

CORPORATE CULTURE AND FRAUDS: A BEHAVIORAL FINANCE ANALYSIS OF THE BARCLAYS-LIBOR CASE

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Abstract

The aim of this paper is to use behavioral finance to explain the factors that brought Barclays Plc. to face a £290 million fine (about \$440 million), having deliberately tried to manipulate the LIBOR (London Interbank Offered Rate). This sums to the £59.5 million fined by the British Financial Services Authority (FSA) – the highest fine ever imposed by this organization – and respectively £102 million and £128 million by the US Department of Justice and by the Commodity Futures Trading Commission (CFTC). We analyze the reports issued by the U.S. and the British regulatory agencies, and those of financial analysts. Even though the focus of analysis are Barclays' actions, we compare them with what other market participants did at the time of the analyzed events, to offer a comprehensive look at the financial industry and its dominant culture. In particular, after describing LIBOR rate determination methodology and the behavior of Barclays personnel when violations occurred, we present Barclays' failures in organizing its own control systems and establishing a proper corporate culture. Finally, we analyze the behavior of market participants and supervisory authority in evaluating Barclays' financial and ethical performance.

Keywords: Analysts' Recommendation; Regulation and Supervision; Corporate Culture; LIBOR

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Introduction¹

The aim of this paper is to use behavioral finance to explain the factors that brought Barclays Plc. to face a £290 million fine (about \$440 million), having deliberately tried to manipulate the LIBOR (London Interbank Offered Rate). This sums to the £59.5 million fined by the British Financial Services Authority (FSA) – the highest fine ever imposed by this organization – and respectively £102 million and £128 million by the US Department of Justice and by the Commodity Futures Trading Commission (CFTC). We analyze the reports issued by the U.S. and the British regulatory agencies, and those of financial analysts. Even though the focus of analysis are Barclays' actions, we compare them with what other market participants did at the time of the analyzed events, to offer a comprehensive look at the financial industry and its dominant culture. In particular, after describing LIBOR rate determination methodology and the behavior of Barclays personnel when violations occurred, we presents Barclays' failures in organizing its own control systems and establishing a proper corporate culture. Finally, we analyze the behavior of market participants and supervisory

authority in evaluating Barclays' financial and ethical performance.

The structure of the paper is the following. Section 1 describes the LIBOR rate determination methodology and the behavior of Barclays personnel when violations occurred. Section 2 presents Barclays failures in organizing its own control systems and establishing a proper corporate culture. Section 3 analyzes the analysts' behavior in evaluating Barclays' financial and ethical performance. Section 4 concludes.

1 LIBOR Determination and Manipulation

We briefly report the key events that led to the mounting of the scandal on LIBOR and EURIBOR (Euro Interbank Offered Rate) manipulations. First, we give a brief definition of LIBOR and its determination methodology. Then, we focus on the events and phenomena related to the submission of the reference rates that happened in Barclays. We use the definitions provided by the *British Bankers' Association (BBA)*² to resume and underline LIBOR main characteristics. Moreover, we refer to LIBOR submission and calculation methodologies during the

¹ "Barclays had a cultural tendency to be always pushing the limit", Lord Adair Turner, former Financial Services Authority Chairman

² At the time of the events here analyzed no formal regulation governed LIBOR setting and the BBA is in charge of the LIBOR determination process.

relevant period of the violations, before the changes requested by the so-called *Wheatley Review of LIBOR*.³

The LIBOR “is a benchmark giving an indication of the average rate at which a LIBOR contributor bank can obtain unsecured funding in the London interbank market” (BBA). Therefore, LIBOR *does not* represent a market rate. Instead, it acts as a barometer of the average low-term credit risk of the members of the various panels.⁴ Contributor banks daily submit their own rates, answering the following question: “At what rate could you borrow funds, were you to do so by asking for and then accepting inter-bank offers in a reasonable market size just prior to 11 am?” (BBA).

With regard to LIBOR determination methodology, we underline three key points. First, LIBOR proposals are based on (annual) *perceived* rates. Thus, they are not based on actual market transactions. Indeed, BBA itself claims that “[LIBOR rate] is not necessarily based on actual transactions, as not all banks will require funds in marketable size each day in each of the currencies/maturities they quote and so it would not be feasible to create a full suite of LIBOR rates if this was a requirement”.⁵ Then, BBA gives its members the opportunity to establish LIBOR rates proposals on their profile, through their own credit risk and liquidity risk. Panel members can construct curves through these risk profiles, derived from the rates at which a bank has dealt, “to predict accurately the correct rate for currencies or maturities in which it has not been active”.

Second, the LIBOR determination methodology excludes the submissions in the first and fourth quartiles of the whole range, i.e., respectively, the highest and lowest 25% of submissions in decreasing order. This decision derives from the necessity of preventing that a single submission could alter LIBOR final value.

Third, LIBOR’s importance comes from being by far the main benchmark used for short term interest rates. It is used as a benchmark in a wide array of contracts like derivatives, mortgages and other loans. The total value of products LIBOR-based is estimated in about \$350 trillion. LIBOR’s presence in many financial instruments – negotiated on OTC and regulated markets alike – and the chance of submitting

proposals differing from the actual market rates, have exposed LIBOR to illegal actions from Barclays’ and other banks’ staff.

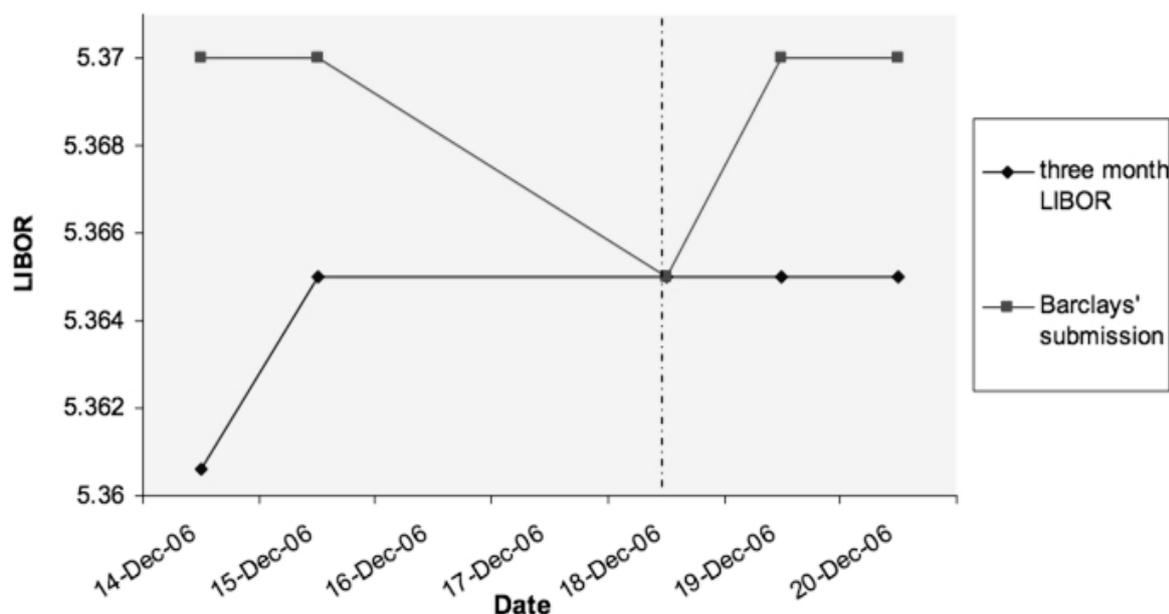
Our primary sources of information are the *Final Notice* sent from the FSA to Barclays on June 27, 2012 and the one from the Commodity Futures Trading Commission (CFTC) to Barclays and other banks (*CFTC v. Barclays PLC et al.*). The documents released following Barclays’ settlements with US and UK regulatory agencies delineate a contest of habitual violations to LIBOR’s accuracy and transparency. We divide the facts contested by the FSA in a four-year period range – from January 2005 to May 2009 – into two different phases. The main actors of the first phase are the submitters of LIBOR’s quotations and the traders of LIBOR-based products. Instead, senior managers are the protagonist in the subsequent phase, even though traders continued to send some requests to the submitters to manipulate LIBOR’s quotations. Approximately, the first period ends on the second half of 2007, with the outbreak of the subprime mortgage crisis. In this phase, the traders “were motivated by profit and sought to benefit Barclays’ trading positions”. In this phase, the manipulations occurred to benefit derivative traders’ positions. Violations were identified in Barclays’ offices in London, New York and Tokyo. Requests were made by at least 14 senior derivative traders. The CFTC note identifies the *New York Interest Rate Swaps Desk* (NY Swaps Desk) in New York City and London as the main source of manipulation requests (linked to the US Dollar LIBOR). Moreover, the note names numerous attempts by Barclays’ staff members to influence LIBOR and EURIBOR submissions of other panel banks.

