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SOCIALLY RESPONSIBLE INVESTMENT PERFORMANCE AND THE FINANCIAL SYSTEM

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Abstract

Can institutions explain differences in SRI markets? In this thesis Socially Responsible Investment (SRI) fund performance has been analysed for different time periods and with regards to the financial system. The performance of the SRI funds in 13 different countries has been compared to the performance of a market benchmark and they have been compared to the performance of similar conventional funds. Afterwards SRI fund performance has been analysed in a new setting: the SRI and conventional funds were categorised in two groups, either Common Law or Civil Law depending on the domicile country. Then the performance of SRI funds relative to conventional fund performance was analysed for these two groups to see if the performance of SRI funds was better relative to conventional funds in either financial system. We find that SRI funds actually mostly outperform conventional funds in the short-run, while SRI funds mostly underperform or do not statistically perform different in the long-run. We do also find that SRI funds perform relative to conventional funds better in Common Law countries than in Civil Law countries, and this performance difference increases over time.

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1. Introduction

Corporate Social Responsibility (CSR) has become increasingly important for firms, especially since the 2008 financial crisis (Lins, Servaes & Tamayo, 2017). The definition of CSR remains somewhat unclear, as scholars have not agreed to a universal definition yet. However, there are some definitions that are most commonly used for CSR, for example: *"The social responsibility of business encompasses the economic, legal, ethical, and discretionary expectations that society has of organizations at a given point in time"* (Carroll, 1979, p. 500). And Corporate Social Performance is often defined as the *"configuration of the principles of social responsibility, processes of social responsiveness, and policies, programs, and observable outcomes as they relate to the firm's societal relationships."* (Wood, 1991, p. 693). Firms with high CSR performance outperformed firm with low CSR performance during the crisis period, and some of these effects continue to exist after the crisis (Lins, Servaes & Tamayo, 2017). Firms used CSR to regain trust during the crisis, and it is suggested that in the post-crisis period trust has remained important as well. Sparkes & Cowton (2004) establish an increasingly strong connection between CSR and Socially Responsible Investments (SRI). SRI *"is an approach which incorporates extrafinancial criteria into investment decisions and fund and portfolio management."* (Laurence, 2013, p. 2258). SRI has had a different meaning previously: in the past it was used to describe ethical exclusion funds. Nowadays, many modern SRIs include numerous Environmental, Social and Governance (ESG) dimensions in their screening process. At this moment, ESG has no universal definition either, but firms focussing on ESG incorporate extra-financial material information in their firm strategy related to ESG issues. This can happen through either exclusion of negative impact activities, the inclusion of positive impact activities or a combination of both (Bassen & Kovács, 2008; Mănescu, 2011). In this thesis SRI will refer to investments incorporating ESG factor. SRI is defined by Laurence (2013) as being *"to some extent the financial equivalent of sustainable development."* (Laurence, 2013, p. 2258). Whereas SRI was initially done by a small number of retail investment funds who specialised in this, nowadays it is being adopted by a large number of investment institutions and has gone 'mainstream' (Revelli, 2017). The increasing popularity of SRIs could play a significant role in influencing firms to address CSR issues (Sparkes & Cowton, 2004).

Modern SRI funds are concerned with the CSR performance of firms in their portfolio (Hill et al, 2007). These firms with high CSR performance are more focussed on sustainability and therefore considered more stable investments in the long run; firms with low CSR performance are usually involved in more unsustainable business activities (Laurence, 2013). Moreover, *"Institutional investors believe that low CSR performing companies tended to be involved in litigation, industrial action, and/or suffer from government imposed fines and sanctions."* (Laurence, 2013, p. 2256). More sustainable business activities foster better and longer relations between firms and investors.

There are some empirical studies that suggest no difference exists between the performance of conventional funds and SRI funds (e.g. Renneboog, Ter Horst & Zhang, 2008). There are, however, also studies that either find higher returns from portfolios in which stocks related to negative ethical issues are excluded (e.g. Hong & Kacperczyk, 2009), or studies that find worse performance in SRI funds than in conventional funds (e.g. Amenc & Le Sourd, 2008). SRIs do not always have better returns, yet the number keeps increasing: investors may therefore have an ulterior motivation to hold SRIs, as is investigated by Riedl & Smeets (2017). They investigate why Dutch investors want to hold SRIs, and they find that investors actually expect a lower return from SRI funds and are willing to pay higher fees for these funds. Intrinsic social preferences are an important reason for investors to hold these portfolios, and social signalling plays an important role in investor decisions relating to SRIs as well. This indicates that investors are willing to give up financial performance to invest in more socially and environmentally concerned funds. Data suggests that the attitudes of Dutch investors towards social and environmental issues do not differ from investors in other countries. Yet, the number of SRIs held by Dutch investors is relatively very high compared to, for example, the US. In the US, approximately 10% of all investments involve SRIs and the assets involved in SRIs amounts to about 4.9 trillion euros (Riedl & Smeets, 2017; Galema, Plantinga & Scholtens, 2008). However in the Netherlands the amount of assets involved in SRIs is 1.2 trillion and the SRI market in the Netherlands has relatively the strongest growth in all of Europe (Laurence, 2013). France follows as a close second in terms of relative growth, while Great Britain maintains the largest SRI market in Europe in absolute terms. The growth appears to be the strongest in Civil Law countries, while the Common Law countries maintain the largest markets in absolute terms. It appears Continental European (which excludes the UK) SRI markets are catching up with the Anglo-Saxon (e.g. UK and US) SRI markets (Maignan & Ralston, 2002). These differences might be related to cultural, economic or institutional differences (Riedl & Smeets, 2017). This thesis tries to find a difference in the performance of SRI funds by looking at the financial system and legal institutions of a country to see whether the performance differences between a SRI portfolio and a conventional portfolio might differ in various countries. Performance differences might explain the sudden large growth in Civil Law countries: better performance makes it more attractive for investors to invest in SRI funds in those countries, causing a growth of the SRI markets.

There are multiple classifications that can be used to describe the financial system in a country (La Porta et al, 2000; Levine, 2002). The 'law and finance view', or legal view, is considered to be the best approach in describing the financial system: the literature provides a strong support that the legal system importantly influences financial sector and long-term growth (La Porta et al, 1997; Levine, 2002). It tries to explain the functioning of the financial system by looking at legal institutions. Common and Civil Law countries function differently with regards to the legal system: financial markets are regulated differently and there are different levels of investor protection present. The legal view advocates that better investor protection and efficiency of the legal system improves functioning of the financial markets and long-term growth.

The goal of this thesis is to analyse the SRI funds in countries with two distinct financial systems to find whether there is a difference in the performance of SRI funds in different institutional settings. By analysing the performance of SRIs in distinct financial systems (through the legal view), this thesis tried to find differences between the performance of these SRI markets:

"How does the performance of SRI funds differ depending on the financial system of a country?"

SRI funds in this research are SRIs that fulfil certain ESG criteria standards. There are different styles of ESG investments: based upon a number of ESG criteria an investment can be classified in different categories. The ESG categorisation by Bridges Ventures will be used to select SRIs; the same criteria are maintained by Eurosif (Eurosif, 2018). It is important to distinguish between funds that are based purely on moral principles and only exclude certain activities, and those that fulfil broader, more encompassing ESG criteria. The financial system will be distinguished by the legal environment of a country: a country will be assigned to one of two groups, namely either a Civil Law or Common Law system. Financial market development and long-term growth is strongly supported by the legal view (La Porta et al, 1997; Levine, 2002), and it appears Continental Europe (excluding the UK), whose legal system is primarily Civil Law, has very different SRI markets than the Anglo-Saxon countries, with primarily a Common Law legal system (Maignan & Ralston, 2002). This difference might be explained through institutional differences (Riedl & Smeets, 2017).

