Does the environment of the origin of a social responsible investment fund have an impact on its performance?

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Diplôme : Master en sciences de gestion, à finalité spécialisée en Banking and Asset Management
Année académique : 2015-2016
URI/URL : http://hdl.handle.net/2268.2/1805

HEC Liège
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DOES THE ENVIRONMENT OF THE ORIGIN OF A SOCIAL RESPONSIBLE INVESTMENT FUND HAVE AN IMPACT ON ITS PERFORMANCE?

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for a master in Management Science with a specialization in Banking and Asset Management
Academic year 2015/2016.

Acknowledgement

First of all, I would like to give the biggest thanks to Mrs. Aline Müller for the guidance and help in this research work.

I also wish to express all my gratitude for my lecturers, Mrs Virginie Xhauflair and Mr. Philippe Maclot for surrounding me with this work.

I would also like to thank all the people that took part directly, or indirectly, in the realization of this thesis.

Executive summary

The amount of asset invested in a socially responsible way is currently growing and is expected to keep growing in the future.

Nevertheless, European countries are working differently in order to implement corporate social responsibly and sustainability in their policies. The scope of this work focusses on 12 European countries : Austria, Belgium, Finland, France, Germany, Italy, Netherlands, Norway, Spain, Sweden, Switzerland and the United Kingdom. In order to capture the differences that exist between those 12 countries, an index will be created taking into account elements that characterize the corporate social environment and social responsible investing market on a national basis.

Therefore, based on that different levels of CSR and SRI implementation on a national basis, we will try to analyze if the environment of the origin of a corporate social responsible investment fund has an impact on its performance. In order to do that, a definition of the origin of an SRI fund will be settled taking into account 2 different elements : the fund management and more precisely, the place where the fund is domiciled and secondly, the place where the head office of the management company is established.

Performance will be measured via the alpha and excess alpha generated by the fund manager.

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List of abbreviations

ALFI	Association of the Luxembourg Fund Industry
bn	Billion
CSR	Corporate Social Responsability
EFAMA	European Fund and Asset Management Association
ESG	Environmntal, Social, Gouvernance
GDP	Gross Domestic Product
GSIA	Global Sustainable Investment Alliance
ManCo	Management Company
NGO	Non-Governmental Organisation
OECD	Organisation for Economic Cooperation and Development
PRI	Principle for Responsible Investment
SRI	Social Responsible Investing
UCI	Undertaking for Collective Investments
UCITS	Undertaking for Collective Investments in Transferable Securities
UK	United Kingdom

Introduction

Nowadays, global warming and other issues linked to human being evolution lead sustainable development to become a global concern. Besides problems linked to environmental and social concerns, the finacial crisis of 2007 and its disastrous consequences led to a willingness of the financial system to pay attention to the impact of investments on the worldwide well-being.

Therefore, investors are increasingly more expressing their willingness to invest their assets in a socially responsible way. Indeed, the amount of assets invested taking into account environmental, social and governance concerns as well as sustainable issues has known a rapid growth since the early 2000.

Furthermore, industrialized countries also implement the debate on corporate social responsibility, which is at the core of sustainaible development. At a European level, countries are working differently in order to implement corporate social responsibly and sustainability in their policies, regulations and legislations.

The scope of this work focusses on 12 European countries : Austria, Belgium, Finland, France, Germany, Italy, Netherlands, Norway, Spain, Sweden, Switzerland and the United Kingdom. In order to capture the differences that exist between those 12 countries, an index will be created taking into account elements that characterize the corporate social environment and social responsible investing market on a national basis.

Therefore, based on that different level of CSR and SRI implementation on a national basis, we will try to analyze if the environment of the origin of a corporate social responsible investment fund has a positive impact on its performance. In order to do that, a definition of the origin of an SRI fund will be settled taking into account 2 different elements : the fund management and more precisely, the place where the fund is domiciled and secondly, the place where the head office of the management company is established.

Regarding the performance, it will be measured via the alpha and excess alpha generated by the fund manager.

The thesis will be structured in 6 chapters. The first chapter will sum up the regulations that are currently prevailing in the European market and will provide an overview of the

European investment fund market. The second chapter will define socially responsible investing and ciphers the current state of the European SRI market. This chapter will also provide an overview of the current debate that goes around the over- or underperformance of socially responsible investment funds. Afterwards, the third chapter will exhibit the theoritical framework underlying the origin of an investment fund. Chapter 4 is devoted to the construction of the index that will capture the level of CSR implementation and SRI integration in the national investment markets. In the fifth chapter, the empirical study is conducted and will lead to the last chapter, in which are stated the results obtained and final conclusions.

Chapter 1: Investment funds

1.1. Definitions

1.1.1. Undertaking for collective investments

Undertaking for collective investments can be defined as:

> « *Structure or organization, for which the objective is to pool together money and savings collected from the public, for the purpose of investing in transferable securities or other assets, while sharing the costs and the profit (or even losses) of such investment, and whose management is entrusted to a professional in accordance with the risk spreading and diversification principle* » (Sougné, 2016)

1.1.2. Undertaking for collective investments in transferable securities

According to the directive 2009/65/ec set by the European parliament and the council of 13 July 2009, Article 1.2 defines UCITS and states that:

> « *For the purposes of this Directive, and subject to Article 3, UCITS means an undertaking:*
>
> *(a) with the sole object of collective investment in transferable securities or in other liquid financial assets referred to in Article 50(1) of capital raised from the public and which operate on the principle of risk-spreading; and*
>
> *(b) with units which are, at the request of holders, repurchased or redeemed, directly or indirectly, out of those undertakings' assets. Action taken by a UCITS to ensure that the stock exchange value of its units does not significantly vary from their net asset value shall be regarded as equivalent to such repurchase or redemption.* »

The product directive 2014/91/ec amending the legislation UCITS I clarified the definition of transferable securities as:

> *« The term "transferable securities" now includes: "shares in companies and other securities equivalent to shares in companies (shares), bonds and other forms of securitised debt (debt securities), [and] any other negotiable securities which carry the right to acquire any such transferable securities by subscription or regulators and can only delegate to a qualified and 17 referred to in Article 21 [i.e., derivatives]." Thus, derivatives have been expressly excluded from the definition of "transferable securities." »*

1.1.3. Unit trust

The Oxford English Dictionary (2016) defines a unit trust by the following way:

> *« An open-end collective investment fund which is priced, bought, and sold in units which represent a mixture of the securities which underlie the fund. »*

1.1.4. Open-ended investment company

An open-ended investment company is a type of open-ended collective investment purposed to be sold in the United Kingdom. The collective investment structure invests in other companies, based on an investment strategy. The share price is based on the underlying assets in which the fund has invested in. In addition to this, it is possible for the fund to adjust its fund size (Reilly & Brown, 2012).

1.2 European fund investment market

According to the European Fund and Asset Management Association [EFAMA] report (2015), out of the EUR 19 trillion assets under management of the European market, investment funds represent 7,9 trillion AuM at the end of 2013. In terms of figures, UK, France and Germany hold respectively 24%, 22% and 17% of the market share. Nevertheless, the rest of Europe accounts for 31% of the market share. This large amount represents countries where large investment funds are managed such as Luxembourg or Ireland. Furthermore, all European countries have experienced an increase of their assets under management from 2012 to 2013. Indeed, the AuM of France rose by 15%, United Kingdom by 11% and Italy by 7%.

Now looking on a national basis, assets invested in investment funds represent 93% of French GDP, 80% of the German GDP , and 70% for the rest of Europe. This shows the ability that the asset managers of these countries have to attract assets coming from abroad.

Table 1: Investment fund assets by geographical breakdown of AuM at end 2013 (EUR, billion)

Countries	AuM	AuM %change	Market Share	AuM/GDP
UK	1,869	11%	24%	93%
France	1,699	15%	22%	80%
Germany	1,330	0%	17%	47%
Italy	263	7%	3%	16%
Belgium	104	1%	1%	26%
Austria	85	1%	1%	26%

Netherlands	69	1%	1%	11%
Portugal	19	4%	0.24%	11%
Turkey	16	13%	0.20%	3%
Hungary	16	33%	0.20%	16%
Greece	6	3%	0.07%	3%
Rest of Europe	2,407	13%	31%	70%
TOTAL	7,884	10%	100%	55%

The European fund market may be qualified as highly internationalized (European Fund and Asset Management Association, 2015). Precisely, this means that funds can be domiciled in one country, managed in a second and sold in a third, while basically, funds are domiciled in one country in order to serve local players. In addition to this, the European passport put in place for UCITS that foresees that a common EU investment vehicle, established and regulated in one EU member state may be sold across the EU without the need for further authorization by each EU member state, with only a notification of intention to the market (Sougné, 2016).

1.3. Fund measures of performance

Cogneau and Hübner (2009) provide to the literature a census of 101 performance indicators in order to assess the performance of a portfolio. They analyze the strengths and weaknesses of each measure and provide a classification based on their objectives, properties and degree of generalization.

In the scope of this work, the performance of a fund will be assessed by the year-to-date returns provided by Morningstar, while the sub-performance will be assessed taking into account the S&P Europe 350 Daily RC 10% ER EUR index as measure for the market performance.

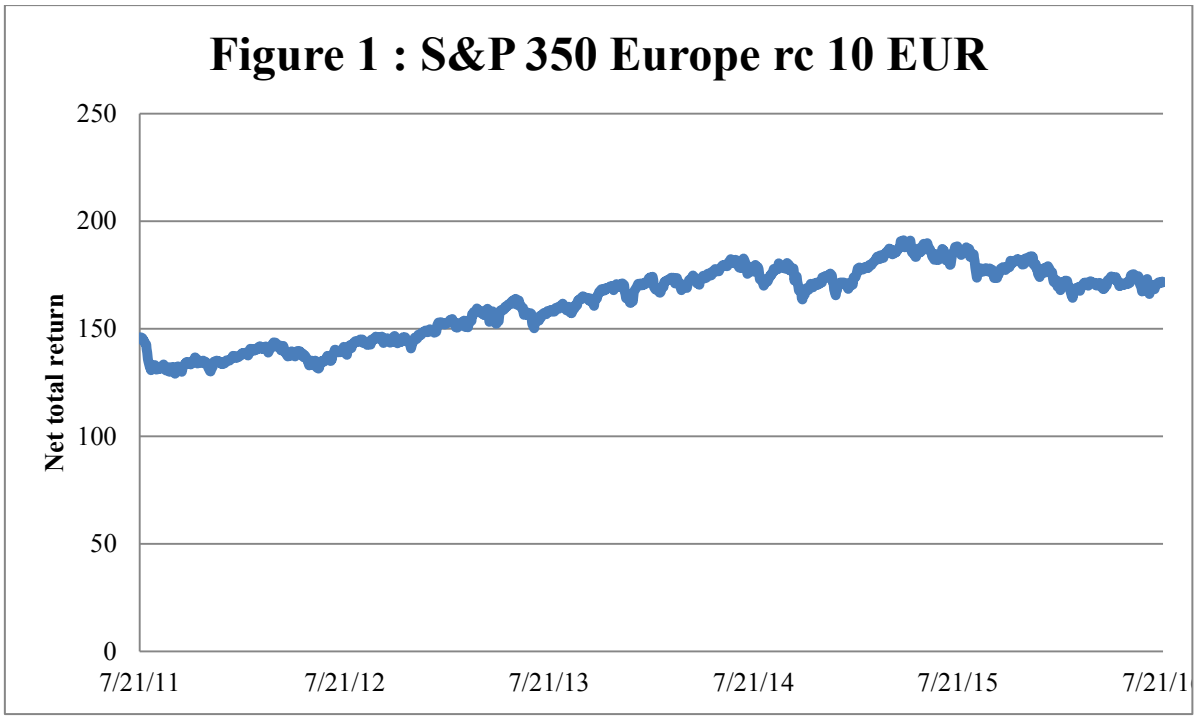


Figure 1 : S&P 350 Europe rc 10 EUR
Net total return
250
200
150
100
50
0
7/21/11
7/21/12
7/21/13
7/21/14
7/21/15
7/21/1

Chapter II: Socially responsible investing

2.1. Definitions

Renneboog, Ten Horst and Zhang (2008) give a definition of socially responsible investing:

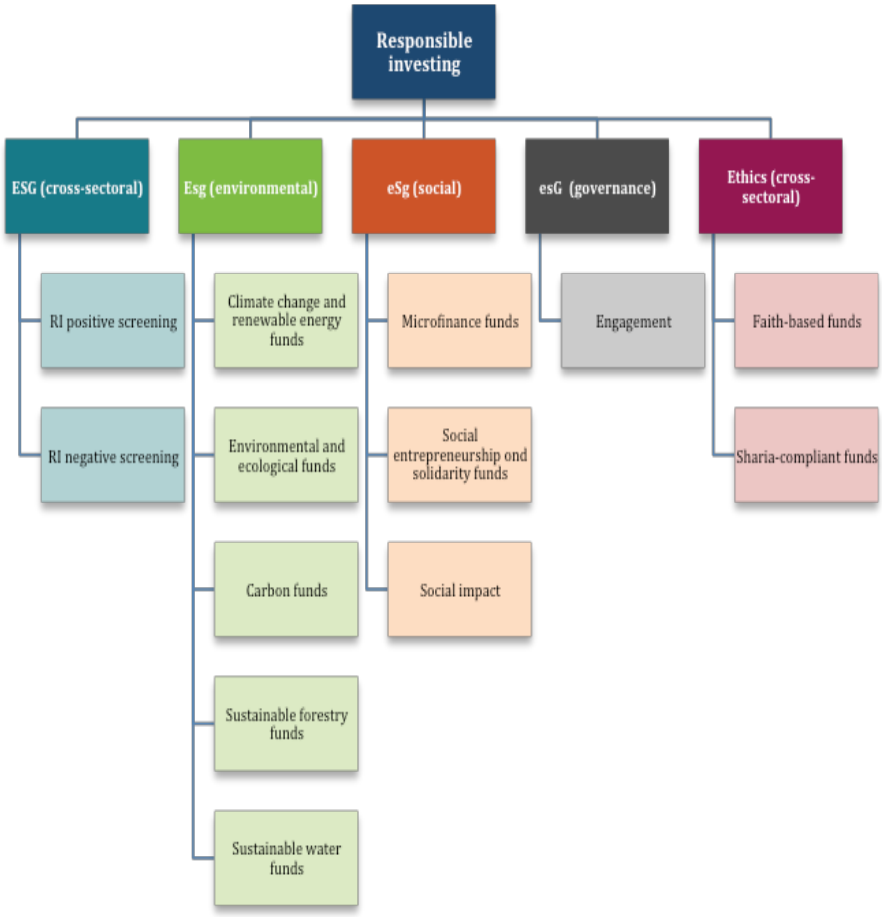
> *« SRI is an investment process that integrates social, environmental, and ethical considerations into investment decision making. Unlike conventional types of investments, SRI apply a set of investment screens to select or exclude assets based on ecological, social, corporate governance or ethical criteria, and often engages in the local communities and in shareholder activism to further corporate strategies towards the above aims. »*

Bollen (2007) gives a more general definition of socially responsible investing:

> *« Social responsible investing integrates personal values and societal concerns with the investment via shareholder activism, community investment and, most visibly, investing with social screens ».*

In the absence of « standardized » definition for responsible investments funds, the Association of the Luxembourg Fund Industry (KPMG & Association of the Luxembourg Fund Industry [ALFI], 2015) provided a range of criteria defining a responsible investment according to the underlying strategy for selecting securities of the fund.

Figure 2: Criteria range defining SRI



Source : KPMG & Alfi, 2014

The ALFI classification is based on the 2012 Eurosif study. That study suggests different approaches to responsible investing. The seven classifications are referred to the different strategies used to manage funds.

The Eurosif European study (2014) describes and gives definitions for each possible strategy:

1. *« Sustainability themed :*

   Investment in themes or assets linked to the development of sustainability. Thematic funds focus on specific or multiple issues related to ESG.

2. *Best-in-class selection :*

   Approach for which leading or best performing investments within a universe, category, or class are selected or weighted based on ESG criteria.

3. *Norm-based sceening :*

   Screening of investments according to their compliance with international standards and norms.

4. *Exclusions :*

   An approach that excludes specific investments or classes of investments from the investible universe such as companies, sectors or countries.

5. *ESG integration :*

   The explicit inclusion by asset managers of ESG risks and opportunities into traditional financial analysis and investment decisions based on a systematic process and appropriate research sources.

6. *Engagement and voting :*

   Engagement activities and active ownership through voting of shares and engagement with companies on ESG matters. This is a long term process, seeking to influence behavior or increase disclosure.

7. *Impact investing :*

   Impact investments are investments made into companies, organizations and funds with the intention to generate social and environmental impact alongside a financial return. Impact investments can be made in both emerging and developed markets, and target a range of returns from below market-to-market rate, depending upon circumstances. »

Furthermore, the responsible investing approaches provided by Eurosif are closely in line with those provided by the Global Sustainable Investment Alliance [GSIA], the Principle for Responsible Investment [PRI] and the EFAMA.

Table 2: SRI strategies denominations

Eurosif	**GSIA-Equivalent**	**PRI-Equivalent**	**EFAMA-equivalent**
Exclusions	ESG negative screening	ESG negative/ exclusionnary screening	Negative screening or exclusion
Norm-based screening	Norm-based screening	Norm-based screening	Norm-based approach
Best-in-class selection	ESG positive screening and best-in-class	ESG positive screening and best-in-class	Best-in-class policy
Sustainability themed	Sustainability themed	ESG-themed investments	Thematic investments

ESG integration	ESG integration	Integration of ESG issues	-
Engagement and voting	Corporate engagement and shaeholder action	Engagement (three types)	Engagement (voting)
Impact investing	Impact/community investing	-	-

Source: Eurosif, 2014

2.2. Global SRI fund investment market

According to the GSIA report (2014), the socially responsible investment assets have known a large expansion in the recent years. Indeed, this amount increased from $13.3 trillion to a total of $21.4 trillion by the start of 2014 globally. This increase of interest for socially responsible investments comes from the demand of individual and institutional investors who want to fit their portfolio with their beliefs and the rise of ethical consumerism, characterized by a situation where consumers are ready to engage a higher premium to get products in line with their personal values (Renneboog et al., 2008). Also, the change in regulation and the stronger measures in terms of disclosure commitment regarding social, environmental and ethical information lead investors to turn to a socially responsible way to invest their money (Hood, Nosfinger & Varna, 2013). The increasing interest for SRI can also be observed when a deeper look is given to the proportion of assets managed. Indeed, the European level of SRI assets managed relative to the total of assets managed increased from 49.0% in 2012 to 58.8% in 2014 (GSIA, 2014).

Regarding the country basis, the United States have known the largest SRI assets growth between 2012 and 2014, expanding by 76%. United States is followed by Canada and Europe, which respectively knew growths of 60 and 55% (GSIA, 2014).

2.3. European SRI fund investment market

European Responsible investing fund survey, KPMG (2015) ciphers the European Fund Market to 1,874 funds representing an AuM of 372,0 billion for the year 2014. The responsible assets represent 3,3% of the total AuM of the European fund market, even though this still represents a small amount relative to the total AuM of the European fund market, it increases by 0.5% relative to 2012.

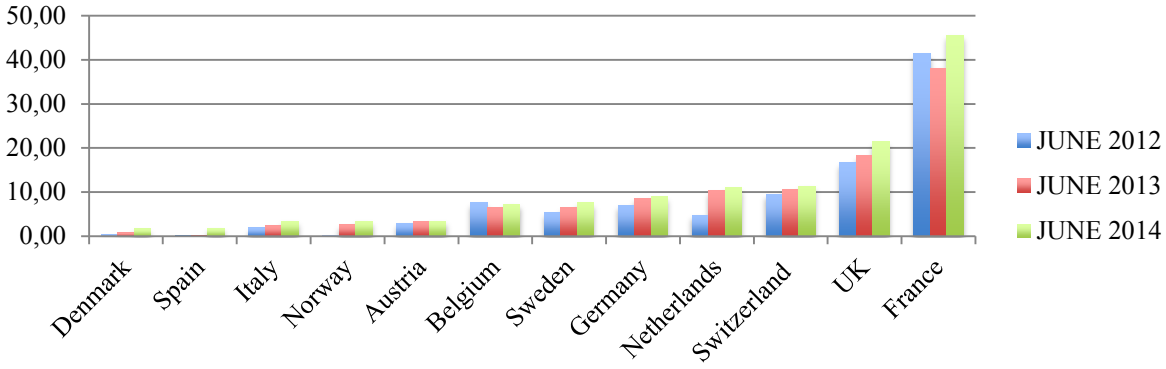
In terms of strategies, 87% AuM of SRI funds are used for positive or negative screening rather than any particular investment theme. Indeed, thematic funds (environmental, social, or ethical focus) account for 13% of the total AuM.

In addition to this, 2/3 of SRI funds involve positive or negative screening, while 1/3 are involved in thematic funds. Nevertheless, funds investing in environmental focus remain the biggest proportion of thematic funds.

2.4. European SRI retail fund investment market

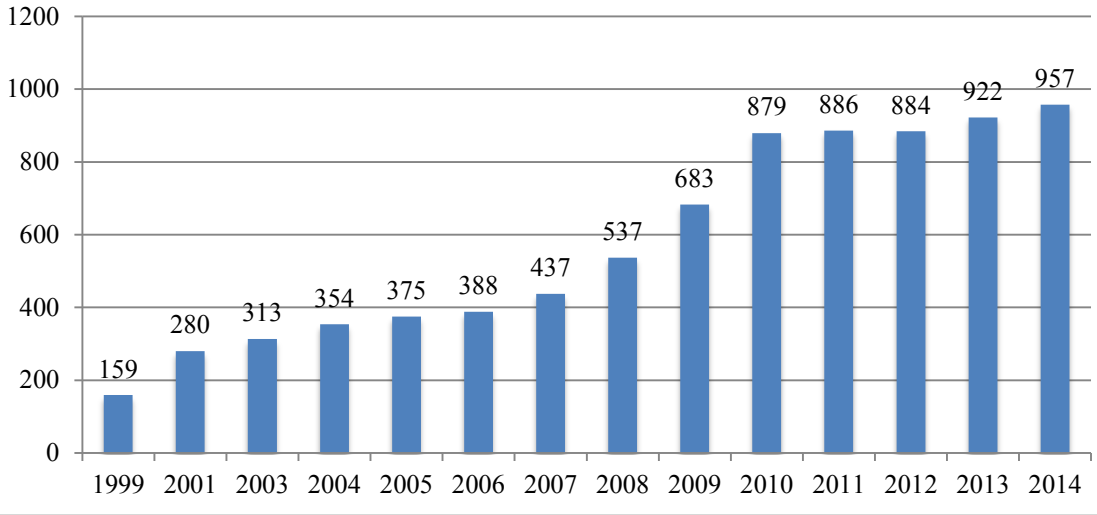
Concerning the retail market in Europe, Vigeo (2013) provided an overview of the European retail SRI investment funds. By the end of 2014, the European market counted for 957 funds representing 127 billion of assets under management. The survey led by Vigeo permit to highlight important trends of the SRI fund market. First, even though the fact that the SRI retail market remains a niche, counting only for 1,7% of the total European AuM, the market share is continually increasing showing the solid interest of investors for SRI funds.

Figure 3 : Total asset under management for SRI retail funds domiciled in Europe, per country (end of june 2014, EUR)



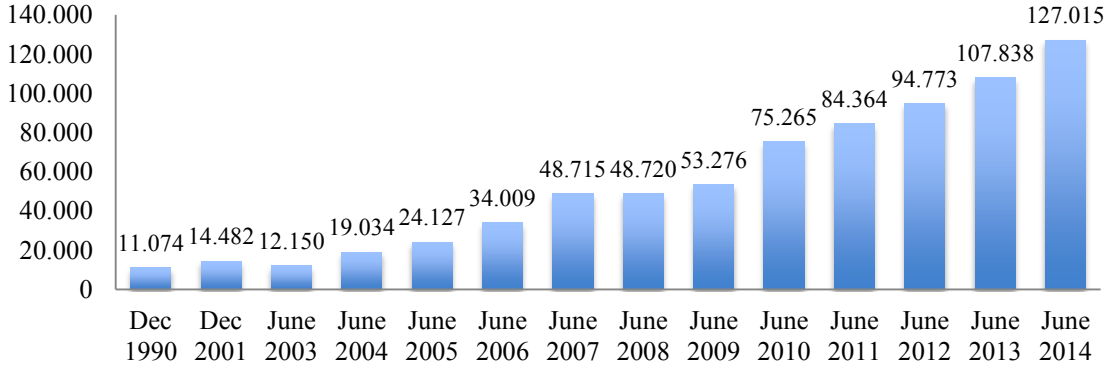
Second, concerning the number of funds available on the market, the market experienced in 2012-2013 a slight decrease of the number of SRI funds available for the European market. Nevertheless, the market experiences today a consolidated increase of the socially responsible investment funds. France and Belgium remain the countries with the highest number of funds. However, Norway, Sweden, Germany and the United Kingdom have seen their number of funds decrease for the year 2014.

Figure 4 : Number of SRI retail funds, cumulated, in the period 1999 to 2014 (end of june 2014)



Third, the total amount of asset under management raised from 108 bn to 127 bn between 2013 and 2014 showing a stable growth induced by an increase in the number of subscriptions and improved market performances. On a country basis, France remains the country managing the highest amount of assets. But while Belgium accounts for a large number of funds, the amount of assets represent only 6% of the total AuM.

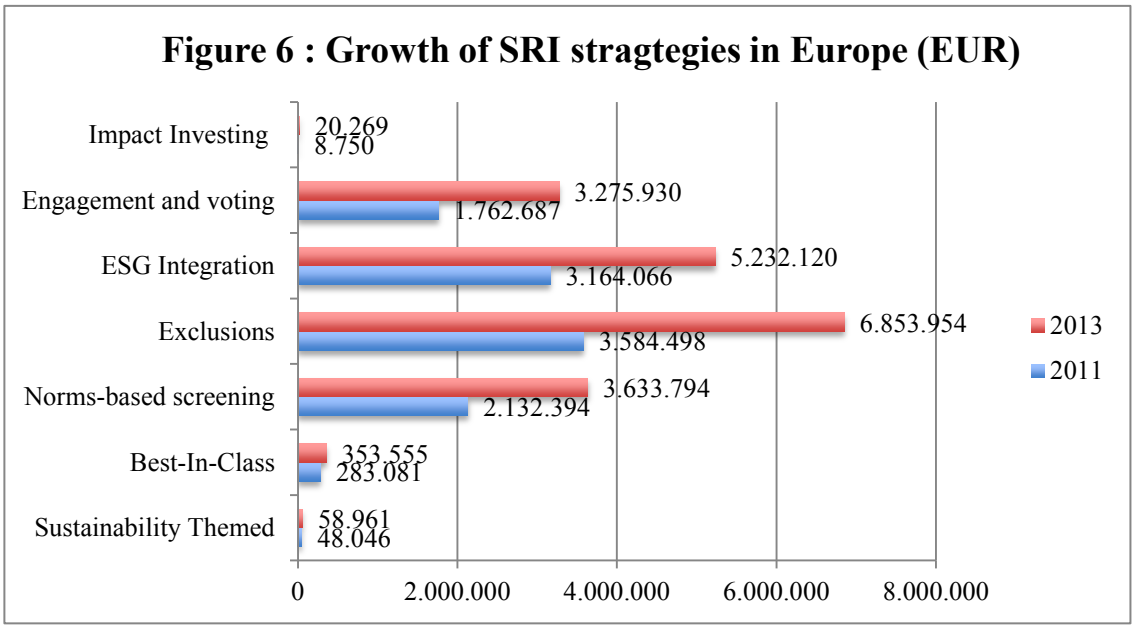
Figure 5 : Total asset under management for SRI retail funds domiciled in Europe (end of june 2014, mn Euro)



2.2.1. SRI investing strategies

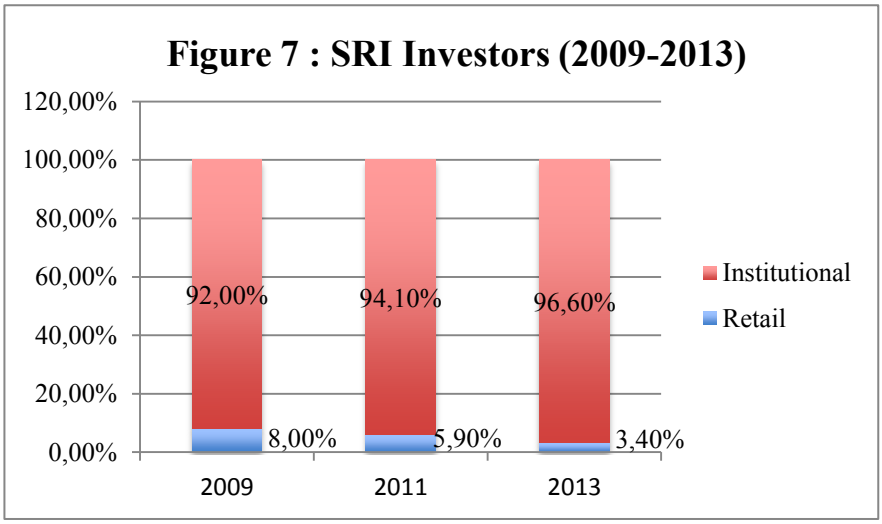
Concerning the strategies used to the selection of SRI assets, it can be seen that the most used is the negative and exclusion screening, closely followed by the integration criteria strategy (Eurosif, 2014). Nevertheless, even though impact investing is the least used

strategy, it has known the largest growth, with a compound annual growth rate of more than 52%.