The following conversation – that took place on December 14, 2006 – highlights our claim. On that day a trader requested a low 3 month Dollar LIBOR submission on Monday December 18: “*For Monday we are very long 3m cash here in NY and would like the setting to be set as low as possible... thanks*”. The submitter instructed a colleague to accommodate the request – “*You heard [what] the man [said]*” – and gave confirmation to the trader that “[X] will take notice of what you say about a low 3 month”. Two seconds later, the second submitter sent himself an electronic reminder at 11 am on Monday December 18: “*USD 3mth LIBOR DOWN*”. The following graph, taken from the FSA report, describes the mentioned violation and makes clear the strict bond between the trader requests and the submitter actions.

³ The eruption of the scandal on LIBOR manipulation brought the British government to start an independent investigation guided by Martin Wheatley, managing director of the Financial Services Authority (now Financial Conduct Authority), to review LIBOR use and calculation. This review suggested changes in LIBOR submission differ from the methodology here studied. Starting April 2, 2013 LIBOR is subject to statutory regulation.

⁴ LIBOR rates are available for ten currencies, with 15 maturities, in a range of 12 months.

⁵ See: <http://www.bbalibor.com/bbalibor-explained/the-basics>.

Figure 1. Barclays' three month US Dollar LIBOR submission around December 18, 2006

Source: FSA Final Notice for Barclays Bank Plc., p. 16

In coherence with the trader's requests, Barclays submission resulted to be lowered by a half basis point on December 18 only, coming back to the former level on the following day. Barclays relative position with respect to the other banks changed, too. On December 15, ten banks submitted a 3-month US Dollar rate lower than Barclays. On December 18, "just" four banks submitted a lower rate.⁶

The FSA formulated identical remarks on the actions made in order to alter other benchmark interest rates, identifying at least 173 similar requests to manipulate US Dollar LIBOR rate, 58 to influence EURIBOR rate, and 26 to alter Yen LIBOR rate. According to the daily submissions, the report estimates that the submitters accommodated 70% of the US Dollar LIBOR requests and 86% of the EURIBOR requests.

The second period of violations is connected with the 2007-2008 financial crisis. This period saw Royal Bank of Scotland (RBS), Lloyds and HBOS bailouts in the UK (third quarter 2007), and Lehman Brothers bankruptcy (September 2008) in the US. The economic crisis exposed banks to increasing media speculations on their liquidity conditions. The lack of relevant loans made just a few transitions relevant in a LIBOR-determining perspective. On September 3, 2007, Mark Gilbert assumed in a commentary on *Bloomberg.com* that Barclays had liquidity problems. The conclusions derived from the high Euro, US

Dollar and Pound LIBOR submissions, and from the Barclays' requests to the emergency lending institution of the Bank of England. Barclays justified these requests explaining that some banks were late on repaying their debts. In this context, the media focused on Barclays' submissions, being significantly higher than those of the other panel members. See Figure 2.

Barclays was a frequent outlier in the US Dollar LIBOR panel, generally submitting the highest rate among the panel. Its senior managers called this behavior to "*head over the parapet*", because it exposed the bank to a high media attention. Personnel was instructed to submit rates closer to the ones of the other banks, being the senior managers concerned about the increasing pressure on bank's liquidity. Their strategy consisted in avoiding the media pressure, preserving the bank's reputation. Obviously, the result was the submission of dishonest rates, incoherent with the market conditions. In any case, the difference between Barclays' submissions and the final rates consisted in at most 10 basis points, following the senior managers' requests to the submitters. See Table 1.

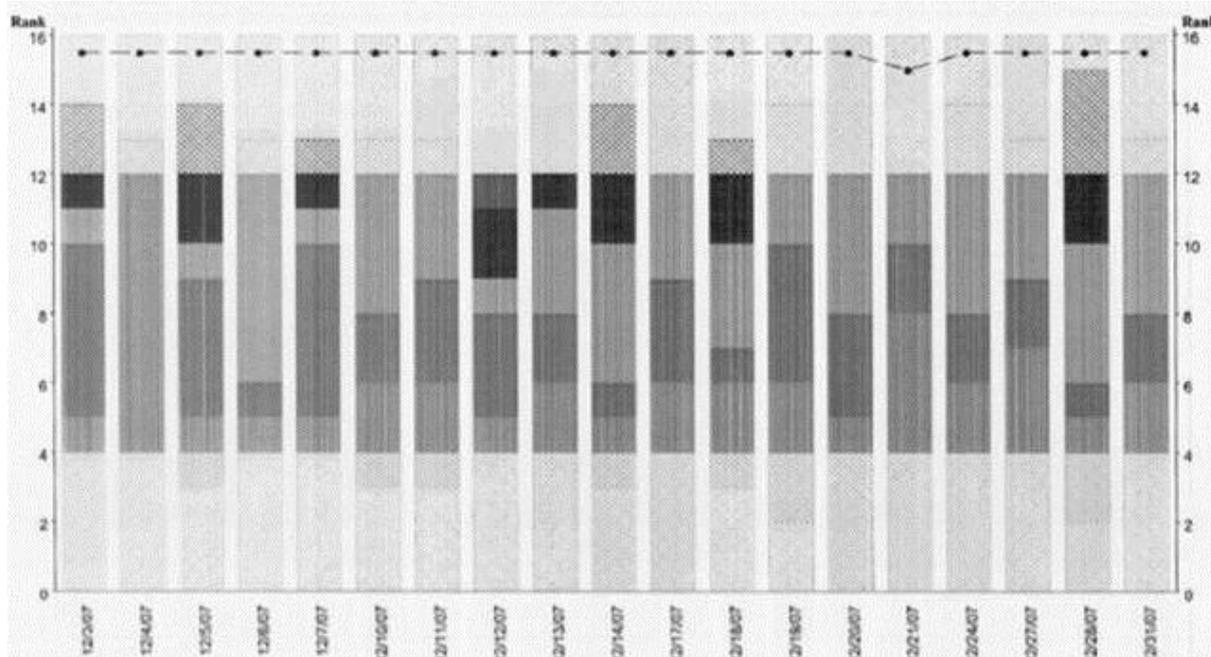
At the same time, Barclays' lamented the low rates submitted by the other panel banks, claiming that their focus was to benefit their trading positions on derivative products. Barclays brought these doubts on the low LIBOR rates to the attention of the New York Federal Reserve. On November 2007, its managers eventually resolved to contact the BBA, expressing concerns on the other banks' behavior, and in particular by the other banks' fear to take any risk. Thus, the bank representative encouraged the BBA to sanction these behaviors. Barclays expressed similar concerns to the FSA, in relation to these "problematic actions" and their effect on LIBOR-based derivatives.

⁶ As noted in the Commodity Futures Trading Commission report (*CFTC v. Barclays PLC et al.*, p. 8, note 8), before the financial crisis LIBOR was a generally solid rate, with modest fluctuations. The submitted rates range was very tight and frequently different banks would submit the same rate.

Of course, the Barclays' representative never mentioned that Barclays itself was not submitting honest rates.

Figure 2. Distribution of 3-Month LIBOR submissions in December 2007

Solid shading on the bars represents submissions included in the average in calculating the fixing, while crosshatched shading represents the submissions excluded by the calculation. Dots represent Barclays' position within the panel.



