PWL

LONG LIVE YOUR MONEY

A Guide to Responsible Investing

Doing Well by Doing Good

Abstract

ESG and SRI investments are becoming more prevalent in the investment universe. This document covers the three main strategies of ESG investing: passive, integration, and active. We review the implementation of each strategy, the consequences for portfolio returns, and we recommend some options for investing according to ESG.

We believe the integration strategy allows investors to design portfolios with an impact on ESG without making material sacrifices in terms of risk-adjusted returns.

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This report was written by Raymond Kerzérho, Peter Guay and Marc Brodeur-Béliveau, PWL Capital Inc. The ideas, opinions, and recommendations contained in this document are those of the authors and do not necessarily represent the views of PWL Capital Inc.

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Content

1 Introduction

Volkswagen’s emissions scandal, Valeant’s price hike for medicine, and Uber’s poor corporate culture are making front page news. Environmental, Social and Governance (ESG) considerations have gained attention. Companies are being punished for wrongdoing, and the public and governments are taking action.

By now, Valeant has lost more than 90% of its market value, worldwide emissions laws have been changed, and the entire Uber’s board of directors is being reviewed.

But as the old saying goes; better safe than sorry. Why do markets need front page scandals and millions of dollars in fraud to force enterprises to correct unethical behaviours?

The new ESG investment trend is trying to accomplish “better safe than sorry” by evaluating investment decisions based on a company’s stance on ESG.

Now at over $1.5T in ESG assets, Canada is a world leader in ESG investing. Its biggest institutional investors, notably CDPQ, HOOPP and AIMCO[1], are now creating a worldwide initiative that aims to boost global effort on climate change, infrastructure and gender equality. Recently joined by Germany’s Allianz SE, London-based Aviva, and the California Public Employees’ Retirement System, the group of pension funds collectively manage over $6T.

The trend seems to be trickling down to reach small portfolio managers and individual investors. Options now range from over 120 ESG ETFs readily available made from indexes carefully constructed by big research firms like Sustainalytics and MSCI.

This paper aims at better defining ESG investments, clarifying how these big pension funds and index providers gather information on ESG classifications and how they implement them. The paper goes over the implications of ESG integration for classical portfolio performance metrics like risk and return. Finally, we propose an ESG portfolio made of low-cost index ETFs.

[1] Caisse de Dépôt et Placement du Québec, Healthcare of Ontario Pension Plan, Alberta Investment Management Corp.

2 What is an ESG investment?

According to Weigand et al. (1996), SRI (Socially Responsible Investment) is a type of investment that takes into account ethical and social considerations in addition to the traditional financial objectives in the selection of the securities in an investment portfolio. In other words, any portfolio allocation that expresses a desire to bring about positive change in society through investment can be considered an SRI.

ESG can be defined as a sub-branch of the SRI family even if the terms are often used interchangeably. An ESG strategy aims to aid the portfolio weighting allocation through qualitative and quantitative assessments of potential investments using **Environmental, Social, and Governance** criteria.

Those criteria are applied using a **wide range of metrics** to come up with relevant Key Performance Indicators (KPIs) to rate and compare individual companies and industries with respect to their positive or negative impacts on society.

Chart 1: Key Performance Indicators

ENVIRONMENTAL (E)		SOCIAL (S)		GOVERNANCE (G)	
Climate Change	Carbon Emissions Product Carbon Footprint Financing Environmental Impact Climate Change Vulnerability	**Human Capital**	Labor Management Health & Safety Human Capital Development Supply Chain Labor Standards	**Corporate Governance**	Board Pay Ownership Accounting
Natural Capital	Water Stress Biodiversity & Land Use Raw Material Sourcing	**Product Liability**	Product Safety & Quality Chemical Safety Financial Product Safety Privacy & Data Security Responsible Investment Ins. Health & Demographic Risk	**Corporate Behavior**	Business Ethics Anti-competitive Practices Corruption & Instability Financial System Instability Tax Transparency
Pollution & Waste	Toxic Emissions & Waste Packaging Material & Waste Electronic Waste	**Stakeholder Opposition**	Controversial Sourcing		
Environmental Opportunities	Clean Tech Green Building Renewable Energy	**Social Opportunities**	Access to Communications Access to Finance Access to Health Care Nutrition & Health		

Source: MSCI

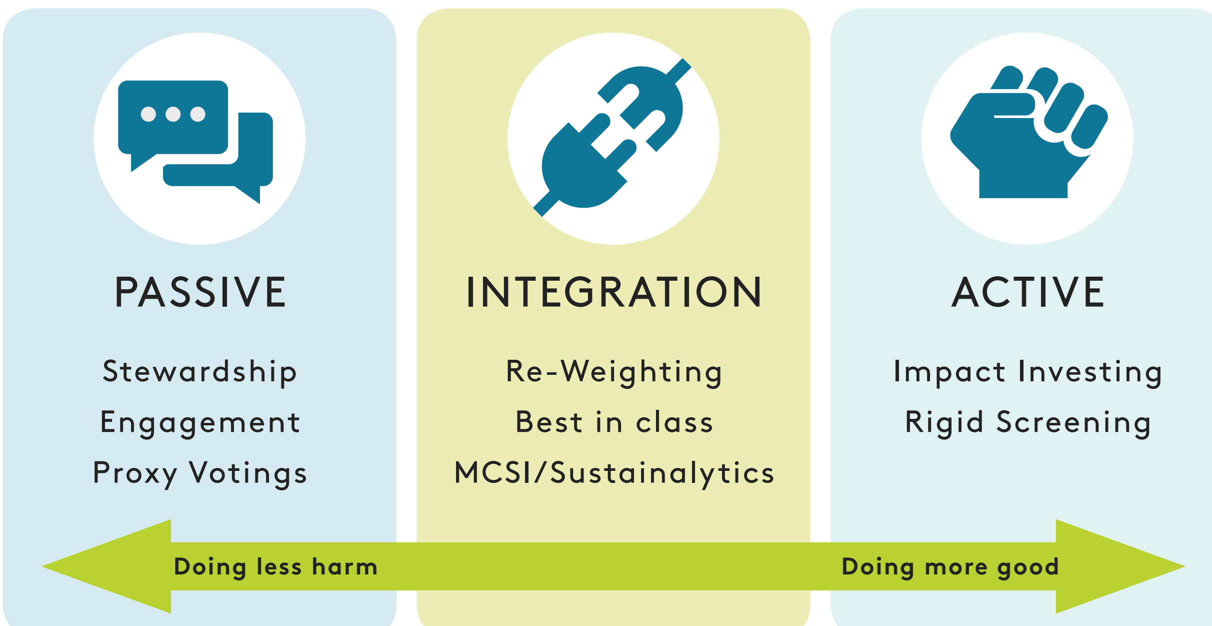
Based on those criteria, an ESG investment will **re-weight, exclude**, or **include** companies in the portfolio depending on how they stand on the E, S, and G indicators.

