

ESG INTEGRATION: HOW ARE SOCIAL ISSUES INFLUENCING INVESTMENT DECISIONS?



THE SIX PRINCIPLES

PREAMBLE TO THE PRINCIPLES

As institutional investors, we have a duty to act in the best long-term interests of our beneficiaries. In this fiduciary role, we believe that environmental, social, and governance (ESG) issues can affect the performance of investment portfolios (to varying degrees across companies, sectors, regions, asset classes and through time). We also recognise that applying these Principles may better align investors with broader objectives of society. Therefore, where consistent with our fiduciary responsibilities, we commit to the following:

1 We will incorporate ESG issues into investment analysis and decision-making processes.

2 We will be active owners and incorporate ESG issues into our ownership policies and practices.

3 We will seek appropriate disclosure on ESG issues by the entities in which we invest.

4 We will promote acceptance and implementation of the Principles within the investment industry.

5 We will work together to enhance our effectiveness in implementing the Principles.

6 We will each report on our activities and progress towards implementing the Principles.



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We believe that an economically efficient, sustainable global financial system is a necessity for long-term value creation. Such a system will reward long-term, responsible investment and benefit the environment and society as a whole.

The PRI will work to achieve this sustainable global financial system by encouraging adoption of the Principles and collaboration on their implementation; by fostering good governance, integrity and accountability; and by addressing obstacles to a sustainable financial system that lie within market practices, structures and regulation.

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ACKNOWLEDGEMENTS

The PRI thanks the following people for their guidance during the creation of the publication, [A practical guide to ESG integration for listed equity](#), which informed this guide.

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- Ronnie Lim, Senior Investment Specialist, Robeco
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- Sandra Rockett, Director – Institutional Business Development, Irish Life Investment Management
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ASSET OWNERS THAT PARTICIPATED IN ROUNDTABLES ON ASSESSING EXTERNAL MANAGERS

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OTHER ACKNOWLEDGEMENTS

- Nicole Bradford, Investment Manager, ESG, Cbus
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FOREWORD

The social element of ESG issues can be the most difficult for investors to assess. Unlike environmental and governance issues, which are more easily defined, have an established track record of market data, and are often accompanied by robust regulation, social issues are less tangible, with less mature data to show how they can impact a company's performance.

But issues such as human rights, labour standards and gender equality – and the risks and opportunities they present to investors – are starting to gain prominence. There is a growing awareness on the part of companies that good social performance can translate into a number of benefits, from improved business performance to better relationships with local communities.

As such, these social issues should be analysed alongside traditional investment drivers and be integral to investment decision making.

While it can be difficult to integrate social issues into investment decisions, this guide gives concrete examples of how it can be done across a range of diverse sectors. The case studies in this guide challenge the view that considering these issues cannot be integrated or are not relevant to a company's financial well-being, showing instead how the impact of social issues on the portfolio is quantifiable and how they need to be considered by all long-term investors.

We're in the early stages of integrating social issues but the movement is gaining momentum. While we're at the beginning of the journey, this report is an encouraging start to show just what can be achieved.



Fiona Reynolds, Managing Director, PRI

A handwritten signature in black ink that reads "Fiona Reynolds". The signature is fluid and cursive, with the first name being particularly prominent.

Fiona Reynolds

INTRODUCTION

In recent years, there has been an increasing awareness of the financial benefits of integrating ESG factors into investment processes. While this has typically focused on environmental and governance factors, understanding the importance of social issues is gaining momentum. Increasingly, asset owners, investment managers and sell-side brokers are applying a social lens towards corporate value to recognise the extent to which social issues can impact financial performance, risks and returns.

INTEGRATING SOCIAL FACTORS: THE BUSINESS CASE

The business case for integrating social issues is clear. A company's supply chain is less likely to be stable if it has poor labour practices and human rights violations. Operational performance may also be weakened by increased worker turnover and decreased worker motivation and productivity.

By effectively managing social issues, companies can:

- secure access to environmental resources;
- build human capital to secure a motivated, productive and skilled workforce;
- benefit from a competitive advantage in the market;
- strengthen its supply chains.

INTEGRATING SOCIAL FACTORS: HOW CAN IT BE DONE?

Integrating ESG factors into analysis of listed equity investments is the most widespread responsible investment practice¹ in the market today. Recognising that social issues are inherently more qualitative, investors often find it challenging to integrate them as they are not as easy to quantify. As a result, it can make it more difficult for investors to showcase the financial impact social issues have on risks and impacts for long-term investments.

This guide highlights the methods investors can use to integrate social issues into listed equity investments. It shows how a range of social factors can be applied to different integration techniques.

BREAKING DOWN THE CASE STUDIES

The case studies² in this guide demonstrate that practitioners are successfully integrating social issues into fundamental analysis and that investors can treat social factors in the same way as any other financial issue with existing quantitative methodologies. Social factors can be integrated through a range of integration techniques, including revenue, operating margins, capital expenditure, discount rate and scenario analysis. Social factors are also material to many sectors and industries, as demonstrated in the table below which lists the case studies within this document.

CASE STUDY AUTHOR	INTEGRATION TECHNIQUE	ESG ISSUE	GICS® SECTOR
Union Investment	Revenue	Supply chain standards	Consumer discretionary
Alliance Trust Investments	Revenue	Health and well-being	Consumer staples
RobecoSAM	Revenue	Human capital management	Information technology
ClearBridge Investments	Operating costs	Minimum wage	Consumer staples
Robeco	Operating margin	Health and safety	Industrials
Morgan Stanley Research	Capital expenditure	Local community relations	Materials
Kepler Cheuvreux	Revenue Terminal value	Health and well-being Litigation and reputational risk	Consumer staples Healthcare and materials
Sycomore AM	Beta	Workforce culture	Financials
Trillium AM	Discount rate	Gender diversity	Information technology
MFS IM	Discount rate	Local community relations	Consumer staples
RBC Global AM	Scenario analysis	Data security breaches	Healthcare
Caravel Management	Scenario analysis	Supply chain standards	Consumer discretionary

¹ As reported by PRI signatories through the annual PRI Reporting and Assessment process.

² The majority of these case studies are taken from the PRI publication, [A practical guide to ESG integration for equity investing](#)

A MODEL FOR ESG INTEGRATION

The PRI defines ESG integration as “the systematic and explicit inclusion of material ESG factors into investment analysis and investment decisions”. It is one of three ways to incorporate responsible investment into investment decisions, alongside thematic investing and screening. All three ESG incorporation practices can be applied concurrently.

The PRI released an integration model in [A practical guide to ESG integration for listed equity](#) to illustrate how ESG integration is applied in practice.

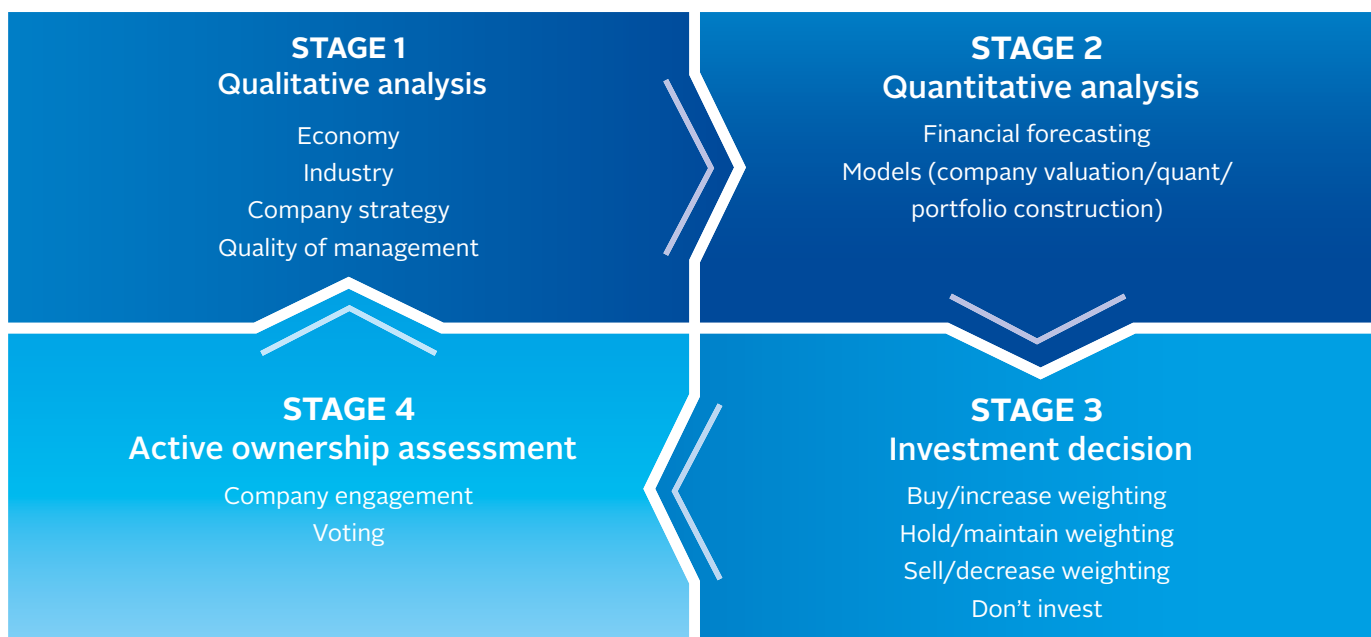
There are four stages to ESG integration and therefore the integration model:

Stage 1: Qualitative analysis – Investors will gather relevant information from multiple sources (including but not limited to company reports and third-party investment research) and identify material factors affecting the company.

Stage 2: Quantitative analysis – Investors will assess the impact of material financial factors on securities in their portfolio(s) and investment universe and adjust their financial forecasts and/or valuation models appropriately.

Stage 3: Investment decision – The analysis performed in stage one and stage two will lead to a decision to buy (or increase weighting), hold (or maintain weighting) or sell (or decrease weighting).

Stage 4: Active ownership assessment – The identification of material financial factors, the investment analysis and an investment decision can initiate or support company engagements and/or inform voting. The additional information gathered and the outcome from engagement and voting activities will feed back into future investment analysis, and hence have an impact on subsequent investment decisions.



The following section contains guidance and case studies that explain how social issues can be integrated into fundamental analysis and company valuations through applying techniques from stage two of the integration model. There are examples of integrating different social factors into companies from several sectors.

INTEGRATION TECHNIQUES

OVERVIEW OF FUNDAMENTAL STRATEGIES

Fundamental investors identify investment opportunities by using past company data and by making assumptions about future performance. These assumptions are based on qualitative and quantitative analysis of economic trends, the competitive environment, the market potential of a company's products and services, operational management and the quality of senior management. They use investment research and financial data from multiple sources, and often meet senior management teams.

They will then build or update company valuation models to assess a company's perceived intrinsic value and compare this to its current share price, thus identifying companies they think are overvalued and undervalued by the market.

Alternatively, and in combination, some fundamental managers use the relative valuation approach, where they compare the financial ratios such as price-to-earnings (PE) and return on invested capital (ROIC) of a company and its peers and/or the sector's average, to assess whether the company is relatively fairly valued, undervalued or overvalued.

When integrating social factors into fundamental analysis, they are examined alongside other valuation drivers. It has been more common to process social factors through qualitative analysis, but investors are increasingly quantifying and integrating social factors into financial forecasting and company valuation models, in alignment with other financial factors.

FINANCIAL FORECASTING

Forecasted company financials drive valuation models such as the discounted cash flow model, which in turn calculates the estimated value (or fair value) of a company and hence can affect investment decisions. Investors can adjust forecasted financials such as revenue, operating cost, asset book value and capital expenditure for the expected impact of social factors.