Source: Barclays' supplementary information regarding Barclays' settlement with the Authorities in respect of their investigations into the submission of various interbank offered rates.

Table 1. Barclays submissions and final LIBOR rates and the rates submitted by the second highest contributor in the second week of December 2007

	Dec 10	Dec 11	Dec 12	Dec 13	Dec 14
Barclays	5.19	5.19	5.15	5.05	5.03
FIX – USD	5.13	5.11	5.06	4.99	4.97

Source: Barclays' supplementary information regarding Barclays' settlement with the Authorities in respect of their investigations into the submission of various interbank offered rates.

On April 16, 2008, a *Wall Street Journal* article questioned the integrity of LIBOR. Following that report, New York Fed officers met to discuss eventual measures.⁷ The result was a note raising concerns about the US Dollar LIBOR “correctness” and “accuracy”. Fed officials could not find misreporting evidences. However, the note stated that banks in the US Dollar panel borrowed at a maximum of 25 basis points above their same day LIBOR submissions, on the same maturity. Moreover, dramatic increases in

the submissions were registered in the days of most intense media pressure.⁸

Only in the fourth quarter of 2008, the worsening of the financial crisis following Lehman Brothers bankruptcy, raised concerns on financial institutions' liquidity conditions. In that contest, Barclays continued to submit high rates, believing other banks' contributions were unrealistically low. The raising concerns urged the Deputy Governor of the Bank of England, Paul Tucker, to contact Barclays' CEO, Bob Diamond, showing his concerns on Barclays' submissions. In the wake of the scandal, Tucker admitted his concerns that Barclays was having liquidity problems and – like RBS, HBOS and Lloyds

⁷ Treasury Secretary Timothy Geithner and Federal Reserve chairman Ben Bernanke admitted to having had knowledge on LIBOR related problems from this date on.

⁸ For example, in the two days following the WSJ article, 3 month US Dollar LIBOR increased by 17 basis points. The highest increase since August 9, 2007.

– would require an emergency bailout. The increasing pressures brought Barclays senior management to ask LIBOR supervisors to lower their submissions to be “within the pack”. In that period, Barclays and Bank of England (BoE) had nearly daily contacts.

Eventually, on June 27, 2012, Barclays publicly admitted that staff members attempted to manipulate LIBOR and EURIBOR rates. Two days later, Bob Diamond stated that the bank would cooperate with authorities, but he would not resign. On the same day, BoE Governor Sir Mervyn King called for a cultural change within Barclays. On July 3, Barclays’ chairman Marcus Agius resigned, followed on the next day by Bob Diamond and by the banks COO, Jerry del Missier.

2 Barclays Flaws

According to US and UK regulatory agencies’ investigations, LIBOR manipulations appear to go back to at least to 2006. After having summarized the main events that occurred in this time span, we now focus on the analysis of the key behavioral phenomena characterizing Barclays’ choices. Next sections aim is to identify Barclays flaws, analyzing managers’ and employees’ behaviors, distinguishing between internal communications on reference rates manipulation between staff members and relationships with external institutions and regulators.

2.1 Barclays Flaws in Internal Relations and Organization

In the preliminary findings of the *Treasury Select Committee* (TSC) – following the testimonies of then Barclays’ executives and FSA chairman Lord Adair Turner before the House of Commons – we read as follows: “Barclays failed to have adequate systems and controls in place relating to its LIBOR and EURIBOR submissions processes until June 2010 and failed to review its systems and controls at a number of appropriate points. Barclays also failed to deal with issues relating to its LIBOR submissions when these were escalated to Barclays’ Investment Banking compliance function in 2007 and 2008”. Moreover, later in the document, we can report the attribution to Barclays of a “culture that could possibly have allowed that to occur”. These excerpts of the paragraphs 5 and 32, respectively, show the presence in Barclays of a biased corporate culture, incentivized by the lack of proper control systems.

2.1.1 Compliance Failures: Inadequacies and Underestimations

At the time of the violations, Barclays’ compliance system followed a pyramidal structure. Alarms were internally signaled within the business and to the Group Head of Compliance, that in turn reported to the Group General Counsel, that eventually reported

to the Chief Executive. The Group Head of Compliance also provided regular reports to the Group Governance and Control Committee, the Board Audit Committee and the Executive Committee.

Interrogated by the TSC, chairman Agius justified Barclays’ unawareness on LIBOR problems with the submissions being seen to be low-risk procedures. Before the financial crisis took place, LIBOR was seen as a “quiet” rate characterized by very narrow spreads between the various proposals determining it. Moreover, LIBOR submitting process was thought to virtually eliminate the chances of successful rate manipulations.

Albeit Agius testimony conforms to the supplementary information released by Barclays, the bank executives were still underestimating the insufficiencies of the compliance structure and the size of the violations. Probably, there was a general underestimation of the financial crisis effects on market liquidity and – therefore – the on LIBOR itself.

Although Barclays statements were focused on the alteration of the bank’s liquidity conditions, major violations happened also before the financial crisis, to benefit derivative traders positions. There was an evident attempt to minimize⁹ the large extent of the violations in the Barclays’ former executives assertions. This attitude can in no way be representative of the persistency of a bad phenomenon that hurt Barclays and the whole financial industry reputation.

In the supplementary information provided by Barclays, the bank devoted limited focus to the traders implied in the pre-financial crisis violations. Diamond himself stigmatized the size of the violations, emphasizing that “It was 14 traders [...]. We have a couple of thousand traders”. If it is true that the phenomenon appears to be limited to a small number of employees – as confirmed by Lord Turner¹⁰ – it is also true that Barclays allowed that a similar behavior could take place.

While in the next section we delve on the mystification culture of Barclays’ staff, in what follows we emphasize the insufficiency of Barclays’ control systems. A derivative trader shouting to the submitter across the trading floor to change his proposal is not just a sign of a deeply biased corporate culture, instead it exemplifies the inadequacy of Barclays’ control systems on how effectively information was transferred and abuses were reported.

⁹ Barclays’ supplementary information expresses uncertainty about the provenience of senior managers’ indications to the submitters, clearly emphasizing that the person involved were less senior managers (managers covering minor positions).

¹⁰ “I think it is probably the case that the total number of people identified in this investigation and others will end up as a relatively small number.” Lord Turner oral evidence taken before the Treasury Committee on July 16, 2012.

On the opposite, low attention on violations was coupled, if not incentivized, by the low controls.

We underline that these behaviors did not automatically benefit Barclays. FSA Final Notice reports that traders acted to “benefit their trading positions” during the January 2005 – July 2008 period. In this regard, Barclays’ CEO Diamond expressed doubts that his bank could have economically benefitted by those violations. However, asserting that some traders manipulated two of the main reference rates exclusively to benefit their personal interests remarks even further Barclays’ control systems inadequacy. For about four years, a group of rogue traders rigged LIBOR and EURIBOR rates to reach their goals,¹¹ benefitting only indirectly the bank on one hand, but also harming it on the other, both in terms of reputation and given the fines that Barclays had to pay thereafter.

Often, the lack of controls can be explained with the serious underestimation of a phenomenon. Shefrin (2008) describes a case of rogue trading, similarly favored by a bank’s scarce surveillance. In 2008, Société Générale SA sustained a €4.9 billion loss – the biggest loss ever reported in a rogue trading case at that time – after one of its traders (Jérôme Kerviel) embarked in not allowed trading operations. In 2005, Kerviel was promoted by Société Générale to the trading floor. His role consisted in simple hedged trading operations. Anyway, Kerviel eluded the bank’s surveillance investing huge sums of money in unhedged positions. These operations were very risky. At a certain point in 2006, Kerviel’s operations generated €1.6 billion, while in the Spring of 2007 were in the domain of losses for €2.2 billion. When, as late as in January 2008, Société Générale learnt about Kerviel’s unauthorized operations, the bank decided to liquidate the whole position that could potentially generate a \$50 billion loss, an amount greater than Société Générale’s net worth. Interrogated by the authorities, Kerviel reported two key facts. First, he explained how his supervisors closed an eye on the risks he was taking. They did not think that small unhedged operations could generate truly significant losses. Shefrin affirms that supervisors suffered of confirmation bias, overestimating evidences that confirmed their opinions and underestimating events that did not support them. The insufficiency of adequate control systems was the second point mentioned by Kerviel. In 2005, Société Générale’s executives showed optimism, indicating that the bank would over perform the industry. In particular, they emphasized the quality of their risk-management

systems. Société Générale never experienced problems related with derivatives operations in the previous 15 years. Thus, the executives displayed overconfidence, overestimating their own knowledge and perception of control. Illusion of knowledge and illusion of control are typical source of overconfidence (Shefrin, 2006). A preliminary report noted that Kerviel’s operations triggered not less than 24 alarms. Unable to understand Kerviel’s explanations, the controllers did catalog these alarms as difficulties associated with the entry of operations data into the bank’s computer systems. Again, the controllers were affected in their decisions by a confirmation bias.

