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Trust and reputation in financial services

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Trust and reputation in financial services

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1. Introduction

In the latest (2012) Per Jacobsson lecture, Dr Y.V. Reddy, previously Governor of the Reserve Bank of India, and a respected economist, stated that “Trust is difficult to measure, but on the basis of surveys conducted and anecdotes reported in the media, there appears to be an erosion of trust in the financial sector as a whole, and banking in particular, in advanced economies.” Indeed, the media seem full of stories about financial misbehaviour, ranging from LIBOR fixing to the mis-selling of certain complex products to retail clients who may not have needed or understood them. The purpose of this Review is to explore how far such an erosion of trust may have been in part due to the increasing involvement of investment and commercial banks in short-term trading of securities and their derivatives, rather than their traditional roles of suppliers of medium to long-term financial investment in the real economy, a development hastened by the widespread adoption of IT and computerisation. The question is whether the erosion of trust, in part resulting from the replacement of humans by electronics, can be replaced by greater regulation.

In all but the most trivial kind of transaction, in which both parties are physically present and the object of the transaction is visible and tested, an element of trust is desirable and necessary to facilitate the bargain. The sellers and the buyers may be geographically separated and the two sides of the transaction may well be separated over time, with payment before or after delivery, and the seller will typically have more information about what is being sold than will the buyer. If there is no trust at all, there will be no transaction, and if there is little trust, the transaction will not start to take place before lawyers have conducted searches of the counterparties’ ability to pay (solvency) and drawn up tightly-worded contracts. If there is trust, there will still probably be an exchange of contracts, but they will be summary and the groundwork for the transaction will start before such contracts are signed. Both parties must also trust that the legal system will impose a just, consistent and predictable settlement in case of a breach of contract. If the rule of law is weak, a much higher degree of trust between parties to a transaction will be necessary, and there will be fewer transactions. There must also be trust in the honesty and solvency of any financial intermediaries that are involved, and that the seller will be paid in currency that has approximately the same value to him as at the time the transaction was agreed. Hence trust is a cost-saving and time-saving phenomenon that leads to more and cheaper transactions and thus higher real incomes and greater wealth. For some seminal background papers, see Guiso, et al (2004), Guiso (2012), Arrow (1972), Banfield (1958), Putnam (1993), and more recently the Kay Report. Individuals or firms throughout the economy that have demonstrated over time that they can be trusted will acquire a good reputation that will attract clients in future.

Trust has to be vested in a human being. Those, legal and philosophical scholars, who have studied trust-based relationships, generally argue that trust is vested in a decision-maker who could make a choice detrimental to a trusting counterparty. . If this type of argument is correct then discussion of trust in a financial system is a shorthand for trust that certain actors in the system will act in specified ways. The people vesting that trust may not know the identity of the individuals concerned: they have trust in the “financial system” insofar as they believe that it provides key decision makers with desirable incentives.

In so far as computers and computer-based modes replace the human element in assessing credit-worthiness and trading in securities , this is almost bound to make public trust in the financial system more fragile, as is argued later at greater length. That is a natural human response, even if computers are more reliable, more accurate, as well as quicker, than humans.

In this Review the word ‘reputation’ is treated as synonymous with ‘being worthy of trust’, and ‘trustworthy’ as equivalent to have a ‘good reputation’. The Oxford English Dictionary (OED) defines reputation as “the beliefs or opinions that are generally held about someone or something.” In the case of organisational reputation, there is no agreed definition amongst management experts. Lange *et al* (2011) in their review define organisational reputation as “being known; being known for something; and generalised favourability – perceptions or judgements of the overall organisation as good, attractive and appropriate”. Morrison *et al* (2011) define reputation as that which “tells economic actors what to expect of counterparties to transactions that have hard-to-quantify or hard-to-measure qualities.” This definition excludes known or easily measured situations. Shell does not have a reputation for selling petroleum products, it sells petroleum products. Apple sells electronic devices, but has a reputation for selling well-designed and innovative electronic devices.

2. Two kinds of trust

There are two kinds of trust in the financial services industry: trust between participants in a financial transaction, that the parties will honour their side of the agreement, even if it means unexpected losses for one or more of the parties; and trust by the population at large that the financial sector is focussed on its core role of efficiently bringing savers and investors together in ways that optimise the allocation of private savings to financial investment in physical and human capital: “Doing God’s work” (Lloyd Blankfein, Chairman of Goldman Sachs, November 2009). Technological, behavioural and regulatory changes and the major expansion of the financial sector in several countries have lessened the importance of the first type of trust, and the role of the financial sector in exacerbating the recent financial crises and their aftermath has eroded the second type of trust: “They shovel money around and make sure a lot sticks to the shovel” (anonymous). This driver review addresses both forms of trust.

