BANCA D'ITALIA
EUROSISTEMA

Questioni di Economia e Finanza

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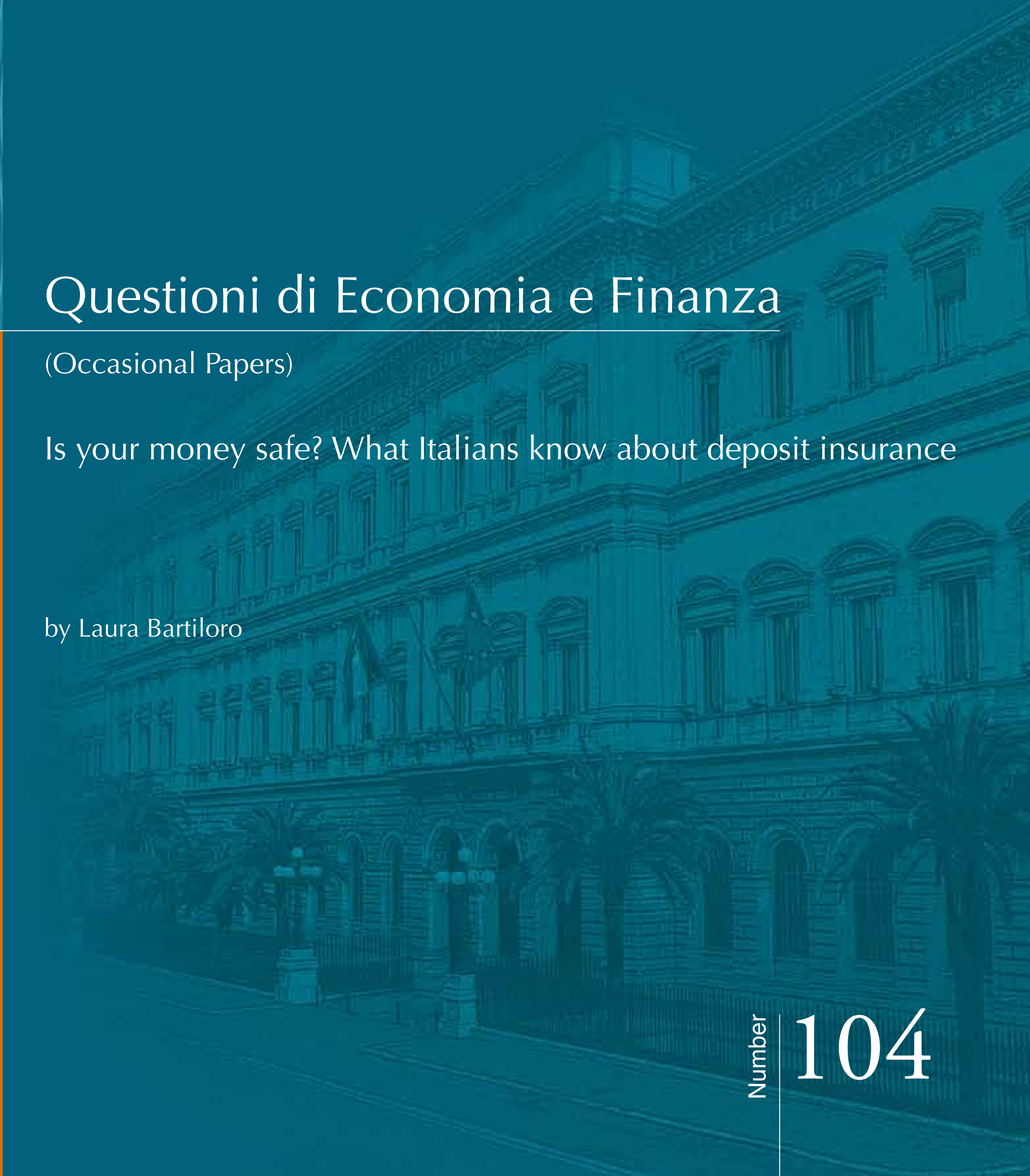
by Laura Bartiloro



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WHAT ITALIANS KNOW ABOUT DEPOSIT INSURANCE

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Abstract

The recent financial crisis has revived the debate on deposit insurance. Public awareness of its existence is essential in order to prevent a bank run. Analysing the results of three questions on this topic introduced in the last Survey on Household Income and Wealth, this paper investigates knowledge of the existence of the Italian deposit insurance scheme and its main characteristics among a sample of households. Evidence shows that knowledge of deposit insurance is poor: 70 per cent of the households in the sample are completely unaware of its existence, 23 per cent possess only basic knowledge, and just 7 per cent have detailed information. The available data allow us to outline possible determinants of deposit insurance awareness: the results highlight the importance of the Internet and of income and education, as expected; in addition, men seem to be better informed than women.

JEL classification: G28, G21
Keywords: Deposit insurance, Public awareness

Contents

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1 Introduction[1]

There are some events that a modern central banker never expects to see in practice, worst case scenarios that are mentioned in books but all are confident will never actually materialize. One such is a bank run. Yet, that is exactly what happened during the last financial crisis. How did it happen that people lost confidence in the solvency of their bank (and thus trust in monetary authorities, too) to the point of forming a queue at its doors in one of the world's leading economies?[2] So it is no surprise that economists and politicians around the globe, in addition to their more general concerns about the robustness of the financial safety net, started rethinking the question of deposit insurance and its true effectiveness.

Economic theory states that bank runs can be prevented by deposit insurance (Diamond and Dybvig 1983). In short, with deposit insurance even if a bank goes bankrupt depositors will not lose any money, or only some. If depositors know that they will get their money back even if a bank collapses, they have no reason to take part in a run on it.

One can also argue that knowledge of the existence of deposit insurance is not really necessary as households are unconsciously reassured by the belief that the authorities will never let a bank fail; in a sense, they do not need deposit insurance or, at least, do not need to know it exists. Italy experienced a series of banking crises during the 1990s and in every case the problem was solved through the intervention of the deposit insurer, together with the central bank, without using the deposit guarantee scheme, as the funds had been transferred to a *good bank* before the bank in distress was officially declared bankrupt.