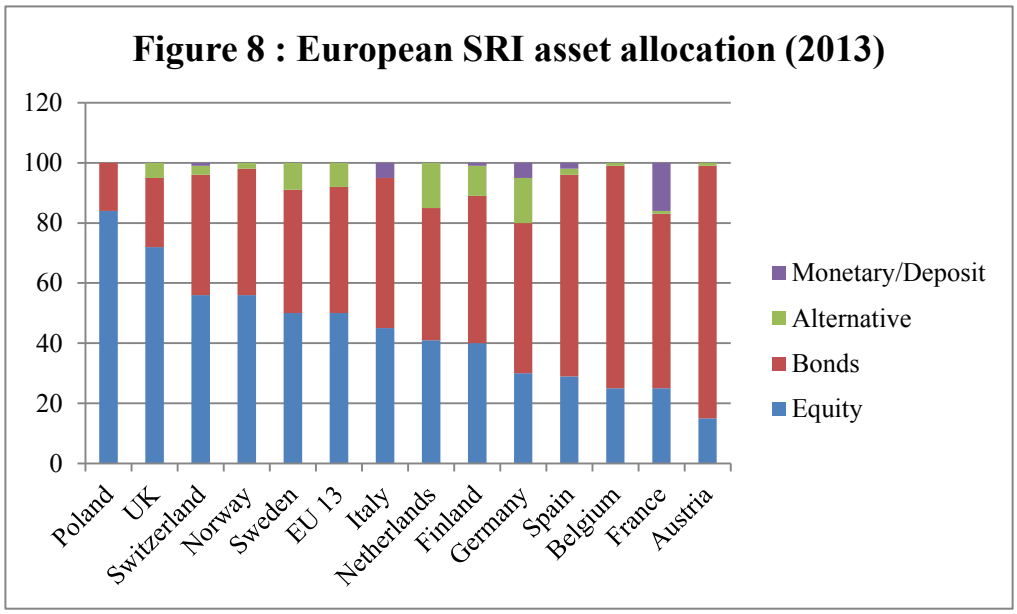
2.2.2 SRI Investors

Furthermore, SRI market is largely dominated by institutional investors (Eurosif, 2014). Institutional investors are described as insurance or pension funds (Sougné, 2016) and represent 96,6% of the invested amount of socially responsible assets. The growing interest of institutional investors for SRI comes from the fact that these institutional investors are becoming aware of a large literature showing that being involved in corporate socially responsible investments can lead to superior economic and/or financial performance through different mechanisms (Renneboog et al., 2008 ; Kitzmueller & Shimshack, 2012).

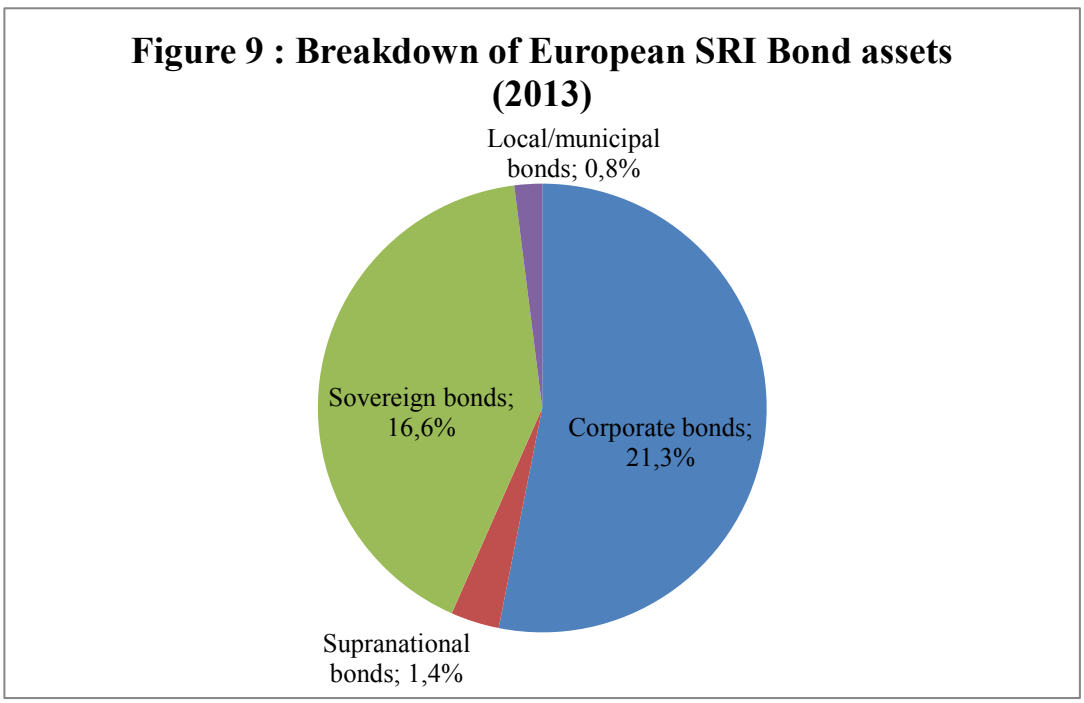


2.2.3 SRI asset allocation

Equity funds dominate the SRI market at the European stage. Indeed, equities account for about the half of the asset under management in december 2013, against 33% for 2009. With regards to bonds, their allocation decreased from 53% in 2009 to 40% in 2013.



Minutely, allocation of bonds can be broken down for 2013: 21.3% invested in corporate bonds, 16.6% in sovereign bonds and 1.4% in supra national bonds. (Eurosif, 2014)



2.3 Socially responsible fund performance vs. Conventional fund performance

A large number of empirical studies have been led for both individual countries and multi-countries, in order to assess and compare the performance of SRI funds with non-SRI funds.

Results have shown that taking into account ethical, social and corporate governance does not have a significant impact on a fund performance. More precisely, performance of social responsible fund is not significantly different from that of non-SRI ones. (Hamilton, Jo & Statman, 1993 ; Goldreyer & Diltz, 1999 ; Statman, 2000 ; Bauer, Koedijk & Otten, 2005 ; Scholtens, 2005 ; Gregory & Whittaker, 2007 ; Leite & Cortez, 2014)

Cortez, Silva and Areal (2012) came to criticism by saying that some problem can be highlighted from the different methodologies used to achieve empirical studies. First, studies used CAPM based measures of performance. These measures are inappropriate and induce a lack of consideration of risk factors such as : size, book-to-market value and momentum (Renneboog et al., 2008). Secondly, Cortez et al. (2012) states that small size bias remained uncovered and that a multi factor model would be a better tool to assess the performance of SRI funds. Indeed, SRI funds are more exposed to small capitalization companies (Luther, Matatko & Corner, 1992), these biases seem to be even more accentuated for European SRI funds than the US ones (Schröder, 2004). A growth bias may also be established in the literature. These biases may be due to the fact that value stocks are more risky in term of environmental concerns and, hence, less integrated in SRI funds (Bauer et al., 2005). Thirdly, Renneboog et al. (2008) insisted on the fact that SRI fund performance comparisons are difficult to establish due to the use of relatively small samples and different samples and benchmarks.

Nevertheless, there are two literary movements that can be retrieved from the current state of literature concerning the viability of socially responsible investment projects.

The first theory stated by the advocates extoll the fact that though a screening process, qualitative management filters would allow investors to select investments that are in line with their beliefs and values but also, the filters would allow the selection of companies with good management skills and would therefore lead to higher risk-adjusted returns. (Sauer, 1997 ; Bollen, 2007).

This idea can be backed by the « good management theory » stated by Waddock and Graves (1997) which states that there exists a positive relationship between good management and corporate social performance and by the « stakeholder theory » disclosed in 1984 by Freeman which states that the inclusion of all the stakeholders in the decision making process of a firm should lead to a better shareholder satisfaction by creating value for them, and that the performance of a firm could increase its financial performance thanks to a better score in the social responsibility dimension of the firm.

In addition to this, Gollier and Pouget (2014) asserted that general positive abnormal returns can be generated by activist investors who turn non-responsible companies into responsible ones. This fact is more commonly named as « shareholder activism ».

Furthermore, market information inefficiencies create opportunities for investors to create outperformance by selecting securities for which misinformation would lead to misprizing.

Nevertheless, Nosfinger and Varma (2014) affirmed that SRI funds experienced outperformance during economic crises times. This outperformance is mainly driven by positives screening and more precisely by those related to environmental, social and corporate governance issues. In the opposite, SRI funds determined thanks to negative screening techniques do not experience outperformance. By the way, SRI investments offer additional protection to investors in times of crises by weakening the downside risk.

Furthermore, during market downturns SRI and conventional funds tend to exhibit similar investment types while good economic state tend to be characterized by significant different risk exposure (Leite & Cortez, 2014).

The second point of view that is stated in the literature about SRI fund performance tend to more negative (Sauer, 2007 ; Bollen, 2007)

Screening necessary to the selection of stocks composing a fund lead to constraint portfolio optimization. According to Markowitz (1991), the use of a restricted universe leads to an inability to properly diversify a portfolio. Hence, the impact on the risk-adjusted performance of funds would be negative. Indeed, extra-financial screening is detrimental to the diversification principle of the capital asset pricing model because SRI screening takes into consideration the specific risk of firms. This results in filtered universe that is a subgroup of the available universe. Also, SRI mean-variance frontiers

would be, in the best case, equal to the total mean-variance frontier. (Bertrand & Lapointe, 2015)

In addition to this, SRI screening may lead to higher financial costs having a negative impact on a fund's performance. Geczy, Stambaugh and Levin (2003) show that there was a financial cost of SRI screens on mean-variance optimizing investors that can be substantial. Specifically, the SRI constraints impose a cost of more than 1.5% per month on investors believing in asset selection skills.

An other element that can be stated against the sub-performance of SRI funds is linked to the consideration of the market as being efficient, specifically, that the pricing of a stock integrates quickly relevant information (Fama, 1970). Flammer (2015), asserts that the value-relevant information is well integrated in the price and that it is not possible to benefit from misprizing opportunities. Therefore, for firms highly involved in CSR practices, returns obtained correspond to the level of systematic risk.

In addition to this, expected returns expected by CSR firms should be lower because these firms simply experienced lower risk (Barnett & Salomon, 2006).

Therefore, the two literary movements support empirical results that shows that integrating ethical, social and corporate governance features in a portfolio does not have a significant impact on a fund performance.

2.4 Performance according to the strategy used

Literature authors also focused on the link between the performance of a socially responsible fund and its underlying strategy.

Indeed, Cortez et al. (2014) state that

> *« the absence of significant performance between SRI funds and conventional funds may be related to the use of best-in-class strategies ».*

Hence, the performance and the risk exposure associated with SRI funds with a best-in-class approach will differ from the performance given by a fund using simply positive or negative screening. The result of the study led by Cortez et al. (2014) showed that SRI funds based on a best-in-class strategy are significantly less impacted to momentum and to small capitalization but more involved in local securities.

Indeed, strategies chosen by fund managers are different across geographical areas. In the US and in UK, SRI funds are mainly based on negative screening while Continental Europe is more focused on positive screening (Renneboog et al, 2008). Furthermore,

Capelle-Blancard and Monjon (2014) showed that Europe favors the best in class strategy. This assertion goes in line with the Eurosif (2014) study (see infra).

In the opposite, it has been shown by Goldreyer and Diltz (1999) and Nosfinger and Varma (2014) that the underlying strategies picked by fund managers to undertake the screening process necessary to the creation of SRI funds, does not impact its performance differently. Nevertheless, these two studies extract their sample from US fund market.

With regards to the continental Europe, Capelle-Blancard (2012) found a negative relationship between screening intensity and fund performance. Specifically, sectoral screening should decrease financial performance while transversal screens have no impact.

Also, according to Cortez et al. (2014), it would be possible to reduce the loss resulting from a lack of diversification by using a best-in-class strategy. Indeed, best-in-class strategy would allow to reduce the sector bias involved by the fund manager when negative screening is used.

In an empirical point of view, several authors get down to find a relationship between performance and SRI screening methods and intensity.

First, Renneboog et al. (2008) found a negative relationship between the number of screenings operated by fund managers and the financial performance of the fund. Also, they found that the number of environmental, ethical and sin screens do not have a significant impact on the fund's performance. As for them, Barnett and Salomon (2006) found a curvilinear relationship between screening intensity (measured by the number of screens used) and financial performance. A curvilinear relationship means that, at first, financial performance will decrease as the number of screening factors increases but, as the number of screening factors reaches its maximum, performance turns out to be positive. In addition to this, in line with the results retrieved by Capelle-Blancard and Monjon (2014), Barnett and Salomon (2006) found that performance was positively affected by community investments screens but negatively affected by environmental and labour relations.

Laurel (2011), worked on a sample of European SRI funds and found that screening intensity and strategies had no impact on performance while they had an inverted-U-shaped impact on risk. In the same order of idea, Lee, Humphrey and Benson (2010)

found that increasing the number of screening factors decreases the level of systematic risk even though performance was negative.

As for the relationship between conventional fund performance and SRI fund performance, literature does not provide a clear statement concerning a possible implication of SRI screenings on SRI funds performance.

2.5 Country analysis of SRI implementation

Guler, Guillen, & MacPherson (2002) state that the diffusion of organizational practices tend to be uneven across countries. Indeed, there is no reason that CSR practices escape from that pattern Gjolberg (2009). Eventhough CSR has become a global phenomenon during the last century (Mermod, Idowu, 2013), Matten and Moon (2008) argue that there exist national differences among countries. Precisely, these differences may be driven by the different evolution of the national institutional frameworks experienced by the different countries. Indeed, institutional framework evolution results in evolutions of national political systems, financial systems, education and labor systems and cultural systems.

Going further, Lopez-Arceiz, Bellostas-Perezgrueso & Moneva (2016) assert that there exists no universal ethical framework or social responsibility. Precisely, a socially responsible mutual fund should be developed based on the cultural environment in which it operates. Indeed, the behavior of the manager of this mutual fund is influenced by the prevailing ethical framework of its origin country.

Gjolberg (2009) tried to highlight the fact that CSR practices and performance may differ according to countries, and more precisely by national features. Therefore, the different practices between countries would lead corporations to integrate CSR differently according to these different features. In the continuity of this idea, Gjolberg (2009) tried to build an index that would measure CSR activity on a national basis.

In addition to this, the Eurosif study (2014) and Vigeo analysis (2014) give an overview of the CSR features and SRI practices put in place in 13 European countries.

2.5.1 Austria

The Austrian SRI market showed a strong development during the recent years. Its volume has been multiplied by 5 since year 2005. Indeed, Austria's society is particularly attached to ethical values and open towards sustainability issues and ideas. Exclusion and normed-based strategies are the most used strategies, but each strategy knew a double-digit growth between 2011 and 2013. Austrian asset allocation is concentrated mainly around fixed income.

Austria proves to have an increasing asset trend with a market concentrated mainly around big players.

2.5.2 Belgium

In Belgium, Asset under Management was impacted during the crisis but rebounded in 2013. Nevertheless, SRI assets did not seem to benefit from that recovery, probably because of the collapse of the capital-protected products.

Regarding the Belgian market place, it was one of the first to be active in responsible investing and sustainability and nowadays, is, in term of investing strategy, involved mainly in exclusions. In the future, several political initiatives may boost the Belgian demand for SRI products.

Belgium launched new funds which are contributing to a 13% asset increase, invested quasi equally between equity and fixed income. In addition to this the Belgian market accounts for 214 SRI funds.

2.5.3 Finland

Compared to its counterpart's Nordic countries, Finland is a new entrant in the socially responsible investment world. Nevertheless, the recent and rapid growth of signatories and members of the Finnish for the UN-backed PRI have showed strong interest for SRI.

Contrariwise, Finnish legislation does not cover SRI practices and pressures from NGOs and media to encourage institutional investors to invest in a sustainable way are low. And that, even though Finland records high scores in development indexes (i.e. corruption perception, freedom of the press, equality and diversity), which could let argue that Finland is implanted in CSR and more precisely in SRI in a natural way. In terms of strategies used, the most popular is the Exclusion strategies and the ESG Integration is the one that recorded the fastest growth in 2013.

Asset allocation of Finland can be broken down mainly in equities (49%) and bonds (38%).

2.5.4 France

France has one of the most developed SRI market across Europe. France accounts for 35% of the total continental assets. French market is concentrated around big players. Indeed, France is accounting around 50 industry players. In terms of strategies, Best-In-Class and Sustainability themed strategies has always been the most popular approach, but Exclusions are increasingly applied by SRI managers while Norm-Based and engagement continue to grow. In addition to this, SRI assets grew by 66,3% between

2011 and 2013. Concerning the regulatory framework, French companies are now encouraged by the French government to introduce an employees' representative at the board in order to foster employees' implication in large companies' strategies. In addition to this, the french government has announced in 2013 its willingness to launch an « SRI label » that would allow an increase in the visibility and knowledge of SRI funds among retail investors.

2.5.5 Germany

Best-in-Class and Exclusions are both the most popular strategies for Germany. On the legal framework, Germany's situation changed a lot between between 2011 and 2013 : the Act for Renewable energies to promote the energy regulation was putted in place and provides incentives to investors. In addition to this, as France, Germany is willing to implement a SRI label, which will contribute to a higher quality for SRI. With regards to the legal framework, Germany introduced disclosure requirements for institutional and big companies who dresses ethical, social and environmental concerns. Concerning the regulatory framework, « soft SRI guidelines » exists in Germany, this consist in 800 criteria presented in 1987 who had an important role for the development of the SRI market. This guideline is still widely used and respected as it is said to be the most comprehensive SRI criteriology. Therefore, the view concerning the future of the German SRI market is positive: market will continue to grow and institutional investors will play an important role in this growth. German assets are quite well distributed between equity and balanced allocations and their offer of funds is increasing.

2.5.6 Italy

Italy has a regulatory framework that is well advanced in the European social responsible context and experienced an increase of 40% in terms of SRI assets. The potential of SRI products is underestimated by Italian asset managers and the legislator mainly focused on the transparency of investment processes. In addition to this, Italian government lacks of a precise definition of what SRI is and this creates a misinformation with regards to the investors, and therefore reducing the number of potential investments.

Exclusions and normed based are the most popular SRI strategies for Italy, the use of both strategies is influenced by SRI strategies adopted by big insurance and asset manager players. Even if the Italian SRI market is led by a large amount of institutional

investors that show the most promising growth for the market, the implementation of SRI strategies is still not effective. The practice of Italian market is still no widening trough innovative and sustainable-oriented practices.

2.5.7 Netherlands

Netherland has for long applied SRI principles in its investment practices. Indeed, consumers are asking for regulatory frameworks. Consequently, there exists several regulatory frameworks that show the willingness of the government to implement socially responsible behaviors: banning for investments in clusters munitions, the pension Governance code giving a guidance on important themes like transparency, accountability and communication, financial control, diversity and professional and competent governance. Also the « Wet Verstreking Pensioenfondbestuur » aims at increasing transparency, security and knowledge regarding pensions in the Netherlands.

Besides, Netherlands realized a rise in its assets of 17%, putting the country at the foreground of the European scene, investing mainly in equities.

With regard to the strategies used, Netherlands mainly invest via Exclusions and Norm-Based screening.

2.4.8 Norway

Norway is considered to be historically one of the first countries to take into account responsible investing considerations on its investments policies. Indeed, Norway fund managers are among the most active in the Nordic region when it comes to the promotion of SRI. The Norwegian Government Pension Fund Global heavily influences the Norway market. This fund serves as a model role for asset managers and investors in both Norway and abroad. This fund defines the Norway SRI market in terms of guidelines and investments approach. Due to the predominance of this fund in the market, any legal or regulatory framework is explicitly determined by the government.

Even though Norway is considered to be a small player at a European level, its SRI assets increased by 31% using in majority normed-based and exclusion strategies.

2.4.9 Spain

After two years of recession for the Spanish economy, it started to slowly recover by the

half of 2014. In this economic context, Spanish investors start to consider SRI as an alternative to traditional investment options. Thanks to the recovery of the asset management industry and the stock markets, the interest of assets managers, asset owners and investors for SRI products may only grow in the future. However, the market is currently still very small and the regulatory framework is less developed than in other European markets. Almost all SRI Spanish assets are invested based on the Exclusion principle.

2.4.10 Sweden

Sweden SRI market can be characterized as mature, with SRI policies being formally integrated by experienced management and most large players.

Indeed, it has been 10 years that most important asset managers are active in socially responsible investing. Maturity of the market causes the asset offering of the Swedish market to be similar for a number of national players.

Whereas, SRI practices in Sweden are not governed by any explicit legal framework, SRI investments relies on different initiatives such as United Nation Principles for Responsible Investments.

The Swedish market is characterized by the use of strategies as norms-based and exclusions, investing namely in equities. In addition to this, Swedish SRI market should continue its growing trend. This predictions is believed thanks to the rise of green bonds and more elaborated strategies that should lead to move SRI to become evermore mainstream.

2.4.11 Switzerland

Switzerland is the number one financial center for cross boarder wealth management but also a financial global leader. In addition to this, Switzerland includes sustainability in its constitution and is considered as a major actor of socially responsible investing. Therefore Switzerland is able to offer to its customers a great variety of SRI products and services.

Regarding the market size, a robust growth of the swiss SRI market was experienced for the last two years, with higher growth rate for Exclusion, Integration and Engagement strategies. With its characteristic to be a diversified financial place, suggesting diversified options to companies and organizations, the Swiss players will allow to the

sustainable swiss financial center to go further in sustainable investing. A growth of the Swiss SRI market is therefore expected in the future.

With regards to the legal and regulatory framework, Switzerland offer incentives for companies who actively work to reduce C02 emissions. The country also initiated the « Fat Cat Initiative », an initiative in which pension funds have to actively exercise their voting rights at AGMs of Swiss companies on behalf of their members. Swiss also decided to ratify the International Clusters in Munitions thanks to a ban to invest directly or indirectly in weapons.

2.4.12 United Kingdom

United Kingdom is a financial center that benefits from a large expertise in terms of product types, asset classes and target market. In addition to this, the United Kingdom are also a leading player concerning sustainable and responsible finance.

Because UK are a reference domicile for NGOs and leading SRI actors, it can provide to clients a large analyst coverage of SRI products nationwide.

The most practiced strategy in terms of AuM for the UK are Engagement and voting, closely followed by ESG Integration. Indeed, the UK introduction of a regulatory framework that makes compulsory the reporting of green gas emissions for companies.

A regulatory framework also pushes charities to consider ethical values in their investments policies.

In the future, the UK legal framework is supposed to support the growth of the UK SRI market and in the long run, SRI should become a norm.

Chapter III: Thesis purpose

The purpose of this thesis is to analyze the impact of the CSR environment of a SRI fund on its performance.

The first problematic will be to classify cultural zones across Europe according to their levels of implementation and incorporation of CSR criteria on local places. In order to find a solution to this problem, an index will be created in order to assess and cipher that level of implementation on a country basis.

After that, the empirical study will try to analyze and compare the empirical with the theoretical results. In order to do that, a definition of the provenance of an SRI fund will be settled taking into account 2 different elements : the fund management and more precisely, the place where the fund is domiciled and secondly, the place where the head office of the management company is established, from which emanates the corporate culture of a fund.

Indeed, based on the results of Lopez-Arceiz, Bellostas-Perezgrueso & Moneva (2016) which assets that, the domicile of an investments fund is important because:

> « *A mutual fund's behavior will reflect the dominant ethics of the location where it is settled because the fund's managers will assume the society's prevailing values as their own.* ».

And there exists a large literary movement that tries to highlight the impact of corporate governance on a firm. Briefly, Gottesman and Morey (2012), Chan and Cheung (2012) and Sorensen (2002) allow to sum up the current major literary trends.

Gottesman and Morey (2012) give a precise definition of strong corporate culture for investment funds and state that a fund with a strong corporate culture can be doubly qualified. First quality goes in line with the employee satisfaction. Employee satisfaction may be explained as situations in which employees are mentored by management, rewarded for work performance and their opinions and points of view are taken into consideration in the decision making process. Funds that generally have a strong corporate culture are able to attract and retain the top employees who will be working harder than they would in a fund with a weaker corporate culture.

Hence, funds with poor corporate governance experience a higher employee turnover that may negatively impact the fund's performance.

The second quality exposed by Gottesman and Morey is that fund with strong corporate culture tend to drive their decisions and practices on investors rather than sales. More precisely, this means that the fund's governance focus on shareholders' satisfaction. This customer satisfaction goes through high level of communication about strategies to the shareholders of the fund. Indeed, according to Chan and Cheung (2012) integrating cultural dimensions, ethical sensitivity, and corporate governance would lead corporations achieving high corporate governance to experience higher expected return on equity.

In addition to this, Sorensen (2002) found pro's and con's to the integration of a strong corporate culture.

He mentions 3 positive reasons to the implementation of a strong corporate culture. First, thanks to a strong corporate culture, coordination and control within the firm are improved. Second, it allows to align firm's goals with employees' goals. And thirdly, strong corporate culture increases employees efforts and motivation, because employees feel that they are making a difference in the firm. Specifically, they experience the sentiment to be recognized for to work they achieved, for their contribution and feel involved in the decision making process of the firm.

Nevertheless, high corporate culture is highly expensive to implement. De facto, implementation of monitoring and development represents high costs for a fund and, hence, in market downturns, dedicated budget will be reduced.

In addition to this, in hard times such as market crises, when the market volatility is substantial, there is an inability for these firms to change rapidly. In other words, firms with a strong corporate culture underperform when market volatility is high.

Chapter IV: Index construction

4.1. Assessment method to evaluate the level of implementation of SRI on a country basis

In order to assess how the 12 European countries implement corporate social responsibility, and more particularly social investing nationally, an index has been constructed. It takes into consideration the following elements: the amount of assets managed in a socially responsible way, the fact that legal or regulatory framework exist in the country and the fact that countries have a national SRI agency. These 3 information were provided by the Eurosif study (2014).

The number of retail funds held by each country, based on the study realized by Vigeo (2014), was also taken into account to realize this index. In addition to this, an index proposed by Gjolberg (2009) which tries to capture the most CSR involved countries was integrated in the index calculation.

For practical purpose, each data has been recalculated on the basis of 100 and then aggregated in order to provide a unique measure.

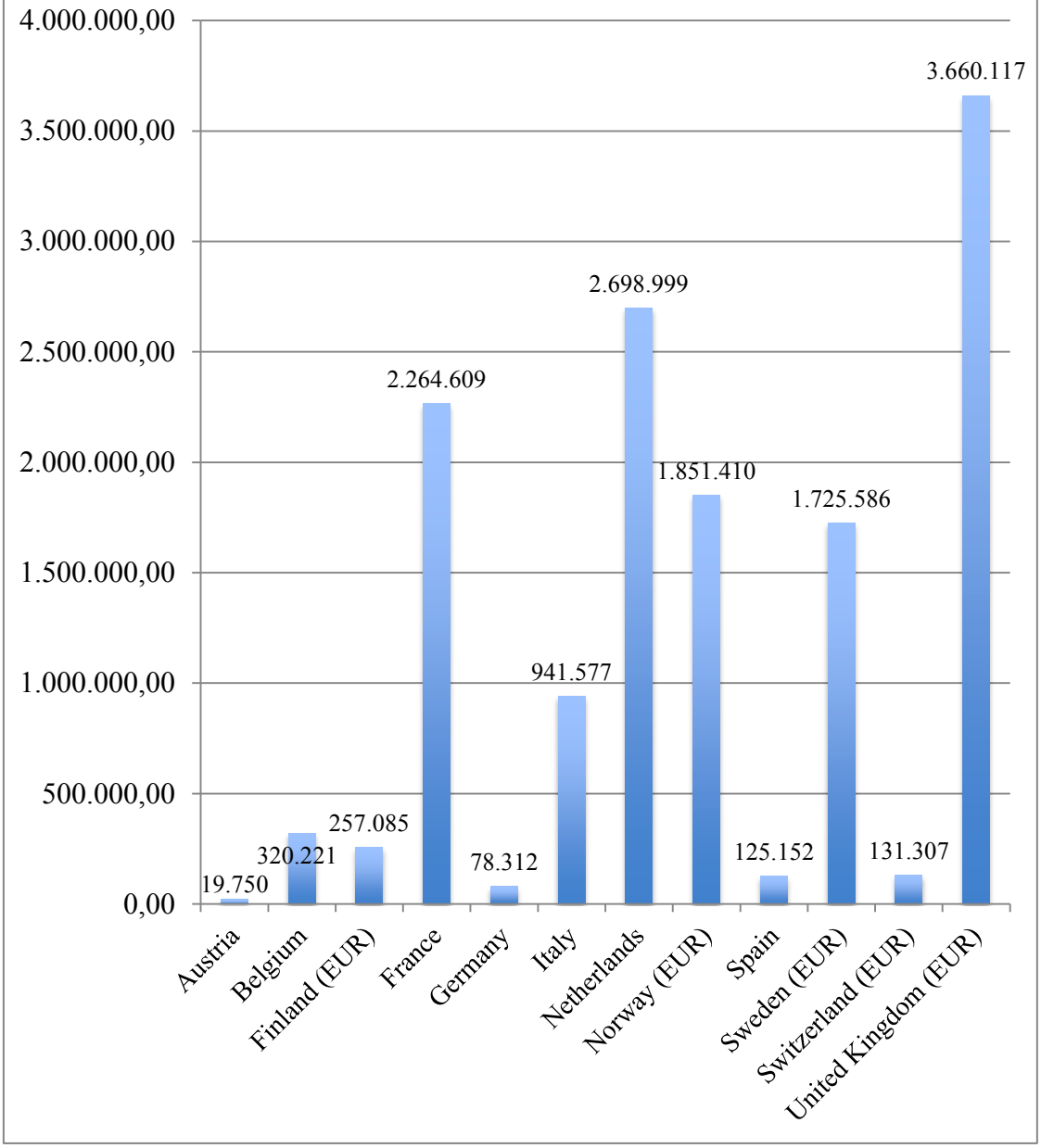
Appendices 1 to 7 provide complementary information to this chapter.

4.1.1. Asset under management analysis

The European SRI study (Eurosif, 2014) provides an overview of the SRI framework on a country basis and notably the amount of asset managed for each country within the socially responsible framework. Going further, they provide the AuM for each country according to the strategy used. The graph below represents the total AuM for 12 European countries in Euro.

The country that has the highest amount of assets invested in a socially responsible way is the United Kingdom. Indeed, the UK assets under management represent 26% of the total AuM invested for the countries covered. The second country which holds the most assets are the Netherlands, closely followed by France, representing around 20% of the total of assets managed. Going further, Norway and Sweden hold AuM around EUR 1.8 million, accounting respectively for 13% and 12% of the total AuM. Austria, Belgium, Finland, Switzerland and Spain, hold less assets, with a percentage of less than 2% of the total AuM.

