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A TRUST-DRIVEN FINANCIAL CRISIS.
IMPLICATIONS FOR THE FUTURE
OF FINANCIAL MARKETS

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A trust-driven financial crisis. Implications for the future of financial markets.

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Abstract

The financial crisis has brought to light diffuse opportunistic behaviour and some serious frauds. Because of this trust towards banks, bankers, brokers and the stock market has collapsed to unprecedented levels and there are so far no signs of recovery. This paper uses survey-based information to document the collapse of trust, show its link to the emergence of frauds in the financial industry and discuss its consequences for the demand of financial instruments, investors portfolios and more generally investors reliance on financial markets. It argues that unless serious changes happen in the behaviour of the financial industry, the move towards safer portfolios and away from ambiguous securities that lack of trust entails, will have adverse effects on the availability and cost of equity financing. Accordingly a number of proposals to restore trust are discussed. Their common feature is to restore trust – a belief – by limiting the scope for opportunistic behaviour through a transfer of power from financial intermediaries to investors.

Introduction

There are many important dimensions of the, hopefully overcome, financial crisis that have appeared in the vast debate that it has originated: its unprecedented size at least in the post World War II period; the fact that, contrary to many other financial crises (but similar to the 1929 collapse) it originated and had its epicenter in the US; its nature, the ingredients and proximate causes that triggered it: too much financial deregulation?; too relaxed monetary policy?; too much concentration of power in the hands of the banks following the impetuous wave of mergers during the late 1990s that amplified moral hazard and risk taking? All these factors are likely to have played a very important role in triggering the crisis but with them alone it would be hard to explain the sudden collapse in economic activity that took place after October 2008, at least within the framework of a standard macroeconomic model: though the economy was slowing down, in summer 2008, there was no relevant shock to productivity to justify the observed subsequent drop in economic activity; interest rates were low and demand relatively sustained. We argue that one important factor that can explain the extremely rapid deterioration in economic activity was the collapse in trust. Starting in summer 2008 something very important was destroyed: first the trust that intermediaries have in each other and then the trust that investors have in the financial industry. Trust – the belief a person has that his counterpart in a transaction will not take advantage of him – is normally ignored in standard economic models, perhaps on the presumption that external bodies, such as the police and courts, can enforce any promise and thus effectively protect contracting parties from each other abuses. But this is rarely the case: because legal protection is often imperfect and costly it leaves many open gaps which are typically filled in by trust. Thus, without trust, financing disappears and economic activity suddenly stops. This is what happened in October 2008 and the subsequent months.

This chapter documents the unprecedented drop in trust in financial markets and financial intermediaries, both in the US and in Europe, that has taken place since the emergence of the crisis. It will be argued that the collapse in trust played a crucial role in the crisis as it led those who distrusted to run on their banks. This role is distinct from that played by the drop in confidence about the solvency of financial institutions and their ability to repay their obligations – the other factor that froze up financial markets and led investors to run on banks. The collapse in trust was in fact provoked by the revelation of the opportunistic behaviours that the unfolding of the crisis brought to light, of which the Bernard Madoff fraud is emblematic, and has contributed to shed a dark light on the whole financial industry.

The destruction of trust inherited from the crisis has important implications for the future of financial markets, including the demand for financial products and investors' portfolio choices, their reliance on financial intermediaries when making financial decisions and the demand for regulation. It will be argued that unless remedies are adopted to rebuild trust, these consequences will most likely be long

lasting as self-construction of trust evolves slowly. Accordingly, the chapter discusses possible policies to rebuild trust some involving non-imposed changes in behaviour in the financial industry, others involving specific regulatory interventions.

The disappearance of trust

Measuring trust

To monitor the evolution of trust during this financial crisis, Northwestern University and the University of Chicago conducted a telephone survey on a representative sample of about 1,000 American households, known as the Financial Trust Index Survey (FTIS). The first survey was launched in December 2008, three months after the collapse of Lehman Brothers; three other surveys were fielded subsequently at a quarterly frequency. In this study we will be drawing from the FTIS and complement the evidence with data from other countries when available.¹ In the FTIS one adult respondent in each household was randomly contacted and asked whether they were in charge of household finances, either alone or together with a spouse. Only individuals who claimed such responsibility are included in the survey. A first set of questions asked how much the respondent trusts certain types of people or institutions with a focus on financial institutions such as the stock market, banks and bankers, brokers, pensions funds. Answers were provided on a scale ranging from 1 to 5, where 1 means “I do not trust at all” and 5 means “I trust completely”. Since the survey was started after the crisis we lack a level of trust in financial intermediaries and markets before the crisis to compare with and to document how trust in these different institutions has evolved as a consequence of the crisis. To deal with this issue we combine the trust responses from the FTIS with comparable data from the General Social Survey (GSS), which for many years has been asking people whether they have a great deal of confidence in banks and financial institutions.² Since the GSS question embraces both banks and financial institutions, to make the FTIS answers as comparable as possible to the GSS we pool together the answers people provide to trust in banks, in brokers, in mutual funds and the stock market and compute the fraction of people that trust these institutions completely. We then append these figures to the GSS series that refer to the pre-crisis years. Figure 1 documents the dramatic drop in trust vis-à-vis banks and financial markets in the latest part of 2008 and the beginning of 2009. Though the index shows swings that reflect the business cycles, since 1975 the fraction of people that trust banks and financial markets has never been as low as

¹ The first questionnaire for the FTIS was designed by Luigi Guiso, Paola Sapienza and Luigi Zingales. Detailed information on the survey is available at <http://www.financialtrustindex.org/>.

² The wording of the question asked is “I am going to name some institutions in this country. As far the people running these institutions (banks and financial institution in this case) are concerned, would you say you have a great deal of confidence, only some confidence or hardly any confidence in them?”

during the 2008–2009 crisis. Only 5 percent report having full trust in banks, brokers, mutual funds or the stock market while the figure had been as high as 40 percent in the late 1970s and was around 30 percent just before the crisis.³

As an alternative way to highlight the drop in trust towards financial markets and intermediaries, we compute from the GSS the average trust that people have in banks and financial markets relative to the trust they have in other people in general (what is known as generalized trust) over the years prior to the crisis covered by the GSS (1977–2007). This figure is around 1.5 meaning that Americans used to trust banks and financial markets 50 percent more than they trust a generic member of the US population. This conforms with intuition and common sense: after all we rely on banks and other financial institutions as custodians of our savings and not on a random member of the population.

Since the FTIS also asks people how much they trust a generic American (that is it measures generalised trust in unknown people), we compute relative trust in banks, bankers, brokers, mutual funds and the stock market respectively for the three waves of the FTIS and report it in Table 1. Interestingly, after the crisis people trust banks as much as they trust a random citizen, and trust mutual funds and the stock market much less than they trust a random individual. This is in sharp contrast with the higher trust they had in banks and financial markets relatively to unknown people before the crisis, suggesting that even if trust fell in general, it is trust in finance that has collapsed. Furthermore, the table shows that investors distinguish between trust in financial institutions and trust in the people that manage those institutions. In fact trust in bankers is much lower, relatively to trust in people in general, than is trust in banks.

Why is trust in bankers much lower than trust in banks? One reason is that bankers are considered to be worse and less reliable than the average person compared to the institution they work for, as they may damage people more than the institution. Alternatively, the incentive structure within banks is believed to lessen the trustworthiness of bankers making the banks more reliable than the bankers. At any rate, what this suggests is that the fall in trust during the crisis does not simply reflect the fear that aroused in autumn 2008 that banks could become insolvent: if that was all the measure of trust were picking, we would see the opposite pattern with trust in banks falling more than trust in bankers, which does not seem to be the case from Table 1.

There are two other points to notice. First, not only do people trust other individuals more than they trust bankers and financial institutions (Table 1), but investors trust other people more than they trust the government or the Fed! Second, there is very little change in trust in financial markets over the whole period between the end of 2008 and autumn 2009, suggesting there is persistence in the fall of trust.

³ Notice that the GSS question refers to how much trust people have in those running financial institutions rather than to the institution itself. Thus it perhaps matches better with trust in bankers and brokers in the FTIS. If we replace trust in bankers and brokers in Figure 1, the drop in trust would be even more pronounced.

