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Introduction

We are pleased to present our fifth ESG Report, where we show how ESG considerations are being integrated into our portfolios. In our multi-manager offerings, which include private equity, hedge funds and select long-only strategies, we focus on how our managers integrate ESG considerations into their investment approach. In our bond and equity portfolios, in which we select securities based on robust ESG criteria, we focus on the ESG attributes of issuers of securities. Given the central place of ESG considerations in these portfolios, they make up our sustainable bond and equity offerings, which we have been managing since 2009. Looking across these various approaches and portfolios, we see significant progress this year in how ESG is taken into account in our portfolios.

With our multi-manager portfolios, we carry out a survey of our managers each year, where we evaluate them on their commitment to ESG, how they integrate it into investment and ownership practices and how they report on this to investors. The goal is to measure progress on these four themes through time. We note that our private equity managers have continued to deepen their commitment to ESG overall, but the level of commitment varies considerably across geographies. Managers are progressing on all four themes, even reporting, which is generally considered to be the last piece of the puzzle to fall into place.

Among our hedge fund and long-only managers, we continue to see a large difference in how hedge fund and traditional long-only managers prioritize ESG. It is little surprise that hedge fund managers are slower to engage on the topic, as they pursue a wide variety of strategies that do not easily lend themselves to established approaches of ESG incorporation. Even so, more and more hedge fund managers are taking their first steps in adopting ESG principles. The topic has also gained more traction in the media, at industry conferences and in discussions among asset allocators.

This year for the first time we "look under the hood" of a number of our multi-manager portfolios to see how their portfolios compare on ESG with the ratings we have assigned to them as organizations. To do this, we leveraged the ESG Cockpit, our proprietary tool for assessing the ESG attributes of equity and bond issuers. It allows us to calculate ESG scores for the portfolios and see whether these reconcile with the ESG rating we have assigned to the respective managers.

Finally, we take a close look at our sustainable bond and equity strategies, where we observe that their carbon footprints are significantly lower than those of their respective MSCI benchmarks. We also consider the implications of ESG on investment performance, taking our Global Sustainable Equity Strategy as an example. Lastly, we report on how we have enhanced our scoring of bond and equity issuers on ESG by updating the key performance indicators that we consider.

As always, we would be pleased to discuss with you any questions or comments you may have on the information presented.

LGT Capital Partners ESG Committee

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ESG survey of managers – how we do it

Each year we conduct a survey of managers, which forms part of the firm's larger ESG due diligence, monitoring and manager engagement process. The survey serves a two-fold purpose. First, it shows our investors the extent to which managers are considering ESG factors in their investment, ownership and reporting practices. Second, the survey facilitates our engagement with managers on ESG, highlighting excellence in implementation and flagging areas for improvement.

In the survey, we ask managers about and score them on four key measures of ESG practice:

- Manager commitment the extent to which they have demonstrated their commitment to ESG through actions such as defining a policy, committing to an industry initiative like PRI and engaging with their portfolio companies
- Investment process the extent to which they have formally integrated ESG into their investment processes, using it as a framework for evaluating investments and identifying areas for improvement

- Ownership the extent to which they have exhibited active ownership through activities like defining ESG guidelines, establishing key performance indicators (KPIs) or assigning ESG responsibilities for portfolio companies
- Reporting the extent to which they have provided regular and relevant reporting on ESG on a portfolio company level and on the aggregate fund level

Managers receive a score of 1 to 4 (where 1 = excellent and 4 = poor) on each of the four measures, resulting in an overall rating for each manager, which is then documented in our monitoring system. Managers who receive low scores (3 or 4) on specific indicators are encouraged to improve over time.

Rating Description

- 1 Manager is genuinely committed to ESG, with institutional processes in place. Applies ESG criteria in investment decision-making, is an active owner and reports on ESG
- 2 Manager has taken steps to integrate ESG into its approach and investment process. Process is institutionalized, but manager may not follow through on all levels (e.g. reporting)
- 3 Manager demonstrates some commitment to ESG or has begun some initiatives, but lacks institutionalized processes
- 4 Manager demonstrates little or no commitment to ESG

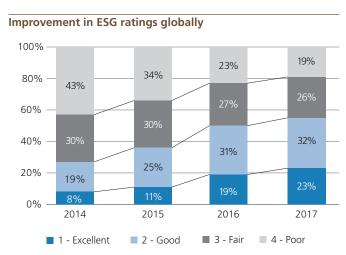
Private equity

Steady progress globally

This year's survey of 184 private equity managers in the US, Europe and Asia provides an additional year of data for comparing ESG progress over time. It shows that managers are continuing to improve, as an increasing share of them receive ESG ratings of 1 or 2, indicating excellent or good practices for integrating ESG into their investment activities. Since last year, this group grew by five percentage points to well over half of all managers (55%), which reflects steady progress on a longer trend. In the four years from 2014 to 2017, the group of 1-and 2-rated managers has doubled in size from the 27% percent of the first survey. In this same time period, managers with a rating of 4, indicating effectively no action on ESG, have decreased to 19% of our global set of managers, down from 43% in 2014.

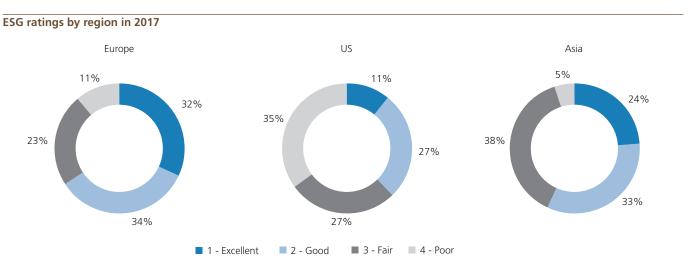
How the regions compare – Europe leads, Asia gaining ground and US still lagging

Comparing ESG practices across the three key private equity markets of the US, Europe and Asia paints a familiar picture to what we have seen in past years. Europe continues to lead, with 66% of managers now having excellent or good ESG processes in place. Asia continues to gain ground, as 57% of managers



Source: LGT Capital Partners

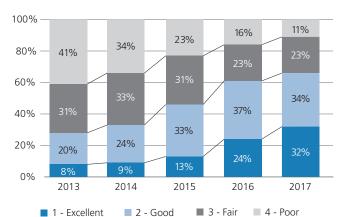
now have similarly well-developed approaches to ESG. As we have seen in past surveys, US managers have been the slowest to adopt ESG practices, with just 38% achieving a rating of 1 or 2. We believe this reflects the fact that investor bases of these managers have not made ESG a priority, as progress on ESG is often a result of investor pressure.



Strong ESG practices becoming the norm in Europe

With a significant majority (66%) of European managers now having good or excellent ESG processes in place, ESG is swiftly becoming the norm in the region. Even though we observed last year that much of the "low hanging fruit" of ESG has already been implemented by these managers, we see continued progress. Our 2017 survey shows an increase of five percentage points of managers with good or excellent ratings, with many of these implementing the "last mile" of ESG. For example, managers are more actively engaging with their portfolio companies to identify the most material ESG factors and many have begun collecting key performance indicators (KPIs) to monitor company progress. We also see better reporting from portfolio companies to fund managers, which has resulted in improved reporting and transparency to investors.