This paper investigates the degree of public awareness of deposit insurance in Italy empirically, taking advantage of the results of the Bank of Italy's Survey on

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[1] The author thanks prof. G.Udell, I.Faiella and A.Neri for helpful suggestions and participants in the 2011 International Finance and Banking Society conference for their valuable comments. The views expressed in this paper are solely of the author and do not necessarily reflect those of the Bank of Italy.

[2] An element that may have contributed to the run on Northern Rock bank in 2007 was the low level of the deposit insurance coverage (£35,000): at the time deposits in the UK where fully covered up to £2,000, while the remaining £33,000 was only 90 per cent covered. Also there was a long delay before depositors were refunded: allegedly up to 6 months. Following these events, the British deposit insurer (Financial System Compensation Scheme) has raised the limit to £85,000 (full compensation for any amount, with no deduction) and is now committed to pay compensation within seven days (twenty days at the most).

Household Income and Wealth and also trying to identify the determinants of awareness. It is the first time such data are presented and analysed in detail. No similar investigation has been carried out before for Italy and, more in general, few contributions on this topic can be found in the literature. The scarcity of comparable papers is probably mainly attributable to the few measurements of deposit insurance awareness available, with one exception: in Canada awareness is periodically tested among depositors, but no analysis of the results is provided in a written study.

This paper is in line with the work of Steiger et al. (2001) and Kissinger (2003) who examine the results of two waves of a survey on deposit insurance awareness conducted in the US, respectively in 2000 and in 2003. Although the authors do not consider directly the determinants of awareness, other comparable results can be found in Straeter et al. (2008) for Germany, Inakura et al. (2005) for Japan and Safakli and Gueryay (2007) for the Turkish Republic of Northern Cyprus. Steiger et al. (2001) and Kissinger (2003) find that a large percentage of households know about the existence of deposit insurance and whether their banks are insured. Young adults aged 18 to 25 and people with less than a high school diploma were less likely to have heard of deposit insurance. The main result of the German study (Straeter et al. 2008), on the other hand, is that there is a lack of knowledge about deposit protection: the better informed tend to be older and more risk averse. Inakura (2005) finds that awareness is good in Japan and that it increased after the financial crisis of the late 1990s: households with higher levels of income, more financial assets and higher educational attainment tend to be more knowledgeable. Safakli and Gueryay (2007) report that in the Turkish Republic of Northern Cyprus, where an insurance system was established only in 2004, depositors and even bank employees do not have adequate knowledge about it.

The remainder of the paper is organized as follows: Section 2 provides a description of deposit insurance schemes around the globe and in Italy; Section 3 describes the evidence provided by the Italian survey and relates it to that of comparable surveys; Section 4 discusses policy implications, while Section 5 draws some conclusions.

2 Deposit insurance: the facts

It was after the Great Depression of the early 1930s, when a number of banks collapsed, that the US set up the first deposit insurance scheme, the Federal Deposit Insurance Corporation (FDIC). Other countries followed very slowly, with eleven schemes being created between 1961 and 1974. The majority of existing schemes were set up in the last quarter of the previous century, bringing the total to 71 in 1999 (Safakli and Guryay 2007), partly in order to comply with the 1994 European Union directive obliging each member state to ensure that one or more officially recognized deposit guarantee schemes were introduced within its territory.[3] No credit institution authorized in a EU country may take deposits unless it is a member of one of these schemes. Among other provisions, the EC directive requires a minimum coverage of €20,000. By the end of 2003 there were 87 countries offering explicit deposit guarantees (Demirguc-Kunt, Kane and Laeven 2006). As of 31 January 2010, 106 countries have instituted some form of explicit deposit insurance and another 19 countries are considering such a move.

2.1 Italy's experience

In Italy, deposit insurance schemes are governed by the Banking Law[4] and participation is compulsory for all banks operating in the country.

The Italian system consists of two main insurance schemes: the Interbank Deposit Protection Fund (*Fondo Interbancario di Tutela dei Depositi* - FITD), whose members are all banks set up as joint-stock corporations and cooperative banks, and the Mutual Bank Depositors Guarantee Fund (*Fondo di Garanzia dei Depositanti del Credito Cooperativo*), whose members are mutual banks. Another scheme for mutual banks, the Institutional Mutual Bank Guarantee Fund (*Fondo di Garanzia Istituzionale*), was established in 2008 with the specific purpose of preventing a crisis; this scheme includes the previous *Fondo di Garanzia degli Obbligazionisti del*

[3] The European Parliament is currently examining an EU Commission proposal for a new directive concerning deposit guarantee schemes (DGS), the main purpose of which will be greater harmonization of features and practices. The main features are a fixed level of coverage of €100,000 for all member states and a mixed funding mechanism, mainly based on an *ex-ante* funding arrangement; *ex-ante* contributions should provide 75 per cent of a DGS's total resources.

[4] Legislative Decree 385/1993, as amended in 1996 to incorporate the provisions of Directive 19/94/EC.

Credito Cooperativo, which had been introduced in 2004 for securities issued by mutual banks. As it is the principal deposit insurance scheme we will focus on the FITD.

It was founded in 1987 and participation was voluntary until the Banking Law made membership compulsory in 1993. The scheme was then revised according to the EC directive which came into force in Italy in 1997. It is a private-law consortium funded by member contributions, the amount of which is related to the size of the insured deposits (contribution base) and the level of business risk as measured through a system of markers (business profile indicators). The funding system is *ex-post,*[5] with no provision of public funds by the government. Maximum coverage per depositor amounts to €103,291. Deposits from financial institutions, including banks, and general government deposits are excluded from the scheme, as well as non-nominative deposits and debt securities.[6] All foreign deposits are included. Co-insurance is not envisaged by the scheme.

