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Foreword

This is our third annual environmental, social and governance (ESG) report.

While sustainability has been an important part of our investment process since the inception of our Emerging Markets Equity strategy in April 2010, our ESG efforts have progressively evolved over the past few years. We have continued to develop our knowledge in key areas of ESG, and have expanded our activities as active owners.

Notably, we feel that as active owners we can be more effective in key areas of ESG. We are better able to challenge governance issues such as executive remuneration, board leadership and effectiveness, climate change strategy, and ESG disclosure.

During 2018 we have increased our efforts to become a more effective active owner and we intend that to continue into 2019. As part of our commitment to engagement, we have improved the process by which we examine and vote proxies. We also have in place a more focused approach to engagement to target specific areas: executive remuneration, board and workforce diversity, and ESG disclosure. Looking ahead to 2019, we plan to continue our focused approach to engagement, adding engagement on climate change to the existing focus and adding an emphasis on the consumption of plastic. Furthermore, we have taken steps to enhance our process to monitor and measure the effectiveness of our engagement efforts.

For a long time, the RBC Emerging Markets team has believed that there are actions we can take as a team to support ESG principles beyond those already in place through our investment decisions. Recently, following a long selection process, we have started to support a Latin America-focused charity called La Vida which has a strong focus on youth. This is a way for us to give something back to the countries where we invest. We are looking forward to increasing our commitment to La Vida’s programme in 2019.

Incorporating ESG into our investment activities is a dynamic and evolving process. We have made good progress but we recognise the need to continue our initiatives in order to continue to expand the scope of our ESG programme further. We hope that you enjoy these insights into our activities and achievements, and we welcome any feedback on how we can improve our future efforts.
Our approach to responsible investment

Integration

ESG factors can have a material impact on shareholder value and long term investment performance. ESG analysis can contribute to identifying long term industry leaders and potentially reduce investment risk by providing greater insight into how companies operate. The strength of a company’s competitive position and the management of ESG risks and opportunities have become more important than ever, and are key to supporting long term sustainable returns. The inclusion of these ESG factors in the investment process has consequently become crucial.

Approach

<table>
<thead>
<tr>
<th>Responsible investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>We define responsible investment as investing in those companies that are committed to responsible business practices in terms of environmental, social, and corporate governance considerations, as well as where there is a culture of excellence and a strong capital discipline.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ESG integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>We do not exclude particular companies from our investable universe on the basis of their participation in certain industries. Rather, we review how companies deal with ESG factors and integrate that assessment into our investment process to support our long-term bottom-up stock selection.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ESG analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our primary source for gathering information on how a company deals with ESG factors is engagement with management, which may take the form of face to face company meetings or telephone conversations, and deep analysis of a company’s financial statements and corporate sustainability strategy from its published reports.</td>
</tr>
</tbody>
</table>

Benefits

<table>
<thead>
<tr>
<th>Higher cash returns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stronger ESG tends to correlate with higher profitability and cash returns. Companies in the first quartile, in terms of their focus on ESG issues, on average generate Cash Return on Capital Invested (CROCI) that is 25% higher than the sector average.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>More durable returns</th>
</tr>
</thead>
<tbody>
<tr>
<td>High return companies typically maintain those returns for longer when they have good quality management teams. Our research shows that a company which has first quartile ESG scores sustains above-sector-average CROCI for almost twice as long as the average.</td>
</tr>
</tbody>
</table>

^1Goldman Sachs, 2012.
Our philosophy is to invest in companies that have a high and sustainable Return on Investment (ROI). The majority of our bottom-up research effort goes into assessing the sustainability element of a company’s returns and we conduct this assessment in a very holistic and comprehensive way. We consider the evaluation of ESG factors, along with other factors such as management (ESG is in itself an indication of management quality), market share, barriers to entry, balance sheet strength, cash generation and profitability when determining the sustainability of a company’s returns.

Over longer term horizons, earnings growth tends to generate shareholder value and drive equities performance to a greater extent than multiples. A company that has higher and more durable returns will, by definition, generate stronger earnings growth which will in turn lead to higher equity returns.

Stronger earnings and performance
Over longer term horizons, earnings growth tends to generate shareholder value and drive equities performance to a greater extent than multiples. A company that has higher and more durable returns will, by definition, generate stronger earnings growth which will in turn lead to higher equity returns.

Growing demand, finite supply
We expect global GDP in the next three decades to exceed the total output generated over the last two millennia. Exponential growth and finite supply of human capital, financial capital, natural resources and the environment’s capacity to absorb the consequences of growth (greenhouse emissions, pollution and waste production) are increasingly challenging the financial success of many businesses.

Lower cost of capital
Investors perceive that a company with a strong ESG focus will have a lower risk profile and, consequently, a lower cost of capital.

Profiting from growth is harder
Cost inflation, rising capital intensity and increasing competition are diluting the benefits of demand growth. As demand rises, growing environmental and social tensions are introducing new cost pressures and market opportunities across industries like never before. The strength of a company’s competitive position and its management of environmental and social risks and opportunities have become more important than growth exposure in isolation.

Why it matters

1Goldman Sachs, 2012.
Rather than having dedicated ESG analysts, all team members perform and integrate ESG analysis in their work when researching a stock. This structure allows us to better value and assess stocks, to completely integrate ESG factors into our investment process, and to meaningfully engage with the companies in which we invest. We believe this approach represents the most effective structure to integrate ESG factors into investing. Portfolio managers themselves are best placed to filter ESG information coming from multiple sources and ascertain how it relates to a company’s business model and valuation.

RBC Global Asset Management (“RBC GAM”) is a signatory to the UN Principles on Responsible Investment (“UNPRI”). We have been integrating the six UNPRI Principles into our investment process since the inception of our Emerging Markets Equity strategy in April 2010. The six principles are designed to be compatible with the investment styles of large institutional investors that operate within a traditional fiduciary framework. Indeed, we find that the six Principles strongly align with the approach we have taken over many years to invest responsibly on behalf of our clients.

1https://www.unpri.org/about/the-six-principles
How we incorporate the six principles into our investment process

1. Incorporating ESG issues into investment analysis and decision-making processes.
   The RBC Emerging Markets team has fully integrated an ESG risk analysis into its investment process. We conduct this risk analysis primarily using our own research and scoring system. The key integration tool is our proprietary “Investment checklist, with the majority of questions related to key ESG factors”. In addition, we complement our own research efforts in this area by subscribing to leading ESG providers, such as MSCI ESG, Sustainalytics, and TruValue Labs, to help evaluate companies’ ESG practices and to help alert us to any ESG-related controversies.

2. Being active owners and incorporating ESG issues into ownership policies and practices.
   As a large investor, the RBC Emerging Markets team has good access to senior management which enables us to discuss corporate strategy, policies, and attitudes to risk. The ESG questions in our proprietary “Investment Checklist” along with controversy alerts from MSCI ESG enable us to prioritise and target our ESG engagement with companies on issues of concern. When appropriate, we will also engage with the directors on the boards of the companies in which we invest.

3. Seeking appropriate disclosure on ESG issues by the entities in which we invest.
   Weaknesses in disclosure practices are revealed as we conduct research and collect data and are then reflected in the ESG scores from our “Investment Checklist”. The RBC Emerging Markets team’s engagement activities in recent years have also been directed at improving the disclosure of ESG-related practices and risks. For example, we have encouraged many of the companies we invest in to commence formal sustainability reporting.

4. Promoting acceptance and implementation of the Principles within the investment industry.
   We regularly communicate to our clients and investment consultants our approach to the integration and implementation of the Principles.

5. Working together to enhance our effectiveness in implementing the Principles.
   In addition to RBC GAM and the RBC Emerging Markets team’s involvement with the UNPRI, we also support a number of collective initiatives. RBC GAM works collectively with other investors on a number of company-specific and regulatory/public policy initiatives through the International Corporate Governance Network, the PRI, the Council of Institutional Investors, the Investor Stewardship Group, the Canadian Coalition for Good Governance, the 30% Club Investor Group, and the Responsible Investment Association.

6. Reporting on our activities and progress towards implementing the Principles.
   Through the RBC GAM PRI Transparency Report, and more generally through client and public reports, the RBC Emerging Markets team regularly discloses how ESG issues are integrated within our investment process and where we have engaged with companies. This annual report forms part of our commitment to transparency on ESG issues.
Our framework

Active ownership

We discuss ESG issues and engage with the companies in which we invest on a regular basis. Engagement allows us to both share our philosophy and approach to responsible investment and to understand how a company’s governance and management structures support operational excellence. The latter is a useful input for our investment analysis.

As a long term investor, we are patient with companies and give them time to change on their own terms. We are also persistent in our efforts to ensure that companies adopt sound practices that we believe will support long-term value creation.

We meet regularly with the companies in which we invest and often discuss risks and opportunities relating to ESG factors. We carry out more detailed engagement with a company on ESG-related matters when specific issues have been identified as particularly relevant for that company.

One element of our approach to engagement, which we believe differentiates us, is that we rarely question or second-guess management's strategic decisions in areas such as the launch of a new product, entering a new market, or decisions related to mergers and acquisitions (M&A). Our investment process puts a lot of emphasis on management and in assessing their talent and capabilities which tends to build trusted relationships. In the overwhelming majority of cases, we believe the management of the companies in our portfolios is better informed when it comes to making those types of strategic decisions.

None the less, as experienced investors, there are areas where we believe we can provide valuable insights particularly when it comes to smaller companies. As an active manager, we tend to have regular discussions with a company’s management team on a variety of issues. During 2018, we have placed particular focus on engaging on disclosure, diversity, executive remuneration, and plastic use and waste, with some notable examples highlighted in the “ESG Engagement Cases” section of this report.

In addition to engagement with companies, we also actively vote our shares across all markets. The RBC Emerging Markets team works together to discuss and vote our proxies carefully. This process includes taking voting action against companies where ESG-related policies or practices have been unsatisfactory and remain concerning and/or significant controversies have arisen.
ESG engagement cases

Conflict of interest
During 2018, we engaged with a leading Taiwanese electronic parts manufacturer to urge it to reconsider a tender offer that was made for one of its associated companies. We believed that the offer was at a value far below the ‘fair’ value. Furthermore, we believed that this proposal not only failed to act in the best interests of minority shareholders, but that it also failed to recognise the long-term growth potential of the associate. For a long time we had viewed this company as a pioneer in its approach to sustainability and governance but, following a change in management, we were concerned that there was less emphasis on sustainability and shareholder value creation. We are currently engaging with management and given the company’s strong track record of corporate governance, we are hopeful that our concerns will be addressed.

ESG disclosure
We also engaged with a large South African media conglomerate with the key focus being executive remuneration disclosure. We appreciate that there is an initial cost associated with improving standards of disclosure in any area of business, but we encouraged management to think strategically and consider these costs as a long-term investment. High standards of disclosure can serve as a differentiator, especially in the internet space, and can foster confidence and trust within the investor community, and inspire employee loyalty. We have been encouraged by the company’s response and it has since produced a report which provides more granularity on the components of remuneration.