Trust builds up via repeated satisfactory interactions between individuals and/or firms concerned, and over time morphs into a positive reputation, such that a new client confidently expects that they can trust the other party without having to undergo repeated transactions. “A firm’s reputation reflects the expectations that its partners have of the benefits of trading with it” (Armour *et al* 2011). Buyers and sellers on eBay do not use the service because they trust each other, but because eBay has a good reputation for ensuring that sellers provide adequate information and that buyers will pay. It is thus plausible to assume that having a good reputation will enable a firm or individual to attract clients at lower cost, or charge higher prices.

3. Trust is important within the financial sector …

In the financial services industry, as in others, having a good reputation helps resolve the problem of information asymmetries, especially important when a financial transaction has long-term implications. The managers of a new firm’s first public offering cannot be sure that it is properly marketed or valued (Morrison et al, *op cit.).* Similarly, an investment bank must spend time and costly resources investigating and analysing the proposed project of a prospective borrower. Having done this, it has an incentive to exaggerate the quality and profitability of the project to prospective lenders, who lack full information, in order to recoup its own investment, but the lenders could pay too high a price for their investments. Gopalan *et al* (2011) find that “the effect of large-scale bankruptcies among a lead arranger’s borrowers [impact] on its subsequent syndication activity. Consistent with reputation damage, such lead arrangers retain larger fractions of the loans they syndicate, are less likely to syndicate loans, and are less likely to attract participant lenders. The consequences are more severe when borrower bankruptcies suggest inadequate screening or monitoring by the lead arranger."

As good reputation over time translates into higher profitability, firms are willing to invest in it. It can account for a substantial proportion of a firm's total assets: "Market transactions are inhibited if we cannot trust the reliability of counterparties' information. The ability to rely on the word of a stranger is integral to any sophisticated economy. A reputation for honest dealings within a business or financial corporation is critical for effective corporate governance. Even more important is the way outsiders view the corporation itself. The reputation of a corporation is an exceptionally important market value that in principle is capitalized on a balance sheet as goodwill." (Alan Greenspan, 2004). Fombrun (1996) defines reputational capital as the amount by which the market value of its shares exceeds the liquidation value of its net assets. Good reputations generate quasi-rents, and the size of the financial sector in several countries means that these quasi rents are substantial.

4. … but how important?

The theory of why reputation is important is plausible: firms act as though they believe it, and markets undoubtedly put a value on it. But how important is it in practice? It might be expected that a firm with a well-deserved good reputation would be "forgiven" by markets if it makes an unexpected mistake. If not, investing in building up a high reputation would not be worth the effort. Yet as astute an investor as Warren Buffet (1995) has said "It takes twenty years to build up a reputation, and five minutes to ruin it." The oil giant BP suffered massive reputation losses after the Deepwater Horizon Gulf oil spill in 2010, and its share price has not fully recovered, (Korteweg, 2011). The reputational loss is estimated by Korteweg as around $43 billion for the full year 2010, and much more than that in the immediate aftermath of the spill. In addition, BP is likely to face more frequent and more costly oversight of its operations for some time to come. Similarly, the automobile company Toyota "has won a reputation as a builder of high-quality, reliable vehicles. … priced somewhat above their American competitors, but they were worth it, consumers were told, because Toyota … made vehicles you could count on for years. Now [after the January 2010 recall and halt in sales of some models] Toyota's fortress-like reputation has taken major damage." (Frank Ahrens, "Toyota's Shares Slide as its Reputation Loses Steam", *Washington Post* 4 February 2010, as quoted in Lange, et al *op cit*). Hence having a good, and even a very good, reputation does not necessarily protect a firm or institution from condign punishment by the markets. A major error of judgement, especially if coupled with a manifest and serious lack of due diligence, is not soon forgiven.

However, minor errors, or errors common to other firms, seem not to result in serious reputational losses. Gopalan, et al (*op cit.)* finds that in the case of lead arrangers in syndicates, "the effect of borrower bankruptcies on syndication activity is … weak in years in which many lead arrangers experience borrower bankruptcies." Ordonez (2011) deduces that firms with low reputations will not invest to improve them, because they may well exit anyway, and if they survive, their reputations will not improve much. High reputation firms will play safe so as to preserve their reputations, and intermediate firms have an incentive to play safe because if they survive, their reputations will improve.