The performance of SRI funds can be measured by using the Carhart Four-Factor Model: a version of the CAPM model that controls for size, book-to-market ratio and momentum (Carhart, 1997). The risk-adjusted average return for the investment (also known as Jensen's Alpha) will be the measure of the performance. Countries will be assigned to one of the two financial systems (Common Law and Civil Law). The data will start during the crisis (more specifically January 1th 2008), because SRIs have changed in importance since the crisis and have grown enormously ever since (Laurence, 2013; Lins, Servaes & Tamayo, 2017; Revelli, 2017). The outcome of the analyses and information regarding size and number of SRI funds might show differences in the presence and performance of these SRI funds in different countries distinguished by the financial system.

The scientific relevance of this thesis is that it explains why there are major performance differences in SRI related funds in different countries. It aims to fill the gap in the literature by not only looking at performance differences of SRIs in different countries, but by relating it to the financial system as well. Since the legal systems each have a different influence on financial markets, the influence of these legal systems may prove to be a key factor in the performance and/or development of SRI related funds. The practical relevance of the thesis is that investors gain better insights in the performance of SRI funds in different institutional settings. SRIs might have different performances in different financial systems, either in the short- or long-run. Information from this thesis may help investors in making investment decisions related to SRI funds. It may also give legislators better insights

in the performance of SRIs with regards to the legal system, potentially improving laws and regulations in the SRI markets.

This thesis will be structured as follows: in chapter 2, the relevant literature will be examined, and a set of hypotheses will be formulated from this literature. In chapter 3, the data used will be described and the methodological approach will be explained. Chapter 4 will present the results from the regression analyses and finally, chapter 5 will present the conclusion and a discussion of the results.

2. Literature Overview

2.1 Socially Responsible Investment

Socially Responsible Investment is defined by Laurence (2013) as *"an approach which incorporates extrafinancial criteria into investment decisions and fund and portfolio management."* (Laurence, 2013, p. 2258) The definition of SRI found on the site of Eurosif, the leading European Association promoting sustainable and responsible investment, is: *"Sustainable and responsible investment ("SRI") is a long-term oriented investment approach which integrates ESG factors in the research, analysis and selection process of securities within an investment portfolio. It combines fundamental analysis and engagement with an evaluation of ESG factors in order to better capture long term returns for investors, and to benefit society by influencing the behaviour of companies."* Besides looking for profit potential, investors who invest in SRIs take governance, social and environmental factors into account as well. SRIs initially consisted of funds that eliminated certain activities, be it for philosophical, religious or political reasons. This was the original meaning of SRI and were also known as exclusion funds or ethical investments. These originated primarily in the US and the UK, possibly dating back to the Quakers in the 18th century US (Laurence, 2013). In the late 1970s, however, a new form of SRI started to emerge: investments focussing on environmental and social issues while retaining good corporate governance (Laurence, 2013). In the 1980's a number of social and environmental issues, such as the apartheid in South Africa and the Chernobyl nuclear disaster, made investors more aware of these problems and caused the SRI industry to grow strongly since the early 1990's. SRIs that incorporate these ESG elements in their funds have grown significantly ever since and have become increasingly complex: these funds are becoming more mainstream in investment practices and their relationship with Corporate Social Responsibility (CSR) has become important (Sparkes & Cowton, 2004). The increasing role of SRIs means companies want to address CSR issues more: when SRIs were limited to a handful of specialised investors, these issues could more easily be ignored. But with institutional investors, the most important ownership group for publicly traded companies in the developed world, picking up on SRI funds, companies have to pay more attention to good CSR performance (Sparkes & Cowton, 2004).

The 2008 financial crisis is another important and recent event that caused a growth in the number of CSR and SRI investments. CSR investment intensity and reporting strategy have significantly increased in the post-crisis period compared to the pre-crisis period (Antonia García-Benau, Sierra-Garcia & Zorio, 2013; Lins, Servaes & Tamayo, 2017). Firms with high CSR performance continue to experience a positive impact on their Return On Equity (ROE) in the post-crisis period compared to firms that stopped with better CSR policies that were implemented during the crisis (Antonia García-Benau, Sierra-Garcia & Zorio, 2013). Firms seem to recognise that both conducting positive CSR activities, and subsequently CSR reporting and assurance are a worthwhile investment, even though there are extra costs attached to it. Trust could be an important factor in explaining increased financial performance for firms with high CSR performance (Lins, Servaes & Tamayo, 2017). *"we find that firms with high CSR ratings outperform firms with low CSR ratings during the crisis by at least four percentage points"* (Lins, Servaes & Tamayo, 2017, p. 1820). There is no evidence for reversal in returns after the crisis, suggesting that trust remains important even in the post-crisis period. Increased investments where found in mutual funds that hold more stocks with high CSR performance than those that hold stocks with low CSR performance during the crisis (Parida & Wang, 2018).

In the US one out of every eight dollars is invested in SRI funds by professional money managers (Hill et al, 2007). In the US SRIs represented $2.71 trillion in 2007, compared to $639 billion in 1995. Growth of SRIs in Europe has grown significantly as well: in 2007, for example, the number of SRI funds had grown by more than 100 percent compared to 2005, according to Eurosif (Laurence, 2013). This significant growth of SRI funds in Europe is only true for the SRIs that are based on ESG criteria; the ethical or exclusion funds remain a niche market.

This increase in the number and scope of SRI funds can be explained by three different factors (Laurence, 2013). Firstly, many new funds have been created and existing funds have grown. SRI products have been diversified enormously, although usually in the form of mutual funds in shares and bonds. Secondly, SRIs are stimulated in some countries through legislative and/or regulatory incentives. SRIs are encouraged through these measures by promoting its visibility and development. And lastly, the role of institutional investors plays an important role as well. These SRI institutional investors are considered long-term investors and are closely related to SRI growth, and usually consist of pension funds, reserve funds and retirement savings funds. *"(...) are indeed major players in SRI, representing in most countries between 60% and 80% of institutional assets, while the traditional investors, like the churches or faith groups, now play a much less significant role."* (Laurence, 2013, p. 2260). There are three important explanations why these institutional investors would hold SRI funds: maintaining a good reputation, long-term investment performance and the fact that external activities cannot be allowed to negatively impact the performance of the funds. These factors can be confirmed by Riedl & Smeets (2017): investors' intrinsic social preferences and social signalling are important factors for holding SRI funds. Yet the investors that expect these SRI funds to underperform relative to conventional funds, and do not have a special social motivation, are less likely to actually invest in a socially responsible manner.

Investors with a strong social motivation are willing to accept lower returns, worse Sharpe ratios[1] and higher fees when investing in SRIs: they are willing to give up some financial returns in conformity with their social preferences.

Regarding SRI performance benchmarks, different studies have different outcomes when it comes to the relative performance of SRI portfolios compared to conventional portfolios. Whereas some studies find superior relative performance for SRIs (Galema, Plantinga & Scholtens, 2008), some studies find inferior relative performance (Jones et al, 2008; Renneboog, Ter Horst, & Zhang, 2008). There are also a number of studies indicating no significant difference between SRI funds and conventional funds (Mallin, Saadouni & Briston, 1995; Gregory, Matatko & Luther, 1997; Bauer, Koedijk & Otten, 2005; Amenc & Le Sourd, 2008, 2010) or studies that have mixed results, e.g. SRI outperform only during certain periods (Hamilton et al, 1993; Nofsinger & Varma, 2014; Henke, 2016). However, studies are more uniform when it comes to performance persistence of SRI funds: it is often stronger than the performance persistence of conventional funds (Benson & Humphrey, 2008; Lean, Ang & Smyth, 2015; El Ghoul & Karoui, 2017). Performance persistence is a fund's or portfolio's ability to consistently provide returns above (or below) a certain investment benchmark (Brown & Goetzmann, 1995; Wermers, 1997). SRI investors are also more reluctant to transfer their investments; SRI investors are more likely to have smoother investment flows and struggle to find investment alternatives they would be willing to invest in (El Ghoul & Karoui, 2017).