INCOME STATEMENT ADJUSTMENT – REVENUE

Future revenue and revenue growth rate(s) have a significant impact on the fair value of a company as well as on other related variables (e.g. future estimated operating expenses can be calculated as a percentage of revenue, and estimated future depreciation charges can be calculated by multiplying revenue by a ratio of average historical depreciation to revenue).

To forecast revenue, investors will typically take a view on how fast the industry is growing and whether the specific company will gain or lose market share. Social factors can be integrated into these forecasts by increasing or decreasing the company's revenue growth rate(s) by an amount that reflects the level of investment opportunities or risks.

CASE STUDY BY UNION INVESTMENT

For example, the case study by Union Investment demonstrates the impact of ESG investment risk on the revenue growth rates of an apparel company. Portfolio managers and analysts at Union Investment believe that there is a positive correlation between revenue per square feet and social factors such as employee satisfaction. Because of this correlation, they increased the apparel company's market estimates of revenue growth by 100 basis points as they witnessed improving labour standards at the company and its suppliers.

CASE STUDY BY ALLIANCE TRUST INVESTMENTS

The case study by Alliance Trust Investments shows the impact of ESG investment opportunities on revenue forecasts. Portfolio managers and analysts at Alliance Trust Investments believed that the ingredient and flavour division of a food company would result in volumes growing at an average of 5% because of the division's exposure to the United Nations' Sustainable Development Goals (SDGs) and the associated acceleration towards healthier eating. As a result of integrating these social factors, as well as other investment drivers, the top line revenue forecast was approximately 150bps above the consensus estimates.

CASE STUDY BY ROBECOSAM

Also demonstrating the impact of ESG opportunities on revenue forecasts, the case study by RobecoSAM revealed that analysts assumed strong organic revenue growth at a semi-conductor company, thanks to the company's leading position in human capital management and innovation, as well as other investment drivers.

INCOME STATEMENT ADJUSTMENT – OPERATING COSTS, OPERATING MARGIN AND EBIT MARGIN

Investors can make assumptions about the influence of social factors on future operating costs and either adjust them directly or adjust the operating profit margin/earnings before interest and taxes (EBIT) margin. Some operating costs may be forecast explicitly but depending on the level of disclosure by companies, it may be necessary to make an adjustment to the operating margin instead.

CASE STUDY BY CLEARBRIDGE INVESTMENTS

The case study by ClearBridge Investments describes the investment analysis behind the adjustments made to the operating costs of three retail companies to reflect rising minimum wages and shows how these operating costs adjustments have impacted the companies' earnings.

CASE STUDY BY ROBECO

The case study by Robeco illustrates the impact of increasing the EBIT margin of a packaging company to reflect the potential cost benefits from improved management of material use and health and safety at its plants. It contains details of a scenario analysis performed by an analyst to understand the effects of EBIT margin adjustments on the company's target share price (for more information on scenario analysis, see section entitled "Scenario analysis").

BALANCE SHEET ADJUSTMENT – BOOK VALUE AND IMPAIRMENT CHARGE

Social factors can influence assets' anticipated cash flow, such as by forcing long-term or permanent closure, and therefore alter their net present value. The impact is most likely to be a reduction, resulting in an impairment charge being made to bring the book value down accordingly, and therefore reducing not only the asset value but the company's earnings for the year in which the non-cash, one-off impairment charge is recorded on the income statement. An asset revaluation can result in lower future earnings, a smaller balance sheet, additional operating/investment costs and a lower company fair value.

Local community protest is an example of a social factor that can impact an asset book value. Protests can lead to work stoppages at mine(s) and in some cases, mine closures, which would reduce the future cash flow of a mining company. If an investor believes that future cash flow is significantly less than the current estimated, priced-in future cash flow, an investor may charge an impairment charge to the book value of the mine(s) and the income statement of the mining company.

CASH FLOW ADJUSTMENT – CAPITAL EXPENDITURE

An investor may believe that social factors will lead a company to decrease or increase their future capital expenditure. Investors would then either decrease or increase capital expenditure forecasts by adjusting the formula linking CapEx to revenue or by applying a one-off, absolute cost adjustment to the forecasted cash flow statement, if aware of specific expansion plans, such as new factories, shops or mines.

CASE STUDY BY MORGAN STANLEY RESEARCH

The case study by Morgan Stanley Research details the investment analysis of a mining company, who had experienced local community protests about water shortages that led to a temporary stoppage of copper shipments. Analysts at Morgan Stanley Research investigated the possibility of the company constructing a desalination plant to avoid further production disruption from water scarcity and water usage disputes, which would increase capital intensity and annual operating costs.

COMPANY VALUATION MODELS

The company valuation models that managers use to value a firm – including the dividend discount model, the discounted cash flow model and adjusted present value model – can be adjusted to reflect social factors.

TERMINAL VALUE

Some models require calculating a terminal value of a company (the estimated value of the company at a point in the future assuming the company generates cash flows indefinitely), which is then discounted back to current day. A positive terminal value will increase a company's fair value. Social factors could cause investors to believe that a business line of a company or a company will not exist forever. In these cases, the terminal value could be reduced to a lower value or to zero respectively.

For example, an investor may believe that a regulator will ban certain chemicals because of their harmful effects on human health and wellbeing. To reflect the negative impact this will have on the future revenue of a chemical company that produces these particular chemicals, the investor could reduce the terminal value, which will in turn decrease the company's fair value.

CASE STUDY BY KEPLER CHEUVREUX

In a case study by Kepler Cheuvreux, the planned acquisition of a company was considered to increase the risk profile of the purchasing company because of the higher litigation and reputational risks associated with the target company. To reflect these risks, the investor applied a lower terminal growth rate to the combined company relative to the terminal growth rate applied to the purchasing company before the potential acquisition. This adjustment calculated a lower terminal value for the combined company compared to the sum of the terminal values of the individual companies.

CASE STUDY BY MFS INVESTMENT MANAGEMENT

MFS Investment Management demonstrated this approach in their case study. For six Chinese companies within the consumer staples sector, they applied different discount rates that reflected the analysts' perceived level of ESG investment risk for each company. They applied the highest discount rate to a beverage company that has almost 80% of its facilities located in areas with high levels of water scarcity or stress. The calculated target price of the company was 20% lower than if they used the lowest discount rate applied to companies in their peer group.

BETA AND DISCOUNT RATE ADJUSTMENT

Some investors adjust the beta or discount rate used in company valuation models to reflect social factors.

CASE STUDY BY SYCOMORE ASSET MANAGEMENT

Sycomore Asset Management provides an example of an investor adjusting the beta of a company. In their case study, they explained that the beta of a bank was reduced because of positive working environment and strong corporate culture. The lower beta increased the target price of the bank.

CASE STUDY BY TRILLIUM ASSET MANAGEMENT

The case study by Trillium Asset Management provides an example of an investor adjusting the discount rate. They decreased the discount rate of an online retail company by 25 basis points to reflect the expected improvement in corporate governance related to the expected improvement in the board's gender diversity. This adjustment increased the intrinsic value of the company and its one-year expected stock return.

One approach to adjusting the beta or discount rate is to run a peer analysis of companies within the sector and then rank them by a social factor(s). An investor can then increase/decrease the beta/discount rate for companies considered to possess high/low social risk, in turn reducing/increasing the fair value.

SCENARIO ANALYSIS

A common approach used by investors to understand the impact of ESG factors on the fair value of a company is to conduct a scenario analysis, where an ESG-integrated company valuation is calculated and compared to a baseline valuation. The differences between the two scenarios very clearly depict the materiality and magnitude of social factors affecting a company.

CASE STUDY BY RBC GLOBAL ASSET MANAGEMENT

The case study by RBC Global Asset Management details the scenario analysis performed to understand the impact of social factors on the target company share price of a leading healthcare insurer. A portfolio manager created an upside "ESG opportunity" scenario to assess the value generated by the company's data analytics division and a downside "ESG risk" scenario to model the impact of privacy data breaches.

CASE STUDY BY CARAVEL MANAGEMENT

Another example is found in the case study by Caravel Management. A portfolio manager analysed the impact of social factors on the valuation of a textile company through creating a downside "ESG risk" scenario that quantified the consequences of potential supply chain issues.



CALCULATING LABOUR STANDARDS' IMPACT ON REVENUE AND DISCOUNT RATE

Sector/Industry	Apparel	Company	Union Investment
Integration technique	Revenue and discount rate	Author	Duy Ton, Ingo Speich

We created an ESG valuation framework by selecting different ESG factors for each sector – e.g. CO2 footprint for energy companies, labour standards or product safety for retail companies – and embedding it into our classic fundamental analysis. We apply the framework to individual stocks across all sectors, together with sector analysts and ESG specialists.

While it is hard to quantify the social and environmental risks of holding a stock, we try to evaluate the company's position and outlook by performing a sensitivity analysis to obtain a range of possible fair values. In our experience, integrating ESG analysis generally works better on negative rather than on positive issues.

In valuing a European sport shoes and equipment manufacturer, we took into account concerns and opportunities of the company's supply chain labour conditions.

ANALYSING THE ESG ISSUE

There had been criticism of the labour standards, particularly poor wages and overtime, at many of the company's suppliers and sub-contractors in Southeast Asia. After many years of dialogue with the company and after visiting the contracted factories, we saw gradual improvements in the social standards at the company and its suppliers, including improved risk management and enhanced systematic monitoring of social standards. This reduced reputational risk, enhanced the brand and resulted in employees reporting being more satisfied.

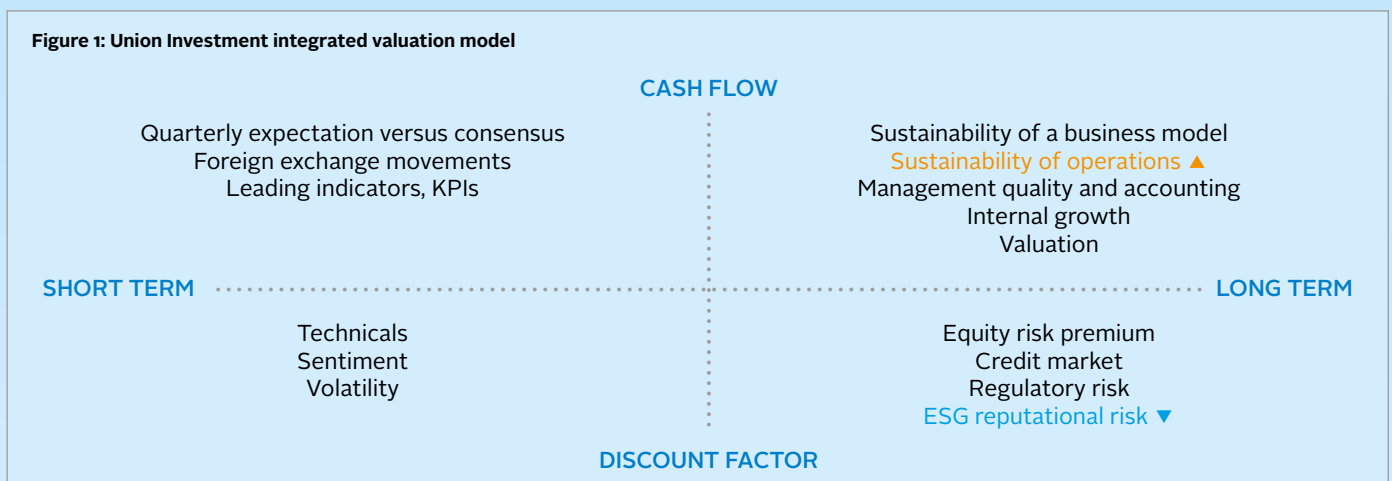
IMPACT ON VALUATION

We embedded these positive observations into our valuation model in two ways:

- **Sales:** As we believe that there is a positive correlation between revenue per square feet and social factors such as employee satisfaction, we expect a better sales performance because of a better brand and highly motivated labour forces (at the company and at (sub-)contractors). To take into account the positive implication on sales and cash flows, we increase the market estimates of sales growth by 100 basis points per year.
- **Discount rate:** Due to implemented measurements, improved risk management and enhanced systematic monitoring of social standards, the company could limit its exposure to public allegations and controversies regarding labour standards. Hence the company's reputational risk is limited (and has even turned to a reputational benefit compared to its peers), which has implication on our stock valuation model. As a consequence, we decrease the discount rate by 50 basis points.

