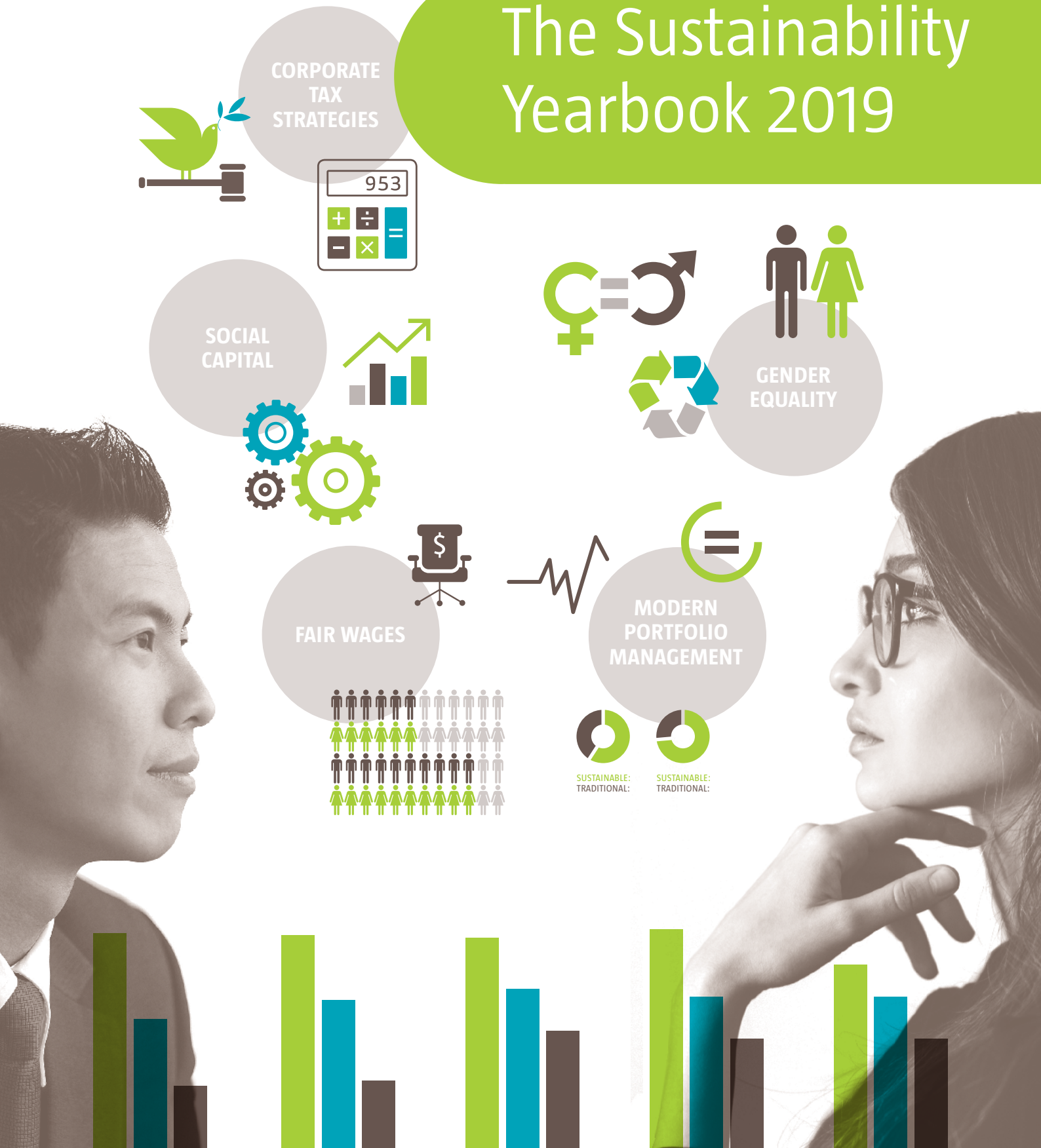
SAM ESG Data, Ratings & Benchmarking

The Sustainability Yearbook 2019



The Sustainability Yearbook 2019

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RobecoSAM AG

yearbook.robecosam.com

2018 Annual Corporate Sustainability Assessment:
60 industries.
2,686 companies assessed*
166,222 documents uploaded
2,435,268 data points collected

This is The Sustainability Yearbook 2019.

* as of November 30th 2018

Foreword

Marius Dorfmeister
Co-CEO, RobecoSAM

Daniel Wild, PhD
Co-CEO, RobecoSAM

Dear Reader,
Welcome to the 2019 Sustainability Yearbook.

This year, the 20th anniversary of the Corporate Sustainability Assessment (CSA), we make history and at the same time we bring back a little bit of history, by re-introducing the "SAM" brand. Going forward, SAM is our brand for activities connected to companies, and is distinct from the asset management business. A familiar friend of ours, and of those companies that have known the CSA since the beginning, SAM has been with us for many years. On page 6, we share our rationale for this move.

Over the past 20 years, the CSA has continued to evolve, identifying and adapting to changes at the intersection of business and society. With this in mind, we have chosen to focus the 2019 Sustainability Yearbook on social capital issues — the "S" in ESG.

Sandwiched between Environmental and Governance — "S", which measures sustainability's social dimension, is sometimes overshadowed by the attention afforded to its sustainability siblings. This is perhaps understandable given the devastating impact of environmental pollution and the climate crisis on a global scale (measured by E), combined with a preference of the investment community for metrics that focus on company leadership, board oversight and executive compensation (measured by G). But the significance of the social dimension in sustainability investing is rapidly escalating. This past year especially, social sustainability issues have grabbed their fair share of headlines.

Beyond human resources

At the company level, managing social capital goes well beyond the human resources department. It involves all aspects of how a company takes care of the human assets within its walls (i.e. employees) as well as how it manages the impact of its products, services and actions on the groups of individuals outside its walls (i.e. consumers, communities). Given the worldwide reach and scale of many companies, this can mean the social impact even extends to all of society, globally.

The debate on minimum wages and working conditions in the US resurfaced after a well-known retailer was attacked for low worker pay even as they and employees benefitted from generous tax subsidies. Other US retailers have also raised baseline worker wages in the past year as a result of employee complaints and public outcry.

Cases like these underscore the reputational damage that can follow when companies fail to protect their "human assets," but it also accentuates the debate on what constitutes adequate wages and how companies, facing real-world cost constraints, can effectively and responsibly respond. In this Yearbook, Professor Daniel Vaughan-Whitehead of the University of Geneva and co-chair of the Fair Wage Network gives evidence that

[1] "Why Did Amazon Raise Its Minimum Wage to $15? Public Pressure", E. Sherman, Forbes, October 2, 2018. "The Truth About Amazon, Food Stamps, and Tax Breaks", L. Matsakis, Wired, September 6, 2018

[2] "Nike Will Raise Wages for Thousands After Outcry Over Inequality", S. Cowley, The New York Times, July 23, 2018.

shows why a fair wage framework promotes not only employee well-being but also corporate profitability.

Extreme symptoms of an unseen bias

Social capital issues were also brought to the forefront as a result of the #MeToo movement that swelled to a peak in 2018. Although the movement was not primarily centered on corporate behavior, significant business leaders were forced to resign, highlighting the prevalence of sexual harassment and abuse still present within all levels of business and society. Despite the negative circumstances, it helped bring renewed attention and focus on gender bias and equality in the workplace.

A contributing article from our SI Research team takes a fresh look at data from the 2018 Corporate Sustainability Assessment (CSA) and offers its own revelations on gender issues in the workforce. Reducing gender bias is an important corporate issue as more and more studies reveal the positive value of gender diversity for company leadership and stock performance.

Mapping investment portfolios to the future

The importance of intangible assets like gender diversity and fair/living wages are prominently positioned in our SI Research article, "No Firm is an Island," which argues that net present value (NPV) calculations in modern portfolio management are flawed because of insufficient inclusion of ESG variables. Incomplete data and analyses will ultimately lead to inaccurate portfolio valuations, poor environmental and social capital management, and possibly irrevocable natural and social resource crisis for future generations. Conversely, incorporating ESG variables into investment portfolios now will improve their robustness in the future.

"We hope you enjoy reading our articles and the results of our CSA in this 16th edition of the Yearbook, presented to you under the SAM brand."

Fiscal revenue and social infrastructure

Though corporate tax is typically treated as a governance issue within ESG measurement, it too has important social implications. Its interconnectedness with social capital through its impact on community infrastructure is undeniable. Fiscal revenue from corporate taxes gives countries and communities the resources to build physical, social, and educational infrastructure — infrastructure that is needed to support present and future growth and development. Yet many companies are incentivized by short-term profits to minimize tax bills via loopholes and even tax havens.

We were among the first to recognize the importance of a transparent tax strategy to an evaluation of corporate sustainability performance and introduced our tax criterion as early as in the 2014 CSA campaign.

In the article, "Five Years of Pushing for Change," we revisit the "tax question" for insights into how company tax disclosures have changed as well as whether these disclosures are meaningful indicators for predicting companies' ability to successfully withstand increasing regulatory scrutiny and future policy actions.

Compound social interest yields larger payoffs for all

From equal and adequate worker pay, to equal recognition and access to professional opportunities, extending all the way to the quality of public infrastructure and services, how corporations treat their human assets and "social" obligations via taxes, has significant and long-term ramifications for individuals, communities and greater society. These intangible assets too can yield a "social interest" which can compound into the future.

Companies don't operate in isolation. They are part of a larger interconnected system where their actions across all ESG dimensions have deep and long-lasting effects for future generations. Firms that recognize the potential of all their assets, and which invest now in protecting and enhancing them, will be able to realize the compounding effects of these tangible and intangible investments in the years to come – effects that accrue not just to the firm but to greater society.

Welcoming back the "SAM" brand

SAM ESG Data, Ratings & Benchmarking

Manjit Jus
Head of ESG Ratings

Edoardo Gai
Head of ESG Benchmarking

Join us in warmly welcoming SAM, the unit of RobecoSAM, which specializes in providing ESG data, ratings, and benchmarking.

We are proud to present the 2019 Sustainability Yearbook, launched this year under SAM, the brand designated for distinct activities with, and for those companies that interact with us in connection with the Corporate Sustainability Assessment (CSA).

For 20 years, the CSA has been a leading methodology for assessing the ESG performance of companies. The results are today used in many ways, the Sustainability Yearbook and the Dow Jones Sustainability Indices (DJSI) being the most visible.

It is this use of the CSA results by S&P Dow Jones Indices (S&P DJI) for well-established indices such as the DJSI and others, that was our main reason for re-introducing the SAM brand.

Now operating under SAM are two specialist business areas:

- **ESG Ratings**, which is responsible for the CSA, from the methodology behind the assessment, to the annual data collection, through to the evaluation and scoring of individual companies, and also contributing the data to S&P DJI for their indices.
- **ESG Benchmarking** (formerly known as Sustainability Services), which provides to companies, experts and practitioners a range of unique services to evaluate companies' sustainability performance, based on CSA results and by comparing it to best practice.

This move sets apart these specialist areas as the interface to companies and will enhance the role of the CSA as an essential tool for understanding and improving corporate sustainability performance.

Having these areas of business operating under the SAM brand increases their prominence reflecting the growing interest from the market in these offerings. It also allows for broader use of the CSA results by S&P DJI.

In addition, this step emphasizes the objectivity of the CSA process, making a clear distinction and separation from the RobecoSAM asset management business, in line with the European Benchmarks Regulation.

While the Yearbook under the SAM brand remains the same in many ways, we also seek to adapt to the ever-changing needs of today's information consumers. This year, for the first time, we are publishing the percentile ranks of all companies assessed for The Sustainability Yearbook. Visit **yearbook.robecosam.com** to get free and direct access to the percentile rankings of all the companies assessed for the Yearbook.

By making ESG data more accessible to investors and other stakeholders, our goal is to further advance disclosure, transparency, and decision-making in both the corporate and investment communities.

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Fair Wages – a key to effective social capital management

Sustainability is more than climate change and protecting fragile environmental ecosystems, it's also about protecting the social fabric of which society is composed and supported. This means going further than meeting the bare minimum in wage levels required by law and embracing the concept of fair wages. Fair wages are those that cover the real cost of an employee's basic needs while also respecting the economic constraints of employers. Moreover, for many industries this involves not only evaluating their own wage practices but also being a "fair-wage" champion and resource for the companies within their supply chains as well.

Using case study evidence, guest author, Professor Daniel Whitehead-Vaughan of the Fair Wage Network demonstrates why addressing compensation using a fair wage approach is beneficial for employee well-being, company profits, and for helping companies and their respective supply chains achieve sustainable outcomes.

Investors, concerned about protecting not only the earth's natural resources but also its "human" resources, should push global companies for more accountability, transparency and action when it comes to fair wages and compensation for employees and their dependents.

Professor Daniel Vaughan-Whitehead

Professor Daniel Vaughan-Whitehead, is founder and co-chair of the Fair Wage Network, a Geneva-based non-profit organization focused on sharing, aligning and promoting wage-related research, methodologies and best practices via public sector partnerships, as well as direct consulting with corporations and their supply chains worldwide.

He is a Professor at SciencesPo in Paris, and at the University of Geneva as well as author of "Fair Wages: Strengthening Corporate Social Responsibility" (Edward Elgar Publishing, 2010).

A Growing Social Conscience

Over the past two decades environmental issues have tended to define and dominate discussions of sustainability, driven in large part by heightened awareness of climate change. More recently, however, public awareness and concern are also increasing in relation to the social dimension of sustainability. Workforce diversity, gender pay and sexual harassment at the workplace are all indicative of a society concerned with addressing injustices and inequalities of the social kind.

Public awareness and concern are increasing in relation to the social dimension of sustainability.

These are just the most recent examples of a wave of concern that started to swell as far back as the 1990s. Unfortunately, it started not so much as a well-planned strategy but rather as a reaction to high-profile cases such as Nike's "child sweatshops" and the collapse of the Rana Plaza garment factory in Dhaka, Bangladesh, which killed over 1,100 workers in April 2013.

The percentage of people in vulnerable employment worldwide is steadily increasing.

Cases like these cast a long shadow over the social sustainability of the global supply chains that dominate present-day business.

Similarly, the debate on the living wage that is gaining attention in Europe and around the globe is a continuation of this wave of concern for workers' well-being. What started as a grassroots campaign from civil society now ranks as an item on national and international agendas (most recently at the G20 and G7 meetings).[1] And it comes at a critical time.

"Decent work" involves job opportunities that are productive, deliver a fair income, consider workplace health and safety, provide social protection for families and ensure equal opportunity, among other principles.[2] However, International organizations have highlighted a current "decent work deficit" among global supply chains.[3]

The lack of decent work as defined above is troublesome in light of recent workforce statistics that show the percentage of people in vulnerable employment worldwide is steadily increasing (see insert entitled "Startling Statistics"). More effort is needed from corporate players and their global supply chains to improve both the quality of employment and wage levels.

Startling Statistics

Vulnerable employment – defined as lacking formal work arrangements, inadequate earnings, difficult working conditions, and inadequate social security, voice and representation by trade unions and similar organizations.

1. Vulnerable employment represents 42 percent of total global employment (1.4 billion people).
2. Vulnerable employment is expected to grow at a rate of 11 million per year.
3. The "Working poor" — defined as those earning below US $3.10 / day in terms of purchasing power parity—stands at 700 million workers, mainly in emerging and developing countries.

Source: World Employment Social Outlook, Trends 2017, ILO, Geneva; http://www.forschungsnetzwerk.at/downloadpub/wcms_541211.pdf; and also World Employment Social Outlook, Trends 2018, ILO: https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_615594.pdf

The "race to the bottom" in terms of wage costs has also reached a clear limit. Depressed wages are increasing inequality, worker discontent and social unrest. In 2017, 9 million work-days were lost due to employee strikes or lockouts worldwide.

Wage discussions can be confusing not just because of the complexity of labor markets but also because of the different notions of what constitutes an adequate wage.

The "race to the bottom" in terms of wage costs has also reached a clear limit.

[1] See G20 Leaders declaration, Hamburg, 8 July 2017. http://www.g20.utoronto.ca/2017/2017-G20-leaders-declaration.html

[2] Decent work definition of the International Labor Organization (ILO), https://www.ilo.org/global/topics/decent-work/lang--en/index.htm

[3] Resolution concerning decent work in global supply chains, International Labour Conference, 105th Session, 2016, Geneva. https://www.ilo.org/ilc/ILCSessions/105/texts-adopted/WCMS_497555/lang--en/index.htm

Minimum wages fall below living wages

Governments around the world have enacted minimum wages (see insert, "A wage lexicon") to ensure a wage floor for all workers in their respective countries. In principle, the minimum wage could be expected to ensure workers and their families the minimum threshold of pay required to cover basic needs. Over the past two decades, however, minimum wage policy has proven to be less effective than originally intended.

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A wage lexicon: minimum, living, and fair wages

Minimum wage	Statutory wage floor decided and fixed by the government in consultation with – or after negotiations with – employers and trade union representatives or even national/sectoral bargaining
Living wage	Minimum pay received for the basic number of working hours and required to ensure coverage of workers and their families' basic needs
Fair wage	Wage practices (wage levels, wage adjustments and pay systems) required to ensure sustainable wage development in the company

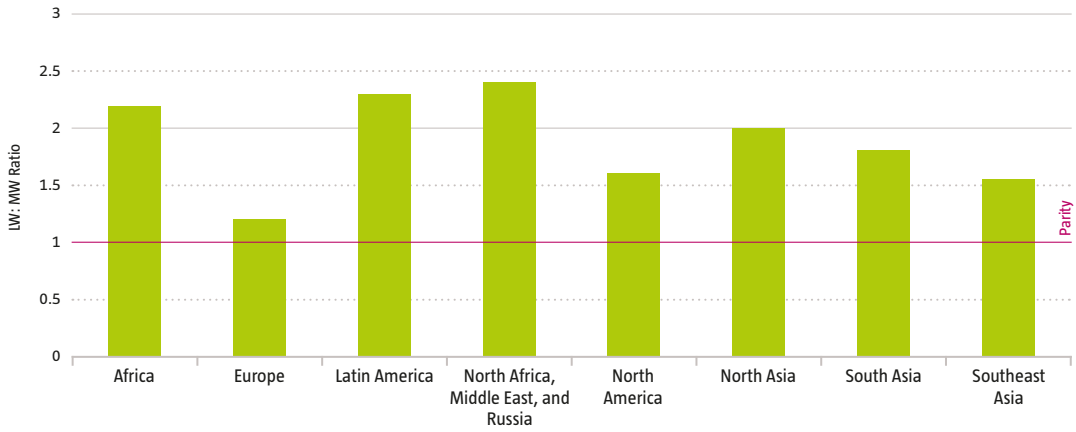
Source: RobecoSAM

The main problem is that it is not fixed systematically at the living wage threshold but is rather a threshold borne out of political compromise between governments, trade unions and employer organizations, based on prevailing "economic and social considerations" (as stipulated in ILO Convention No. 131). As a result, the minimum wage is often much lower than the living wage.

The gap between what workers earn as a minimum wage and what they actually require to support the basic needs of themselves and their families is stark.

The gap between what workers earn as a minimum wage and what they actually require to support the basic needs of themselves and their families is stark. Figure 1 shows the extent of the wage deficit between the minimum wage and the living wage across all geographical regions. Unsurprisingly, the gap is higher in regions with weak labor institutions; among these, Africa, the Middle East and Russia stand out.

Figure 1: The living wage deficit (living wage/minimum wage ratio)



In every geographic region the minimum wage is well below parity with the living wage—the pay workers actually need to support basic needs. Workers are better off as countries move closer to the parity line.

Source: Minimum wage and living wage thresholds; Fair Wage Network database.

The extent of the deficit in places such as Africa and many Asian economies have ignited living wage campaigns to pressure companies to go beyond legal compliance and towards meeting their workers' basic needs and improving their well-being.

By contrast, the gap is much smaller in European countries where labor institutions, minimum wage fixing and collective bargaining mechanisms that protect workers' wages and rights are strong. But even in Europe differences in wage setting policies persist between countries.

The living wage as the new target

The low minimum wage in the United Kingdom led, in fact, to the living wage campaign initiated and coordinated by the UK Living Wage Foundation. The campaign called for a much higher threshold than the minimum wage to better protect workers and their families. Since then, more brands have committed to pay a living wage, with trade unions, too, working towards a framework within which this can happen.[4]

The gap is much smaller in European countries where labor institutions, minimum wage fixing and collective bargaining mechanisms that protect workers' wages and rights are strong.

[4] See for instance the initiative ACT (Action, Collaboration, Transformation) supported by trade unions; https://actonlivingwages.com/

Variations on a Calculation

Living wages can be calculated either by governments, research institutes or national and international NGOs. They aim to define the prices of items contained in a basket of basic goods that cover basic needs

Living wages thresholds can differ substantially, depending on the organization involved.

These thresholds can differ substantially, depending on the organization involved. For instance, they are fixed at rather low levels when calculated by governments – because the relevant government would have to fix the minimum wage accordingly; but fixed at very high levels when calculated by NGOs or the research institutes of trade unions.[5] Thresholds can also differ considerably due to differences in reference years (e.g. one threshold may have been calculated in 2015 and another in 2018), or because they use a different standard size of households (e.g. one threshold may take the needs of one adult as the family unit, while others may use two adults plus two children).

For this reason, the Fair Wage Network established a methodology to collect all existing living wage thresholds and harmonize them to the same standard year and the same household size. Transparent thresholds and standardized benchmarks can be established which can be used to compare wages of companies, for instance, along a supply chain. The importance of common standards, unified methodologies and analyses tools have also been recognized by other groups seeking progress and equality within worldwide wages.[6]

Nevertheless, more work and tools are needed to help companies and governments develop protocols and policies to transition to more worker-centric models that are both realistic and effective.

More work and tools are needed to help companies develop protocols to transition to more worker-centric models that are realistic and effective.

From a living wage to a fair wage: five keys to getting wages right

Fair wage:
Wage practices (wage levels, wage adjustments and pay systems) required to ensure sustainable wage development in the company

Living wage:
Minimum pay received for the basic number of working hours and required to ensure the coverage of workers and their families' basic needs

The fair wage approach is aimed at providing global companies with a more comprehensive methodology for examining wage issues. First, it takes into account all elements in the wage-fixing structure and process. Once these have been identified, it assesses the root causes behind reported issues, making it possible to remedy them.

[5] This is the case for instance of the AsiaFloorWage calculated by an NGO originally set up by trade unions in India.

[6] "Living Wages Around the World: Manual for Measurement," R. Anker and M. Anker, (Edward Elgar Publishing, 2017).

The fair wage approach looks at five major areas: (see Figure 2)

(i) **legal issues:** such as proper wages, the minimum wage, compliance with the maximum working hours and payment for all those hours, including overtime;

(ii) **wage levels:** companies need to ensure good performance in terms of living wages, the prevailing wage (or relative to prevailing market rates), and pay equality (meaning no discrimination for gender, nationality or ethnic origin);

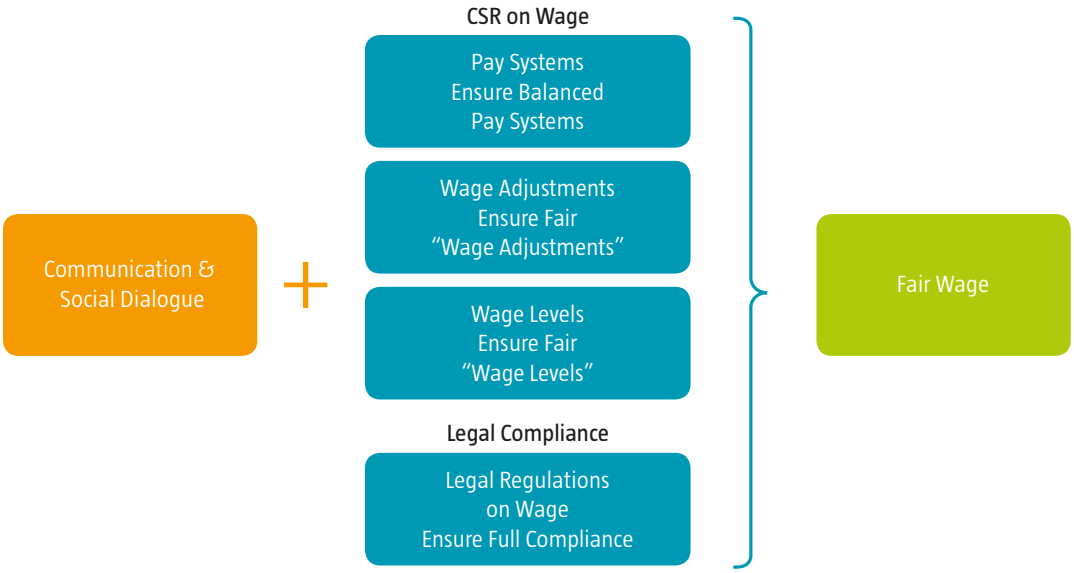
(iii) **pay systems:** how companies pay their workers can also have different effects on workers' motivation and productivity;

(iv) **wage adjustments:** a company can pay a fair wage today that might become unfair tomorrow, if not regularly adjusted for price increases or company results;

(v) **communication and social dialogue:** a company can have decent pay systems and even very generous bonuses but workers may not know about them. Similarly, it is important to have a dialogue with workers' representatives at the unit level to increase awareness of problems, avoid social discontent and even strikes.

There are a total of twelve fair wage dimensions in the fair wage approach which readers can reference further at the following link.[7]

Figure 2: A Fair Wage Framework



Source: RobecoSAM

[7] See at http://www.fair-wage.com/en/fair-wage-approach-menu/12-fair-wage-dimensions-menu.html

Fair wage benefits – promoting worker and company performance

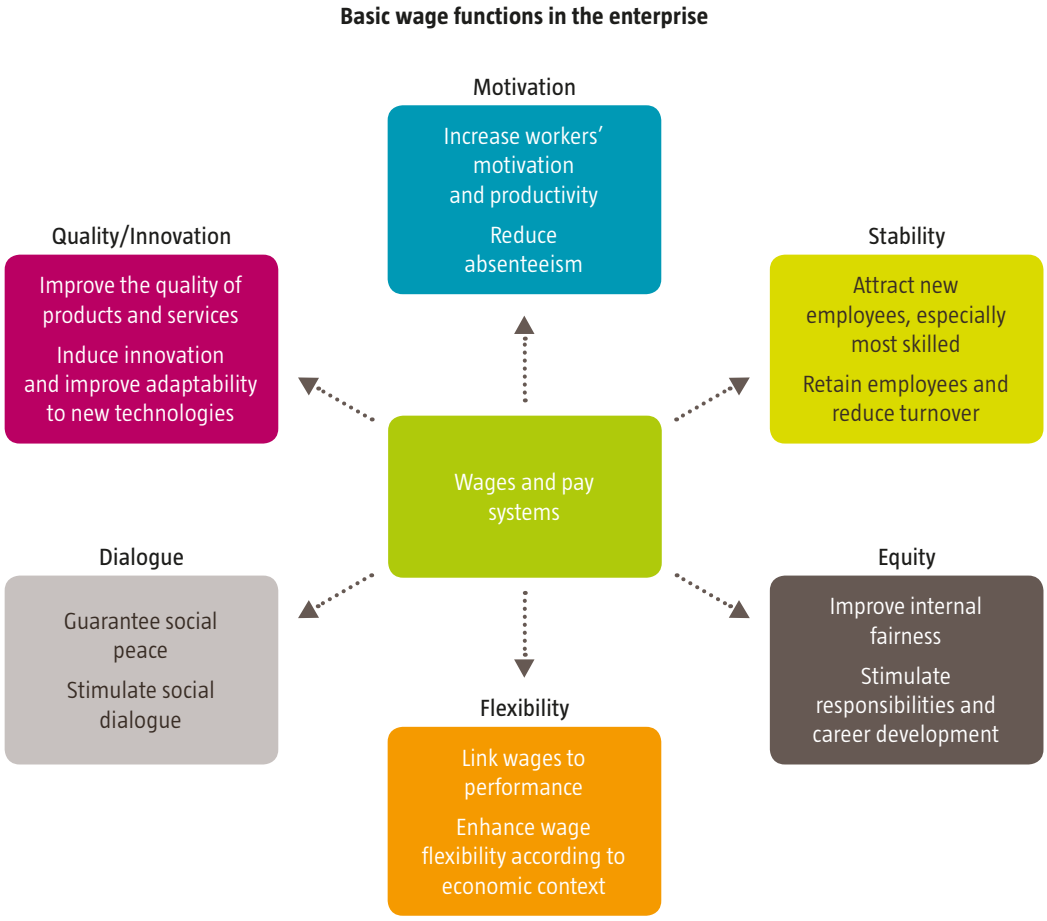
Why is this approach different from the living wage approach?

1. It's not about one fixed number but rather a series of benchmarks across a number of indicators and dimensions.

The [Fair Wage approach] tries to consider not only the social side but also the economic side of wage trends.

2. It tries to consider not only the social side but also the economic side of wage trends, thus encompassing both workers' and employers' perspectives into wage issues. This is important as it helps companies begin moving in the right direction towards achieving sustainable development along a number of dimensions. See Figure 3, which shows the various benefits wages can play within an organization and how human capital development, innovation and productivity can be positively impacted by proper wage policies and practices.

Figure 3: Benefits of Fair Wages within an organization



The benefits of fair wages go far beyond compensation. It promotes employee morale, inspires motivation and innovative thinking, lowers the costs and improves the effectiveness of recruitment, aids talent retention, and increases the focus on product and service quality.

Source: Daniel Vaughan-Whitehead, Fair Wage Network

Short-term Thinking vs Long-term Results

To lower costs and increase profitability, a company could give all workers the same minimum rate (either in the form of a living wage or a minimum wage). However, this is not an effective, sustainable, long-term strategy as it does not reward workers for skill and performance.

Profitability may increase in the short term, but ultimately, companies will lose out on key benefits that give a company its competitive edge. Profitability over the long run will suffer as worker motivation and productivity decline.

Improving wage practices can help employers optimize financial capital (compensation and personnel budgets) and social capital (human resource development) in a sustainable and cost-efficient way. Aligning pay with skills, as well as rewarding good performance with bonuses can improve employee satisfaction and motivation without affecting company profitability. In the end, a virtuous loop is created – as companies address wage practices in a sustainable way, the greater their chances of increasing profitability which provides the economic resources for further wage improvements.

Our experience with several Chinese companies that have implemented fair wage systems confirms its effectiveness in contributing to higher value-added products, even as wage levels and wage costs increased.

Similarly, and in a context in which it can be difficult and risky for the company to increase wage costs, improving non-monetary benefits can be a less expensive way to relieve employees' and their families' daily difficulties. For instance, companies can provide free meals or subsidized accommodation, transport facilities and even medical services in regions where medical expenditures often represent the main source of families' unexpected outlays.

Improving wage practices can help employers optimize financial capital and social capital in a sustainable and cost-efficient way.

Fair wages in practice – steps to successful implementation

An essential prerequisite for creating an effective fair wage policy is acceptance and support from top management. Second, decision-making should be open, transparent and inter-departmental, with input from key internal departments such as human resources, compensation & benefits, sustainability and procurement, as well as external managers in the global supply chain. The involvement of all departments and also of all companies and suppliers can best be assured if there is a new and clear wage policy enshrined in the company's sustainability strategy—a wage policy that identifies goals and targets, scope and methodology, as well as addresses potential risks that could arise in the framing and implementation process.

Having an effective fair wage policy as a fixture within a company's corporate sustainability program is an effective way of involving all departments and winning the confidence and cooperation of external supply chain partners.

Examples of Fair Wage Policy Deployment Strategies:

Unilever – looked inward first, improving its internal wage practices prior to approaching suppliers on wage policies.

H&M – looked outward first, examining the wage policies mainly of its suppliers.

IKEA – moved on both fronts right from the start, both in its own stores as well as with its suppliers.

Source: Daniel Vaughan-Whitehead, Fair Wage Network

Company experience has shown that effective multi-stakeholder commitment and participation can best be ensured when wage policies are part of the company's overall sustainability strategy. Basic steps for company management to consider when implementing a fair wage policy are listed in Figure 4 below.

Figure 4: The different steps forward

Commitment	
Step 1.	Define the commitment of the company to improve its responsibility on wages
Assessment	
Step 2.	Get an overview of wage practices in the company's units and/or suppliers
Step 3.	Identify the issues, risks and needed changes
Strategy	
Step 4.	Include wages in company's sustainability strategy (could also be step 1)
Step 5.	Extend this policy to all company business units and suppliers along with the necessary indicators, benchmarks and monitoring process
Implementation/Remediation	
Step 6.	Define a long-term plan to pay a living wage and develop a fair wage policy (remediation)
Step 7.	Eventual certification and continuous monitoring process
Step 8.	Ensure the feedback of (expected and effective) outcomes to shareholders and investors

Source: Daniel Vaughan-Whitehead, Fair Wage Network

Fair wage benefits: a strategic opportunity in sustainable development

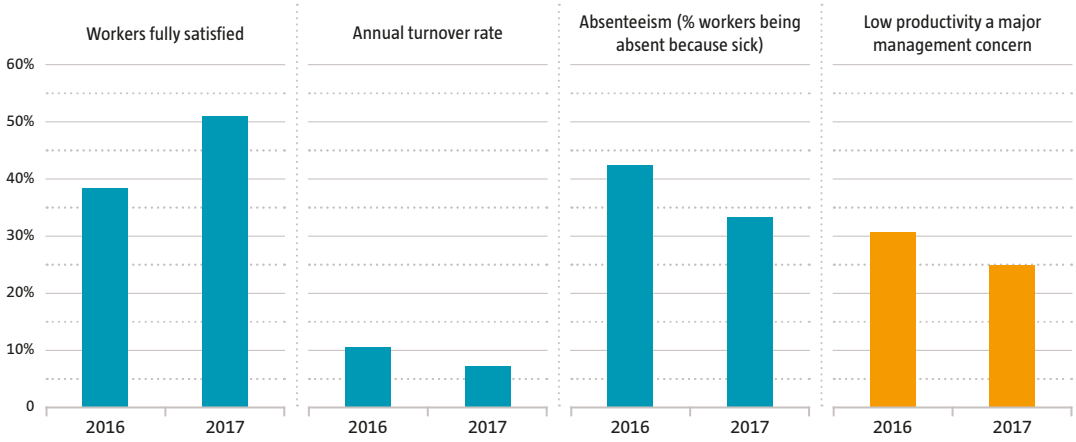
Although often viewed purely as a cost, the advantages of a fair wage policy are becoming clearer as more research on fair wage remediation is conducted including:

- significant fall in turnover rate
- declines in absenteeism
- greater employee satisfaction

Although often viewed purely as a cost, the advantages of a fair wage policy are becoming clearer as more research on fair wage remediation is conducted.

Figure 5 shows the results of fair wage assessment and remediation exercises carried out among 81 suppliers of a major brand.

Figure 5: Fair Wages Makes Happier Workers



The results of a one-year fair wage remediation program covering 81 suppliers of a major global brand.
After fair wages implemented, employers reported higher rates of worker satisfaction, lower absenteeism and employee turnover; and managers themselves worried less about overall productivity.

Source: Daniel Vaughan-Whitehead, Fair Wage Network

A number of well-known brands have now put wages and the concept of a fair wage at the core of their sustainability strategy.

It is encouraging that a number of well-known brands have now put wages and the concept of a fair wage at the core of their sustainability strategy. Notable among them are H&M in retail with its "fair living wage strategy", Unilever in food with its "fair compensation strategy", IKEA in furniture with its "Fair Wage" policy, but also AstraZeneca in the pharmaceutical sector, Vodafone in telecommunications, as well as Standard Chartered Bank with its "Fair Pay Charter", in the financial services sector.[8]

These companies recognize that sustainable wage practices are important not only to avoid the risk of reputational damage, but also because of their crucial role in boosting employees' motivation, competition for talented recruits and retention of skilled employees. Furthermore, they are also effective tools against social conflicts along the global supply chain. On the economic side, fair wage policies improve productivity, stimulate innovation and enhance human capital development.

Advantages don't just accrue to global conglomerates but also to local manufacturers within their supply chains. This is especially crucial for encouraging workers' rights and fair wages in developing regions whose industries are benefitting from an increase in international trade but whose labor policies still adhere to archaic structures. International companies working with regionally-based suppliers, as well as local workers would benefit significantly from fair wage review and remediation processes.

Better retention of skilled employees was also observed after the introduction of a wage grid that helped to better reward skills. Here, China is a good example. The competition for skilled workers is rising thanks to tight labor markets. But many companies still operate a "piece-rate" compensation system in which employees are essentially paid based on each unit produced rather than the time needed to complete it.

Exposure has raised interest and awareness among China's manufacturers, who are now more receptive to flexible compensation systems and wage structures that include a basic wage determined and differentiated around objective criteria such as work experience, education and skills, complemented by a series of bonuses. This has generated better wage practices and also wage levels that are more in line with living wage thresholds.

On the economic side, fair wage policies improve productivity, stimulate innovation and enhance human capital development.

[8] For H&M, see: http://about.hm.com/en/media/news/hm-fair-living-wage-strategy-update.html and https://www.shiftproject.org/sdgs/living-wages/hm-fair-living-wage-strategy/
For UNILEVER, see: https://www.unilever.com/sustainable-living/enhancing-livelihoods/fairness-in-the-workplace/fair-compensation/ and pages 1-3 of: https://www.unilever.com/Images/unilever-framework-for-fair-compensation-2015-final_tcm244-502647_en.pdf
For IKEA, see p. 34 of: https://preview.thenewsmarket.com/Previews/IKEA/DocumentAssets/502623.pdf
For AstraZeneca, see p. 5 of: https://www.astrazeneca.com/content/dam/az/our-company/Sustainability/great-place-towork/Our-people---May-2015.pdf
For the Standard Chartered Bank, see p. 84 of: https://www.sc.com/annual-report/2017/

The introduction of wage remediation processes has led to:

Better compensation systems – through implementing wage grids that align worker skills with rewards and pay

Retention of skilled workers – through improved worker motivation and satisfaction

Reduction of excessive wage costs – through reduced overtime costs

Improved worker well-being – through decreased overtime, improved health and safety

Better human resource management – through efficiency gains via workforce re-organization and resource planning

Fairwage certification

These positive effects, together with growing demand from business leaders (first from the garment sector, but increasingly from other sectors, including furniture, pharmaceuticals and banking) and investors led the Fair Wage Network to develop a fair wage remediation structure, fair wage indicators and dimensions into a formal certification process. Upon successful completion, companies receive the fair wage label as a sign of their commitment to worker well-being, efficient wage structures and internationally accepted wage standards.

The Fairwage trade mark is legally protected and retained by the International Trade Center (ITC) for its sustainability map project.[9]

Company management and investors alike need to understand the short- and long-term benefits of including wages as part of a comprehensive sustainability strategy.

The responsibility of the investment community

Wages are moving in the right direction but not fast enough. This may be, in part, due to a bias that sees wages as a cost rather than a tool to engage employees, reduce turnover, stimulate innovation and improve overall efficiency. Company management and investors alike need to understand the short- and long-term benefits of including wages as part of a comprehensive sustainability strategy.

Investor pressure can help to push the pace of progress forward. Access to investor capital via global markets gives corporate leaders the incentives needed to make sustainability issues such as worker well-being and compensation a priority in their own companies, as well as in their global supply chains. And it brings visibility and action on a global scale.

[9] The International Trade Center (ITC) works to connect with international value chains in order to support developing countries design trade strategies that enable them to be more competitive internationally and facilitate local growth and employment. See Fair Wage standard in ITC Sustainability Map: https://sustainabilitymap.org/standard-details/539

Prominent investors are already forming alliances in favor of living wage/fair wage strategies.

Prominent investors are already forming alliances in favor of living wage/fair wage strategies. Under the umbrella Platform Living Wage Financial (PLWF), a group of global institutional investors (which includes Robeco) with combined assets of €725 billion, are using their influence to engage companies to develop fairer wages.[10] No doubt more initiatives of this type will emerge, especially as the importance of the UN's Sustainable Development Goals (SDGs) grows within the investment community.

Investor demand for better wage indicators and wage-related benchmarks for sustainability indexes would also be an effective way of signaling companies to take wage policies and practices seriously or run the risk of negative publicity, lower stock valuations and investor censure. Wage cost competitiveness can go hand-in-hand with a more coherent, transparent and fair framework on wage practices and pay systems. Long-term strategies on wages and sustainability would help to highlight their potential leverage effect on key aspects of competitiveness.

As companies reconcile employees' needs and well-being with other competitive aspects such as human resources, innovation, reputation and investment, wages will increasingly be at the heart of companies' future sustainability strategy.

Questions or comments for the author can be sent to:
d.vaughanwhitehead@fair-wage.com

[10] https://apparelinsider.com/investors-call-for-living-wages-for-garment-workers/

Slowly but surely: gradual progress towards gender equality

Gender diversity enhances corporate governance, talent attraction and human capital development which fosters superior value creation not only within companies, but also for stakeholders and society. Corporate policies promoting gender diversity are a reflection of a well-managed company that realizes the value of multiple perspectives in minimizing risk and driving long-term competitiveness. Token female appointments are not the goal, but rather effective leadership.

