

Why do banks get fined?

An investigation into the motivations of banks and
regulators

Master Thesis International Relations and Diplomacy



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1. Introduction

“I have found a flaw [in my ideology].... and I have been very distressed by that fact”

Alan Greenspan (2010 congressional hearing)

As a former head of possibly the most influential bank in the world, Alan Greenspan’s ideological “flaw” may have been one of the more costly mistakes in the past few decades. Even though he argues the Federal Reserve was not responsible for the financial crisis in a Wall Street Journal opinion piece (Greenspan, 2009), there is some evidence that an environment of deregulation can encourage banks to take risks (Buch, 2008). Other academics emphasize the recurrent nature of financial crises (Kindleberger, 1989) or the so-called low probability systemic risks, also called “black swans” (Taleb, 2007). The complete picture may include a combination of the aforementioned causes, yet the most obvious culprits in the eyes of the public have been banks.

Many banks were bailed out during the 2007 financial crisis. The United States alone used an estimated 29 trillion in order to keep the sector alive (Felkerson, 2011). These bailouts created large holes in national budgets in many Western countries, which were further amplified by the subsequent economic downturn (Dobbs 2015). This created a poor public image for the financial industry as the banks returned to profitability only a few years later while unemployment in their host countries soared. The situation resembled a tragedy of the commons in which bank profits were privatized and losses socialized across society. Public perceptions suffered further through documentaries like *Inside Job* (2010), a documentary about the excesses in the financial industry. It contains interviews with many of the main actors, both in government and in the private sector. *Inside Job* aims to reveal the intentional risky behavior perpetrated by banking institutions in the United States. Stories such as this created a high public pressure on governments to reign in the financial industry.

As a response, regulators have doled out record breaking fines in the years after the financial crisis. United States regulators alone have given out over 100 billion dollars in fines (McGregor March 2014)¹. Most of these investigations began as punishment for some of the practices identified as having caused the crisis, such as the deceptive practices involved in

¹ <http://www.ft.com/intl/cms/s/0/802ae15c-9b50-11e3-946b-00144feab7de.html#axzz3ZAVd8WOj>

selling sub-prime mortgages or misrepresenting the stability of collateral debt obligations². The problems turned out to be extensive, as “many 2006 vintage subprime loans [were] characterized by fraud and misrepresentation”(Barnett, 2010). The investigations mostly hit American banks as they were most deeply invested in the US housing markets. However, international banks like Credit Suisse and Deutsche Bank also received fines for sub-prime mortgage related practices (Schäfer, 2014)³. Many of these banks eventually settled with the US government in return for paying a fine.

The investigations into sub-prime mortgages also had a spillover effect into other areas of regulation as banks were being investigated for transgressions unrelated to the financial crisis. The fact that many banks broke laws or ignored sanctions reinforced the perception of a banking world that had acted with impunity. Notable examples are the LIBOR-rigging scandal, the dealings with various criminal gangs and regimes under sanction as well as large-scale tax avoidance in Switzerland⁴. Some of these cases were handled by regulators from multiple countries. The LIBOR-rigging scandal, for example, was handled by the UK, the US and the European Commission Competition Authority. However, in the area of fines, two countries stick out above all others. The vast majority of fines have come from US and UK regulators, often acting in tandem.

This touches on a difference in approach between mainland Europe and the US. European national regulators have largely refrained from fining financial institutions, while the US has relied on fines as its principle deterrent. Furthermore, the United States has expanded its scope beyond its own shores and has prosecuted financial wrongdoing outside its borders. Thus, the US has been able to fine banks outside of its territory. This is discussed in the settlement between US authorities and Credit Suisse:

Foreign rules with an extra-territorial scope, such as the U.S. embargo law administered by the U.S. Office of Foreign Assets Control (“OFAC”), can possibly be applied to financial institutions and employees which qualify as “U.S. persons”, even if the actions in question take place outside U.S. territory. The U.S. authorities have

² Sub-prime mortgages were extended to people with poor credit and a high likelihood of defaulting. Collateralized debt obligations were collections of these mortgages sold to other investors. For a more complete primer, go to <http://www.economist.com/node/1632736>

³ <http://www.ft.com/intl/cms/s/0/91432dce-b125-11e3-9548-00144feab7de.html#axzz3ZAVd8W0j>

⁴ Examples of these transgressions can be found in a single bank: HSBC. Source: <http://www.ft.com/intl/cms/s/0/f80d7434-b02e-11e4-a2cc-00144feab7de.html#axzz3bA2DOC43>

also recently started applying their embargo regulations to non U.S. persons who export services from the USA to sanctioned countries (FINMA 2009)

This interpretation of jurisdiction is very broad and allows regulators to claim near global reach. It may be a natural reaction to the increasing globalization of banks. There is no global regulator, yet the US has increasingly stepped up to fill up the void. This lack of a cross-national regulator has been particularly jarring in the EU, which is formally a common market yet still continues to operate based on national lines. It will remain to be seen what role the ECB will play in its future role as Eurozone regulator in the banking union.

The punishment process can be very opaque. The United States operates through multiple regulators with varying legal bases and limited accountability, making public scrutiny exceedingly difficult. This was very obvious in the case of BNP Paribas:

There are no meaningful checks on this process, let alone a plausible procedure for BNP to appeal. Bank bosses cannot even publicly criticise deals they agree to under extreme duress. No precedent is set and no guidance provided as to the limits of the law and the proportionality of the punishment (Economist July 5th 2014)

US intervention has made governments in other countries nervous. Some countries have a very close connection to their banking system as a source of funding outside tax collection (Weidmann 2013). In this kind of system, the US enters as an outside party that has little regard for the relationships between the various parties in a country. This makes it interesting to see what factors could influence whether or not a bank is prosecuted.

There are plenty of factors that could be important in banks making risky and sometimes law-breaking decisions. Some have blamed the repeal of Glass Steagal (Kregel 2010), while others focus on the too big to fail label or the age of the bank. This thesis will investigate what factors, other than financial misconduct, can predict whether or not a bank gets fined. The answer can help regulators, but also banks anticipate possible scenarios in which a bank is likely to break the law and subsequently prevent these scenarios from happening.

The second chapter will look at some of the existing literature of bank regulation and the different factors that could be responsible for a fine. Chapter three will cover a discussion of the methodology and the various assumptions being made in the research. Chapter four is an

analysis of the fine data retrieved from the different regulators. Finally, chapter 5 will conclude.

2. Literature review, theoretical framework and hypotheses

2.1 Literature review

The focus of the existing literature lies mostly on banking supervision as opposed to enforcement. This literature review will touch on, amongst others, the impact of repealing the Glass-Steagal act, the influence of being a “systemic” bank and an overview of different enforcement mechanisms.

One possible cause of risky behavior has been the repeal of the division between investment and retail banks, embodied in the Glass-Steagall Act in the United States. The division was present in only a few countries, namely the United States, Japan and Canada and the US repealed it in 1999. Since the financial crisis, multiple legislatures have suggested or adopted a renewed separation of commercial and investment banks (Sattar 2013, Bank of England 2014, Whitehead 2011). This makes clear that at least in the eyes of governments the merger of retail and investment banking is problematic. However, the academic world is divided on the issue.

White (2010) argues strongly against blaming the repeal of the Act for the financial crisis. He argues that even if the Act was still in place, the investments into risky mortgages would still be made. He states that “It was [the banks’] investments in mortgage-related securities-bonds, which have always been permissible investments for commercial banks-that subsequently lost value, combined with insufficient capital, that did them in“(White 2010, p946). White goes on to argue that the repeal of the Act did not go far enough, as some barriers between different financial services had been left intact. He thus concludes that a renewed division will have little effect on financial stability.

Kregel (2010) argues largely the opposite. His main point is that the repeal of the Act was conducive to cartelization and created incentives for abuse. This is because “the experience of the recent financial crisis, as well as those of previous history, suggests that it is multifunction banking that is the source of the crises, while it is the accompanying large size

which contributes to contagion and system risk”(Kregel p47). In Kregel’s argument the division was well-merited and a mere reinstatement does not suffice. He argues for increased oversight and an updated version of a ringfenced banking sector.

While the academics above have very definitive judgments, others are more reserved.

Crawford provides a short history of the Act and a detailed description of its repeal. She has interviewed a series of people that were directly involved in the repeal of the Act. Crawford writes that “The question of whether or not the repeal of the Glass-Steagall Act caused the current financial crisis cannot be answered definitively” (Crawford 2011, p132). Her conclusion is that more debate is needed, and that caution is necessary in further regulation for banks.

Similarly, Focarelli et al (2011) investigate whether the repeal of the Act caused either investment firms or commercial banks to change their attitude towards risk when merged into a universal bank. They find some evidence that commercial banks increase their appetite for risk and conclude that “it is not possible to reject that the repeal of the Glass-Steagall led to looser credit screening by broad (universal) banking companies trying to gain market share and/or to the lower initial ability of these banks to correctly evaluate default risk” (Focarelli et al 2011, p 4). Limited controls and fewer restrictions can lead banks to be vulnerable to transgressions of the law and thus receive a substantial fine.

Thus, the repeal of Glass-Steagal has not been universally supported and it has even returned in some form. The Volcker Act was passed after the financial crisis and does much the same thing. Whether or not the theory lines up with regulatory actions will be analyzed in this thesis.

A second important factor in the financial crisis has been the designation of systemic banks. After Lehman brothers was allowed to go bankrupt, virtually all interbank lending ceased (De Haas 2012). This forced governments to bail out other banks that ran into trouble, as there seemed to be a very real risk that capital markets would collapse. The move to rescue these banks has been criticized for substantiating the belief that certain banks have a government guarantee. This leads to these banks experiencing substantial financial benefit over their competitors. As described by Admati (2013)

“The prospect of becoming systematically important or too big to fail provides banks with incentives to grow and become more complex. The implicit guarantees reduce the funding costs of the too-big-to-fail institutions and give these banks an advantage over other banks and over other companies in the economy.” (Admati 2013, p 130)

The near-certainty of receiving a government bailout when facing bankruptcy creates a form of moral hazard, in which banks will be able to take up more risk. The more certain a bank is of being able to solicit a government bailout, the more risk it will take on (Dam 2011). This behavior may also lead to fines as these banks seek ever higher returns on investment without much worry for the risk they carry. Their size may cause other problems as it becomes difficult to keep track of all the operations of the bank. HSBC in particular has struggled with this problem, as it was caught unaware by the tax evasion in its Swiss banking operation (Ralph 2015). Similarly, the so-called London Whale trader working at JP Morgan's office managed to lose six billion dollars before his trading was curtailed (Ralph 2015). In short, the too-big-to-fail label brings real financial benefits to banks, but these are not without downsides. Being a large and diversified banks can lead to less effective internal mechanisms and make some branches of the bank prone to receiving serious fines.