The sizes of the adjustments are based on past experience with the sector, with the company and its peers, and on the assumption that most other market participants have not integrated sustainability considerations.

Applying the adjusted factors in our valuation model (figure 1) increases the fair value 20%, with the biggest upside coming from the reduced risk factors (about 15%).





CASE STUDY

ASSESSING THE REVENUE IMPACT OF THE SDGs

Sector/Industry	Consumer staples	Company	Alliance Trust Investments
Integration technique	Revenue	Author	Martyn Jones

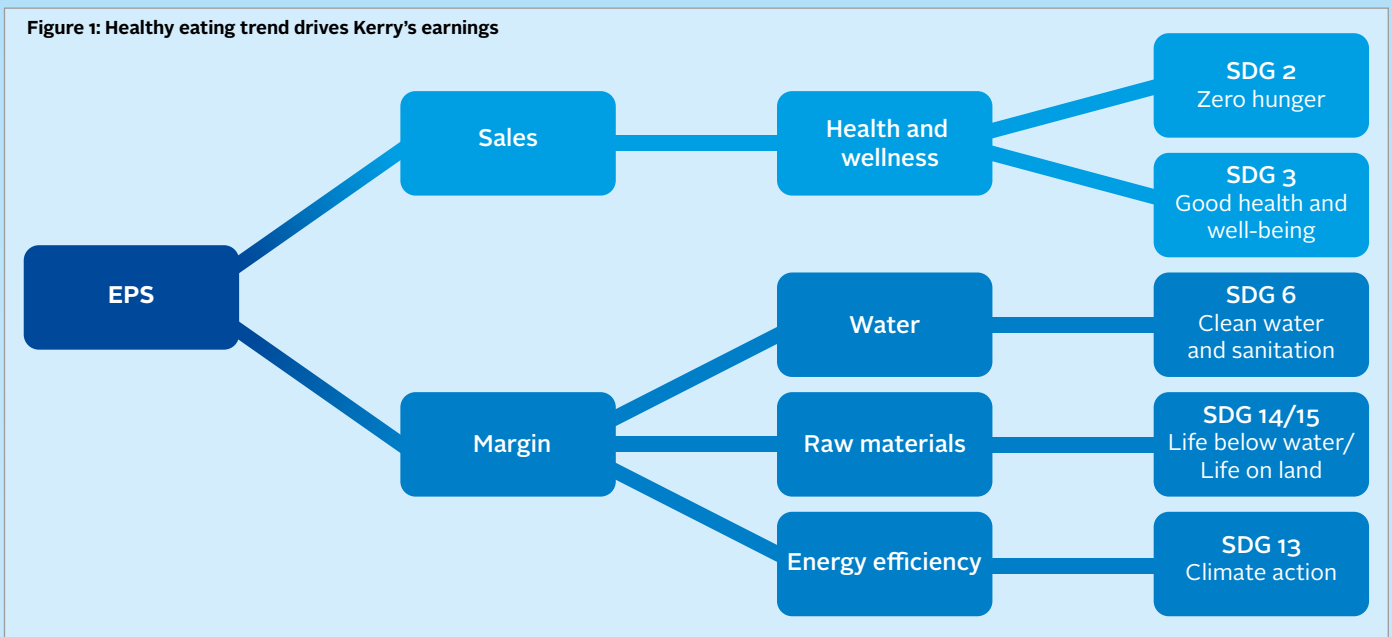
Our assessment of the consumer staples sector identified three business activities - the production of food, the production of household chemicals and the retail of them both - in which revenue can be driven by the Sustainable Development Goal (SDG) themes.

IDENTIFYING TRENDS

We assessed Kerry Group - a €14bn listed Irish company established in 1972 as a dairy cooperative that has evolved to be one of the largest and most advanced ingredients

and flavours technology companies in the world - as being exposed to Sustainable Development Goals 2 and 3, in particular target 3.4 to reduce pre-mature mortality from non-communicable diseases (NCDs) by a third. (Obesity is linked to myriad NCDs including Type 2 diabetes, heart disease and stroke. The prevalence of obesity has doubled since 1980 and is set to double again by 2030, with the World Health Organisation declaring obesity a global epidemic impacting emerging and developed economies.)

We found that the ingredients and flavour division, which accounts for roughly 75% of total Group revenues, will be



materially impacted by structural trends towards healthy eating preferences: Kerry is sought out by food majors for its expertise in reformulating foods (reducing the calorie, sugar, salt and saturated fat content, whilst retaining the same taste, texture, feel and shelf-life) and for its development of healthier ingredients for new products.

Proactive disclosure of environmental, social and governance factors can help companies navigate through regulatory and reputational risks, and mitigation strategies can highlight opportunities for operational efficiency, especially when related to environmental impact reduction. Kerry Group is well positioned to address environmental

issues having implemented carbon, water and waste reduction programmes. The company has worked to address deforestation risks presented by its raw material inputs, and in 2014 moved to 100% RSPO-certified sustainably sourced palm oil. This helps to secure a sustainable supply for the future, protects against reputational risk and gives the large food manufacturers the opportunity to differentiate their offering with transparent labelling and traceable supply chains.

ASSESSING IMPACT

When assessing the growth of the ingredients and flavour division, we look at likely exposure to these key trends, resulting in multiple changes to our 2014-17 estimates for the company:

- We believed that the division's exposure to SDG 2 and SDG 3, and the associated acceleration in the shift toward healthier eating, would result in volumes growing at an average of 5%.
- Our top line revenue forecast was about 150bps ahead of consensus estimates, also enabling us to increase our margin expansion expectations as a result of the operational leverage.
- Integrating these factors resulted in projected earnings growing at a compound annual rate of 12%, over 100bps higher than consensus estimates, in turn improving expected return on capital.

We believed that Kerry, delivering steady growth and returns, would be recognised for its quality and would overtime develop a premium valuation relative to its peers. So far, our forecast of superior returns and valuation appreciation has been corroborated by the company outperforming the index and the sector since our analysis was conducted.

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CASE STUDY

CALCULATING MATERIAL ESG ISSUES' IMPACT ON FAIR VALUE

Sector/Industry	Semi-conductor	Company	RobecoSAM
Integration technique	Operating margin and discount rate	Author	Matthias Muller

To identify companies that are better positioned to create long-term value (and to demonstrate sustainability's contribution to long-term corporate value), we:

1. eliminate from the investable universe the companies with the weakest sustainability performance, based on the sustainability scores from our Corporate Sustainability Assessment (which is also used to determine the components of the Dow Jones Sustainability Indices (DJSI));
2. identify the most promising companies, from both a traditional valuation and sustainability perspective;
3. integrate sustainability information into financial models (economic value added model) and determine sustainability's contribution to the company's fair value.

business (as measured by the company's return on invested capital) is reflected in the market price (as measured by the company's enterprise value), or whether the company is trading at a discount and therefore represents a long-term buying opportunity (see horizontal axis in figure 2).

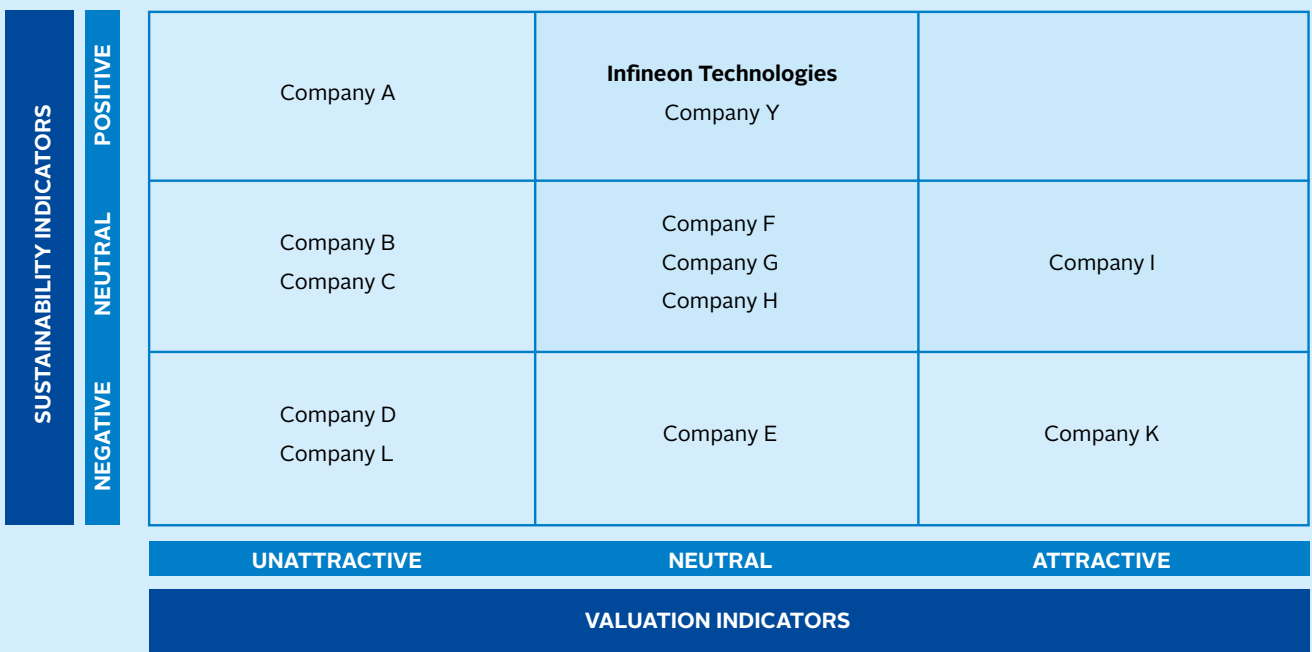
Looking at portfolio company Infineon, as an example for the semiconductor industry, the most material factors include innovation management, human capital management, corporate governance, business ethics, supply chain management and environmental management. Compared to industry peers Infineon received a positive overall sustainability profile, driven by its superior performance in innovation management, sector-leading human capital management and excellent corporate governance practices. However, there is a small negative impact from business ethics due to antitrust issues.

IDENTIFYING PROMISING COMPANIES

The sustainability analyst benchmarks the performance of companies in a given industry on the most material sustainability factors. In parallel, the equity analyst determines whether the return potential of the underlying

Infineon also showed a superior return potential relative to the sector, but because this was already partially reflected in the share price, the stock ranks only neutral on the valuation screen (figure 1).