In addition to the mandatory reimbursement of depositors in the event of compulsory administrative liquidation, the law provides for voluntary, alternative action governed by the statutes and by-laws of the scheme. These consist of interventions for the transfer of assets and liabilities, business branches and legal relationships identifiable *en bloc*, and the funding of banks under special administration that have some chance of recovery; in both cases, the least cost criterion applies.

Though the management of the scheme is private, very close cooperation with the central bank is in place. The FITD has no supervisory power over banks in the consortium. Supervision is carried out by the Bank of Italy, which is also responsible for the overall stability, efficiency and competitiveness of the financial system. Its powers with regard to deposit insurance concern both compliance with the formal requirements of the law[7] and the functioning of the scheme. Regarding the latter, the

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[5] The main impact of the new European directive on the Italian deposit insurance scheme could be to change the type of funding, which the directive may require be mainly *ex-ante*.

[6] These exclusions are in line with the EC directive.

[7] The Bank of Italy recognizes the schemes, making sure they meet the standards of European regulations as incorporated into Italian law. It approves their bylaws and any amendments thereto, and makes sure the schemes are not structured in a way that will cause an unbalanced distribution of insolvency risks within the

Bank of Italy coordinates activities with banking crisis procedures and with supervisory activity. It has the power to authorize interventions and to exclude banks from the schemes, depending on the interaction between these circumstances and its supervisory role. It also regulates the deposit reimbursement procedure and the information banks are required to give the public regarding the scheme to which they belong and the coverage or exclusion of the various kinds of deposit.

Italian law clearly defines the roles of the supervisor and of the deposit insurers in the management of banking crises. Crisis-handling procedures are initiated by the Minister for the Economy at the proposal of the Bank of Italy. The supervisory authority appoints the crisis management officials, issues instructions and oversees all procedures. Meanwhile, the deposit insurers have the specific task of protecting depositors and have no say in decisions about supervision and crisis management.

2.2 Public awareness in the monetary authorities' agenda

From the 1990s the IMF's crisis-management advice was to set up deposit insurance as a way of either containing a crisis or winding down crisis-generated blanket guarantees (Folkerts-Landau and Lindgren 1998; Garcia 1999). The Financial Stability Forum considers deposit insurance one of the pillars of the global financial safety net and recommends specific rules to be implemented by the single economies. Point 5 of its "Guidance for Developing Effective Deposit Insurance Systems" concerns public awareness: *In order for a deposit insurance system to be effective, it is essential that the public be informed about its benefits and limitations. Experience has shown that the characteristics of a deposit insurance system need to be publicised regularly so that its credibility can be maintained and strengthened* (FSF 2001).

Public awareness of deposit insurance systems is widely regarded as an important issue, so much so that the BIS Basel Committee on Banking Supervision, jointly with the International Association of Deposit Insurers (IADI), the European

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banking system, which could heighten rather than mitigate instability. It also verifies the equivalence of the non-EU schemes that insure the Italian branches of non-European banks compared with the protection offered by Italian deposit insurers; in fact, these banks are excluded from the EU law by which foreign branches are covered by the home state's deposit insurance schemes.

Forum of Deposit Insurers (EFDI), the International Monetary Fund (IMF), the World Bank, and the European Commission (EC), published a list of core principles for effective deposit insurance systems, recalling under Principle 12 the suggestions already made by the FSF regarding public awareness (BIS 2011). The IADI also issued in 2009 a specific guidance paper on public awareness (see par. 4).

3 Data analysis

Every two years the Bank of Italy runs a sample survey on the income and wealth of Italian households (the SHIW), covering perceived wellbeing, the situation of the household of origin, payment instruments and financial information (Banca d'Italia 2010). The last survey refers to 2008: 7,977 households, drawn from the registry office records of 359 municipalities, were interviewed; they are composed of 19,907 persons, including 13,268 income-earners.[8] To lighten the burden of the interview, some sections of the questionnaire are only administered to a random subset of the sample.

3.1 Descriptive statistics

Questions regarding financial literacy have been posed to a sub-sample of 4,090 households.[9]

The questions are:

q1. Regarding your or the household's current or savings accounts, if the bank collapsed do you think that there exists a deposit insurance scheme to refund your money?

q2. (If yes to q.1) Is there an upper limit on the amount of the current or savings account that is insured?

q3. (If yes to q.2) What is that limit?

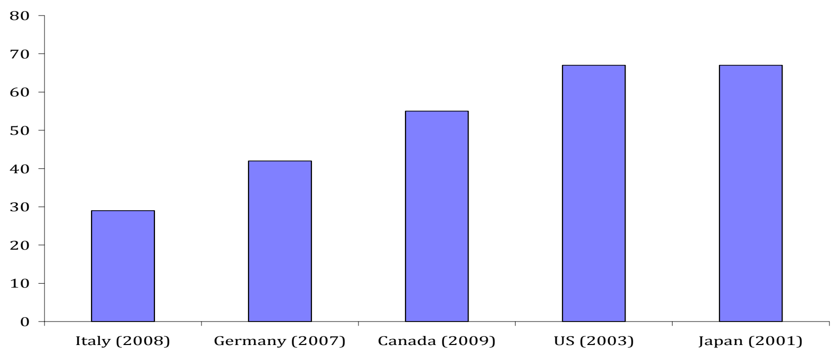
[8] The sample for the survey is drawn in two stages, with municipalities and households as, respectively, the primary and secondary sampling units. Before the primary units are selected they are stratified by region and population size. Within each stratum, the municipalities in which interviews are to be conducted are selected to include all those with a population of more than 40,000, while the smaller towns are selected on the basis of probability proportional to size. The individual households to be interviewed are then selected randomly.

[9] For some of these households no answer was recorded, hence there are 665 missing data.

The survey was conducted between January and July 2009, i.e. in the aftermath of the crisis and the Italian Prime Minister's reassuring announcement regarding the full coverage of all deposits (October 8, 2008). It was expected that after this there would be widespread knowledge of deposit insurance, or at least of its existence.

