Corporate Social Responsible Behaviour in the Financial Industry

Master Thesis

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Abstract

The financial crisis of 2007-2008 incited many criticisms of financial institutions, especially their policies and ethics. In response, corporate social responsibility (CSR) has increased in European and American financial industries. This increase is stimulated by both consumer demand and regulatory pressure. However, there are major differences in CSR between European and American markets, differences which indicate important market trends but are little studied. This study examines the differences in CSR behaviour between the financial industries of those two regions, and investigates what relationship, if any, exists between CSR behaviour and financial performance.

This research analyses different CSR rating methodologies. An analysis of CSR rating methodologies and studies reveals a significant difference in CSR behaviour between European and American markets. The European financial industry shows a faster increase in CSR behaviour in comparison to their counterparts in the United States of America (US), enlarging the difference in CSR behaviour between the two. The results demonstrate a transformation from a positive toward a negative correlation between CSR behaviour and financial performance for the years 2009-2012, inclusive.

The CSR measurement framework described by Scholtens (2008) is found to have significant correlations with other CSR rating agencies, thereby restraining its added value. Ultimately, these results affirm the importance of measuring CSR behaviour to better understand differences in the influence of CSR in the financial industry and wider differences between European and American markets.

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CSR	Corporate Social Responsibility
GRI	Global Reporting Initiative
ROA	Return on Assets
ROE	Return on Equity

1. Introduction

1.1 Background

In an ever more competitive environment, financial institutions must positively distinguish themselves to attract consumers. Financial institutions can differentiate themselves from competitors by adopting a more sustainable approach. That action responds to customer demands, creates more value, and increases financial performance (Ogrizek, 2002; Scholtens, 2008; Weber, 2005). The financial industry has reacted relatively slow to the growing demand for sustainable products (Jeucken, 2002). Yet doing so could significantly benefit society due to the financial industry's wide influence (Jeucken, 2002; Thompson & Cowton, 2004; Weber, Diaz, & Schwegler, 2012). Further, corporate social responsibility (CSR) behaviour potentially benefits the financial institutions themselves. The self-benefit of CSR is a research topic with mixed conclusions (Aebi, Sabato, & Schmid, 2012; Bolton, 2012; Cuesta-González, Muñoz-Torres, & Fernández-Izquierdo, 2006; Simpson & Kohers, 2002). Research on various industries suggests pronounced division in CSR behaviour between the US and Europe, wherein the latter region has a much stronger trend towards sustainability (Gjølberg, 2009; Maignan & Ralston, 2002; Matten & Moon, 2008; Sotorrío & Sánchez, 2008; Tschopp, 2005). Yet, whether the same trend exists for financial industries has been little researched.

CSR is difficult to measure due to its variance in occurrence (Gjølberg, 2009; Márquez & Fombrun, 2005; Morhardt, Baird, & Freeman, 2002). Scholtens (2008) has made the first steps towards developing a measurement framework for CSR behaviour specific to the financial industry through a more transparent method. This framework has, however, never been compared to other CSR rating methods or used to measure the relationship between CSR behaviour and financial performance, excluding the initial study of Scholtens (2008). Scholtens' framework, which is specially designed for the financial industry, may produce outcomes different from more conventional CSR rating methods used for other sectors. The

mixed results in existing research about the relationship between CSR behaviour and financial performance may reflect the different CSR rating methodologies used. Therefore, the relationship between CSR behaviour and financial performance can be determined only after analysing the different CSR rating methodologies and establishing their effectiveness.

1.2 Research Objective

The US and European financial markets are considered to be some of the most developed in the world (Voronkova, 2004). After the financial crisis, drastic changes in policy and practice were demanded and greater responsibility in business conduct was strongly encouraged (Herzig & Moon, 2011). Both European and American markets received consumer and regulatory pressure toward these reforms (Haigh & Jones, 2006). The precise effect of these drivers remains to be investigated. The main questions are as follows: did both markets receive the same amounts of pressure to generate more CSR, and how did markets differ in the CSR behaviour they produced?

The potential and evident differences in CSR behaviour between the American and European markets are widely accepted. But, the precise differences in perceptions of CSR and CSR behaviours are still debated. Further investigation will provide better explanation of the drivers of CSR and give a more accurate understanding of the differences between American and European market behaviour.

One of key intentions in this study is to determine the necessity of adopting an existing transparent CSR measurement framework specifically for the financial industry.

The second part of this study explores the relationship between CSR behaviour and financial performance. I provide a longitudinal analysis using various CSR measurement methodologies coupled with recent financial performance of the two markets in question. This study excludes limitations of previous studies that assessed merely one year or applied solely one CSR

measurement methodology by executing a longitudinal study of various CSR measure methodologies (Ahmed, Islam, & Hasan, 2012; Bolton, 2012; Soana, 2011; Stanwick & Stanwick, 1998).

To provide an overview, this study examines the following investigative questions.

Is there a need for transparent CSR rating methodologies that are specific to the financial industry, such as designed by Scholtens (2008)?

Did the financial industries in the US and Europe have different CSR behaviours after the financial crisis, and what were those differences?

Does a longitudinal, multi-measurement study reveal a relationship between CSR behaviour and financial performance?

1.3 Thesis Outline

Answering the above questions requires a dynamic study, which begins with a thorough literature review. This literature review highlights a set of hypotheses that are particularly pertinent to this study's key questions and that serve as an outline for the following sections. The subsequent section describes this study's methodology, and offers further insights about the CSR rating frameworks. The analysis of the collected data is followed by a succinct report of the results. These results are then elaborated in the discussion. Managerial and theoretical advice is provided based upon the outcomes of the data analysis. Limitations and future research are then briefly specified. My study concludes with a brief summary of the research and results.

2. Literature Review

2.1 Introduction

The focus of this research lies in the role of CSR behaviour within the international financial industry operating on European and US markets. The financial sector is fundamental to modern society, and is constantly scrutinised. Yet, it responded relatively slowly to the increasing social attention to sustainability (Jeucken, 2002). The trend towards a more sustainable approach in the financial industry has been extensively researched, particularly about how sustainability could both benefit the financial industry (Carnevale, Mazzuca, & Venturini, 2012; Matute-Vallejo, 2011; Scholtens, 2006; Statman, 2007) and society at large (Jeucken, 2002; Thompson & Cowton, 2004; Weber et al., 2012). Further research has focussed on the impact of CSR behaviour on the fiscal performance of financial institutions. The potential financial and social advantages of CSR are prompting further research with more definitive results (Aebi et al., 2012; Ahmed et al., 2012; Bolton, 2012; Cuesta-González et al., 2006; Simpson & Kohers, 2002; Soana, 2011). A positive relationship between CSR behaviour and financial performance will stimulate further adoption of CSR practices within the financial industry.

This section provides a comprehensive overview of the literature on CSR behaviour within the financial industry, and the trend of responsible banking and shared value. It also surveys the possible measurements of these socially responsible behaviours. I begin the literature review by describing CSR and sustainability within the financial industry. The influence of CSR ratings on the financial institutions and investors' behaviour follows. Then, how consumer behaviour relates to CSR behaviour is described. I then provide a theoretical background for examining the differences between US and European markets in CSR behaviour. The exploration of a theoretical background concludes by considering various drivers of CSR behaviour. Throughout this literature review hypotheses are given in logical order.

2.2 Responsible Banking

The work of Hart (2010), and emphasis on CSR beyond *greening*, is a useful starting point for understanding current trends in CSR. As Hart stresses, organisations ideally not only reduce their non-sustainable behaviour but also begin practices that benefit society, effectively making amends for past harms. Higher levels of CSR behaviour in the financial industry is the first step in achieving all 'three pillars of sustainability': economic, social, and environmental (Hart, 2010). The CSR movement has forced firms not only to be accountable to their legitimate stakeholders but to society generally (Ogrizek, 2002). Kramer and Porter (2011) redefine this trend through the concept of shared value, in which CSR moves away from philanthropic behaviour and the reduction of the corporate footprint towards social responsibility integrated into products and services (Porter & Kramer, 2011). This new conception of CSR behaviour creates a positive, and less harmful, impact on society. Authors such as Jeucken (2002) stress the importance of the financial industry in achieving a wholly sustainable society. To reach this goal the financial industry must recognise their intermediary role and consider their investments and credit provision accordingly. Financial institutions have the power to guide capital toward sustainable products and services rather than non-sustainable products. They can promote sustainable and responsible behaviour through varying degrees of accepted practice and policy. For example, homeowners could receive more advantageous mortgage loans if they achieve CO_2 neutral living conditions. Aside from such consumer incentives, financial institutions can give greater weight to business ethics when designing their investment portfolios. Exclusively analysing financial indicators can lead to investments that involve undesirable adjunct and non-financial characteristics, such as the arms production, animal cruelty, and breaches of human rights (Jeucken, 2002). One of the organisations measuring the level of such behaviour is the Fair Bank Guide, which currently operates only in the Netherlands and Brazil. This guide indicates the level of corporate responsibility that financial institutions practice relating to such

themes as human rights, climate change, and corporate ethics (Gelder, Herder, & Verhoef, 2013). Another example is yourethicalmoney.org, an online rating agency operating in the UK. This online rating agency examines similar factors and provides consumers better insight into the ethical practices of financial institutions operating in the UK market.

2.3 Measuring CSR Behaviour in the Financial Industry

Measuring the influence of CSR behaviour and responsible banking on the performance of financial organisations requires a clear definition and a transparent method of measurement. The most cited definition of sustainable development is, 'The development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (Romijn & Caniëls, 2011, p. 618; United Nations, 1987). The financial industry faces special challenges in measuring CSR behaviour. The two main difficulties are a lack of transparent, detailed information, and the absence of a methodology to measure the full impact of CSR behaviour (Abbott & Monsen, 1979). These difficulties with measuring CSR behaviour stem from the financial industry's intermediate role and its multiple influences on other industries. However, it is possible to gather information about the level of CSR behaviour through independent rating agencies, such as KLD Research & Analytics, Inrate Database, EIRIS, and Asset4esg (Bolton, 2012; Márquez & Fombrun, 2005; Soana, 2011; Weber et al., 2012) or through independent online agencies such as CSRhub.com. It is also possible to determine whether financial institutions venture in certain CSR activities by looking at certificates, such as the ISO, the OECD, or the Community Reinvestment Act in the US (Márquez & Fombrun, 2005; Morhardt et al., 2002; Simpson & Kohers, 2002).

A fundamental limitation of these rating agencies, certificates, and initiatives is their lack of transparency (Scholtens, 2008). The reputational method is often used for measuring the perceived CSR behaviour of an organisation. This limitation of this method is that outsiders often do not have knowledge of the organisation's inner workings (Abbott & Monsen, 1979;

Soana, 2011). This limitation may be overcome by content analysis of the institution's annual and sustainability reports. However, these reports are often self-published and may under or over report the firm's CSR activities to produce a more positive image for stakeholders (Abbott & Monsen, 1979; Cuesta-González et al., 2006). To create a more transparent method, Scholtens (2008) developed a new framework combining various methods. The framework combines sustainability reports with various organisations overseeing CSR behaviour. The framework's strength is that any individual use it to measure CSR behaviour within a financial institution. That characteristic contributes to a higher level of transparency in the assessment of CSR behaviour. This framework also assesses the existence of sustainable products and services. Through this assessment the shared value behaviour of an organisation can be evaluated (Porter & Kramer, 2011). Nevertheless, the framework of Scholtens (2008) is still limited in the exactitude of its measurements of CSR behaviour.

The Global Reporting Initiative (GRI) was established with the purpose remediating the limited transparency in sustainability reporting. Although this initiative does not measure the level of CSR behaviour within an organisation and has debatable scoring methods, it sets outs guidelines for developing a more transparent environment and tests institutions' reports (Dingwerth, 2010; Morhardt et al., 2002; Willis, 2003). GRI is currently the best initiative for developing higher levels of transparency within the corporate world (Dingwerth, 2010).