Now, we turn to the failures in Barclays’ supervision of relationships between the derivative traders and the submitters. We emphasize how the LIBOR-submission process was thought to be a low risk procedure – similarly to the hedged position that Kerviel was supposed to do at Société Générale. If Kerviel’s operations were eased by mistaken interpretations made by his controllers, Barclays’ traders were assisted by controllers’ negligence. As far as we know, there is no evidence of any supervisor having reported to higher levels about collusions between traders and submitters.

At the time when the violations occurred, Stephen Morse covered in Barclays the role of Global Head of Compliance. In an interview released to *eFinancialCareers*, Morse defined the compliance role as funding in the reputational risk more than on the regulatory risk. In 2003, Morse obtained the installation of a trading compliance software in Barclays trading floors to detect potential illegal behaviors. He motivated those acquisitions to the Compliance Intelligence claiming that upgrading compliance systems was “definitely cheaper than dealing with the fallout from a scandal”.

Société Générale’s executives behavior easily compares with the failure on what Morse considered compliance function key features. Like Morse, Société Générale underestimated events that could possibly generate consistent losses. They were blinded by their (over)confidence in internal control systems.

Morse’s vision seems to reflect Barclays general attitude. In the 2008 Annual Report, “Barclays ensures that it has the functional capacity to manage the risk in new and existing businesses”. Barclays traders’ LIBOR manipulations differ from what happened in Société Générale since if Société Générale supervisors and control systems were eluded by Kerviel strategies, the 14 traders mentioned by Diamond acted openly, leaving electronic trails behind them. The FSA and CFTC reports state that the desk supervisors had knowledge of the criminal conduct brought on by the rogue traders. Albeit in 2007 and 2008 three alarms were reported, no information was brought to any senior management level.

During the financial crisis, the decision to lower LIBOR rate submissions came from senior managers. Marcus Agius admitted that no board member had

¹¹ Indeed, it is difficult to estimate the benefits perceived by alterations on LIBOR and EURIBOR rates. Thereby, former COO del Missier stated complexities computing how rates modifications affected single traders books, and therefore traders’ bonuses. The same position is shared by Lord Turner. *Fixing LIBOR: some preliminary findings - Volume II*, Qq 1024, 1110-1111.

knowledge of these instructions. Indeed, after the phone conversation that Bob Diamond had with the Deputy Governor of the Bank of England Paul Tucker, Barclays CEO *seems* to have instructed del Missier (then COO) to lower LIBOR submissions.¹² Thereafter, del Missier *seems* to have passed this information to the head of the money markets desk Mark Dearlove. Eventually, the submitter *seemingly* instructed by Dearlove *seems* to have informed the Compliance, that in turn agreed not to follow those directives and guaranteed him to interrogate the senior management. No senior manager was actually interrogated by the Compliance and the submitters – *apparently* instructed by the senior managers – continued to submit false rates.

Thus, Barclays appears as a company clearly affected by the lack of effective risk management systems, probably also due to managers' illusion of control and overconfidence.

While we may argue that control systems failures characterized other players in the investment banking industry,¹³ what happened in Barclays cannot be merely attributed to these flaws. The continuation of these behaviors for such a long period – to benefit personal interests – may find its roots in problems referring to the corporate culture of the bank. See the next section on these aspects.

We propose some remedies to Barclays' control systems flaws in what follows.

In general, there were three main critical points in Barclays' organization related to: the staff comprehension of the company internal organization, the application of firewall systems, the design of incentive systems.

In the Barclays 2009 Annual Report, "People risk" is defined as follows: "People risk arises from failures of the Group to manage its key risks as an employer, including [...] unauthorised or inappropriate employee activity [...]".

First of all, we underline staff failures related to the internal organization and job assignments. At the annual British actuaries conference, anthropologist Michael Thompson emphasized two key risk control

variables that can be summarized in two simple questions: "do we assume anybody is in charge?", and "is the power structure benign?". Regarding the first issue, societies sometimes tend to view the world from two different perspectives. Sometimes they assume that there is a vertical pattern of control but sometimes they assume that there is a horizontal dynamic where crowd power rules. Regarding the second issue, Thompson reports that the power structure can be altered by the unpredictable or unwise behaviors of who is in charge. When the FSA asked to three different Barclays' Money Markets Desk managers who was responsible for the controls on the same desk, it received three different answers. No manager accepted to be responsible for the controls. Such problems arise from the lack of hierarchic orders in a company control systems. Generally, where the power is horizontally divided there is a risk to ingenerate confusion.

A really important issue is the separation of security assignments. Also in this respect, we can use Kerviel's rogue trading case as an example. Shefrin (2008) emphasizes that Société Générale's preliminary report excluded the back office employees from any responsibility. These people were acknowledged to have correctly performed their functions, even though they possessed enough information to raise additional alarms. Shefrin emphasizes the importance to eliminate "narrow framing" from the company's entire workforce. Addressing narrow framing would avoid a biased vision of the events, helping the workforce to see what Shefrin calls "the big picture". We believe that a clearer internal staff organization – assigning responsibilities more accurately – could have avoided to create confusion in the Barclays staff, ensuring a greater control systems efficiency.

Barclays' internal organization seems to have been characterized by a collusive behavior between derivative traders and LIBOR submitters positions. Collusion between these two groups would have not been possible – or heavily reduced – if adequate control systems would have been in place. To prevent uncontrolled flows of information, the most common security system in investment banks is the so called "Chinese Wall", i.e., a system to isolate critical divisions. Procedures applied by this curtain include workforce education and trading floor surveillance. In its report, CFTC imposed Barclays to implement internal controls on communications and inappropriate submissions, labeling these procedures as "Firewalls".

Barclays was also forced to control communications with its traders, but also with external ones. This bond extended in a physical barrier, too, not allowing traders and submitters to work on the same trading floor. However, these systems not always ensure an efficient way to contrast illicit information exchanges. Even though the application of these systems would benefit risk management systems, it is also true that firewalls effectiveness strongly depends on controllers' monitoring: just one

¹² In truth, on the conversation there is a lack of clarity since Tucker excludes to have given any indication to Diamond. On his hand, Diamond asserts that he did not instruct del Missier to lower LIBOR submissions. In turn, del Missier stated that he thought that the dispositions were not given by Diamond, but by the Bank of England.

¹³ E.g., Kerviel unhedged operations at Société Générale; UBS loss of \$2 billion reported in 2011 after a rogue trading case; recent losses on derivatives reported by the London division of JP Morgan Chase. On JP Morgan CEO Jamie Dimon's assertions, given to the *Senate Banking Committee*, see: <http://www.bloomberg.com/news/2012-06-14/dimon-says-overconfidence-fueled-loss-he-can-t-defend.html>. In general, see <http://www.businessweek.com/articles/2012-05-17/how-jpmorgan-lost-2-billion-without-really-trying#p2>.

controller's failure could ultimately undermine a firewall efficiency. A company with flaws in its corporate culture would have probably experimented a reduced period of manipulations with adequate firewalls activated. However, it is difficult to think that this would have avoided the problem, either with the modification of Barclays' own control systems ("December 2009 Policy" and "June 2010 Policy")¹⁴ and with the application of the duties required by the CFTC.