Improvement in ESG ratings in Europe



Differing ESG practices within Europe

ESG has long been a priority in the Nordics, and this is reflected in the ESG scores of our managers there. Fully 54% of them have received our top rating of 1 for ESG, a proportion that grows to 85% when considering the 1- and 2-rated managers together. Furthermore, not a single one received our lowest score of 4. While most of these managers have already had solid ESG processes in place for several years, they have continued to improve over time. For example, many have progressed from a rating of 2 to 1 by enhancing their approach, such as by embedding ESG criteria more deeply into their investment process or incorporating KPIs into their monitoring of portfolio companies.

Highly rated managers (rated 1 or 2) also account for a large majority of the total in the UK and France, where they comprise 73% and 64%, respectively, of the sample. This is a reflection of the ESG priorities in the respective markets. The UK is a very mature private equity market with a large number of institutional investors that have prioritized ESG in their allocation decisions over many years. In France, interest in ESG grew steadily over the last several years before catapulting to the top of the agenda of institutional investors in 2016, when the French Energy Transition for Green Growth Law came into effect. It requires institutional investors to disclose in their annual reports information on how ESG criteria are considered in their investment decisions and how their policies align with the national strategy for energy and ecological transition.¹

The state of ESG uptake in other countries – such as Belgium, Netherlands and Luxembourg (Benelux), as well as Italy, Spain, Germany and Switzerland – presents a more mixed picture. On the one hand, significant progress has taken place since 2014, as managers rated 1 or 2 now make up at least one-third of the total in all three regions. On the other hand, we are disappointed that managers in these countries are far behind their peers in our "ESG leader" countries of the Nordics, the UK and France.

Part of this disparity stems from the lack of ESG focus among institutional investors in some of these countries. For example, ESG has not historically been a priority in Southern Europe, and the manager ratings there clearly reflect this. Similarly, German institutional investors have been slower in picking up the ESG torch compared with their peers in other European countries, but our conversations with institutional investors there suggest this is changing.

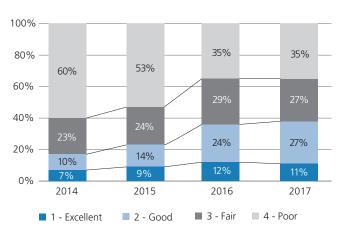
The unremarkable ESG performance in Benelux, by contrast, cannot be readily explained by the lack of interest from investors. Institutions in the Netherlands are among the world's most vocal proponents of ESG. We have observed that a number of managers in Benelux and the other ESG-lagging countries still see ESG as a costly exercise without obvious financial benefits. As a result, they have been reluctant to embrace it. Furthermore, a number of these managers have exceptionally strong track records and raise only small amounts of capital, and therefore have not had any difficulty raising their funds despite their lack of ESG focus.



US managers in "holding pattern" on ESG

Last year we were pleased to report a significant uptick in ESG activity among our US managers, as the proportion rated 1 or 2 increased by 13 percentage points between 2015 and 2016. That momentum seems to have stalled in 2017, as we now see roughly the same proportion of managers in each of our four rating categories as last year. Just over a third of managers (38%) have excellent or good ESG processes in place. Another large proportion (27%) have just begun to think about ESG as seen in their ratings of 3, and a still large group (35%) is still not engaging with ESG, as indicated by the 4 ratings.

Development of ESG ratings in the US



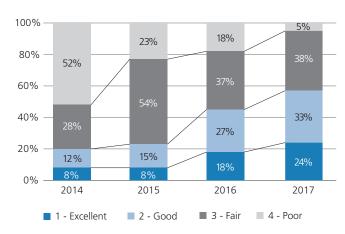
Source: LGT Capital Partners

While little in the ratings has changed since last year, our discussions with US managers suggest that there is increasing interest in the topic. We have had conversations with numerous managers over the last year, where many have expressed an interest in getting started on their ESG journey or more formally embedding nascent processes into their businesses. A recurring theme of these conversations is a lack of guidance from investors as to where to begin or what to do next in their ESG processes. We hope that our upcoming publication, "A guide to ESG implementation in private equity," will encourage some managers to take initial steps and motivate others to aim higher on ESG. We anticipate that this will lead to productive discussions with them in the coming months.

Asian managers continue to make progress

Our Asian managers have progressed on ESG over the last 12 months, as the proportion rated 1 or 2 has increased by 12 percentage points to 57% since our last survey. This includes two managers that have crossed the crucial threshold from 3 to 2, where a generalized commitment to ESG turns into institutionalized processes for ESG analysis and management. We also observe that only one of our 21 Asian buyout managers is rated 4 this year.

Improvement in ESG ratings in Asia



Source: LGT Capital Partners

One manager, a mid-market firm that focuses on control buyout investments in Southeast Asia, made such significant improvements in its ESG processes that it moved from a rating of 4 to 2 since our last survey. We first rated the manager in 2015, at which point the team had no ESG policies or processes in place. In 2016, they reported that there had been no major changes to their approach, but that they had begun a process of establishing an ESG policy and processes. Key changes observed in 2017 included implementing an ESG policy that commits the firm to making socially responsible and environmentally sound investments through various procedures defined in their investment process. For example, the manager now uses an internally developed checklist to evaluate ESG factors and their materiality. Once a company is in the portfolio, the manager reviews existing policies and makes ESG a regular topic at company board meetings. Overall, we are impressed with the manager's progress.

Both small and large managers move forward on ESG

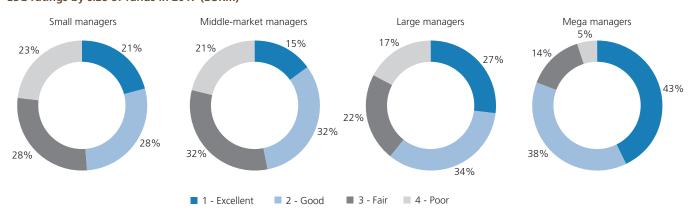
We have long noticed a correlation between fund size and ESG uptake by managers, as larger managers appear to have more scope for integrating ESG factors. This results from their greater economies of scale for maintaining dedicated ESG resources and establishing systems for identifying and tracking ESG factors. While we think this dynamic is still broadly true, the breakdown of managers in our portfolios by fund size and ESG rating, especially as seen over time, presents a more differentiated picture.

Well over half of our large and mega managers are rated 1 or 2 on ESG, indicating solid systems in place for managing ESG issues. Furthermore, the proportion of managers doing little or nothing on ESG is comfortably below 20% in each case. Nevertheless, our small and middle-sized managers are not far behind, as in both cases nearly half of managers (49% and 47% respectively) are rated 1 or 2 on ESG.