2.4 The Influence of CSR Ratings

If there is indeed a positive relationship between an organisation's CSR behaviour and financial performance (Peloza, 2009), it is then exceedingly important that CSR be measured and reported. CSR reports allow better assessment of investment opportunities and attraction of potential investors. The number of CSR rating agencies for financial institutions is, however, limited. Yet, rating agencies are increasingly important as investors are more willing to invest in sustainable companies. This growing importance has led to an expanding number of agencies

in recent years, yet very few focus on the financial industry (Márquez & Fombrun, 2005). These ratings also work through a non-transparent, proprietary method hindering the testability and comparability of various agencies (Rahman & Post, 2011). Rating agencies give little insight to their methods and, therefore, are susceptible to skewing levels and kinds of CSR behaviour within rated companies (Scalet & Kelly, 2009). The framework of Scholtens (2008) is developed through a different method, which relies on neither proprietary nor non-publically available information (Scholtens, 2008). Accordingly, that rating framework can be used by those who do not have access to costly proprietary information.

Hypothesis 1: There are significant differences between the ranking developed by Scholtens (2008) and other independent CSR rating agencies.

2.5 Consumer Behaviour

Aebi et al. (2012) and Weber (2005) have investigated the influence of consumers on the level of CSR behaviour in the financial industry. Ethical products attract a different kind of consumers as compared to non-ethical products. Consumers who make use of ethical products are motivated by a 'general benefit' (Barigozzi & Tedeschi, 2011), which is not expressed in financial but moral gain. Due to these benefits, consumers are willing to pay more for products and more likely to perceive the price as fair (Matute-Vallejo, 2011; Trudel & Cotte, 2009). In the process of developing consumer loyalty the role of satisfaction and trust are significant (Hallowell, 1996; Vlachos, Tsamakos, Vrechopoulos, & Avramidis, 2008). CSR behaviour at financial institutions fosters both consumer satisfaction and trust. Satisfaction can also lead to greater willingness in consumers to pay, reaping financially benefits for organisations providing CSR products and services (Homburg, Koschate, & Hoyer, 2005).

2.6 The Differences between Europe and the US

Matten and Moon (2004) proposed to make a distinction between 'implicit' and 'explicit' CSR. In this theory implicit CSR is more embedded in broader norms and regulations that are regulated through formal and informal institutions. Explicit CSR refers to 'corporate policies to assume responsibility for the interest in society' (Matten & Moon, 2004, p. 9). These two types of CSR have important differences in presentation and initiative, even when the level of CSR behaviour is equal. Matten and Moon (2008) suggest that explicit CSR is more common in the US and implicit CSR more in Europe. This variation reflects differences in politics, economics, education, labour, and culture in those regions, and also differences in the organisation, coordination, and control of financial systems of the two markets (Maignan & Ferrell, 2000; Matten & Moon, 2008) which supports the stakeholder theory (Freeman, 1999). These relationships were tested by comparing the CSR practices between the US, Canada, and various European countries (Gjølberg, 2009). That research used a methodology focussing solely on explicit CSR practices, which resulted in the lowest score for the US. These results could have been an effect of the variables used in the data collection or calculation model. Nonetheless, the results are contrary the relationships conjectured by Matten and Moon (2004).Yet, the factors that Matten and Moon (2008) attributed differences in CSR systems may cause differences between financial markets.

Research focussing on CSR behaviour in the US and Europe (Sotorrío & Sánchez, 2008) shows a clear difference between the two regions. Highly reputed companies in Europe show generally higher levels of socially responsible behaviour as compared to like companies in the US. American and European markets also differed in how they ventured into CSR behaviour. US organisations show a higher level of voluntary and philanthropic behaviour while European organisations display sustainable productive activities and traditional CSR behaviour, such as limiting direct environmental impact and sponsorship (Maignan & Raltson). Work by Tschopp

(2005) suggests a similar trend, in which the CSR movement is much stronger in Europe than in the US. Europe is also seen to be adopting more reporting and accounting standards for CSR practices (Tschopp, 2005).

Hypothesis 2: Financial institutions operating in the European market will show a higher level of CSR behaviour in comparison to their counterparts on the US market.

2.7 Financial Performance

The variables that determine the financial performance of financial institutions are disputed, similar to debates about the methods and measurements of CSR behaviour. Griffin and Mahon analysed the different variables used to measure financial performance (Griffin & Mahon, 1997). In their analysis, profitability, return on equity (ROE) and growth in size were the most popular methods of measuring financial performance. The same factors are important in the work of authors studying CSR and its relation to fiscal performance in the financial industry. Stanwick and Stanwick (1998), for instance, only measure the profitability; Bolton (2012) focusses on return on assets (ROA) and debt-to-assets; Ahmed et al. (2012) measure financial performance through ROA, earnings per share, and price-earnings ratio. Simpson and Kohers (2002) include loan losses in their analysis, in addition to ROA, to better evaluate financial institutions. Loan losses directly influence a bank's revenue and show the success of a bank's credit function. Economists argue that profit is not the best method for measuring a firm's financial performance. Rather, they typically favour cash over profit to measure financial performance. Cash is seen as a better measure because profit only shows the performance of the past and it is heavily influenced by finance structure, whereas cash is readily available and leads to future investments (Rietveld & Rietveld, 2009). Therefore, a greater emphasis on cash in measuring financial performance during uncertain times such as a financial crisis may be prudent. However, a lack of transparent information concerning cash reserves in the financial industry hinders the use of this measuring variable.

2.8 Drivers for Responsible Banking

Understanding the rise of socially responsible banking requires an understanding of the various drivers for this phenomenon. There are four main drivers for financial institutions to adopt CSR practices: regulatory pressure (Haigh & Jones, 2006), financial performance (Scholtens, 2006), branding (Ogrizek, 2002) and market value (Carnevale et al., 2012).

2.8.1 Regulatory Pressure.

Haigh and Jones (2006) consider the influence of government policies on the adoption of CSR behaviour within firms. Governments show interest in CSR practices within companies for several reasons. Specifically, they help to reach (inter-)national environmental targets, they encourage a sustainability culture, they facilitate co-regulation frameworks, and they involve both the public and private sectors in the fostering CSR (Steurer, 2010). There are notable differences, stemming from culture and politics, between American and European regulatory policies concerning CSR as (Matten & Moon, 2004). These differences in government regulations and efforts have precipitated differing CSR practices (Doh & Guay, 2006).

2.8.2 Branding through the Use of Corporate Social Responsibility

In the past, financial institutions applied a number of methods to create consumer loyalty. These methods included the attraction of customers at a young age (Fry & Shaw, 1973), the creation of trust through a corporate images, and perceived value through marketing efforts (Hallowell, 1996). Customer loyalty is enhanced through offering of CSR services and products. There is evidence that the use of CSR in the financial industry leads to higher levels of consumer loyalty and satisfaction (Matute-Vallejo, 2011). CSR financial products are creating new niches on the market (Weber, 2005). Some financial institutions, such as Triodos Bank, only offer sustainable products. Through this approach they have set themselves apart from competitors and can demand higher rates for their services (Cowton & Thompson, 2001; Dash, 2008). These

sustainability developments in financial services primarily respond to consumer demand for increased levels of CSR behaviour from traditionally 'non-sustainable' commercial banks (Weber, 2005). A growing number of consumers believe that the most successful firms in the future will be those that balance short-term financial performance with long-term sustainable practices (Ogrizek, 2002). Accordingly, banks now try to show these practices and outlooks. Maignan and Ralston (2002) demonstrate a difference between the way European and US commercial banks behave toward this demand for CSR behaviour. European banks venture into product offering and thereby create shared value, while US commercial banks show higher levels of philanthropic behaviour.

Hypothesis 3: Financial institutions operating on the European market will show higher levels of Shared Value behaviour in comparison to their counterparts in the US

Hypothesis 4: Financial institutions operating on the US market will show higher levels of Social Conduct behaviour in comparison to their counterparts in Europe.

2.8.3 Financial Performance through Responsible Banking

During the last decade, several studies have made an effort to discover the precise relationship between CSR behaviour and financial performance in the financial sector. Trudel and Cotte's study reveals that consumers are willing to pay more for ethical products, which punishes producers participating unethical behaviour (2009). However, whether or not the same phenomenon is evident in the financial sector remains undetermined. Some authors argue that CSR behaviour leads to a better financial performance in the financial sector (Ahmed et al., 2012; Bolton, 2012; Ribstein, 2005; Simpson & Kohers, 2002; Waddock & Graves, 1997). But, others argue to the contrary, stating that there is no statistical evidence for such a phenomenon (McWilliams & Siegel, 2000; Soana, 2011) or that there is a negative relationship (Friedman, 1970). These differences in opinion partly derive from variations in methodologies for

measuring the level of CSR behaviour and variations in the studied regions. Yet, financial advantage is possibly the most important driver of CSR in the financial industry. CSR behaviour can also be reflected in the investment portfolio of financial institutions, which may also influence financial performance (Jeucken, 2002). Adopting CSR increases the financial institution's active observation of its own CSR practices. This could lead to a lower percentage of loan loss by the financial institutions or to a higher percentage of return due to the growing market for sustainable products and services (Jeucken, 2002; San-Jose, Retolaza, & Gutierrez-Goiria, 2011; Statman, 2007). Firm size and growth also influence the level of CSR behaviour, as higher levels of CSR behaviour occur when a firm's size is increasing (Sotorrío & Sánchez, 2008; Udayasankar, 2007).

Hypothesis 5: Financial institutions with higher levels of total asset will show a higher level of CSR behaviour.

Hypothesis 6: Financial institutions showing higher levels of CSR behaviour will show a higher ROE.

Hypothesis 7: Financial institutions showing higher levels of CSR behaviour will show a higher net margin.

2.8.4 Market Value

There are different interpretations concerning the influence of CSR on the market value of an organisation. Research demonstrates that increased expenses due to new CSR practices could have a significant negative effect on the market value of a firm (Alexander & Buchholz, 1978; Friedman, 1970). However, more recent work focussed on the reporting of CSR behaviour shows more diverse results. The paper 'Corporate Social Reporting in European Banks' (Carnevale et al., 2012) indicates that CSR reporting in certain countries has a positive correlation to stock price, while in other regions research indicates a negative correlation.

Bolton (2012) displayed a positive relationship between CSR and an organisation's value in the US banking sector. These varying results could be explained by regional differences in consumer reception of or demand for CSR practices. . The market value is heavily dependent on investors and their perception of CSR as a core aspect of an organisation (Weber, 2005). Ultimately, CSR positively influences the public image of financial institutions and , consequently, increases market value (Carnevale et al., 2012).

Hypothesis 8: Financial institutions using CSR certificates and initiatives will show a higher level of profitability.

3. Methodology

3.1 Introduction

The explanation of this study's methodology begins by detailing its design (see appendix A), followed by an overview of the research setting. Scholten's theoretical framework is then explained and adjustments for improve are proposed (see appendix B). In particular, the addition of specific variables to the data analysis process provides a more unified CSR measurement tool. These theoretical methods are followed by a description of the data collection procedure and data analysis process.

3.2 Sample Description

Total assets for the year 2012 were evaluated in order to obtain an equal sample from both American and European markets. A top 50 list of the largest financial institutions operating on these markets was made using this method. There is, however, an evident difference in total asset size between the top 50 financial institutions operating on the European market and the US market. Financial institutions operating on the European market show higher total assets typically as compared to their counterparts on the US market.

Both publicly as privately owned financial institutions were included in the sample size (appendix C). Financial institutions were not screened on CSR practices or any other predetermined variable.

3.3 Research Design

A longitudinal quantitative data analysis was conducted to measure the amount of CSR behaviour both within the European and the US financial industries. All data in this research was collected through secondary data analysis examining figures from 2008 till 2012. The data evaluated provides an external assessment of CSR behaviour existing within the financial sector. To analyse financial performance in relationship to CSR behaviour, and expand the

scope of this study, financial statements were included in the research. Data collected using CSRhub and Asset4esg provided a more longitudinal vision of CSR behaviour. Thomson One Banker was used as a source of independent financial information. The scope of the research covered a time span from 2008 to 2012, inclusive. Scholtens (2008) framework relies on publicly accessible data, including the website of the various banks included in the sample; however, the framework only provides an assessment for the year 2012.