Reputations, good and poor, apply also to sovereign borrowing, a particularly topical issue. But it seems that the reputation depends not only on the actions of the sovereigns, but also on the context in which those actions were taken. During the depression era of the 1930s, several countries partially or totally defaulted on their loans. Yet in the post-war period, defaulters were able to re-enter capital markets with little or no penalty for their previous record. Lindert and Morton (1989) find that "investors seem to pay little attention to the past repayment record of borrowing governments." Ozler (1993) found that countries with poor repayment records in the pre-war era were charged only slightly higher interest rates during the 1968–1981 period, so that the penalties were small. Post-war real interest rates on German government bonds were somewhat higher than in other European countries until the 1980s, perhaps because Germany would have been in the front line if east-west hostilities had broken out, but also perhaps because such bonds had been defaulted on three times in the previous 100 years. Germany's firm commitment to macroeconomic stability eventually paid off. By contrast, Mexico was able to enter the sovereign debt market in the 1970s, despite its very poor record in the pre-war period, and was able to re-enter again in the early 1990s, only a relatively few years after emerging from the debt crisis of the early 1980s, and again re-entered that market after emerging from the peso crisis of 1994–1995. In each case, the interest rate penalty was comparatively small.

This is puzzling as investment bankers and other investors emphasise that reputation is central to investment decisions. The puzzle of unpunished sovereign borrowers has been studied by Michael Tomz (1998, 2007), in his analysis of a sample of 36 countries in Europe, North and South America, and Japan over the period 1928–1938. Of the sample, 16 countries maintained essentially unblemished repayment records, including Haiti and the Dominican Republic. Of the 20 defaulting countries, most were in the Americas, but included also Bulgaria, Germany, Greece, Hungary, Romania and Yugoslavia, and to some extent also Austria and Poland. Mexico was in complete default throughout the period. Tomz discusses the types of reputation that concern lenders, of which the actual repayment record is only one. Creditors may ascribe reputation to the government, or to the political institutions. If the former, a change of government could signal a deterioration or improvement in reputation. If political institutions are stable, a change of government might not alter perceptions of creditworthiness, and vice versa.

More importantly, Tomz argues that sharp changes in reputation, in either direction, occur when a country's repayments surprise lenders. Hence a country that continues to repay on schedule despite an adverse economic situation will improve its reputation, for example Argentina in the 1930s:"Argentina has throughout the severe economic depression maintained in full the service of her external debt. …. She is now to receive the reward for this exceptional financial record." (*Times* of London, 12 September 1934, quoted in Tomz, *op cit.)*. This high reputation suffered severely in the Peron era as political institutions changed. But countries that default when times are hard because of external shocks do not necessarily face market scepticism. A primary exporter that defaults when world commodity prices fall sharply is not punished. This can explain why countries that defaulted in the 1930s when commodity prices were low, real rates of interest high, and protectionist barriers rose to high levels, were able to re-enter capital markets in the post-war period on favourable terms. By contrast, Tomz theorises that countries that default when economic conditions are favourable would suffer sharp falls in their creditworthiness.

4.1. Relevance to the current situation

How relevant is the Tomz analysis to the current situation? It suggests that countries that have debt problems that the markets view as being to a large extent self-inflicted, because of corruption or other forms of bad government, may continue to be penalised even if they start to repay in full. Those whose debt problems are felt to be the result of bad luck rather than bad judgement or bad policies will in time be forgiven. More problematically, the fact that many banks and other private financial institutions found themselves in serious trouble in the same period during the ongoing financial crisis, arguably because of their too-risky decisions, may result in regulators and politicians slackening their efforts to reform the financial sector: “A sound banker, alas, is not one who foresees danger and avoids it, but one, when he is ruined, is ruined in a conventional way along with his fellows, so that no one can really blame him.” (Keynes, 1931). The finding by Gopalan, et al, quoted above, that lead arrangers experience no fall-off in business when borrowers go bankrupt, if several other lead arrangers are facing the same problem at the same time, goes in the same direction.

5. The importance of trust and reputation has declined in the financial sector

Reputation was of crucial importance for financial service firms, especially investment banks, from the 19th century until the 1970s. Information was typically slow and difficult to obtain compared with the most recent decades, and analysing it correctly was also slow and difficult. Banks specialised in channelling savings to long-term investors in the real economy: short-term trading in securities was considered too risky, and was left to private individuals and their stockbrokers. Good judgement, based on long experience of markets and those operating in them, was highly prized and highly rewarded. Partners in investment banks that had high reputations could sell their stakes for large sums on retirement, and thus had incentives to maintain the reputation of the institution over the long term, building up long-term relationships with companies and individuals in them, rather than maximising short term profits. Similarly, commercial bank loan officers and branch managers relied on their local knowledge and experience when lending to firms, and the firms themselves typically remained with the same bank for decades. But the partnership model started to give way to the joint-stock corporation model in the 1970s, with the Merrill Lynch flotation. For a retail brokerage like Merrill Lynch, with very large numbers of relatively small transactions, computerisation allowed economies of scale, but computers were very expensive to purchase and maintain in the 1960s and early 1970s, and necessitated the issuance of share capital and the abandonment of the partnership model.