Regulators may have their own agenda in fining banks. They can use banking fines to counteract a buildup of risk in a bank, for example in a situation where banks have little to lose in a bankruptcy (Marshall 2001; Admati 2013, p41). In a situation where a bank takes up more risk due to a government guarantee, as mentioned in Dam (2011), punishment in the form of fines or prosecution of individuals seems to positively affect the behavior of the bank. Delis (2011) looks at different actions that banks can undertake in order to decrease bank riskiness. He finds that mandating capital reserves does little to affect behavior, while regular audits and punishing unwanted actions clearly do affect it.

This is related to another aspect of supervision: public scrutiny. At least in the US, regulators face very little direct oversight. A clear example of this can be seen in the prosecution of the LIBOR rigging case. O'Brien (2014) dives into the issue and finds that regulators have immense leeway in deciding the punishment for the banks involved. Because the system is opaque, it can be unclear what factors actually determine the size of the fine. Additionally, there may be incentives for regulators to settle for a fine, rather than playing out a criminal prosecution to its conclusion. O'Brien argues that *"In the United States [...] although a corporation may admit to extensive and pervasive abuse of the law, prosecutorial discretion can allow it to escape criminal indictment [...] it is difficult to see how these settlements achieve accountability or can be deemed to be in the public interest"* (O'Brien 2014, p509). Additionally, the United States has multiple overlapping regulators that have the authority to prosecute these cases. The SEC, DOJ, FED and State level authorities such as the New York Department of Financial Services all have the authority to give substantial fines to

transgressors. The lack of direct oversight, combined with an unclear division of labor between regulators may open up prosecutions for political reasons. Foreign banks could make for a more popular target and election season may put pressure on elected officials to strike a deal in their investigations. This is true especially in the United States, where attorney-generals are directly elected as opposed to appointed.

While there may be worries about their impartiality, regulators have steadily gained in importance. As mentioned in the introduction, the US claims global reach in its financial oversight. This may be beneficial, as banks tend to move their business to places with a weak regulator (Buch 2008). Similarly, the large banks consist of extended international networks which are difficult to supervise by national legislators. A regulator that can monitor these, and intervene early in order to address faulty risk calculations, can prevent behavior that is too risky and may lead to insolvency (Delis 2013). Baxter (2014) discusses the expansion of financial supervision in the case of the extraterritoriality of banking. The expansion means that it is now more difficult for banks to operate under multiple supervisions in order to receive the supervision regime most beneficial to them. Increased supervision has been a global trend, resulting in the slow removal of banking secrets, as is happening in Luxembourg and Switzerland. Thus, evolving global norms have removed barriers that were previously present, revealing the underlying transgressions of banking laws.

Some research has been done into financial regulatory effectiveness. Hill (2012) uses a quantitative approach in order to assess the enforcement of capital requirements in the United States. She looks at 2350 different enforcement actions from multiple regulators across the country. In this, she finds that even within a country there are differences in how different regulators enforce the law. In particular, she finds that there is a “*near-complete absence of capital enforcement actions issued to the largest banks*” (Hill 2012, p.645). This conclusion supports the idea that large banks hold a special position, even in the eyes of regulators. The special position of certain banks has been public for some time now, as even Eric Holder, the US attorney general, has stated that “the size of some of these institutions becomes so large that it does become difficult for us to prosecute them” (US Senate Judiciary Committee 2013). A statement like this is unlikely to encourage banks to strengthen their internal risk calculations.

Political calculations aside, the US does spend more on bank supervision than any other country (Jackson 2007). The US also takes a different approach towards regulation:

“More than most other jurisdictions, the United States tends toward an adversarial system of regulation, where formal enforcement actions take on great importance. Ample evidence in other fields of investigation suggests that in other countries informal actions, private negotiations, and industry guidance substitute to some degree for formal enforcement actions. It appears that enforcement actions do exert a disciplinary power upon banks” (Jackson 2007, p285)

Problems arise when the United States override the enforcement actions by other countries and step in to fine banks outside of the US. In Europe this is possible because supervision remains with national governments while international banks have transcended borders. An analysis of a part of the fines given out by the British market authority, the FCA, has been done by Patton (2014). He discussed timing, targets and reasons for fining in a similar method to this thesis. However, he only discusses a period of three years and there is little analysis of the implications of his findings.

In short, there are multiple reasons that could cause a bank to get fined. It could exert unacceptable risk because of becoming a so-called universal bank, being designated a systemic bank or experiencing another form of moral hazard. Similarly, regulators could have their own incentives to fine banks, with different countries taking their own approach towards banking enforcement. The crux here is that fines given out to banks could be based on other considerations than the extent of their wrongdoing. Additionally, there are certain characteristics of banks that could make them more liable to be fined. This then leads to the research question of this thesis:

Research question: *What factors affect whether banks get fined by regulators?*

As shown above, there is substantial research that punishment can decrease moral hazard and bank risk if applied correctly. There is some proof that punishment must have some bite, warnings and guidelines have not been shown to substantially alter behavior. It therefore seems that a strong financial regulator, one that consistently enforces the rules, is necessary if governments want banks to follow regulations. Since the financial crisis, the US has played the role of a transnational regulator, focusing mainly on Western banks. Outside of the US, the UK has given out large financial fines as well⁵. Since these countries account for the

⁵ <http://www.fca.org.uk/firms/being-regulated/enforcement/fines/2014>

majority of fines given out⁶, an analysis of their motivations is useful in order to assess their viability as transnational regulators, especially with the possibility of a rival being created in the form of the European banking union. This thesis will attempt to test some prevalent theories available on the fines given out by US and UK authorities and then compare their approach towards banking enforcement. This should give further insight into the inner workings of financial supervision and its future.

2.2 Hypotheses

So-called systemic banks⁷ have an implicit guarantee from the government. This decreases the downsides of risky behavior because the possibility of a bankruptcy is removed. A government is highly incentivized to counter this behavior, as it will face substantial costs when bank investments go bad, as they did in 2007. President Obama has tried to remove some of the moral hazard through public statements. This was very clear in a 2010 speech where he stated that there would be “no more tax-funded bailouts” (Obama 2010)⁸. In effect, he attempted to remove the US safety net that had been provided to systemic banks during the financial crisis. Yet technically, this was a continuation of policy from before the crisis. Lehman Brothers was allowed to fail, and it nearly took the entire world financial system with it. It is hard to believe that any president would allow a systemic bank to fail when push comes to shove. This fact creates leverage on the side of banks, which governments need to be able to counteract. Governments need to radiate resolve in order to dissuade banks from taking on too much risk. One way this can be done is through more thoroughly punishing the behavior of these banks rather than non-systemic banks in order to account for their relatively safe position in the international system.

This leads to the first hypothesis:

H1: “Systemic” banks get fined more often than banks without this designation

H1a: The financial crisis has caused “systemic” banks to be fined more often than before the crisis

⁶ <http://blogs.lse.ac.uk/conductcosts/files/2014/07/CCP4-Summary-Table-and-Results.pdf>

⁷ “Systemic bank” is a designation given to banks that have been deemed to be of crucial importance to the international financial system. Another term for these banks is “too big to fail”. This means that if these banks are allowed to fail, they will cause the entire financial ecosystem to crumble. Carried along with this designation is the implicit guarantee that the government will bail them out in the case of financial difficulties.

⁸ <https://www.youtube.com/watch?v=q99gVu1qrQE>

The 1933 division of commercial and investment banking was done in order to prevent banks from taking risks with depositor money. In 1999, this risk seemed to have decreased to such an extent that the division could be repealed. Only fourteen years later, the law was reinstated. The uncertainty about the effectiveness of the division makes it a factor worth investigating. How does the merger of investment banks with commercial banks affect the financial system? A lot of research has gone into the repeal of the Glass Steagall act in the United States. Crawford (2011, p127) discusses the act and states “*Some believe the repeal of Glass-Steagall contributed significantly to the current financial crisis*”, but eventually does not find convincing evidence either way. As discussed in the literature review, there is no academic consensus on the matter. In order to assess the riskiness of investment arms, one could look at the fines given by governments. If banks with investment arms have attracted more fines, this may indicate support for the argument that such an arm encourages risky or even lawbreaking behavior. This then leads to the second hypothesis:

H2: Banks with investment arms are more likely to get fined than banks without such an arm

Political incentives may push regulators to more strongly pursue certain banks or be more active in certain seasons. Extracting a high fine from a bank may supply additional capital for a financial prosecutor and help him win elections. Additionally, the proceeds of some fines are added to the regulators operating budget. Foreign banks may make for especially viable targets, as fining them may have limited impact on the local economy and thus have less downsides compared to fining a domestic bank. The third and fourth hypotheses are:

H3: Foreign banks will face higher fines than banks that share the nationality of the regulator

H4: In an election year banks will be fined more than outside of this period.

3. Research design and methodology

3.1 Approach

A quantitative approach will be used in order to address the research question. The onus will lie on a comparison between the fines given before and after the 2007 financial crisis. Depending on data availability, the time span will be 2003-2014. Starting in 2003 will allow for the comparison of a substantial amount of time before and after the crisis. As will be seen

later in the thesis, the financial fines regiment changed considerably after 2007. The highest fine given out went from \$80 million in 2005 to \$16 billion in 2013 (Blustein 2005).

Quantitative analysis can be used to observe the trend towards higher fines during this time. The quantitative approach will be used as to tease out patterns in fining behavior. The data used will come from public sources such as regulators, financial magazines and scholarly articles. Qualitative analysis would help as a comparison between the goals of different regulators. The UK has a different approach towards disciplining its financial sector than the United States, and a qualitative analysis could link this to the fining behavior of its regulators. Some of these differences will be discussed later in this chapter.

Since fining banks has to this day remained mostly a national affair, this thesis will focus on countries as opposed to international organizations. As mentioned before, the analysis will focus on the US and UK as together they represent around 75% of fines given out⁹. The EU Commission has given out fines, but mostly in the area of competition rather than as a financial market authority and thus will be excluded in the data. Selecting two countries also allows for a comparison of different approaches towards fining. Both of these countries have embraced deregulation in the financial sectors and both have very large financial sectors. However, the UK, as a member of the EU, is more closely intertwined with the European markets. Similarly, while the housing bubble did not affect the UK directly, both the volume and size of its fines have gone up after the crisis. This makes it a valuable addition to the thesis. The statistical analysis would come in on the side of the frequency and targets of fines. Using multiple regression analysis, this paper will consider the “systemic bank” label, the presence of an investment arm, elections and foreign versus domestic banks.