The results contradict this forecast (Graph 1).[10] Only 29 per cent of the sub-sample are aware of the existence of deposit insurance.[11] A similar proportion of households were unable to answer, while a higher percentage (40 per cent) think that there is no coverage for their deposits.

Graph 1 - An international comparison *(percentage of correct answers)*



By international comparison it appears that knowledge of deposit insurance is not widespread in Italy. Even taking into account significant differences in sample selection, data for other countries show more widespread awareness. Nonetheless, the IADI advises that the current level of public awareness around the globe is low (IADI 2009). In the US an *ad hoc* survey on deposit insurance awareness conducted in 2003 by the Gallup Organization on behalf of the main US deposit insurer (Federal Deposit Insurance Corporations - FDIC) showed a much larger proportion of households aware of deposit insurance: 67 per cent of people interviewed had heard

[10] To the author's knowledge, this is the first survey introducing questions about deposit insurance awareness in Italy, so that there is no other (older) empirical evidence available in order to check whether the crisis has somehow resulted in people being better informed than before.

[11] The question was put only to people who declared they had a bank account.

about the FDIC and 46 per cent were aware of its main function (Kissinger 2003).[12] In Japan as well, there is better knowledge of deposit insurance: in 1996 and in 2001 the NEEDS-RADAR Financial Behaviour Survey included some questions regarding deposit insurance (Inakura et al. 2005). The availability of data for two time points highlights some improvement in deposit insurance awareness, despite differences in the questions posed.[13] In fact, it seems that the financial crisis that hit Japan towards the end of the 1990s may have improved Japanese knowledge of deposit insurance: in 1996, 52 per cent of the respondents knew about the guarantee scheme, while in 2001 67 per cent of a similar sample (consisting of around 2,400 people) showed a basic knowledge of deposit insurance. As for Canada, which devotes considerable attention to spreading awareness of deposit insurance,[14] the proportion of informed depositors is 55 per cent. The results available for Germany, while not perfectly comparable as the sample is strongly biased towards young age and high educational qualification,[15] seem to be more in line with the situation in Italy: only 42 per cent of people interviewed knew about the existence of deposit insurance (Straeter et al. 2008).

For Italy, this result is in accordance with the poor records obtained for financial literacy in general: the SHIW contains other questions regarding various aspects of financial education and the answers given are often wrong: about one third of the population is unable to read a bank statement, calculate changes in purchasing power, distinguish between different types of mortgage and evaluate the associated interest risk. This low level of financial literacy seems to be common to several countries, so that a number of initiatives are being taken to improve the financial education of households.[16]

The possible reasons for the higher level of deposit insurance awareness in the US, Canada and Japan include the longer experience of deposit insurance and the

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[12] The sample consists of 2,500 randomly selected adults, aged 18 or older, who identified themselves as the people most knowledgeable about household finances. A striking result is the one provided by an analogous survey conducted in 2000, in which 85 per cent of respondents had heard of the FDIC (Steiger et al. 2001).

[13] In 2001 questions concerned the reintroduction of the deposit insurance cap, somehow taking for granted knowledge of the existence of the deposit insurance scheme.

[14] See Section 4.

[15] This survey was performed among 849 people living in a university town.

[16] For Italy, see Section 4.

occurrence of bank crises in the recent past. As far as the first explanation is concerned, it should be recalled that in the US the main deposit guarantee scheme (FDIC) was established in 1934, in Canada in 1967 (Canada Deposit Insurance Corporation, CDIC), in Japan in 1971 (Deposit Insurance Corporation of Japan), in Germany in 1975[17] and in Italy in 1987, almost mirroring the ranking shown in Graph 1. Possibly the savings and loans crisis in the US between the late 1980s and the early 1990s, the failure of 43 banks in Canada between 1967 and 1996, and the Japanese banking crisis of the 1990s had a stronger impact: these events may have focused public attention on the issue and led depositors to wonder whether their money was safe or not.

3.2 Looking for determinants of awareness

International differences aside, awareness of deposit insurance across the population within a given country is non-homogenous. Although it is not straightforward to understand what determines the ability of a person to deal with financial issues, some *a priori* can be listed nonetheless. Educational attainment is certainly the first determinant that comes to mind. This variable is related to work status, which may also point to better-informed groups (managers, executives, business-owners, members of a profession) compared with the others (not employed, blue-collar workers); work status, in turn, is related to income and, to a lesser extent, to wealth. Another possible characteristic may be age, although it is not clear in what direction: is it that young investors are better educated in general and hence also financially, or that adults are more expert and therefore more informed? Straeter, Cornelissen and Pfingsten (2008) suggest that older depositors, being more knowledgeable about financial assets, could be better informed about deposit insurance.

The SHIW allows for all the necessary breakdowns, providing a very detailed picture of the phenomenon (Table 1); the individual characteristics listed are those of the head of household, i.e. the person earning the highest income in the family.

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[17] There are a number of deposit insurance schemes in Germany: the information refers to the private Deposit Protection Fund, created by the Association of German Banks.