Stakeholder’s interests
Our involvement with a South Korea-listed infrastructure company is a great example of active ownership that encompasses both engagement and voting proxies. We have been engaging with the company and its asset manager for some time and have specifically expressed our view about the high management and performance fees charged. Recently, an Extraordinary General Meeting (EGM) was requested by a Korea-based investment management company which has a 5% stake in the Infrastructure Fund. The investment management company is taking an active role in the Fund’s attempt to replace the existing manager of the Fund as it believes its fees are too high. We have decided to vote against this proposal in favour of the current manager. We acknowledge that there is room for improvement in this area, but we believe strongly that the current manager remains the best manager for the asset. We also believe that the current manager has generated significant relative outperformance versus its peers and the index in terms of total shareholder returns over different time periods. We will continue to engage with the company to request a reduction in the fees charged to manage the portfolio. We are hopeful that our engagement efforts will lead to improvements.

Executive remuneration
Over the course of the past year, we have made a deliberate effort to enquire about management incentive structures and, as a part of this effort, we have used our experience and knowledge to evaluate the merits and drawbacks of various incentive structures.

For example, one of our holdings appointed a new CEO and an AGM was called to vote on a new executive pay structure. The proposed executive pay for the new CEO has three components: 1) a salary; 2) a short term bonus of 150% of basic salary annually; 3) a long term incentive plan of 350% of basic salary. We engaged with the company and members of the remuneration committee in three areas:

1) The absolute total amount of the potential executive pay is, in our opinion, excessive and not in line with the size of the business and the length of time the new executive has been CEO.

2) The suggested pay structure has been created solely by relying on benchmarking against a limited number of similar companies and without the inclusion of any tailored internal drivers. We advocate that companies move away from the practice of peer benchmarking.
3) In our opinion, the LTIP portion of the overall pay structure has two key flaws:

i) The timeframe given to earn the LTIP was too short term as 50% of the LTIP vests over only three years and the balance vests annually over the following three years.

ii) The LTIP lacked the inclusion of any measure of “non-financial targets” such as customer satisfaction, innovation or employee engagement. We think that non-financial targets help to provide a more comprehensive measure of the long-term value drivers for the company.

Engagement is a long-term process and while we are taking a position against the company at the upcoming AGM, we are hopeful that some of our suggestions will be taken on board by the company in the long term.

We also recently engaged on the topic of executive remuneration with a Philippines-based packaged foods company held in our portfolio. The company was making a concerted effort to make its management more professional and, as a result, was in the process of evaluating how best to utilise potential management incentives. The company was eager to listen to our views on the subject and we are hopeful that our opinions will be integrated into its decision-making in this area.

Board gender diversity

Another key area for engagement this year was gender diversity and we focused on this issue during a recent research trip to South Korea. South Korea has a reputation for sub-optimal corporate governance standards, including a persistent gender imbalance among business leaders. In 2016, the global executive recruitment and management consultant Egon Zehnder published a Global Board Diversity Analysis showing that only 20% of South Korean companies had at least one female board member. This result was the second-lowest percentage of the 44 countries in the study. We engaged on the issue of gender diversity with all the companies we met and concentrated on raising awareness of the limitations of a one-gender board. We will continue to engage on this issue and monitor progress.
Proxy voting

Proxy voting is a key part of our active ownership as it provides an important way for us to convey our views to company boards and management teams. Voting responsibly is part of our fiduciary duty and we make our voting decisions independently, based on principles that are in accordance with RBC GAM’s custom proxy voting guidelines (the Guidelines). These Guidelines provide an overview of the corporate governance principles we adhere to and how we vote on ESG-related issues.

Exhibit 1: RBC EM Equity voting history since inception

When considering voting recommendations, our Corporate Governance & Responsible Investment Group also draws upon the expertise of our investment teams, utilises research from leading research firms, and engages with companies and other shareholders, if necessary, to arrive at our voting decision. RBC GAM also has a clear policy to manage conflicts of interest to protect the independence of our voting decisions and procedures from commercial or other influences.

RBC GAM updates and publishes its Guidelines on an annual basis and uses a proxy advisor to implement the Guidelines in the jurisdictions where they are applicable. The proxy advisor also makes voting recommendations in jurisdictions where the Guidelines may not be applicable, as is the case in many emerging markets countries. In those instances, while we follow our proxy advisor’s regional guidelines, we still review each ballot item and vote based on our own assessment of the specific company circumstances. Since the inception of the RBC Emerging Markets Equity strategy we have voted at 622 meetings, voting in favour of a total of 6084 proposals and voting against management 650 times¹.

A recent example of when we voted against management relates to a Taiwanese technology company and its proposal to relax criteria for lending to subsidiaries. Historically, 90% of the company’s business was conducted from the parent company in Taiwan, but the importance of Chinese

¹RBC Global Asset Management, October 2018.
subsidiaries has grown and the company now owns several controlling stakes in Chinese companies. The company stated that the proposed adjustments would bring it in line with market benchmarks because its existing criteria were deemed to be stricter than its peers. The company believed that this change would provide greater flexibility in its long-term operational strategies. Based on our analysis, we have not been able to validate the company’s claim regarding the lending practices of peer companies and for this reason we were not comfortable voting with management. We are awaiting the outcome of the vote.

In another recent example, one of the companies we hold appointed a new CEO and an AGM was called to vote on a new executive remuneration structure. We believed the executive pay structure had several flaws and although we engaged with the company on this issue, we voted against the company at the AGM. We are hopeful that some of our suggestions will be taken on board in the long term.

The majority of resolutions target specific corporate governance issues required under local stock exchange listing requirements. These issues include the approval of directors, accepting reports and accounts, the approval of incentive plans, and the election of auditors. Since a decision to invest in a company at least in part reflects our confidence in its management, we often support management on routine matters. However, we will not hesitate to withhold our support or oppose management if we believe that it is in the best interests of shareholders and our clients to do so.

<table>
<thead>
<tr>
<th>Proposal category</th>
<th>No. of proposals</th>
<th>With management</th>
<th>Against management</th>
<th>% Against management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authorise reissuance of repurchased shares</td>
<td>50</td>
<td>4</td>
<td>46</td>
<td>92.0%</td>
</tr>
<tr>
<td>Approve issuance of equity without preemptive rights</td>
<td>151</td>
<td>86</td>
<td>65</td>
<td>43.0%</td>
</tr>
<tr>
<td>Approve remuneration policy or report</td>
<td>79</td>
<td>46</td>
<td>33</td>
<td>41.8%</td>
</tr>
<tr>
<td>Elect director</td>
<td>1876</td>
<td>1610</td>
<td>262</td>
<td>14.0%</td>
</tr>
<tr>
<td>Appoint internal statutory auditors</td>
<td>113</td>
<td>99</td>
<td>11</td>
<td>9.7%</td>
</tr>
<tr>
<td>Allow directors to engage in commercial transactions</td>
<td>41</td>
<td>30</td>
<td>5</td>
<td>12.2%</td>
</tr>
<tr>
<td>Elect members of audit committee</td>
<td>179</td>
<td>161</td>
<td>18</td>
<td>10.1%</td>
</tr>
<tr>
<td>Authorise board to fix remuneration of external auditor(s)</td>
<td>54</td>
<td>51</td>
<td>3</td>
<td>5.6%</td>
</tr>
<tr>
<td>Approve remuneration of directors</td>
<td>542</td>
<td>513</td>
<td>24</td>
<td>4.4%</td>
</tr>
<tr>
<td>Approve auditors and their remuneration/ratify auditors</td>
<td>310</td>
<td>299</td>
<td>6</td>
<td>1.9%</td>
</tr>
</tbody>
</table>

Country level ESG assessment

In our view, companies that are mindful of their ESG responsibilities are more likely to generate sustainable long-term returns and, accordingly, ESG factors are an important part of our investment process. Nonetheless, no matter how well a company is run and how well ESG factors are managed, the operating environment of the country/countries in which a company operates will have an impact on its long-term returns and sustainability.

Similarly, we believe that countries that have high or improving ESG scores are more likely to have sustainable economic growth compared to those with low or falling scores.

This section of the report focuses on ESG factors at a country level in order to provide an overall view of the countries in which we invest. By using third-party indices that reflect country ESG performance over time, we can obtain an independent view of how countries in our investable universe score relative to one another and to the global average, and we can also see how these scores have changed over time.

Whilst our core ESG analysis is conducted at a company-specific level, being aware of ESG factors at a country level is useful for our overall portfolio strategy. In particular, by being aware of which ESG factors are relatively weak or declining in a specific country, we can make sure that we address those concerns when we meet the management of a company that operates in that country.

Methodology

In this year’s update, we have reduced our country sample to the 26 emerging and frontier countries which we regard as our investable universe. We removed from the sample a number of small EM countries, such as Romania and Oman, where we are unlikely to invest, and added Argentina.

For the environmental scores we use Yale University’s Environmental Performance Index (EPI). The EPI scores a country’s performance on environmental issues in two key areas: protection of human health and protection of ecosystems. Within these two policy objectives, the EPI rates national performance in nine issue areas comprised of more than 20 indicators.

For the country social scores, we use Freedom House’s Freedom in the World Index (FWI). The FWI evaluates the state of freedom in 195 countries and is made up of two main sub-categories: political rights and civil liberties. Each country is assigned a score between 0 and 4 points based on a series of 25 indicators, for an aggregate score of up to 100.

Finally, for the country governance scores, we use Transparency International’s Corruption Perceptions Index (CPI). The CPI measures the quality of governance in 176 countries and territories by aggregating data from a number of different sources to indicate how business people and country experts perceive the level of corruption in the public sector. The score is calculated using 13 different data sources from 12 different institutions that capture perceptions of corruption over the previous two years.

For each of these three indices, we use annual data going back as far as comparable data is available (2008 to 2017 for the EPI, 2006-2018 for the FWI, and 2012-2017 for the CPI).
Environmental

**Exhibit 1: Environmental Performance Index by country**

![Environmental Performance Index by country](image)

Source: Yale Center for Environmental Law & Policy. September 2018. ([https://epi.envirocenter.yale.edu/about-epi](https://epi.envirocenter.yale.edu/about-epi))

**Observations**

Within our country sample there is a large variation in environmental performance as measured by the EPI however, like last year, the average of our sample is slightly above the 2017 global average of 67.4.

On the positive side, the average continues to increase and this improvement has generally been driven by rising ecosystem vitality scores. Improvements in environmental health scores have proven more difficult, particularly in the areas of water and air quality. Rapid urbanisation and continued industrialisation in a number of the larger emerging markets countries continues to put pressure on these two resources.

The countries with the most notable improvement in their EPI scores are Nigeria, Vietnam, Turkey and Taiwan. For Nigeria, Vietnam and Turkey, the increase represents a reduction in environmental risk given their lower-than-average scores. For Nigeria, the increase has been driven by a rise in its water quality score, whilst for Vietnam and Turkey better air and water quality has improved their environmental health scores.

In contrast, Malaysia stands out as its overall EPI score fell, albeit from a high starting point. This decline is due to a significant drop in its air quality score and is something to be aware of when we meet companies in Malaysia.

Bangladesh had by far the worst score in 2017, declining from last year, meaning that its EPI score has not improved since 2008. Bangladesh’s environmental health score is particularly low due to poor air and water quality affecting the health of its population. We are invested in a Bangladeshi bank and have talked to its management about how the indirect environmental impact of its lending decisions for certain industries can be factored in to its process. The textile industry in particular has a negative impact on water quality in the country.

India and Pakistan also stand out as having high environmental risks compared to the other countries in the sample and compared to the global average. On closer inspection, their poor EPI scores are due to very low environmental health scores (lower than 50) and, as in the case of Bangladesh, are reflective of poor air and water quality in large cities. We are positive on India’s outlook overall, but we are cognisant that if environmental performance does not continue to improve, it may pose a risk to the country’s economy in the long term.
Exhibit 2: Freedom in the World Index by country


Observations

In 2018, the average FWI score of the countries in our sample was below the global average of 57.6. More significantly, and in contrast to the EPI scores, since 2006 most counties have seen a reduction in the political rights and civil liberties afforded to their citizens.