The scope of the analysis will include all institutions that can be referred to as a “bank”. This mostly means retail, universal and investment banks. As most fines are counted in USD, this will be the currency used in the analysis. British fines will be converted using an average of the period surveyed, which in this case was \$1.54 per GBP. Lawsuits pursued by non-government agencies will not be included as this thesis focuses on regulator action. A weakness in the data is the distinction between banks and other financial institutions or even the distinction between universal, investment and retail banks can be difficult to make. The distinction will be based on the self-identification of the institutions. If a financial institution

⁹ LSE Conduct Cost summary table, available at: <http://blogs.lse.ac.uk/conductcosts/files/2014/07/CCP4-Summary-Table-and-Results.pdf>

offers investment banking, it has an investment arm and can be considered either an universal or an investment bank. If a bank has both a retail and an investment branch, it can be considered a universal bank. The designation of systemic bank is derived from a 2011 document by the Financial Stability Board (FSB 2011).

The dependent variables will be fine frequency and size. The independent variables are phase, systemic and non-systemic, foreign and non-foreign and country. Phase means before or after the financial crisis, where 2003-2007 is before and 2008-2014 is after the financial crisis. All the independent variables are dichotomous variables. An equation for two factors measured on a continuous scale would be:

$$Y = b_0 + b_1*x + b_2*z + b_3*xz$$

A similar equation is used in the analysis. However, since some of the variables are not expressed in number but instead use class variables, a true regression analysis cannot be used. Instead a mixed model, one that uses both class variables and continuous variables, is used in order to do the analysis.

The data used will come from a series of sources. Firstly, the Financial Times has created an overview of bank fines after 2007 (Stabe 2014). This dataset contains US regulator fines above \$1 million from 2007-2014. To this dataset, I will add US data from 2003-2007. Ideally 2000-2002 would also be included, but the data for this period is not available online. The US data before 2007 is publicly available on the websites of the various regulators. The data will be retrieved from federal regulators, which include: the Federal Reserve Bank, the Office of the Comptroller of the Currency(OCC), the Department of the Treasury, the Department of Justice and the Securities and Exchange Commission (SEC). Since these agencies are either responsible for, or involved in, virtually all fines above \$1 million. State regulators will be included when mentioned in federal documents. Self-regulatory agencies, such as the Financial Industry Regulatory Authority (FINRA), will not be included as they do not directly represent government. All fines were double checked with media sources to prevent double counting. On the UK side, the FCA publishes yearly reports on the fines given out to various banks. The threshold for fines will be \$1million for the US and half that for the UK. This is done because the UK has a banking industry that is substantially smaller and thus is likely to receive smaller fines as compared to the US.

3.2 A brief summary of large fines in the past

Bank fines are no different from other forms of punishment. They seek to punish previous behavior while also acting as a deterrent for possible repetition. That being said, the penalty regime can vary substantially between regulators, or even in a single regulator over time. For this thesis, the difference between the UK and US is the most important. The UK has a single regulator in the Financial Conduct Authority (FCA). The FCA was created in 2013 and is the successor to the FSA, which was dissolved due to its perceived failure in preventing the excesses of the financial crisis (Juwon Oladimeji 2013). The new organization has been much more aggressive in its fining and is still very much in its early stages, so the final effects of its creation will become clear in the coming years.

The US system is very different from the UK. The US has a slew of Federal and State regulators that have the power to impose fines on banks. The ones most prominent in fining banks are the Securities and Exchange Commission (SEC), the Federal Reserve Bank (FRB), the Department of Justice (DoJ), the Department of the Treasury (DoT or FINCEN, the Financial Crimes Enforcement Network) and the Department of Housing and Urban Development (HUD). On the state level the largest players are from New York, with the State Attorneys from the Eastern and Southern district, as well as the New York Department of Financial Services playing a large role. This is because New York houses one of the world's largest financial centers, and thus holds authority over these financial institutions.

In the US, "cases are often resolved through settlement agreements rather than hearings" (Ponsford 2015). This means that many of the details of the case often do not come out, as "these settlement agreements generally allow a defendant to "neither admit nor deny" the appended Statement of Facts" (Hubbel 2013, p 431). This allows US regulators to quickly close a case at the cost of criminal prosecution of the people responsible at the bank. The UK has increasingly made use of similar methods in order to achieve similar successes.

The fines given out by regulators vary greatly. Back in 2005, the \$80 million fine given to ABN AMRO was "the largest fine ever imposed on a financial institution for violating AML laws." (Greenberg 2006) Before the crisis, the average fine (counting only those above \$0,5 million) in the UK was around \$5million. This was much higher in the US, where the average was \$85 million. Since then, US regulators have given out the largest fine ever recorded, \$16 billion to Bank of America (DoJ 2013) and fines given out have increased both in size and in frequency.

Before looking at the data, there are a few examples of regulatory action worth mentioning. The first big regulatory action in the data was in 2004, when ten investment firms were fined for violating the division between their research division and their investment bank. This led to biased reports from analysts and misleading reports to clients. The total sum of the so-called “Global Settlement” was \$1.4 billion (SEC 2003). The penalty of \$400 million against Salomon Smith Barney Inc. was then the “highest- ever imposed in civil securities enforcement actions” (SEC 2003). The fine itself was quite remarkable as US regulators had mainly focused on energy companies dealing with securities because of the Enron scandal. This was a large-scale and concerted action of US regulators and it is still affecting the behavior of these investment banks today (Rong Wang, 2009)

One of the largest post-crisis settlements was the Independent Foreclosure Review Settlement. A combination of fourteen mortgage servicing companies paid a total of \$10 billion in order to help US citizens whose houses were being foreclosed. This settlement was largely due to the “deficient practices in mortgage loan servicing and foreclosure processing” (OCC 2014), meaning that these banks had not followed proper procedures in evicting people or being transparent about their loan payments. The largest share of these fines was given out to Bank of America in addition to the separate but related \$16 billion fine it received for selling faulty mortgage products. When looking at the total sum of fines given out in the entire period surveyed by this thesis, mortgage products and securities are responsible for the largest part of these fines.

The last big source of fines discussed here is the manipulation of LIBOR. The London Interbank Exchange Rate is the average borrowing rate of eighteen major banks in London. The LIBOR rate is reported every day and it is used as the base for over \$300 trillion in loans (Kiff, 2012). This makes this rate crucial to world finance, and its fluctuations have large effects on markets. In 2012, traders from multiple banks involved in reporting their borrowing rate for LIBOR calculations were found to be giving false reports in order to help their own trading positions. These revelations resulted in regulator action from across the Western world. UK, US and EU regulators all gave out several billions in fines to the banks involved and investigations are ongoing to this day. EU involvement was especially interesting as it does not yet have a regulator responsible for bank behavior. However, LIBOR was approached as a competition failing, which is something that the EU Commission does have authority over. This may be an indication of times to come as the

ECB starts taking over regulatory responsibility from national bank regulators in the Eurozone.

Some of these investigations are still ongoing. As bank regulation is being adopted and implemented, more and more financial crimes are being found out. The gradual removal of the banking secret in Switzerland and Liechtenstein are probably the most important in this field, but the EU also has a newfound focus on combatting tax havens¹⁰. A likelihood of future enforcement actions makes reflection on past policies a crucial course of action.

4. Results and Analysis

Introduction:

Ever since the beginning of the financial crisis, fines have been increasing. Before the financial crisis, 2003 saw a spike in fines because of the Global Settlement¹¹ and in 2006 due to a \$1.6 billion fine for AIG. Fines entered a new order of magnitude after 2012, as they saw a dramatic increase in both size and frequency. This mirrored the return to stability of the financial markets as well as the time needed to build substantial cases against these banks. This increase occurred in both the UK and the US. The largest fines in the US were based on wrongdoing in the mortgage sector, while the UK gave out the largest fines to banks manipulating the London Interbank Offered Rate (LIBOR).

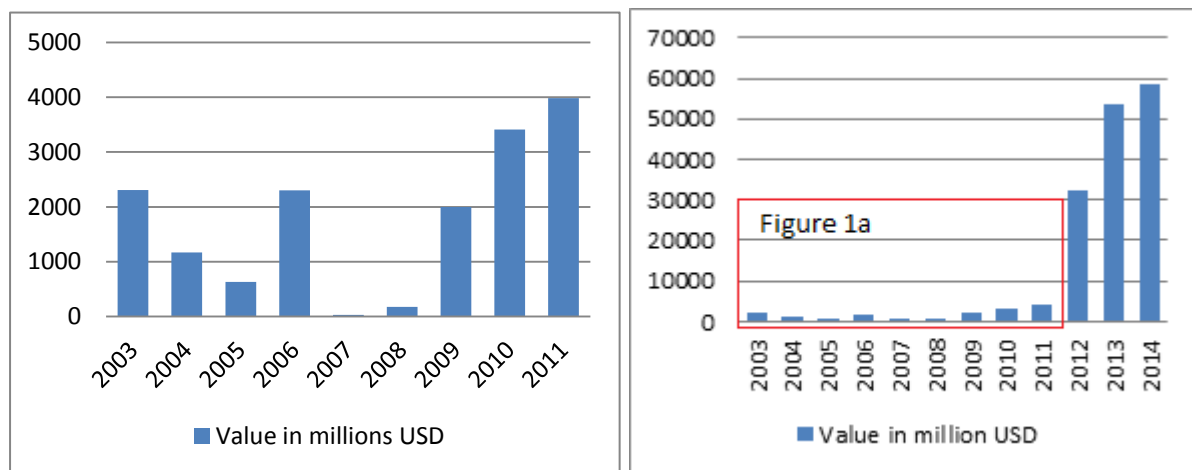


Figure 1a: Sum of fines 2003-2011, showing a comparable size in the total sum of fines until 2011

Figure 1b: Sum of fines 2003-2014, showing the large increase in fines starting in 2012

¹⁰ http://ec.europa.eu/taxation_customs/taxation/tax_fraud_evasion/a_huge_problem/index_en.htm

¹¹ A settlement with 10 of the US largest investment firms due to a conflict of interest, worth \$1.4 billion. For more information see <https://www.sec.gov/news/press/2003-54.htm>

4.1 Systemic banks

Systemic banks are banks so crucial to the world financial system that the system would crash without them. This may make regulators hesitant to fine them.