Gender diversity can only be achieved by promoting gender equality, not in terms of quotas or inaccurate measures of outcomes, but by addressing the social and cultural stereotypes that have limited women's ability to maximize professional opportunities.

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Why gender equality and diversity matter

For RobecoSAM gender equality means not only equal pay for equal work and equal gender ratios but also equal access and equal treatment for career-advancing opportunities. And that goes for senior management and company boards as well as for the men and women in the rank and file across the entire organization.

Corporate gender equality has important implications – not just for female employees but also their male colleagues, employers, currents shareholders, future investors, and society. According to the IMF, gender inequality is linked to sub-optimal economic growth. Differences in the amount that men and women are paid don't just lead to income inequality, they also result in unequal access to education, health services and financial markets.[1]

Meanwhile, McKinsey suggests that achieving full gender equality in the workforce could boost global annual GDP by $28 trillion by 2025.[2] Unfortunately, according to the World Economic Forum, it will take 217 years to eliminate gender-based economic and health disparities.[3]

How does this affect companies? Firms with high gender diversity deliver better risk-adjusted stock returns than those with low gender diversity.[4] The presence of women in the C-suite also correlates with profitability and diverse leadership teams boost innovation and improve financial performance.[5]

RobecoSAM asks companies a number of questions about their gender equality policies and practices in our Corporate Sustainability Assessment (CSA).

Gender inequality is linked to sub-optimal economic growth.

How the CSA measures gender diversity

Every year we collect data about companies' gender practices, covering four main topics:

1. **Gender diversity on a company's board of directors –** women are currently underrepresented on boards globally, despite evidence that shows diversity adds to effective governance and better performance. We measure the number of women on board as well as whether gender diversity is part of the nomination policy and process.
2. **Gender diversity in the workforce –** a balanced mix of men and women throughout a company boosts its performance potential. We also look at the percentage of women in management and companies' ability to retain and attract women to senior positions.
3. **Pay ratios –** Fair compensation is not only ethical, it is essential for maintaining morale and creating a thriving atmosphere where all employees feel valued. We capture pay data to determine whether remuneration is equal between the female and male workforce at different levels (non-management, management, executive).
4. **Employees and family care –** although parental responsibilities still fall disproportionately on women, childcare issues can affect both sexes and require a balanced approach. We evaluate whether employers offer benefits like on-site childcare facilities, help with care costs, parental leave and return to work policies, and flexible working possibilities.

[1] "Women, Work, and Economic Growth", International Monetary Fund, February 2017

[2] "The Power of Parity: How Advancing Women's Equality Can Add $12 Trillion to Global Growth", McKinsey Global Institute, September 2015

[3] "Global Gender Gap Report 2017", World Economic Forum, November 2017

[4] "Putting Gender Diversity to Work: Better Fundamentals, Less Volatility", Morgan Stanley, 2016

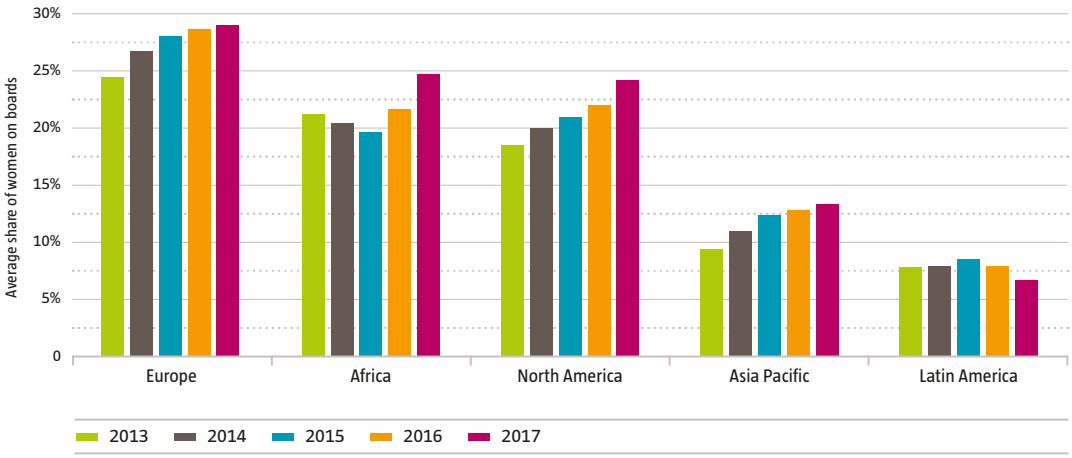
[5] "Is Gender Diversity Profitable? Evidence from a Global Survey", Peterson Institute for International Economics, February 2016

Gender diversity on corporate boards

Although the pace has slowed over the past year, gender diversity on corporate boards has been increasing in most of the world over the past five years ending in 2017 (See Figure 1).

With 29% of female board members, Europe is the best-performing region – although its rate of progress has recently slipped. At the other end of the spectrum is Latin America where less than 7% of board members are women. While countries in the Asia Pacific perform better with 13% female board members, they still lag significantly behind other regions. On the country level, the worst-performing in our sample are Japan, Mexico, Chile, and South Korea where boards are overwhelming dominated by males – a male to female ratio of 93% to less than 7%. That's equal to more than 9 males with one lone female participant.

Figure 1: Gender diversity on corporate boards has been increasing in most of the world (2013 – 2017)



Source: RobecoSAM

Sector differences in board gender diversity are also notable. Firms in financials and healthcare do best at 22%, whereas the IT, industrials and materials sectors lag at 18%. However, results at the overall sector level often mask noteworthy differences within underlying sub-sectors (i.e. industries). For instance, the IT sector's poor performance overall is dragged down by a low share of women (13%) in the hardware industry while another IT sub-sector, software & services, performs relatively better (23%). Other lagging industries include automobiles & components, transportation, and semiconductors (all below 17%).

Commitment to board diversity is growing

Albeit slowly, the needle is moving in the right direction. The proportion of firms in our survey that consider gender in their public board diversity policy has increased materially over the past year, to nearly 48% (2017) from 40% in 2016. Unsurprisingly, most of the improvement stems from Europe and North America. Here again, Latin American companies are lagging significantly behind with only 5% of companies explicitly mentioning gender in corporate diversity policies.

Huge disparities also exist at the sector level. Telecommunications leads the way with 63% of all firms explicitly considering gender in their board diversity policy. And while the IT sector is helping advance technological innovation, it is significantly trailing on gender diversity with just 39% of firms with defined board diversity policies.

Workforce participation

The proportion of women in the workforce globally fell slightly from 35.3% to 35.0% from 2016 to 2017, reversing an increasing trend that we've seen in recent years. Curiously, over the same time period, there was an increase in the proportion of women in management positions from 26.0% to 26.3%.

Regional disparities

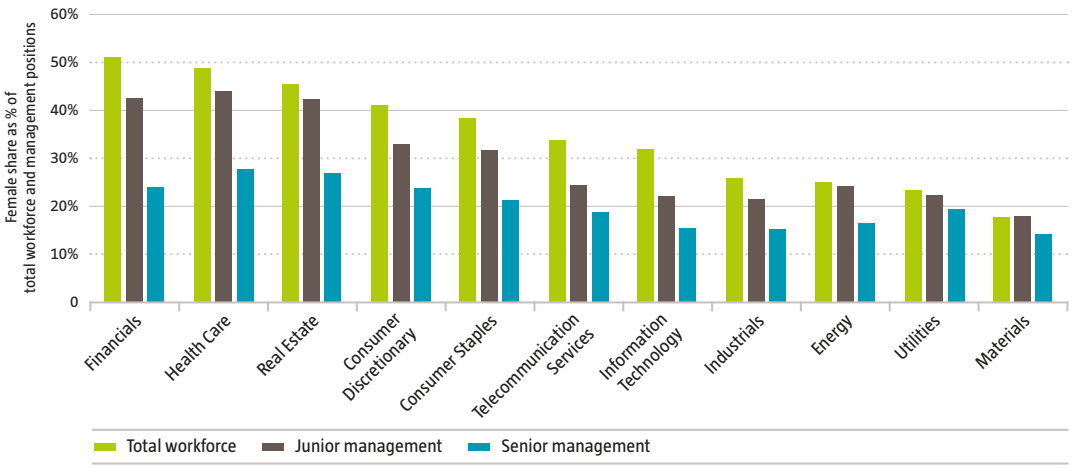
For the female share of the total workforce at the regional level, North America is leading the way at nearly 39%. Japan and South Korea both score poorly at close to 25%, but India is the laggard in our sample at 13%. North America also leads in terms of women in management positions at just over 33%, demonstrating the typical decline we see when promotions to leadership positions are evaluated (e.g. there is almost always a lower percentage of women in management positions than in the total workforce).

While we would rather see no differences in female representation percentages between management and the overall workforce, North America's 6% difference (39% vs 33%) is small compared to lagging countries. In Japan, a developed country with a strong economy and long history of female workforce participation, the difference is 15% (24% vs 9%) – or 2.5 times greater. This is a significant loss of talent as companies fail to promote female leaders that could bring fresh perspectives, discover new opportunities, and create value for the company and shareholders.

Sector level data

At the sector level, the proportion of women in the workforce in IT has remained unchanged over the past three years despite a number of initiatives to promote tech as an attractive option for female workers. And while women make up over half of the total workforce in financial services sector, they account for less than a quarter of its senior managers. Looking deeper, interesting differences appear. For instance, insurance companies and banks have slightly more female workers than male, while diversified financials, which includes asset managers and investment banks, has slightly less (under 44%). Energy, utilities and materials sectors all have lower average proportions of women in their overall workforce with 25%, 23%, and 18%, respectively, with no major improvements since 2013 (See Figure 2).

Figure 2: Energy, utilities and materials sectors all have lower average proportions of women



Source: RobecoSAM, Data as of 2017

Retaining Female Talent

We assess a company's ability to attract and retain experienced women by looking at the retention of the female share from junior to senior management levels. The desirable rate is 100%, or a 1-to-1 ratio between junior management females and senior management females. Corporate reality is otherwise. On average only 19.9% of senior managers are women, meaning many women are leaving the corporate ranks far too soon. This underscores the importance of tracking female attrition within companies to find out why and create the right incentive structures to keep talent moving up the ladder rather than dropping off it.

On average only 19.9% of senior managers are women, meaning many women are leaving the corporate ranks far too soon.

Although far from optimal, the median retention rate overall is improving with time. There was a 5 percentage point (p.p.) rise between 2013 and 2017 from 58 to 63%. Rises like these suggest companies are beginning to recognize, reward and retain female talent as they professionally develop and ascend through the organizational ranks.[6]

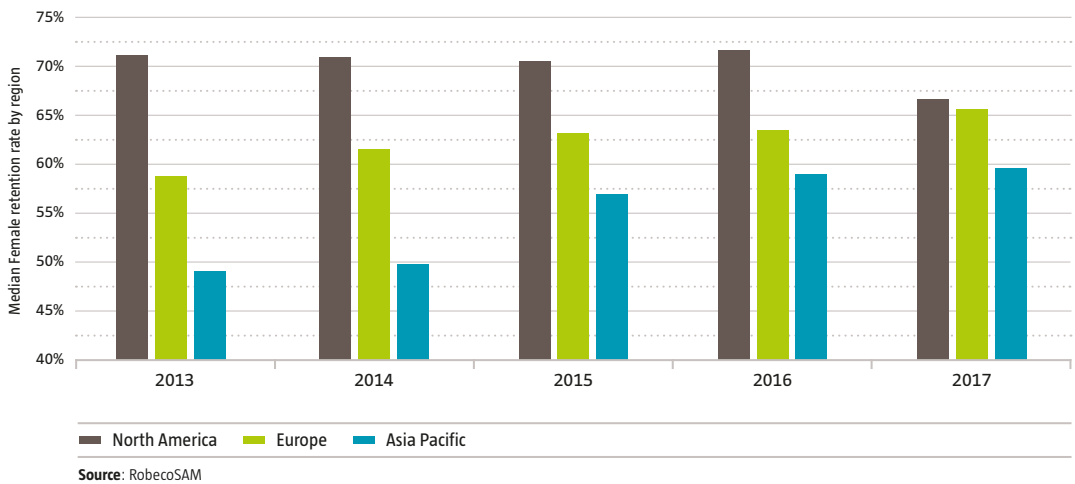
Rattling Ratios

During 2013 to 2016, North American firms were consistently better than their European counterparts at retaining female managers. North American firm retention rates fell in 2017, not because firms lost women at senior levels but because they were more successful at recruiting females for junior posts. The proportion of females in junior roles increased 2 p.p. from 34% to 36% while the proportion in senior positions increased only slightly (from 24.0% to 24.6%). This had the ultimate effect of lowering retention ratios in North America overall (See, Figure 3).

Among the worst performing countries is South Korea, with just 11% median retention, meaning female talent is largely lost at management levels. Given South Korea's economic power on the world stage, this represents an appreciable loss of female potential that could further boost Korean business overall and improve the opportunity set for women across Korean society.

Among sectors, the data suggest that financials is the poorest performing sector with only 55% of its junior female share retained at senior roles.

Figure 3: Lower retention ratios in North America because of more successful recruiting of females for junior posts



Source: RobecoSAM

[6] Due to a significant number of outliers, we use a median rather than an average to summarize retention rate data.

Differences in female to male pay ratios

We can see a substantial pay difference (as measured by pay ratios[7]) between males and females across industries and at all organizational levels. In fact, data shows that the differences in pay for males and females at the executive level has not only stagnated but grown worse (See Figure 4). Lower in the ranks, the situation is better – pay ratios for employees classified as managers are higher than for executives. However, these ratios have remained stable over time with no recent improvements.

More encouraging are results from lower levels in the workforce. Women in non-management positions have seen incremental increases in pay ratios since 2013 (from 91% to over 92% in 2017). The increase in the global pay ratio for non-managers over the past year was driven primarily by North America, whereas in Europe and Asia-Pacific progress has stalled. Globally, we estimate that at the current pace, it would take 22 years to eliminate the gender pay gap between male and female non-managers – a considerable feat given this group represents the majority of the workforce worldwide.

Globally, we estimate that at the current pace, it would take 22 years to eliminate the gender pay gap between male and female non-managers.

Potential explanations & causes

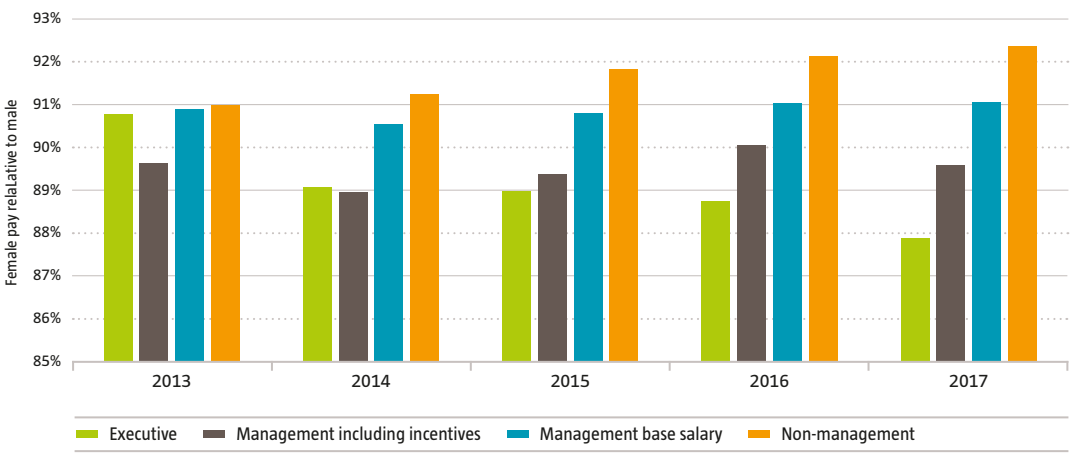
We can see a substantial pay gap across all employment levels. However, these figures represent raw observed pay ratios and do not control for important differences like job-specific responsibilities, education, skills and experience between female and male workers that would help explain pay disparities.

If firms could explain existing pay disparities via objective employment data like those listed above, a firm's true pay ratio would be 100%, meaning men and women are paid equally for the same job. However, research has shown that, in reality, even when these factors are controlled for, there is a residual salary gap that is still left unexplained – pointing to outright discrimination against women.

In the near term, in order to eliminate this type of unwanted bias, companies should carefully examine pay structures to ensure they are clearly defined, fair and transparent. Firms that fail to take the necessary steps to rectify pay gaps, face significant risk from within via lost potential from under-appreciated and under-utilized female employees as well risk from without as it will become harder to attract and recruit future female talent. Greater still is the risk of legal action with subsequent financial costs as well as enduring reputational damages.

Bearing all that in mind, comparing regions, industries and companies on the raw observed pay ratios can still add value, as it helps understand the state of things, what is possible, and how their approaches to the issue diverge.

Figure 4: Differences in pay for males and females at the executive level has grown worse



Source: RobecoSAM

[7] A 99% pay ratio means that a female earns 99% of (or 1% less than) what male colleagues earn.

Pay ratios—Sector differences

Stark differences are also apparent between sectors. In IT, women non-managers receive on average just 86% of what their male counterparts earn; financials is only slightly better at 88%. The best performing sector is consumer staples with 97%.

The proportion of companies reporting on gender pay structures is slowly rising as public exposure and regulatory scrutiny intensify.

Reporting & Disclosure

The proportion of companies reporting on gender pay structures is slowly rising as public exposure and regulatory scrutiny intensify. Companies are slightly more willing to report on non-management positions where the share of companies reporting has been incrementally increasing since 2013. Company reporting for females in non-management positions rose by 1.3 p.p. in 2017.

Benefits for employees, parents and families

Flexible work and family care

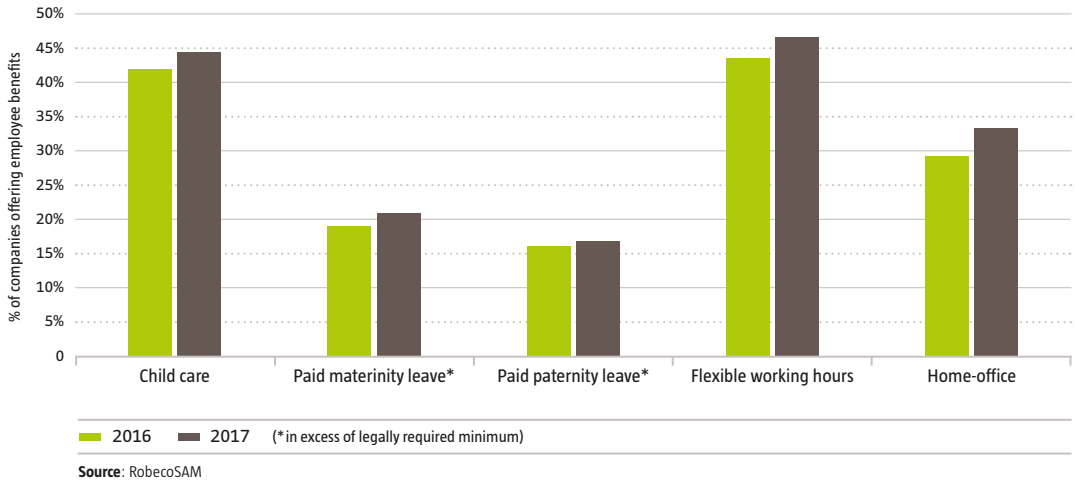
Flexible work hours, flexible work locations (i.e. home office), paid time-off for new births, and other childcare options help relieve stress on working parents and should be standard features of any company's personnel policy.

The CSA measures a number of working conditions and benefits offered by companies to support parents – not just working mothers but working fathers as well – in their child care responsibilities. Moreover, measures should not favour one gender over another but should support both with flexible work arrangements that extend beyond maternity leaves to include options like paternity leaves for fathers, home-office possibilities and flexible working arrangements.

More and more companies are offering child care packages to parent-employees.

Figure 5 displays recent CSA data compared to one year prior. We can see that more and more companies are offering child care packages to parent-employees. Among options available, flexible working hours and help with childcare are among the most popular. Regional results are described below in more detail.

Figure 5: Employee well-being – more companies offering child care packages



Source: RobecoSAM

Child care

European companies are out in front when it comes to providing child care to their employees – 55% offer either in-house childcare, or help with the cost of external care providers. At the country level, Australia and the US are the notable low performers with only 35% and 36% of companies offering childcare benefits, respectively, whereas in Japan childcare benefits are widespread (71% of companies).

Europe and Japan are top performers in offering childcare benefits while the US and Australia perform relatively poorly.

Paid maternity and paternity leave

European companies are most likely to provide paid maternity leave in excess of the legally required minimum (29% of companies), followed by firms in Asia Pacific and Latin America (both with 21%). Just 15% of North American firms do so.

From a sustainability perspective, we believe it is important for firms to go beyond legally-binding requirements for parental leaves. Legal mandates are intentionally designed to provide minimum baselines across the entire economy; yet the workforce characteristics of each sector are unique and parental leave policies should be customized in order to optimize the benefits for both employees and employers.

The proportion of firms paying paternity leave in excess of the legally required minimum is growing overall – North America gained 5 p.p. while Europe and Africa etched up another 2 p.p.

Interesting anomalies exist that run against intuition. Sweden, for example, has very few firms that exceed the legal limit for paternity leave. A likely explanation may be because the legal minimum in Scandinavian countries is already so generous that companies feel additional benefits are unnecessary.

The proportion of firms paying paternity leave in excess of legal requirements is growing worldwide.

Flexible working hours

European companies are in the lead in terms of providing their employees with flexible working hours: 61% of European firms did so in 2017, compared with just 37% in North America. Germany led the way at the country level, with 92% of firms allowing flexible working hours compared to just 3% of Chinese companies within the CSA.

Sector data reveals the banking industry is most willing to provide flexible working hours to staff, with 62% of companies allowing such arrangements.

Home office

With 51% of firms in our survey providing their employees with home-working opportunities, Europe is again the leader of the pack. Companies in other regions are lagging behind: in Asia Pacific only 30% of companies offer this flexibility and in North America the share is only 26%.

European companies are in the lead in terms of providing their employees with flexible working hours.

Legislation could drive further gender equality improvements

The data from our 2018 CSA show that there is still a sizeable gender gap in the workplace in all industries and in all regions of the world. In general, European companies are leading the way in terms of employee gender equality, although there is considerable variation between European countries. Countries in emerging markets – which have the most to gain from increasing gender equality in terms of economy-boosting potential – lag far behind.

While gender inequality within companies is persistent, there is cause for optimism. It's clear from our findings that equality is slowly increasing overall (notwithstanding issues such as executive pay, which seems to be moving in reverse of general trends).

Countries in emerging markets – which have the most to gain from increasing gender equality in terms of economy-boosting potential – lag far behind.

What's more, gender equality's increased public attention and momentum, could help push lawmakers in legislating more transparency from firms on gender statistics. Moreover, lawmakers could also use regulations to incentivize companies to design and implement processes that eliminate gender imbalances. In fact, this is already happening. For example, in January 2018 a law came into effect in Germany that gave women and men the right to know what co-workers performing the same function are earning.[8] The same month, companies in Iceland were required by law to pay women the same as men.[9]

In the UK, a government-backed review in November 2018 urged FTSE 350 companies to do more to meet the target of a third of women in senior leadership positions by 2020; this on top of legislation in May that required companies with 250 employees or more to disclose information on pay gaps in their organization.

Across the Atlantic, the Canadian government is launching national pay equity legislation and a new Department for Women and Gender Equality,[10] while California recently became the first state in the US to pass a law requiring the presence of women on corporate boards.[11]

[8] https://www.ft.com/content/e9f618c0-f210-11e7-ac08-07c3086a2625

[9] https://www.businessinsider.de/iceland-has-made-it-illegal-to-pay-women-less-than-men-2018-1?r=UK&IR=T

[10] https://www.theglobeandmail.com/politics/article-budget-bill-includes-pay-equity-law-creates-new-department-for-women/

[11] https://www.theguardian.com/us-news/2018/oct/01/max-benwell-maxbenwellguardiancouk-california-women-board-directors-companies-law-jerry-brown-

Conclusion

Gender inequality is still present in every industry, even despite significant efforts to promote greater diversity and close the pay gap. Gender equality is vital for companies for many reasons. A positive reputation for fair play and equal pay across employees helps maximize access to a bigger talent pool of skilled workers; increases the ability to retain top talent once hired; contributes to positive morale and keeps employees motivated. RobecoSAM's Gender measurement framework supports this view and suggests that companies with a more diverse and equal workforce are indeed better positioned to outperform.

At RobecoSAM, we're proud to be playing a role in promoting gender equality in the workplace. Over the 15 years we've been assessing companies' sustainability characteristics, our process of competitive benchmarking provides an incentive for many companies to improve their performance on factors that long-term investors consider important. By levelling the playing field for men and women in the workplace, firms can also help promote gender equality in wider society as well as enhance their performance. Similarly, investors who take these factors into account can play a role in driving social change in addition to enhancing their returns.

By levelling the playing field for men and women in the workplace, firms can also help promote gender equality in wider society as well as enhance their performance.

But there's still much work to be done.

Companies in poorly performing sectors where women are underrepresented, must take action and provide the necessary incentives – just offering the same opportunities as men isn't enough to ensure balanced gender representation and fair remuneration. Possible options include increasing the female share of job applicants by encouraging women to apply for positions as well as providing them with additional training in sectors such as IT, utilities and materials. To ensure that women have a higher chance of being hired, the focus should turn to making sure their skillsets are competitive. More women should be encouraged to pursue careers in science, technology, engineering and math (STEM) and persistent barriers within academic and research institutions that have traditionally thwarted female advancement should be removed.

A balanced workforce overall is not enough. Firms should ensure that women are well represented in revenue-generating and core business functions.

Not all decisions leading to gender imbalances are intentional. With this in mind, we would urge companies to check hiring processes and pay scales and consider possible biases that could result in under-representation and unfair remuneration in their organization. Not only salary but all forms of remuneration, including bonuses, should be based on clear metrics and fully transparent.

A balanced workforce overall is not enough. Firms should ensure that women are well represented in revenue-generating and core business functions, not just in support and administrative roles.

Finally, gender diversity is only one piece of the equality puzzle. Diversity and equality in hiring practices and employee treatment should extend not just to gender but to race, ethnicity, nationality, and other aspects of background and culture. As supply chains globalize, geopolitics polarize, and social media channels demonize, companies should by now realize the strategic advantages of building an employee base that is not only talented but also diverse.

Talent and diversity taken together can build into a powerful force that help companies promote collective thinking, improve decision-making, enhance end-customer focus and satisfaction as well as reduce risk-taking. As the saying goes, what's good for the goose is good for the gander... and, in fact, for all of us in the global pond.

No Firm is an Island: using the SDGs to bridge modern portfolio management to the future

Companies don't operate in seclusion; they are part of a larger inter-related system made up of variables that interact in unpredictable ways. Yet, traditional models used in portfolio construction do not sufficiently account for companies' interaction with, and impact on, other firms, actors and variables within the system.

These impacts can have serious and far-reaching consequences for both the business ecosystem and society. When viewed in the long-term, many un-sustainable companies are, at present, over-valued and many sustainable companies under-valued.

The SDGs provide a useful framework to help companies and investment managers implement a systems-thinking approach that considers the impact of decisions on future resources. Company performance assessed holistically in this way safeguards portfolio returns by better synchronizing the short-term assets with the long-term liabilities of universal asset owners.

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Emerging Markets,
RobecoSAM

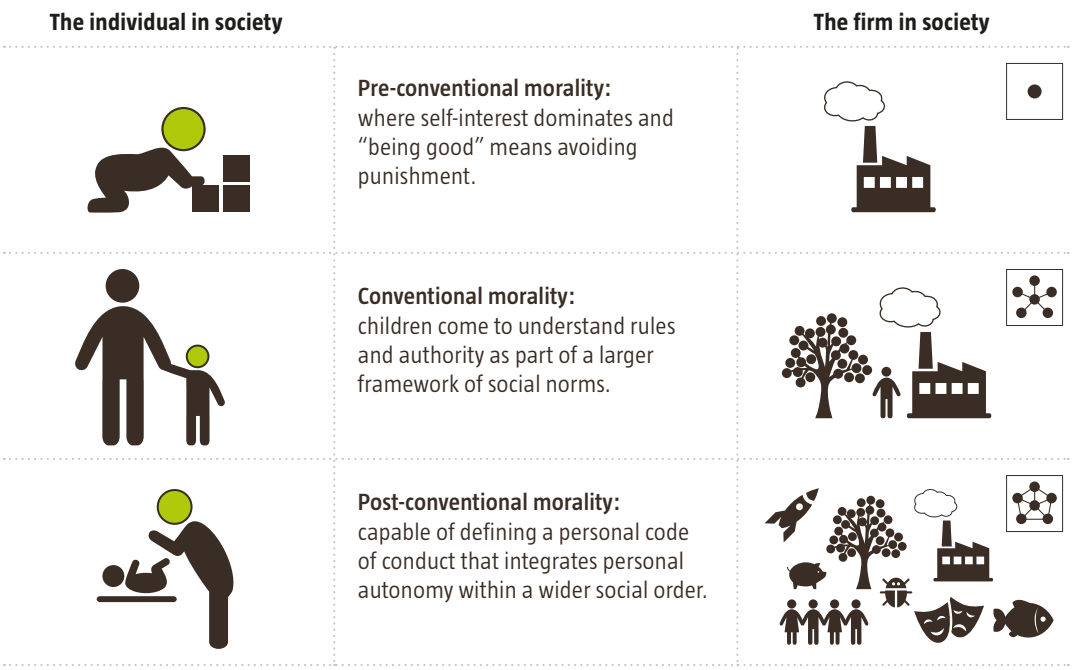
The Firms grows up

In this paper, we continue on a theme highlighted in last year's RobecoSAM yearbook regarding the importance of adopting social responsibility into a company's business strategy. Initially, companies adopted a firm-centric view of the world in which their existence revolved around solely maximizing profits; and good behavior was only to avoid government fines. Later, as companies recognized their roles as agents within a larger economic ecosystem, they began to accept and adopt basic principles of corporate responsibility (see Figure 1).

Still, corporate responsibility was associated with corporate philanthropy. Corporations are now beginning to recognize the merits of a fully-integrated approach to sustainability — one that incorporates corporate responsibility and strategic decision-making — as an imperative to ensure long-term success.[1]

Perceived short-term inefficiencies (e.g. paying above the minimum wage) increase the longer-term durability of portfolios and should therefore be integrated into investments.

Figure 1: Stages of moral development



A firm's role in society should parallel those of a maturing child coming of age; from self-interested individuals driven by narrow self-interest to those of actors with agency within a complex and inter-dependent ecosystem.

Source: Kohlberg (1958); RobecoSAM (2017)

[1] "Capitalism coming of age: using the SDGs to bridge business strategy and social responsibility", Hengerer (2017) https://yearbook.robecosam.com/articles/capitalism-coming-of-age-using-the-sdgs-to-bridge-business-strategy-and-social-responsibility/

We expand on this view here by arguing that, to meet their return requirements in the long-run, investors also need to be aware of the inter-dependencies of the environment in which companies operate. In this context, the UN's Sustainable Development Goals (SDGs) are a useful framework for helping evaluate whether companies are producing products and services that have long-term value for society. Only these companies will have the potential to adapt and thrive in the long run, making them sustainable investment choices.

We further argue that perceived short-term inefficiencies (for example, paying above the minimum wage which contributes to a number of SDGs including no poverty, decent work, as well as good health and well-being) increase the longer-term durability of portfolios and should therefore be integrated into investments.

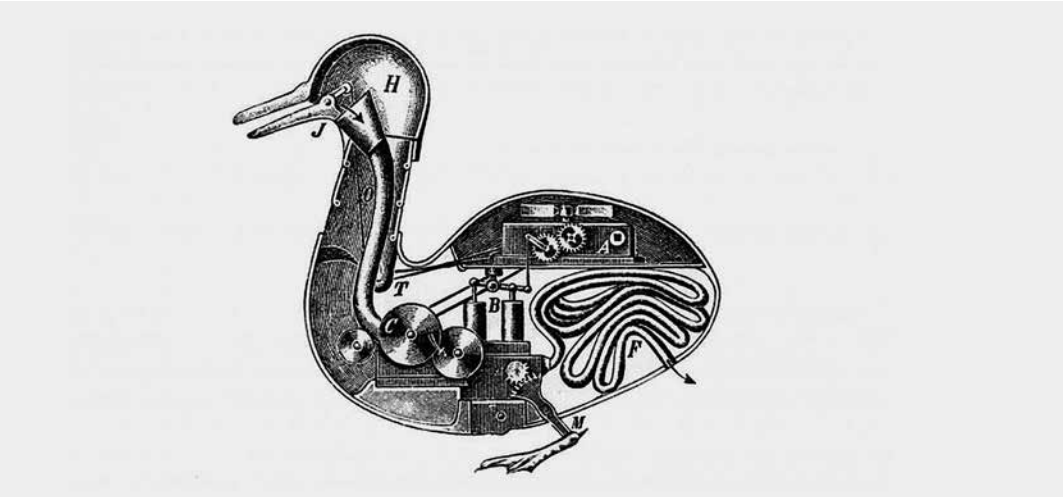
To meet their return requirements in the long-run, investors also need to be aware of the inter-dependencies of the environment in which companies operate.

Reductionism vs complexity

Fair criticism has been leveled at the SDGs for being too broad and complex for effectively setting priorities, especially for governments.[2] Yet, the SDGs' evolution from the simpler Millennium Development Goals (MDGs) provides more complete coverage of the world's challenges and their interdependencies. From this perspective the SDGs are a useful investment framework for long-term portfolio construction as it moves us beyond the traditional "reductionist" world view that prevails in finance. This reductionist worldview, which is based on a determinism exemplified by Newtonian physics, in which all things can be known given enough information.[3] Problems scale linearly - like adding grains of sand to a bucket, and the total mass of a bucket of sand is simply the sum of the mass of the individual grains.

It is a simple process – additive, linear, and completely predictable.[4] This concept is caricatured in Figure 2, where, if true, a duck's nature (its actions and behavior) are reduced to the sum of its parts (a hose and series of mechanical gears) and therefore should be completely explainable and predictable. Reality, however, proves otherwise.

Figure 2: Reductionist model of a duck



A duck's nature and actions reduced to the sum of its parts-a hose and series of gears. Until recently prevailing models have largely described the world in linear and mechanistic ways. Current theories based on mounting evidence from across life, environmental and economic sciences, have added non-linearity and complexity to this simplistic view of the world.

Source: Descartes (1662)

[2] "The 169 Commandments", The Economist, (March 26, 2015)

[3] See also Cartesian rationalism and Laplace's demon, the concept in which if someone (the Demon) knows the precise location and momentum of every atom in the universe, their past and future values for any given time are entailed; they can be calculated from the laws of classical mechanics.

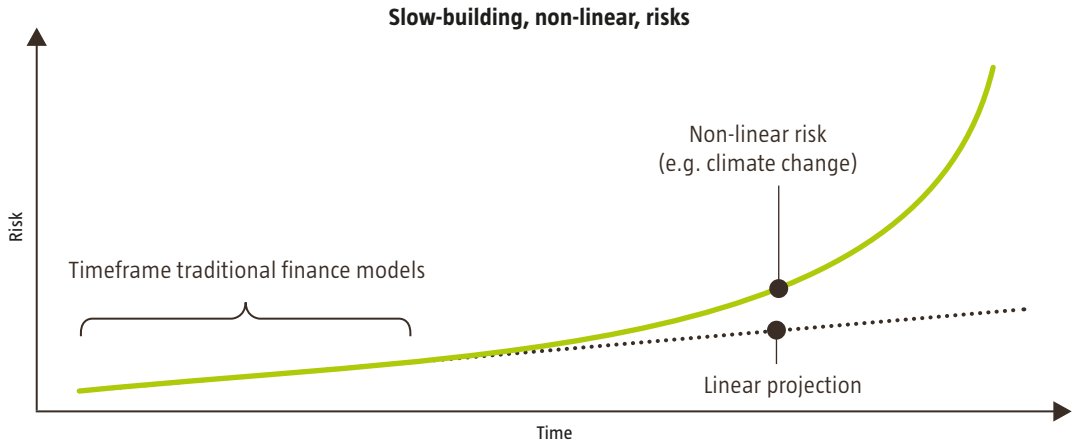
[4] Example borrowed from a presentation by Dr. Uttam Kumar Sarkar "Financial Markets and Complex Systems" (undated)

In traditional finance investments are assumed to be independent and uncorrelated. This thinking is exemplified in firm-specific analyses, such as a discounted cash flow model applied in isolation.

While straightforward to implement, such models suffer from short-term time horizons (3-5 years) which means that non-linear events materializing in the long-term typically get excluded (see Figure 3).[5]

In traditional finance investments are assumed to be independent and uncorrelated.

Figure 3: Theory and Reality Diverge



Traditional discounted cash flow models tend to project risks linearly. But reality is far from theory. Risk can rise exponentially and unpredictably in very short time frames.

Source: 2degrees Investing Initiative (2°ii) & The Generation Foundation (2017)

Modern portfolio theory (MPT)[6] made progress by understanding that different assets behave and interact differently. This recognition of basic inter-dependencies is what we now consider conventional finance. Other approaches which broaden the analysis include looking at country-risk or other exogenous factors which influence expected returns.

But systemic inter-dependencies and non-linear risks have yet to be integrated into fundamental analysis. In science, the shift towards a systems-thinking approach already occurred in the first half of the 20th century.[7] Economics too, adopted a systems-thinking approach as demonstrated in the idea that all economic activity is "embedded" within formal and informal institutional constraints.[8] From this perspective it is counter-productive to disassociate economic activity from other societal objectives.

This embeddedness of business activities within a wider economic and social system, only recently became recognized in the investment world by accounting not just for the economic factors considered in MPT, but also environmental, social and governance (ESG) factors. This approach, usually called sustainability investing, recognizes that systemic factors interact in unexpected ways with investments increasingly producing "fat tail" outcomes.[9]

It is counter-productive to disassociate economic activity from other societal objectives.

[5] 2°ii & The Generation Foundation (2017) "All Swans are Black in the Dark"

[6] Markowitz (1952)

[7] In physics the adoption of Einstein and Heisenberg's Uncertainty Principle were the first steps beyond determinism; in the biological sciences the shift moved from molecular to a more fundamental science (C. Woese, 2004)

[8] Polyani (1968); North (1990)

[9] Taleb (2007) describes this as a shift away from what he calls "Mediocristan" towards "Extremistan" in which the bell curve is a reductionist model inappropriately applied to a complex system. In investing this trend is apparent from the increasing contribution of intangible factors to company performance (Haskel & Westlake, 2017).

Universal Owners—central to aligning investors and society goals

"Universal Owners" are institutional investors with highly diversified, long-term portfolios that are representative of global capital markets - for example pension funds.[10] It is said that Universal Owners have a disproportionate interest in ensuring the sustainability of their portfolios because they must achieve returns not just today, but essentially in perpetuity. For example, in the US, investors with such long-term liabilities (more than 10 years) own nearly half of domestic equity markets.[11]

Universal Owners can only be expected to be aligned with societal goals when their broader fiduciary duties, which include ESG factors, are fully integrated in their governance structures.

Ultimately though, as the direct and indirect beneficiaries (or perhaps the ultimate liability holders) of the decisions of Universal Owners, all of society has a stake in their ability to achieve a sustainable return on capital invested. In other words, Universal Owners are embedded within wider societal goals, and should evolve along with societal goals.

Using regulations to force universal owners to align investment policies with society' interest, is overly prescriptive and doesn't allow for an appropriate and diverse set of solutions to be implemented. Universal Owners can only be expected to be aligned with societal goals when their broader fiduciary duties, which include ESG factors, are fully integrated in their governance structures.[12]

The Universal Owner's Dilemma

One complicating factor is the free-rider problem[13] where some managers may achieve short-term advantage by borrowing against future, longer-term, performance. The free-rider problem is illustrated when a fund manager outperforms the index by investing in tobacco stocks. Here, short term financial performance borrows from the future health and well-being (never mind the medical expenses) of its citizens.[14]

This moral hazard[15] explains why investment portfolios still, on aggregate, borrow from the future in order to outperform in the present. Such portfolios have a net present value (NPV) that is negative if stretched into perpetuity (NPV∞<0). The mistake being, following from MPT, that all non-market risks were assumed to have been diversified away.

However, accounting for all systemic risks (not just market beta) would recognize that the portfolio may not have addressed the resource needs of other current, or future, portfolios (possibly even owned by the same Universal Owner!). An example of this is where a company pays below a living wage, which is perhaps a good financial decision in isolation, but which then takes away purchasing power from the workers on which other current or future portfolio companies may rely.[16] For a discussion on how investments in human/social capital can positively impact firm profits, see the article, "Fair Wages - a key to effective social capital management" within this Yearbook issue.

Investment portfolios still, on aggregate, borrow from the future in order to outperform in the present.