As another way to look at the changes in trust, the FTIS has elicited self-assessed changes by asking people how much their level of trust changed in the three months after the interview. What emerges is that a number of people, while still confiding in other people, dramatically lost confidence in financial institutions following the collapse of Lehman Brothers. This is shown in Table 2 for banks, the stock market and also the government (the three institutions for which trust changes were asked). Trust in banks and the stock market has fallen either a lot or a bit in all three waves, though at a slowing pace in the last survey. On the other hand, very few report that their trust towards these financial institutions has improved either a lot or a bit. The change in trust towards the government instead follows a different pattern: it falls sharply in the first quarter after the collapse of Lehman Brothers, but starting in March 2009 opinions become more polarized: some people continue to lose confidence in the government while others raise their trust significantly – a heterogeneous reaction reflecting differences in opinions about the benefits of the policies adopted to contrast the crisis. Though the crisis originated in the US, the drop in trust is not limited to the US, but because the crisis was universal also the loss in confidence is likely to have spread out to all countries involved. Unfortunately, there is no worldwide survey to document it. The available evidence for specific countries, however, points in that direction.

Guiso, Sapienza and Zingales (2009) conducted a phone survey similar to the FTIS on a sample of customers of a large Italian bank (UniCredit) which was launched in June 2009. As in the US, also in this survey trust in financial markets has decreased substantially. When asked how their trust changed since the emergence of the crisis, 46 percent report they have lowered their trust towards banks in general either by a lot or substantially, 47 percent have lowered their trust in bankers and 52 percent that their trust in the stock. These patterns are qualitatively very similar to the ones in the US, confirming that the drop in trust is very likely universal. Similar in sign but more contained in magnitude are the changes in trust towards banks reported in a survey of Austrian investors available before and after the crisis (Kneill and Stix, 2009).

One interesting feature of the UniCredit survey on Italian investors is that it has a panel component, since people in the sample were interviewed also in 2007 when the financial crisis was not yet in sight. Since some questions were asked in both surveys it is possible to compare how they evolved over the crisis. In particular, participants in the survey were asked how much trust they have towards their own bank or financial advisor and answers, as before, are provided on a 1 (no trust) to 5 (full trust) scale. Not surprisingly, the level of trust towards one's own bank is higher than trust towards banks in general – a feature consistent with the idea that trust is a key feature in selecting the bank or financial advisor and that, as these people report, not all banks are equally reliable. Yet, compared to the year 2007, 34 percent of these investors have revised their trust levels towards their banks/advisor downwards. This clearly provides a lower bound of the actual fraction of those who lost trust in their banks/advisor since it was only possible to re-interview customers that stayed with the bank/advisor, not those who left because they lost confidence.

In sum, data from both sides of the Atlantic show that during the financial crisis there has been a dramatic drop in trust towards all segments of the financial system though the fall was stronger for some of them, particularly those segments involved in trading less familiar and ambiguous instruments such as mutual funds and stocks. The drop is considerable but more contained for banks. Besides the level of trust in financial markets and institutions, trust towards people in general has also fallen, implying that mistrust in finance has spilled over and generated mistrust in general. This feature can help explain the sudden drop in economic activity following the Lehman collapse: the fall in trust froze up not only financial exchanges but, due to the cited spill over, stopped also any other types of exchange that require trust. Remarkably, the fall in trust was so strong that after the crisis people show more trust towards a generic unknown individual than towards a bank or a banker, that is towards those institutions and people that should deserve to be trusted the most in light of the role they play as the custodians of our savings.

What do the trust measures measure?

What do our measures of trust reflect? All financial crises are characterized by a significant change in investors' beliefs and a loss of confidence. This financial crisis is no exception as confidence has dropped perhaps even more than in other crises. But there are two notions of confidence that matter: the first concerns the rise of pessimistic expectations about banks' ability to repay and to keep their commitments, i.e. the probability that a generic bank goes bankrupt. These beliefs obviously became more pessimistic during the crisis particularly after Lehman Brothers collapsed. But there is a second notion of confidence, which is the one we focus on here, that has to do with the emergence of diffused beliefs that financial intermediaries and the various players present in the financial market – brokers, bankers, financial advisor etc. – are less reliable than people thought them to be and so deserve less trust because it has become more likely that they act opportunistically and deceive investors.⁴ The first notion pertains to the probability that an investor may lose part or all of his investment because, due to the crisis, the *intrinsic riskiness* of investment has increased. The second notion concerns the risk involved in any financial contract because the investor delegates the bank/broker to manage his funds and the latter can manipulate the management to his own advantage, e.g. by charging commissions that are difficult to verify, hiding relevant information, shifting unwanted risks to the customers etc. This second type of risk is a *social risk* as it arises from the actions adopted by the counterpart in the exchange. Thus while the first type of risk concerns the *solvency* of the intermediary the second reflects the *perceived*

⁴ Of course the two notions are intertwined and may not be independent of each other. If a bank solvency is at risk, managers may be more tempted to make profits by deceiving investors in order to avoid bankruptcy. On the other hand, dishonest behaviour when discovered may result in a loss of reputational capital that may force a bank into a solvency crisis as customers run away.

trustworthiness of the financial intermediaries and their managers. The financial crisis has affected both but the trust measures shown in Figure 1 and Tables 1 and 2, though perhaps correlated with intrinsic risk, reflect the greater perceptions of an increased social risk that has deteriorated the relation between investors and financial intermediaries. Here we focus on this notion of confidence and show evidence that is consistent with the decrease in our measures of trust, reflecting a greater social risk.⁵

Why did trust fall?

Trust is the belief that an opponent in a relationship behaves accordingly to what he promised and does not take advantage of the person he is trading with. In other words it is the probability that person A trading with B attaches to the possibility that B will behave opportunistically and take advantage of him. Trust is thus A's probability that B will not "cheat". Obviously, when the business partner deviates from the promised behaviour, trust attitudes are revised downwards. The financial crisis, among other things, brought to light diffused opportunistic behaviour and some serious frauds. Following the collapse of Lehman Brothers many felt "cheated". People had been advised to invest in Lehman securities because they were remarkably safe; in fact up until a few months before the collapse, Lehman securities were highly rated by S&P.

One of the effects of the financial crisis has been that of revealing the existence of pervasive opportunistic behaviour in the financial industry and to have brought to light several cases of outright financial frauds that without the crisis investors would probably have discovered much later if at all. The Madoff fraud is the one that has received the greatest attention from the media and that will likely remain lodged in the minds of investors for many years to come. Many have focused on the unprecedented size of this fraud – half of a percentage point of GDP – often ignoring a much more important feature of this fraud for the effect that it may have had on investors' trust towards financial markets and intermediaries: the fact that Bernard Madoff was an insider to the industry! An important professional market player and former Chairman of the NASDAQ Stock Exchange that had been running his Ponzi scheme for almost 20 years! It should not then be surprising that if such an insider and professional player can trick even quite expert investors (not only individuals but also institutions invested in Madoff's fund), non-professional investors will legitimately tend to think that other players in the financial industry play similar games, perhaps not as extreme as a Ponzi scheme and perhaps on a smaller scale.

⁵ Notice that while adequate government interventions including monetary and fiscal policies such as the ones adopted during the crisis can successfully reduce intrinsic risk and stabilize assets prices, it is harder to rebuild the personalized trust that has been lost. This is because we learn about a person's trustworthiness by exchanging with him. But incentives to exchange are low when there is no trust, which slows learning and thus the revision of trust attitudes even when the effective trustworthiness of the partner in a transaction has increased. Thus, it is reasonable to expect that the fall in trust towards financial intermediaries will be long lasting.

But the crisis has uncovered many other cases where the intermediary failed to act in the investor's best interest: for instance, the holding by many investors in many countries of poorly diversified portfolios often recommended by their financial advisor, has exposed them to excessive risks that have resulted in effective losses during the crisis. The latter has made those risks manifest, leading investors to hold those who recommended the investments responsible for the losses. In all these cases it is very likely that investors have revised downwards their trust towards intermediaries and financial markets.

