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MASTER'S THESIS

**THE IMPACT OF CORPORATE SOCIAL RESPONSIBILITY OF  
BANKS ON THEIR FINANCIAL PERFORMANCE**

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## **INTRODUCTION**

Corporate social responsibility (hereinafter: CSR) is »a business approach that contributes to sustainable development by delivering economic, social and environmental benefits for all stakeholders« (Definition of corporate social responsibility, n.d., para. 2). Even though implementations of CSR strategies vary from company to company, the concept of CSR strives towards the minimization of the negative effect of companies on the environment and the society (Definition of corporate social responsibility, n.d.).

Globalization, the recent financial crisis and various scandals have drawn public attention to CSR of companies. This has led to new forms of regulation from various regulatory organizations (e.g. new laws, directives, codes of ethics, etc.) and new expectations from investors, which differ from the traditional profit seeking and risk avoiding motives. The pressures that modern companies face from their stakeholders or even other agents are high and might be unrelated to their main core of business but are related to other, new requirements and aspects of the society. These aspects have been formed in the last half of the century and contain a spectrum of relations between a company and its stakeholders, as well as between the company and the environment. Alongside the traditional role of companies of bringing value to the shareholders, CSR is becoming a more and more important long-term strategic approach for companies across different countries (McWilliams & Siegel, 2001; Crisostomo, Freire, & de Vasconcellos, 2011; Jitaree, 2014).

In order for the society to inform itself with companies' CSR activities, companies have started to disclose this information more regularly. CSR disclosures usually contain information on environmental, social and professional development of a business, as well as its involvement with the community. CSR disclosures can be either a standalone report or a part of the annual report. The number of companies that have disclosed information on their CSR actions has been increasing considerably. According to KPMG's survey performed in 2015 (KPMG, 2015), 92 % of G250 companies reported on corporate responsibility, with the result having increased by 28 percentage points in the last 10 years. The main driver for CSR disclosure in G250 companies remains the legislative (the trend of regulations requiring the disclosure of non-financial information is still growing). While disclosing CSR information is becoming common in developed countries, it is still not a common appearance in emerging economies.

Even though companies are aware of and concerned about their impact on the environment and the society, they are also aware of the potential benefits of becoming socially responsible (Jitaree, 2015). While some of the companies were forced into implementing CSR activities into their everyday business practices due to the changing legislation, others

started doing so on a voluntary basis because they saw some benefit in it, either financial or non-financial.

CSR disclosure has been the main topic of many studies where the authors have tried to evaluate various reasons for its reporting or have even used it as a measure of CSR. Additionally, there have also been many studies devoted to investigating the relationship between CSR and corporate financial performance (hereinafter: CFP). Theoretical framework presents two different points of view:

- Friedman (1970) claims that the only obligation of a company is to increase the profit and the value of the shares for its owners. Based on this idea CSR is costly and reduces the company's financial performance and competitiveness, therefore the relationship between CSR and CFP has to be negative.
- Contrarily, Freeman (1984) and Donaldson and Preston (1995) argue that just as shareholders, also stakeholders have a claim to demand certain actions from the management of a company, therefore the relationship between CSR and CFP has to be positive.

Empirical studies have tested these assertions with mixed results (Cardebat & Sirven, 2009; Najah & Jarboui, 2013; Singh 2014). Studies have usually focused on companies of one industry or one country (e.g. Vance, 1975; Wright & Ferris, 1997; Murray, Sinclair, Power, & Gray, 2006; Crisostomo et al., 2011; Singh, 2014). Studies that compare several industries or countries are quite rare (e.g. Orlitzky, Schmidt, & Rynes, 2003; Najah & Jarboui, 2013; Jitaree, 2015). The majority of research has studied United States' (hereinafter: U.S.) companies (e.g. Moskowitz, 1972; Vance, 1975; Aupperle, Carroll, & Hatfield, 1985; Preston & O'Bannon, 1997; Waddock & Graves, 1997; Tsoutsoura, 2004), mainly because it is easier to obtain their performance index on CSR, while the research on e.g. the European companies has been neglected for quite some time. Furthermore, most of existing research has focused on non-financial companies because their effect on the environment and the society is more prominent. Financial institutions, such as banks, can be viewed as uninvolved with environmental issues, since they are directly not major pollutants of air, water or land. However, because they support through their financing practices commercial activity of their clients who maybe do degrade our natural environment, they should also be considered as an object of study (Cowton & Thompson, 2000).

Banks are an important part of a country's economic development because they create various external benefits to the society. By acting as financial intermediaries between lenders and borrowers, they affect a large mass of people and consequently seem to be more sensitive to CSR's impact than any other industry. Through their usage from the society and provision of resources to the society (i.e. loans and deposits), they are also



much more involved with their community than other companies and are subject to stricter regulations imposed upon them by the regulatory institutions. A healthy and reputable banking system provides stability to the society and is therefore key to sustained prosperity of other sectors (Achua, 2008; Wu & Shen, 2013).

**Research proposition.** Following the above stated facts, every banking system is the central pillar of its country's economic development and has a role of providing stability to the other sectors. If the banking system is not stable, the whole economy might collapse. Due to the constantly changing composition of the complexity of CSR requirements of the banking sector, CSR and banks' primary existence might be interlinked. Therefore, it is important to study their relationship, which is the main topic of this thesis. In our research, we attempt to study the impact of CSR of banks on their CFP, using more recent data and a longer period of study compared to the already existing studies.

The purpose of this study is to better understand the relationship between CSR and CFP of banks. The results of this study could be used as guidance to management of banks in their future decision-making and possible improvements of their relationship with the society. This study could also be an interest to the general public, in order for the general public to understand the influence of banks' socially responsible actions on banks' financial performance and consequently on the nation's economy itself. Focusing our research on the banking industry will help enrich the existing research on this topic, for a real consensus about the relationship between CSR and CFP has not yet been reached.

The primary research objective of this study is to explain the relationship between CSR and CFP of publicly listed banks across various countries. This will be done through two research questions:

- Is there a relationship between CSR and CFP in the banking sector on a short-term basis?
- Is there a relationship between CSR and CFP in the banking sector on a long-term basis?

This study will use the attribute of CSR disclosure of banks as a criterion of presence of CSR in our sample banks. We will identify social responsibility of a bank by a dummy variable, taking the value 1 if the bank disclosed any kind of a CSR report in year  $t$  or value 0, if it did not.

For measurement of banks' financial performance, we will use various short-term and long-term accounting-based and market-based measures. To gain better understanding of the relationship between CSR and CFP of banks, we will also employ several control variables, such as size, age and leverage of banks. Additionally, we will also employ certain financial criteria used by regulators to evaluate a bank's overall condition, covering

the regulatory areas of capital adequacy, assets, management capability, earnings, liquidity and sensitivity (hereinafter: CAMELS).

Our **hypotheses** are based on stakeholder theory, i.e. that all of the stakeholders of a company are important (owners – shareholders, management, employees, suppliers, customers, the government and the local community) and not only their shareholders. Each group of stakeholders has a different view on how a company should operate in the society and the company should try to manage its operations by taking into account all of these views.

Initial engaging in CSR activities presents an extra cost burden to the firms, therefore we assume that implementing socially responsible actions into banks' everyday business does not positively significantly affect their short-term financial performance. However, we expect CSR to have positive significant impact on bank financial performance in the long-term (McGuire, 1988; Preston & O'Bannon, 1997; Najah & Jarboui, 2013). The following hypotheses are defined:

- H1: CSR does not have a significant positive impact on CFP on a short-term basis.
- H2: CSR does have a significant positive effect on CFP on a long-term basis.

**Research methodology** used in this study is based on surveying existing literature and empirical research on the relationship between CSR and CFP. The following methodology will be applied:

- Exploring the theoretical background in order to understand the concept of CSR and its significance. The theoretical background includes the legitimacy theory, the stakeholder theory and the political economy theory.
- Researching the already known practices of measuring CSR, their advantages and disadvantages.
- Data gathering from sources, i.e. Eikon and Bloomberg.
- Performing empirical research by using econometric models – a panel data study.
- Analyzing and interpreting the results.

**Thesis structure.** This thesis is structured into four chapters, which are further divided into sections. After the introduction, Chapter 1 reviews the definition and history of CSR. It also describes theories explaining CSR, including legitimacy theory, stakeholder theory and political economy theory. Additionally, it focuses on the development of CSR disclosure and its current trends. It also explains CSR in the banking sector and its differences with the CSR of companies in non-financial industries. Chapter 2 describes the measurement techniques of CSR and problems with its measurement. Next, it mentions the measurement techniques of CFP, by explaining the accounting-based measures and the market-based measures. Chapter 3 reviews the relationship between CSR and CFP and

previous research on this topic. Chapter 4 presents an empirical analysis of the relationship between banks' CSR and CFP. In this chapter, we develop the hypotheses and review the research methodology, variables and the data used in this study. Moreover, we explain the performed empirical analysis and discuss the obtained results, followed by the limitations of this research and recommendations for the future research. Lastly, we conclude by summarizing the main implications of our research.

## **1 CORPORATE SOCIAL RESPONSIBILITY**

### **1.1 Definition and history of CSR**

CSR is a dynamic concept, which is not subject to only one definition, since it has been evolving throughout the years. According to the Definition of corporate social responsibility (n.d., para. 2), CSR is »a business approach that contributes to sustainable development by delivering economic, social and environmental benefits for all stakeholders«.

Even though the concept of CSR has been around since the 1930's, it was at that time more often referred to as social responsibility than as CSR. The beginnings of the modern period of literature on this subject are marked with the publication of the book *Social responsibilities of the businessman* by Howard R. Bowen in 1953, which was the first attempt to theorize the relationship between companies and the society (Carroll, 1979). The book was based on the author's belief, that the largest businesses were major centres of power and decision-making and that their decisions affected the lives of citizens at many points (Carroll, 1999). Bowen (1953) defined social responsibilities of businessmen as: »obligations of businessmen to pursue those policies, to make those decisions, or to follow those lines of action, which are desirable in terms of the objectives and values of our society«. This definition is thought of as the initial definition of the term that later evolved into CSR. However, this concept is in contrast with the contemporary CSR approach, which focuses more on companies themselves and their institutional practices, rather than on the decision-making of individual managers (Murphy & Schlegelmilch, 2013).

While the primary focus of the studies in the 1950s was the connection between CSR and its benefits for the business, the communicated business expectations were then obligatorily addressed in the 1960s, which eventually led to implementation of CSR into practice (Singh, 2014). This period coincided with the creation of consumer rights movement that directly challenged corporate power (Lee, 2008) and has left a mark on public social perception of companies. The social consciousness has changed and businesses were recognized with the need to be more responsible. With the topic being more and more researched, several formal definitions of CSR were proposed, emphasizing social responsibility, responsiveness and performance.

In 1979, Carroll defined a three-dimensional CSR model, which consisted of social responsibility categories, social issues involved and the philosophy of social responsiveness (Carroll, 1979). The aim of the model was to clarify various definitions of the term, which have appeared in the literature up to that point. Carroll's model was the first model that did not treat economic and social goals of companies as an incompatible trade-off, but has integrated them into a framework of total social responsibility of a business. Even though researchers tried to make this model more useful for wider application, it had one huge disadvantage: the possibility of empirical testing (Lee, 2008). Authors of studies on CSR in the 1970s were mostly theoretically oriented and it was not until the 1980s when there was an observed increase in empirical research of the topic, with researchers trying to find a connection between CSR and CFP (Singh, 2014).

Since the 1990s, global environmental awareness has been increasing and CSR is no longer only a company's social interest, but has become an important part of many companies' overall strategic approach. In 1991, Carroll asked himself what CSR should be like in order to be accepted by a conscientious businessman. He derived the answer, that »it should be framed in such a way that the entire range of business responsibilities are embraced« (Carroll, 1991, p. 40). He suggests that four responsibilities of CSR constitute its whole. These are:

- **Economic responsibilities:** They are the basic component of CSR, which have historically meant producing goods and services that costumers needed, while at the same time making profit. Somewhere along the line, the idea of profit was transformed into the concept of maximum profits. All of the other business responsibilities are built upon the economic responsibility of a company (Carroll, 1991).
- **Legal responsibilities:** At the same time as a company is expected to maximise its profits, it is also expected to comply with the local laws and regulations. The legal responsibilities are coexisting with the economic responsibilities (Carroll, 1991).
- **Ethical responsibilities:** They present those norms, expectations or standards that the community regards as fair, even though they are not written in laws and regulations. Since changing ethics is the driving force behind the creation of laws or regulations, ethical responsibilities are constantly pushing the legal responsibilities to adapt to them (Carroll, 1991).
- **Philanthropic responsibilities:** They differ to ethical responsibilities in terms that they are not expected from the society in ethical or moral sense. They mean actively engaging in actions to promote human welfare or goodwill. Philanthropic responsibilities are a voluntary part of business, even though the society expects the company to provide it (Carroll, 1991).

The four responsibilities of CSR can be depicted as a pyramid, as seen in Figure 1.

Figure 1. The pyramid of corporate social responsibility



Source: Carroll, A. B., *The pyramid of corporate social responsibility: toward the moral management of organizational stakeholders*, 1991, p. 42.

Although the approach towards the concept of CSR differs across companies, many companies are deciding to implement CSR with the intention to minimize their negative impact on society and the environment. In addition, because of the growing importance of global warming, the recent global recession and different financial scandals, which happened in the past years, regulatory and legislative organizations have started to implement several guidelines that companies are obliged to follow. E.g., in December 2014 the European Union (hereinafter: EU) passed on the directive 2014/95/EU, which requires large public-interest entities with more than 500 employees to disclose relevant and useful information on their policies, main risks and outcomes regarding environmental matters, social and employee aspects, etc., in their management report. The directive affects around 6,000 large companies listed on the EU markets, with the first reports being published on financial year 2017, making corporate sustainability activities in the EU much easier to follow (Non-Financial Reporting, 2017).

## 1.2 CSR in banking sector

Even though CSR is generic to all businesses, the banking sector seems to be the most sensitive to its impact, since it is subject to more complex and diverse stakeholders than the majority of other sectors of the economy. The banking sector is an important part of a country's economic development because it creates various external benefits to the society. By facilitating cash flow, banks serve as financial intermediaries between lenders and borrowers. Since they affect a large mass of people, whose interactions result in a more complex information asymmetry, they are subject to stricter regulation imposed upon them by the regulatory institutions. Well-functioning banks support various companies and

entrepreneurs, resulting in increased production and innovation. A healthy banking system is therefore key to sustained prosperity. If banks became too big to fail, the government would support them in times of distress. Additionally, by using resources from the society (i.e. deposits) and offering them back to the society (i.e. loans), they are much more involved with their community than any other industry. Consequently, they are highly inspected by the government and the media. To avoid the community's negative opinion, banks have to satisfy its demands, i.e. maximize the profit for shareholders, comply with the regulators' requirements and meet depositors' demands by maintaining optimal liquidity in the bank. Banks are increasingly implementing socially responsible activities into their everyday business practices and disclosing information on them (Achua, 2008; Wu & Shen, 2013).

A bank can implement CSR into its everyday activities through several channels. According to Yeung (2011), the main activities that make a bank socially responsible are responsible investing and lending, asset management and risk management. Since banks are very connected to their society, they also have to build strong business ethics, have an understanding of complex financial products, protect their customers' rights and set up channels for addressing customers' complaints. Finally, fighting money laundering and bribery is crucial for this industry (Al-bdour, Nasruddin, & Lin, 2010; Lentner, Szegedi, & Tatay, 2015).

With globalization and the dynamics of the modern society, composition of the complexity of CSR requirements of the banking sector is constantly changing, resulting in a possibility that CSR and banks' primary existence are interlinked. Since the banking system is the central pillar of an economy's development, banks should be socially responsible in order to build their reputation, which could attract new customers, investors, highly educated employees and finally, win public trust (Achua, 2008).

From the theoretical point of view, the traditional role of bank reputation is also one of few ways of how to implement CSR into contemporary bank theories. Most of these theories focus on optimal contracts, credit rationing, risk sharing and moral hazard between the lenders and the borrowers, but the connection with CSR is scarce. According to Chemmanur and Fulghieri (1994), banks with greater reputation are more effective in reducing the impact of information asymmetry in the market. They can charge larger fees and therefore have higher incomes than their competition and are, despite larger fees, more often chosen as the provider of financial services to their clients. Moreover, Bushman and Wittenberg-Moerman (2012) discover that higher bank reputation is associated with higher credit quality and higher profitability and is closely linked with bank's future cash flows.

Compared to other industries, the banking sector's response to challenges of CSR was late. Banks first started to consider the environmental issues, later followed by the consideration

of the social issues (Vigano & Nicolai, 2009). These two types of issues are discussed in the following sections.

### **1.2.1 Influence of the banking sector on the environment**

Even though financial institutions, such as banks, are not major pollutants of air, water or land and can therefore be viewed as uninvolved with environmental issues, they, through their financing practices, support commercial activity of their clients, who maybe do degrade our natural environment (Cowton & Thompson, 2000). Since banks supply the funds for production of these companies, they are indirectly involved in environmental damage and should therefore also recognize their environmental responsibility. A bank's CSR strategy should strive towards a balance between economic and social goals of the use of a bank's resources (Wanless, 1995). Non-involvement in environmental protection can cause negative customer reaction or public criticism and make regulations stricter (Cowton & Thompson, 2000).

One of the solutions to the problem of financing environmentally unfriendly projects is the agreement of financial institutions with the Equator Principles, i.e. principles, which promote socially responsible development of financial institutions.

»The Equator Principles is a risk management framework, adopted by financial institutions, for determining, assessing and managing environmental and social risk in projects and is primarily intended to provide a minimum standard for due diligence to support responsible risk decision-making.« (About the Equator Principles, 2017, para. 1)

The Equator Principles financial institutions strive to implement the Equator Principles into their internal policies and will not grant loans to or fund projects of their clients who are unable to or do not want to comply with the Equator Principles. The attention of CSR in the project finance market has been increasing and has encouraged the development of other CSR practices in the financial sector, for example the climate principles (About the Equator Principles, 2017). The Equator Principles have been adopted by 90 financial institutions in 37 countries while the number continues to grow every year (Equator Principles Association Members & Reporting, 2017).

### **1.2.2 Influence of the banking sector on the society**

The bank's external effects are usually not a source of conflict with the society, however, there have been several conflicts generated by the banking sector. Some of these are cases of gender discrimination or sexual harassment of employees or customers, but most of the conflicts between banks and the society derive from banks' access to gains from trading in financial markets. These include forms of inequality – especially insider trading, unfair allocation of shares in initial public offerings and unfair treatments of some of the clients (Heal & Garret, 2004). Additionally, ever since the mortgage crisis and the following

credit crunch in 2008, banks have come under increasing pressure by the regulatory institutions to take a more long-term view of their stakeholder's interests and their obligations towards the society (Jizi, Salama, Dixon, & Stratling, 2014). The financial crisis has also increased the need for trust, as well as transparency and accountability, which lead to it (Lentner et al., 2015).