3.4 Data Collection

Financial institutions included in the sample were evaluated through their websites, annual reports, and, when available, sustainability reports, which allowed comprehensive representation of CSR behaviour. Extra variables, such as global compact, were assessed through individual websites. Supplementary CSR data was collected through the use of the rating agencies Asset4esg and CSRhub.com. Financial data was gathered using Thomson One Banker and through an evaluation of the annual reports of financial institutions included in the sample.

3.5 CSR Measurement Indicators

Collected data was used to test the stated series of hypotheses. The initial tests focussed on the CSR rating framework developed by Scholtens and its relationship with various other CSR rating methods. The CSRhub and Asset4esg were used for this testing. Scholtens (2008) framework was explicitly developed for the financial industry, including variables not included in other rating methodologies (appendix B). By including measurements that focus on shared value (Porter & Kramer, 2011), and a framework exclusively developed for the financial industry, there is a possible significant difference between the outcome of CSR ratings measured through Scholtens (2008) framework and other CSR ratings. This analysis was conducted for the year 2012.

The second level of testing was conducted with the intention to measure the potential difference between the US and European markets concerning their CSR behaviour in the financial industry. Data available for 2008 to 2012 was measured to show differences and analysed for trends in both markets. A primary analysis assessed the distribution of CSR behaviour within the two regions, after which a Mann-Whitney U Test and a two-sample Kolmogorov-Smirnov test was performed. These tests showed potential differences between the two regions. A further analysis isolated the exact factors for which the two regions have potential differences. This analysis was executed using the same methods. The variable categories, CSRhub community variable category, Asset4esg social variable category, and total to responsible financial were assessed for shared value creation. By assessing the score of these variable categories, which include CSRhub community and governance, Asset4esg social conduct, and total to social conduct, the social conduct behaviour could be analysed.

3.6 Financial Correlation Analysis

After this primary CSR behaviour analysis, a secondary analysis focussed on the relationship between CSR behaviour and financial performance. The financial measures were gathered using Thomson One Banker and converted to dollars, where required. If financial data was not available or incomplete, financial reports of the financial institution were reviewed. The financial data gathered for all the financial analysis consisted of ROE, net margin, and total assets. All three variables are taken over a time period of five years, spanning the years 2008 till 2012.

A statistical exploration was used to detect potential outliers in the net margin and ROE data, which outliers could have significantly influenced the results of further tests. After these outliers are described and excluded from the data set, a primary Pearson correlation was performed. This Pearson correlation included the variables ROE, net margin, CSR, region, and size, which

was determined through the use of the variable total assets. This was a two-tailed test because the direction of the effect was not investigated.

A secondary partial correlation test was performed, in which the variables region and total assets are transferred into control variables. In this test the correlation level between CSR behaviour and financial performance was investigated, while taking the control variables into account.

3.7 Financial Performance Analysis

A partial correlation test measured the potential correlation between CSR behaviour and financial performance, represented by ROE and net margin. This method is similar to that performed by Waddock and Graves (1997) and Soana (2011). The partial correlation test began by using the CSR score of the year 2008 and its effect on the financial performance of the following year. The final analysis used the CSR score of the year 2011 and its effect on the corresponding financial performance of the year 2012.

$$ROE(i|t) = \alpha\ (i) + a * CSR(i|-t) + \mathrm{b} * Total\ Assets\ (i|-t) + \mathrm{c} * Region + e(i)$$

$$net\ margin(i|t) = \alpha\ (i) + a * CSR(i|-t) + \mathrm{b} * Total\ Assets\ (i|-t) + \mathrm{c} * Region + e(i)$$

In this test the control variables ‘Total Assets’ determined the size of the financial institution and ‘Region’ determined the market in which the financial institution operated, being either US or Europe.

3.8 CSR Certificates and Initiatives

Financial institutions can use CSR certificates and initiatives to differentiate itself from competitors and generate an image as sustainable, potentially attracting new customers (Ribstein, 2005). These certifications and initiatives, however, limit financial institutions in their investment and operating portfolio due to the restrictions that are associated with their membership (Friedman, 1970).

To examine this relationship of certifications and initiatives with financial performance, a similar research method was used as in testing the correlation of CSR behaviour with financial performance. In this new test CSR behaviour was specified on the variable category developed through Scholtens (2008) revised model 'Total Code of Ethics', which embraces the participation level in CSR certificates and initiatives.

$$ROE(i|t) = \alpha\,(i) + a * Total\ Code\ of\ Ethics(i|-t) + \mathrm{b} * Total\ Assets\ (i|-t) + \mathrm{c} * Region + e(i)$$

$$Net\ Margin(i|t)\ = \alpha\,(i) + a * Total\ Code\ of\ Ethics(i|-t) + \mathrm{b} * Total\ Assets\ (i|-t) + \mathrm{c} * Region + e(i)$$

3.9 Framework of CSR Measurement

The framework created by Scholtens (2008) was adapted with the purpose of assessing the level of CSR behaviour within every financial institution through a more transparent methodology. Scholtens argues that the framework does not rely on proprietary and costly information. Therefore, it overcomes the problem of using traditional CSR rating agencies by relying on a mix of rankings, certificates, and bank websites and reports. The framework is specifically developed for the financial industry through the inclusion of specific variables. The framework is divided into five independent groups measuring different aspects of CSR behaviour of financial institutions.

- Code of ethics, sustainability reporting and environmental management
- Environmental management
- Responsible financial products
- Social conduct of the financial institutions
- Benchmarks measuring CSR behaviour

The framework relies on publicly available information, which means greater transparency. It also includes CSR rating agencies and the principle of shared value (Porter & Kramer, 2011), through the measurement of responsible financial products.

3.10 Adjustments of Conceptual Framework

The framework of Scholtens (2008) is a more transparent method of measuring CSR behaviour within the international financial industry, but it still has limitations. The main limitation is impreciseness when investigating the CSR behaviour level, which occurs due to imperfections in the framework design. In order to overcome this limitation and impart more nuances to the measuring code, specific levels of conduct were introduced to the framework. These additional variables are CERES, Global Reporting Initiative (GRI), additional sustainability audits, corruption statements, animal welfare statement, and human rights statement. These added variables were developed through the use of the Fair Bank Guide (Gelder et al., 2013). The newly developed GRI assessment tool evaluates the level of transparency of the sustainability reports, an initiative which is rapidly growing in popularity. A more comprehensive image was created through this and other variables related to the quality of sustainability reports and the transparency of financial institutions (Morhardt et al., 2002).

3.11 External CSR Rating

To extend the scope of the research further, various external CSR ranking agencies were included in the assessment to create a multi-level analysis of the potential differences in CSR behaviour between financial institutions operating on the European and US markets. CSRhub.com scores the CSR behaviour of various industries and companies based on community, employees, environment, and governance. CSRhub is freely accessible for use in primary analysis, making it a tool for potential consumers assessing financial institutions and their CSR behaviour.

The second external CSR rating agency is Asset4esg, developed by Thomson Reuters. Asset4esg is a tool accessible exclusively through a membership, and more appropriate for corporate use. The agency measures companies' environmental, social, and corporate governance factors, which are equally weighted and used to score the economic stability of a

company against their CSR behaviour. This measurement was only constructed for the last reported year 2012. Both CSR ranking agencies were used in this study to extract information for the period 2008-2012, a time span during which the majority of the sample was included within the CSR rating analysis provided by these agencies.

	Scholtens (2008)	*CSRhub*	*Asset4esg*
Variable Categories	Social Conduct	Community	Social
	Code Of Ethics	Employees	
	Environmental Management	Environment	Environmental
	Responsible financial products	Governance	Corporate Governance
	Benchmark		

Table 1. Variable Categories for the various Rating frameworks.

4. Data Analysis

4.1 Introduction

This section presents the structure and results of the conducted data analysis. The first analysis examines the relationship between Scholtens (2008) revised framework and CSR behaviour in the US market and European market using Asset4esg and CSRhub.com. The second analysis explores the financial performance of the selected top 50 financial institutions and a potential relationship with their CSR behaviour. All analyses use SPSS statistics 21.

4.2 CSR Measurements

The primary analysis was conducted using a Pearson correlation test to measure the potential differences in rating between Scholtens (2008) framework and the revised framework as compared to the CSR frameworks developed by CSRhub and Asset4esg. The test is solely conducted for the year 2012 because of the limited applicability of the framework developed by Scholtens (2008). This limitation in time span results from the framework's transparency, which requires recently available information.

The variables included in the Pearson correlation test are the variables total: old model Scholtens, total: revised model Scholtens, CSRhub Overall 2012, and Asset4esg equal weighted. The results show a strong correlation with a significance level of less than 0.01 for all correlations (Table 2). That correlation indicates that hypothesis 1 is not supported and there is no significant difference between general CSR measurement frameworks and the ones designed specifically for the financial industry through a more transparent methodology.

Correlations

		Total: Old Model Scholtens	Total: Revised Model Scholtens	CSRhub Overall	Asset4esg Equal Weighted
Total: Old Model Scholtens	Pearson Correlation	1	,977**	,791**	,774**
	Sig. (2-tailed)		.000	.000	.000
	N	100	100	96	87
Total: Revised Model Scholtens	Pearson Correlation	,977**	1	,798**	,768**
	Sig. (2-tailed)	.000		.000	.000
	N	100	100	96	87
CSRhub Overall	Pearson Correlation	,791**	,798**	1	,808**
	Sig. (2-tailed)	.000	.000		.000
	N	96	96	96	86
Asset4esg Equal Weighted	Pearson Correlation	,774**	,768**	,808**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	87	87	86	87

**. Correlation is significant at the 0.01 level (2-tailed).

Table 2. Correlation analysis between the various CSR frameworks.

4.3 CSR in the US and European Market

Since there is no significant evidence for hypothesis 1, it is possible to include all four CSR measurement frameworks in the following analysis. However, as a result of the high Pearson correlation result between 'Total: Old Model Scholtens' and 'Total: Revised Model Scholtens', only 'Total: Revised Model Scholtens' is included in the following tests. This new revised model includes more variables, including the GRI. Since the Asset4esg only operates with an equal weighted variable for the year 2012 the analysis includes the variable environment.

Before computing the means for the CSR rating frameworks and their relationship to region, a statistical exploration tests the level of normal distribution of the CSR ratings. Since the data set is smaller than 2000, a Shapiro-Wilk test is performed.

As a result of an evident non-normal distribution for the majority of the CSR rating methods, a Mann-Whitney U test and two-sample Kolmogorov-Smirnov is used (Table 3). Both tests show a significant difference between the mean rank in the US and Europe, indicating that the two markets indeed show a significant difference in CSR score for the 2012 period (Table 4).

Tests of Normality

region		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Total	US	.156	47	.006	.896	47	.001
	Europe	.141	39	.048	.958	39	.150
CSRhub Overall	US	.100	47	,200*	.966	47	.184
	Europe	.167	39	.008	.945	39	.054
Asset4esg Equal Weighted	US	.240	47	.000	.847	47	.000
	Europe	.257	39	.000	.660	39	.000

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Table 3. Test for Normality for the various Rating Frameworks by Region.

Test Statistics

	Total	CSRhub Overall	Asset4esg Equal Weighted
Mann-Whitney U	491.500	566.000	512.500
Wilcoxon W	1766.500	1791.000	1640.500
Z	-5.234	-4.298	-3.647
Asymp. Sig. (2-tailed)	.000	.000	.000

a. Grouping Variable: region

Test Statistics[a]

		Total	CSRhub Overall	Asset4esg Equal Weighted
Most Extreme Differences	Absolute	.540	.459	.388
	Positive	.540	.459	.388
	Negative	0.000	-.020	0.000
Kolmogorov-Smirnov Z		2.700	2.248	1.805
Asymp. Sig. (2-tailed)		.000	.000	.003

a. Grouping Variable: region

Table 4. Significant test for the various CSR frameworks by region.