Trust and cheating: proving the link

To examine this link we rely on the second wave of the European Social Survey that was conducted in 2004, well before the crisis, and that reports information for a sample of individuals in each of the then 26 countries of the European Union on whether they were deceived over the recent past by a bank or insurance company, in the sense that they failed to offer them the best deal. Participants in the survey were asked: "How often, if ever, has this thing happened to you in the last five years? A bank or insurance company failed to offer you the best deal you were entitled to." The respondent could answer in one of 5 ways – never, once, twice, 3 or 4 times or, finally, 5 times or more – which we code with the numbers 0 to 4. Figure 2 shows the histogram of the answers for the pooled datasets (panel A) and for each country in the sample (panel B). Not surprisingly, in all cases there is a spike at "never", so that the vast majority of respondents report not having been cheated. However, there is a non-negligible fraction of people in all countries, varying between 9 and 32 percent, that report having been deceived one or more times by an intermediary. Though there could be problems with this measure (the exact meaning of a bank/insurance company having failed to offer the best deal may be subject to interpretation; true frauds may go unobserved for a long time, as in the Madoff case, and so the measure could be biased downward; but this could be balanced by the tendency to self attribute successes and to hold others responsible for failures, etc.), it is instructive to see how it correlates with the trust these people have towards banks and insurance companies. The survey in fact also reports information on how much people trust banks and insurance companies, which can be correlated with their past experience of financial fraud. This correlation is shown in Figure 3 which clearly documents that those who were cheated more often in the past 5 years tend today to trust intermediaries less than those who were cheated less often or not cheated at all.

Hence one expects that similar effects have been at work during the financial crisis as its unfolding revealed the frauds to which investors were exposed. To test for this effect we rely on the Financial Trust Index Survey and merge the data with the number of Madoff victims in the area (either the zip code district or the state) where the investor lives and check how it correlates with the level of trust of these investors. The idea is that in areas where the number of Madoff victims is larger (for a given population), Madoff's fraud, and more generally financial frauds, are more salient, either because chances of knowing directly or indirectly (through word of mouth) one of the victims are higher or

because, in places with lots of victims, the local press devotes a lot more attention and coverage, which adds to that devoted by the national press. Hence, in these states the drop in trust following Madoff scandal should be more marked. Figure 4a shows how spread out are the Madoff victims and where they were located in the US. Figure 4b documents that the victims of this fraud were present also across Europe so that if it had any effect on trust it also undermined that of European investors. Because of data availability we focus on the effect on the trust of US investors. Figure 5 shows in four different panels the correlation between the average level of trust investors living in a state have towards banks, bankers, brokers and the stock market, respectively, and the density of Madoff victims in the state where they live. The figure shows clearly that trust towards banks, bankers and brokers is lower where the number of Madoff victims is larger, while the salience of this fraud seems to have little effect on the trust towards the stocks market, which is consistent with the fact that Madoff was a fund manager. There are three points to notice. First, these correlations show that a financial fraud not only affects the trust of the direct victims of the fraud but it also affects the trust of those who, even if they have not directly suffered from the scandal, have come to know about it, either because the information was publicised through the press or because they met a victim. This is more likely when the fraud is sizable and information about it reaches many investors, as it was the case during the financial crisis with the Madoff case first, followed by the Sir Allen Stanford fraud and many other minor but diffused examples of deception and financial abuses that, because the topic was on demand, captured the attention of the press. Second, not only the trust towards those who committed the fraud falls – a specific banks or banker – but the drop in trust spills over to many other agents that are not directly involved, such as banks, bankers or brokers that may have no direct link with those who committed the fraud and actually may have behaved honestly. Indeed, when the fraud comes to be known by many it tends to spread the suspicion to the whole financial industry leading to a shared fall in trust, as happened during the crisis. In other words, the emergence of Madoff’s fraud undermined the confidence in the whole financial industry. Interpreting this popular sentiment Paul Krugman in a New York Times column (December 2008) asked: “How different is what Wall Street did from the Madoff affair? Well Madoff simply skipped a few steps, simply stealing his client’s money rather than collecting big fees while exposing investors to risks they did not understand” (NYT, December 2008). Obviously, those who have been damaged the most are the intermediaries or brokers that have always done their job honestly. Quint Tatro, president, founder and manager of Tatro Capital, an investment management company, in a sorrowful letter wrote in January 2009: “A funny thing happened recently: Many new individuals simply have a hard time believing a traditional investment manager from Kentucky didn’t ‘get killed’ along with everyone else. I have now heard that at least 2 people, when my firm was recommended to them, responded by asking whether we were ‘legit.’ One advisor, who held half of a mutual client’s investment and will no longer be holding that half, went so far as to request the Schwab statements from the client verifying my performance. I suspect the client didn’t amuse the advisor with this degrading

request, but who knows. While most of my frustration can be pushed back onto Wall Street... I entirely believe that Bernard Madoff is directly correlated with this new rise in scepticism. So now, in addition to battling Mr. Market on a daily basis, I have to deal with charges of untrustworthiness.”

Third, the correlations shown in Figure 5 only show the *differential* effect on the level of trust of the Madoff’s fraud due to the fact that investors in different states were differentially informed about it, for example, because in states with more victims local newspapers devoted more space and for more time to it. This proves that the Madoff fraud has lowered trust in financial intermediaries, but it is likely to understate the effect since it is unable to identify the drop in the average level trust of American investors after the discovery of Madoff’s fraud: the latter could be first order.

Finally, to further strengthen the link between the fall in trust and the perceptions of opportunistic behaviour in financial markets brought to light by the crisis, we examine the following question asked in the FTIS: “Do you feel you have been cheated or misled by a bank in the last year?” Respondents could answer “yes” or “no”. In unreported regressions we find that those who have been cheated or misled by a bank over the year prior to the crisis report a lower level of trust towards banks and bankers. Furthermore, not only these people lost confidence in the intermediary that cheated them (banks in this case) but also in other intermediaries and markets such as brokers, mutual funds and the stock market though by a somewhat smaller amount – a more direct way of supporting Quint Tatro’s closing statement in the previous citation and showing its generality. Thus misbehaviour by one intermediary triggers a loss of trust in the whole industry. In addition this spillover effect extends to trust in large corporations⁶ and even to trust towards other people in general, though the effect is much smaller. Insofar as trust towards these entities also matters for transactions and trade, the loss of trust provoked by the crisis has affected the economy not only because investors have become more cautious in making their money available to the financial industry but also because they have become more reluctant to trade in general. This has acted as an amplifier of the effect of the financial crisis on the economy. Finally it is interesting to note that these effects were obtained after controlling for a variety of characteristics, in particular for an index of how angry investors were because of the crisis, reassuring that the effect of the experience of deception on people’s trust does not reflect some other variable that also may impinge on their trust.

How will the fall in trust affect financial transactions?

The fall in trust is likely to affect investors’ decisions on various margins that may have a strong impact on the working of financial markets in the coming years. But before illustrating these margins, it is

⁶ Notice that also trust in the Fed drops; to some extent this may look surprising, since in principle the Fed’s response to the crisis in terms of liquidity provision was “right”. But people seem to think otherwise. One interpretation is that they held the Fed responsible for not having done enough prior to the crisis to prevent banks’ misbehaviour.

worth noticing that the decline in trust played a very important role already during the crisis as those who lost their trust towards their bank were also the first to withdraw cash from their deposits during the days following the collapse of Lehman Brothers.

In ongoing research, Guiso, Sapienza and Zingales (2009) argue that differences in levels of trust across individuals can explain who starts a run on the bank in a period of financial distress. Using data from the Trust Financial Index Survey they show that those investors that lost trust in banks and the financial system were the first to withdraw cash from their accounts at the peak of the crisis – that is they started a bank run. Figure 6 documents this finding showing the correlation between the fraction of people that run on the bank and the level of trust of the investors: people that lost trust in their bank were more than four times more likely to run on the bank than those who retained full trust, contributing to the spread of the panic. Guiso, Sapienza and Zingales (2009) report similar evidence for a sample of investors of a large Italian bank. The interesting feature is that in this case they can look at the correlation between the decision to run and the level of trust well before the crisis. Those who used to trust less were also more likely to take out their deposits, consistent with the idea that lack of trust makes a bank fragile and more exposed to runs.

For the future, the drop in trust is likely to have pervasive effects on investors' reliance on financial markets across various dimensions – one of the most important legacies of the financial crisis. In particular the fall in trust is likely to affect people's willingness to enter into any type of financial contract. This should not be surprising since any financial transaction involves an exchange of money today against a promise of returning (more) money tomorrow. But the willingness to believe the promise and thus enter the transaction crucially hinges on how much trust one has in the person that issues the promise. Below we examine some of the effects in greater detail.