In order for the banks to build reputation and remain competitive in the market in the long-term, they should be aware of their customers' needs, wishes and complaints. Customer dissatisfaction, which usually occurs because of rising bank fees, seems to be one of the major reasons why customers switch banks. Managing customer turnover is therefore one of the most important priorities of bank's management. Customer turnover can be controlled by implementing a more customer-centred approach in the bank's overall strategy, which means reducing bank fees, interest rates or improving the customer service (McDonald & Rundle-Thiele, 2008). In the world of the ever-changing technology, one of the key priorities of bank's management is also customer protection. Customer protection can be developed through protection of privacy and personal data, improvement of customer service and product quality, resolving any potential customer complaints in a timely manner and protecting customers from misleading advertising. Internationally proclaimed human rights, investor interest and transparency within the industry should be promoted. Engaging in customer protection can help build a bank's brand image, attract and/or retain more customers. It can also maintain a fair marketplace and the provision of accurate information to the customers (Kapoor & Sandhu, 2010; Boubaker & Nguyen, 2012).

### **1.3 Theories explaining CSR**

There is no single generally accepted theory explaining CSR or why companies engage in it. Following a single theory could have limitations on its explanation. While the theoretical background on CSR is vast, this research will only focus on three main theories.

#### **1.3.1 Legitimacy theory**

According to Campbell, Draven and Shrivies (2003, p. 559) legitimacy theory is »the most widely used theory to explain environmental and social disclosures«. This theory focuses on a perception that there is a social contract between a company and the society, in which the company operates. The company agrees to perform various actions desired from the society, whereas the society in return approves the company's objectives, possible rewards and survival (Guthrie and Parker, 1989). The social contract is indefinable, its terms vary and different managers will have different perceptions about these terms. The survival and growth of the company therefore depend on whether the company manages to deliver some socially desirable ends to society and whether it can distribute social, economic or political benefits to groups from which the company derives its power. Consequently, the company



always tries to ensure that it operates within the defined norms and boundaries set by the society (Singh, 2014). Otherwise the company's survival could be threatened, if society thought that there was a breach of the social contract and wanted to revoke it (Guthrie & Cuganesan, 2006). For example, investors might not provide financial capital to the company, consumers might reduce the demand for a certain product, etc.

The above-explained concept is based on organisational legitimacy, which Dowling and Pfeffer (1975, p. 122) defined as:

»a condition or status which exists when an entity's value system is congruent with the values system of the larger social system of which the entity is part. When a disparity, actual or potential, exists between the two value systems, there is a threat to the entity's legitimacy.«

In addition, societal expectations change over time. Due to these changes, the conditions in the social contract also change and companies have to be flexible to respond to the environment in which they operate. The three key challenges of legitimacy management are to gain, to maintain and to repair legitimacy. When there is a difference between how a company acts and how it should act (the so called 'legitimacy gap'), there is a threat to the company's existence (Guthrie & Cuganesan, 2006) and the company has to repair their legitimacy. While gaining legitimacy can be a tough process, especially for newly established companies, it is still easier than maintaining it or repairing it over time and with changes in the environment; and this is where flexible companies have major advantages.

Suchman (1995, p. 574) defines legitimacy theory as »a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs and definitions.« Legitimacy management relies heavily on communication, and as such, companies have to know how to accept information from the society, consider this information, adjust to it and communicate their actions back to the society. Suchman (1995) distinguishes between three types of organizational legitimacy:

- Pragmatic legitimacy, which is a result of calculations of self-interested individuals who are part of the company's audience (e.g. stakeholders, wider public). These individuals will think of a company as legitimate as long as they benefit from its activities. Consequently, the key challenge of a company is to influence these individuals' calculations and to persuade them of the usefulness of its output, management behaviour, etc. (Palazzo & Scherer, 2006).
- Cognitive legitimacy appears when society thinks a company and its output, management behaviour, etc., is inevitable and necessary and when acceptance is based on some widely shared assumptions that are taken for granted. This type of legitimacy mainly affects the subconscious level of society, which makes it difficult for the company to strategically influence its perceptions. If society realizes that a company is

trying to manipulate its perceptions, the cognitive legitimacy may collapse, because the company's practices are perceived as unacceptable (Palazzo & Scherer, 2006).

- Moral legitimacy includes conscious moral judgements of a company's output, management behaviour, etc. It means that a company does not try to influence or manipulate society's perceptions but rather gives and considers reasons to justify their actions and practices – the management must be thought of as a deliberative communicator (Palazzo & Scherer, 2006).

According to Suchman (1995), legitimating strategies may differ depending on whether the entity is trying to gain, maintain or repair legitimacy. Based on how the company adjusts to society's expectations, there are three main legitimating strategies:

- companies adapt their goals and output to values of the society,
- companies may try to alter the society's expectations through communication,
- companies may try to become identified with values or symbols which have a strong social legitimacy base (Oxibar & Déjean 2007).

Since legitimacy theory is based on society's perceptions of a company, the company's actions need to have an effect on society. This is mostly done through publicly disclosed information, which can be made within an annual report or in a form of other publicly released documents (Cormier & Gordon, 2001).

Even though legitimacy theory is said to be the most widely used theory to explain environmental and social disclosures, it has some limitations. Legitimacy theory centres on the manipulative behaviour of a company and pursuing its self-interest. It ignores the concepts of accountability and transparency and consequently privileges financial stakeholders of a company. Furthermore, it lacks accuracy and has an uncertain ability to explain managerial behaviour. Legitimacy theory also conceptually overlaps with stakeholder theory and political economy theory (Hong, 2014). The latter theories are discussed in the following sections.

### **1.3.2 Stakeholder theory**

In the traditional view of a company (the shareholder theory), only the shareholders were important and the primary focus of a company was to maximize the shareholder's value (Friedman, 1970). An alternative to this theory is the stakeholder theory, which was originally described by Freeman (1984) in the book *Strategic Management: A Stakeholder Approach*. Freeman (1984, p. 46) defines stakeholders as »any group or individual who can affect or is affected by the achievement of the organization's objectives«. The author points out that just as shareholders, also stakeholders have a claim to demand certain actions from the management of a company: According to Freeman, there are two sorts of stakeholders:

- groups who are vital to survival or success of a company («narrow definition»),
- groups who can affect or are affected by a company («wide definition»).

The stakes of each group are reciprocal, meaning that they have rights and duties to each other and can do harm or benefit each other (Freeman, 1984).

This theory includes all stakeholders of a company, i.e. owners (shareholders), management, employees, suppliers, customers, the government and the local community. Each of these stakeholders has a different view on how a company should operate in the society and the company should try to manage its operations by taking into account all of these views (Freeman, 1984).

Following Donaldson and Preston (1995), there are three aspects of the stakeholder theory, which involve different types of evidence and have different implications, but are interrelated. These aspects are:

- The descriptive aspect: The theory is used to describe and explain certain company characteristics and behaviours, including the company's nature, management and its decisions and how board members consider interest of those with voting rights (Donaldson & Preston, 1995). According to Pirsch, Gupta, & Grau, (2007), descriptive companies might donate money to causes meaningful to the company's important investors.
- The instrumental aspect: The theory identifies dependence, or lack of dependence, between management of stakeholder groups and fulfilment of traditional corporate objectives, such as growth and profitability. It uses empirical evidence (Donaldson & Preston, 1995). Instrumentally oriented companies would therefore tend to perform actions, which improve financial performance of a company, even though that would be at the expense of other stakeholder's interests (Pirsch et. al, 2007).
- The normative aspect: The theory interprets the function of the company, including »the identification of moral or philosophical guidelines for the operation and management of corporations« (Donaldson & Preston, 1995, p. 71). According to this theory, a company should consider needs and desires of all stakeholders equally (Pirsch et al., 2007).

These three aspects are nested within each other. The external shell is the descriptive aspect (explanation of relationships that are observed in external world), the second level is the instrumental aspect (if a company performs certain actions, it will obtain certain results) and the core is the normative aspect (recognition of ultimate moral values and obligations of a company) (Donaldson & Preston, 1995).

Mitchell, Agle and Wood (1997) in their work *Toward a theory of stakeholder identification and salience: defining a principle of who and what really counts* focus on the question to whom managers of a company really pay attention. They start with a broad definition that no stakeholders are excluded from the analysis and then point out, that stakeholders can be divided into classes based on their possession of the following attributes:

- The power to influence the company: The attribute of power means that a party to relationship »can gain access to coercive, utilitarian, or normative means, to impose its will in the relationship« (Mitchell et al., 1997, p. 865). This access varies through time and situation and means that power is transitory – the party can obtain it and also lose it.
- The legitimacy of the stakeholder's relationship with the company: Mitchell et al. (1997) accept Suchman's definition of legitimacy (see section 1.3.1.) and add that legitimacy needs to be coupled with power to create authority. A party may have a legitimate claim on the company but if it does not have power to enforce its will, it cannot influence the company's managers.
- The urgency of the stakeholder's claim on the company: The attribute of urgency is the element that moves the model from static to dynamic and occurs when the relationship of the company and stakeholder is time-sensitive and when it is important, sometimes even critical, to the stakeholder (Mitchell et al., 1997).

By researching combinations of these three attributes, the authors derive eight types of stakeholders. Latent stakeholders are those who have only one attribute and include demanding, discretionary and dormant stakeholders. Those who possess two attributes are dependent, dominant or dangerous. Stakeholders with three attributes are definitive; and those, who have none of the attributes, are not stakeholders or they may be potential stakeholders (Mitchell et al., 1997).

### **1.3.3 Political economy theory**

Political economy theory studies the interchange of power, the goals of those with power and the market. It primarily focuses on exchanges in an institutional framework, where these exchanges occur and then analyses the relationships between the economy and social institutions, e.g. the government, law, etc. As such, it cannot be studied in isolation from the political, social and institutional framework within which these exchanges take place (Gray, Kouhy, & Lavers 1995).

A political economy theory can be discussed from two perspectives – from the perspective of interactions between all stakeholders and from the perspective of a company’s influence on the market.

From the perspective of interactions between all stakeholders, we differ:

- The classical political economy theory, which is a term that evolved in the late 18<sup>th</sup> century and was developed by Adam Smith, David Ricardo, John Stuart Mill and others. This theory suggests that markets function best with zero government interference because they regulate themselves (‘invisible hand’). According to Adam Smith, the economy can work well in a free market where everyone works for his own interest. If the government would not interfere, traders competed with each others, leading markets to have positive output. The suppliers will have to lower their price and supply better goods than the competitors, while customers will buy at a lower price. When enough customers demand a good, the market will supply it and everyone is satisfied (Smith, 2010).

Gray et al. (1995) state that political economy focuses on class interests, structural inequity, conflict and the role of the government as the heart of its analysis. Following his perspective, other authors exploit the proletariat (who have scarce resources and power) and the elites (who control scarce resources and power). They claim that CSR disclosure justifies the accumulation of assets to satisfy the elites’ demands at the expense of the community. Thus, the CSR disclosure fails to challenge capitalist organizations, which has led to environmentally destructive society (Hong, 2014).

- The bourgeois political economy theory, which in contrast to the classical political economy theory, ignores class interests, structural inequity and the role of the government and adopts a pluralistic view of the world. This means that other stakeholders are not only passively involved in the society, but they have power to influence the decisions of a company’s management and also the government (Gray et al., 1995). Stakeholders have the right to pursue their individual interests but the environment in which they exist can alter these (Hong, 2014).

In comparison to CSR disclosure’s meaning through perspective of classical political economy theory, Guthrie and Parker (in Hong, 2014, p. 28) claim that according to bourgeois political economy theory, CSR disclosures have the ability to »transmit social, political, and economic meanings for a pluralistic set of report recipients«.

From the perspective of a company’s influence on the market, we distinguish between two theories:

- Corporate constitutionalism: The central point of this theory is that the company has the power to influence the equilibrium of the market (Davis, 1960).

One of the first authors to explore corporate power in the society was Davis (1960), who introduced corporate power as a new element in debating CSR. According to Davis, companies must use their power responsibly, while there are internal and also external factors that generate corporate power. Davis contradicts the classical political economy theory by stating that a company has power to influence the equilibrium of the market and that the prices in the market are therefore not optimal. The social power has to be managed. If a company does not use its social power, other companies will replace its position in the society. Garriga and Mele (2014) add that social power is not assured, but different constituency groups who define conditions for its responsible use limit it.

- Corporate citizenship: The concept of corporate citizenship has been around since the 1970s but has once again gained attention in the recent years due to the recent financial crisis, the globalization, deregulation processes and technological breakthroughs. Consequently, some large multinational corporations have greater economic power than some governments, which results in corporate citizenship becoming more and more important. Corporate citizenship means a strong sense of responsibility towards the society, including partnerships, which formalize the willingness to improve the society and consideration for the environment (Garriga & Mele, 2004).

According to Matten (2003, p. 111), corporate citizenship »can be said to highlight the fact that the corporation sees – or recaptures – its rightful place in the society, next to other “citizens”, with whom the corporation forms a community.«

Matten (2003) asks himself why a new term has evolved when the aspect of CSR is already widely known. He distinguishes between three views of corporate citizenship in comparison to CSR:

- Limited view of corporate citizenship in comparison to CSR, which has a meaning quite close to some responsibilities assumed towards the local community.
- Equivalent view of corporate citizenship to existing concepts of CSR.
- Extended view of corporate citizenship in comparison to CSR, which claims that corporations have started to replace state institutions in the traditional meaning of citizenship, especially the government.

## 1.4 CSR disclosure

The awareness that companies have other responsibilities towards the society, besides maximizing the shareholder's value, has been around for several decades. Financial reporting is obligatory and is highly regulated, while CSR reporting is mostly still voluntarily based (Yin, 2012). Nevertheless, why do companies disclose information on their CSR actions if it is not obligatory? One of the reasons why companies do this is to ensure themselves access to resources, such as capital, by conforming to societal expectations. Additionally, companies decide to be more transparent in order to allow the society to more accurately assess their overall strategy, financial prospects and riskiness, which could lead to higher firm value (de Villiers & Marques, 2013).

The development of CSR disclosure began somewhere around the 1990s when information on CSR was usually disclosed within annual reports. Over the past decades, global warming, environmental disasters and also failures of major companies have increased environmental and social responsibility awareness in the general public and also in companies. Consequently, CSR reports have become wider spread and companies, due to their own interests and higher stakeholder pressures, have started to disclose CSR information more extensively. This eventually led to separate social and environmental reports. As such, CSR disclosures have become an important source of relevant information for the general public, investors and also the government, who use this information in their decision making (Najah & Jarboui, 2013; Singh, 2014).

De Villiers and Marques (2013) confirm that companies will disclose higher levels of CSR in democratic countries where the government is more efficient and has higher quality regulations, where investor protection is greater and there is more press freedom. The authors also discovered, that companies that are larger, more profitable, operate in environmentally sensitive industries, are more highly leveraged and spend more on capital, are more likely to disclose more extensive CSR information.

As the disclosure of 'non-financial' information gained in importance, governments, non-governmental organizations and other international bodies (e.g. United Nations, OECD), have developed various guidelines for disclosure of CSR.

The most known organization to have developed guidelines for disclosure of information on CSR is the Global reporting initiative (hereinafter: GRI). »GRI is an international independent organization that helps businesses, governments and other organizations understand and communicate the impact of business on critical sustainability issues such as climate change, human rights, corruption and many others« (About GRI, 2017).

The organization was founded in 1997 and has developed the first global standards for sustainability reporting to help companies produce their CSR disclosures. These standards

consist of Principles for defining disclosure content and ensuring the quality of disclosed information; the Standard disclosures made up of performance indicators and other disclosure items; and also of guidance on specific technical topics in disclosures (Global Reporting Initiative, 2011). Conformation to GRI standards is voluntary, but many governmental and international organizations encourage corporations to rely on this recognized framework for CSR reporting.

According to GRI (GRI and sustainability reporting, 2017), 92 % of the 250 world's largest corporations report on their sustainability performance and 74 % of them use GRI's standards to do so. There are currently more than 23.000 GRI reports recorded and the number continues to grow. 35 countries already use GRI in their sustainability policies and the organization also has collaborations with over 20 international organizations such as OECD, UN global compact and the UN working group on business and human rights.

While GRI is making a positive impact on CSR reporting and corporate transparency, GRI still has room for improvement, especially in their sustainability reporting principles. The organization advocates the inclusion of sustainability reporting in corporate reports but does not yet provide proper guidance for how to do so. Many companies' reports who follow GRI are context free and do not disclose information on sustainability performance (McElroy, 2013). GRI also does not yet properly present guidelines on disclosure of human rights, such as freedom of expression and privacy, which are, according to Dunstan (2012) an important part of every company's sustainability report.

## **2 PREVIOUS RESEARCH ON THE RELATIONSHIP BETWEEN CSR AND CFP**

In previous chapter, we have mentioned that companies voluntarily engage themselves in CSR disclosure because of transparency and consequently easier access to resources. Another reason why companies disclose their CSR information is that they believe CSR improves their CFP (Moskowitz, 1972; Preston & O'Bannon; 1997, Tsoutsoura, 2004). But does CSR really improve CFP? The same question has been motivating researchers ever since the beginning of the development of CSR. While there have been many researches investigating the impact of CSR on CFP, no real consensus about the relationship between these two variables has been reached (Cochran & Wood, 1984; Orlitzky et al., 2003; Jitaree, 2015). Some studies have shown a negative relationship, some have shown no relationship at all, while others have shown a positive relationship between CSR and CFP. The following sections describe some of the most prominent empirical studies on CSR disclosure and their effect on CFP.



## **2.1 Negative relationship between CSR and CFP**

The first group of researchers favour a negative relationship between CSR and CFP and support the idea that the only obligation of companies is to increase the profit and value of the shares for the owners. This idea was developed by Friedman (1970), who believed that CSR is quite costly and that it reduces the firm's financial performance and competitiveness.

Vance (1975) based his research on a questionnaire in which he asked students and businessmen to rate approximately 50 companies based on their perceived degree of the companies' social responsibility. The research discussed the relationship between CSR and CFP by measuring stock market valuations of common U.S. stock values. This was one of the first studies to argue a negative relationship between CSR and CFP, claiming that socially responsible companies have a competitive disadvantage because of the additional expenses, which occur due to their socially responsible behaviour.

Wright and Ferris (1997) studied the effect of divestment of South African business units on company value. They have used data from 1984 through 1990 and have examined the impact of announcements of divestments on the stock return behaviour of publicly traded companies. Their results have indicated a significant and negative relationship between companies announcing divestments of South African operations and their excess stock returns.