The next stage in the analysis is to calculate the mean rank to determine which market displays a higher level of CSR behaviour. A Mann-Whitney U test is conducted by calculating a mean rank. The outcome shows a significantly higher mean rank in all three CSR rankings for the European market. This outcome indicates that for the year 2012 the financial institutions operating on the US market show a lower level of CSR behaviour (Table 5), supporting hypothesis 2.

Mean/Ranks

	region	N	Mean	Mean Rank	Std. Deviation	Std. Error Mean	Sum of Ranks
Total: Revised Model Scholtens	US	50	142,600	35.33	969,917	137,167	1766.5
	Europe	50	253,800	65.67	704,183	,99586	3283.5
CSRhub Overall	US	49	521,633	36.55	695,625	,99375	1791
	Europe	47	581,489	60.96	471,343	,68753	2865
Asset4esg Equal Weighted	US	47	637,447	34.9	2,991,326	436,330	1640.5
	Europe	40	840,250	54.69	1,772,075	280,190	2187.5

Table 5. Mean calculation for the various CSR frameworks by region.

An additional analysis is conducted to investigate if this significant difference is evident for the whole 2008-2012 period. This test uses the measurement variables CSRhub total and Asset4esg environment. With the exception of the CSRhub total 2008 test, the measurements shows a significantly higher CSR level for financial institutions operating on the European market as compared to their counterparts in the US (appendix D).

4.4 In-depth CSR Behaviour analysis

The significant differences between the US and European markets prompts further analysis to determine if the financial institutions operating on the US market display a lower level of CSR behaviour in all aspects (Table 1). The CSR variable categories are tested through a Mann-Whitney U test. The total: revised model Scholtens is tested for the year 2012 while the variable categories of the CSRhub and Asset4esg are tested over the 2008-2012 period (appendix E).

The total: revised model Scholtens demonstrates a significantly higher CSR behaviour score for all variable categories for the year 2012. All five variable categories show an asymptotic significance level of less than 0.01. The CSRhub displays no significance levels for the year 2008, in which a higher score is obtained for the US for variable categories community, employees and governance. The variable categories community, employees and environment show a significant difference for the 2009-2012 period, which results in a significance level of less than 0.01. All three variable categories display a significant higher score for Europe. The only exception is the variable category of governance, which does not show a 0.01 significance level but does display a higher score for the European market. The same trend is evident in the variable categories taken from the Asset4esg. Both environment and social conduct display a 0.01 significant level in difference, in which the European market displays a higher level of CSR behaviour. For corporate governance there is no indication of significance, but the European market still scores higher. These findings support hypothesis 3, which proposes that shared value behaviour is created through the measurement of CSRhub community variable

category, Asset4esg social variable category and the total: responsible financial products variable category. Hypothesis 4 is, however, not supported since all three rating methods show no significantly higher scores for any variable category for the US related to social conduct.

4.5 Size and CSR behaviour

Company size, like region, could be an important influence on CSR behaviour. A primary statistical exploration is performed to test the distribution of total assets on their normality. A non-normal distribution is evident, similar to the CSR–region analysis (appendix F). A Pearson correlation test then shows a significant correlation between company size, characterised by total assets, and CSR score (Table 6).

Correlations

		Total Assets 2008	Total Assets 2009	Total Assets 2010	Total Assets 2011	Total Assets 2012
Total	Pearson Correlation	,456**	,461**	,466**	,465**	,447**
CSRhub 2008	Pearson Correlation	,463**	,452**	,465**	,430**	,420**
CSRhub 2009	Pearson Correlation	,504**	,496**	,506**	,486**	,479**
CSRhub 2010	Pearson Correlation	,452**	,440**	,459**	,449**	,418**
CSRhub 2011	Pearson Correlation	,419**	,409**	,419**	,411**	,389**
CSRhub 2012	Pearson Correlation	,387**	,369**	,373**	,367**	,350**
Asset4esg 2008	Pearson Correlation	,509**	,515**	,510**	,505**	,491**
Asset4esg 2009	Pearson Correlation	,489**	,497**	,491**	,482**	,476**
Asset4esg 2010	Pearson Correlation	,456**	,457**	,452**	,448**	,442**
Asset4esg 2011	Pearson Correlation	,447**	,458**	,453**	,446**	,441**
Asset4esg 2012	Pearson Correlation	,419**	,426**	,423**	,422**	,412**

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

Table 6. Correlation analysis Total Assets-CSR behaviour (appendix G).

All years included in the test show correlations at levels lower than 0.01 significance. All samples included in the test show a positive Pearson correlation. These results support hypothesis 5: financial institutions with a higher level of total assets have a higher CSR score.

4.6 Exclusion of Outliers

Outliers need to be detected and excluded before the correlation between CSR behaviour and financial performance can be trusted. A test of normal distribution is computed as the best

method for excluding these outliers. A clear non-normal distribution is evident for all financial performance indicators for the 2008-2012 period (Table 7).

Extreme results in certain years are possible due to the current economic climate and the susceptibility of the financial industry. Therefore, the design deletes the outliers that exceed four times the standard deviation. The sample is contaminated by a number of extreme values, which could potentially influence the outcome of the analysis (appendix H). The banks in Table 8 are excluded from the sample for specific years.

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
ROE 2008	.214	84	.000	.855	84	.000
ROE 2009	.196	84	.000	.802	84	.000
ROE 2010	.298	84	.000	.391	84	.000
ROE 2011	.366	84	.000	.263	84	.000
ROE 2012	.394	84	.000	.173	84	.000
Net Margin 2008	.189	84	.000	.784	84	.000
Net Margin 2009	.207	84	.000	.770	84	.000
Net Margin 2010	.307	84	.000	.400	84	.000
Net Margin 2011	.222	84	.000	.653	84	.000
Net Margin 2012	.172	84	.000	.801	84	.000

a. Lilliefors Significance Correction

Table 7. Test of Normality for financial indicators.

ROE		*Net Margin*	
Allied Irish Bank	2010	ABN Amro	2008
National Bank of Greece	2011	Allied Irish Bank	2010
Dexia	2011	National Bank of Greece	2011
Dexia	2012	Allied Irish Bank	2012

Table 8. Financial institutions excluded from the analysis.

With these outliers deleted, the standard deviation shows a significant reduction (appendix I).

4.7 CSR Behaviour and Financial Performance

These initial financial analyses lead to a final partial correlation test to measure the correlation between CSR behaviour and financial performance, using region and company size as control variables. The primary analysis evaluates the relationship between CSR in year *t-1* and the correlation with the following year *t*. Eight testing moments are included in the analysis using two CSR rating agencies, CSRhub and Asset4esg. Of the eight testing moments, only three display a correlation. In these instances the ROE of year 2010 shows a correlation for both CSR

rating agencies (Table 10). For the profitability years, 2009 to 2011, the results show a positive correlation (Table 9, Table 11). For the year 2012, the results display a negative, non-significant correlation (Table 12). Therefore, hypothesis 6 is not supported because there is not consistent significant evidence that there is either a positive or negative correlation between CSR behaviour and ROE.

Correlations

Control Variables			CSRhub 2008	Asset4esg 2008
Total Assets 2008 & region	ROE 2009	Correlation	.240	.337
		Significance (2-tailed)	.052	0,006**
		df	64	64
	Net Margin 2009	Correlation	.188	.311
		Significance (2-tailed)	.132	0,011*
		df	64	64

Table 9. Partial correlation analysis CSR behaviour - ROE/net margin 2009.

Correlations

Control Variables			CSRhub 2009	Asset4esg 2009
Total Assets 2009 & region	ROE 2010	Correlation	.241	.362
		Significance (2-tailed)	0,040*	0,002**
		df	71	71
	Net Margin 2010	Correlation	.140	.309
		Significance (2-tailed)	.238	0,008**
		df	71	71

Table 10. Partial correlation analysis CSR behaviour - ROE/net margin 2010.

Correlations

Control Variables			CSRhub 2010	Asset4esg 2010
Total Assets 2010 & region	ROE 2011	Correlation	.124	.064
		Significance (2-tailed)	.275	.578
		df	77	77
	Net Margin 2011	Correlation	.082	.045
		Significance (2-tailed)	.473	.695
		df	77	77

Table 11. Partial correlation analysis CSR behaviour - ROE/net margin 2011.

Correlations

Control Variables			CSRhub 2011	Asset4esg 2011
Total Assets 2011 & region	ROE 2012	Correlation	-.091	-.006
		Significance (2-tailed)	.423	.957
		df	77	77
	Net Margin 2012	Correlation	-.204	-.128
		Significance (2-tailed)	.071	.261
		df	77	77

Table 12. Partial correlation analysis CSR behaviour - ROE/net margin 2012.

The same trend is evident for the correlation between net margin and CSR, in which only two samples out of the eight demonstrate a significant correlation (Table 9, Table 10). Again the results display a positive correlation for the 2009-2010 financial period, with mixed results for the later years and a non-significant negative relationship in 2012 (Table 12). Therefore, it is

not possible to support hypothesis 7. An additional analysis investigates the potential positive correlation between financial performances in *t-1* on the CSR score in *t* (appendix J). Again, there are similar results to the relationship between CSR *t-1* on financial performance in year *t*. Although a few years display a significant positive correlation, such a relationship is not evident for the whole sample; therefore, the additional hypothesis is not supported.

4.8 CSR Certificates and Initiatives

Financial institutions limit themselves in their investment choices by adopting certain CSR certificates and initiatives. However, these financial institutions can present their CSR certificates and initiatives to potential customers, leading to a possible increase in revenue and profitability.

Descriptive Statistics

	Mean	Std. Deviation	N
ROE 2012	4.8045	10.76329	86
Net Margin 2012	8.6808	16.99738	86
Total Code of Ethics	6.1279	4.56018	86
region	.4651	.50171	86
Total Assets 2012	563822.7336	712572.32560	86

Correlations

Control Variables			ROE 2012	Net Margin 2012	Total Code of Assets
Region & Total Assets 2012	Total Code of Ethics	Correlation	-.011	-.020	1.000
		Significance (2-tailed)	.923	.854	
		df	82	82	0

Table 13. Partial correlation analysis Code of Ethics - financial performance.

A partial correlation test shows a non-significant negative correlation between total code of ethics and performance (Table 13). That result suggests participation with CSR certificates and initiatives neither have a significant positive nor negative significant influence on the performance of financial institutions. A negative trend is, however, evident. Therefore, the analysis does not convincingly support hypothesis 8.

4.9 CSR Behaviour

The analyses show a strong significant difference in CSR behaviour between the US and European financial industries. In almost all variable groups, with exception of corporate governance, the financial institutions operating on the European market demonstrate a higher level of commitment towards CSR. There are many possible reasons for this, ranging from regulatory policies to consumer demand. The relationship between CSR behaviour and profitability shows an entirely different image. The analyses do not show a positive significant correlation between CSR behaviour score and profitability. The trend of this relationship converts into a non-significant negative correlation relationship for the year 2012, opposite of the proposed hypothesis. The willingness of financial institutions to pursue CSR certificates and initiatives also shows a non-significant negative relationship.

5. Discussion

5.1 Introduction

The central objective of this research is to investigate the CSR behaviour of financial institutions operating on US and European markets, and the potential positive relationship of CSR behaviour on financial performance in this industry. The primary analyses of CSR practices and region reveal a significant difference between the European and US markets. The second analyses on the topic of CSR behaviour and profitability demonstrates mixed results, which do not provide a clear outcome. The results bring to question the necessity for a transparent CSR measurement framework specific to the financial industry as designed by Scholtens (2008). This section summarises and interprets the findings, with a particular discussion of the validity of these results. The methods of CSR measurements are re-evaluated.