Trust and investment in risky assets

There is evidence that the level of trust affects investors' willingness to invest in stocks and, more generally, in risky assets. Stocks and risky assets lend themselves more easily to opportunistic behaviour than simpler securities. For instance Guiso et al. (2008) find that high-trust people are less likely to hold stocks in their portfolio and conditional on holding, they invest lower shares in stocks. Since this finding is obtained using variation in trust in a sample of Dutch investors, it cannot be due to trust reflecting differences in the quality or effectiveness of legal enforcement (which is held constant) but rather the subjectively perceived probability that people have of being cheated by the counterpart in a trade. This finding, which the same authors show holds in a sample of Italian investors, is consistent with the results of a recent Financial Times/Harris Poll that interviewed a sample of investors in the US and various European countries. It shows that in most countries people today have a lower propensity to invest in stocks (Table 3). For instance, in Germany 41 percent report that today they are less ready to invest in stocks than before the crisis, and the percentages are similar in other countries. Sapienza and

Zingales (2008), using the FTIS, find that those who plan to decrease their stock investments after the crisis are those who have less trust in financial markets and in particular the stock market. Thus, as a consequence of the fall in trust, portfolios will likely be twisted markedly towards safer securities and away from stocks.

Trust and investment in ambiguous securities

Financial instruments that are more ambiguous either because of the complex nature of the contract or because the probabilities of the returns are intrinsically uncertain (e.g. because they have a short history on which to estimate these probabilities) are more exposed to the risk of frauds and consequently are more easily placed among high-trust investors. When trust falls and becomes scarce one should see a decline in the demand for these instruments and an increase in the demand for simpler and more familiar securities. One of the consequences is that investors will revert to instruments issued by national agents, perceived as more “familiar” which become attractive as generalised trust vanishes. More generally, one of the consequences of the crisis will be to shorten the distance between the investor and the issuer of the financial instrument, thus reducing portfolio diversification and amplifying a home bias. There is anecdotal evidence consistent with this idea. In some countries, in spite of the crisis, some banks – typically smaller, unsophisticated banks that in the past were not involved in the placement with their customers of structured securities and derivatives – have experienced a significant growth in deposits notwithstanding the crisis; on the other hand, large, sophisticated banks that used to place complex securities have lost deposit market shares. One explanation is that investors revert back to the “familiar” for fear of being cheated by an intermediary that deals with unfamiliar securities.⁷

Trust and diversification across stocks and banks

One implication of the diminished trust is that investors will form less diversified portfolios because they will focus more on domestic assets. Guiso et al. (2008) show that this property is more general and that investors that invest in stocks tend to hold a more diversified stock portfolio when they trust more. On the other hand, diminished trust towards intermediaries leads an investor to entertain multiple relations to diversify the risk of opportunistic behaviours by reducing exposure to each one of them. We document this effect in Figure 7, which shows that in a sample of Italian investors, those who trust more (on a scale between 1 and 5 where 1 stands for very low trust and 5 for very high trust) there is a strong negative correlation between the level of trust and the number of bank relations an investor has. Both

⁷ The apparent success in the US of the internet movement called “move your money” (see <http://moveyourmoney.info/>) whose aim is to promote the transfer of savings from large, “too big to fail” banks to small, local community banks is also consistent with a shift in investors preferences towards more familiar intermediaries.

effects are costly: the first because one loses the benefits of diversification, the second because of the cost of setting and maintaining multiple relations.

Trust, demand for advice and delegation

Besides selling financial products, financial intermediaries offer investors advice and information on how to allocate their financial wealth. Investors' willingness to heed this advice depends on the trust they have in the intermediary as much as their decision to lend their savings to the intermediary. One of the consequences of the fall in trust is a lower investors' propensity to delegate financial decisions to the intermediary and to use his advice. Table 4 shows the distribution of the extent of delegation of financial decisions in a UniCredit sample of Italian investors before the crisis. Only 12 percent chose to decide on their own without any involvement of the intermediary. All the others relied on the intermediary to a smaller or greater extent, with 20 percent that delegated either all decisions or a substantial part to the intermediary. The last two columns of Table 4 show the average level of trust and the fraction of investors that trusted the intermediary a lot. It is clear that a fundamental ingredient in the intensity of financial delegation is the level of investors' trust. Among those who rely only on themselves when making financial decisions 39.7 percent trust the intermediary either substantially or a lot; among those who let the bank choose for them, the share of those who trust a lot is 93 percent. Thus, the fall in trust should result in a marked decrease in delegated investment. Since delegation is all the more necessary the more one invests in sophisticated securities, also through this channel there should be a move towards simpler portfolios. These portfolios, however, need not be necessarily better ones in the sense of providing a higher return per unit of risk. Guiso and Jappelli (2006) in fact find that investors who trust more and delegate more are better diversified and are able to attain more efficient portfolios.

Trust and the demand for insurance

Though most of the literature has focused on the effects of trust on investors portfolios, the fall in trust involves all operators in the financial industry as shown in Table 1, including insurance companies. In fact, since an insurance contract is itself a financial contract and as such is prone to the opportunistic behaviour of the insurance company, the fall in trust should also affect the demand for insurance. Guiso et al. (2008) find that, in the sample of Dutch investors they examined, individuals that trust less are less likely to purchase insurance. In an interesting paper that relies on a field experiment in Indian villages, Cole et al. (2009) show that overcoming mistrust can result in a significant increase in peasants' adoption of insurance contracts and Guiso and Schivardi (2009) find that in a sample of small businesses a critical factor limiting entrepreneurs willingness to insure their firm is mistrust towards insurance companies. To sum up, given the importance of trust in all financial contracts, the fall in trust towards all segments of the financial industry will give rise to a generalised flight from financial trades and particularly deals from those trades that are severely exposed to opportunistic behaviour.

Rebuilding trust in finance

As illustrated, the fall in trust is likely to have pervasive effects on people's willingness to enter into financial contracts and can thus hamper the process of financial development. Insofar as it results in a shift towards safer assets, it will push up the equity premium and make equity financing more expensive. This may have consequences for fast growing and innovative firms that depend more heavily on this type of financing. Similarly, if the increased mistrust results in a preference for instruments with shorter maturity, it will raise the cost of long-term financing, hampering projects with high-yields but longer maturities. Because of this it is important to understand how one can rebuild trust in financial markets and intermediaries. Here we will examine some avenues.

The regulatory approach

One approach, so far the only one that has been followed to raise trust, is to enhance the intensity of financial regulation. This approach, shared by many governments particularly in Europe, has been the subject of several of the recent G20 meetings and of the proposals for intervention that are being discussed at the Financial Stability Board. **(See the box for a description of the measures discussed at the Financial Stability Board.)**

Needless to say, many of the regulatory proposals that are under scrutiny go beyond the purpose of rebuilding trust. Rather, they are justified by regulatory failures that have become manifest during the financial crisis. In fact, the set of proposals under discussion is ample and heterogeneous and ranges from more stringent capital requirements to the establishment of new authorities for macro-prudential supervision, the breaking up of banks into smaller units to deal with too-big-to-fail issues, to policies aimed at lessening the impact of bank failures and the associated contagion risks through regulatory constraints on connectedness. Many of these policies, assuming they will be finally adopted, will most likely affect the perceived *solvency* of the intermediaries and may result in a lower likelihood of future crises. Some policies – such as the limitations that the Financial Stability Board proposed for implementation in September 2009 on the structure of compensation of top managers at financial institutions – may help to assuage investors' anger for the losses suffered during the crisis and their indignation at the high level of compensation for top executives in the financial industry, thought to be responsible for their losses. But these measures are likely to have little impact on the trust investors have in financial intermediaries and markets. Rather, it is the drop in trust that increases the demand for regulation and builds consensus around it. In fact, those who mistrust banks and financial intermediaries tend to favour tighter regulations. To show this link we rely on a set of questions that have been asked in the FTIS on whether the respondent is supportive or not of tighter regulation of US financial intermediaries and large corporations and whether he agrees on setting caps on the compensation of top

managers in financial corporations. Figure 8 shows the correlation between the intensity of trust towards financial intermediaries (Panel A) and bankers (Panel B) and the support for regulation measured by the fraction of people that agrees with the policy. The fraction of those supporting a more stringent regulation is higher among those whose trust has fallen during the crisis than among those who continue to trust banks and financial markets.