Jones, Frost, Loftus and van der Laan (2007) studied the relationship between the level of sustainability reporting and company's financial performance and abnormal returns for top 100 listed companies on Australian stock exchange in 2004. Their results indicate a generally negative relationship between sustainability reporting and abnormal returns. However, based on only few t-values being statistically significant, definite conclusions could not have been drawn. In their research, they have, however, found a strong positive statistically significant relationship between sustainability reporting and companies' levels of operating cash flow to total assets, retained earnings to total assets, working capital to total assets, debt servicing capacity and capital expenditure relative to assets.

Cardebat and Sirven (2009) used a capital asset pricing model (hereinafter: CAPM) for panel data for 154 European companies between 2000 and 2008 to study the influence of CSR on their CFP. For a CSR measure they used a dummy variable based on whether a firm has published their CSR report on [www.corporateregister.com](http://www.corporateregister.com), a website with over 83.000 thousand corporate responsibility reports from over 13.000 organizations (Corporate register, 2017). For CFP they used financial stock returns. Their evidence show that CSR index is negatively and statistically related to expected return of stocks, even after controlling for size, sector, country specific effect and correcting for CSR-multicollinearity bias, since size and CSR were likely to cover the same information.

Crisostomo et al. (2011) examined the relationship between CSR and CFP in non-listed Brazilian companies in the period of 2001 to 2006 using content analysis. They had calculated CSR indices and financial performance measures and then conducted a regression analysis. Their econometric model provided results that there is a negative relationship between CSR and firm value in Brazil, which appears to be influenced by actions related to relationship with employees and environmental problems.

Singh (2014) studied the effect of CSR on CFP in publicly listed UK companies over a time period from 2008 to 2012. The study was performed using linear regression analysis. The short-term CFP was measured by return on assets (hereinafter: ROA) while Tobin's Q measured the long-term CFP. The analysis has controlled for company size, company age and leverage and has used dummy variables for year-specific effects. Empirical results of this study show that CSR has a negative influence on short-term CFP, which might be caused by the fact that initial engaging in CSR is an extra cost burden to the companies.

## **2.2 No relationship between CSR and CFP**

The following sections describe empirical studies where no significant relationship between CSR and CFP was found.

Alexander and Buchholz (1978) followed a regression model based on CAPM in order to measure the effect of social responsibility on stock market performance. For social responsibility measure they used the same social responsibility rankings as Vance (1975), covering the time period between 1970 and 1974 while having eliminated companies without common stock from the sample. For the return on the market they used the S&P's 500 Composite index and the 30-day treasury bill for the risk-free asset. They discovered that the degree of social responsibility as measured by the rankings of businessmen and students is not significantly related to stock performance. They conclude that this neutral relationship can be explained by the assumption of efficient markets. In an efficient market, new information is automatically reflected in the stock price. Any positive or negative effects of CSR measures of a company are therefore immediately reflected in the stock price.

Aupperle et al. (1985) focused their study on the correlation between CSR and CFP. They used a survey instrument to gather data on CSR, which was constructed on Carroll's (1979) corporate social responsibility construct. Carroll defined CSR through four components: economic, legal, ethical and discretionary responsibilities of business. As a measure of financial performance of a company Aupperle et al. (1985) used ROA, claiming that it is a fundamental profitability measurement. The researchers concluded that there is no significant relationship between CSR and ROA.

McWilliams and Siegel (2001) in their research hypothesized that there are two main sources of demand for CSR: consumer demand and demand from other stakeholders. To create demand or to command a higher price on the market, companies and their products have to be different from the others – CSR is used as a differentiation strategy. Referring to the theory of the firm, which is based on the assumptions that managers attempt to maximize shareholder's value, the authors presume that each company makes optimal choices to produce at a profit-maximizing level of output. In equilibrium, both, the company that uses CSR and one that does not, will be equally profitable, since the company that uses CSR will have higher costs but also higher revenues, while the other company will have lower costs but also lower revenues. If the result was different, one of the firms would switch its product strategy. Based on the assumption that there is no entry barriers associated with providing CSR, the authors conclude that there should be no relationship between CSR and CFP.

Murray et al. (2006) explored whether there is a relationship between CSR and CFP of the UK's largest companies. Their sample consisted of largest UK companies from The Times 1,000 over a ten-year period between 1988 and 1997. For information on CSR they used the Centre for Social and Environmental Accounting Research's database. Implementing five statistical tests to determine whether a link exists between CSR and CFP, they discover that the relationships between these variables varied from year to year, across different forms of disclosure and swung between positive and negative over time, however none of these relationships were significant.

Johansson and Karlsson (2015) performed a longitudinal research in order to study the relationship between CSR and CFP for publicly traded companies on the Stockholm OMX stock exchange in the time period from 2006 to 2009. They measured CSR by using data from Folksam's Index for Corporate Responsibility, which measures data based on human rights and environmental performance of a company. As a measure of financial performance, they used ROA and Tobin's Q. Authors conclude that no significant relationship can be observed for the tested variables in this time period.

### **2.3 Positive relationship between CSR and CFP**

The following sections describe empirical studies, where positive significant relationship between CSR and CFP has been found.

Moskowitz (1972) in his paper Choosing socially responsible stock examined the empirical evidence behind the relationship between different CSR strategies and CFP. His research was based on 14 companies, which, in his opinion, possessed good social responsibility qualities. Moskowitz was one of the first authors to employ investor returns as a measure of financial performance. He calculated the average rate of return on the common stock of his sample companies for a period of 6 months and has then compared it with the rate of

return of major market indices, e.g. Dow Jones Industrial Average, for the same time period. He discovered that his sample companies on average outperformed the major market indices. With these findings, he has set a basis for future research on this topic.

Following Moskowitz, Cochran and Wood (1984) use a specific reputation index, the combined Moskowitz list, for measuring CSR. Their sample contained 39 companies in 29 industries in the period between 1970 and 1974 and 36 companies in 28 industries in the period between 1975 and 1979. The control groups consisted of 366 companies. For CFP measurement they used the ratio of operating earnings to assets, the ratio of operating earnings to sales and excess market valuation. Their findings show that within industry groups the financial variable that was most strongly correlated with CSR is asset age. After controlling for the industry specific groups and asset age, they found weak support for a positive relationship between CSR and CFP.

Preston and O'Bannon (1997) analyzed the relationship between indicators of corporate social and financial performance based on data for 67 large U.S. corporations in the time period from 1982 to 1992. From Fortune survey on corporate reputation, they chose three reputation ratings for analysis of CSR: community and environment responsibility, ability to select and retain good people and quality of products and services. As a measurement of financial performance, they used ROA, return on equity (hereinafter: ROE) and return on investment (hereinafter: ROI). Their evidence suggests there is a positive association between social and financial performance of U.S. large corporations.

Waddock and Graves (1997) performed an analysis based on a sample of 469 companies from the S&P 500 index in the time period from 1989 to 1991. As a measurement of CSR, they used the Kinder, Lydenberg, Domini Research & Analytics Inc.'s (hereinafter: KLD) ratings, while ROA, ROE and return on sales (hereinafter: ROS) were employed as measures of CFP. Controlling for size, risk and industry, they have discovered a significant positive relationship between CSR and CFP. Moreover, their analysis shows that there is a virtuous circle between CSR and CFP: better CSR appears to be positively related to better CFP, while better CFP may also lead to better CSR of a company.

Orlitzky et al. (2003) did a meta-analysis of 52 studies performed between 1972 and 1997 examining the relationship between corporate social performance (hereinafter: CSP) and CFP. Social performance data was gathered through KLD, Council on Economic Priorities and some reputational surveys. CFP measures used were ROE, ROA, stock market returns, price to earnings ratio, etc. The authors have discovered that there is a positive relationship between CSP and CFP across industries and across different study contexts. The relationship varies because of contingencies, such as market measures, reputation effects or CSP disclosures. The authors have also concluded that CSP was a better predictor of CFP using accounting-based measures than market-based measures.

Najah and Jarboui (2013) investigated the impact of voluntary CSR disclosure on CFP for big French companies in the time period from 2000 to 2010. They tested the impact of social reporting on ROA and ROE and have discovered that there is no significant relation between CSR disclosure and financial performance of sample companies. However, a positive effect of time on this relation is discovered when there is a lag of one year for the observations. The results coincide with the opinion that CSR is considered a long-term investment, meaning its consequences are seen in the future and not immediately.

### **3 RESEARCH METHODOLOGY**

#### **3.1 Measuring CSR**

##### **3.1.1 Measuring techniques**

By measuring CSR we evaluate whether a company has been socially responsible or not. Since the concept of CSR is difficult to quantify, the question how to measure CSR arises in most researches on CSR. The authors use various methods (Singh, 2014). Each method has its advantages and disadvantages. In the following sections, the three most common methods for measuring CSR are described.

The first method are company's ratings and reputational indices. In this method, knowledgeable observers or independent rating agencies rate companies on a basis of one or more dimensions of social performance (Cochran & Wood, 1984). Based on a group of company's ratings, reputational indices can be built. The first author to develop a reputational index was Moskowitz (1972), having built his reputational index on 14 companies, that possessed, what he believed to be, good social responsibility attributes.

Rating a company's CSR is nowadays more or less a matter of independent rating agencies. One of such agencies is KLD, which was founded in 1989 and maintains the largest body of available research on company's social responsibility actions, covering areas such as environment, employee relations, community involvement, military contracting, etc. (O'Brien, 1998). KLD sells this information to investors or portfolio managers who use it in their investment decisions. Additionally, KLD builds different reputational indices, based on the area of involvement of companies and on their geographical location. The most known indices are the MSCI Global Climate indices, the Low Carbon indices, the Global Sustainability Index Series, and the MSCI KLD 400 Social Index (ESG research, 2017).

Besides KLD's indices, other frequently used reputational indices are Corporate Reputational Index (CRI), Council of Economic Priorities (CEP) reputational index, Fortune reputational index, Dow Jones Sustainability indices (DJSI) and Global Reporting Initiative Index (GRI) (Jitaree, 2015).

Reputational indices have several advantages. The first advantage is that they are consistent, since one evaluator is applying the same rating criteria to each company he evaluates. The evaluator also does not impose objective measures to dimensions that may be subjective in their nature. Additionally, reputational indices summarize key characteristics of various companies (Cochran & Wood, 1984).

There are also some disadvantages of using reputational indices. The rating criteria can differ from one evaluator to the other and the ratings can be subjective. Therefore, their use in research can be unreliable (Cochran & Wood, 1984). Reputational indices can be based on a relatively small sample size, meaning that generalizations from the results of these studies can be deceiving. Pava and Krausz (1996) asked themselves whether reputational indices are an appropriate measure of CSR. They have discovered several researches where authors relied on inappropriate measures of CSR that have probably led to biased results on the relationship between CSR and CFP of those researches.

The second method is content analysis. Content analysis is a flexible method performed by measuring the extent of the disclosure of CSR activities in a company's publications, most often in the annual report or a separate CSR disclosure. The analysis was first used in 1975 by Bowman and Haire and has since then gained great importance. Using this method presupposes CSR disclosure as a good proxy of CSR (Soana, 2011).

According to Singh (2014), the variables measured in content analysis are divided in two groups. The first group are the quantitative items, i.e. number of words, sentences or pages, used to quantify the level of CSR disclosed in a publication. The second group are the qualitative items, where researchers firstly identify certain issues, for example environmental issues, and then analyse their disclosure in a publication by using a previously defined scoring methodology.

Content analysis can be performed in two ways, by simply noting if a particular item is discussed in a corporate publication qualitatively or quantitatively, or by actually counting the number of items appearing in the publication (Cochran & Wood, 1984). This method is one of the most frequently used measurement methods of CSR, whereas the most researchers use word count as the unit of analysis (Vourvachis, 2007).

There are two significant advantages present when using content analysis. Firstly, the procedure is reasonably objective, after research variables have been chosen, and the results are independent of the methodology. Secondly, the analysis is relatively mechanical, therefore the method can easily be performed in studies with larger sample sizes (Cochran & Wood, 1984).

Nevertheless, this measurement method also has disadvantages. Despite the fact, that the procedure is relatively objective, it depends on the choice of which variables to measure

and this part is subjective. Content analysis only captures what the company claims to be doing, which might be different from their real practices (Cochran & Wood, 1984, Vourvachis, 2007). There is also still no consensus about the different measurement units of content analysis (Vourvachis, 2007). Moreover, the method usually only focuses on numbers of words/sentences/pages, but it disregards graphics, font sizes or photos in the publications. The method fails to capture the quality of CSR disclosure, but focuses more on the quantity of the disclosure (Jitaree, 2015).

The third method are survey instruments. Most of the surveys on CSR are carried out using questionnaires, which have been previously prepared by researchers to analyze an aspect of interest of CSR, e.g. carbon dioxide emissions, energy usage, human resources management or a company's contributions to the society. These questionnaires are usually prepared for top company managers who answer them based on their perception of CSR practices employed in their company. Researchers then analyze the answers received and give an appraisal of the level of CSR achieved by the company (Soana, 2011). Besides management, the surveys are often targeted at employees, consumers and other stakeholders.

One of the most prominent surveys performed on CSR is the KPMG Survey of corporate responsibility reporting, which analyzes how the world's largest 250 companies report on carbon in their annual financial and CSR reports. The report has been published at regular intervals since 1993, growing in the number of companies and countries covered each year, showing how CSR reporting is becoming a common business practice. The study for 2015 has already covered 4,500 companies across 45 countries (KPMG, 2015).

Using survey instruments brings several advantages. Firstly, survey instruments are highly representative. By sending questionnaires to a large number of companies, one can easily gain a good description of characteristics of the population. This leads us to the second advantage, which is good statistical significance. Due to high representativeness of these instruments, it is easy to analyze multiple variables and find statistically significant results. Finally, since questionnaires are standardized, they provide uniform definitions to the entire population, resulting in greater precision in measuring the data gathered (Sincero, 2012).

The primary problem with using survey instruments in studies on CSR is that it is difficult to form well-structured questionnaires in order to obtain the required CSR data. Secondly, the answers received are purely judgemental, internal to the company and usually reflect only the perceptions of managers on the concept of CSR, not the perceptions of the entire company or other stakeholders on this concept. The answers can be misleading. Additionally, surveys may be subject to bias, because after receiving the answers, appraising them is subjective and depends on the researcher (Soana, 2011).

### **3.1.2 The measurement problem of CSR**

CSR is a multidimensional construct and depends on various inputs (e.g. environmental strategies, customer management, employee relations) and outputs (e.g. relations with stakeholders, general public). It is subject to various industries (e.g. financial industry, manufacturing industry), different history, characteristics and decision-making of companies. As a result, none of the measuring techniques mentioned in previous sections have been considered wholly adequate measures of CSR. The techniques used in empirical research have often been one dimensional or used on small samples (Waddock & Graves, 1997). Additionally, most of the measurement techniques are subjective, potentially biased and are subject to different limitations (Chetty, Naidoo, & Seetharam, 2015). Orlitzky et al. (2003) even argue that different measures of CSR are capable of moderating the relationship between CSR and CFP. The need for a clear CSR measure is therefore still present (Waddock & Graves, 1997).

In studies where using the existing measurement techniques is not feasible, one or more CSR attributes are used as a dummy variable in the regression analysis, where the value of 1 means that a company possesses that attribute and 0 means that it does not possess it (Tsoutsoura, 2004; Crisostomo et al., 2011).

### **3.1.3 CSR variable in this study (the independent variable)**

From the perspective of measuring the effect of CSR on financial performance of banks, CSR will be employed as an independent variable in this study. This chapter has mentioned several methods on how to measure a company's CSR, however most of them are subjective, potentially biased and subject to different limitations (Chetty et al., 2015). In order to avoid these problems, this study will use the attribute of CSR disclosure of a bank as a criterion of presence of CSR in this bank. We assume that if a bank issues a CSR disclosure, whether an independent one or as a part of an annual report, it is socially responsible. CSR will be therefore presented by a dummy variable, taking the value 1 if the bank disclosed any kind of CSR report in year  $t$  or value 0, if it did not.

## **3.2 Measuring CFP**

Similarly to measuring techniques of CSR, there is no consensus regarding which financial performance measurement is optimal to employ. Some researchers prefer accounting-based measures, while others prefer market-based measures. Both types of measures have had their periods of popularity and both have evolved tremendously over the past decades (Cochran & Wood, 1984). In order to account for each of the measures' shortfalls, some researchers decide to employ a combination of both (Chetty et al., 2015).



Furthermore, financial performance can be measured in short-term or long-term perspective, which also influences the researcher's choice of which measures to use (Yin, 2012; Singh, 2014). As each type of these measures presents different perspectives on a company's financial performance and can have different implications, we will discuss them in the following sections.

### **3.2.1 Accounting-based measures**

As argued by Singh (2014), accounting-based measures are the primary technique for predicting a company's future financial performance. They focus on historical aspects of company performance and can be biased due to managerial manipulation and different accounting procedures across countries (McGuire, 1988). These measures cannot be appropriately compared across different companies without considering risk differences or financial leverage influences, however when risk and financial leverage are being accounted for, accounting-based measures may become the best proxy for financial performance (Cochran & Wood, 1984). During the initial years of studying the relationship between CSR and CFP the most common accounting-based measures used were earnings per share (hereinafter: EPS) or price-to-earnings ratio, while contemporary researchers often use ROA, ROE and net profit margin (hereinafter: NPM) in their studies.

- Earnings per share: EPS is the share of a company's profit allocated to each outstanding part of common shares and serves as an indicator of a company's profitability. The ratio is calculated as a difference of net income and dividends on preferred shares divided by the average outstanding common shares. The relationship between CSR and EPS has been studied in several studies, some of them being: Bowman and Haire (1975), Preston (1978), Pava and Krausz (1996), Jitaree (2015).
- Return on assets: ROA is defined as the ratio between net income and average total assets of a company. The ratio signifies how profitable a company's assets are in generating revenue. It is useful for comparing companies in the same industry, while the ratio can vary a lot when comparing companies across different industries. Aupperle et al. (1985) argue that ROA generates more effective results than other measures. This ratio has been widely used in research of CSR, e.g. in Aupperle et al. (1985), McGuire (1988), Waddock and Graves (1997), McWilliams and Siegel (2001) and Chetty et al. (2015).
- Return on equity: ROE is defined as a ratio between net income and average total common equity. It signifies the profitability of a company in relation to its shareholder equity and gives a general indication of a company's efficiency in generating additional earnings by using reinvested earnings. Same as with ROA, ROE is better for comparing companies in the same industry, rather than across different industries. This ratio has also been considered as a measure of CFP in research of CSR by Bowman and

Haire (1975), Preston and O'Bannon (1997), Waddock and Graves (1997), Singh (2014) and others.