5.2 Validity of Scholtens (2008) Framework

This study first analysed the difference in outcome between the various CSR measurement practices. Scholtens (2008) developed a framework specifically for the financial industry, which framework promised more transparency in collecting measurements. The correlation with the CSRhub (0.791) and Asset4esg (0.774), however, calls to question the necessity of such a framework. The CSRhub is freely accessible and provides the same information in a less time intensive manner. The arguments of Scholtens (2008), such as the necessity of a more transparent method that avoids costly and proprietary information, are logical; yet, the need and added value of such a framework is not clear.

5.3 The Transatlantic Separation

The analysis supported the hypothesised significant difference in CSR behaviour by financial institutions operating on the US and European markets. Sotorrío and Sánchez (2008) previously made this trend evident when measuring 40 highly reputed companies operating on the North

American and European markets. This study displays a strong distinction between the CSR behaviour in Europe and the US, in which the increase in CSR behaviour is more rapid in the European financial industry. In 2008 the US was still the leader in various CSR variable categories; by 2012 it had lost its leading position, and a significant difference existed between the two regions (Table 5, appendix D, appendix E). Various measurements, such as emission levels, investment policies, and governance structures, were initialised through regulatory pressure (Haigh & Jones, 2006; Roberts, 1992). The same trend is evidenced by tallying the number of CSR banks in Europe and America (Snyder & Zeijden, 2013). CSR efforts in Europe go far beyond the demand of governments and appear to be responses to consumer demand contributing to the stakeholder analyse performed by Roberts (1992).

The precise differences in CSR behaviour between the two markets are surprising. As hypothesis 4 proposed, financial institutions operating on the US market where expected to show a higher level of social conduct (Doh & Guay, 2006; Matten & Moon, 2008; Sotorrío & Sánchez, 2008). Philanthropic behaviour and community involvement were the two main topics discussed in the CSR reports of the financial institutions included in the sample. Although there was more emphasis on this behaviour in the sustainable reports of US financial institutions, the measurement indicators developed by Asset4esg, CSRhub, and Scholtens (2008) show a non-significant higher score in this category for the European market. This confirms part of the theory developed by Matten and Moon (2008), which stressed the difference between explicit and implicit CSR. In this theory, equivalent amounts of CSR behaviour can have drastically different influence depending on how that CSR is communicated. This phenomenon is seen in the use of CSR initiative and certificate brandings. The majority of financial institutions advertise their participation, they differ in how their manner of participation. The US financial institutions make a greater effort of communicating their participation and do it more repeatedly than their counterparts on the European financial market (Gill, Dickinson, & Scharl, 2008;

Hartman, Rubin, & Dhanda, 2007). An exception is made for European financial institutions that also operate on the US market.

The scores of CSR behaviour using various rating methods reveals the US financial industry to score lowest in all categories. The higher scores in the US financial industry are generally achieved by financial institutions that also operate on the European market (JP Morgan & Chase, Citigroup), have an foreign parent company (HSBC, Bank of the West, Citizens, RBS and Santander), or that have a Canadian origin (Bank of Montreal, Toronto-Dominion Bank)(Appendix K).

It is most likely that the rapid shift towards a more sustainable business approach in Europe and the slower trend evident on the US market is a combination of regulatory pressure and consumer demand (Kesidou & Demirel, 2012; Popp, Hafner, & Johnstone, 2011). In this trend every region has to make its own decision on its approach toward sustainability, whether that is financial sustainability or environmental sustainability.

5.4 The Financial Impact of CSR Behaviour

Results for the analysis of CSR behaviour and its potential relationship with financial performance require a critical note regarding difficulties in measurement. In this research there is a mixed result for the relationship between CSR behaviour and financial performance. These results are in line with the mixed results of previous studies (Ahmed et al., 2012; Bolton, 2012; McWilliams & Siegel, 2000; Simpson & Kohers, 2002; Soana, 2011). This is, however, the first study that combines a longitudinal method while simultaneously assessing the CSR behaviour through various methodologies. By investigating the US and European markets, this research focussed on the developed markets that do not display extreme growth rates, such as those seen in the emerging markets. A significant positive correlation between company size and CSR behaviour is observed. However, CSR rating agencies such as Reprisk.com, who develop their CSR score with the use of CSR media publications, display a significant positive

correlation between company size and reputational risk score. In these cases, a higher score indicates a higher reputational risk when collaborating with these financial institutions, and thus a lower CSR behaviour score (appendix L). When comparing the various CSR calculation methods, the potential for bias becomes evident. Large companies are more likely to be linked to negative publicity that harms their CSR image, while they also possess the resources to participate or buy CSR certificates and initiatives, which can increase their CSR rating. Consequently, CSR studies should always include various CSR rating frameworks to avoid these biases.

This study has taken these skewing factors into account, and finds no constant significant evidence for neither positive nor negative correlations between CSR behaviour and financial performance within the financial industry in the US and European markets. The results suggest a transformation from a positive correlation between CSR behaviour and financial performance towards a negative correlation for the 2009-2012 period. Friedman (1970) theorised that the additional costs involved with CSR behaviour will lead to lower financial results. That theory could gain support if the negative correlation between CSR certificates and initiatives and financial performance are investigated further. The European market is characterised by the belief that CSR behaviour will lead to a better result on the long-term basis (Ribstein, 2005; Steurer, 2010). This belief could be one reason why European financial institutions are willing to commit to environmental sustainable approaches over the past years. The US market is characterised by a more short-term vision towards profit generating efforts (Isabelle Maignan & Ralston, 2002). An additional insight is that CSR is perceived by European firms as a performance driver (UK 41.7%, FR 34.5% and NL 41.7%, US 20.7%). The US market perceives CSR as an extension of their core value (58.5%) (Isabelle Maignan & Ralston, 2002).

The measurement tools used to assess the CSR behaviour through the different frameworks requires further analysis. These frameworks exclude specific sectors. All frameworks included

in this research use a yes/no evaluation. The Bank of America, for instance, excludes investments in the coal sector because of its commitment to sustainable energy. Yet, that bank invests in atomic bombs (Snyder & Zeijden, 2013). The same phenomenon is evident for PNB Paribas, which does not invest in products containing PCBs or asbestos but does invest in atomic weapons (Snyder & Zeijden, 2013). Evaluating CSR behaviour may need more complexity.

Whether CSR behaviour actually increases financial performance is still disputed and researched. This study reveals a negative correlation between the use of CSR certificates or initiatives and net margins for the year 2012. Only through using the same method of research over an extensive period of time it will be possible to track CSR behaviour in relationship with financial performance. In such a longitudinal study, the CSR rating methodology should be revised becoming more complex and homogeneous.

6. Conclusion

6.1 Theoretical Contributions

Theoretical contributions of this study can be divided into three parts, with the first being an evaluation of the CSR measurement framework of Scholtens (2008). The second part focusses on the field of CSR behaviour in the US and European financial industries. The final part discusses the theoretical contributions made to discussions about the potential relationship between CSR behaviour and financial performance.

6.1.1 Transparent CSR measurement methodologies

The first hypothesis of this study investigates differences in scores created by the CSR measurement framework designed by Scholtens (2008), a revised model of this framework, and two independent CSR rating agencies. The results gave a strong significant correlation between the four methods of measuring CSR behaviour. Therefore, the framework developed by Scholtens (2008) and the revised model gave no added value over the existing CSR rating agencies. The validity of Scholtens (2008) framework is confirmed since it indeed measures the CSR behaviour of financial industries. Yet, there is no convincing reason to adopt this framework, as it is limited to a single time analysis and displays the same results as the CSRhub and Asset4esg. Rather, using existing, low-cost CSR rating agencies will give comparable results with a more in-depth analysis. Scholtens' call for a more transparent method does not lead to differences in results of the CSR behaviour score. His proposition for a non-proprietary, transparent method of measuring CSR behaviour could be used for future CSR measurement constructs.

6.1.2 The Transatlantic Debate

This study offers several important contributions to the previous researched and recognised difference in CSR behaviour between the US and European market (Isabelle Maignan &

Ralston, 2002; Sotorrío & Sánchez, 2008; Tschopp, 2005). This research applies CSR measurements to specifically the financial industry. Although previous studies have included the financial industry in their samples, this study exclusively focusses on the financial industry. Due to the intermediary role of financial industry in modern society, it significantly influences the way society approaches CSR. As Jeucken (2002) already stated in his work, the financial industry plays a fundamental role for society to reach a sustainable environment. The difference in CSR behaviour within the financial industry provides an explanation for differences in CSR behaviour in other industries operating in the same market and could been seen as evidence for the stakeholder theory (Freeman, 1999; Roberts, 1992) and work by Matten and Moon (2008) investigating the difference between implicit and explicit CSR behaviour.

A significant difference in CSR behaviour was shown in various studies, including this research; however, this difference in CSR behaviour was not specified for financial segments. More extensive analysis of these differences would give a better understanding of CSR behaviour in the two investigated markets. CSR has different meanings in different regions (Sotorrío & Sánchez, 2008; Steurer, 2010; Tschopp, 2005), which could be better understood by investigating the specific CSR behaviours.

6.1.3 The CSR – Financial Performance Debate

The debate concerning CSR behaviour and financial performance is ongoing. There are both a negative relationship due to extra costs related to CSR behaviour (Friedman, 1970) and a positive relationship since organisations venture into CSR when prudent and for gain (Waddock & Graves, 1997; Ribstein, 2005). This study applies a longitudinal analysis using various CSR rating methodologies, thereby overcoming the limitation of including only one year in the research (Simpson & Kohers, 2002; Soana, 2011) or using solely one CSR performance indicator (Ahmed et al., 2012; Bolton, 2012; McWilliams & Siegel, 2000). A transformation from a positive correlation to a negative correlation between CSR behaviour and financial

performance was found. This finding is not reported in any previous academic work. This finding gives tentative support for the theory of Friedman (1970) as the use of CSR certificates and initiatives leads to lower financial performance. That relationship might be due to the higher costs and limitations related to CSR behaviour.

6.2 Managerial Contributions

The growing accessibility of CSR measurement methodologies limits the necessity for a more transparent CSR measurement methodology. The accessibility of the CSRhub and Asset4esg removes the necessity for a framework such as developed by Scholtens (2008). The results indicate a significant difference between the European and US financial industries in CSR, which conclusion gives a better guideline for managers who would like to adjust their internal strategy towards a more CSR based model. Ribstein's (2005) theory of the use of CSR behaviour for strategy purposes is the directive for this behaviour. Managers can find support in this research whether their aims be toward opting a more CSR behaviour based strategy or pursuing a less CSR behaviour based strategy. The research displays mixed results concerning the relationship between CSR behaviour and financial performance thereby giving no definitive solution on the CSR-profitability debate.

6.3 Limitations and Future Research

This study contributes to several academic and managerial discussions in the field of CSR behaviour in the financial industry. The scope of this research is, however, hampered by several limitations, which offer opportunities for future research.

The first and foremost limitation of this research is the short time span for which data could be collected using the revised framework of Scholtens (2008). This investigation was limited to the year 2012, but should be conducted on a yearly basis to further assess its validity as a useful and precise framework to assess CSR behaviour within the financial industry. A better

assessment can be made on the completion of the framework by conducting further research while using the same framework in relationship with potential additives.

A second limitation is the sample size of 100 financial institutions. With the intention of creating a better understanding of the relationship between CSR behaviour and financial performance, the research scale should be increased by using a greater number of financial institutions. A supplementary addition to the scope of the research would be to expand the research setting to include Asia, which has experienced rapid growth in the financial industry over the last decade.

A third limitation is how CSR behaviour is measured. Due to limitations in the model, it is impossible to measure the exact level of CSR behaviour. Financial institutions offering 20 sustainable products receive the same score as financial institutions offering one sustainable product. This limitation should be avoided in the future through the development of more complex CSR measurement frameworks.

The fourth and final limitation is the accessibility of financial information. The research was hindered by the limited accessibility to financial information of private financial institutions. By reconstructing the same research in a setting that has better access to financial information the results will be more accurate and convincing. This would be the most valuable recommendation for future research in regards to transparency in CSR behaviour and financial performance. This complex and interesting field of research should be further developed to gain better understanding of the potential relationship between CSR behaviour and financial performance.