Figure 10 : Total SRI AuM per country (2013, EUR)



4.1.2. Legal/Regulatory framework

The Eurosif study (2014) suggests an overview of the SRI framework for European countries. Within this analysis, the study analyzes legal and regulatory frameworks for each country. A score of 100 was added to countries detaining an explicit legal framework concerning SRI and CSR legislation on a national basis. Norway, Finland and Sweden experience a score of 0 due to the fact that they don't have any explicit legal framework but they are rather based on CSR practices and initiatives led by external actors such as UNPRI. Other countries obtained a score of 100.

4.1.3. National SRI Agency

The following table resumes the notional SRI agency for each of the 12 European countries analyzed. Each country implemented a national forum in order to tackle socially responsible issues and promote socially investing. The only country that does not benefit from this initiative is Belgium, therefore a lower score was attributed to Belgium for this framework. (Eurosif, 2014)

Table 3 : SRI National agencies

Country	National SRI Agency
Austria	FNG (Forum Nachhaltige Geldanlagen)
Belgium	—
Finland	Finsif
France	Novethic - Forum pour l'investissement responsable
Germany	FNG
Italy	Forum per la Finanza Sostenibile
Netherlands	VBDO (Vereniging van Beleggers voor Duurzame Ontwikkeling)
Norway	Norsif
Spain	Spainsif
Sweden	Swesif
Switzerland	FNG
United Kingdom	UKSIF

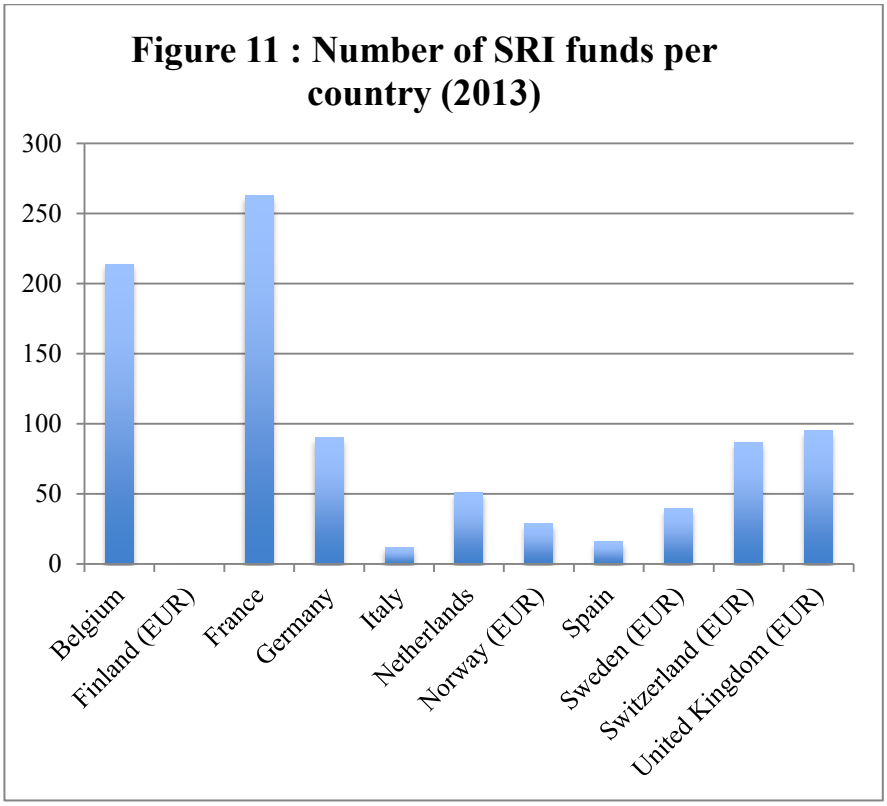
FNG, is not a national SRI agency but rather an association that promotes sustainable investing in Germany, Austria and Switzerland.

4.1.4. Number of SRI funds on a country basis

As stated infra, Vigeo (2014) provides literature with an analysis of the SRI fund market available for retail investors. Nevertheless, the study realized by Vigeo did not provide information for Finland. France and Belgium are the countries that hold the largest

number of funds, followed by Germany, Switzerland and the United Kingdom. Italy and Spain are the bad players, having less than 20 socially responsible funds.

Their results can be sum up on this graph:



4.1.5. Index on CSR practices on a country basis

In order to provide an appropriate measure that defines the level of implementation of the socially corporate culture of a country, it is necessary to assess several factors.

Indeed, the analysis realized by Gjolberg (2009) provides indexes allowing to assess CSR practices at a country level. Their purpose was to answer the following question:

> « *Which countries have the largest share of companies active in CSR, and how can CSR activity be measured on a national basis?* »

By identifying the nationality of the companies who have adopted or qualified for major, global CSR initiatives or CSR ratings, the index of CSR practices was constructed for 20 OECD nations.

Based on 9 CSR initiatives, the index represents over- or under representation in CSR indicators relative to the size of their economies.

The 9 CSR initiatives and their associate purpose that have been taken into consideration in this study are the following (based on their purpose):

Table 4: CSR initiatives ranked according to their purpose

Purpose	Initiative
Ratings based on SRI investment criteria	Dow Jones Sustainability index, FTSE4Good, « the Global 100 most Sustainable Corporations »
Membership in CSR communities	UN Global Compact, World Business Council fot Sustainable Development
Sustainability Reporting Practices	KPMG Sustainability Reporting practices, Global reporting initiative
Certification Scheme	ISO14001

The aim of the index is to give a measure of corporate practices and activities in the CSR field. More precisely, the index is based on 9 CSR initiatives covering sustainability reporting, membership in CSR organizations and networks, certifications practices as well as different ranking of CSR performances along the triple bottom line (ie. People, Profit, Planet).

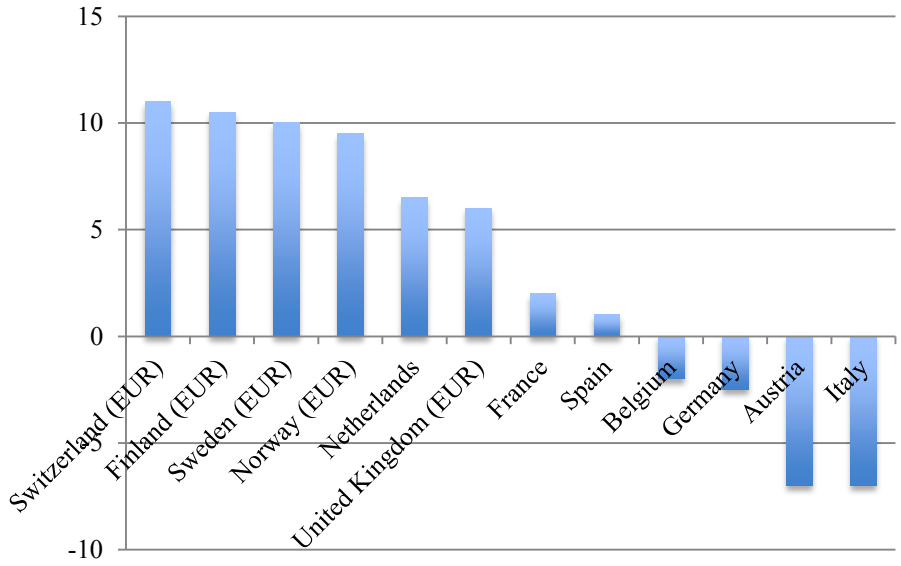
The index was calculated by the following way:

$$\sum_{i=1}^{9} \frac{\left(\frac{Number\ of\ companies\ in\ indicator\ X_i\ from\ country\ A}{Total\ number\ of\ companies\ in\ indicator\ X_i\ from\ all\ 20\ countries}\right)}{\left(\frac{GDP\ country\ A}{Total\ GDP\ all\ 20\ countries}\right)} =$$

Ratio of country A's over-/ under-representation on all 9 initiatives

The result of the study shows that Switzerland has the higher score and is closely followed by Nordic countries. France and Spain experience low scores but these scores are nevertheless positive while the scores of Belgium, Germany, Austria and Italy are negative.

Figure 12 : Index of national CSR practices, total score per nation



In addition to this, initiatives may be discerned as being result-oriented or process-oriented. These two types of initiatives may be defined, according to Gjolberg (2009), by:

> *« Result-oriented initiatives are more focussed on demonstrable performances. The result oriented requires documented CSR achievements, are often narrowly directed towards business, and consist only for companies ».*
>
> *« Process-oriented initiatives: focus on participation, continuous improvement and learning processes. Often, these initiatives are multi-stakeholder based where NGOs, academia, governments or other social actors participate alongside companies »*

A second dimension takes into account the barriers to entry for the nine CSR initiatives: hard versus soft requirement. Analytical value of these dimensions appears when they are combined.

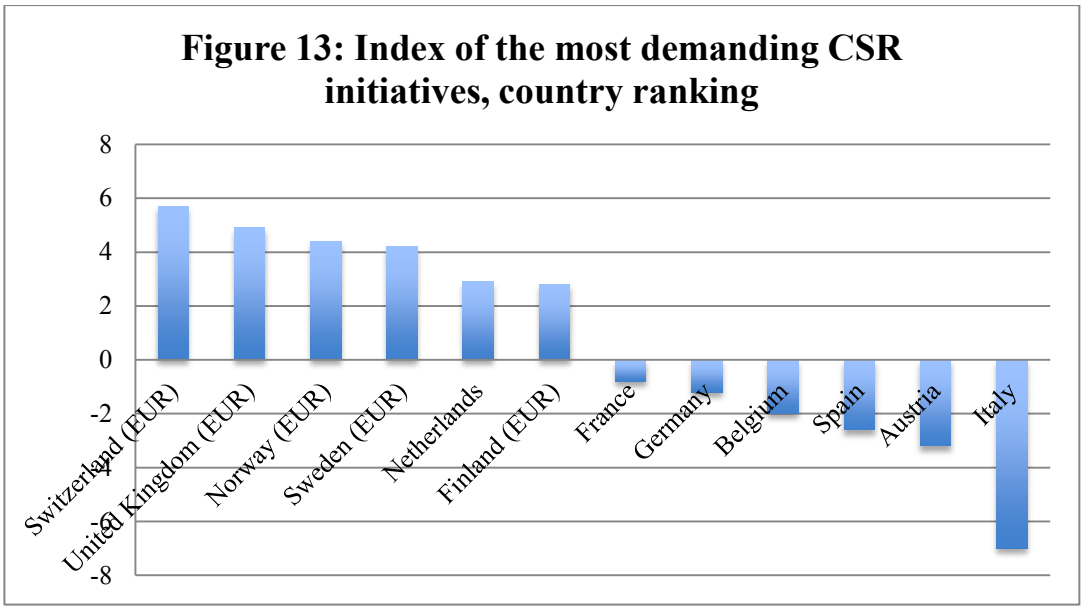
Table 5: The two dimensions of CSR initiatives

	Hard requirements	Soft requirements
Result oriented	DJSE FTSE4Good Global 100 Most Sustainable Companies Sustainability 100 Best Reports	KPMG Reporting Survey
Process oriented	WBCSD ISO14000	Global Compact GRI

Therefore, the study also provides two indexes taking into account the sorting of the 9 CSR initiatives: results-oriented initiatives with hard requirement and process oriented initiatives with soft requirements.

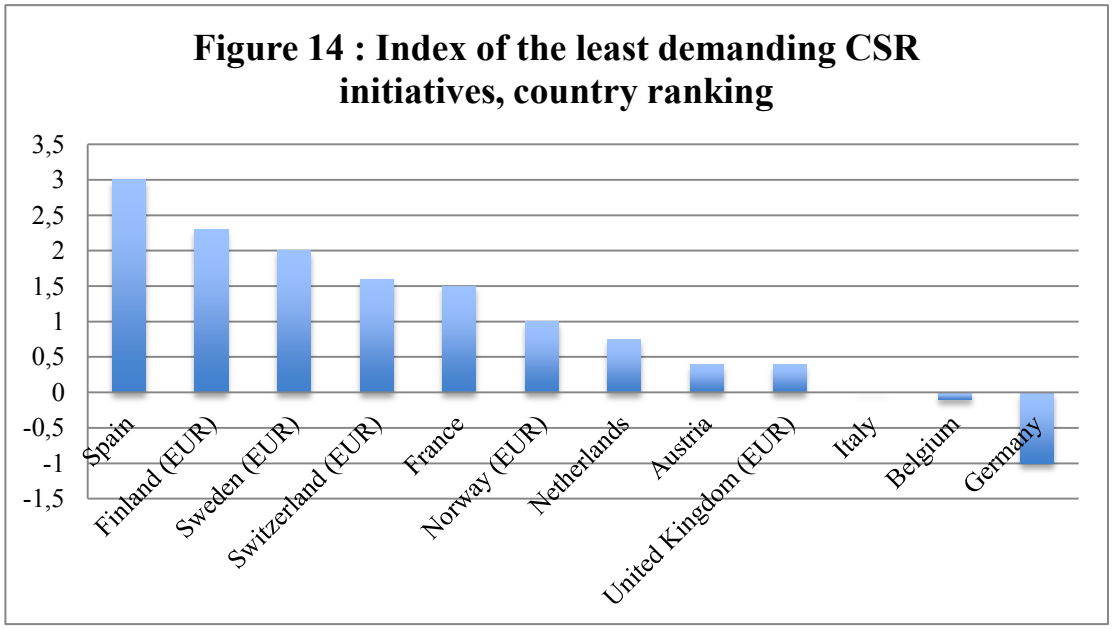
Initiatives which most closely reflect actual CSR performance are the result-oriented CSR initiatives with hard requirements. If we separately study these initiatives, the results clearly change.

Indeed, for result-oriented with hard requirement, Switzerland and the Nordic countries remain at the top of the ranking. Nevertheless, Nordic countries experience slightly lower scores. In addition to this, the United Kingdom reaches the second place, perhaps indicating a preference in British companies for the more advanced, performance-based CSR initiatives that require demonstrable results. France and Spain experience the biggest move down in the index. This may be induced by the fact that France and Spain are more involved in process-oriented initiatives, showing therefore negative scores.



For process-oriented variables with soft requirements, Spain shows indeed a higher score, proving that Spain, focus on participation, continuous improvement and learning processes. In addition to this, France and Austria experienced negative scores in the scope of result-oriented with hard requirements; they prove to have positive scores when only process-oriented initiatives with soft requirements are taken into account.

Therefore, the study shows that easy access initiatives result in country scores, which are diametrically opposed to the scores obtained for the demanding initiatives.



4.2. Index of CSR practices on a country basis

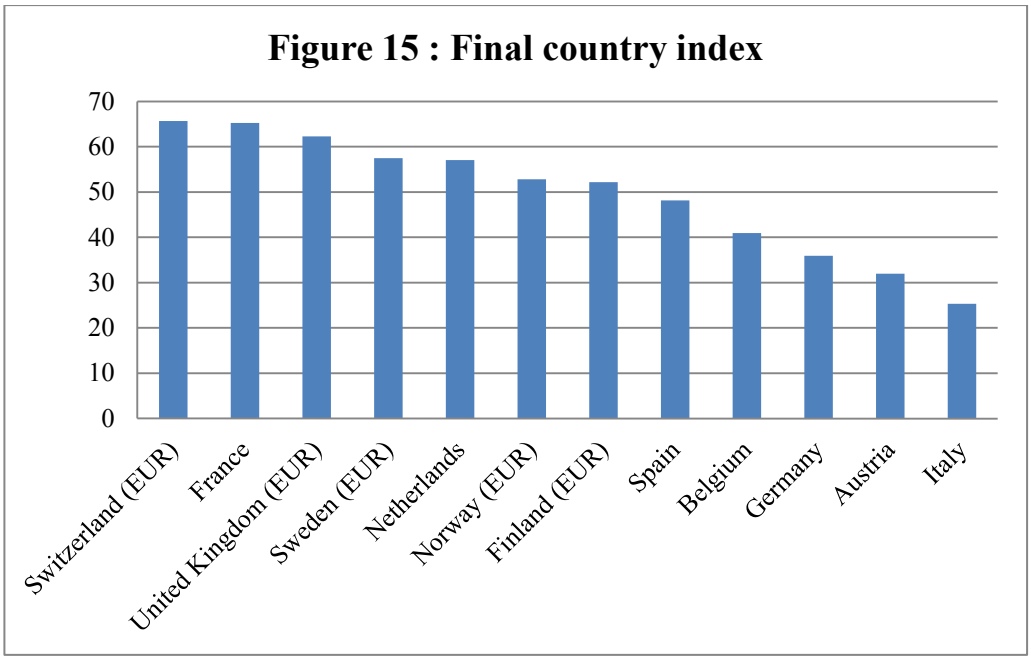
The purpose of creating a new index was to understand which of the 12 analyzed European countries implement corporate social responsibility and sustainable criteria in their investments based on several elements, to provide a complete scheme of the CSR framework on a country basis.

Switzerland and France are, according to the results, the countries that implement the best corporate social responsible criteria and socially investing in their culture.

For France, this high score is mainly due to a large amount of assets managed in a socially responsible way. France is also the country that exhibits the largest number of SRI funds (Vigeo, 2013). With regards to Switzerland, its high score is derived from the high score provided by the indexes proposed by Gjolberg (2009). United Kingdom states at the third place. Even tough UK holds the highest amount of social responsible asset under manegement and a high index of CSR practices, UK states only at the third place because of its low number of SRI funds. The Nordic countries and the Netherlands experience score above the average. The average score of Sweden and the Netherlands is induced by a low number of SRI funds. Norway and Finland, which also exhibit a low number of SRI funds (Information non available for Finland), are also disadvantaged by the fact that the country still not have an explicit legal framework. Spain stands at the 8Th place, despite the fact that it holds the first place in the index for the least demanding CSR initiatives. And finally, Belgium, Germany, Austria and Italy stand at the bottom of the ranking with scores between 25 and 40.

For practical purposes, this index of CSR practices on a country basis will be called “country rating”.

Figure 15 : Final country index



Chapter V: Empirical Study

5.1. Data collection

The scope of this thesis is about socially responsible funds. Morningstar provides to investor a way to invest their money in a sustainable way thanks to the « Morningstar Sustainable Rating » system . This rating system provides investors a way to evaluate and compare funds based on sustainable investing principles. The rating is based on the Morningstar Sustainable Score which is calculated on the basis of a weighted average of the ESG scores obtained by the fund, after deducting for the companies involved in controversy topics. The rating was created for investors willing to integrate environmental, social, and governance or ESG criteria in their portfolio which goes in line with the definition provided by Renneboog et al. (2008) of socially responsible investing and is based on analysis provided by Sustainalytics, a major ESG researcher. In addition to this, the data set only takes into consideration open-ended funds. Precisely, open-ended funds are funds that, according to the Oxford English Dictionary (2016):

> *« Denoting a type of unit trust or fund in which the managers may move investments from one security to another without notifying the unitholders. Also (chiefly Brit.): denoting a type of fund in which there is no fixed number of units »*

The rating is constructed by the following way:

Table 6: Morningstar Sustainable Score

Distribution	Score	Descriptive Rank
Highest 10%	5	High
Next 22.5%	4	Above average
Next 35%	3	Average
Next 22.5%	2	Below average
Lowest 10%	1	Low

From the global database of Morningstar, open-ended funds with high rating were taken. This leads to a total of 3,701 funds globally. Nevertheless, as the purpose of this thesis is to find evidence that there is a possible link between the performance of SRI funds with the level of CSR implement on a country basis, it has been necessary to filter those datas. Indeed, filtering datas on the basis of their domicile led to a first data set of

1,391, then applying a filter based on the location of their head office led to a second data set of 2,519 funds.

5.2. Observations

5.2.1. Observations from global datas

The global database accounts for 3,701 funds. These funds are domiciled all around the globe but almost 50% of it are domiciled in Luxembourg. Nevertheless, Luxembourg funds, are mainly destined for European and Global cross-border distribution. Indeed none of the funds domiciled in Luxembourg are purposed to be sold in Luxembourg. These funds are designated at 80% for sales at a European and Global cross boarder level. The second country that counts the largest number of fund is the United Kingdom. Indeed, there are 506 UK funds that accounts for 14% of the Morningstar Sustainable Funds. In terms of currencies, Euro and the Pound Sterling clearly dominated the data set, accounting for more than 60% of the number of funds. With regards to the asset allocation, equity funds is the main fund type, representing 84% of the data set. Regarding to the sales region, 44% of the total number of funds are designated to be sold within Europe. Indeed, cross-european distribution of UCITS fund was facilitated by the UCITS III European regulation.

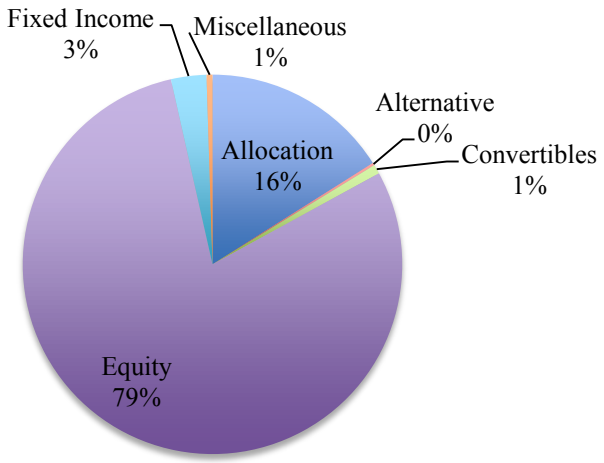
Appendix 8 provides detailed information about the global database.

5.2.3. Observation on a domicile basis

Out of the 3,701 funds of the data set, the amount of funds domiciled in the 12 countries of the scope of this work ciphers to 1,391 funds. The Morningstar funds with a high Sustainable rating are mainly invested in equities (i.e. 80%).

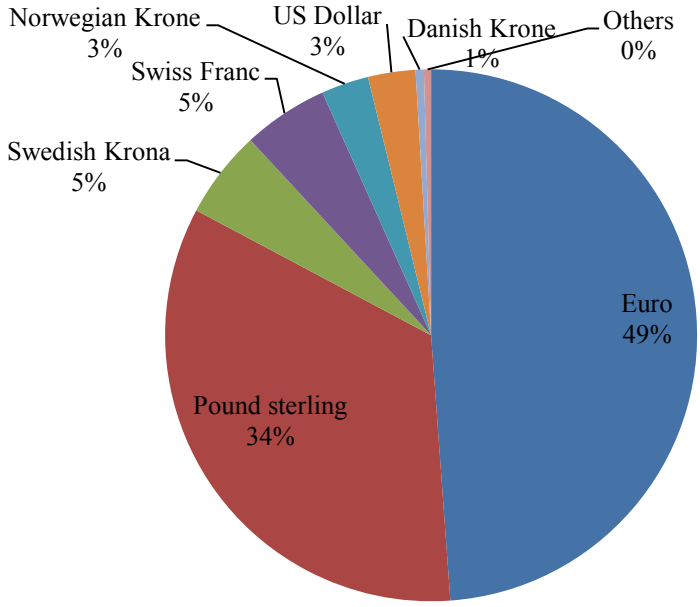
The following graph shows the repartition of the different allocations for the 1391 funds selected.

Figure 16 : Asset allocation, datas based on the 12 EU domiciles



In addition to this, out of the 11 currencies represented in the data set, Euro and the British pounds are the most present currencies. Indeed, both currencies account for 83% of the funds with the highest Sustainable Morningstar rating. The repartition of the different currencies for the sustainable funds is shown in the following graph.

Figure 17 : Currencies, datas based on the12 EU domiciles



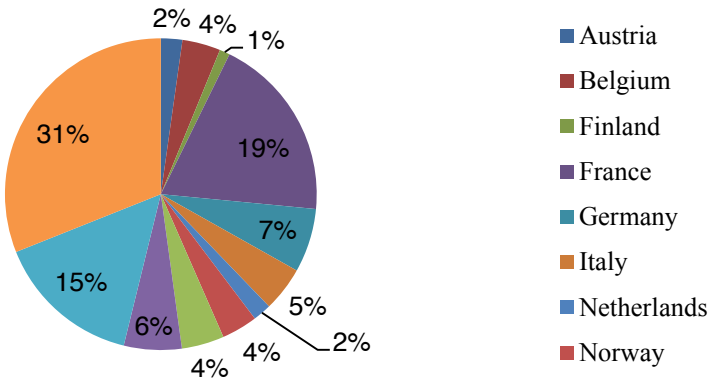
The majority of the 1,391 funds are domiciled in the UK. After UK, France is the second country and Spain the third one. Going further, as for the domicile, the major part of the fund have the head office of their management companies located in the UK,

and the largest second part located in France. Appendix 9 provides detailed information about the domicile database.

5.2.4. Observation based on a the head office of the management company of the fund

Observations made for the 2,519 funds based on the location of the head office of the management company are quite similar to those for funds based on a domicile basis. Indeed, these 2,519 funds at invested in equities for 83%. Euro and the Pound sterling are the currencies that clearly predominate the data set and the head office of the management companies are mostly located in UK and France (i.e. 31% in the UK and 19% in France).

Figure 18: Repartition of the location of the management companies, datas based on the12 EU ManCo locations



Even though, the major part of the funds having their management companies established in the 12 Europeans countries analyzed in the scope of this work, are domiciled in Luxembourg (i.e. 47%), UK and France respectively hold the second and third place in terms of domicile, as for the fund domicile analysis. Appendix 10 provides detailed information about this database.

5.3. Preliminary analyses

5.3.1 Period analyzed

In first instance, the period analyzed is a 5-years period. The 5-years period is not a random choice. As the major part of the information stated in the first part of this work was published between a time lapse of approximately 5 years, it has been judged necessary to consider a period of 5 years for the analysis. Therefore, the total return annualized for 5 years have been retrieved from Morningstar. As some sustainable have been created after 2011, returns were not provided by Morningstar and the funds were therefore removed from the data set. The data set based on the fund domicile was reduced to 965 funds and the data set based on the head office of the management company was reduced to 1,417 funds.

5.3.2 Return measure

Fund performance is translated via the alpha generated by a fund. Alpha can be defined as:

> *« the amount of value that the manager has added (if positive) or subtracted (if negative) to the investment process.*
> *Total actual returns = (Expected returns) + (Alpha) »* (Reilly & Brown, 2012).

Therefore, expected return is represented by a market index and the market index selected here is the S&P Europe 350 Daily RC 10% ER EUR. The value of the expected return is the total return annualized for 5 years which was retrieved from Morningstar and ciphers to -1.51[1].

In addition to this, in order to have a clearer idea of the real returns generated by each fund, the management fees have also been removed.

5.3.3. Top 10 funds returns

Out of the 1391 funds that have their domicile in one of the 12 countries of the scope of this work, the 5 year annualized total returns were provided only for 965 funds. The 10 first funds that experience the higher alpha are retrieved in table 7.

And out of the 2,519 funds that have the location of their head office located in one of the 12 European countries, table 8 shows the 10 funds that have the highest alphas.

[1] At the 31st of may 2016

Table 7: Top 10 Alpha values for the data set based on the domicile of the fund

Name	Domicile	Manco Head Office	ALPHA	EXCESS ALPHA	Portfolio Sustainability Score
Candriam Sust Pacific R EUR	Belgium	Belgium	185,694	180,144	53,99
Seligson & Co Global Top 25 Pharma B	Finland	Finland	15,657	10,107	54,11
Seligson & Co Global Top 25 Pharma A	Finland	Finland	15,651	10,101	54,11
Degroof Equities US Flexible I€	Belgium	Belgium	15,356	9,806	49,95
Degroof Equities US Flexible A€	Belgium	Belgium	15,262	9,712	49,95
Fidelity American Special Sits W Acc	UK	UK	14,376	8,826	49,18
Federal Indiciel US I A/I	France	France	13,769	8,219	57,81
Evli Swedish Small Cap A	Finland	Finland	13,425	7,875	60,02
Evli Swedish Small Cap B	Finland	Finland	13,425	7,875	60,02
Öhman Småbolagsfond A	Sweden	Sweden	13,238	7,688	60,28

Table 8: Top 10 Alpha values for the data set based on the location of the management company

Name	Domicile	Manco Head Office	ALPHA	EXCESS ALPHA	Portfolio Sustainability Score
Candriam Sust Pacific R EUR	Belgium	Belgium	185,694	180,144	53,99
Candriam Eqs L Biotechnology I USD Acc	Luxembourg	Belgium	19,478	13,928	49,85
Candriam Eqs L Biotechnology R USD Acc	Luxembourg	Belgium	18,828	13,278	49,85
Candriam Eqs L Biotechnology R GBP Acc	Luxembourg	Belgium	18,384	12,834	49,85
Candriam Eqs L Biotechnology C USD Acc	Luxembourg	Belgium	17,588	12,038	49,85
Candriam Eqs L Biotechnology C USD Inc	Luxembourg	Belgium	17,545	11,995	49,85
Candriam Eqs L Biotechnology L	Luxembourg	Belgium	17,395	11,845	49,85
Candriam Eqs L Biotechnology N	Luxembourg	Belgium	16,547	10,997	49,85
Seligson & Co Global Top 25 Pharma B	Finland	Finland	15,657	10,107	54,11
Seligson & Co Global Top 25 Pharma A	Finland	Finland	15,651	10,101	54,11

5.3.3. Analysis based on the Alpha

In order to have a first look on the possible existence of the link between the fund performance and its provenance country, the average alphas and standard deviation have been calculated on basis of the fund's domicile and on basis of the location of the head offices of their management companies.

Average alpha's values are positive. This is highly influenced by the fact that the benchmark performance is negative.

The results obtained are the following:

Table 9: Country ranking based on alphas' values

Ranking	Average Alpha Ranking Domicile	Country ranking	Average Alpha Ranking Manco Head Office
1	Belgium	Switzerland	Belgium
2	Netherlands	France	Finland
3	Sweden	United Kingdom	Italy
4	Italy	Sweden	Netherlands
5	United Kingdom	Netherlands	Sweden
6	Finland	Norway	Germany
7	Switzerland	Finland	Switzerland
8	France	Spain	France
9	Austria	Belgium	Austria
10	Germany	Germany	United Kingdom
11	Norway	Austria	Spain
12	Spain	Italy	Norway

As absolute values cannot be compared, the different changes in the ranking will be analyzed for each country.