- Net profit margin (NPM): NPM is expressed as the ratio of net profits to revenues of a company. It shows how each unit of revenues collected by the company translates into profit, is an important indicator to describe company profitability and signifies a company's financial health. Using NPM is an appropriate measure of CFP for non-financial institutions. The association between CSR and NPM has been examined in many researches, e.g. in Griffin and Mahone (1997), Moneva and Ortas (2010), Jitaree (2015) and others.

Net interest margin (hereinafter: NIM): NIM measures the difference between the interest income generated by financial institutions and the amount of interest expenses paid out to their lenders (e.g. for deposits) compared to the amount of their (interest-earning) assets. The relationship between CSR and NIM has previously not been often studied. Some of the authors who have studied it are Taşkin (2015) and Rahman (2016).

This study focuses on the examination of the relationship between CSR and CFP in the banking sector, therefore it is more appropriate to use NIM instead of NPM.

- Non-performing loans ratio (hereinafter: NPL ratio): Since the banking sector is a vital part of a country's economy (see Chapter 1), we are interested in the structure and health of its loan portfolio, which can influence bank stability. This will be measured by the non-performing loans ratio, which is calculated as the non-performing loans divided by the total loans of a certain bank. The relationship between CSR and NPL has previously not been often studied. Some of the authors who have studied it are Barth, Lin and Wihlborg (2012) and Shen, Wu, Chen and Fang (2016).

### **3.2.2 Market-based measures**

The basic idea behind market-based measures of a company's financial performance is that the CFP should be measured from the perspective of shareholders. The first studies on CSR to use market-based measures as a measure of CFP were Moskowitz (1972) and Vance (1975), but their measures were inaccurate, because they used the change in price per share as the investor returns index, while change in price per share is only one element of investor returns. Market-based measures were later on rectified with the inclusion of dividends and were also adjusted for risk, in order to more precisely weigh the financial performance (Cochran & Wood, 1984).

In contrast to accounting-based measures, market-based measures of CFP are less likely to be manipulated by managers and different accounting procedures. Market-based measures

of CFP focus on a company's ability to generate future economic earnings rather than on a company's historic performance. Nevertheless, these measures also have disadvantages. Using market-based measures implies that shareholders' perspective is the proper performance measure perspective, however sole concentration on shareholders' evaluations may not be sufficient, because CSR activities also affect non-financial stakeholders (McGuire, 1988). Most common market-based measures are discussed below.

- Market capitalization is the market value of a company at a point in time, calculated as the number of shares outstanding multiplied by the share price at that point in time. As the shares are being publicly traded on the market, market capitalization can be thought of as an indicator of public opinion of a company's net worth. This measurement can be used to determine a company's size (besides using revenues or total asset figures). The relationship between CSR and market capitalization has been so far widely researched, e.g. in: Moskowitz (1972), Vance (1975), Alexander and Buchholz (1978) and Poddi and Vergalli (2009). Our study will not use market capitalization as a measurement of CFP since market capitalization is mostly associated with company size, but will rather use company size as a control variable in the regression analysis.
- Tobin's Q is a proxy for market value of a company's assets. If its value is between 0 and 1, it means that the replacement cost of a company's assets is higher than the price of equity, which implies that the shares are undervalued. If its value is greater than 1, the value of shares is greater than the replacement cost of company's assets, which implies that the shares are overvalued. The relationship between CSR performance and Tobin's Q has been examined in the following researches: Rossi (2009), Yin (2012), Singh (2014) and Jitree (2015).
- Market value added (hereinafter: MVA) is a ratio between the current market value of a company and the capital contributed by the investors (shareholders and bondholders). If MVA is positive, then the company has added value, otherwise it has destroyed value. Some of the researches, where this measure was used are as follows: Cochran and Wood (1984), Poddi and Vergalli (2009) and Dewi, Sudarma, Djumahir and Ganis (2014). Our study will not use MVA as a measurement of banks' financial performance due to missing data on MVA for the majority of banks in our sample.

### **3.2.3 CFP variable in this study (the dependent variable)**

The short-term financial performance of banks in this study will be measured by the four conventional accounting-based measures for companies' financial performance: EPS, ROA, ROE and NIM. As a measure of financial performance and bank stability, we will also analyze the NPL ratio. The market-based measure Tobin's Q will measure the long-term financial performance of banks.

### 3.3 Control variables

Waddock and Graves (1997), McWilliams and Siegel (2001) and others have suggested that the relationship between CSR and CFP is influenced by other factors, e.g. size, age and risk of a company, its industry, etc. In order to account for these factors and help understand the relationship between CSR and CFP better, this study introduces the following general control variables:

- Company size is one of the most important control variables, since it may significantly influence the company's capacity to undertake CSR actions. Smaller companies may have less available resources to sustain a more socially responsible behaviour in comparison to bigger companies who have greater resources, power and ability to undertake more socially responsible activities (Waddock & Graves, 1997; McWilliams & Siegel, 2000; Jitaree, 2015). As a company grows, it becomes more visible to the society and should therefore be more responsible with its stakeholder demands. Consequently, it starts implementing a more effective corporate strategy (Crisostomo et al., 2011). In this study, the natural logarithm of total assets of a bank will be used as a proxy for bank size.
- Company age is a variable that may influence a company's social responsibility reporting (Roberts, 1992). Younger companies usually do not employ many CSR activities, since they rather focus on maintaining their financial performance. In their early years of doing business, they also do not have the resources to invest into CSR, however in a couple of years and by performing well, they may start doing so in order to protect their reputation (Jitaree, 2015). Company age in this study is measured as the natural logarithm of the number of years since the first listing of the bank.
- Another variable that may affect the company's social responsibility activities is the risk a company may be facing, which can be approximated by the leverage ratio. A company will usually not invest in CSR when facing risk, because CSR actions are not a company's primary activities (Crisostomo et al., 2011). Additionally, leverage is considered an important variable related to the ownership and governance structure of a company and is supposed to be negatively correlated with CFP in terms that companies with a strong CFP prefer not to borrow (Najah & Jarboui, 2013). The leverage used in this study is calculated as a ratio between total debt and shareholder's equity of a bank.
- Beta coefficient signifies market risk and measures the volatility of a company's shares with respect to the stock market. It is calculated by dividing the covariance of the share's returns and the benchmark's returns by the variance of the benchmark's returns over a specified period. Low levels of CSR may result in greater exposure to market risk, since the company's stakeholders may perceive the management of a company with lower CSR to possess poor leadership skills (Alexander & Buchholz, 1978).

- Year effects. Because of different economic environments in individual years, which can influence the relationship between CFP and CSR, a number of year dummies will be used in the regression analysis to control for the year-specific effects. The yearly variable will take a value of 1 for the focal year and 0 for the other years.

As this study focuses on banks, we will follow Li and Marinč (2016) and employ proxies for CAMELS. The following CAMELS are considered:

- Tier 1 capital ratio is a measure of capital adequacy and a measure of a bank's financial strength. It is calculated as the ratio between a bank's core equity capital and the bank's total risk-weighted assets. The minimum value of 6 % is required by the Basel accords.
- Equity ratio is another capital adequacy ratio, which indicates the share of the company's equity used to finance its assets. It is calculated as the ratio between equity of a bank and its total assets.
- Loans to assets ratio is an indicator of a bank's liquidity and of its asset quality. If the ratio is higher, the bank's liquidity is lower. The variable is calculated as the ratio between total loans and total assets of a bank.
- Provision for loan losses to total loans ratio indicates the expense a bank sets aside to cover potential losses from defaults in terms of total loans.
- Efficiency measures the bank's ability to convert resources into revenues and signifies the capability of the bank's management. The optimal ratio is around 50 %. The variable is defined as the ratio between operating expenses and revenues of a bank.
- Interest expenses to deposits ratio is another indicator of the management's capability and is calculated as interest expenses divided by total deposits.
- Interest expenses to interest bearing liabilities ratio measures how much interest expense incurred for total interest bearing liabilities that a bank has. It is calculated as the ratio between the interest expense and the average of interest bearing liabilities.
- Loans to deposits ratio is used to assess a bank's liquidity. It is calculated as the ratio between total loans and total deposits of a bank.
- Deposits to funding ratio is another liquidity ratio which is calculated as the ratio between customer deposits of a bank and the sum of customer deposits, short-term and long-term debt of a bank.

Summary of all variables used in this study is presented in Table 1.

Table 1. Summary of the variables used

Variable	Description
Financial performance measurement variables:	
$EPS_{i,t}$	A variable of earnings per share of bank $i$ at time $t$ . It is defined as a ratio between the difference of net income and dividends on preferred shares and average outstanding common shares.
$ROA_{i,t}$	A variable of return on assets of bank $i$ at time $t$ . It is defined as a ratio between net income and average total assets of a bank.
$ROE_{i,t}$	A variable of return on equity of bank $i$ at time $t$ . It is defined as a ratio between net income and average total common equity of a bank.
$NIM_{i,t}$	A variable of net interest margin of bank $i$ at time $t$ . It is defined as the difference between the interest income and interest expense of a bank divided by the amount of a bank's (interest-earning) assets.
$NPL_{i,t}$	A variable of non-performing loans of bank $i$ at time $t$ . It is defines as a ratio between non-performing loans and total loans of a bank.
$TBQ_{i,t}$	A variable of market value of banks' assets of bank $i$ at time $t$ . It is defined as the ratio of total market value of a bank and total asset value of a bank.
Corporate social responsibility disclosure variable:	
$CSR_{i,t}$	A variable of CSR disclosure of bank $i$ at time $t$ . It is a dummy variable and takes value 1 if bank $i$ disclosed any CSR report at time $t$ or 0 otherwise.
Control variables:	
$SIZE_{i,t}$	A variable of bank $i$ 's size at time $t$ . It is defined as the natural logarithm of total assets of bank $i$ at time $t$ .
$AGE_{i,t}$	A variable of bank $i$ 's age at time $t$ . It is defined as the natural logarithm of the number of years since the bank $i$ 's first listing.
$LEVERAGE_{i,t}$	A variable of debt to equity ratio of bank $i$ at time $t$ . It is defined as the ratio between total debt and shareholder's equity of bank $i$ at time $t$ .
$YEAR_t$	A variable controlling for year-specific effects of studied banks at time $t$ .
Tier 1 capital ratio $_{i,t}$	A variable of bank $i$ 's Tier 1 capital ratio at time $t$ . It is defined as the ratio between core equity capital and total risk-weighted assets of bank $i$ at time $t$ .
Equity ratio $_{i,t}$	A variable of bank $i$ 's equity ratio at time $t$ . It is defined as the ratio between total equity and total assets of bank $i$ at time $t$ .
Loans to assets ratio $_{i,t}$	A variable of bank $i$ 's loans to assets ratio at time $t$ .
Provision for loan losses to total loans $_{i,t}$	A variable of bank $i$ 's provision for loan losses to total loans ratio at time $t$ .
Efficiency $_{i,t}$	A variable of bank $i$ 's efficiency at time $t$ . It is defined as the ratio between operating expenses and revenues of bank $i$ at time $t$ .
Interest expenses to deposits ratio $_{i,t}$	A variable of bank $i$ 's interest expenses to total deposits ratio at time $t$ .
Interest expenses to interest bearing liabilities ratio $_{i,t}$	A variable of bank $i$ 's interest expenses to average interest bearing liabilities ratio at time $t$ .
Loans to deposits ratio $_{i,t}$	A variable of bank $i$ 's loans to deposits ratio at time $t$ .
Deposits to funding ratio $_{i,t}$	A variable of bank $i$ 's deposits to funding ratio at time $t$ . It is defined as the ratio between customer deposits of a bank and the sum of customer deposits, short- and long-term debt of bank $i$ at time $t$ .

### **3.4 Hypotheses development**

The hypotheses of this study are based on the assumption that implementation of CSR activities in a bank directly affects its financial performance. Previous empirical research (see Chapter 2) has analyzed the relationship between CSR and CFP across different companies, various company characteristics (e.g. firm size and age), industries, countries, as well as time. Some of the studies have examined the direct impact of CSR on CFP (e.g. Vance, 1975; Alexander & Buchholz, 1978; Cochran & Wood, 1984; Waddock & Graves, 1997; Najah & Jarboui, 2013), while there are also some studies, which have studied the impact of CFP on CSR (e.g. McGuire, 1988; Preston & O'Bannon, 1997; Waddock & Graves, 1997).

Based on the research methodology, the existing empirical studies can be divided into two groups. The first group are the studies that have addressed the short-term financial impact of CSR implementation in a company by performing an event study. The second group are the studies, which have examined the long-term relationship between CSR and financial performance. However, the validity of both of these groups of previously performed studies has been regarded as controversial. Their results are inconsistent and do not show a clear direction of the relationship between CSR and CFP (McWilliams & Siegel, 2000).

There can be various reasons for the inconsistency of the results, some of them being the absence of proper theoretical foundation, the measurement problem of CSR, misused methodology, limitations on the sample size, etc. (Beurden & Gössling, 2008). Some researchers even attributed these controversial results to different motivations driving firms to engage in CSR, where management's selfish choices are believed to negatively affect CFP, but strategic choices are said to improve CFP (Wu & Shen, 2013). Moreover, CSR is influenced by other factors, such as firm size, market conditions, company's environment, investments, etc. (Waddock & Graves, 1997; McWilliams & Siegel, 2001).

This study expects to corroborate the impact of CSR on financial performance of banks, taking into account the possible short-term and long-term effects of CSR. We hypothesize that for banks the impact of CSR on short-term CFP is not significant whereas the impact of CSR on long-term CFP is significant positive. Our hypotheses are based on the predisposition that any investment will take some time before having an effect on CFP. An investment can therefore not be reflected in banks' short-term CFP, but is rather reflected in banks' long-term CFP. Additionally, we follow Peters and Mullen (2009) who suggest that cumulative effects of CSR on CFP are positive and strengthen over time.

### **3.4.1 The impact of CSR on short-term profitability**

Several studies have analyzed the impact of CSR on short-term profitability as measured by EPS, ROA, ROE or NIM. Predisposing that any investment in CSR will take some time before having an effect on CFP, we propose the following hypothesis:

- H1: CSR does not have a significant positive impact on CFP on a short-term basis.

Due to the nature of this study, the first hypothesis is divided into the following alternative hypotheses:

- H1a: CSR does not have a significant positive impact on EPS.
- H1b: CSR does not have a significant positive impact on ROA.
- H1c: CSR does not have a significant positive impact on ROE.
- H1d: CSR does not have a significant positive impact on NIM.

Since we are also interested in the influence CSR has on bank stability, which we will measure by the NPL ratio, we add the following hypothesis:

- H1e: CSR does not have a significant positive impact on NPL.

### **3.4.2 The impact of CSR on long-term profitability**

Theoretical framework and several empirical studies have suggested that cumulative effects of CSR on company's financial performance are positive and strengthen over time. CSR behaviour is positively associated with other aspects of company's operations, including its financial performance (Peters & Mullens, 2009). Moreover, CSR can be thought of as a source of competitive advantage and an intangible asset (Melo & Galan, 2011). In order to study the time effect of CSR on company's financial performance, the following hypothesis will be tested:

- H2: CSR does have a significant positive effect on CFP on a long-term basis.

As Tobin's Q acts as a measure of future profitability, the second hypothesis is alternated into:

- H2a: CSR has a significant positive impact on Tobin's Q.



### 3.5 The model

To test our hypotheses about the relationship between CSR and banks' financial performance, we will consider both cross-sectional and longitudinal dimensions by using panel data methodology. A general panel data regression model is described by the following equation:

$$y_{i,t} = \alpha + \beta x_{i,t} + u_{i,t}; \quad i = 1, 2, \dots, N; \quad t = 1, 2, \dots, T \quad (1)$$

where:

- $y$  is the dependent variable,
- $x$  is the independent variable,
- $\alpha$  and  $\beta$  are the coefficients,
- $u$  is the error term,
- $i$  denotes the observation,
- $t$  denotes the time at which observation  $i$  took place (Wooldridge, 2010).

Following Equation (1) we define the following models:

- CSR disclosure's effect on EPS (testing H1a):

$$EPS_{i,t} = \alpha + \beta * CSR_{i,t} + \gamma * X_{i,t} + u_{i,t}; \quad (2)$$

- CSR disclosure's effect on ROA (testing H1b):

$$ROA_{i,t} = \alpha + \beta * CSR_{i,t} + \gamma * X_{i,t} + u_{i,t}; \quad (3)$$

- CSR disclosure's effect on ROE (testing H1c):

$$ROE_{i,t} = \alpha + \beta * CSR_{i,t} + \gamma * X_{i,t} + u_{i,t}; \quad (4)$$

- CSR disclosure's effect on NIM (testing H1d):

$$NIM_{i,t} = \alpha + \beta * CSR_{i,t} + \gamma * X_{i,t} + u_{i,t}; \quad (5)$$

- CSR disclosure's effect on NPL (testing H1e):

$$NPL_{i,t} = \alpha + \beta * CSR_{i,t} + \gamma * X_{i,t} + u_{i,t}; \quad (6)$$

- CSR disclosure's effect on Tobin's Q (testing H2a):

$$TbQ_{i,t} = \alpha + \beta * CSR_{i,t} + \gamma * X_{i,t} + u_{i,t}; \quad (7)$$

where:

- *EPS, ROA, ROE, NIM, NPL* and *TbQ* are the dependent variables and the measures of banks' financial performance as defined in section 3.2.
- $\alpha$  is a constant, the expected value of the dependent variable if all of the independent variables equal zero.
- $\beta$  is a coefficient, showing the expected change in the dependent variable if the independent variable changes for one unit.
- *CSR* is the variable of CSR disclosure of bank *i* at time *t*. It is a dummy variable and takes value 1 if bank *i* disclosed any CSR report at time *t* or 0 otherwise.
- $\gamma$  is a coefficient, showing the expected change in the dependent variable if the independent variable changes for one unit.
- *X* are the control variables defined in Section 3.3.
- *u* is the error term,
- *i* denotes the observation,
- *t* denotes the time at which observation *i* took place.

Panel data allows us to consider dynamic relationships between observed variables. It also allows us to control for unobserved cross section heterogeneity, e.g. national policies, cultural factors, etc. Before analyzing panel data, it is necessary to discuss the nature of the unobserved effects and certain features of the observed explanatory variables (Wooldridge, 2010). Based on whether the unobserved component ( $u_{i,t}$ ) varies randomly over time or is fixed over time, we will use one of the following estimations in our study.

### 3.5.1 The fixed effects estimation

The fixed effects estimation explores the relationship between the independent and dependent variables within an entity, while the independent variables may or may not influence the dependent variable. Using fixed effects assumes that a time-invariant characteristic within the entity may bias the independent or dependent variables and therefore has to be controlled for. Another assumption of the fixed effects model is that an entity's time-invariant characteristics are unique and are not correlated with other entity's characteristics (Wooldridge, 2010; Torres-Reyna, 2007).