Interpretation

China remains the second-lowest, with its social scores in sharp contrast to its improving environmental and governance scores. China has continued to open up and liberalise its economy, and increase its focus on pollution in recent years, however, under President Xi political rights and civil liberties have deteriorated. The recent news of the forced ‘re-education’ of ethnic Uighurs and other minority Muslims in western China is one clear manifestation of this trend.

In terms of our investment exposure, the FWI scores for Russia, Turkey and Thailand have fallen significantly in the last eight years. We believe that this decrease represents a significant social risk in Russia and Turkey due to a deterioration in political rights, as their authoritarian presidents have undermined democratic institutions in their respective countries.

In Russia, there has been a further deterioration of economic and political rights during President Putin’s third presidential term with limited prospects of a viable opposition at the next election. In particular, there continues to be instances where the assets of private companies are being expropriated by the government and given to government-owned competitors. The most notable recent example is the forced transfer of Bashneft from Sistema to Rosneft. On the other hand, there has been limited social unrest in Russia aside from protests over the recently-proposed increase in the retirement age.

In Turkey, the AKP party under President Recep Erdoğan, has continued to consolidate its power. In our view the success of Erdoğan’s referendum in January, which enabled him to change the constitution to grant more executive powers to the presidency, is a negative step in terms of political freedom and stability. Turkey’s political rights and civil liberties sub-indices scores have both fallen in the last four years, but the drop has been more severe in the political rights sub-index.

In our opinion, these developments have undermined the independence of a number of important institutions, particularly the judiciary and, more recently, the central bank. We argued in our 2018 Outlook report that we were concerned about the independence of the central bank after its timid response to rising inflation in the second half of 2017. Indeed, the loss of confidence in the central bank’s independence coupled with the increased costs of international dollars resulted in an acute currency crisis in 2018.

The fall in Thailand’s score was due to the military coup in 2014 which ousted the democratically-elected Shinawatra Government. As a result of this coup, Thailand’s political rights
Observations

The average CPI score for our sample was slightly below the global average of 43.1, but has improved slightly from last year and is up, on average, since 2012. Using this measure, in our sample the countries with the highest governance risk are Nigeria, Bangladesh, Mexico and Russia. High governance risk means that we need to be cautious about the risk of bribery and corruption in these countries, especially when companies interact with the public sector.

One big surprise this year was that for the first time Mexico had a lower CPI score than Russia which reflects Mexico’s dramatic deterioration in recent years. While we hoped for an improvement in governance when the PRI party assumed power under President Enrique Peña Nieto, Mexico’s CPI score has continued to fall as his administration has been implicated in a number of corruption scandals. The increased perception of corruption is one reason why the PRI party was defeated by Andrés Manuel López Obrador in the July presidential elections. The hope now is that the new president will tackle corruption when he takes office on December 1, 2018.

Despite a marginal improvement in the last four years, we see little chance of a significant future reduction in corruption in Russia. Brazil’s score has also dropped materially in the last four years and provides another stark warning about how governance risks can have a significant economic impact. The ‘Operation Car Wash’ investigation uncovered rampant corruption among the political class, involving officials from all parties, and resulted in the impeachment of Dilma Rousseff, the previous president. In October Jair Bolsonaro was elected president of Brazil and we are hopeful that this will be a positive step. In addition, given the fallout of the ‘Car Wash’ scandal, we would expect an improvement in Brazil’s CPI score in the coming years.

Turkey has also seen a significant drop in its CPI score over the last four years and we would argue that this decrease is due to the weakening of institutions under President
Conclusions

In terms of our investment process, this country analysis has clear implications for our approach to ESG in a number of countries where there are areas of concern. Countries with a high ESG risk include Bangladesh (environmental), India (environmental), Russia (social), China (social), Thailand (social), Turkey (social and governance), Nigeria (governance) and Brazil (governance) due to their low or declining scores. As a result, when we meet the management teams of companies that are based in, or operate in, these countries, we need to be particularly cognisant of the specific risks. It is also important to note that China (environmental), Pakistan (social and governance), India (governance), Russia (governance), and Indonesia (governance) have seen notable improvements in their scores. These improvements should have a positive impact on the long-term risk of our holdings that operate in these countries.
Intangible assets

Should the rise of intangible assets change the way we look at and value firms?

Early in the twenty-first century, a quiet revolution occurred. The major developed economies began to invest more in intangible assets such as human capital, organisational change, design, branding, research and development (R&D), and software, rather than in tangible assets, like machinery, buildings, and computers. Now the same phenomenon is happening in emerging markets.

In this section we illustrate the rising importance of intangible assets along with the challenges and possible solutions for investors hoping to capture the long-lasting economic benefits generated.

The definitions and inclusion of such benefits in a company’s financials will inevitably involve making a large number of assumptions, something active investors and analysts are able to do. While we recognise that it may take some time to develop accounting standards to include a wider range of intangible assets in a company’s financials, we think it is important to understand the implications of their inclusion - or exclusion - for the way we value firms.

1. The rise of intangibles

Previously, even in the most developed countries, intangible investments were something of an afterthought. Over time, however, this balance began to shift and investment in intangibles steadily increased while tangible investment fell as a percentage of GDP. By 2010, the percentage of intangible investments had overtaken tangible investments in Europe and the U.S. Some estimates suggest that if we had to capitalise intangible expenses, intangible investments would represent up to 80% of companies market value in the U.S. and Europe1. Intangible assets that are formally allowed to be classified as such by IFRS and U.S. GAAP have grown to represent 7% of total assets and 14% of market value for MSCI EM in 2016, up from only 1% and 2% in the late 1990s.

The same number is significantly higher in OECD countries, where evidence suggests that intangible assets have grown to represent one-third of the balance sheet (in sectors such as Consumer Staples, IT, Telecoms and Healthcare this number is over 50% of total assets) and a higher percentage of the market value of companies listed in MSCI U.S. and Europe.

While it’s difficult, if not impossible, to isolate the causality of the rise of intangibles with valuations of stocks, the valuation scatter chart pictured in exhibit 4 suggests there is potentially a relationship. This chart shows a positive correlation between the change in intangibles vs. the change in 12m forward PE at the sector level (i.e. the greater the increase in intangibles the greater the re-rating over the period).

2. The importance of assessing intangibles

There are three broad categories of intangible assets:

- Computerised Information (software development);
- Innovative property (R&D, mineral exploration and design/product development); and
- Economic competencies. The latter tends to cover intangible investments in marketing and branding (investment in understanding customer needs and creating brands that appeal to them), in training specific to the company, and in organisational capital such as creating distinctive business models and corporate cultures.

The accounting world has started to recognise the long-lasting economic benefits that intangibles tend to produce. Investment in software development and in certain areas of R&D is increasingly treated as an asset and, as a result, capitalised. However, economic competencies, which are typically thought to fall within the ‘social’ category of the broader ESG area, and are widely agreed to have the same direct impact on a company’s long term financial performance as R&D, continue not to be recognised with the result that valuable assets such as human capital and corporate culture are left off the balance sheet.

As part of our ESG integration process, we look very closely at how companies manage human capital and engage their employees. One of the key reasons it is important to assess how the management of a company engages employees is that we believe human capital, efficiency and value creation should be considered in much the same way as an industrial system: there is an asset, in this case the aggregated skills, actions, ideas and future potential of the human beings that represents a company. It can be invested in (e.g. through continuous education and training), or grown (in the sense that people can move and/or progress within a free labour market); and there is asset utilisation: how many widgets are being produced by that asset? Is it operating at maximum long-term efficiency? We believe the combination of both the asset and its utilisation gives the most sustainable long-term value. Human capital works the same way in that the maximum long-term value is created with the right combination of potential and motivation and this tends to be correlated to productivity as we will illustrate later on in the report.

Corporations can invest in human capital in two ways: hiring and developing talented people (the asset value side), and by creating an environment where human assets can flourish, through productive and efficient use (the motivation side). The two charts on this page illustrate motivation and employee satisfaction relative to future returns. Exhibit 5 and exhibit 6 are based on an analysis of 933,000 reviews on Glassdoor (a website that allows employees to rate their employers).

The analysis shows evidence of a positive relationship between Glassdoor overall scores and future changes in financial statement Quality and Growth metrics, as measured by a rank correlation between scores. The best and worst companies according to Glassdoor scores have been grouped and their financial performance has been analysed and compared. The financial performance includes several metrics such as growth, return on investment capital, operating margin and financial leverage and share price performance. Each ‘vintage’ on the charts, (shown on the following page) refers to the year the sample has been taken and subsequently tracked and analysed. There are two clear findings: the shares of the companies with the highest

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Exhibit 3: Intangible assets as a % of total assets by region/industry

Exhibit 4: Change in PE ratio vs change intangible assets as a % or MSCI EM

scores in terms of employee satisfaction perform better than those with the lowest scores. The second finding is that the 2012 and 2013 vintage performed on a non-cumulative basis significantly better than later vintages, indicating potentially that the market takes time to fully value intangibles such as human capital.

While intangibles such as human capital clearly bring long-lasting economic benefits, their impact on a company’s accounts is much less apparent given the challenges of measuring the economic benefits they generate and their lifecycles.

Exhibit 7: Categories of intangible investments

<table>
<thead>
<tr>
<th>Broad category</th>
<th>Type of investments</th>
<th>Type of legal property</th>
<th>Accounting treatment - capitalisation allowed?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computerised information</td>
<td>Software development</td>
<td>Patent, copyrights, design intellectual property right (IPR), trademark, other</td>
<td>Yes, since early 2000 (with some differences as to “when” to start capitalising depending on whether software is for external or internal use)</td>
</tr>
<tr>
<td></td>
<td>Database development</td>
<td>Copyright, other</td>
<td></td>
</tr>
<tr>
<td>Innovative property</td>
<td>R&amp;D</td>
<td>Patents, design IPR</td>
<td>Uneven implementation: Yes in certain cases (primarily auto industry) for IFRS, No for U.S. GAAP</td>
</tr>
<tr>
<td></td>
<td>Mineral exploration</td>
<td>Patents, other</td>
<td>Yes. Both on U.S. GAAP and IFRS (as long as capitalisation policy is based on current IFRS and GAAP standards)</td>
</tr>
<tr>
<td></td>
<td>Creating entertainment, literary or artistic originals</td>
<td>Patents, copyrights, design IPR, other</td>
<td>Yes since 2013</td>
</tr>
<tr>
<td>Brand</td>
<td>Brands, advertising, mastheads, customers lists, other similar items</td>
<td>Patents, copyrights, trademark, other</td>
<td>No</td>
</tr>
<tr>
<td>Economic competencies</td>
<td>Training</td>
<td>Other</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Market research and branding</td>
<td>Copyright, trademark</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Business process engineering</td>
<td>Patent, copyright, other</td>
<td>No</td>
</tr>
</tbody>
</table>

3. Challenges and possible solutions

It is far more difficult to define the economic benefit that comes from investment in the development of human capital or a great corporate culture than that derived from investment in software or R&D.

Exhibit 7 illustrates four broad categories of intangible investment and their current accounting treatment. The large majority of spending in intangible is still ‘expensed’ and not capitalised into assets.

