



# **Climate Risk Disclosure Reporting: A Review of Corporate Progress**

In this report we examine the current level and trends of climate risk disclosure reporting by major international companies. Key risks and the general state of reporting are presented with a particular focus on the energy, utilities, and agriculture sectors within the S&P 500 and Global 500. While gaining an ever greater profile in the media and within Boardrooms the reporting on climate change and its risk to day-to-day operations and potentially the financial performance of corporations remains largely unreported. Methods for adequately and efficiently conducting internal audits remain a stumbling block. Regulators appear to be reluctant to enforce more rigorous standards until the methodological conundrum is resolved.

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## **Introduction**

Climate risk disclosure reporting has undergone significant regulatory change in the last several decades and has become increasingly recognised as a vital aspect of any investor's decision making process. The trend of increased reporting rates supports the notion that investors are driving international firms to acknowledge the climate risks and opportunities within the 21<sup>st</sup> century. This report will examine the trend of climate risk reporting with the Securities and Exchange Commission (SEC) as well as the Carbon Disclosure Project (CDP). This report will also analyse the energy, utility and food and agriculture sectors as illustrations of the wider trends and opportunities in the field – which all companies in all sectors are experiencing.

## **The Regulatory Climate Risk Disclosure Framework**

The current level of climate disclosure reporting varies, depending on the country or region a business resides in. The United States and the European Union (EU) require mandatory climate risk disclosures, however companies based in different regions, including the United States and EU have the opportunity to voluntarily disclose climate risks and opportunities to the Carbon Disclosure Project (CDP).

### ***European Union***

In April 2014, the European Commission required all businesses to provide a disclosure of non-financial risks and opportunities, including those that are concerned with climate change. Companies which recruit more than 500 employees and operate within the sphere of the European Union are required to provide regular non-financial disclosures, however they are free to adopt this mandatory requirement in any form. An EU based company has the freedom to provide their non-financial disclosure within any report or form, and this requirement is also not necessarily explicitly concerned with climate risks and opportunities.

### ***United Kingdom***

Companies incorporated in the United Kingdom come under the umbrella of the European Union, and they are also required to disclose non-financial reporting. This being said, the United Kingdom required all businesses in 2012 on the London Stock Exchange's main market

to disclose the total emissions created globally in their annual reports, to create greater transparency (Carbon Disclosure Project, 2012).

### ***United States***

In this report we will be focusing on S&P 500 companies in the United States, as these corporations have been subjected to mandatory climate disclosures in their 10-K forms, since 2010, and also have the opportunity to voluntarily disclose climate risks and opportunities with the Carbon Disclosure Project (CDP).

### **SEC**

S&P 500 companies in the United States are required to provide climate disclosures in their 10-K forms for the Securities and Exchange Commission. It is a mandatory expectation that S&P 500 companies produce climate disclosures. The Securities and Exchange Commission (SEC) created this mandatory requirement in 2010, as climate change was quickly becoming an investment issue, for various reasons previously mentioned. In particular, investors have an increased interest in how climate change will impact companies and corporations' performance, as well as the federal and local governments continuing to be concerned with climate change, and the Environmental Protection Agency (EPA) suggested various strategies to decrease the impact of climate change. The increased interest and potential legislation, along with the physical impacts of climate change, all affected a company's production capability. The SEC provided a report, "Commission Guidance Regarding Disclosure Related to Climate Change" (2010) that states what is needed in a climate disclosure. According to this report climate disclosures should include:

1. The effect environmental regulation, legislation and policy will have on a company's profitability, costs to improve or alter technology and practices, and the impact it will have on the cost of the product.
2. The guidance report also suggested that organisations disclose how international treaties and agreements will impact their bottom line.

3. Climate disclosure should also take into consideration the indirect effects that either the company creates or climate change instigates.
4. How climate change will physically affect the business.

The SEC enforces the climate disclosures provided in 10K forms, with the use of comment letters. If the SEC identifies that certain companies do not comply with the mandatory requirement, the organisation is required to send a comment letter. In 2010, after the mandatory requirement was enacted, the SEC sent 49 letters that stated concerns with the inadequate climate risk disclosures, however the number of comment letters sent decreased to three in 2012 and zero in 2013. This is interesting, because even though the number of companies who completed a climate risk disclosure with the SEC increased since 2010, it levelled between 2012 and 2013. This means that the number of companies which had not provided an adequate climate disclosure remained similar in 2012 and 2013, however the SEC did not send the same number of comment letters. The implication of this is that either the SEC is comfortable with the current level of climate disclosure reporting or the importance of climate disclosure reporting to the SEC is minimal.