3 How are ESG strategies implemented?

There is no one way of integrating ESG factors into a portfolio: the KPI evaluations may differ based on the investor's views on what is important, and the method of application may change based on the investor's desire to incorporate them.

Those **ESG Strategies** can be separated roughly into three groups per investors' assessment of the risk/return profile vis a vis the ESG score of their portfolio.

Chart 2: ESG Strategies



Source: PWL Capital Inc.

3.1 Passive Strategies

In the passive approach to ESG investment, **the ESG profile of an investment is second to its risk/return profile**. Being more qualitative by nature, passive ESG strategies rely on big institutional investors being more proactive with their shareholder powers so as to start discussions with companies in the portfolio.

The passive approach is most commonly achieved by investing in large exchange traded funds (ETFs) like SPY. State Street, Vanguard, and Blackrock all have stewardship policies that include, at a minimum, considerations of governance. State Street even has a stewardship program to cover all ESG matters. Such **stewardship programs** work by using major shareholder powers to have discussions with boards and management so as to improve ESG profiles of companies in areas that could potentially have negative risk/return impacts on shareholders. In a sense, those ETF providers are trying to mitigate ESG challenges in order to **reduce systematic risks** and improve portfolio characteristics. Examples of such actions can be found on the Blackrock website where there are multiple mentions of changes in board selection and incentive packages (pay & bonus) arising from the ETF provider's impact on decisions. That impact came from proxy voting and detailed feedback creating value for shareholders.

Other players engaging in the passive form of ESG implementation are large institutional investors like CDPQ and PSP. They engage in the passive approach in a bottom-up fashion by having their investment decisions go through an ESG desk that assesses the ESG score of a company and makes recommendations to the portfolio managers or engages with the companies to get more information to help avoid operational risks.

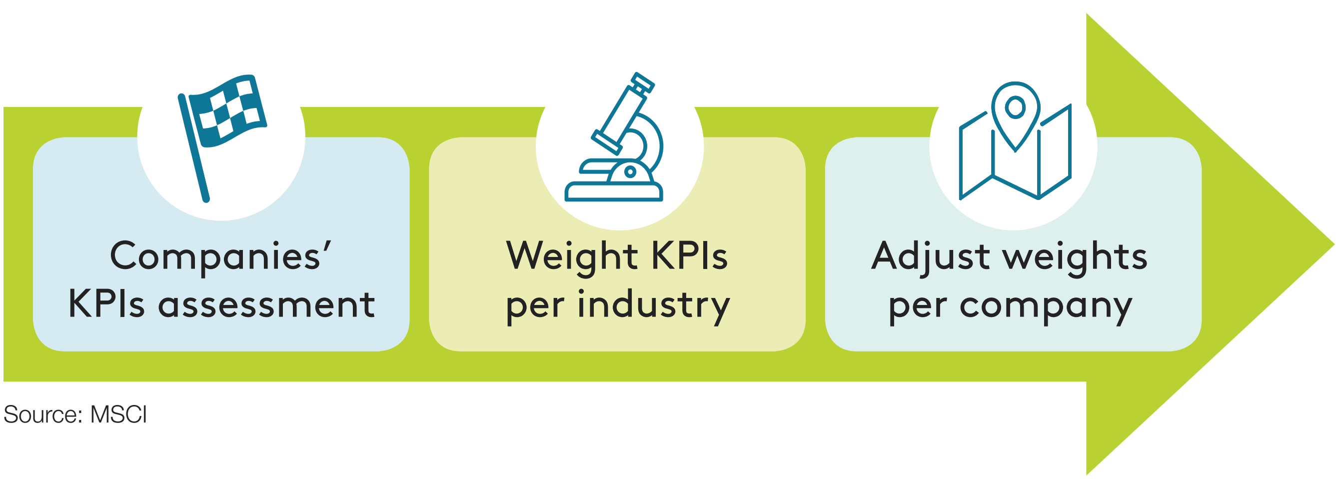
3.2 Integration Strategies

The ESG integration approach takes into account the **ESG and risk/return profiles of investment opportunities at par**. This approach is quantative and uses 'big ESG data' to **readjust portfolios based on material scores given by third party research entities**. One of the most significant of these major third parties is MSCI Inc. MSCI is transparent about its ESG rating methodology and clearly describes how a high rating (AA) corresponds in real terms to a company having a beneficial impact in the world.

MSCI starts its process by collecting a vast amount of data. Over 185 expert research analysts scout for macro data in datasets from NGOs and international organizations (e.g. Transparency International, US EPA, World Bank), company disclosures (e.g. 10-K, sustainability report, proxy report, AGM results), and government databases to find public information on 37 key performance indicators (KPIs) based on more than 150 factors in a wide range of industries and countries (MSCI 2018). MSCI then uses the information to rate how important a matter is for a given industry by its *materiality* (how serious is the factor for the industry in light of risks and opportunities) and *time frame* (will the impact occur sooner or far into the future).

MSCI determines the relative importance of every KPI factor by giving a weight to it that reflects how much it will impact the overall ESG rating or score of a company in its industry. For example, if a non-polluter like CIBC gets points for its low carbon emissions, it will have a minor influence on its score; but the level of emissions from a manufacturer like GE (a likely polluter) has a material impact on its score. Finally, MSCI will investigate at the company level, adjusting the security weights given to KPIs by the industry analysis according to the company's business segment, location, reliance on government contracts, and outsourcing. MSCI will then evaluate individual companies on each of the 37 factors regardless of materiality and aggregate the scores by calculating a weighted average (with the weights coming from the adjusted industry material scores). MSCI also wants to take into consideration any current responsible actions on the part of the company that will not impact the score until later in the future. MSCI defines those actions and plans as *good issue management* and incorporates them into its metrics by defining the ESG score as a function of exposure **and** management. A high exposure produces poor scores, while a high rating on good issue management will result in a higher score. A company that is highly exposed to an indicator and has a very good management plan in place may score as well as a company that is less exposed and has no plan to tackle the indicator. Those scores are then summed across E, S, and G criteria to produce the overall company ESG rating.