But causality here most likely runs from the fall in trust to the demand for regulation. The latter, in turn, would be capable of increasing the trustworthiness of the intermediaries and because of this the trust of the investors is still to be proved. The evidence so far from cross country correlations is that countries with stronger regulation have lower average levels of trust, not higher! (See Aghion et al. (2010); Pinotti (2008); Carlin et al. (2009).)

From the viewpoint of individual investors and of the regulation of their relation with financial intermediaries, the closest proposal that can help rebuild trust is the creation of a consumer protection agency, as proposed by the Obama administration. The agency would oversee consumer financial products which have been regulated in the past but whose oversight was exposed as lax. Another initiative that has been taken very recently is the creation in the US of a Financial Fraud Enforcement task force to combat financial crimes.⁸ Interestingly, as made clear by Attorney General Eric Holder, the task force is intentionally created to address the fall in trust induced by the scandals that have been brought about by the financial crisis. He notes: “We face unprecedented challenges in responding to the financial crisis that has gripped our economy for the past year. Mortgage, securities, and corporate fraud schemes have eroded the public’s confidence in the nation’s financial markets and have led to a growing sentiment that Wall Street does not play by the same rules as Main Street. Unscrupulous executives, Ponzi scheme operators, and common criminals alike have targeted the pocketbooks and retirement accounts of middle class Americans, and in many cases, devastated entire families’ futures. We will not allow these actions to go unpunished, which is why President Obama has established this Financial Fraud Enforcement Task Force to investigate and prosecute fraud and financial crime... This Task Force’s mission is not just to hold accountable those who helped bring about the last financial meltdown, but to prevent another meltdown from happening.”

Because these initiatives are both specifically targeted to protecting investors from abuses they may actually contribute to rebuilding trust. But there are also reasons to believe that by themselves, these interventions may have limited impact. Concerning the consumer protection agency and more generally regulatory interventions, because they are imposed from outside the industry perceives the costs of the regulations but not the benefits; hence financial intermediaries will tend to circumvent their application, with greater success the weaker the actual enforcement is. Since investors anticipate this, they may not revise their trust priorities significantly. Furthermore, sometimes financial regulation, even when

⁸ See <http://www.justice.gov/ag/speeches/2009/ag-speech-091117.html>.

designed to protect investors, may be bothersome for them as well. Because of this and in order to limit the burden, they will be willing to tolerate intermediaries' misapplications of these rules. A good example is the recent set of norms imposed by the EU'S Markets in Financial Instruments Directive (MiFID), which requires banks to classify investors according to their ability to make financial decisions and their capacity to bear financial risk. To achieve this classification banks can obtain information from their customers, for example, by asking them to fill in specific questionnaires. But because the latter are costly to submit, banks have all the incentives to minimise the effort and propose minimal questionnaires, possibly based on investors' self-classification (so as to avoid any responsibility for misclassifications); since filling in these forms is bothersome for investors too, they care little about the quality of the information that banks collect and will instead join them in minimising the effort put in collecting the MiFID data. But this contributes to the failure of MiFID objective: limiting banks opportunistic behaviour by forcing them to segment their clientele and restrain products that can be sold to unsophisticated and risk adverse investors. Anticipating this, people's trust in banks is likely to change little.

An industry-based strategy

Losing investors' trust is very costly for the financial industry. Since this is the case one would expect that intermediaries have strong incentives to take actions to re-build their reputation and re-gain the trust of their customers. Today one of the big questions that any financial operator is confronted with is how to rebuild the trust of their investors.

Unfortunately there are no easy recipes on how A may convince B to re-consider his opinion about the trustworthiness of A. The recent literature on trust has shown evidence that B would trust A more if A is "similar" to B in some dimension. In a well-known trust game experiment, De Bruine (2002) reports the effects of a manipulation of facial resemblance on players' willingness to trust the opponent. She finds that when subjects were shown faces of ostensible playing partners manipulated to resemble themselves they trusted them more than when the face of an unknown person was shown. Guiso and Schivardi report evidence that is consistent with De Bruine's (2002) findings. In a survey of a sample of small businessmen interviewees (280 overall) were asked to report, at the end of the face-to-face interview, their judgment about the trustworthiness of businessman that they interviewed on a scale between 0 and 10 (0 = totally untrustworthy, 10 = fully trustworthy). Interviewees also reported their opinion (again on a scale between 0 and 10) on how much affinity they felt to the businessman (0 = no affinity, 10 = complete affinity). The data show two interesting facts: first, the more a person feels affinity the more he trusts; second, while at low levels of affinity the level of trust towards the businessman is highly variable, at high levels of affinity one trusts fairly reliably. It is reasonable to assume that one tends to trust people that are not much different from oneself. This tendency to trust those who are similar is also true when similarity is measured along various dimensions, including cultural and genetic distance

among people (Guiso et al. 2009). Thus, one possible strategy to raise trust is to improve the match between investors and the manager of the relation at the intermediary, for instance assigning a manager of the same gender and geographical origin to the investor.⁹ While this may help in raising the average trust that investors have towards their bank/broker, it is unclear that it helps raising the trust of those who lost it. To raise the latter one needs to set up mechanisms that signal in a credible way that the intermediary has become more trustworthy because, thanks to the mechanism, there are weaker incentives to adopt predatory actions towards the investors. Below we will discuss some possible mechanisms.

A rating system that even the most (financially) illiterate investor can understand

One possibility is to adopt a rating system aimed at reducing the scope for exploiting conflicts of interests that often arise in universal banks that manage the savings of the investors. The strategy followed so far by the regulators to control conflicts of interests is to impose tighter disclosure requirements on the intermediaries. Yet this strategy has proved to be faulty or insufficient. The main problem with disclosure is that it takes for granted that investors are able to understand what is disclosed and its implications in terms of incentives of the intermediary. However, the available evidence on poor levels of financial literacy and knowledge of the majority of the investors in almost all countries (see e.g. Lusardi and Mitchell (2009), Guiso and Jappelli (2008) Jappelli (2009)), even those with high levels of achieved education, casts serious doubts on the validity of the assumption. Relying on the loss of reputation as a deterrent for intermediaries misbehaviour, and thus as a mechanism to raise trust in financial intermediaries, requires not only that information about potential conflicts is made available but also that the investor has the ability to elaborate this information. For this to be the case one has to make the disclosed information understandable to the least experienced and financially knowledgeable investor – i.e. to the typical customer of a bank. One way of doing this is to rely on a third party to rate banks on the basis of their trustworthiness and fairness when dealing with their customers and when managing their portfolios and providing financial advice. This “bank-fairness index” may be reported on a scale between 0 and 10, with higher values meaning a more reliable intermediary – a metric that any investor can understand. The “bank-fairness index” is similar to the rating system adopted for issuers of specific securities and its role would be analogous to that of standard rating: making available to the investors synthetic information that aggregates the judgment of an expert observer (and based on a

⁹ Of course if matching according to similarity is an effective way to raise trust, markets should be doing it already. If they already do, then this is not a relevant policy. If they do not it may be because this type of matching entails costs that exceed the benefits, in which case and the proposal would have little practical value. But it may also be that they do not match according to similarity because they ignore its potential benefits. We cannot rule out this possibility; after all, research showing the trust effects of similarity is quite new.

multitude of data) on the quality of the issuers, subject to periodic revisions. In contrast to standard rating, the “bank-fairness index” is aimed at measuring a bank’s ability and reliability in its role as delegated portfolio manager and in general as provider of financial advice that un-experienced investors use in their financial decisions. Banks with an internal organisation that discourages the exploitation of conflicts of interest or that distributes easily understandable information to its customers, that allocate qualified personnel to financial consulting services, etc. would obtain a high rating, attracting more customers and this would provide enough incentives for them to adopt actions that discourage the exploitation of conflicts of interests. These banks would be compensated for the extra costs they incur with increased trust from their customers. Reliance on a rating system – which is a voluntary choice of a bank – is credible precisely because it entails some costs to the bank. Needless to say there could be many implementation problems, including the fact that finding independent and uncorrupted rating agencies may, as the crisis has shown, not be a trivial issue. But the biggest problem, in our view, is initialising the process. If the exploitation of conflicts of interests and misbehaviour more generally is a diffused practice in the industry, then even a honest intermediary (but still sensitive to short-run profitability) may find it difficult to subject its bank to the “bank fairness index” and give up a source of profit, as this may concede an advantage to its competitors. To put it differently, an outcome where low trustworthiness is pervasive may be stable. It may be unwise to play honestly when everyone else is cheating; if an intermediary does not cheat while all the others do, it misses the upside. If it cheats when all the others do, there is no downside as “cheating” becomes the predominant rule of behaviour and one cannot punish the whole industry when all follow the same practice. Today it is perhaps easier to circumvent this problem given the greater value that rebuilding reputation has for any intermediary. Furthermore, since the incentive to behave in the same way as the others do naturally implies that the financial industry can either settle on a bad equilibrium in which all cheat or instead in a good equilibrium where all play honestly, one can think of a role for regulation/supervision that encourages intermediaries to coordinate on a different, no-cheating equilibrium..