The top 5 average alpha ranking based on the domicile of funds and the top 5 of the data set of the ranking based on the location of the head office of the management company have in common 4 countries : Belgium, Netherlands, Sweden and Italy. According to this analysis, Belgium stands at the first place, with the highest return that investors can

obtain from funds. Belgium and Italy experience the largest ascent in the ranking. Belgium datas are also the most dispersed, compared to the others. This is due to the Candriam Sust Pacific R EUR fund that benefits from a very high returns, and therefore a very high alpha. The other countries of the top 5 have a standard deviation around 3 and 7.

Netherlands, which was already in the top 5 of the country ranking, is still in the top 5, achieving an average alpha for twice higher when the data set is based on the domicile rather than when it is based on the location of the head office of the management company.

Concerning Sweden, it maintains a stable position in the ranking, even though the average alpha of funds having their management companies domiciled in Sweden experience an average alpha wich is also twice higher than those of the management company, similar to the Netherlands.

The most surprising result obtained with this analysis goes to Italy. Indeed, Italy is, according to the ranking of CSR implementation of CSR values, the worst country to implement CSR on a national basis. Nevertheless, even if Italy records small number of funds, especially for funds domiciled in Italy, the average alpha raises above 4.4%.

With regards to Switzerland, France and to the United Kingdom, which stand at the top of the country index, they experience different results when a deeper look is given to their datas.

Switzerland is, according to the index created in the chapter 4, the country that implements the best CSR on a national basis. Nevertheless, Switzerland holds the 7th place when we give a deeper look on the Swiss funds' performance. Therefore, even tough Switzerland benefits from a large number of funds when the sample is based on the location of the head office of the management company, these funds achieve returns with an average of 2%.

The second country that is theoretically supposed to be the best at implementing social responsibility on a national basis is France. However, we notice that France is only the 8th country when we look at both the performance on the basis of the domicile of the management company and on the basis of the domicile.

United Kingdom is the country with the largest amount of datas. Data set based on the management is highly dispersed. UK which holds the 5th place in the ranking based on

the domicile, achieves a positive average alpha of 4.27 while it achieves a lower alpha of 1.16 when data are based on the location of the management company.

Norway and Spain are located in the middle of the country ranking, but when a deeper look is given to the values of their average alphas, they achieve the worst average performance. Indeed, they occupy the last places of the ranking.

Finland was also located by the middle of the country ranking, but counter to Norway and Spain, stands at the second place of the ranking when the analysis is based on the head office of the management company and keeps a stable position for the domicile data set.

Germany, that was at the 10th place in the country ranking, is ranked higher in the average alpha ranking for funds which have the location of their management companies located in Germany. Funds with a German way of management achieve therefore better returns than funds domiciled in Germany.

Austria achieves low scores in the 3 rankings, showing a low level of CSR implementation and low returns on their Sustainable funds.

5.3.4. Analysis based on the Morningstar Sustainable Portfolio Score

Thanks to the Portfolio Sustainable score attributed by Morningstar to help investors in the guidance of their investments goals, it is possible to get a first insight of the concordance between the index created to understand which countries implement CSR the best and the average of the Portfolio Sustainable Score on a country basis.

It can be seen that there are several changes in the index ranking compared to the index based on the Morningstar Sustainability Score.

If we go further regarding the average Portfolio Sustainable score based on the domicile, we notice that Switzerland and the UK which were at the top of the country index, are now at the 8th and 12d place of the ranking, meaning that they experience a lower average of portfolio Sustainable score even tough they have a large amount of funds involved in SRI. The result is even more surprising for the United Kingdom which is, according to the results, the country that performs the worst in terms of sustainability.

Another surprising result is the fact that Spain, which was ranked at the 8th in the country index, now stands at the first place. Based on that result, Spain is doing well,

because, even if Spain does not have the largest part of AuM involved or the largest part of funds, they really try to implement CSR. This element goes in line with the study of Gjolberg (2009) in which Spain achieve high score on the process oriented initiatives.

Also, Germany won 5 places in the ranking. These results show that, even if a small part of their assets is involved in SRI, these assets may prove to be of high quality.

In the opposite, France keeps its high place in the ranking, showing a large offer of high quality sustainable funds in the french market.

Results are not so different when the analysis is based on the head office of the management company. Indeed, Switzerland and the United Kingdom are at the end of the ranking while Spain and France and the Netherlands are at the top of it. Belgium and Austrian also gain a few places, at the expense of Norway and Sweden.

Table 10: country ranking based on the Morningstar Sustainable Portfolio Score

	Domicile	**Country ranking**	**ManCo**
1	Spain	Switzerland	Spain
2	France	France	Netherlands
3	Netherlands	United Kingdom	France
4	Sweden	Sweden	Germany
5	Germany	Netherlands	Finland
6	Italy	Norway	Belgium
7	Austria	Finland	Austria
8	Switzerland	Spain	Norway
9	Norway	Belgium	Sweden
10	Belgium	Germany	Italy
11	Finland	Austria	Switzerland
12	United Kingdom	Italy	United Kingdom

To go further, it is also possible to analyze the linear trend that exists between the alpha of each fund and the Portfolio Sustainable Score attributed by Morningstar for each fund, taking into consideration both the domicile basis and the head office of the management company basis.

Indeed, by taking the Morningstar Sustainability score as the x variable and the alpha as the y variable, it is possible to build scatter plots showing the positive or negative linear relation between both variables. These scatter plots are available in appendices 11 to 34.

On a domicile basis, we can determine that there is an increasing relationship between the Portfolio Sustainable Score and the alpha generated by the fund for 5 countries: Austria, Finland, Norway, Sweden and Switzerland while there is a negative relationship for Belgium, France, Germany, Italy, Netherlands and Spain. Nevertheless, the relationship that links the alpha of the UK funds with the sustainable score seems to be neutral.

Nevertheless, negative trends can be seen when we look at location of the management company. Indeed, Finland, Belgium, France, Germany, Italy, Spain and Switzerland have a negative trend and only Austria, Norway, Netherlands, Sweden and the United Kingdom have a positive trend.

When looking more in details into the datas, it is possible to understand the differences between both data sets. Austria, Norway and Sweden are the only countries to benefit from positive linear relationship between alpha's and the Morningstar Portfolio Sustainable Score when the analysis is based on the domicile of the fund or on the location of the management company, and that even if they have different data sets for both analysis. Besides that, Austria, Norway and Sweden have the same highest and lowest values for their respective sets of datas.

Finland has a positive trend for its domicile but a negative trend for the location of the head office of the management company. Finland's data set is bigger for its domicile and these datas are also more dispersed which may explain the fact that the link between the alpha and the Portfolio Sustainability Score is positive on a domicile basis.

In the opposite of Finland, the Netherlands has a negative trend for its domicile while it has a positive trend for the location of the head office of the management company. This is influenced by the large dispersion of the data set of the location of the management company.

The United Kingdom and Switzerland also have different rankings when the analysis is based on their domicile or on the location of their management companies. This is due to the change in their data sets. Indeed, the data sets retrieved from the location of their

management companies are much bigger than those of the domicile, changing therefore completely their rankings.

Both data sets are exactly the same for Spain meaning that both results are the same. France, Germany and Italy also experience similar results. These 4 countries have different samples but their positions do not change.

Belgium also experiences a negative relationship between the alpha's of the Belgian funds and their Portfolio Sustainable scores, even though the fact that the data set based on the domicile of the head office is much bigger and less dispersed than the data set based on the domicile.

Table 11: Detailed datas for the Morningstar Portfolio Sustainable Score, on a domicile basis

DOMICILE	Biggest value	Lowest value	Moyenne	Standard deviation	Data set size
Austria	62,38	48,69	55,77	4,08	53
Belgium	64,42	49,95	54,77	10,68	33
Finland	62,92	41,91	54,42	6,15	42
France	63,95	48,70	59,31	3,32	179
Germany	66,03	49,76	57,63	8,21	56
Italy	60,27	48,25	56,27	5,57	4
Netherland	63,17	51,51	58,36	3,79	10
Norway	63,95	43,58	55,17	3,85	54
Spain	65,97	49,94	59,76	2,95	111
Sweden	64,08	46,97	57,79	5,23	41
Switzerland	60,56	49,79	55,24	2,54	36
UK	64,50	46,43	54,38	3,51	346

Table 12: Detailed datas for the Morningstar Portfolio Sustainable Score, on the basis of the location of the ManCo

ManCO	Biggest value	Lowest value	Moyenne	Standard deviation	Data set size
Austria	62,38	48,69	56,41	4,20	42
Belgium	64,42	49,85	56,69	4,94	65
Finland	62,92	49,13	56,96	4,29	23
France	73,06	43,66	57,67	4,86	261
Germany	66,03	49,66	57,29	3,96	71
Italy	63,21	49,44	55,42	9,37	45
Netherland	63,17	49,51	58,00	12,35	24
Norway	63,95	43,58	55,54	4,22	56
Spain	65,97	49,94	59,62	2,98	84
Sweden	64,08	46,97	55,51	8,10	82
Switzerland	63,22	49,49	55,31	3,65	197
UK	64,50	42,44	52,97	4,10	467

5.4 Excess alpha analysis

In order to understand if the funds obtaining a high Morningstar Sustainability Rating achieve better performance than their non- or less sustainable peers, the excess alpha has been calculated and analyzed.

Indeed, it may be interesting to analyze if sustainable funds are able to perform better than non-sustainable ones.

Detailed average alpha and excess alpha values are retrieved in appendices 35 and 35.

5.4.1. Benchmark measure

As there does not exist any benchmark having only investment funds as assets, we used the Morningstar Peer Groups. Due to the nature of the data set, the Morningstar Peer Group Allocation EUR Moderate International has been selected. Its total return annualized for 5 years ciphers to 5.55%[2].

5.4.2. Average analysis

On a domicile basis, the average alpha measure is positive and ciphers to 3.08% while the excess alpha measure is -3.47%. In contrarian, the average alpha value for the data base based on the location of the head office of the management company ciphers to 2.08% and the excess alpha measure is -2.47%.

[2] at 9th of August 2016

The negative average excess alpha measure shows the inability of sustainable funds to provide to its investor a superior return.

Based on these values, it is therefore possible to assert that, on average, sustainable funds are generating more alphas when their provenance is defined via their domicile. Nevertheless, the average amount that a manager may have subtracted to the fund is better when the fund selection is made on the basis of the head office of the management company.

The order of the ranking of the countries does not change from the one retrieved in section 5.3.3. Indeed, the performance of the peer group has simply been removed, which did not change the ranking of average excess alpha's values. Nevertheless, in the opposite to average alpha's value, that were all positives, the average value of the excess are mostly positives, except for Belgium and the Netherlands.

Indeed, thanks to the high performance of the Candriam Sust Pacific R EUR, Belgian excess alpha's average turns out to be positive.

With regards to the Netherlands, they show a small average positive excess alpha for the data set based on the domicile of the management company. Belgian and Dutch funds are therefore, in average, the only ones generating an average positive excess alpha.

5.4. Analysis between the performance and the country rating

The purpose of this thesis is to find a possible relationship between the performance of the funds with a high sustainable Morningstar rating and the CSR framework put in place for 12 European countries. As the provenance of a fund is defined according to its domicile and the location of the management company, there are 2 different data sets that require to be analyzed. It is therefore possible to make hypothesis for each data set.

5.4.1 Method used

The method that will be used in order to see how the origin of the fund is a function of its performance is the linear regression. Indeed, a linear regression allows to link a dependent and an independent variable based on the hypothesis that the function that links the explicative variable is linear. In order to realize the regressions, the excel tool Toolpak will be used.

The dependent variable, also called, x, is the country rating. Indeed, we are trying to see if the country in which the fund is domiciled or where the fund has the location of its

management company may influence the independent variable, y, which is the alpha generated by the manager of the fund.

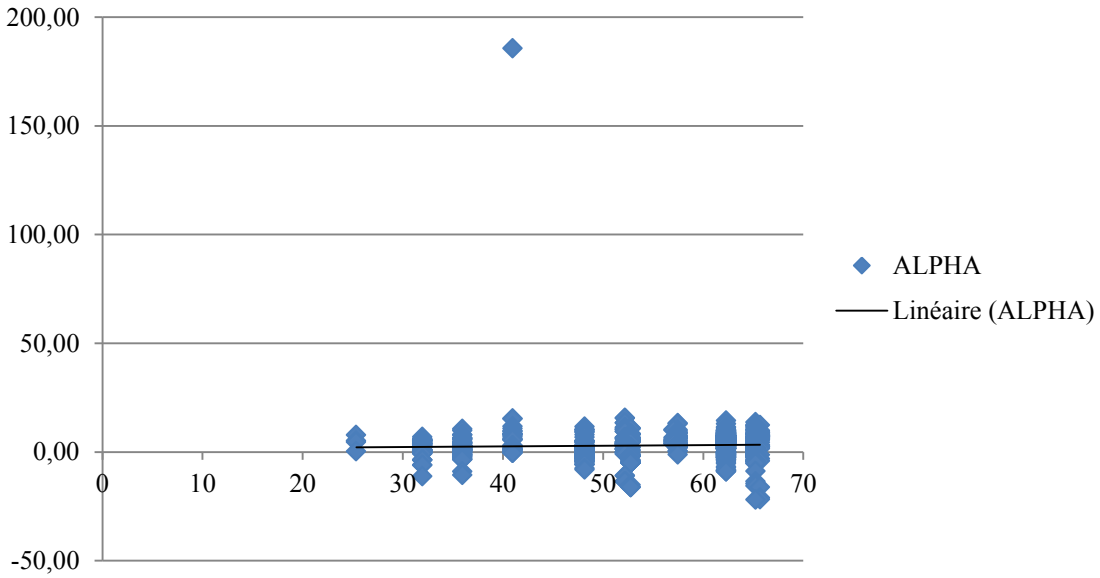
Because the index created in chapter 4 captured all available information concerning the 12 European countries analyzed, a simple regression is used here.

5.4.2. Results obtained

The regression line obtained for the data base based on the the funds domicile is an increasing function: $y = 1.3919 + 0.0302x$.

Nevertheless, as there is only one explanatory variable, the coefficient of determination, R^2, is very low and worth only 1%.

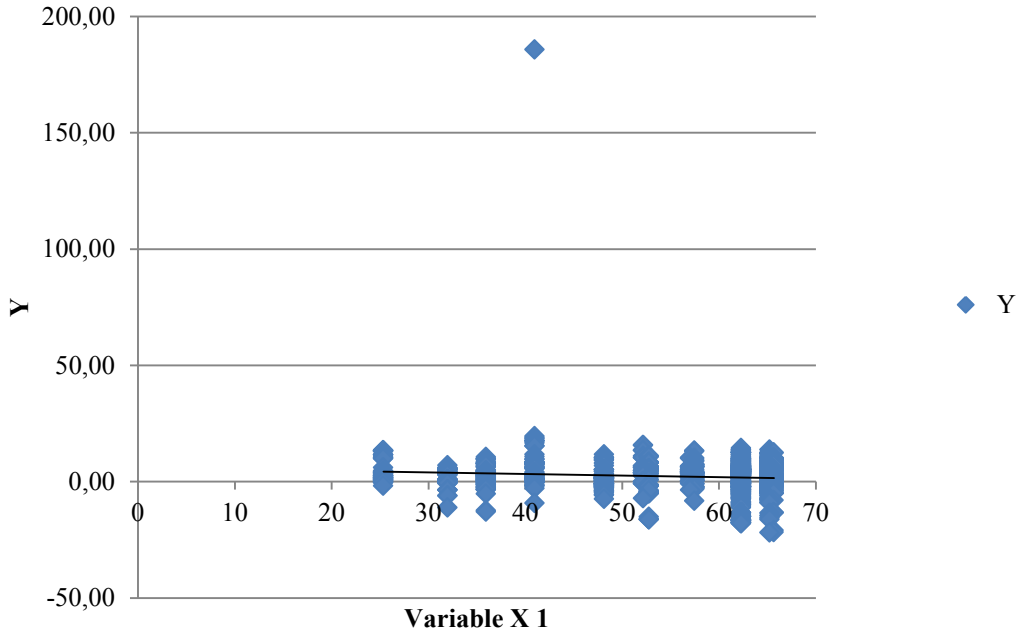
Figure 19:Linear regression (Domicile database)



In the opposite, the regression line obtained when the data set is based on the location of the head office of the management company is decreasing : $y = 6.0487 - 0.0694x$.

Similarly to the data base based on the domicile, the coefficient of determination R^2 ciphers only to 1%.

Figure 20 : Linear regression (ManCo database)



In view of these results, there is a positive relationship between the domicile of the fund and its generated alpha. Indeed, this means that a fund domiciled in a country which implements social responsible investment deeper should experience a higher alpha. Precisely, it means that an increase of one point in the index created in chapter 4, will lead in an increase of the alpha for a value of 0.0303. In the opposite, the regression line that links the alpha and the SRI country in which the head office of the fund is located, is decreasing. So for an increase of the country index by one, the alpha will decrease by 0.0694.

When the regressions are realized using the excess alpha, instead of the alpha, the slope of the regression line is the same but the intercept is lower. This is due to the fact that sustainable funds are underperforming in terms of excess alpha.

These results regarding the excess alpha, are represented in the following functions:

Regression line on a domicile basis: $y = -4.1581+0.0302x$.

Regression line on the basis of the location of the management company: $y = 0.4988 - 0.0694x$.

Detailed results are available in appendices 37 to 40.

5.5. Final results

At the first glance, and simply based on the primary analyses, the relationship between the country and the alpha of a sustainable fund seems to be uncorrelated. Furthermore, when the analysis is done on the basis of the fund's domicile, alphas' values tend to be higher.

Some countries differentiate themselves in the rankings retrieved in the primary analysis. First, Belgium is the country with the highest levels of alpha and excess alpha.

Second, Netherlands are achieving particularly good alphas and is the only country, after Belgium, that benefits from an average positive excess alpha for its domicile based data set. Netherlands are not only good performing in terms of alpha, but are also performing well in terms of sustainability investing. Indeed, Netherlands achieve a high average Morningstar Portfolio Score.

Third, thanks to its high Morningstar Sustainability average score, we can affirm that Spain is the country that implement the most sustainability issues in its funds' investing policies confirming the fact that Spain is more « process-oriented » towards SRI initiatives.

In the opposite, Italy funds may appear to be more « result-oriented ». Indeed, this is shown by the fact that Italy achieves low portfolio sustainable score but ranks pretty well in the alpha average ranking.

United Kingdom and Switzerland achieve the worst average alpha and Morningstar Portfolio Sustainable Score, which is the opposite of the result we could expect regarding the country rating index.

France achieves a good average of Morningstar Sustainable score, which corresponds to the finding of the county index. Nevertheless, the relation between the score and the alpha generated by the fund is negative, showing that an increase in the portfolio sustainable score leads to a decrease of the alpha.

The number of increasing relationships between the alpha and the Morningstar Sustainable score is higher when the analysis is based on the domicile. These results go along with the results obtained with the simple regressions realized between the theoretical country index and alphas values.

Indeed, the simple regressions realized allow to precise the relationship between the origin of a fund and its alpha. Results show an increasing relationship between a fund's domicile and the alpha while showing a decreasing relationship between the location of the head office of the management and the fund's alpha.

Chapter VI: Conclusion

The purpose of this thesis was to show if the CSR environment of the origin of a corporate social investment fund has a positive impact on its performance. In order to draw a final conclusion, we went through two major steps. First, an index has been constructed to capture the level of CSR and SRI implementation on a national basis for 12 European countries. Secondly, a definition of SRI funds has been settled taking into account the domicile of the fund and the location of the management company.

By taking into consideration whether the domicile or the location of the management company, the empirical results obtained differ. Indeed, on one hand, the link between the country rating obtained regarding the domicile of the fund and its generated alpha is positive. While, on the other hand, the relation based on the location of the management company is negative.

It is therefore possibe to assert that the origin of the fund must be decomposed in order to understand the impact on the fund performance.

6.1. Limitations and recommandations

First, the origin of the fund was defined via the domicile of the fund and the corporate culture of the fund through the location of the management company. Nevertheless, initially, a third element was supposed to be added to the origin the fund: the origin of institutional investors. This analysis was impossible to realize due to a restrinct ascess to information.

Secondly, due to the fact that the origin of the fund must be decomposed in order to understand the impact on the fund performance, we know that: on one hand, the link between the country rating obtained regarding the domicile of the fund and its generated alpha is positive. While, on the other hand, the relation based on the location of the management company is negative. It would be interesting to study the global impact on the fund performance, so that we could know which of those impacts is dominant and if it is a general rule or if it varries for each case.

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Directive (EC) 2009/65/EC of 13 July 2009 on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS) as regards depositary functions, remuneration policies and sanctions, Official Journal of European Union, L302/32, 17 November 2009.

APPENDICES

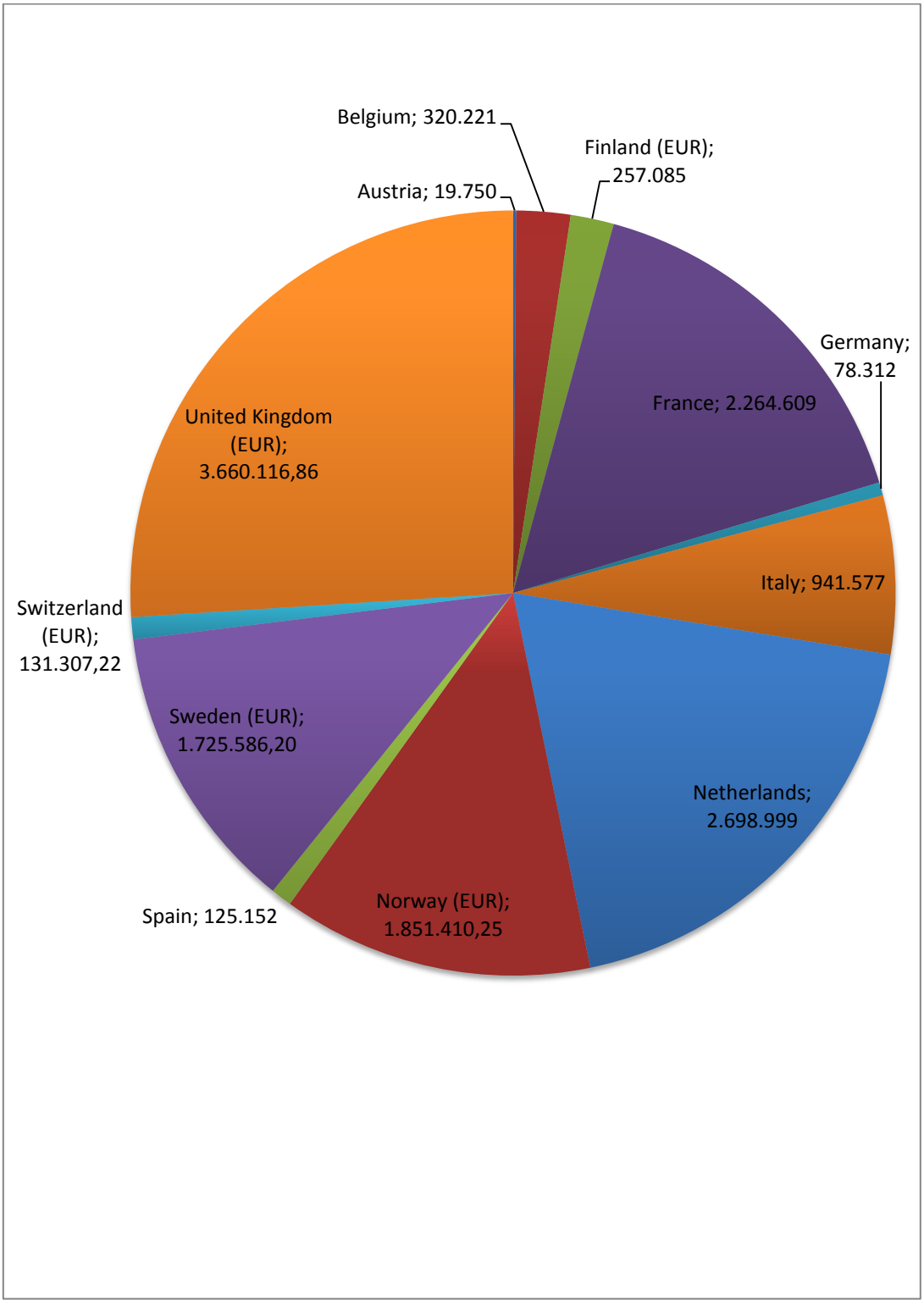
Table of content

Appendix 1: SRI Asset under management, per country and per strategies (2013).

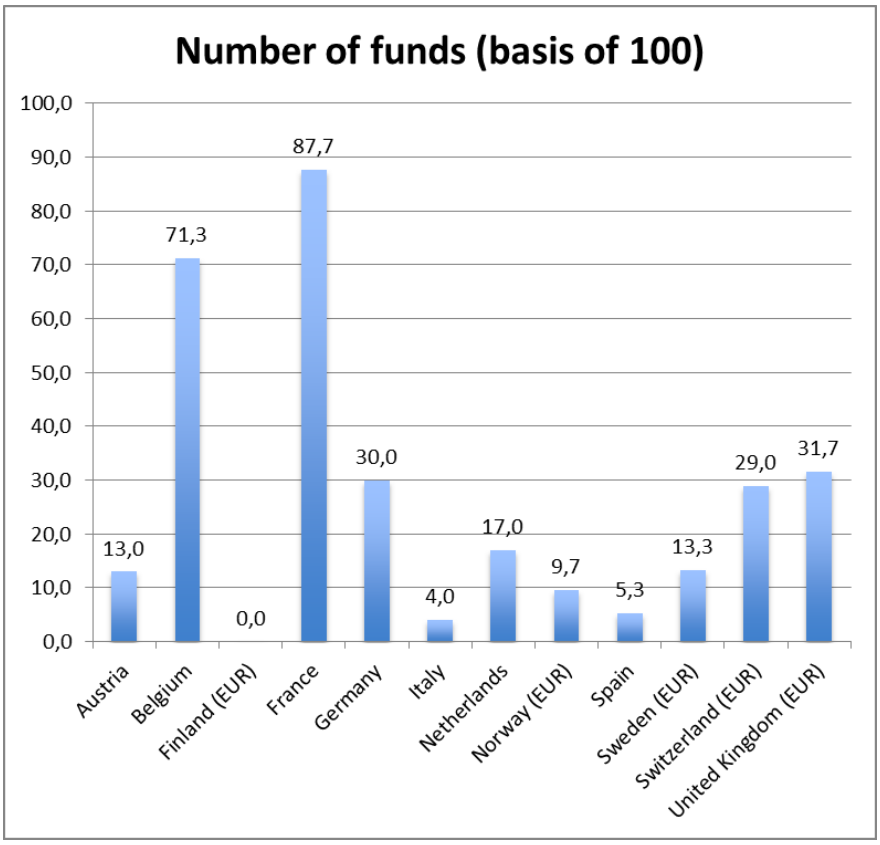
Strategy	**Austria**	**Belgium**	**Finland (EUR)**	**France**	**Germany**	**Italy**	**Netherlands**	Norway (NOK)	**Norway (EUR)**
best-in-class	4.575	17.132	310	173.213	15.813	3.917	15.232	374.712	40.019,24
Sustainability themed	82	816	220	4.392	4.127	1.094	20.163	17.505	1.869,53
Norm-based screening	5.467	20.235	64.667	1.119.040	10.377	351.754	746.125	6.727.743	718.522,95
ESG integration	986	22.006	46.075	440.000	10.990	33.879	199.512	793.573	84.753,60
Engagement and voting	2.060	38.006	50.565	55.304	11.736	54.372	649.198	2.706.029	289.003,90
Exclusion	6.580	222.026	95.248	472.660	25.269	496.561	1.068.769	6.715.740	717.241,03
Total AuM 2013	**19.750**	**320.221**	**257.085**	**2.264.609**	**78.312**	**941.577**	**2.698.999**	**17.335.302,00**	**1.851.410,25**
Basis of 100	**0,49**	**8,01**	**6,43**	**56,62**	**1,96**	**23,54**	**67,47**	**433,38**	**46,29**

Strategy	**Spain**	Sweden (SEK)	**Sweden (EUR)**	**Switzerland (CHF)**	**Switzerland (EUR)**	**UK(GBP)**	**United Kingdom (EUR)**
best-in-class	1.961	429.630	46.271,15	31.216	28.144,35	2.784	3.522,60
Sustainability themed	82	17.710	1.907,37	13.579	12.242,83	10.737	13.585,53
Norm-based screening	14.247	3.753.857	404.290,40	12.833	11.570,23	59.665	75.494,12
ESG integration	7.338	2.915.551	314.004,84	24.441	22.036,01	990.536	1.253.325,20
Engagement and voting	9.103	3.120.521	336.080,11	28.501	25.696,50	1.434.050	1.814.503,47
Exclusion	92.421	5.784.887	623.032,33	35.068	31.617,31	394.915	499.685,95
Total AuM 2013	**125.152**	**16.022.156**	**1.725.586,20**	**145.638**	**131.307,22**	**2.892.687**	**3.660.116,86**
Basis of 100	**3,13**	**400,55**	**43,14**	**3,64**	**3,28**	**72,32**	**91,50**