5.1. Computerisation and regulation are largely responsible

The reasons for this change, and other changes in the modes of operations of other financial service firms, such as commercial banks, are discussed in Chapter 8 of Morrison, et al, *op cit.* Also see Morrison and Wilhelm (2008), and Bhidé, 2010. Essentially, computerisation and development of quantitative financial modelling were largely responsible, aided by financial market liberalisation that allowed new players to enter old markets, and old players to enter new markets. Both investment banks and major commercial banks moved aggressively into the field of short-term securities trading, the former going public in order to raise the large amounts of capital required. The profits from their traditional role of suppliers of long-term finance shrank in relative importance on their balance sheets, and with it the importance of maintaining a high reputation. As a testimony to the falling importance of reputation in the financial sector, Yale University Law School is proposing a seminar on this topic in 2013:

> “The existing business model among the existing leading participants in today’s capital markets no longer treats customers as valued counterparties whose trust must be earned and nurtured, but as distant “counter-parties” to whom no duties are required. In other words, the rough and tumble norms of the market-place have replaced the long-standing fiduciary model in U.S. finance. This seminar explores the transformation from the traditional reputational model to the modern laissez faire model in finance, and considers the idea that this seismic change occurred as a result of two factors: (1) the growth of reliance on regulation rather than reputation as the primary mechanism for protecting customers and (2) the increasing complexity of regulation, which made technical expertise

> rather than reputation the primary criterion on which customers choose who to do business with in today's markets." All Spring 2013 Courses – Details

Advances in quantitative financial analysis, themselves aided by cheap computer power, made it possible for counterparties in particular types of financial instruments to trade with each other essentially anonymously, since each could form accurate estimations of the other's behaviour. The option pricing formula is the classic example of such a development. Numerous financial algorithms, often the closely guarded proprietary knowledge of the firms operating them, now make it possible to quickly arbitrage away any deviations from longer-term relationships between financial instruments on the same or different exchanges.

5.2. The rise of the universal bank…

A similar development took place in the commercial banking sector. Processing cheques by hand and employing large numbers of staff to provide comparatively small amounts of cash for large numbers of individual customers was very expensive. Computerisation of cheque processing, and the advent of ATM machines resulted in large cost savings, and even generators of profits when customers are charged for withdrawals. Branch managers and their deputies previously had long-term relationships with their major industrial and individual borrowers, and were (and are) in some countries the main source of longer-term finance for non-financial firms. Personal knowledge of local economic conditions and the technical and managerial skills of borrowing firms were of great importance, and costly to acquire. Computerisation led to credit-scoring models to assess requests for loans by individuals and small firms, so that loan officers now have less discretion in executing loans. Their accumulated knowledge of the creditworthiness of individuals and firms and specific local conditions is now of less importance, and therefore less effort is put into acquiring it. It is impossible to measure the value of what has been lost in this way, but presumably banks believe that it is outweighed by the cost savings generated by the new technology. As Bhidé (2010) writes:

> "Using a credit score produced by feeding a few items of hard data into a mathematical model to assess the likelihood of default assumes that all risks are quantifiable. And that's just one of the many assumptions at work. For instance, credit scoring formulas also assume that the probability that all loans of a certain kind will default derives from exactly the same risk factors; that these risk factors are all combined or "weighted" in exactly the same way; and that somehow an omniscient modeller knows the right weighting scheme."

Liberalisation accompanied, and was partly caused by[1] computerisation and both permitted and encouraged commercial banks to enter into new areas, specifically investment banking. Since reputation and long-term relationships were becoming less important in that sector, the fact that commercial banks had little or no such experience was less of a concern than it would have been previously. And commercial banks have large assets and detailed, quantified knowledge about the creditworthiness of their large industrial clients. This enabled them to successfully move into the business of underwriting bonds. Subsequently, they moved into advising on mergers and acquisitions (M&A), initial public offerings (IPO,) securitisation and trading on own account in the financial and foreign exchange markets.

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[1] IT enabled financial intermediaries to manoeuvre around exchange controls more easily, for example via swaps and ADRs. To avoid losing business to already more liberalised financial centres, the more restrictive countries were put under increasing pressure to liberalise themselves in turn.

Liberalisation also made it easier for banks to expand their balance sheets via higher leverage, a development thought to be relatively safe, both because financial markets had become larger and more liquid and because of the creation of derivatives to hedge against specific market or currency risks. The creation and pricing of such derivatives would have been very difficult and costly in the absence of computer-based quantitative modelling. This also naturally meant that the reputation for creditworthiness of counterparties became of less importance. The increasing advantages conferred by large balance sheets, and the falling importance of long-term relationships resulted in consolidation within the US banking sector and the emergence of very large banks there. Large banks with many local branches have typically characterised many Western European countries in any case, and consolidation during normal times has been less frequent.