Fund size is not much of a factor in determining which group of managers shows progress on ESG during the year and which one stands still. Over the last 12 months, most of the progress has taken place among both small and large managers. The proportion of small managers with ratings of 1 or 2 increased by eight percentage points to 49% since our last survey. In the same time period, the share of large managers with excellent or good ratings increased by six percentage points to 61%.

We also observe that some small managers are now committing significant resources to ESG, which runs contrary to the notion that manager size is an obstacle to integrating ESG into an organization. For example, one of our US small buyout managers now has a two-person sustainability team dedicated exclusively to implementing the firm's ESG policy. Working closely with other members of the manager's investment and operations teams, this team oversees ESG issues during due diligence and they work with portfolio companies on specific ESG initiatives following acquisition.

ESG ratings by size of funds in 2017 (EURm)



Source: LGT Capital Partners. Small managers = funds below EUR 500m / Middle-market managers = funds EUR 500m-1.5bn Large managers = funds EUR 1.5–5bn / Mega managers = funds above EUR 5bn

Strong level of ESG commitment across the four themes

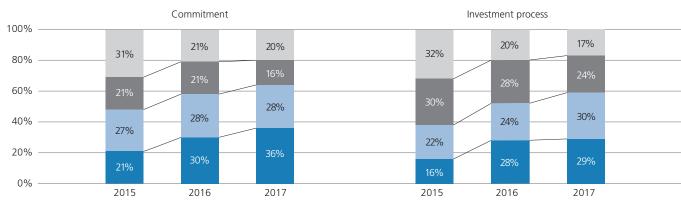
Another way of looking at how managers in our portfolios are integrating ESG into their investment practices is by observing the breakdown of ratings on the individual ESG themes that we assess: commitment, investment process, ownership and reporting. Each theme offers a different window on what managers are doing. The commitment theme emphasizes policies and intentions, while investment process and ownership reflect how managers are evaluating companies on ESG prior to investment and how they are addressing issues after investing. The reporting assessment reflects their level of transparency on ESG and the extent to which they have invested in systems to provide investors with information on ESG aspects of portfolio companies.

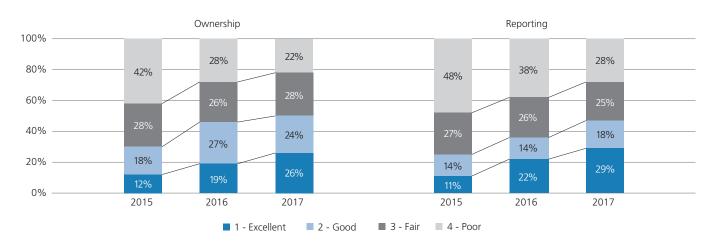
This year we see a similar pattern to what we have seen in the last few years. The largest share of managers (64%) are rated well on manager commitment, as indicated by their ratings of 1 or 2, while a smaller proportion achieve such ratings on the

other themes (59% for investment process, 50% for ownership and 47% for reporting). Making a commitment to ESG is the easiest to demonstrate and requires the smallest investment by managers, while integrating ESG into the business requires more investment in resources and systems. Managers typically begin their ESG journeys by making an initial commitment to ESG and then develop processes for identifying, managing and reporting on ESG factors in their portfolios.

While this dynamic is likely to remain in place, it is reassuring to see the degree to which managers have been working to enhance ESG along the more resource-intensive themes. For example, in the two years since 2015, the proportion of managers achieving ratings of 1 or 2 for investment process has increased by 21 percentage points from 38% to 59%. In the same period, the share of managers putting significant effort into integrating ESG into their ownership practices has jumped from 30% in 2015 to 50% in 2017.







Most impressive, perhaps, given the level of investment required to establish ESG reporting systems, is the increase in the share of managers starting to report on ESG. The proportion of managers rated 1 or 2 for reporting has nearly doubled in two years, growing from 25% in 2015 to 47% today. At the same time, the proportion of managers doing nothing on reporting, as indicated by their 4 rating, dropped ten percentage points for each of the last two years to 28% today.

It is important to note that reporting practices among managers rated 1 and 2 vary widely. Some provide high-level overviews of key ESG issues in companies or portfolios, while others are already providing a number of KPIs on attributes such as carbon footprint, employee turnover and governance policies. Such variation does not allow for meaningful comparison between managers nor does it lend itself to aggregation by investors across their portfolios. But it does show the direction of travel. It indicates that managers are acknowledging their reporting obligations and are taking steps to provide investors with more transparency.

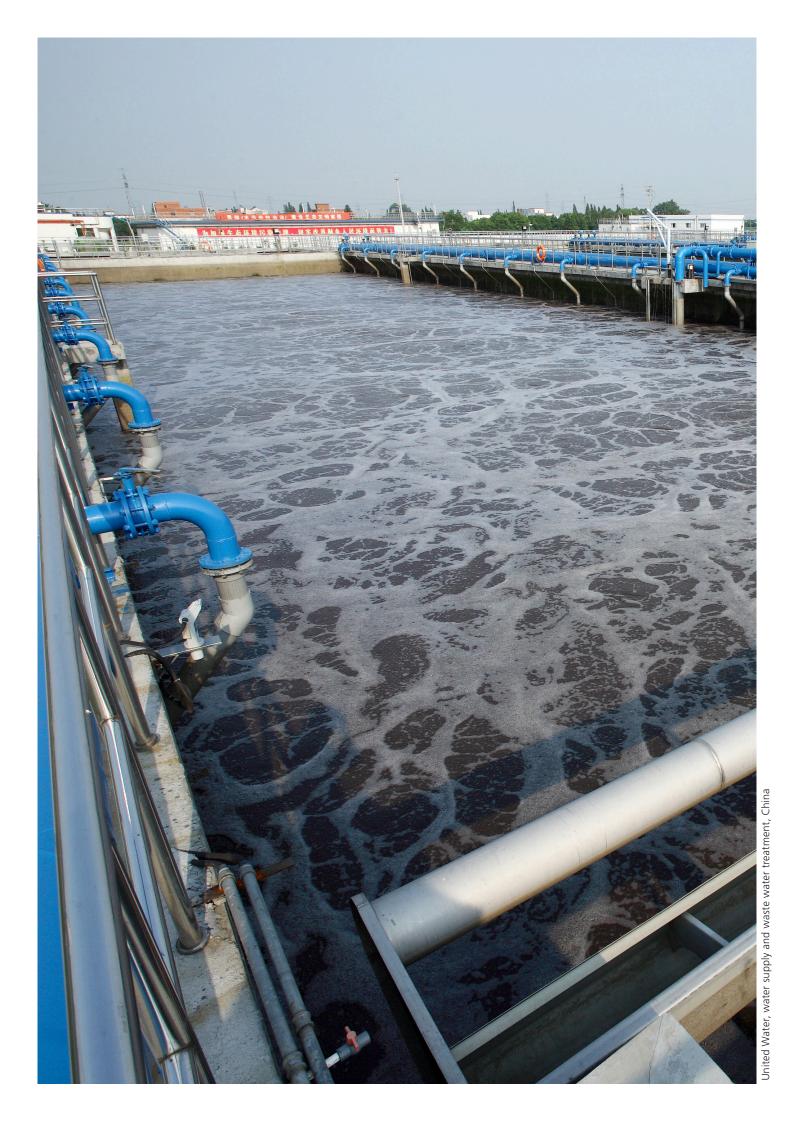
Private equity conclusions

This year our private equity managers have continued to make steady progress on ESG, as the share of managers, globally, with high ratings (1 or 2) grew by five percentage points. At the same time, the proportion of managers doing little or nothing on ESG has shrunk by four percentage points to 19%. This progress can be attributed entirely to our managers in Europe and Asia, where having solid systems in place for managing ESG risks and opportunities is rapidly becoming the norm. It also indicates that managers who are doing nothing on ESG in these markets now comprise a very small minority in LGT Capital Partners' (LGT CP) global private equity network.