As Hill et al (2007) discovered, firms with high CSR performance on the European stock market performed financially better in the short-term, albeit only very temporarily. In the medium-term, firms with high CSR performance did not financially perform significantly different than other firms in the US, Europe and Asia. However, the financial performance was better for firms with high CSR performance in the US and European regions in the long-run, while the financial performance difference in Asia was statistically insignificant (Hill et al, 2007). This could indicate that SRI funds are a better, more stable investment for the long-run, as opposed to better performance in the short-run: SRI investments could be considered less risky, and yielding smoother returns.

The screening process itself and how it is implemented plays an important role in the financial performance of SRI portfolio as well: the screening process does indeed narrow the amount of diversification possible in SRI portfolios, however better screening can actually lead to better financial performance (Barnett & Salomon, 2006). When the screening process is adequate enough, the limited firms chosen can offset the loss in financial performance normally gained through diversification. Funds screening based on social and community relations have relatively better financial performance; screening for environmental and equal employment opportunities might actually outweigh the financial benefits (Barnett & Salomon, 2006). International diversification also might not be beneficial for SRI

[1] Sharpe Ratio is a common method for calculating risk-adjusted returns: it is calculated by subtracting the risk-free rate from the mean portfolio return, and then dividing this number by the standard deviation of the portfolio return.

funds (Leite & Cortez, 2014). Leite & Cortez (2014) find that international SRI mutual funds in eight European countries do not significantly outperform internationally oriented conventional portfolios. The SRI funds did, however, maintain lower betas and were generally less risk-averse. The most important screening process is the ‘Best-in-Class’ approach: it considers good corporate governance and screens for good environmental and social performance, regardless of the industrial sector or business activity conducted (Laurence, 2013). This approach has become the most important and most structured way of evaluating quoted companies based on ESG criteria since the early 2000s, but it is quite controversial however. Best-in-Class screens allow a wider variety of diversification, but also allow investments to be made in industries that are viewed as ‘undesirable’, going against the main principle of SRI investments (Leite & Cortez, 2014). Best-in-Class refers to the top performing firms in a certain industry or sector: a firm with a good Best-in-Class rating is compared to peers in the same industry or sector. This only means the firm has a relative better ESG performance than its peers, but when the industry or sector performs bad overall, good Best-in-Class firms could still have a negative impact upon ESG issues.

This chapter has taken a closer look at the origin of SRIs and their relation with CSR. Besides that, a review of previous studies regarding SRIs and their performance has been done. Regarding the performance of SRIs, compared to conventional funds, overall, academic evidence is quite conflicting. It appears SRIs have slightly lower returns and worse performance in the short-run, but in the long-run evidence suggests SRIs outperform conventional funds over time. SRI funds also have better performance persistence. Based upon the prior research, the first two hypotheses of this thesis can be formulated. The first two hypotheses are:

H1: Socially Responsible Investments are outperformed by conventional funds in the short-run.

H2: Socially Responsible Investments outperform conventional funds in the long-run.

2.2 Institutional Background

Riedl & Smeets (2017) investigated why investors invest in SRI fund. Intrinsic social preferences and social signalling were important factors and these results were tested for Dutch investors. Further investigation by Riedl & Smeets (2017) has them concluding that there are no differences between the attitudes of investors in different countries with regards to social and environmental issues and therefore their motivational findings can be generalised. Major differences exist between the size and growth of various SRI markets, however. *“According to EUROSIF (2014) and SIF (2014), the total assets under management in SRI are about 1.2 trillion in the Netherlands and 4.9 trillion euro in the United States. Thus, the amount invested in SRI is relatively large for a country the size of the Netherlands."* (Riedl &

Smeets, 2017, p. 2533). In Europe the UK has the largest SRI market in terms of absolute volume, but the Netherlands and France experience rapidly growing SRI markets and have the strongest relative growth in Europe. Looking at a global level, the US, Canada and the UK have the largest SRI markets. These numbers cannot be explained by the attitudes of the investors, but it might be explained by cultural, socioeconomic and institutional differences between various countries (Riedl & Smeets, 2017). This thesis investigates if there might be a performance difference between SRIs in different institutional settings. In this chapter, there will be a closer look at the influence of institutions on CSR and SRI, and the SRI markets will be distinguished with regards to the financial system they are in.

The institutional environment has an influence on the financial performance of firms through regulations, laws, taxation etc. In the same manner, CSR behaviour can be influenced by laws and regulations too. *"The relationship between basic economic conditions and corporate behaviour is mediated by several institutional conditions"* (Campbell, 2007, p. 946). Research suggest that tax laws and property rights may influence the degree in which firms conduct CSR behaviour. Similarly, normative and cultural incentives might instigate good CSR behaviour in firms. As Sparkes & Cowton (2004) established a link between CSR and SRI funds, the importance and influence of CSR on SRI funds is irrefutable.

Most importantly there are some cross-country studies that indicate the importance of institutional differences regarding CSR. Maignan & Ralston (2002) investigate how firms communicate their CSR behaviour to the public in four countries: France, Netherlands, UK and the US. Their study finds that companies in different countries have differing views on the importance of being socially responsible and what CSR issues are more pressing than others. It is suggested that French and Dutch firms are less inclined to show socially responsibility than the Anglo counterparts. This could be due to the social welfare states present in Europe, taking on the role of responsibility. In especially the US, businesses have had a leading role in the development of the state: businesses want to demonstrate their value here more than in Continental Europe. Meanwhile, capital dispersion plays an important role in the UK and US too. This has resulted in more visible public concerns, where institutional investors can exert more power and have actively advocated for more social responsible behaviour (Maignan & Ralston, 2002). For some time now, however, a decline in the importance of the welfare states in Continental Europe can be seen, causing businesses to take on a larger role concerning social responsible behaviour (Esping-Andersen, 1996; Maignan & Ralston, 2002; Korpi, 2003). Continental Europe (excluding the UK) has also been imitating the long, ethical investing behaviour from the US recently, resulting in more CSR communication from firms. This could explain why SRI funds in the US and UK are larger in terms of total assets than Continental European SRIs, and could explain the strong growth in Continental Europe recently as well.

The US and UK differ in numerous ways from countries in Continental Europe. Institutional wise, the financial systems function completely different: a distinction between market/bank-based or Common/Civil Law (legal view) can be made (Levine, 2002). These two views both attribute different

institutional characteristics to the functioning of the financial system. Whereas the bank/market-based view attributes the functioning of the financial system to the presence of banks and intermediaries versus the presence of financial markets, the legal view looks to regulations and laws, by making the distinction between Common Law and Civil Law.

One of the goals of the financial system is to enable borrowers and lenders to interact with each other to exchange funds. Moreover it should mobilise resources for investments, select the proper investment projects and provide monitoring incentives for the performance of the investments (Demirgüç-Kunt & Maksimovic, 2002). The objectives of the financial system are fulfilled in a different manner for market-based and bank-based economies. Whereas market-based economies are largely dependent on the financial markets for external financing, bank-based economies mostly rely on banks and financial intermediaries.

The legal view of the financial system argues that financial markets are made up of sets of contracts: legal rights and enforcement mechanisms define the contracts and their effectiveness (Levine, 2002). The quality of the legal system is reflected by the performance of both markets and intermediaries and better functioning legal systems ease the role of these markets and intermediaries. Differences in the effectiveness and nature of financial systems between countries can be explained by looking at the investor protections against expropriation present in said countries (La Porta et al, 1998). These are reflected by the legal rules and the manner in which these are enforced. Common Law countries offer the most protection for shareholders and creditors, with Civil Law countries scoring less than Common Law countries (La Porta et al, 1997; 1998).