Figure 1: Integrated view for investment idea generation



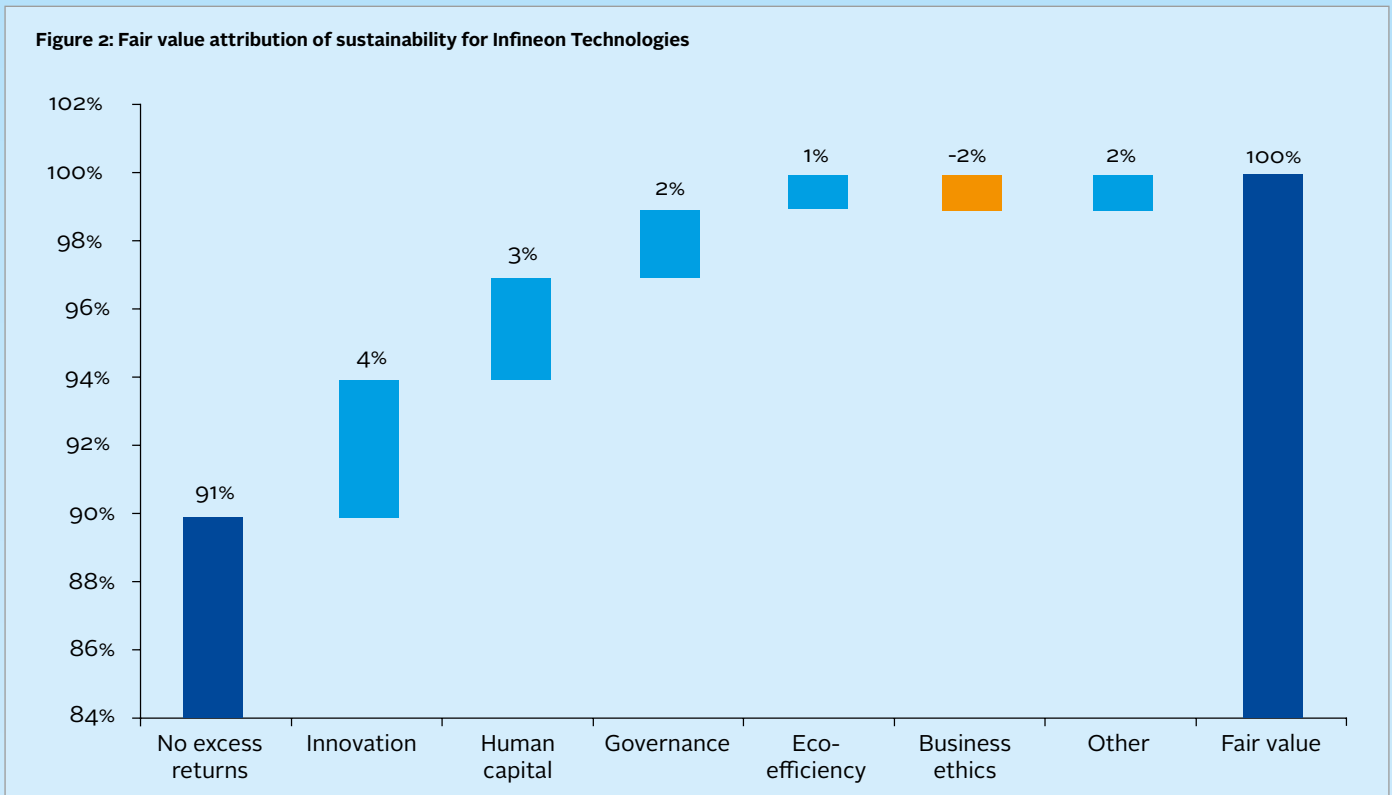
INTEGRATING SUSTAINABILITY INTO VALUATION

The equity analyst builds an economic value added (EVA) model, incorporating the information from the sustainability analyst by estimating the material sustainability issues' financial impact on the business value drivers (growth, profitability and risk).

In the example of Infineon, the sustainability analyst suggested a positive impact on growth and profitability (driven by the strong capacity to innovate and the leading position in human capital management), and no impact on risk (WACC). Operational efficiency gains from environmental initiatives also increased the operating margin. With sustainability factors integrated, we applied an operating margin above the historic five-year average operating margin of the company, and assumed strong organic revenue growth. The negative impact on the risk profile from antitrust issues was off-set by proactive corrective actions around business ethics and the generally good performance in corporate governance, resulting in no adjustment to the risk assumptions.

To extract sustainability's contribution to the overall fair value of Infineon, we applied an excess return model. In this model, the fair value with industry average returns applied is subtracted from the analysed company's total fair value, leaving the excess returns, which are attributed to sustainability (figure 2). This is then split proportionally according to the respective sizes of the positive and negative impacts identified previously.

For Infineon, innovation management, human capital management, corporate governance and operational efficiency gains from environmental issues have a positive 4%, 3%, 2% and 1% impact on the fair value while business ethics has a negative 2% impact.





CASE STUDY

SUSTAINABLE WORKPLACE PRACTICES CAN HELP COMPETITIVE POSITIONING IN THE RETAIL SECTOR

Sector/Industry	Retailer	Company	ClearBridge Investments
Integration technique	Operating costs	Author	Neal Austria

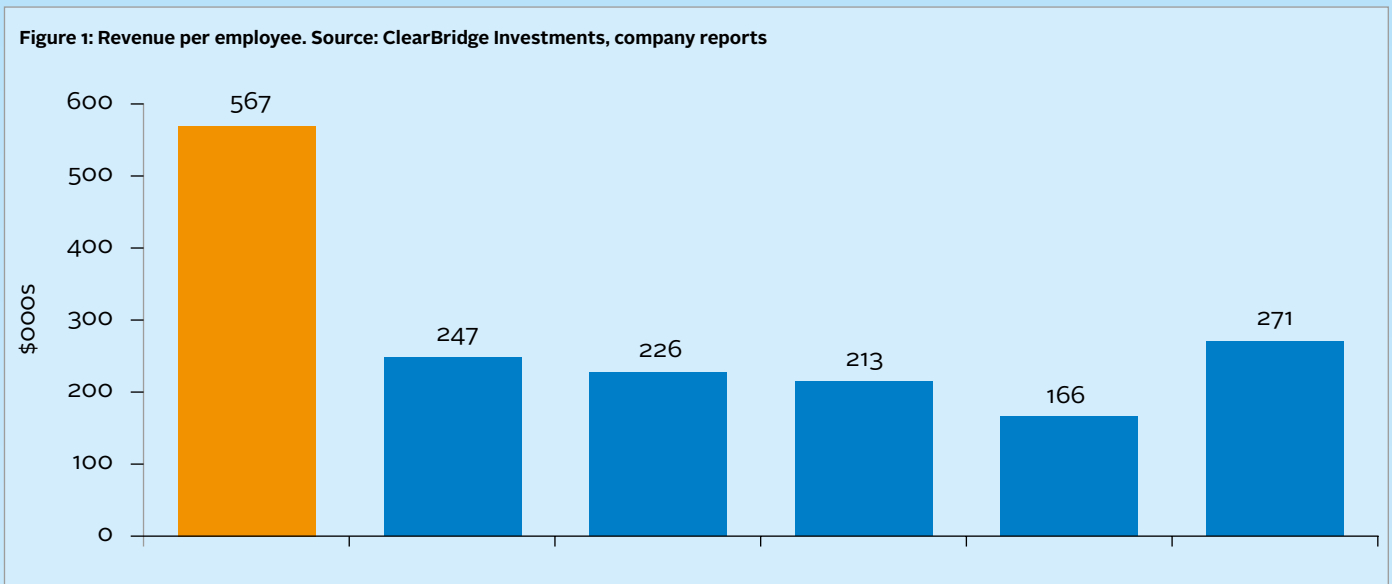
We evaluated a major US retailer whose unique model allows the company to successfully balance shareholder returns and customer value with employee and sustainability responsibility. The retailer operates a membership model whereby customers pay an annual fee in return for big discounts on products. The company stocks fewer product varieties than a typical retailer (around 3,700 items, compared to over 100,000 items at the largest US retailer), and predominantly stocks large pack sizes. As well as increased buying power allowing it to drive down the prices paid to suppliers and charged to consumers, the bulk purchase model benefits the company through:

- bulk packaging requiring less material – and using the same packaging to ship merchandise as to display it – which reduces costs while being environmentally friendly;

- bulk products being less labour-intensive to stock, allowing for significantly higher revenue generation per employee (orange column in figure 1).

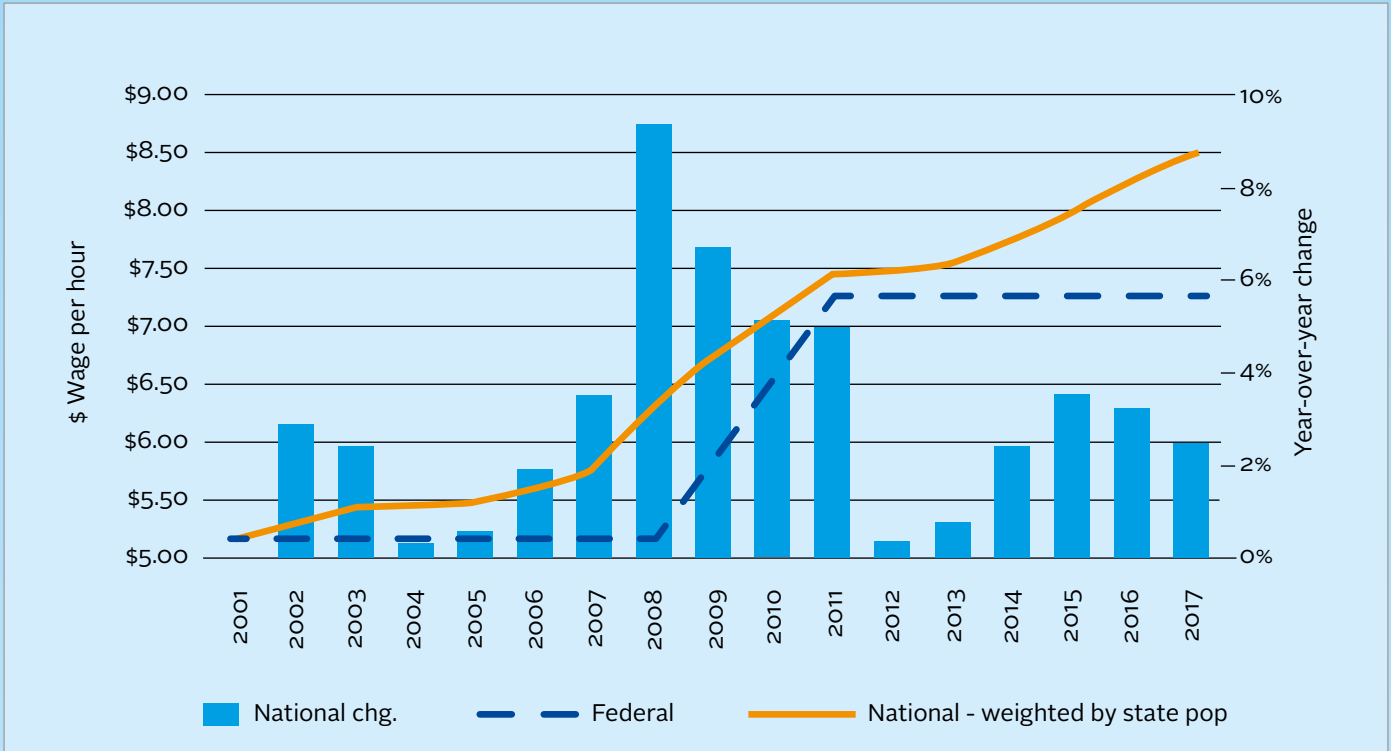
We like the retailer as an investment due to:

- its high recurring stream of income from the annual membership fee (about 70% of operating profits);
- lower online disintermediation risk than other retailers due to already industry-low margins;
- believing its profitability will be less at risk from wage increases than its competitors due to its notable fair treatment of staff.



One of the largest costs for retailers is employees, and the US is in an environment of an increasingly tight labour supply and rising minimum wages. In Massachusetts, the minimum wage has risen 38% over three years to US\$11 per hour and cities including Los Angeles are moving the minimum wage to US\$15 per hour by 2020. State-mandated minimum wage increases across the US are driving the national wage closer to US\$9 per hour even as the federal mandate stays unchanged at US\$7.25.

As an example of this impact, the largest US retailer announced it will raise its starting minimum wage to US\$10 per hour nationally and overall average hourly wages will reach around US\$12.50. This will come at a run-rate pre-tax cost of US\$2.7 billion, which has effectively reduced the company's earnings power 11% (Retailer 2 in figure 3). Another major retailer announced a similar increase in wages and will face an 8% drop in earnings (Retailer 3 in figure 3).