5.3.… and its consequences for risk management

The rise of the universal bank has created problems of governance. Because of the systemic importance of commercial banks, ordinary deposits in them are insured up to a fairly high limit to reduce the risk of bank runs. If such a bank faces failure, at least its depositors will not lose (most of) their deposits, although its directors could lose their jobs and its shareholders their investment. Moreover, with the loan book having become larger than deposits, such large banks have become (unduly) dependent on wholesale, uninsured, funding, which (repo) funds can, and do, run. Hence such banks have nevertheless an interest in developing and maintaining a reputation for prudent lending. The larger the bank, the greater its systemic importance, and there is a perception, that recent events have proved to be largely correct, that the biggest banks have become “too big to fail”. Lending to them is low risk, and enables them to borrow on more favourable terms. A recent IMF Working Paper (Ueda and Weder di Mauro, May 2012) estimates the implicit subsidy currently at about 80 basis points for a world-wide sample of banks. This is a large implicit subsidy by any measure. Attempts to remove taxpayer subsidies and allow (parts) of large banks to fail lie at the heart of recent regulatory reform, such as the Dodd-Frank Act in the USA.

But the “too large to fail” perception for the commercial banking side of a universal bank’s business risks being extended to all its operations. It is argued that the trading arms of such banks will engage in higher risk, higher return strategies than if they operated in a non-insured financial institution, gambling that if their bets lost on a large scale, the institution would be bailed out at the tax payers’ expense – as indeed has arguably happened recently in Europe and the US, and less recently in Japan.

The other, potentially more serious, governance issue with the rise of the universal bank is the scope for conflicts of interest. Such a bank will be short-term trading on its own behalf, keeping its strategies and algorithms secret, and at the same time advising clients on longer-term M&A deals, IPOs and sales of securities, where full disclosure of relevant information is assumed. At these two extremes, clients should know where they stand, but in between there is a grey area. Should the banks advise clients to purchase stocks as an investment that their traders are shorting? Davidoff, et al, (2012) discuss the lawsuit filed by the US Securities and Exchange Commission (SEC) in 2010 against Goldman Sachs in the so-called ABACUS transaction of 2007. The SEC claimed that Goldman Sachs had misled investors by not revealing that a hedge fund manager, John Paulson, had shorted a particular portfolio of securities that he himself had in part selected, and which Goldman Sachs was selling. Goldman Sachs argued that they were dealing with professional investors who were interested in buying what Goldman Sachs was selling, irrespective of the sellers’ views. They were not selling to uninformed members of the public. Goldman Sachs were strongly criticised by politicians and the public in general for concealing relevant information to investors, but it is fair to add that professional traders on the markets felt that Goldman Sachs had not blemished their reputation over the affair. Goldman Sachs eventually settled for $550 million with the SEC, and although their public reputation was tarnished, they continued to enjoy a high reputation with professionals. Warren Buffet invested $5 billion in the company in 2008, purchasing preference shares yielding a 10% dividend, and was bought out in 2011 for $11 billion.

6. Is regulation a substitute for reputation?

Buffet's deputy, Charlie Munger argued at the Berkshire Hathaway annual meeting in May 2010, that the financial crisis was not the fault of the banks, but rather of bank regulators. Banks were regulated by a mix of "permissiveness and stupidity", they were akin to "tigers that had escaped from the circus" and fault lay "with the keepers, not the tigers." As the current Fed Chairman said: "market discipline has in some cases broken down, and the incentives to follow prudent lending procedures have, at times, eroded" (Bernanke, 2007). The vast increase in the size and turnover of the financial sector in advanced countries (and not only in those countries), the increasing complexity of financial instruments, and the large increase in the numbers of those working in the financial sector as traders has led to a decline in the importance of reputation, as seen above, and a concomitant increase in the reliance on legal contracts. Of course, despite the "my word is my bond" ethos in earlier times, contracts were usually exchanged, but not necessarily in advance. Market players were far fewer in numbers than today and mutual trust was important in expediting transactions. "Reputation, in an unregulated economy, is a major competitive tool. … Left to their own devices, it is alleged, businessmen would attempt to sell unsafe food and drugs, fraudulent securities, and shoddy buildings … but it is in the self interest of every businessman to have a reputation for honest dealings and a quality product." (Alan Greenspan, 1963, The Objectivist Newsletter, quoted in Ordonez, 2011). With trust and reputation having become less important, black-letter contracts become more important, especially as financial market regulations have become more widespread, and more detailed, with the emphasis on disclosure substituting, however laboriously, for a trust-based culture.