Strong investor protection is closely linked with effective corporate governance: countries with strong investor protection have more dispersed ownership of shares, efficient allocation of capital across firms and broader, more valuable financial markets (La Porta et al, 2000). A variety of institutional situations has an influence on the workings of the economy and basic economic relationships. Strong state regulations, collective self-regulation, monitoring and a normative institutional environment can positively influence corporate socially responsibility (Campbell, 2007). The anti-self-dealing index is an index that measures the legal protection of minority shareholders against the expropriation by corporate insiders (Djankov et al, 2005). Here Common Law countries score better than Civil Law countries. *"But the evidence shows quite clearly that legal origins are not merely proxies for politics or media; they exert large and powerful influences on legal rules"* (Djankov et al, 2005, p. 36). Common Law countries view transactions more suspiciously and incorporate greater disclosure requirements into transactions. Similarly, SRI and CSR funds incorporate more investment disclosure than more traditional funds. This could mean that more disclosure by SRIs improves the likelihood for investors to invest in SRI funds in Common Law countries.

The 'law and finance view' finds much more support in the literature than the 'market/bank-based view'. The law and finance view is a better way to explain differences in overall financial development and corporate governance (La Porta et al, 2000; Levine, 2002). The law and finance view

supports the idea that financial markets must not be left unregulated, but have to be encouraged in some manner: be it through courts, (government) agencies or market participants themselves. Financial markets need some form of protection and regulation against outside investors to improve corporate governance and capital allocation (La Porta et al, 2000). Levine (2002) finds that a good legal environment ensures better growth of the financial markets as well, explaining cross-country differences in financial development. *"The data are consistent with the view that the legal system importantly influences financial sector development and this in turn influences long-run growth."* (Levin, 2002, p. 424).

Laws and regulations have, according to the legal view, an influence on the financial markets in a country. Funds that are based in a certain country, are 'domiciled' there. This means the fund is subject to the local laws and regulations in which it is located. The domicile of investment funds matters increasingly more nowadays (Jaecklin, Gamper & Shah, 2011). The choice of the domicile country used to be influenced heavily by tax and regulatory considerations, but recent pressure from home market regulators influence investment funds to be domiciled onshore more. Yet regulatory and legal considerations remain important for investment decisions. Considering the major differences between common and Civil Law countries, these legal considerations are predicted to have an effect on the performance of the SRI funds. The study by Geranio & Zanotti (2005) investigates the impact of mutual funds characteristics on fees in Italy, and one conclusion is that fiscal and regulatory burdens increase the costs of mutual funds that are domiciled in Italy when comparing these with offshore funds.

Besides fiscal and regulatory burdens, mutual funds have to deal with fees as well. These fees differ from fund to fund and country to country (Khorana, Servaes & Tufano, 2009). Differences between fees can be partially explained by fund (family) characteristics: in general, larger funds, index funds, guaranteed funds and funds with a high minimum investment have lower fees. Funds that are held onshore and sold across borders have lower fees, but a fund management company set up by a foreign entity maintains higher fees. More countries registered for sale increase the price as well. More importantly, Khorana, Servaes & Tufano (2009) find that lower fees are related to better investor protection and countries with a superior judicial system maintain lower fees on average for mutual funds domiciled. Countries with regulations regarding independent custodians and fund approval requirements experience lower fees too. In countries with better legal conditions, fixed fees are lower, share distributions are more likely and clawbacks[2] happen less often (Johan & Najar, 2011). *"These findings support the idea that legal conditions help us to align the interests of managers and shareholders."* (Johan & Najar, 2011, p. 170).

SRI funds could potentially lead to less diversified portfolio's because of the screening process involved when selecting funds for investment and SRI funds might have lower overall returns compared

[2] A clawback is when an employer or investor takes back money that has already been payed out, usually with a penalty added.

to conventional funds. Looking at prior research, the US SRI market outperforms European SRI markets when looking at the relative performance versus conventional portfolios (Lean, Ang & Smyth, 2015; Revelli & Viviani, 2015). US SRI portfolios incorporate more negative screening as opposed to European SRI incorporating more positive screening: one would expect the US markets to underperform compared to European markets because of less diversification, but at the same time the more experienced SRI markets in the US lead to better relative performance (Revelli & Viviani, 2015). Moreover, SRI funds maintain higher fees. Therefore the domicile location might be more important for SRIs in order to not give up even more financial return by choosing the country with the least or less strict rules, and lower fees.

Mutual fund performance is influenced by the funds' characteristics. But, country characteristics can explain mutual fund performance on top of fund characteristics: domestic funds in countries with stronger legal institutions, better investment protection and better enforced laws tend to perform better (Ferreira et al, 2013). Both the fund characteristics and the laws and regulations of the domicile country are important factors for mutual fund performance. Based upon the literature in this chapter, we can see that Common Law countries have more established SRI markets, dating back longer than SRIs markets in Civil Law countries. Common Law countries therefore have a legislative advantage at this time regarding SRIs, possibly improving the performance in those markets. Common Law countries have better investor protection as well, and this makes it for investors more attractive to invest in non-conventional, innovative funds, like SRIs, compared to Civil Law countries. Using this information it can be reasoned that SRI funds domiciled in Common Law countries have superior performance versus conventional funds than the SRI funds in Civil Law countries. Therefore, hypothesis three is:

H3: In Common Law countries SRI funds perform relatively better compared to conventional funds than in Civil Law countries.

3. Methodology

3.1 Sample

This research will focus on data from countries defined by MSCI as 'developed markets'. Only developed markets will be used so that development of the market has no significant impact on the results. Developed markets have the highest amount of SRI funds available too.

The list of SRI funds that will be used is based upon criteria of the Bridges Venture, also used by the SIF Forums, which are part of the Global Sustainable Investment Alliance (GSIA). The criteria can be seen in table 1. GSIA is a collection of Sustainable Investment Forums, promoting the adoption of SRI investments and sustainability matters in financial markets and investment chains (GSIA, 2018; Eurosif, 2018). SRI funds encompassing at least the 'Sustainable/ESG opportunities' screening criteria,

as defined by Eurosif, are included in the analysis. These ESG screening criteria are referred to as Sustainable Development Goals (SDG) (Eurosif, 2018). The non-SRI/conventional funds used will only be part of the 'Traditional/Finance Only' focus. Based on the MSCI developed markets list and available SRI funds the following countries are used in the dataset: Australia, Austria, Belgium, Canada, France, Germany, Ireland, Japan, Luxembourg, Netherlands, Switzerland, the UK and the US. Other countries classified as 'developed markets' did not yield sufficient data to construct an acceptable SRI portfolio, so these were left out of the dataset. There was either no or not enough data available of SRI funds in other 'developed market' countries that fulfilled both the criteria of negative exclusion (responsible classification) as well as the ESG opportunities (sustainable classification) criteria.