[10] "Universal Ownership: Why environmental externalities matter to institutional investors" (UN PRI 2011)

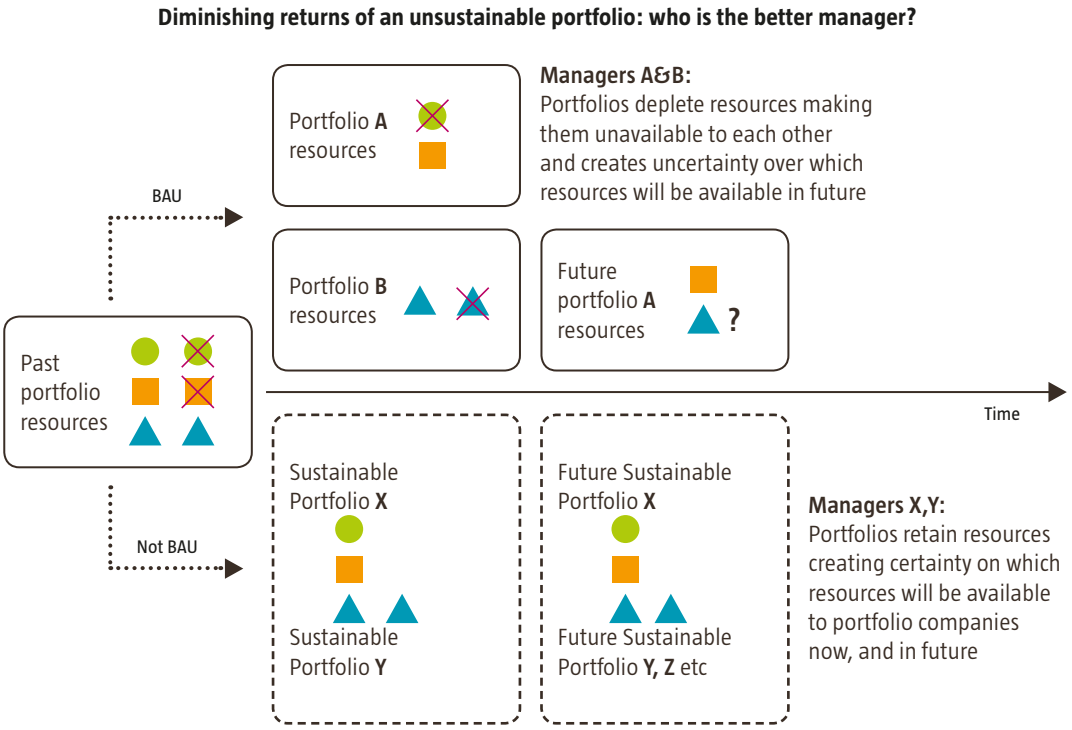
[11] "The Long and Winding Road" (Mercer, 2degrees investing initiative (2°ii) & The Generation Foundation, 2017)

[12] Regulators are recognizing this as reflected by the Final Report 2018 by the High-Level Expert Group on Sustainable Finance which states that the fiduciary duties of institutional investors and asset managers includes explicitly integrating material ESG factors and long-term sustainability.

[13] In economics, a free rider is someone or something who benefits from a good or service without paying (or bearing the cost) for it.

[14] It is for reasons such as this that Robeco and RobecoSAM recently made the decision to adopt a company-wide exclusion of the tobacco industry from its mutual funds.

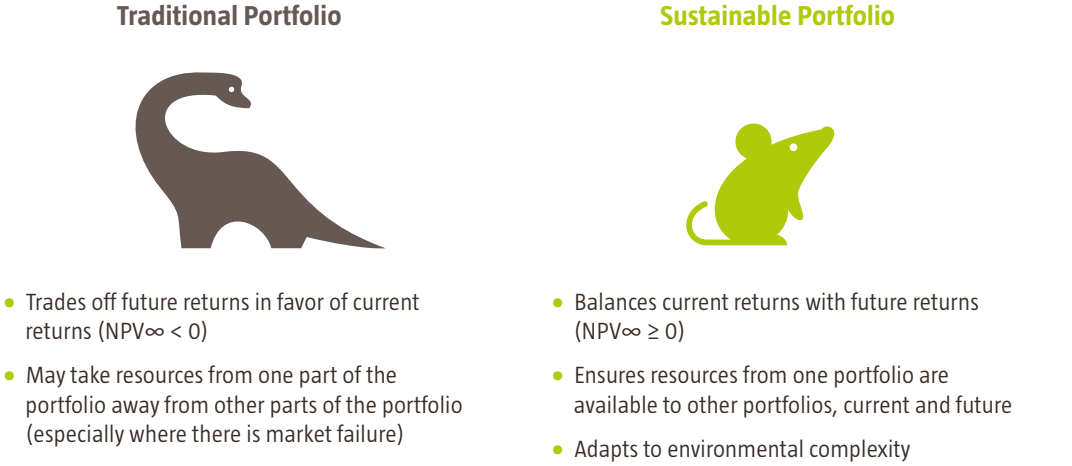
Figure 4: Managing both returns and resources



Source: RobecoSAM (2018)

For this reason it is in the interest of Universal Owners to align manager incentivizes with a broader range of metrics so that a manager who outperforms financially, but then underperforms on other sustainability metrics, is recognized as potentially having not created net long-term value (see Figure 4).[17] Figure 5 below summarizes some of the differences in characteristics between a traditional and sustainable portfolio.

Figure 5: The nimble mouse and the colossal dinosaur



Source: RobecoSAM (2018)

[15] In economics, moral hazard occurs when someone increases risky behavior because they are protected from bearing the costs of the consequences (e.g via insurance schemes).

[16] To the question "Why are you paying your workers so well?" Henry Ford famously replied, "Well, if I don't pay them well, they won't be able to buy a car".

[17] Hawley and Lukomnik echo this approach by calling for a shift away from a narrow alpha-only approach towards embracing system-wide issues representing a paradigm shift away the company specific (and occasionally sector specific) focus which has dominated governance activism for the past quarter century; "asset management ought to move from modern portfolio theory to modern systems theory as its dominant paradigm.""The Third, System Stage of Corporate Governance: Why Institutional Investors Need to Move Beyond Modern Portfolio Theory" (Hawley & Lukomnik, 2018)

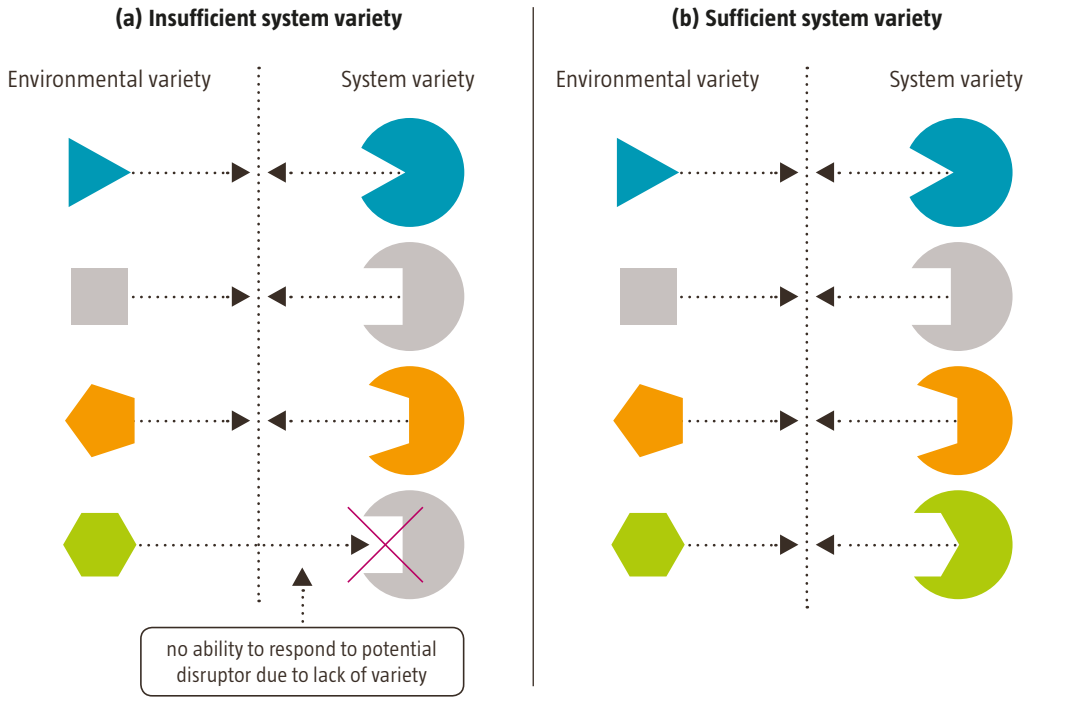
Thus, over the long-term, where sustainable portfolios are not adopted, Universal Owners may potentially fail to meet their (i.e. society's) long-term liabilities. Failure to account for long-term risks and opportunities implies a mispricing of assets today, with capital allocated sub-optimally. This leads to underinvestment in projects that benefit society in the long-term or may induce the formation of bubbles, which, as they burst, often impose tremendous costs on society.[18]

Failure to account for long-term risks and opportunities implies a mispricing of assets today, with capital allocated sub-optimally.

We must adapt, to stay the same… and in the game

So how do we achieve these aims? For starters, we need to integrate diversity and robustness to future-proof our portfolios. According to Ashby's law[19] a system needs to match its environmental complexity in order to survive. As illustrated in Figure 6, a system which does not contain sufficient diversity to respond to diverse environmental challenges will fail.

Figure 6: System diversity and robustness



According to Ashby's law, a system needs to match its environmental complexity in order to survive.
Only a diverse system with enough variety can survive the complex challenges found in its environment.

Source: Norman and Bar-Yam 2016

[18] See also—2degrees-investing initiative (2°ii) & The Generation Foundation (2017), "All Swans are Black in the Dark"

[19] First Law of Cybernetics, a discipline that studies the control and communication in the animal and the machine.

The challenge is that, superficially at least, this diversity can appear as redundant when challenges are not (yet) visible. Robustness is thus improved by the built-in "redundancy" for unforeseen circumstances in a system. This approach is contrary to the traditional goal of efficiency (though superficial) within companies as well as in MPT more generally.

Diversity can appear as redundant when challenges are not (yet) visible. In traditional finance where second-order effects are underestimated these are dismissed as inefficient.

Examples of apparent redundancies in a system may include: the Precautionary Principle; paying staff above the market rate; ensuring gender diversity; fostering biodiversity; rolling out renewable energy and decentralized governance institutions. In traditional finance where second-order effects are underestimated, these are dismissed as inefficient.

However, as Table 1 below illustrates, redundancies may be beneficial to the sustainability of a system and therefore efficient from a systems-theory perspective. It is no coincidence that many of these examples can be linked back to the SDGs, which are an attempt to improve the sustainable trajectory of global development.

Table 1: Appearances can be deceiving

"Redundancy"	Systems-(and portfolio) advantage	SDG
Precautionary Principle	Do not unnecessarily create exposure to unexpected consequences which damage or may even destroy the system. Do not transfer the consequences of this risk to others.[1]	12. Responsible Consumption and Production
Fair and Living Wages- **Paying staff above the market rate**	People within the system are more resistant to shocks in their lives and within their community. They are also in a better position to reinforce the system in a distributed manner (through good health, savings, local investment or consumption) which does not require government intervention (in the form of socialized healthcare). This also helps prevent inequality which is a systemic source of societal stress.[2]	3. Good Health & Well-Being 8. Decent Work & Economic Growth 10. Reduced Inequalities
Gender diversity	This may come at the short-term cost of (e.g. maternity/paternity cover); however, with diversity, institutions (including companies) are better able to respond to the opportunities and challenges presented by its equally diverse environment.	5. Gender Equality
Ensuring biodiversity	Prevent shortages elsewhere (transfer of fragility) or systems-wide failure due to unexpected inter-dependencies.[3] (e.g. Avoiding a mono-culture of crops makes habitats less exposed to systemic risks).	14. Life Below Water 15. Life on Land
Renewable energy	The non-linear reduction in the cost of renewable energy has led organizations such as the International Energy Agency (IEA) to systemically underestimate the growth potential of renewables. While technologies such as coal and nuclear present highly concentrated power sources, they also create systemic fragility which a distributed power grid of renewables helps mitigate.	7. Affordable & Clean Energy
Tax Policy **Complying with the spirit rather than the letter of tax laws**	Regulators are increasingly favoring a principles- over a rules-based approach, particularly where loopholes are perceived such as in cross-border transactions. This creates a scenario where companies must comply (adapt) with the demands of a larger system rather than with individual countries/jurisdictions.	10. Reduced Inequalities 16. Peace, justice and strong institutions
Decentralized institutions	While decision-making in decentralized systems can appear less efficient, they benefit from shorter feedback loops which enhance accountability and make the transfer of fragility harder.[1] Note: The 169 targets associated with the SDGs repeatedly call for locally-appropriate action.	16. Peace, justice and strong institutions

[1] Taleb (2012) "Antifragile: Things That Gain From Disorder"
[2] Schiller & Hacker (2011) https://insights.som.yale.edu/insights/is-economic-inequality-too-big-risk
[3] Chairman Mao's "Four Pests Campaign" is a well know example of unanticipated inter-dependencies leading to systems failure.

Source: RobecoSAM

Conclusion

We have argued that systemic factors are increasingly being recognized and will be part of future sustainable portfolio construction. While the SDGs alone do not cover exposure to all systemic sustainability risks, they are a useful framework with which sustainable portfolio construction can be realized. In this context it is also important to note that the SDGs do not put a hierarchy on the goals, appreciating their complex inter-dependencies.[20]

While the SDGs alone do not cover exposure to all systemic sustainability risks, they are a useful framework with which sustainable portfolio construction can be realized.

This means there is an opportunity for asset managers to take the initiative and align their portfolios with sustainable goals in a manner which is suitable to their clients.

Asset managers (on behalf of their clients) can thus be incentivized to manage their portfolios sustainably in a manner which does not take away from economic or societal interests elsewhere, present or future.

Moreover, company performance assessed holistically in this way safeguards portfolio returns by better synchronizing the short-term assets with the long-term liabilities of universal asset owners.

Questions or comments for the author can be sent to:
Yearbook@robecosam.com

[20] For example, the short-term realization of "Zero Hunger" may be in conflict with longer term goals of biodiversity on land and below water.

Five Years of Pushing for Change: Assessing Corporate Tax Strategies

Though it lacks the magnitude of climate change, the excitement of technological innovation, and the visibility of gender equality, a company's approach to its tax obligations is nevertheless a critical element to consider when evaluating a company's sustainability profile.

Sustainability in business can be defined as the policies and practices which companies implement not only to adapt, grow and thrive in the future but also to avoid diminishing the resources available for present and future generations.[1] Taxes are the means with which communities and countries build the physical, social, and educational infrastructure needed to support present and future growth and development.

Corporations are currently incentivized to minimize their tax burden in order to maximize profits. Yet in the long run, tax-shirking behavior proves to be short-sighted, as it exposes a company to policy and litigation risk, generates reputational risk amongst stakeholders, and promotes distrust. Companies pursuing overly aggressive tax avoidance strategies exacerbate existing inequalities based on company size as well as industry.

We recognized early on that a company's tax strategies could put it at risk in terms of reputation, regulation and ultimately financial performance. Since 2014, we have captured material tax-related data in our CSA. Here, we summarize some of the findings gained over the last five years.

Eleanor Willi
Sustainability Specialist,
ESG Ratings

[1] World Commission on Environment and Development, 1987, General Assembly of the United Nations, http://www.un.org/en/ga/president/65/issues/sustdev.shtml

Taxes are a critical link between companies and their surrounding societies.

Aggressive Tax Optimization is a Sustainability Issue

Five years ago, RobecoSAM became one of the first companies to consider the sustainability of companies' tax strategies by asking firms questions on the subject in our Corporate Sustainability Assessment (CSA). Taxes are a critical link between companies and their surrounding societies: corporations benefit from the physical infrastructure, education systems and public services paid for by taxes.

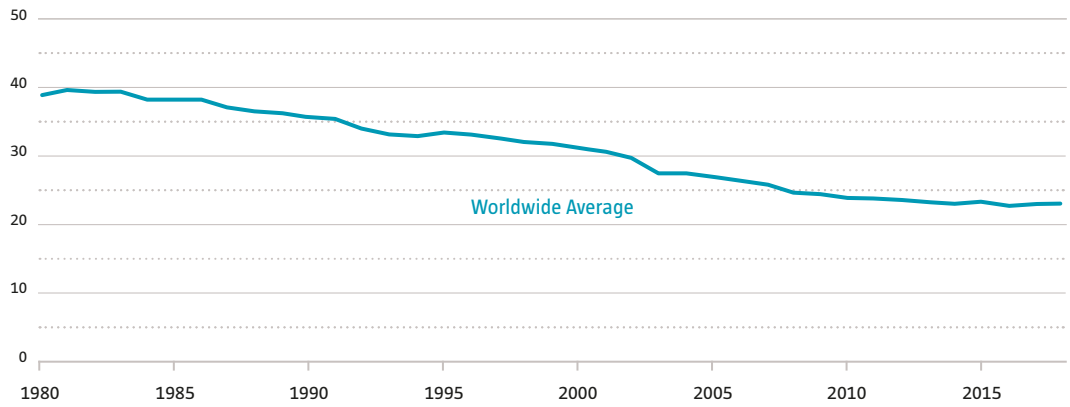
Yet from a narrower, more self-interested perspective, corporations are incentivized to minimize their tax burden in order to maximize their profits. Moreover, increasing competition between tax territories has created opportunities for companies to arbitrage their tax liabilities. This had led to a "race to the bottom" between countries, with global corporate tax rates declining since 1980.[2]

Increasing competition between tax territories has created opportunities for companies to arbitrage their tax liabilities.

These issues have major ramifications. The UN Conference on Trade and Development estimates that developing countries lose around USD 100 billion in annual tax revenues due to multinationals shifting their profits to tax havens.[3] Rich countries also lose out: a 2014 US Senate report[4] showed the US misses out on around USD 150 billion in tax revenues each year to offshore tax schemes. For this reason, governments worldwide are increasingly taking measures against so-called base erosion and profit shifting (BEPS), which enables companies to avoid tax by exploiting gaps and mismatches in tax rules to shift profits to low- or no-tax jurisdictions.

While optimizing tax payments can enhance a company's profitability in the short term, we do not expect that the implicit subsidy companies receive from paying a low tax rate will persist. Further, we believe current rates are artificially low and we anticipate they will revert to the global mean in the medium to long term; governments are increasingly putting policies in place to capture tax within their borders, and international cooperation in equalizing tax has been increasing.

Figure 1: Top Marginal Corporate Tax Rates in Decline Since 1980



The average statutory tax rate has declined in every region since 1980. The majority of countries have corporate tax rates below 25%. Increasing competition between tax territories has created opportunities for companies to arbitrage their tax liabilities.

Source: Tax Foundation (taxfoundation.org), Corporate Tax Rates Around the World, 2018

Developing countries lose around USD 100 billion in annual tax revenues due to multinationals shifting their profits to tax havens.

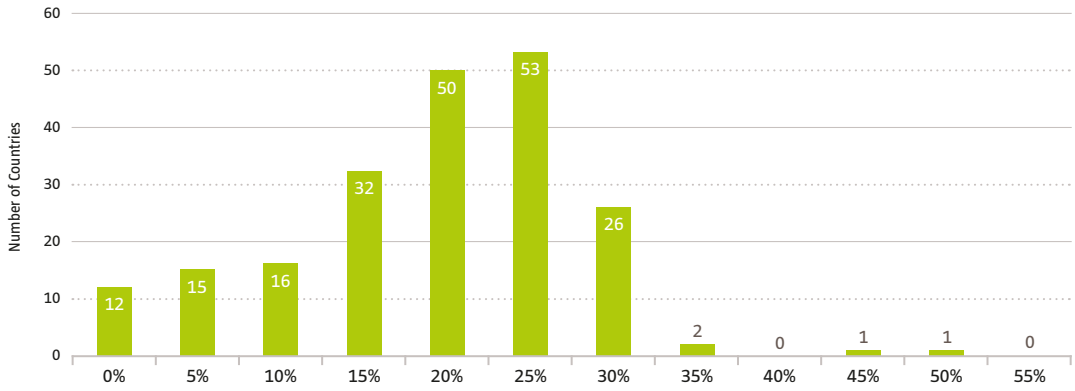
[2] Tax Foundation, Corporate Income Tax Rates around the World, 2017 https://taxfoundation.org/corporate-income-tax-rates-around-the-world-2017/

[3] Estimates range from USD 70-120 billion per annum. Data and estimates derived from S. Nicholas, "How To Crack Down on Tax Havens", Foreign Affairs, March/April 2018.

[4] "Offshore Tax Evasion," United States Senate Majority and Minority Staff Report, Committee on Homeland Security and Governmental Affairs (2014).

We do not expect that the implicit subsidy companies receive from paying a low tax rate will persist.

Figure 2: Distribution of Worldwide Corporate Tax Rates



The distribution of corporate tax rates around the world;75 countries (36%) have corporate tax rates of 15% or lower. Amidst greater international policy coordination, we expect this distribution to narrow, and countries with corporate tax rates at the lower end of the tax spectrum (0-10%) to move towards the median corporate tax rate between 20 and 25%.

Source: Tax Foundation (taxfoundation.org), Distribution of Worldwide Corporate Tax Rates, 2018

Current tax configurations are not sustainable, and therefore policy action is inevitable.

We believe, in the long term, current tax configurations are not sustainable, and therefore policy action is inevitable. Potential policy action includes but is not limited to the following:

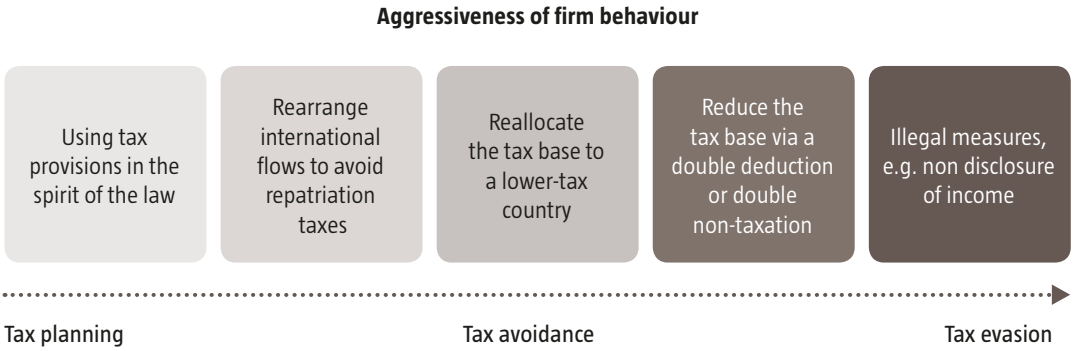
1. **Unfair advantages for large, global companies:** Larger (global) companies are able to benefit disproportionately from tax arbitrage while smaller (local) companies cannot. This unfairly and implicitly subsidizes the larger companies at smaller companies' expense and renders these larger companies vulnerable to future policy changes made to correct the imbalance.
2. **Market distortions differ by industry:** Some industries and sectors benefit disproportionately from the ability to arbitrage tax while others are more effectively taxed at source.
3. **Unequally shared tax burden:** Tax shortfalls lead to increased government indebtedness and/or a higher tax burden elsewhere in the economy. In the longer term, spending on critical public goods such as infrastructure and education is likely to suffer.
4. **Intra-country inequalities:** Long-term financial risks can also develop from arrangements that are later deemed to be eroding the tax base of other countries or providing unfair subsidies. Such arrangements may be deemed illegal, with fines and penalties imposed; or new regulations may be implemented which increase companies' tax obligations. At the same time, regulatory bodies are increasingly enforcing existing rules.

Tax shortfalls lead to increased government indebtedness and/or a higher tax burden elsewhere in the economy.

A recent report by the European Commission provides a useful definition of aggressive tax planning as "taking advantage of the technicalities of a tax system of, or mismatches between, two or more tax systems for the purpose of reducing tax liability."

The continuum of strategic tax activities ranges from those clearly in the spirit of the law (e.g. tax credits, carry forward losses) all the way to illegal activities (e.g. tax evasion).[5] See Figure 3.

Figure 3: Characterizing the Corporate Tax Strategy Spectrum



The motivations behind corporate tax strategy range from responsible tax planning that seeks to understand the purpose of the law to intentional (and illegal) tax evasion.

Source: European Commission, Taxation Working Paper (2017)

Companies pursuing responsible tax strategies are viewed more favorably by sustainability investors who will clearly recognize the risks of overly aggressive tax optimization strategies. Companies that comply with the spirit – not just the letter – of country tax laws will be better positioned for future changes in international tax policies, which we anticipate in the medium to long term. Concerns about rising levels of inequality have sharpened the public's (and thus policymakers') focus on its drivers, and aggressive corporate tax optimization is often seen as a contributing factor.

Aggressive corporate tax optimization is often seen as a contributing factor to rising levels of inequality.

[5] European Commission, Taxation Papers, Working Paper No 71 (2017), "Aggressive tax planning indicators, Final Report"

Taxing Questions: Tax Policy and the Corporate Sustainability Assessment

Why tax matters for sustainability

We introduced our Tax Strategy criterion to the CSA in 2014, as both the financially material aspects and the sustainability implications of tax policy were becoming increasingly clear. We sought to assess companies' transparency with their stakeholders about tax matters, noting that firms with less aggressive tax planning are likely to be more transparent than those making greater use of tax optimization structures.

Merely including a general statement in the financial report that the company intends to comply with all tax laws and regulations in its countries of operation does not suffice as a sustainable tax strategy.

Legal actions taken against and financial repercussions stemming from companies' tax practices demonstrate the importance of evaluating tax issues and underscore the financial materiality of corporate tax strategies from a sustainability perspective.

Additional Assessment Tool: Media and Stakeholder Analysis

SAM's CSA is based on corporate self-disclosure and a company's sustainability performance score is primarily based on the quality of responses and supporting data provided. Moreover, CSA data is supplemented with results from a Media and Stakeholder Analysis (MSA) by which RobecoSAM analysts monitor media and NGO reports highlighting controversies surrounding companies' behavior. MSA cases can both reveal and cause legal and reputational risks. As a result, companies' overall sustainability scores are adjusted on the basis of MSA results. The MSA provides an additional credibility check on the information companies report in the CSA to ensure companies are truly "practicing what they preach."[6] Since the Tax Strategy criterion was introduced in the CSA in 2014, there have been a number of instances where authorities have acted to recover lost tax revenues from firms, imposing large settlements that have affected the companies' future earnings. While the highest-profile cases have involved American technology companies operating in the European Union, there have been cases across a range of industries.

The Results

As part of our tax strategy criterion in the 2018 CSA, we ask companies questions about the following three issues:[7]

- Tax Strategy
- Tax Reporting
- Effective Tax Rate

Tax Strategy

As tax avoidance strategies are drawn up in a legally sound way, merely including a general statement in the financial report that the company intends to comply with all tax laws and regulations in its countries of operation does not suffice as a sustainable tax strategy. Since 2014, our tax strategy question has sought to determine if a company has a tax policy that articulates its approach to one or more of the following sensitive or high-risk tax issues:

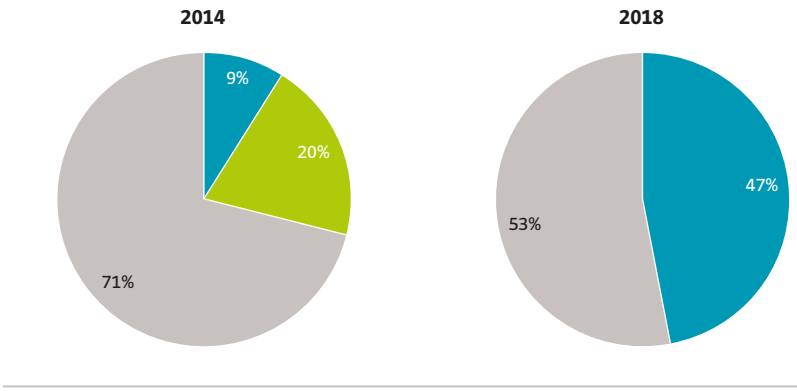
- compliance with the spirit as well as the letter of the tax laws in the countries in which the company operates
- commitment not to transfer value that has been created to low-tax jurisdictions
- commitment not to use structures intended for tax avoidance
- calculating transfer pricing using the "arm's-length" principle
- commitment not to use secrecy jurisdictions or so-called "tax havens" for tax avoidance purposes

Recognizing the emergent nature of the topic, we initially accepted a company's internal tax policies covering the aspects above as well as publicly available information. However, as tax has become a more mainstream ESG topic, and transparent reporting on taxation has become best practice, we now assess tax strategies solely on the basis of publicly available information. Of the 697 companies required to respond to the questions in our tax strategy criterion in 2018, 327 (47%, or nearly half) had a public tax policy specifying a sufficiently sustainable approach to taxation (as defined by these five aspects). As we can see from the chart below, there has been a five-fold increase in the proportion of companies with acceptable tax policies available in the public domain since 2014.

[6] In 2018, amidst broader efforts to shift the CSA's focus from disclosure to performance, we increased the weight/significance of the MSA for a company's Total Sustainability Score overall. The increasing scrutiny of regulators and the ensuing media exposure, highlight the timely relevance/ importance of using the Media and Stakeholder Analysis tool for calculating CSA scores.

[7] While Tax strategy questions initially applied to companies across all industries, we have reduced the scope of the criterion to the 42 industries where tax is most financially material.

Figure 4: Compliance and Disclosure is Increasing Among Corporates

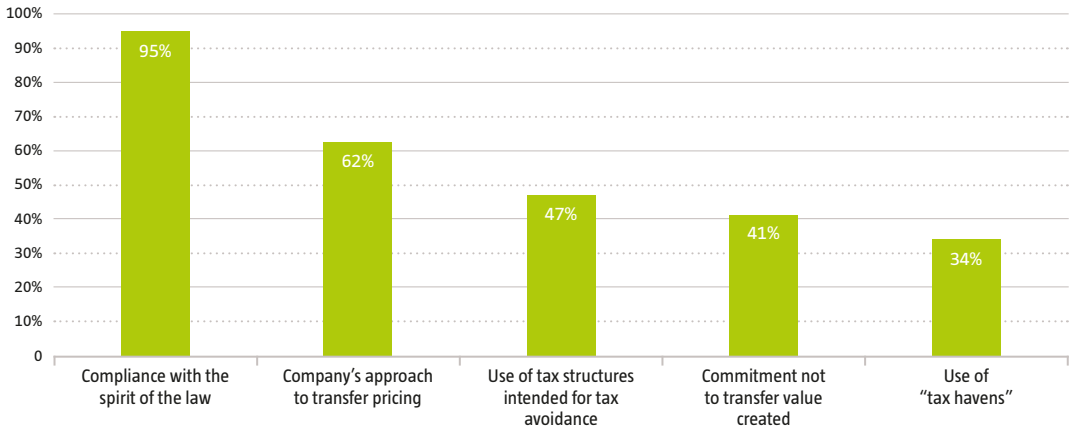


The proportion of companies with public tax policies going beyond legal compliance has seen a five-fold increase since 2014.

Source: RobecoSAM CSA 2018

The chart below shows that of our five criteria, the most frequently included in global companies' tax strategies was compliance with the spirit as well as the letter of the law, followed by a statement about the company's approach to transfer pricing.

Figure 5: Elements Covered by Companies' Publicly Reported Tax Strategies



The overwhelming majority of companies who have a public tax policy are going beyond mere compliance with tax laws and abiding by the intended goals of the tax authorities in the respective jurisdictions; the percentage of those who employ tax haven structures as part of their tax policy is significantly lower.

Source: RobecoSAM CSA 2018

Since 2014, there has been a five-fold increase in the proportion of companies with acceptable tax policies available in the public domain.

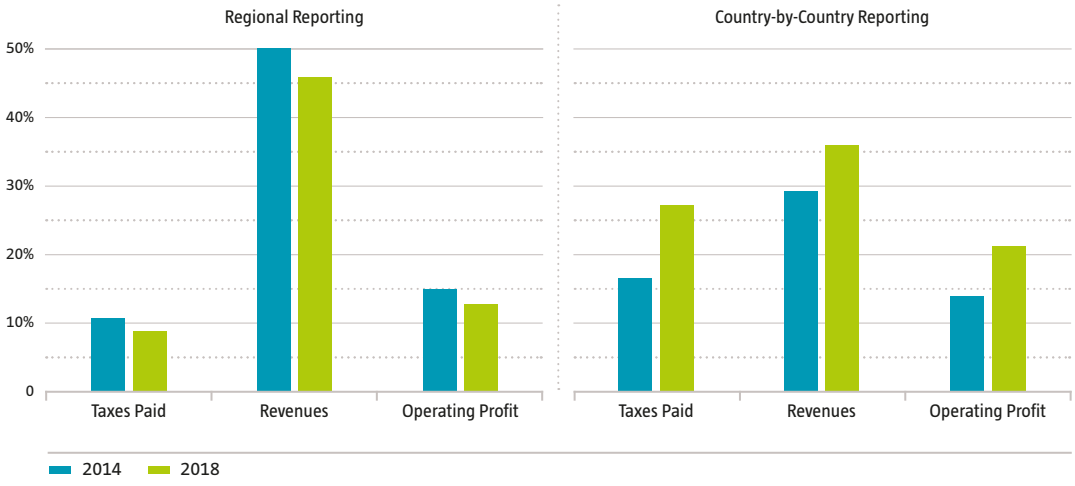
Companies' use of tax havens is by far the least popular aspect to include in a tax policy, covered by only 34% of the firms with public tax policies. This figure plummets to 5% for North American companies, which may be unsurprising when considering that prior to the 2017 US tax reforms, US Fortune 500 corporations alone held around USD 2.6 trillion offshore. While estimates suggest this figure has now fallen by around USD 465 billion[8], the immense sum of money still held offshore is problematic on multiple levels; most egregious is the fact that this is capital which could arguably be put to more productive uses, such as meeting the UN Sustainable Development Goals (SDGs).

Tax Reporting

In recent years, global policymakers have supported guidelines to encourage multinational corporations to break down their financial information on a country-by-country basis instead of reporting aggregate figures at the regional or global level. Country-by-country reporting boosts accountability while exposing firms pursuing overly aggressive tax optimization strategies. The results from the CSA below show that over the last five years, an increasing share of companies report taxes paid on a country-by-country basis, thus scoring higher on the Tax Reporting question within the CSA.

Country-by-country reporting boosts accountability while exposing firms pursuing overly aggressive tax optimization strategies.

Figure 6: An Increasing Number of Companies Are Reporting Taxes Paid on a Country-by-Country Basis



While regional reporting has declined over the past 4 years, country-specific reporting across a number of tax metrics has increased. Country-by-country reporting boosts accountability while exposing firms pursuing overly aggressive tax optimization strategies.

Source: RobecoSAM CSA 2018

Corporate Tax Strategy is a useful indicator to identify companies well-positioned to deal with future policy and regulatory changes which could drive corporate tax rates higher.

[8] "Repatriated profits total $465 billion after Trump tax cuts - leaving $2.5 trillion overseas," Marketwatch, September 19, 2018

Effective Tax Rate

We are moving towards a new era of sustainability in which we look beyond companies' policies and reporting towards their impact on the world around them.[9]

As part of our broader effort to shift the CSA's focus from inputs to outcomes and impact, and as the risks linked to tax optimization have become more tangible, we have replaced a previous question related to responsibilities for taxation governance and risks with a new question regarding a company's Effective Tax Rate.[10]

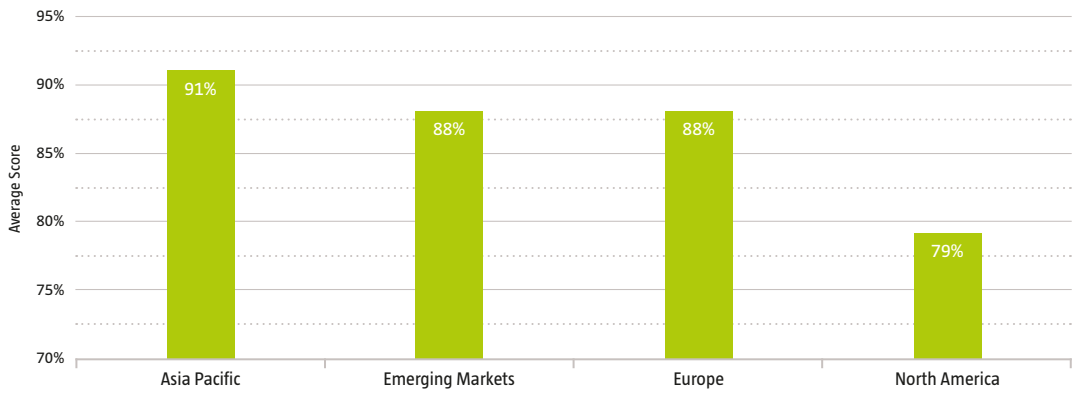
Based on financial data collected by RobecoSAM's Sustainability Investing Research team we established average effective tax rates (taxes due, as provided on a company's income statement) and average cash tax rates (actual taxes paid within the calendar year, as provided on the cash flow statement) across 24 GICS® industry groups and communicated these averages to companies in advance. The question averaged a given company's reported tax rate and cash tax rate over the past two fiscal years and compared the lower of the two averages with industry peers.

We are moving towards a new era of sustainability in which we look beyond companies' policies and reporting towards their impact on the world around them.

Firms with a tax rate below the communicated industry group average were scored based on their deviation below that average. While in some cases discrepancies are legitimate, large deviations from the rates paid in the industry at large can indicate overly aggressive tax optimization. To avoid penalizing companies with reasonable explanations (e.g. treatment of net-operating-losses (NOL)), firms are given the opportunity to explain deviations but are required to provide supporting evidence available in the public domain.

The chart below shows that, taken on average, companies performed well on this new question, in line with our intention to only identify companies which significantly deviated from established industry averages. It was also important that this question was able to detect companies with publicly confirmed tax irregularities. On average, companies that have been the subject of tax-related Media and Stakeholder Analysis (MSA) cases in the past five years scored almost two points lower on the new Effective Tax Rate question than companies with a completely clean tax MSA record.

Figure 7: Effective Tax Rate – Average Score by Region



The data suggests that companies worldwide are not avoiding their tax obligations as indicated by average performance scores on the Effective Tax Rate criterion. Companies in the Asia Pacific scored the best (circa 90%) while companies in North America fared slightly worse (circa 80%).

Source: RobecoSAM Corporate Sustainability Assessment (CSA) 2018

[9] This is reflected in the 2018 CSA: wherever possible, we seek to assess companies on a performance and not policy basis.

[10] General criteria and specific questions within the CSA are continually monitored, and questions revised and replaced when necessary to maintain its relevance and precision in capturing corporate sustainability data.

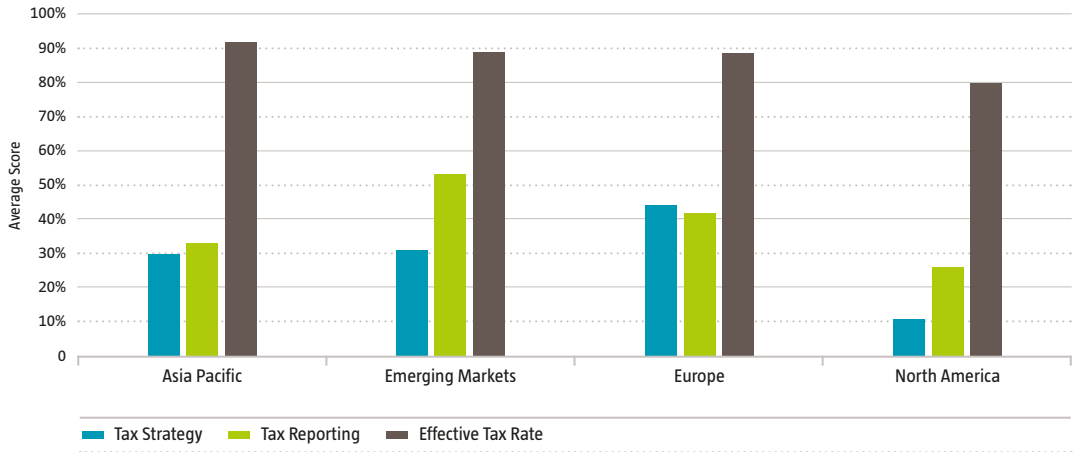
Overall Performance by region

The chart below shows that in the 2018 CSA, European companies led the way with respect to transparent and responsible tax strategies. Emerging markets companies' tax reporting was most likely to be on a country-by-country basis (at least partially due to more of these companies operating in just one country, making country-by-country reporting easy to implement), while firms from Asia-Pacific led the way in terms of their scores for effective tax rate. It is also clear that North American firms perform worst across all three questions.

European companies led the way with respect to transparent and responsible tax strategies.

These transparency and disclosure improvements over the past five years as measured by our Tax Strategy and Tax Reporting questions are encouraging, and likely a combination of proactive recognition of policy risks and the realization that nearly all stakeholders are interested in (and critical of) how corporations approach tax.