The retailer we evaluated pays significantly more than other retailers due in part to the high revenue generation per employee resulting from its warehouse membership model. The average SG&A expense per employee excluding occupancy and advertising costs (a useful proxy for wages and benefits), shows that this retailer pays its employees on average 27% above its peers.

The company tells us this contributes to low employee turnover, leading to better execution in stores (more efficient stock management/less theft and damage to on-sale items/store cleanliness), high revenue productivity and high membership renewal rates. The retailer already paying industry-leading compensation means that wage increases have less impact on profitability: earlier this year, our thesis was proven correct as the retailer announced changes to its pay structure with an EPS impact of just 2% (retailer 1 in figure 3).

Figure 3: EPS impact from wage pressure for three leading US retailers. Source: ClearBridge Investments, Bloomberg, company reports

	Retailer A	Retailer B	Retailer C
EPS 2014	\$5.02	\$5.07	\$3.16
Wage pressure	-\$0.08	-\$0.54	-\$0.25
Other factors	\$0.63	-\$0.34	\$0.58
<hr/>			
EPS 2016	\$5.56	\$4.19	\$3.49
Wage pressure % of '14 EPS	2%	11%	8%
2-Year chg.	13%	-17%	10%
<hr/>			
Wage pressure	-\$0.08	-\$0.54	-\$0.25
<hr/>			
Potential impact on stock price*	-\$2.00	-\$8.64	-\$5.00
Potential market cap impact (\$mn)	-\$883	-\$28,011	-\$3,480
% of stock price at announcement	1%	-10%	-8%

*Includes 2-yr fwd p/e



CASE STUDY

LINKING HEALTH AND SAFETY TO OPERATING MARGINS

Sector/Industry	Packaging	Company	Robeco
Integration technique	Operating margin	Author	Willem Schramade

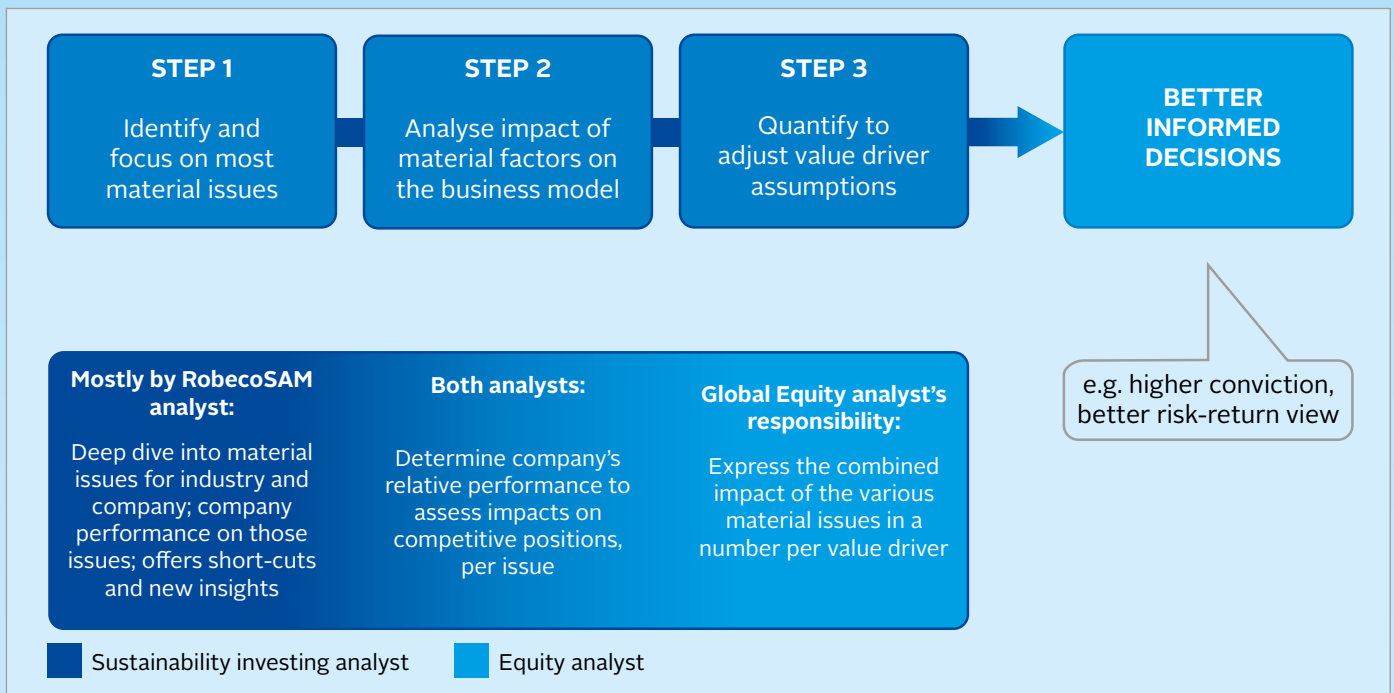
A packing company in our portfolio is one of the largest rigid can manufacturers in the world, enjoying high market share through oligopolistic markets. Given its large manufacturing footprint, operational health and safety is a major issue. The company claims to pay a lot of attention to it, but could do better in terms of measurement, reporting, and analysis.

In addition to the items it already reports, it could start reporting its lost time accident rate, as some of its peers do. More importantly, it could explain how safety permeates its culture and drives operational performance.

Aluminium maker Norsk Hydro is a major supplier to the company and has found a strong, positive relation between safety and operational efficiency at its plants. If the packaging company were to get an overview of this for its 150 plants, it could likely enhance value.

OUR PROCESS

We integrate ESG factors into valuation models and decision-making by linking the most material ESG issues to competitive positions and value drivers.



When building an investment case, our equity analysts consult their sustainability investing counterparts on their respective sector for an assessment of the company's most material factors. Based on our proprietary sustainability database, additional analyses and discussions with the equity analyst, the sustainability investing analyst then expresses an opinion in a company profile, which lists the most material issues for the company, how is it performing on those issues (absolutely and relatively) and how that affects its competitive position.

Subsequently, the equity analyst gives feedback and assesses how much better or worse the firm performs or will perform versus its peers as a result of its ESG strengths and weaknesses: if the analyst concludes that a company derives a competitive advantage from an ESG issue, then that should be reflected in value drivers that are stronger than its peers, e.g. higher growth, higher margins or a lower capital burden.

In almost half of cases, no change in the value drivers is made, either because the ESG factors cancel each other out, insufficient conviction is reached, differences within the industry are minor or the company is just average. But even then, this analysis typically give the equity analyst a deeper insight into the quality of company management and the risks involved.

IN PRACTICE

For our portfolio packaging company, the sustainability investing analyst identified weaknesses in reporting on material issues: the company lacks a framework for identifying and monitoring the most material sustainability issues. As mentioned above, the company claims a commitment on safety and provides some data on it, but there are no targets and KPIs. The company would benefit from analysing those data at the plant level and linking them to other performance metrics and potentially to personnel evaluation. The same applies to measures of environmental management, supply chain management and human capital.

After engaging with the company on these issues, the CFO and investor relations team acknowledged the potential for improvement. On our second call with them, they showed some improvements in their disclosure and had appointed a chief sustainability officer to help address them. They also told us they were working on a materiality assessment and subsequent target setting, as well as on improving their IT systems to allow for more rigorous analysis of indirect financial items such as safety.

The packaging company could potentially save several hundred millions of dollars through better analytics on the relation between margins, safety records, and materials use at individual plants. That would imply a margin expansion of several hundred basis points.

Various degrees of improvement imply the following impact on target price:

	Base scenario: no ESG improvement	Decent ESG improvement scenario	Very strong ESG improvement scenario
EBIT margin	11.5%	12.5%	13.5%
NOPAT margin	8.9%	9.6%	10.4%
Upside potential to the target price	9%	22%	38%



CASE STUDY

EVALUATING ESG IMPACT ON PROJECT COSTS

Sector/Industry	Mining
Integration technique	Cash flow and operating costs

Company	Morgan Stanley Research
Author	Jessica Alsford, Alain Gabriel

Building desalination plants appears to be the mining industry's favoured solution to the issue of water scarcity. Chile is proposing a law directing all mines using more than 150 litres of water per second to incorporate seawater in their operations.

Our analysis suggests that desalination adds US\$2,000-US\$2,800 per tonne to capital intensity and US\$92 per tonne to annual operating costs. To maintain a minimum unlevered project IRR of 15% (pre-tax), this requires copper's US\$6,724 per tonne estimated price to rise by US\$400-US\$500 per tonne.

This incremental cost can have a material impact on project economics. We believe that the environmental scrutiny of Antofagasta's Los Pelambres expansion has reduced the project's IRR from 14% to 11%.

The 90kt-95kt copper project was initially planned to commence production in 2018, but we estimate that the two-three year delay in obtaining the environmental permit, resulting from the requirement to construct a desalination plant with associated infrastructure, means that volume growth at Los Pelambres will not materialise before 2021.

THE GROWING COST OF WATER

Water is critical to copper production: 78% of copper produced by the world's 20 largest mines is currently in water-challenged regions, with Chile (33% of 2014 global production) most affected. The problem is getting worse: global demand for water is set to exceed supply by 40% in 2030, whilst structural shifts in copper mining, such as a change in the targeted geology (lower grades and rising sulphide content), demand more water-intensive processes.

The use of fresh water, increasingly contested between mining companies and local communities, has been at the source of a dispute with Antofagasta.

Recent protests that led to a temporary stoppage of copper shipments from Antofagasta's largest mine are the most serious disruption yet and an indication of the heightened social scrutiny of Antofagasta's, and more generally the mining industry's, activities in Chile.

Project permitting has become more stringent, influenced by rising friction between local communities and mining companies in general around environmental issues, notably fresh water usage and the impact of mine tailings on nearby communities.

Figure 1: Additional investment in a water treatment facility will raise the capital intensity...

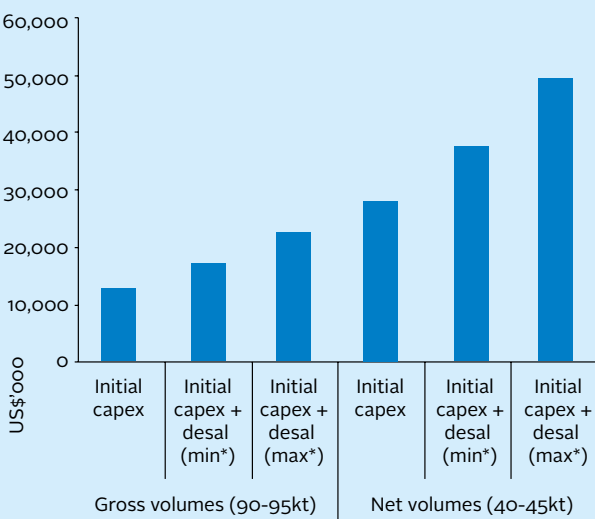
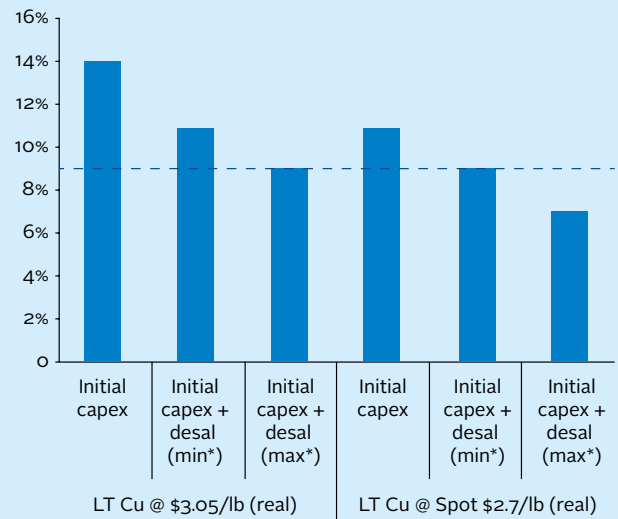


Figure 2: ...and reduce the investment post tax unlevered IRR from 14% to 11%



IMPACT OF INTEGRATION

In April 2015, we published a detailed report on Antofagasta, with a negative perspective on the company's copper mining operations. Due to production disruption from water usage disputes and permit delays for new projects, the analysts believed that the company's modest growth profile could deteriorate and additional capital on new infrastructure (i.e. the construction and running of a desalination plant) might need to be spent to deliver top-line growth and offset the impact of declining grades and rising rock hardness. This would increase capital employed per tonne about 48% by 2021, eroding benefits of a copper price recovery.