Very few expenses for intangibles are allowed to be capitalised. The capitalisation of expenditures on intangibles is tricky because the future benefits are uncertain. The company has limited control over the asset and one can dispute whether ‘economic competencies’ such as training and development are an asset of the employee or of the firm. Also, it is quite difficult to value an intangible asset given the absence of a transparent market to establish that value.

As a result of these accounting restrictions, many of the basic inputs that we use in valuation, such as earnings, cash flows and return on capital, are likely to be inaccurate if one believes in the lasting and sustainable benefits that come from intangible assets. The most obvious solution is to value and capitalise intangible expenses, which would involve making a large number of assumptions. This exercise is easier for certain categories of intangibles, such as R&D product design or patents, but a lot more complex for the ESG type of intangibles such as human capital. The creation of universal accounting standards that would measure ESG corporate performance, are objectively deemed material to a company’s financial performance and certified by an independent and competent organisation, would represent an important step towards valuing certain types of intangibles and being able to compare these across firms.

At present there are few, if any, standards in the field of ESG reporting, although work has been undertaken to develop integrated reporting frameworks and guidelines. Against this background, one initiative that has the potential to improve the world of corporate ESG performance reporting is from an entity called SASB - Sustainability Accountability Standards Board. SASB has developed industry-by-industry standards for the reporting of material sustainability issues for use in its standards filings. While this does not entirely solve the issue, it is a good starting point for the development of metrics to measure the financial benefits of investment in intangibles.

We spend as much time researching intangibles as we do a company’s financial statements or its competitive position. We engage with a company’s management and ask specific questions about how it builds a workplace that is likely to generate value in the long term. For this purpose we have devised a checklist which is our key tool for the integration of ESG into our process. The checklist has 78 questions of which two-thirds are related to ESG and sustainability.

We recognise that accounting for intangibles is complex. It may be some time before we have a range of directives which can be used to increase the visibility of both the value and returns of any investment in intangibles. In the meantime, we believe that it is the role of fund managers and analysts to try to value these assets. In that way they will be able to take into account the long-lasting economic benefits of intangibles and thereby incorporate them into any assessment of a company and its valuation.
Family-owned companies in emerging markets

The RBC Emerging Markets Equity team has a strong preference for family-owned businesses that meet our corporate governance standards. This preference stems from our belief that family-owned businesses tend to be managed with a longer term horizon and have strong cultures.

Given our preference for small and mid-cap private sector enterprises, rather than large-cap state-owned enterprises, family-owned companies in emerging markets, especially in Asia, represent a large and growing segment of our investment universe.

A large and growing universe

For the purposes of this report, ‘family owned’ means that the company is owned by the founder (or descendants of the founder) and that the family owns at least 20% of the shareholding and voting rights of the company. Exhibit 1 shows that of the largest 1000 family-owned listed companies globally, two-thirds are in emerging markets and over half are based in Asia ex-Japan.

Furthermore, according to a 2015 McKinsey report, ‘Joining the family business: An emerging opportunity for investors’, the growth in the number of companies globally (private and listed) is expected to be driven by family-owned businesses based in emerging markets. This report attempted to forecast the rise in the number of companies with over USD1bn in revenue between 2010 and 2025.

Exhibit 2 shows that as of 2010, the vast majority of USD1bn revenue companies were based in Developed Markets but

McKinsey expects the bulk of the growth to be driven by emerging markets family-owned businesses.
Exhibit 3 shows that Southeast Asia, Latin America and India have the largest number of companies that are defined as ‘family-owned businesses’ in this universe over the period. In summary, emerging markets-based family-owned businesses represent a large and rapidly-growing opportunity for investors.

Higher than average margins and returns

Our investment process focuses on companies that have a high and sustainable Cash Flow Return on Investment (CFROI) and family-owned businesses tend to be of higher quality on this measure. Using Credit Suisse’s entire database of the 1000 largest family-owned listed companies globally, we can see that, on average, family-owned businesses generate higher Earnings before Interest, Taxes, Depreciation and Amortisation (EBITDA) margins and CFROI than the global average.

Interestingly, in the last three years, family-owned businesses have managed to increase their average CFROI whilst the global average has declined.

Longer-term thinking

Why do family-owned businesses generate higher-than-average margins and returns? We believe that one important factor is that, being family-owned, the company’s management can take a longer-term view on investment decisions.

From our experience of talking to management and family owners of the companies in which we invest, one thing that we find is that they believe it is their responsibility to pass their company on to the next generation in a better shape. This belief is particularly true in Asia.

Credit Suisse’s survey of family owners found that in Asia ex-Japan only 25% of family-owned businesses expected the family’s stake in the company to reduce over the longer term compared to 45% in North America.
As a result of these views, remuneration criteria for senior management tend to be more long-term orientated in Asian family-owned businesses than in Europe or North America, and we view this practice favourably.

As a result of this longer-term thinking, the management of family-owned companies is better able to look beyond the current industry cycle and act in a counter-cyclical way. Being less beholden to short-term investors, and having access to the knowledge and experience of the family owner, we have found that management is more likely to invest or make acquisitions during downturns in its given industry putting the company in a stronger position when the cycle turns.

**Strong cultures**

The other major reason we think that family-owned companies have higher margins and returns, on average, is that in our experience they tend to have superior cultures; this is especially true in Asia.

Many family-owned companies in emerging markets have a culture that is driven by the values of the family. In the best examples, family owners have a specific long-term purpose for their companies and work to instil a culture that helps them achieve that purpose. Examples of the characteristics of superior company culture include: stronger employee loyalty and engagement, meritocratic incentives with a flatter hierarchy, higher levels of innovation and creativity, and a focus on ethics and integrity over and above short-term profits. As a result, we have found that these companies tend...
Exhibit 9: Regional views on future plans of family-owned businesses (examples of questions)

Examples of relevant checklist questions:

1. What is management’s track record of integrity?

2. Concentration of family ownership – Family control > 30%

3. Significant related party transactions
   - Related party transactions > 10% of sales/COGS, or related party receivables > 10% of assets

4. Related party M&A activity

5. Is there evidence of nepotism in management appointments?

6. Major shareholder’s private business
   - Existence of material business outside of issuer

7. What is the likelihood and the risks associated to the current management leaving the company? Is there a strategy in term of managing the transition in leadership?

Given that an individual or a family is in control of the company, it is important to assess the owner’s integrity. There are plenty of examples of families using their control to misappropriate value from listed companies at the expense of minority investors. As a result, it is crucial that we understand the structure of the company, its relationship with other companies controlled by the same family and how much of the family’s wealth is invested in the company.

It is also important that the company has a clear succession plan. Although having family members involved in the management of the company can be a good thing, particularly in terms of longer-term strategy, too much nepotism in management or board appointments is also a risk we need to monitor.

Long-term outperformance

Finally, from an investor’s point of view, the ultimate case for family-owned businesses is their long-term share price performance, both globally and within emerging markets Asia. Exhibits 10 and 11 show the Global and Asia ex-Japan market cap-weighted sector-adjusted returns since 2006 using Credit Suisse’s definition from the start of this report.

Family-owned companies have consistently outperformed both globally and in Asia ex-Japan over the long term and we believe this is due to their longer-term thinking and superior cultures. We find the outperformance of Asia ex-Japan’s family-owned companies, equivalent to 3% a year since 2006, particularly significant because Asian emerging markets are a large and rapidly growing part of our investment universe.

Exhibit 10: Global family-owned returns relative to non-family control group (sector-adjusted)

Source: Credit Suisse Research Institute, May 2018.

Exhibit 11: Asia ex-Japan family owned returns relative to non-family control group (sector adjusted)

Source: Credit Suisse Research Institute, May 2018.
Positives and negatives of different management incentive schemes

Executive remuneration has increased by more than 500% over the last three decades, but recent evidence suggests that there is no correlation between executive remuneration and shareholder returns in the medium to long term. It is no surprise therefore that investors have started to scrutinise more closely the remuneration plans for CEOs and other management positions.

In this section we explore management remuneration with two goals in mind: 1) to understand the pros and cons of different types of pay structures; and 2) to be able to increase the effectiveness of our engagement efforts with companies on this topic. Remuneration of senior management has become one of the more controversial areas of corporate governance today.

To help structure our findings, we first looked at what defines a ‘remuneration policy’: a clear system of objectives and principles that drive (and are at the foundation of) any remuneration plan. Second, we looked at different types of performance metrics that can be used when developing a remuneration structure.

When assessing any remuneration structure, it is important to recognise that there is no standardised optimal structure that can be easily identified as ‘the best’. Every company is different, depending on its industry, stage of development and corporate culture, and each company will have individual targets and needs that therefore require specific solutions.

For reasons outlined later in the report, we believe that it is advisable for companies to shift away from the current practice of benchmarking remuneration against peer groups.

While we believe it is important to recognise that there is no standard optimal pay structure, we have found that firms with a high level of CEO stock ownership outperform - by a significant margin - those with low stock ownership. In addition to high stock ownership, a high level of disclosure, long-term focus, inclusion of non-financial targets and a simple structure are also very important considerations.

Exhibit 1: Executive compensation: A view from a long-term perspective

<table>
<thead>
<tr>
<th>Year</th>
<th>Salary+Bonus</th>
<th>Salary+Bonus+Long-term Pay</th>
<th>Salary+Bonus+LTP+Options Granted</th>
</tr>
</thead>
<tbody>
<tr>
<td>1940</td>
<td>0.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1950</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1960</td>
<td>1.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1970</td>
<td>2.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>2.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td>3.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>3.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Median total compensation and its components, 1936-2005. Each line shows the median value of compensation defined as an increasing number of types: salary and current bonuses (paid out in stock or cash); salary, current bonuses, and long-term incentive payments (paid out in stock or in cash); and salary, current and long-term bonuses, and the Black-Scholes value of stock options granted. Based on the three highest-paid officers in the largest fifty firms in 1940, 1960 and 1990 (as total of 101 firms). Source: Oxford Journals, February 2010.
Why executive pay matters to investors

There are three key reasons why executive compensation has become a critical issue for investors:

1. After half a century of relative stability, during the 1990s executive pay increased exponentially. In the last 30 years, the median value of compensation, based on the three highest-paid officers in the largest 50 firms in the U.S., has grown by 500%.

Exhibit 2: Executive pay in comparison - Top 100 average CEO total remuneration awards vs. FTSE Index

Recent evidence suggests that there is a lack of correlation between executive pay and shareholder returns in the medium to long term. Using data from Thomson Reuters and MSCI, the two charts below support this conclusion.

Exhibit 3: CEO remuneration 2013-17 vs TSR 2013-17

Exhibit 4: 10-year total shareholder return vs. 10 yr cumulative realised pay


Source: Credit Suisse Research Institute, September 2017.
“Investors and economists alike have sought an explanation behind these findings.” There was less concern about how much a company was paying its executives, but more about how and when these payments were made. We believe that current executive pay structures are flawed due to the following:

- Executive remuneration tends to be based on relative share price performance and therefore management can be rewarded even if the share price falls.
- The timeframes given to executives to create shareholder returns tend to be too short term, with a horizon of one to three years. Most studies are based on five-year correlation with S&P and 10-year correlation with MSCI.
- The targets tend to be too skewed towards internal operating targets and less towards share price performance.
- There is too much ‘benchmarking’ and comparison with peers when setting pay levels.

