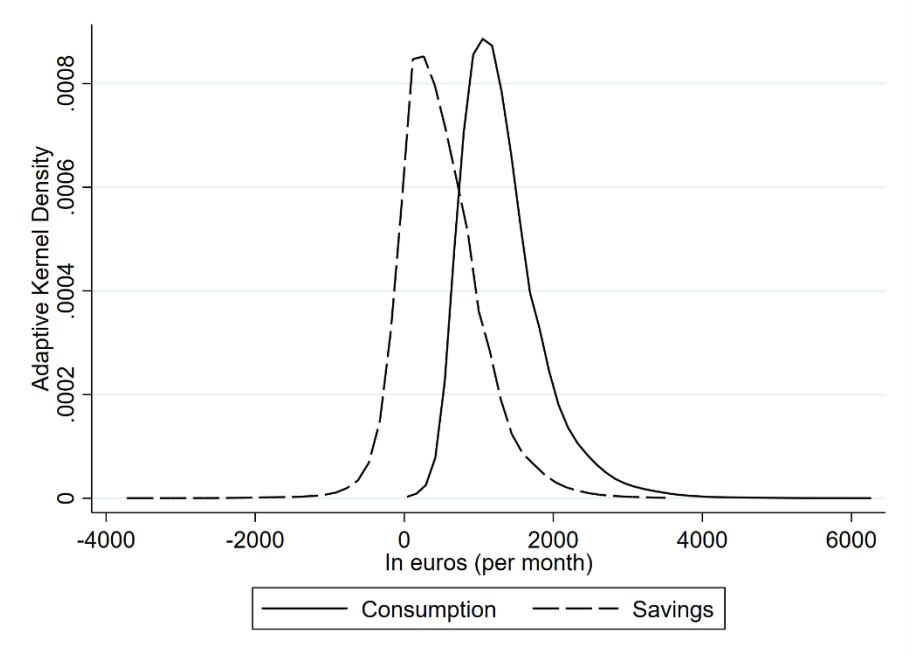

Figure 2: Parallel trends of consumption and savings – Estimation sample

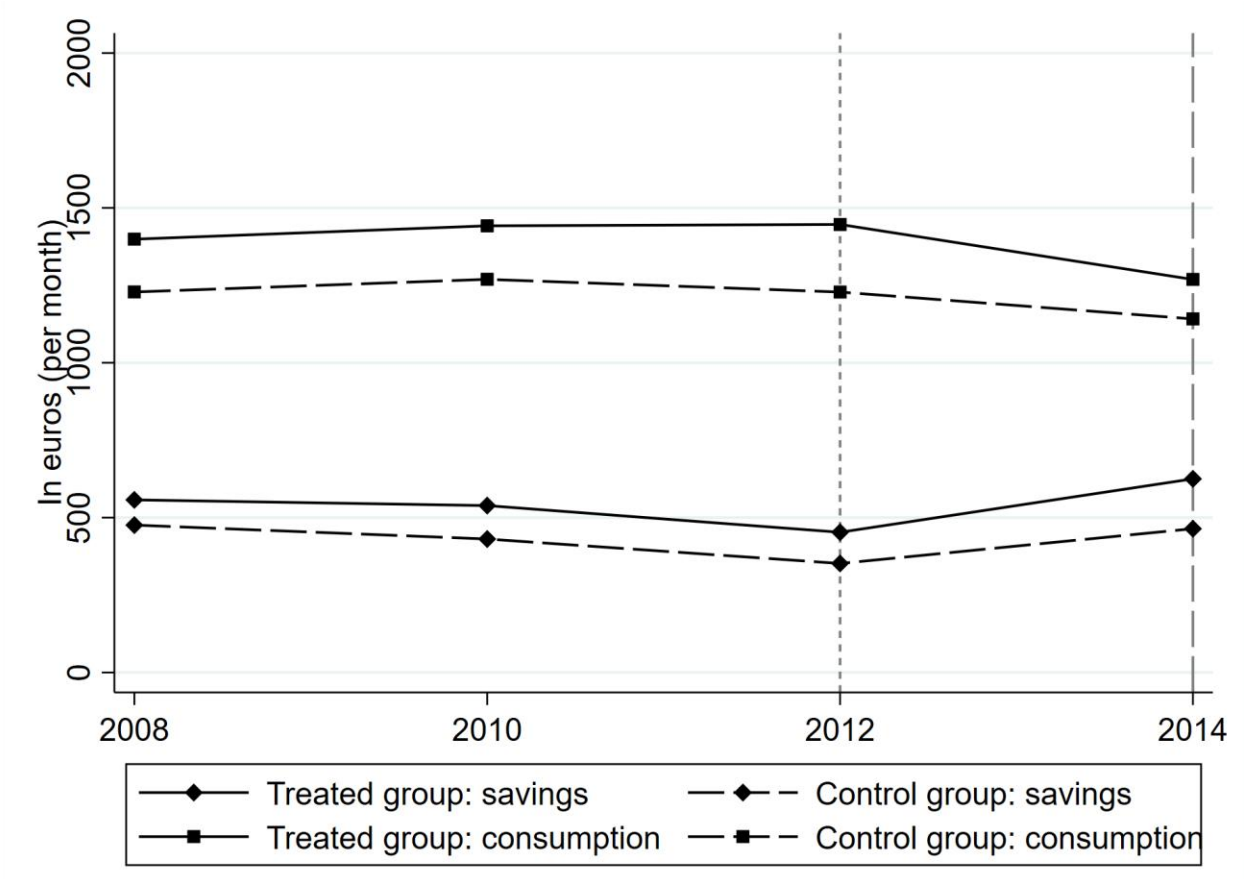

Table 1: Descriptive statistics – Estimation sample

	Mean	SD	Min	Max
Dependent Variables:				
Household disposable income	1806.74	756.27	465.16	4619.76
Consumption	1312.69	556.90	100.04	6200.00
Savings	494.05	550.61	-3652.31	3439.86
Difference-in-Differences Variables:				
Treatment group	0.55		0	1
Post period	0.24		0	1
Socio-Demographic Characteristics:				
Age	42.11	10.06	18	60
Female	0.40		0	1
At least secondary education	0.50		0	1
Married	0.62		0	1
Homeowner	0.69		0	1
Monthly earnings (in log)	7.59	0.52	3.91	9.22
Blue-collar worker (or similar)	0.58		0	1
Office worker (or similar)	0.36		0.	1
Managers	0.06		0	1

Notes: All dependent variables are expression in Euros (2010 constant prices) per month and equivalised using the square root of the family size.

Table 2: The effect of the Fornero reform on savings and consumption - Main results

	Savings			Consumption		
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment (2014)	0.092**	0.093**		-0.094**	-0.094**	
	(0.040)	(0.037)		(0.038)	(0.037)	
Treatment (2012)	-0.040			0.027		
	(0.035)			(0.035)		
Placebo			-0.040			0.025
			(0.035)			(0.035)
Observations	12502	9487	9562	12502	9487	9562

Standard errors in parentheses
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 3: The effect of the Fornero reform on savings and consumption - Robustness checks

	Savings					
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	0.092**	0.067*	0.110***	0.080*	0.082**	0.082
	(0.035)	(0.038)	(0.037)	(0.039)	(0.037)	(0.050)
Observations	12502	12502	12502	12502	12253	8134
	Consumption					
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	-0.094**	-0.073*	-0.082**	-0.055	-0.092**	-0.108**