		SDG investing				
	Traditional	Responsible	Sustainable	Thematic	Impact-first	Philanthropy
	Competitive returns	Competitive returns	Competitive returns	Competitive returns		
		ESG risk management	ESG risk management	ESG risk management	ESG risk management	
			ESG opportunities	ESG opportunities	ESG opportunities	ESG opportunities
				High-impact solutions	High-impact solutions	High-impact solutions
Focus		← The New Paradigm →				
Focus	**Finance Only** Limited or no focus on ESG factors of underlying investments	Focus on ESG risks ranging from a wide consideration of ESG factors to negative screening of harmful products	Focus on ESG opportunities, through investment selection, portfolio management and shareholders	Focus on one or a cluster of issue areas where social or environmental need creates a commercial growth opportunity for market-rate or market-beating returns	Focus on one or a cluster of issue areas where social or environmental need requires some financial trade-off	**Impact Only** Focus on one or a cluster of issue areas where social or environmental need requires some financial trade-off
Examples		• PE firm integrating ESG risks into investment analysis • Ethically screened investment fund	• Best-in-class SRI fund • Long-only public equity fund using deep integration of ESG to create additional value	• Clean energy mutual fund • Emerging markets healthcare fund • Microfinance structure debt fund	• Fund providing debt or equity to social enterprises and/or trading charities	

Table 1. Bridges Venture Spectrum of Capital

Eikon and Datastream are the sources of the fund portfolio monthly return data, betas and other relevant information like Total Net Assets (TNA) under management of the fund. The data will consist of two groups: one containing SRI funds focussing on ESG factors, the other conventional non-SRI funds. Every portfolio is an equally weighted portfolio: every fund in the portfolio is given equal importance regardless of fund characteristics (Carhart, 1997). Funds who focus on domestic or international assets are analysed separately, to enhance comparability. The return data are collected from the Fund Screener tool in Eikon, and all funds are denoted in Euros. Countries that are considered Common Law countries are Australia, Canada, Ireland, United Kingdom and United States; countries that are considered Civil Law countries are Austria, Belgium, France, Germany, Japan, South Korea,

Luxembourg, Netherlands and Switzerland (Ottawa University, 2018). Japan and South Korea have a mixture of Customary Law and Civil Law, but will be classified as Civil Law in this thesis. In the tables 2 and 3 below the fund portfolios used in this analysis can be seen. For some countries either the amount of domestic or international oriented SRI funds was insufficient to form a portfolio. These portfolios were left out of the analysis and are marked by a '-'. Fund duplicates with different names that managed the same asset portfolios were removed from the dataset.

The market benchmarks used are stock indices relevant to the country investigated. These indices are the most commonly used or broadest indices available for said country, like the S&P 500 for the US. In table 2 and 3 below the constructed portfolios can be seen. SRI funds are noticeably fewer in comparison than conventional funds; SRI funds only make up a small part of the total amount of funds available.

Country	**Assets managed by portfolio (in million Euros)**	**Number of funds**	**Assets managed by portfolio (in million Euros)**	**Number of funds**
Common Law	***SRI***	***SRI***	***Conventional***	***Conventional***
Australia	1.018	32	31.216	189
Canada	2.071	22	44.935	143
Ireland	-	-	-	-
United Kingdom	3.020	12	116.750	219
United States	11.527	44	943.444	254
Civil Law	***SRI***	***SRI***	***Conventional***	***Conventional***
Austria	-	-	-	-
Belgium	-	-	-	-
France	4.208	12	39.696	160
Germany	3.430	9	50.970	83
Japan	222	11	12.308	124
South Korea	61	7	4.027	117
Luxembourg	-	-	-	-
Netherlands	928	6	16.832	14
Switzerland	2.886	17	81.420	169

Table 2. Fund portfolios used focussing on domestic assets.

Country	Assets managed by portfolio (in million Euros)	Number of funds	Assets managed by portfolio (in million Euros)	Number of funds
Common Law	***SRI***	***SRI***	***Conventional***	***Conventional***
Australia	215	4	28.515	175
Canada	1.144	15	53.016	202
Ireland	4.050	5	120.644	236
United Kingdom	4.182	16	152.349	244
United States	3.115	24	1.582.236	301
Civil Law	***SRI***	***SRI***	***Conventional***	***Conventional***
Austria	2.333	30	19.517	218
Belgium	4.357	21	21.385	102
France	53.765	68	97.272	265
Germany	4.964	35	29.789	234
Japan	27	5	12.081	147
South Korea	-	-	-	-
Luxembourg	21.644	72	107.067	251
Netherlands	16.484	42	39.762	158
Switzerland	4.277	15	76.819	199

Table 3. Fund portfolios used focussing on international assets.

3.2 Empirical model

The most common model used in studies analysing the mutual fund performance is the CAPM single-index model. The intercept of the model gives an alpha, α, the Jensen Alpha, which indicates whether a fund/portfolio under- or overperforms a certain market benchmark. The CAPM model is:

$$R_{it} - R_{ft} = \alpha + \beta_0 (R_{mt} - R_{ft}) + \varepsilon_{it}$$

R_{it} is the return of the fund i at time t; R_{ft} is the risk-free rate; $R_{it} - R_{ft}$ is the excess return of the funds; R_{mt} is the return of the market benchmark. The α reflects the performance of the fund compared to the

market benchmark, with a positive alpha ($\alpha > 0$) indicating the fund outperforms the benchmark and a negative alpha ($\alpha < 0$) indicating the fund underperforms the benchmark. β_0 is the beta of the funds.

The results from single-factor models have been questioned by a number of studies; the single-factor model is not adequate enough to explain mutual fund performances (Fama & French, 1993, 1996; Chan et al, 1996). Fama & French (1993) estimated the CAPM model can on average only explain 70% of the actual stock returns. The CAPM model assumes a fund's investment behaviour can be estimated using only one single market index, however using a multifactor model is preferred to account for a wide diversity in investment styles that are possible, like growth stocks or small cap (Otten & Bams, 2002). The Fama & French three-factor model controls for stocks that are small- or large cap and for growth and value stocks. Using the Three-Factor model, 95% of the actual stock returns could be explained (Fama & French, 1993). Carhart (1997) added another factor to the model, namely the momentum ratio. This ratio is a 'Winners-minus-Losers' ratio, controlling for funds that did well in the past, because these funds are expected to perform better in the future as well. Therefore, the Carhart (1997) four-factor model is chosen for the analysis of the performance of the SRI funds:

$$R_{it} - R_{ft} = \alpha + \beta_0(R_{mt} - R_{ft}) + \beta_1 SMB_t + \beta_2 HML_t + \beta_3 WML_t + \varepsilon_{it}$$

SMB_t is the difference in return between small-sized and large-sized portfolios; HML_t is the difference in the returns between value and growth portfolios; WML_t is the return difference between a portfolio of past winner and a portfolio of past losers.

β_1 is the size effect of the funds, with a positive and significant beta indicating a fund portfolio is driven by the small-cap funds; the β_2 indicates a value stock when the beta is positive and significant, meaning the fund's portfolio is driven by a high book-to-market ratio. With a negative and significant β_2 the funds are more driven by growth stocks and low book-to-market ratios. β_3 is the indicates the level of past winners or losers in the portfolio, with a positive and significant beta indicating a portfolio of largely past winners.

The Small-minus-Big, High-minus-Low and Winner-minus-Loser ratios are provided by the Kenneth R. French library from the Dartmouth College (2018). Data is available in real-time format. The SMB, HML and WML ratios are available for Europe, North America, Japan and Asia-Pacific excluding Japan. The SMB ratio consists of the bottom 10% performance, the smallest stocks based on market cap, minus big stocks performance, the top 90% stocks based on market cap. The HML ratio is the top 30% book-to-market stock performance minus the bottom 30% book-to-market stock performance. The WML ratio for month t consists of stocks formed at the end of month t-1. This lagged momentum return is the cumulative return from the month t-12 until month t-2. The ratio was calculated by subtracting the 30% worst performing stocks from the 30% best performing stocks of this past period.