Table 1 - Is your money safe if your bank goes bankrupt? (1)

	correct answers	sample	percentage of correct answers
Total	1008	3425	29
Gender			
Male	755	2227	34
Female	253	1197	21
Age			
34 and under	87	347	25
35-44	273	817	33
45-54	236	682	35
55-64	223	662	34
Over 65	189	916	21
Area of residence			
North	533	1890	28
Centre	260	738	35
South and islands	215	796	27
Educational qualification			
None	1	62	2
Primary school certificate	114	628	18
Lower secondary school certificate	251	1023	25
Upper secondary school diploma	458	1318	35
University degree	183	393	47
Work status			
Other not employed	38	268	14
Retired	304	1257	24
Blue-collar worker	160	705	23
Office worker	225	606	37
Business-owner, member of profession, other self-employed	189	435	43
Manager, executive	93	154	60
Percentile of household income (2)			
Less than 25	79	560	14
25-49.9	171	867	20
40-74.9	304	976	31
75-100	454	1022	44
Percentile of household wealth (2)			
Less than 25	136	725	19
25-49.9	164	769	21
40-74.9	250	924	27
75-100	458	1007	45

Table 1 (*cont.*) - Is your money safe if your bank goes bankrupt? (1)

	correct answers	sample	percentage of correct answers
Risk aversion level			
Prefer large profits, even with high risk	13	20	66
Prefer good return, but also fair degree of protection	143	506	28
Prefer fair return, with a good degree of protection	475	1181	40
Prefer low profits and no risk	377	1718	22
Percentile of household amount of sight deposit(2)			
Less than 25	589	2343	25
25-49.9	123	400	31
40-74.9	148	367	40
75-100	148	315	47
Financial literacy level			
No right answer	48	417	11
1 right answer out of a total of 3	244	1021	26
2 right answers out of a total of 3	700	1928	36
3 right answers out of a total of 3	16	59	27
The deposit is held			
In a small bank	675	2280	30
In a large bank	333	1144	29
The deposit is held			
In a bank	906	2938	31
At the Post Office	102	486	21
Use of Internet			
No	329	1682	20
Yes	679	1743	39
Number of household's components			
1	157	790	20
2	301	1014	30
3	240	751	32
4	243	683	36
5 or more	65	187	35

Note: [1]Descriptive statistics use sampling weights resulting from several steps: an initial weight is computed as the inverse of selection probability (design weight w(0)); b) this weight is then adjusted for unit nonresponse (w(1)) by multiplying w(0) by the inverse of response rate in the municipality; c) the weight w(1) is further modified in order to take into account of the panel component (obtaining w(2)); d) Last, w(2) is calibrated to account for additional information coming from external surveys. [2]Quartiles are computed with regard to the whole survey population.

Men perform better than women. Young and older adults are less aware, while the central age classes (overall between 35 and 64) do not exhibit huge differences. As expected, knowledge of deposit insurance increases with educational qualification and work status. The data show that awareness is also increasing with income and wealth and the amount of the sight deposit held. The more risk averse class performs worst (only 22 per cent of correct answers) but there seems to be an irregular relationship looking at the different degrees of risk aversion, even if risk lovers exhibit better knowledge (66 per cent of them provided the right answer). The relationship between knowledge of deposit insurance and the results to other questions regarding financial education is not clear either: among those who could answer correctly three (out of three) questions regarding the ability to read a bank statement, calculate changes in purchasing power and distinguish between different types of mortgage, only 27 per cent are aware of the existence of deposit insurance, while the percentage is higher (36 per cent) for people who answered only two questions correctly.

We also examined whether possessing a deposit in a specific bank (or in one of the main five banks in the country) could increase knowledge of deposit insurance, meaning that the bank in question has undertaken an *ad hoc* financial education programme or presents a very clear information sheet for customers opening a bank account. We did not find any result in this respect, probably in part because the information sheets are foreseen by European law,[18] which includes provisions on the transparency of the bank-customer relationship; in fact no significant difference seems to emerge regarding the information sheets provided by various banks. Moreover, many banks in Italy adhere to a network called "PattiChiari", which aims to improve the transparency of the information given to bank customers,[19] and therefore their behaviour concerning information disclosure is very similar. It is

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[18] EC Directive 2007/64/CE on payment services in the internal market, transposed by Italian Legislative Decree 11/2010. The Bank of Italy implemented the provisions of the 2007 directive in an order of the Governor dated July 29, 2009, amended on February 15, 2010 after the formal adoption of the directive.

[19] It is a consortium of Italian banks, established in 2003 with the aim of promoting quality, market efficiency and financial education in Italy.

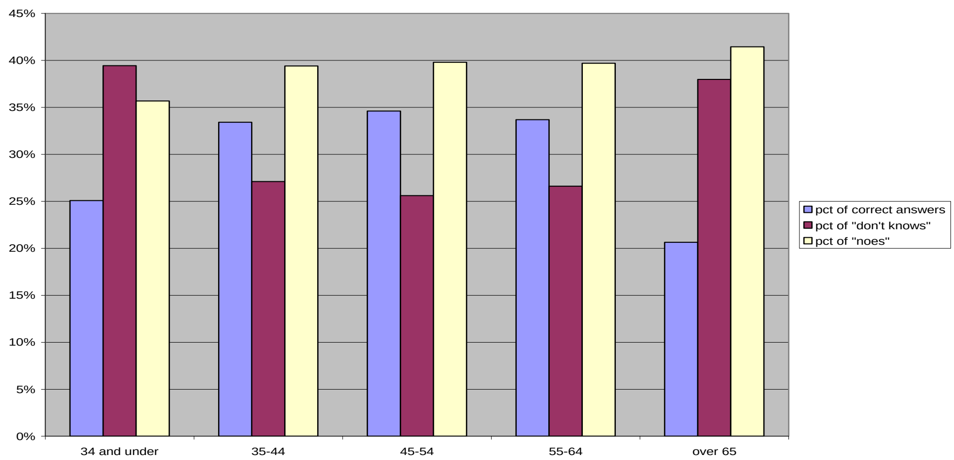
interesting to note that people who chose to keep their money in a Post Office deposit provided fewer right answers than the average (21 versus 29 per cent).

Use of the Internet, though not really an independent variable with respect to others such as education, age, etc., seems to have a positive influence on the percentage of correct answers. Finally, the breakdown by number of household components shows poor results for respondents living alone, probably reflecting the fact that many in this group are elderly and retired people.

3.3 The negative answers

It is also important to isolate the two types of negative answers, "no" and "don't know", which are summed in Table 1, as their behaviour may differ (Graph 2 – Graph 6). In terms of risk of occurrence of a bank run "no" answers are more troublesome than "don't knows". For age and education "no" answers vary less than "don't knows".