	(0.038)	(0.038)	(0.037)	(0.038)	(0.038)	(0.050)
Observations	12502	12502	12502	12502	12253	8134

Col 1: baseline (eq savings with fam size). Col 2: oecd eq scale. Col 3: no eq scale. Col 4: IHS transformation. Col 5: excluding potential outliers (trim bottom and top 1% of income distribution). Col 6: Donut DiD.

Table 4: The effect of the Fornero reform on savings and consumption - Heterogeneity results

	Savings					
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	0.109**	0.119**	0.111***	0.148***	0.115***	0.037
	(0.043)	(0.051)	(0.043)	(0.046)	(0.035)	(0.033)
Interacted with:						
Female	-0.011					
	(0.072)					
Above median age		-0.038				
		(0.070)				
At least secondary education			-0.023			
			(0.070)			
Children at home				-0.126*		
				(0.067)		
Managerial position					-0.143	
					(0.206)	
Household income above the median						0.140**
						(0.071)
Observations	12502	12502	12502	12502	12502	12502
	Consumption					
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	-0.076*	-0.139***	-0.060	-0.146***	-0.113***	-0.027
	(0.045)	(0.052)	(0.043)	(0.046)	(0.035)	(0.036)
Interacted with:						
Female	-0.085					
	(0.072)					
Above median age		0.062				
		(0.071)				
At least secondary education			-0.076			
			(0.070)			
Children at home				0.133*		
				(0.070)		
Managerial position					0.159	
					(0.222)	
Household income above the median						-0.150**
						(0.073)
Observations	12502	12502	12502	12502	12502	12502

Standard errors in parentheses
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 5: The effect of the Fornero reform on consumption types - OLS results

	Non-Durable Expenditures		Durable Expenditures	
	Food	Other	Means of Transport	Other
	(1)	(2)	(3)	(4)
Treatment	0.016	-0.103***	-0.067	-0.090**
	(0.040)	(0.038)	(0.042)	(0.043)
Observations	12502	12502	12502	12502
Adjusted R2	0.147	0.194	0.019	0.016