This year's survey also shows that our US managers have made little progress on ESG over the last 12 months. Nevertheless, we know from our discussions with these managers that there is interest in the topic, but many would like guidance on concrete steps they can take on ESG. We hope that our new publication, "A guide to ESG implementation in private equity," will assist them in this.

We also see that while larger managers tend to have progressed further, fund size is not a barrier to ESG adoption. Indeed, we have a number of small managers that have progressed very far on ESG, and a number have enhanced their approach in just the last year.

Finally, managers have continued to improve along the four ESG themes we evaluate – commitment, investment process, ownership and reporting. Once managers begin an ESG journey, the data suggests that they continue to improve their approach over time, with reporting being the last piece of the puzzle to get integrated.



Private equity case study:

Managing ESG issues in the supply chain of a clothing retailer

LGT CP spends considerable time evaluating managers on ESG and engaging with them on the topic, so it is instructive to dig down into our private equity portfolio to see how a manager addresses a specific ESG challenge in a single portfolio company. In this case, we look at the example of Apax Partners, a global buyout firm with eight offices around the world, which closed its most recent fund, Apax IX, in December 2016. Apax Funds' portfolio company, Takko, a German-based retailer, has had to manage the risk of underage workers in its supply chain for several years now.

Taking action early to mitigate supply chain risk

Apax Partners works closely with its portfolio companies to set up processes that will enable the manager to manage any material environmental, social and governance risk. In the case of Takko, which Apax Funds acquired in 2011, pre-investment ESG due diligence revealed that the company faced significant supply chain risks. This included the risk of underage workers in supplier factories, as the company sources approximately 3% of its order volume from Myanmar, where the issue of youth workers is prevalent. In fact, many young people forge fake IDs in order to be allowed to work and earn money for their families.

To mitigate this risk, Apax Partners recommended in 2011 that Takko become a member of the Fair Wear Foundation (FWF), an organization that works with brands to verify and improve workplace conditions in the garment industry. Once a brand becomes a FWF member, it commits to step-by-step implementation of better labor conditions in the factories where their clothes are being made.

Takko has worked very hard in collaboration with the FWF to significantly improve its supply chain auditing processes since investment by Apax Partners. For example, Takko performed 369 audits in the 2015–2016 fiscal year, with 95% of goods sourced from audited factories. As a result, Takko's processes are now categorized as "good" by the FWF.

Responding quickly when an issue arises

Even with a robust monitoring process in place, a garment supply chain always faces a certain degree of ESG risk. This was demonstrated in August 2016 during a routine verification audit by FWF, when a factory producing garments for Takko was found to have employed a number of teenage workers. Takko responded immediately upon being made aware of this, and an executive flew out to Myanmar the following day to implement remedial actions.

Takko continues to work with the factory, as it believes this to be a better way to improve labor conditions than to stop production. Order volumes have been reduced until confirmation that the improvement action plan is producing results, but early indications are positive. In addition, Takko has changed its auditing procedures, and the retailer is monitoring the factory closely with formal audits planned in spring and autumn 2017, in addition to interim visits.

Responding to reputational risk

If administering a global supply chain in the garment industry is a challenge, managing the reputational risks associated with media claims of "child labor" is even more daunting. Apax Partners discovered this in March 2017, when it was the subject of negative press publicity concerning the use of underage workers by Takko. News stories appearing in the Wall Street Journal, the German newspaper Der Spiegel and Private Equity News cited a report by the Dutch NGO, SOMO, which found instances of youth labor at all 12 factories it had researched in Myanmar. This included a producer for Takko, which had already addressed the issue through its work with FWF. It did not, however, prevent the emergence of underage workers as a reputational risk issue. For its part, though, Apax Partners is satisfied that the company has the right systems and processes in place to manage its supply chain risk.

Key takeaways

The Takko case illustrates that even taking a very proactive approach to supply chain risk, as Apax Partners has done, cannot guarantee 100% compliance with ESG standards at all times. In high-risk countries like Myanmar, the risk of problems is always present in garment supply chains. The key for a manager like Apax Partners is to be aware of the risks from the start and put a process in place to manage them. Takko's work with FWF is a good example of putting a solid process in place for managing a key supply chain risk. A manager must also recognize that achieving positive change on ESG takes time, and the path to an enhanced risk profile for a company can be bumpy. However, it is only by taking such risks that a manager can make lasting changes that improves the sustainability of the portfolio company.



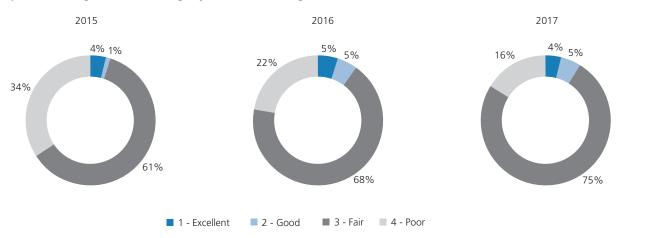
Hedge fund and long-only managers

Interest in ESG increasing within the hedge fund industry

Interest in incorporating ESG considerations into hedge fund investing has picked up considerably since our last survey. This can be seen in the increasing number of industry conferences and articles in the trade and wider press addressing the topic, as well in a greater interest among the hedge fund investors with whom we interact. The past year has also seen hedge fund depositories and administrators take their first steps on ESG. For example, BNP Securities Services, one of the largest depositories in the hedge fund industry, became a signatory to the Principles for Responsible Investment (PRI). This, along with a much welcomed initiative by PRI to push the discussion forward, has given the industry a renewed focus on ESG.