Figure 8: Tax Strategy Criterion Overall – Average Score by Region



Regional performance across each separate tax criterion is shown above. North American firms performed worst across all three criteria. European companies led the way with respect to transparent and responsible tax strategies while Emerging Markets scored the highest on Tax Reporting.

Source: RobecoSAM Corporate Sustainability Assessment (CSA) 2018

Looking Ahead

For the reasons stated above, we expect further policy coordination with respect to tax accountability in the medium to long term along the lines of the OECD's Base Erosion and Profit Shifting (BEPS) Initiative and the European Union's Common Consolidated Corporate Tax Base project. While one of many causes, the rise of populism has been at least partially fueled by perceptions of inequality in general and an unfairly shared tax burden in particular,[11] further increasing the likelihood of strong policy action on tax both at national and international levels. This policy action brings both opportunities and risks for investors.

As with other topics, our Corporate Sustainability Assessment's Tax Strategy criterion identifies companies that pursue a corporate strategy that addresses taxes proactively and responsibly. Corporate Tax Strategy is a useful indicator to identify companies well-positioned to deal with future policy and regulatory changes which could drive corporate tax rates higher.

Even in the absence of harsh policy actions, we are encouraged to see that many companies have already begun to make strides, both in terms of transparency and performance, and we are pleased with the CSA's ability to capture and measure it.

Questions or comments for the author can be sent to:
Yearbook@robecosam.com

[11] The Panama and Paradise Papers are simply the most prominent examples of a number of similar cases exposed over the last few years, the consequences of which are still playing out.

4. Sustainability Leaders 2019

In 2018, 2,686 companies were assessed in the SAM Corporate Sustainability Assessment (CSA)*.

Since 1999, SAM has been conducting the annual CSA and has compiled one of the largest and most comprehensive global databases on corporate sustainability.

The 2019 Yearbook is based on the 2018 Corporate Sustainability Assessment. In 2018, major changes were made to the CSA's underlying scoring methodology, which impacted all companies' scores. More specifically, a change in the scoring impact of the Media and Stakeholder Analysis led to a recalibration of the scores, with many companies scoring lower compared to 2017. As a result of this change, the number of medals and Yearbook members has decreased in 2018.

Within each industry, companies with a minimum total score of 60 and whose score is within 1% of the top performing company's score in their industry receive the SAM Gold Class award.

All companies receiving a total score of at least 57 and whose score is within a range of 1% to 5% of the industry's top performing company's score receive the SAM Silver Class distinction.

Companies whose score is at least 54 and is within a range of 5% to 10% of the industry's top performing company's score receive the SAM Bronze Class distinction.

Within the top 15% of each industry, the company that has achieved the largest proportional improvement in its sustainability performance compared to the previous year is named the SAM Industry Mover. In order to ensure comparability, the selection of industry movers reflects the change in score between 2018 and the 2017 scores, which were recalculated with the new scoring methodology used in 2018.

*as of November 30th 2018

Sustainability Yearbook Member

All companies that have been included in the Yearbook, but that have not received a medal distinction, are listed as a Sustainability Yearbook Member. In order to be listed in the Yearbook, companies must be within the top 15% of their industry and must achieve a score within 30% of their industry's top performing company.

Sustainability leaders 2019

SAM Gold Class

Company	Country
Company	Country

SAM Silver Class

Company	Country
Company	Country

SAM Bronze Class

Company *	Country
Company	Country

Sustainability Yearbook Members

Company	Country
Company	Country

* SAM Industry Mover

Out of the 458 companies listed in The Sustainability Yearbook, the following distinctions were awarded:

66 SAM Gold Class
65 SAM Silver Class
105 SAM Bronze Class

Media and Stakeholder Analysis

All scores used for the Yearbook selection reflect the results of SAM's Media & Stakeholder Analysis as of December 3rd, 2018 as well as the most recent decisions regarding company exclusions from the DJSI that have been taken by the Dow Jones Sustainability Indices Committee.

Percentile Ranks

This year, SAM has disclosed the percentile ranks of all assessed on the Yearbook website. The basis for the percentile ranks for each SAM industry was established by the set of scores from September 2018 that we used for the rebalancing of the Dow Jones Sustainability Indices. All companies assessed since September —including companies whose score has been recalculated as a result of our Media and Stakeholder Analysis—receive a percentile rank compared to this base set of scores. The ranks may have shifted since the launch due to score changes for companies who had Media and Stakeholder Analysis (MSA) cases in the MSA quarterly review which took place in November.

Read more about the Yearbook's methodology

SAM is pleased to see that over the years, participation rates in the SAM Corporate Sustainability Assessment have continuously risen – with a record number of companies taking part in this year's assessment – indicating that sustainability is increasingly rising to the top of corporate agendas and becoming more mainstream.

On the following pages, SAM offers insights highlighting opportunities and risks deriving from economic, environmental and social trends and developments that have an impact on the competitive position of companies in each of the 60 industries analyzed. Companies ranking in the top 15% of each industry included in The Sustainability Yearbook, and those within the top 10% are classified into three categories: SAM Gold Class, SAM Silver Class and SAM Bronze Class. As the Sustainability Yearbook aims to distinguish those companies that have each demonstrated their strengths in the area of corporate sustainability, we see greater value in rewarding groups of top performing companies, rather than individual companies. Furthermore, in order to be included in the Yearbook, companies must achieve a score within 30% of their industry's top performing company.

In addition to the companies' sustainability scores derived from the CSA, a qualitative screen based on SAM's Media and Stakeholder Analysis (MSA) is applied to determine eligibility for inclusion in The Sustainability Yearbook. The MSA is based on an examination of media coverage and publicly available stakeholder information provided by RepRisk ESG Business Intelligence and evaluates a company's response to critical sustainability issues that may arise during the year. This process aligns the Yearbook's methodology with any decision by the Dow Jones Sustainability Indices Committee to exclude a company from the DJSI, which is also based on the MSA.

Corporate Actions

SAM monitors corporate actions throughout the year. In line with the treatment of corporate actions for the Dow Jones Sustainability Indices, SAM will review corporate actions on a case-by-case basis and apply a consistent methodology. For merged companies, the surviving entity will be considered for the Yearbook based on the score of the company assessed which SAM deems to be the surviving entity. If a company is delisted as a result of a corporate action prior to the end of October, it will no longer be eligible for inclusion in the Sustainability Yearbook, given that the entity no longer exists.

Company names and countries are reviewed periodically and updated to the best of SAM's knowledge at the time of publication. Changes occurring after this date may not be reflected in the printed version of the Yearbook, but may be updated on the SAM Sustainability Yearbook website.

Reading Instructions

The information below provides an explanation on how to interpret the various sections contained in each of the Industry Profiles on the following pages.

1 Driving forces

Highlights current and future challenges shaping the competitive landscape of each industry and impacting the sources of value creation for companies.

2 Highlighted criteria

Highlights selected industry-specific and general criteria that are applied in the 2018 Corporate Sustainability Assessment, including the weights of the three dimensions within the overall score.

3 Industry statistics

This section displays the research coverage in 2018 for the respective industry. Assessed companies include those that actively participated in the CSA and companies assessed by SAM based on publicly available information.

4 Results at industry level

The box-and-whisker charts show the distribution of scores of all assessed companies within the industry by showing:

- Highest score
- Upper quartile
- Median score
- Lower quartile
- Lowest score

The length of the box represents the scores spread between the second and third quartile (50% of companies).

This is an example

Aerospace & Defense

1

Driving forces

Corruption, bribery and anti-competitive business practices remain primary areas of concern in the aerospace and defense industry. Harsh penalties and criminal litigation against company executives continue to highlight gaps in governance systems, despite firms' efforts to improve their compliance systems. The sensitive nature of this industry and its importance to governments serve to increase scrutiny of companies operating in this space. Managing an effective workforce that balances employee numbers with the right mix of skills, joint R&D efforts and other industry collaborations will be key drivers of efficiency and innovation. In the civil aviation space, demand for next-generation, fuel-efficient aircraft driven by an increase in global air travel has boosted aircraft sales. Operational eco-efficiency will be an important focus of R&D due to increasing customer demand for cleaner, quieter aircraft.

2

Highlighted criteria & Dimension weight

Economic Dimension.....40%
– Codes of Business Conduct
– Supply Chain Management
– Compliance with Applicable Export Control Regimes

Environmental Dimension 27%
– Operational Eco-Efficiency
– Climate Strategy
– Product Stewardship
– Environmental Policy & Management Systems

Social Dimension 33%
– Occupational Health and Safety
– Human Capital Development

3

Sustainability leaders 2019

SAM Gold Class	
Thales SA	France
SAM Silver Class	
Lockheed Martin Corp	United States
Leonardo SpA *	Italy
Rolls-Royce Holdings PLC	United Kingdom
SAM Bronze Class	
Embraer SA	Brazil
BAE Systems PLC	United Kingdom

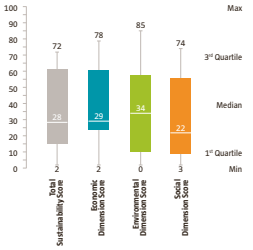
* SAM Industry Mover

Industry statistics

Number of companies in universe	42
Number of companies assessed in 2018	28
Assessed companies to total companies in universe	67%
Market of assessed companies to total market	93%

4

Results at industry level



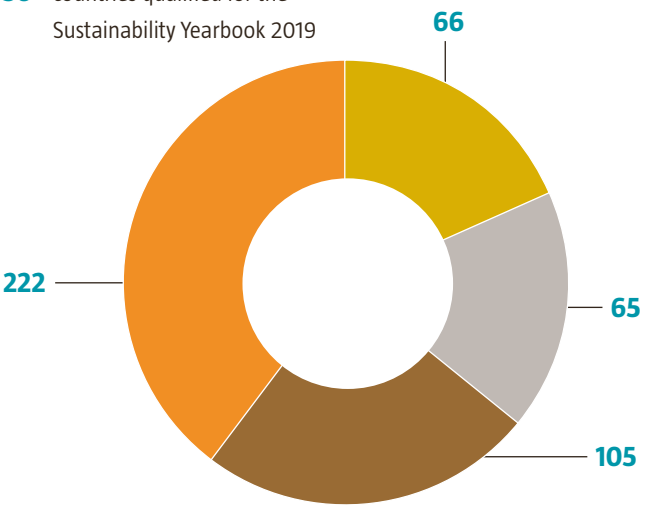
The box-and-whisker plot describes the distribution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Where are the world's most sustainable companies located?

2,686
companies were assessed in the CSA in 2018*
*as of November 30th 2018

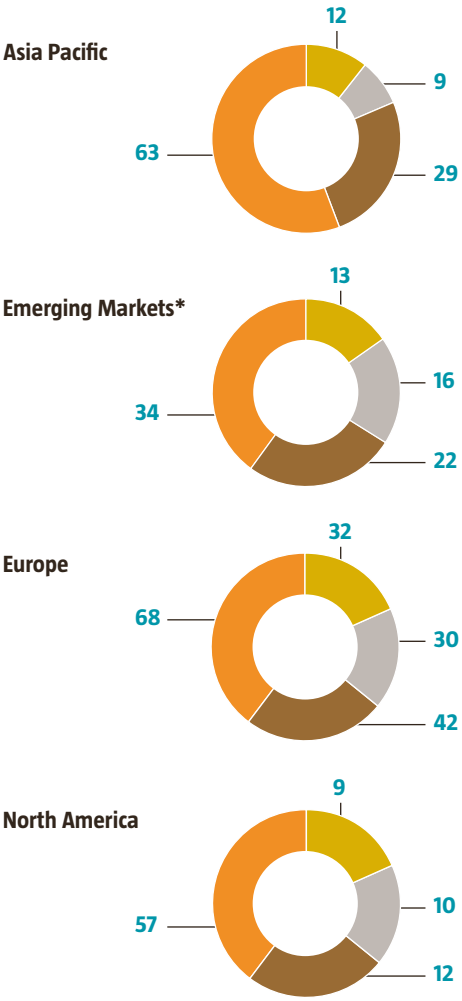
993 companies from
44 different countries actively participated in the CSA in 2018

458 companies from
36 countries qualified for the Sustainability Yearbook 2019



- Gold Class
- Silver Class
- Bronze Class
- Sustainability Yearbook Member

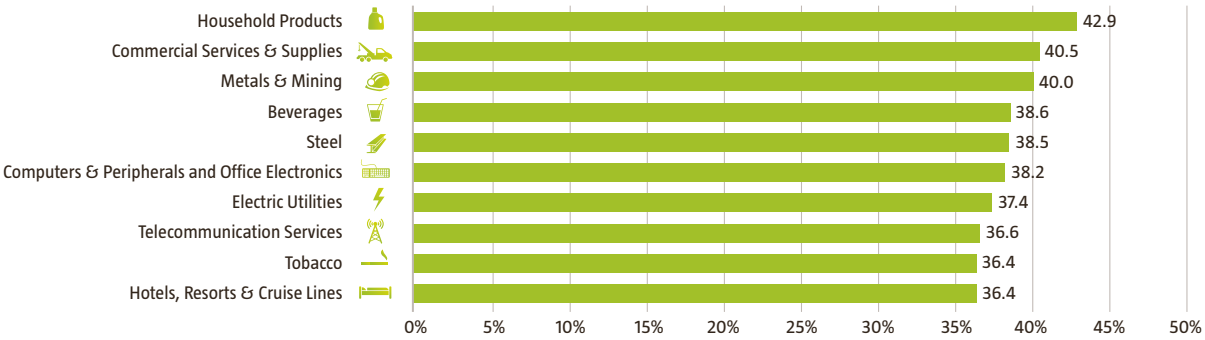
Market capitalization of assessed companies to total market capitalization (%)
Asia Pacific: 95.1%
Emerging Markets*: 82.1%
Europe: 93.5%
North America: 93.3%



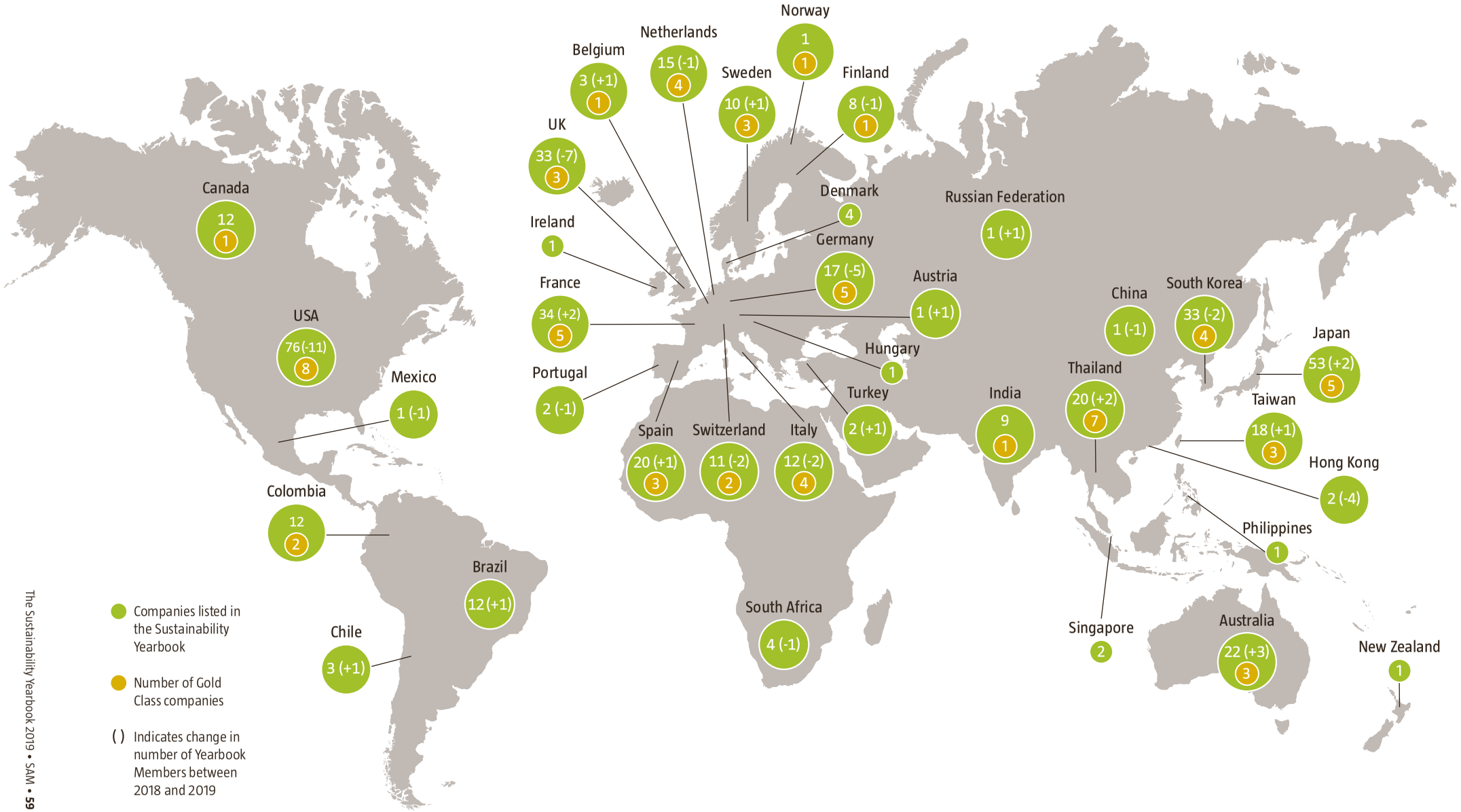
* Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Malaysia, Mexico, Morocco, Peru, Philippines, Poland, Qatar, Russia, South Africa, Taiwan, Thailand, Turkey , United Arab Emirates

TOP 10 INDUSTRIES BY PARTICIPATION RATE

Percentage of invited companies that actively participated in the CSA in 2018



Where are the world's most sustainable companies located?



Industry profiles: 60 industries at a glance

Aerospace & Defense

Driving forces

Corruption, bribery and anti-competitive business practices remain primary areas of concern in the aerospace and defense industry. Harsh penalties and criminal litigation against company executives continue to highlight gaps in governance systems, despite firms' efforts to improve their compliance systems. The sensitive nature of this industry and its importance to governments serve to increase scrutiny of companies operating in this space. Managing an effective workforce that balances employee numbers with the right mix of skills, joint R&D efforts and other industry collaborations will be key drivers of efficiency and innovation. In the civil aviation space, demand for next-generation, fuel-efficient aircraft driven by an increase in global air travel has boosted aircraft sales. Operational eco-efficiency will be an important focus of R&D due to increasing customer demand for cleaner, quieter aircraft.

Highlighted criteria & Dimension weight

Economic Dimension..... 40%
– Codes of Business Conduct
– Supply Chain Management
– Compliance with Applicable Export Control Regimes

Environmental Dimension 27%
– Operational Eco-Efficiency
– Climate Strategy
– Product Stewardship
– Environmental Policy & Management Systems

Social Dimension 33%
– Occupational Health and Safety
– Human Capital Development

Sustainability leaders 2019

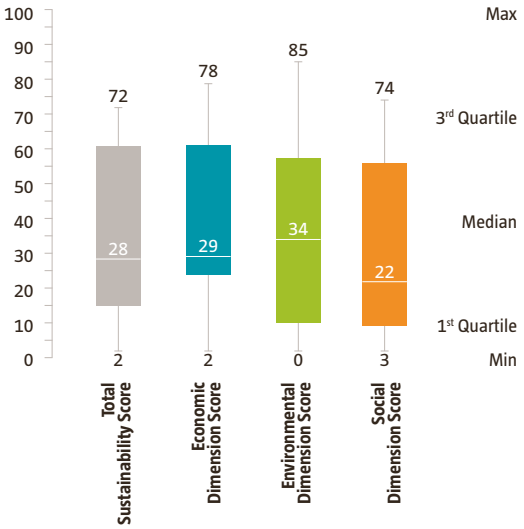
SAM Gold Class	
Thales SA	France
SAM Silver Class	
Lockheed Martin Corp	United States
Leonardo SpA *	Italy
Rolls-Royce Holdings PLC	United Kingdom
SAM Bronze Class	
Embraer SA	Brazil
BAE Systems PLC	United Kingdom

* SAM Industry Mover

Industry statistics

Number of companies in universe	42
Number of companies assessed in 2018	28
Assessed companies to total companies in universe	67%
Market of assessed companies to total market	93%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Airlines

Driving forces

To capitalize on ongoing industry changes, airlines need to remain future-oriented. As the lines between full-service and low-cost airlines continue to move, companies must better understand their customers and be prepared to adapt their service offerings. Digitalization will play an important role in delivering an enhanced customer experience. Passenger safety is a critical issue and demands transparency to prevent reputational risks in the aftermath of operational incidents. Labor practices remain important considering the highly unionized workforce and the latent risk of strikes, which result in revenue reduction and operational disruptions. On the environmental front, operational eco-efficiency drives profitability, and the adoption of newest generation of more efficient aircraft leads to greater differentiation between companies.

Highlighted criteria & Dimension weight

Economic Dimension..... 43%
– Risk & Crisis Management
– Efficiency
– Fleet Management

Environmental Dimension 23%
– Operational Eco-Efficiency
– Climate Strategy
– Environmental Policy & Management Systems

Social Dimension 34%
– Passenger Safety
– Labor Practice Indicators
– Talent Attraction & Retention

Sustainability leaders 2019

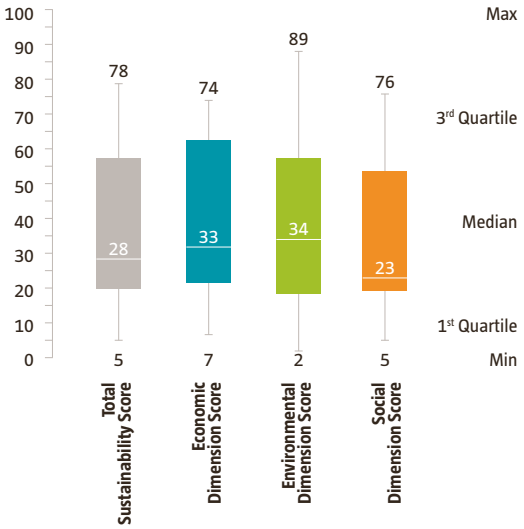
SAM Gold Class	
ANA Holdings Inc	Japan
SAM Bronze Class	
Air France-KLM	France
China Airlines Ltd *	Taiwan
Sustainability Yearbook Members	
Latam Airlines Group SA	Chile

* SAM Industry Mover

Industry statistics

Number of companies in universe	31
Number of companies assessed in 2018	23
Assessed companies to total companies in universe	74%
Market of assessed companies to total market	87%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Aluminum

Driving forces

Primary production continues to have a significant environmental impact as aluminum companies operate in highly competitive conditions subject to periodic overcapacity. Aluminum products can contribute to energy savings in their usage phase, although typically the industry has to operate in a cascade recycling chain due to increasing material impurities. Nevertheless, substantial opportunities exist for sourcing aluminum with a smaller environmental footprint. Managing energy efficiency is critically important given the significant energy costs in aluminum production and the potential for climate regulation to reshape those costs in the future. Responsible management of non-greenhouse-gas air emissions, waste management, and water discharge are also important for maintaining a license to operate with both environmental regulators and local communities. Consequently, climate strategies, forward-looking energy purchasing and control of environmental impacts remain high priorities. As in other heavy manufacturing and resource environments, workforce and contractor safety is critical.

Highlighted criteria & Dimension weight

Economic Dimension..... 34%
– Codes of Business Conduct
– Corporate Governance
– Supply Chain Management

Environmental Dimension 33%
– Operational Eco-Efficiency
– Climate Strategy
– Water Related Risks

Social Dimension 33%
– Occupational Health and Safety
– Social Impacts on Communities
– Talent Attraction & Retention

Sustainability leaders 2019

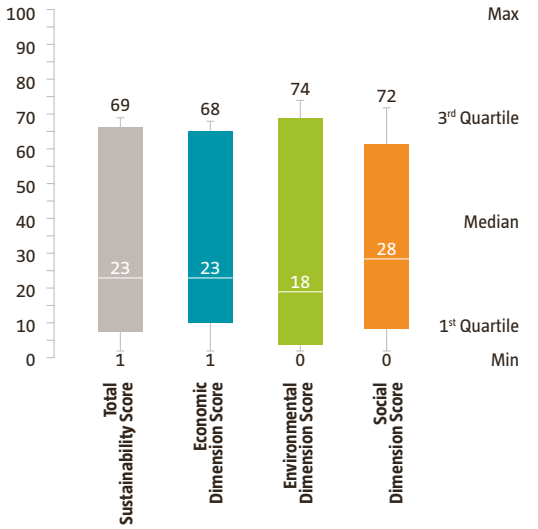
SAM Gold Class	
Norsk Hydro ASA	Norway
SAM Bronze Class	
Alcoa Corp *	United States

* SAM Industry Mover

Industry statistics

Number of companies in universe	6
Number of companies assessed in 2018	6
Assessed companies to total companies in universe	100%
Market of assessed companies to total market	100%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Auto Components

Driving forces

Auto parts suppliers play a critical role in improving fuel efficiency and lowering vehicle-generated emissions, making innovation a key differentiating factor to provide a competitive advantage. The goal of adopting a circular economy approach that emphasizes recycling and the reuse of resources is vital because raw materials make up a significant portion of the cost of goods sold and comprise an important waste stream. As such, there is a need to increase recycling and use product life cycle assessments to select the best, most cost-effective and sustainable raw materials. Together with the growing use of conflict minerals and rare earth elements in electric and hybrid vehicles, this puts immense pressure on manufacturers to identify responsible suppliers, increase transparency, and minimize related risks. Finally, ensuring passenger safety is critical: auto parts suppliers must detect and respond to any potential safety hazards to protect companies from legal actions or lawsuits that undermine profitability.

Highlighted criteria & Dimension weight

Economic Dimension..... 29%
– Innovation Management
– Corporate Governance
– Supply Chain Management

Environmental Dimension 37%
– Climate Strategy
– Operational Eco-Efficiency
– Product Stewardship

Social Dimension 34%
– Occupational Health and Safety
– Human Capital Development
– Talent Attraction & Retention

Sustainability leaders 2019

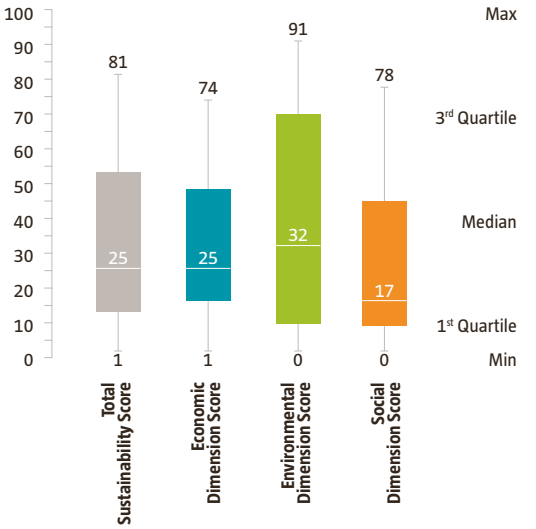
SAM Gold Class	
Pirelli & C SpA	Italy
SAM Silver Class	
Nokian Renkaat OYJ	Finland
SAM Bronze Class	
Valeo SA	France
Hankook Tire Co Ltd *	South Korea
Sustainability Yearbook Members	
Bridgestone Corp	Japan
Hyundai Mobis Co Ltd	South Korea
Cie Plastic Omnium SA	France
NGK Spark Plug Co Ltd	Japan

* SAM Industry Mover

Industry statistics

Number of companies in universe	55
Number of companies assessed in 2018	39
Assessed companies to total companies in universe	71%
Market of assessed companies to total market	88%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Automobiles

Driving forces

The automobile industry is under regulatory pressure, both in terms of performance and design. Fuel efficiency is now one of consumers' main criteria when choosing an automobile. Innovation is the cornerstone to companies' long-term success, whether it be via simple engine enhancements or products like electric- and hybrid-powered vehicles. This will increase supply chain complexity and automobile manufacturers must carefully assess risks (such as dependency on critical suppliers and the use of rare earth elements) and opportunities (e.g. material innovation and recycling) across the entire value chain. Finally, robust corporate governance structures and compliance practices are critical to ensure compliance with environmental standards and avoid future reputational and legal issues.

Highlighted criteria & Dimension weight

Economic Dimension..... 37%
– Corporate Governance
– Innovation Management
– Supply Chain Management

Environmental Dimension 31%
– Operational Eco-Efficiency
– Low Carbon Strategy
– Climate Strategy

Social Dimension 32%
– Human Capital Development
– Occupational Health and Safety
– Talent Attraction & Retention

Sustainability leaders 2019

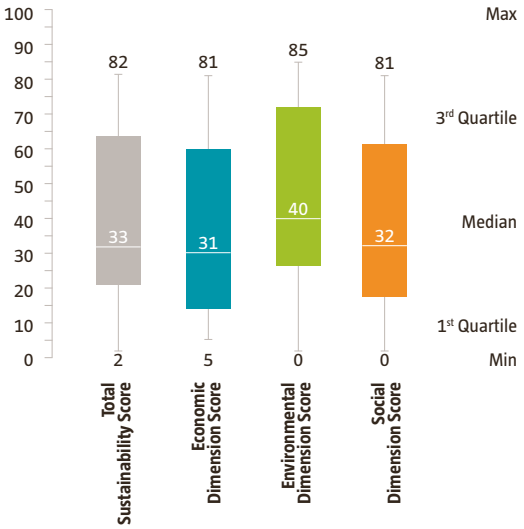
SAM Gold Class	
Peugeot SA	France
SAM Bronze Class	
General Motors Co	United States
Honda Motor Co Ltd	Japan
Bayerische Motoren Werke AG	Germany
Mazda Motor Corp	Japan
Sustainability Yearbook Members	
Mahindra & Mahindra Ltd *	India

* SAM Industry Mover

Industry statistics

Number of companies in universe	40
Number of companies assessed in 2018	32
Assessed companies to total companies in universe	80%
Market of assessed companies to total market	76%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Banks

Driving forces

In response to increased regulatory scrutiny, many banks have transitioned to simplified business models and focused increasingly on the core principles of ethics and customer trust. Much of this strategic change has been initiated at board level, demonstrating the emphasis investors have placed on effective corporate governance. Banking culture remains one of the foremost items on board agendas, and establishing effective incentive schemes is increasingly viewed as a way of aligning investment professionals' attitudes and behaviors with the long-term interests of shareholders and society as a whole. Leading banks are now using well-designed compensation schemes to improve risk culture and business ethics throughout their organizations. By effectively integrating sustainability with ethical principles and increased customer focus, banks can reduce both credit and operational risk, which will further enhance their capacity to generate long-term economic, environmental and social value.

Highlighted criteria & Dimension weight

Economic Dimension..... 46%
– Corporate Governance
– Codes of Business Conduct
– Risk & Crisis Management
– Anti-crime Policy & Measures

Environmental Dimension 21%
– Business Risks and Opportunities
– Climate Strategy

Social Dimension 33%
– Human Capital Development
– Talent Attraction & Retention
– Controversial Issues, Dilemmas in Lending & Financing

Sustainability leaders 2019

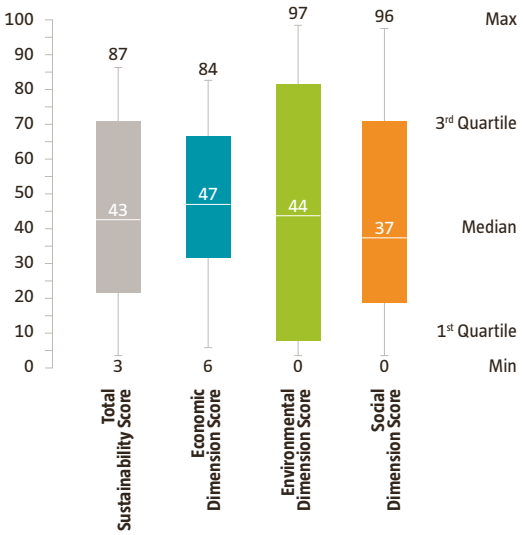
SAM Gold Class			
Bancolombia SA	Colombia		
KB Financial Group Inc	South Korea		
SAM Silver Class			
Banco Santander SA	Spain		
ABN AMRO Group NV	Netherlands		
First Financial Holding Co Ltd	Taiwan		
Siam Commercial Bank PCL	Thailand		
Banco Bradesco SA	Brazil		
Itausa - Investimentos Itau SA	Brazil		
Toronto-Dominion Bank	Canada		
E.Sun Financial Holding Co Ltd	Taiwan		
Australia & New Zealand Banking Group Ltd	Australia		
SAM Bronze Class			
Bankinter SA	Spain	Intesa Sanpaolo SpA	Italy
Itau Unibanco Holding SA	Brazil	Bank of America Corp	United States
Kasikornbank PCL	Thailand	Swedbank AB	Sweden
Westpac Banking Corp	Australia	Skandinaviska Enskilda Banken AB	Sweden
Royal Bank of Scotland Group PLC	UK	Bank of Nova Scotia *	Canada
Banco Bilbao Vizcaya Argentaria SA	Spain	Shinhan Financial Group Co Ltd	South Korea
Taishin Financial Holding Co Ltd	Taiwan	CaixaBank SA	Spain
Sustainability Yearbook Members			
ING Groep NV	Netherlands	Banco Davivienda SA	Colombia
BNP Paribas SA	France	Societe Generale SA	France
Banco do Brasil SA	Brazil	Royal Bank of Canada	Canada
Citigroup Inc	United States	Nedbank Group Ltd	South Africa
Bankia SA	Spain	Barclays PLC	United Kingdom
National Australia Bank Ltd	Australia	Bank of Montreal	Canada
Svenska Handelsbanken AB	Sweden	Turkiye Garanti Bankasi AS	Turkey

* SAM Industry Mover

Industry statistics

Number of companies in universe	260
Number of companies assessed in 2018	176
Assessed companies to total companies in universe	68%
Market of assessed companies to total market	85%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Beverages

Driving forces

In the global beverage industry, the focus on health and nutrition continues to drive changes in the market and company strategies. The demand for carbonated soft drinks (CSD) has been in decline, particularly in developed markets, with preferences shifting towards healthier alternatives and lower-calorie substitutes. In light of these changes, companies must innovate to re-formulate products which promote well-being by increasing nutritional content while lowering the amounts of artificial additives. Given the large proportion of calories consumed through CSDs, sugar and other ingredients, as well as advertising strategies, have come under increased scrutiny and face new regulations and taxes. Producers of alcoholic beverages have long faced legal barriers in developed markets, but must also maintain effective and responsible marketing strategies in emerging markets with fewer regulations. Water quality is an ongoing concern for producers and local governments, making the management of water-related risks key to ensuring a sustainable, long-term production base.

Highlighted criteria & Dimension weight

Economic Dimension 48%
– Supply Chain Management
– Corporate Governance
– Strategy for Emerging Markets
– Health & Nutrition

Environmental Dimension 26%
– Operational Eco-Efficiency
– Water Related Risks
– Raw Material Sourcing

Social Dimension 26%
– Talent Attraction & Retention
– Human Capital Development

Sustainability leaders 2019

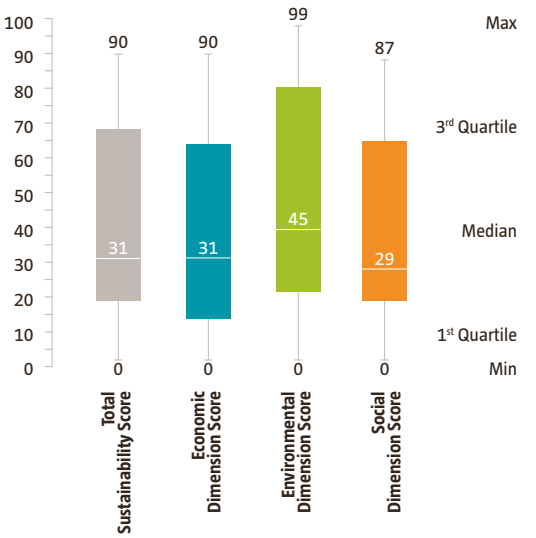
SAM Gold Class	
Thai Beverage PCL	Thailand
SAM Silver Class	
Coca-Cola European Partners PLC	Spain
Coca-Cola HBC AG	Switzerland
Diageo PLC	United Kingdom
Sustainability Yearbook Members	
Asahi Group Holdings Ltd	Japan
Molson Coors Brewing Co *	United States

* SAM Industry Mover

Industry statistics

Number of companies in universe	44
Number of companies assessed in 2018	41
Assessed companies to total companies in universe	93%
Market of assessed companies to total market	98%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Biotechnology

Driving forces

Biotechnology companies are facing scrutiny related to the pricing and reimbursement of their products as governments seek to slow the rise in healthcare costs and as public criticism of drug pricing practices remains vocal. Companies must demonstrate the value of their products and ensure that their corresponding pricing is economically and medically justified and sustainable for those paying for them. The biotechnology industry relies heavily on human capital for innovation and the continuous development of novel medicines. The industry is characterized by extensive R&D and a high risk of failure in product development, which makes attracting and retaining the most talented researchers and scientists essential and makes intellectual property management critical. Finally, business ethics, competitive practices and product quality and safety remain important aspects. Violations have the potential to cause significant reputational and financial damage, the impact of which has grown due to the increased speed of information flow resulting from social media and tighter regulatory oversight.

Highlighted criteria & Dimension weight

Economic Dimension..... 49%
– Innovation Management
– Codes of Business Conduct
– Product Quality and Recall Management

Environmental Dimension 9%
– Operational Eco-Efficiency
– Climate Strategy

Social Dimension 42%
– Talent Attraction & Retention
– Addressing Cost Burden
– Health Outcome Contribution
– Strategy to Improve Access to Drugs or Products

Sustainability leaders 2019

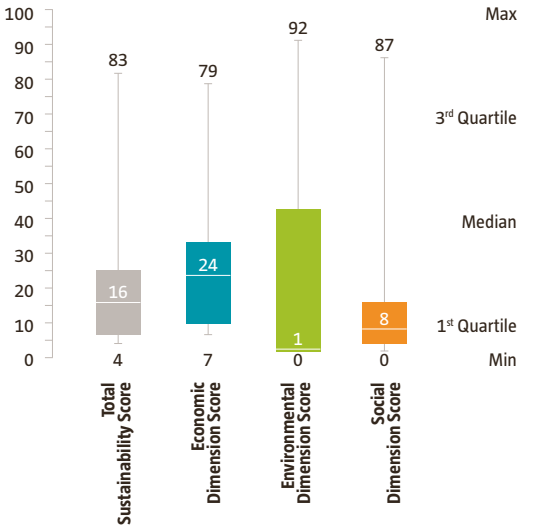
SAM Gold Class	
Biogen Inc *	United States
SAM Silver Class	
AbbVie Inc	United States

* SAM Industry Mover

Industry statistics

Number of companies in universe	49
Number of companies assessed in 2018	30
Assessed companies to total companies in universe	61%
Market of assessed companies to total market	90%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Building Products

Driving forces

The manufacturing of building products requires significant energy outlays, and minimizing these outlay s is a high priority alongside climate strategy, operational eco-efficiency and occupational health and safety. Over their lifetime, buildings are responsible for about 40% of global energy consumption, 25% of global water consumption and 33% of greenhouse gas emissions, as reported by the UN Environmental Program. Companies that integrate lifecycle environmental impacts in product design and manufacturing are better positioned to benefit from the demand for more eco-friendly, energy-efficient buildings and greener construction products. Other focus areas include responsibly sourcing raw materials like wood and metal, greater use of recycled materials in production, reducing the use of hazardous substances such as volatile organic compounds, and a greater emphasis on end-of-life management. Taking an integrated approach also reduces risks of potential product liabilities.

Highlighted criteria & Dimension weight

Economic Dimension..... 34%
– Codes of Business Conduct
– Supply Chain Management
– Risk & Crisis Management

Environmental Dimension 35%
– Operational Eco-Efficiency
– Product Stewardship
– Climate Strategy

Social Dimension 31%
– Human Capital Development
– Occupational Health and Safety
– Talent Attraction & Retention

Sustainability leaders 2019

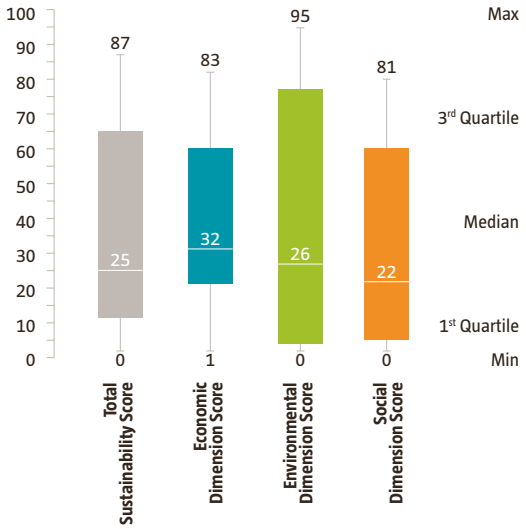
SAM Gold Class	
Owens Corning	United States
SAM Bronze Class	
TOTO Ltd *	Japan
Sustainability Yearbook Members	
Cie de Saint-Gobain	France
LIXIL Group Corp	Japan

* SAM Industry Mover

Industry statistics

Number of companies in universe	27
Number of companies assessed in 2018	22
Assessed companies to total companies in universe	81%
Market of assessed companies to total market	92%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Casinos & Gaming

Driving forces

The casinos and gaming industry remains under intense public and regulatory scrutiny. Companies must address concerns such as money laundering through robust compliance systems and sound governance. Social issues such as gambling addiction and its societal repercussions are managed inconsistently, often limited to regional legislation or voluntary standards. The rapid growth of online gaming poses significant opportunities for operators, but also threats. The proliferation of online platforms has highlighted the need for effective monitoring, but companies in this space are increasingly going beyond the minimum legal requirements and taking a proactive stance in addressing these issues. On the environmental side, companies are increasing their efforts to curb energy consumption while reducing operating costs.