Chart 3: ESG Rating Methodology



Source: MSCI

MSCI recently started to incorporate a measure of **ESG *momentum*** in the existing exposure and management metrics. The momentum tracks the change in ESG rating of companies and is applied by increasing the weighting given to companies with increasing ESG scores while decreasing the weighting given to companies with decreasing ESG scores – so as to promote change.

This methodology allows MSCI to **reward companies having low exposures (very small footprint, good governance, and socially responsible practices) and also companies that are best in class in their given industry** by having already implemented strong ESG policies or by doing so at the moment. Having a portfolio that takes the ESG rating into account encourages good practices in the present as well as in the future.

The re-weighting methodology then uses the scores to **rebalance the portfolio so as to skew it towards high scoring firms**. This can be achieved through indexing with ETFs like the Jantzi Social Index and the MSCI ESG Focus suite. The goal of these new approaches is to overweight or underweight securities based on quantitative screening in order to avoid dismissing investment opportunities too quickly.

3.3 Active Strategies

The **active approach prioritizes the ESG impact in a portfolio over its risk/return profile.** This approach is based on industry-wide exclusions (screening) and impact investing. **Screening** works by excluding from the portfolio any stocks that go against pre-specified values on the part of the investor – say, excluding holdings in the oil, tobacco, and gaming industries. In **impact investing**, the investor will actively search for companies with strong ESG policies and commitment to societal well-being with little regard to profitability and returns. The active strategies are also easily achievable through mutual funds and ETFs.

4 What is the impact of those strategies on portfolio returns?

The question of impact has been heavily debated in academia and in the investment field from the 1960s to today. It now seems clear that the three strategies mentioned above have very different impacts on the financial performance of a portfolio.

4.1 Passive Strategies

The **"passive approaches"** should not have any significant impact on the risk/return profiles of a portfolio. By their nature, these approaches usually involve diversified funds or replicate ETF indexes one-for-one. Since the passive approach works by fundamentally trying to tweak the ESG stances of companies whose stocks will be held regardless, no investor should expect to obtain superior or inferior performance out of it. That said, passive positions from major shareholders seem to have a **positive impact on society and markets without any major change to regular portfolio metrics.**

4.2 Active Strategy: Screening

Does ESG implementation impact returns? The answer depends on the **screening methodology**. Indeed, early research on the topic was prompted by the wave of attention given to 'sin investment' with the publication of a paper by Hong & Kacperczyk (2007) stating that so-called **sin stocks (tobacco, alcohol, and gaming) significantly outperformed their benchmarks** by a wide 0.26% on a monthly basis. H&K explained their results by drawing on the **neglected stocks argument** saying that since those stocks are avoided by public and institutional investors, they come at a discount (~ 20% in their study) such that investors could draw an excess return from investing in these industries. Fabozzi & Oliphant (2008) then refined the study done by H&K. Using the same methodology, F&O generalized the return premium to other sin stocks including adult services, biotech, and defence while at the same time demonstrating that the phenomenon was differentiated in, but still present in, different cultures and religions. F&O added to the neglected stocks premium argument that socially responsible companies **incurred extra expenses from operating green infrastructures** (so that they were intrinsically less profitable). Thus, sin stocks were more profitable in a benchmark comparison. Swedroe (2016) then went on to summarize the differences in premium within those sin stocks and pointed out that the "sin stocks" body of research shows evidence that the highly **avoided businesses like alcohol, animal testing, and tobacco come with a bigger return premium** than less avoided industries like the adult entertainment business and stem research, thus strengthening the link between social sins and strong returns.

Those early research results had big implications for the growing ESG investment field. They implied that tilting away from sin stocks through **negative screening in ESG portfolios meant forgoing excess return** and created the now widespread mindset that **"socially responsible investments come at the cost of lower returns".**

Starting in 2013-2014, when demand for SRIs, ETFs and global funds increased sharply, integrating ESG approaches became more prevalent in the investment universe. With it came new research that shed fresh light on sin stock thinking. In 2015, Hampus and Andreas came out with a paper directly contradicting the classical view of sin stocks. Instead of reapplying the methodology previously used and trying to replicate the data obtained by researchers like H&K, H&A questioned and reviewed the way the portfolio construction was done in these previous studies. **They found many issues in the sin portfolio construction methodology.** Notably, in the literature, sin portfolios were made out of equally weighted sin-screened index stocks and then compared with classical MSCI or S&P benchmarks to show excess returns. It is now widely accepted that a small-cap tilt drives excess return as shown and demonstrated by Fama French research starting in 1992 (F&F, 1992). By making the portfolio equally weighted instead of value weighted, early ESG researchers were creating a heavy small-cap tilt and then comparing it with a classical benchmark. **When H&A adjusted the benchmark in the Fama-French model and looked at a value-weighted sin portfolio, most of the 'global sin premium' significance disappeared, casting doubts on previous research.**

Even if this means that excluding certain industries does not imply avoiding better performing stocks, screening still has its faults. Studies show that stocks engaging in some type of sin activity represented approximately 12% of regular index market capitalization, meaning that, on average, binary screening would reduce the investment universe by around 6% (T&S, 2015). **Effectively, an industry screen reduces the overall investable universe, but it also reduces the diversification benefit (correlation) that exists across industries. For the portfolio, this means a higher volatility and a bigger downfall risk for equal returns.**

4.3 Integration Strategies

The research led to the **integration approach of re-weighting.** If ESG stocks did not underperform, and if the negative alpha coming from screening is a result of industry exclusion, then what would happen in a portfolio that slightly tilts away from poor ESG companies and tilts towards companies performing well in ESG without radical exclusion?

More than 50 studies performed from 2008 to 2011 using methodologies similar to H&A with the explicit goal of linking ESG integration investments to a negative risk premium (Capelle, 2011) came to the consensus that **well-diversified ESG strategies seemed to have no significant impact on the risk-return profile of a portfolio.**

In light of significant potential operational upsides of avoiding headline risks (F&O, 2008) due to better corporate governance, environmental policies, and better regulation compliance, researchers were puzzled that SRIs did not carry a lower expected return. A newer paper by the Harvard Business Press proposes a better framework for understanding how to look at ESG classifications now that more ESG information is published by companies and third parties.