Maintaining additional infrastructure would also result in higher operating costs, further contracting margins. Additional spending and permitting delays were factored into the base case valuation.



CASE STUDY

INTEGRATING SUSTAINABILITY ISSUES INTO DECISION MAKING

Sector/Industry	Consumer staples, healthcare and materials	Company	Kepler Cheuvreux
Integration technique	Revenue and terminal value	Author	Sudip Hazra, Samuel Mary, Julie Raynaud

There are a number of sustainability-related trends now affecting the food and beverage sector including:

- changes in consumer tastes;
- demand for greater traceability;
- sustainable purchasing preferences;
- rise in extreme weather events and climate change;
- water scarcity;
- distrust of overly manufactured and packaged food;
- channel shifts;
- emergence of 3G;
- mega M&As focused on cost-led earnings growth;
- risk of employing undocumented workers.

This can have repercussions across the value chain. For instance, governments across the world, concerned about obesity and rising healthcare costs, have started to introduce taxes on sugary drinks. They are due to be implemented in countries including South Africa, the UK and Ireland in 2017 and 2018. These taxes can be transferred down the value chain from beverage companies to consumers.

However, this tightening regulation also fuels market opportunities. For example, Euromonitor estimates the global size for health and wellness (artificially) fortified foods at US\$165bn, with a broader specialty and wellness food market estimated to be worth US\$700bn (<20% of the total food and beverage market).

Country	Start date	Tax coverage	Tax type	SSB tax details
Spain	2018 (TBC)	TBA	TBA	TBA
UK	2018	SSBs	Tiered volumetric	GBP0.18/litre, GBP0.24/litre
Ireland	2018	SSBs	Tiered volumetric	In line with UK
Portugal	2017	Soft drinks	Tiered volumetric	EUR0.08/litre, EUR0.16/litre
Belgium	2016	Soft drinks	Volumetric	EUR0.03/litre
Mexico	2014	SSBs	Volumetric	1 peso/litre
Berkeley, California	2014	SSBs	Volumetric	USD0.01/oz
France	2012	SSBs and artificially sweetened beverages	Volumetric	EUR0.075/litre
Hungary	2011	Soft drinks and energy drinks	Volumetric	Soft drinks: HUF7/litre, Selected energy drinks HUF250/litre
Finland	2011	Soft drinks	Volumetric	EUR0.22/litre

Also, there is a gradual shift in focus to ethically source products such as soy, cattle, cocoa, and seafood that can provide investment opportunities.

Changes in weather patterns and water availability can also impact companies. For example, Aquaculture Breeding & Genetics companies Benchmark sales are highly dependent on the supply of brine shrimp; the Great Salt Lake represents 40-50% of global production. The supply and price depends heavily on external environmental factors (e.g. the algae the shrimp eat tend to disappear when lake salinity increases due to a drop in water levels). We already observed high variability in production levels in the past, leading to price volatility of 10-30%. The Great Salt Lake region, according to the World Resource Institute, is a medium-to-high risk to water scarcity, with projected changes of 1.4x by 2020.

INTEGRATING ESG ISSUES INTO COMPANY VALUATION

We believe that it is useful to match the risk characteristics with analysis tools to determine the most appropriate integration technique and variable. For example, we consider:

- whether it is short or long term;
- whether it will materialise through increased volatility or a longer-term trend;
- what the expected probability and severity is.

Company	Type of risk/ opportunity	Risk/ opportunity characteristics	Integration technique/ variable
ABF exposed to unhealthy food trends through its grocery business	Shift in customer preferences and demand	Already ongoing trend with long-term implications; severity and probability known and significant.	Revenue growth rates in the specific cash flows (DCF model) and terminal growth rate to reflect long-term exposure
Coca Cola European Partners exposed to sugar taxes being passed in several jurisdictions	Shift in regulations (sugar tax)	Known event and known tax levels that will materialise through a shock at a specific point-in-time and increased volatility.	Modelled cost implications in the specific cash flows (DCF model) taking into account product portfolio, geographical exposure, demand elasticity, pricing power and cross-product elasticity.
Benchmark exposed to weather variability and its impact on artemia production	Market risk through the sourcing of raw materials	Unknown timing but potential severity and impact known based on past weather events.	Modelled through growth rates in revenue and an increase of the discount rate to capture the relatively high risk profile with unknown timing.
Monsanto exposed to several reputational and litigation risks linked to GMOs	Multiple	Risks that are hard to quantify and predict in terms of probability and timing. More of an overall "sentiment".	Modelled through the discount rate used in Monsanto-BASF takeover valuation.
Small and mid-caps in food and beverage supply chain with risks of employing undocumented workers	Regulatory risk and sentiment driven reputation risk	Risks that are hard to predict in terms of probability and timing. Both sentiment and legal enforcement driven by political environment.	Cost elements taking into account legal liability, staff replacement, loss of production and contract losses estimated with potential impact on net income.

ANALYSING THE IMPACT OF SUGAR TAXES ON COCA COLA EUROPEAN PARTNERS

More and more European countries are introducing taxes on sugary drinks, with prices rising as a result. This has a perceived negative impact on soft drink producers, with volumes and earnings potentially affected. We tried to quantify this threat for Coca Cola European Partners (CCEP).

CCEP's operating profit in the UK could be impacted by 10% if a sugar tax goes into effect in 2018. As the company is geographically diversified, the impact at the group level will only be 2%. In CCEP's case, there is now clarity about soft drink taxes in most of its key markets, certainly for the next few years. At the same time, the portfolio is gradually shifting to alternatives with less sugar, which currently already make up an estimated 30% of their beverage portfolio. All in all, we think the negative impact from sugar taxes is limited.

EXAMINING RISK PROFILE AFTER AN ACQUISITION

It can be argued that the planned acquisition of Monsanto by Bayer could increase their risk profile in several ways. For example:

- litigation (e.g. exposure to new regulation/ enforcement around genetically modified organisms, glyphosate and neonicotinoids);
- reputational risks such as Monsanto's poor reputation attached to Bayer.

Coupled with a more difficult valuation for healthcare investors to value the combined Monsanto/Bayer entity, we used an 8.7% WACC (vs 7.7% used by Bayer). Together with lower modelled synergies and terminal growth rate, this results in a net value destruction of 10% of enterprise value offered (and 8% market cap) – vs Bayer communicating on a 7% and 5% value creation respectively.

LINKING EMPLOYEE ENGAGEMENT TO SUSTAINABLE RETURNS

Sector/Industry	Financials
Integration technique	Beta

Company	Sycomore Asset Management
Author	Claire Bataillie

A growing body of evidence suggests that strong corporate culture and engaged employees make the best performing companies. That's why we launched Sycomore Happy@Work, a fund explicitly targeting firms with top human capital credentials. To identify the best companies, we engaged with companies, employees and human resources experts. Our assessment focuses on five areas – personal development, autonomy, fairness, job purpose and work environment.

- To avoid unconsidered risk-taking and miss-selling practices, employees are motivated by profitability instead of sales.
- The group's values – availability, simplicity and attention – are presented to all new starters during a three-day introduction period.

INCLUDING HUMAN CAPITAL IN DECISION MAKING

Svenska Handelsbanken is a Swedish universal bank with nearly 11,700 employees operating in the Nordics and the United Kingdom. It operates in a highly-exposed sector and is subject to a great deal of human capital-related scrutiny.

The company's long-term focus contributed to their resilience during the 2008 crisis. For example, while competitors were building up massive loan books, Svenska Handelsbanken focused on client and employee attractiveness. As a result, the crisis did not impact the company as severely as its competitors and so it was spared from conducting massive restructuring.

Also, today, in spite of increasing digitalisation, Svenska Handelsbanken considers human interactions to be essential. Branches are therefore relocated rather than shut down.

A "HAPPY@WORK" ENVIRONMENT

Svenska Handelsbanken is committed to creating a positive working environment which contributes to a strong corporate culture of trust. For example:

- Personal development is strongly encouraged – in 2014, for example, 93% of managers were recruited internally.
- All employees own the same share capital as the CEO and as employees are the second biggest company shareholders, profits are shared fairly.
- The bank offers an attractive base salary and worked with unions in 2015 to reduce wage disparity between men and women.

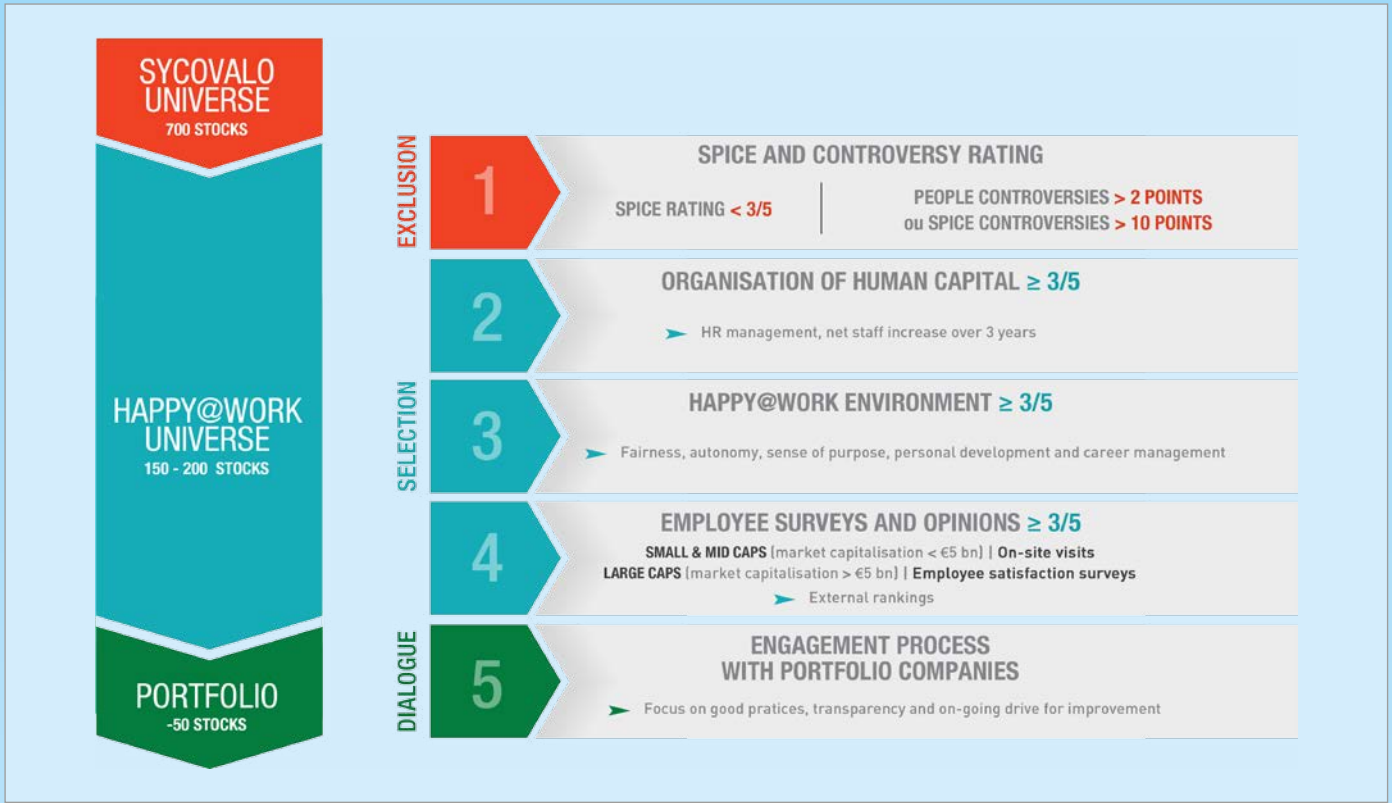
A SELECTIVE INVESTMENT PROCESS

Our Sycomore Happy@Work Fund investment process relies on a thorough analysis of employee engagement as well as the exclusion of companies that carry excessive ESG risks monitored by our SPICE analysis. This assesses the impact of the companies' relationships with suppliers, society, people, investors, clients and the environment.