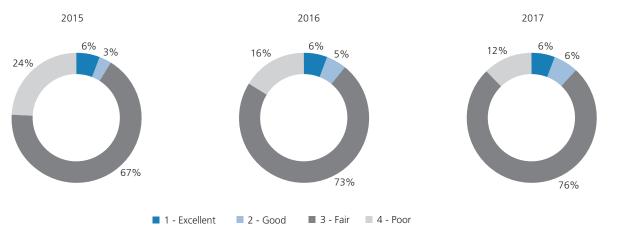
The results of our 2017 ESG survey of 55 hedge fund managers indicates a greater interest in the topic among managers as well, but the survey also suggests that a large part of the hedge fund industry still has much work to do before it will match the progress made in other asset classes. For example, this year's survey shows that the proportion of top-rated managers for ESG (rated 1 or 2) is largely unchanged from last year, as they now represent 9% of all managers. This compares with 10% last year and 5% in 2015. At the same time, we observe that assets invested with these managers increased to 12% of our total hedge fund assets (up from 11% last year and from 9% in 2015).

Development of hedge fund ESG ratings by number of managers



Source: LGT Capital Partners

Development of hedge fund ESG ratings by AuM



Still, the largest share of our managers (in terms of number), 75%, are rated 3 (versus 68% last year and 61% in 2015), which is in line with the underlying trend. Furthermore, assets invested with such managers grew to 76% over the reporting period, up from 73% in 2016 and 67% in 2015.

This growth in assets is in part due to the fact that whenever we reduce the number of hedge fund managers or reallocate capital between them, we prefer managers that enable us to invest via managed accounts rather than commingled funds. In our hedge fund rating framework, which is based on guidance from PRI, managers that provide access through managed accounts receive a higher rating than those that do not. This is because managed accounts allow for transparency, direct access and liquidity, which result in much better governance than other forms of hedge fund investing.

As pointed out in previous reports, managed accounts also allow us to exclude issuers and securities from our portfolios based on ESG criteria. This includes our exclusion of companies involved in the production of controversial weapons, such as land mines, cluster bombs/munitions and biological, nuclear and chemical weapons. We follow the guidelines and exclusions recommended by our partner, GES (Global Engagement Standards), and all of the managers on our platform have to adhere to this exclusion list.

The number of managers with our lowest rating, 4, decreased to 16%, down from 22% last year and 34% in 2015, and the hedge fund assets invested with such managers diminished to 12%, down from 16% last year and 24% in 2015.

The noteworthy reduction in assets allocated to lower rated managers is one result of our approach to reducing the number of approved hedge fund managers in our portfolios in order to optimize manager diversification. As such, we have tended to reduce or disapprove managers with the worst ESG ratings, which is typically those who do not engage with us via our managed account platform or have failed to meet with other basic expectations on ESG.

PRI recognition of the importance of hedge funds

PRI took a renewed interest in ESG integration by hedge funds in 2016, with the launch of its Hedge Fund Working Group. This group of representatives from the industry, including LGT CP, is publishing a standard due diligence questionnaire in 2017 for institutional investors in hedge funds. This will help them to identify the key issues for assessing hedge funds on ESG. The questionnaire provides a common standard for objectively judging the ESG commitment of managers and monitoring them over time. We believe the questionnaire will help to raise the bar on ESG in the hedge fund investment process and overall decision making, while minimizing the potential burden on hedge funds as organizations.



ESG ratings by hedge fund style

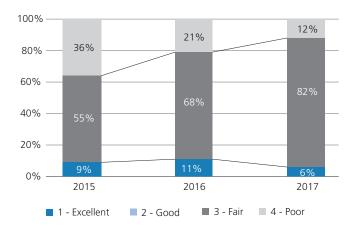
As in past years, it is useful to look in detail at the ratings of our long/short and event driven managers, as their strategies lend themselves most readily to established ESG approaches. We observe further progress over the last three years in terms of the proportion of managers working with us through managed accounts, which results in a rating of at least 3 in our assessment framework. Currently, 82% of our equity long/short managers have a rating of 3, up from 68% last year and 55% in 2015. At the same time, the percentage of managers with the best rating decreased to 6% (down from 11% last year and 9% in 2015), but this is largely the result of changes in the portfolio independent from ESG.

An important development in the long/short area was that we were finally able to convince two key managers to move on to the managed account platform. This helped to further reduce the percentage of managers rated 4, who do little or nothing on ESG, down to 12% (from 21% last year and 36% in 2015). Over the three-year horizon, this is a very positive and encouraging result.

There has been little change in the ESG practices of event driven managers. Although the proportion of managers rated 3 increased to 60% (from 54% last year and 36% in 2015), this is largely the result of one highly rated manager getting disapproved and an overall reduction of the number of managers in our portfolios. On a like-for-like basis, none of the event driven managers changed its ESG rating during the reporting period.

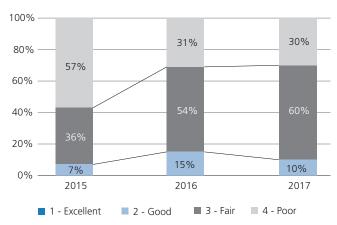
The proportion of hedge fund managers that are members of PRI has increased slightly over the year, as they now comprise 9% of all managers, versus 8% last year. This contrasts markedly with the proportion of PRI signatories among our long-only managers (equity, real estate investment trust, insurance-linked strategies, fixed income, commodity), where they account for 40% this year, versus 36% last year. We assume and hope that with the new focus of PRI on the hedge fund universe, this number will increase significantly over the coming years.

Development of ESG ratings of equity long/short managers



Source: LGT Capital Partners

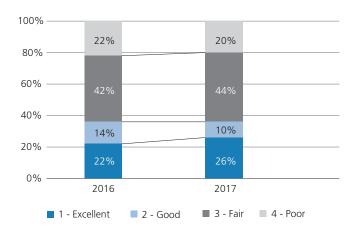
Development of ESG ratings of event driven managers



ESG practices within our portfolio of long-only managers

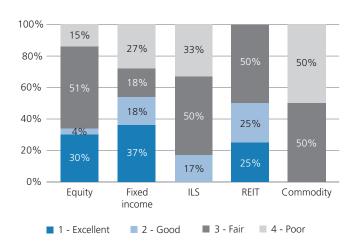
Similar to the results of our event driven portfolio, there was little change in the ESG practices of our long-only managers. There is much greater uptake of ESG by long-only managers than by hedge fund managers. This is to be expected, given that long-only managers have well-established ESG investment criteria and techniques to draw on, as many of them have specialized sustainable investment offerings. We see that 36% of managers (unchanged from last year) have a rating 1 or 2, indicating excellent or good processes for ESG, with most of them being equity managers.