One paper (K&al, 2015) suggests that **the way ESG information was published created noise in previous research conclusions.** When controlling for materiality of the ESG information published, K&al found **that a positive excess return resulted from companies engaging in material sustainable policies.** The Global Reporting Initiative defines materially sustainable practices in the G4 Sustainability guideline (2015) as *reported practices that either reflect the organization's significant economic, environmental and social impacts or influence the assessments and decisions of stakeholders.* K&al applied **Sustainability Accounting Standards Board (SASB)** data to those guidelines in combination with the MSCI KLD factors to create a material score for firms reporting their ESG performance. **When regressing those scores with excess returns, K&al found that material sustainable practices resulted in significant over-performance while immaterial practices had no impact on returns.** This study has major implications for the future of ESG investing. **It suggests that a better ESG classification may lead to better financial performance. That is promising for a field with increasing assets under management and better information disclosure and research.**

In fact, the OECD (2011) suggested **that the improved performance of firms engaging in material sustainable practices are three-fold:**

- **Better financial performance:** the tighter environmental control on the supply chain makes vertical integration and production efficiency superior to that of competitors.
- **Business excellence:** being ahead of environmental regulation reduces adaptation costs and puts the company in a positive light, making it cheaper to raise funds.
- **Better stakeholder relationships:** humane governance and green policies are believed to increase employee morale and retention, making for lower turnover and more productivity.

This newer research is in line with what is empirically observed from professionally-managed portfolios and ETFs incorporating ESG selection. Indeed, BlackRock, MSCI, and Dimensional Fund Advisors (DFA) all have data to show recent outperformance of ESG focused ETFs and funds compared to their non ESG focused counterparts.[2]

Do all three factors in ESG affect return performance? Research done by Credit Suisse (2015) helps to clarify the question. Credit Suisse's quantitative department (2015) came to the conclusion that even taken individually, ESG factors do have an impact on financial performance[3]. **Hence, the ESG factor analysis as a whole seems very relevant as all factors are correlated and have predictive value for returns.**

Chart 4: Pros & Cons of ESG Strategies

	ACTIVE APPROACH	PASSIVE APPROACH	INTEGRATION
+	Very measurable impact Align with investors' view	No effort needed No Risk/Return change	Possible excess returns Quantitative & Thorough
−	Risk/Return tradeoff Won't change "bad industry"	Very limited impact May not align with views	Possible "bad industries" Limited impact metric

Source: PWL Capital Inc.

[2] Annex: Exhibit IV

[3] Annex Exhibit V

5 Proposed ESG Portfolio

We recommend the integration approach to ESG investing. It is based on a balance between Return/Risk and ESG impact objectives.

The field of ESG investment in the fixed income universe is very new. Without knowing the complete methodologies applied and without the availability of extensive studies on the impact of those bonds on a portfolio risk-return profile, it is difficult to provide any options for fixed income. However, we can provide options for an equity ETF portfolio.

The way an ETF is composed and constructed can very much affect the portfolio's ESG profile without changing its overarching return/risk goal. Hence we present the following options for achieving a global ESG integrated portfolio that is well diversified.

The proposed portfolio follows the PWL Capital investment philosophy. It aims at capturing the total market. We want the portfolio to be globally diversified and to hold a very large number of securities. Finally, we want the portfolio to use low-fee, passively managed ETFs. The recommended portfolio covers all developed and emerging markets, holds over 1,100 securities, and has a weighted average Management Expense Ratio (MER) of 0.33%. All the selected ETFs have a low tracking error (difference between the ETF's return and its underlying index return) and are minimally different from general, non-ESG market indices.

5.1 Canadian Equity

100% iShares Jantzi Social Index ETF (XEN)

- **Management Expense Ratio (MER):** 0.55%
- **Methodology:** Re-weighting of the S&P/TSX 60 based on Sustainalytics research
- **Number of Securities**: 52
- **Tracking Error[4]:** -0.62%
- **Delta with non-ESG ETF:** XIU (iShares S&P/TSX 60): +0.10%

[4] June 2007 to July 2018, differential in annualized return

5.2 U.S. Equity

70% iShares MSCI KLD 400 Social ETF (DSI)

- **Management Expense Ratio (MER):** 0.25%
- **Methodology:** Positive weighting and negative screening (sin-controversy) on very broad American stocks based on the MSCI ESG research
- **Number of Securities:** 400
- **Tracking Error[5]:** -0.57%
- **Delta with non-ESG ETF:** IVV (iShares S&P 500): -0.42%
- **Purpose:** Longest ESG ETF track record, large holdings, 'very bad industry' screen

30% iShares MSCI USA ESG Optimized ETF (ESGU)

- **Management Expense Ratio (MER):** 0.15%
- **Methodology:** Classical US MSCI benchmark that has been reweighted by MSCI ESG research
- **Number of Securities:** 276
- **Tracking Error[6]:** -0.43%
- **Delta with non-ESG ETF: IVV** (iShares S&P 500) Annualized since inception (2016): -0.14%
- **Purpose**: Newer methodology, better tracking, lower MER, easily comparable

5.3 International Equity

70% iShares MSCI EAFE ESG Optimized ETF (ESGD)

- **Management Expense Ratio (MER):** 0.20%
- **Methodology:** Same EAFE index from current portfolio from MSCI is used but weighted using MSCI ESG research described in text.
- **Number of Securities:** 448
- **Tracking Error[7]:** Annualized since inception -0.04%
- **Delta with non-ESG ETF:** VEA (Vanguard Developed Markets): +0.23%

[5] January 2007 to July 2018

[6] January 2017 to July 2018

[7] July 2016 to July 2018

30% iShares MSCI EM ESG Optimized ETF (ESGE)

- **Management Expense Ratio (MER):** 0.25%
- **Methodology:** Same methodology as international ETF but using the MSCI EM equity index.
- **Number of Securities:** 259
- **Tracking Error[8]:** -0.79%
- **Delta with non-ESG ETF:** VWO (Vanguard Developed Markets): +2.26%

For the sake of simplicity, we propose an equally weighted portfolio across Canadian, U.S., and international equities. Table 1 provides an overview of the proposed portfolio. Chart 5 compares the sector distributions of the proposed portfolio and a benchmark index made with one-third of Canadian equity and two-thirds of foreign equity.