Up to a point, regulation can substitute for reputation. In the past, prudent investors dealt with reputable firms because they expected them to deal honestly, honour their obligations, and give relevant information. To the extent that regulations oblige all firms to act with due diligence, the utility of acquiring a high reputation is lessened. Investors and borrowers should in principle be ready to deal with any and every firm, shopping around for the most attractive propositions, putting institutions in competition with each other. There is a parallel to the retail distribution sector. At one time, it was worthwhile building up a familiar customer relationship with small grocery stores, bakers, butchers etc. They could then be trusted not to sell you inferior goods and they trusted you to continue patronising them. But the advent of supermarkets and stringent health and food safety regulations changed shopping habits, not necessarily for the worse. If financial market regulations cover all eventualities, if all buyers and sellers are fully aware of and familiar with all of them, and penalties for non-compliance are sufficiently severe, trust and reputation in the financial sector would be irrelevant in this ideal world. But there are limits to the ability and the desirability of regulation to be so encompassing, and so greater regulation can never be a fully satisfactory substitute for a reduction in trust.

6.1. The role of the ratings agencies

The world is not ideal. Financial service firms have proved to be adept in creating new forms of securities that escape the regulators' remit, and penalties are arguably too low to be effective. It is true that regulators have also been able to harness computing power, to use various, more or less satisfactory, models to assess the overall riskiness of banks' balance sheets, but the financial crisis proved that measures of risk for specific securities – for example zero weighting for Euro area sovereign bonds – are far from perfect. For many securities, the ratings agencies are paid to estimate objective measures of their riskiness. With the benefit of hindsight, the main agencies – Standard and Poor's, Moody's and Fitch-- were far too optimistic in some of their risk assessments. These were, primarily, those innovated securities, such as collateralised debt obligation (CDOs) for which there was less historical experience. There is no evidence that their record on plain-vanilla corporate bonds worsened. There is, however evidence that, in their efforts to retain market shares when the European agency Fitch moved aggressively into the ratings market, the major US agencies over-rode the risk estimates for several innovative types of securities coming out of their own models to give more favourable ratings than the securities deserved (OECD 2010). In principle, this should have resulted in serious reputational damage and a loss of new business for those agencies. However, the big-3 ratings agencies between them account for most of the market, and regulations used to oblige issuers of securities to have them assessed by approved ratings agencies. In addition, institutional investors such as pension funds are legally obliged to invest in securities deemed as safe by the ratings agencies. Morrison, et al, (*op cit.*) regards this type of "crude formal law" as crowding out "socially superior outcomes attainable via reputational contracts".

6.2. Are regulations adequately implemented?

Some analysts argue that the penalties for flouting financial regulations are either too slight for them to be a deterrent, and/or too seldom applied, so that regulations are even less of a substitute for reputation-based transactions. In a 2008 speech, (quoted in Morrison, et al, *op cit.*), Alan Greenspan stated: **"**In a market system, based on trust, reputation has a significant economic value. I am therefore distressed at how far we have let concerns for reputation slip in recent years.**"** On April 26, 2011, Steven Davidoff, a professor of law at Ohio State University, writing as the **"**Deal Professor**"** in the New York Times dealbook blog stated: **"**Reputation dead on Wall Street. This is not to say that financiers and financial institutions still do not commit foolish misdeeds. Rather, so long as the authorities do not find law breaking, the penalties are few.**"** He goes on to list several high-level US business leaders who presided over financial disasters for their companies, and left to take up richly rewarded positions in other companies. Goldman Sachs**'** was strongly criticised over the ABACUS affair, as mentioned above, **"**but it does not seem that their clients are avoiding doing business with them.**"** He compares this with the 1930s, when the same company was tainted by a trading scandal, which **"**drove away business for more than a decade and made the firm extremely focussed on reputation.**"** Indeed, the second of Goldman Sachs**'** **"**business principles**"** is: **"**Our assets are our people, capital and reputation. If any of these is ever diminished, the last is the most difficult to restore. We are dedicated to complying fully with the letter and spirit of the laws, rules and ethical principles that govern us. Our continued success depends upon unswerving adherence to this standard.**"** http://www.goldmansachs.com/who-we-are/business-standards/business-principles/index. html. It appears that having a reputation for making high profits in one's trading activities is what counts most in the financial world nowadays.