Incentive systems play a major role in traders' contracts. Many times we have been warned that these solutions – used to level workforce and stakeholders targets – tend to increase traders' risk attitude. We should now ask ourselves if bonus-heavy contracts urge traders to break the law. In just one year, Jérôme Kerviel received from Société Générale a € 600,000 bonus, more than ten times higher than his base salary of €55,000. We cannot easily think that some individuals would quietly plan systemic criminal actions to solely benefit their books (and their salaries). Of course, the presence of a remarkable bonus part in an operator's contract could strengthen her risk-tendency leading in some cases her to violate internal rules and even laws, where incentivized by lacks in personnel surveillance and inadequate control systems.

Two weeks after his induction as Barclays' CEO, Antony Jenkins communicated to the staff that their bonuses would have been given following stakeholders perception, not following the bank's profits. Jenkins' intent was to restore the bank's reputation and not incentivize unethical behaviors through the employees' compensation.

The traders' and submitters' actions, the persisting violations, and the insufficient control systems were fatally linked to the presence in Barclays of a biased culture. Even an efficient compliance structure can be undermined by a negative corporate culture.

2.1.2 Barclays Corporate Culture Failures in Staff Relations

In the previous section we emphasized Barclays control systems inadequacies. We observed that Barclays biased culture acted as the main cause of the violations. This vision is shared by the Treasury Select Committee, that warned that "this attempted manipulation of LIBOR should not be dismissed as being only the behavior of a small group of rogue traders. There was something deeply wrong with the culture of Barclays. Such behavior would only be possible if the management of the bank turned a blind eye to the culture of the trading floor".

The involvement of Barclays' top management lead us to reflect on two peculiar aspects. First, the

transition from the traders' requests of manipulating the rate to the senior managers encouraging this choice. Then, the senior management attitude about the bank's reputation. Apparently, they both derive from the same cultural bias. Thus, we now look for the origin of this deep bias.

Bob Diamond is a key figure in Barclays' corporate culture. Diamond has been described as "smart, ambitious, driven, hugely successful" (Aldrick, 2012). Somebody even described him as "arrogant". Overconfidence led Diamond to focus, during the 2011 *Today Business Lecture*, on the importance "to rebuild the trust that has been decimated by events of the past three years [the financial crisis]; and that rebuilding trust requires banks to be better citizens". Farther on the lecture, Diamond described culture "how people behave when no-one is watching",¹⁵ adding that "culture truly helps define an organisation".

The investigations did not change Diamond's approach to business. Under Diamond's leadership, Barclays went through the recent financial crisis keeping its profitability and buying for just \$1.35 billion Lehman Brothers' US division core business, after its bankruptcy. This controversial decision taken by Diamond – excluding Nomura Holdings Inc., Barclays was the only company interested in acquiring Lehman Brothers' assets – resolved into a success and led to a great expansion of Barclays Capital Investment Banking services. In addition, having declined public assistance and avoided emergency bailouts, Barclays collocated itself at the opposite of Northern Rock, Royal Bank of Scotland, HBOS and Lloyds.

About ten months before the *Today Business Lecture*, Diamond claimed before the TSC the right to correspond big bonuses to his staff. Moreover, he asserted the necessity for banks "to take risks", closing a "period of remorse and apology for banks".

Diamond connected the right of the company to dispense high bonuses with its responsibility during the financial crisis: "we never failed a stress test, we never put the system at risk – we never took a single penny from any taxpayer around the world". It seems that he put himself in his speeches as the main representative of the banking industry, in the promises and in the claims alike.

Diamond, confident about the new control systems (adopted in the December 2009 Policy and June 2010 Policy), and driven by the good results achieved in a period of severe financial crisis, underestimated the size of the sanctions that could have followed the investigations by FSA, CFTC and

¹⁴ Barclays did not apply Chinese walls before December 2009.

¹⁵ TSC compares Diamond's allegations to the words contained in the *Group of Thirty* report on corporate governance. In that report it is asserted that "values and culture drive people to do the right thing even when no one is looking".

Department of Justice.¹⁶ The internal investigations (that cost Barclays 100£ million and went on by more than two years) did not lead Diamond to change his approach on external relations and Barclays management. Diamond, reassured by numerous sector benchmarks of his management skills, displayed confirmation bias and overconfidence: biases that lead to underestimation of risk.

Defined by the *Secretary of State for Business* Lord Peter Mandelson “the unacceptable face of banking” for his 2009 £63 million salary,¹⁷ Diamond was victim of his own ambition and overconfidence. Albeit Martin Taylor (Barclays’ CEO between 1995 and 1998) showed confidence in an interview that Diamond did not approve any criminal behavior in the bank, he also added that Diamond had led a risk-prone culture. Taylor’s words emphasize how Diamond shaped Barclays on his own image, so that the whole bank would reach very high standards, making it “an extraordinarily competitive and aggressive” company. As said, this choice led to the assumption of high risks by Barclays’ employees to reach the CEO’s ambitious benchmarks.

However, his ambition to strengthen Barclays’ standards, turning them into a benchmark for the others financial institutions, eventually resolved into a failure. Barclays’ staff failed to comply even with the standards contained in the FSA’s Financial Services and Markets Act 2000, whose respect by his directors is requested by Barclays. With regard to the effects of the competitive corporate culture imposed by Diamond, Philip Aldrick compares it with the one that led to the 2007-2008 financial crisis on *The Telegraph* 3 July, 2012 article. Aldrick’s interesting analysis sees Diamond as the representation of the success-based culture that ruled the investment banking industry before Lehman Brothers’ bankruptcy: profits were the ultimate aim and ethics were put aside.¹⁸

Asserting that Diamond’s imposed ambitious standards led some traders to illegal actions could seem to contradict to what previously said. That is, that the traders themselves acted following a personal interest. It would be erroneous to place such an

objection since the traders acted in the interest of their own books, even though their real aim was to favor their own contract bonuses and careers. If such behavior led to the possibility that other traders’ LIBOR-based positions could be hurt, the rogue traders met their aims anyway.

We now focus on the company internal relations, examining the culture that characterized Barclays’ staff in the period of the violations, trying to establish the eventual presence of risk-prone behaviors to achieve planned results. Analyzing Barclays’ internal communications, we identified a series of biased behaviors. We report two email exchanges that happened before and after the financial crisis. Such distinction is relevant for the range of individuals concerned and the different purposes. We underline that the investigations initially focused on the divergence between the different LIBOR submissions during the financial crisis period, later leading to the discovery of the previous period violations. Referring to the violations that happened to favor traders’ positions, we report on a brief email exchange, dated May 27, 2005.

Submitter: “Hi All, Just as an FYI, I will be in noon’ish¹⁹ on Monday [...]”

Trader: “Noonish? Whos going to put my low fixings in? hehehe”

Submitter: “[...] [X or Y] will be here if you have any requests for the fixings”

Focusing on the behaviors rather than on the events, we can read a culture of illicit in the trader’s words. Such a culture was widespread (or at least allowed) in the trading floors and submitters’ desks. In particular, it is astonishing the absolute “casualness” surrounding the email exchange. Also the submitter’s answer shows consciousness of the illegality of such a behavior, of the presence of weak control systems, and, more in general, of the opportunity to take illegal behaviors. This is the perfect environment for the development of a rogue trading culture. Gilligan (2011) connects rogue trading phenomena with the background tolerance of such behaviors. In his work, financial institutions’ techniques of neutralization are compared to the ones – studied during the Sixties – of juvenile delinquents. These comprehend denial of responsibility, denial of injury, denial of the victim. All these features are observable in Barclays’ executives depositions before the Treasury Committee.

The violations that happened before the recent financial crisis provide us deeper comprehension of Barclays’ corporate culture. It is obvious that a company’s operations, values and principles are easier to analyze in a regular market context. At the opposite, stress conditions emphasize the quality of risk management systems and involve senior managers in the company’s normal business. We now analyze a brief opinion exchange. From a methodological point

¹⁶ According to employees of other involved banks, when these banks started internal investigations thought that the eventual sanctions would have been manageable. See Ahmed and Protes (2012).

¹⁷ Mandelson complained about Diamond’s behavior, feeling it as arrogant and provocative. Moreover, he added that “He’s taken £63m not by building business or adding value or creating long-term economic strength, he has done so by deal-making and shuffling paper around”.