The fund portfolios will be compared in terms of performance with Jensen's alpha, to analyse whether the performance of one of the two groups is significantly superior to the other. This method has

been applied to numerous other studies investigating SRI fund performance (Goldreyer & Diltz, 1999; Statman, 2000; Bauer, Koedijk & Otten, 2005; Bollen, 2007; Renneboog et al, 2008). First, the two sets of portfolios (domestic and international oriented) are analysed in each country versus a relevant market benchmark. The market benchmarks are the most commonly used and broadest market indices of said country. The results indicate if the constructed portfolios perform significantly different than the benchmark. Then the SRI and conventional portfolios are compared with each other to see if the two portfolios significantly differ from each other in terms of performance. This is also done on a country-level. The results indicate if there are any major differences between the performance of SRI funds and conventional funds in different countries. Then, the portfolios from the analysis on a country-level basis will be pooled together, comparing the performance of SRI versus conventional funds between the countries, where a distinction will be made between Common Law and Civil Law countries. By relating it to the financial system a significant influence of the legal system on the performance of SRI funds might be found.

The funds 1 year, 3 year, 5 year and 10 year performance will be analysed to determine the short-run and long-run performance. 1 to 3 years is considered to be shorter-term, while 5 to 10 years is considered to be longer-term (Carhart, 1997). Accordingly, in this thesis 1 and 3 year will be classified as short-term, 5 and 10 years will be long-term. The returns are based on monthly returns and the risk-free rate is the 1-monthly US T-bill. The specific time period used in the analysis is 01-01-2008 until 31-12-2017, or 10 years. The data starts during the financial crisis and continues to the end of 2017, the most recent point in time where all relevant data could be collected. The beginning point, the 2008 financial crisis, marks the point where the role of CSR and subsequently SRIs significantly changed and became more important (Antonia García-Benau, Sierra-Garcia & Zorio, 2013; Laurence, 2013; Lins, Servaes & Tamayo, 2017).

4. Results

This study aims to evaluate the SRI fund portfolio performance compared to a conventional fund portfolio performance. It does so by looking at the short- and long-term portfolio performances, to analyse if conventional portfolios outperform SRI portfolios in the short-run and similarly SRI portfolios outperform conventional portfolios in the long-run. This will be done on a country-level basis, to see if different countries have different performance differences. Afterwards, an analysis comparing SRI portfolios against conventional portfolios is done in Civil and Common Law legal systems, to compare differences in performance with relation to the legal system. First, the results regarding the SRI relative performance on a country-level basis will be provided.

4.1 Country-level analysis

The results of the country-level analysis, using the Carhart (1997) four-factor model, are presented in table 4 for Common Law countries and table 5 for Civil Law countries. The results from tables 4 and 5 show the SRI and conventional portfolio performance compared to the market benchmark of the relevant country, as indicated by the alpha. A significant, positive alpha means the portfolio performs better than the market benchmark, and vice versa. All portfolios are equally weighted: all funds in the portfolio are given similar weights, regardless of fund characteristics (Carhart, 1997). This means small funds make up the same percentage of the portfolio as the large funds. *, ** and *** indicate significance on the 10, 5 and 1 percent level respectively. For the 1 year analysis in the Common Law countries all the alphas are significant (except the Australian domestic SRI portfolio), and the 3, 5 and 10 year alphas are all significant. The Civil Law countries are all significant in the 3, 5 and 10 year period as well, but the 1 year period has a number of insignificant results. Thus all the 3, 5 and 10 year portfolios perform significantly different from the market benchmarks.

Table 4. This table shows the performance of SRI and conventional funds versus the relevant benchmark (as indicated by the alpha values). It includes only Common Law countries. Better performance of the fund is indicated by a positive alpha and vice versa.

Domestic Portfolios					
Country	Fund	Alpha 1 year	Alpha 3 year	Alpha 5 year	Alpha 10 year
Australia	SRI	-0.02	0.18***	0.48***	0.86***
	Conventional	0.04***	0.44***	0.64***	0.69***
Canada	SRI	0.07**	0.07***	0.38***	0.39***
	Conventional	0.08***	0.04***	0.32***	0.41***
United Kingdom	SRI	0.38***	0.04***	0.78***	0.74***
	Conventional	0.41***	-0.05***	0.72***	0.81***
United States	SRI	-0.36**	0.63***	1.46***	1.69***
	Conventional	-0.69***	0.29***	0.85***	1.17***
International Portfolios					
Country	Fund	Alpha 1 year	Alpha 3 year	Alpha 5 year	Alpha 10 year
Australia	SRI	0.22***	0.30***	0.57***	0.72***
	Conventional	0.20***	0.34***	0.70***	0.80***
Canada	SRI	0.33***	0.30***	0.73***	0.68***
	Conventional	0.21***	0.21***	0.67***	0.67***
Ireland	SRI	0.44***	0.42***	0.89***	-
	Conventional	0.16***	0.12***	0.55***	-
United Kingdom	SRI	0.67***	0.33***	1.11***	0.82***
	Conventional	0.35***	0.17***	0.78***	0.83***
United States	SRI	-0.45***	0.36***	1.02***	0.80***
	Conventional	-0.68***	0.33***	0.83***	0.83***

Table 5. This table shows the performance of SRI and conventional funds versus the relevant benchmark (as indicated by the alpha values). It includes only Civil Law countries. Better performance of the fund is indicated by a positive alpha and vice versa.					
Domestic Portfolios					
Country	Fund	Alpha 1 year	Alpha 3 year	Alpha 5 year	Alpha 10 year
France	SRI	-0.01	0.17***	0.55***	0.36***
	Conventional	0.11	0.60***	1.11***	0.68***
Germany	SRI	0.12**	0.38***	0.57***	0.53***
	Conventional	0.11**	0.28***	0.62***	0.63***
Japan	SRI	0.90***	0.54***	1.04***	0.76***
	Conventional	0.68***	0.58***	0.84***	0.96***
Netherlands	SRI	0.09*	0.11***	0.35***	0.32***
	Conventional	0.22***	0.41***	0.83***	0.56***
South Korea	SRI	0.03	0.12***	0.63***	0.68***
	Conventional	0.64***	0.26***	0.70***	0.50***
Switzerland	SRI	-0.43***	-0.04***	0.56***	0.96***
	Conventional	-0.41***	0.07***	0.65***	0.95***
International Portfolios					
Country	Fund	Alpha 1 year	Alpha 3 year	Alpha 5 year	Alpha 10 year
Austria	SRI	0.21***	0.14***	0.56***	0.46***
	Conventional	0.05	0.13***	0.47***	0.47***
Belgium	SRI	0.20***	0.19***	0.52***	0.49***
	Conventional	0.12**	0.16***	0.55***	0.54***
France	SRI	-0.06	0.11***	0.37***	0.39***
	Conventional	0.06	0.19***	0.60***	0.47***
Germany	SRI	0.05	0.14***	0.52***	0.37***
	Conventional	0.01**	0.16***	0.45***	0.41***
Japan	SRI	0.34***	0.35***	0.92***	0.82***
	Conventional	-0.09**	0.19***	0.36***	0.39***
Luxembourg	SRI	0.12***	0.16***	0.61***	0.52***
	Conventional	0.09**	0.10***	0.49***	0.52***
Netherlands	SRI	0.52***	0.46***	0.91***	0.75***
	Conventional	0.25***	0.25***	0.65***	0.69***
Switzerland	SRI	-0.05**	0.08***	0.64***	0.79***
	Conventional	0.05**	0.13***	0.57***	0.66***

Tables 6 and 7 show the results regarding SRI portfolio performance versus the conventional portfolio performance. It shows the alpha indicator of the portfolio, with negative alpha values indicating SRI portfolios underperform compared to conventional portfolios, and vice versa.