As a proxy for evaluating the sustainability of a company's business model, we look at whether it creates value for all its stakeholders through our SPICE analysis and assign a SPICE rating to each company in our investment universe.

We exclude all the companies with a SPICE rating under three/five from our investment universe, or those which accumulate over 10 controversy points (a controversy is rated from one to three points depending on its severity). The same applies to any company facing a severe (level two out of three) controversy related to working conditions.

The investment process also aims to develop dialogue with companies. We are particularly keen on supporting preventative action in health and safety as this drives company performance and improves employee well-being.



INTEGRATING EXTRA-FINANCIAL FACTORS INTO MODELS

Our SPICE valuation model combines our financial and SPICE analysis and is fully integrated into our valuation tool. In addition to the investment process described above, the construction of the portfolio is dependent on the stocks' target prices. The SPICE ratings adjust stock's beta, which in turn changes the stock's target price.

SPICE rating	Beta adjustment
A+	-20%
A	-10%
B	0%
C	+10%
C-	+20%

With an A+ SPICE rating, Svenska Handelsbanken's beta moved from 1.22 to 0.95. Choosing the standardised valuation method (Gordon-Shapiro approach) – which is the most adapted method to value a bank – the target price increased by 17%.

Initial beta	SPICE score	Adjusted beta	Increase of the share valuation thanks to adjusted beta
1.22	A+	0.95	+17%

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INCORPORATING DIVERSITY

Sector/Industry	Retail
Integration technique	Discount rate

Company	Trillium Asset Management
Author	Jeremy Cote

We integrated diversity, including gender and race at the company and board level into our investment research process as we see it as an essential component of sound corporate governance and critical to a well-functioning organisation: companies with strong gender and ethnic diversity outperform peers when measured by return on equity and other traditional financial metrics^{1,2}. Diversity also helps to reduce company-specific risk in the long term, leading to a lower cost of capital.

Our analyst will adjust the discount rate when valuing companies that have improving or deteriorating corporate governance factors that aren't believed to be priced in by the market.

At eBay we saw potential improvement in corporate governance related to the expected improvement in the board's gender diversity. Based on third-party research³, we adjusted the discount rate used in the firm valuation

analysis by 25bps. The table below shows the cost of capital calculation used in the discounted cash flow valuation model, the adjustment made for improving governance, the incremental percentage change in equity value and the expected incremental portfolio alpha.

In 2012, we began engaging portfolio companies with all-male boards and those lagging peers on diversity. A number of companies where we have filed, or co-filed, shareholder proposals have since appointed women to their boards. eBay committed to include gender and racial diversity among the qualities it seeks in its board members and the company appointed a second and third woman to its board in 2015.

	Base case valuation	Adjusted valuation
WACC	8.30%	8.05%
Intrinsic value estimate	\$32.00	\$33.40
Current stock price	\$28.50	
1-year expected stock return	12.30%	17.20%

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¹ "Does the Gender of Directors Matter?" Miriam Schwartz-Ziv November 2012

² <https://www.credit-suisse.com/us/en/about-us/responsibility/news-stories/articles/news-and-expertise/2012/07/en/does-gender-diversity-improve-performance.html>

³ El Ghoul, Sadok and Guedhami, Omrane and Kwok, Chuck C.Y. and Mishra, Dev R., Does Corporate Social Responsibility Affect the Cost of Capital? (July 1, 2010). Journal of Banking & Finance, Vol. 35, Issue 9, pp. 2388-2406, September 2011. Available at SSRN: <http://ssrn.com/abstract=1546755>



CASE STUDY

MANAGING WATER RISKS TO MITIGATE COMMUNITY CONCERNS

Sector/Industry	Consumer staples	Company	MFS Investment Management
Integration technique	Discount rate	Author	Jeff Marsh, Rob Wilson

Access to clean water and sanitation is a fundamental right recognised within the UN Sustainable Development Goals. It is the building block upon which our societies and economies are built; it sustains life and communities and is vital to ensuring a sustainable future.

However, over 40% of the global population faces water scarcity concerns, and nearly two and a half billion people lack access to basic sanitation.¹

WATER SCARCITY IN CHINA

Recently, the Senate Foreign Relations Subcommittee on East Asian and Pacific Affairs heard arguments regarding the dire water situation in China, where 90% of the country depends upon polluted groundwater supplies and water quality and shortage issues are common.²

The poor quality and availability of water in China creates several potential risks.

From a purely financial perspective, incremental policy changes are resulting in higher water costs, which could eventually impact operating expenses for certain firms. Poor water quality might also require some companies to make capital investments to ensure enough potable water is available for operating purposes.

The social risks associated with water are harder to quantify but are potentially even more material for investors. Globally, water scarcity has often led to disputes with communities. Because of certain limitations placed on the local media within China, citizens often turn to organised protest to voice water-related concerns. These protests are brought about by the risks that emerge when business activities and water supply issues converge. China's Environment Ministry acknowledges in its current five-year plan that in recent years, toxic and hazardous chemical pollution has caused many environmental disasters, cutting off drinking water supplies, and even leading to severe health and social problems such as 'cancer villages'.³

Unfortunately, the mispricing of water – both in China and elsewhere around the world – creates a disincentive for the industry to innovate, conserve and recycle, which only perpetuates the problem. For example, China's crop output is on par with the US's, but fertilizer and pesticide use levels are more than four times greater per hectare of arable land.⁴ The runoff from these agricultural inputs severely impacts water quality and leads to negative social outcomes.

VALUING WATER RISK

Our emerging markets team analysed the ESG profiles of a group of six Chinese staples companies. As we reviewed one of them, a beverage company mainly operating in China, some troubling factors emerged. The company had some concerning governance characteristics and almost 80% of its facilities were in areas with high levels of water scarcity or stress.

This created an element of uncertainty about the sustainability of its operations. Given the water-related protests seen elsewhere in China, we were concerned disputes with local communities could threaten their ability to operate in some areas. We also questioned whether they would be able to obtain an adequate supply of high quality water for all of their facilities. As a result of these factors, we viewed water stress as a material investment risk for this beverage company. Our concerns around water stress are based on the experience of other beverage manufacturers. In 2014, Coca-Cola was forced to scrap an expansion in Mehadiganj, India, because of conflict with local communities and regulators over access to scarce water resources.⁵ In 2016, they closed another bottling plant in Kaladera, India for the same reason.⁶ To navigate similar constraints in India, SABMiller (AB InBev) incurs incremental expenses to truck water to their breweries from locations where it is more plentiful. Water stress conditions also held up SABMiller's expansion plans in Zambia, and their existing breweries have had to invest in significant water conservation and recycling initiatives.⁷

1 UN Sustainable Development Goals – Goal 6: <http://www.undp.org/content/undp/en/home/sustainable-development-goals/goal-6-clean-water-and-sanitation/targets/>
 2 https://www.foreign.senate.gov/imo/media/doc/Economy_Testimony.pdf
 3 The Telegraph – China Admits Pollution Has Caused 'Cancer Villages': <http://www.telegraph.co.uk/news/worldnews/asia/china/9887413/China-admits-pollution-has-caused-cancer-villages.html>
 4 The World Bank – Fertilizer Consumption (kilograms per hectare of arable land): http://data.worldbank.org/indicator/AG.CON.FERT.ZS?year_high_desc=true
 5 Bloomberg – Farmers Fight Coca-Cola as India's Groundwater Dries Up: <https://www.bloomberg.com/news/articles/2014-10-08/farmers-fight-coca-cola-as-india-s-groundwater-dries-up>
 6 The Wall Street Journal – Coca-Cola Closes Plant in India: <https://www.wsj.com/articles/coca-cola-closes-plant-in-india-145122537>
 7 Financial Times – Water Supply Threatens the Flow of SABMiller's Zambian Expansion: <https://www.ft.com/content/359801aa-2403-11e5-bd83-71cb60e8fo8c>

Due to this precedent and the much more concentrated nature of the company's assets, we viewed water stress as a material investment risk for this beverage company. As a result, we applied the highest cost of equity among this group of companies in calculating the beverage manufacturer's target price. Our 11% cost of equity assumption resulted in a target price that was 7.5% to 15% lower than if we had applied the discount rates used to model the companies in the peer group with less potentially impactful ESG-related risks. The target price for the beverage manufacturer would be approximately 20% higher if it were modeled using the lowest cost of equity that we applied to companies in this peer group (see "Chinese staples: discount rates" below).

After our initial analysis, we engaged with the company to understand their water management programmes and strategies, questioning them on their financial and social

impacts. For example, we asked how the company manages community concerns in areas that are impacted by severe water stress. We also sought to understand the kinds of direct capital investments the company has made to ensure a sufficient supply of high-quality water for its operations.

The company's initial responses were more focused on outlining the local government approvals the company has received in relation to town water rights. Their lack of emphasis on community engagement regarding water scarcity issues suggests the company has not fully evaluated the social risk within their operations; hence, we have maintained our valuation discount on the shares. We have planned additional engagement with the company to more strongly convey our concerns regarding their management of water issues within the communities in which they operate.

Figure 1: Chinese staples: cost of equity inputs





CASE STUDY

MATERIAL ESG ISSUE SCENARIO ANALYSIS

Sector/Industry	Healthcare
Integration technique	Scenario analysis

Company	RBC Global Asset Management
Author	Ben Yeoh

Rather than having separate ESG analysts, our Global Equities team’s portfolio managers perform and integrate ESG analysis to allow us to better fundamentally value and assess stocks, completely integrate ESG information into our investment process and meaningfully engage with the companies in which we are invested. We also use multiple sources of ESG information as it represents a plethora of ESG-related opinions that require interpreting, and portfolio managers are best placed to filter this advice and ascertain how it relates to a company’s business model and valuation. (In our experience, the ratings of two major ESG research providers only correlate just over half of the time and proxy voting agencies occasionally take opposing views on proxy votes.)

We start with a fundamental analysis to identify any material positive or negative ESG factors. We embed that assessment into an analysis of the competitive position and the sustainability of the business, which we then put into our valuation models. We invest only in companies that perform strongly in all four areas of our model: business model; market share opportunity; end-market growth; management & ESG.

Our Global Equities team identified several ESG risks (contingent liabilities) and opportunities (contingent assets) for UnitedHealth (UNH), a leading healthcare insurer and healthcare cost management and IT provider managing 5% of US healthcare spending.

RISKS

As custodians of the personal and medical details of millions of people UNH needs to keep this data secure: false savings here can have long-term consequences, including regulatory risks, political risks and the potential impairment of the company’s social contract with customers and wider society.

We challenged management on the risk of privacy data breaches, asking how that risk is being managed and what policies are in place to mitigate that risk. Management acknowledged that information about their data security was not available on their website, but several management members reassured us about the quality of the policies, training and general operation management of data handling and security that are in place. Nevertheless, we still modeled a discounted cash flow (DCF) valuation scenario looking at the possible impact of privacy data breaches.