Highlighted criteria & Dimension weight

Economic Dimension..... 46%
– Anti-crime Policy & Measures
– Corporate Governance
– Brand Management
– Codes of Business Conduct

Environmental Dimension 17%
– Operational Eco-Efficiency
– Environmental Policy & Management Systems

Social Dimension 37%
– Human Capital Development
– Stakeholder Engagement
– Talent Attraction & Retention

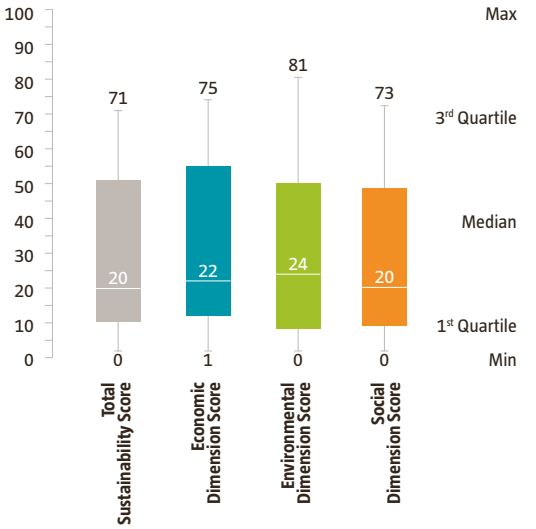
Sustainability leaders 2019

SAM Gold Class	
Star Entertainment Grp Ltd	Australia
SAM Bronze Class	
Tabcorp Holdings Ltd	Australia
GVC Holdings PLC	United Kingdom
Sustainability Yearbook Members	
SKYCITY Entertainment Group Ltd	New Zealand

Industry statistics

Number of companies in universe	27
Number of companies assessed in 2018	24
Assessed companies to total companies in universe	89%
Market of assessed companies to total market	95%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Chemicals

Driving forces

The chemical industry includes companies that manufacture commodity chemicals, industrial gases, agricultural chemicals, and specialty chemicals. Because chemicals serve as inputs for all kinds of end uses, ranging from petroleum refining, food, automobile, textile to electronics, this industry is crucial for all sectors. Today, chemical companies contribute to sustainable development by supplying products with higher levels of performance, efficiency, and safety with lower environmental impact and risk. This requires that companies concentrate on multiple important issues such as innovation, product stewardship, operational eco-efficiency, health and safety, human capital development, and customer relationship management. Chemical companies must conduct product risk assessments to understand their hazardous properties and potential exposure to human and environmental impacts to mitigate and manage product risk. Companies can apply technological innovations not just product development, but also to operations in their pursuit of enhanced productivity and safety.

Highlighted criteria & Dimension weight

Economic Dimension..... 35%
– Codes of Business Conduct
– Innovation Management
– Customer Relationship Management

Environmental Dimension 33%
– Operational Eco-Efficiency
– Climate Strategy
– Product Stewardship
– Water Related Risks

Social Dimension 32%
– Occupational Health and Safety
– Human Capital Development

Sustainability leaders 2019

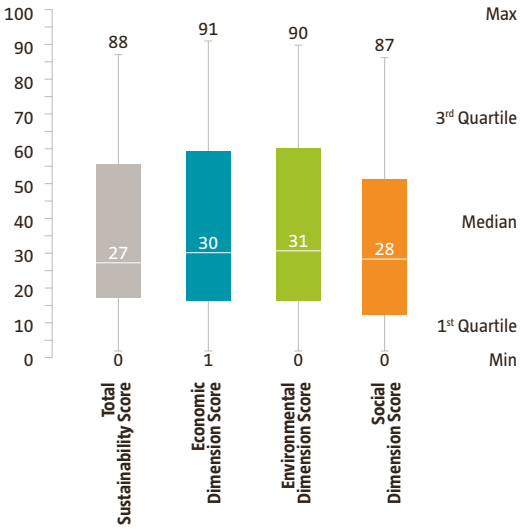
SAM Gold Class	
Koninklijke DSM NV	Netherlands
SAM Silver Class	
Linde PLC	United States
SAM Bronze Class	
LANXESS AG	Germany
Akzo Nobel NV	Netherlands
PTT Global Chemical PCL	Thailand
Clariant AG	Switzerland
Sustainability Yearbook Members	
Indorama Ventures PCL	Thailand
Mitsubishi Chemical Holdings Corp	Japan
Evonik Industries AG	Germany
Solvay SA	Belgium
Braskem SA	Brazil
DowDuPont Inc	United States
DIC Corp	Japan
Ecolab Inc	United States
LG Chem Ltd	South Korea
International Flavors & Fragrances Inc *	United States
Air Products & Chemicals Inc	United States
Incitec Pivot Ltd	Australia
Novozymes A/S	Denmark

* SAM Industry Mover

Industry statistics

Number of companies in universe	128
Number of companies assessed in 2018	106
Assessed companies to total companies in universe	83%
Market of assessed companies to total market	96%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Coal & Consumable Fuels

Driving forces

Coal producers are at the center of the debate about energy access and climate change. As power-generating utilities come under pressure to cut their carbon emissions, the increased use of natural gas and renewables is reducing demand for thermal coal. For uranium producers, higher demand for low-carbon energy is tempered by safety concerns about nuclear power generation. Operationally, both coal and uranium producers face ongoing challenges to minimize their environmental impacts, including the release of pollutants and their effects on biodiversity and water quality. Moreover, incidents involving mineral waste or wastewater can quickly become contentious issues for community relations. Where new mining projects are being considered, clear understanding and management of environmental impacts, land rights issues and community engagement are required. Responsible management of human capital is also a key operational issue, exemplified by occupational health and safety trends and labor practices.

Highlighted criteria & Dimension weight

Economic Dimension..... 33%
– Codes of Business Conduct
– Corporate Governance

Environmental Dimension 32%
– Climate Strategy
– Operational Eco-Efficiency
– Water Related Risks
– Biodiversity
– Mineral Waste Management

Social Dimension 35%
– Occupational Health and Safety
– Social Impacts on Communities

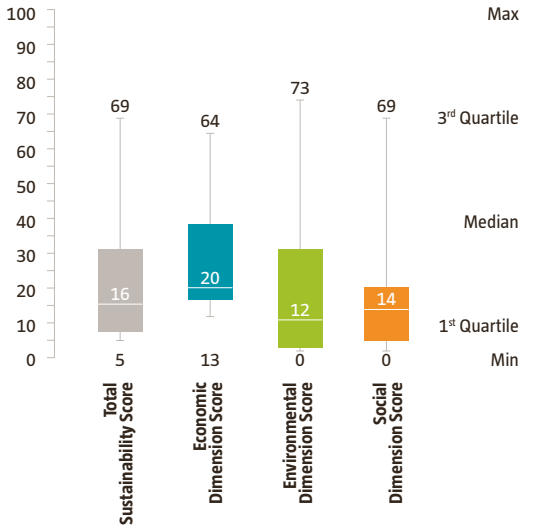
Sustainability leaders 2019

SAM Gold Class	
Banpu PCL	Thailand

Industry statistics

Number of companies in universe	12
Number of companies assessed in 2018	11
Assessed companies to total companies in universe	92%
Market of assessed companies to total market	97%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Commercial Services & Supplies

Driving forces

Commercial service suppliers include those companies involved in the provision of products and services needed by enterprises that are not part of their core business activities. Given the industry's sweeping scope, it encompasses both manually-intensive and knowledge-intensive skillsets but consistently relies heavily on human capital. Fair labor practices combined with employee development programs, knowledge management and adequate incentive schemes are important for creating successful, safe and healthy working environments; enhancing productivity; attracting new talent; and retaining employees. On the demand side, customer relationship management plays a crucial role as long-lasting client-provider relationships are beneficial to both parties. Corporate governance and management quality help industry leaders maintain diversified business models that leverage internal synergies and employ cutting-edge technologies. As B2B service partners, they are ideally placed to spearhead sustainability innovations and promote them among their client base.

Highlighted criteria & Dimension weight

Economic Dimension..... 37%
– Codes of Business Conduct
– Corporate Governance
– Customer Relationship Management

Environmental Dimension 26%
–Operational Eco-Efficiency
– Environmental Policy & Management Systems
– Climate Strategy

Social Dimension 37%
– Occupational Health and Safety
– Human Capital Development
– Talent Attraction & Retention

Sustainability leaders 2019

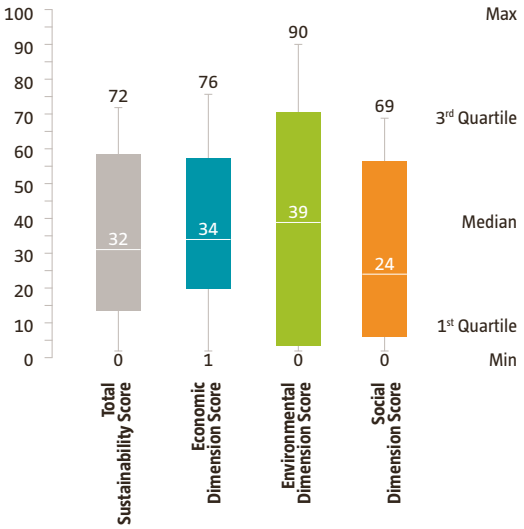
SAM Gold Class	
Waste Management Inc *	United States
SAM Silver Class	
Brambles Ltd	Australia
SAM Bronze Class	
Toppan Printing Co Ltd	Japan
Republic Services Inc	United States
Sustainability Yearbook Members	
ISS A/S	Denmark

* SAM Industry Mover

Industry statistics

Number of companies in universe	37
Number of companies assessed in 2018	25
Assessed companies to total companies in universe	68%
Market of assessed companies to total market	85%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Communications Equipment

Driving forces

Responding to the demands of an increasingly interconnected world, the Communications Equipment industry delivers infrastructure solutions to meet growing data volume demands and improve network coverage and access while lowering the costs of network operation. With wireless/mobile data traffic growing twice as fast as fixed internet, deployment of 4G/5G networks will accelerate the digital transformation across many industries, leading to new applications using the Internet of Things, automation, big data and Artificial Intelligence. Products must be designed for low energy consumption and responsibly-sourced 3TG minerals, and systems are shifting from predominantly hardware-only to software-defined networking and cloud-enabled solutions. Increased connectivity brings many benefits, but with the transmission of sensitive data via networks, security concerns are paramount. Communications Equipment manufacturers are therefore tasked with preventing successful cyberattacks by adopting a consistent approach to security across their infrastructure offering.

Highlighted criteria & Dimension weight

Economic Dimension..... 44%
– Privacy Protection
– Supply Chain Management
– Customer Relationship Management
– Innovation Management

Environmental Dimension 31%
– Operational Eco-Efficiency
– Product Stewardship
– Environmental Policy & Management Systems

Social Dimension 25%
– Human Capital Development
– Talent Attraction & Retention

Sustainability leaders 2019

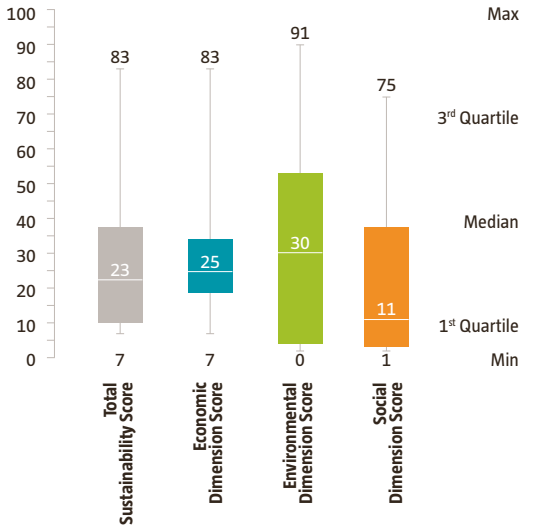
SAM Gold Class	●
Cisco Systems Inc *	United States
Sustainability Yearbook Members	●
Nokia OYJ	Finland

* SAM Industry Mover

Industry statistics

Number of companies in universe	14
Number of companies assessed in 2018	11
Assessed companies to total companies in universe	79%
Market of assessed companies to total market	97%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Computers & Peripherals and Office Electronics

Driving forces

In the computers & peripherals and office electronics industry, products and systems increasingly need to be developed according to security and privacy-by-design principles. Effective innovation management also requires recruiting people with the right mix of skills. Particularly relevant topics include the successful implementation of environmental standards and monitoring suppliers' compliance in areas including the use of hazardous materials and fair working conditions in emerging economies. Shorter product lifecycles and the global ubiquity of electronic devices have resulted in increased overall energy consumption by IT hardware and high equipment disposal volumes. To address energy efficiency, companies must consider energy consumption over the entire product lifecycle when designing new products. Electronic waste can be reduced through weight reduction, modular design, the use of recycled materials and take-back programs. Meanwhile, the adoption of cloud-based solutions is creating new business opportunities that enable customers to achieve operational efficiency gains, contributing both to cost savings and environmental footprint reduction.

Highlighted criteria & Dimension weight

Economic Dimension..... 45%
– Privacy Protection
– Corporate Governance
– Codes of Business Conduct
– Supply Chain Management
– Innovation Management

Environmental Dimension 30%
– Operational Eco-Efficiency
– Product Stewardship

Social Dimension 25%
– Human Capital Development
– Talent Attraction & Retention

Sustainability leaders 2019

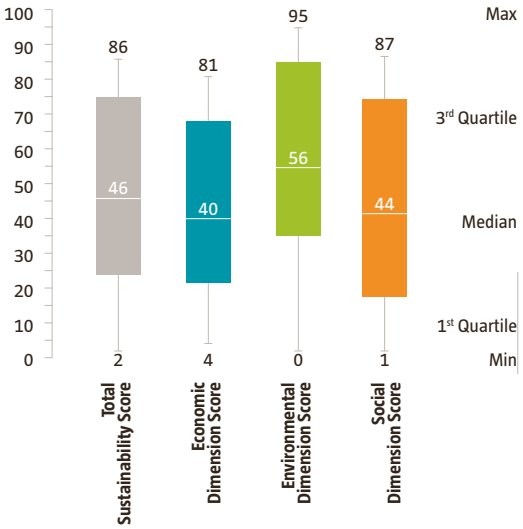
SAM Gold Class	
Konica Minolta Inc	Japan
SAM Silver Class	
Hewlett Packard Enterprise Co	United States
HP Inc	United States
SAM Bronze Class	
Ricoh Co Ltd *	Japan
Samsung Electronics Co Ltd	South Korea

* SAM Industry Mover

Industry statistics

Number of companies in universe	35
Number of companies assessed in 2018	28
Assessed companies to total companies in universe	80%
Market of assessed companies to total market	98%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Construction & Engineering

Driving forces

The construction and engineering industry consumes resources on a massive scale to create infrastructure and the "built environment," a term used to describe the man-made structures supporting human life and activities. The choice of building materials (e.g. certified wood, recycled concrete or organic compounds), consideration of lifecycle impacts, and offering energy-efficient buildings provide a competitive advantage through access to green building projects. Along with resource efficiency, other important challenges for the industry include climate strategy, occupational health and safety, subcontractor management and talent attraction and retention. With increasing infrastructure spending in emerging markets, a company's ability to establish itself as a preferred contractor depends on its ability to avoid reputational risks associated with antitrust and bribery cases. This makes the establishment and implementation of a rigorous code of conduct a key success factor.

Highlighted criteria & Dimension weight

Economic Dimension..... 35%
– Codes of Business Conduct
– Corporate Governance
– Supply Chain Management

Environmental Dimension 31%
– Operational Eco-Efficiency
– Building Materials
– Resource Conservation and Resource Efficiency

Social Dimension 34%
– Occupational Health and Safety
– Talent Attraction & Retention
– Labor Practice Indicators

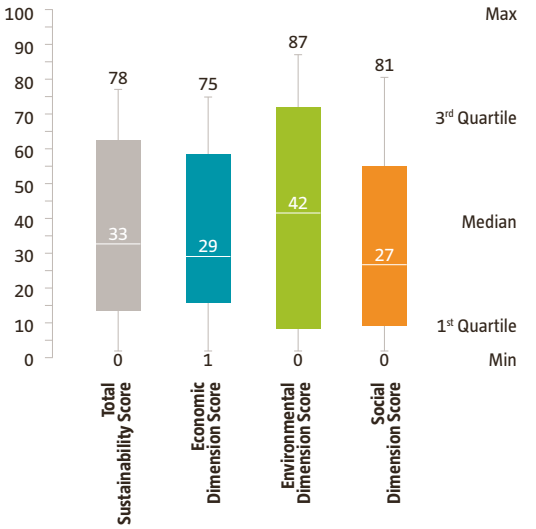
Sustainability leaders 2019

SAM Gold Class	
Hyundai Engineering & Construction Co Ltd	South Korea
SAM Silver Class	
Ferrovial SA	Spain
SAM Bronze Class	
HOCHTIEF AG	Germany
CTCI Corp	Taiwan
Samsung Engineering Co Ltd	South Korea
GS Engineering & Construction Corp	South Korea
Vinci SA	France

Industry statistics

Number of companies in universe	47
Number of companies assessed in 2018	37
Assessed companies to total companies in universe	79%
Market of assessed companies to total market	89%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Construction Materials

Driving forces

The construction materials industry includes companies that produce cement, aggregates, concrete, and related materials. As cement manufacturing accounts for about 5% of global man-made greenhouse gas emissions, a sound climate strategy to reduce greenhouse gas (GHG) emissions remains a top priority for companies. One of the most powerful ways to reduce GHG emissions in cement manufacturing is to convert waste materials into fossil fuel alternatives and other raw materials needed in industrial production. This not only solves a waste problem, but also reduces companies' environmental impact. In addition to waste reduction, other important environmental issues include improving water usage and reducing harmful air emissions. For companies with extraction sites, protecting biodiversity and effective water management are key to maintaining both the social and legal licenses to operate. Both in product manufacturing and transportation, occupational health and safety are still a challenge for the industry. Companies that can deliver products that meet green building specifications and transform their business models to offer affordable housing and other sustainable construction solutions will have a competitive advantage.

Highlighted criteria & Dimension weight

Economic Dimension..... 33%
– Codes of Business Conduct
– Risk & Crisis Management
– Customer Relationship Management

Environmental Dimension 33%
– Operational Eco-Efficiency
– Climate Strategy
– Water Related Risks

Social Dimension 34%
– Occupational Health and Safety
– Human Rights
– Talent Attraction & Retention

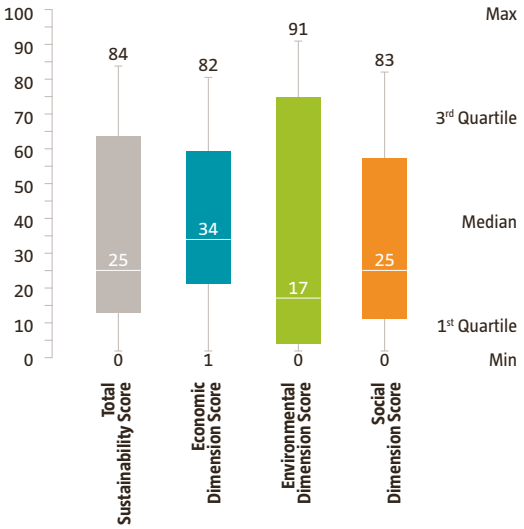
Sustainability leaders 2019

SAM Gold Class	
Grupo Argos SA/Colombia	Colombia
SAM Silver Class	
Siam Cement PCL	Thailand
Cementos Argos SA	Colombia
CRH PLC	Ireland
SAM Bronze Class	
Ambuja Cements Ltd	India

Industry statistics

Number of companies in universe	38
Number of companies assessed in 2018	34
Assessed companies to total companies in universe	89%
Market of assessed companies to total market	95%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Containers & Packaging

Driving forces

Containers and packaging companies are critical to the global economy and supply virtually every sector with tools to effectively protect, transport, market, and preserve their products for sale and use. Sustainable packaging continues to be a major industry trend driving innovation and differentiation. These markets in which these companies operate remain highly competitive, with substantial downward pressure on both prices and operating margins. Increasingly, companies need to innovate and deliver customized solutions to their customers, working collaboratively across the value chain to offer differentiated products. Critical priorities include operational eco-efficiency, climate strategy, occupational health and safety, and engagement with local stakeholders. Demand for more sustainable packaging drives product development and the sourcing of more recycled, certified, and renewable raw materials.

Highlighted criteria & Dimension weight

Economic Dimension..... 34%
– Corporate Governance
– Customer Relationship Management
– Supply Chain Management

Environmental Dimension 33%
– Operational Eco-Efficiency
– Climate Strategy
– Product Stewardship

Social Dimension 33%
– Occupational Health and Safety
– Human Rights
– Talent Attraction & Retention

Sustainability leaders 2019

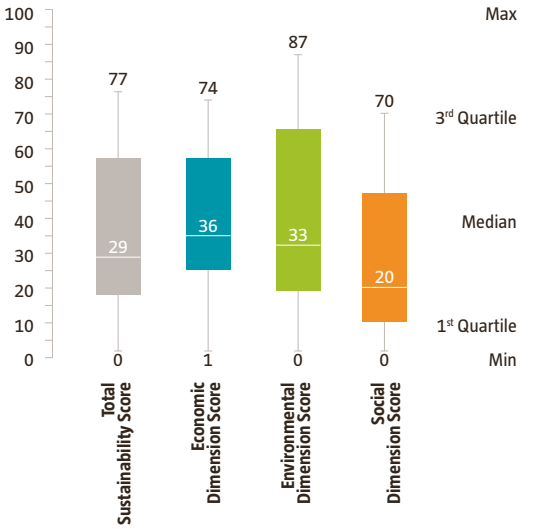
SAM Gold Class	
BillerudKorsnas AB *	Sweden
SAM Silver Class	
Ball Corp	United States
Sustainability Yearbook Members	
Klabin SA	Brazil
Amcor Ltd/Australia	Australia

* SAM Industry Mover

Industry statistics

Number of companies in universe	27
Number of companies assessed in 2018	22
Assessed companies to total companies in universe	81%
Market of assessed companies to total market	88%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Diversified Consumer Services

Driving forces

The diversified consumer services industry comprises service providers with a range of business models from education to human resources. Companies operating in this space have direct customer relationships and therefore must develop strategies to retain and increase their customer base in existing and new markets. Technological innovations are transforming the industry at a rapid pace and offer both risks and opportunities. Companies can differentiate themselves by effectively integrating online tools and platforms that enhance the overall experience for target groups. One consequence of such a strategy is that data security has become a key risk for companies in this sector. Strong risk management systems, particularly related to electronic billing, personal data privacy and real-time services are critical to managing risk and offering further growth opportunities. Within service companies, strong employee development and training programs are fundamental to build sustainable businesses and improve customer satisfaction.

Highlighted criteria & Dimension weight

Economic Dimension..... 47%
– Codes of Business Conduct
– Privacy Protection
– Risk & Crisis Management
– Customer Relationship Management

Environmental Dimension 17%
– Operational Eco-Efficiency
– Environmental Policy & Management Systems

Social Dimension 36%
– Human Capital Development
– Talent Attraction & Retention
– Human Rights

Sustainability leaders 2019

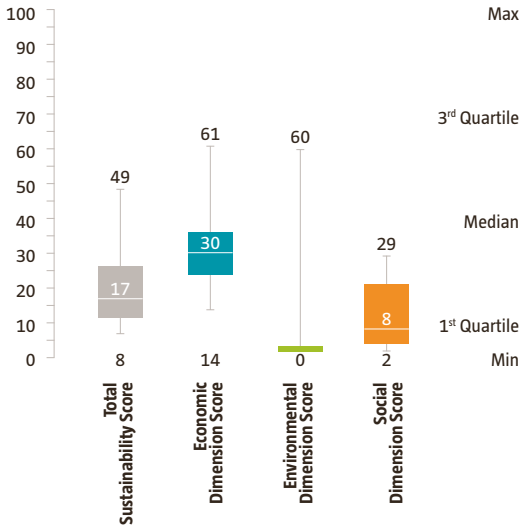
Sustainability Yearbook Members	●
AA PLC *	United Kingdom
Benesse Holdings Inc	Japan

* SAM Industry Mover

Industry statistics

Number of companies in universe	14
Number of companies assessed in 2018	12
Assessed companies to total companies in universe	86%
Market of assessed companies to total market	87%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Diversified Financial Services and Capital Markets

Driving forces

The diversified financial services and capital markets industry consists of a heterogeneous group of holding companies, credit rating agencies, stock exchanges, asset managers, custody banks, investment banks and brokerage companies. While sub-industry-specific business models expose companies to different sustainability issues, common material themes include corporate governance, risk management, compliance and customer relationships. Additionally, many of the financial service providers within the sector are increasingly managing confidential data. Therefore, protecting customers' financial and personal data and minimizing cyber risk are crucial to maintaining client trust. Ongoing regulatory pressure, public outcry, publicized litigation and sizeable settlements have sensitized many in the capital markets industry to the very real threats posed by unethical business behavior. In turn, this is leading to greater scrutiny of potentially questionable practices and a re-shaping of corporate culture and employee behavior to better align with client needs and public interests.

Highlighted criteria & Dimension weight

Economic Dimension..... 46%
– Corporate Governance
– Risk & Crisis Management
– Codes of Business Conduct
– Customer Relationship Management

Environmental Dimension 21%
– Business Risks and Opportunities
– Climate Strategy

Social Dimension 33%
– Human Capital Development
– Talent Attraction & Retention
– Controversial Issues, Dilemmas in Lending & Financing

Sustainability leaders 2019

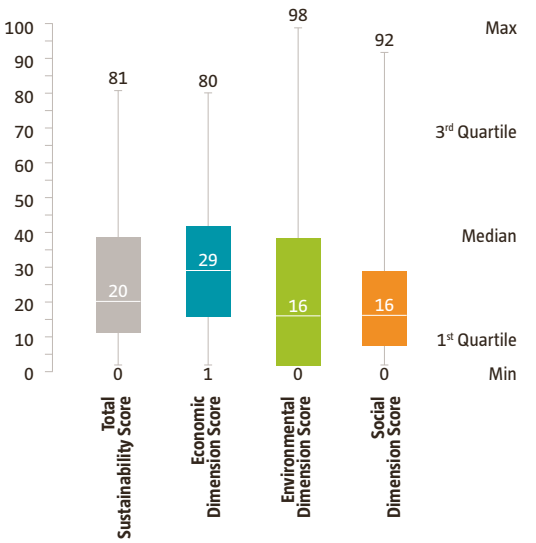
SAM Gold Class	
Fubon Financial Holding Co Ltd	Taiwan
SAM Silver Class	
UBS Group AG	Switzerland
Grupo de Inversiones Suramericana SA	Colombia
Sustainability Yearbook Members	
Samsung Securities Co Ltd	South Korea
Standard Life Aberdeen PLC	United Kingdom
S&P Global Inc	United States
Credit Suisse Group AG	Switzerland
Daiwa Securities Group Inc	Japan
Nomura Holdings Inc	Japan
Mirae Asset Daewoo Co Ltd	South Korea
Investec PLC	United Kingdom
Bank of New York Mellon Corp	United States
Deutsche Boerse AG	Germany
State Street Corp	United States
Provident Financial PLC	United Kingdom
Hong Kong Exchanges & Clearing Ltd	Hong Kong
London Stock Exchange Group PLC	United Kingdom
Mahindra & Mahindra Financial Services Ltd	India
Voya Financial Inc	United States
Yuanta Financial Holding Co Ltd *	Taiwan

* SAM Industry Mover

Industry statistics

Number of companies in universe	178
Number of companies assessed in 2018	135
Assessed companies to total companies in universe	76%
Market of assessed companies to total market	92%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Electric Utilities

Driving forces

Electric utilities are facing fundamental challenges , including more stringent government regulations, concerns about greenhouse gas emissions, the availability of cheaper renewable alternatives and changing power grid dynamics. Once-oligopolistic utilities operators are under threat from new market entrants offering energy along with other conveniently bundled technologies and services. The increasing integration of renewable energies into the energy mix requires flexible power management and smart, integrated energy solutions. Enormous efforts are needed to develop and replace an aging grid. While electric utilities need to cope with rising costs, sales of conventional energy products such as coal have stopped growing in developed markets and face increasing competition from decentralized power generation such as solar energy. Within emerging markets, industrialization and urbanization will require large investments to create sustainable generation capacity. In addition, an uncertain and changing regulatory backdrop increases the risks inherent in some of the long-term financing approaches typical in the industry.

Highlighted criteria & Dimension weight

Economic Dimension..... 32%
– Corporate Governance
– Codes of Business Conduct
– Risk & Crisis Management

Environmental Dimension 39%
– Climate Strategy
– Environmental Policy & Management Systems
– Transmission & Distribution

Social Dimension 29%
– Stakeholder Engagement
– Talent Attraction & Retention
– Occupational Health and Safety

Sustainability leaders 2019

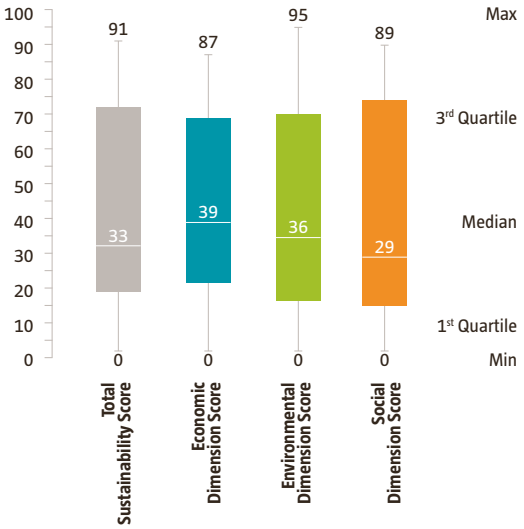
SAM Gold Class	
Terna Rete Elettrica Nazionale SpA	Italy
SAM Silver Class	
Iberdrola SA	Spain
Red Electrica Corp SA	Spain
SAM Bronze Class	
EDP - Energias de Portugal SA	Portugal
Endesa SA	Spain
Enel SpA	Italy
Celsia SA ESP	Colombia
Sustainability Yearbook Members	
Cia Energetica de Minas Gerais	Brazil
Acciona SA	Spain
Electricite de France SA	France
Interconexion Electrica SA ESP	Colombia
Exelon Corp	United States
Enel Americas SA *	Chile

* SAM Industry Mover

Industry statistics

Number of companies in universe	92
Number of companies assessed in 2018	70
Assessed companies to total companies in universe	76%
Market of assessed companies to total market	89%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Electrical Components & Equipment

Driving forces

Product innovation will continue to gain strategic importance for companies in the electrical components and equipment industry. Companies that prioritize product research and development, have a strong product pipeline and reduce their time-to-market cycles will be able to capture and retain market share. Emerging trends are providing opportunities for companies focused on automation, new energy alternatives and climate change mitigation solutions. Investments in smart power transmission, distribution and clean power generation will increase as developed markets update aging energy infrastructure and emerging markets expand their power grids. However, exposure to emerging markets and public sector projects can increase the risk of corruption. As components become integrated into wider networks and are exposed to sophisticated digital security threats, product technologies need to be increasingly secure. A highly complex value chain makes strong supply chain management essential. Monitoring issues such as human rights, conflict minerals and environmental compliance will remain important.

Highlighted criteria & Dimension weight

Economic Dimension..... 43%
– Corporate Governance
– Codes of Business Conduct
– Innovation Management
– Supply Chain Management

Environmental Dimension 29%
– Product Stewardship
– Operational Eco-Efficiency
– Climate Strategy

Social Dimension 28%
– Occupational Health and Safety
– Human Capital Development

Sustainability leaders 2019

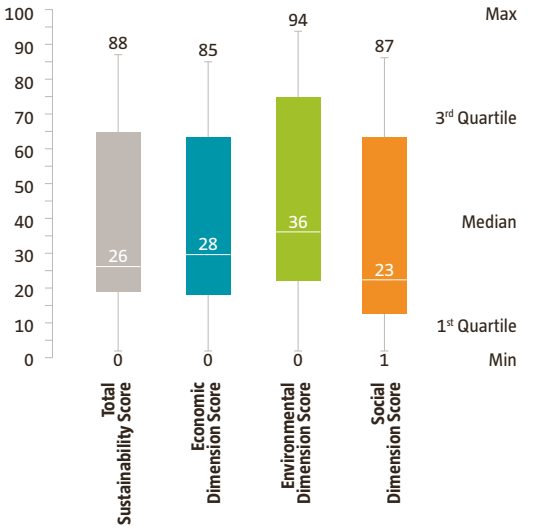
SAM Gold Class	
Signify NV	Netherlands
SAM Bronze Class	
Schneider Electric SE	France
Legrand SA *	France

* SAM Industry Mover

Industry statistics

Number of companies in universe	25
Number of companies assessed in 2018	22
Assessed companies to total companies in universe	88%
Market of assessed companies to total market	97%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Electronic Equipment, Instruments & Components

Driving forces

Technological innovations such as 5G; the Internet of Things; Artificial Intelligence; the growth in consumer electronics driving small, light, thin, mobile internet-enabled devices; and maximizing power usage and efficiency are increasing in importance in the Electronic Equipment, Instruments and Components industry. Electronic components have complex global supply chains that can lead to issues with unfair labor practices, conflict mineral sourcing and the use of harmful chemicals during manufacturing. The implementation and operation of a transparent, sustainable supply chain is required to address these issues. Superior product stewardship includes measures such as energy-saving features and energy-consumption management as well as security features such as automatic software / firmware upgrades to harden devices against cyberattacks. Products must be designed to last with an "End of Life" strategy (repair/reuse, downcycle, recycle), and the use of robotics and automation can help improve the efficiency of resource-intensive production processes. Given the industry's oligopolistic market structure, compliance with antitrust regulations is also a key factor.

Highlighted criteria & Dimension weight

Economic Dimension 40%
– Corporate Governance
– Supply Chain Management
– Innovation Management
– Codes of Business Conduct

Environmental Dimension 31%
– Operational Eco-Efficiency
– Product Stewardship
– Climate Strategy

Social Dimension 29%
– Occupational Health and Safety
– Talent Attraction & Retention

Sustainability leaders 2019

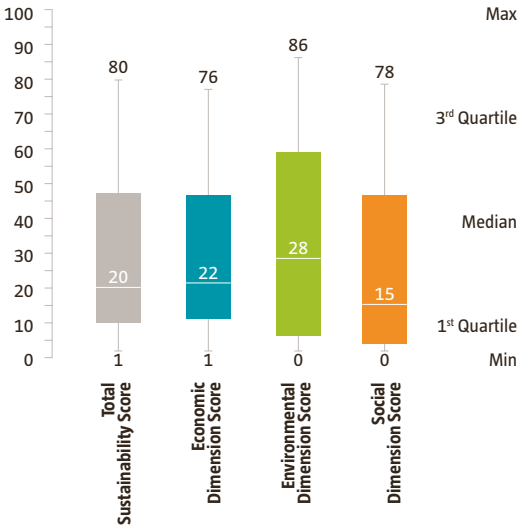
SAM Gold Class	
Delta Electronics Inc	Taiwan
SAM Bronze Class	
Innolux Corp *	Taiwan
Samsung Electro-Mechanics Co Ltd	South Korea
AU Optronics Corp	Taiwan
Sustainability Yearbook Members	
Delta Electronics Thailand PCL	Thailand
Samsung SDI Co Ltd	South Korea
Yokogawa Electric Corp	Japan
Omron Corp	Japan
LG Innotek Co Ltd	South Korea
LG Display Co Ltd	South Korea

* SAM Industry Mover

Industry statistics

Number of companies in universe	73
Number of companies assessed in 2018	57
Assessed companies to total companies in universe	78%
Market of assessed companies to total market	91%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Energy Equipment & Services

Driving forces

The ability of energy equipment and services companies to attract new business is closely tied to their adherence to environmental, health and safety, and business conduct standards. In providing a variety of services to government-owned and national oil and gas suppliers, companies carry a measure of responsibility for the public perception of exploration and production activities and their clients' reputations. The need for companies to maintain their standing as safe, reliable partners is challenged when they operate in technically difficult areas and where local jurisdictions provide weak legal and regulatory enforcement. Innovation and solutions to address clients' technological and cost challenges are a potential source of competitive advantages and can serve as tools to control risk. At the same time, the industry needs to attract and retain skilled staff and maintain expertise in technology research and development while controlling production costs. Ensuring high occupational and environmental health and safety standards also helps with talent attraction.

Highlighted criteria & Dimension weight

Economic Dimension.....41%
– Codes of Business Conduct
– Corporate Governance
– Risk & Crisis Management
– Innovation Management

Environmental Dimension 22%
– Operational Eco-Efficiency
– Environmental Policy & Management Systems

Social Dimension 37%
– Occupational Health and Safety
– Human Capital Development
– Talent Attraction & Retention

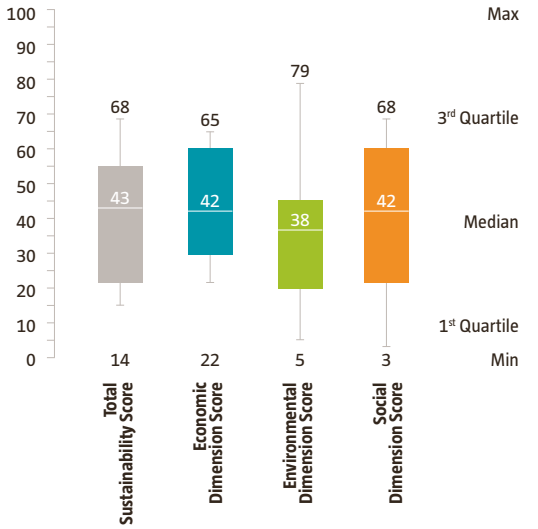
Sustainability leaders 2019

SAM Gold Class	●
Saipem SpA	Italy
Sustainability Yearbook Members	●
Schlumberger Ltd	United States

Industry statistics

Number of companies in universe	18
Number of companies assessed in 2018	14
Assessed companies to total companies in universe	78%
Market of assessed companies to total market	91%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Food & Staples Retailing

Driving forces

Because of competition for market share, the food and staples retailing industry has consolidated, maintaining a high level of M&A activity. The industry is influenced by IT advances that now shape entire business models and value chains. Retailers invest in IT infrastructure to increase efficiency in operations and to improve communication with clients. New technologies potentially enable companies to align with another major industry driver: growing consumer demand for healthy and natural food choices. Food retailers need to enhance transparency in supply chains, integrate environmental, social and governance (ESG) thresholds in procurement policies and increase the share of local, responsibly-produced foodstuffs. The expiration of drug patents will continue to generate revenue and growth as drug retailers in the sector offer consumers generic alternatives to name-brand blockbusters. Drug retailers and consumers alike have already enjoyed significant cost savings with the availability of this wave of generic drugs.

Highlighted criteria & Dimension weight

Economic Dimension..... 39%
– Supply Chain Management
– Health & Nutrition
– Customer Relationship Management

Environmental Dimension 31%
– Raw Material Sourcing
– Operational Eco-Efficiency
– Packaging

Social Dimension 30%
– Human Capital Development
– Occupational Health and Safety
– Talent Attraction & Retention

Sustainability leaders 2019

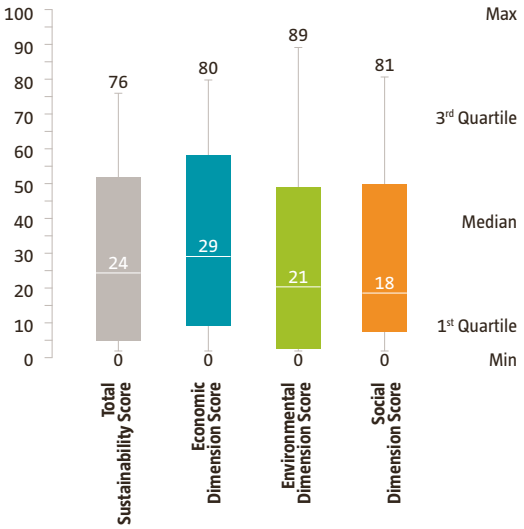
SAM Gold Class	
METRO AG	Germany
SAM Silver Class	
CP ALL PCL	Thailand
Kesko OYJ	Finland
SAM Bronze Class	
Koninklijke Ahold Delhaize NV	Netherlands
Carrefour SA	France
Sustainability Yearbook Members	
Seven & i Holdings Co Ltd	Japan
Wesfarmers Ltd	Australia
ICA Gruppen AB *	Sweden
Casino Guichard Perrachon SA	France

* SAM Industry Mover

Industry statistics

Number of companies in universe	65
Number of companies assessed in 2018	57
Assessed companies to total companies in universe	88%
Market of assessed companies to total market	97%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Food Products

Driving forces

Growth in the food industry continues to be driven by the increased wealth and consumption of a growing middle class in emerging economies. In the developed world, an intensified consumer focus on diet and healthy lifestyles has prompted product transformations and new innovations centered on natural, wholesome and organic ingredients. In tandem with an accelerated pace of life, consumer demand for convenient, functional food is expanding. Healthy and organic foods have emerged as major growth categories and will remain in the spotlight for food manufacturers as consumer awareness regarding social and environmental impacts of food products continues to grow. Leading companies in the industry address both issues by sourcing responsibly produced raw materials to create foods of high nutritional value. The industry's major sustainability risks and challenges relate to the procurement of agricultural commodities. Proactive supply chain management, robust procurement standards and increased transparency can help to ensure food safety – a key consumer concern.