Table 6. This table shows the difference between SRI portfolio and conventional portfolio performance (indicated by the alpha) for Common Law countries. The value given indicates how well the SRI portfolio performs in comparison to the conventional portfolio: negative values mean the SRI portfolio underperforms the conventional portfolio, and vice versa.				
Domestic Portfolios				
Country	Alpha 1 year	Alpha 3 year	Alpha 5 year	Alpha 10 year

Australia	-0.06*	-0.26***	-0.16***	0.17**
Canada	-0.01	0.03*	0.06*	-0.02
United Kingdom	-0.03	0.09	0.06*	-0.07*
United States	0.23**	0.03	0.19***	-0.03
International Portfolios				
Country	Alpha 1 year	Alpha 3 year	Alpha 5 year	Alpha 10 year
Australia	0.02	-0.04	-0.13**	-0.08**
Canada	0.12*	0.09*	0.06	0.01
Ireland	0.28***	0.30***	0.34**	-
United Kingdom	0.32***	0.16**	0.33**	-0.01

Table 7. This table shows the difference between SRI portfolio and conventional portfolio performance (indicated by the alpha) for Civil Law countries. The value given indicates how well the SRI portfolio performs in comparison to the conventional portfolio: negative values mean the SRI portfolio underperforms the conventional portfolio, and vice versa.

Domestic Portfolios				
Country	Alpha 1 year	Alpha 3 year	Alpha 5 year	Alpha 10 year
France	-0.12*	-0.43***	-0.56***	-0.32***
Germany	0.01	0.10*	-0.05*	-0.10*
Japan	0.22***	-0.04*	0.20***	-0.20**
Netherlands	-0.13**	-0.30***	-0.48***	-0.24***
South Korea	-0.61***	-0.14**	-0.07**	0.18***
Switzerland	-0.02	-0.11*	-0.09	0.01
International Portfolios				
Country	Alpha 1 year	Alpha 3 year	Alpha 5 year	Alpha 10 year
Austria	0.16**	0.01	0.09*	-0.01
Belgium	0.08*	0.03*	-0.03	-0.05**
France	0.12**	-0.08*	-0.23***	-0.08**
Germany	0.04	-0.02	0.07	-0.04*
Japan	0.43***	0.16***	0.56***	0.43***
Luxembourg	0.03*	0.06*	0.15**	0.00
Netherlands	0.27***	0.21**	0.26**	0.06*
Switzerland	0.10*	-0.05	0.07	0.13*

Hypothesis 1 is *"Socially Responsible Investments are outperformed by conventional funds in the short-run"*. The results of the 1 year domestic portfolios are mixed and mostly not in line with H1: the alphas indicate SRI portfolios outperform conventional portfolios in two cases, SRIs underperform in four cases, and are statistically insignificant in four cases. The results are also not in line with H1 in the 1 year time period for the international portfolios, since SRI funds either outperform conventional funds or the difference is insignificant. Looking at the 3 year period, the results for the domestic portfolios in Civil Law countries are mostly in line with the hypothesis, while the domestic portfolios in Common Law countries mostly are not. The international SRI portfolios seem to be mostly outperforming the conventional international portfolio in the 3 year period for both legal systems. For seven results, the SRI portfolio outperforms, in one case it underperforms, and five results are insignificant. This is mostly not in line with H1 either.

Hypothesis 2, *"Socially Responsible Investments outperform conventional funds in the long-run",* seems to be mostly in line with the 5 year period in Common Law countries. For both domestic and international portfolios most are significantly outperforming conventional portfolios, with only Australia significantly underperforming. 5 year Canadian international SRI portfolio is the only one insignificant. For Civil Law countries the domestic portfolios are mostly underperforming, with only Japan outperforming and Switzerland being insignificant. The international portfolios of the 5 year time period are somewhat outperforming conventional portfolios overall, with only France being significantly underperforming. Belgium, Germany and Switzerland are insignificant. The Civil Law countries are therefore mostly not in line with the second hypothesis, while the Common Law countries mostly are. For the 10 year period, the results indicate mostly underperforming of SRI portfolios or no statistical significance. In the Common Law country group, the hypothesis is only in line with the domestic portfolio in Australia. In the Civil Law group the hypothesis is only in line with international portfolios in Japan, Netherlands and Switzerland, while the rest underperforms or is statistically insignificant. Thus the 10 year period is mostly not in line with the second hypothesis, for both Common and Civil Law countries.

4.2 Legal system analysis

For the analysis between the two legal systems the portfolios are pooled together and assigned to the relevant legal system. Four new portfolios are constructed from the funds previously used: SRI and conventional funds from the Common Law countries are added to the Common Law group, while SRI and conventional funds from the Civil Law countries are added to the Civil Law group. These four portfolios are first measured against a relevant benchmark as well and afterwards the difference between the SRI and conventional portfolios is analysed. The time periods are similar and a distinction between domestic and international portfolios is made here as well. The results can be seen in table 8 for domestic portfolios and table 9 for international portfolios. Comparing the performance of domestic portfolios,

we can see that in Common Law countries the SRI portfolios outperform the conventional portfolios, except in the 1 year period it is not significant. SRI portfolios seem to be outperforming the conventional portfolios more over time. The domestic portfolio differences in Civil Law countries are significant in every time period, but in contrast to the Common Law countries, the alphas indicate SRI portfolios underperform conventional portfolios. Performance gets less worse in the long-run, but remains worse.

For the international portfolios in Common Law countries, the SRI portfolios outperform conventional portfolios significantly, but in the 10 year period there is no significant difference. For international portfolios Civil Law countries, only the 1 and 5 year period are significant. Here the SRI portfolios outperform the conventional portfolios. The 3 and 10 year period indicate no statistically significant differences between SRI and conventional portfolio performances.

Table 8. Differences in portfolio alphas for Common and Civil Law countries. The portfolios consist of the funds previously used, this time not assigned to the domiciled country, but to the financial system the domicile country belongs to. The table shows the performance of the SRI portfolios and conventional portfolios versus the benchmark used (indicated by the alpha values). The difference between the SRI and conventional portfolio performance is the performance of the SRI funds minus the performance of the conventional funds. This indicates the relative performance of the SRI portfolio in the relevant legal system.

Domestic Portfolios				
Legal System	Time Period			
Common Law	Alpha 1 year	Alpha 3 year	Alpha 5 year	Alpha 10 year
SRI	-0.63***	0.26***	0.83***	1.13***
Conventional	-0.65***	0.18***	0.67***	0.85***
Difference	0.02	0.08*	0.16***	0.28***
Civil Law				
SRI	-0.01	0.16***	0.62***	0.61***
Conventional	0.22***	0.35***	0.81***	0.75***
Difference	-0.23***	-0.19***	-0.19***	-0.14**
International Portfolios				
Legal System	Time Period			
Common Law	Alpha 1 year	Alpha 3 year	Alpha 5 year	Alpha 10 year
SRI	-0.46***	0.35***	0.97***	0.75***
Conventional	-0.71***	0.23***	0.72***	0.77***
Difference	0.25***	0.12**	0.25***	-0.02
Civil Law				
SRI	0.16***	0.17***	0.56***	0.51***
Conventional	0.10**	0.16***	0.52***	0.51***
Difference	0.06**	0.01	0.04*	0.00

The hypothesis 3, *"In Common Law countries SRI funds perform relatively better compared to conventional funds than in Civil Law countries",* is in line with both domestic and international portfolios. Even though in some cases the difference is not significant, overall the SRI funds are better performing in Common Law countries. The domestic portfolios seem to be much better performing in Common Law countries, while these in Civil Law countries underperform: in Common Law countries the domestic SRI portfolios perform better relative to conventional funds than in Civil Law countries. The international portfolios perform significantly better in the 1, 3 and 5 year time period. The 10 year period is insignificant in both cases, meaning no difference in performance in the 10 year long-run.