¹⁸ It is no surprise that Barclays’ new Chairman Sir David Walker and new CEO Antony Jenkins seem focused on giving the bank a more customer-oriented culture. This approach follows the beginning of the independent review commissioned to Anthony Salz, Rothschild’s Executive Vice Chairman. The review aims to assess the bank’s biased values, principles and operational standards.

¹⁹ noon’ish means around noon, i.e., around 12 am.

of view, it is good to remember that a person expresses his culture through his behaviors. The following email exchange took place after a *Wall Street Journal* article dated April 16, 2008, where LIBOR's integrity was questioned. In a phone call, Barclays' U.S. Dollar LIBOR senior submitter showed concerns to a senior Treasury Manager on the aforementioned article.

Senior submitter: "I would be paying ... [2.98] today and I'm going to be setting my LIBOR at [2.74] and I'm as guilty as hell.... I will go [2.74] unless I'm given permission to go otherwise, but I would be prepared to pay [2.98]"

Senior manager: "I'm happy for you to be at and around the top of the pack but can we please not sort of be ten basis points above the next...?"

The submitter followed the instructions, but said he thought there was a compliance issue, but no internal action was taken.

There are many interesting observations to be made on this phone call. First of all, in the first part of the call (not reported here) the submitter asserted that he was acting like all the other panel banks, submitting a rate lower than the one on which market transactions were based. Emphasizing such behavior, the submitter denies his own responsibilities, or at least try to share them with his peers, comparing his behavior with those of other colleagues. The submitter – similarly to other events during the financial crisis – shows perplexities on the submission of unrealistically high rates. He knows that he is acting dishonestly and, contacting the senior manager, he tries to avoid his assignment. Indeed, the senior manager shows no concerns for the violation, keeping a behavior finalized to reaching his target. Such phenomena can be reduced in what previously said on Barclays' corporate culture and its high risk-tendency. First of all, despite the submitter was conscious of his own illegal behavior, he did not alert the compliance structure. Albeit his concerns, the submitter continues to follow the behavior suggested by the senior manager. From the senior manager's perspective, it is evident an approach that can be compared with the culture that Diamond imposed to Barclays' employees. We also have to remember the aforementioned opinion of Philip Aldrick on Diamond's "pre-crisis" behavior.

The existence of both control systems inadequacies and target-based incentive systems acted as incentives for illegal behaviors in a deeply risk-prone culture. Nevertheless, Bob Diamond's over-achiever approach has certainly deeply influenced Barclays' corporate culture. His overconfidence in claiming a greater autonomy for the banks, and contemporaneously proposing ethical values above the market standards, shows Diamond as confident for achieving the prefixed standards, relegating the employees' behavior in the background.

Albeit Barclays' behavioral biases could be judged as typical of the investment banking industry,

the existence of risks based on unethical behaviors – or that anyway would put the company at risk – to benefit personal positions should request the need for financial institutions to adopt measures that would not incentivize such behaviors. The adoption of constant controls should be seriously examined by the financial industry representatives, since there are several evidences suggesting that banks should monitor more thoroughly their employees' behaviors. Indeed, the financial services industry does not experience strictly "moral" controls, like those of police bodies. Instead, financial regulatory agencies express their mandate in enforcing the respect of industry benchmarks. A company hurt by a biased culture is highly exposed to operational and reputational risk.

2.2 Barclays' Corporate Culture Flaws in the External Relations

We now turn to the analysis of how the company's biased culture could have influenced the interaction with external subjects during the financial crisis.

It is not illogical, or cause of guilt, that the regulatory agencies reacted with consequent worries following the growing media speculations. On the one hand, it is possible to affirm that the regulatory agencies should have demonstrated more attention towards the problem. On the other, the second phase of the violations (focused on giving a reassuring perspective on the bank's liquidity conditions) was focused on reassuring the investors through the medias.

It is then worth mentioning the relationships between the bank and the medias.

As a consequence of the article published on the *Wall Street Journal* on April 6, 2008, Barclays admitted "to have always assessed trustable and accurate LIBOR" and not to have had an illegal behaviour, but to have acted "distrusting the market conditions". This answer was agreed by some members of the staff. On May 29, an internal email from an employee of Barclays' communications department transmitted to say to the press that:

- "We quoted higher LIBORs at the time as we saw the stress in the market early

- Other banks followed us subsequently

- LIBORs rose, we moved to the middle of the pack as investors took off risk positions and we were a net beneficiary as investors deposited their cash with us and therefore we were able to move LIBORs in relat[ion] to other banks

- We do not want the market to think we misled it, so we have been robust to ensure this quote is not misunderstood

- We have said on the record that we always quote accurate and fair LIBORs".

Barclays had a similar behaviour towards the regulatory agencies. During the financial crisis, the bank's personnel received regular calls by members of the staff of the FSA, the Bank of England, and the

Federal Reserve Bank of New York. Moreover, Barclays received communications where the BBA expressed the preoccupations it had received regarding LIBOR. As mentioned above, it is worth underlining that Barclays was the first bank to contact the authorities about problems on LIBOR trustworthiness, showing preoccupation for the submissions to the other members of the panel (that it perceived to be underestimated). The bank occasionally discussed on its approach on determining LIBOR. In these cases, the explications did not coincide with the effective behaviour of the company, or at least did not totally coincide. During other conversations with the regulatory agencies, Barclays referred on the low liquidity conditions of the market, and the consequent effect on the LIBOR value. In some cases it was admitted that the bank, because of the absence of market-size transactions, would try to maintain their values close to those of the other panel banks.

Barclays also defended the LIBOR submission methodology (newly examined and confirmed in June 2008 by the BBA, after the *Wall Street Journal* article), and showed itself worried for the behaviour of the other banks. Barclays showed reliability on its own liquidity situation, though admitting to act following the other members evaluations while lacking of relevant transactions. However, during these conversations the bank did not admit that it was having a dissimilar behaviour to the LIBOR submission criteria, following a management directive.

At the moment of the analysis, the Barclays biased corporate culture appears quite clear. Having previously treated on its presence in the bank's managerial and operative activity, it now seems easy to relate it to the complexity of communications with the medias and the regulatory agencies.

As an example, when on March 5, 2008 the FSA contacted a submitter for information on the liquidity state of the bank, he discussed with a manager on the answer to give. The submitter showed himself prone to signal the submission of LIBORs lower than the values at which the transactions were made. However, he declined to tell the truth, worried that this could cause a huge scandal. Such a behaviour reflects the concerns showed by the submitter to the manager for what concerned submitting dishonest rates. Similarly, the submitter demonstrates to be willing to help the FSA, i.e., "trying to do something useful". Nonetheless, he eventually decided to desist, not to damage the company's reputation, avoiding to contact the internal compliance bodies.

We observe a peculiar aspect in Barclays culture regarding external relations, characterised by continuous omissions on the alterations of the LIBOR value, and in the directives at the base of the violations. All these behaviours can be referred to a psychological phenomenon called "aversion to a sure loss". This happens when people, facing the possibility of a sure loss, accept hugely risky

behaviours to avoid it, hoping to get-even, i.e., to "beat the odds". As an example, Shefrin (2008) refers the sexual scandal that implicated the then President of the United States, Bill Clinton. In this case, Clinton decided to deny the relationship with Monica Lewinsky, feeling that admitting it was a sure loss. He preferred to lie and sustain high risks concerning its image, embarrassment and legal expenses. The "bet" failed and Clinton was obliged to inform the Congress about his actions. Why did we refer the example of a political case, far from the environment in which Barclays operates? Effectively, literature is full of cases of "aversion to a sure loss" in financial institutions. However, the behaviour of Barclays' staff members resulted in being similar to Bill Clinton's impeachment, there where arises a feeling of rejection of responsibilities instead of the reach of industry benchmark. The manager and the submitter contacted by BBA, FSA and New York Fed incorporate in their denial approach the phenomenon of aversion to a sure loss. Refusing to admit alteration of reference rates, they tried to protect themselves and the company from the scandal previously cited by the submitter, exposing themselves to drastic penalties and hurting their image. Barclays had to pay £100 million for an internal investigation and a total fee of £290 million to supervisory authorities. In addition, the company executives were obliged to resign, and Barclays was periodically controlled by supervisory authorities.