6.4 Summary

This research investigates the differences in CSR behaviour between the US and European financial markets, and the potential positive relationship between CSR behaviour and financial

performance. To this end, a convenience sample consisting of the 100 largest financial institutions operating on the US and European markets was used.

A primary analysis of the difference between various CSR measuring methodologies displayed high levels of correlation. This finding brings to question the need of a transparent CSR measuring framework specific for the financial industry. Further analyses indicated a significant difference between the US and European markets. These findings agreed with the literature on this topic, which included various theories about the reason of this difference. The research intension was to explore specific differences between the two markets. To that end, both the time period 2008-2012 and different variable categories were used to assess the CSR score by several CSR rating methodologies. The analysis displayed a significant difference between the two markets in almost all variable categories, with the exception of corporate governance. All analyses displayed a higher score in CSR behaviour for the financial institutions operating on the European market in the year 2012, rising from a lower score in 2008.

In the second part of the research, the focus was shifted towards the relationship between CSR behaviour and financial performance. This analysis examined the role of company size on CSR behaviour. A significant positive correlation was found. A partial correlation analysis, with control variables of region and size, gave a mixed result, with a positive correlation for the year 2009 converted into a negative correlation for the year 2012. In sum, this research demonstrated mixed results for the support of its hypotheses. The research concerning the differences in CSR behaviour between the US and European financial industry were supported, while a clear relationship between CSR behaviour and financial performance was not obtained.

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8. Appendix

Appendix A. Table of Variable Explanation, Alphabetical

VARIABLE	EXPLANATION
ASSET4ESG CORPORATE GOVERNANCE 20XX	CSR variable category developed by Asset4esg Thomson Reuters which includes the variables; Board Structure/Function, Compensation Policy, Shareholders Rights and Vision & Strategy. Rating is one a 0% - 100% scale.
ASSET4ESG ENVIRONMENT 20XX	CSR variable category developed by Asset4esg Thomson Reuters which includes the variables; Emission Reduction, Resource Reduction and Product Innovation. Rating is one a 0% - 100% scale.
ASSET4ESG EQUAL WEIGHTED	CSR variable developed by Asset4esg Thomson Reuters which weighs CSR and Economic performance and combines it in a variable, exclusively available for the year 2012. Rating is one a 0% - 100% scale.
ASSET4ESG SOCIAL CONDUCT 20XX	CSR variable category developed by Asset4esg Thomson Reuters which includes the variables; Employment Quality, Health & Safety, Training, Diversity, Human rights, community and Product Responsibility. Rating is one a 0% - 100% scale.
CSRHUB COMMUNITY 20XX	CSR variable category developed by CSRhub which includes the variables; Community Development & Philanthropy, Human Rights and supply chain and, Products. Rating is on a 0 – 100 scale.
CSRHUB EMPLOYEES 20XX	CSR variable category developed by CSRhub which includes the variables; Compensation & Benefits, Diversity, Training and Safety & Health. Rating is on a 0 – 100 scale.
CSRHUB ENVIRONMENT 20XX	CSR variable category developed by CSRhub which includes the variables; Energy and Climate Change, Environment Policy and reporting, and Resource Management. Rating is on a 0 – 100 scale.
CSRHUB GOVERNANCE	CSR variable category developed by CSRhub which includes the variables; Board, Leadership Ethics and, Transparency and reporting. Rating is on a 0 – 100 scale.
CSRHUB TOTAL 20XX	CSR variable category developed by CSRhub By weighing CSRhub Community, CSRhub Employees, CSRhub Environment and CSRhub Governance. Rating is on a 0 – 100 scale.
NET MARGIN	Financial ratio developed by dividing the Net Profit by the Revenues
REGION	The Sample is divided into two regions, being either U.S. or Europe.
REPRISK	CSR rating agency which uses the variable categories Environment, social and Governance while investigating negative and positive publication concerning CSR issues.
ROE (RETURN ON EQUITY)	Financial Ratio developed by dividing Net Income by Shareholder's Equity
ROA (RETURN ON ASSETS	Financial Ratio developed by dividing Net Income by Total Assets
TOTAL ASSETS 20XX	Total Assets for corresponding year for financial institution *t*, which determines control variable *Size*
TOTAL: CODE OF ETHICS	CSR variable category including the variable certificates and initiatives for the year 2012. Rating is on a 0 – 17 scale.

TOTAL: ENVIRONMENTAL MANAGEMENT	CSR variable category including the environmental policies and environmental investment guidelines for the year 2012. Rating is on a 0 – 11 scale.
TOTAL: SOCIAL CONDUCT	CSR variable category including the entrepreneurial, community and business ethic policies for the year 2012. Rating is on a 0 – 6 scale.
TOTAL: SUSTAINABLE PRODUCTS	CSR variable category including the social responsible investment and saving products, microcredit and other sustainable products for the year 2012. Rating is on a 0 – 7 scale.
TOTAL: OLD MODEL SCHOLTENS	Total score of CSR framework consisting out of variable categories; Code of ethics, environmental management, sustainable products, social conduct and benchmark for the year 2012. Rating is on a 0 – 33 scale.
TOTAL: REVISED MODEL SCHOLTENS/TOTAL	A revised version of the Old Model Scholtens with added variables; CERES, GRI, Additional sustainability Audits, Corruption Statement, Animal Welfare Statement, Human Rights statement. Rating is on a 0 – 45 scale.

Appendix B. Revised Framework of Scholtens (2008)

Group	#	Indicator	Operationalization
1. Codes of ethics, sustainability reporting, and environmental management systems	1	Sustainability report	Year of First report
	2	ICC Business Charter Sustainable Development	Adopted (Yes/No)
	3	UNEP FI	Adopted (Yes/No)
	4	Equator Principles	Adopted (Yes/No)
	5	Global Compact	Adopted (Yes/No)
	6	Who Cares Wins	Participated in publication (Yes/No)
	7	Certified environmental management system	EMAS
	8	Certified environmental management system	ISO 14001
	9	CERES	Adopted (Yes/No)
	10	Global Reporting Initiative	Adopted (Yes/No)
	11	additional Sustainability audits	Adopted (Yes/No)
2. environmental management	12	Environmental policy	Environmental policies (Yes/No)
	13	Supply chain management	Policies on sustainability (Yes/No)
	14	Quantative environmental management targets	Yes or No
	15	Transparency of environmental performance	Quantitative or Qualitative
	16	Environmental risk management in lending policy	Yes or No
	17	Exclusion of specific sectors	Yes or No
	18	World Bank guidelines environmental risk management	Adopted (Yes/No)
		OECD guidelines environmental risk management	Adopted (Yes/No)
	19	Corruption statement	Yes or No
	20	Animal welfarte statement	Yes or No
	21	Human Right statement	Yes or No
3. Responsible financial products	23	Socially responsible investing	Yes or No
	24	Socially responsible saving	Yes or No
	25	Sustainable financing	Yes or No
	26	Microcredit	Yes or No
	27	Environmental advice services	Yes or No
	28	Climate products	Yes or No
	29	Other sustainable products/services	Yes or No
	30	Sustainable assets under management	percentage
4. Social conduct	31	Sponsoring	Sponsoring of Community activities and other NGOs (Yes/No)
	32	Community involvement	Donating and volunteering (Yes/No)
	33	Training and education	Yes or No
	34	Diversity and opportunities	Yes or No
	35	Feedback from employees	Yes or No
	36	Business ethics	code of conduct (Yes/No)
5. Benchmarks	37	Dow Jones Sustainability group Index	In DJSGI (Yes/No)
	38	FTSE4Good	In FTSE4Good (Yes/No)
	39	Domini Social Index	North-American bank in Domini Social index (yes/no)
	39	ESI Europe	European bank in ESI Europe (Yes/No)

Appendix C. List of Financial Institutions Included in the Sample Size

Bank nr.	U.S.	Europe
1	J.P.Morgan Chase & Co	Deutsche Bank
2	Bank of America	HSBC Holdings
3	Citigroup	BNP Paribas
4	Wells Fargo & Company	Credit Agricole Group
5	Goldman Sachs Group	Barclays PLC
6	Morgan Stanley	Royal Bank of Scotland Group
7	Bank of New York Mellon	Banco Santander
8	U.S. Bancorp	ING Group
9	HSBC North America Holdings	Societe Generale
10	PNC Financial Services Group	Lloyds Banking Group
11	Capital One	Groupe BPCE
12	TD Bank US Holding Company	UBS
13	State Street Corporation	UniCredit S.p.A.
14	Principal Financial Group	Credit Suisse Group
15	BB&T Corporation	Rabobank Group
16	Suntrust Banks	Nordea Bank
17	Ally Financial	Commerzbank
18	American Express Company	Intesa Sanpaolo
19	Ameriprise Financial	BBVA
20	Charles Schwab Corporation	Standard Chartered
21	RBS Citizens Financial Group	KfW Bankengruppe
22	BMO Financial Corp	Danske Bank Group
23	Fifth Third Bancor	ABN AMRO
24	United Services Automobile Association	Dexia
25	Regions Financial Corporation	DZ Bank Group
26	UnionBanCal Corporation	Crédit Mutuel-CIC Group
27	Northern Trust Corporation	Banque Fédérative du Crédit Mutuel (BCFM)
28	KeyCorp	Natixis
29	M&T Bank Corporation	Landesbank Baden-Wuerttemberg (LBBW Group)
30	Santander Holdings USA	Bayerische Landesbank (BayernLB Group)
31	BancWest Corporation	KBC Group
32	Discover Financial Services	Handelsbanken
33	Deutsche Bank Trust Corporation	DNB Group
34	BBVA USA Bancshares	Skandinaviska Enskilda Banken (SEB)
35	Comerica Incorporated	Sberbank
36	Huntington Bancshares Incorporated	Banca Monte dei Paschi di Siena
37	Zions Bancorporation	Hypo Real Estate (HRE Group)
38	Utrecht - America Holdings	Norddeutsche Landesbank (Nord/LB)
39	E*TRADE Financial Corp	Erste Group Bank
40	CIT Group Inc.	Swedbank
41	New York Community Bancorp	Deutsche Postbank
42	Hudson City Bancorp	Bank of Ireland
43	Popular, Inc.	Raiffeisen Bank International
44	First Niagara Financial Group	Allied Irish Banks
45	People's United Financial (PBCT)	Landesbank Berlin Holding (LBB)
46	BOK Financial Corporation (BOKF)	Banco Popular Espanol
47	City National Corp	UBI Banca
48	Synovus Financial Corp.	National Bank of Greece
49	First Horizon National Corporation (FHNC)	Banco Comercial Português
50	Associated Banc-Corp	Banco Sabadell

Appendix D. Region Analysis

Revised model

Ranks

region		N	Mean Rank	Sum of Ranks
Total: Code of Ethics	U.S.	50	33.53	1676.50
	Europe	50	67.47	3373.50
	Total	100		
Total: Environmental Management	U.S.	50	34.70	1735.00
	Europe	50	66.30	3315.00
	Total	100		
Total: Sustainable Products	U.S.	50	35.72	1786.00
	Europe	50	65.28	3264.00
	Total	100		
Total: Social Conduct	U.S.	50	42.23	2111.50
	Europe	50	58.77	2938.50
	Total	100		
Total: Old Model Scholtens	U.S.	50	35.50	1775.00
	Europe	50	65.50	3275.00
	Total	100		
Total: Revised Model Scholtens	U.S.	50	35.33	1766.50
	Europe	50	65.67	3283.50
	Total	100		

Test Statistics[a]