2. Investors can learn a lot from analysing executive pay structures. The metrics used in executive pay structures can influence CEO decisions, and they offer an insight into a board’s priorities and how it thinks about value-creation. This is critical for most long-term investors.

3. Engaging with companies and voting on executives’ pay is an important part of how investors fulfil their stewardship responsibilities. The cost of executive pay in itself may not be material to a company’s P&L, but investors still have a duty to ensure that pay levels are appropriate. Stewardship is becoming increasingly important given the press attention given to executives’ pay.

Overarching principles of remuneration policy

The definition of a remuneration policy is key for the creation and implementation of a successful remuneration structure. We believe it should be a clear system of objectives and principles that drive - and are at the foundation of - any remuneration plan.

We believe the focus should be on “pay for performance” and the integration of risk management functions into the executive remuneration philosophy and structure. Below we list some of the main principles that we believe should form the basis of any remuneration structure. This list is not exhaustive by any means, but includes the most important principles.

1. A substantial part of executive compensation should be based on performance.
   Employees and management receive fixed remuneration for doing their jobs to the required standard. Discretionary, variable remuneration can be awarded in circumstances where performance meets or exceeds expectations.

2. Financial results are not the only considerations which determine variable pay.
   Non-financial results should also be included along with financial results, such as customer satisfaction or having a positive impact on society. A longer-term and wider stakeholder perspective should result in financial returns which are long term and absolute. These returns can also have a positive impact on social and/or environmental issues while at the same time ensuring that corporate decision-making does not - at the bare minimum - have any negative impact on society.

3. Performance-related awards for management should incentivise long-term thinking and be aligned with - and support - the achievement of the business strategy and objectives.
   Performance-related remuneration should be based on achieving strategic goals over the medium and long term. Payments of performance-related remuneration should be aligned with the period of time over which results are measured. Compensation plans should reward appropriate risk-taking, consistent with the risk profile of the company as presented to shareholders. Compensation plans should also focus on maintaining the quality and sustainability of earnings over the long term. The board of directors should also formally “stress test” remuneration plans to ensure that rewards are appropriate under different scenarios and that there are no windfalls for unsustainable performance.

4. Executive remuneration should be aligned with creating long-term value for shareholders and, as a consequence, also for wider stakeholders.
   Executives should have meaningful direct equity holdings, while employed at the company and afterwards. In order to align the interests of long-term shareholders and management, executives should be required to hold a significant portion of their net worth in the company’s shares (or share equivalents such as deferred or restricted share units, but excluding options) while employed and ideally for a period of time after they leave. A 2014 study by Von Lillienfeld-Toal and Ruenzi in the Journal of Finance (69) has shown that firms with high CEO stock ownership outperform those with low stock ownership by a very significant margin of 4%-10% a year.
5. Financial remuneration is not the only reward but rather is part of the total benefit package that employees and management receive.

Other non-financial rewards can include receiving training (both professional and personal advancement) and receiving recognition for doing a good job and/or contribution towards the corporate culture. Some companies may also provide more generous enhanced pension benefits for their executives.

6. The structure of remuneration and the payments awarded should be fair, balanced and easy to understand.

Compensation plans have become very complicated and they often have multiple components which incorporate different time periods and metrics. Where possible, the remuneration structure should be simple and easy to understand - by the board, management and shareholders. At the same time, shareholders should be given enough detail to be able to ascertain whether or not a company’s approach to remuneration is appropriate.

On remuneration structure

CEO pay is, unfortunately, complicated. Base pay, bonuses, and long-term incentives are paid out over different time-frames and according to different performance criteria. While simplifying the plan wherever possible is important, finding the right balance is crucial.

Each company is different depending on its industry, stage of development and corporate culture and all will have different targets and needs requiring specific remuneration policies. There are many options to consider when setting management targets, some of which can be found below. For each of them, we outline the key topics we consider as investors.

- Non-financial targets
- Share price performance
- Capital discipline
- Time horizon
- Long-term incentive plan (LTIP) inclusion
- Restricted shares
- Stock options
- Base vs variable
- Absolute “quantum” or total amount of compensation

While not exhaustive, this overview should offer a good starting point for a discussion.

Key topics on remuneration structure

1) Non-financial targets

In theory, if we had perfectly efficient capital markets, then we could base executive pay solely on the share price, as it would accurately reflect the future value of current management decisions. The problem is that we have asymmetric information, so share prices are heavily influenced by what CEOs choose to disclose and say. As such, investors prefer to include some financial targets that are deemed to be more objective. The problem, as outlined above, is that all financial targets create some form of unintended incentive, especially in the short term. Therefore, could non-financial targets provide a solution by offering a short-term indicator of long-term value?

We believe that the idea that companies succeed long-term when all their stakeholders succeed is core to ESG. Companies need happy employees, loyal customers, supportive shareholders, stable suppliers and a sustainable environment. Non-financial targets therefore help to provide a short-term measure of the long-term drivers of value. These could include customer satisfaction, employee engagement, innovation, market share and health and safety. Financial targets often cause a trade-off between the short and long term; as an example, cutting on Research and Development spend may boost a company’s earnings in the short term but to the detriment of long-term performance. This trade-off is less pronounced with non-financial targets, for example focusing on employee engagement or customer satisfaction will likely bring both short and long term benefits to a company.
3) Level of capital discipline

Determining the appropriate level of capital discipline is key for any pay package and, as a result, return on capital metrics have become more popular. We agree that this metric can be useful, but would also highlight that there are drawbacks: this approach could be deemed backward-looking and could also create a perverse incentive to sell some assets at a price below market value. The capital disciplines that are most commonly used are FCF and ROCE, followed by Profit and Loss (P&L) measures, EPS, Profit before Tax (PBT), Earnings before Interest and Taxation (EBIT) and (EBITDA) and lastly Revenue which is pro-growth.

For share price performance

- Conversely, financial targets can create distorting incentives, when what investors ultimately want is share price appreciation. Arguably, the share price can incorporate all material long-term factors that drive long-term shareholder returns.

2) Share price performance vs Financial Targets in LTIPs

There is debate about whether or not long-term targets should be weighted to financial targets such as Earnings per Share (EPS), Return on Capital Employed (ROCE), Free Cash Flow (FCF) or share price performance.

For share price performance

- Conversely, financial targets can create distorting incentives, when what investors ultimately want is share price appreciation. Arguably, the share price can incorporate all material long-term factors that drive long-term shareholder returns.

Pros

- Non-financial targets (customer satisfaction, workplace diversity, operational efficiency etc) tend to provide a better indicator of long-term value than financial targets. Financial targets can easily be met by cutting expenditure, but it is hard to artificial boost customer satisfaction or employee engagement.
- They tend to address a broader audience and therefore they tend to represent a better indicator of value delivered to all stakeholders.

Cons

- More subjective measurement, and not audited.
- The appropriate non-financial targets will differ by industry.

Pros for financial targets (EPS, ROCE, FCF, etc.)

- Some argue that the share price is too heavily influenced by macro factors, or that it can be manipulated by management.

Cons

- Set at the right level an FCF target can encourage growth and capital discipline.
- FCF is less reliant on accounting assumptions and adjustments than ROCE.

ROCE Pros

- Ultimately, companies aim to deliver a return on capital in excess of their cost of capital. Hence, ROCE metrics have an appealing alignment with the theory of shareholder value creation.
- An ROCE target can remain constant irrespective of growth or Mergers & Acquisitions. Therefore, this removes the need to reset targets each year, and reduces the chance of targets being rebased in order to be achievable.

ROCE Cons

- ROCE metrics can be increased by limiting a business to its highest return areas only. This does not encourage growth.
- ROCE can be increased in the short term by capitalising rather than expensing costs, as is the case with all P&L-based metrics.
- ROCE may encourage companies to look at portfolio realignment, especially selling off low ROCE assets. For the most common definition, selling a low ROCE asset increases the company’s ROCE even when the asset is sold for below its book or market value.

FCF Pros

- Set at the right level an FCF target can encourage growth and capital discipline.
- FCF is less reliant on accounting assumptions and adjustments than ROCE.

FCF Cons

- An FCF target can create an incentive not to invest as the target can easily be met by cutting investment.
- FCF can also be improved by non-operational means such as factoring in receivables.
4) Time horizon
A typical pay scheme will have a three-year performance period, possibly followed by a two-year lock-up period for the shares.

For longer time periods
- CEOs should be paid based on the outcomes of their decisions, rather than market expectations. Ideally pay schemes should match company investment cycles.

Against longer time periods
- CEOs will discount longer-term schemes and therefore may demand high pay overall.
- In theory, share prices have reflected the future impact of management decisions. If markets are efficient remuneration can be based on the share price in the short term.

5) LTIP vs restricted shares
It has been suggested that the desire to link pay accurately to performance has resulted in unintended consequences and too much complexity. One option may be to limit discretionary remuneration to a cash bonus and stock ownership.

There is also a wider debate on whether or not LTIP structures work effectively. The key point is that, despite decades of executive pay “reforms”, there is evidence of only a very weak link between pay and performance. It would appear that current executive pay structures are not effectively linking pay with performance.

6) Level of pay
What constitutes a fair level of remuneration is subjective and there will always be different points of view. It is therefore difficult to find consensus and a scheme that is accepted universally as ‘best practice’. A key consideration is that CEO pay varies between countries: the U.S. pays the most; there is a mix throughout Europe, which is generally more conservative; and the level is quite low in the Nordics.

7) Base versus variable
Companies can choose how they balance base salary, annual bonus and long-term incentives. The target annual bonus is normally around 100% of base salary, and the target LTIP ranges from 50% to 250%. A higher proportion of variable pay can increase the link to performance, although arguably this practice can put too much emphasis on a narrow range of targets which can distort results.

For longer time periods
- CEOs should be paid based on the outcomes of their decisions, rather than market expectations. Ideally pay schemes should match company investment cycles.

Against longer time periods
- CEOs will discount longer-term schemes and therefore may demand high pay overall.
- In theory, share prices have reflected the future impact of management decisions. If markets are efficient remuneration can be based on the share price in the short term.

Conclusion

Ideal Pay Package
One solution is to simplify remuneration and award a cash bonus and restricted stock. As mentioned previously, firms where the CEO owns stock tend to perform better than those where the CEO stock ownership is low. At this point, one question to ask ourselves is: how much of a company’s value and/or shares should the CEO have? We believe a strong pay package should comprise the following characteristics:
- A fair and not excessive level that still attracts, motivates and retains top talent;
- Long-term time horizon, ideally five years;
- A simple structure, ideally restricted shares rather than an LTIP;
- A >25% weight to non-financial targets in the annual bonus;
- High stock ownership, >3x base salary, plus requirement to retain or invest a proportion of pay in stock;
- Clear disclosure on targets and pay-outs.

PWC’s study Paying for Performance, published in 2017, concludes that if we take into account the changes in the value of the shares held by CEOs (the wealth effect), there is a correlation with company performance. This finding supports the argument for high CEO stock ownership, rather than complex pay structures. Analysing pay using only flow measures of pay (that is, strictly focusing on pay received in a year rather than also factoring in changes in the value of previously-granted shares) is a bit like analysing investment returns using dividends but ignoring capital gains. In other words, it makes no sense.
Exhibit 5 and 6: CEO remuneration 2013-17 vs TSR 2013-17

Target CEO pay for the FTSE-100 compared with 3 year TSR rank (below)

Target Pay vs. 3 year TSR

R² = 9%

TSR Rank

Target Pay Rank

Target CEO pay, adjusted for size and wealth effect of previously granted equity, for the FTSE-100 compared with 3 year TSR rank (below)

Wealth and size-adjusted Single Figure vs 3 year TSR

R² = 77%

TSR Rank

Single Figure Rank

TSR = total shareholder return
Are plastics really a global pariah?