### **CDP**

Corporations around the world, including S&P 500 and FTSE 350 companies, have the option to voluntarily disclose climate risks and opportunities with the CDP. CDP is a not-for-profit organisation that works with companies and corporations from around the world to improve their resource use, in order to allow them to gain long-term growth (CDP, 2012). The CDP is highly respected and works with 767 institutional investors, who together own US\$92 trillion in assets. Many corporations, including S&P 500 companies create climate disclosures for CDP, as it is seen to have credibility with investors. The process of providing a climate disclosure to this non-profit organisation involves the CDP sending a questionnaire to corporations who then volunteer information. The questionnaire consists of in-depth investigations in regards to the management and governance approaches to climate change responses within an organisation, the risks and opportunities climate change provides and lastly information in regards to greenhouse gas emissions (CDP, 2013).

## **SEC and CDP cross-over**

The SEC and CDP requirements for a satisfactory level of climate risk disclosure are somewhat intertwined. Both organisations approach the issue differently; however they essentially demand similar information. Climate risk disclosure reports to the SEC and the CDP are expected to include the following:

### *1. Emissions Disclosure:*

Corporations must report the levels of emissions associated with the business. Measurements of both indirect and direct emissions released by companies since 1990 should be disclosed, as well as the current levels of emissions created. Companies are also expected to estimate the amount of greenhouse gases that will be generated in the future, once again, from both direct and indirect causes.

### *2. Strategic Analysis of Climate Risk and Emissions Management:*

This requires companies to disclose a statement of how climate change is prioritised within the organisation, and how the company plans to manage and the creation and reduction of greenhouse gas emissions. Lastly this aspect of climate disclosure is concerned with how those responsible for the governance for climate change, address climate risks and opportunities.

### *3. Physical Risks:*

Companies are expected to provide information on the potential ramifications climate change can have on the business and investors.

### *4. Regulatory Risks*

Companies are also expected to identify regulatory risks they face and the implication these have for the performance of the business.

## **Key Drivers of Climate Risk Reporting**

### ***Driver: Insurance Industry***

Insurance companies are increasingly becoming less inclined to want to pay out large claims from damage resulting from physical events which are caused or aggravated by either climate related emissions or a lack of preparedness on the part of local, state, and federal/national level governments.

The recent case in Chicago where the Farmers Insurances Co. brought a large lawsuit against the City of Chicago (ClimateWire, 2014a) shows that insurance companies are facing increasing costs from claims which are becoming more severe due to predictable and avoidable climate change effects. Even though this case did not proceed past the filing stage (ClimateWire, 2014b) the precedent it sets does illustrate a shift in the risk management of large insurance companies for which governments are not effectively compensating.

### ***Driver: Investors***

Investors also represent a major trend in climate risk reporting, and are arguably the most significant. Several different factors are driving up investor's demand for companies with structured and effective climate change reporting. The financial risks and potential opportunities created by climate change are acknowledged by investors who are increasingly requesting more transparency on the effects climate change will have on businesses (Suarez and Gladman, 2009).

The first of these factors is the increased volatility and risk of companies who have large exposure to climate change risk and little mitigation of these risks. Leaving these risks unanswered affects share prices, movements in the price, and an increase in the risk of large effects on profits and values of these companies. Investors wish to be informed on a business's risks and opportunities created by climate change, in order to decide if they shall sell or purchase securities (Suarez and Gladman, 2009). If investors do not agree with certain decisions made, they will be able to vote new directors onto the board that will respond to climate risks in a more appropriate manner (Suarez and Gladman, 2009).

The second factor is the opportunity cost of dealing with the aforementioned companies when 'green' companies are increasingly outperforming companies in the former categories. Not only do these green companies have significantly less risk associated with climate change but also have larger future potential growth prospects and potential financial gains. The growth of this second factor relates to the tipping point between the transaction costs of divestment from non-green sectors to green companies and the costs of the additional risk of not doing so.

The third factor is the performance of companies with poor climate risk reporting becoming harder to measure given changing costs and potential for large, unexpected losses resulting from extreme climate change events. A higher-quality of climate risk disclosure will allow investors to fulfil their duties as investors.