We learned that UNH had a historic stock option accounting problem (backdated without disclosure to lower the strike prices for the then CEO), which came to light in 2006. However, we noted that many other companies, such as Apple, had similar stock option accounting problems in the late 1990s to mid-2000s. We also discovered that in UNH’s case it led to the start of a complete turnaround in the company’s corporate governance policies and practices, and determined that the current compensation structure was fair and, importantly for us, included a return on capital/equity component.

Our conversations with UNH gave credence to the recent positive reports from two proxy voting agencies regarding the company’s governance practices; there do not appear to be remaining accounting or management problems that had been indicated in earlier analysis.

OPPORTUNITIES

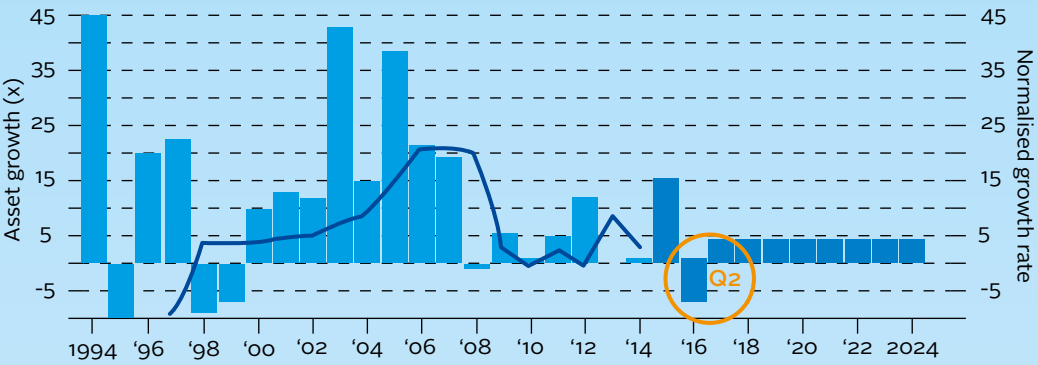
We viewed UNH’s Optum data analytics business, which allows it to create cheaper, better healthcare options for businesses, governments and patients, as a strong competitive advantage and an ESG contingent asset. For instance, it identified 150 diabetic patients not taking their medication properly, 123 of whom were in Texas, which enabled its client to implement location-specific measures utilising preventative health techniques. Using Optum’s data analytics, the state of Maryland discovered clusters of patients with asthma in certain streets and buildings, and found that those buildings correlated with cockroach infestations, allowing it to successfully prosecute deficient landlords and ultimately raise living standards for tenants.

IMPACT ON ANALYSIS

We assessed the materiality of all of this information and assigned a rating for the four components of the company’s strengths (business model; market share opportunity; end-market growth; management & ESG). We then performed a DCF scenario analysis embedding the material ESG risks and opportunities. We prefer DCF and explicit model scenarios for sales, margins, asset turns, etc. as we see them as a more accurate method of modeling than an adjustment to a discount rate or terminal value. We also perform sum of the parts and standard financial ratio assessments.

The analysis was peer reviewed within our team, and the assumptions were stress-tested, challenged and refined before the rating and valuation were confirmed. In our peer review, assumptions are flexed in real time to see how further valuation scenarios change. These include increasing

EBIT margins and sales growth for the upside scenario, and for the downside scenario normalising sales to a lower growth rate (3%) and looking at the sales impact over more than one year.

<p>Base case DCF scenario (a cash flow return on investment framework)</p>	<p>44% target company share price upside</p>
<p>ESG asset scenario (upside scenario): value generated from contingent assets through the use of big data analytics.</p> <p>Assumptions: Sales increased by 1-2% in years 5-10, but with similar EBIT margins and asset turns to the base case. Cost of capital remains the same.</p>	<p>+12 percentage point</p>
<p>ESG liability scenario (downside scenario): assuming a data breach occurs that impacts the business (sales, margins, asset growth) for a year before recovery.</p>  <p>Assumptions: Approximate 7% impact to sales in the year of data breach, with a 3% impact to EBIT margins, recovering in future years back to 5% sales growth, but on EBIT margins 1-2% lower than the base case forecast. Cost of capital remains the same.</p>	<p>-17 percentage point</p>



CASE STUDY

REVENUE FORECAST ADJUSTMENT AND SCENARIO ANALYSIS

Sector/Industry	Textiles
Integration technique	Revenue and scenario analysis

Company	Caravel Management
Author	Usman Ali, Jamieson Odell

We identified a leading textile company in Pakistan as a beneficiary of increased European Union (EU) trade quotas. The EU recently awarded Pakistan GSP+ status, which is awarded to developing countries who can demonstrate sound management of ESG issues and provides preferential treatment for trading with Europe.

We model a downside scenario to reflect the consequences of potential supply chain issues. Compared to a base case of US\$100 per share, the downside scenario produces a fair value of US\$49 per share. Whilst a probability can be applied to the bear case to determine a risk-adjusted NAV, the value of this approach is to quantify the downside risk under a specific negative ESG-related event.

OPPORTUNITIES

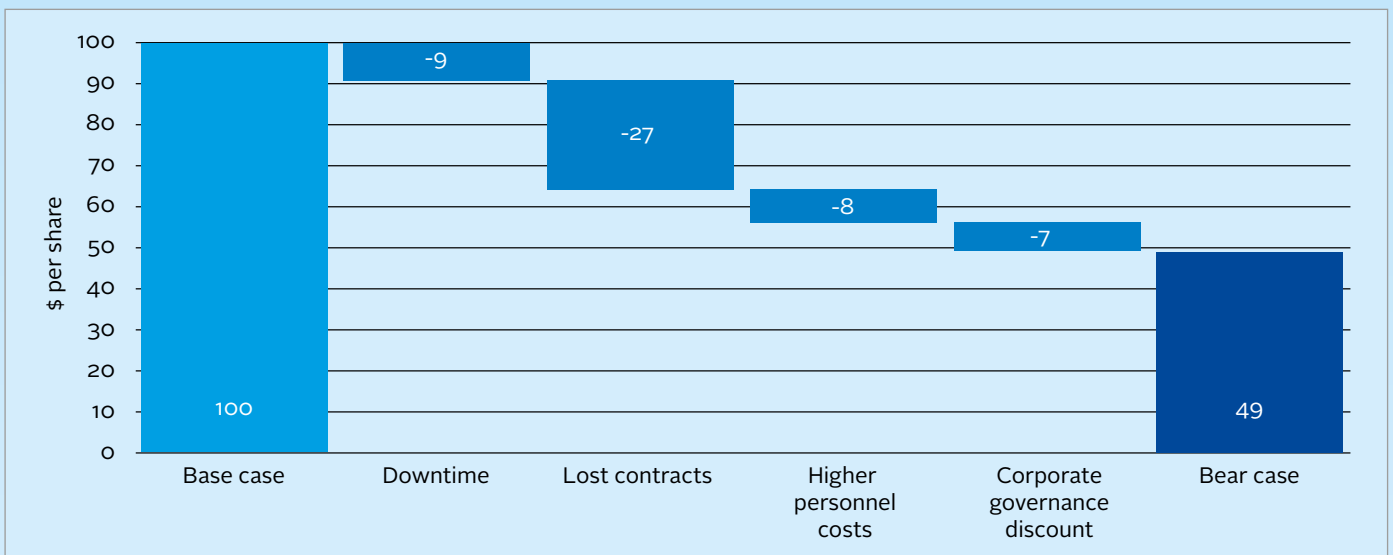
As an exporter to blue chip global clothing and household goods firms, the company has a strong track record of supply chain compliance and as a result has the potential to materially increase garment exports to Europe.

We expect that the company will double garment production to 12.5 million pieces per year over three years, and that this will add 10% to revenue growth and 12% to gross profit. Consolidated gross margins are expected to expand from 15% to 16% given the higher margins of the European garment business.

RISKS

Although there are no known cases of child labour throughout the company's supply chain, the risk exists in Pakistan, as demonstrated by data from the International Labour Organisation. Failing to meet labour standards could compromise the company's ability to export to Europe.

- Downtime:** Should labour issues come to light, we assume six months of downtime related to addressing these issues, based on historical occurrences at similar companies in the region. The base case revenue for the export segment of the company is halved, bringing the target price down by US\$9 per share.
- Lost contracts:** We assume that the company loses one third of its contracts as a result of child labour issues. As a result, the target price is brought down by an additional US\$27 per share.
- Higher personnel costs:** Based on government penalties and historical occurrences, hiring new staff and compensating victims and their families were assumed to increase personnel costs by 10% in perpetuity. Accordingly, the target price is brought down by US\$8 per share.
- Corporate governance discount:** Given the above events, we reach a new net asset value. We apply a 10% corporate governance discount to the NAV bringing down the price per share by a final US\$7. This produces a bear case scenario of US\$49 per share.



THE ROAD AHEAD

The momentum that is building around integrating social factors into investment decision making is encouraging – especially with the asset owners, investment managers and sell-side brokers that contributed to this publication.

Their case studies and insights have demonstrated that social integration practices are becoming more sophisticated and that the impact of social issues on the portfolio is quantifiable.

As data related to social issues is becoming more available and sophisticated in quality, we expect this positive trend of investors systematically valuing social factors alongside other financial factors to continue. Regulatory drivers related to social issues, such as the UK Modern Slavery Act or the increased attention to social issues at a global scale through the adoption of the UN Sustainable Development Goals, also support these practices.

But, despite the good progress being made, there is still a long road to travel before social issues are systematically integrated into investment decision-making processes. We expect more asset owners, investment managers and sell-side brokers to follow the progress that the leaders highlighted in this publication have made so far.

We hope that this guide will help assist all investors, at all levels of integration, in their next step towards explicitly and systematically integrating social factors into their investment analysis and decisions.

The case studies show that the impact of social issues on the portfolio is quantifiable.

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The Principles for Responsible Investment (PRI)

The PRI works with its international network of signatories to put the six Principles for Responsible Investment into practice. Its goals are to understand the investment implications of environmental, social and governance (ESG) issues and to support signatories in integrating these issues into investment and ownership decisions. The PRI acts in the long-term interests of its signatories, of the financial markets and economies in which they operate and ultimately of the environment and society as a whole.

The six Principles for Responsible Investment are a voluntary and aspirational set of investment principles that offer a menu of possible actions for incorporating ESG issues into investment practice. The Principles were developed by investors, for investors. In implementing them, signatories contribute to developing a more sustainable global financial system.

More information: www.unpri.org



The PRI is an investor initiative in partnership with UNEP Finance Initiative and the UN Global Compact.

United Nations Environment Programme Finance Initiative (UNEP FI)

UNEP FI is a unique partnership between the United Nations Environment Programme (UNEP) and the global financial sector. UNEP FI works closely with over 200 financial institutions that are signatories to the UNEP FI Statement on Sustainable Development, and a range of partner organisations, to develop and promote linkages between sustainability and financial performance. Through peer-to-peer networks, research and training, UNEP FI carries out its mission to identify, promote, and realise the adoption of best environmental and sustainability practice at all levels of financial institution operations.

More information: www.unepfi.org



United Nations Global Compact

The United Nations Global Compact is a call to companies everywhere to align their operations and strategies with ten universally accepted principles in the areas of human rights, labour, environment and anti-corruption, and to take action in support of UN goals and issues embodied in the Sustainable Development Goals. The UN Global Compact is a leadership platform for the development, implementation and disclosure of responsible corporate practices. Launched in 2000, it is the largest corporate sustainability initiative in the world, with more than 8,800 companies and 4,000 non-business signatories based in over 160 countries, and more than 80 Local Networks.

More information: www.unglobalcompact.org