Plastics, as we know them, have been around for the last 60 - 70 years and have proved to be very useful for people. The usefulness of plastic comes from one of its most important properties: it doesn't react chemically with most other substances. One of the main reasons for the widespread use of plastic is that it is economically sustainable. For many years the construction, healthcare and transportation industries in particular have benefited greatly from using plastic. The main problem with plastic, however, is that it does not decay quickly and therefore poses a significant environmental threat as it remains in the environment for centuries. It is estimated that plastic bags take over 1,000 years to biodegrade. More controlled use of plastic and better disposal techniques could help mitigate the harmful effects of plastic while enabling us to continue to benefit from the convenience that it brings. We do not think plastic itself is the problem, but rather its misuse.

Tackling the plastic issue

The use of plastic has come under intense scrutiny in recent years and as a result we are starting to see regulation in all parts of the world to control plastic use and disposal. The notable examples of this are the plastic bag ban and plastic bag taxes seen across Europe, Asia and Africa. In February 2017, the United Nations committed to stop ocean plastic waste, marking a significant moment in the global fight against plastic pollution. The EU has been leading the charge against plastic waste. The EU parliament approved measures to increase recycling of municipal waste to 55% by 2025 with the figure expected to increase to 65% by 2035. The EU is also considering imposing plastic taxes in order to reduce plastic waste. The UK Government recently introduced new measures to discourage plastic and expanded the plastic bag levy while at the same time banning cotton buds which have plastic stems and plastic straws. Plastic bag taxes have been effective
in the UK with the 5p charge translating to 9 billion fewer plastic bags used. The UK Government has also committed to eliminating all avoidable plastic waste by 2042.

Although these measures indicate a step in the right direction, they are the simplest ways to address the issue of plastic. Plastic bags account for just 2% of global polythene consumption - polythene is the most used plastic – and, as such, levies and bans will only have a marginal impact on total plastic consumption. The demand for plastic is fuelled by urban population growth and an emerging global middle class with a demand for convenience. Given the convenience associated with plastic, small levies and fines may not have a meaningful impact on plastic consumption in the future.

The ‘closed loop circular economy model’ is believed to be a critical approach to address the global plastic issue. Any plastic waste in this model will be used as a resource for the next generation of products. Recycling is a key part of this process and is one of the most effective ways to reduce the harmful impacts of plastic production. However, recycling can be a costly process and sometimes pollutes the environment as the process generates carbon emissions.

Proposed strategies for the sustainable use of plastic:

- Radically changing the plastic recycling system to improve recovery of plastic waste;
- Eliminating single-use plastics and significantly reducing the use of other types of plastic;
- Increasing the use of plastic derived from natural sources (bioplastics and other alternatives); and
- Developing fungi and bacteria that hasten degradation of conventional plastic.

China and Indonesia, two countries that consume and produce a large amount of plastic, have announced plans to adopt a circular economy model for waste management. The EU has also released a circular economy strategy for plastic use. Many companies, like Coca-Cola, PepsiCo, Unilever and Walmart, have targeted 100% reusable, recyclable or compostable packaging by 2025 and have also pledged to increase the recycled content of their plastic products during the same period.

There has been a change in consumer attitudes in favour of the anti-plastic revolution, in particular from the younger generation. Millennials, who are entering the prime consumption period of their lives, are placing a strong emphasis on sustainability when making purchasing decisions. This consumer preference has incentivised companies to shift sustainability measures, like a reduction of plastic, to be a central part of any marketing strategy.

Industries facing downside risks

Manufacturers of plastic packaging and plastic packaging companies are forecasted to see the most significant risks as bans and levies on plastic products are likely to curtail demand. This impact has already been seen in developed markets. Plastic packaging companies exposed to consumer markets could face a significant reduction in earnings. Weakly-positioned companies (e.g. those that haven’t made efforts to shift towards more sustainable packaging) could see a material portion of their earnings at risk. With 37% of the current global packaging consisting of plastic, the packaging industry itself faces challenges.

The Fast Moving Consumer Goods (FMCG) industry also faces challenges from the anti-plastic movement. The shift away from plastic use to replace plastic with alternative materials, or redesigning or reducing packaging, could result in all companies in this sector incurring significant additional costs in the short term. These increased costs could come in the form of re-tooling equipment, higher raw material costs, and the costs associated with reconfiguring supply chains. However, consumer companies that adapt and make changes now will benefit from increased cost-savings in the future. Cost-savings achieved by lower packaging use, improved consumer perceptions and reduced regulatory risks could contribute to higher margins for food producers and household & personal product companies. Action taken by soft-drink giants like Coca-Cola and PepsiCo (both of which are targeting 100% reusable, recyclable or compostable packaging by 2025) becomes increasingly important from the long-term investment standpoint.

The petroleum and oil industry is key in the plastics value chain because petro-chemicals are one of the main raw materials in plastic production. Best estimates suggest that the share of world oil consumption that is used for plastic manufacturing is only 6%, with half of this being used as feedstocks and the other half as fuel in the production process. A reduction in plastic use and bans on plastic worldwide are therefore unlikely to have a large impact on the current petroleum and oil industry. However, British oil and gas company BP expects growing pressure on single-use plastics to harm growth in oil demand when compared to past trends. This expectation is because the demand for oil from the plastic industry is expected to grow more quickly than the overall global demand for oil and a dip in the demand for plastic would reduce the expected growth rate of oil demand from the plastic industry.
Opportunities

Waste treatment and recycling companies are expected to be key beneficiaries of the anti-plastic revolution as demand for recycling and re-use increases. A McKinsey study, for example, finds that the Philippines produces 2.7 million metric tonnes of plastic waste per year, of which 16% is uncollected. It estimates that the uncollected plastic is worth an average of approximately USD375 per metric ton. This statistic suggests a total loss of USD162 million per year from uncollected plastic waste, highlighting the enormous value and opportunity presented. As municipalities and local governments struggle to cope with high volumes of waste, especially due to the associated monetary costs, private players with expertise in the field stand to gain through public-private partnerships. In fact, some governments offer concessions and incentives for private companies to engage in such initiatives.

Chemicals companies moving into the bioplastic space are poised to be another key beneficiary. Bioplastics are set to account for approximately 40% of the plastic market share by 2030 compared with 3%-4% in 2018. This significant increase reflects the growth of plastic alternatives we expect to see as the anti-plastic revolution picks up momentum. A backlog of demand for plastic alternatives, as a result of the rapid public shift away from plastic, has created significant demand for companies like Biopac, a supplier of eco-friendly packaging based in England. Other alternative packaging companies also stand to benefit from the global anti-plastic revolution.

Company examples

Unilever

Unilever recently announced plans to pioneer efforts to convert Polyethylene Terephthalate (PET) waste into the raw materials for use in food packaging as PET is used to make most plastic bottles). As a result, Unilever will be able to remove any colour and impurities from the plastic used for packaging. Unilever estimates that this circular PET economy will be established by the third quarter of 2019, which will create significant cost-savings and also reduce regulatory risks for the company.

Natura

Natura, the Brazilian multinational which operates in the cosmetics, hygiene and beauty space, has increased the use of recycled PET from 50% to 100% in the plastic packaging of its Ekos product line. This initiative has contributed to the increased use of material that is recycled after consumption. Natura also plans to have 10% of all packaging made from post-consumer recycled materials by 2020.

Other company-specific initiatives to tackle the plastic issue:

- Costa Coffee has launched a nationwide plastic recycling scheme.
- Coca-Cola has committed to collect and recycle the equivalent of all its plastic packaging in Western Europe by 2030.
- McDonald's plans to make all of its packaging renewable or recyclable by 2025.
- UK supermarket Morrisons has stopped sourcing plastic straws and plastic-stemmed cotton buds for its stores.
Investment implications of climate change

Climate change has long been a controversial topic. Climate change is an undeniable reality, with the Earth currently in a natural warming phase and scientific consensus largely having been reached regarding the existence of anthropogenic influence. Focus is now shifting towards the extent of mankind’s contribution and the subsequent repercussions. Consequently, we have seen increased efforts on the international stage to both mitigate and adapt to climate change. This increased focus will have numerous implications for the investment industry; creating risks and opportunities in sectors such as agriculture, energy, transport, infrastructure, tourism and insurance.

Natural global warming

The global climate is naturally shaped by the level of solar radiation that the Earth receives, the patterns in which it falls or is reflected, and the areas in which the heat is stored. Oceans store the greatest area of heat and, as such, the global conveyor belt of ocean circulation is a substantial determinant of climate. The two main movements are the Atlantic Multidecadal Oscillation (AMO) and the Pacific Decadal Oscillation (PDO). The AMO is currently in its warm phase, set to peak during 2020-40, while the PDO is in its cool phase, expected to last for the next 20 years.

The consequent global impacts of such changes are as follows:

- Africa: Long-term greening in sub-Saharan Africa as monsoon lands expand north, this shift in dry heat also leads to northern Africa experiencing more extreme heat.
- Asia: Climate determined by a more complex system of currents, key takeaways being that China and Japan should expect colder winters and hotter, wetter summers over the next 20 years.
- Australia: Likely facing a few decades of increased rainfall, improving agricultural yields but also the potential for natural disasters such as floods.
- Europe: More extreme weather in both winter and summer.
- North America: Likely to be more hurricane activity, less snow in the west and drought in the Great Plains.
- South America: Improved rainfall in Brazil, droughts in Argentina.

Manmade climate change

The extent to which mankind has influenced climate change relates to the ways in which solar radiation is stored and the greenhouse gases (GHGs) that we produce. The Earth is heated by solar radiation, some of which is absorbed in areas such as ocean space, while other radiation is reflected off surfaces such as ice. GHGs absorb some of the radiation that reflects off the Earth’s surface, trapping heat that would otherwise radiate into space, and warming the atmosphere and so that it can sustain life. Concerns have been raised over the level of GHG emissions arising from human activity and the potentially dire consequences of over-warming. The principal sources of these GHGs are carbon dioxide from the burning of fossil fuels and methane from agriculture.

Regarding the certainty of human interference, research from the Intergovernmental Panel on Climate Change (IPCC) is confident that most of the warming observed over the past 250 years can be attributed to human activity. Likewise, NASA has found that climate model simulations considering only natural variability are able to fit the observations of global temperature from 1750-1950. After this period they no longer fit the decadal trends in global surface warming, which cannot be explained without including the contribution of GHGs added by humans.

When considering past and future impacts, NASA reports
that the global temperature has risen 0.6°C - 0.9°C between 1906 and 2005 and has forecast that Earth will get warmer by 2°C - 6°C in the next century; similar increases in the past occurred over periods spanning 5000 years. This problem is compounded by the stock of GHGs that have already accumulated – even if GHGs were to stabilise immediately we would expect a rise in temperature of 0.6°C over the next 100 years. Consequently, we can expect an increase in extreme weather events, rising sea levels, hot summers, and drought. The World Health Organisation currently predicts that there will be an additional 250,000 climate-related deaths per year in the period of 2030-2050.

Climate change response strategies - Responses to climate change can be categorised in one of three ways: geo-engineering, mitigation, or adaption.