Hypothesis 1: “Systemic” banks get fined more often than banks without this designation

Hypothesis 1a: The financial crisis has caused “systemic” banks to be fined more often than before the crisis

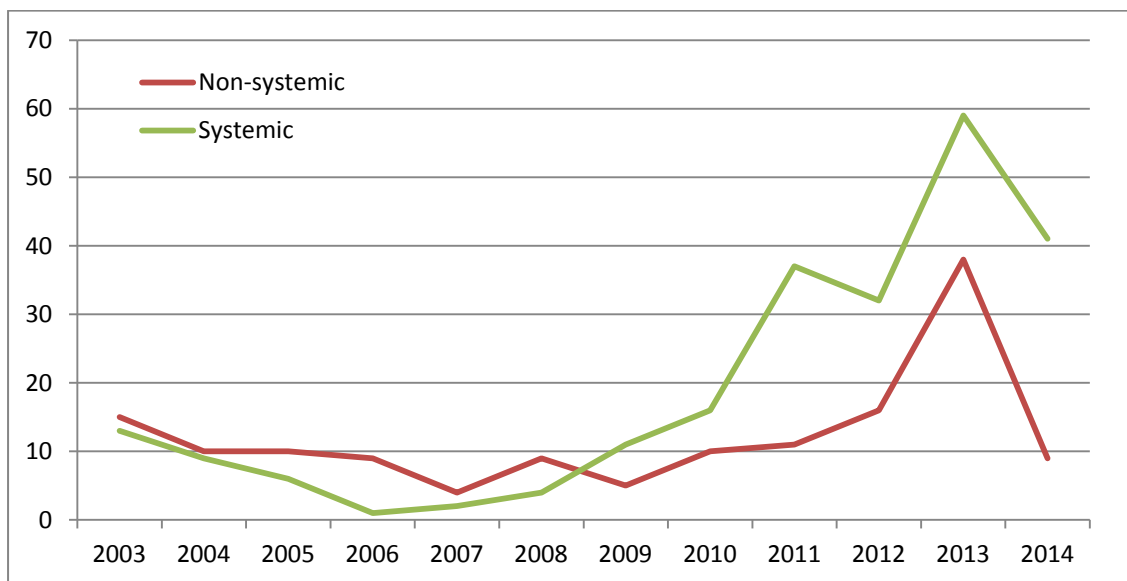


Figure 2a. Frequency of fines for systemic and non-systemic banks in both the UK and US combined

Figure 2a gives a visual representation of the frequency of fines for systemic and non-systemic banks. Other than the spike in 2013, the frequency of fines for non-systemic banks has remained relatively comparable. In 2013 a series of mortgage originators was fined in the US for selling sub-prime mortgages, which explains the spike. Systemic banks, on the other hand, have seen a steady rise in fines.

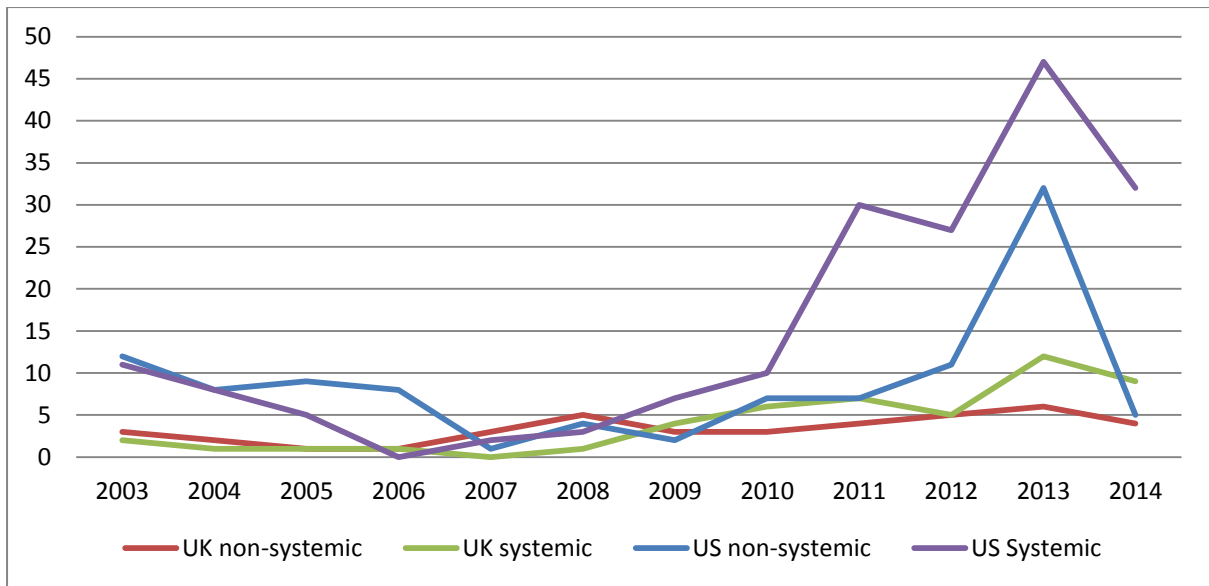


Figure 2b. Frequency of fines for systemic and non-systemic banks separated by country

While the hypotheses only refer to frequency, the size of fines will also be discussed. Table 1 shows the dramatic change in size of the fines. For both the US and UK the average fines for systemic banks have gotten about 11 times larger after the financial crisis as compared to before. In the US, when accounting for inflation, fines for non-systemic banks have barely increased at all. In the UK, fines for non-systemic banks have increased sevenfold but still only average about \$15 million compared to the \$73 million of systemic banks.

Country	USA		UK	
	Non-systemic	Systemic	Non-systemic	Systemic
Mean Fine Before Crisis	114	78	2	7
Mean Fine After Crisis	112	918	15	73

Since there are multiple variables involved, the interaction between variables in multiple regression were tested. The primary variables are phase (before or after the financial crisis), systemic designation and country. This allowed us to find the combined effect multiple variables have on the size of the fine, for example the systemic variable could only be relevant if combined with the country variable.

In the interaction table, the three primary variables are phase, systemic and country and they were significant at <1% error rate. When the three way interaction was tested, the difference

in the size of fines for systemic and non-systemic banks before the crisis was small and found to be non-significant for both the US and UK. After the crisis however, the difference between these two groups was found to be extremely large and very significant in the USA.

In the UK, the difference was also very large but non-significant. This shows an interaction between phase, country and systemic. Notable is that the interaction between systemic banks in the US after the crisis and virtually all other cases was shown to be significant, including the interaction with systemic banks in the UK after the crisis. This means that there is a significant difference between the way the US fines systemic banks after the crisis and the other situations presented here. Both the frequency and size of fines have increased for both the UK and the US. In this scenario, the R-squared was 0.072, meaning this model explains 7.2% of the variation in fine size with four degrees of freedom.

Number	Phase ¹²	Designation	Country	Average Fine in millions USD
1	Before	Non-systemic	USA	114
2	Before	Non-systemic	UK	2
3	Before	Systemic	USA	78
4	Before	Systemic	UK	7
5	After	Non-systemic	USA	112
6	After	Non-systemic	UK	15
7	After	Systemic	USA	918
8	After	Systemic	UK	73

Number interaction	Significance
1 vs 3	0.9243
2 vs 4	0.9951
5 vs 7	0.0002
6 vs 8	0.8684
7 vs 8	0.0010

Yet these results can be improved. The distribution of fines is very tail heavy, meaning that a few fines substantially change the outcome of the interactions. Specifically, the 16 billion fine for Bank of America represents 10% of the sum of all the fines. Additionally, the UK has given out a large amount of fines of around \$1 million. This distribution is shown in figure 3. One can see that there is a substantial amount of fines on the low end, and more than 20 fines at the high end, substantially pulling the average fine upwards.

¹² Phase is a dummy variable for the financial crisis. Before is the period 2003-2007, after is the period 2008-2014

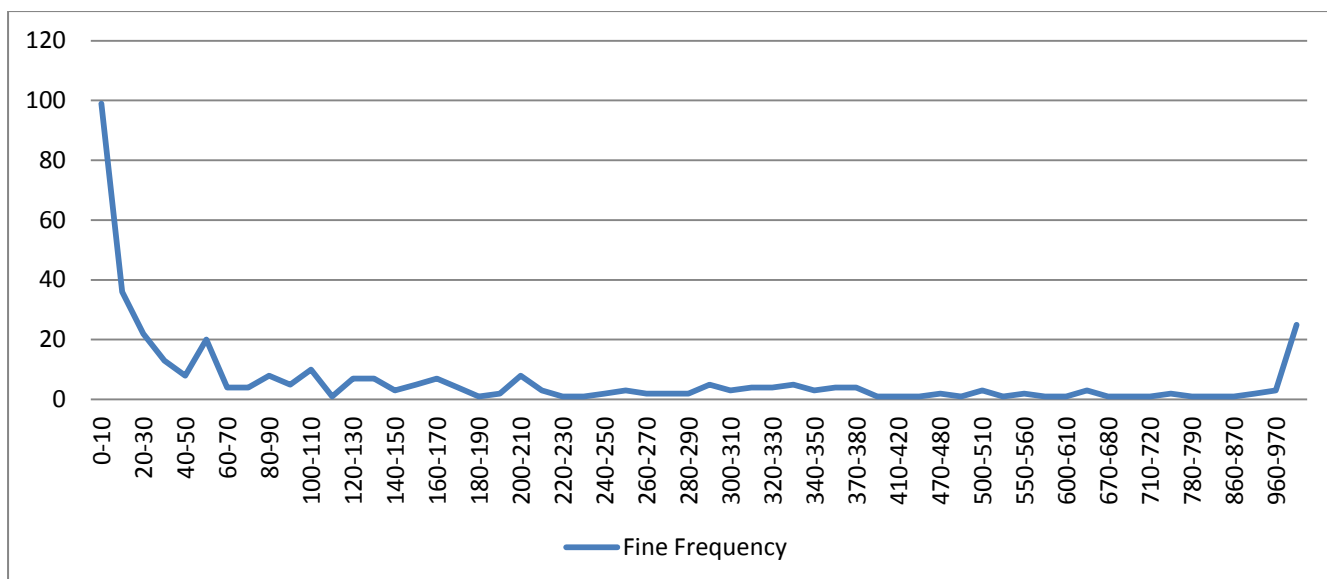


Figure 3. Frequency distribution of fines in millions USD

In order to decrease the effects of outliers, the fine size variable was log transformed. This resulted in a distribution that was much more similar to a normal distribution which was shown with the mean being very close to the median after transformation (See annex).

The log value of fine size was then used like before in testing the interaction between the three variables. These three primary variables remained significant at 99%. However, their interactions became much more significant.

Table 4. Significance of interaction between cases ¹³ Table 2. (Log-adjusted)	
Number interaction	Significance
1 vs 3	0.2647
2 vs 4	0.3360
5 vs 7	<0.0001
6 vs 8	0.0009
7 vs 8	<0.0001

Through decreasing the importance of the outliers, the significance in all the interactions mentioned here has improved. Most importantly however, the interaction between 6 and 8, meaning the difference in the value of fines for systemic and non-systemic banks in the UK, is significant. In this model, both the UK and US differentiate between systemic and non-systemic banks in the way they fine banks after the crisis, but not before. Similarly, there is a significant difference in the size of fines between the UK and the US, which holds across the board (for the full significance table, see annex). This conclusion fits with the averages seen back in Table 1, where there was substantial variance across countries and between systemic and non-systemic fines. An additional strength of this model is its explanatory power, as it has a R-squared of 0.370, meaning it explains 37% of the variance in fines.