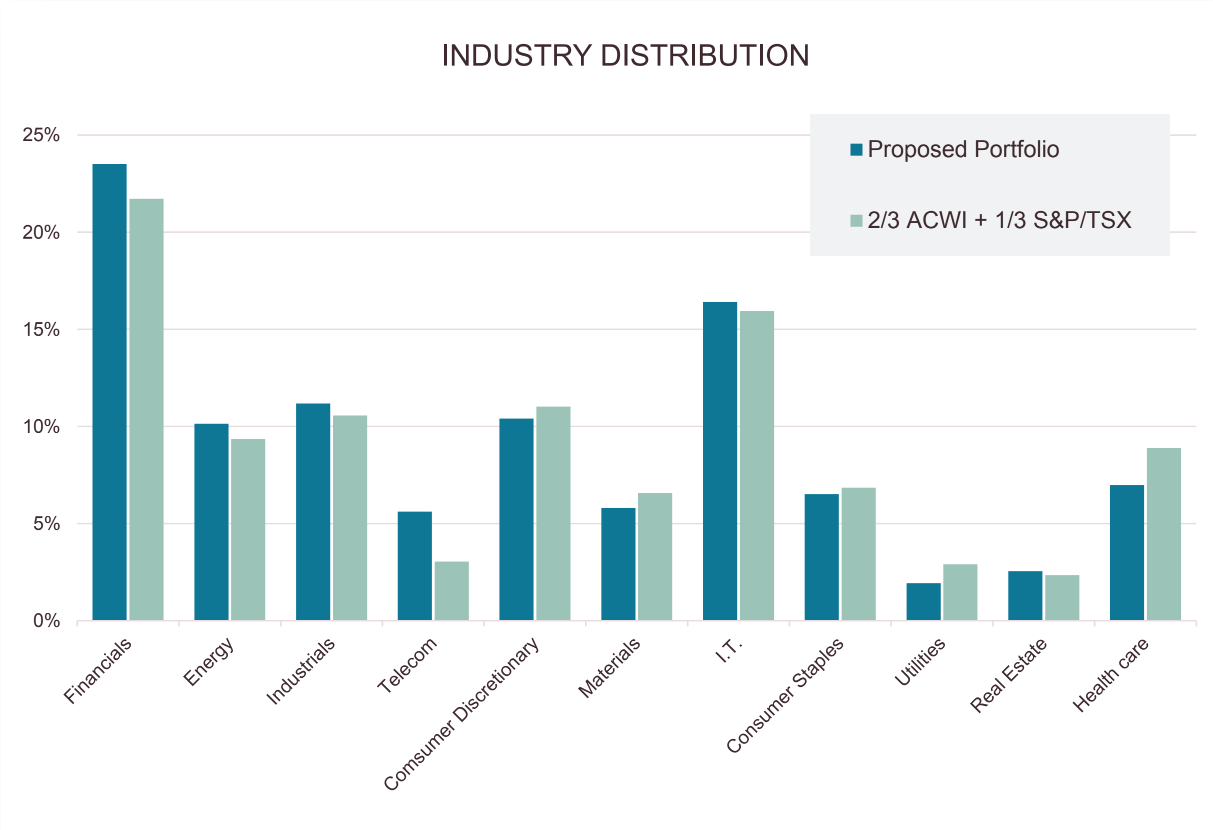
Table 1: Proposed ESG Portfolio

Weight %	Ticker	Name	MER	# Securities
Canadian Equity				
33.33%	XEN	**iShares Jantzi Social Index ETF**	0.55%	52
U.S. Equity				
23.33%	DSI	**iShares MSCI KLD 400 Social ETF**	0.25%	400
10%	ESGU	**iShares MSCI USA ESG Optimized ETF**	0.17%	276
International Equity				
23.33%	ESGD	**iShares MSCI EAFE ESG Optimized ETF**	0.20%	448
10%	ESGE	**iShares MSCI EM ESG Optimized ETF**	0.25%	259
100%		**Portfolio**	**0.33%**	**1159**

Source: PWL Capital Inc.

[8] August 2016 to July 2018

Chart 5: Proposed ESG Portfolio's Sector Distribution



Source: PWL Capital Inc.

6 Conclusion

We use recent research and index market performance to classify and characterize the different ESG investment methodologies as passive, active or integration. We conclude that within those methodologies, some trade-off exists between the risk/return profile and the level of impact a strategy is able to provide.

While passive strategies entail no implementation effort and have a very limited impact on the performance of a portfolio, much is left to be desired in terms of socially responsible investment in light of the limited ESG impact of and the opaque process by which ESG influence is deemed to be achieved.

Strict screening and impact investing, categorized as active strategies, are on the other side of the spectrum. While such strategies provide clear guidelines as to what constitutes their real world ESG impact, investors should pay attention to the downsides of disregarding portfolio return or adopting industry-wide exclusions that reduce the diversification of a portfolio.

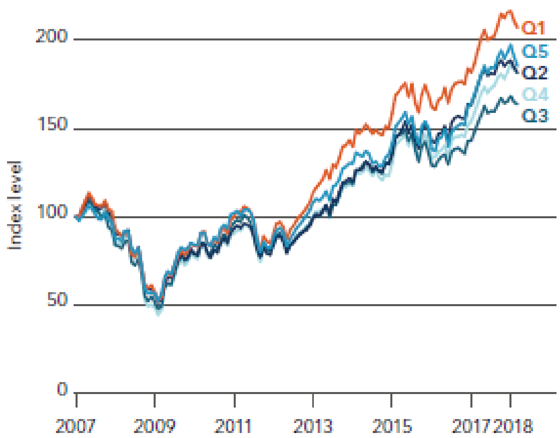
As a middle ground and as supported by recent research, the integration strategies fueled by MSCI and Sustainalytics seem to be a more reasonable approach. While being more direct in what constitutes socially responsible aspects of investment, integration approaches do not seem to sacrifice expected return and may provide better downfall protection and risk-adjusted return than their non-ESG counterparts do. In addition, the integration approach, by its quantitative nature, offers more products and lower costs than its active counterpart in the form of ETFs and mutual funds.

7 Annex

Exhibit I: Blackrock Returns

Making the grade

Performance of European stocks by ESG quintiles, 2007-2018



Past performance is not a reliable indicator of current or future results. It is not possible to invest directly in an index. Sources: BlackRock Investment Institute, with data from MSCI, April 2018. Notes: European stocks are represented by the STOXX 600. Quintile 1 is the 20% of STOXX stocks with the highest MSCI ESG scores, followed by quintiles 2 through 5. ESG scores are lagged by one month. Returns are cumulative from Jan. 31, 2007, to March 31, 2018. Data were rebased to 100 at Jan. 31, 2007.

Source: BlackRock

Exhibit II: Blackrock Returns

No sacrifice required?