Geo-engineering refers to large-scale intervention into the Earth’s climate system in order to counteract the effects of changes in atmospheric chemistry, i.e. to reverse global warming. The most widely-publicised strategy has been solar radiation management which comprise techniques to reduce the amount of sunlight absorbed. Further information on geoengineering can be found at www.geoengineering.ox.ac.uk/what-is-geoengineering/

Mitigation refers to policies used to moderate temperature rises. The current stock of pollutants has made future temperature rises unavoidable, as such mitigation strategies are in place to reduce the current flow of GHG emissions. Aims to mitigate climate change have largely been at the forefront of international negotiations, where broad targets have been set with countries being able to determine their own micro strategies in order to meet them.

Adaption refers to the strategies used to lessen the impact of climate change. Adaption is gaining significant prominence as the unavoidable realities of climate change have become accepted, especially considering the increased difficulties poorer countries will face in funding their adaption to climate change. Strategies can include measures such as sea walls, health facilities and improving infrastructure resilience.

International climate change cooperation

As the damage caused by unabated climate change has grown, so too has the realisation of the need for international cooperation.

The Rio Earth Summit (1992) marked the first international agreement on climate change. The first UN environment treaty (non-binding) dictated that nations would reduce GHG emissions to 1990 levels. The United Nations Convention on Climate Change (UNFCCC) established the principle of ‘common but differentiated responsibilities’.

The Kyoto Protocol (1997) was the first substantial agreement to set country-specific GHG emission limits and a timetable for their attainment. The primary objective set was to cut combined emissions of five principal GHGs from industrialised (‘Annex I’) countries by 5% relative to 1990 by 2008-12. A key feature of the protocol was the establishment of emissions trading, with each country being allowed a set level of emissions and able to sell unused units to one another. From this feature, the EU ETS, the first international tradeable permit scheme, was developed.

The Kyoto Protocol also highlighted the ethical dilemmas faced by developing countries in addressing climate change. The debate centred on whether or not developing nations should be allowed to pollute as part of their industrialisation process, the argument being that developed nations had been able to do so. Ultimately, the Kyoto Protocol did not set binding principles on developing countries.

The Paris Agreement (2015) represents the latest major effort in international co-operation, intended to bridge today’s policies and climate neutrality before the end of the century. It established the long-term mitigation goal of reducing global average temperatures to well below 2°C above pre-industrial levels, with most countries aiming for 1.5°C - 2°C. Climate change adaption was a key feature and the agreement recognised the need to strengthen society’s ability to minimise the loss and damage that can result from climate change effects. The agreement also stressed the need for transparency, and stipulated that countries are required to meet every five years in order to report on progress and develop more ambitious targets.

Trends in 2018

In 2018, the Paris Agreement’s operational guidelines will be finalised; the Talanoa Dialogue, which will run from January to December, is a process designed to help countries to implement the targets set in 2015 and it is expected that this will reveal which countries are not on track to meet the initial targets. All 197 parties of the UNFCCC have now signed or ratified the agreement. Further alignment is occurring as countries make vague aims for 100% renewables in the future.

The effects of the U.S. withdrawal from the Paris Agreement have yet to be seen. Consensus appears to be that its withdrawal will serve as a catalyst for the rest of the world to increase action, although there are fears that it may instead lead to others following suit. Perhaps as a result, we are
seeing the growing leadership of China on the world stage, alongside subtle shifts in climate leadership towards the developing world.

This alignment will also extend towards firms and their stakeholders, spurred by a combination of regulations and public opinion. We expect more transparency from firms about their dealings with their stakeholders, and inter-company co-operation on climate-related issues.

Industry risks and opportunities

The aforementioned Paris Agreement will have a substantial impact on a number of industries, creating risks and opportunities. The three key drivers behind industry change will be the effects of climate change itself, climate policy and disruptive cleaner technologies.

Energy and fuel will be at the forefront of change, exposed to all three drivers. The sector will likely experience the continued penetration of renewable energy, such as solar and wind. Energy storage is set to be a key theme, notably hydro, battery and hydrogen, the latter two still very much nascent. Fossil fuel still underlies approximately 85% of the world’s energy consumption, however, this reality will have to change if the Paris goals are to be met. Consequently, peak demand for fossil fuel may arrive in the coming years. In emerging and frontier markets, we expect demand for fossil fuels to continue to rise, although their share of total energy demand will fall. This transition will affect resource-rich countries the most, the majority of which are emerging or frontier markets.

Transport will experience a continued acceleration towards electrification as more countries further their plans for electric vehicles and the industry reduces its long-term reliance on oil. Trends of countries announcing long-term bans on petrol and diesel vehicles are likely to continue.

Buildings and infrastructure are likely to face continued reformation as cities invest in low carbon infrastructure and the quest for energy efficiency continues. Conversely, the sector is likely to run into difficulties as the climate becomes less stable and areas that were relatively safe now face increased risk from extreme weather.

Housing and tourism sectors will both experience similar threats from changing climates, as previously safe, attractive areas are subject to extreme weather events. Primary examples of this would be coastal areas now subject to flooding; Southampton, NY, one of the most affluent areas in the U.S., is also one of those most susceptible with floods threatening to impact property values and erode infrastructure, leaving property tax revenue at risk.

Green funding will continue to grow as companies increasingly engage in the green financing. We expect more climate tilting by financial institutions and increases in the number of green bonds, with over USD120bn issued in 2017 and USD130-180bn forecast for 2018.

Climate smart cities will develop in response to the above, likely using innovative financing solutions such as green bonds, carbon pricing and transport schemes.

Water shortages will continue to increase, having far-reaching effects on numerous industries. 700 million people in the world are currently experiencing water scarcity and this number is projected to reach 1.8bn by 2025, leaving two-thirds of the world’s population in water-stressed conditions. This increase will result in the impairment of subsistence agriculture and economic activity. The electric power sector is also likely to be affected, aspects such as hydroelectricity and cooling in nuclear gas and coal all being hugely water intensive.

Agriculture there will be a focus on improving efficiency. The sector will also come under threat from the impact of climate change on monsoon and drought patterns.

Insurance will experience industry-level changes as a result of the large pay-outs seen last year, which suggested that current insurance models may be underestimating losses. The changing climate has dramatically altered risk levels, meaning that insurance pricing changes will have to take place. Insurers face the difficulty of establishing the appropriate prices to adequately reflect increasing weather-related losses and errors could result in catastrophic events threatening their solvency. Increases in the price of insurance may also have spill-over effects in the economy as small businesses and households may be unable to afford higher insurance costs.
ESG integration cases

ESG case studies
Pacific Basin Shipping - Reducing sulphur emissions from the shipping industry

When it comes to emerging markets and ESG we often hear the focus is mainly on the ‘G’ - corporate governance - and especially poor standards of governance at some companies. Since the team was established we have argued that the ‘E’ and the ‘S’ are of equal importance and that in the future, investors around the world will focus more on those two elements. As discussed in detail below, the introduction of IMO (International Maritime Organization) 2020 is a good illustration of how environmental considerations are now a global theme and not only a focus for developed markets. It is hoped that IMO 2020 will have a significant impact by reducing a major cause of health issues for millions of people, notably those in the poorest countries.

There will also be important repercussions for different industries: particularly shipping, energy, ship building and airlines. There will be winners and losers and in the following discussion we will analyse the impact of this major new regulation.

What is IMO 2020 and why do we need it?
IMO 2020 is a United Nations regulation which aims to reduce sulphur emissions from ocean-going vessels across the globe. In 2016, the IMO, a specialist agency of the United Nations, established new standards of sulphur content in the fuel used by ships. The previous limit, set in 2012, was 3.5% and this will drop to 0.5% on January 1, 2020. This new regulation complements the 0.1% limit for Emission Control Areas (which include the coasts of the U.S. and Canada) and EU ports that has been in place since 2015. Almost 180 countries, including the U.S., China and India, are members of the IMO which means that low sulphur oxide (SOx) emissions will be required globally.

The pollution from transportation on land is well documented but what is less well known is the the significant pollution caused by the shipping industry. For instance, bunker fuel contains 3500 times more SOx than the diesel used for cars. A single vessel which consumes 80 tons of high-sulphur fuel oil (HFSO) per day will produce emissions equivalent to those produced by 48 million cars!

Shipping represents 6% of the demand for oil and is responsible for more than 30% of emissions worldwide. Although most of the pollution is discharged at sea, a 2018 study from Nature Communications calculated that 335,000 deaths and ten million cases of asthma annually are caused by marine fuels. The impact on the environment is also severe as SOx causes acid rain which affects crops, forests and aquatic life.

The IMO has stated that 570,000 premature deaths linked to SOx pollution could be prevented between 2020 and 2025. The ultimate goal is to reduce sulphur emissions by 50% by 2050 and eventually to eradicate them.

The implementation of the regulation is less than 18 months away and, despite being largely ignored by the industry, investors and the media, will have very significant repercussions for many industries.

What does it mean for the shipping industry?
Freight tariffs will increase. This increase will benefit the best positioned operators and ultimately there will be winners and losers in the industry. The current fleet of vessels was not designed for this new regulation and thus the new regulation will significantly impact the industry. It has been estimated that by 2020 the additional costs borne by the industry will be in the region of USD40bn. There are three ways that companies can comply with the new regulations:

1. Fitting a scrubber: this is a large piece of equipment which reduces the level of emissions. Scrubbers are expensive to fit, however, because the ship has to be taken out of the sea and they can only be fitted on the biggest vessels as scrubbers are too big for many ships.
2. Reducing vessels’ speed: by slowing the speed at which a vessel travels, the SOx content is reduced. There is a limitation on how much ‘slow steaming’ can increase so this option will not be enough to reduce emissions to the desired level.

3. Switching to a different type of fuel: lighter, hence less polluting, fuel and different mixes are possible but overall the use of heavy oil will need to drop.

The change in regulation comes at a time where the shipping industry is just recovering from a ten-year downturn. In the run-up to the global financial crisis, and when globalisation was intensifying, the shipping industry grew very quickly and profits were enormous. The year 2008 marked the peak of demand but also the beginning of a cycle of oversupply of ships that would take almost ten years to digest.

In 2018 it was expected that demand and supply would balance and that 2019 would continue in the same vein. It is now clear that with IMO 2020 we will move into an under-supply market which will have a big impact on freight tariffs. This under-supply will benefit the best positioned participants in the industry, i.e. those which operate the newest fleets and are able to switch to cleaner fuel and/or fit scrubbers in a profitable way. We expect that many firms will be negatively impacted but that some will be successful and for that reason we have been advocating for the implementation of IMO 2020.

How are companies prepared?

Shipping companies: the best positioned companies in the industry have been conscious of the environment for many years; they know that in order to be successful in the long term they have to be at the forefront of the fight against pollution. For that reason, companies such as Maersk, the largest cargo carrier in the world, or Pacific Basin Shipping from Hong Kong, have supported the new regulations put in place to reduce emissions. Both believe this is the right thing to do and of course they also believe that by anticipating the changes, they can win market share from less prepared players; a win-win situation.

Pacific Basin Shipping

We believe that Pacific Basin Shipping (PBS) is one of the companies best positioned to benefit from IMO 2020. The firm has welcomed the new regulation as it has focused on the protection of the environment for a long time. PBS believes that the industry has a duty to reduce emissions and it is lobbying for even stricter regulations on CO₂ by 2030.