When log adjusted, the data does not support hypothesis 1. Systemic banks are not noticeably fined more before the crisis. However, hypothesis 1a is supported as there is a significant

¹³ The same interactions as Table 3, see Table 2

difference in how systemic banks are fined, both compared to before the crisis and compared to non-systemic banks.

4.2 Investment banks

The Glass-Steagal Act has prompted much debate over the years. Fine data can be used to check investment bank integration with regulatory action.

H2: Banks with investment arms are more likely to get fined than banks without such an arm

This hypothesis turned out to be difficult to test. Almost all systemic banks getting fined are also universal and the other way around. This is well represented in figure 4. The figure shows that the line of systemic banks is almost identical to the universal bank line. The large overlap between universal and systemic banks is displayed in table 5.

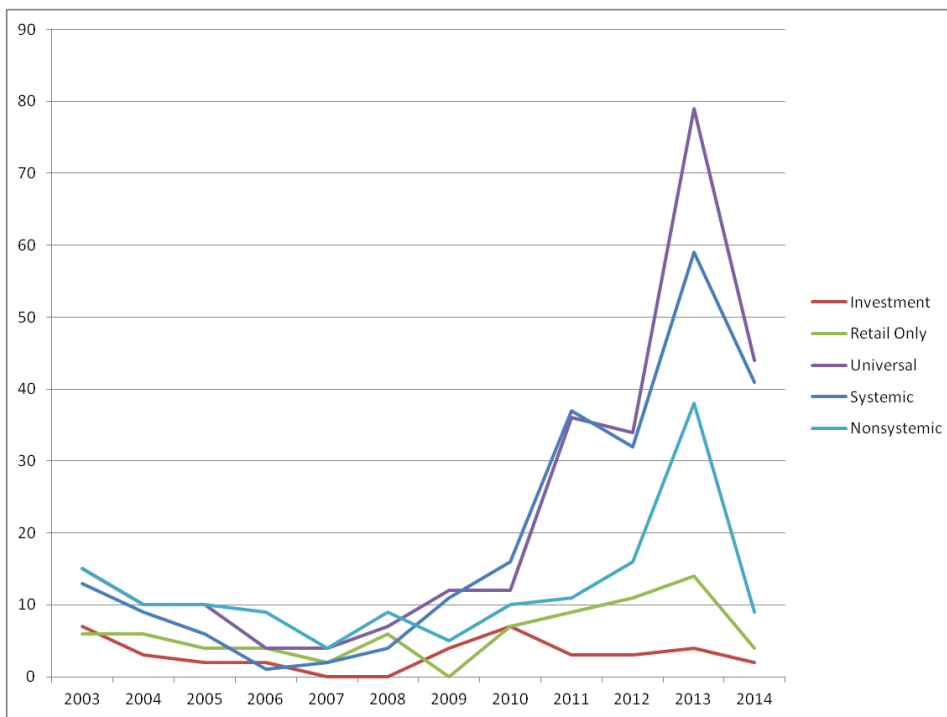


Figure 4. Frequency of fines for universal, retail and investment banks compared to systemic and non-systemic banks.

Table 5. Systemic and Non-systemic banks subdivided into universal, investment and retail banks	
Non-Systemic Total	146
Investment	20
Retail	73
Universal	53
Systemic Total	231
Investment	17
Universal	214

Universal banks represent the majority of the total sum of fines. The only arena where they are comparable to retail and investment banks is average fines, which shows that investment banks receive large fines mostly incidentally rather than structurally.

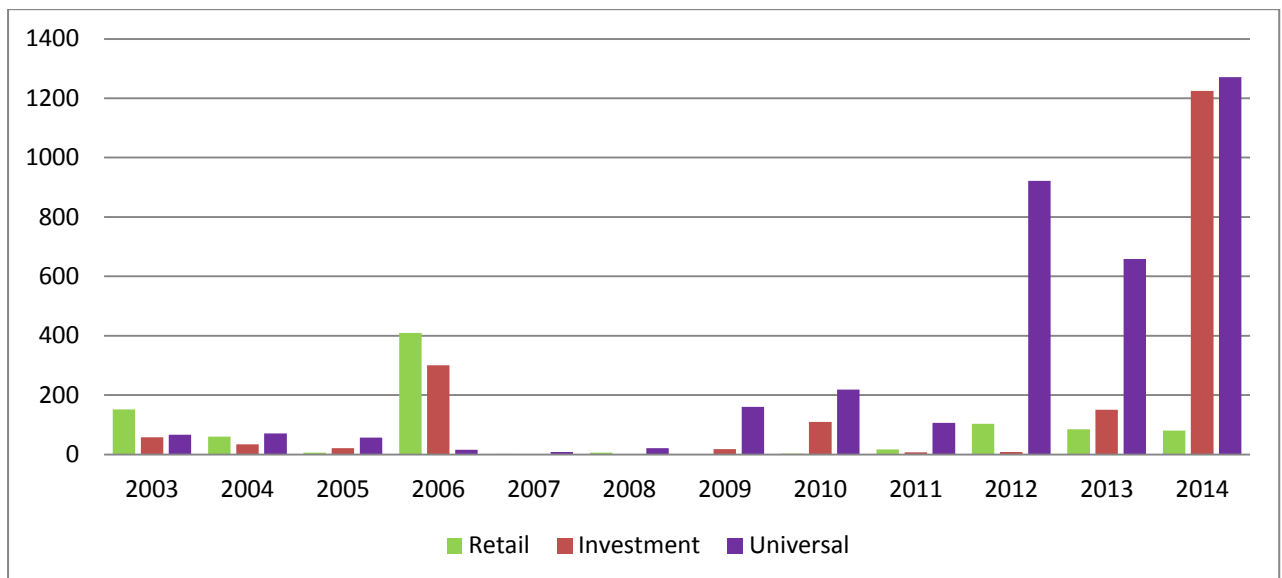


Figure 5. Sum of fines for different variations of banks in million USD

When looking at the R-squared and the significance of this analysis, replacing the systemic variable with the investment variable yields similar results. If hypothesis 2 is interpreted literally, it is supported. Universal banks get fined more and heavier than retail banks.

However, a more correct interpretation would be that systemic banks are very likely to be universal banks and thus they get fined more in size and in frequency. This dynamic will be covered in the analysis section, chapter 4.5.

4.3 Foreign banks

Regulators may be less concerned with the punishment doled out on non-domestic banks, especially when oversight on regulators is low.

H3: Foreign banks will face higher fines than banks that share the nationality of the regulator

This hypothesis concerns the size rather than the frequency. This makes sense, as the distribution of foreign versus non-foreign banks in both countries is likely to be different. Figure 6a and 6b below show the evolution of average bank fines for foreign and domestic banks in both countries. While the precise development varies, in both countries the trend after the financial crisis is upward.

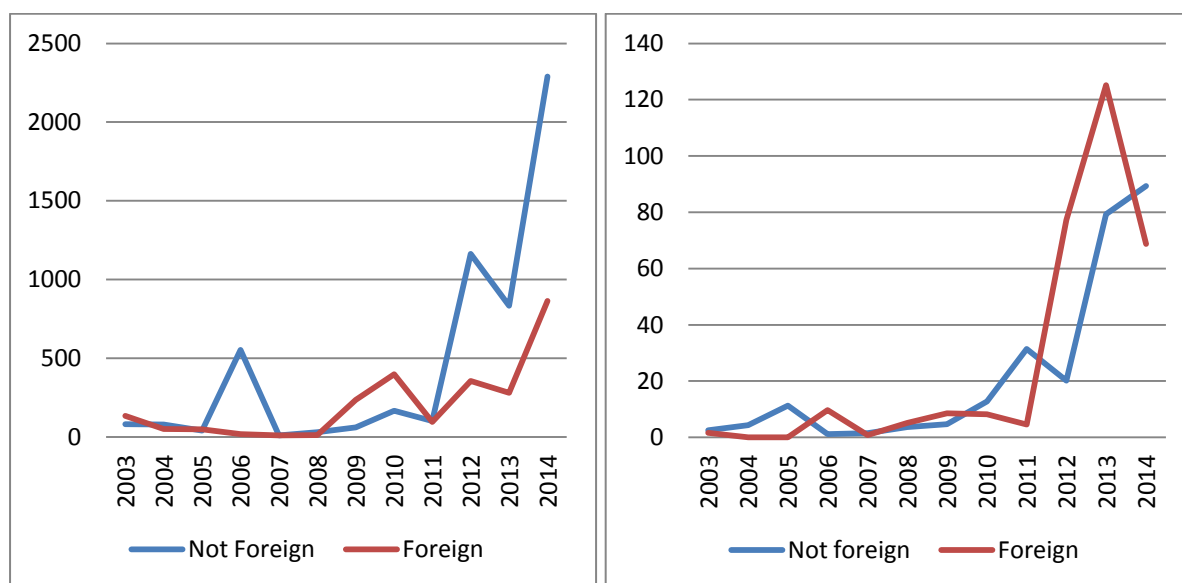


Figure 6a. Average of yearly bank fines in the US in million USD

Figure 6b. Average of yearly bank fines in the UK in million USD

The averages from before and after the crisis reflect this. The increase in bank fines for both foreign and non-foreign banks is about 5 fold in the US. The situation is different for the UK, as non-foreign banks experience a sevenfold increase and foreign banks see a whopping 16 fold increase. Because of the large increase, log transformation is used again for the analysis. The differences are multiplicative as opposed to additive. This makes log transformation a good way to reach a normal distribution.

Table 6. Mean fine data of systemic versus non-systemic banks before and after the crisis in million USD				
Country	USA		UK	
Designation	Non-Foreign	Foreign	Non-Foreign	Foreign
Mean Fine Before Crisis	116	71	5	3
Mean Fine After Crisis	658	336	37	50

This difference returns when the “foreign” variable is added to the interaction table. Because the investment bank variable is too similar to the systemic bank variable, it is left out. Systemic, phase, country and foreign are included in order to explain as much of the variation in bank fines as possible. Again in this case, similar to the systemic variable, the four primary variables have 99% significance and an R-squared of 0.089. Interestingly, the only foreign versus non-foreign interaction that is significant in this model is the interaction between foreign and non-foreign systemic banks in the United States. However, this may also be due to outliers, which is why this model will also be log adjusted in order to decrease the importance of these outliers.

The four primary variables used in the analysis remain significant. Interestingly, in this situation there is no significant difference between foreign and non-foreign systemic banks in the United States, as there is a significance of 42%. In fact, this is the only interaction which does not even come near the minimum requirement of significance of 95% for US non-foreign systemic bank fines. All other interactions are significant or come within 5% of being so. The other interactions between foreign and non-foreign banks remain not significant. In fact, this trend is so remarkable that it points towards a complete opposite of the hypothesis. If the hypothesis had been “there is no difference in how foreign banks are fined”, it could not have been rejected based on this data. Concluding, hypothesis H3 is not supported.