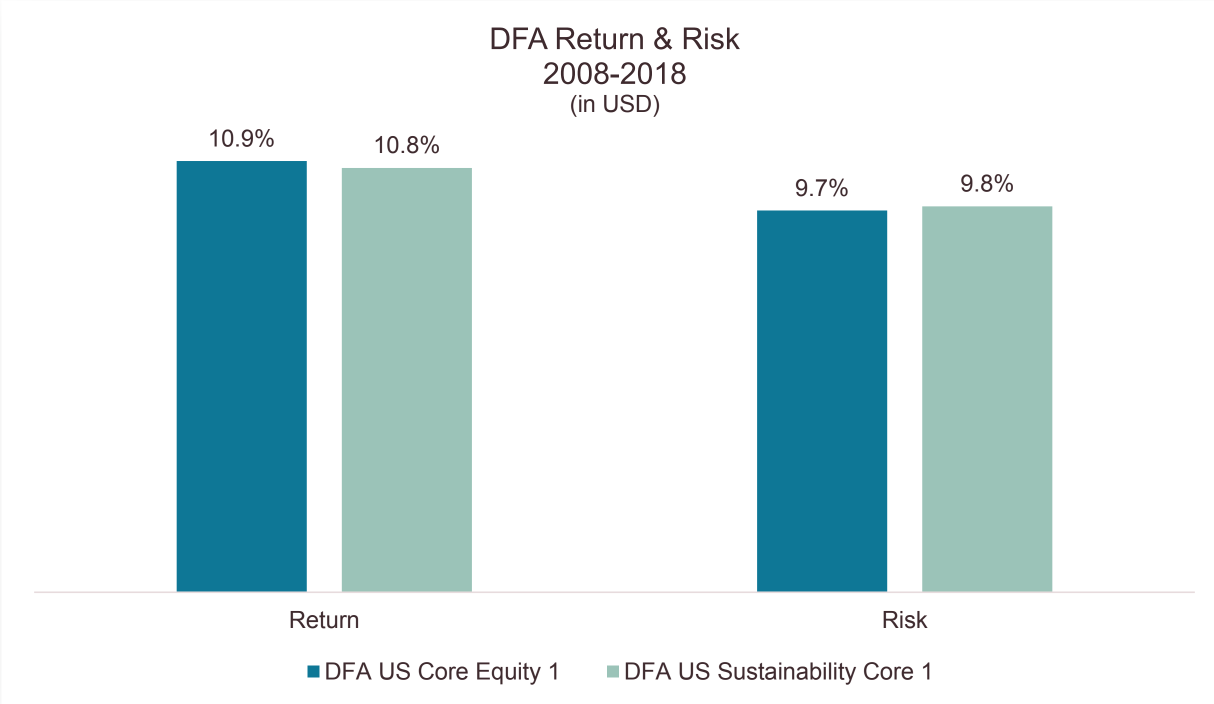
Comparison of traditional and ESG-focused equity benchmarks by region, 2012-2018

	U.S.		World ex-U.S.		Emerging markets	
	Traditional	ESG Focus	Traditional	ESG Focus	Traditional	ESG Focus
Annualized return	15.8%	15.8%	10.5%	11.1%	7.8%	9.1%
Volatility	9.5%	9.6%	11.4%	11.6%	14.4%	14.3%
Sharpe ratio	1.62	1.60	0.88	0.92	0.51	0.61
Maximum monthly drawdown	-13.9%	-13.8%	-23.3%	-22.6%	-35.2%	-33.0%
Price-to-earnings	19.4	19.5	17.2	17.1	13.3	13.7
Dividend yield	2.1%	2.1%	3.2%	3.2%	2.7%	2.8%
Number of stocks	620	293	1,011	419	831	288
ESG score	5.2	6.6	6.5	7.9	4.4	6.2

Past performance is not a reliable indicator of current or future results. It is not possible to invest directly in an index. Sources: BlackRock Investment Institute, with data from MSCI, April 2018. Notes: The data cover the period from May 31, 2012, to Feb. 28, 2018. Returns are annualized gross returns in U.S. dollar terms. Number of stocks, price-to-earnings ratio and dividend yield are monthly averages. Indexes used are the MSCI USA Index, MSCI World ex-U.S. Index, MSCI EM Index ("Traditional" columns) and MSCI's ESG-focused derivations of each (example: MSCI USA ESG Focus Index). The MSCI ESG Focus indexes use back-tested data. They are optimized to maximize ESG exposure within certain constraints (example: a tracking error of 50 basis points and maximum active weight of 2% for each index constituent in the case of the USA ESG Focus). See important notes on the back page.