	Total: Code of Ethics	Total: Environmental Management	Total: Sustainable Products	Total: Social Conduct	Total: Old Model Scholtens	Total: Revised Model Scholtens
Mann-Whitney U	401.500	460.000	511.000	836.500	500.000	491.500
Wilcoxon W	1676.500	1735.000	1786.000	2111.500	1775.000	1766.500
Z	-5.881	-5.493	-5.172	-3.037	-5.180	-5.234
Asymp. Sig. (2-tailed)	.000	.000	.000	.002	.000	.000

a. Grouping Variable: region

CSRhub Overall

Ranks

region		N	Mean Rank	Sum of Ranks
CSRhub Overall 2008	U.S.	39	35.38	1380.00
	Europe	32	36.75	1176.00
	Total	71		
CSRhub Overall 2009	U.S.	42	33.82	1420.50
	Europe	36	46.13	1660.50
	Total	78		
CSRhub Overall 2010	U.S.	47	34.21	1608.00
	Europe	39	54.69	2133.00
	Total	86		
CSRhub Overall 2011	U.S.	47	33.01	1551.50
	Europe	39	56.14	2189.50
	Total	86		
CSRhub Overall 2012	U.S.	49	36.55	1791.00
	Europe	47	60.96	2865.00
	Total	96		

Test Statistics

	CSRhub Overall 2008	CSRhub Overall 2009	CSRhub Overall 2010	CSRhub Overall 2011	CSRhub Overall 2012
Mann-Whitney U	600.000	517.500	480.000	423.500	566.000
Wilcoxon W	1380.000	1420.500	1608.000	1551.500	1791.000
Z	-.278	-2.394	-3.792	-4.284	-4.298
Asymp. Sig. (2-tailed)	.781	.017	.000	.000	.000

a. Grouping Variable: region

Asset4ESG environment

Ranks

region		N	Mean Rank	Sum of Ranks
Asset4esg environmental 2008	U.S.	44	32.38	1424.50
	Europe	40	53.64	2145.50
	Total	84		
Asset4esg environmental 2009	U.S.	46	31.95	1469.50
	Europe	38	55.28	2100.50
	Total	84		
Asset4esg environmental 2010	U.S.	46	31.57	1452.00
	Europe	38	55.74	2118.00
	Total	84		
Asset4esg environmental 2011	U.S.	46	31.98	1471.00
	Europe	38	55.24	2099.00
	Total	84		
Asset4esg environmental 2012	U.S.	47	33.41	1570.50
	Europe	40	56.44	2257.50
	Total	87		

Test Statistics

	Asset4esg environmental 2008	Asset4esg environmental 2009	Asset4esg environmental 2010	Asset4esg environmental 2011	Asset4esg environmental 2012
Mann-Whitney U	434.500	388.500	371.000	390.000	442.500
Wilcoxon W	1424.500	1469.500	1452.000	1471.000	1570.500
Z	-3.990	-4.364	-4.521	-4.350	-4.238
Asymp. Sig. (2-tailed)	.000	.000	.000	.000	.000

a. Grouping Variable: region

Appendix E. In Depth Region Analysis

CSRhub Community

Ranks

region		N	Mean Rank	Sum of Ranks
CSRhub Community 2008	U.S.	45	44.50	2002.50
	Europe	39	40.19	1567.50
	Total	84		
CSRhub Community 2009	U.S.	45	36.24	1631.00
	Europe	39	49.72	1939.00
	Total	84		
CSRhub Community 2010	U.S.	47	32.99	1550.50
	Europe	39	56.17	2190.50
	Total	86		
CSRhub Community 2011	U.S.	48	35.81	1719.00
	Europe	41	55.76	2286.00
	Total	89		
CSRhub Community 2012	U.S.	49	34.12	1672.00
	Europe	47	63.49	2984.00
	Total	96		

Test Statistics

	CSRhub Community 2008	CSRhub Community 2009	CSRhub Community 2010	CSRhub Community 2011	CSRhub Community 2012
Mann-Whitney U	787.500	596.000	422.500	543.000	447.000
Wilcoxon W	1567.500	1631.000	1550.500	1719.000	1672.000
Z	-.808	-2.527	-4.291	-3.637	-5.175
Asymp. Sig. (2-tailed)	.419	.012	.000	.000	.000

a. Grouping Variable: region

CSRhub Employees

Ranks

region		N	Mean Rank	Sum of Ranks
CSRhub Employees 2008	U.S.	45	47.36	2131.00
	Europe	39	36.90	1439.00
	Total	84		
CSRhub Employees 2009	U.S.	45	34.79	1565.50
	Europe	39	51.40	2004.50
	Total	84		
CSRhub Employees 2010	U.S.	47	35.10	1649.50
	Europe	39	53.63	2091.50
	Total	86		
CSRhub Employees 2011	U.S.	48	33.94	1629.00
	Europe	41	57.95	2376.00
	Total	89		
CSRhub Employees 2012	U.S.	49	32.70	1602.50
	Europe	46	64.29	2957.50
	Total	95		

Test Statistics

	CSRhub Employees 2008	CSRhub Employees 2009	CSRhub Employees 2010	CSRhub Employees 2011	CSRhub Employees 2012
Mann-Whitney U	659.000	530.500	521.500	453.000	377.500
Wilcoxon W	1439.000	1565.500	1649.500	1629.000	1602.500
Z	-1.961	-3.116	-3.430	-4.376	-5.588
Asymp. Sig. (2-tailed)	.050	.002	.001	.000	.000

a. Grouping Variable: region

CSRhub Environment

Ranks

region		N	Mean Rank	Sum of Ranks
CSRhub Environment 2008	U.S.	44	36.94	1625.50
	Europe	38	46.78	1777.50
	Total	82		
CSRhub Environment 2009	U.S.	45	36.12	1625.50
	Europe	39	49.86	1944.50
	Total	84		
CSRhub Environment 2010	U.S.	47	33.88	1592.50
	Europe	39	55.09	2148.50
	Total	86		
CSRhub Environment 2011	U.S.	48	33.57	1611.50
	Europe	41	58.38	2393.50
	Total	89		
CSRhub Environment 2012	U.S.	49	37.29	1827.00
	Europe	47	60.19	2829.00
	Total	96		

Test Statistics

	CSRhub Environment 2008	CSRhub Environment 2009	CSRhub Environment 2010	CSRhub Environment 2011	CSRhub Environment 2012
Mann-Whitney U	635.500	590.500	464.500	435.500	602.000
Wilcoxon W	1625.500	1625.500	1592.500	1611.500	1827.000
Z	-1.866	-2.577	-3.924	-4.521	-4.033
Asymp. Sig. (2-tailed)	.062	.010	.000	.000	.000

a. Grouping Variable: region

CSRhub Governance

Ranks

region		N	Mean Rank	Sum of Ranks
CSRhub Governance 2008	U.S.	45	47.26	2126.50
	Europe	38	35.78	1359.50
	Total	83		
CSRhub Governance 2009	U.S.	45	43.10	1939.50
	Europe	39	41.81	1630.50
	Total	84		
CSRhub Governance 2010	U.S.	47	39.39	1851.50
	Europe	39	48.45	1889.50
	Total	86		
CSRhub Governance 2011	U.S.	48	39.40	1891.00
	Europe	41	51.56	2114.00
	Total	89		
CSRhub Governance 2012	U.S.	49	42.55	2085.00
	Europe	47	54.70	2571.00
	Total	96		

Test Statistics

	CSRhub Governance 2008	CSRhub Governance 2009	CSRhub Governance 2010	CSRhub Governance 2011	CSRhub Governance 2012
Mann-Whitney U	618.500	850.500	723.500	715.000	860.000
Wilcoxon W	1359.500	1630.500	1851.500	1891.000	2085.000
Z	-2.164	-.243	-1.677	-2.218	-2.142
Asymp. Sig. (2-tailed)	.031	.808	.094	.027	.032

a. Grouping Variable: region

Asset4ESG Social Conduct

Ranks

region		N	Mean Rank	Sum of Ranks
Asset4esg Social 2008	U.S.	44	30.68	1350.00
	Europe	40	55.50	2220.00
	Total	84		
Asset4esg Social 2009	U.S.	46	30.98	1425.00
	Europe	38	56.45	2145.00
	Total	84		
Asset4esg Social 2010	U.S.	46	30.07	1383.00
	Europe	38	57.55	2187.00
	Total	84		
Asset4esg Social 2011	U.S.	46	30.13	1386.00
	Europe	38	57.47	2184.00
	Total	84		
Asset4esg Social 2012	U.S.	47	30.57	1437.00
	Europe	40	59.78	2391.00
	Total	87		

Test Statistics

	Asset4esg Social 2008	Asset4esg Social 2009	Asset4esg Social 2010	Asset4esg Social 2011	Asset4esg Social 2012
Mann-Whitney U	360.000	344.000	302.000	305.000	309.000
Wilcoxon W	1350.000	1425.000	1383.000	1386.000	1437.000
Z	-4.658	-4.763	-5.141	-5.114	-5.374
Asymp. Sig. (2-tailed)	.000	.000	.000	.000	.000

a. Grouping Variable: region

Asset4ESG Corporate Governance

Ranks

region		N	Mean Rank	Sum of Ranks
Asset4esg Corporate 2008	U.S.	44	43.75	1925.00
	Europe	40	41.13	1645.00
	Total	84		
Asset4esg Corporate 2009	U.S.	46	40.95	1883.50
	Europe	39	45.42	1771.50
	Total	85		
Asset4esg Corporate 2010	U.S.	46	42.48	1954.00
	Europe	39	43.62	1701.00
	Total	85		
Asset4esg Corporate 2011	U.S.	46	40.54	1865.00
	Europe	39	45.90	1790.00
	Total	85		
Asset4esg Corporate 2012	U.S.	47	41.48	1949.50
	Europe	40	46.96	1878.50
	Total	87		

Test Statistics

	Asset4esg Corporate 2008	Asset4esg Corporate 2009	Asset4esg Corporate 2010	Asset4esg Corporate 2011	Asset4esg Corporate 2012
Mann-Whitney U	825.000	802.500	873.000	784.000	821.500
Wilcoxon W	1645.000	1883.500	1954.000	1865.000	1949.500
Z	-.493	-.833	-.212	-.997	-1.009
Asymp. Sig. (2-tailed)	.622	.405	.832	.319	.313

a. Grouping Variable: region

Appendix F. Analysis of Normality

Tests of Normality

		Kolmogorov-Smirnova			Shapiro-Wilk		
	region	Statistic	df	Sig.	Statistic	df	Sig.
Total	U.S.	0.156	47	0.006	0.896	47	0.001
	Europe	0.141	39	0.048	0.958	39	0.15
CSRhub Overall	U.S.	0.1	47	,200*	0.966	47	0.184
	Europe	0.167	39	0.008	0.945	39	0.054
Asset4esg Equal Weighted	U.S.	0.24	47	0.000	0.847	47	0.000
	Europe	0.257	39	0.000	0.66	39	0.000

* This is a lower bound of the true significance.
a Lilliefors Significance Correction

Appendix G. Correlation Total Assets – CSR Behaviour

Correlations

		Total Assets 2008	Total Assets 2009	Total Assets 2010	Total Assets 2011
Total	Pearson Correlation	,456**	,461**	,466**	,465**
CSRhub 2008	Pearson Correlation	,463**	,452**	,465**	,430**
CSRhub 2009	Pearson Correlation	,504**	,496**	,506**	,486**
CSRhub 2010	Pearson Correlation	,452**	,440**	,459**	,449**
CSRhub 2011	Pearson Correlation	,419**	,409**	,419**	,411**
CSRhub 2012	Pearson Correlation	,387**	,369**	,373**	,367**
Asset4esg 2008	Pearson Correlation	,509**	,515**	,510**	,505**
Asset4esg 2009	Pearson Correlation	,489**	,497**	,491**	,482**
Asset4esg 2010	Pearson Correlation	,456**	,457**	,452**	,448**
Asset4esg 2011	Pearson Correlation	,447**	,458**	,453**	,446**
Asset4esg 2012	Pearson Correlation	,419**	,426**	,423**	,422**