Number	phase	Foreign	Systemic	country	Interaction with 11
1	1 before	No	No	USA	<.0001
2	1 before	No	No	UK	<.0001
3	1 before	No	Yes	USA	0.0042
4	1 before	No	Yes	UK	<.0001
5	1 before	Yes	No	USA	<.0001
6	1 before	Yes	No	UK	<.0001
7	1 before	Yes	Yes	USA	0.0009
8	1 before	Yes	Yes	UK	0.0996
9	2 after	No	No	USA	<.0001
10	2 after	No	No	UK	<.0001
11	2 after	No	Yes	USA	
12	2 after	No	Yes	UK	<.0001
13	2 after	Yes	No	USA	0.0023
14	2 after	Yes	No	UK	<.0001
15	2 after	Yes	Yes	USA	0.5816
16	2 after	Yes	Yes	UK	<.0001

4.4 Elections

Political considerations may increase pressure on regulators to fine in electoral periods, especially when these regulators themselves are political entities.

H4: In an election year banks will be fined more than outside of this period.

After gathering the data, it became obvious that this hypothesis is difficult to test. There have been only three general elections for the US and two for the UK in the period surveyed. Furthermore, one general election in the US was during the financial crisis, which made it very hard to fine banks as the financial system was extremely fragile.

However, the amounts banks have been fined during elections years can be looked at. Frequency, in this case, should not matter as giving out a series of \$1 million fines makes for less publicity as compared to one \$11 billion fine.

The figures for the three US November elections are show in figure 7a, 7b and 7c respectively. It covers a year before and a year after the elections, due to two different frameworks. Firstly, incumbents might press to fine banks more in order to gain public support in their campaign. However, they could also hold off until after the elections in order to solicit campaign support from these institutions.

Going back to the results, the 2008 elections are in the middle of the financial crisis. Other than a \$780 million fine in February 2009, there really were not many fines given out in that period. This leads us to compare 2004 and 2012. In the 2004 elections, there was a spike two

months before the elections. This too, is due to a single fine, here for an unfair market timing incident by Bank of America. A different pattern emerges in 2012, where most of the fines are given out in three spikes. The first spike is in January of the election year, one two months after the elections, and the other a year after the elections. No apparent pattern emerges. This leads to the conclusion that there is not enough data to find a possible pattern in the interaction between elections and fines.

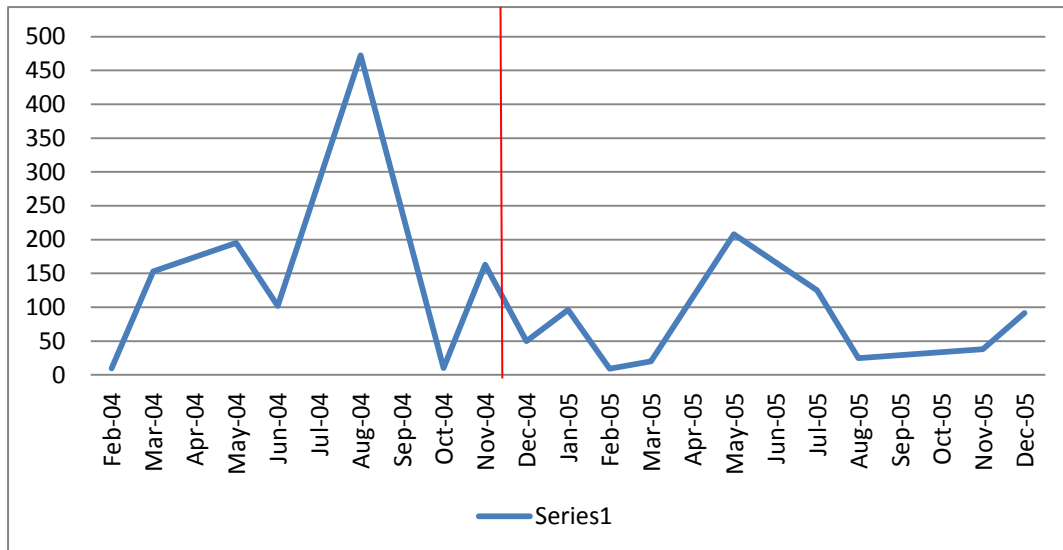


Figure 7a. US 2004 elections sum of fines in million USD. The red lines are the date of elections

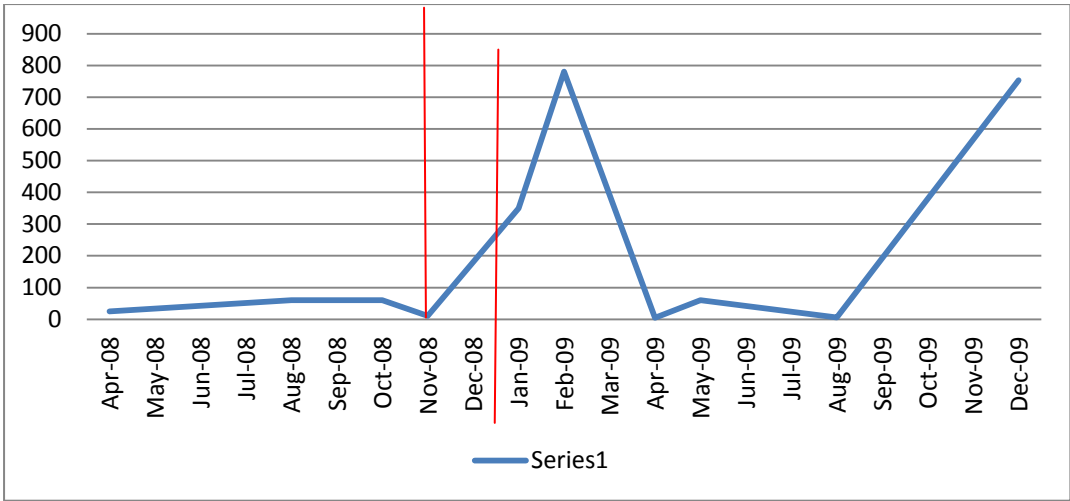


Figure 7b. US 2008 elections sum of fines in million USD

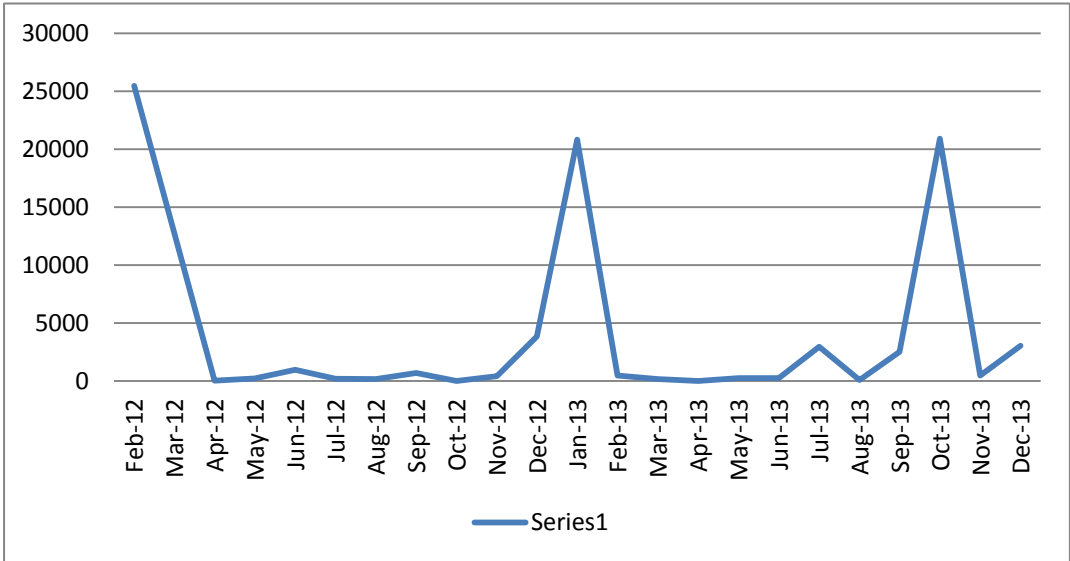


Figure 7c. US 2012 elections sum of fines in million USD

The UK is even more difficult to analyze. Elections were held in 2001, 2005, 2010 and 2015. This leads to only two elections within the period surveyed. The two graphs are show below. Since the UK elections were held in May, both the year before and the year of the election were included.