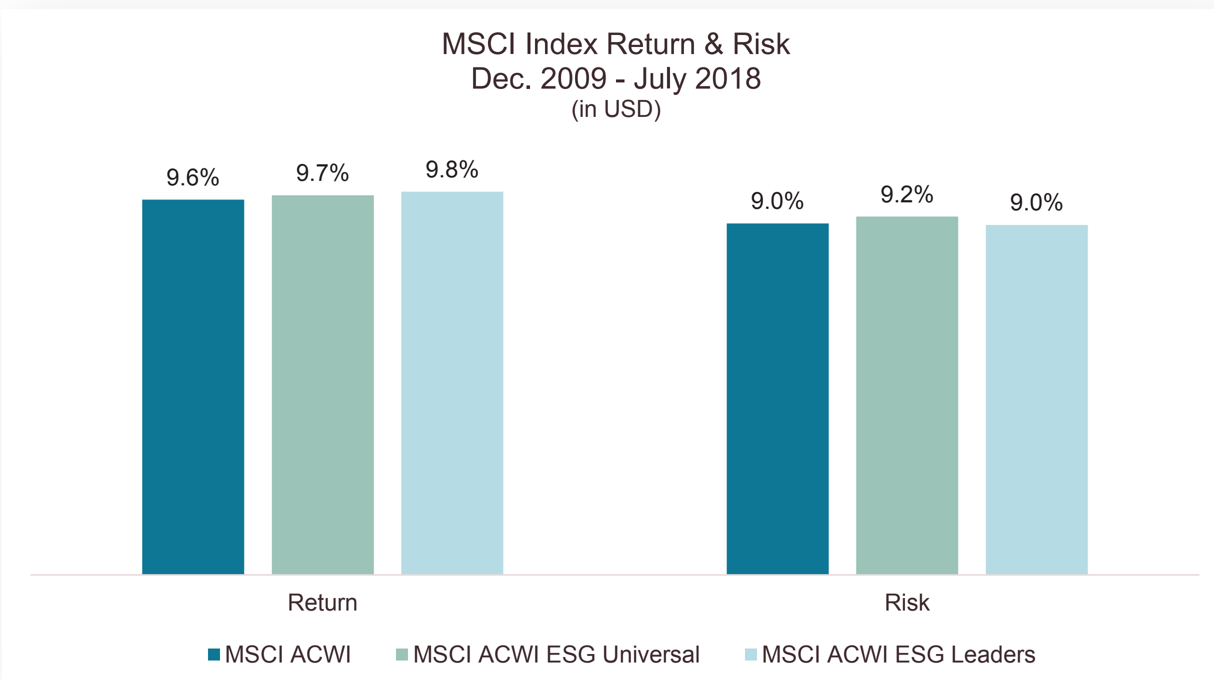
Source: BlackRock

Exhibit III: DFA Returns



Source: Morningstar

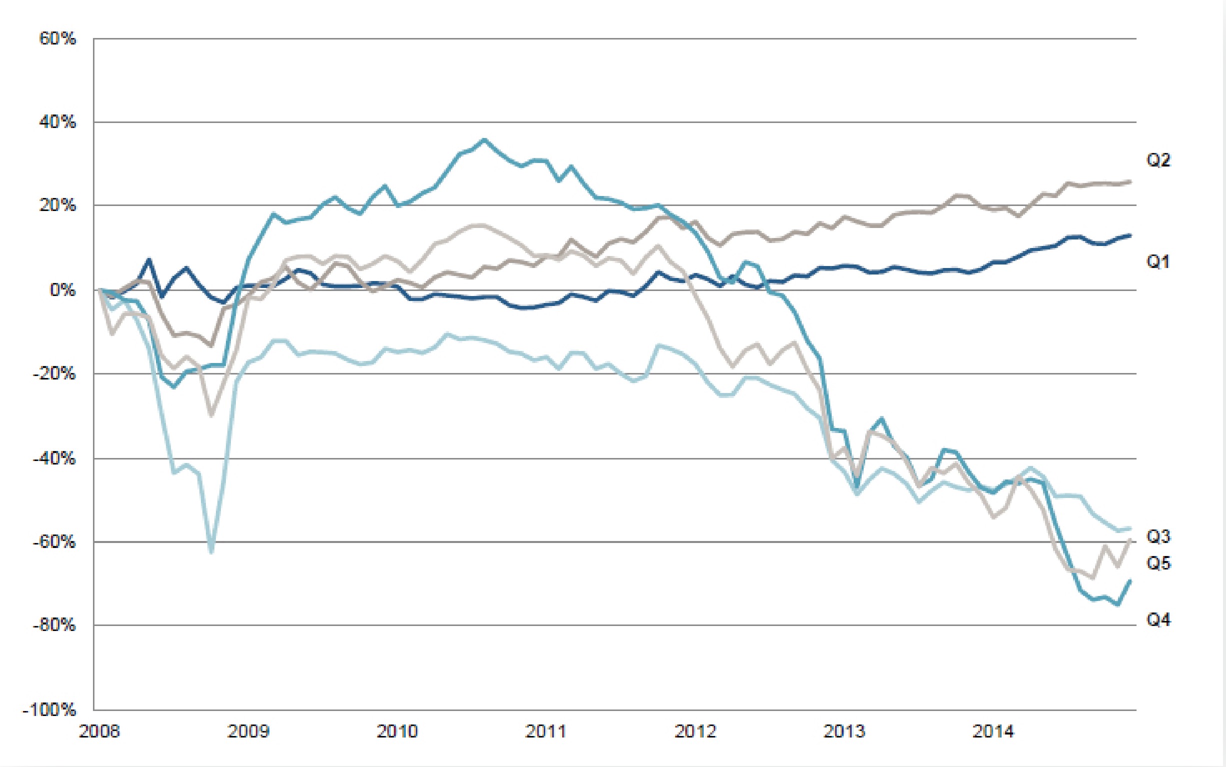
Exhibit IV: MSCI Returns



Source: Morningstar

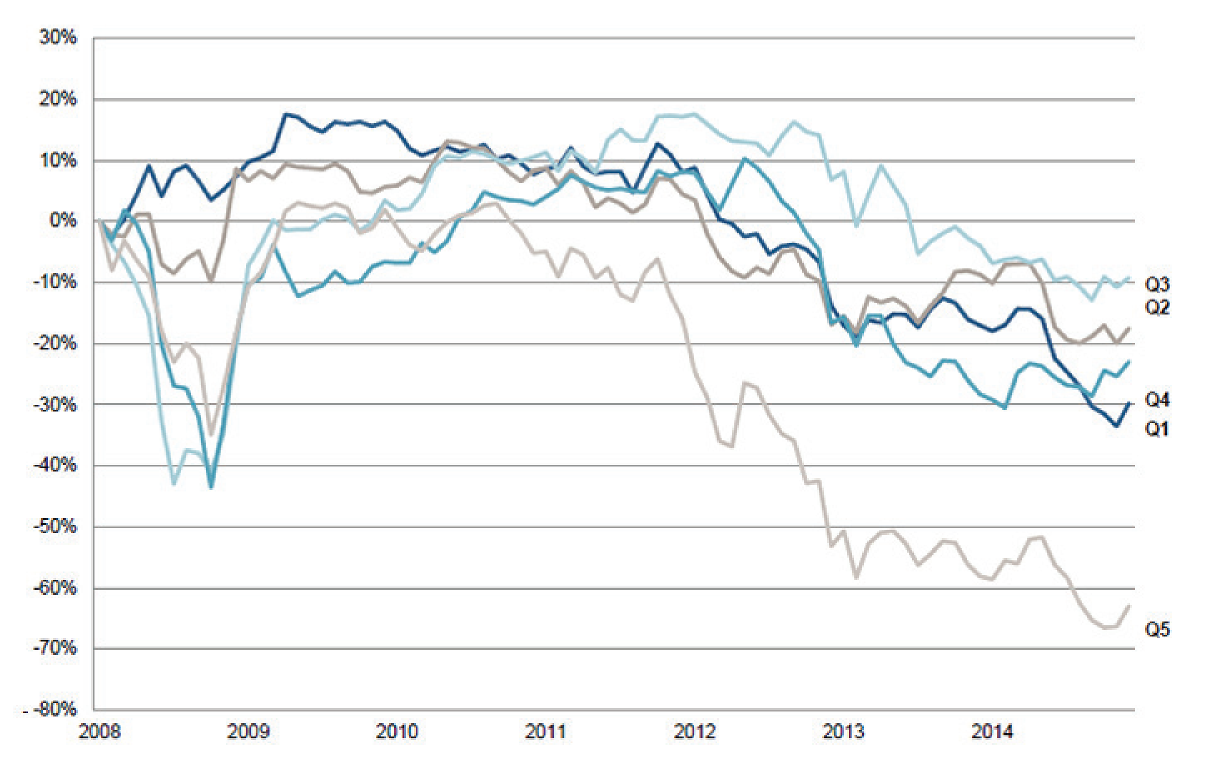
Exhibit V: Credit Suisse Quintiles Cumulative Returns 2008-2014