Development of ESG ratings of long-only managers



Source: LGT Capital Partners

ESG ratings of long-only managers by asset class



Bottom-up analysis of REIT portfolio helps to validate top-down ESG rating

The transparency of underlying securities facilitated by our managed account platform has led to another development, which we believe will help us to further develop our approach to ESG within our alternative fund universe. We wanted to explore whether we could take a process used in evaluating individual bonds and equities on ESG and apply it to managers employing liquid alternative strategies. We already have a well-developed proprietary process for assessing the ESG attributes of securities for our sustainable bond and equity portfolios, where we assign a score to each E, S and G criteria. We wanted to carry out a similar analysis of the portfolios of our liquid alternative investment managers, who we already rate on ESG based on their overall approach. This would enable us to calculate a bottom-up ESG rating of each manager's portfolio, which can then be compared to a portfolio of securities in a comparable benchmark index. In theory, this approach would allow us to test the manager's

To start this process, we looked at the portfolio of one of our top-rated, global REIT managers, Resolution Capital, and assessed it versus the MSCI World Real Estate Index using our proprietary ESG factors. We focused in particular on the environmental footprint shown in the chart below, as we know this is a priority for many of our investors. While we do not wish to overstate the quantitative results of this study, it is encouraging to see that the manager's environmental footprint is much smaller than the benchmark on the key measures of greenhouse gas emissions, energy consumption, water usage and waste generation. It shows that one of our top-rated managers for ESG has a portfolio that scores well in one of the areas of greatest interest to investors, environmental footprint. We think this metric helps to validate our top-down approach to ESG ratings in this instance and has the potential to validate ratings across our larger platform of managers. In our case study interview that follows, Marco Colantonio, director and portfolio manager at Resolution Capital, explains the firm's ESG approach. It is one that has

Environmental footprint of Resolution Capital against MSCI World Real Estate index						
	Greenhouse gas emissions	Energy consumption	Water consumption	Water consumption		
	metric tons CO ₂ equiv./USDm	MWh/USDm	m³/USDm	metric tons/USDm		
Portfolio exposure	101	273	1,317	64		
Benchmark exposure	116	279	2,887	121		
Reduction	15 (13%)	6 (2%)	1,570 (54%)	57 (47%)		

Source: LGT Capital Partners/Thomson Reuters. Per USD million of sales as of 31 December 2016

performance on ESG and also see whether their portfolio has a better or worse ESG profile than the benchmark. The results could also be used to verify the relevance of our top-down ESG rating methodology, as we would expect our managers with higher ESG ratings to have portfolios with higher ESG scores.

led to a top rating on ESG for both the manager's overall approach to ESG (rated 1 according to LGT CP's manager rating framework) and their REIT portfolio.

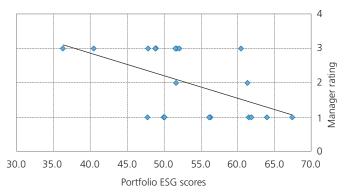


Noah Education, education services, China

Further bottom-up validation of our manager rating system

Adopting the above-described process to a sample of our longonly managers (equity and REIT) and their portfolios showed similar but mixed results, summarized in the chart below.

Managers' top-down ratings vs. portfolio ESG scores



Source: LGT Capital Partners. As of 31 December 2016

The chart shows that there is a statistical relationship between our top-down manager ESG ratings and the aggregate ESG score of the securities in their portfolios. We see that managers with higher ESG ratings tend to have better ESG scores for their portfolio. We were, of course, hoping for a clearer result, but there are a number of outliers, which blur the picture and which need to be looked at in detail. We find, for example, that an Australian equity manager rated 3, which focuses on health care and financials unsurprisingly gets high scores on corporate governance and environmental factors. This serves to push up the manager's overall portfolio rating to 60, which is 10 points better than average, even though the manager does not have a well-defined approach for managing ESG risks and opportunities. We see a similar dynamic with a number of other managers, where their portfolios receive favorable ESG scores based largely on the peculiarities of the strategies they pursue, even though the managers themselves may not be making investment decisions according to ESG criteria.

We believe more work is required to better understand the relationship between top-down ESG ratings and bottom-up portfolio scores, and we look forward to sharing the results of this work in future ESG reports.

Hedge fund and long-only manager conclusions

The ESG topic has achieved enough momentum within the hedge fund industry to remain a permanent theme for discussion and to influence decision makers. We already see, for example, ESG-related questions frequently appearing in hedge fund requests for proposal, so it is clear that the topic is playing a role in large allocation decisions.

While the momentum is there, clear concrete action is still required from each allocator to increase awareness and improve implementation among managers. For its part, LGT CP will continue to favor managers with ESG processes in place or who demonstrate a willingness to accommodate our ESG priorities.

We will also continue the work we have just begun in validating our top-down ESG ratings by conducting bottom-up ESG analysis of our managers' portfolios. Our initial efforts show that there is a positive correlation between our manager ESG ratings and the ESG scores of their portfolios, but more work needs to be done to explore this relationship. We believe that initiatives like this will help to move the ESG discussion forward.



Interview: How a top-rated REIT manager approaches ESG



Marco ColantonioDirector & Portfolio Manager
Resolution Capital

Resolution Capital, a global REIT manager based in Australia, has featured prominently in our portfolios and has consistently delivered strong investment performance. We have also been impressed by the efforts the firm has put into integrating ESG factors into its investment process. We speak here with Marco Colantonio to get his insights on his firm's story.

LGT CP: Could you share some insights on how you incorporate ESG factors into your investment process?

Colantonio: Resolution Capital has a long history of taking a responsible approach to investing our clients' funds and has also been a signatory to the PRI since 2010. Our approach to ESG is largely qualitative at this stage, even though we continue to build our proprietary quantitative ESG database, which requires a qualitative overlay due to inconsistent disclosure levels, varying local practices, and differences in benchmarks. Nevertheless, the database acts as an important tool for screening out companies with poor ESG practices and engaging with investee companies to seek improvement on any identified issues.

We incorporate ESG factors into our investment process by actively screening out companies with low quality ESG metrics. Examples include negative screening of companies that do not have adequate protection of minority shareholders and positive screening of companies with environmentally efficient buildings. Pleasingly within the real estate asset class, listed REITs are at the forefront of best practices for ESG. Listed REITs are generally well capitalized and have the scale to put more resources into good ESG practices, which can put them at a competitive advantage against private market competitors. Investor pressure adds another level of scrutiny to the publicly listed REITs.

LGT CP: Could you further elaborate on your consideration on each of the environmental, social and governance matters?

Colantonio: Good governance has long been the bedrock of good ESG. Having a strong and independent board with an appropriate long-term investment strategy and incentive structure, which is aligned with investors, creates a great foundation for good environmental and social practices. Governance is an area where we have long been very selective. One of the things that we screen for is external management. Externally managed REITs appoint a thirdparty entity to manage the assets, which effectively results in management serving two masters. This can give rise to conflicts of interest, particularly in cases where poison pills will entrench the manager and incentivize growth in assets rather than growth in shareholder value. Also, we often see cases where the external manager is a property developer, who is looking to offload assets. This adds the complication of related party transactions.

Other governance factors taken into account include remuneration policy, board independence, composition and diversity, the integrity of management's actions and the consistency of strategy.

During a review of a company's environmental activities, we positively screen for companies with more energy efficient buildings, which not only benefits the environment but also puts the company at a competitive advantage in terms of higher occupancy, higher rents and lower operating expenses. This should ultimately result in the portfolio of assets being more saleable and thus valuable. Our database captures carbon disclosures and water usage metrics.