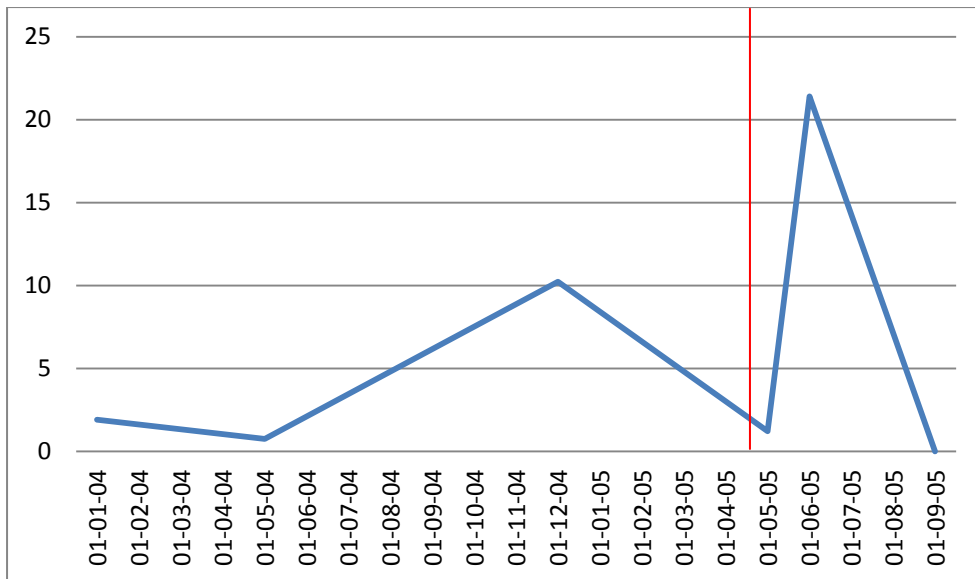


Figure 8a. UK 2005 elections sum of fines in million USD

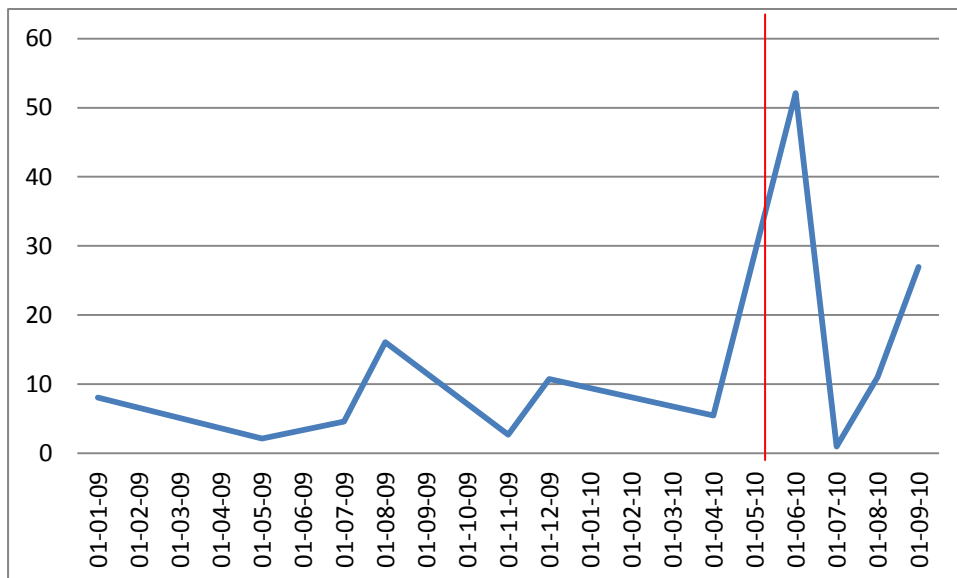


Figure 8b. UK 2010 elections sum of fines in million USD

Data paucity was a very real problem, especially during the 2005 elections. In 2004 and 2005 combined, only 5 fines were given out. This makes it very difficult to draw any form of conclusion from the figures. That being said, both elections saw high fines being given out shortly after the elections were over. If the timeline is extended in further research, this could be something that is worth investigating.

4.5 Analysis and evaluation

The crisis has substantially changed how much and how often systemic banks are fined. Fines of \$1 billion and above have now become commonplace. The fact that systemic banks are

fined differently is less surprising than the fact that this was not the case before the financial crisis. As described in Dam (2011), banks that expect to be bailed out exert riskier behavior. And systemic banks realized they were likely to be bailed out. The US Federal Reserve had already bailed out Long-Term Capital Management in 1999 as regulators feared the effect its failure could have on international markets (Dowd 1999). One would therefore expect that systemic banks would always be fined more as they experience moral hazard to a much greater extent.

The fines received by systemic banks stand in stark contrast to the fines received by non-systemic banks. The average for these banks has remained very similar throughout the surveyed period, besides the wave of fines for sub-prime mortgages in 2013. It could be that these banks broke fewer laws, yet this seems unlikely. Both systemic and non-systemic banks had experienced large-scale deregulation starting in the 80's. De Grauwe argues that the deregulation "fully exposed the banks to the endemic occurrence of bubbles and crashes in asset markets" (De Grauwe, p 21). As banks get in trouble, they take more risk in order to try and recoup losses (Admati 2013, chap 3). This could then lead to these banks breaking laws. The process is the same for both large and small banks, which makes it even more puzzling that the frequency of fines has stayed the same. It could be that non-systemic banks have simply got away with breaking the law. As discussed in chapter 2, there is a strong incentive for governments to be harsher towards systemic banks in order to counteract some of the moral hazard that they experience. As the bailouts had to be used in 2008, the pressure to address moral hazard issues became larger. The shifted emphasis could have led to less focus on smaller banks or the fines on these banks may occur in the future as investigations progress. Additionally, the fact that the data only takes into account fines starting at \$1 million in the US and half a million in the UK may play a role. However, before a group of banks that was non-systemic and also received these fines already existed and this group did not change in size through the crisis. Finally, it may be due to the large amount of bankruptcies in the financial crisis. The number of banks has declined by 12% between 2006 and 2010 (Wheelock 2011). As the systemic banks have a safety net in the bailouts, mostly small banks have run into trouble. This may explain the relative continuity of bank fines for non-systemic banks, as it is not possible to fine a bank that no longer exists.

The overlap between systemic banks and universal banks in frequency of fining is also remarkable. The two lines in figure 4 are almost identical. This lends some credence to the

argument in Focarelli (2011) which states that the repeal of Glass-Steagall may have created a “lower initial ability of these banks to correctly evaluate default risk” (Focarelli et al, 2011 p4). Furthermore, both universal and retail banks have seen increases in the number of fines they receive, yet investment banks have seen no such rise. From the data, it seems that only when investment banks are combined with the resources offered by a retail bank (or the other way around) do they start acting in such a way as to merit fines. However, both this hypothesis and the first one show a weakness in focusing only on the banks that get fined. Since we can only measure the banks that get fined, and do not know which banks broke laws but did not get fined, it is difficult to measure cause and effect. From the data, it is unclear whether universal banks actually break the law more often, or that they are merely more attractive targets to regulators. Similarly, this makes it difficult to assess whether separating investment banks from retail banks can be a solution to the risky behavior exerted by universal banks. Lastly, this breakup may not even have to be government mandated. There is proof that universal banks in general are performing worse than specialized banks. Multiple banks, such as Deutsche Bank, RBS and others are already moving away from investment banking (Ralph 2015). If universal banks lack profitability, regulator fines may just be the final straw that pushes them to drop their universal bank status and go back to specialized banking.

The evidence that both UK and US regulators pay no mind of the nationality of the bank is strong. It flies in the face of claims made in the case of BNP Paribas, which received an unprecedented \$9 billion fine. This fine was so large that the French finance minister openly called into question its fairness and proportionality (Irish 2014). It also resulted in president Hollande lobbying president Obama at the G20 in order to adjust the fine (Bisserbe 2014). The data in this thesis shows that there is no proof that American regulators treat foreign banks any different from their own. The argument that BNP was treated differently would then make it a remarkable exception to this rule, especially seeing that the US seemingly lacks political motivation to punish French banks.

Finally, the political motive is too difficult to discern with such a short timescale. Additionally, the bank sector was less in the political spotlight before 2007. Thus, this yields one useable election for the US and one for the UK. The original intention was to analyze state-level elections in the US, as there are attorney generals that want to be re-elected and who benefit directly from the positive media attention that comes from weeding out possible fraud or risky practices in the banking sector. However, not enough data was available to do

this. UK two UK elections also just fell outside the data range. The range relied on the availability of data and thus could not be extended to cover these elections. The range covered the 2005 elections, during which barely any fines were given out and 2010, a year when the UK was still very much in flux from a regulator perspective. The only conclusion here can be that further research is needed.

5. Conclusion

5.1 Conclusion

The research question guiding the analysis was:

What factors affect whether banks get fined by regulators?

This thesis set out to shed light on the process in which regulators fine banks. Wrongdoing certainly plays a factor, but other factors seem to play an important role in governments deciding who to fine. As the US and UK combined account for 75% of bank fines given out, the analysis focused on them. While the US generally gives out larger fines, both countries have a large financial sector and are home to several systemic banks. Several hypotheses were presented in order to test variables that could influence the value of fines given out. The factors presented were: systemic bank designation, the presence of an investment arm, before and after the financial crisis, the size of fines for foreign banks and the effect of elections on fine size. For this to work, I created a dataset by combing through the regulatory actions of around ten different regulators and squared these with media sources. In addition, various details about the banks were gathered from various sources.

Of these factors, systemic designation was found to be very significant in combination with the difference between before and after the financial crisis. Regulators started to differentiate between systemic and non-systemic only after the crisis, which is strange since systemic banks inherently have a tendency towards more risky behavior.

In addition to being systemic, most banks that were fined were also universal banks. There is a stark difference between the frequency of bank fines for universal banks and non-specialized banks. This is related to how banks evolve as they become more globalized. As banks become larger, client demands force them to offer more services. However, this can also lead large banks to lose track of their many arms, making supervision difficult. There is

much more to it than this, but such a discussion falls outside the scope of this thesis. It suffices to say that becoming a universal bank seems to entail increased risk at enforcement action from regulators.

Kregel (2010) argues largely the opposite. His main point is that the repeal of the Act was conducive to cartelization and created incentives for abuse. This is because “the experience of the recent financial crisis, as well as those of previous history, suggests that it is multifunction banking that is the source of the crises, while it is the accompanying large size which contributes to contagion and system risk”(Kregel p47). In Kregel’s argument the division was well-merited and a mere reinstatement does not suffice. He argues for increased oversight and an updated version of a ringfenced banking sector.

Both UK and US regulators seem remarkably impartial in their treatment of domestic versus foreign banks. This provides a strong answer to parties that accuse either country of favoritism in the way they fine financial institutions. The explanatory value, combined with the systemic, country and phase variable, is substantial at 38%. This strong evidence for an impartial stance is crucial as the US makes a claim at being a global regulator. Any perception of unfairness could decrease support for the approach currently pursued by US regulators and thus increase the political costs of bank fines.

Lastly, no definitive conclusion could be made on the relationship between elections and bank fines. The lack of data combined with the many intervening variables that go into elections make it difficult to tease out a pattern. UK fines seem to come just after elections, yet $N=2$ is too small a sample to make a solid conclusion. More data, especially on local elections, should be useful in furthering this hypothesis. Additionally, the public opinion of banks has substantially changed in the crisis, and thus the political capital that can be obtained has increased. This makes a comparison of elections before and after the crisis more difficult.

Concluding, there seem to be several factors that are important in financial sanctions for banks. Systemic and Universal banks have become much more prone to fines after the financial crisis. Nationality of the bank seems to have no influence on banking fines. There is not enough data about elections to prove or disprove its effect on fines. Another change after the crisis is that regulators have become more consistent in their fining behavior. This development is positive as it can help banks predict the impact fines will have on their business. However, it lays bare another issue. Transgressions of banks have become so

common that they make provisions in their budgets for possible fines¹⁴. The fact that many of these actions are now being fined may indicate a newfound strictness from regulators that did not exist before the financial crisis. As transgressions get uncovered, it is important to maintain the consistency that has been maintained so far. Taking on some of the most powerful institutions in the world is not easy and it should be done from an impartial and informed position. So far, it seems that regulators have done a relatively good job in this respect.

5.2 Implications and further research

The data show some support for the ringfencing of banks. Even if regulators miss some of the wrongdoing of non-specialized banks, the fact remains that systemic universal banks consistently break the law. Not only is this behavior illegal, it has also caused great damage to the international financial system and the livelihoods of many people. This is true in both the mortgage lending crisis and the LIBOR scandal. LIBOR manipulation indirectly affects people through artificially low or high interest rates, while the mortgage crisis directly affected a great many low-income families across the United States. Further research could focus on specific areas of fines in order to see the in-group difference between fines. Hill (2012) has made a start in this area with her research into the enforcement of capital buffers by various US regulators. Since the breaching of US sanctions has been a common thread throughout the period surveyed it would make for a useful tool of comparison over time. Besides fines, regulators have a whole host of tools at their disposal in order to make banks fall back into line. Sector bans, warnings and audits can all be used in order to improve bank adherence to the law. Further investigating the effectiveness of different enforcement methods could help prevent future crises.