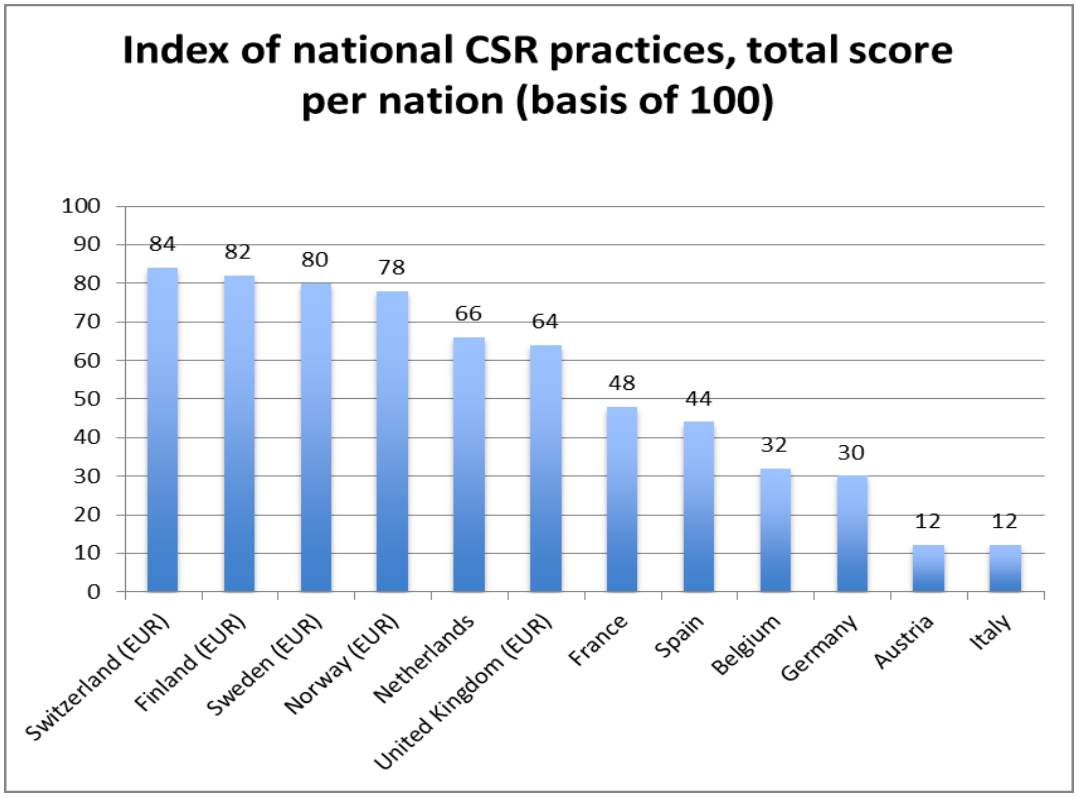
Appendix 2 : Asset under management repartition, circular diagram (2013)



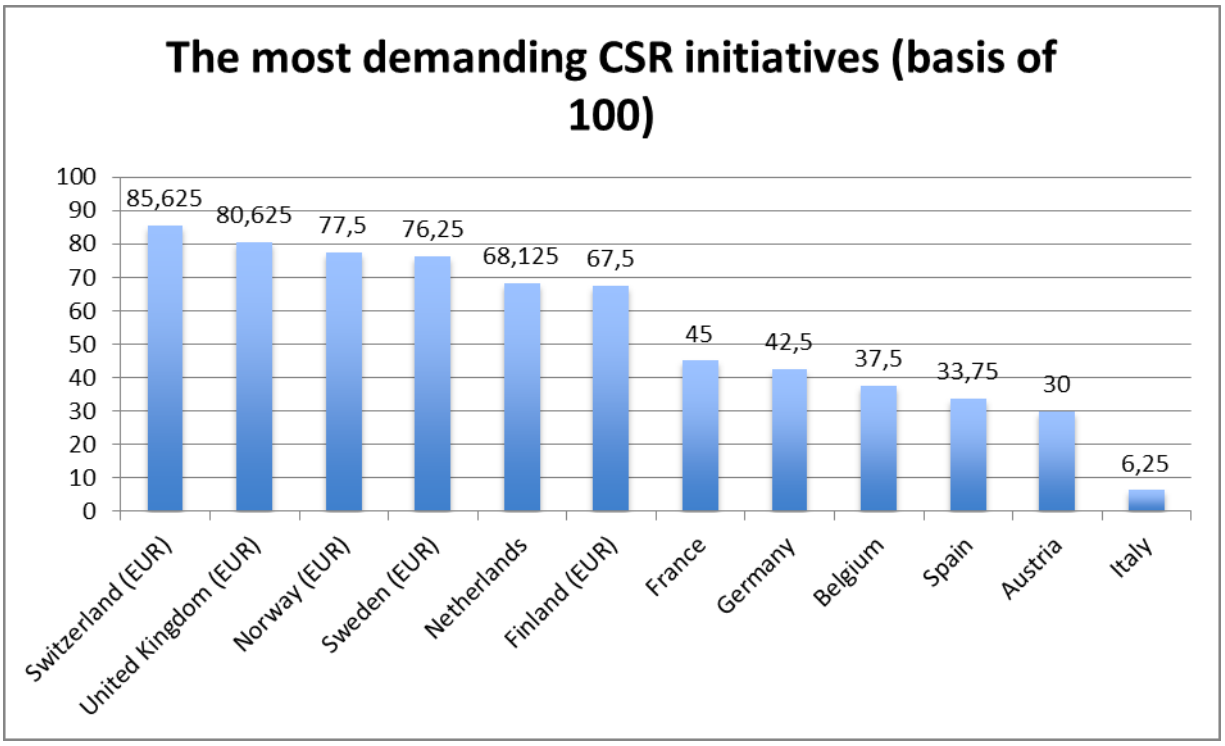
Appendix 3: Number of SRI funds, on a basis of 100



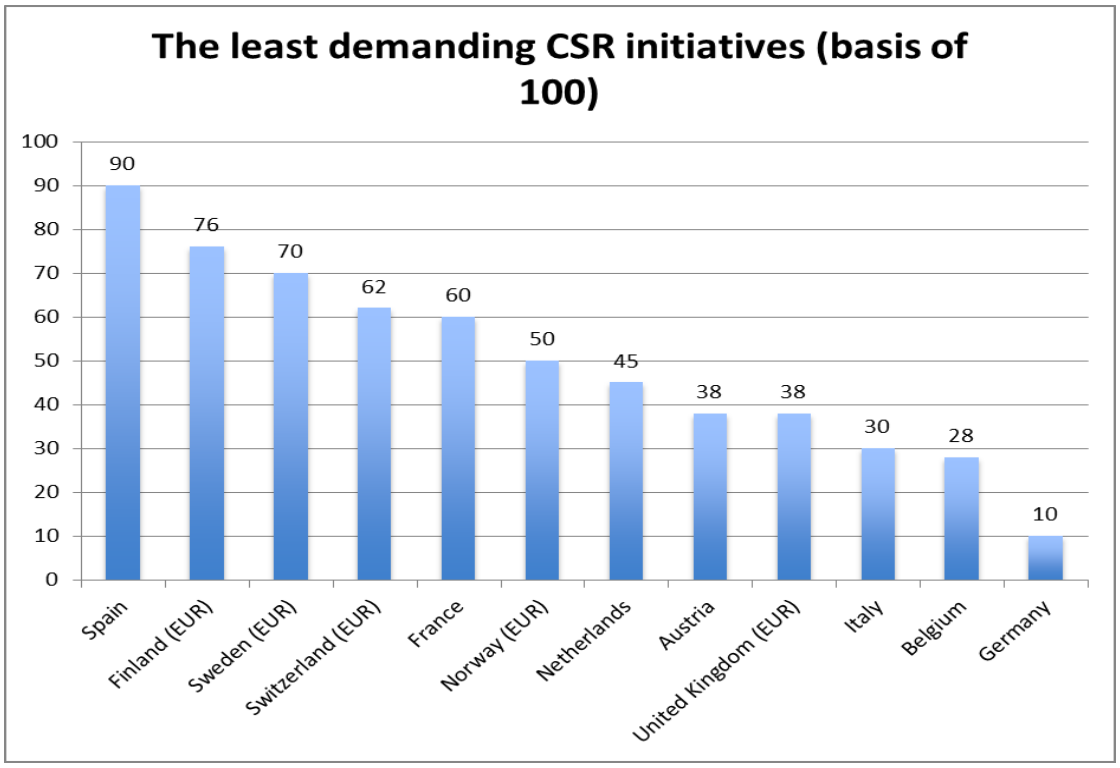
Appendix 4: Index of CSR practices, total score per nation (basis of 100)



Appendix 5: Index, the most demanding CSR initiatives, total scores per nation (basis of 100)



Appendix 6: Index, the least demanding CSR initiatives, total scores per nation (basis of 100)



Appendix 7: Country index summary and results

COUNTRY	INDEX OF CSR PRACTICES	MOST DEMANDING CSR INITIATIVE	LEAST DEMANDING CSR INITIATIVE	NUMBER OF FUNDS	EUROSIF ANALYSIS	TOTAL	AVERAGE
Austria	12	30	38	13,0	66,8	159,8	32,0
Belgium	32	37,5	28	71,3	36,0	204,8	41,0
Finland (EUR)	82	67,5	76	0,0	35,5	261,0	52,2
France	48	45	60	87,7	85,5	326,2	65,2
Germany	30	42,5	10	30,0	67,3	179,8	36,0
Italy	12	6,25	30	4,0	74,5	126,8	25,4
Netherlands	66	68,125	45	17,0	89,2	285,3	57,1
Norway (EUR)	78	77,5	50	9,7	48,8	263,9	52,8
Spain	44	33,75	90	5,3	67,7	240,8	48,2
Sweden (EUR)	80	76,25	70	13,3	47,7	287,3	57,5
Switzerland (EUR)	84	85,625	62	29,0	67,8	328,4	65,7
United Kingdom (EUR)	64	80,625	38	31,7	97,2	311,5	62,3

Appendix 8: Observations from global data base

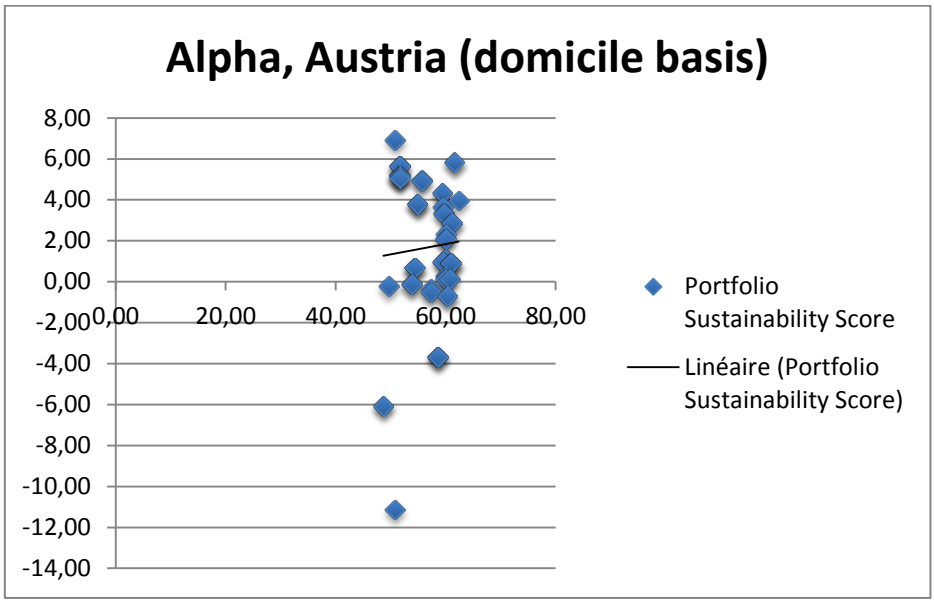
Asset allocation	nb	Currency	nb	Domicile	nb	Sales region	nb	Fund Legal Structure	nb
Allocation	317	Australian dollar	20	Austria	73	Austria	27	Open Ended Investment Compan	1260
Alternative	38	Canadian dollar	6	Belgium	45	Belgium	18	SICAV	1678
Convertibles	64	chinese yuan renminb	2	Denmark	36	Denmark	28	Unit Trust	167
Equity	3112	Czech Koruna	9	Finland	52	Finland	31	FCP	528
Fixed Income	158	Euro	1624	France	242	France	205	SIMCAV	68
Miscellaneous	12	Forint	5	Germany	86	Germany	83		
		Japanese yen	32	Ireland	381	Latvia	1	**TOTAL**	**3701**
TOTAL	3701	new zealand dollar	3	Isle of Man	2	Netherlands	22		
		norwegian krone	65	Jersey	8	Norway	16		
		offshore chinese yuan	5	Latvia	1	Portugal	11		
		Pound sterling	723	Liechtenstein	32	Slovenia	3		
		Romanian Leu	1	Luxembourg	1835	Spain	144		
		Singapore dollar	37	Mauritius	1	Sweden	60		
		South african rand	2	Netherlands	15	Switzerland	146		
		Swedish krona	119	Norway	84	United Kingdom	374		
		Swiss franc	203	Portugal	9	Italy	49		
		US Dollar	769	Slovenia	3	Czech Republic	4		
		Zloty	25	Spain	140	European Cross-Bord	1649		
		Danish krone	41	Sweden	65	Global Cross-Border	569		
		hong kong dollar	10	Switzerland	72	Nordic cross-border	85		
				United Kingd	506	Greece	1		
		TOTAL	**3701**	United State	2	Hungary	2		
				Italy	11	Singapore	5		
						South Africa	6		
				TOTAL	**3701**	Taiwan	9		
						Slovakia	1		
						Pure offshore	152		
						TOTAL	**3701**		

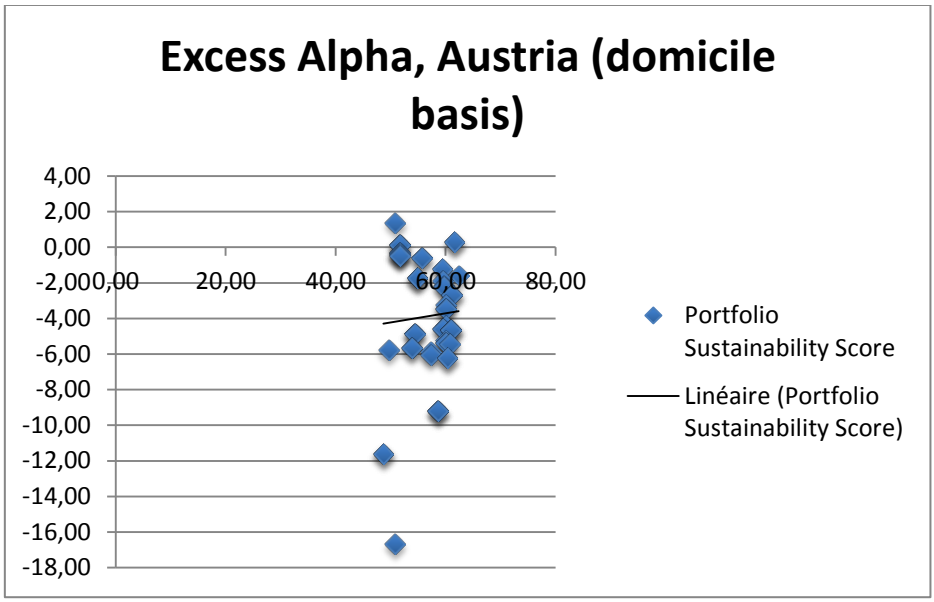
Appendix 9: Observations from the domicile data base

Asset allocation	nb	Currency	nb	Domicile	nb	Sales region	nb	Fund Legal Structure		Manco Head Office	nb
Allocation	223	Australian dollar	2	Austria	73	Austria	26	Open Ended Investment C	864	Austria	56
Alternative	3	Canadian dollar	0	Belgium	45	Belgium	11	SICAV	81	Belgium	45
Convertibles	11	chinese yuan renminb	0	Denmark	0	Denmark	0	Unit Trust	89	denmark	14
Equity	1105	Czech Koruna	2	Finland	52	Finland	30	FCP	289	Finland	26
Fixed Income	42	Euro	678	France	242	France	193	SIMCAV	68	France	219
Miscellaneous	7	Forint	1	Germany	86	Germany	39			germany	76
		Japanese yen	4	Ireland	0	Latvia	0	**TOTAL**	**1391**	Italy	12
TOTAL	1391	new zealand dollar	0	Isle of Man	0	Netherlands	15			Luxembourg	17
		norwegian krone	40	Jersey	0	Norway	6			US	207
		offshore chinese yuan	0	Latvia	0	Portugal	0			Netherlands	18
		Pound sterling	471	Liechtenstein	0	Slovenia	0			Norway	84
		Romanian Leu	0	Luxembourg	0	Spain	140			Portugal	1
		Singapore dollar	0	Mauritius	0	Sweden	41			Spain	111
		South african rand	0	Netherlands	15	Switzerland	65			Sweden	67
		Swedish krona	74	Norway	84	United Kingdom	325			Switzerland	93
		Swiss franc	72	Portugal	0	Italy	11			UK	345
		US Dollar	40	Slovenia	0	Czech Republic	2			Liechtenstein	0
		Zloty	0	Spain	140	European Cross-Bord	400			Singapore	0
		Danish krone	7	Sweden	65	Global Cross-Border	13			Japan	0
		hong kong dollar	0	Switzerland	72	Nordic cross-border	72			Slovenia	0
				United Kingd	506	Greece	0			hong kong	0
		TOTAL	**1391**	United State	0	Hungary	1			Andorre	0
				Italy	11	Singapore	0			Ireland	0
						South Africa	0			Latvia	0
				TOTAL	**1391**	Taiwan	0			Canada	0
						Slovakia	1			South africa	0
						Pure offshore	0				
										TOTAL	**1391**
						TOTAL	**1391**				

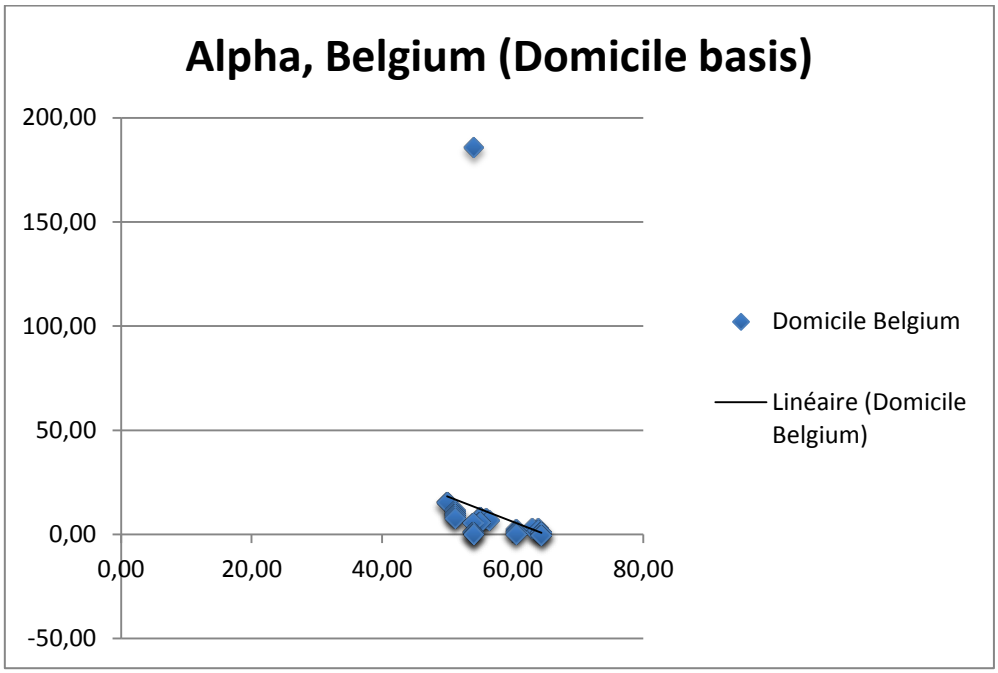
Asset allocation	nb	Currency	nb	Domicile	nb	Sales region	nb	Fund Legal Structure	nb	Manco Head Office	nb
Allocation	228	Australian dollar	10	Austria	73	Austria	27	Open Ended Investment Company	842	Austria	56
Alternative	19	Canadian dollar	0	Belgium	45	Belgium	18	SICAV	1110	Belgium	100
Convertibles	40	chinese yuan renminbi	0	Denmark	7	Denmark	7	Unit Trust	86	denmark	0
Equity	2097	Czech Koruna	7	Finland	41	Finland	21	FCP	422	Finland	27
Fixed Income	123	Euro	1226	France	228	France	199	SIMCAV	59	France	485
Miscellaneous	12	Forint	3	Germany	74	Germany	62			germany	167
		Japanese yen	17	Ireland	167	Latvia	0	**TOTAL**	**2519**	Italy	117
TOTAL	2519	new zealand dollar	0	Isle of Man	2	Netherlands	20			Luxembourg	0
		norwegian krone	54	Jersey	4	Norway	12			US	0
		offshore chinese yuan	2	Latvia	0	Portugal	2			Netherlands	48
		Pound sterling	456	Liechtenstein	0	Slovenia	0			Norway	94
		Romanian Leu	1	Luxembourg	1186	Spain	131			Portugal	0
		Singapore dollar	26	Mauritius	1	Sweden	38			Spain	111
		South african rand	0	Netherlands	15	Switzerland	105			Sweden	151
		Swedish krona	88	Norway	83	United Kingdom	273			Switzerland	381
		Swiss franc	134	Portugal	0	Italy	21			UK	782
		US Dollar	459	Slovenia	0	Czech Republic	4			Liechtenstein	0
		Zloty	20	Spain	130	European Cross-Border	1115			Singapore	0
		Danish krone	14	Sweden	54	Global Cross-Border	285			Japan	0
		hong kong dollar	2	Switzerland	65	Nordic cross-border	78			Slovenia	0
				United Kingdom	336	Greece	0			hong kong	0
		TOTAL	**2519**	United States	0	Hungary	1			Andorre	0
				Italy	8	Singapore	5			Ireland	0
						South Africa	0			Latvia	0
				TOTAL	**2519**	Taiwan	4			Canada	0
						Slovakia	1			South africa	0
						Pure offshore	90				
										TOTAL	**2519**
						TOTAL	**2519**				

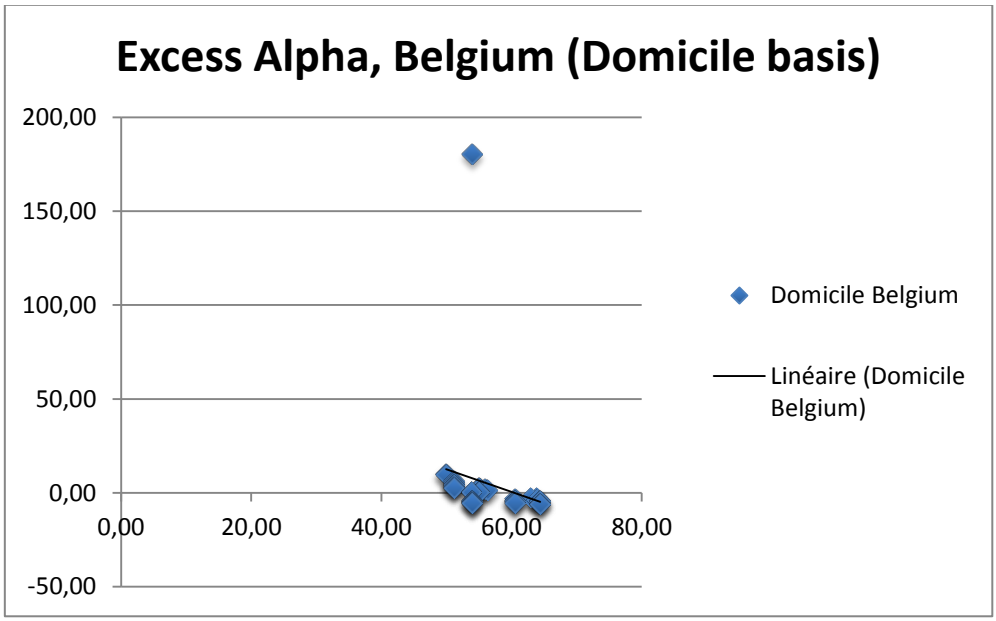
Appendix 11: Alpha and excess alpha regressions with the Morningstar Portfolio Sustainable Score on basis of the domicile of the Austrian funds



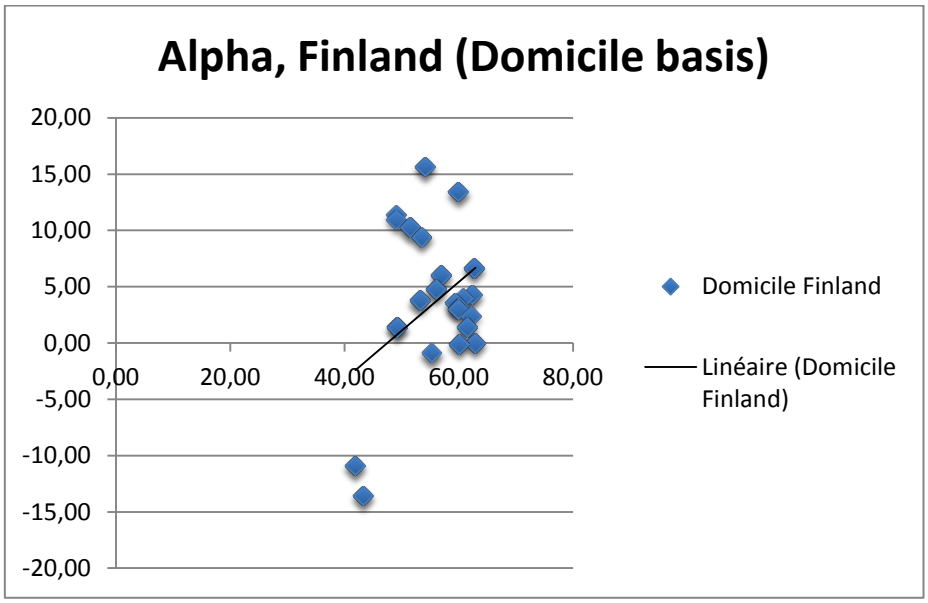


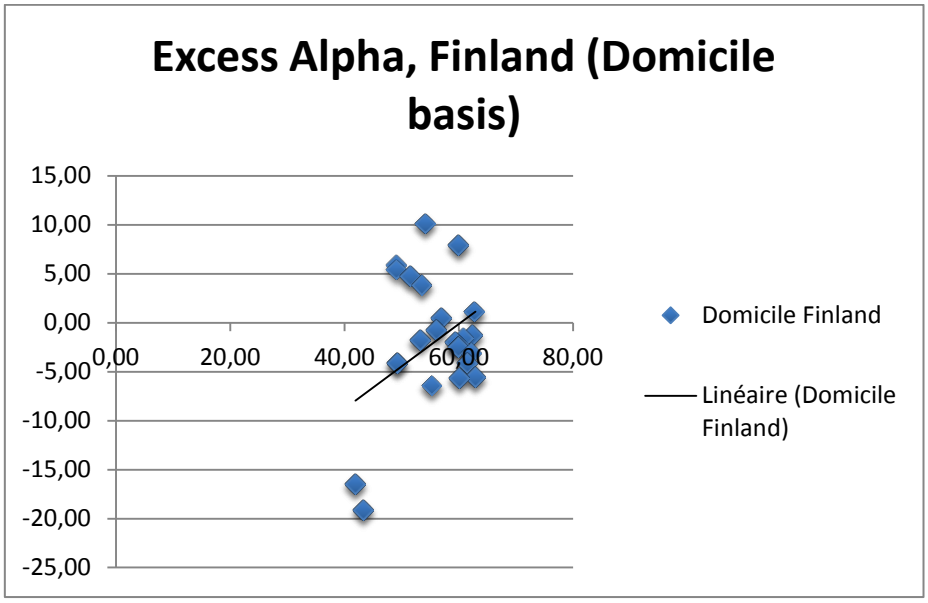
Appendix 12: Alpha and excess alpha regressions with the Morningstar Portfolio Sustainable Score on basis of the domicile of the Belgian funds



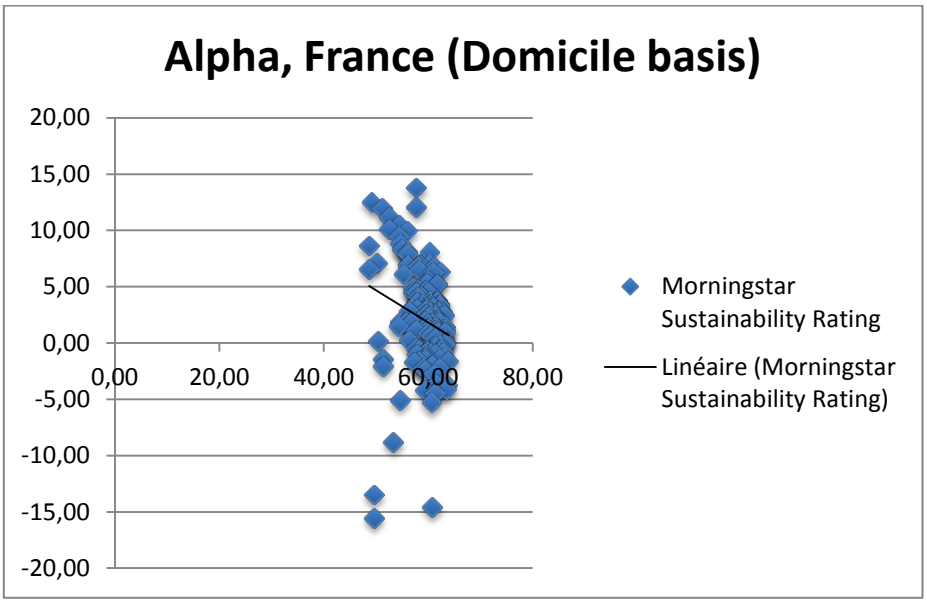


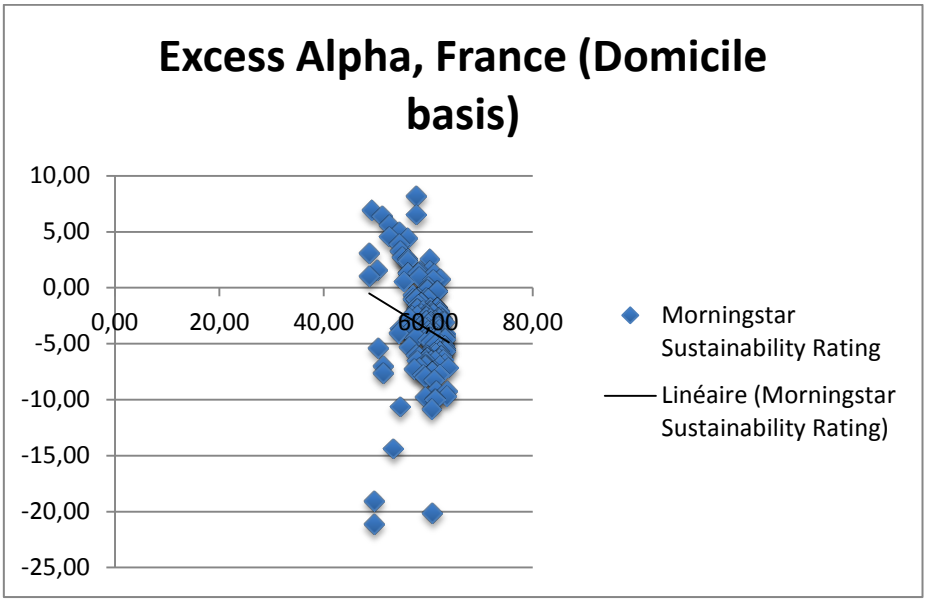
Appendix 13: Alpha and excess alpha regressions with the Morningstar Portfolio Sustainable Score on basis of the domicile of the Finnish funds