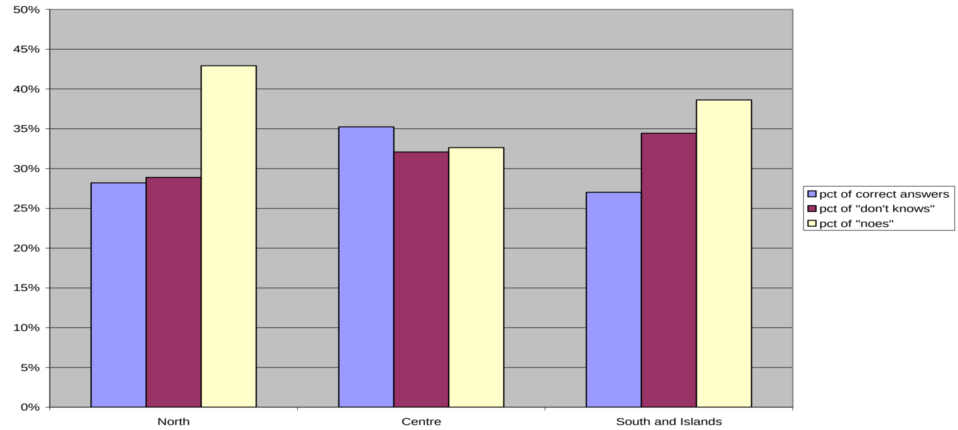
Graph 2 - Isolating the "noes" from the "don't knows": age



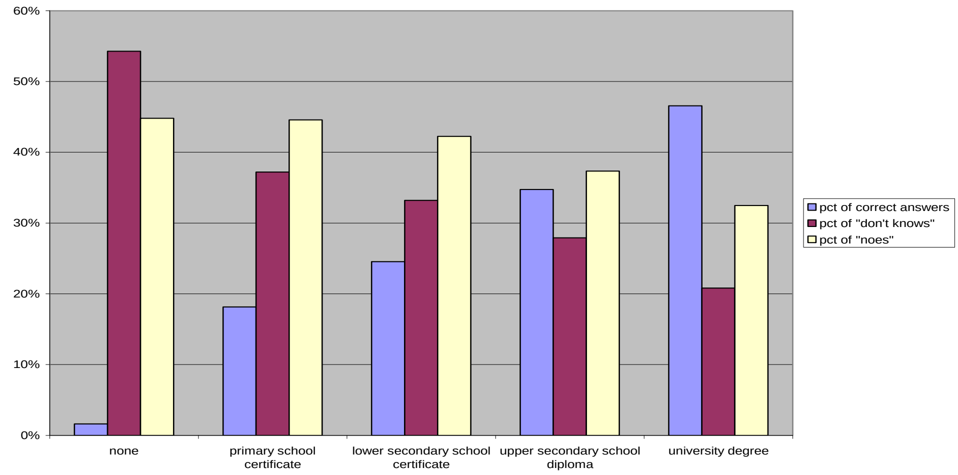
An interesting difference emerges as far as the area of residence is concerned: while the three types of answer are almost equally distributed for respondents living in Central Italy, with the correct answer predominating, in the other regions of the country "noes" are more frequent (Graph 3).

The lowest percentage of people answering correctly is, as expected, recorded for people with no education (Graph 4). This group is without doubt the most troublesome and any financial education initiative should include it among its target audience.

Graph 3 - Isolating the "noes" from the "don't knows": area of residence

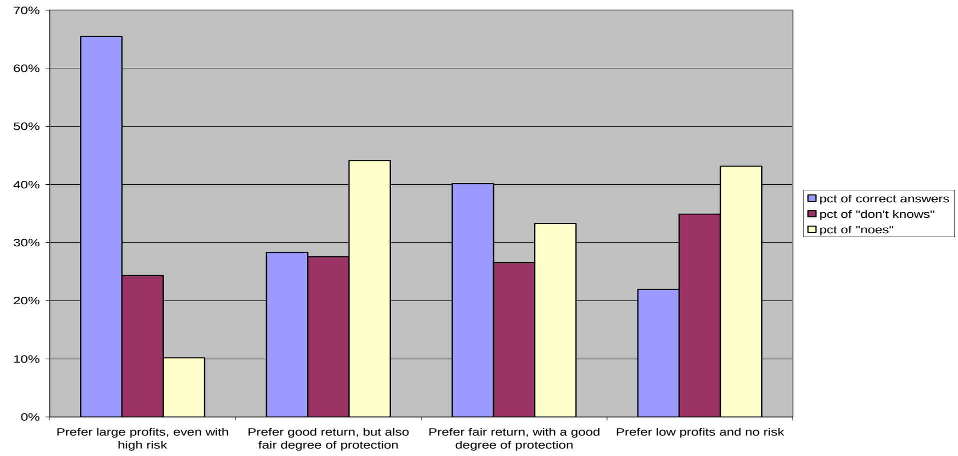


Graph 4 - Isolating the "noes" from the "don't knows": education

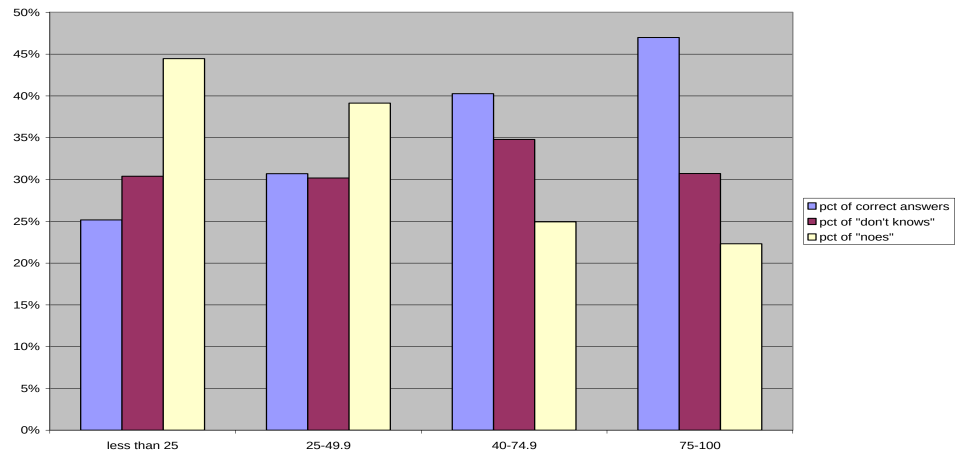


Remembering that the median amount of money in the deposit account, equal to €5,000, is well below the limit covered by deposit insurance, respondents in the first half of this distribution more often think that there is no coverage for their money in the event of the collapse of a bank (Graph 6).