¹⁴ <http://www.theguardian.com/business/2015/apr/22/deutsche-bank-braced-for-libor-fine-with-announcement-of-1bn-set-aside>

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Annex

		country											
		USA						UK					
		Systemic						Systemic					
		No			Yes			No			Yes		
		N	valuemillions		N	valuemillions		N	valuemillions		N	valuemillions	
			Mean	Sum		Mean	Sum		Mean	Sum		Mean	Sum
phase	date												
1 before	2003	12	107	1289	11	91	1005	3	2	7	2	2	4
	2004	8	62	493	8	83	663	2	6	11	1	2	2
	2005	9	30	267	5	69	346	1	1	1	1	21	21
	2006	8	186	1489	.	.	.	1	1	1	1	10	10
	2007	1	10	10	2	11	22	3	1	4	.	.	.
	All	38	93	3548	26	78	2036	10	2	24	5	7	37
2 after	date												
	2008	4	12	46	3	37	110	5	3	17	1	9	9
	2009	2	6	11	7	278	1943	3	7	22	4	6	23
	2010	7	12	84	10	323	3227	3	1	4	6	16	93
	2011	7	9	62	30	122	3653	4	24	94	7	24	171
	2012	11	107	1180	27	1145	30904	5	7	37	5	78	391
	2013	32	136	4347	47	1015	47711	6	38	230	12	127	1523
	2014	5	384	1918	32	1742	55735	4	8	31	9	112	1006
	All	68	112	7648	156	918	143283	30	15	435	44	73	3216

Table A1. Average fine size per year, country and systemic designation.

phase	Systemic	country	fine LSMEAN	LSMEAN Number
1 before	No	USA	3.14057	1
1 before	No	UK	0.50752	2
1 before	Yes	USA	3.63643	3
1 before	Yes	UK	1.42777	4
2 after	No	USA	3.38492	5
2 after	No	UK	1.64296	6
2 after	Yes	USA	5.25565	7
2 after	Yes	UK	3.02891	8

Table A2. Legend for table A3

Least Squares Means for effect phase*System*country								
Pr > t for H0: LSMean(i)=LSMean(j)								
Dependent Variable: fine								
i/j	1	2	3	4	5	6	7	8
1		<.0001	0.2647	0.0397	0.4896	0.0005	<.0001	0.7727
2	<.0001		<.0001	0.336	<.0001	0.0754	<.0001	<.0001
3	0.2647	<.0001		0.0099	0.5321	<.0001	<.0001	0.16
4	0.0397	0.336	0.0099		0.0159	0.7986	<.0001	0.0525
5	0.4896	<.0001	0.5321	0.0159		<.0001	<.0001	0.2921
6	0.0005	0.0754	<.0001	0.7986	<.0001		<.0001	0.0009
7	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001		<.0001
8	0.7727	<.0001	0.16	0.0525	0.2921	0.0009	<.0001	

Table A3. Interaction table for table A2.

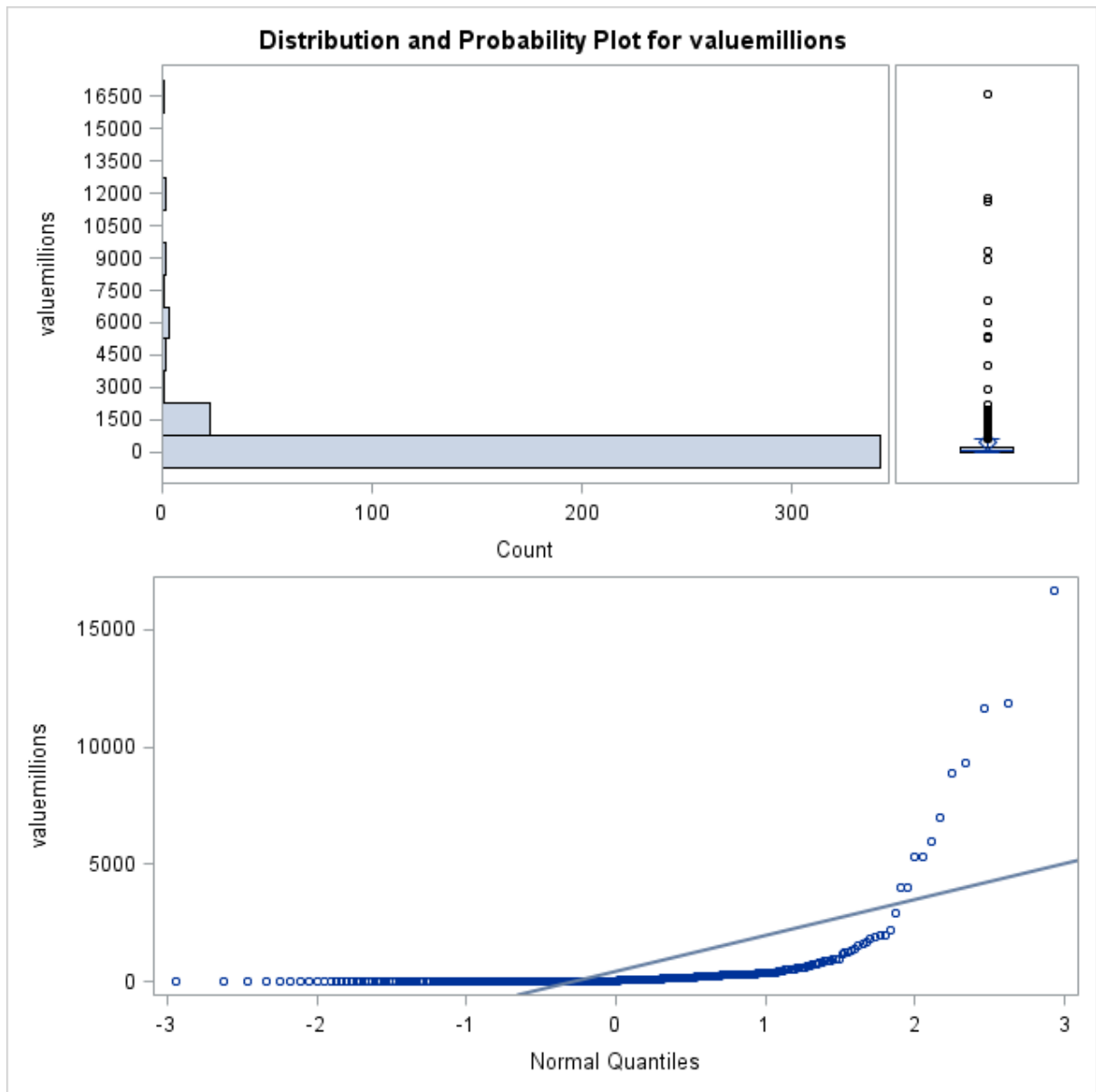


Figure A1. The distribution of fines before being log-adjusted.

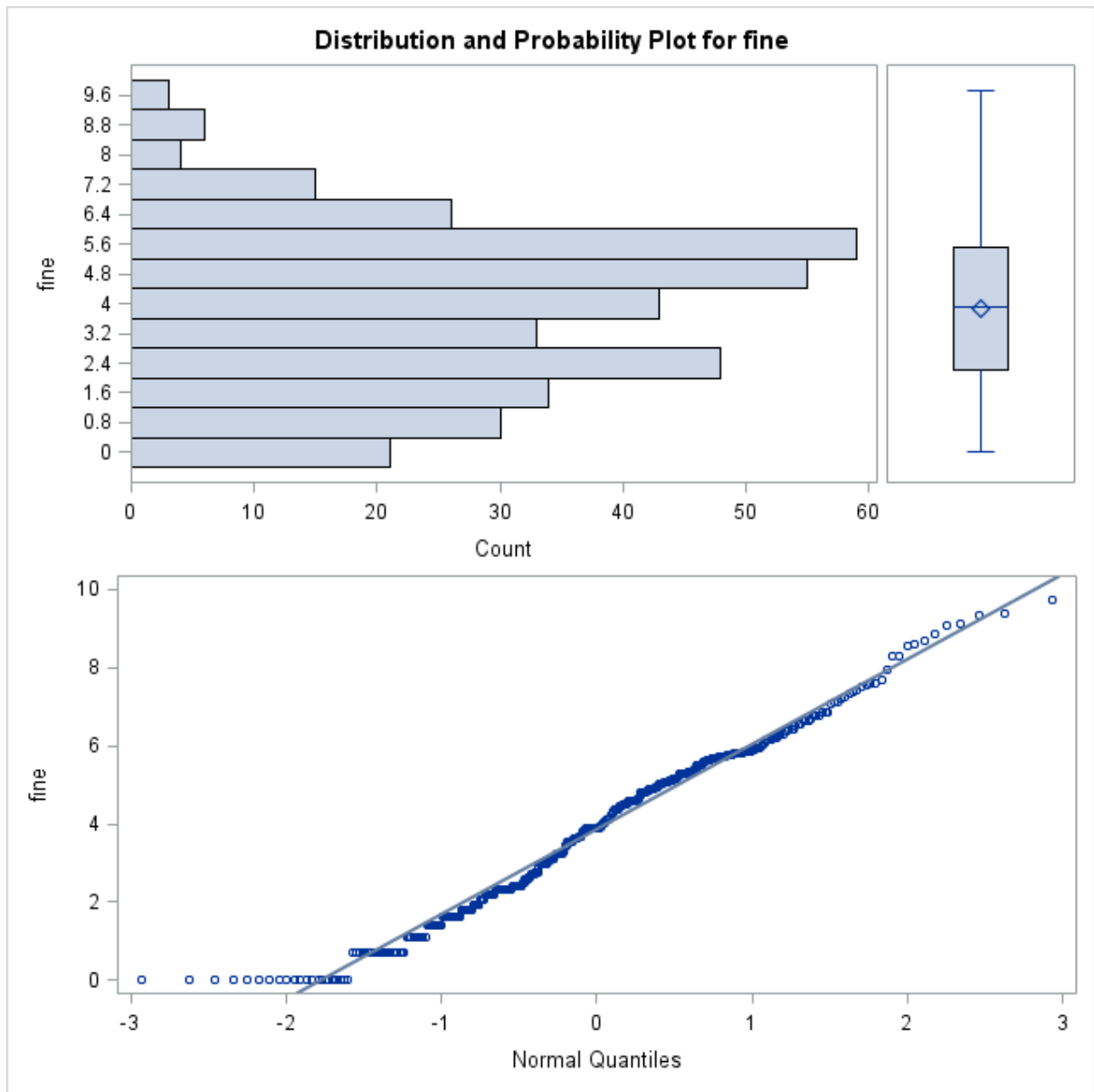


Figure A2. The distribution of fines after being log-adjusted.