Standard errors in parentheses
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 5: The effect of the Fornero reform on savings types - OLS results

	Type of Savings	
	Safe	Risky
	(1)	(2)
Treatment	0.075*	-0.099**
	(0.045)	(0.042)
Observations	12502	12502
Adjusted R2	0.049	0.042

Standard errors in parentheses
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Appendix:

Table A1: The effect of the 2012 Fornero reform on monthly income, savings and consumption: full OLS results

	Monthly Income		Savings		Consumption	
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment (2014)	-0.005	-0.002	0.092**	0.093**	-0.094**	-0.092**
	(0.028)	(0.029)	(0.037)	(0.032)	(0.038)	(0.032)
Treatment (2012)	-0.013	-0.000	-0.040	-0.034	0.027	0.034
	(0.028)	(0.029)	(0.035)	(0.030)	(0.035)	(0.030)
Monthly income				0.686***		0.679***
				(0.015)		(0.015)
Age		-0.035***	-0.028***	-0.004	-0.019***	0.004
		(0.006)	(0.007)	(0.006)	(0.007)	(0.006)
Age squared/100		0.050***	0.033***	-0.002	0.036***	0.002
		(0.007)	(0.008)	(0.007)	(0.008)	(0.007)
Female		0.119***	0.087***	0.005	0.076***	-0.005
		(0.016)	(0.019)	(0.015)	(0.019)	(0.015)
At least secondary education		0.121***	0.008	-0.075***	0.156***	0.074***
		(0.018)	(0.021)	(0.016)	(0.020)	(0.016)
Married		-0.431***	-0.372***	-0.076***	-0.217***	0.075***
		(0.019)	(0.021)	(0.018)	(0.021)	(0.018)
Homeowner		0.527***	0.452***	0.090***	0.268***	-0.089***
		(0.016)	(0.018)	(0.016)	(0.018)	(0.016)
Earnings (in logs)		0.861***	0.709***	0.118***	0.468***	-0.117***
		(0.022)	(0.022)	(0.023)	(0.024)	(0.022)
Blue-collar worker		-0.695***	-0.330***	0.147***	-0.618***	-0.146***
		(0.040)	(0.050)	(0.041)	(0.047)	(0.040)
Office-workers		-0.391***	-0.163***	0.105***	-0.370***	-0.104***
		(0.038)	(0.049)	(0.039)	(0.045)	(0.039)
Observations	12502	12502	12502	12502	12502	12502
Adjusted R2	0.035	0.559	0.281	0.489	0.297	0.500

Standard errors in parentheses

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

Table A2: Changes in the sample composition

	Before the Fornero Reform			After the Fornero Reform			
	Treated	Control	Difference	Treated	Control	Difference	DiD
Age	42.786	39.938	2.848***	45.062	42.936	2.126***	-0.722*
	[7.474]	[14.621]	(0.203)	[12.945]	[27.779]	(0.371	(0.423)
Female	0.345	0.445	-0.099***	0.369	0.480	-0.111***	-0.011
	[0.367]	[0.718]	(0.010)	[0.635]	[1.364]	(0.018	(0.021)
At least secondary education	0.532	0.436	0.096***	0.576	0.467	0.109***	0.013
	[0.375]	[0.734]	(0.010)	[0.650]	[1.394]	(0.019	(0.021)
Homeowner	0.726	0.620	0.106***	0.763	0.657	0.106***	-0.000
	[0.347]	[0.679]	(0.009)	[0.601]	[1.291]	(0.017	(0.020)
Family size	3.234	3.210	0.024	3.214	3.159	0.056	0.032
	[0.908]	[1.777]	(0.025)	[1.573]	[3.376]	(0.045	(0.051)
Married	0.675	0.560	0.115***	0.666	0.569	0.096***	-0.018
	[0.363]	[0.710]	(0.010)	[0.629]	[1.350]	(0.018	(0.021)
Earnings (in logs)	10.175	9.953	0.222***	10.199	9.957	0.242***	0.020
	[0.384]	[0.751]	(0.010)	[0.665]	[1.426]	(0.019	(0.022)
Blue-collar workers	0.515	0.666	-0.151***	0.496	0.635	-0.140***	0.012
	[0.368]	[0.721]	(0.010)	[0.638]	[1.369]	(0.018	(0.021)
Office workers	0.393	0.307	0.086***	0.407	0.336	0.071***	-0.015
	[0.360]	[0.705]	(0.010)	[0.624]	[1.340]	(0.018	(0.020)
Managers	0.093	0.028	0.065***	0.097	0.029	0.068***	0.003
	[0.183]	[0.358]	(0.005)	[0.317]	[0.681]	(0.009	(0.010)