The fixed effects model:

$$y_{i,t} = \alpha_i + \beta x_{i,t} + u_{i,t}; \quad i = 1, 2, \dots, N; \quad t = 1, 2, \dots, T \quad (8)$$

where:

- $y$  is the dependent variable,
- $x$  is the independent variable,
- $\alpha$  and  $\beta$  are the coefficients,
- $u_{i,t}$  is the error term (Wooldridge, 2010; Torres-Reyna, 2007).

### 3.5.2 The random effects estimation

The random effects estimation, which unlike the fixed effects model, assumes that the variation across entities is random and uncorrelated with the independent or dependent variable in the estimation. An advantage of this model is that time-invariant variables can be included in the model, while in the fixed effects model these variables are absorbed by the intercept (Wooldridge, 2010; Torres-Reyna, 2007).

The random effects model:

$$y_{i,t} = \beta x_{i,t} + \alpha + u_{i,t} + \varepsilon_{i,t}; i = 1, 2, \dots, N; t = 1, 2, \dots, T \quad (9)$$

where:

- $y$  is the dependent variable,
- $x$  is the independent variable,
- $\alpha$  and  $\beta$  are the coefficients,
- $u_{i,t}$  is the between-entity error,
- $\varepsilon_{i,t}$  is the within-entity error (Wooldridge, 2010; Torres-Reyna, 2007).

To choose between the fixed effects or the random effects estimation, the Hausman test will be applied (Wooldridge, 2010). In 1978, Hausman proposed a test based on the difference between the fixed effects and random effects estimates. The test checks whether there is any correlation between the unique errors and the regressors in the model. Under the null hypothesis, there is no correlation between the two and the preferred model is the random effects model, since the random effects estimator is consistent and efficient, while the fixed effects estimator is consistent and inefficient. Under the alternative hypothesis, there is some correlation between the two and the preferred model is the fixed effects model, since the fixed effects estimator in this case is consistent and the random effects estimator is inconsistent (Wooldridge, 2010).

Table 2 summarizes the relationships between the two estimators of the regressor  $\beta$ , where  $b_o$  is a fixed effects estimator and  $b_l$  is a random effects estimator; and the hypotheses.

Table 2. The Hausman test estimators

Estimator	H <sub>0</sub> is true	H <sub>1</sub> is true
$b_o$	consistent & inefficient	consistent
$b_l$	consistent & efficient	inconsistent

## 4 EMPIRICAL ANALYSIS

This chapter describes the empirical analysis performed in this study. We first provide an overview of the sample selection and the descriptive statistics of our data, including the development of CSR disclosure for our sample banks. Following is the analysis of correlations between our chosen variables. Last, we explain our regression results and compare them to previous studies.

### 4.1 Sample and descriptive statistics

#### 4.1.1 Sample and data collection

Our sample consists of publicly listed banks from around the world defined by the Global Industry Classification Standard (GICS) Industry name Banks, whose information on CSR Sustainability reporting was available on Eikon for the time period from 2002 to 2015. Financial data for the selected banks was extracted from Bloomberg. If there was no financial data available for a selected bank, the bank was excluded from the sample.

288 banks have met the above stated criteria and were included in the sample, giving us 4,032 bank-year observations to work with. The majority of the chosen banks were from Asia, followed by banks from North America and Europe. Table 3 presents the distribution of our sample banks by their geographic affiliation.

Table 3. Sample banks by their geographic affiliation

Continent	Number of banks	Share (%)
Asia	112	38.89
North America	82	28.47
Europe	62	21.53
South America	13	4.51
Africa	7	2.43
Australia	6	2.08
Europe/Asia*	6	2.08
Total	288	100.00

*Note.* \* Banks under »Europe/Asia« correspond to banks from Istanbul, Turkey, which is geographically straddled between Europe and Asia.

Since some of the data could not be obtained, the available bank-year observations were reduced to 2,263. Table 4 presents the distribution of total observations by year and by banks' geographic affiliation.

Table 4. The distribution of total observations by year and by banks' geographical affiliation

<b>Year</b>	<b>Africa</b>	<b>Asia</b>	<b>Australia</b>	<b>Europe</b>	<b>Europe / Asia</b>	<b>North America</b>	<b>South America</b>	<b>Grand Total</b>
2002	0	1	3	27	0	20	0	51
2003	0	3	3	28	0	22	0	56
2004	0	15	3	36	0	25	0	79
2005	0	22	4	42	0	26	0	94
2006	0	22	4	42	0	26	0	94
2007	0	30	4	45	0	29	2	110
2008	3	48	4	51	5	40	5	156
2009	5	70	5	53	6	43	6	188
2010	6	91	5	58	6	46	10	222
2011	6	95	5	59	6	46	13	230
2012	7	96	5	59	6	47	13	233
2013	7	98	5	60	6	47	13	236
2014	7	104	5	61	6	48	13	244
2015	7	111	6	62	6	65	13	270
<b>Grand total</b>	<b>48</b>	<b>806</b>	<b>61</b>	<b>683</b>	<b>47</b>	<b>530</b>	<b>88</b>	<b>2,263</b>

After controlling the models for variables defined in section 3.3, the available bank-year observations for the time period from 2002 to 2015 were again reduced for all our models, due to the unavailability of certain data. Table 5 presents the available bank-year observations after obtaining our data. We conclude that the available bank-year observations are sufficient for our sample to properly reflect the characteristics of the population.

Table 5. The available bank-year observations for our models

<b>Hypothesis</b>	<b>Bank-year observations</b>
H1a	1,531
H1b	1,542
H1c	1,538
H1d	1,501
H1e	1,452
H2a	1,542

#### 4.1.2 Descriptive statistics of the sample banks

The number of banks disclosing CSR information in the time period from 2002 to 2015 is seen in Table 6 and is then also displayed in Figure 2.

Table 6. The number of banks disclosing CSR in the time period from 2002 to 2015

Year	No.	Share (%)	Growth of banks disclosing CSR (%)
2002	6	2.08	-
2003	8	2.78	33.33
2004	11	3.82	37.50
2005	9	3.13	-18.18
2006	9	3.13	0.00
2007	57	19.79	533.33
2008	71	24.65	24.56
2009	94	32.64	32.39
2010	112	38.89	19.15
2011	121	42.01	8.04
2012	134	46.53	10.74
2013	153	53.13	14.18
2014	153	53.13	0.00
2015	152	52.78	-0.65
<b>Grand total</b>	<b>1,090</b>		

Figure 2. Graphical display of CSR disclosure of sample banks from 2002 to 2015

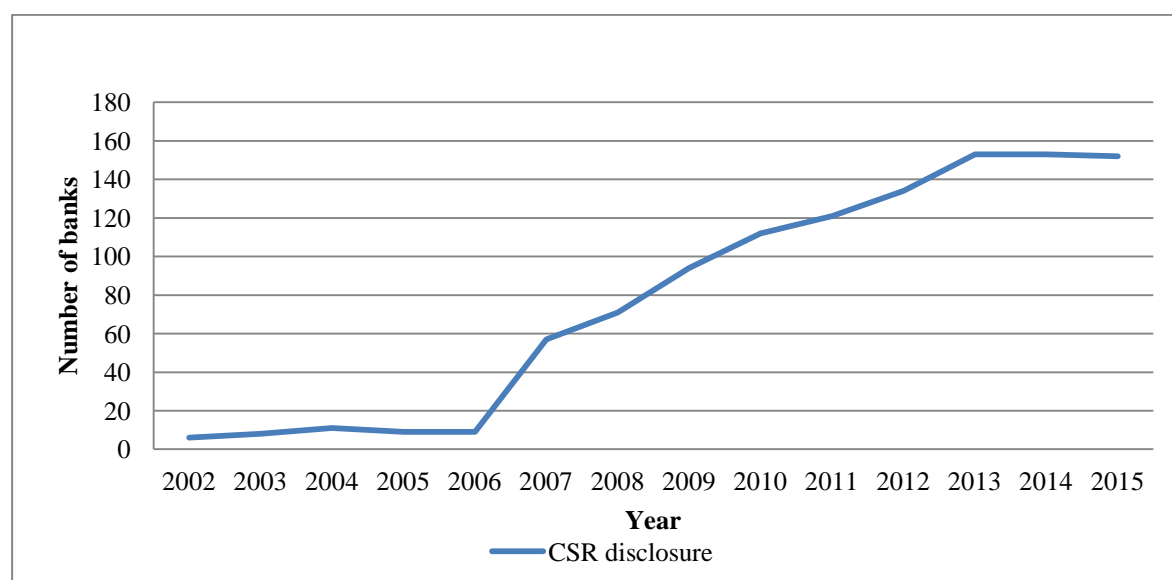


Table 6 and Figure 2 show that only 6 banks or 2.08 % of total sample disclosed information on CSR in year 2002. The percentage of banks disclosing CSR in our sample has started to increase drastically from year 2007 on, reaching more than 50 % in 2013.

The main reason for this occurrence is the financial crisis, which started in 2007 and has drawn closer public attention to banks' CSR.

Table 7 presents the descriptive statistics of all the variables employed in our regression model to test our hypotheses.

During the 14-year period, the independent variable CSR of our sample banks has the mean value of 0.48, signifying that in almost half of our bank-year observations the banks have disclosed information on their CSR.

In terms of our dependent variables, our sample banks are on average losing money, as the average EPS ratio is -1.11 %. A negative EPS is a consequence of the recent financial crisis and our sample banks on average not yet being able to fully recover. The minimum and maximum values of EPS seem a bit extreme and have the potential to bias our results, but will be controlled for with the fixed effects estimation used to test our hypotheses (See section 4.2.1). The mean ROA for our sample banks is 1.06 % and the mean ROE is 11.70 %, indicating that on average the sample banks have managed to create profits in respect to their assets or equity. Similarly, the average NIM is 3.45 %, showing that the banks' investment strategies are better than their borrowing decisions. The average NPL ratio is 3.25 %, which is lower than the average world banks' NPL ratio in the period from 2002 to 2015 (Bank nonperforming loans to total gross loans, 2017). The mean Tobin's Q is 1.51, signifying that on average the market value of our sample banks is greater than the value of their assets.

From the perspective of our control variables, our sample's average bank total assets amounted to 165,139.50 million EUR. This variable has a large gap between its minimum and maximum value, indicating that its average value is highly influenced by larger banks in terms of total assets. If we had considered the median value of this variable, our banks would have 36,914.45 million EUR of total assets, which indicates that our variable is right-skewed. We will eliminate this skewness by using a natural logarithm of total assets as a measure of bank size in the regression analysis. The average age of a bank in our sample is 20.99 years. There are some occurrences in our sample where the bank age is 0, meaning that the bank was first listed in the same year as the year of observation. To eliminate the difference between the minimum and maximum value of bank age, a natural logarithm of this variable will also be considered in our regression analysis. The mean value of leverage is 2.83. The ratio is above 2 and is generally speaking considered less favourable. However, high leverage is common for the financial industry, since banks take on greater debt than companies from other industries, because the money they borrow is also the money they lend to their customers. The mean value of beta is 1.41, meaning that the price of our sample banks on average changes for 1.41 % if the market index changes for 1 %. The Tier 1 capital ratio with the mean value of 11.72% shows that our sample banks on average comply with the regulatory standards (minimum of 6 %). The equity

ratio with the mean value of 8.81 shows that our sample banks' equity ratio was lower than the average world banks' equity ratio in the period from 2002 to 2015 (Bank capital to assets ratio (%), 2017). The loans to assets ratio's mean value is 60.21 %, which is in the normal range for the banking industry, while the provision for loan loss to total loans ratio with the mean value of 1.17 % is lower than the industry average of 2–2.5 % (Loan Loss Provision, n.d.). The efficiency ratio of 58.60 % is higher than the optimal 50 % (Efficiency ratio, n.d.), which could indicate either decreasing revenues or increasing costs. Our sample banks also on average paid 3.44 % of interest on their interest bearing liabilities and 5.74 % of interest on their deposits. The loans to deposits ratio's mean value of 103.46 % shows that the banks borrowed some money to make loans to its customers and that their liquidity might not be sufficient in times of distress. The deposits to funding ratio amounted to 76.93 %.

Table 7. The descriptive statistics of sample banks in the time period from 2002 to 2015

<b>Variable</b>	<b>Obs</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Min</b>	<b>Max</b>
CSR	2,263	0.48	0.50	0.00	1.00
EPS	3,669	-1.11	243.16	-10,130.00	2,251.72
ROA	3,698	1.06	1.29	-12.37	20.37
ROE	3,662	11.70	11.57	-169.50	86.42
NIM	3,573	3.45	7.28	-6.16	251.61
NPL	2,954	3.25	4.61	0.00	49.17
Tobin's Q	3,643	1.51	8.28	0.49	258.53
Size*	3,763	165,139.50	358,899.00	49.81	3,150,600.00
Age**	3,623	20.99	21.34	0.00	145.00
Leverage	3,744	2.83	3.84	0.00	75.59
Beta	3,496	1.41	31.45	-1,142.83	447.53
Tier 1 capital ratio	3,115	11.72	4.47	-6.00	104.10
Equity ratio	3,763	8.81	5.94	-13.71	99.72
Loans to assets ratio	3,680	60.21	14.10	0.03	96.17
Provision for loan losses to total loans ratio	3,579	1.17	12.01	-17.22	713.27
Efficiency ratio	3,721	58.60	53.14	-607.87	2,778.15
Interest expense to interest bearing liabilities ratio	3,027	3.44	2.88	0.00	40.67
Loans to deposits ratio	3,674	103.46	77.05	0.58	1,710.57
Deposits to funding ratio	3,727	76.93	17.69	3.08	100.00
Interest expense to total deposits ratio	3,664	5.74	92.37	0.00	5,579.69

*Note.* \* Size is measured in terms of total assets in million EUR. \*\* Age is measured in the number of years since the bank's first listing.



## 4.2 Empirical results

### 4.2.1 Hausman test

In order to check for the correlation between the unique standard errors and the regressors in our models, Hausman test is performed. The results of the test are seen in Table 8. As the probability of the Hausman test for all our regression models is less than 5 %, the fixed effects model is preferred to the random effects model.

Table 8. The Hausman test results

	<b>Model 1a</b>	<b>Model 1b</b>	<b>Model 1c</b>	<b>Model 1d</b>	<b>Model 1e</b>	<b>Model 2a</b>
Chi2	1165.91	393.01	399.64	303.34	67.31	90.45
Prob>Chi2	0.00	0.00	0.00	0.00	0.00	0.00

### 4.2.2 Testing for homoscedasticity and multicollinearity

#### 4.2.2.1 Homoscedasticity

Using a modified Wald statistic, we have checked whether our data is homoscedastic, i.e. the variance of the error term is constant for all values of the independent variables. When the variance of the error terms is different across all values of the independent variables, heteroscedasticity is present, which can lead to unreliable regression results (Wooldridge, 2008). The results of the test are seen in Table 9 and show that our data is heteroscedastic.

Table 9. The modified Wald test statistic results

	<b>Model 1a</b>	<b>Model 1b</b>	<b>Model 1c</b>	<b>Model 1d</b>	<b>Model 1e</b>	<b>Model 2a</b>
Chi2	$3.4 \cdot 10^{34}$	$3.3 \cdot 10^{33}$	$1.6 \cdot 10^{33}$	$6.3 \cdot 10^{34}$	$1.5 \cdot 10^{33}$	$5.3 \cdot 10^{32}$
Prob>Chi2	0.00	0.00	0.00	0.00	0.00	0.00

#### 4.2.2.2 Multicollinearity

We performed an analysis of the correlation between our sample variables. Table 10 shows the Pearson correlation matrix for the variables used in the regression analysis over the analyzed time period. For the interpretation of correlation coefficients, general guidelines provided by Cohen (1988) will be used: correlation coefficients between 0.1 and 0.3 signify small correlation between the observed variables, correlation coefficients between 0.3 and 0.5 signify moderate correlation and correlation coefficients above 0.5 signify strong correlation.

First, we have checked the correlation coefficients between the independent variable CSR and the dependent variables. Only two dependent variables have a significant correlation

with CSR at the 1 % level – the NPL ratio (significant positive) and the Tobin's Q (significant negative), however both of these correlations are small.

Second, we observed the correlation coefficients between the independent variable CSR and the control variables. The correlation varies from small to moderate at 1 % to 10 % significance level, however no strong correlations between CSR and control variables have been observed.

Last, we have checked the correlation coefficients between the dependent variables and the control variables; and between the control variables themselves. All of the correlation coefficients between the dependent variables and the control variables are small to moderate, except for the correlation coefficients of common equity to total assets ratio with ROA and with NIM, which signify a strong correlation. When inspecting the correlation between the control variables themselves, we identified four strong correlations: between leverage and total loans to total deposits ratio, leverage and deposits to funding ratio, Tier 1 capital ratio and common equity to total assets ratio and lastly total loans to total deposits ratio and deposits to funding ratio. To minimise the effect of these strong correlations on our results, the control variables common equity to total assets ratio, total loans to total deposits ratio and deposits to funding ratio will be excluded from our analysis of the influence of CSR on CFP.

In order to correct our analysis for heteroscedasticity and the remaining multicollinearity of the variables, we will take into account the sensitivity of the standard error estimates to the presence of the banks' fixed effects and time effects. The ways scholars have addressed possible biases in the standard errors differ widely. Most of the papers did not adjust the standard errors for possible dependence on the residuals. The rest of the papers either used the Fama-MacBeth procedure, the Newey-West procedure or the White standard errors adjustment. The chosen method is in many cases incorrect, while the literature offers little guidance on which method to employ (Petersen, 2008).

In panel data with only company effects, standard errors clustered by companies produce unbiased standard errors. In panel data with only time effects, the Fama-MacBeth estimates would return the optimal results (Petersen, 2008). We believe, that the data in this study has both bank effects and time effects, therefore we will include dummy variables for each year in the analyzed time period (as already shown in our model in Section 3.3) and then cluster the data by each bank. The correlation between observations in the same time period should be removed by the time dummies and the standard errors clustered by banks should return unbiased results.