Graph 5 - Isolating the "noes" from the "don't knows": risk aversion



Graph 6 - Isolating the "noes" from the "don't knows": amount of deposit account *(quartiles)*



3.4 Different degrees of knowledge

An analysis of people who are aware of the existence of deposit insurance shows that only one third know of the existence of a limit on coverage, while 7 per cent believe that no such limit exists; the majority were unable to answer. Most (72 per cent) of those who are aware of the existence of a limit answered the question regarding the amount of coverage correctly.

In sum, 70 per cent of the whole sample have no knowledge of deposit insurance, 23 per cent basic knowledge,[20] and only 7 per cent possess detailed information. Similarly, the US citizens interviewed were much less knowledgeable about the features of deposit insurance than they were about its existence: 49 per cent correctly identified the $100,000 limit, while 35 per cent could not answer the question.[21] Senior citizens and the wealthy (income over $75,000) were most likely to know the coverage limit (59 and 60 per cent respectively), while young adults aged under 25 were among the least aware (61 per cent of "don't knows"). In Japan in 1996 only 7 per cent of interviewees had detailed knowledge of the insurance scheme; this percentage seems to have risen to 24 per cent in 2001, regarding the reintroduction of the deposit insurance cap.

3.5 A multivariate analysis

A simple econometric analysis has been performed to obtain further statistical support for the evidence highlighted by a first look at the data (Table 2). The estimation technique is a probit regression, reporting average marginal effects.

The multivariate analysis confirms some of the previous results, but it also adds new insights. Most of the determinants discussed are significant: this applies to gender, education, income, literacy and Internet use. Furthermore, it seems that age, having a deposit with a small bank, and the number of household components are among the determinants. The variables that appear to play the largest role are use of Internet and the high income dummy, as the probability of recognizing the existence of deposit insurance increases by 11.8 and 9.8 per cent respectively if the respondent uses the Internet or is in the higher income quartile. Being male increases the probability of answering the deposit insurance questions correctly by 6 per cent, while the effect of being older is lower (1.4 per cent).

Work status, risk aversion and the choice of a postal deposit do not influence the probability of knowing about deposit insurance.

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[20] Although these people know that deposit insurance is in place, they answered that there was no limit to coverage, or gave the wrong limit, or were unable to answer.

[21] These results refer to the 2000 survey.

Table 2 - Probit regression reporting average marginal effects

Dependent variable: Awareness of existence of deposit insurance (1)						
	Number of obs = 3373					
	LR chi2(12) = 413.32					
	Prob > chi2 = 0.0000					
Log likelihood = -1841.0028	**Pseudo R2 = 0.1009**					
	dy/dx	**Std. Err.**	**z**	**P>z**	**[95% conf. interval]**	
Male	.0605164	.0166275	3.64	0.000	.027927	.0931057
Age	.0136108	.0036109	3.77	0.000	.0065335	.0206881
Age^2	-.0001194	.000032	-3.73	0.000	-.000182	-.000057
Education(2)	.0437337	.0089217	4.90	0.000	.0262475	.06122
Working	.0369651	.0211008	1.75	0.080	-.004392	.0783219
High income	.098123	.0174261	5.63	0.000	.0639685	.1322774
Risk aversion(3)	-.0203519	.0101463	-2.01	0.045	-.040238	.0004655
High literacy	.081587	.0154364	5.29	0.000	.0513321	.1118419
Large bank	-.0442339	.0159836	-2.77	0.006	-.075561	-.012907
Post Office(4)	-.0569951	.0251081	-2.27	0.023	-.106206	-.007784
Internet	.1185965	.0177226	6.69	0.000	.0838608	.1533321
No. of household members	-.0221397	.0071923	-3.08	0.002	-.036236	-.008043

Note: [1]Do you know about deposit insurance?: yes=1; no/could not answer=0. [2]Education: 5 degrees, from no education=1 to university degree=5. [3]Risk aversion: 4 degrees, from “I want a large profit even with high risk”=1 to “I want low profit and no risk”=4. [4]Post Office: 0= bank deposit, 1= Post Office deposit.

Unfortunately, the multivariate analysis does not help to identify any determinant of the choice of answering “no” versus “don’t know”, as the goodness of fit of the related regressions is low.

In an analogous exercise run with data from the 2003 US survey, the variables education, income and race were significantly associated with the response variable: population members were less likely to have heard of the FDIC if they had a lower level of education, a lower level of income or were in a minority race group. When looking at the identification of the correct amount of coverage, age and gender become significant, showing higher probabilities of answering correctly for older people than for the younger population and for men rather than women. These results are in line with those just discussed for Italy.

4 Policy implications

The first important result of the paper is that deposit insurance awareness is not very widespread, either in Italy or elsewhere. The implication for the monetary authorities and for all the other institutions involved is that they need to implement education programmes. How should these initiatives be targeted?