Highlighted criteria & Dimension weight

Economic Dimension..... 42%
– Supply Chain Management
– Health & Nutrition
– Innovation Management

Environmental Dimension 28%
– Operational Eco-Efficiency
– Raw Material Sourcing
– Packaging

Social Dimension 30%
– Human Capital Development
– Occupational Health and Safety
– Human Rights

Sustainability leaders 2019

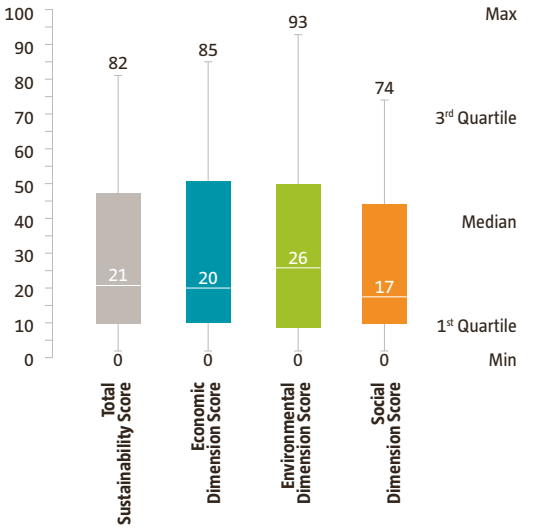
SAM Gold Class	
Thai Union Group PCL	Thailand
SAM Silver Class	
Nestle SA	Switzerland
Grupo Nutresa SA	Colombia
SAM Bronze Class	
Ajinomoto Co Inc	Japan
Charoen Pokphand Foods PCL	Thailand
Mondelez International Inc	United States
Sustainability Yearbook Members	
Colombina SA	Colombia
Pulmuone Co Ltd	South Korea
CJ CheilJedang Corp	South Korea
Kellogg Co	United States
Danone SA	France
General Mills Inc	United States
Hershey Co	United States
Campbell Soup Co	United States
Archer-Daniels-Midland Co *	United States
Nissin Foods Holdings Co Ltd	Japan

* SAM Industry Mover

Industry statistics

Number of companies in universe	108
Number of companies assessed in 2018	91
Assessed companies to total companies in universe	84%
Market of assessed companies to total market	91%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Gas Utilities

Driving forces

Natural gas is the least carbon-intensive fossil fuel. As a substitute for coal power, or oil in the heating and transportation sectors, it can help reduce CO_2 emissions, water consumption and air pollution in the short and medium term. However, natural gas is still a fossil fuel and contributes to climate change, so it is threatened by increased regulatory action. While gas supplies are increasingly readily available – driven by the development of unconventional resources that are reshaping the industry – long-term demand could be threatened by lower-cost alternatives. The result of all this is an increased risk of stranded assets. Gas utilities must therefore develop new business models based on clean energies such as biogas, wind and solar, or Power-to-Gas technologies. High-profile gas accidents have raised public awareness of aging gas infrastructure and leakage risks. Given the controversial public image of the oil and gas industry, building stakeholder trust and increasing the safety, reliability and energy-efficiency of operations are key concerns for the industry.

Highlighted criteria & Dimension weight

Economic Dimension..... 33%
– Corporate Governance
– Market Opportunities
– Supply Chain Management

Environmental Dimension 34%
– Climate Strategy
– Operational Eco-Efficiency
– Transmission & Distribution

Social Dimension 33%
– Occupational Health and Safety
– Stakeholder Engagement
– Talent Attraction & Retention

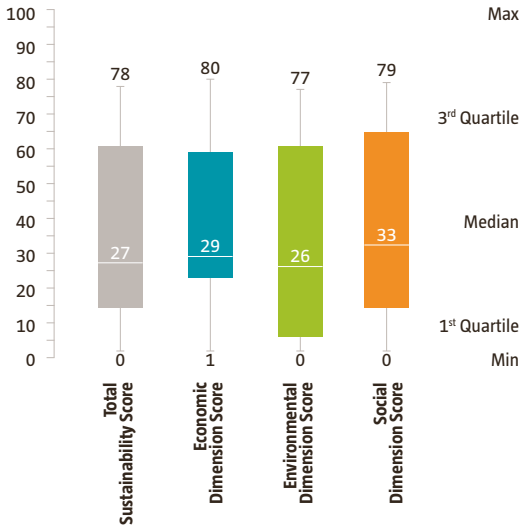
Sustainability leaders 2019

SAM Gold Class	●
Naturgy Energy Group SA	Spain
Sustainability Yearbook Members	●
Promigas SA ESP	Colombia
Grupo Energia Bogota SA ESP	Colombia
Osaka Gas Co Ltd	Japan

Industry statistics

Number of companies in universe	27
Number of companies assessed in 2018	20
Assessed companies to total companies in universe	74%
Market of assessed companies to total market	80%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Health Care Equipment & Supplies

Driving forces

The health care equipment and supplies industry develops medical products such as orthopedic implants and cardiovascular devices, as well as medical supplies and instruments critical to improving patients' quality of life. Product quality, safety and collaboration with stakeholders are critical for ensuring the successful marketing of products and to maintaining a company's license to operate. While government budget constraints and health care reforms have affected pricing, reimbursement and utilization, efforts to broaden health care coverage in the U.S. and emerging markets coupled with rising income levels have created new growth opportunities for the industry. Sustainable companies in this sector focus on developing innovative and highly differentiated products and on demonstrating their products' clinical and economic benefits. Moreover, they adopt consistent, value- and stakeholder-oriented corporate strategies and governance systems based on effective human and intellectual capital management and transparent reporting frameworks.

Highlighted criteria & Dimension weight

Economic Dimension..... 53%
– Codes of Business Conduct
– Innovation Management
– Product Quality and Recall Management
– Marketing Practices

Environmental Dimension 10%
– Operational Eco-Efficiency
– Climate Strategy
– Environmental Policy & Management Systems

Social Dimension 37%
– Talent Attraction & Retention
– Health Outcome Contribution

Sustainability leaders 2019

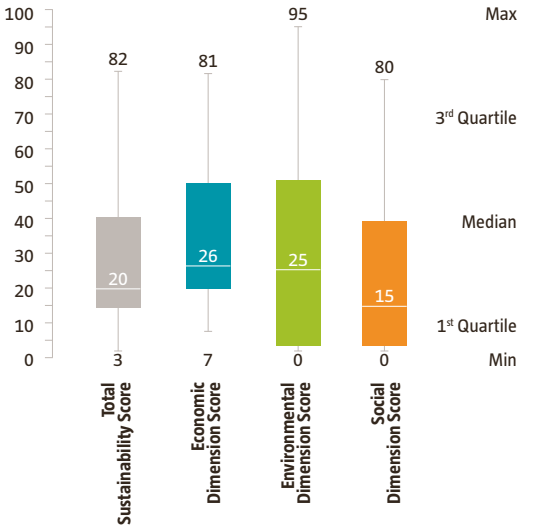
SAM Gold Class	●
Abbott Laboratories	United States
Koninklijke Philips NV	Netherlands
Sustainability Yearbook Members	●
Essilor International Cie Generale d'Optique SA	France
Baxter International Inc	United States
Sonova Holding AG	Switzerland
Edwards Lifesciences Corp *	United States
Smith & Nephew PLC	United Kingdom
Sysmex Corp	Japan
Medtronic PLC	United States

* SAM Industry Mover

Industry statistics

Number of companies in universe	61
Number of companies assessed in 2018	48
Assessed companies to total companies in universe	79%
Market of assessed companies to total market	93%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Health Care Providers & Services

Driving forces

The health care providers and services industry includes managed care insurers, distributors, hospitals, and clinics. Trends such as aging populations and the increasing prevalence of chronic diseases are key factors affecting this industry. Rising health care costs and the growing divide in health care access among population groups in many low and middle income countries are major societal challenges. Leading companies play an active role in the search for cost-effective, sustainable health care systems by engaging with stakeholders including government payers, employers, providers and patients. As the industry moves towards more patient-centric care, companies should focus on quality over quantity of care, cost-effective health outcomes over expensive treatments, early intervention and prevention over late-stage treatment and ongoing disease management rather than isolated, disconnected, episodic care. This will in turn lead to an increase in the importance of customer-oriented services, integrative care, and strategic alliances across traditional business boundaries.

Highlighted criteria & Dimension weight

Economic Dimension..... 47%
– Codes of Business Conduct
– Supply Chain Management
– Marketing Practices
– Customer Relationship Management

Environmental Dimension 10%
– Environmental Policy & Management Systems
– Operational Eco-Efficiency
– Climate Strategy

Social Dimension 43%
– Talent Attraction & Retention
– Occupational Health and Safety

Sustainability leaders 2019

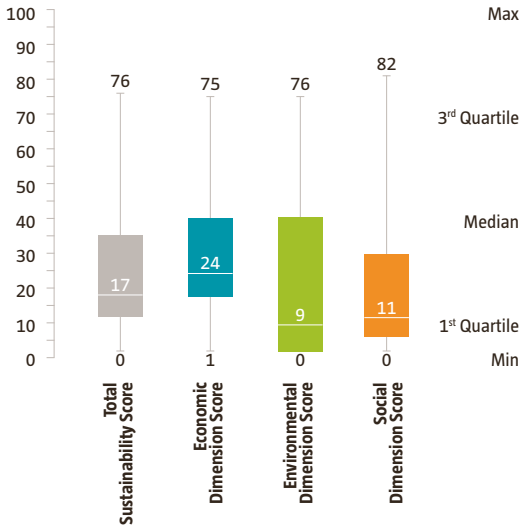
SAM Gold Class	
UnitedHealth Group Inc *	United States
SAM Silver Class	
Cigna Corp	United States
Sustainability Yearbook Members	
Anthem Inc	United States
DaVita Inc	United States

* SAM Industry Mover

Industry statistics

Number of companies in universe	58
Number of companies assessed in 2018	47
Assessed companies to total companies in universe	81%
Market of assessed companies to total market	95%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Homebuilding

Driving forces

Growth in the homebuilding industry is largely driven by external factors such as interest rates and general economic conditions as well as highly specific national and regional housing markets. In addition, price pressures and tighter regulation remain constant challenges. Product stewardship and environmental efficiency in combination with innovation are key industry drivers in both the building and use stages of the product lifecycle. As the demand and regulatory push for green building continue to increase, companies responding to new technological developments such as low-energy, passive and plus-energy buildings are likely to remain at the forefront of the industry. Occupational health and safety risks are high, requiring strict management practices to minimize injuries among employees and external contractors.

Highlighted criteria & Dimension weight

Economic Dimension..... 29%
– Corporate Governance
– Codes of Business Conduct
– Risk & Crisis Management

Environmental Dimension 37%
– Operational Eco-Efficiency
– Resource Conservation and Resource Efficiency
– Building Materials

Social Dimension 34%
– Occupational Health and Safety
– Human Capital Development
– Social Integration & Regeneration

Sustainability leaders 2019

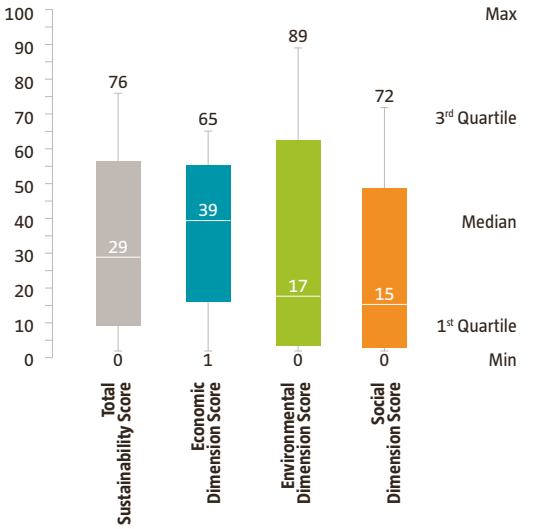
SAM Gold Class	
Sumitomo Forestry Co Ltd *	Japan
SAM Silver Class	
Sekisui House Ltd	Japan
SAM Bronze Class	
Sekisui Chemical Co Ltd	Japan

* SAM Industry Mover

Industry statistics

Number of companies in universe	19
Number of companies assessed in 2018	17
Assessed companies to total companies in universe	89%
Market of assessed companies to total market	96%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Hotels, Resorts & Cruise Lines

Driving forces

The travel and tourism industry has embraced sustainability as a means of attracting customers, enhancing product offerings and engaging more actively with stakeholders. Environmental preservation and an increased interest in eco-tourism and volunteer tourism have led to new business opportunities. Hotels, resorts and cruise operators are increasing their efforts to reduce their environmental impact. Increasing the use of indicators to measure the impact of local operations and value generation is essential in identifying areas for improvement and engagement. Human rights issues linked to local employment must be addressed, while implementing local monitoring systems is crucial. Industry-wide efforts to address issues like human trafficking offer an opportunity for companies to consistently and effectively tackle both these issues. Long-term risk management systems must address economic, geopolitical and climate risks to ensure business continuity and adaptability to changing global conditions.

Highlighted criteria & Dimension weight

Economic Dimension..... 35%
– Codes of Business Conduct
– Risk & Crisis Management
– Customer Relationship Management

Environmental Dimension 23%
– Environmental Policy & Management Systems
– Climate Strategy
– Operational Eco-Efficiency

Social Dimension 42%
– Stakeholder Engagement
– Occupational Health and Safety
– Human Rights

Sustainability leaders 2019

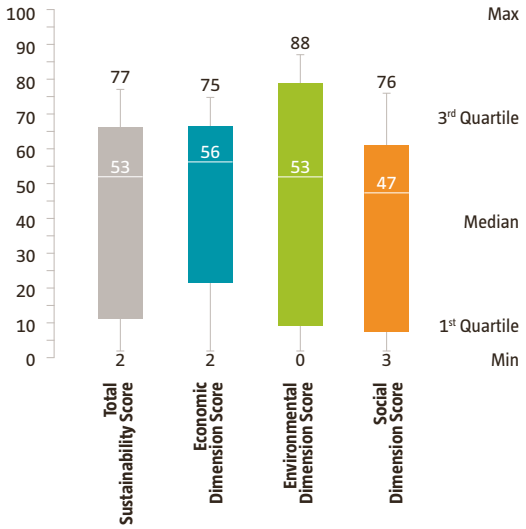
SAM Gold Class	
InterContinental Hotels Group PLC	United Kingdom
SAM Silver Class	
Hilton Worldwide Holdings Inc *	United States
Melia Hotels International SA	Spain
SAM Bronze Class	
TUI AG	Germany

* SAM Industry Mover

Industry statistics

Number of companies in universe	23
Number of companies assessed in 2018	18
Assessed companies to total companies in universe	78%
Market of assessed companies to total market	95%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Household Durables

Driving forces

The cyclical household durables industry is characterized by constantly changing consumer preference for custom products, advances in technology (IoT) and automation, and increasing demand for eco-friendly products and smart homes. The industry faces opportunities and challenges related to global trends: a growing world population, an expanding middle class, urbanization and climate change. Successful companies in this industry stand out themselves through brand management, innovation, product quality and safety and customer service. Leading companies proactively integrate sustainability in their business models by focusing on product stewardship, operational eco-efficiency, responsible sourcing, enhanced transparency and product labeling, and end-of-life solutions for customers.

Highlighted criteria & Dimension weight

Economic Dimension..... 50%
– Customer Relationship Management
– Supply Chain Management
– Brand Management
– Innovation Management

Environmental Dimension 22%
– Operational Eco-Efficiency
– Environmental Policy & Management Systems
– Product Stewardship

Social Dimension 28%
– Human Capital Development
– Talent Attraction & Retention

Sustainability leaders 2019

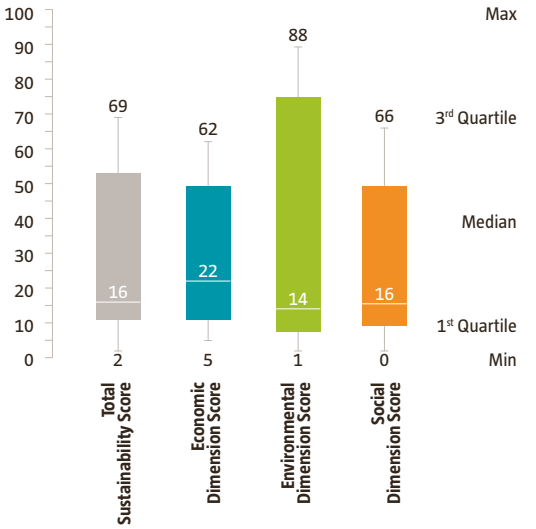
SAM Gold Class	●
Electrolux AB	Sweden
Sustainability Yearbook Members	●
Arcelik AS *	Turkey

* SAM Industry Mover

Industry statistics

Number of companies in universe	16
Number of companies assessed in 2018	14
Assessed companies to total companies in universe	88%
Market of assessed companies to total market	94%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Household Products

Driving forces

Household products are essential to consumers' daily lives. Performance, cost-effectiveness, ease of use, environmental awareness, and packaging are all important aspects for the industry. Because the household products industry is highly competitive, if they want to drive brand growth, businesses must adapt quickly, innovate, and differentiate themselves in the marketplace. To meet consumers' needs, companies strive to improve product quality and provide innovative features to achieve the degree of performance consumers expect while also reducing product costs, especially for emerging markets. As more consumers demand environmentally friendly products, especially in developed markets, companies are working to minimize the environmental impact of products throughout their life cycle. In addition to the products themselves, packaging is another priority area: companies design packaging to attract consumers and influence purchasing decisions, but also to reduce the packaging's environmental impact.

Highlighted criteria & Dimension weight

Economic Dimension..... 53%
– Brand Management
– Strategy for Emerging Markets
– Customer Relationship Management
– Innovation Management

Environmental Dimension 21%
– Packaging
– Operational Eco-Efficiency
– Product Stewardship

Social Dimension 26%
– Human Capital Development
– Occupational Health and Safety

Sustainability leaders 2019

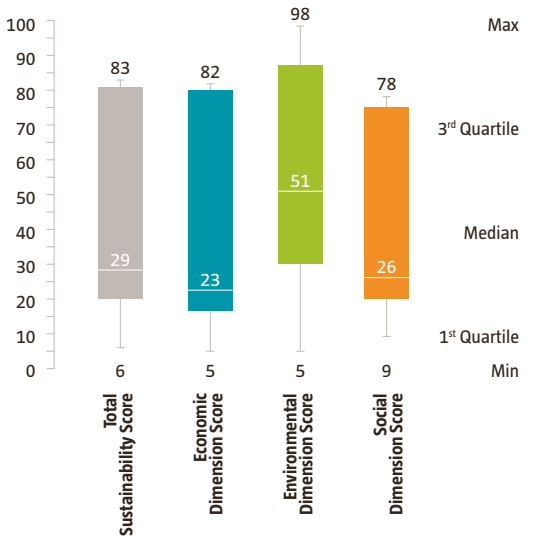
SAM Gold Class	
Essity AB *	Sweden
Colgate-Palmolive Co	United States
SAM Silver Class	
Henkel AG & Co KGaA	Germany
Reckitt Benckiser Group PLC	United Kingdom

* SAM Industry Mover

Industry statistics

Number of companies in universe	14
Number of companies assessed in 2018	14
Assessed companies to total companies in universe	100%
Market of assessed companies to total market	100%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Industrial Conglomerates

Driving forces

Industrial conglomerates are highly dispersed businesses that rely on strong management and governance structures to achieve company synergies and economies of scale. Resource-efficient and lean manufacturing processes are important aspects of their business strategies, especially if growth is partly driven by acquisitions. Within this framework, the development of new resource-efficient technologies through careful product stewardship is important in gaining market share and increasing growth and profitability. Supply chain management and supplier sustainability risk assessments are particularly important with respect to labor practices. Ensuring business ethics throughout their operations is critical as these companies typically have a global presence extending into emerging markets. Companies must therefore focus on promoting common corporate values that recognize and promote the diversity brought about by multicultural backgrounds. In addition, conglomerates must develop and enforce corporate policies and build strong compliance systems to prevent corruption and illegal market practices.

Highlighted criteria & Dimension weight

Economic Dimension..... 42%
– Corporate Governance
– Innovation Management
– Supply Chain Management

Environmental Dimension 29%
– Operational Eco-Efficiency
– Product Stewardship
– Climate Strategy

Social Dimension 29%
– Occupational Health and Safety
– Human Capital Development
– Talent Attraction & Retention

Sustainability leaders 2019

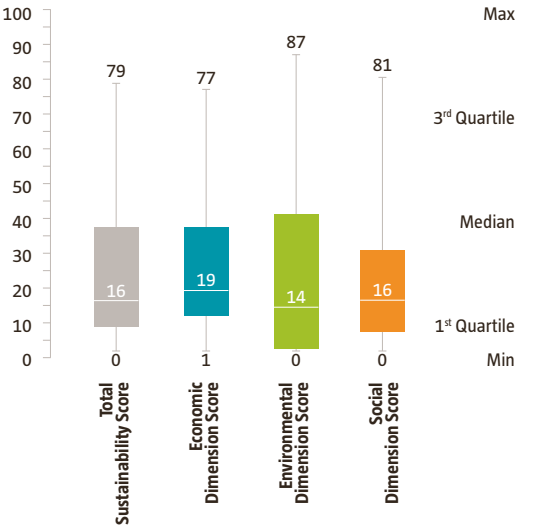
SAM Gold Class	
Siemens AG	Germany
SK Holdings Co Ltd	South Korea
SAM Silver Class	
Samsung C&T Corp	South Korea
Sustainability Yearbook Members	
3M Co *	United States
Doosan Corp	South Korea

* SAM Industry Mover

Industry statistics

Number of companies in universe	47
Number of companies assessed in 2018	41
Assessed companies to total companies in universe	87%
Market of assessed companies to total market	94%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Insurance

Driving forces

The insurance industry's focus on sound risk management has resulted in the relative absence of significant fines and penalties compared to other areas of finance. The industry has also demonstrated leadership in integrating sustainability considerations into its core business. Most notably, leading insurers are increasingly considering long-term sustainability trends and factors in their risk assessments and claims-management processes. At the same time as the industry embraces digitalization, it faces both significant threats – but also opportunities. This has provided consumers with increased transparency and choice while simultaneously providing insurers with new direct-to-consumer channels for delivering new products and services. It is also enabling insurers to collect real-time data on consumer behavior. Leading insurers, particularly those in life insurance, are exploring ways to use developments in digital technology to offer innovative products customized to meet the needs of their customers and incentivize healthier lifestyles through lower premiums.

Highlighted criteria & Dimension weight

Economic Dimension..... 45%
– Corporate Governance
– Risk & Crisis Management
– Codes of Business Conduct
– Principles for Sustainable Insurance

Environmental Dimension 23%
– Business Risks and Opportunities
– Climate Strategy

Social Dimension 32%
– Human Capital Development
– Talent Attraction & Retention
– Financial Inclusion

Sustainability leaders 2019

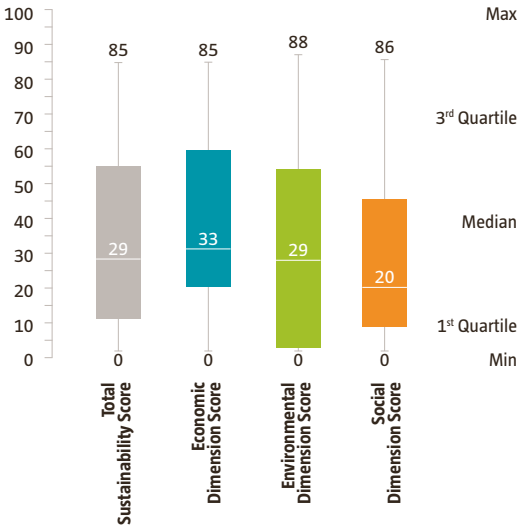
SAM Gold Class	
Allianz SE	Germany
SAM Silver Class	
Cathay Financial Holding Co Ltd	Taiwan
Swiss Re AG	Switzerland
SAM Bronze Class	
Tokio Marine Holdings Inc	Japan
AXA SA	France
Zurich Insurance Group AG	Switzerland
NN Group NV	Netherlands
Sustainability Yearbook Members	
Muenchener Rueckversicherungs-Gesellschaft AG	Germany
MS&AD Insurance Group Holdings Inc	Japan
Mapfre SA	Spain
Assicurazioni Generali SpA	Italy
Insurance Australia Group Ltd	Australia
ASR Nederland NV *	Netherlands
Sompo Holdings Inc	Japan
Samsung Fire & Marine Insurance Co Ltd	South Korea
Aviva PLC	United Kingdom
DB Insurance Co Ltd	South Korea
Dai-ichi Life Holdings Inc	Japan
Samsung Life Insurance Co Ltd	South Korea

* SAM Industry Mover

Industry statistics

Number of companies in universe	131
Number of companies assessed in 2018	107
Assessed companies to total companies in universe	82%
Market of assessed companies to total market	93%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

IT services & Internet Software and Services

Driving forces

The IT services and internet software & services industry consists of companies that provide such things as online databases, web design and registration services. In addition, industry players develop and market internet software to help clients run their businesses more efficiently by outsourcing business processes or developing new software applications. Therefore, data privacy and security are priorities for customer satisfaction, attraction and retention, and in mitigating potential legal and reputational risks. To protect client privacy and secure information technology, a rigorously enforced code of conduct covering access to confidential data is required. Knowledge management and human capital development are important in developing new products and fostering innovation, so attracting and retaining qualified staff is critical. The industry's main environmental impacts stem from data center operations where, in spite of increasing energy efficiency, the exponential growth of data volume is requiring companies to focus on energy and water efficiency.

Highlighted criteria & Dimension weight

Economic Dimension..... 52%
– Customer Relationship Management
– Innovation Management
– IT Security & System Availability
– Privacy Protection

Environmental Dimension 21%
– Operational Eco-Efficiency
– Climate Strategy
– Environmental Policy & Management Systems

Social Dimension 27%
– Talent Attraction & Retention
– Human Capital Development

Sustainability leaders 2019

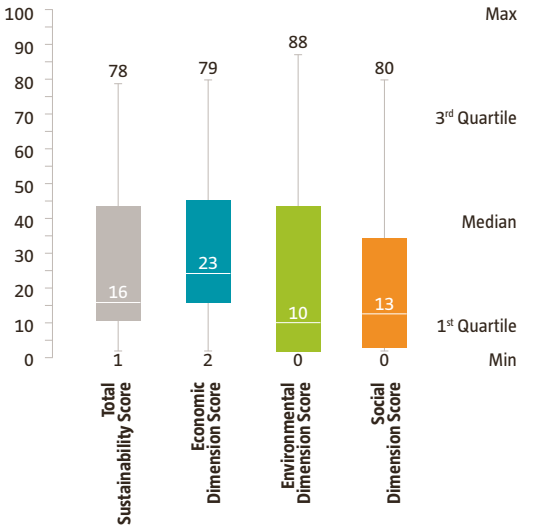
SAM Gold Class	●
Atos SE	France
NTT Data Corp	Japan
SAM Silver Class	●
Wipro Ltd	India
Tech Mahindra Ltd	India
Amadeus IT Group SA	Spain
SAM Bronze Class	●
Fujitsu Ltd	Japan
Sustainability Yearbook Members	●
Nomura Research Institute Ltd *	Japan
Infosys Ltd	India
Cielo SA	Brazil
Indra Sistemas SA	Spain
Tata Consultancy Services Ltd	India

* SAM Industry Mover

Industry statistics

Number of companies in universe	116
Number of companies assessed in 2018	82
Assessed companies to total companies in universe	71%
Market of assessed companies to total market	96%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Leisure Equipment & Products and Consumer Electronics

Driving forces

The leisure equipment & consumer electronics industry is highly competitive, and industry drivers include product quality, differentiation, time to market and brand strength. Since new products become commoditized quickly, companies need to focus on innovation, particularly R&D, to maintain their competitive advantage and brand perception. Similarly, many companies in the industry must manage the cyclicality of new product releases. Given the labor-intensity in the manufacturing phase, companies have to closely monitor working conditions in their supply chains, particularly in developing countries. In addition, firms must manage environmental challenges throughout the product lifecycle including product modularity, the use of toxic substances in the manufacturing process and within products, operational eco-efficiency and recycling through effective take-back programs for the proper disposal of used and obsolete products.

Highlighted criteria & Dimension weight

Economic Dimension..... 43%
– Supply Chain Management
– Innovation Management
– Brand Management

Environmental Dimension 28%
– Operational Eco-Efficiency
– Product Stewardship
– Environmental Policy & Management Systems

Social Dimension 29%
– Talent Attraction & Retention
– Human Rights
– Occupational Health and Safety

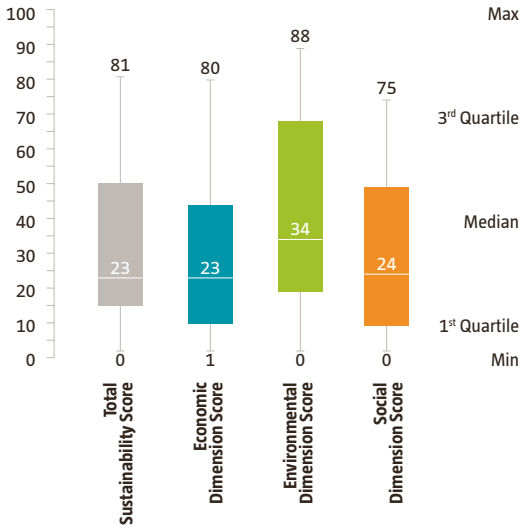
Sustainability leaders 2019

SAM Gold Class	
LG Electronics Inc	South Korea
Sustainability Yearbook Members	
Nikon Corp	Japan

Industry statistics

Number of companies in universe	19
Number of companies assessed in 2018	17
Assessed companies to total companies in universe	89%
Market of assessed companies to total market	96%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Life Sciences Tools & Services

Driving forces

The life science tools and services industry includes companies that develop technologies, instruments and tests that enable scientific and medical progress through research, the development of new medical products, and diagnostic testing and analysis. These companies rely on government spending, academic or private sector R&D budgets, and (to a certain extent) health care utilization levels, which makes them sensitive to economic cycles. As a knowledge-intensive industry, its companies depend on a skilled workforce to drive innovation, making human capital management and talent attraction and retention important success factors. Effective client relationship management strategies are also crucial to ensure customer loyalty to established products and technologies and to facilitate the adoption of innovative new technologies. Comprehensive supply chain management strategies that consider environmental and social factors allow companies to minimize the economic, social, and reputational risks associated with their supply chain.

Highlighted criteria & Dimension weight

Economic Dimension..... 54%
– Corporate Governance
– Innovation Management
– Codes of Business Conduct
– Supply Chain Management

Environmental Dimension 10%
– Environmental Reporting
– Operational Eco-Efficiency
– Climate Strategy

Social Dimension 36%
– Talent Attraction & Retention
– Human Capital Development

Sustainability leaders 2019

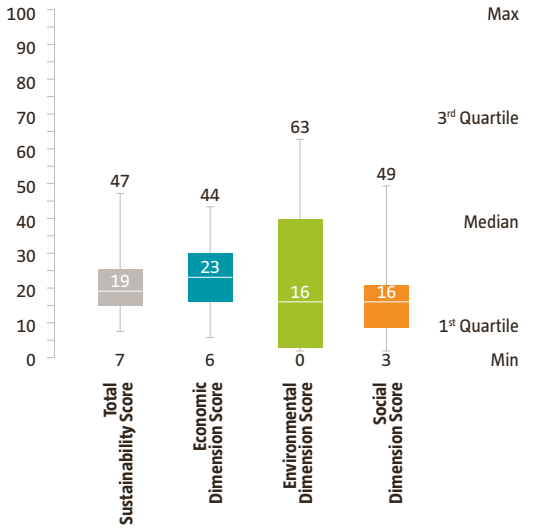
Sustainability Yearbook Members	
Agilent Technologies Inc	United States
Illumina Inc *	United States

* SAM Industry Mover

Industry statistics

Number of companies in universe	20
Number of companies assessed in 2018	15
Assessed companies to total companies in universe	75%
Market of assessed companies to total market	91%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Machinery and Electrical Equipment

Driving forces

Machinery companies' ability to innovate through product development is an important determinant of their competitiveness and helps improve their customers' manufacturing productivity through both the equipment itself and value-added services. Resource scarcity is spurring the need for improved resource efficiency, particularly with respect to energy and water. Leading companies are using lifecycle analysis to deliver cost savings and reduce environmental impacts for their customers. Upholding business ethics in their own operations as well as in their supply chain is essential for companies to protect their license to operate. The leading companies in the industry have recognized the strategic importance of sustainability for their business models and are incorporating sustainability into their core strategic decision-making. Finally, many machinery makers are facing increasing pressure from new players in emerging markets.

Highlighted criteria & Dimension weight

Economic Dimension..... 44%
– Corporate Governance
– Innovation Management
– Supply Chain Management

Environmental Dimension 28%
– Operational Eco-Efficiency
– Product Stewardship
– Climate Strategy

Social Dimension 28%
– Occupational Health and Safety
– Human Capital Development
– Talent Attraction & Retention

Sustainability leaders 2019

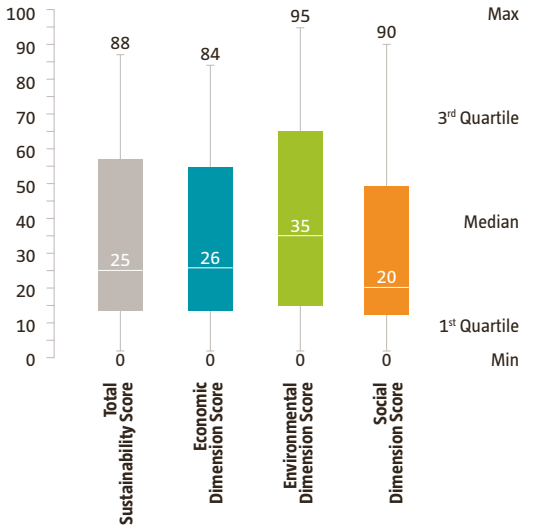
SAM Gold Class	
CNH Industrial NV	Italy
SAM Bronze Class	
Valmet OYJ	Finland
Stanley Black & Decker Inc *	United States
Alstom SA	France
Sustainability Yearbook Members	
Ingersoll-Rand PLC	United States
Sandvik AB	Sweden
Wartsila OYJ Abp	Finland
Nabtesco Corp	Japan
Caterpillar Inc	United States
Siemens Gamesa Renewable Energy SA	Spain
Cummins Inc	United States
Doosan Heavy Industries & Construction Co Ltd	South Korea
Komatsu Ltd	Japan
Outotec OYJ	Finland
Vestas Wind Systems A/S	Denmark
Mitsubishi Heavy Industries Ltd	Japan
Oshkosh Corp	United States

* SAM Industry Mover

Industry statistics

Number of companies in universe	116
Number of companies assessed in 2018	88
Assessed companies to total companies in universe	76%
Market of assessed companies to total market	88%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Media

Driving forces

The highly competitive media industry has seen a major shift towards digitalization. Publishing companies that have embraced this trend and have increased their revenue streams from online market segments are industry leaders. The use of new technologies, innovative thinking, tailored content and channel management are important in creating new business opportunities. In order to produce unique, valuable content or services, companies must continuously invest in retaining a talented, creative and digitally skilled workforce. The shift towards digitalization has also significantly increased the risk of cyberattacks. The ability of companies to implement a cybersecurity strategy that prevents, detects and remediates those risks is key in protecting customer information and companies' own data. Meanwhile, increasing connectivity in developing countries is set to be a growth driver over the coming years. Given media companies' power to shape public opinion, freedom of expression, accountability and the adherence to ethical standards in advertising will also be important determinants of long-term success.

Highlighted criteria & Dimension weight

Economic Dimension..... 44%
– Codes of Business Conduct
– Brand Management
– Customer Relationship Management
– Information Security & Cybersecurity

Environmental Dimension 17%
– Operational Eco-Efficiency
– Environmental Policy & Management Systems

Social Dimension 39%
– Talent Attraction & Retention
– Human Capital Development
– Responsibility of Content

Sustainability leaders 2019

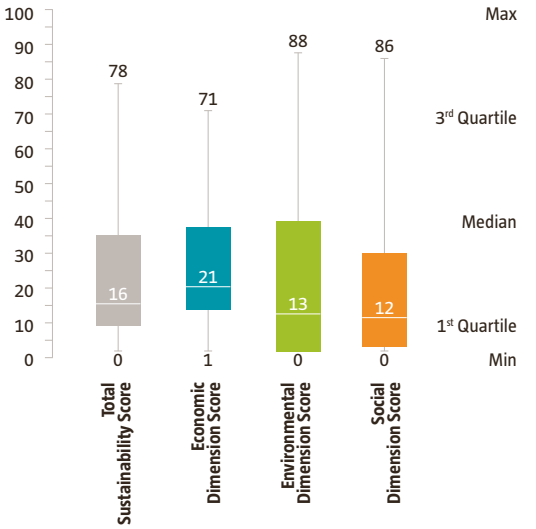
SAM Gold Class	●
Telenet Group Holding NV *	Belgium
Sustainability Yearbook Members	●
Pearson PLC	United Kingdom
Informa PLC	United Kingdom
Television Francaise 1	France
Liberty Global PLC	United States
JCDecaux SA	France
WPP PLC	United Kingdom
Lagardere SCA	France

* SAM Industry Mover

Industry statistics

Number of companies in universe	72
Number of companies assessed in 2018	61
Assessed companies to total companies in universe	85%
Market of assessed companies to total market	96%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Metals & Mining

Driving forces

The mining industry's environmental issues center on land use, mineral waste management and energy and water use. Workforce challenges include labor conditions and health and safety. All of these issues have the potential to expand beyond the confines of the mine, impacting relations with local communities and stakeholders. As a result, mining companies have to improve their environmental performance, community interaction (which includes establishing adequate consultation processes and grievance mechanisms) and exposure to human-rights risks. Broader trends increase the scale of these challenges: deeper extraction, declining ore grades, and growing waste rock and process tailings volumes . Moreover, regional water scarcity and higher water use in processing are increasing the potential for conflict with other water users, including across borders.

Highlighted criteria & Dimension weight

Economic Dimension..... 33%
– Codes of Business Conduct
– Corporate Governance
– Risk & Crisis Management

Environmental Dimension 32%
– Climate Strategy
– Operational Eco-Efficiency
– Water Related Risks
– Mineral Waste Management

Social Dimension 35%
– Occupational Health and Safety
– Social Impacts on Communities

Sustainability leaders 2019

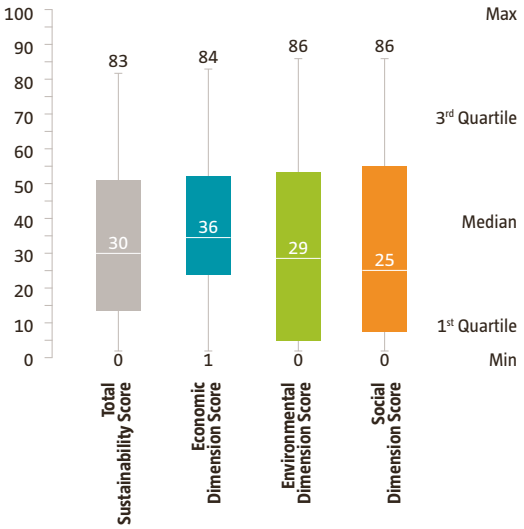
SAM Gold Class	
Newmont Mining Corp	United States
Teck Resources Ltd	Canada
SAM Bronze Class	
Barrick Gold Corp	Canada
Gold Fields Ltd	South Africa
Sustainability Yearbook Members	
Hindustan Zinc Ltd	India
Randgold Resources Ltd	United Kingdom
Kinross Gold Corp	Canada
Rio Tinto PLC	United Kingdom
Polymetal International PLC *	Russian Federation
AngloGold Ashanti Ltd	South Africa
Goldcorp Inc	Canada

* SAM Industry Mover

Industry statistics

Number of companies in universe	76
Number of companies assessed in 2018	68
Assessed companies to total companies in universe	89%
Market of assessed companies to total market	97%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Multi- and Water Utilities

Driving forces

The multi - and water-utilities industry is being transformed on many different fronts. The electricity market is undergoing a major transformation caused by the decarbonization and decentralization of power generation. These utilities need to develop innovative business models that adapt to new political, economic and technical constraints. Gas markets, on the other hand, are being reshaped by the development of unconventional resources and the fact that natural gas is a cleaner and more flexible alternative to coal in power generation. However, gas utilities remain exposed to the risk of the long-term phasing out of all fossil fuels. For water utilities, aging distribution and collection networks and opposition to privatization are key challenges in developed countries. In emerging markets, increasing water stress and deteriorating water quality represent challenges, whereas increasing consumption and rapid infrastructure expansion are driving market growth. Leading companies perform active resource management, reduce water losses during distribution and foster demand-side efficiency.