Table 10. The Pearson correlation coefficients matrix for the regression variables

	1	2	3	4	5	6	7	8	9	10
1	1									
2	-0.023	1								
3	-0.020	0.192***	1							
4	-0.025	0.176***	0.688***	1						
5	0.017	0.006	0.409***	0.088***	1					
6	0.181***	-0.099***	-0.261***	0.353***	0.024	1				
7	-0.095***	0.006	0.226***	0.204***	0.110***	-0.020	1			
8	0.374***	-0.005	-0.273***	-0.062***	-0.224***	0.087***	-0.133***	1		
9	0.046**	-0.024	-0.083***	0.060***	-0.093***	0.005	-0.022	0.116***	1	
10	0.126***	-0.181***	-0.253***	-0.164***	-0.105***	0.103***	-0.051***	0.411***	0.011	1
11	0.000	0.003	-0.016	-0.016	0.001	-0.071***	-0.021	0.009	0.007	0.037**
45 12	0.067***	0.018	0.417***	0.058***	0.464***	0.085***	0.251***	-0.262***	-0.036*	-0.189***
13	-0.060***	0.043***	0.572***	0.075***	0.507***	-0.054***	0.125***	-0.443***	-0.094***	-0.343***
14	-0.108***	-0.019	-0.073***	-0.091***	-0.044***	0.059***	0.110***	-0.286***	0.036**	-0.155***
15	0.151***	-0.008	0.007	-0.011	0.075***	0.385***	0.022	-0.010	-0.046***	-0.007
16	0.038*	0.016	-0.301***	-0.308***	-0.006	0.082***	0.042**	-0.017	-0.026	-0.026
17	0.085***	0.035*	0.307***	0.226***	0.279***	0.099***	0.309***	-0.027	-0.097***	0.147***
18	0.017	-0.124***	-0.064***	-0.121***	0.032*	0.092***	-0.050***	0.093***	-0.004	0.536***
19	-0.184***	0.037**	0.170***	0.096***	0.093***	-0.189***	0.006	-0.401***	0.022	-0.746***
20	0.029	-0.000	0.007	0.010	0.005	-0.004	0.010	0.007	-0.008	0.055***

Note. 1-CSR, 2-EPS, 3-ROA, 4-ROE, 5-NIM, 6-NPL, 7-TbQ, 8-Size, 9-Age, 10-Leverage, 11-Beta, 12-Tier1 capital ratio, 13-Common equity to total assets ratio, 14-Total loans to total assets ratio, 15-Provision for loan loss to total loans ratio, 16-Efficiency ratio, 17-Interest expense to interest bearing liabilities ratio, 18-Total loans to total deposits ratio, 19-Deposits to funding ratio, 20-Interest expense to total deposits ratio

\*, \*\* and \*\*\* indicate statistical significance at the 10 %, 5 % and 1 % level respectively.

Table 10. The Pearson correlation coefficients matrix for the regression variables (continued)

	11	12	13	14	15	16	17	18	19	20
11	1									
12	0.017	1								
13	-0.020	0.604***	1							
14	0.006	-0.146***	-0.012	1						
15	0.001	0.334***	0.026	-0.072***	1					
16	0.018	-0.112***	0.203***	-0.088***	0.001	1				
17	-0.022	0.094***	0.154***	-0.161***	0.045**	-0.044**	1			
18	0.077***	0.002	0.067***	0.116***	0.056***	-0.231***	0.107***	1		
19	-0.018	0.137***	0.144***	0.203***	0.002	0.000	-0.156***	-0.576***	1	
20	0.002	0.000	-0.004	-0.006	0.001	-0.015	0.038**	0.060***	-0.059***	1

Note. 1-CSR, 2-EPS, 3-ROA, 4-ROE, 5-NIM, 6-NPL, 7-TbQ, 8-Size, 9-Age, 10-Leverage, 11-Beta, 12-Tier1 capital ratio, 13-Common equity to total assets ratio, 14-Total loans to total assets ratio, 15-Provision for loan loss to total loans ratio, 16-Efficiency ratio, 17-Interest expense to interest bearing liabilities ratio, 18-Total loans to total deposits ratio, 19-Deposits to funding ratio, 20-Interest expense to total deposits ratio

\*, \*\* and \*\*\* indicate statistical significance at the 10 %, 5 % and 1 % level respectively.

### 4.2.3 Reassessing the fixed effects estimation

Since the traditional Hausman test is not compatible with clustered (robust) standard errors, we have to check whether the fixed effects model is still appropriate for our analysis. A robust Hausman test has been performed, as proposed by Wooldridge (in Hoechle, 2007, p. 306). The results of the robust Hausman test are seen in Table 11. The results indicate that the fixed effects model is still preferred to the random effects model (p-value for all our models = 0.00).

Table 11. The robust Hausman test results

	<b>Model 1a</b>	<b>Model 1b</b>	<b>Model 1c</b>	<b>Model 1d</b>	<b>Model 1e</b>	<b>Model 2a</b>
	<b>EPS</b>	<b>ROA</b>	<b>ROE</b>	<b>NIM</b>	<b>NPL</b>	<b>Tobin's Q</b>
F-statistic	210.59	1372.34	669.38	5,940.08	2,148.07	2,976.36
p-value	0.00	0.00	0.00	0.00	0.00	0.00

### 4.2.4 Regression results

This section presents the results obtained from the relationship between EPS, ROA, ROE, NIM, NPL and Tobin's Q as dependent variables and CSR as independent variable using fixed effects panel data regressions. The results of the regressions are shown in Table 12 and Table 13.

Table 12 shows the general results obtained from the regression analysis. All our models were statistically significant at the 1 % level (p-value = 0.00).

Table 12. The results of the regression analysis – general

	<b>Model 1a</b>	<b>Model 1b</b>	<b>Model 1c</b>	<b>Model 1d</b>	<b>Model 1e</b>	<b>Model 2a</b>
Dependent var.	<b>EPS</b>	<b>ROA</b>	<b>ROE</b>	<b>NIM</b>	<b>NPL</b>	<b>Tobin's Q</b>
No. of observations	1,531	1,542	1,538	1,501	1,452	1,542
No. of groups	225	227	227	223	220	227
F-statistic	9.18	22.29	19.34	6.13	5.28	18.05
p-value	0.00	0.00	0.00	0.00	0.00	0.00
R-sq	0.05	0.15	0.28	0.13	0.04	0.12

Table 13 shows the results obtained from the regression analysis in terms of the variables studied in our models.

Table 13. The results of the regression analysis – variables

	<b>EPS</b>	<b>ROA</b>	<b>ROE</b>
CSR	2.477 (7.414)	0.084* (0.046)	0.801 (0.560)
Size	89.768** (37.432)	0.155* (0.092)	4.265** (1.753)
Ln (Age)	5.623 (31.232)	-0.078 (0.067)	-0.531 (1.100)
Leverage	-0.386** (0.166)	-0.000** (0.000)	-0.011*** (0.003)
Beta	0.091 (0.081)	0.001 (0.001)	0.014 (0.011)
Tier 1 capital ratio	-11.569 (7.100)	0.056*** (0.017)	0.391 (0.275)
Loans to assets ratio	-3.394** (1.621)	-0.001 (0.004)	-0.087 (0.062)
Provision for loan losses to total loans ratio	-9.709 (11.489)	-0.443*** (0.043)	-6.085*** (0.766)
Efficiency ratio	-0.851** (0.370)	-0.009** (0.004)	-0.140** (0.061)
Interest expense to interest bearing liabilities ratio	18.350*** (5.758)	0.068*** (0.021)	1.016*** (0.327)
Interest expense to total deposits ratio	-4.004** (1.924)	-0.026*** (0.008)	-0.372*** (0.063)
2003	2.199 (13.900)	0.019 (0.047)	-0.116 (1.208)
2004	23.815 (20.964)	-0.039 (0.051)	-0.143 (1.038)
2005	29.647 (27.202)	-0.077 (0.059)	-0.188 (1.108)
2006	36.986 (34.497)	-0.025 (0.072)	1.111 (1.298)
2007	26.928 (30.734)	-0.138* (0.078)	-0.711 (1.259)
2008	-23.855 (28.240)	-0.464*** (0.097)	-5.591*** (1.426)
2009	-31.393 (30.191)	-0.440*** (0.113)	-6.253*** (2.160)
2010	-54.161 (39.822)	-0.517*** (0.134)	-8.914*** (2.614)
2011	-63.083 (46.300)	-0.696*** (0.161)	-11.706*** (3.148)
2012	-63.018 (50.469)	-0.642*** (0.149)	-11.359*** (3.047)
2013	-68.718 (49.319)	-0.644*** (0.143)	-12.023*** (2.860)
2014	-83.266 (55.178)	-0.768*** (0.169)	-13.708*** (3.354)
2015	-82.984 (59.230)	-0.773*** (0.182)	-13.338*** (3.550)

*Note.* Standard errors are reported in parentheses.

\*, \*\* and \*\*\* indicate statistical significance at the 10 %, 5 % and 1 % level respectively.

Table 13. The results of the regression analysis – variables (continued)

	<b>NIM</b>	<b>NPL</b>	<b>Tobin's Q</b>
CSR	0.040 (0.058)	0.404 (0.262)	0.013** (0.005)
Size	-0.060 (0.119)	-2.541*** (0.878)	-0.020* (0.010)
Ln (Age)	-0.170 (0.108)	1.408 (0.900)	-0.014* (0.007)
Leverage	-0.001* (0.001)	0.000 (0.001)	0.000 (0.000)
Beta	0.001* (0.000)	-0.006 (0.005)	-0.000 (0.000)
Tier 1 capital ratio	0.025* (0.013)	0.183** (0.091)	0.003** (0.0014)
Loans to assets ratio	0.011** (0.005)	-0.006 (0.035)	0.001* (0.000)
Provision for loan losses to total loans ratio	0.026 (0.033)	1.893*** (0.438)	-0.006** (0.003)
Efficiency ratio	-0.004* (0.002)	0.011 (0.007)	-0.000 (0.000)
Interest expense to interest bearing liabilities ratio	-0.005 (0.039)	-0.015 (0.155)	-0.003* (0.002)
Interest expense to total deposits ratio	-0.029* (0.017)	-0.034 (0.026)	-0.001* (0.000)
2003	-0.146*** (0.064)	-0.052 (0.202)	0.028** (0.011)
2004	-0.376*** (0.105)	-0.140 (0.512)	0.025*** (0.009)
2005	-0.371*** (0.097)	-0.463 (0.523)	0.026*** (0.010)
2006	-0.434*** (0.097)	-0.637 (0.541)	0.040*** (0.012)
2007	-0.477*** (0.121)	-0.904* (0.490)	0.025 (0.017)
2008	-0.463*** (0.138)	-0.864 (0.579)	-0.047*** (0.012)
2009	-0.624*** (0.172)	-0.605 (0.834)	-0.030** (0.013)
2010	-0.722*** (0.204)	0.853 (0.803)	-0.026* (0.015)
2011	-0.704*** (0.202)	1.293 (0.807)	-0.059*** (0.015)
2012	-0.758*** (0.225)	1.397 (0.905)	-0.049*** (0.016)
2013	-0.843*** (0.225)	1.716* (0.981)	-0.048*** (0.017)
2014	-0.889*** (0.247)	2.053* (1.106)	-0.043** (0.017)
2015	-0.994*** (0.256)	1.879 (1.158)	-0.062*** (0.018)

*Note.* Standard errors are reported in parentheses.

\*, \*\* and \*\*\* indicate statistical significance at the 10 %, 5 % and 1 % level respectively.

#### *4.2.4.1 Model 1a – the impact of CSR on EPS*

In model 1a we have studied the impact of CSR on banks' EPS. There is a positive impact of CSR on EPS (2.477), however it is insignificant ( $p = 0.739$ ). The hypothesis H1a is therefore justified – CSR does not have a significant positive impact on CFP, as measured by EPS, on a short-term basis. For the results of the regression analysis see Table 13.

Our results coincide with those of Pava and Krausz (1996) and Jitaree (2015) who found no significant association between the two variables. The results are however different from those obtained by Bowman and Haire (1975), who have found some positive relationship between the two variables.

Contrary to the impact of CSR on EPS, there is a significant positive impact of size on EPS (89.768) and the interest expense to the interest bearing liabilities ratio on EPS (18.350), with the p-values of 0.017 and 0.002 respectfully. There is also a significant negative impact of leverage on EPS (-0.386), loans to assets ratio on EPS (-3.395), efficiency ratio on EPS (-0.851) and the interest expense to total deposits ratio on EPS (-4.004), with the p-values of 0.021, 0.037, 0.022 and 0.039 respectfully.

#### *4.2.4.2 Model 1b – the impact of CSR on ROA*

In model 1b we have studied the impact of CSR on banks' ROA. There is a positive significant impact of CSR on ROA (0.084) at the 10 % level ( $p = 0.073$ ). Despite the fact that the impact is small, the hypothesis H1b is not justified – CSR has a significant positive impact on CFP, as measured by ROA, on a short-term basis. For the results of the regression analysis see Table 13.

Our results coincide with those of McGuire (1988) and Waddock and Graves (1995) who found a significant positive relationship between the variables. The results are however different to the majority of other research, including Singh (2014), who found a significant negative relationship between the two variables and Aupperle et al. (1985), Najah and Jarboui (2013), Johansson and Karlsson (2015) who found no significant relationship between the observed variables.

Besides CSR, there is a significant positive impact of size on ROA (0.155), Tier 1 capital ratio on ROA (0.056) and the interest expense to the interest bearing liabilities ratio on ROA (0.068), with the p-values of 0.093, 0.001 and 0.001 respectfully. ROA is also significantly negatively influenced by the leverage (-0.001), provisions for loan losses to total loans ratio (-0.443), efficiency ratio (-0.009) and the interest expense to total deposits ratio (-0.026), with the p-values of 0.014, 0.000, 0.021 and 0.003 respectfully. Additionally, the year effects from 2008 to 2015 have also significantly negatively impacted ROA.



#### 4.2.4.3 *Model 1c – the impact of CSR on ROE*

In model 1c we have studied the impact of CSR on banks' ROE. There is a positive impact of CSR on ROE (0.801), however it is insignificant ( $p = 0.154$ ). The hypothesis H1c is therefore justified – CSR does not have a significant positive impact on CFP, as measured by ROE, on a short-term basis. For the results of the regression analysis see Table 13.

We have obtained similar results as Waddock and Graves (1995), Najah and Jarboui (2013) and Singh (2014) who found no significant relationship between the two variables. The results are however different to those of Preston and O'Bannon (1997) and Orlitzky et al. (2003) who found a significant positive relationship between CSR and ROE.

Contrary to the relationship between CSR and ROE, there is a significant positive impact of size on ROE (4.265) and the interest expense to the interest bearing liabilities ratio on ROE (1.016), with the p-values of 0.016 and 0.002 respectively. ROE is also significantly negatively influenced by leverage (-0.011), provisions for loan losses to total loans ratio (-6.085), efficiency ratio (-0.140) and the interest expense to total deposits ratio (-0.372), with the p-values of 0.001, 0.000, 0.023 and 0.000 respectively. Additionally, the year effects from 2008 to 2015 have also significantly negatively impacted ROE.

#### 4.2.4.4 *Model 1d – the impact of CSR on NIM*

In model 1d we have studied the impact of CSR on banks' NIM. There is a positive impact of CSR on NIM (0.040), however it is insignificant ( $p = 0.493$ ). The hypothesis H1d is therefore justified – CSR does not have a significant positive impact on CFP, as measured by NIM, on a short-term basis. For the results of the regression analysis see Table 13.

Our results differ to those of Taşkin (2015) and Rahman (2016) who found a significant positive relationship between the two variables.

Contrary to the relationship between CSR and NIM, there is a significant positive impact of beta on NIM (0.001), Tier 1 capital ratio on NIM (0.025) and loans to assets ratio on NIM (0.011), with the p-values of 0.050, 0.057 and 0.038 respectively. NIM is also significantly negatively impacted by leverage (-0.001), efficiency ratio (-0.004) and the interest expense to total deposits ratio (-0.029), with the p-values of 0.069, 0.053 and 0.087 respectively. Additionally, the year effects for our entire sample period have significantly negatively influenced NIM.

#### 4.2.4.5 *Model 1e – the impact of CSR on NPL*

In model 1e we have studied the impact of CSR on banks' NPL. There is a positive impact of CSR on NPL (0.403), however it is insignificant ( $p = 0.123$ ). The hypothesis H1e is therefore justified – CSR does not have a significant positive impact on CFP, as measured by NPL, on a short-term basis. For the results of the regression analysis see Table 13.

Our results coincide with those of Barth et al. (2012). On the contrary, Shen et al. (2016) discovered that CSR and NPL's have a significant negative relationship.

Contrary to the relationship between CSR and NPL, there is a significant positive impact of Tier 1 capital ratio on NPL (0.183) and provisions for loan losses to total loans ratio on NPL (1.893), with the p-values of 0.045 and 0.000 respectfully. Additionally, NPL is also significantly negatively impacted by size (-2.541) with the p-value of 0.004. The year effects of 2013 and 2014 have significantly positively influenced NPL, while the year effect of 2007 has significantly negatively influenced NPL.

#### *4.2.4.6 Model 2a – the impact of CSR on Tobin's Q*

In model 2a we have studied the impact of CSR on banks' Tobin's Q. There is a positive significant impact of CSR on Tobin's Q (0.013) at the 5 % level ( $p = 0.021$ ). The hypothesis H2a is justified – CSR does have a significant positive impact on CFP, as measured by Tobin's Q, on a long-term basis. For the results of the regression analysis see Table 13.

Our results coincide with those of Rossi (2009), while Yin (2002), Singh (2014) and Jitaree (2015) found no significant positive impact of CSR on Tobin's Q.

Besides CSR, Tobin's Q of our sample banks is also significantly positively influenced by the Tier 1 capital ratio (0.003) and the loans to assets ratio (0.001), with the p-values of 0.020 and 0.082 respectfully. Moreover, Tobin's Q is significantly negatively influenced by size (-0.020) and age of banks (-0.014), by banks' provisions for loan losses to total loans ratio (-0.006), interest expense to interest bearing liabilities ratio (-0.003) and the interest expense to total deposits ratio (-0.001), with the p-values of 0.056, 0.054, 0.035, 0.078 and 0.085 respectfully. The year effects of 2003 to 2006 have significantly positively influenced Tobin's Q, while the year effects of 2008 to 2015 have significantly negatively influenced Tobin's Q.

### **4.3 Discussion**

As seen from our results, the impact of CSR on banks' short-term financial performance has only been significant and positive in terms of variable ROA. When assessing the relationship between CSR and EPS, ROE, NIM and NPL, no significant test results have been obtained, despite controlling our regressions for size, age, leverage, CAMELS and year-specific effects of our sample banks. It can therefore be concluded, that CSR does not have any impact on banks' short-term financial performance, except in the case of ROA.

One of the possible explanations why CSR significantly influences ROA, is that ROA is, in this study, calculated as the net income divided by the average total assets of a bank. As the average total assets of a bank are one of the proxies for bank size, CSR may be related

to bank size. This explanation is supported by the studies of Waddock and Graves (1997), McWilliams and Siegel (2000) and Jitaree (2015), who claim that bank size may significantly influence banks' capacity to undertake CSR actions.

Our results also indicate that CSR has a significant positive impact on banks' long-term financial performance as measured by the variable Tobin's Q. The obtained results confirm the idea of CSR being a long-term and strategic approach towards a company's higher financial performance, which in this study has been tested on the banking sector. Pursuing CSR activities in a bank can be thought of as a long-term survival strategy. A bank's lifecycle is generally much longer than any other companies', therefore banks are under more pressure to perform well and to ensure themselves future economic development and long-term stability (Shen et al., 2016).