The IADI discusses the issue in detail in its guidance paper (IADI 2009). Deposit insurers are invited to publicize the main characteristics of their schemes on an ongoing basis and to check the effectiveness of their initiatives afterwards, preferably through surveys conducted before and after the public awareness campaign. Any such campaign should be preceded by a precise identification of the target audience groups and subgroups, meaning not only the public at large, but also institutional depositors, member institutions and even the deposit insurer's employees. The deposit insurer, which remains the primary party responsible for promoting public awareness, is invited to implement a wide variety of tools and channels of communication. Factors to be taken into consideration in determining an effective mix of tools are literacy levels, population size, demographic characteristics of specific target audiences, and budgetary constraints. Properly designed websites can play an important role in this respect. An additional advantage of promoting public awareness is for consumers whose deposits exceed the limits of deposit insurance, as they could be encouraged to monitor the health of their financial institution closely, thereby promoting market discipline.

The 2000 US survey, being based on an *ad hoc* survey and therefore more detailed, provides some interesting insights. The interviewees were also asked about their preferences regarding information on deposit insurance: 57 per cent preferred to be informed by their bank, while 33 per cent would rather receive information from the FDIC. Among the former, 58 per cent would prefer to talk to a bank employee, while 55 per cent would rather find the information on their statement.[22] A smaller percentage (43 per cent) would like to read a brochure or access the

[22] These are the results of the 2000 survey. In the following survey, conducted in 2003, the preferred information channel was still the bank (chosen by 53 per cent of the respondents).

bank's website and a small minority (8 per cent) would watch a video inside the bank.

Taking into account the peculiarities of the schemes and the characteristics of the two populations, the US survey provides some useful indications on how to implement a successful deposit insurance information campaign organized by the bank. According to the American survey, closer contact with bank employees could prove more effective than brochures or information on the website.

In the case of Italy, the Bank of Italy has taken steps to address the issue of financial literacy in general, therefore not limited to deposit insurance awareness, with a dedicated section on its website. In addition, together with the Ministry of Education, in the last three years it has prepared lessons on money and payment instruments for use in primary, lower secondary and secondary schools.

A different approach has been chosen by the Canada Deposit Insurance Corporation (CDIC). Almost every year since the beginning of the millennium the CDIC has launched a public awareness campaign whose main objectives are to correct the misunderstanding that deposit insurance coverage is unlimited; to inform consumers about the benefits and limitations of deposit insurance; and to increase public awareness of the federal deposit insurance system. There are several targets: the public at large (aged 25-64), news media, member institutions, government and elected officials, and CDIC employees. In order to reach depositors, the CDIC chose television advertising as the main channel, this being the source preferred by Canadians.[23] The CDIC follows the progress of the public awareness campaigns closely, conducting an annual survey. Having slightly increased the percentage of people aware of the existence of deposit insurance (to 55 per cent in 2009 against 47 per cent at the beginning of the millennium) and the proportion of depositors correctly indicating the coverage limit (from 23 to 30 per cent), the goal is

[23] Also according to a survey conducted in 2007 by the Taiwan Central Deposit Insurance Corporation, TV is by far the most effective information tool, widely preferred over newspapers, the Internet, financial institutions and radio. On the contrary, a survey conducted in Japan by the Deposit Insurance Corporation of Japan showed that the most popular communication channels for deposit insurers are leaflets (21 per cent), the Internet (16 per cent) and seminars (13 per cent), while TV and radio were indicated only by 10 per cent of the respondents.

now to maintain Canadians' awareness of the CDIC at over 50 per cent and awareness of their $100,000 coverage limit at over 25 per cent (CDIC 2010).

While the need for further financial education is undisputed, it is worth investigating whether specific information regarding deposit insurance is really necessary, given the extent to which it has been used in the past and considering the actual framework of the banking industry.

Reimbursement of depositors has rarely been adopted as a solution: on the least cost principle, deposit insurance schemes decide to reimburse depositors directly only when this is the least expensive option. When payouts are too large, even after deducting revenues from liquidation of the defaulting institution's assets, different routes have always been explored, in some cases without intervention from the scheme. Large bank crises are usually handled by implementing a combination of safety-net provisions rather than just by intervening with deposit insurance. Indeed, in the case of very large banks, it would be difficult to have such a fund as needed to cover all insured deposits. The problem of size is probably more important for DGS schemes now than in the recent past. As an outcome of the wave of consolidations that has swept through the financial industry worldwide in the past decade, concentration has increased in many countries with the creation of very large and complex banking institutions.[24]

5 Conclusions

Less than one in three Italians is aware of the existence of deposit insurance. Detailed knowledge of the amount of coverage is even less widespread: only 7 per cent of the people interviewed for the Bank of Italy's Survey on Household Income and Wealth correctly identified the limit as €103,000. Particularly worrying in this respect is the fact that four out of ten Italians believe that if their bank collapsed their money would be lost. Thus, since a bank run has never occurred in Italy, this

[24] In Italy the four largest banking groups hold 50 per cent of total retail deposits, while a decade ago their share amounted to only 25 per cent.

must be either because the banks are fairly sound, or because people are not informed when their bank is in financial distress, or, more likely, because of public trust in a government bailout.

It seems that the wealthy, as well as more educated people and those using the Internet (the three conditions are correlated) are better informed about deposit insurance. Moreover, men seem more aware than women (not only in Italy) and the elderly tend to be more knowledgeable than young people. There is also a weak bias in favour of small banks, as their depositors seem to be better informed. As for the group of people who believe that no deposit insurance scheme exists, it is difficult to pinpoint its characteristics.

An international comparison suggests that other macro variables, such as the number of years that deposit insurance has been in place and the occurrence of bank crises in the recent past, may determine public awareness. The Canadian experience provides a very useful example of the effect of an intensive programme of information campaigns: in the space of a decade the increase in the share of people aware of deposit insurance has been less than 10 percentage points.

In Italy, where only a very small percentage of people know of the existence of deposit insurance, even given the limitations on the use of such schemes in today's banking industry, there is a pressing need for financial education programmes that include basic information on deposit insurance. Indeed, if panic were to occur, ignorance of the existence of the guarantee scheme could have undesirable consequences.

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