To conclude, it is not surprising that a biased culture reveals itself to the outside, apart from the relationships between the internal personnel. Regarding this case, there are evident examples in the relationship with the medias and regulatory agencies. In the amended supplementary information provided by Barclays, the bank underlines the continuous relations with US and UK regulatory authorities, beyond BBA. However, if Barclays denounces to have been penalized though having had a conciliatory behaviour towards the regulatory agencies requests, it is also true that the bank did not furnish to the authorities the right information, but instead justifications and "half-truths". At this stage, the psychological phenomenon of aversion to a sure loss emerged, and was alimanted by a risk-prone context. The same feeling of refusal towards the acceptance of a sure loss appears in the other banks currently under investigation. Once the problem on the accuracy of LIBOR was evident, they claimed their extraneousness to the case, though investigations were already taking place and well in progress.

3 Analysts' Reports on Barclays

As previously mentioned, LIBOR accuracy problems and Barclays involvement emerged during the financial crisis period. Initially, it was suspected that the bank had liquidity issues and would need a bailout. We analyze the reports issued by the financial analyst of 25 brokerage firms between 2010 and 2012,

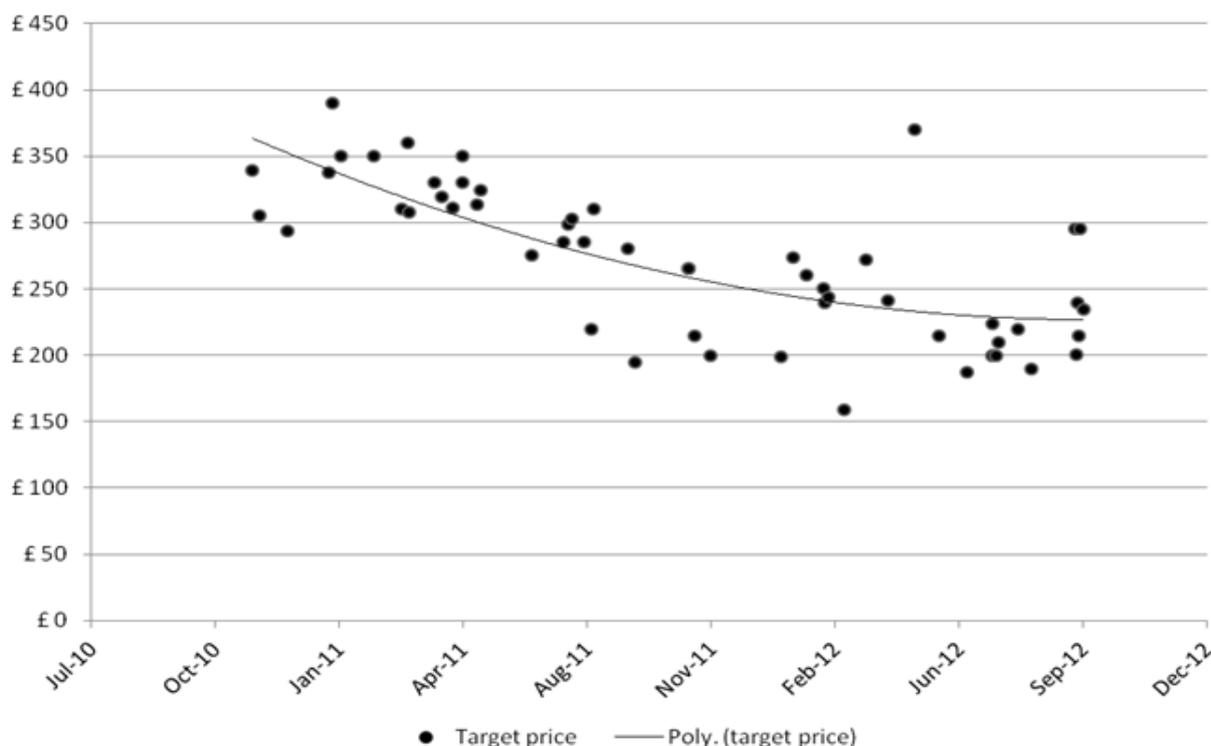
excluding the key period of the financial crisis, when securities experienced strong declines and financial institutions' stocks were particularly affected. Moreover, the reports in this chosen time period were done when the investigations had started and there was high attention on the events. We show that the analysts underestimated – like Barclays and the other panel banks – the size of the fines and the damages to Barclays' reputation, and that this failure to evaluate the effects of the violations led the brokers to an excessive optimism in the bank's evaluation.

In the literature, one of the most relevant positions on financial analysts is that they tend to be biased upward in their reports. This phenomenon has often been explained either with a behavioral bias, i.e., over optimism or, more often, referring to the conflicts of interest they face: Analysts working for financial institutions could be incentivized to provide

positive recommendations to benefit the relationships between their bank and the covered companies. See Cervellati (2012), Cervellati and Piras (2012) and Piras, Denti and Cervellati (2012).

Figure 3 shows analysts' target prices for the Barclays' stock in the period November 2010 – September 2012. Up to May 2011 we underline that the analysts tended to converge to a general consensus. Similar target prices and recommendations (mainly "hold" recommendations with the exceptions of Bank of America, UBS and Collins Stewart) show such tendency. However, there were great differences in Barclays' stock performance and the brokers' target prices. Despite the analysts showed consensus on a 20% potential gain, the market discounted the stock (even more than 30% in the November 2010 – November 2011 period).

Figure 3. Analysts' Target Prices on Barclays' stock (in Sterling Pounds, £)



Source: our elaboration of analysts' reports on Barclays

Analysts' overestimation of Barclays' market performance must be placed in a particularly unstable market. After the 2007-2008 financial crisis and Lehman Brothers bankruptcy, stock markets have been characterized by very high levels of volatility, particularly with regard to stocks of the banking sector. Despite these events could cause differences in the analysts' reports, they tended to release similar target prices. In particular, we note such a feature in the November 2010 – August 2011 and the January 2012 – September 2012 periods. In the literature, this phenomenon is called *herding*. Herding phenomena can influence investors and analysts alike. Analysts