5. Conclusion and discussion

This study has examined the performance of SRI funds compared to conventional funds in different time periods. It also tried to find differences in the relative performance of SRI funds in Common Law and Civil Law countries. The main question answered in this thesis is *"How does the performance of SRI funds differ depending on the financial system of a country?"*

Whereas it was expected that SRI portfolios underperform conventional portfolios in the short-run, mainly because of higher fees and less diversification, and outperform in the long-run, because of stable, long-term investment focusses, this is largely not supported by the results of this thesis. This study finds that SRI portfolios actually outperform conventional portfolios in the short-run. SRI portfolios only outperform conventional portfolios in the long-run when these are domestically oriented portfolios in Common Law countries. International SRI portfolios do not significantly differ from conventional portfolios in the long-run.

The third hypothesis, *"In Common Law countries SRI funds perform relatively better compared to conventional funds than in Civil Law countries",* is supported by the evidence of this thesis. In Common Law countries, SRI funds are performing better than the SRI funds in Civil Law countries. SRI funds focussing on domestic assets in Common Law countries perform better over time. SRI funds in Common Law countries focussing on international assets outperform conventional funds in the short- to medium-term, while the long-term effect is insignificant. Meanwhile, in Civil Law countries, portfolios focussing on domestic assets underperform conventional funds significantly, while international oriented portfolios either perform slightly better or differences are insignificant. Overall, the performance of these SRI portfolios are better in Common Law countries, because these never significantly underperform and often outperform conventional portfolios.

CSR has become more important since the 2008 financial crisis (Lins, Servaes & Tamayo, 2017). Since the crisis, trust has become an increasingly important factor for firms and experience higher excess returns if they are regarded as a firm with good CSR performance (Lins, Servaes & Tamayo, 2017). Continuing to incorporate CSR in a firms' business strategy seems to be more beneficial to firms

than to abandon CSR strategies implemented during the crisis period (Antonia García-Benau, Sierra-Garcia & Zorio, 2013). SRIs and CSR are strongly connected: SRIs can help with influencing firms in implementing more and better CSR policies (Sparkes & Cowton, 2004), and SRIs are becoming more and more popular as well (Laurence, 2013). Especially with institutional investors investing more in SRIs and managing larger portfolios, the growth of the SRI markets is now the strongest then ever (Maignan & Ralston, 2002; Sparkes & Cowton, 2004; Laurence, 2013). The results of this thesis are mostly not in line with previous research: in the short-run SRI funds are expected to be outperformed by conventional funds (Hamilton et al, 1993), while in the long-run SRI funds are expected to be more stable, have better performance persistence and outperform the conventional funds (Benson & Humphrey, 2008; Lean, Ang & Smyth, 2015; El Ghoul & Karoui, 2017). In the short-run, the international SRI portfolios outperform the international conventional portfolios. In general it does not seem that domestic SRI portfolios perform better than international portfolios, and investing in these domestic SRI portfolios therefore seems undesirable if one is looking purely at financial performance. One could still invest in these if one does not mind less financial return and wants to exert a positive impact on ESG issues. In the long-run the SRI portfolio performance appears to be more mixed, yet international SRI portfolios appear to be better performing than domestic SRI portfolios. Overall, it seems international SRI portfolios have a better performance than those purely focussing on the country where they are domiciled. This may be due to the extra diversification that arises from international orientation: since SRI portfolios suffer from extra screening measures, SRI portfolios usually are less diversified. More diversification may lead to higher returns. Therefore, it seems a better investment for investors to choose international portfolios instead of portfolios solely focussing on one country.

However, the results indicate major differences between countries. In some countries the SRI markets perform better than in other countries. This may be because SRI markets differ greatly across the world: while the US and UK have the largest SRI markets in terms of absolute volume, countries like the Netherlands and France have the largest relative growth in the world (Riedl & Smith, 2017). Growth appears to be the strongest in Continental Europe. While Riedl & Smeets (2017) find that investor attitudes towards ESG matters do not differ in different countries, the number of SRI funds present in countries like the Netherlands are relatively higher than in countries like the US. No explanation exists that can explain the sudden growth burst of SRI funds in Continental European countries. By looking at these different regions, a pattern can be seen: large, established SRI markets in Common Law countries, with Civil Law countries having rapidly growing SRI markets. The results of this thesis show that this growth cannot be attributed to a better performance of these funds in Civil Law countries. If the performance of these funds was better in Civil Law countries, it would have made sense for investors to spot these better performances and they would start investing more in SRI funds in Civil Law countries. Since SRI performance is not better in Civil Law countries than in Common Law countries, this institutional difference does not explain the sudden growth of SRI funds. SRI funds do perform significantly better than conventional funds in Common Law countries however. Both domestic

and international oriented SRI portfolios outperform the conventional portfolios here. In Common Law countries, domestically oriented SRI portfolios perform better in the long-run, while the international oriented SRI portfolios perform better in the short-run. This has a number of scientific implications. First, it confirms that overall SRI fund performance compared to conventional fund performance is better in Common Law countries than in Civil Law countries. This could be due to the better developed and more mature SRI markets present in Common Law countries. Secondly, international portfolios perform better than conventional portfolios, meaning that international diversification could still be an important factor in fund performance. Lastly, the outperformance of SRI funds compared to conventional funds in the short-term could indicate that SRI funds are still becoming more important in the recent years. Better CSR performing firms could experience better financial performance recently because of the public view on ESG issues, reflected by the better short-term returns of the SRI funds analysed. The practical implication is that (institutional) investors are more likely to invest in SRI funds in Common Law countries. This could potentially lead to better CSR practice there, because of the influence SRIs could exert on the ESG strategy of firms. Seeing as international SRI portfolios perform better than domestic SRI portfolios, investors will be more likely to invest in more internationally diversified portfolios to try to guarantee better investment returns.

Future research could focus on the still unexplained sudden growth of SRI funds in Civil Law countries, mainly Continental Europe. It could be true that the responsible role of firms in Europe has become more important, but it seems unlikely that this is the only reason. The underperformance of these SRI funds in Civil Law countries makes them less desirable for investors to invest in, yet the number and scope of SRI funds in Continental Europe has risen sharply. Perhaps by looking deeper into laws and regulations regarding SRI funds, one could find an explanation that could explain the major differences between the performance of SRIs in different markets. Similarly, it appears domestic SRI funds perform worse than international SRI funds. One could further investigate if the diversification to an international level positively influences SRI performance. One could differentiate between different regions, like North America or Europe, or look at less developed financial markets, e.g. emerging market countries. Further research could also be done to see if different types of ESG screening processes have an influence on the performance of SRI funds in different institutional settings. Perhaps more and stricter screening processes might be more beneficial for SRI portfolio performance in Civil Law countries than they are in Common Law countries. The effects of screening for better corporate governance and better sustainability might be stronger in Civil Law countries due to the relatively worse investor protection and stricter law enforcement than in Common Law countries. The extra screening could compensate for the lack of investor protection and law enforcement, and provide investors with a sense of extra security.

This study has a number of limitations however. First, the SRI fund portfolios have not been assigned any ESG ratings. This means that even though the funds in the portfolio are considered to be SRI funds, one cannot see how well they actually are performing. By attributing ESG ratings to the funds, one could only use the highest rated funds to make sure the impact of the screening process on

the performance of the funds is more significant. The funds in the portfolio could be SRI funds whose screens do not actually add any positive value to the performance. Secondly, the SMB, HML and WML ratios were only available on a region-based level, meaning that countries in Europe had the same ratios etc. This could have an influence on the final results of the four-factor analysis. Similarly, country stock indices might not be the best benchmark one could use to measure international fund performances. Thirdly, SRI funds matching the screening criteria in this thesis are limited in availability, especially in smaller countries. In some countries there are plenty of funds that are exclusion funds, but SRI funds that focus on positive screening for ESG issues are sparser. This might have an impact on the averages and exceptionally performing funds might have a stronger influence in smaller portfolios than larger portfolios.

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