PBS operates exclusively in the dry bulk segment and owns and charters 240 vessels in total comprising 146 Handysize and 94 Supramax ships. In order to comply with the new regulations, companies will have to fit scrubbers to their ships or use the new lower sulphur fuel. Both options are expensive and the likely result will be that older ships will not be able to comply with the new regulations and therefore will be retired. This will lead to higher freight rates as we expect demand to exceed supply in the coming years.

The average age of PBS’s fleet is only 8.2 years old and so the entire fleet will be able to run on the lighter, cleaner fuel. Another positive for PBS is that most shipping companies are very reluctant to buy current generation vessels as they believe they will quickly become obsolete; they are waiting for the next generation of ships which are not yet available. As stated above, the shipping industry is emerging from a ten-year downturn and PBS is just coming back into profit after five years of losses. IMO 2020 will increase the imbalance between supply and demand for ships as the current supply will be unable to meet demand as the oldest ships are retired. PBS, with its younger fleet, will benefit from an increase in freight rate. It is interesting to note the elasticity of demand for freight rates is very small so tariffs can increase by a large amount simply due to an imbalance between supply and demand. PBS believes that another effective solution is slow steaming, which reduces the pace at which vessels travel and consequently reduces emissions. Of course this solution will also benefit PBS as its vessels will be chartered for longer periods of time.

What’s next?

We believe that the IMO will continue to add new regulation and the next step will be a fight against CO₂, a major issue when it comes to climate change. After one of the hottest summers on record in 2018, it is very likely that international organisations will react and we can only expect stricter regulation in the coming years. Once again, the companies who plan for the future, and integrate the protection of the environment into those plans, will emerge as winners.
Amorepacific Group (AP) was established in 1945 and for the past seven decades, it has focused on Asian beauty and creating a more beautiful and healthy world by developing innovative products. The company views itself as a responsible global corporate citizen and over 10 years ago, AP published its first sustainability report, the first of its kind in the Korean beauty industry. The company has won major global awards and has been part of the Dow Jones Sustainability Index for eight consecutive years and part of the FTSE4 Good Index for seven years.

While AP continues its journey towards becoming a great brand company, it is working hard to achieve its “2020 Sustainability Commitments” which are based on three focus areas and eight commitments. In addition, the company actively carries out the ten principles of the UN Global Compact which covers the areas of human rights, labour, the environment and anti-corruption.

AP’s three focus areas are:

i) To help build a sustainable lifestyle for customers by creating products that have a positive influence on the environment and society - from product planning to production, sales and disposal.

ii) To pursue a policy of inclusive growth not only for AP’s employees but also for business partners and the local community. There is a real emphasis on work-life balance, gender diversity and strengthening the capacity of business partners.

iii) To build a circular economy by enhancing resource efficiency throughout all corporate activity. Here, recycling, enhanced resource efficiency and the reduction of greenhouse gas emissions will all help to achieve the ultimate goal of a carbon-free status.

Impressively the eight commitments are very precise, which gives the company little opportunity to deviate from its promises. To put this into context, we highlight some of the key objectives below:

Commitment 1 aims to incorporate at least one benefit to the environment or society into more than 40% of new products by 2020. This target will involve expanding the use of sustainable packaging materials, natural ingredients, increasing reliance on RSPO (Roundtable on Sustainable Palm Oil)-certified palm oil ingredients and reducing its water-usage footprint.

Commitment 2 aims to integrate environmental and social considerations into the design and operation of AP’s stores. This commitment will involve a focus on recycling waste products, such as containers, applying eco-friendly interior décor materials, installing high efficiency LED lighting, promoting eco-friendly shopping bags and using smart receipts.
AP’s brand campaigns also promote sustainable consumption. Efforts to refill containers or the “Love the Earth Campaign” which supports global efforts to protect wetlands are just two examples. These campaigns increase customers’ awareness of environmentally and socially sustainable lifestyles.

One of AP’s objectives is to be considered a great place to work and in 2011 the company implemented a global talent programme. While this initiative may be driven by a profit motive, given that the ultimate result will be to create a better talent pool with a global focus in areas such as research and development, sales and marketing, and IT, the programme has also created pride in the work place. The company promotes health and welfare, women in leadership roles, and diversity through a flexible work environment for all its employees. Additionally, it has an open-plan office layout giving easy access to management.

Commitment 5 relates to AP’s contribution to inclusive growth by actively supporting the development of its business partners. This inclusive growth is fostered through programmes to support the growth and innovation of its suppliers which involves training all the organisation’s beauty partners. A good example of this activity involved a recent issue regarding the use of pesticides in ginseng. AP developed a new method for cultivating organic ginseng at its Osulloc farm and provided consultation and demonstration sessions for farmers.

Commitment 6 specifically supports the health, well-being and economic empowerment of up to 200,000 women by 2020. As part of this commitment there is an in-house breast-screening programme available for women in their 20s and 30s. AP also supports women’s economic empowerment by employing women from socially vulnerable groups. The company was the first to introduce the door-to-door sales scheme in 1964 and this programme helped women achieve financial independence in the post-war period. Today AP’s ‘Beautiful Life’ campaign provides technical training and mentoring to support women with low incomes who are searching for work. These programmes have helped 47% of all participants obtain professional certificates and 21% of them find employment.

Commitments 7 and 8 are closely related and are very specific. Commitment 7 deals with the reduction of CO₂ emissions by 30% per tonne of production, starting from a 2015 baseline. This reduction target will mean expanding the use of renewable energies and upgrading current facilities. AP’s new headquarters are very impressive; heat energy is recycled through the air-conditioning facilities and a waste heat recovery system; power usage is minimised and there are solar panels on the roof. Commitment 8 aims to improve resource efficiency following the principles of ‘reduce, recycle and reuse’. This commitment has not only led to the company reducing its water consumption by 34% for all its major facilities, but at its Beauty Campus in Osan in 2017, it also reduced the water bill by KRW100m.

We find Amorepacific to be a company that is fully committed to the integration of its ESG values. This ethos permeates all levels of the workforce, its suppliers, customers and the countries in which it operates. We believe that this focus on ESG integration will help the company to sustain its franchise in an era that is increasingly concerned with ESG issues.
Philippe Langham, ACA
Head of RBC Emerging Markets Equity

Philippe is Head of the Emerging Markets Equity team in London and lead manager for the Emerging Markets Equity and Emerging Markets Small Cap Equity strategies. He has worked in the investment industry since 1992. Before joining the RBC Global Asset Management in 2009 to establish the Emerging Markets Equity team, Philippe was the Head of Global Emerging Markets at Société Générale Asset Management in London. Previous experience includes roles at the Kuwait Investment Office in London where Philippe managed the Global Emerging Markets, Asian, Latin American and U.S. portfolios and Credit Suisse in Zurich where he was Director and Head of Asia and Emerging Markets.

Philippe holds a BSc in Economics from the University of Manchester, and is a Chartered Accountant.

Laurence Bensafi, CFA
Deputy Head of RBC Emerging Markets Equity

Laurence is Deputy Head of Emerging Markets Equity in London and lead portfolio manager for the Emerging Markets Value Equity Strategy. Before joining RBC Global Asset Management in 2013 Laurence was the Head of Aviva Investors’ Emerging Markets team where she was responsible for managing Global Emerging Markets income funds, and for developing quantitative stock selection & analysis models. Laurence began her investment career as a Quantitative Analyst at Société Générale Asset Management, supporting European and Global Equity portfolio management by developing quantitative models to assist in the portfolio construction and security selection process. Laurence holds a Magistère d’Économiste Statisticien & D.E.S.S. Statistique et Économétrie from Toulouse University in France and is a CFA charterholder.

Guido Giammattei
Head of Research, Portfolio Manager, RBC Emerging Markets Equity

Guido is Head of Research and a Portfolio Manager for the Emerging Markets Equity team in London. Before joining RBC Global Asset Management in 2010, Guido was an Emerging Markets Portfolio Manager at Rexiter Capital Management. Previous experience includes roles as an Emerging Markets Equities Analyst at Rexiter and Securities Analyst then Junior Portfolio Manager at HSBC Asset Management. Guido began his career in the investment industry in 1998 as an Equity and Derivatives Trader for BSI in Italy. Guido holds a BSc from Università Cattolica Del Sacro Cuore and an MBA from Carroll Graduate School of Management, Boston College.

Veronique Erb
Portfolio Manager, RBC Emerging Markets Equity

Veronique is a Portfolio Manager in the Emerging Markets Equity team. Veronique began her investment career in 2000 and joined RBC Global Asset Management in 2015. Prior to joining the firm, Veronique was at CLSA Asia Pacific Markets where she was responsible for Asian ex-Japan equities covering geopolitical, macro-economic and fundamental analysis of the region for 15 years. Veronique grew up in Hong Kong, and obtained a BSc in Economics and German from the University of Surrey and an MSc in Finance from Cass Business School, London.

Zeena Dahdaleh, CFA
Portfolio Manager, RBC Emerging Markets Equity

Zeena is a Portfolio Manager in the Emerging Markets Equity team and has been with the Emerging Markets team since inception. Before joining RBC Global Asset Management, Zeena worked as an Investment Banking Analyst for Lehman Brothers, which subsequently became Nomura. Zeena began her investment career in 2007 and during her time as an Analyst Zeena’s coverage has included a number of emerging markets regions. Zeena holds a BSc (Econ) from the London School of Economics and is a CFA charterholder.

Christoffer is a Portfolio Manager in the Emerging Markets Equity team in London having joined RBC Global Asset Management in 2013. Before joining RBC Global Asset Management, Christoffer was a Research Associate at Nordea Investment Management in Copenhagen. He was responsible for the bottom-up fundamental analysis of companies in the Asia ex-Japan region. In 2010, Christoffer obtained a BSc in Business Administration and Economics and in 2012 he obtained an MSc in Finance and Accounting from Copenhagen Business School. Christoffer is a CFA charterholder.

Ashna is an Associate Portfolio Manager on the Emerging Markets Equity team in London. Ashna joined the RBC Global Asset Management team in 2017 as Emerging Markets Equity Product Specialist after starting her career in the investment industry in 2012. Before joining RBC Global Asset Management in 2017, Ashna was an Equity Salesperson at Morgan Stanley covering the Asia Pacific region. During her time at Morgan Stanley, Ashna was also a member of the content development team for Europe and EMEA regions, responsible for commercialising the research product. Ashna holds a BSc (Hons) in Statistics, Economics and Finance from University College London.

Victor is an Analyst in the Emerging Markets Equity team in London. Victor joined RBC Global Asset Management in August 2018. Prior to joining the firm, he worked at ICM Investment Research where he focused on China covering multiple sectors including Infrastructure, Telecoms and Utilities. Previous experience includes a role in Advanced Risk & Compliance Analytics at PwC, where Victor conducted detailed analysis on financial crime related data manipulation. Victor holds an MEng in Civil Engineering from Imperial College London. He has completed the CFA Level 1 exam and is currently studying for Level 2. Victor is fluent in English, Mandarin and Malay, and also speaks Cantonese and Japanese.

Dijana is the Product Specialist for the Emerging Markets Equity team in London. Prior to joining RBC Global Asset Management in 2018, Dijana was Vice President at Citi Private Bank where she spent six years across the Managed Investments and Investment Marketing businesses, focusing on the positioning of investment capabilities and thought leadership respectively. Dijana began her investments career at KPMG Investment Advisory, and prior to that worked in the Old Masters department at Christie’s Auction House. Dijana holds a BA (Hons) in the History of Art from the University of Warwick. She has completed the CFA Level 1 exam and holds the CFA UK Investment Management Certificate.