Highlighted criteria & Dimension weight

Economic Dimension..... 32%
– Corporate Governance
– Market Opportunities
– Codes of Business Conduct

Environmental Dimension 42%
– Electricity Generation
– Operational Eco-Efficiency
– Climate Strategy
– Water Related Risks

Social Dimension 26%
– Stakeholder Engagement
– Talent Attraction & Retention

Sustainability leaders 2019

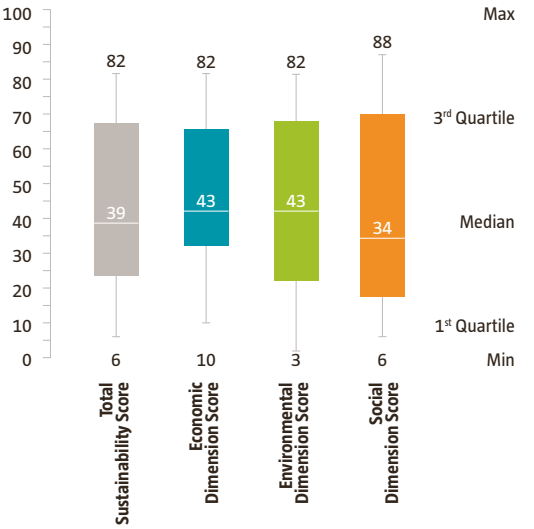
SAM Gold Class	
Engie SA	France
SAM Silver Class	
Sempra Energy	United States
Suez	France
SAM Bronze Class	
United Utilities Group PLC *	United Kingdom
Veolia Environnement SA	France

* SAM Industry Mover

Industry statistics

Number of companies in universe	39
Number of companies assessed in 2018	28
Assessed companies to total companies in universe	72%
Market of assessed companies to total market	90%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Oil & Gas - Refining & Marketing

Driving forces

The oil refining and marketing industry plays a vital role converting crude oil and other alternative feedstocks into a variety of products. Good environmental management of operations requires the reduction of spills and emissions and is closely linked to cost-competitiveness through the operating availability of refineries and to maintaining compliance with operating permits. Appropriate management of environmental and social issues in the supply chain and contractor health and safety reduce reputational risks. The leading companies are those that are able to minimize these risks and attract an adept workforce. Understanding these issues is an important concern when companies seek to strengthen their refinery portfolios through acquisitions and diversification of their feedstock portfolios. Increasing exposure to sustainable mobility trends such as electric and hybrid vehicles or advanced biofuels means climate strategy is of increasing importance to the industry's future.

Highlighted criteria & Dimension weight

Economic Dimension..... 34%
– Codes of Business Conduct
– Risk & Crisis Management
– Supply Chain Management

Environmental Dimension 31%
– Climate Strategy
– Operational Eco-Efficiency
– Water Related Risks

Social Dimension 35%
– Occupational Health and Safety
– Human Capital Development
– Talent Attraction & Retention

Sustainability leaders 2019

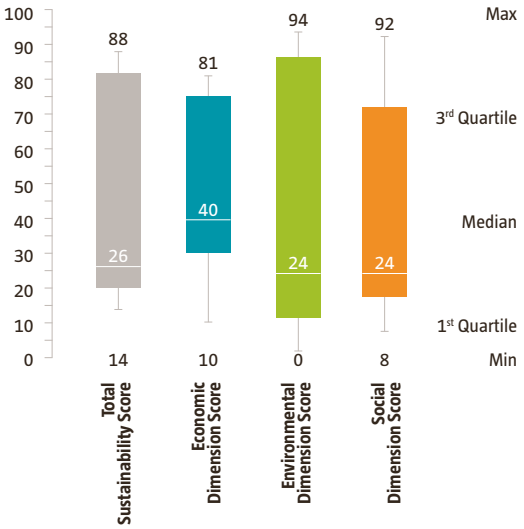
SAM Gold Class	
IRPC PCL *	Thailand
SAM Silver Class	
Thai Oil PCL	Thailand
SK Innovation Co Ltd	South Korea
SAM Bronze Class	
Neste Oyj	Finland
S-Oil Corp	South Korea

* SAM Industry Mover

Industry statistics

Number of companies in universe	32
Number of companies assessed in 2018	19
Assessed companies to total companies in universe	59%
Market of assessed companies to total market	75%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Oil & Gas - Storage & Transportation

Driving forces

For the oil and gas storage and transportation industry, growing demand for the transportation of crude oil and natural gas into demand-intensive urbanized centers is a key value driver. At the same time, lengthening supply chains increase the industry's challenges and putting upward pressure on costs. Maintaining the integrity of pipeline and storage systems is vital to minimize environmental impacts, ensure compliance with industry and environmental regulations and support community relations. The cost of failure can be significant for operating permits and obtaining licenses to operate new infrastructure projects. Another significant factor in planning and developing new infrastructure is adequate stakeholder engagement during land acquisition and any physical or economic resettlement. Leading companies in this sector are able to manage the twin demands of maximizing capacity utilization in their networks and minimizing impacts through effective environmental management systems that are supported by modern risk and crisis management frameworks.

Highlighted criteria & Dimension weight

Economic Dimension..... 32%
– Codes of Business Conduct
– Corporate Governance
– Risk & Crisis Management

Environmental Dimension 23%
– Operational Eco-Efficiency
– Climate Strategy
– Environmental Policy & Management Systems

Social Dimension 45%
– Human Capital Development
– Occupational Health and Safety
– Social Impacts on Communities

Sustainability leaders 2019

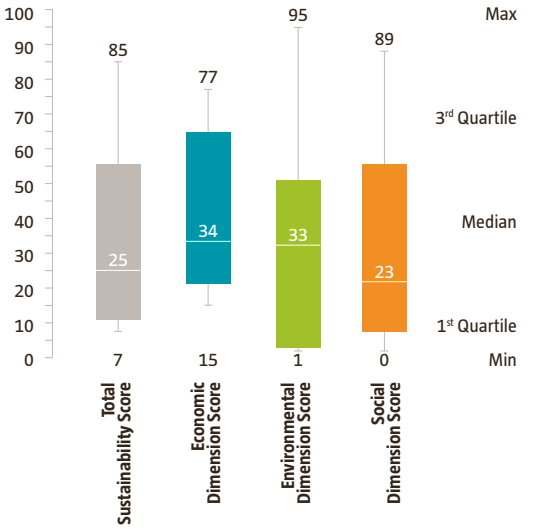
SAM Gold Class	●
Enagas SA *	Spain
SAM Bronze Class	●
Snam SpA	Italy
Sustainability Yearbook Members	●
TransCanada Corp	Canada

* SAM Industry Mover

Industry statistics

Number of companies in universe	21
Number of companies assessed in 2018	15
Assessed companies to total companies in universe	71%
Market of assessed companies to total market	92%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Oil & Gas - Upstream & Integrated

Driving forces

Among upstream and integrated oil and gas companies, there is a need to develop corporate strategies that take into account the transition to low-carbon economies. Climate strategy and its link to corporate governance is thus increasing in importance for investors in this sector. At the same time, companies need to ensure that their current businesses can generate cash-flows that cover investment and dividend requirements. Leading companies have a strong grip on operational eco-efficiency, environmental impacts and health and safety. In the upstream segment, this requires adjusting to growth opportunities in natural gas and renewable energies such as wind and solar. In downstream operations, cost-competitiveness is closely linked to environmental and health and safety excellence. In this context, the industry's top performers are those that are able to manage a broad set of environmental, health and safety, ethical conduct and stakeholder risks. Taking these risks into account goes hand in hand with diversifying the fuel mix and discerning the pathway to a low-carbon future.

Highlighted criteria & Dimension weight

Economic Dimension..... 42%
– Corporate Governance
– Exploration & Production
– Gas Portfolio

Environmental Dimension 26%
– Climate Strategy
– Operational Eco-Efficiency
– Water Related Risks

Social Dimension 32%
– Occupational Health and Safety
– Social Impacts on Communities
– Human Capital Development

Sustainability leaders 2019

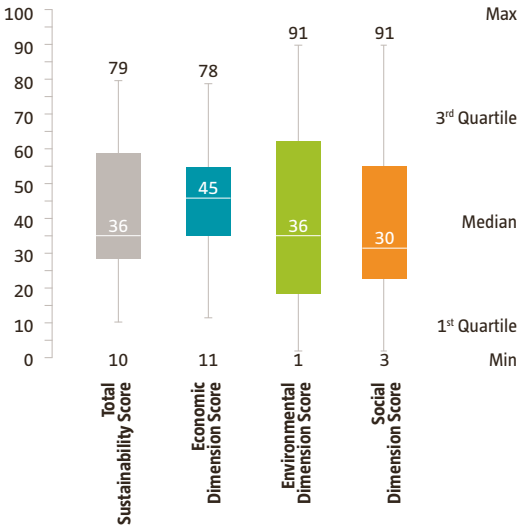
SAM Gold Class	
PTT PCL	Thailand
SAM Silver Class	
PTT Exploration & Production PCL	Thailand
Galp Energia SGPS SA	Portugal
TOTAL SA	France
SAM Bronze Class	
Woodside Petroleum Ltd	Australia
Sustainability Yearbook Members	
Oil Search Ltd	Australia
OMV AG *	Austria
ConocoPhillips	United States
MOL Hungarian Oil & Gas PLC	Hungary
Royal Dutch Shell PLC	United Kingdom
Hess Corp	United States

* SAM Industry Mover

Industry statistics

Number of companies in universe	76
Number of companies assessed in 2018	57
Assessed companies to total companies in universe	75%
Market of assessed companies to total market	91%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Paper & Forest Products

Driving forces

The paper and forest products industry consists of companies manufacturing timber, wood products and paper. Responsible management of plantations and sourcing of wood fibers is demonstrated through certification and chains of custody schemes. These provide assurance and traceability of the preservation of biodiversity, land rights and equitable sharing of benefits. Engaging with local stakeholders is essential in maintaining access to land and a social license to operate. Effectively managing water-related risks are crucial in ensuring productive plantations and reliable production. The priorities for paper production include operational eco-efficiency, climate strategy and occupational health and safety. Innovations such as converting waste biomass into bioplastics are opening up new market opportunities and sources of revenue streams. Moreover, the introduction of new technologies such as enzyme-based processes can help open up new sustainable business opportunities.

Highlighted criteria & Dimension weight

Economic Dimension..... 34%
– Corporate Governance
– Customer Relationship Management
– Supply Chain Management

Environmental Dimension 33%
– Product Stewardship
– Sustainable Fiber and Pulp Sourcing
– Sustainable Management of Forests

Social Dimension 33%
– Occupational Health and Safety
– Human Capital Development
– Social Impacts on Communities

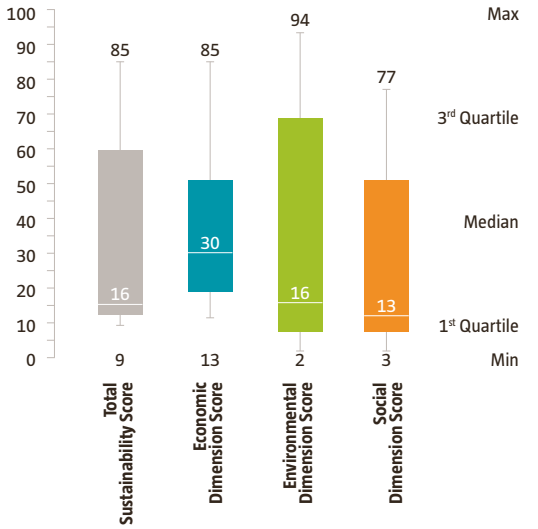
Sustainability leaders 2019

SAM Gold Class	
UPM-Kymmene OYJ	Finland
SAM Bronze Class	
Fibria Celulose SA	Brazil

Industry statistics

Number of companies in universe	15
Number of companies assessed in 2018	14
Assessed companies to total companies in universe	93%
Market of assessed companies to total market	100%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Personal Products

Driving forces

Personal products companies operate in a highly competitive, multi-brand environment. Brand management and product quality are driven by the need to continuously innovate, retain market positioning, or gain market share. Rigorous product stewardship addresses recurring concerns over product safety and a growing demand for advanced products while pushing companies to develop improved and reformulated versions of traditional products. In combination with a changing regulatory environment governing the use of ingredients and chemicals, these pressures drive innovation, which ultimately results in higher quality and safety standards. Product sourcing, the avoiding toxins, and placing a greater emphasis on more natural and sustainable products are key themes. These factors, as well as restrictions on emissions, energy consumption, and water use have a strong impact on production and operating costs. Successful companies are establishing R&D centers in regions where they are adapting and developing new products to suit local needs and tastes while structuring flexible, market-specific pricing strategies.

Highlighted criteria & Dimension weight

Economic Dimension..... 53%
– Brand Management
– Strategy for Emerging Markets
– Innovation Management
– Customer Relationship Management

Environmental Dimension 21%
– Operational Eco-Efficiency
– Product Stewardship
– Environmental Policy & Management Systems

Social Dimension 26%
– Human Capital Development
– Occupational Health and Safety

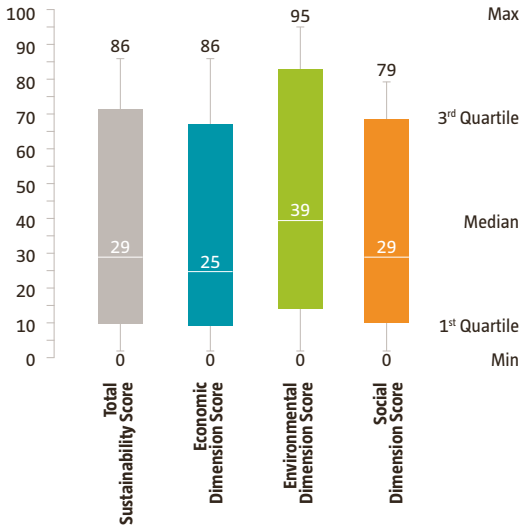
Sustainability leaders 2019

SAM Gold Class	●
Unilever NV	Netherlands
Sustainability Yearbook Members	●
LG Household & Health Care Ltd	South Korea
Kao Corp	Japan

Industry statistics

Number of companies in universe	26
Number of companies assessed in 2018	20
Assessed companies to total companies in universe	77%
Market of assessed companies to total market	93%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Pharmaceuticals

Driving forces

Pharmaceutical companies continue to face scrutiny related to pricing and reimbursement of their products as governments seek to slow the rise in healthcare costs and as public criticism of drug pricing practices remains a steady and contentious political issue. Companies are under pressure to demonstrate the value of their products and ensure their pricing practices are sustainable. The pharmaceutical industry relies heavily on human capital for innovation and the continuous development of novel medicines. The industry is characterized by extensive capital invested in R&D and a high risk of failure in product development, which makes attracting and retaining the most talented researchers and scientists essential and makes intellectual property management critical. Business ethics, competitive practices and product quality and safety remain important aspects. Violations have the potential to cause significant reputational and financial damage.

Highlighted criteria & Dimension weight

Economic Dimension..... 50%
– Codes of Business Conduct
– Innovation Management
– Product Quality and Recall Management

Environmental Dimension 9%
– Operational Eco-Efficiency
– Climate Strategy

Social Dimension 41%
– Talent Attraction & Retention
– Health Outcome Contribution
– Strategy to Improve Access to Drugs or Products
– Addressing Cost Burden

Sustainability leaders 2019

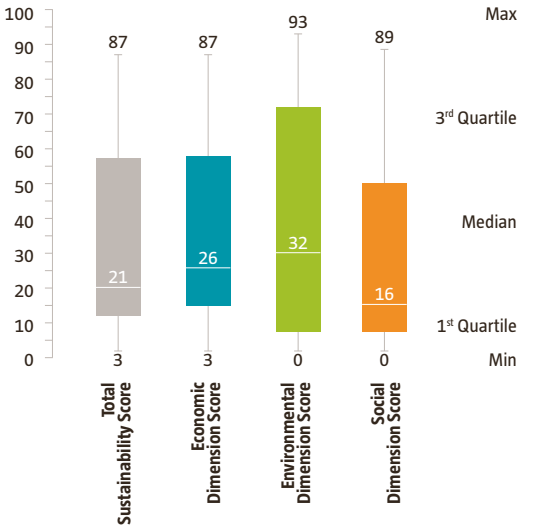
SAM Gold Class	
Roche Holding AG	Switzerland
SAM Silver Class	
GlaxoSmithKline PLC	United Kingdom
SAM Bronze Class	
AstraZeneca PLC	United Kingdom
Sustainability Yearbook Members	
Novartis AG	Switzerland
Daiichi Sankyo Co Ltd	Japan
Sanofi	France
Novo Nordisk A/S	Denmark
Takeda Pharmaceutical Co Ltd *	Japan
Chugai Pharmaceutical Co Ltd	Japan
Sumitomo Dainippon Pharma Co Ltd	Japan
Mitsubishi Tanabe Pharma Corp	Japan
Bristol-Myers Squibb Co	United States

* SAM Industry Mover

Industry statistics

Number of companies in universe	81
Number of companies assessed in 2018	64
Assessed companies to total companies in universe	79%
Market of assessed companies to total market	94%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Professional Services

Driving forces

Professional services companies provide a range of business support services in the areas of staffing, consumer credit ratings, research and analytics, and in the testing, inspection and certification of manufacturing or other business processes. As providers of specialized services, these are knowledge-intensive companies and their success depends on the quality of their workforce, making human capital development and talent attraction and retention particularly important. A reputation for integrity is critical in retaining customers and winning new business. Consequently, companies must ensure that employees comply with their codes of conduct and that services are delivered according to high ethical standards. Professional services companies are entrusted with customer data, making data security and cybersecurity top priorities if they wish to avoid negative reputational impacts.

Highlighted criteria & Dimension weight

Economic Dimension..... 42%
– Corporate Governance
– Codes of Business Conduct
– Customer Relationship Management

Environmental Dimension 16%
– Environmental Policy & Management Systems
– Operational Eco-Efficiency

Social Dimension 42%
– Human Capital Development
– Talent Attraction & Retention
– Labor Practice Indicators
– Occupational Health and Safety

Sustainability leaders 2019

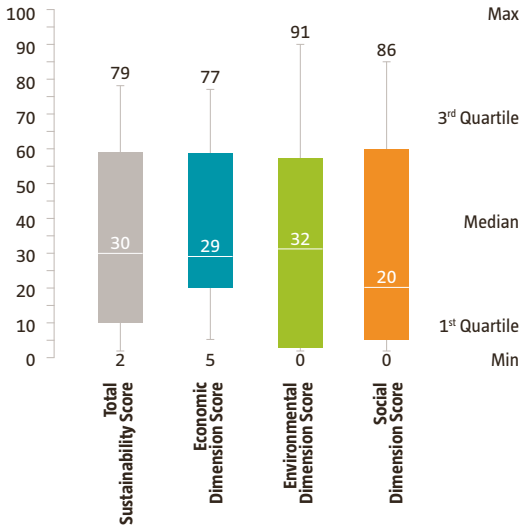
SAM Gold Class	
SGS SA	Switzerland
SAM Bronze Class	
Randstad NV	Netherlands
Nielsen Holdings PLC	United States
Sustainability Yearbook Members	
RELX PLC *	United Kingdom

* SAM Industry Mover

Industry statistics

Number of companies in universe	31
Number of companies assessed in 2018	28
Assessed companies to total companies in universe	90%
Market of assessed companies to total market	97%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Real Estate

Driving forces

Real estate is a heterogeneous industry consisting of developers and maintenance professionals as well as residential and commercial property managers and investors. Building and managing real estate offers social benefits but also depletes natural resources and releases pollutants into the land, air and water. Studies estimate that buildings account for 40% of global energy use and a third of global greenhouse gas emissions. Real estate's environmental footprint runs through the entire value chain, including the production of building materials, construction and ongoing operational efficiency. Sustainable real estate companies evaluate the environmental impact of their property construction and management, use resources efficiently and ensure procurement processes consider suppliers' sustainability aspects. These leading companies develop and manage spaces that improve the livelihoods and well-being of communities and individuals.

Highlighted criteria & Dimension weight

Economic Dimension..... 28%
– Corporate Governance
– Risk & Crisis Management
– Supply Chain Management

Environmental Dimension 38%
– Operational Eco-Efficiency
– Climate Strategy
– Resource Conservation and Resource Efficiency

Social Dimension 34%
– Human Capital Development
– Social Integration & Regeneration
– Stakeholder Engagement

Sustainability leaders 2019

SAM Gold Class	
Stockland	Australia
Dexus	Australia
SAM Silver Class	
Vicinity Centres	Australia
Gecina SA	France
SAM Bronze Class	
GPT Group	Australia
Mirvac Group	Australia
CapitaLand Ltd	Singapore
LendLease Group	Australia

Sustainability Yearbook Members

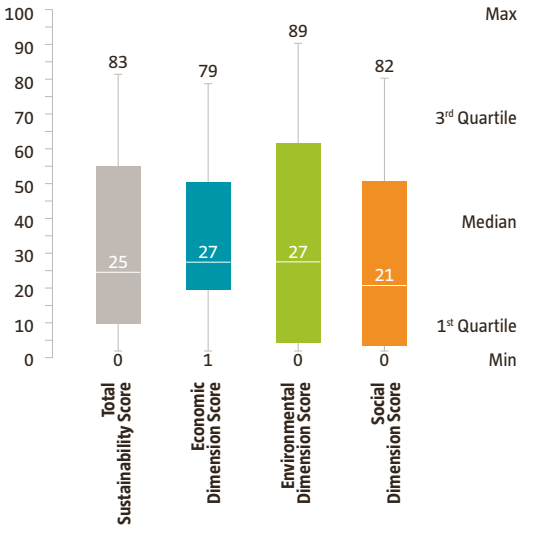
Land Securities Group PLC	United Kingdom	Host Hotels & Resorts Inc	United States
Castellum AB	Sweden	Ventas Inc	United States
British Land Co PLC	United Kingdom	Kimco Realty Corp	United States
Kilroy Realty Corp	United States	Klepierre SA	France
Swire Properties Ltd	Hong Kong	Covivio	France
Wereldhave NV	Netherlands	Charter Hall Group	Australia
Central Pattana PCL	Thailand	CBRE Group Inc	United States
Intu Properties PLC	United Kingdom	Nippon Prologis REIT Inc	Japan
Welltower Inc	United States	Ayala Land Inc	Philippines
City Developments Ltd	Singapore	Prologis Property Mexico SA de CV *	Mexico
Hammerson PLC	United Kingdom	HCP Inc	United States
Prologis Inc	United States	Daiwa House Industry Co Ltd	Japan

* SAM Industry Mover

Industry statistics

Number of companies in universe	240
Number of companies assessed in 2018	147
Assessed companies to total companies in universe	61%
Market of assessed companies to total market	78%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Restaurants & Leisure Facilities

Driving forces

The restaurant and leisure sector continues to be subject to scrutiny over accountability and transparency in its supply chain, including issues of worker welfare, food safety, sustainability and accurate labeling. Labor issues relating to fair wages and working conditions risk attracting increased attention from regulators and a range of other stakeholders in both developed and emerging markets, putting pressure on existing franchising, licensing and accountability systems. Furthermore, health-conscious consumers in developed markets are pushing companies towards greater innovation in their product and service offerings. Environmental challenges such as energy and water consumption need to be tackled globally, while data from company-owned and franchised locations must be consolidated for companies to effectively implement their global sustainability programs.

Highlighted criteria & Dimension weight

Economic Dimension..... 42%
– Supply Chain Management
– Codes of Business Conduct
– Customer Relationship Management

Environmental Dimension 18%
– Operational Eco-Efficiency
– Environmental Policy & Management Systems
– Raw Material Sourcing

Social Dimension 40%
– Talent Attraction & Retention
– Stakeholder Engagement
– Labor Practice Indicators

Sustainability leaders 2019

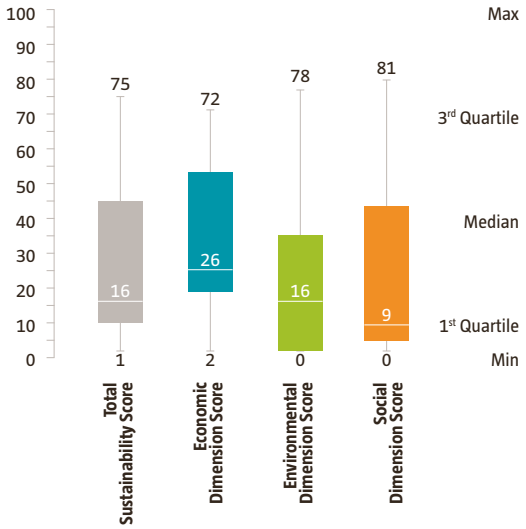
SAM Gold Class	
Sodexo SA	France
SAM Bronze Class	
Whitbread PLC *	United Kingdom
Sustainability Yearbook Members	
Compass Group PLC	United Kingdom
Yum! Brands Inc	United States

* SAM Industry Mover

Industry statistics

Number of companies in universe	28
Number of companies assessed in 2018	21
Assessed companies to total companies in universe	75%
Market of assessed companies to total market	93%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Retailing

Driving forces

The retailing industry is dominated by multinational companies with global supply and distribution networks focused on sophisticated inventory management, marketing strategies and technological development. Brand management is a determining factor and successful retailers develop strategies and technologies to retain and analyze customers' buying habits and implement more responsive and tailored customer relationship management systems. Distribution channels such as e-commerce platforms, home delivery services and pick-up systems are key value drivers. Faced with continuous stakeholder scrutiny, companies need to address the efficiency, safety and sustainability of their supply chain management, their distribution systems and the use and disposal of packaging. Labor and human rights issues within the supply chain also pose notable risks. Hence, retailers must establish long-term relationships with suppliers, integrate new technologies, and provide enhanced transparency and environmental awareness to minimize reputational risks and increase operational efficiency.

Highlighted criteria & Dimension weight

Economic Dimension 50%
– Supply Chain Management
– Brand Management
– Customer Relationship Management

Environmental Dimension 22%
– Operational Eco-Efficiency
– Environmental Policy & Management Systems
– Packaging

Social Dimension 28%
– Talent Attraction & Retention
– Human Capital Development
– Human Rights

Sustainability leaders 2019

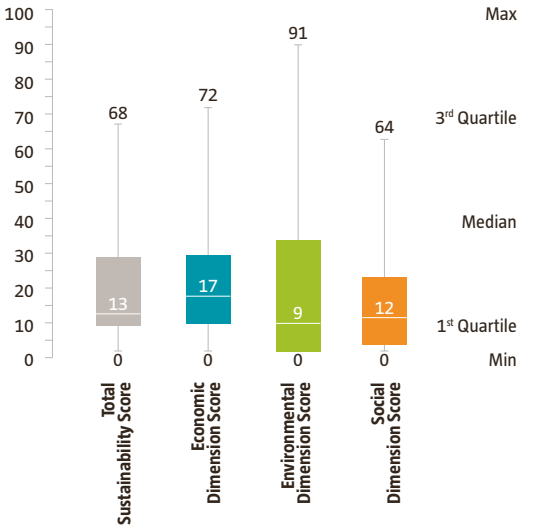
SAM Gold Class	
Industria de Diseno Textil SA	Spain
Home Product Center PCL	Thailand
SAM Silver Class	
Hennes & Mauritz AB	Sweden
SAM Bronze Class	
Marui Group Co Ltd *	Japan
Woolworths Holdings Ltd/South Africa	South Africa
SACI Falabella	Chile
Sustainability Yearbook Members	
Gap Inc	United States
Organizacion Terpel SA	Colombia
Lojas Renner SA	Brazil
Best Buy Co Inc	United States
Super Retail Group Ltd	Australia
Vipshop Holdings Ltd	China

* SAM Industry Mover

Industry statistics

Number of companies in universe	114
Number of companies assessed in 2018	99
Assessed companies to total companies in universe	87%
Market of assessed companies to total market	97%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Semiconductors & Semiconductor Equipment

Driving forces

The emerging drivers of the semiconductor industry go far beyond the traditional PC market and include the Internet of Things, Artificial Intelligence, automotives, 5G and high-performance computing. Cybersecurity is increasing in importance as a strategic priority, as security should be included by design during chip R&D. Moore's law is slowing as integrated circuits become smaller so the semiconductor industry must investigate new architectures, materials and packaging to go beyond current scaling and performance constraints while also addressing the demand for low-energy-consumption products. To sustain a rapid pace of innovation, the industry will increase R&D investment, in turn necessitating talent development while attracting and retaining a skilled workforce. The industry must continue to improve its usage of ultra-pure water, sourcing of conflict minerals, energy and waste management, pollution prevention, and the promotion of projects to substitute hazardous materials.

Highlighted criteria & Dimension weight

Economic Dimension..... 43%
– Corporate Governance
– Supply Chain Management
– Innovation Management

Environmental Dimension 34%
– Operational Eco-Efficiency
– Environmental Policy & Management Systems
– Climate Strategy
– Product Stewardship

Social Dimension 23%
– Talent Attraction & Retention
– Human Capital Development

Sustainability leaders 2019

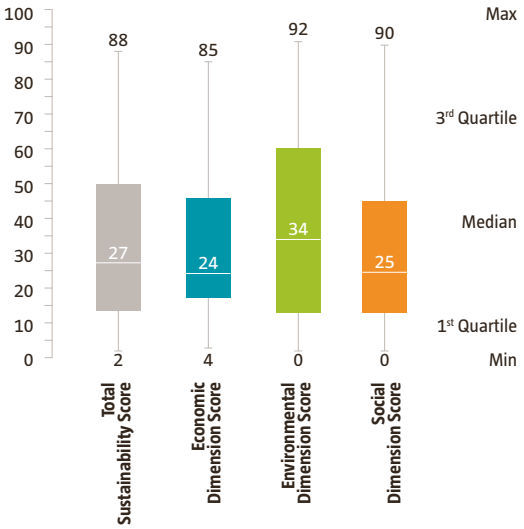
SAM Gold Class	●
ASE Technology Holding Co Ltd	Taiwan
SAM Bronze Class	●
Nanya Technology Corp	Taiwan
STMicroelectronics NV *	Italy
Taiwan Semiconductor Manufacturing Co Ltd	Taiwan
United Microelectronics Corp	Taiwan
Sustainability Yearbook Members	●
Infineon Technologies AG	Germany
ASML Holding NV	Netherlands
Tokyo Electron Ltd	Japan
SK Hynix Inc	South Korea
NVIDIA Corp	United States
ON Semiconductor Corp	United States

* SAM Industry Mover

Industry statistics

Number of companies in universe	78
Number of companies assessed in 2018	56
Assessed companies to total companies in universe	72%
Market of assessed companies to total market	94%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Software

Driving forces

Innovation and human capital are closely intertwined sustainability aspects for the software industry. The industry is characterized by rapid technological innovation, which demands a highly qualified, innovative workforce to identify disruptive trends and develop new products. Managing, training and developing employees is therefore crucial for profitability and growth. Customer loyalty and retention are also key drivers for long-term profitability. Furthermore, companies must ensure data security. As a growing amount of confidential data is processed and stored, governments are showing an increasing interest in legislating data privacy. On the consumer side, data security and privacy issues are starting to affect users' choices. Environmental footprint has not traditionally been seen as a critical issue for the software industry, but energy use is a future source of scrutiny as data centers require a constant supply of energy to avoid disruption.

Highlighted criteria & Dimension weight

Economic Dimension..... 52%
– Customer Relationship Management
– Innovation Management
– IT Security & System Availability
– Privacy Protection

Environmental Dimension 21%
– Operational Eco-Efficiency
– Climate Strategy
– Environmental Policy & Management Systems

Social Dimension 27%
– Talent Attraction & Retention
– Human Capital Development

Sustainability leaders 2019

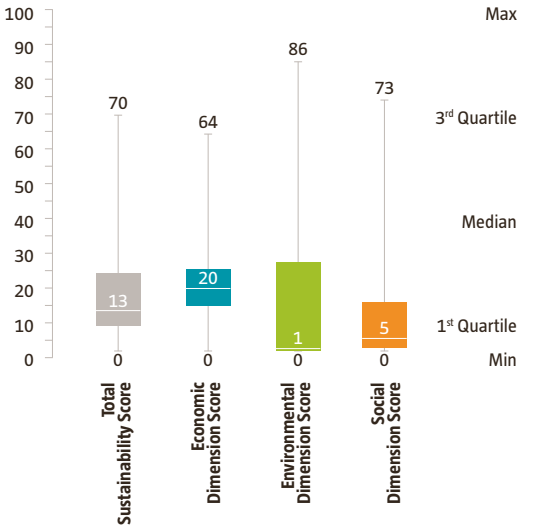
SAM Gold Class	
SAP SE	Germany
SAM Bronze Class	
Adobe Inc.	United States
Symantec Corp	United States
Sustainability Yearbook Members	
Microsoft Corp	United States
salesforce.com Inc *	United States

* SAM Industry Mover

Industry statistics

Number of companies in universe	74
Number of companies assessed in 2018	57
Assessed companies to total companies in universe	77%
Market of assessed companies to total market	96%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Steel

Driving forces

Steel's infinite recyclability provides opportunities for lowering production costs by reducing raw material inputs, energy use and the overall emissions footprint. Some grades of high-strength steel also offer opportunities for reducing energy consumption in the use phase by reducing the total amount of metal used (lightweighting). Primary production, however, continues to have significant environmental impacts as steel companies operate in a highly competitive environment subject to periodic overcapacity. Blast furnace production of steel leads to significant direct greenhouse gas emissions and other environmental impacts, using technology that is not expected to change significantly in the foreseeable future. Community concerns may also arise due to the presence of large production facilities that create excessive noise and air pollution and negatively impact land and property rights. Meanwhile, employee and contractor health and safety are critical indicators of operational excellence.

Highlighted criteria & Dimension weight

Economic Dimension..... 34%
– Codes of Business Conduct
– Corporate Governance
– Supply Chain Management

Environmental Dimension 33%
– Operational Eco-Efficiency
– Climate Strategy
– Water Related Risks

Social Dimension 33%
– Occupational Health and Safety
–Social Impacts on Communities
– Talent Attraction & Retention

Sustainability leaders 2019

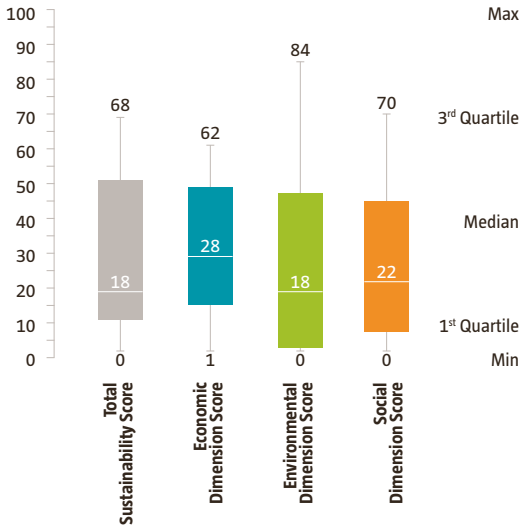
SAM Gold Class	
Tata Steel Ltd	India
SAM Bronze Class	
Hyundai Steel Co *	South Korea
China Steel Corp	Taiwan
Sustainability Yearbook Members	
POSCO	South Korea

* SAM Industry Mover

Industry statistics

Number of companies in universe	39
Number of companies assessed in 2018	33
Assessed companies to total companies in universe	85%
Market of assessed companies to total market	94%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Telecommunication Services

Driving forces

The telecommunications industry operates in a highly competitive, albeit heavily regulated, environment, where exposure to anti-trust action is pronounced. In order to remain competitive in a market subject to rapid technological change, companies need to adopt flexible business models that enable them to integrate next-generation technologies and produce innovative, energy-efficient solutions that address social and environmental issues. Implementing strong systems related to the privacy of customer data is important in retaining customers and avoiding regulatory issues. The increased use of smart devices has also increased the attention that consumers pay to data privacy. Insufficient database and network protection could further expose companies to reputational and legal risks. Cybersecurity and physical threats to network infrastructure (e.g. extreme weather events) can have significant economic impacts. Investing in data security and upgrading network infrastructure are therefore crucial.

Highlighted criteria & Dimension weight

Economic Dimension..... 47%
– Customer Relationship Management
– Privacy Protection
– Risk & Crisis Management
– Information Security & Cybersecurity
– Network Reliability

Environmental Dimension 20%
– Operational Eco-Efficiency
– Climate Strategy

Social Dimension 33%
– Human Capital Development
– Talent Attraction & Retention

Sustainability leaders 2019

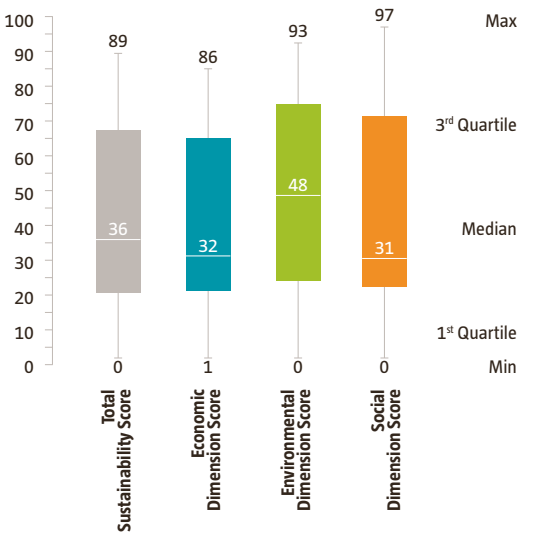
SAM Gold Class	
True Corp PCL	Thailand
SAM Silver Class	
Taiwan Mobile Co Ltd	Taiwan
Koninklijke KPN NV	Netherlands
SK Telecom Co Ltd	South Korea
NTT DOCOMO Inc	Japan
SAM Bronze Class	
Nippon Telegraph & Telephone Corp	Japan
KT Corp	South Korea
Telecom Italia SpA/Milano	Italy
Deutsche Telekom AG	Germany
TELUS Corp	Canada
Telefonica SA	Spain
Far EasTone Telecommunications Co Ltd *	Taiwan

* SAM Industry Mover

Industry statistics

Number of companies in universe	82
Number of companies assessed in 2018	68
Assessed companies to total companies in universe	83%
Market of assessed companies to total market	94%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Textiles, Apparel & Luxury Goods

Driving forces

Textile, apparel and luxury goods companies leverage their strong brand recognition, product and process innovation, and marketing and selling strategies to expand into new markets, product categories and consumer segments. Fast fashion and the expansion of online shopping platforms have resulted in continuous customer engagement. Faced with stakeholder scrutiny of occupational health and safety, human rights and labor law violations, and immense negative environmental impact in the supply chain, companies are under pressure to boost transparency throughout all tiers of their operations. Sustainability leaders in the industry integrate environmental considerations into the whole life-cycle process, from product design and raw materials sourcing at the front end to used product recycling at the back end. Businesses not only engage with suppliers and subcontractors on sustainability issues, but also actively monitor various practices and disclose the results to stakeholders to protect their reputation and ultimately, their brand and company value.

Highlighted criteria & Dimension weight

Economic Dimension.....41%
– Supply Chain Management
– Risk & Crisis Management
– Brand Management

Environmental Dimension 21%
– Operational Eco-Efficiency
– Environmental Policy & Management Systems
– Product Stewardship

Social Dimension 38%
– Human Capital Development
– Occupational Health and Safety
– Human Rights

Sustainability leaders 2019

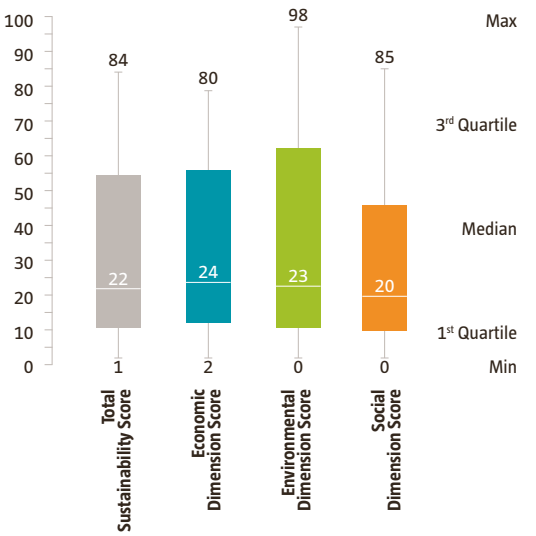
SAM Gold Class	
adidas AG	Germany
SAM Silver Class	
Burberry Group PLC	United Kingdom
Kering SA	France
HUGO BOSS AG	Germany
Sustainability Yearbook Members	
Moncler SpA *	Italy
Gildan Activewear Inc	Canada

* SAM Industry Mover

Industry statistics

Number of companies in universe	41
Number of companies assessed in 2018	36
Assessed companies to total companies in universe	88%
Market of assessed companies to total market	98%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Tobacco

Driving forces

According to the WHO, global smoking rates and sales are decreasing, but not uniformly. The tobacco industry's relationship with the public sector is critically important with regard to tax policies, regulations and efforts aimed at reducing cigarette smoking, especially among vulnerable groups like the young and the poor. The industry is under constant scrutiny by policymakers, the media and NGOs, which demand well-managed supply and distribution chains and a high degree of transparency. Following new tobacco control measures, it is becoming increasingly important for tobacco companies to diversify their product mix. This means moving away from traditional tobacco products and exploring innovative alternatives such as non-combustible (smokeless) tobacco and reduced-harm nicotine products (with low to zero tobacco) which claim to have lower health risks.