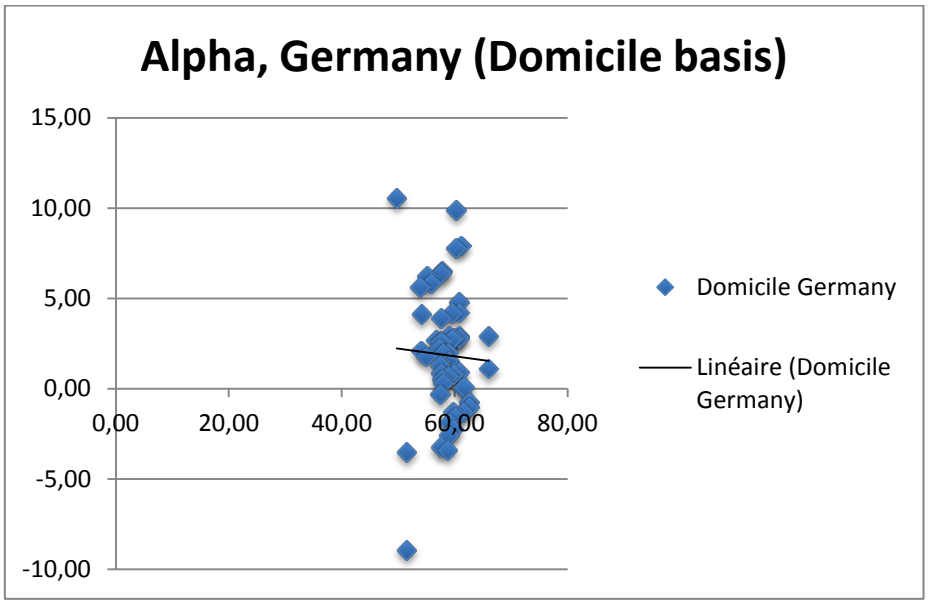


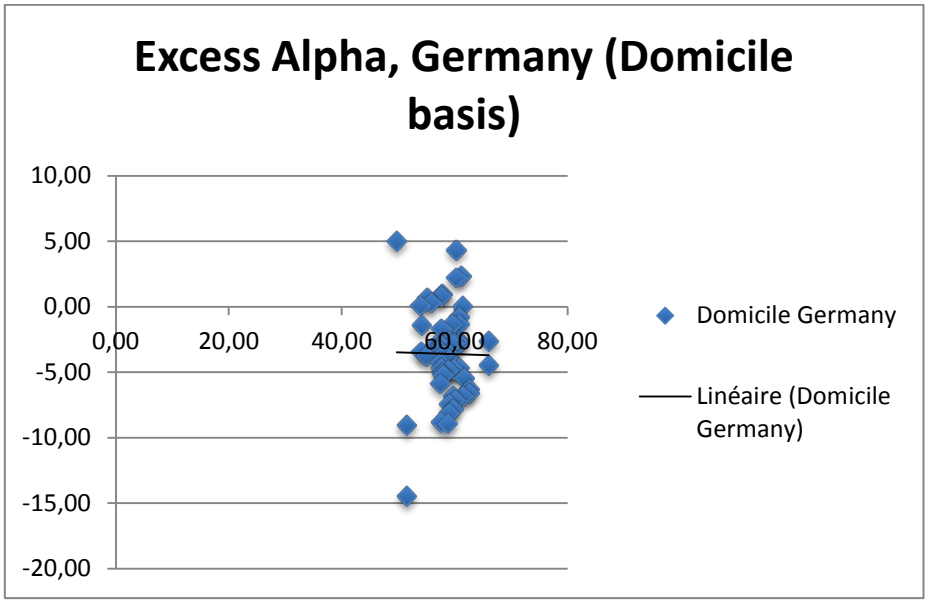
Appendix 14: Alpha and excess alpha regressions with the Morningstar Portfolio Sustainable Score on basis of the domicile of the French funds



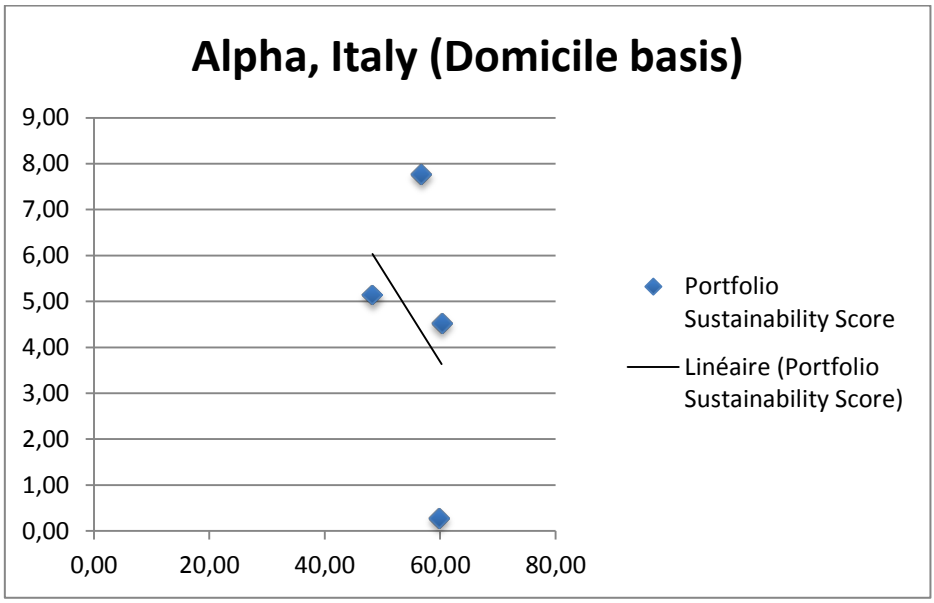


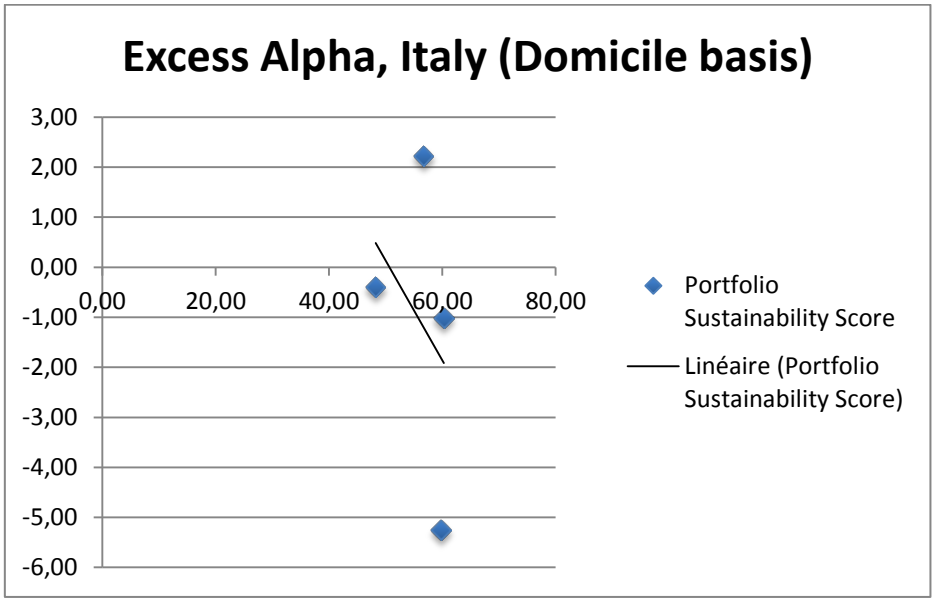
Appendix 15: Alpha and excess alpha regressions with the Morningstar Portfolio Sustainable Score on basis of the domicile of the German funds



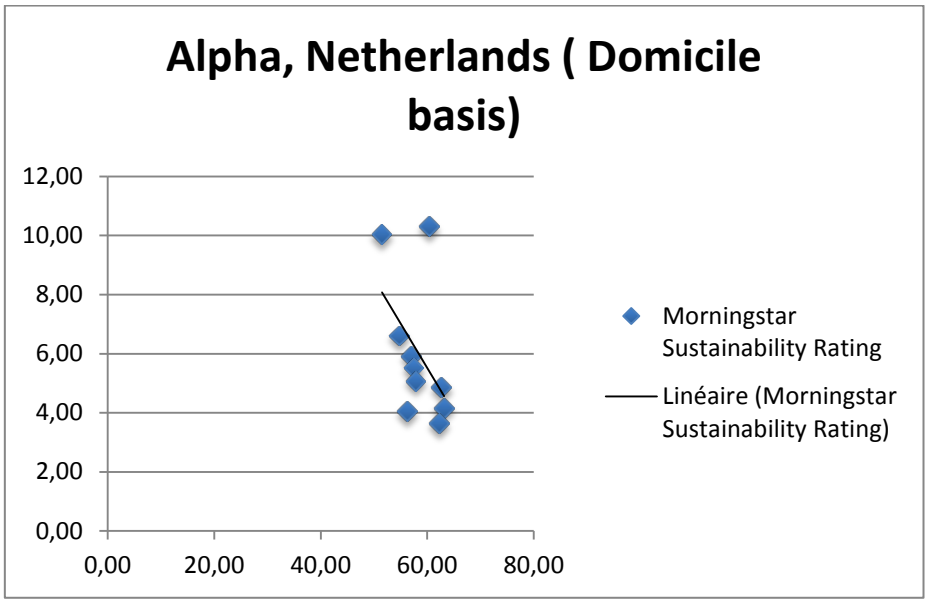


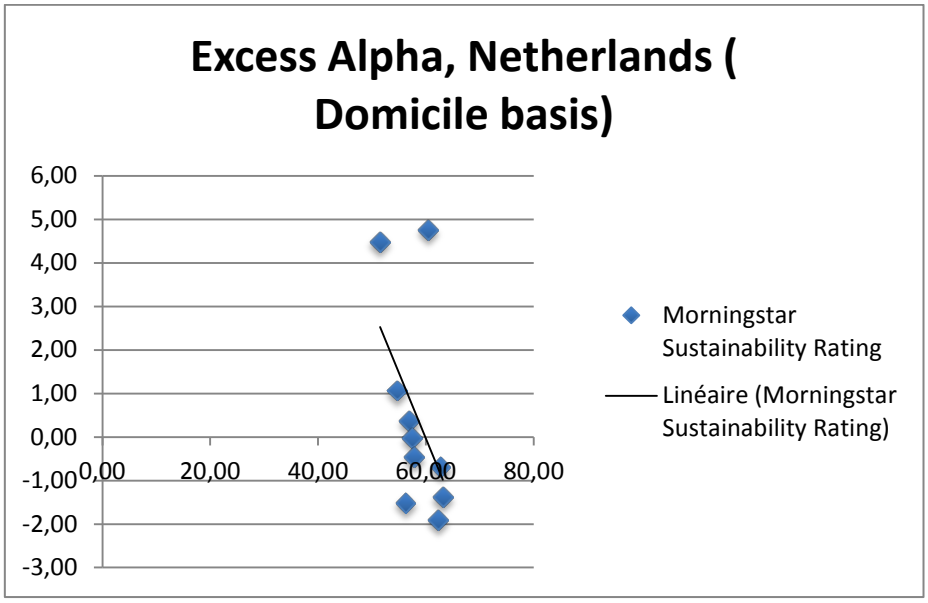
Appendix 16: Alpha and excess alpha regressions with the Morningstar Portfolio Sustainable Score on basis of the domicile of the Italian funds



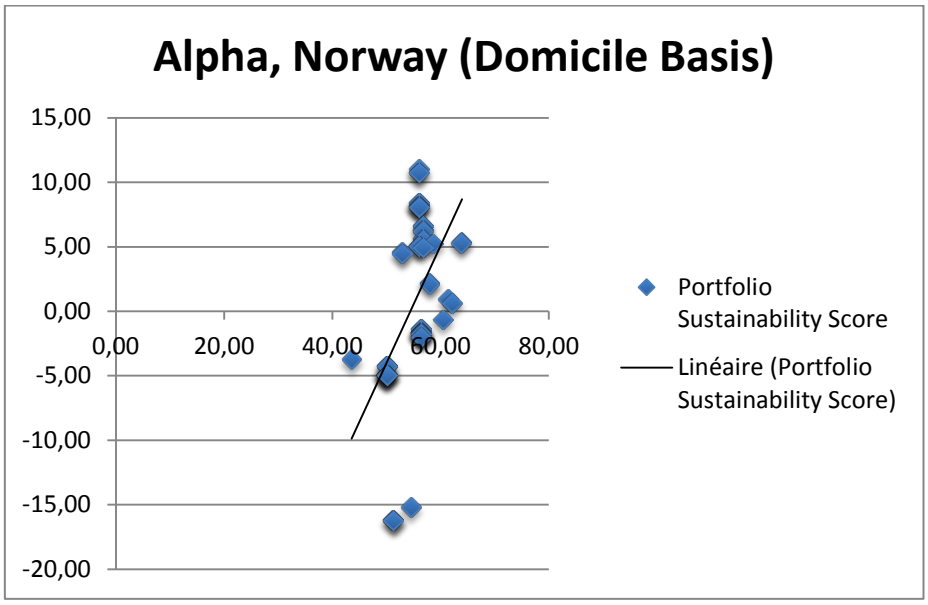


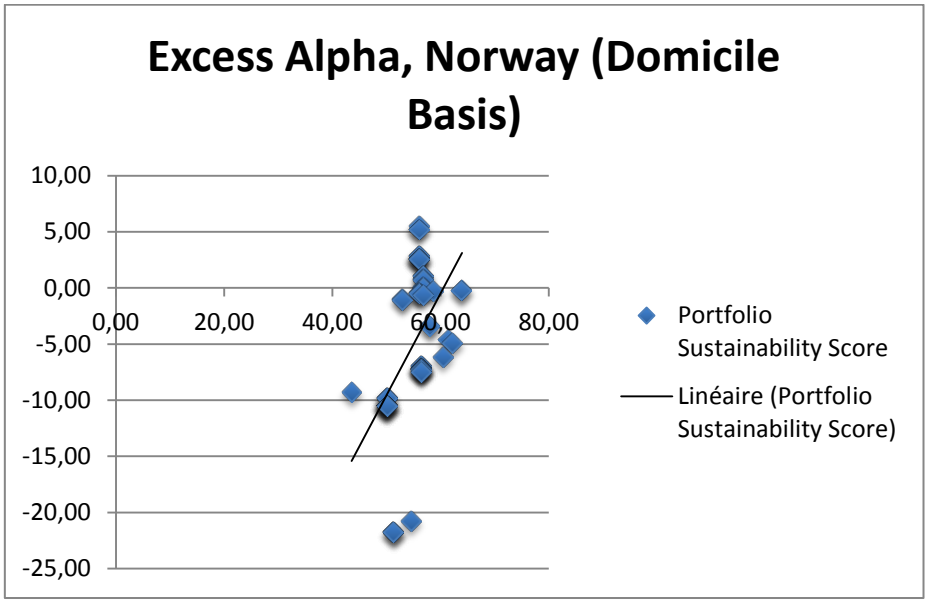
Appendix 17: Alpha and excess alpha regressions with the Morningstar Portfolio Sustainable Score on basis of the domicile of the Dutch funds



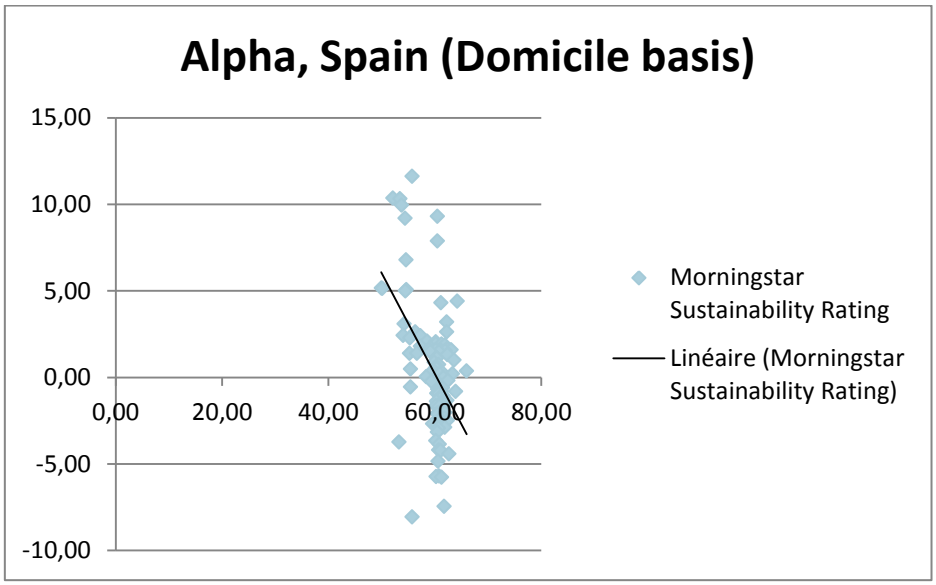


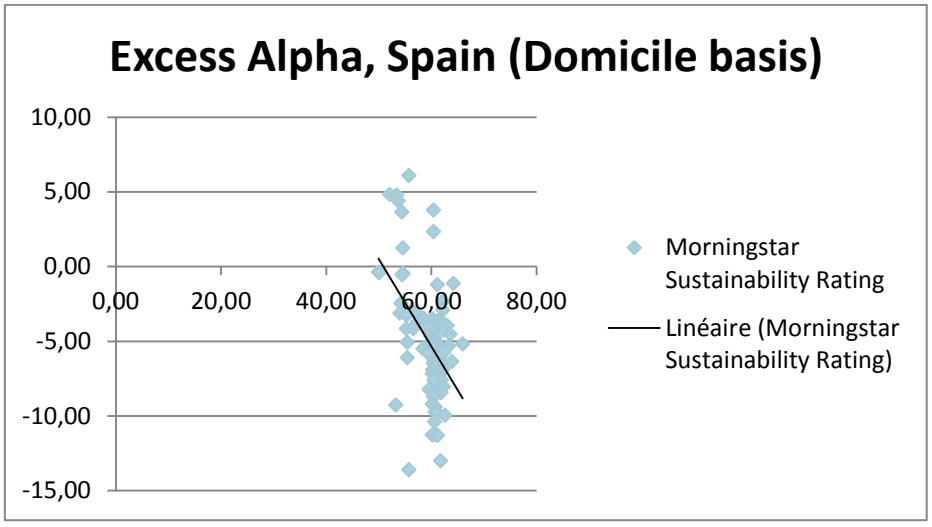
Appendix 18: Alpha and excess alpha regressions with the Morningstar Portfolio Sustainable Score on basis of the domicile of the Norwegian funds



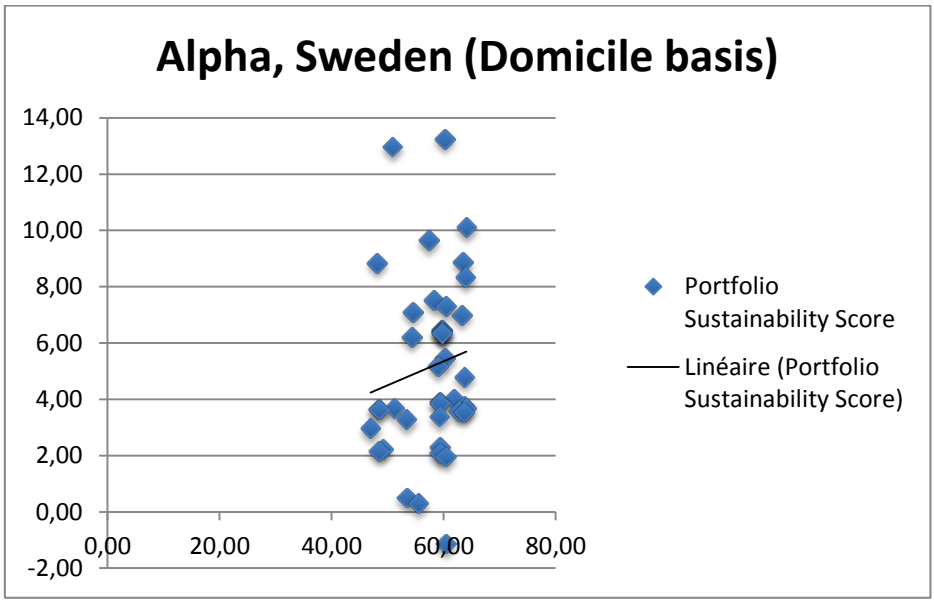


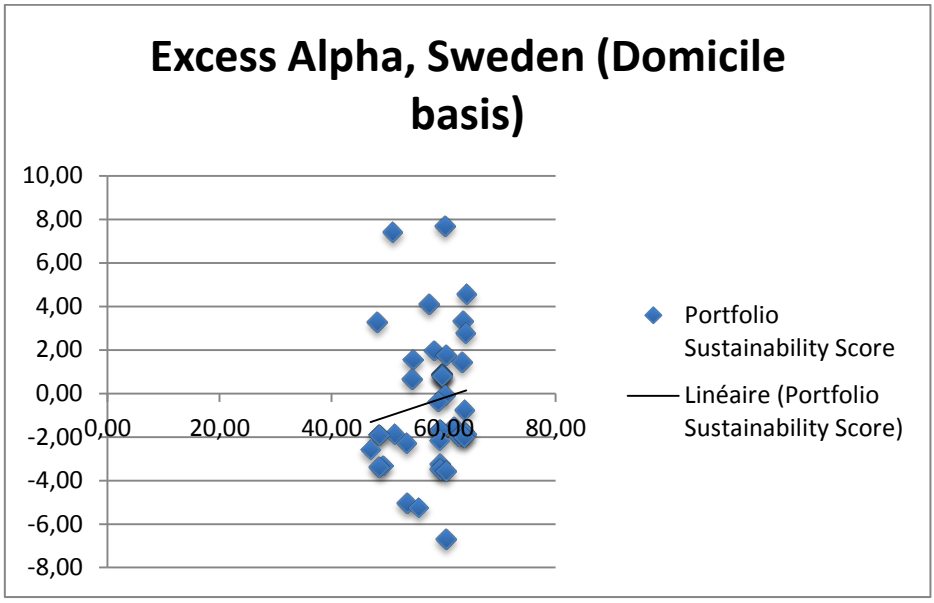
Appendix 19: Alpha and excess alpha regressions with the Morningstar Portfolio Sustainable Score on basis of the domicile of the Spanish funds



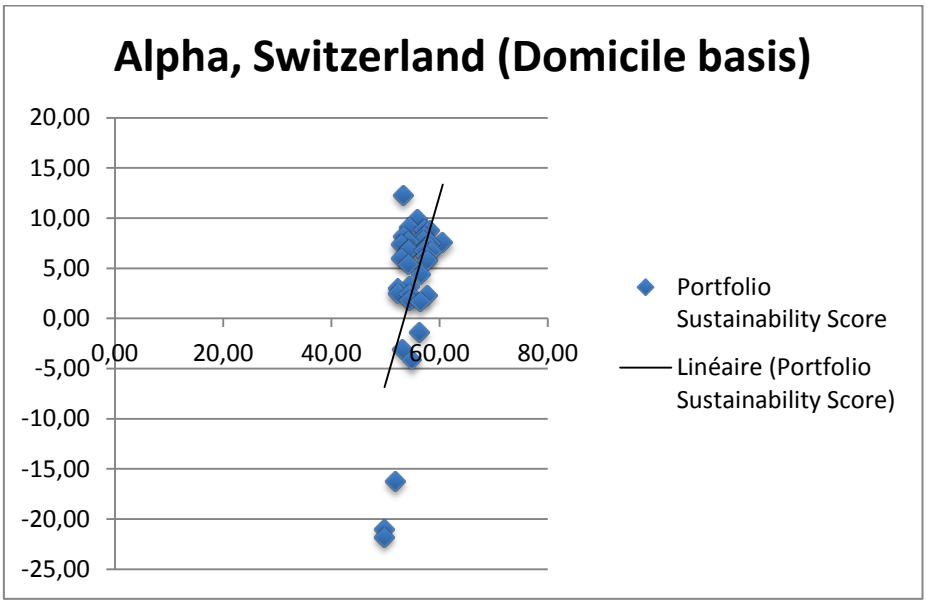


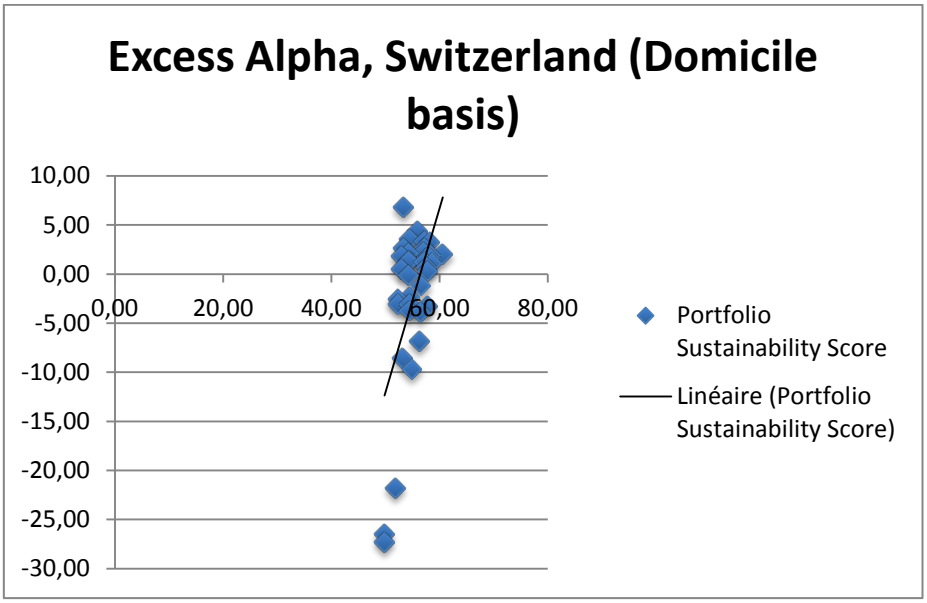
Appendix 20: Alpha and excess alpha regressions with the Morningstar Portfolio Sustainable Score on basis of the domicile of the Swedish funds



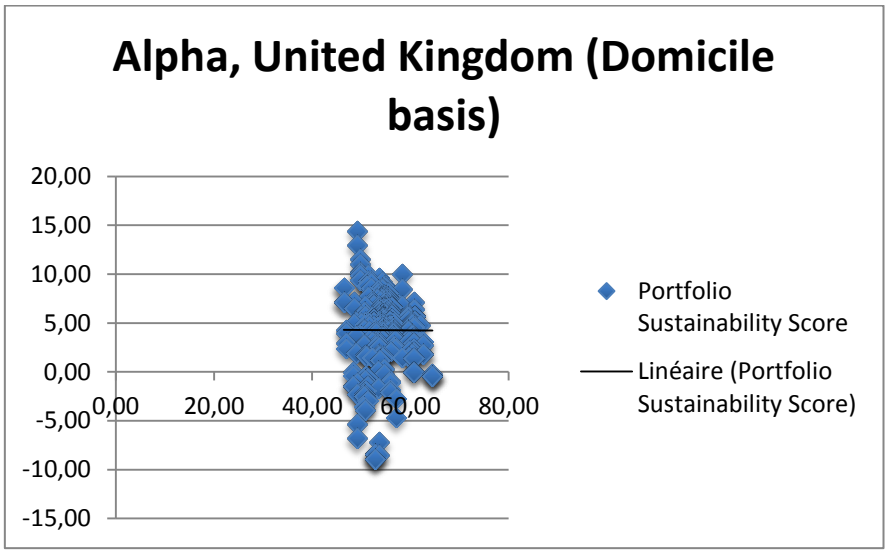


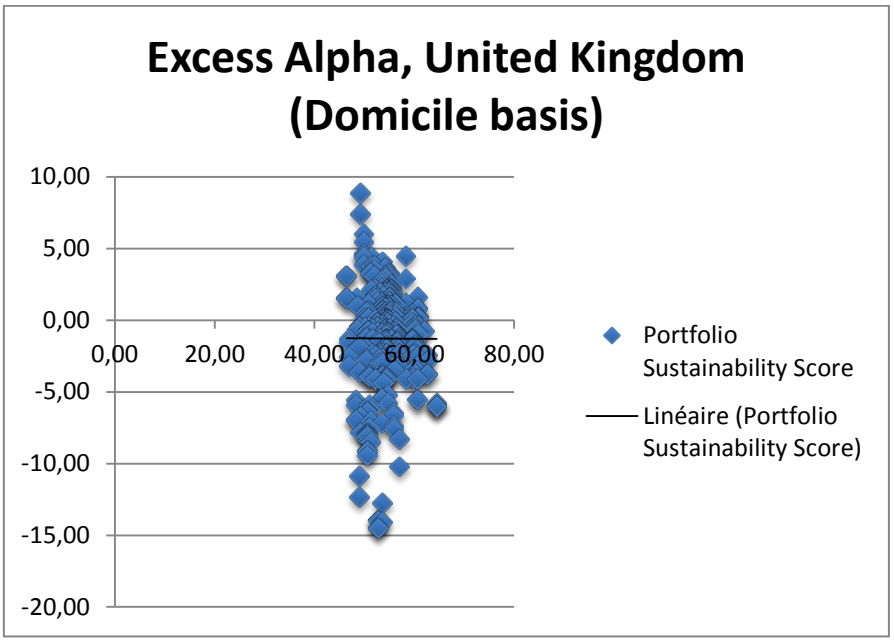
Appendix 21: Alpha and excess alpha regressions with the Morningstar Portfolio Sustainable Score on basis of the domicile of the Swiss funds