Social factors are harder to measure and are the most qualitative in nature. We focus on whether a diversity and inclusion policy is in place, whether the company has been subject to complaints from stakeholders (whether they are employees, shareholders or other parties interacting with them) and adherence to local labor standards.

LGT CP: Are there any factors that you particularly emphasize?

Colantonio: Our investment process places particular emphasis on the governance structure and management's alignment with shareholders. Resolution Capital has a solid track record of active involvement in this area. We engage through proxy voting and regular meetings with company management. We also look very carefully at the issue of externally versus internally managed structures. In our assessment framework, external management can be penalized, as a discount valuation is required for external management if similar exposure can be achieved with an internally managed vehicle.

Any worsening of governance with an investee company is disappointing and thankfully does not happen very often, given how strictly we screen for this. One example of where we exited a position on governance grounds was a Singapore-listed company that holds logistics assets globally. We exited this position, when the company sold a substantial stake in its China assets at a discount to a consortium of investors, which included participation by senior management at the discounted price.²

LGT CP: Are there any challenges of implementing ESG review on your investments and how do you overcome them?

Colantonio: While there has been great progress in recent years, the lack of consistent benchmarking and company disclosure across regions and sectors remains a key challenge when comparing quantitative measures. There are also local market leasing practices, which make comparisons across companies difficult on a like-for-like basis. For example, in some regions landlords do not separately meter electricity usage in multi-tenanted buildings, so they can only disclose total energy usage rather than common area usage disclosed by landlords in other regions.

LGT CP: What do you see as the big driver for ESG consideration? Has it been management led or investor led? Who's really driving the key issues?

Colantonio: The progression of ESG practices with company management varies greatly between regions, which is largely a function of investor and regulatory pressures. European and Australian REITs are generally more advanced on sustainability initiatives across their portfolios and in their ESG reporting disclosures, whereas the US REITs and Asian property companies are lagging in this area.

Investor pressure has certainly increased in the last few years. Many of our clients are large pension funds, who are now actively reporting on ESG metrics for their underlying investments to their members. We are also driving ESG engagement with our clients as we see this as an important investment consideration. Last year we hosted an ESG panel session for investors, with a number of Australian REITs presenting. We have also hosted a lunch session for investors with Kilroy Realty, a US West Coast office owner and developer that currently has the highest disclosed ESG score in our global portfolio.³

²Discount to the value implied by the stock price

³According to their GRESB score

Public equity and fixed income

Substantially lower level of carbon emissions than the benchmark

LGT CP has a well-established framework in place for assessing ESG risks and opportunities in public equity and fixed income portfolios. It is used to select securities for our sustainable bond and equity strategies, which the firm has offered to clients since 2009. An important consideration in selecting securities is companies' KPIs across the three themes of environmental, social and corporate governance. In our framework, we assess the ESG performance of companies using more than 20 different KPIs, based on factors like carbon emissions, workplace injuries, board composition and quality, and others. Taken together in our proprietary ESG analysis tool, known as the "ESG Cockpit," these KPIs enable our portfolio managers to generate ESG scores for individual securities.

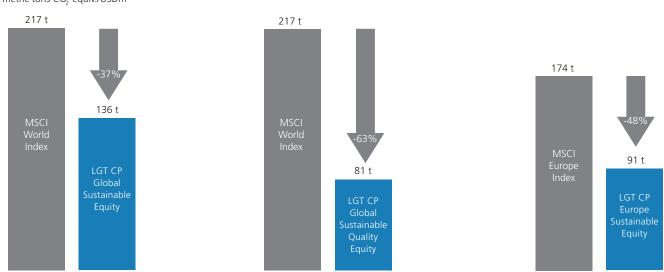
In recent years, investors have become increasingly concerned about environmental KPIs, specifically those that enable investors to track carbon emissions in their portfolios. We have seen this concern culminate in global action on the topic, such as the launch of the Montreal Carbon Pledge in 2014 and the signing of the Paris Agreement on climate change in 2015.

Given LGT CP's long history of analyzing and measuring KPIs on ESG for its sustainable bond and equity strategies, we are well positioned to provide investors transparency on this topic.

To assist investors with understanding the environmental impact of their portfolios, we have measured the carbon footprint of three of our sustainable equity strategies. We have also compared them with the footprint of the MSCI World Index, so our investors can better understand the environmental impact of our investment decisions. The chart below shows the aggregated greenhouse gas emissions of the three different strategies – Global, Quality and Europe – and the benchmark. All numbers are normalized by company sales to make the data comparable. The portfolio carbon footprints show that greenhouse gas emissions from our three sustainable equity strategies are 37–63% lower than the broad market benchmark. Furthermore, the strategies are well-diversified by industry sector and market capitalization, so they enable investors to gain exposure to a broad set of risk drivers while minimizing the carbon impact of their investment decisions.

Carbon footprints of three LGT CP Sustainable Equity Strategies vs. MSCI Indices





Source: Asset 4, ThomsonReuters, LGT Capital Partners. All data in metric tons CO₂ equiv./USD 1 million company sales per calendar year. Data as of 31 March 2017

To provide a deeper insight on how this reduction is achieved, we have broken down the greenhouse gas emissions of the LGT CP Sustainable Quality Equity Strategy versus the benchmark by industrial sector in the chart below. The first two columns, "Portfolio" and "Benchmark," show the weighting of each industry sector to the total portfolio. The third column, "Total emission reduction," shows the reduction in greenhouse gas emissions achieved over the benchmark in various sectors. For example, LGT CP's allocation and stock selection decisions in the utilities sector have resulted in an allocation that produces 72.6 metric tons less CO₂ than the benchmark. This is in spite of the fact that LGT CP's allocation to utilities is twice the size (7.1% versus 3.3%) of the benchmark. This is achieved by overweighting companies focused on renewable energy and underweighting power generation from fossil fuels, especially coal.

The LGT CP portfolio "outperforms" the benchmark in seven of the industry sectors, by selecting companies in each sector that produce less greenhouse gas than their peers in the industry. In the three cases where the LGT CP allocation results in a higher carbon footprint than the benchmark, other factors are at play. Stocks are selected on an overall ESG score, in which some companies score very high on governance or social factors and

somewhat lower on environment, as well as having a compelling investment case. This may result in them being selected for the portfolio over others with smaller carbon footprints.

In the case of industrials, where the benchmark "outperforms" LGT CP on carbon footprint, this is largely the result of investments in two companies that have significant carbon footprints, but which are doing great work for the environment. One is a global provider of environmental and regulated waste management solutions, focusing on medical and other hazardous waste materials. The company has a comprehensive process in place for recycling materials where possible and disposing the rest in a responsible manner. The other company is a large provider of public transit services, including trains and buses, in North America and the UK. Its services save millions of car and truck journeys each year, translating into many metric tons of carbon emissions. So in both cases, we think their positive contribution to the environment more than outweighs their individual carbon footprints.