Moreover, many banks engage in CSR activities due to regulatory pressure, which aims at enhancing the society's economic welfare. Banks' activities are more transparent to the general public than in other industries. Since they use resources from the society, they are expected to compensate for them by ensuring a stable banking system and providing opportunities for sustainable economic development of the nation (Shen et al., 2016). The CSR activities of banks are therefore mainly driven by their strategic motives (Wu & Shen, 2013) and can result in various benefits, e.g. reputation.

In short-term, a bank's CSR activities mean an extra burden to the bank, since the economic benefits are not generated that fast to be reflected in bank's short-term financial performance (Vance, 1975; Singh, 2014), or bank stability, as measured by the NPL ratio. Our results are consistent with prior studies suggesting no significant short-term economic benefits of CSR activities (Alexander & Buchholz, 1989; Aupperle et al., 1985; McWilliams & Siegel, 2001; Murray et al., 2006; Johansson & Karlsson, 2015), except in the case, when CFP was measured by ROA. Regarding a company's long-term financial performance, our results confirm a significant positive effect of CSR on CFP. This relationship again confirms the long-term strategic aspect of CSR and coincides with results of Preston and O'Bannon (1997), Waddock and Graves (1997), Yin (2002), Rossi (2009), Najah and Jarboui (2013), while it is contrary to the relationship obtained by Singh (2014) and Jitaree (2015) who have not obtained any significant results.

But why is the relationship between CSR and CFP in most studies still unobservable? One of the possible reasons for the non-significance of the results is that CSR is hard to measure. CSR is a multidimensional construct and depends on various factors, where some of them are still unknown to us. The concept of CSR can therefore never be properly measured. Most of the techniques used in research are subjective and have the ability to bias the results (Waddock & Graves, 1997; Orlitzky et al., 2003; Chetty et al., 2015).

Furthermore, some of the authors use a variable of CSR disclosure instead of an appropriate indicator of the quality of CSR in a company, since these indicators are hard to obtain and to measure (as in this study). The variable of CSR disclosure differs across

different companies, as it depends on country regulations, industry regulations etc., and is not an indicator of the quality of CSR activities present in a company (Tsoutsoura, 2004).

Additionally, the unobserved relationship between CSR and CFP could be explained by the assumption of efficient markets. In an efficient market, new information is automatically reflected in the stock price, therefore any positive or negative effects regarding CSR measures would immediately be reflected in the stock price of the company (Alexander & Buchholz, 1978).

Another answer to our question could be the explanation of McWilliams and Siegel (2001). The authors hypothesized that the two major sources of demand for CSR are consumer demand and demand from other stakeholders and that in order for a company to have a better position in the market, CSR has to be used as a differentiation strategy. Reflecting on the theory of the firm, the authors assume that each company makes optimal choices. In equilibrium, both, the company that employs CSR activities and the company that does not, will be equally profitable. The first company will have higher costs but also higher revenues, while the second company will have lower costs but also lower revenues. If the result was different, one of the firms would switch its strategy. In equilibrium, there should therefore be no relationship between CSR and CFP.

#### **4.4 Limitations of this research**

The first limitation of this study is the sample selection. Our sample consisted of publicly listed banks defined by the GICS Industry name Banks, whose information on CSR Sustainability reporting was available on Eikon in the time period from 2002 to 2015. The primary problem with the choice of our sample is that Eikon does not possess the information on Sustainability reporting for all the companies in the selected industry. Therefore many banks, which could have been chosen in our sample, were not included in it, due to the missing value of the Sustainability reporting variable. Our sample might not correctly reflect the population's characteristics.

Second, due to the difficulty of obtaining the data on the quality of CSR for our sample, the attribute of CSR disclosure was selected as a substitute for the quality of CSR. Banks, which had disclosed information on CSR in the selected time period, were thought of as being socially responsible, while those, who had not disclosed information on CSR, were not. The variable of CSR disclosure is not an appropriate indicator of quality of CSR activities present in a company, consequently our results could be misleading.

Third, our study focused on banks from different countries, i.e. different regulatory environments. Our study did not take into account the regulatory predispositions of our sample banks, since this data is hard to obtain. The banks, who disclose information on CSR voluntarily and those, who disclose it due to the legislation in its country, were both

thought of as being equally socially responsible, while the quality of their CSR activities was not considered, as already mentioned above.

Another limitation of this study is the neglect of banks' prior financial performance on CSR. Better performing banks can initially devote more funds to CSR than poorly performing banks (McGuire, 1988; Preston & O'Bannon, 1997), which results in them being more socially responsible than poorly performing banks. The amount of funds invested in CSR activities should be taken into account when performing these kinds of analyses.

This study is also limited to 6 financial performance indicators, i.e. EPS; ROA, ROE, NIM, NPL and Tobin's Q for the measurement of CFP of our sample banks and the effects of some control variables, i.e. size, age, leverage, CAMELS and yearly effects.

Last, we present the limitation of the selected time period of our study. The selected time period in this study includes years during the global financial crisis and after it, where some of the banks have not fully recovered yet. During this time, many banks had to fight for their existence, that being with either implementing socially responsible activities, or not. However, due to the aggravating circumstances in the market, implementation of these activities did not necessarily result in better financial performance (Fernández-Feijóo Souto, 2009).

#### **4.5 Recommendations for future studies**

In this section, we mention some examples of issues for future considerations of studying the relationship between CSR and CFP.

First, this study used the variable of CSR disclosure as a proxy for CSR of banks. Future research could include a more appropriate and precise measure of the quality of CSR activities of banks, e.g. the KLD ratings. Additionally, future research could consider different segments of CSR activities, e.g. environmental activities, community involvement, human rights activities, etc. and their impact on CFP. The measurement of CSR is the primary reason for obtaining inconsistent results across various studies.

Second, in this research we have considered Tobin's Q as the long-term financial performance indicator. In the future research it would be useful to also examine other CFP measures as long-term financial performance indicators, by exploiting one-year, two-year or multiple-year lags in the study.

Third, this study analysed the relationship between CSR and subsequent CFP. Future research should also include prior CFP. Studies could be more successful when considering CFP as a variable that influences CSR, than the other way around (McGuire, 1988). Following from this recommendation, also funds, invested into CSR activities of a

company should be taken into consideration when studying the relationship between CSR and CFP.

Fourth, an increased attention should be given to the measurement of CFP. Researchers usually spend more time assessing how to measure CSR whereas their choice of measurements of CFP is relatively straightforward. Since CSR activities impact various aspects of CFP differently, also CFP measures should be chosen carefully. The choice of these measures could be another reason for obtaining inconsistent results across various studies.

Last, future research could include other control variables, especially the corporate governance variables, which have not been greatly discussed in this study. We have only employed the control variables of efficiency and interest expenses to total deposits ratio as a measurement of the quality of the company's management.

## **CONCLUSION**

CSR is a concept that has been around since the 20<sup>th</sup> century, but has gained a lot of attention in the last two decades. What started as an examination of social responsibilities of businessmen has later evolved into a multidimensional concept which now focuses on companies as whole and their influence on the society. Due to globalization and the recent financial crisis, companies are experiencing new pressures from the society, which are not related to their main core of business, but reflect certain societal expectations in terms of environmental, social and professional development of the company (Carroll, 1979; McWilliams and Siegel, 2001; Crisostomo et al., 2011; Jitaree, 2014).

Even though CSR is an important part of every company's strategic development, it is even more significant for banks. Banks serve as financial intermediaries between lenders and borrowers and affect a large mass of people. By providing safety and stability to its customers, they are an important part of every country's economic development and are therefore crucial for the prosperity of other sectors (Achua, 2008; Wu and Shen, 2013). Banks are in general viewed as uninvolved with environmental issues, since they are not direct pollutants, but they support commercial activity of their clients, who maybe are pollutants of the environment. Banks should therefore also be considered as an object of study.

The purpose of this thesis was to analyse the relationship between CSR and CFP in the banking industry, considering the short-term and long-term view. Our sample consisted of 288 banks in the time period from 2002 to 2015. As a measure of CSR of banks, we implemented a dummy variable of CSR disclosure. As a measure of the financial performance of banks, we employed EPS, ROA, ROE, NIM, NPL, for the short-term analysis and Tobin's Q for the long-term analysis. To control our data for other effects, we used several control variables, i.e. size, age, leverage, year-effects and CAMELS. A panel data analysis with the fixed effects model was performed.

Having a look at the regression results, we see that CSR does not affect CFP in the short-term, except when CFP was measured by ROA. In the latter case, we have obtained a significantly positive small relationship between CSR and CFP. A possible explanation for this relationship is that the variable of ROA includes company size, where size might significantly influence the company's capacity to undertake CSR actions (Waddock & Graves, 1997; McWilliams & Siegel, 2000; Jitreee, 2015). Otherwise, we have found no significant relationship between CSR and the rest of the short-term financial performance measures. However, we have discovered that CSR significantly positively influences the financial performance of our sample banks as measured by Tobin's Q.

The obtained short-term results were consistent with those of Aupperle et al. (1985), Alexander and Buchholz (1989), McWilliams and Siegel (2001), Murray et al. (2006), Johansson and Karlsson (2015) and others, who have suggested no significant short-term economic benefits of CSR activities. The obtained long-term results coincide with those of Preston and O'Bannon (1997), Waddock and Graves (1997), Yin (2002), Rossi (2009), Najah and Jarboui (2013), who have found significant positive impact of CSR on CFP. The concept of CSR seems to be a long-term strategic approach of companies.

Our results show that implementing socially responsible activities has long-term financial effects, which especially banks are interested in, due to nature of their business and the relationships with their customers. Additionally, it is also in the customers', regulators' and other stakeholders' interests for the banks to perform well in the long-term, due to their significant effect on the economy. Our results could therefore be of interest to the management of banks, banks' customers, regulators and the general public to better understand the actions banks (should) undertake to perform well. Our research that is based on a sample from the banking industry is an enrichment to the existing research on the relationship between CSR and CFP.

Despite obtaining the same results as in some of the previous studies, the results of the studies on the relationship between CSR and CFP are, generally speaking, mixed (Cochran & Wood, 1984; Orlitzky et al., 2003; Cardebat & Sirven, 2009; Najah & Jarboui, 2013; Singh 2014; Jitreee, 2015). Some authors have found significant positive relationship, some negative, while others have not found any significant relationship at all (see Chapter 2). The reason why there is no consistency between the obtained results is not known yet. One of the problems could be the different measures of CSR employed in different studies (Orlitzky et al., 2003). Another problem could be the unobserved relationship between CSR and CFP, which we do not fully understand yet. Moreover, not many studies have focused on only one industry or country (see Chapter 2), therefore there was always some bias present due to different economic and regulatory environment of the studied samples.

Based on this research and the observed limitations of previous studies we propose some improvements for future studies. First, a more appropriate and precise measure of the quality of CSR in companies should be used while considering different segments of CSR activities of companies. Second, the sample should be appropriately selected and be large

enough to correctly reflect the population's characteristics. Third, when researching the relationship between CSR and CFP, researchers should also consider CFP as a variable that might influence CSR, rather than the other way around. Fourth, CFP measures should be chosen carefully, because certain aspects of CFP are influenced differently by different CSR activities. Last, the unobserved relationship between CSR and CFP should be controlled for by implementing various control variables.



## POVZETEK

Družbena odgovornost podjetij je »posloven pristop, ki prispeva k trajnostnemu razvoju z zagotavljanjem gospodarskih, družbenih in okoljskih koristi za vse deležnike« (The Financial Times, b.l., odst. 2).

Koncept družbene dogovornosti podjetij je v gospodarskem okolju prisoten že od 20. stoletja, vendar pa je veliko pozornosti pridobil zlasti v zadnjih dveh desetletjih. Ideja, ki se je začela kot raziskovanje družbene odgovornosti poslovnih, se je skozi leta razvila v večdimenzionalen koncept, ki pa se dandanes osredotoča na podjetje kot celoto in njegov vpliv na družbo. Zaradi globalizacije in nedavne finančne krize se podjetja srečujejo z novimi družbenimi pritiski. Le-ti niso povezani z osnovno dejavnostjo podjetja, ampak odražajo določena družbena pričakovanja, predvsem iz področij okoljskega, družbenega in pa profesionalnega razvoja podjetja (Carroll, 1979; McWilliams & Siegel, 2001; Crisostomo et al., 2011; Jitaree, 2014).

Čeprav je družbena odgovornost podjetij pomemben del strateškega razvoja vsakega podjetja, je še toliko bolj pomembna za banke. Banke služijo kot finančni posrednik med posojilodajalci in posojilojemalci in tako vplivajo na množico ljudi. Z zagotavljanjem varnosti in stabilnosti svojim strankam so pomemben del gospodarskega razvoja vsake države in so zato ključnega pomena tudi za blaginjo drugih sektorjev (Achua, 2008; Wu & Shen, 2013). Splošno gledano so banke nevpлетene v okoljska vprašanja, saj niso neposredni onesnaževalci okolja, kljub temu pa podpirajo komercialno dejavnost svojih strank, ki pa morebiti onesnažujejo okolje. Iz tega naslova bi tudi banke morale biti upoštevane kot predmet študije.

Namen magistrskega dela je bilo analizirati odnos med družbeno odgovornostjo bank in njihovim finančnim poslovanjem na kratek in dolgi rok. V vzorec smo zajeli 288 bank od leta 2002 do 2015. Kot merilo družbene odgovornosti bank smo upoštevali binarno spremenljivko poročanja banke o družbeni odgovornosti. Kot merilo kratkoročnega finančnega poslovanja bank smo upoštevali kazalnike EPS, ROA, ROE, NIM in delež NPL, kot merilo dolgoročnega finančnega poslovanja bank pa Tobinov Q. V analizi smo upoštevali še sledeče kontrolne spremenljivke: velikost in starost bank, finančni vzvod bank, učinke posameznih let in pa določene kazalnike CAMELS. Izvedli smo panelno študijo z modelom fiksnih učinkov.

Rezultati regresije so pokazali, da družbena odgovornost bank statistično značilno ni vplivala na kratkoročno poslovanje bank, razen v primeru, ko je bilo kratkoročno poslovanje bank merjeno s kazalnikom ROA. Ena izmed možnih razlag za ta pojav je, da kazalnik ROA vključuje velikost bank, velikost bank pa lahko bistveno vpliva na zmožnost bank za izvajanje družbeno odgovornih dejavnosti (Waddock & Graves, 1997; McWilliams & Siegel, 2000, Jitaree, 2015). Rezultati regresije so prav tako pokazali, da

družbena odgovornost bank statistično značilno pozitivno vpliva na dolgoročno poslovanje bank, merjeno s kazalnikom Tobinov Q. Zdi se torej, da je koncept družbene odgovornosti dolgoročen strateški pristop podjetij.

Izvedena analiza je pokazala, da ima izvajanje družbeno odgovornih dejavnosti dolgoročne učinke na finančno poslovanje, za katere se, zaradi narave njihovega poslovanja in pa njihovega odnosa s strankami, zanimajo zlasti banke. Poleg tega je tudi v interesu strank, regulatorjev in drugih deležnikov, da banke na dolgi rok dobro poslujejo, saj imajo velik vpliv na gospodarstvo. Pridobljeni rezultati bi torej lahko bili zanimivi za vodstvo bank, njihove regulatorje, stranke bank in pa širšo javnost. Le-ti bi tako lahko bolje razumeli dejavnosti, ki jih morajo banke izvajati, da bi dobro poslovale na dolgi rok. Naša analiza, ki temelji na vzorcu iz bančnega sektorja, je obogatitev obstoječih raziskav o odnosu med družbeno odgovornostjo podjetij in pa njihovim finančnim poslovanjem.

Čeprav smo z omenjeno analizo pridobili podobne rezultate, kot že nekatere prejšnje študije, pa so rezultati raziskav odnosa med družbeno odgovornostjo podjetij in njihovim finančnim poslovanjem, splošno gledano, mešani (Cochran & Wood, 1984; Orlitzky et al., 2003; Cardebat & Sirven, 2009; Najah & Jarboui, 2013; Singh 2014; Jitaree, 2015). Nekateri avtorji so našli statistično značilen pozitiven odnos, drugi negativen, spet tretji pa niso našli nobenega statistično značilnega odnosa med raziskovanima spremenljivkama. Razlog za nedoslednost med rezultati študij še ni znana. Eden izmed razlogov za to so lahko različna merila družbene odgovornosti podjetij uporabljena v študijah (Orlitzky et al., 2003). Drug razlog je lahko še neopažen in nerazumljen odnos med družbeno odgovornostjo podjetij in pa njihovim finančnim poslovanjem. Veliko raziskav se prav tako do sedaj še ni osredotočilo na analizo znotraj ene industrije oz. države, zato je bilo lahko v raziskavah, zaradi različnih ekonomskih in regulatornih okolij, vedno prisotne nekaj pristranskosti.

Na podlagi naše analize in opaženih omejitev v prejšnjih raziskavah, predlagamo nekaj izboljšav za prihodnje raziskave. Smotno bi bilo uporabiti primernejše in natančnejše merilo družbene odgovornosti v podjetjih, pri čemer bi bilo smiselno upoštevati različne segmente družbene odgovornosti. Pri raziskovanju vpliva družbene odgovornosti podjetij na njihovo finančno poslovanje bi bilo smiselno upoštevati tudi vpliv predhodnjega finančnega poslovanja teh podjetij na njihovo družbeno odgovornost. Merila finančnega poslovanja podjetij bi morala biti skrbneje izbrana, saj družbeno odgovorne dejavnosti drugače vplivajo na različne vidike finančnega poslovanja. In nazadnje, del odnosa med družbeno odgovornostjo podjetij in njihovim finančnim poslovanjem, ki ga še ne moremo razložiti, bi bilo potrebno kontrolirati z implementacijo različnih kontrolnih spremenljivk.