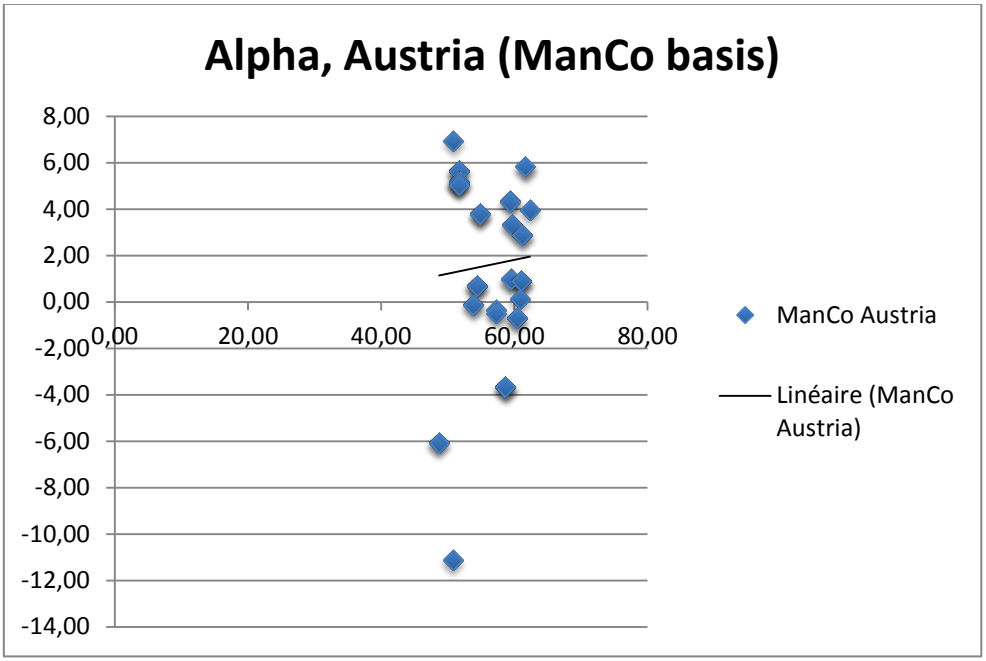


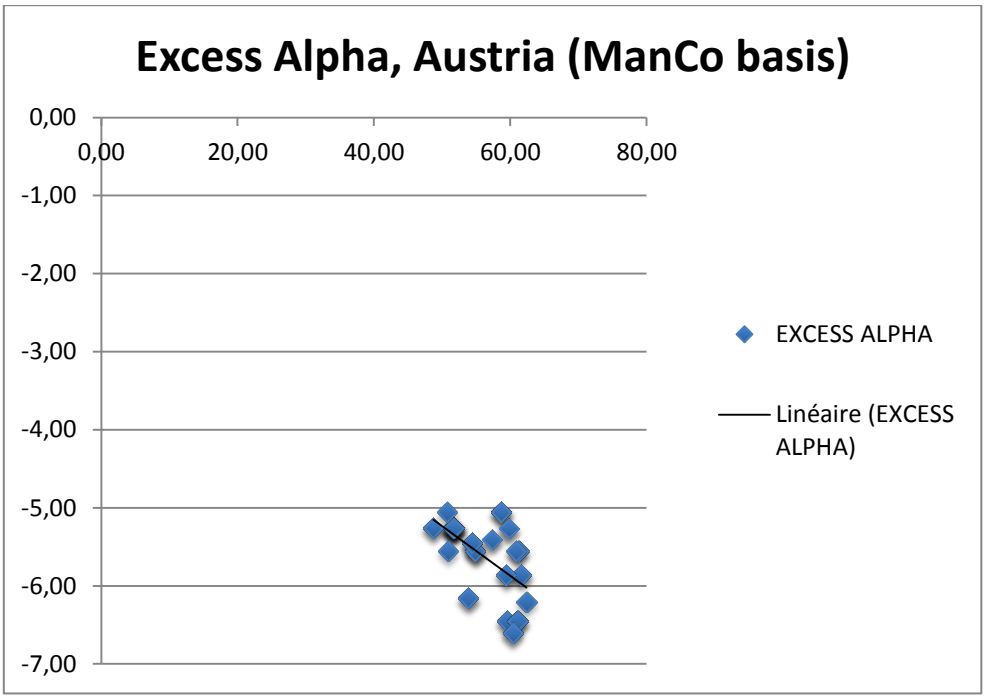
Appendix 22: Alpha and excess alpha regressions with the Morningstar Portfolio Sustainable Score on basis of the domicile of the UK funds



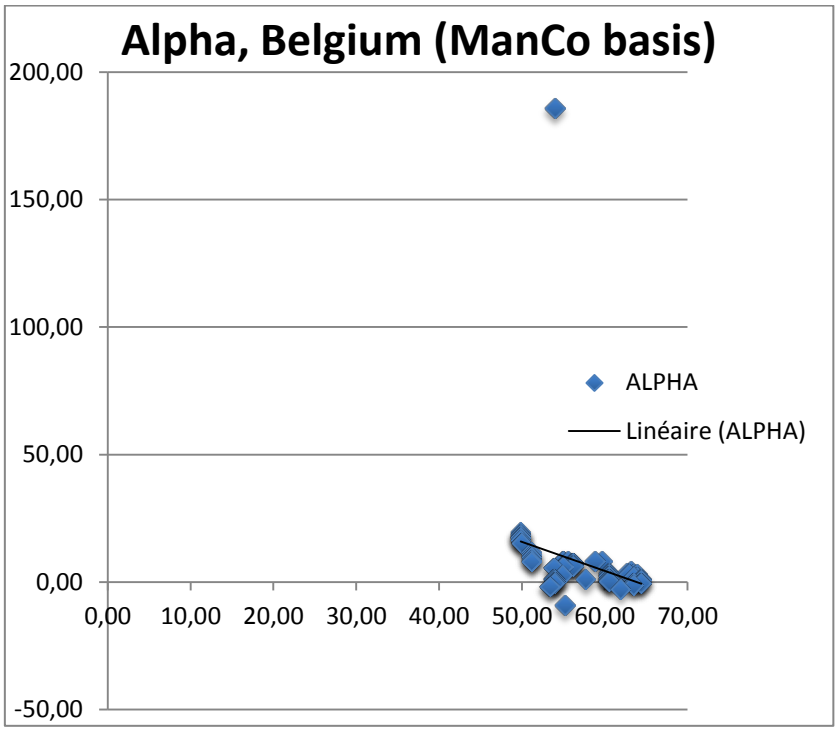


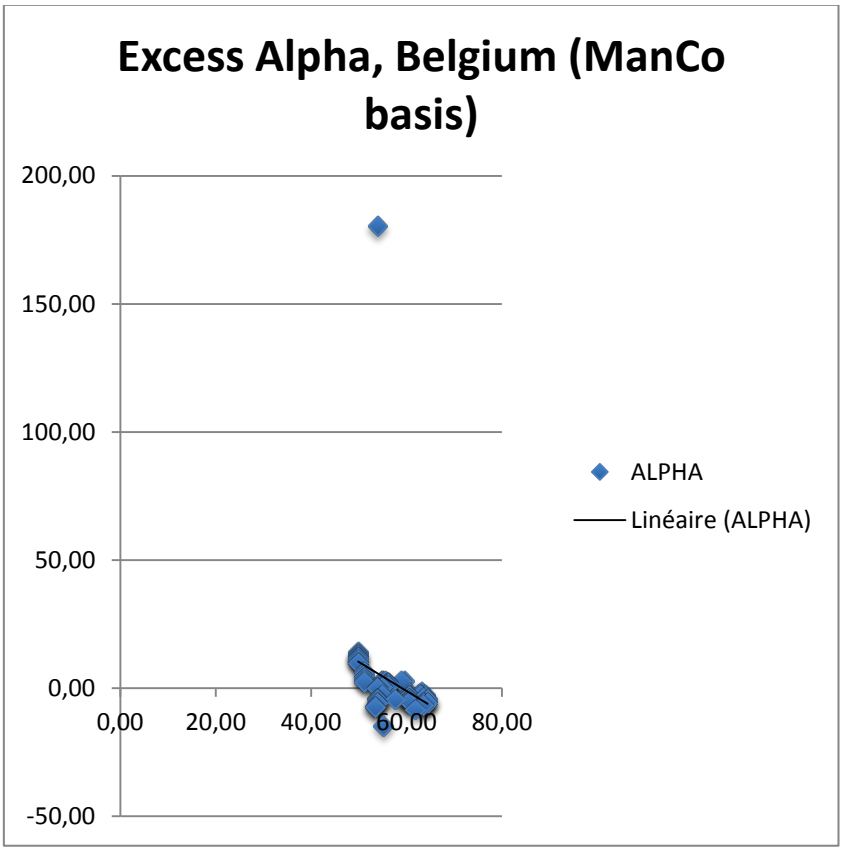
Appendix 23: Alpha and excess alpha regressions with the Morningstar Portfolio Sustainable Score on basis of the location of the management companies of the Austrian funds



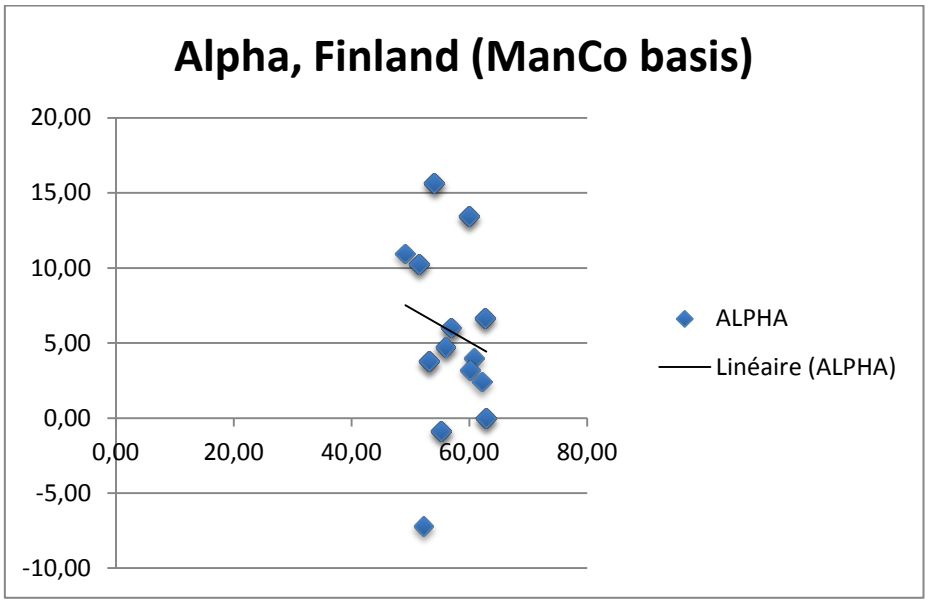


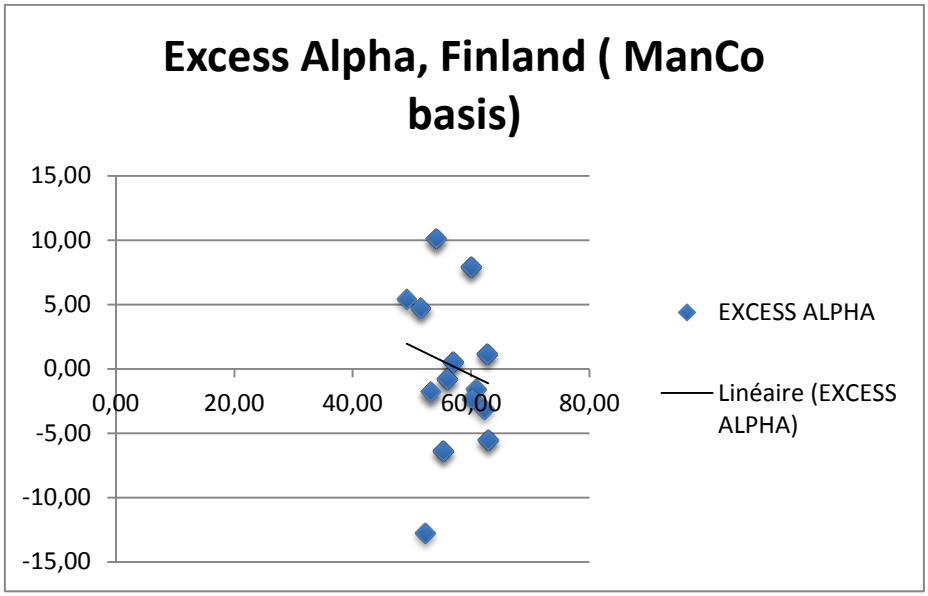
Appendix 24: Alpha and excess alpha regressions with the Morningstar Portfolio Sustainable Score on basis of the location of the management companies of the Belgian funds



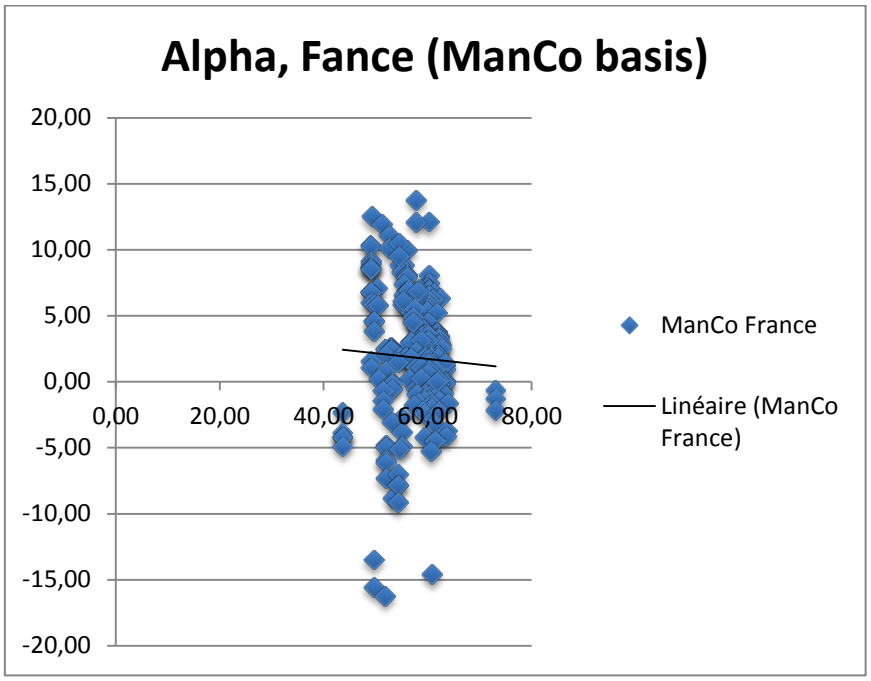


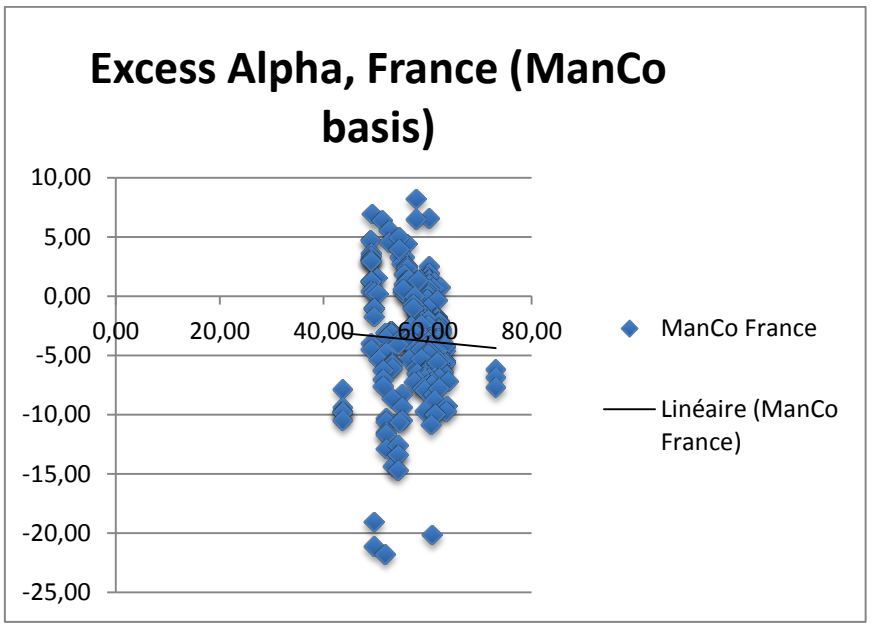
Appendix 25: Alpha and excess alpha regressions with the Morningstar Portfolio Sustainable Score on basis of the location of the management companies of the Finnish funds



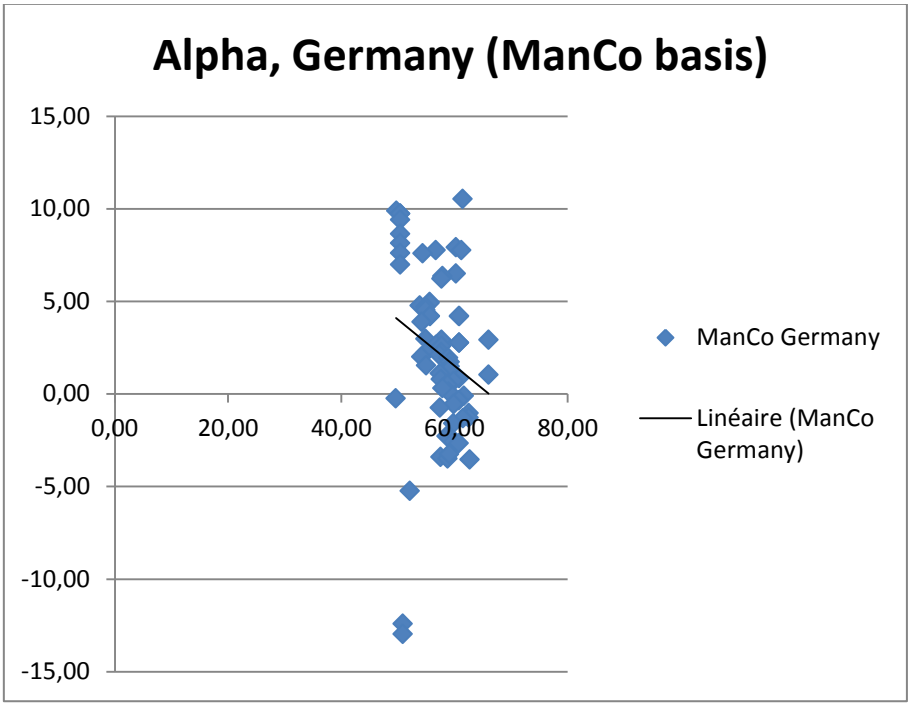


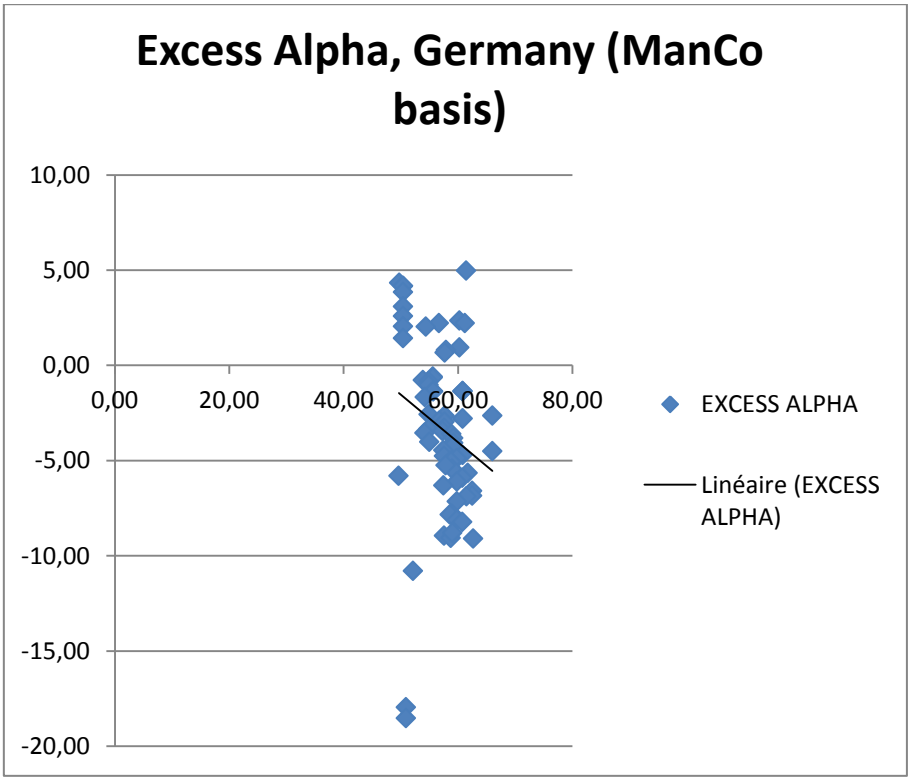
Appendix 26: Alpha and excess alpha regressions with the Morningstar Portfolio Sustainable Score on basis of the location of the management companies of the French funds



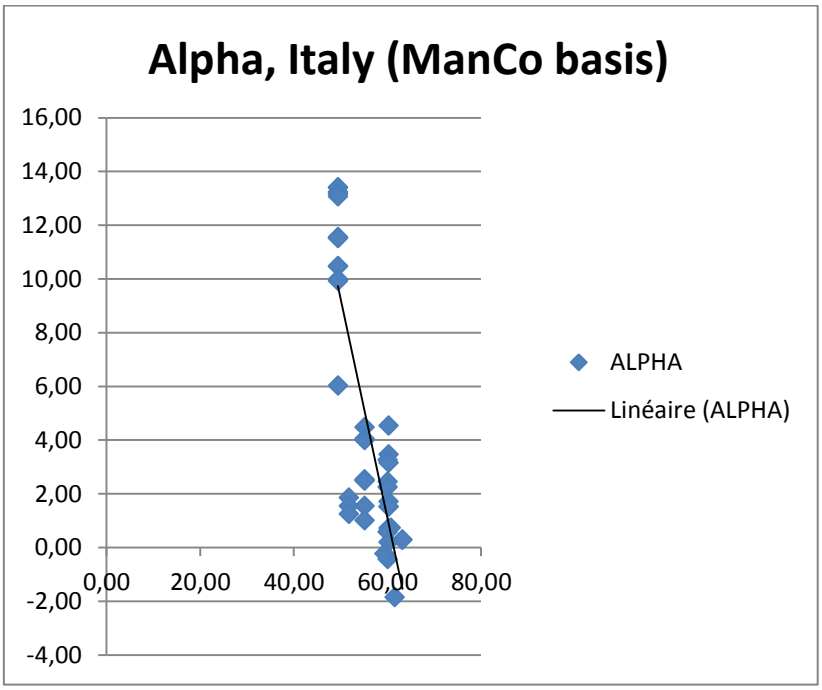


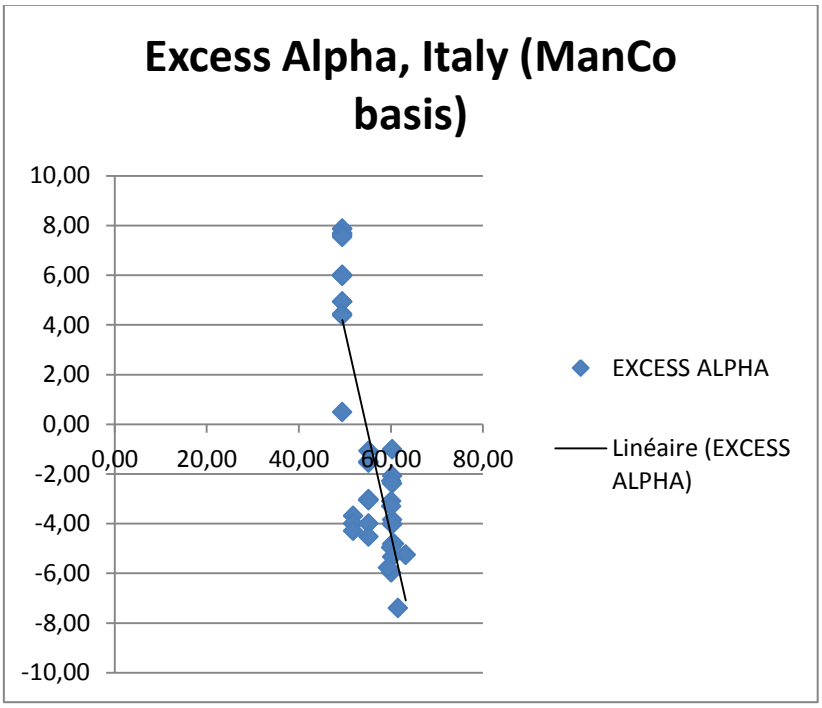
Appendix 27: Alpha and excess alpha regressions with the Morningstar Portfolio Sustainable Score on basis of the location of the management companies of the German funds



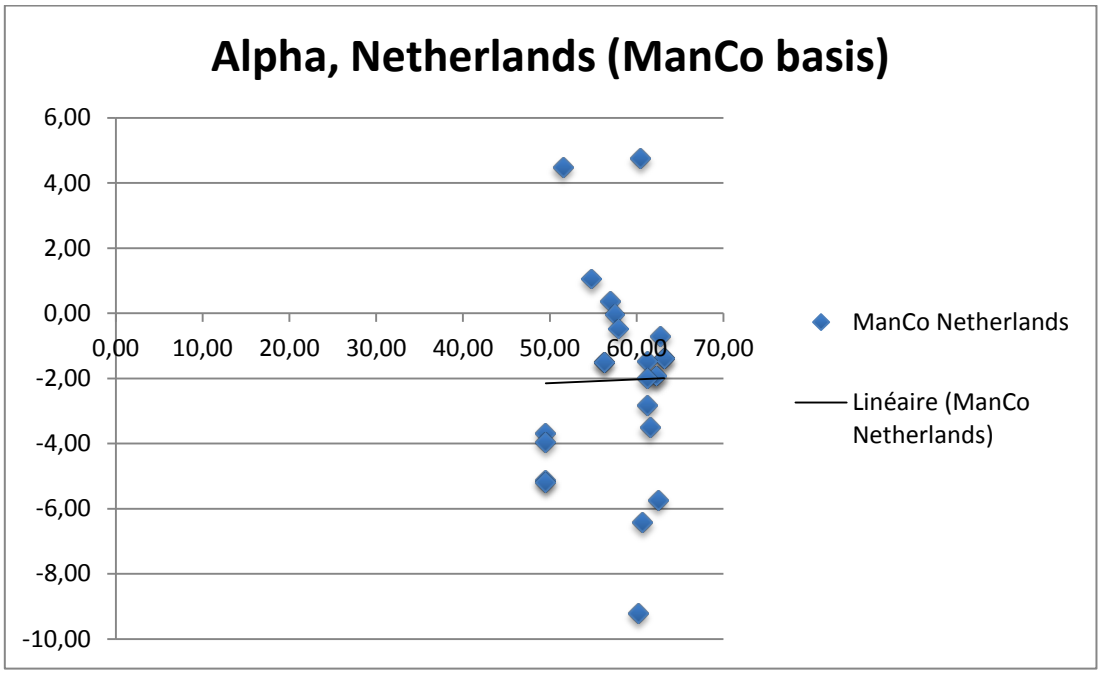


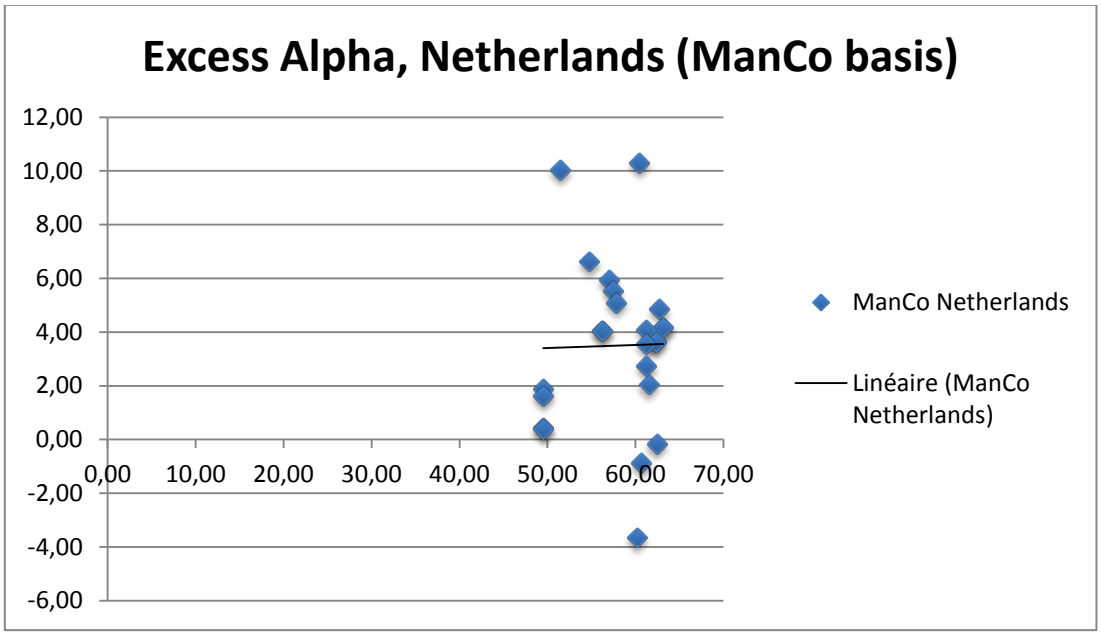
Appendix 28: Alpha and excess alpha regressions with the Morningstar Portfolio Sustainable Score on basis of the location of the management companies of the Italian funds