The sector comparisons show that investors are able to deploy capital across a broad range of industries, enabling them to remain well diversified, while at the same time causing lower carbon emissions than a passive index investment.

Decomposition of greenhouse gas emissions of LGT CP Sustainable Quality Equity Strategy vs. MSCI World Index

	Weight (%)		Total emission reduction	
	Portfolio	Benchmark	metric tons CO_2 equiv./USDm	
Utilities	7.1	3.3	-72.6	
Materials	5.1	5.0	8.5	
Energy	4.9	6.5	-19.4	
Industrials	7.2	11.1	14.4	
Consumer staples	7.1	9.8	-3.7	
Consumer discretionary	6.3	12.3	-7.0	
Telecommunication services	11.6	3.2	4.5	
Information technology	15.4	15.4	-1.9	
Health care	21.7	12.2	-0.5	
Financials	9.1	18.1	-4.7	
Total	100.0	100.0	-81.1	

In order to ensure that portfolio managers can make the best possible ESG selection decisions, LGT CP recently reviewed the KPIs we use to assess ESG performance, with a sharp focus on materiality. The goal was to make sure that all KPIs used accurately reflect the company's key ESG risks or are substantially linked to the company's revenues or costs. Experience has shown that many companies, especially larger ones, report a large array of ESG KPIs, but only a few are really material to a given company. For example, reducing greenhouse gas emissions or health and safety levels are very important for a utility or energy company, but these topics are much less relevant for companies focused on internet technology or financial services. For firms operating in these sectors, privacy or fair marketing of services would be a much more important consideration.

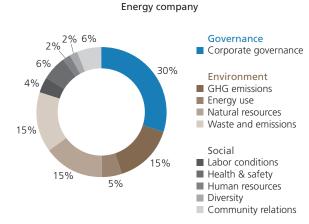
To reflect this increased focus of materiality in our ESG assessment framework, we first identified the key ESG issues. We then conducted in-depth research to select and weight the key ESG issues applicable to different industries. This included

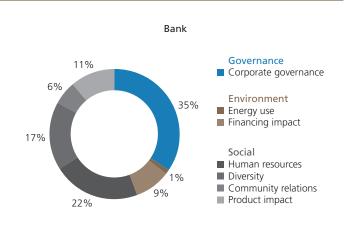
the assessment of industry-specific data, such as industrial accidents or emissions of certain hazardous chemicals, which are then fed into our weighting of KPIs across the various industry sectors.

The two examples shown in the charts below, for an energy company and a bank, are the result of our re-weighting of KPIs based on materiality considerations. They indicate that governance is the single most important factor for both companies, but it weighted slightly more for banks. We also see that greenhouse gas emissions, use of natural resources and waste and emissions are much more important factors for an energy company than a bank, as they each comprise 15% of the company's ESG score. At the same time, human resources practices and diversity policies play a much bigger role in the score of banks.

We are convinced that incorporating these changes into the ESG assessment of companies allows us to focus even more on the key ESG issues per industry and to construct portfolios with a better ESG profile.

Key ESG issues and weights for selected industries





Focus on ESG does not compromise investment performance – LGT CP Global Sustainable Equity Strategy

Institutional investors hold different views on how incorporating ESG factors into investment decision-making affects long-term risk-adjusted returns, but the overwhelming majority now think that doing so is beneficial, or at least not harmful to their investment results. This is supported by empirical evidence from numerous studies in the academic literature. Since LGT CP also believes that there is a link between good performance on ESG topics and strong financial performance, we think it is important to show investors that attractive risk-adjusted returns are compatible with a robust ESG framework. Our Global Sustainable Equity Strategy is an excellent example of this. It is an actively managed long-only equity strategy

launched in December 2009, in which stocks are selected based on fundamental analysis as well as sustainability criteria. The portfolio typically consists of 40–70 single equity positions, with the investment objective of investing sustainably while outperforming the benchmark (MSCI World).

As the chart shows, such an approach is indeed compatible with compelling risk-adjusted returns over an extended time horizon.⁶ Our Global Sustainable Equity Strategy has outperformed its MSCI World benchmark by 320–680 basis points over the last 1, 3 and 5 years, generating double-digit returns in each time period. The strategy has done so at similar volatility to the benchmark.

Performance of LGT CP Global Sustainable Equity Strategy vs. MSCI World Index

Performance	1 year	3 year	5 year
LGT CP Global Sustainable Equity Strategy (USD)	19.1%	12.3% p.a.	12.6% p.a.
MSCI World (USD)	14.8%	5.5% p.a.	9.4% p.a.
Outperformance	4.3%	6.8% p.a.	3.2% p.a.

Volatility	1 year	3 year	5 year
LGT CP Global Sustainable Equity Strategy (USD)	6.8%	8.9%	10.7%
MSCI World (USD)	5.9%	8.9%	11.0%

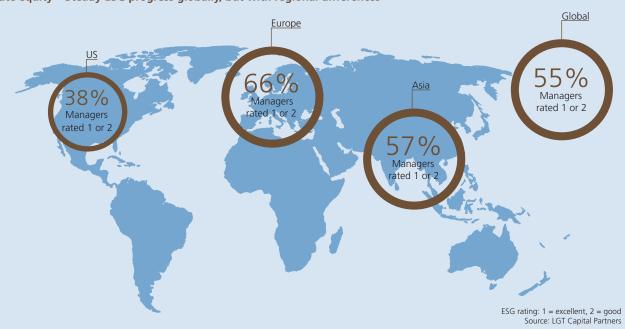
⁴ Source: LGT Capital Partners/Mercer Study 2015

⁵ Smith School of Enterprise and the Environment University of Oxford and Arabesque Partners, 2015

⁶ Source: LGT Capital Partners, Datastream, Bloomberg. Data from 17 December 2012 to 30 March 2017 (since inception), in USD net of 0.70% p.a. management fee and 0.15% p.a. operations fee. Past performance is not a guarantee, nor an indication of current or future performance.

Facts and figures

Private equity - Steady ESG progress globally, but with regional differences



ESG in hedge funds – Paving the way through transparency

Managers making some ESG effort

2016: 78%

2017: 84%

Managers making no ESG effort

2016: 22%

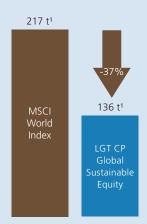
2017: 16%



Source: LGT Capital Partners

Benefits of ESG integration

Smaller carbon footprint than the benchmark metric tons CO₂ equiv./USDm



Compatible with attractive risk-adjusted returns 3-year annualized returns



Carbon footprint source: Asset 4, ThomsonReuters, LGT Capital Partners. All data in metric tons CO₂ equiv./USD 1 million company sales per calendar year. Data as of 31 March 2017 Outperformance source: LGT Capital Partners, Datastream, Bloomberg. Data from 30 March 2014 to 30 March 2017, in USD net of 0.70% p.a. management fee and 0.15% p.a. operations fee. Past performance is not a guarantee, nor an indication of current or future performance.

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