There is certainly a public perception that the penalties for disobeying regulations are too low to deter illegal behaviour. "The threats of fines from the UK Financial Services Authority are seen as a footling expense, just another cost of doing business, no different from paying the quarterly phone bill. The embarrassment factor no longer counts for much, alas. There is not much shame in being on the receiving end of a fine. Only the size of the fine has come to matter. In some areas, this has proved laughably inadequate in producing better behaviour." (The Times of London, 7 July 2009, quoted in Armour*, et al.* 2011). Armour notes that fines imposed in the US are so much higher than other countries, that by comparison, breaches of regulations are essentially unpunished in those countries. Similarly, Armour *et al* (2009) compare the frequency and outcomes of lawsuits against corporate officers of public companies (not specifically financial corporations) for breach of duty in the US and UK over the 2000–2007 period. No lawsuits were reported in the UK, and very few in the US, of which "a substantial fraction" were dismissed. In addition, John Coffee (2007) writes that " … the United States prosecutes securities offenses criminally-and does so systematically. In contrast, even in the United Kingdom and even in the case of core offenses such as insider trading, criminal sanctions appear to be rarely invoked." (p. 17). After adjusting for market size, the average annual number of public securities enforcement actions was 5 times higher in the US than in Germany (Coffee, *ibid.* p. 37). Hence it is not the existence of regulations that deters doubtful business behaviour, but whether transgressions are prosecuted in practice, and if so, whether the sanctions deter future misbehaviour of the firm concerned, and have a chilling effect on other firms.

Fines may be **"**footling**"**, and rarely imposed, and criminal proceedings even rarer, especially outside the US, but does reputation nevertheless count for something? To throw light on this question, and because there exist no agreed accurate measures of enforcement, Armour, et al, (*op cit.*) examine a dataset of UK enforcement actions by the FSA and the London Stock Exchange (LSE). The former investigates firms for possible violations of financial regulations, and the LSE for breaching of listing rules. Investigations are made public only if the perpetrator is found to breach the rules and incurs a fine, or is ordered to pay compensation. Thus the market has a clear signal **"**of the extent to which the firm in question abides by its legal obligation.**"** In the non-financial world, several studies show that firms that are found to sell sub-standard goods or engage in misleading advertising, or misleading accounts, suffer financial penalties in the form of lower business or higher costs of finance.

The advantage of the Armour, et al, (2011) dataset is that it is comparatively "clean" in that they examined 40 cases of enforcement actions on listed companies between 2001 and end-2010, in which the market had no prior information that an action was in progress, where the announcement specified the financial penalties (fines and compensation), and where the ownership remained the same during the investigation. In contrast to the US SEC, the UK FSA prefers where possible not to resort to enforcement, but rather obtain an undertaking that the misconduct will not be repeated, provided that it is not serious. Even if a settlement of this sort is achieved, the FSA still sends a summary "final notice" detailing the penalties that would be imposed and a summary of the facts behind them. Final notices are public, and, because of differences in legal practices between the US and the UK, are not followed by any civil lawsuits. Hence the market learns immediately what the misconduct was, and what the estimated financial damage amounts to.

Armour and colleagues examined the impact of the announcements of sanctions on the prices of shares before and after. Briefly, the average fine was equivalent to only 0.15% of the firms' market values, and compensation to be paid equivalent to 0.12%, hardly a deterrent. But the Armour analysis also found that the negative impact on share prices arising from reputational loss among customers and investors was much higher, about 2.3% of market value. More detailed analysis strongly suggests that the loss is indeed reputational as opposed to the present value of foregone profits arising from the proscribed activity.

The relevance of the Armour, et al, analysis is clear. Reputation may have declined in importance, the plethora of regulations required to replace it may be inadequately enforced, and the associated sanctions "footling", but misconduct nevertheless seems to result in real reputational loss, at least in the UK. It is questionable, though, if such reputational losses are sufficient to deter future misconduct. There is a parallel here with sanctions for violating competition policy laws. It is exceptionally difficult, even in quite straightforward cases, to estimate what the total losses to other firms and the general public are in financial terms, and who finally bears them (OECD 2011). Businessmen nevertheless argue that imposed fines should reflect quantifiable estimates of harm. Some competition policy authorities and their legal systems take the robust view that such violations are *de facto* illegal and fines can and should be high enough to deter malpractice irrespective of actual harm in a particular case. When harm can be quantified approximately, the US authorities typically impose fines equivalent to 3 times the estimated damage. The European Commission has powers to fine offending companies up to 10% of their annual revenue in anti-trust cases. It is perhaps by this standard that the settlements reached in the recent LIBOR scandal should be judged. . There is therefore a case for substantial strengthening of the powers of the regulators, and the imposition of deterrent-based fines.