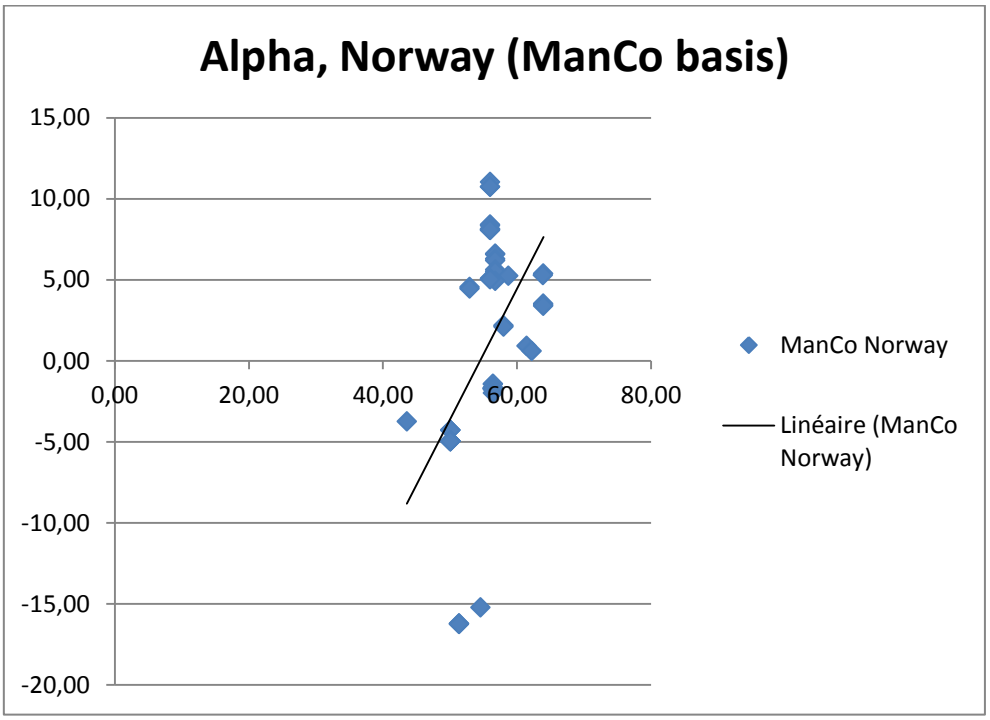


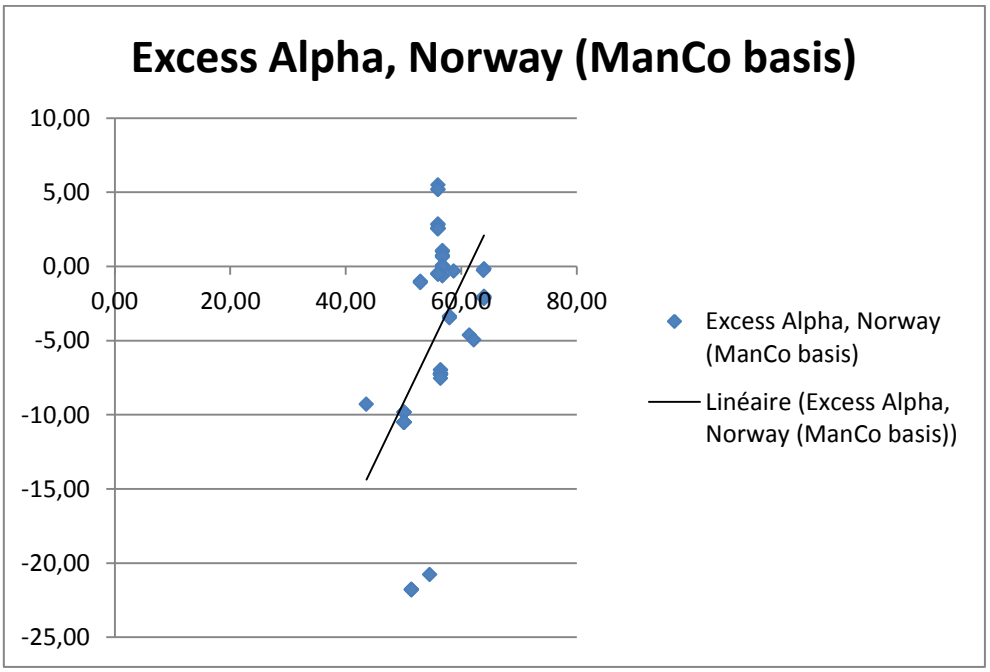
Appendix 29: Alpha and excess alpha regressions with the Morningstar Portfolio Sustainable Score on basis of the location of the management companies of the Dutch funds



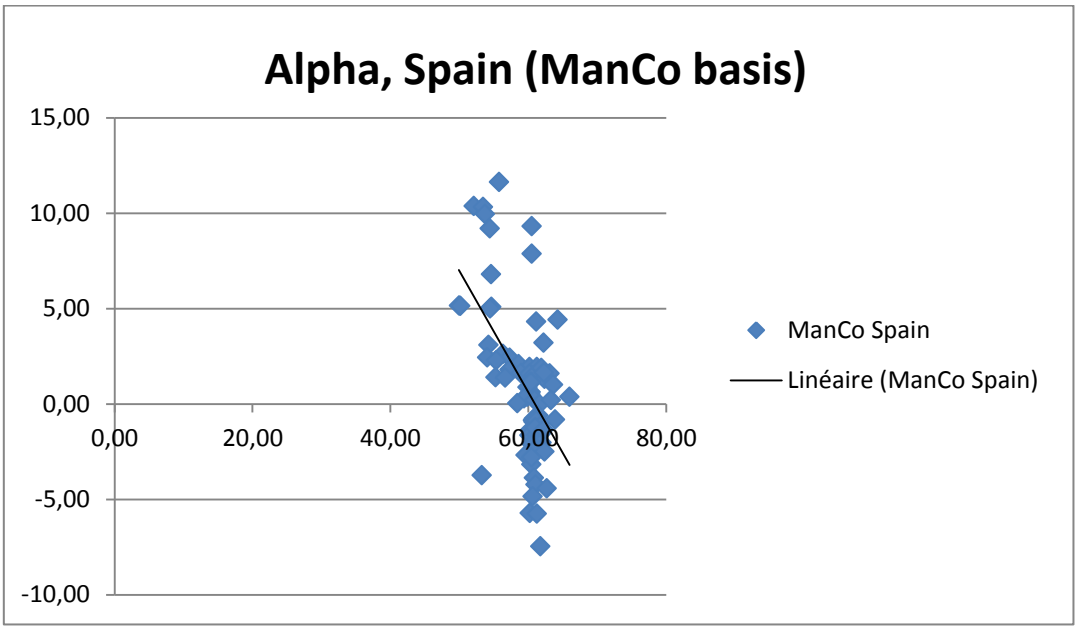


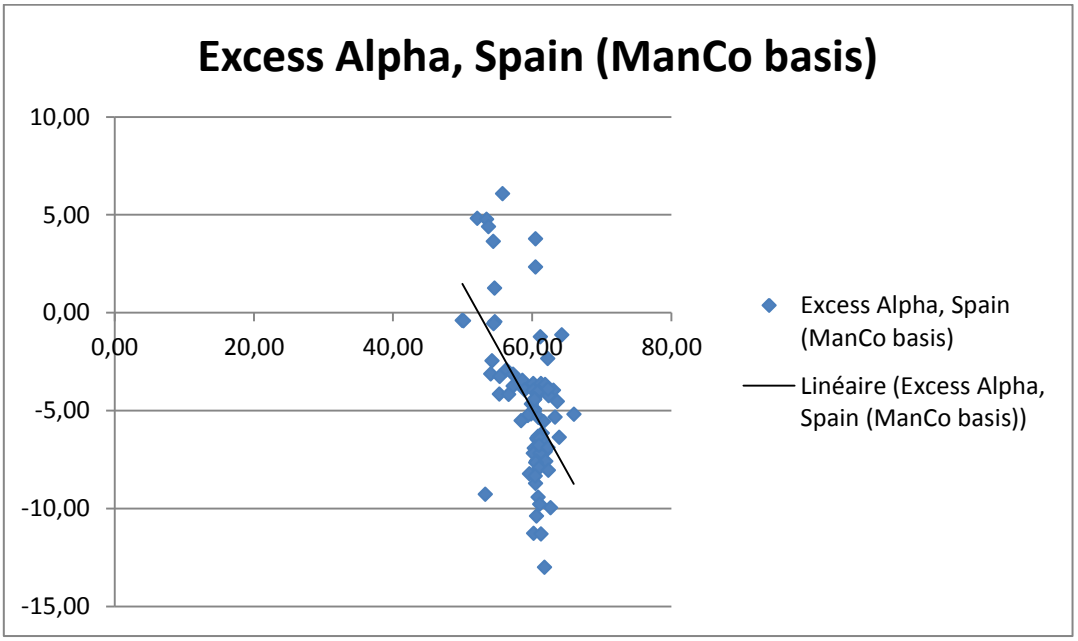
Appendix 30: Alpha and excess alpha regressions with the Morningstar Portfolio Sustainable Score on basis of the location of the management companies of the Norwegian funds



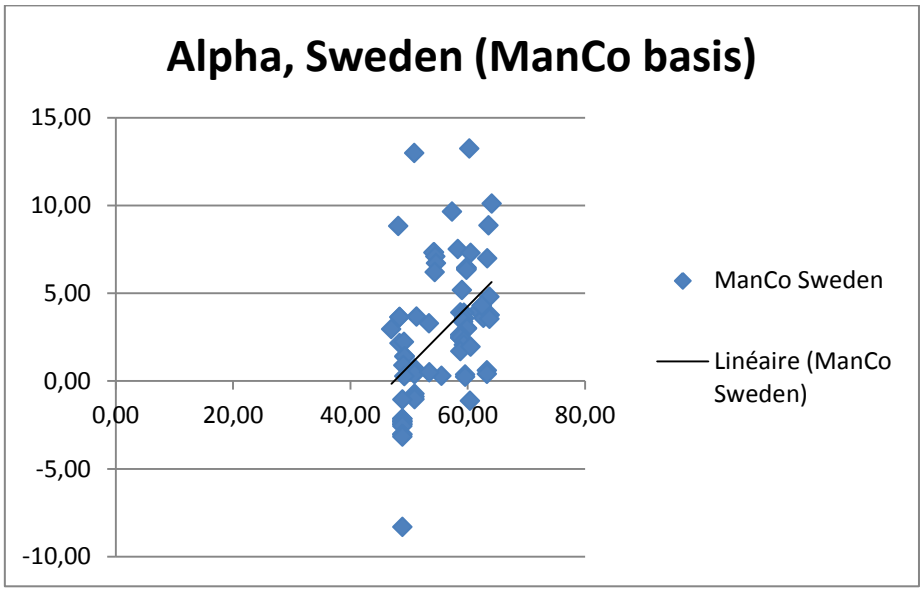


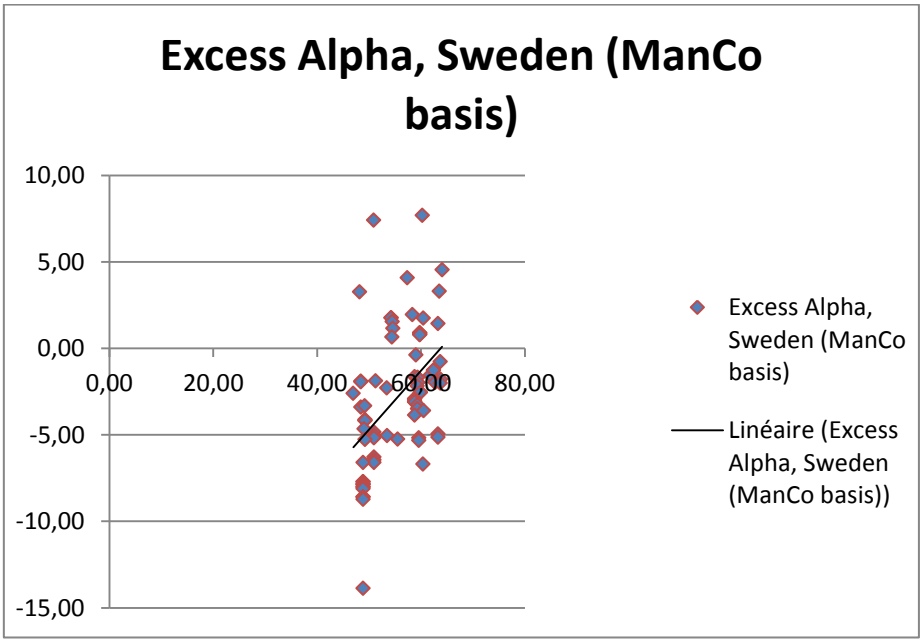
Appendix 31: Alpha and excess alpha regressions with the Morningstar Portfolio Sustainable Score on basis of the location of the management companies of the Spanish funds



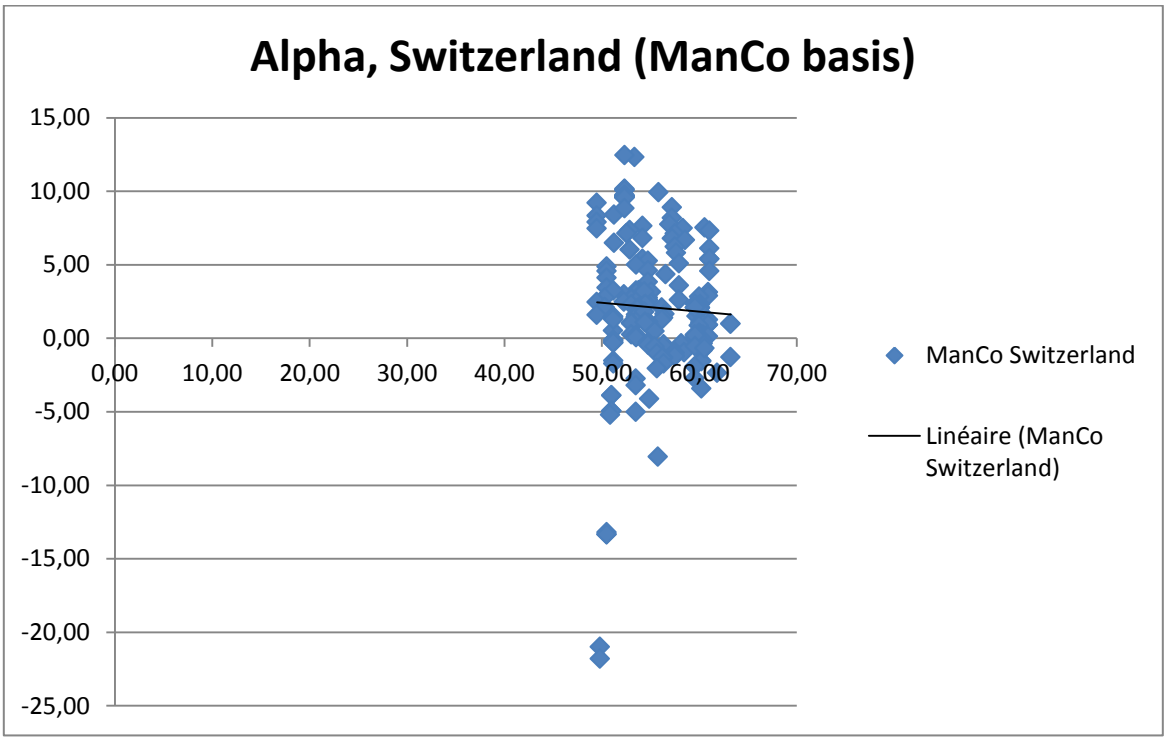


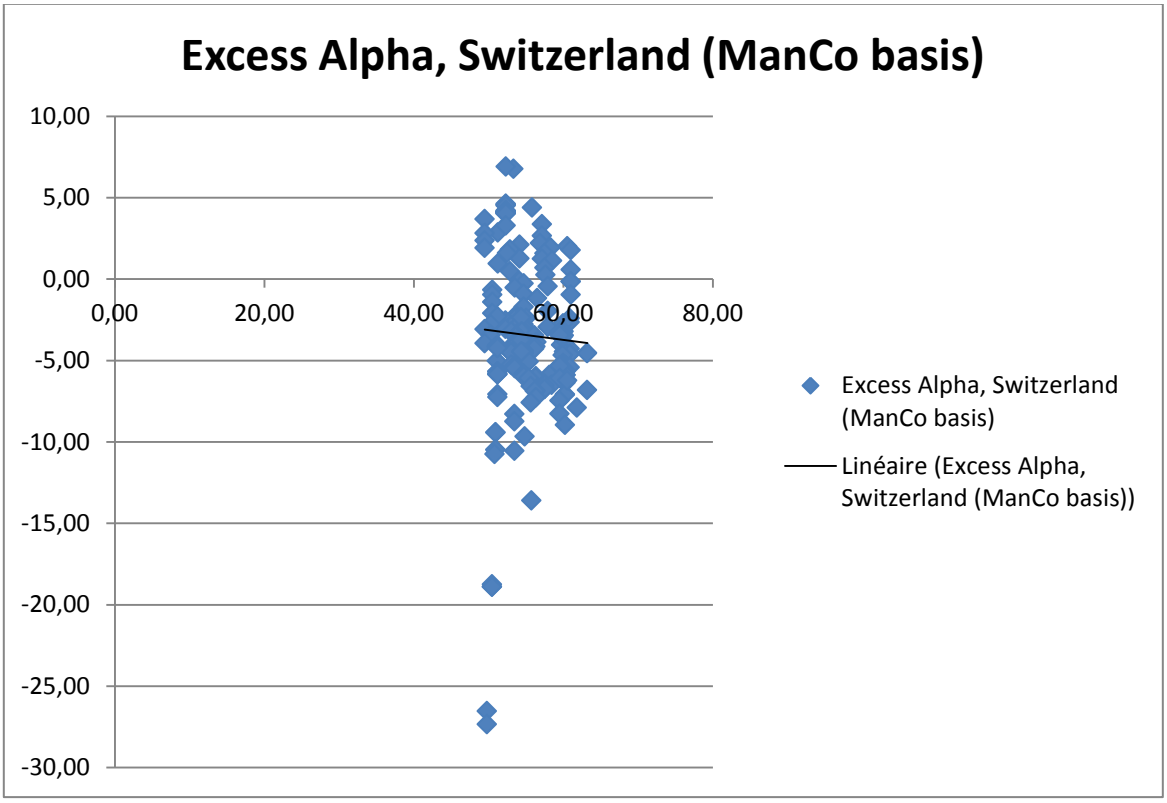
Appendix 32: Alpha and excess alpha regressions with the Morningstar Portfolio Sustainable Score on basis of the location of the management companies of the Swedish funds



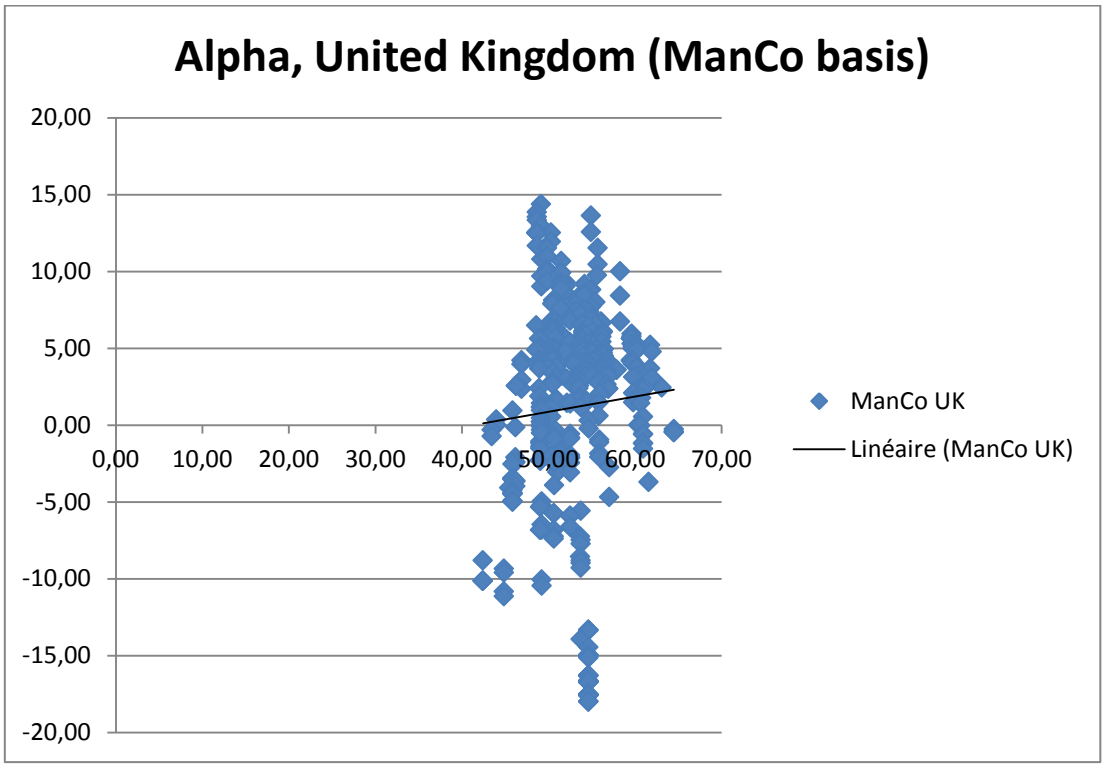


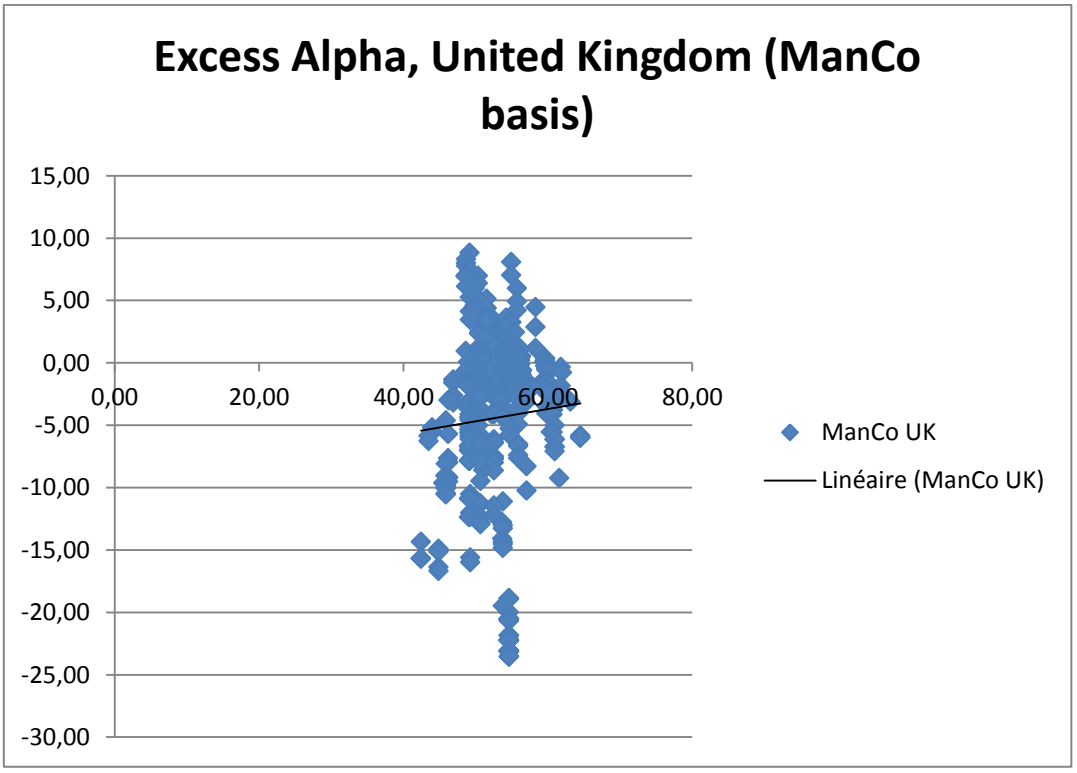
Appendix 33: Alpha and excess alpha regressions with the Morningstar Portfolio Sustainable Score on basis of the location of the management companies of the Swiss funds





Appendix 34: Alpha and excess alpha regressions with the Morningstar Portfolio Sustainable Score on basis of the location of the management companies of the UK funds





Appendix 35: Alphas' values and standard deviations, per country

DOMICILE	Moyenne	Standard deviation
Austria	1,67	3,54
Belgium	10,47	31,78
Finland	3,56	6,84
France	2,01	4,29
Germany	1,63	3,84
Italy	4,43	3,10
Netherlands	6,01	2,37
Norway	0,68	6,85
Spain	0,35	3,59
Sweden	5,16	3,15
Switzerland	3,38	7,91
UK	4,27	3,56

ManCO	Moyenne	Standard deviation
Austria	1,60	3,87
Belgium	8,17	23,20
Finland	5,76	5,79
France	1,84	4,67
Germany	2,19	4,59
Italy	4,80	4,85
Netherlands	3,50	3,14
Norway	0,85	6,75
Spain	0,86	3,59
Sweden	2,73	3,85
Switzerland	2,10	4,94
UK	1,16	7,25

Appendix 36: Excess alphas' values and standard deviations, per country

DOMICILE	Moyenne	Standard deviation
Austria	-3,88	3,54
Belgium	4,92	31,78
Finland	-1,99	6,84
France	-3,54	4,29
Germany	-3,92	3,84
Italy	-1,12	3,10
Netherland	0,46	2,37
Norway	-4,87	6,85
Spain	-5,20	3,59
Sweden	-0,39	3,15
Switzerland	-2,17	7,91
UK	-1,28	3,56

ManCO	Moyenne	Standard deviation
Austria	-4,04	3,87
Belgium	2,01	23,17
Finland	-0,85	5,63
France	-3,99	4,58
Germany	-3,84	4,55
Italy	-1,20	4,95
Netherland	-3,14	3,02
Norway	-5,29	6,29
Spain	-6,20	3,59
Sweden	-3,69	3,59
Switzerland	-3,90	4,84
UK	-4,77	7,14

Appendix 37: Regression results, Alpha and country index (Domicile basis)

RAPPORT DÉTAILLÉ								
Statistiques de la régression								
Coefficient de détermination multiple	0,041772316							
Coefficient de détermination R^2	0,001744926							
Coefficient de détermination R^2	0,000708317							
Erreur-type	7,528343739							
Observations	965							
ANALYSE DE VARIANCE								
	Degré de liberté	*Somme des carrés*	*Moyenne des carrés*	*F*	*Valeur critique de F*			
Régression	1	95,40271681	95,4027168	1,68330131	0,194797077			
Résidus	963	54578,94895	56,6759594					
Total	964	54674,35167						
	Coefficients	*Erreur-type*	*Statistique t*	*Probabilité*	*Limite inférieure pour seuil de confiance = 95%*	*Limite supérieure pour seuil de confiance = 95%*	*Limite inférieure pour seuil de confiance = 95,0%*	*Limite supérieure pour seuil de confiance = 95,0%*
Constante	1,391837901	1,325683225	1,04990233	0,294026425	-1,209723224	3,993399027	-1,209723224	3,993399027
Variable X 1	0,030178499	0,023260374	1,29742102	0,194797077	-0,015468368	0,075825365	-0,015468368	0,075825365

Appendix 38: Regression results, Excel Alpha and country index (Domicile basis)

RAPPORT DÉTAILLÉ

Statistiques de la régression	
Coefficient de détermination multiple	0,041772316
Coefficient de détermination R^2	0,001744926
Coefficient de détermination R^2	0,000708317
Erreur-type	7,528343739
Observations	965

ANALYSE DE VARIANCE

	Degré de liberté	*Somme des carrés*	*Moyenne des carrés*	*F*	*Valeur critique de F*
Régression	1	95,40271681	95,4027168	1,68330131	0,194797077
Résidus	963	54578,94895	56,6759594		
Total	964	54674,35167			

	Coefficients	*Erreur-type*	*Statistique t*	*Probabilité*	*Limite inférieure pour seuil de confiance = 95%*	*Limite supérieure pour seuil de confiance = 95%*	*Limite inférieure pour seuil de confiance = 95,0%*	*Limite supérieure pour seuil de confiance = 95,0%*
Constante	-4,158162099	1,325683225	-3,1366182	0,001760963	-6,759723224	-1,556600973	-6,759723224	-1,556600973
Variable X 1	0,030178499	0,023260374	1,29742102	0,194797077	-0,015468368	0,075825365	-0,015468368	0,075825365

Appendix 39: Regression results, Alpha and country index (ManCo basis)

RAPPORT DÉTAILLÉ

Statistiques de la régression	
Coefficient de détermination multiple	0,100426723
Coefficient de détermination R^2	0,010085527
Coefficient de détermination R^2	0,009386434
Erreur-type	7,604510979
Observations	1418

ANALYSE DE VARIANCE

	Degré de liberté	*Somme des carrés*	*Moyenne des carrés*	*F*	*Valeur critique de F*
Régression	1	834,2702209	834,270221	14,42660561	0,000151897
Résidus	1416	81885,27951	57,8285872		
Total	1417	82719,54973			

	Coefficients	*Erreur-type*	*Statistique t*	*Probabilité*	*Limite inférieure pour seuil de confiance = 95%*	*Limite supérieure pour seuil de confiance = 95%*	*Limite inférieure pour seuil de confiance = 95,0%*	*Limite supérieure pour seuil de confiance = 95,0%*
Constante	6,048671752	1,064221923	5,68365641	1,59852E-08	3,961050687	8,136292818	3,961050687	8,136292818
Variable X 1	-0,069387723	0,018268402	-3,7982372	0,000151897	-0,105223764	-0,033551682	-0,105223764	-0,033551682

Appendix 40: Regression results, Excess Alpha and country index (ManCo basis)

RAPPORT DÉTAILLÉ

Statistiques de la régression	
Coefficient de détermination multiple	0,100426723
Coefficient de détermination R^2	0,010085527
Coefficient de détermination R^2	0,009386434
Erreur-type	7,604510979
Observations	1418

ANALYSE DE VARIANCE

	Degré de liberté	*Somme des carrés*	*Moyenne des carrés*	*F*	*Valeur critique de F*
Régression	1	834,2702209	834,270221	14,42660561	0,000151897
Résidus	1416	81885,27951	57,8285872		
Total	1417	82719,54973			

	Coefficients	*Erreur-type*	*Statistique t*	*Probabilité*	*Limite inférieure pour seuil de confiance = 95%*	*Limite supérieure pour seuil de confiance = 95%*	*Limite inférieure pour seuil de confiance = 95,0%*	*Limite supérieure pour seuil de confiance = 95,0%*
Constante	0,498671752	1,064221923	0,46857873	0,639442911	-1,588949313	2,586292818	-1,588949313	2,586292818
Variable X 1	-0,069387723	0,018268402	-3,7982372	0,000151897	-0,105223764	-0,033551682	-0,105223764	-0,033551682