A trust-based compensation scheme

A second, more direct mechanism to raise trust is to provide incentives to build it. If the compensation of the investor’s manager depends on the level of trust investors have in their asset manager, the latter have strong incentives to behave in a trustworthy manner and this, perhaps slowly, will raise the investors’ trust and his willingness to invest. As trust increases, the investor will also tend to concentrate more assets with a single manager, thus avoiding costly duplications of relationships. A mechanism of this sort could be implemented for instance by relying on the information that intermediaries have to collect from the investors to comply with the EU’s Markets in Financial Instruments Directive (MiFID). The information in this directive is presently essentially perceived as a burden and unutilised. One could insert specific questions that the investors can report anonymously on how much they trust the

intermediary, the portfolio manager and in general the person they deal with when making financial decisions. Manager pay could then respond to the level of trust (or its change) of the pool of customers he is responsible for. One benefit of the trust-based compensation scheme is that it naturally leads the bank manager to adopt a long horizon. Since building trust takes time and is accumulated only slowly, if only because those with low levels of trust do not experiment (or experiment less) and thus do not learn (or learn slowly), they cannot learn immediately the increased trustworthiness of the bank manager. Furthermore, since trust is slow to accumulate but fast to vanish, once a reputation of trustworthiness is obtained it becomes costly to dispel it, strengthening the incentives to behave in a trustworthy manner. Obviously, this too, like all incentive schemes, can be distorting. In particular, if one encourages building trust one provides incentives not only to create but also to extort trust especially if this is a less costly activity than creating trust by behaving in a trustworthy manner. One way to limit this possibility is to integrate an investor's opinions with those of some internal auditing committee at certain frequencies. Another is to rely on the legitimate interest of the other managers for having their colleagues behave honestly, particularly those that are located in close proximity. The reason for this is that if manager A cheats his investors, also the trust of the investors of manager B will be affected, as the Quint Tatro tale in the introduction illustrates. Thus, one could rely on an internal reporting system that allows and actually encourages managers to reports cases of abuses and manipulation of investors' trust.

To strengthen the scheme even further, also the compensation of the top management of the bank, in particular its CEO (and maybe also the board of directors) could be linked to the trust index of the bank customers.

To sum up, the adoption of a "trust-based compensation scheme" is a practical way to induce a financial organisation and its workers to limit the incentives to deceive poorly informed investors and to treat them fairly by always acting in their best interest. Since this commitment is translated into a compensation scheme, it should be credible and thus able to modify investors' beliefs. In other words, trust is the investors' belief that those who manage their savings and provide them with financial advice are trustworthy. For intermediaries hoping to increase investors' trust, the only way is to invest in increasing their trustworthiness.

Promoting investors' financial education

A third type of strategy is to take actions that promote the financial education of the investors – for instance transparently lobbying with the government for having financial education taught at schools, making financial education material certified by third parties available to investors etc., since people with lower levels of financial education and financial experience are more likely to be victims of financial deception by intermediaries. The main reason is that unsophisticated investors are more vulnerable to deception because they are more dependent on the intermediary advice for their financial

choices. Second, they are also more subject to interpretation problems when investments result in negative returns and are thus more likely to think that they have been cheated. Consistent with this view, Butler et al. (2009) find that the probability a person being deceived by a bank or insurance company is much higher for people with low levels of education. Furthermore, this probability is higher also for people that – holding constant their level of education – live with parents with low education. This feature has an important implication: since the family is an important channel through which *reliable* financial education is obtained, raising the level of financial education has important spillovers through the family and informal (but reliable) network channels. An intermediary that promotes financial education signals its intention to be willing to deal with experienced and sophisticated investors, with enough ability not to fall victims to financial abuses and distorted advice. Because of this the investors' trust should increase. Needless to say investment in financial education pays off in the very long run; however the return to the intermediary in terms of increased trustworthiness may be more immediate if the intermediary's commitment to transfer power to the investor through this channel is credible. Credibility would be enhanced if the sponsoring of financial education programmes is part of a broader policy aimed at limiting intermediaries' incentives to deceive investors, such as the trust-based compensation scheme and the bank fairness index.

Conclusions

The dramatic drop in trust following the revelation of information of pervasive cheating in financial markets is likely to have a very strong negative impact on investors' willingness to bear risk and thus on the cost of risk capital. Insofar as trust levels were exceedingly optimistic, their downward revision should be partially welcome as it may help punish dishonest financiers and help restore market discipline.

However, since trust has fallen across the board, its decline also affects the honest intermediaries, limiting the accrual of capital to industry in general. We have proposed a number of measures to rebuild trust. The measures proposed all try, from different angles, to limit the scope for intermediaries' opportunist behaviour – that is to raise their trustworthiness – and because of this, increase trust. In each case, the policy is not imposed; adhering to it is instead to the discretion of the intermediary. However, as we have argued, there is no automatic mechanism that guarantees that intermediaries will all agree to voluntarily adopt these policies. Rather, if dishonest behaviour is dominant among intermediaries, even the honest ones may on their own be unwilling to adopt these measures and help the economy move to a better outcome where competition drives out dishonest behaviour. We have also argued that regulation by itself, without the involvement of the intermediaries, may fail to restore trust; however regulatory agencies may play a very important role in coordinating the selection of the honest equilibrium. For instance, using “moral suasion” to persuade even a small but important number of intermediaries to

“play the honest game” may be enough to trigger a response of the same type by the dishonest ones and influence the whole industry outcome.

References

- Aghion, Philippe, Yann Algan, Pierre Cahuc and Andrei Shleifer (2010), “Regulation and Distrust”, *Quarterly Journal of Economics*, forthcoming.
- Arrow, Kenneth (1972), “Gifts and Exchanges”, *Philosophy and Public Affairs*, 1, 343–62.
- Gambetta, Diego (2000) “Can We Trust Trust?” in Gambetta, Diego (ed.) *Trust: Making and Breaking Cooperative Relations*, University of Oxford, 213–37.
- Cole, Shawn, Xavier Giné, Jeremy Tobacman, Petia Topalova, Robert Townsend and James Vickery (2009) “Barriers to Household Risk Management: Evidence from India”, mimeo Harvard University.
- DeBruine, Lisa M. (2002), “Facial Resemblance Enhances Trust”, *Proceedings of the Royal Society of London B*, 269 (1948): 1307–12.
- Guiso, Sapienza, and Zingales (2004), “The Role of Social Capital in Financial Development”, *American Economic Review*, 94(3), 526–56.
- Guiso, Sapienza, and Zingales (2008), “Trusting the Stock Market”, *Journal of Finance*, 63(6), 2557–600).
- Guiso, Sapienza, and Zingales (2009), “Cultural Bias in Economic Exchange?” *Quarterly Journal of Economics*, forthcoming
- Guiso, Luigi, Paola Sapienza and Luigi Zingales (2009), “Trust and the Fragility of Financial Markets”, mimeo.
- Guiso, Luigi and Tullio Jappelli (2008), “Financial Literacy and Portfolio Diversification”, EIEF working paper 8/12.
- Jappelli, Tullio (2009), “Economic Literacy: An International Comparison”, CSEF working paper 209.
- Lusardi, Annamaria and Olivia Mitchell (2009), “Financial Literacy. Evidence and Implications for Financial Education”, TIAA-CREF Institute Trends and Issues, May.
- Pinotti, Paolo (2008), “Trust, Honesty and Regulations”, MPRA paper 7740.
- Sapienza, Paola and Luigi Zingales (2008), “The Financial Trust Index. The results: Wave I”, <http://www.financialtrustindex.org/resultswave1.htm>
- Carlin, B., F. Dorobantu and S. Viswanathan (2009), “Public Trust, the Law, and Financial Investment”, *Journal of Financial Economics*, forthcoming.
- Knell, Markus and Helmut Stix (2009), “Trust in Banks? Evidence from normal times and from times of crises”, Oesterreichische Nationalbank, mimeo .