Environment; Cumulative Return



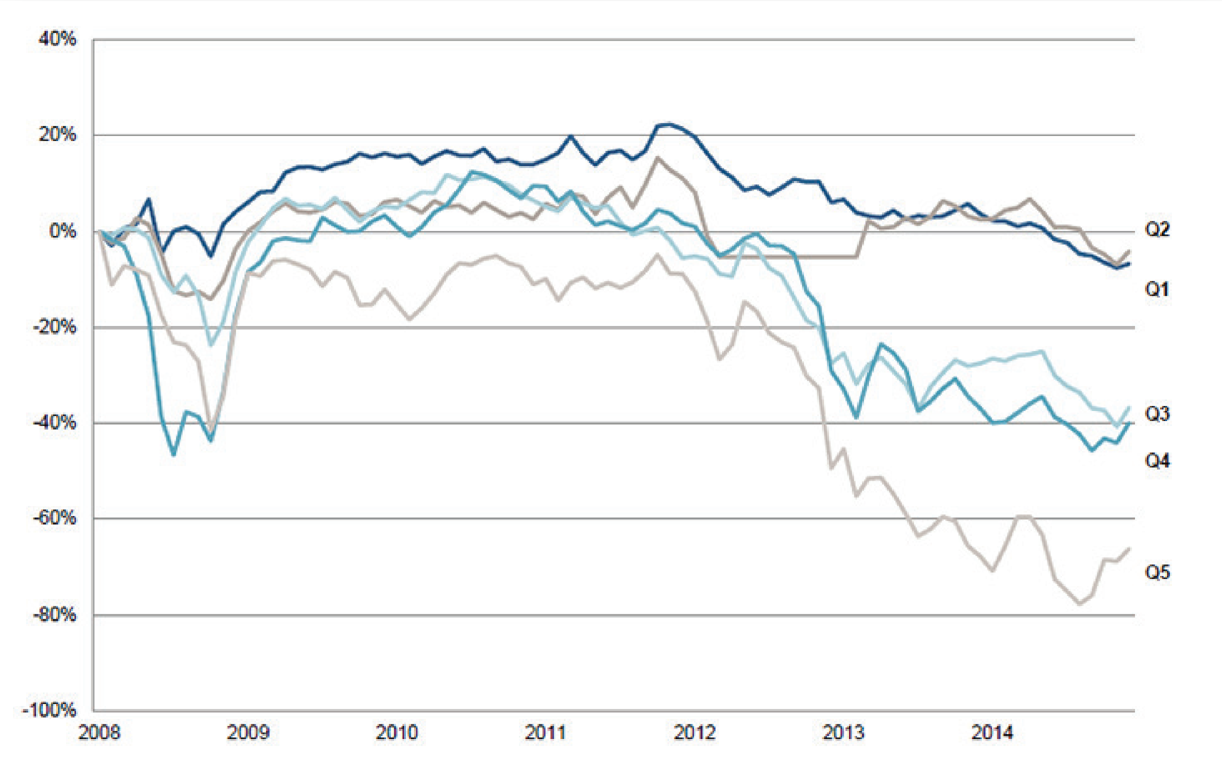
Source: Credit Suisse

Social; Cumulative Return



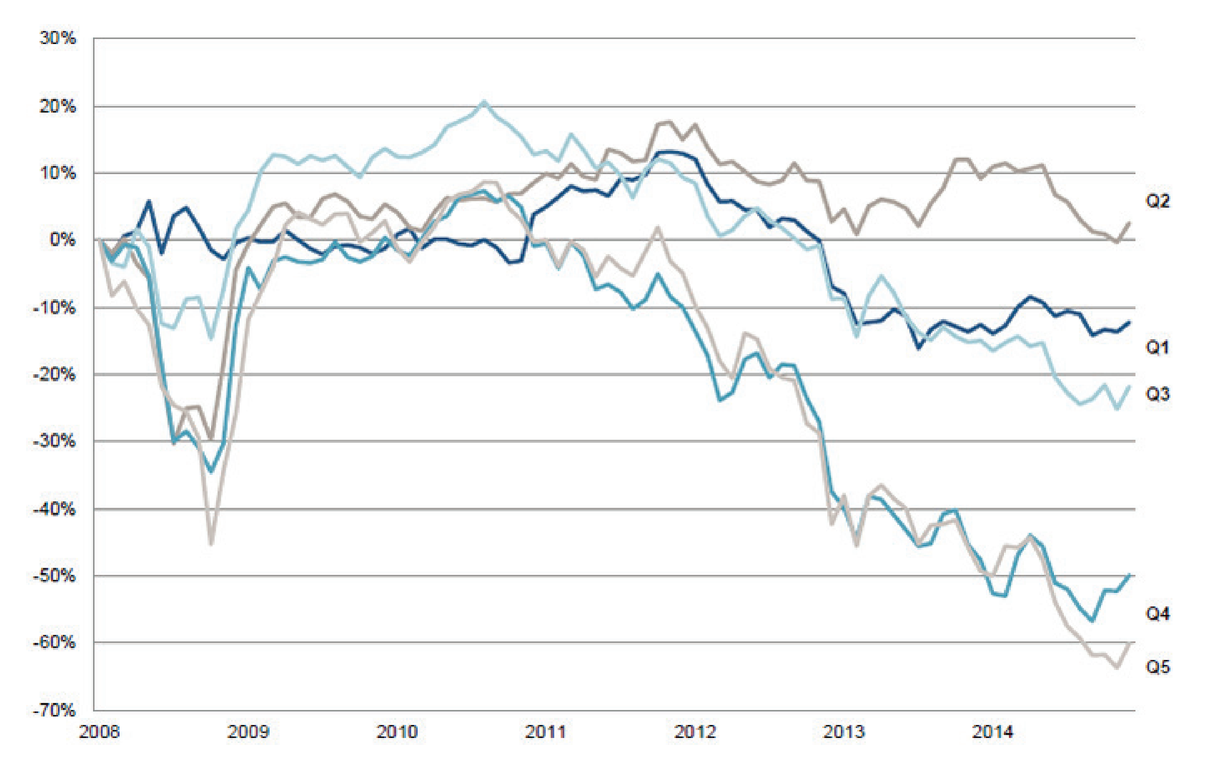
Source: Credit Suisse

Governance; Cumulative Return



Source: Credit Suisse

Overall ESG Rating; Cumulative Return



Source: Credit Suisse

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