**. Correlation is significant at the 0.05 level (2-tailed).*

***. Correlation is significant at the 0.01 level (2-tailed).*

Appendix H. Outliers

Extreme Values

			Case Number	Value
ROE_2008	Highest	1	20	31.10
		2	92	25.54
		3	98	24.00
		4	18	23.60
		5	34	19.61[a]
	Lowest	1	62	-59.96
		2	73	-54.80
		3	40	-49.39
		4	43	-47.93
		5	56	-46.51
ROE_2009	Highest	1	17	42.65
		2	55	23.41
		3	73	20.52
		4	5	20.44
		5	32	18.63
	Lowest	1	36	-74.00
		2	48	-63.71
		3	39	-40.93
		4	37	-27.10
		5	28	-26.92
ROE_2010	Highest	1	18	26.15
		2	85	20.70
		3	93	17.77
		4	62	17.16
		5	26	16.66
	Lowest	1	94	-149.70
		2	48	-42.91
		3	92	-12.01
		4	37	-9.39
		5	25	-5.58
ROE_2011	Highest	1	32	29.96
		2	85	28.11
		3	18	27.85
		4	71	18.20
		5	26	16.56
	Lowest	1	98	-382.84
		2	74	-336.05
		3	86	-33.56
		4	94	-22.10
		5	97	-18.39
ROE_2012	Highest	1	48	29.81
		2	32	26.57
		3	85	24.13
		4	18	23.53
		5	8	16.41
	Lowest	1	74	-687.29
		2	86	-38.63
		3	99	-35.56
		4	94	-28.45
		5	96	-27.05

a. Only a partial list of cases with the value 19.61 are

Extreme Values

			Case Number	Value
Net_margin_2008	Highest	1	73	102.89
		2	26	22.90
		3	20	22.47
		4	98	17.34
		5	42	16.74
	Lowest	1	25	-57.94
		2	40	-47.25
		3	56	-40.30
		4	43	-40.07
		5	62	-30.82
Net_margin_2009	Highest	1	73	92.37
		2	5	25.90
		3	26	25.85
		4	55	22.91
		5	41	21.11
	Lowest	1	36	-93.97
		2	48	-76.28
		3	39	-45.10
		4	37	-40.27
		5	28	-24.20
Net_margin_2010	Highest	1	73	63.11
		2	26	31.12
		3	41	23.87
		4	70	20.46
		5	10	19.70
	Lowest	1	94	-200.86
		2	48	-48.65
		3	37	-10.28
		4	92	-8.02
		5	25	-6.69
Net_margin_2011	Highest	1	73	77.68
		2	85	29.78
		3	8	23.62
		4	41	22.58
		5	12	21.57
	Lowest	1	98	-153.23
		2	74	-52.15
		3	86	-47.98
		4	94	-42.82
		5	97	-32.72
Net_margin_2012	Highest	1	73	77.34
		2	48	63.56
		3	8	27.05
		4	23	25.55
		5	85	24.33
	Lowest	1	94	-110.48
		2	96	-35.73
		3	86	-34.08
		4	92	-29.16
		5	98	-28.50

Appendix I. Change in Standard Deviation

		Statistic	Std. Error
ROE_2008	Mean	.5982	2.05958
	Std. Deviation	18.87637	
	Skewness	-1.443	.263
	Kurtosis	1.827	.520
ROE_2009	Mean	1.0058	1.77586
	Std. Deviation	16.27599	
	Skewness	-2.277	.263
	Kurtosis	7.220	.520
ROE_2010	Mean	4.5830	2.06288
	Std. Deviation	18.90658	
	Skewness	-6.865	.263
	Kurtosis	54.893	.520
ROE_2011	Mean	-4.0019	6.19469
	Std. Deviation	56.77525	
	Skewness	-6.125	.263
	Kurtosis	37.722	.520
ROE_2012	Mean	-4.0198	8.32255
	Std. Deviation	76.27747	
	Skewness	-8.868	.263
	Kurtosis	80.280	.520
Net_margin_2008	Mean	2.6090	2.09860
	Std. Deviation	19.23399	
	Skewness	.675	.263
	Kurtosis	9.454	.520
Net_margin_2009	Mean	2.1660	2.31894
	Std. Deviation	21.25346	
	Skewness	-1.058	.263
	Kurtosis	9.644	.520
Net_margin_2010	Mean	6.9856	2.79086
	Std. Deviation	25.57870	
	Skewness	-6.596	.263
	Kurtosis	53.970	.520
Net_margin_2011	Mean	5.2618	2.68220
	Std. Deviation	24.58278	
	Skewness	-3.429	.263
	Kurtosis	21.337	.520
Net_margin_2012	Mean	6.9838	2.36049
	Std. Deviation	21.63422	
	Skewness	-1.681	.263
	Kurtosis	11.015	.520

		Statistic	Std. Error
ROE_2008	Mean	1.3615	1.96926
	Std. Deviation	17.61357	
	Skewness	-1.512	.269
	Kurtosis	2.379	.532
ROE_2009	Mean	.7191	1.81537
	Std. Deviation	16.23714	
	Skewness	-2.362	.269
	Kurtosis	7.624	.532
ROE_2010	Mean	6.4853	.93855
	Std. Deviation	8.39460	
	Skewness	-2.613	.269
	Kurtosis	14.614	.532
ROE_2011	Mean	4.9876	1.04347
	Std. Deviation	9.33309	
	Skewness	-1.218	.269
	Kurtosis	3.842	.532
ROE_2012	Mean	4.5751	1.21605
	Std. Deviation	10.87672	
	Skewness	-1.706	.269
	Kurtosis	5.255	.532
Net_margin_2008	Mean	1.1905	1.78887
	Std. Deviation	16.00014	
	Skewness	-1.699	.269
	Kurtosis	2.784	.532
Net_margin_2009	Mean	1.2450	2.12812
	Std. Deviation	19.03447	
	Skewness	-2.756	.269
	Kurtosis	10.289	.532
Net_margin_2010	Mean	8.9696	1.09705
	Std. Deviation	9.81234	
	Skewness	-2.576	.269
	Kurtosis	14.258	.532
Net_margin_2011	Mean	7.6564	1.47378
	Std. Deviation	13.18190	
	Skewness	-1.846	.269
	Kurtosis	4.712	.532
Net_margin_2012	Mean	8.3501	1.68657
	Std. Deviation	15.08518	
	Skewness	-.442	.269
	Kurtosis	2.789	.532

Appendix J. Partial Correlation analysis ROE/Net Margin *t-1* - CSR Behaviour *t*

Correlations

Control Variables			CSRhub 2009	Asset4esg 2009
Total Assets 2008 & region	ROE 2008	Correlation	.136	.156
		Significance (2-tailed)	.255	.190
		df	70	70
	Net Margin 2008	Correlation	.122	.150
		Significance (2-tailed)	.305	.209
		df	70	70

Correlations

Control Variables			CSRhub 2010	Asset4esg 2010
Total Assets 2009 & region	ROE 2009	Correlation	.097	.305
		Significance (2-tailed)	.390	.006
		df	79	79
	Net Margin 2009	Correlation	.047	.274
		Significance (2-tailed)	.676	0,013*
		df	79	79

Correlations

Control Variables			CSRhub 2011	Asset4esg 2011
Total Assets 2010 & region	ROE 2010	Correlation	.294	.344
		Significance (2-tailed)	0,008**	0,002**
		df	78	78
	Net Margin 2010	Correlation	.213	.279
		Significance (2-tailed)	.058	0,012*
		df	78	78

Correlations

Control Variables			CSRhub 2012	Asset4esg 2012
Total Assets 2011 & region	ROE 2011	Correlation	.053	.109
		Significance (2-tailed)	.638	.333
		df	79	79
	Net Margin 2011	Correlation	.083	.069
		Significance (2-tailed)	.463	.542
		df	79	79

Appendix K. Table of Total Score per Financial Institution

	Total: Revised Model	CSRhub Overall 2012	Asset4esg Equal Weighted		Total: Revised Model	CSRhub Overall 2012	Asset4esg Equal Weighted
J.P.Morgan Chase & Co	28	54	90	Deutsche Bank	32	64	92
Bank of America	28	55	87	HSBC Holdings	25	62	91
Citigroup	26	60	88	BNP Paribas	30	59	95
Wells Fargo & Company	21	54	84	Credit Agricole Group	25	58	95
Goldman Sachs Group	15	52	90	Barclays PLC	25	60	92
Morgan Stanley	26	57	78	Royal Bank of Scotland Grou	27	60	90
Bank of New York Mellon	20	53	93	Banco Santander	31	59	96
U.S. Bancorp	8	53	84	ING Group	38	60	95
HSBC North America Holdings	24	62	91	Societe Generale	29	60	93
PNC Financial Services Group	14	54	87	Lloyds Banking Group	19	58	94
Capital One	8	51	52	Groupe BPCE	21	52	
TD Bank US Holding Company	29	66	95	UBS	32	59	85
State Street Corporation	26	58	95	UniCredit S.p.A.	30	61	93
Principal Financial Group	10	50	84	Credit Suisse Group	31	58	86
BB&T Corporation	5	46	64	Rabobank Group	32	65	
Suntrust Banks	3	42	30	Nordea Bank	26	58	96
Ally Financial	3			Commerzbank	19	59	93
American Express Company	17	59	82	Intesa Sanpaolo	33	65	93
Ameriprise Financial	6	48	42	BBVA	30	66	91
Charles Schwab Corporation	4	48	37	Standard Chartered	16	62	95
RBS Citizens Financial Group	3	60	90	KfW Bankengruppe	26	52	0
BMO Financial Corp	29	64	95	Danske Bank Group	21	61	96
Fifth Third Bancor	14	47	82	ABN AMRO	36	64	85
United Services Automobile Association	3	51		Dexia	19	59	50
Regions Financial Corporation	14	48	66	DZ Bank Group	26	51	
UnionBanCal Corporation	21	54	84	Crédit Mutuel-CIC Group	24		
Northern Trust Corporation	28	58	95	Banque Fédérative du Crédi	14		
KeyCorp	15	51	84	Natixis	27	54	88
M&T Bank Corporation	11	50	53	Landesbank Baden-Wuertte	29	50	
Santander Holdings USA	16	59	96	Bayerische Landesbank (Bay	27	62	
BancWest Corporation	28	59	95	KBC Group	25	62	90
Discover Financial Services	12	49	74	Handelsbanken	28	53	89
Deutsche Bank Trust Corporation	32	64	92	DNB Group	34	61	96
BBVA USA Bancshares	27	66	91	Skandinaviska Enskilda Bank	31	62	95
Comerica Incorporated	21	54	90	Sberbank	17	49	74
Huntington Bancshares Incorporated	4	42	26	Banca Monte dei Paschi di S	27	65	79
Zions Bancorporation	5	47	27	Hypo Real Estate (HRE Grou	9		27
Utrecht - America Holdings	32	65		Norddeutsche Landesbank (	22	57	
E*TRADE Financial Corp	6	50	14	Erste Group Bank	18	53	72
CIT Group Inc.	5	45	30	Swedbank	32	59	93
New York Community Bancorp	4	40	13	Deutsche Postbank	26	57	82
Hudson City Bancorp	2	41	22	Bank of Ireland	12	51	37
Popular, Inc.	11	45	28	Raiffeisen Bank Internationa	28	53	37
First Niagara Financial Group	6	49	23	Allied Irish Banks	16	48	55
People's United Financial (PBCT)	5	47	43	Landesbank Berlin Holding (	3	50	
BOK Financial Corporation (BOKF)	4	42	5	Banco Popular Espanol	27	57	91
City National Corp	15	49	41	UBI Banca	30	58	95
Synovus Financial Corp.	7	46	18	National Bank of Greece	27	56	84
First Horizon National Corporation (FHN	6	46	37	Banco Comercial Português	24	61	94
Associated Banc-Corp	6	46	29	Banco Sabadell	33	63	87

Appendix L. Correlation Analysis Reprisk - Total Assets 2012

Correlations

		RepRisk	Total Assets 2012
RepRisk	Pearson Correlation	1	,696**
	Sig. (2-tailed)		.000
	N	96	96
Total Assets 2012	Pearson Correlation	,696**	1
	Sig. (2-tailed)	.000	
	N	96	100

**. Correlation is significant at the 0.01 level (2-tailed).