Table 1. Relative trust levels over time

	Wave I	Wave II	Wave III
Banks	0.99	0.94	1.00
Bankers	0.88	0.84	0.92
Brokers	0.71	0.69	0.72
Mutual funds	0.86	0.87	0.88
Stock market	0.70	0.71	0.71
Government	0.77	0.78	0.83
Large corporations	0.71	0.67	0.73
The Fed	0.77	0.78	0.84

The table shows the level of trust towards the specified entity relatively to the level of trust towards people on general.
Source : elaborations on the FTIS

Table 2. Changes in trust over time in the US

A. Banks

	Wave I	Wave II	Wave III
Decreased a lot	24	25	15
Decreased a little	31	28	26
No change	40	41	50
Increased a little	4	4	7
Increased a lot	1	2	2

. B. Stock Market

	Wave I	Wave II	Wave III
Decreased a lot	46	36	28
Decreased a little	22	23	21
No change	29	36	41
Increased a little	2	4	8
Increased a lot	1	2	1

C. The government

	Wave I	Wave II	Wave III
	Dec 08	March 09	June 09
Decreased a lot	32	29	25
Decreased a little	23	15	15
No change	35	27	33
Increased a little	7	18	17
Increased a lot	3	12	10

The table shows people's responses on how much their trust towards the specified entity has changes over the three months before the interviews in the FTIS. Source: elaborations on data from the FTIS.

Table 3: Change in willingness to invest in the stock market after the financial crisis

	Great Britain	France	Italy	Spain	Germany	United States
	%	%	%	%	%	%
Unweighted base	821	824	657	639	701	777
More likely to invest in stocks and [EU: share, US: stock funds]	7	5	7	9	6	9
My attitude has stayed the same	54	50	40	46	52	46
Less likely to invest in stock and [EU: share, US: stock funds]	39	44	54	46	41	46

Answers to the question: “Compared with two years ago how has your attitude to investing on the stock market changed, if at all?” *Source:* September 2009 Financial Times/Harris Poll.; *Base:* All EU adults in five countries and US adults with savings/investments.

Table 4. Trust and delegation of financial decisions

Mode of making financial decisions	% responses	Average level of trust	% share of those trusting a lot or substantially
I decide entirely on my own	12.0	2.98	39.7
I ask the bank to review my choice	30.4	3.92	82.4
I listen to my bank/advisor proposals but the final word is always mine	37.7	3.88	78.3
By and large I follow my bank/advisor	16.3	4.19	86.4
I let my bank/advisor decide everything	3.7	4.49	93.3

Source: UniCredit Italian Investors Survey, 2007 wave.

Figure 1. The collapse of trust

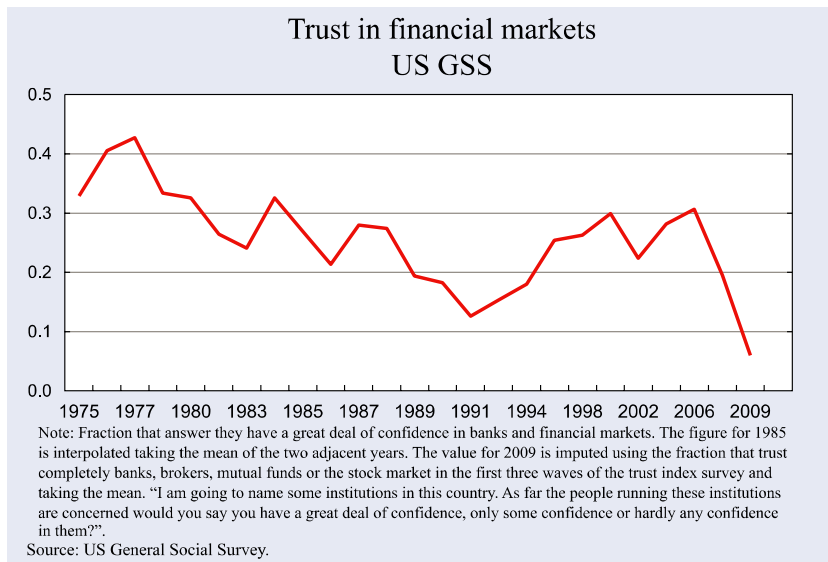
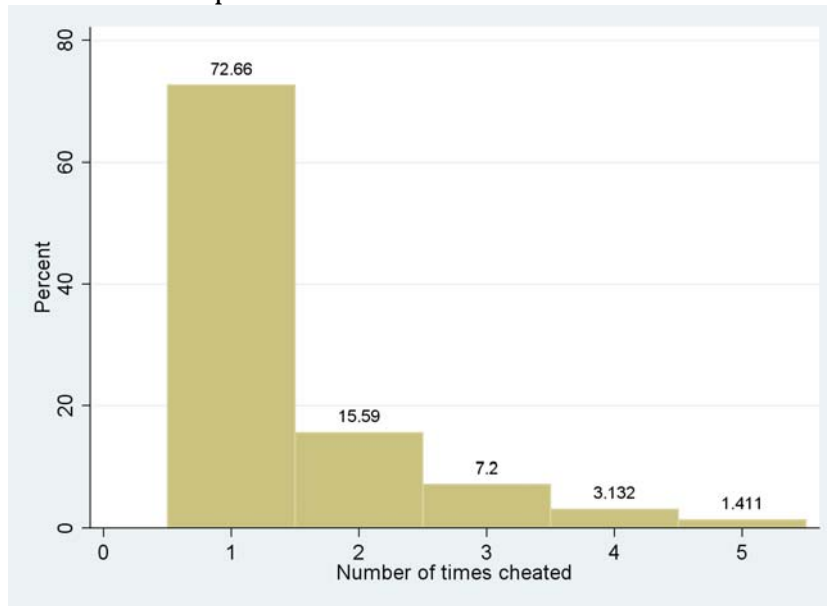