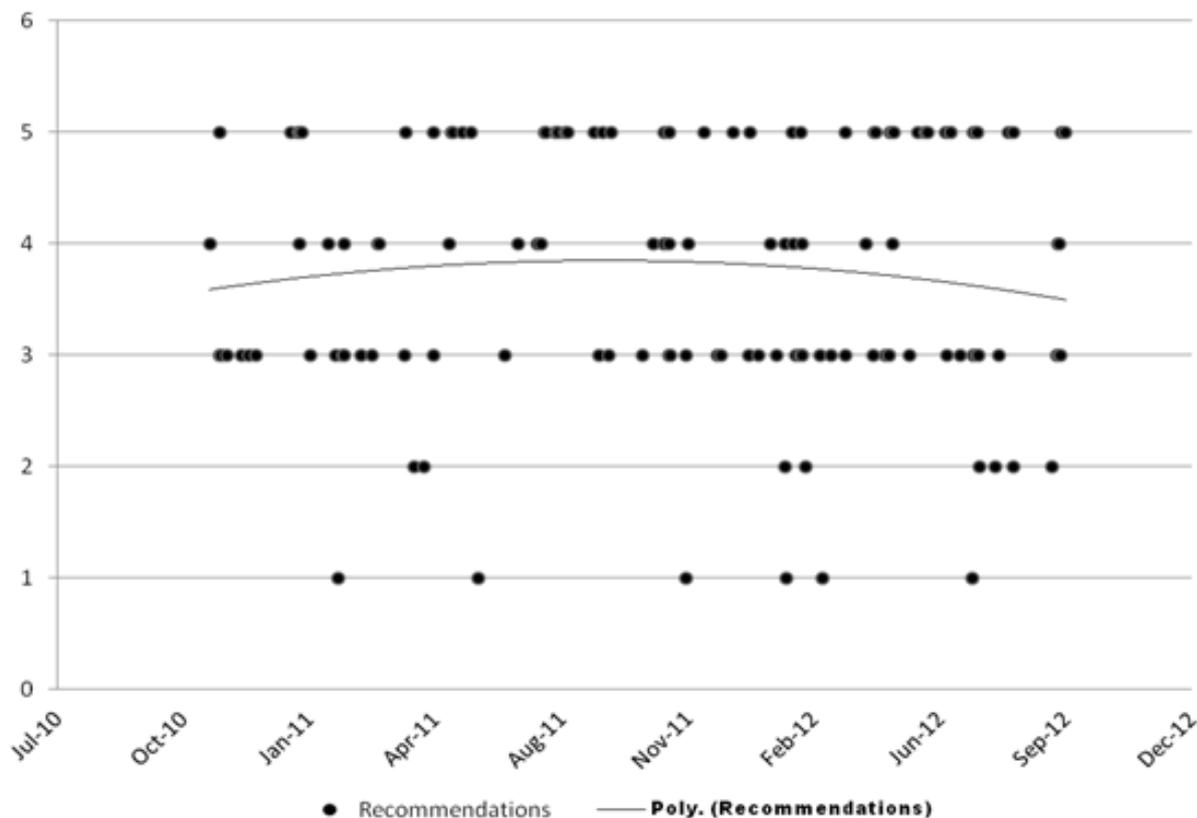
affected by herding tend to follow the consensus. Thus, if analysts are affected, herding tends to dramatically alter the reports. Herding is caused by many factors. Some analysts tend to avoid making forecasts that would diverge from the consensus, being afraid that they would hurt their own reputation and, thus, their career (Cervellati and Piras, 2012; Piras, Denti and Cervellati, 2012). There exists a positive correlation between herding and market volatility, since the reputational costs associated with departures from the consensus are higher. Yet, during the financial crisis, even if volatility was very high, on

target prices on the Barclays' stock remained very close to analysts' consensus.

With regard to analysts' recommendations, while the majority of them were positive, we underline the

evidence that a non-negligible part was represented by "neutral" ones, as shown in Figure 4.

Figure 4. Analysts' Recommendations on Barclays stock



Source: our elaboration of analysts' reports on Barclays

Note: the recommendations systems adopted is the following: 1= Sell, 2= Underweight, 3= Neutral, 4= Buy

Despite analysts tend to be influenced by herding, some reports diverge from the consensus. We note the typical presence of outliers and the high differentiation of forecasts in Figure 4. This phenomenon intensifies on February 2012. The most interesting result is the high correlation between news and forecasts: There exists a strong correlation between new information and changes in the reports. Clearly, the analysts did not anticipate the possibility of investigations. Barclays was at the time just posed under the scrutiny of international regulators, and one should think that concerns on LIBOR accuracy could have brought – as they did – the regulatory agencies to ask information to market players. Anyway, the reports do not confirm these speculations. The analysts usually modify their forecasts following public information. The news on investigations about possible LIBOR manipulations was followed by decreased expectations on annual returns and an increase of "neutral" ratings. Following the FSA and CFTC notices the trend changed: analysts reported more "sell" recommendations and lowered the target prices, but also stated that the price at which Barclays'

stock was then traded underestimated its one-year expected return.

The trend of financial institutions similarly involved in unauthorized behaviors clarifies what we stated above. In 2012, JPMorgan reported significant losses following its British division derivative products trading. JPMorgan stock quote was rapidly negatively affected by these events. Anyway, the trend reversed after a month, starting an up-trend. Similarly, following the June 27, 2012 sanctions, Barclays quotation dropped: on the first day it lost about 12% of its market value. After having reached a bottom on July 25, the stock price reverted, returning to the pre-sanctions levels at the end of that August, and is currently traded (as of Sept 20, 2013) at a price that is two times the bottom one of July 2012.²⁰

²⁰ However, it is very difficult to isolate the effect of a single event on the stock price deviations. In the period starting from June 2012 there have been strong rises in the markets. In addition, on July 27, 2012, Barclays reported better than estimates financial results. This date coincides with the start of the up-trend, following a down-trend diverging from the

Barclays and JPMorgan events have more in common. They share similar weak control systems and extend to multiple staff members, becoming a minority's usual behavior. But the main feature of these events is the instant public knowledge of the events. In both events the stock quotations immediately lost part of their market value. However, Barclays and JPMorgan were poorly economically hurt by the events. The fines that are enforced to the financial institutions can not affect their long-term perspectives. Thus, they both quickly recovered the losses sustained during the edge of the scandals. Due to the growing popularity of socially responsible investments (SRI) this work would not be complete without an analysis of the reports used for rating the socially responsible investments. We show that also socially responsible investors failed in understanding Barclays' behavior. In the SRI industry a series of key benchmarks exist to help choosing the correct investment. Particularly, we focus on the corporate responsibility indexes. The *Dow Jones Sustainability Index* (DJSI) and the *FTSE4Good* Index are two of the most important SRI indexes. Barclays is part of the FTSE4Good Index since its inception in 2001. In 2011, Barclays scored a percentage of 92% among its "super-sector". It is also part of one regional and two global DJSI indexes. One of this, the DJSI World, represents the top 10% of the companies included in the Dow Jones global indexes. In the Sustainability Report published in March 2007 (during the critical period of the violations), the bank states that "For Barclays, sustainability has two strands: being a sustainable bank and being a responsible global citizen". We omit the first strand, and we focus on the second one. This intent precedes of three years the above-mentioned Diamond's statement at the Today Business Lecture. Again, this shows Barclays' executives confidence in the bank's management.

For a wider look, we analyze the connection between the politics of prevention disposed by the companies and their social score. BP, Tokyo Electric Power Company (TEPCO) and Olympus were also part of the DJSI. These companies share the exclusion from the DJSI for environmental violations (BP and TEPCO) and accounting scandal (Olympus). The violations made by Barclays staff members to LIBOR accuracy further hurt the credibility of SRI analysts. Following the explosion of the BP's Deepwater Horizon in the Gulf of Mexico, RobecoSAM (responsible for the development of the DJSI indexes) removed BP from its indexes. Moreover, risk and crisis management parameters were added to the oil and gas companies assessments. Similarly, we wonder if additional risk management parameters should be

added to the financial institutions assessments. Anyway, adding parameters to other sectors is not enough. The lack of a proper regulatory control of the assessment reports is the main cause of data biases. An adequate external control system is necessary to properly evaluate the social profile of the companies, avoiding the self-appraisal. The importance given by the companies to obtain and communicate socially responsible goals deserves more objectivity in the companies profiling. Brokerage firms and individual investors rely upon these reports to determine their investment decisions. thus, inaccuracies in the reports would extend the bias to the market, with strong unethical effects.²¹

4 Conclusions

The aim of this paper is to use behavioral finance to explain the factors that brought Barclays Plc. to face a £290 million fine (about \$440 million), having deliberately tried to manipulate the LIBOR (London Interbank Offered Rate). This sums to the £59.5 million fined by the British Financial Services Authority (FSA) – the highest fine ever imposed by this organization at that time – and respectively £102 million and £128 million by the US Department of Justice and by the Commodity Futures Trading Commission (CFTC). To achieve this goal, we analyze the reports of the American and British regulatory agencies, and those of financial analysts. Even though the focus of analysis are Barclays' actions, we compare them with what other market participants did, to give a comprehensive look on financial industry and its dominant culture. In particular, after describing LIBOR rate determination methodology and the behavior of Barclays personnel when violations occurred, we presents Barclays' failures in organizing its own control systems and establishing a proper corporate culture. Finally, we analyze the behavior of market participants and supervisory authority in evaluating Barclays' financial and ethical performance.

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market trend (from June 28 to July 28, the S&P 500 Index gained 0.49%, while Barclays lost over than 23% of its market value). These data give us reference of the lack of monitoring on the bank legal issues that led to panic and overreactions.

²¹ The socially responsible investors extensively incorporate these reports in their investment decisions, given the difficulty for an individual investor to get information on a company's social profile.

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