## REFERENCE LIST

1. *About GRI*. Retrieved March 21, 2017, from <https://www.globalreporting.org/Information/about-gri/Pages/default.aspx>
2. *About the Equator Principles*. Retrieved May 2, 2017, from <http://www.equator-principles.com/index.php/about-ep/about-ep>
3. Achua, J. K. (2008). Corporate social responsibility in Nigerian banking system. *Society and business review*, 3(1), 57–71.
4. Al-bdour, A. A., Nasruddin, E., & Lin, S. K. (2010). The Relationship between Internal Corporate Social Responsibility and Organizational Commitment within the Banking Sector in Jordan. *International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering*, 4(7), 1842–1861.
5. Alexander, G. J., & Buchholz, R. A., (1978). Corporate social responsibility and stock market performance. *The Academy of Management Journal*, 21(3), 479–486.
6. Aupperle, K. E., Carroll, A. B., & Hatfield, J. D. (1985). An empirical examination of the relationship between corporate social responsibility and profitability. *Academy of Management Journal*, 28(2), 446–463.
7. Bank capital to assets ratio (%). In *The World Bank Open Data*. Retrieved June 26, 2017, from <http://data.worldbank.org/indicator/FB.BNK.CAPA.ZS>
8. Bank nonperforming loans to total gross loans (%). In *The World Bank Open Data*. Retrieved May 29, 2017, from <http://data.worldbank.org/indicator/FB.AST.NPER.ZS?end=2016&start=2002>
9. Barth, J. R., Lin, C., & Wihlborg, C. (2012). *Research handbook on international banking and governance*. Cheltenham: Edward Elgar publishing.
10. Beurden, P., & Gössling, T. (2008). The worth of values – A literature review on the relation between corporate social and financial performance. *Journal of Business Ethics*, 82(2), 407–424.
11. Boubaker, S., & Nguyen, D. K. (2012). *Board Directors and Corporate Social Responsibility*. Basingstoke: Palgrave Macmillan.
12. Bowen, H. R. (1953). *Social responsibilities of the businessman*. New York City: Harper.
13. Bowman, E. H., & Haire, M. (1975). A Strategic Posture Toward Corporate Social Responsibility. *California Management Review*, 18(2), 49–58.
14. Bushman, R. M., & Wittenberg-Moerman, R. (2012). The Role of Bank Reputation in »Certifying« Future Performance Implications of Borrowers' Accounting Numbers. *Journal of accounting research*, 50(4), 883–930.
15. Campbell, D., Craven, B., & Shrikes, P. (2003). Voluntary social reporting in three FTSE sectors: a comment on perception and legitimacy. *Accounting, Auditing & Accountability Journal*, 16(4), 558–581.
16. Cardebat, J., & Sirven, N. (2009). *What corporate social responsibility adds to financial return?* Bordeaux: Larefi.

17. Carroll, A. B. (1979). A Three-Dimensional Conceptual Model of Corporate Performance. *The Academy of Management Review*, 4(4), 497–505.
18. Carroll, A. B. (1991). The pyramid of corporate social responsibility: toward the moral management of organizational stakeholders. *Business Horizons*, 34(4), 39–48.
19. Carroll, A. B. (1999). Corporate Social Responsibility: Evolution of a Definitional Construct. *Business & Society*, 38(3), 268–295.
20. Chemmanur, T. J., & Fulghieri, P. (1994). Investment Bank Reputation, Information Production, and Financial Intermediation. *The Journal of Finance*, 49(1), 57–79.
21. Chetty, S., Naidoo, R., & Seetharam, Y. (2015). The Impact of Corporate Social Responsibility on Firm's Financial Performance in South Africa. *Contemporary Economics*, 9(2), 193–214.
22. Cochran, P. L., & Wood, R. A. (1984). Corporate social responsibility and financial performance. *The Academy of Management Journal*, 27(1), 42–56.
23. Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2<sup>nd</sup> ed.). Hillsdale: Erlbaum.
24. Cormier, D., & Gordon, I. (2001). An Examination of Social and Environmental Reporting Strategies. *Accounting, Auditing and Accountability Journal*, 15(3), 282–311.
25. *Corporate register*. Retrieved March 26, 2017, from <http://corporateregister.com>
26. Cowton, C. J., & Thompson, P. (2000). Do Codes Make a Difference? The Case of Bank Lending and the Environment. *Journal of Business Ethics*, 24(2), 165–178.
27. Crisostomo, V. L., Freire, F. S., & de Vasconcellos, F. C. (2011). *Corporate social responsibility, firm value and financial performance in Brazil*. Brasilia: University of Brasilia.
28. Davis, K. (1960). Can Business Afford To Ignore Social Responsibilities? *California Management Review*, 2(3), 70–76.
29. De Villiers, C., & Marques, A. (2013). *CSR disclosures: Predispositions and consequences*. Waikato: The University of Waikato.
30. Dewi, D. M., Sudarma, M., Djumahir, & Ganis, E. S. (2014). CSR Effect on Market and Financial Performance. *International Journal of Business and Management Invention*, 3(1), 56–66.
31. Donaldson, T., & Preston L. E. (1995). The Stakeholder Theory of the Corporations: Concepts, Evidence and Implications. *The Academy of Management Review*, 20(1), 65–91.
32. Dowling, J., & Pfeffer, J. (1975). Organizational Legitimacy: Social Values and Organizational Behavior. *The Pacific Sociological Review*, 18(1), 122–136.
33. Dunstan, A. H. (2012, August 1). *The GRI Misses Some Critical Human Rights Issues*. Retrieved March 26, 2017, from <http://business-ethics.com/2012/08/01/1815-opinion-the-gri-misses-some-critical-human-rights-issues>
34. Efficiency ratio. (n.d.). In *Investopedia*. Retrieved June 26, 2017, from <http://www.investopedia.com/terms/e/efficiencyratio.asp>

35. *Equator Principles Association Members & Reporting*. Retrieved May 2, 2017, from <http://www.equator-principles.com/index.php/members-reporting>
36. *ESG research*. Retrieved February 4, 2017, from <https://www.msci.com/research/esg-research>
37. Fernández-Feijóo Souto, B. (2009). Crisis and Corporate Social Responsibility: Threat or Opportunity? *International Journal of Economic Sciences and Applied Research*, 2(1), 36–50.
38. Definition of corporate social responsibility (n.d.). In *The Financial Times Lexicon*. Retrieved January 30, 2017, from [http://lexicon.ft.com/Term?term=corporate-social-responsibility--\(CSR\)](http://lexicon.ft.com/Term?term=corporate-social-responsibility--(CSR))
39. Freeman, R. E. (1984). *Strategic Management: A Stakeholder Approach*. Boston: Pitman.
40. Friedman, M. (1970, September 13). The social responsibility of business is to increase its profits. *The New York Times Magazine*, 173–180.
41. Garriga, E., & Melè, D. (2004). Corporate Social Responsibility Theories: Mapping the Territory. *Journal of Business Ethics*, 53, 51–71.
42. *GRI and sustainability reporting*. Retrieved March 26, 2017, from <https://www.globalreporting.org/information/sustainability-reporting/Pages/gri-standards.aspx>
43. Global Reporting Initiative. (2011). *Sustainability Reporting Guidelines*. Retrieved March 21, 2017, from <https://www.globalreporting.org/resourcelibrary/G3.1-Guidelines-Incl-Technical-Protocol.pdf>
44. Guthrie, J., & Cuganesan, S. (2006). *Legitimacy theory: A story reporting social and environmental matters within the Australian food and beverage industry*. Sydney: The University of Sydney.
45. Guthrie, J., & Parker, L. D. (1989). Corporate Social Reporting: A Rebuttal of Legitimacy Theory. *Accounting and Business Research*, 19(76), 343–352.
46. Gray, R., Kouhy, R., & Lavers, S. (1995). Corporate social and environmental reporting: A review of the literature and a longitudinal study of UK disclosure. *Accounting, Auditing & Accountability Journal*, 8(2), 47–77.
47. Griffin, J. J., & Mahon, J. F. (1997). The corporate social performance and corporate financial performance debate. Twenty-five years of incomparable research. *Business and society*, 36(1), 5–31.
48. Heal, G., & Garret, P. (2004). *Corporate Social Responsibility - An Economic and Financial Framework*. New York City: Columbia University.
49. Hoechle, D. (2007). Robust standard errors for panel regressions with cross-sectional dependence. *The Stata Journal*, 7(3), 281–312.
50. Hong, Y. (2014). *Changing institutional environment, Chinese company characteristics, and climate-change reporting*. Melbourne: Victoria University.
51. Jitree W. (2015). *Corporate Social Responsibility Disclosure and Financial Performance: Evidence from Thailand*. Wollongong: University of Wollongong.

52. Jizi, M., Salama, A., Dixon, R., & Stratling, R. (2014). Corporate governance and corporate social responsibility disclosure: evidence from the US banking sector. *Journal of business ethics*, 125(4), 601–615.
53. Johansson, S., & Karlsson, A. (2015). *The relationship between CSR and financial performance – A quantitative study examining Swedish publicly traded companies*. Växjö: Linnaeus University.
54. Jones, S., Frost, G., Loftus, J., & van der Laan, S. (2007). An Empirical Examination of the Market Returns and Financial Performance of Entities Engaged in Sustainability Reporting. *Australian Accounting Review*, 17(1), 78–87.
55. Kapoor, S., & Sandhu, H. S., (2010). Does it Pay to be Socially Responsible? An Empirical Examination of Impact of Corporate Social Responsibility on Financial Performance. *Global Business Review*, 11(2), 185–208.
56. KPMG (2015). *Currents of change. The KPMG Survey of Corporate Responsibility Reporting 2015*. Retrieved April 28, 2017, from <https://assets.kpmg.com/content/dam/kpmg/pdf/2016/02/kpmg-international-survey-of-corporate-responsibility-reporting-2015.pdf>
57. Lee, M.-D. P. (2008). A review of the theories of corporate social responsibility: Its revolutionary path and the road ahead. *International journal of management reviews*, 10(1), 53–73.
58. Lentner, C., Szegedi, K., & Tatay, T. (2015). Corporate social responsibility in the banking sector. *Public finance quarterly*, 1(1), 95–103.
59. Li, S., & Marinč, M. (2016). *Mandatory clearing of derivatives and systemic risk of bank holding companies*. Nanjing: Southeast university & Ljubljana: University of Ljubljana.
60. Loan Loss Provision. (n.d.). In *Investopedia*. Retrieved June 26, 2017, <http://www.investopedia.com/terms/l/loanlossprovision.asp>
61. Matten, D. (2003). Behind the Mask: Revealing the True Face of Corporate Citizenship. *Journal of Business Ethics*, 45(1), 109–120.
62. McDonald, L. M., & Rundle-Thiele, S. (2008). Corporate social responsibility and bank customer satisfaction: A research agenda. *International Journal of Bank Marketing*, 26(3), 170–182.
63. McElroy, M. (2013, May 22). *Has the GRI consigned itself to irrelevance?* Retrieved March 26, 2017, from <https://www.greenbiz.com/blog/2013/05/22/has-gri-consigned-itself-irrelevance>
64. McGuire, J. B., 1988. Corporate Social Responsibility and Firm Financial Performance. *The Academy of Management Journal*, 31(4), 854–872.
65. McWilliams, A., & Siegel, D. (2000). Corporate social responsibility and financial performance: Correlation or misspecification? *Strategic Management Journal*, 21(5), 603–609.
66. McWilliams, A., & Siegel, D. (2001). Corporate Social Responsibility: A theory of the firm perspective. *The Academy of Management Review*, 26(1), 117–127.

67. Melo, T., & Galan, J. I. (2011). Effects of corporate social responsibility on brand value. *Journal of Brand Management*, 18(6), 423–437.
68. Mitchell, R. K., Agle, B. R., & Wood, D. J. (1997). Toward a Theory of Stakeholder Identification and Salience: Defining the Principle of Who and What Really Counts. *The Academy of Management Review*, 22(4), 853–886.
69. Moneva, J. M., & Ortas, E., (2010). Corporate environmental and financial performance: A multivariate approach. *Industrial Management & Data Systems* 110(2), 193–210.
70. Moskowitz, M. (1972). Choosing socially responsible stock. *Business and Society*, 1(1). 71–75.
71. Murphy, P. E., & Schlegelmilch, B. B. (2013). Corporate social responsibility and corporate social irresponsibility: Introduction to a special topic section. *Journal of Business Research*, 66(10), 1807–1813.
72. Murray, A., Sinclair, D., Power, D., & Gray, R. (2005). *Do financial markets care about social and environmental disclosure? Further evidence and exploration from the UK*. St Andrews: CSEAR.
73. Najah, A., & Jarboui, A. (2013). The Social Disclosure Impact on Corporate Financial Performance: Case of Big French Companies. *International Journal of Management and Business Research*, 3(4), 337–351.
74. *Non-Financial Reporting*. Retrieved January 30, 2017, from [http://ec.europa.eu/finance/company-reporting/non-financial-reporting/index\\_en.htm#legal-framework](http://ec.europa.eu/finance/company-reporting/non-financial-reporting/index_en.htm#legal-framework)
75. O' Brien, R. (1998, January 6). *Kinder, Lydenberg, Domini & Co*. Retrieved April 2, 2017, from <http://web.net/~robrien/papers/sri/players/kld.html>
76. Orlitzky, M., Schmidt, F. L., & Rynes, S. L. (2003). Corporate social and financial performance: A meta-analysis. *Organization Studies*, 24(3), 403–441.
77. Oxibar, B., & Déjean, F. (2007). *Corporate social disclosure and legitimation strategy: a longitudinal study of Pechiney*. Lisbon: 30ème congrès de l'EAA.
78. Palazzo G., & Scherer, A. (2006). Corporate Legitimacy as Deliberation: A Communicative Framework. *Journal of Business Ethics*, 66(1), 71–88.
79. Pava, M. L., & Krausz, J. (1996). The association between corporate social-responsibility and financial performance: The paradox of social cost. *Journal of Business Ethics*, 15(3), 321–357.
80. Peters, R., & Mullen, M. R. (2009). Some Evidence of the Cumulative Effects of Corporate Social Responsibility on Financial Performance. *Journal of Global Business Issues*, 3(1), 1–14.
81. Petersen, M. A. (2008). *Estimating standard errors in finance panel data sets: comparing approaches*. Oxford: Oxford university press.
82. Pirsch J., Gupta S., & Grau, S. L. (2007). A Framework for Understanding Corporate Social Responsibility Programs as a Continuum: An Explanatory Study. *Journal of Business Ethics* (70), 125–140.

83. Poddi, L., & Vergalli, S. (2009). Does corporate social responsibility affect the performance of firms? Brescia: Università degli Studi di Brescia.
84. Preston, L. E. (1978). Analyzing corporate social performance: methods and results. *Journal of contemporary business*, 7(1), 135–150.
85. Preston, L. E., & O'Bannon, D. P. (1997). The Corporate Social-Financial Performance Relationship. *Business and Society*, 36(4), 419–429.
86. Rahman, S. (2016). Causality between profitability and corporate social responsibility: Evidence from selected banks in Bangladesh. *Imperial Journal of Interdisciplinary Research*, 2(10), 1490–1495.
87. Roberts, R. W. (1992). Determinants of corporate social responsibility disclosure: An application of the stakeholder theory. *Accounting, organization and society*, 17(6), 595–612.
88. Rossi, J. L. Jr. (2009). *What is the Value of Corporate Social Responsibility? An Answer from the Brazilian Sustainability Index*. São Paulo: University of São Paulo.
89. Shen, C.-H., Wu, M.-W., Chen, T.-H., & Fang, H. (2016). To engage or not to engage in corporate social responsibility: Empirical evidence from the global banking sector. *Economic modelling*, 55, 207–225.
90. Sincero, S. M. (2012, March 18). Advantages and Disadvantages of Surveys. *Explorable*. Retrieved June 10, 2017, from <https://explorable.com/advantages-and-disadvantages-of-surveys>
91. Singh, S. (2014). *Impact of corporate social responsibility disclosure on the financial performance of firms in UK*. Enschede: School of Management and Governance.
92. Smith, A. (2010). *Bogastvo narodov: raziskava o naravi in vzrokih bogastva narodov* [An Inquiry into the Nature and Causes of the Wealth of Nations]. Ljubljana: Studia humanitatis.
93. Soana, M.-G. (2011). The relationship between corporate social performance and corporate financial performance in the banking sector. *Journal of Business Ethics*, 104(1), 133–148.
94. Suchman, M. (1995). Managing Legitimacy: Strategic and Institutional Approaches. *The Academy of Management Review*, 20(3): 571–610.
95. Taşkin, D. (2015). The relationship between CSR and banks' financial performance: Evidence from Turkey. *Journal of Yasar University, special issue*, 21–30.
96. Torres-Reyna, O. (2007). *Panel data analysis – Fixed and random effects using Stata*. Princeton: Princeton University.
97. Tsoutsoura, M. (2004). *Corporate Social Responsibility and Financial Performance*. Berkeley: University of California.
98. Vance, S. (1975). Are Socially Responsible Corporations Good Investment Risks? *Managerial Review*, 64(8), 18–24.
99. Viganò, F., & Nicolai, D. (2009). *CSR in the European Banking Sector: Evidence from a Survey*. In: Barth, R. & Wolff, F., (2009). *Corporate Social Responsibility in Europe: Rhetoric and Realities*. Cheltenham: Edward Elgar Publishing.



100. Vourvachis, P. (2007). On the use of content analysis (CA) in corporate social reporting (CSR): Revisiting the debate on the units of analysis and the ways to define them. *British Accounting Association Annual Conference 2007*, Egham: British Accounting Association (unpublished).
101. Waddock, S. A., & Graves, S. B. (1997). The Corporate Social Performance--Financial Performance Link. *Strategic Management Journal*, 18(4), 303–319.
102. Wanless, D. (1995). *The Gilbert Lecture 1995: Banking and the Environment*. London: Chartered Institute of Bankers.
103. Wooldridge, J. M. (2008). *Introductory Econometrics: A Modern Approach* (4<sup>th</sup> ed.). Mason: South-Western.
104. Wooldridge, J. M. (2010). *Econometric analysis of cross section and panel data* (2<sup>nd</sup> ed.). London: The MIT press.
105. Wright, P., & Ferris, S. (1997). Agency conflict and corporate strategy: the effect of divestment on corporate value. *Strategic Management Journal*, 18(1), 77–83.
106. Wu, M.-W., & Shen, C.-H. (2013). Corporate social responsibility in the banking industry: Motives and financial performance. *Journal of banking and finance*, 37, 3529–3547.
107. Yeung, S. (2011). *The role of banks in corporate social responsibility*. Hong Kong: Hang Seng School of management.
108. Yin, W. H. (2012). *Corporate social responsibility and firm performance: Evidence from China*. Hong Kong: Lingnan University.



## **APPENDIX**



## **APPENDIX: List of abbreviations**

<b>Abbreviation</b>	<b>Meaning</b>
CAMELS	Financial criteria used by regulators to evaluate a bank's overall condition, covering the regulatory areas of capital adequacy, assets, management capability, earnings, liquidity and sensitivity.
CAPM	Capital asset pricing model
CFP	Corporate financial performance
CSP	Corporate social performance
CSR	Corporate social responsibility
EPS	Earnings per share
EU	The European Union
GICS	Global industry classification standard
GRI	Global reporting initiative
KLD	Kinder, Lydenberg, Domini & Co.
MVA	Market value added
NIM	Net interest margin
NPL	Non-performing loans
NPM	Net profit margin
OECD	Organization for economic co-operation and development
ROA	Return on assets
ROE	Return on equity
TbQ	Tobin's Q
UN	United Nations
U.S.	United States