Figure 2. Cheating in financial markets

A. Pooled sample



B. By country

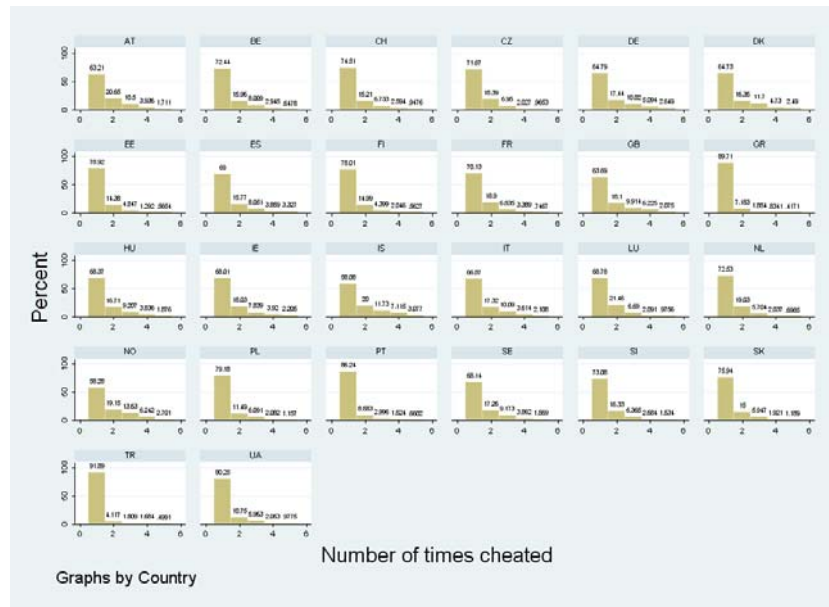


Figure 3. Deception and trust

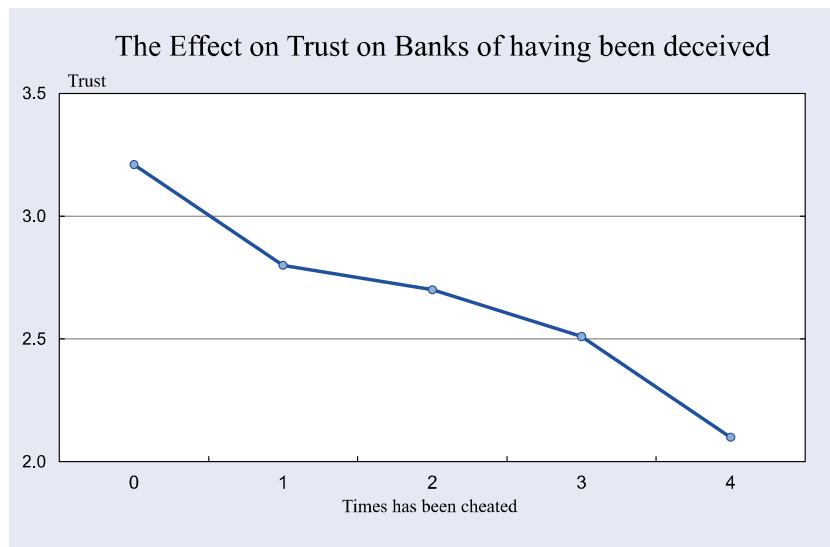


Figure 4 The geographical spread of Madoff's victims

A. USA



B. Europe



Figure 5. Madoff's victims and trust

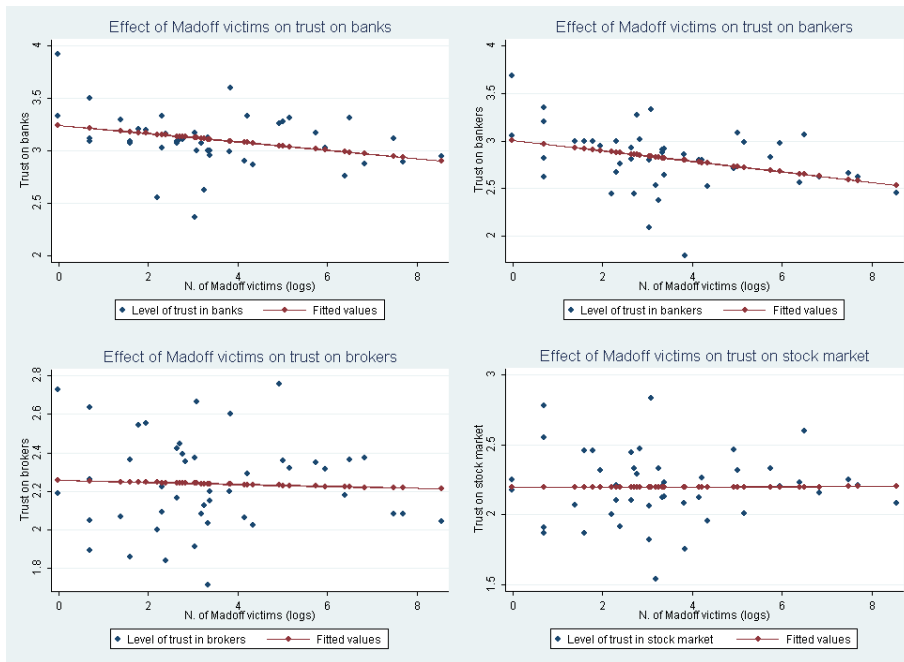


Figure 6. Trust and bank run

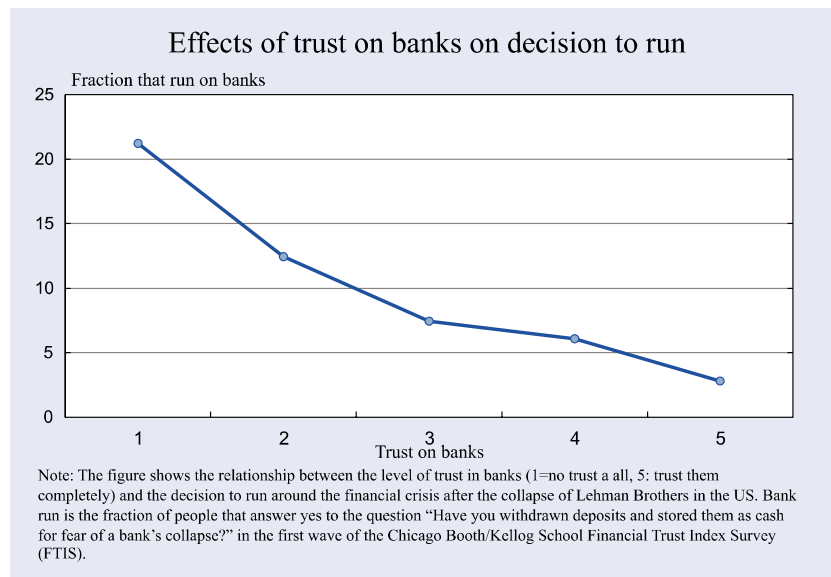


Figure 7 Trust and diversification

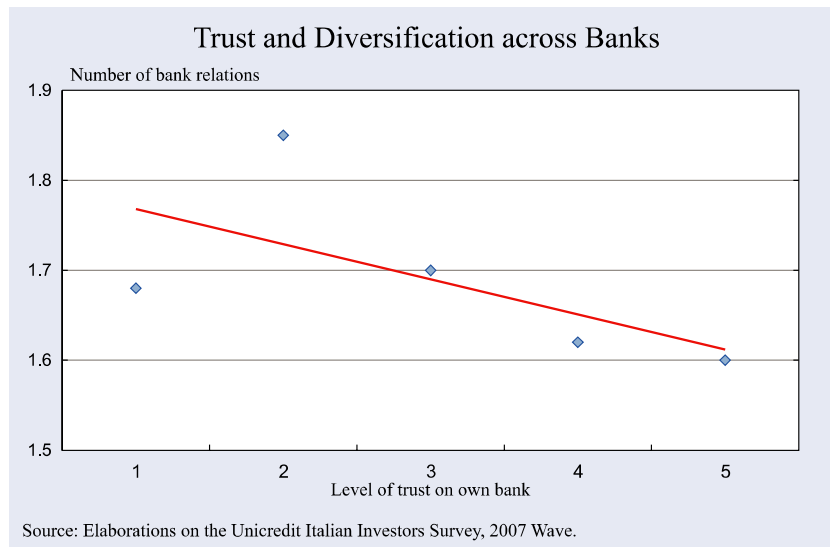
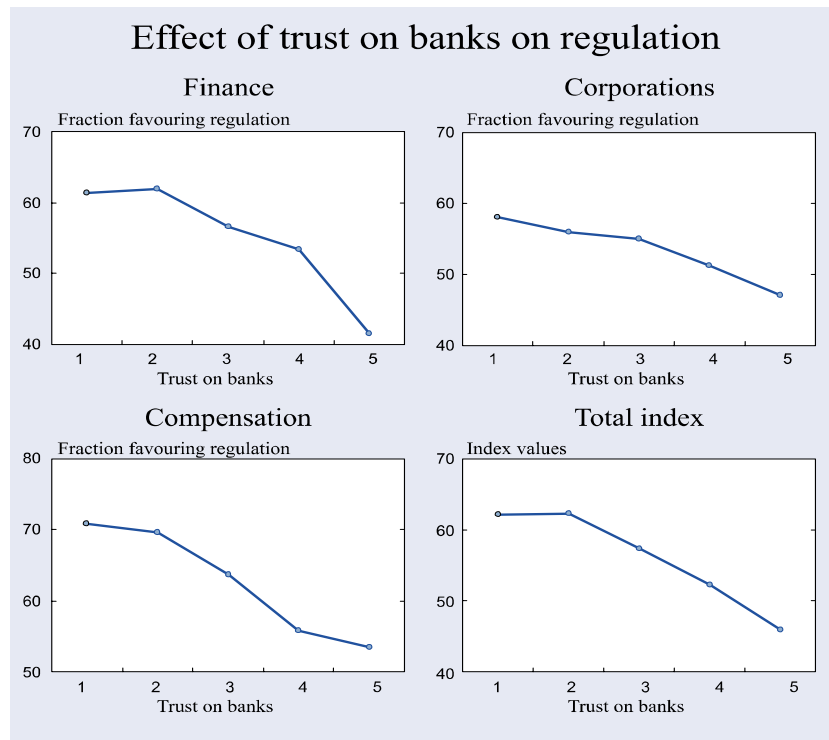


Figure 7 Trust and the demand for regulation

A. Trust on banks



B. Trust on bankers