Highlighted criteria & Dimension weight

Economic Dimension..... 42%
– Codes of Business Conduct
– Risk & Crisis Management
– Supply Chain Management
– Brand Management

Environmental Dimension 24%
– Operational Eco-Efficiency
– Environmental Policy & Management Systems
– Raw Material Sourcing

Social Dimension 34%
– Occupational Health and Safety
– Human Capital Development

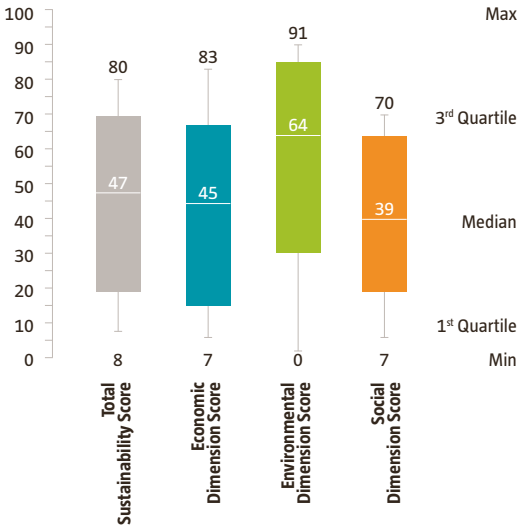
Sustainability leaders 2019

SAM Gold Class	
British American Tobacco PLC	United Kingdom

Industry statistics

Number of companies in universe	11
Number of companies assessed in 2018	10
Assessed companies to total companies in universe	91%
Market of assessed companies to total market	100%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Trading Companies & Distributors

Driving forces

The trading companies and distributors industry includes companies operating in wholesale and in the distribution of multiple goods. Due to their diverse business lines, companies rely heavily on corporate governance and management skills to operate. It is a knowledge-intensive industry, so fair labor practices, talent attraction and retention and human capital development are key to productivity and business success. Operating across a diverse range of business areas, companies operating in this industry faces considerable exposure to environmental and social risks, either directly through firms' own direct operations or indirectly in the supply chain. As a result, defining clear policies and risk management processes are important for long-term value creation. Environmental and social impact assessments and transparency with stakeholders are key to mitigate future operational and reputational risks.

Highlighted criteria & Dimension weight

Economic Dimension..... 43%
– Corporate Governance
– Supply Chain Management
– Customer Relationship Management

Environmental Dimension 19%
– Environmental Policy & Management Systems
– Operational Eco-Efficiency
– Environmental Reporting

Social Dimension 38%
– Talent Attraction & Retention
– Human Capital Development
– Occupational Health and Safety

Sustainability leaders 2019

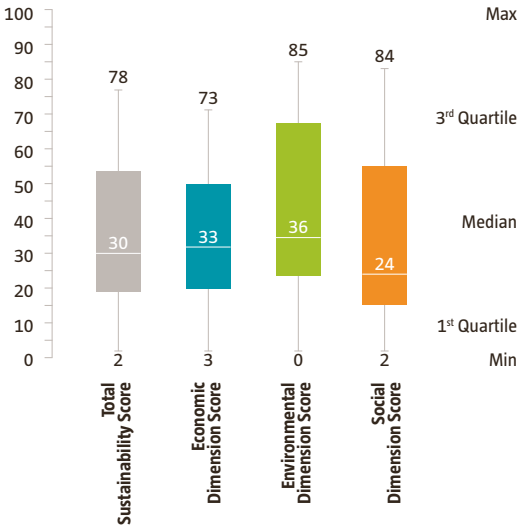
SAM Gold Class	●
ITOCHU Corp	Japan
SAM Silver Class	●
Sojitz Corp *	Japan
SAM Bronze Class	●
Mitsui & Co Ltd	Japan
Sustainability Yearbook Members	●
Marubeni Corp	Japan
Rexel SA	France

* SAM Industry Mover

Industry statistics

Number of companies in universe	35
Number of companies assessed in 2018	26
Assessed companies to total companies in universe	74%
Market of assessed companies to total market	90%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Transportation and Transportation Infrastructure

Driving forces

The transportation industry consists of a number of sub-industries, each with distinctive dynamics, competitive landscapes and sustainability issues. The most important material factor across the industry is the safe and efficient movement of goods and passengers. Additional key factors include fuel efficiency, operational eco-efficiency and occupational health and safety. Effectively managing transportation contributes to cost advantages, which influence companies' ability to offer competitive pricing and gain market share. Lower-carbon and more efficient transportation options provide an opportunity to acquire new customers and retain existing ones as more companies commit to reducing their carbon footprint along the entire value chain. Meanwhile, offering a high-quality, reliable service requires companies to develop an engaged and motivated workforce through effective human capital development programs. Companies must also work on their external image to enhance their ability to attract talented and skilled individuals.

Highlighted criteria & Dimension weight

Economic Dimension..... 34%
– Codes of Business Conduct
– Customer Relationship Management
– Risk & Crisis Management

Environmental Dimension 27%
– Operational Eco-Efficiency
– Climate Strategy
– Fuel Efficiency

Social Dimension 39%
– Occupational Health and Safety
– Stakeholder Engagement
– Talent Attraction & Retention

Sustainability leaders 2019

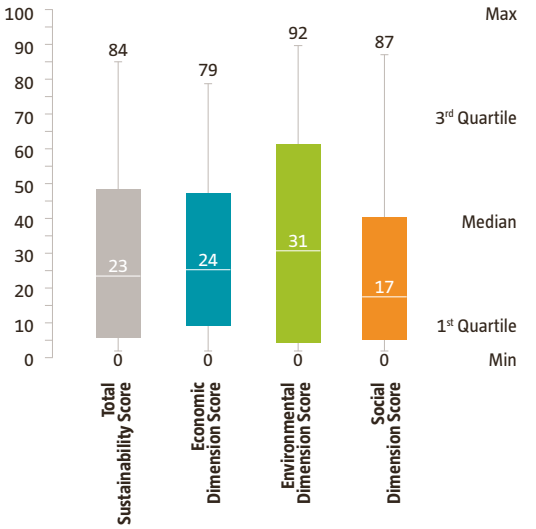
SAM Gold Class	
Royal Mail PLC	United Kingdom
SAM Bronze Class	
Transurban Group	Australia
PostNL NV	Netherlands
BTS Group Holdings PCL	Thailand
Sustainability Yearbook Members	
Canadian National Railway Co	Canada
Deutsche Post AG	Germany
Sydney Airport *	Australia
Aeroports de Paris	France
Airports of Thailand PCL	Thailand
United Parcel Service Inc	United States
CSX Corp	United States
bpost SA	Belgium

* SAM Industry Mover

Industry statistics

Number of companies in universe	104
Number of companies assessed in 2018	79
Assessed companies to total companies in universe	76%
Market of assessed companies to total market	89%

Results at industry level



The box-and-whisker plot describes the distribtution of scores in the industry, based on all assessed companies. More information is available in the Reading Instructions in the introduction.

Company overview

Company name	Industry	Country	SAM Distinction	SAM Industry Mover	Page
3M Co	Industrial Conglomerates	United States		●	94
AA PLC	Diversified Consumer Services	United Kingdom		●	79
Abbott Laboratories	Health Care Equipment & Supplies	United States	●		88
AbbVie Inc	Biotechnology	United States	●		68
ABN AMRO Group NV	Banks	Netherlands	●		66
Acciona SA	Electric Utilities	Spain			81
adidas AG	Textiles, Apparel & Luxury Goods	Germany	●		117
Adobe Inc	Software	United States	●		114
Aeroports de Paris	Transportation and Transportation Infrastructure	France			120
Agilent Technologies Inc	Life Sciences Tools & Services	United States			98
Air France-KLM	Airlines	France	●		62
Air Products & Chemicals Inc	Chemicals	United States			71
Airports of Thailand PCL	Transportation and Transportation Infrastructure	Thailand			120
Ajinomoto Co Inc	Food Products	Japan	●		86
Akzo Nobel NV	Chemicals	Netherlands	●		71
Alcoa Corp	Aluminum	United States	●	●	63
Allianz SE	Insurance	Germany	●		95
Alstom SA	Machinery and Electrical Equipment	France	●		99
Amadeus IT Group SA	IT services & Internet Software and Services	Spain	●		96
Ambuja Cements Ltd	Construction Materials	India	●		77
Amcor Ltd/Australia	Containers & Packaging	Australia			78
ANA Holdings Inc	Airlines	Japan	●		62
AngloGold Ashanti Ltd	Metals & Mining	South Africa			101
Anthem Inc	Health Care Providers & Services	United States			89
Arcelik AS	Household Durables	Turkey		●	92
Archer-Daniels-Midland Co	Food Products	United States		●	86
Asahi Group Holdings Ltd	Beverages	Japan			67
ASE Technology Holding Co Ltd	Semiconductors & Semiconductor Equipment	Taiwan	●		113
ASML Holding NV	Semiconductors & Semiconductor Equipment	Netherlands			113
ASR Nederland NV	Insurance	Netherlands		●	95
Assicurazioni Generali SpA	Insurance	Italy			95
AstraZeneca PLC	Pharmaceuticals	United Kingdom	●		108
Atos SE	IT services & Internet Software and Services	France	●		96
AU Optronics Corp	Electronic Equipment, Instruments & Components	Taiwan	●		83
Australia & New Zealand Banking Group Ltd	Banks	Australia	●		66
Aviva PLC	Insurance	United Kingdom			95
AXA SA	Insurance	France	●		95
Ayala Land Inc	Real Estate	Philippines			110
BAE Systems PLC	Aerospace & Defense	United Kingdom	●		61
Ball Corp	Containers & Packaging	United States	●		78

● SAM Gold Class ● SAM Silver Class ● SAM Bronze Class

Company name	Industry	Country	SAM Distinction	SAM Industry Mover	Page
Banco Bilbao Vizcaya Argentaria SA	Banks	Spain	●		66
Banco Bradesco SA	Banks	Brazil	●		66
Banco Davivienda SA	Banks	Colombia			66
Banco do Brasil SA	Banks	Brazil			66
Banco Santander SA	Banks	Spain	●		66
Bancolombia SA	Banks	Colombia	●		66
Bank of America Corp	Banks	United States	●		66
Bank of Montreal	Banks	Canada			66
Bank of New York Mellon Corp	Diversified Financial Services and Capital Markets	United States			80
Bank of Nova Scotia	Banks	Canada	●	●	66
Bankia SA	Banks	Spain			66
Bankinter SA	Banks	Spain	●		66
Banpu PCL	Coal & Consumable Fuels	Thailand	●		72
Barclays PLC	Banks	United Kingdom			66
Barrick Gold Corp	Metals & Mining	Canada	●		101
Baxter International Inc	Health Care Equipment & Supplies	United States			88
Bayerische Motoren Werke AG	Automobiles	Germany	●		65
Benesse Holdings Inc	Diversified Consumer Services	Japan			79
Best Buy Co Inc	Retailing	United States			112
BillerudKorsnas AB	Containers & Packaging	Sweden	●	●	78
Biogen Inc	Biotechnology	United States	●	●	68
BNP Paribas SA	Banks	France			66
bpost SA	Transportation and Transportation Infrastructure	Belgium			120
Brambles Ltd	Commercial Services & Supplies	Australia	●		73
Braskem SA	Chemicals	Brazil			71
Bridgestone Corp	Auto Components	Japan			64
Bristol-Myers Squibb Co	Pharmaceuticals	United States			108
British American Tobacco PLC	Tobacco	United Kingdom	●		118
British Land Co PLC	Real Estate	United Kingdom			110
BTS Group Holdings PCL	Transportation and Transportation Infrastructure	Thailand	●		120
Burberry Group PLC	Textiles, Apparel & Luxury Goods	United Kingdom	●		117
CaixaBank SA	Banks	Spain	●		66
Campbell Soup Co	Food Products	United States			86
Canadian National Railway Co	Transportation and Transportation Infrastructure	Canada			120
CapitaLand Ltd	Real Estate	Singapore	●		110
Carrefour SA	Food & Staples Retailing	France	●		85
Casino Guichard Perrachon SA	Food & Staples Retailing	France			85
Castellum AB	Real Estate	Sweden			110
Caterpillar Inc	Machinery and Electrical Equipment	United States			99
Cathay Financial Holding Co Ltd	Insurance	Taiwan	●		95

● SAM Gold Class ● SAM Silver Class ● SAM Bronze Class

Company name	Industry	Country	SAM Distinction	SAM Industry Mover	Page
CBRE Group Inc	Real Estate	United States			110
Celsia SA ESP	Electric Utilities	Colombia	●		81
Cementos Argos SA	Construction Materials	Colombia	●		77
Central Pattana PCL	Real Estate	Thailand			110
Charoen Pokphand Foods PCL	Food Products	Thailand	●		86
Charter Hall Group	Real Estate	Australia			110
China Airlines Ltd	Airlines	Taiwan	●	●	62
China Steel Corp	Steel	Taiwan	●		115
Chugai Pharmaceutical Co Ltd	Pharmaceuticals	Japan			108
Cia Energetica de Minas Gerais	Electric Utilities	Brazil			81
Cie de Saint-Gobain	Building Products	France			69
Cie Plastic Omnium SA	Auto Components	France			64
Cielo SA	IT services & Internet Software and Services	Brazil			96
Cigna Corp	Health Care Providers & Services	United States	●		89
Cisco Systems Inc	Communications Equipment	United States	●	●	74
Citigroup Inc	Banks	United States			66
City Developments Ltd	Real Estate	Singapore			110
CJ CheilJedang Corp	Food Products	Republic of Korea			86
Clariant AG	Chemicals	Switzerland	●		71
CNH Industrial NV	Machinery and Electrical Equipment	Italy	●		99
Coca-Cola European Partners PLC	Beverages	Spain	●		67
Coca-Cola HBC AG	Beverages	Switzerland	●		67
Colgate-Palmolive Co	Household Products	United States	●		93
Colombina SA	Food Products	Colombia			86
Compass Group PLC	Restaurants & Leisure Facilities	United Kingdom			111
ConocoPhillips	Oil & Gas - Upstream & Integrated	United States			105
Covivio	Real Estate	France			110
CP ALL PCL	Food & Staples Retailing	Thailand	●		85
Credit Suisse Group AG	Diversified Financial Services and Capital Markets	Switzerland			80
CRH PLC	Construction Materials	Ireland	●		77
CSX Corp	Transportation and Transportation Infrastructure	United States			120
CTCI Corp	Construction & Engineering	Taiwan	●		76
Cummins Inc	Machinery and Electrical Equipment	United States			99
Dai-ichi Life Holdings Inc	Insurance	Japan			95
Daiichi Sankyo Co Ltd	Pharmaceuticals	Japan			108
Daiwa House Industry Co Ltd	Real Estate	Japan			110
Daiwa Securities Group Inc	Diversified Financial Services and Capital Markets	Japan			80
Danone SA	Food Products	France			86
DaVita Inc	Health Care Providers & Services	United States			89
DB Insurance Co Ltd	Insurance	Republic of Korea			95

● SAM Gold Class ● SAM Silver Class ● SAM Bronze Class

Company name	Industry	Country	SAM Distinction	SAM Industry Mover	Page
Delta Electronics Inc	Electronic Equipment, Instruments & Components	Taiwan	●		83
Delta Electronics Thailand PCL	Electronic Equipment, Instruments & Components	Thailand			83
Deutsche Boerse AG	Diversified Financial Services and Capital Markets	Germany			80
Deutsche Post AG	Transportation and Transportation Infrastructure	Germany			120
Deutsche Telekom AG	Telecommunication Services	Germany	●		116
Dexus	Real Estate	Australia	●		110
Diageo PLC	Beverages	United Kingdom	●		67
DIC Corp	Chemicals	Japan			71
Doosan Corp	Industrial Conglomerates	Republic of Korea			94
Doosan Heavy Industries & Construction Co Ltd	Machinery and Electrical Equipment	Republic of Korea			99
DowDuPont Inc	Chemicals	United States			71
E.Sun Financial Holding Co Ltd	Banks	Taiwan	●		66
Ecolab Inc	Chemicals	United States			71
EDP - Energias de Portugal SA	Electric Utilities	Portugal	●		81
Edwards Lifesciences Corp	Health Care Equipment & Supplies	United States		●	88
Electricite de France SA	Electric Utilities	France			81
Electrolux AB	Household Durables	Sweden	●		92
Embraer SA	Aerospace & Defense	Brazil	●		61
Enagas SA	Oil & Gas - Storage & Transportation	Spain	●	●	104
Endesa SA	Electric Utilities	Spain	●		81
Enel Americas SA	Electric Utilities	Chile		●	81
Enel SpA	Electric Utilities	Italy	●		81
Engie SA	Multi- and Water Utilities	France	●		102
EssilorLuxottica SA	Health Care Equipment & Supplies	France			88
Essity AB	Household Products	Sweden	●	●	93
Evonik Industries AG	Chemicals	Germany			71
Exelon Corp	Electric Utilities	United States			81
Far EasTone Telecommunications Co Ltd	Telecommunication Services	Taiwan	●	●	116
Ferrovial SA	Construction & Engineering	Spain	●		76
Fibria Celulose SA	Paper & Forest Products	Brazil	●		106
First Financial Holding Co Ltd	Banks	Taiwan	●		66
Fubon Financial Holding Co Ltd	Diversified Financial Services and Capital Markets	Taiwan	●		80
Fujitsu Ltd	IT services & Internet Software and Services	Japan	●		96
Galp Energia SGPS SA	Oil & Gas - Upstream & Integrated	Portugal	●		105
Gap Inc	Retailing	United States			112
Gecina SA	Real Estate	France	●		110
General Mills Inc	Food Products	United States			86
General Motors Co	Automobiles	United States	●		65

● SAM Gold Class ● SAM Silver Class ● SAM Bronze Class

Company name	Industry	Country	SAM Distinction	SAM Industry Mover	Page
Gildan Activewear Inc	Textiles, Apparel & Luxury Goods	Canada			117
GlaxoSmithKline PLC	Pharmaceuticals	United Kingdom	●		108
Gold Fields Ltd	Metals & Mining	South Africa	●		101
Goldcorp Inc	Metals & Mining	Canada			101
GPT Group	Real Estate	Australia	●		110
Grupo Argos SA/Colombia	Construction Materials	Colombia	●		77
Grupo de Inversiones Suramericana SA	Diversified Financial Services and Capital Markets	Colombia	●		80
Grupo Energia Bogota SA ESP	Gas Utilities	Colombia			87
Grupo Nutresa SA	Food Products	Colombia	●		86
GS Engineering & Construction Corp	Construction & Engineering	Republic of Korea	●		76
GVC Holdings PLC	Casinos & Gaming	United Kingdom	●		70
Hammerson PLC	Real Estate	United Kingdom			110
Hankook Tire Co Ltd	Auto Components	Republic of Korea	●	●	64
HCP Inc	Real Estate	United States			110
Henkel AG & Co KGaA	Household Products	Germany	●		93
Hennes & Mauritz AB	Retailing	Sweden	●		112
Hershey Co	Food Products	United States			86
Hess Corp	Oil & Gas - Upstream & Integrated	United States			105
Hewlett Packard Enterprise Co	Computers & Peripherals and Office Electronics	United States	●		75
Hilton Worldwide Holdings Inc	Hotels, Resorts & Cruise Lines	United States	●	●	91
Hindustan Zinc Ltd	Metals & Mining	India			101
HOCHTIEF AG	Construction & Engineering	Germany	●		76
Home Product Center PCL	Retailing	Thailand	●		112
Honda Motor Co Ltd	Automobiles	Japan	●		65
Hong Kong Exchanges & Clearing Ltd	Diversified Financial Services and Capital Markets	Hong Kong			80
Host Hotels & Resorts Inc	Real Estate	United States			110
HP Inc	Computers & Peripherals and Office Electronics	United States	●		75
HUGO BOSS AG	Textiles, Apparel & Luxury Goods	Germany	●		117
Hyundai Engineering & Construction Co Ltd	Construction & Engineering	Republic of Korea	●		76
Hyundai Mobis Co Ltd	Auto Components	Republic of Korea			64
Hyundai Steel Co	Steel	Republic of Korea	●	●	115
Iberdrola SA	Electric Utilities	Spain	●		81
ICA Gruppen AB	Food & Staples Retailing	Sweden		●	85
Illumina Inc	Life Sciences Tools & Services	United States		●	98
Incitec Pivot Ltd	Chemicals	Australia			71
Indorama Ventures PCL	Chemicals	Thailand			71
Indra Sistemas SA	IT services & Internet Software and Services	Spain			96
Industria de Diseno Textil SA	Retailing	Spain	●		112

● SAM Gold Class ● SAM Silver Class ● SAM Bronze Class

Company name	Industry	Country	SAM Distinction	SAM Industry Mover	Page
Infineon Technologies AG	Semiconductors & Semiconductor Equipment	Germany			113
Informa PLC	Media	United Kingdom			100
Infosys Ltd	IT services & Internet Software and Services	India			96
ING Groep NV	Banks	Netherlands			66
Ingersoll-Rand PLC	Machinery and Electrical Equipment	United States			99
Innolux Corp	Electronic Equipment, Instruments & Components	Taiwan	●	●	83
Insurance Australia Group Ltd	Insurance	Australia			95
Interconexion Electrica SA ESP	Electric Utilities	Colombia			81
InterContinental Hotels Group PLC	Hotels, Resorts & Cruise Lines	United Kingdom	●		91
International Flavors & Fragrances Inc	Chemicals	United States		●	71
Intesa Sanpaolo SpA	Banks	Italy	●		66
Intu Properties PLC	Real Estate	United Kingdom			110
Investec PLC	Diversified Financial Services and Capital Markets	United Kingdom			80
IRPC PCL	Oil & Gas - Refining & Marketing	Thailand	●	●	103
ISS A/S	Commercial Services & Supplies	Denmark			73
Itau Unibanco Holding SA	Banks	Brazil	●		66
Itausa - Investimentos Itau SA	Banks	Brazil	●		66
ITOCHU Corp	Trading Companies & Distributors	Japan	●		119
JCDecaux SA	Media	France			100
Kao Corp	Personal Products	Japan			107
Kasikornbank PCL	Banks	Thailand	●		66
KB Financial Group Inc	Banks	Republic of Korea	●		66
Kellogg Co	Food Products	United States			86
Kering SA	Textiles, Apparel & Luxury Goods	France	●		117
Kesko OYJ	Food & Staples Retailing	Finland	●		85
Kilroy Realty Corp	Real Estate	United States			110
Kimco Realty Corp	Real Estate	United States			110
Kinross Gold Corp	Metals & Mining	Canada			101
Klabin SA	Containers & Packaging	Brazil			78
Klepierre SA	Real Estate	France			110
Komatsu Ltd	Machinery and Electrical Equipment	Japan			99
Konica Minolta Inc	Computers & Peripherals and Office Electronics	Japan	●		75
Koninklijke Ahold Delhaize NV	Food & Staples Retailing	Netherlands	●		85
Koninklijke DSM NV	Chemicals	Netherlands	●		71
Koninklijke KPN NV	Telecommunication Services	Netherlands	●		116
Koninklijke Philips NV	Health Care Equipment & Supplies	Netherlands	●		88
KT Corp	Telecommunication Services	Republic of Korea	●		116
Lagardere SCA	Media	France			100
Land Securities Group PLC	Real Estate	United Kingdom			110
LANXESS AG	Chemicals	Germany	●		71

● SAM Gold Class ● SAM Silver Class ● SAM Bronze Class

Company name	Industry	Country	SAM Distinction	SAM Industry Mover	Page
Latam Airlines Group SA	Airlines	Chile			62
Legrand SA	Electrical Components & Equipment	France	●	●	82
LendLease Group	Real Estate	Australia	●		110
Leonardo SpA	Aerospace & Defense	Italy	●	●	61
LG Chem Ltd	Chemicals	Republic of Korea			71
LG Display Co Ltd	Electronic Equipment, Instruments & Components	Republic of Korea			83
LG Electronics Inc	Leisure Equipment & Products and Consumer Electronics	Republic of Korea	●		97
LG Household & Health Care Ltd	Personal Products	Republic of Korea			107
LG Innotek Co Ltd	Electronic Equipment, Instruments & Components	Republic of Korea			83
Liberty Global PLC	Media	United States			100
Linde PLC	Chemicals	United States	●		71
LIXIL Group Corp	Building Products	Japan			69
Lockheed Martin Corp	Aerospace & Defense	United States	●		61
Lojas Renner SA	Retailing	Brazil			112
London Stock Exchange Group PLC	Diversified Financial Services and Capital Markets	United Kingdom			80
Mahindra & Mahindra Financial Services Ltd	Diversified Financial Services and Capital Markets	India			80
Mahindra & Mahindra Ltd	Automobiles	India		●	65
Mapfre SA	Insurance	Spain			95
Marubeni Corp	Trading Companies & Distributors	Japan			119
Marui Group Co Ltd	Retailing	Japan	●	●	112
Mazda Motor Corp	Automobiles	Japan	●		65
Medtronic PLC	Health Care Equipment & Supplies	United States			88
Melia Hotels International SA	Hotels, Resorts & Cruise Lines	Spain	●		91
METRO AG	Food & Staples Retailing	Germany	●		85
Microsoft Corp	Software	United States			114
Mirae Asset Daewoo Co Ltd	Diversified Financial Services and Capital Markets	Republic of Korea			80
Mirvac Group	Real Estate	Australia	●		110
Mitsubishi Chemical Holdings Corp	Chemicals	Japan			71
Mitsubishi Heavy Industries Ltd	Machinery and Electrical Equipment	Japan			99
Mitsubishi Tanabe Pharma Corp	Pharmaceuticals	Japan			108
Mitsui & Co Ltd	Trading Companies & Distributors	Japan	●		119
MOL Hungarian Oil & Gas PLC	Oil & Gas - Upstream & Integrated	Hungary			105
Molson Coors Brewing Co	Beverages	United States		●	67
Moncler SpA	Textiles, Apparel & Luxury Goods	Italy		●	117
Mondelez International Inc	Food Products	United States	●		86
MS&AD Insurance Group Holdings Inc	Insurance	Japan			95
Muenchener Rueckversicherungs-Gesellschaft AG in Muenchen	Insurance	Germany			95

● SAM Gold Class ● SAM Silver Class ● SAM Bronze Class

Company name	Industry	Country	SAM Distinction	SAM Industry Mover	Page
Nabtesco Corp	Machinery and Electrical Equipment	Japan			99
Nanya Technology Corp	Semiconductors & Semiconductor Equipment	Taiwan	●		113
National Australia Bank Ltd	Banks	Australia			66
Naturgy Energy Group SA	Gas Utilities	Spain	●		87
Nedbank Group Ltd	Banks	South Africa			66
Neste Oyj	Oil & Gas - Refining & Marketing	Finland	●		103
Nestle SA	Food Products	Switzerland	●		86
Newmont Mining Corp	Metals & Mining	United States	●		101
NGK Spark Plug Co Ltd	Auto Components	Japan			64
Nielsen Holdings PLC	Professional Services	United States	●		109
Nikon Corp	Leisure Equipment & Products and Consumer Electronics	Japan			97
Nippon Prologis REIT Inc	Real Estate	Japan			110
Nippon Telegraph & Telephone Corp	Telecommunication Services	Japan	●		116
Nissin Foods Holdings Co Ltd	Food Products	Japan			86
NN Group NV	Insurance	Netherlands	●		95
Nokia OYJ	Communications Equipment	Finland			74
Nokian Renkaat OYJ	Auto Components	Finland	●		64
Nomura Holdings Inc	Diversified Financial Services and Capital Markets	Japan			80
Nomura Research Institute Ltd	IT services & Internet Software and Services	Japan		●	96
Norsk Hydro ASA	Aluminum	Norway	●		63
Novartis AG	Pharmaceuticals	Switzerland			108
Novo Nordisk A/S	Pharmaceuticals	Denmark			108
Novozymes A/S	Chemicals	Denmark			71
NTT Data Corp	IT services & Internet Software and Services	Japan	●		96
NTT DOCOMO Inc	Telecommunication Services	Japan	●		116
NVIDIA Corp	Semiconductors & Semiconductor Equipment	United States			113
Oil Search Ltd	Oil & Gas - Upstream & Integrated	Australia			105
Omron Corp	Electronic Equipment, Instruments & Components	Japan			83
OMV AG	Oil & Gas - Upstream & Integrated	Austria		●	105
ON Semiconductor Corp	Semiconductors & Semiconductor Equipment	United States			113
Organizacion Terpel SA	Retailing	Colombia			112
Osaka Gas Co Ltd	Gas Utilities	Japan			87
Oshkosh Corp	Machinery and Electrical Equipment	United States			99
Outotec OYJ	Machinery and Electrical Equipment	Finland			99
Owens Corning	Building Products	United States	●		69
Pearson PLC	Media	United Kingdom			100
Peugeot SA	Automobiles	France	●		65
Pirelli & C SpA	Auto Components	Italy	●		64
Polymetal International PLC	Metals & Mining	Russian Federation		●	101
POSCO	Steel	Republic of Korea			115

● SAM Gold Class ● SAM Silver Class ● SAM Bronze Class

Company name	Industry	Country	SAM Distinction	SAM Industry Mover	Page
PostNL NV	Transportation and Transportation Infrastructure	Netherlands	●		120
Prologis Inc	Real Estate	United States			110
Prologis Property Mexico SA de CV	Real Estate	Mexico		●	110
Promigas SA ESP	Gas Utilities	Colombia			87
Provident Financial PLC	Diversified Financial Services and Capital Markets	United Kingdom			80
PTT Exploration & Production PCL	Oil & Gas - Upstream & Integrated	Thailand	●		105
PTT Global Chemical PCL	Chemicals	Thailand	●		71
PTT PCL	Oil & Gas - Upstream & Integrated	Thailand	●		105
Pulmuone Co Ltd	Food Products	Republic of Korea			86
Randgold Resources Ltd	Metals & Mining	United Kingdom			101
Randstad NV	Professional Services	Netherlands	●		109
Reckitt Benckiser Group PLC	Household Products	United Kingdom	●		93
Red Electrica Corp SA	Electric Utilities	Spain	●		81
RELX PLC	Professional Services	United Kingdom		●	109
Republic Services Inc	Commercial Services & Supplies	United States	●		73
Rexel SA	Trading Companies & Distributors	France			119
Ricoh Co Ltd	Computers & Peripherals and Office Electronics	Japan	●	●	75
Rio Tinto PLC	Metals & Mining	United Kingdom			101
Roche Holding AG	Pharmaceuticals	Switzerland	●		108
Rolls-Royce Holdings PLC	Aerospace & Defense	United Kingdom	●		61
Royal Bank of Canada	Banks	Canada			66
Royal Bank of Scotland Group PLC	Banks	United Kingdom	●		66
Royal Dutch Shell PLC	Oil & Gas - Upstream & Integrated	United Kingdom			105
Royal Mail PLC	Transportation and Transportation Infrastructure	United Kingdom	●		120
S&P Global Inc	Diversified Financial Services and Capital Markets	United States			80
SACI Falabella	Retailing	Chile	●		112
Saipem SpA	Energy Equipment & Services	Italy	●		84
salesforce.com Inc	Software	United States		●	114
Samsung C&T Corp	Industrial Conglomerates	Republic of Korea	●		94
Samsung Electro-Mechanics Co Ltd	Electronic Equipment, Instruments & Components	Republic of Korea	●		83
Samsung Electronics Co Ltd	Computers & Peripherals and Office Electronics	Republic of Korea	●		75
Samsung Engineering Co Ltd	Construction & Engineering	Republic of Korea	●		76
Samsung Fire & Marine Insurance Co Ltd	Insurance	Republic of Korea			95
Samsung Life Insurance Co Ltd	Insurance	Republic of Korea			95
Samsung SDI Co Ltd	Electronic Equipment, Instruments & Components	Republic of Korea			83

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Company name	Industry	Country	SAM Distinction	SAM Industry Mover	Page
Samsung Securities Co Ltd	Diversified Financial Services and Capital Markets	Republic of Korea			80
Sandvik AB	Machinery and Electrical Equipment	Sweden			99
Sanofi	Pharmaceuticals	France			108
SAP SE	Software	Germany	●		114
Schlumberger Ltd	Energy Equipment & Services	United States			84
Schneider Electric SE	Electrical Components & Equipment	France	●		82
Sekisui Chemical Co Ltd	Homebuilding	Japan	●		90
Sekisui House Ltd	Homebuilding	Japan	●		90
Sempra Energy	Multi- and Water Utilities	United States	●		102
Seven & i Holdings Co Ltd	Food & Staples Retailing	Japan			85
SGS SA	Professional Services	Switzerland	●		109
Shinhan Financial Group Co Ltd	Banks	Republic of Korea	●		66
Siam Cement PCL	Construction Materials	Thailand	●		77
Siam Commercial Bank PCL	Banks	Thailand	●		66
Siemens AG	Industrial Conglomerates	Germany	●		94
Siemens Gamesa Renewable Energy SA	Machinery and Electrical Equipment	Spain			99
Signify NV	Electrical Components & Equipment	Netherlands	●		82
SK Holdings Co Ltd	Industrial Conglomerates	Republic of Korea	●		94
SK Hynix Inc	Semiconductors & Semiconductor Equipment	Republic of Korea			113
SK Innovation Co Ltd	Oil & Gas - Refining & Marketing	Republic of Korea	●		103
SK Telecom Co Ltd	Telecommunication Services	Republic of Korea	●		116
Skandinaviska Enskilda Banken AB	Banks	Sweden	●		66
SKYCITY Entertainment Group Ltd	Casinos & Gaming	New Zealand			70
Smith & Nephew PLC	Health Care Equipment & Supplies	United Kingdom			88
Snam SpA	Oil & Gas - Storage & Transportation	Italy	●		104
Societe Generale SA	Banks	France			66
Sodexo SA	Restaurants & Leisure Facilities	France	●		111
S-Oil Corp	Oil & Gas - Refining & Marketing	Republic of Korea	●		103
Sojitz Corp	Trading Companies & Distributors	Japan	●	●	119
Solvay SA	Chemicals	Belgium			71
Sompo Holdings Inc	Insurance	Japan			95
Sonova Holding AG	Health Care Equipment & Supplies	Switzerland			88
Standard Life Aberdeen PLC	Diversified Financial Services and Capital Markets	United Kingdom			80
Stanley Black & Decker Inc	Machinery and Electrical Equipment	United States	●	●	99
Star Entertainment Grp Ltd	Casinos & Gaming	Australia	●		70
State Street Corp	Diversified Financial Services and Capital Markets	United States			80
STMicroelectronics NV	Semiconductors & Semiconductor Equipment	Italy	●	●	113

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Company name	Industry	Country	SAM Distinction	SAM Industry Mover	Page
Stockland	Real Estate	Australia	●		110
Suez	Multi- and Water Utilities	France	●		102
Sumitomo Dainippon Pharma Co Ltd	Pharmaceuticals	Japan			108
Sumitomo Forestry Co Ltd	Homebuilding	Japan	●	●	90
Super Retail Group Ltd	Retailing	Australia			112
Svenska Handelsbanken AB	Banks	Sweden			66
Swedbank AB	Banks	Sweden	●		66
Swire Properties Ltd	Real Estate	Hong Kong			110
Swiss Re AG	Insurance	Switzerland	●		95
Sydney Airport	Transportation and Transportation Infrastructure	Australia		●	120
Symantec Corp	Software	United States	●		114
Sysmex Corp	Health Care Equipment & Supplies	Japan			88
Tabcorp Holdings Ltd	Casinos & Gaming	Australia	●		70
Taishin Financial Holding Co Ltd	Banks	Taiwan	●		66
Taiwan Mobile Co Ltd	Telecommunication Services	Taiwan	●		116
Taiwan Semiconductor Manufacturing Co Ltd	Semiconductors & Semiconductor Equipment	Taiwan	●		113
Takeda Pharmaceutical Co Ltd	Pharmaceuticals	Japan		●	108
Tata Consultancy Services Ltd	IT services & Internet Software and Services	India			96
Tata Steel Ltd	Steel	India	●		115
Tech Mahindra Ltd	IT services & Internet Software and Services	India	●		96
Teck Resources Ltd	Metals & Mining	Canada	●		101
Telecom Italia SpA/Milano	Telecommunication Services	Italy	●		116
Telefonica SA	Telecommunication Services	Spain	●		116
Telenet Group Holding NV	Media	Belgium	●	●	100
Television Francaise 1	Media	France			100
TELUS Corp	Telecommunication Services	Canada	●		116
Terna Rete Elettrica Nazionale SpA	Electric Utilities	Italy	●		81
Thai Beverage PCL	Beverages	Thailand	●		67
Thai Oil PCL	Oil & Gas - Refining & Marketing	Thailand	●		103
Thai Union Group PCL	Food Products	Thailand	●		86
Thales SA	Aerospace & Defense	France	●		61
Tokio Marine Holdings Inc	Insurance	Japan	●		95
Tokyo Electron Ltd	Semiconductors & Semiconductor Equipment	Japan			113
Toppan Printing Co Ltd	Commercial Services & Supplies	Japan	●		73
Toronto-Dominion Bank	Banks	Canada	●		66
TOTAL SA	Oil & Gas - Upstream & Integrated	France	●		105
TOTO Ltd	Building Products	Japan	●	●	69
TransCanada Corp	Oil & Gas - Storage & Transportation	Canada			104
Transurban Group	Transportation and Transportation Infrastructure	Australia	●		120
True Corp PCL	Telecommunication Services	Thailand	●		116
TUI AG	Hotels, Resorts & Cruise Lines	Germany	●		91

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Company name	Industry	Country	SAM Distinction	SAM Industry Mover	Page
Turkiye Garanti Bankasi AS	Banks	Turkey			66
UBS Group AG	Diversified Financial Services and Capital Markets	Switzerland	●		80
Unilever NV	Personal Products	Netherlands	●		107
United Microelectronics Corp	Semiconductors & Semiconductor Equipment	Taiwan	●		113
United Parcel Service Inc	Transportation and Transportation Infrastructure	United States			120
United Utilities Group PLC	Multi- and Water Utilities	United Kingdom	●	●	102
UnitedHealth Group Inc	Health Care Providers & Services	United States	●	●	89
UPM-Kymmene OYJ	Paper & Forest Products	Finland	●		106
Valeo SA	Auto Components	France	●		64
Valmet OYJ	Machinery and Electrical Equipment	Finland	●		99
Ventas Inc	Real Estate	United States			110
Veolia Environnement SA	Multi- and Water Utilities	France	●		102
Vestas Wind Systems A/S	Machinery and Electrical Equipment	Denmark			99
Vicinity Centres	Real Estate	Australia	●		110
Vinci SA	Construction & Engineering	France	●		76
Vipshop Holdings Ltd	Retailing	China			112
Voya Financial Inc	Diversified Financial Services and Capital Markets	United States			80
Wartsila OYJ Abp	Machinery and Electrical Equipment	Finland			99
Waste Management Inc	Commercial Services & Supplies	United States	●	●	73
Welltower Inc	Real Estate	United States			110
Wereldhave NV	Real Estate	Netherlands			110
Wesfarmers Ltd	Food & Staples Retailing	Australia			85
Westpac Banking Corp	Banks	Australia	●		66
Whitbread PLC	Restaurants & Leisure Facilities	United Kingdom	●	●	111
Wipro Ltd	IT services & Internet Software and Services	India	●		96
Woodside Petroleum Ltd	Oil & Gas - Upstream & Integrated	Australia	●		105
Woolworths Holdings Ltd/South Africa	Retailing	South Africa	●		112
WPP PLC	Media	United Kingdom			100
Yokogawa Electric Corp	Electronic Equipment, Instruments & Components	Japan			83
Yuanta Financial Holding Co Ltd	Diversified Financial Services and Capital Markets	Taiwan		●	80
Yum! Brands Inc	Restaurants & Leisure Facilities	United States			111
Zurich Insurance Group AG	Insurance	Switzerland	●		95

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