7. Trust in the financial system and its reputation

. The general public needs to trust the financial system to do an efficient job of converting private savings into private and public investment and consumption at least cost and highest social return. That form of trust has been severely shaken in the financial crisis and its aftermath. Millions have lost a significant fraction of their personal and pension wealth and income because of the drop in equity prices. The fall in house prices has also hit household wealth. In the US, it is estimated that the average household has about the same assets as 20 years ago. There is a perception that the financial sector has proved to be a remarkably bad judge of the underlying riskiness of the financial assets they were trading. The fact that overly optimistic evaluations of a particular type of mortgage-based security in the US resulted in a near-collapse of several financial corporations, and the actual collapse of some raises doubts about the level of competence of the directors of the institutions concerned. Writing in the "Huffington Post" website on 18 June, 2012, Robert Kuttner states:

> Let's not forget – this entire crisis was caused because markets mispriced risk. That's a polite, bloodless way of saying that a bunch of overpaid wise guys bet the farm on the premise that housing prices could never fall, and created opaque securities that made a lot of insiders rich and duped the rest of the economy at a cost of several trillion dollars.
>
> So if financial markets totally screwed up when they created collateralized debt obligations backed by sketchy mortgages and treated them like triple-A bonds, why do we think that the same financial markets are to be trusted when it comes to accurately pricing Greek or Italian or Spanish bonds?
>
> Look at the recent experience of interest rates on these bonds, and they bounce all over the place. The true financial risk can't possibly change so much from week to week.
>
> In the years after World War II, the debt overhang was huge, but Europe nonetheless achieved an impressive economic recovery. One major reason was that financial speculation was kept in its cage. The whole menagerie of derivatives that permit speculation against government debt hadn't been invented yet, and were precluded by the rules of the game. The economist Carmen Reinhart *terms this era* one of the "repression" of finance – a term that sounds ominous but in fact is what allowed the postwar recovery to go forward and not to be destroyed by debt.

> Alas, the word's commentators and political leaders are mostly arguing just the opposite: if markets are betting against Spain and Italy, the story goes, they must know something that we don't.
>
> But what they mainly know is how to create self-fulfilling prophesies of economic destruction – highly profitable to the speculators and ruinous to everyone else. A good dose of repression of financial speculation is just what we need today, whether through financial transaction taxes, regulations, capital controls, or governments intervening on the opposite side of speculative bets.
>
> This crisis occurred because financial markets were allowed to run amok. Now the speculators have turned their fire on sovereign debt. If they are allowed to keep running wild, recession will turn into needless depression."

Robert Kuttner is co-editor of The American Prospect and a senior fellow at Demos. Almost all the comments on the Kuttner article were favourable.

If the financial crisis had been confined to the financial sector, with directors losing their jobs, or at least their bonuses, and some smaller financial institutions failing, the public would not have been overly concerned, not more than if a major non-financial industry faced economic difficulties. However, the financial crisis somehow led to an economy-wide and worldwide real crisis, with thousands of firms in the non-financial sector going out of business, and millions of workers losing their jobs as a result, even though the real economy was not overheating at the time and global economic activity was buoyant. Many ordinary people find this difficult to understand or forgive, especially as high-level employees and directors in the financial services sector rather quickly returned to levels of compensation comparable to those before the crisis, whereas unemployment remains at historically high levels and slow growth (at best) is currently forecast to remain.

The perception that the financial sector is another world, somehow detached from the real economy, but nevertheless an important – and sometimes malign – influence on it is disturbing. If ordinary savers decide that financial markets are a kind of casino, where the dice are stacked against them, they will shun them until memories fade. It took 30 years for the Dow Jones to return to its 1929 peak. Even if they take a more benign view, they have learned that investing in the stock market (or in real estate) is riskier than they believed, so they may save less overall, and direct their savings to what appear to be safer assets.

The fall in personal wealth and lower returns on financial assets of all kinds also means that older workers will have to remain longer in the labour force than they had anticipated, or accept significantly lower pension incomes. Later retirement is not necessarily a bad thing: the tendency to retire earlier and also live longer threatens the long-term stability of public pension systems, and reduces national income overall, as the numbers retiring in advanced countries will continue to exceed the numbers entering the labour force for many years to come, as the baby boomers depart. The baby boomer retirees will also start to draw down their accumulated savings as they move into retirement, which will be an additional negative influence of security prices.

8. Conclusion

This review takes the view that the development of financial mathematical modelling and algorithms, far cheaper computer power that made their application practicable, securitisation, and deregulation of financial markets in the past few decades, greatly encouraged banks and other financial intermediaries to engage increasingly in short-term trading, often a highly profitable activity for them. This is some distance from their traditional core business of allocating private savings to long-term investment in the real economy, for which profits depend on reputations built up over the long term. Financial regulators have sought to substitute onerous disclosure rules for trust-based relationships but they have been behind the curve, and penalties for misconduct, when discovered, may be too low to be a serious deterrent. The utility of the models themselves is in any case limited both by the reliability of the data fed into them by fallible human beings, and by the realism of the assumptions underlying them.

Regrettably, but naturally, greater use of computers, and IT more generally, has been partly instrumental in the erosion of trust in the financial system by the general public. Tighter regulation can only be a partial substitute. This makes it all the more important that all those involved in financial intermediation are aware of the dangers of such a loss of trust, and take every care to retain and sustain their good reputation by their deeds as well as their words.

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