#### ***Driver: Cost to Business and Risk***

The recent move towards a higher-quality climate risk and disclosure is encouraged by businesses that have identified the potential costs, risks and efficiencies associated with climate change. Security is important to businesses, as they wish to be protected from the costs and risks of climate change (Leurig and Dlugolecki, 2013). Business level risks resulting from climate change are numerous and represent both direct and indirect costs to business. These direct costs are becoming increasingly apparent and unmistakable for businesses who are discovering that they can mitigate and minimise these costs by addressing them before their occurrence rather than as they occur. Driving this, the indirect cost the insurance companies are attempting to place on firms who fail to take regard of climate risks increases the burden which climate risks poses on firm who fail to report, and subsequently address, their climate risk. Other indirect costs such as fuel price increases, transportation costs, electricity and gas prices, and insurance premiums only add to this.

#### ***Driver: Economics and the Environment***

A driver of the recent move to improve climate risk reporting and disclosure is the increased physical and material risks associated with extreme weather events in the environment. Leurig and Dlugolecki's (2013) study of insurance companies and the analysis of their climate

risk disclosure, identified that extreme weather events and hazards are impacting the need for more informed climate risk disclosure. As businesses continue to impact the climate, environmental factors affecting non-business households will become more noticeable. Though this does not impact directly on the cost of doing business for these companies or represent any realised risk the policy implications are real. As countries attempt to balance the environment and the economy, the former of which has often been neglected in favour of the latter, increasing environmental effects from business with the economy, drives policy makers to push the balance back to a manageable equilibrium. In New Zealand the implications of the Resource Management Act 1991 means that New Zealand currently has stuck the balance in favour of the environment. New Zealand is reliant on its environment to a larger extent than most countries, due in part to tourism, but increasingly all countries are finding deteriorating environmental standards are resulting in pushes from household for stronger measures against polluting business who do not account for the risks and impacts they are having.

### ***Societal Changes and Reputation Effects***

Linked to the increasing environmental effects on day-to-day households throughout the world, particularly in the developed world, is an increase in societal awareness of climate change and its effects. As these effects become more numerous and more apparent and international organisations increasingly report the effects of climate change consumers and citizens becoming more inclined to take these effects into account when making purchasing decisions - both in terms of purchasing of products from these firms as well as purchasing shares and investments in these sectors. Societal trends are undoubtedly moving towards increase awareness and increased consideration of climate change effects as well as risks, meaning that firms which report and address these risks place themselves in a point of differentiation in the market. Firms are therefore incentivised to increase their level of climate risk reporting for the reputation effects it has. By doing so, these firms can avoid being categorised as one who is environmentally blind or unaware while also using it as a point of added value to consumers and investors.

## Climate Risk Disclosure Reporting by Sector

### *Climate disclosure reporting within the SEC framework*

#### **Sector Growth in the 2008 to 2010 period:**

Growth amongst all sectors within the 2008 and 2010 period was positive in mandatory SEC climate disclosures. The primary catalyst for this positive growth was the change in the regulatory framework of the SEC, namely due to mandatory climate disclosure reporting becoming required, which came in to effect in 2010. However as will be shown below, this effect will be short lived and not as significant as it could have been in the long term.

<b>Sector</b>	<b>2008 SEC Response Rate (%)</b>	<b>2010 SEC Response Rate (%)</b>	<b>2013 SEC Response Rate (%)</b>	<b>2013 CDP Responses Rate (%)</b>
<b>Consumer Discretionary</b>	7	57.8	61.6	59
<b>Consumer Staples</b>	19.2	79.1	86.7	88
<b>Energy</b>	62.9	97.6	97.5	39
<b>Financial</b>	9.4	42	47.5	70
<b>Healthcare</b>	4.5	19.6	25	67
<b>Industrial</b>	15	56.5	55.6	72
<b>Information Technology</b>	6.5	37.2	41.7	81
<b>Materials</b>	56	93.5	96.4	77
<b>Telecommunication Services</b>	0	30	22.2	56
<b>Utilities</b>	96.8	100	100	66

*Table 1: Responses Rates of SEC 500 Companies between 2008 and 2013*

Of the ten sectors which make up the group of the S&P 500, the average growth rate amongst the sectors was positive. However several sectors grew at different rates, as shown in Table 1. Some of these growth rates were more significant than others. Sectors with significant or high growth rates included consumer discretionary, consumer staples, financials, industrials, information technology, materials and telecommunications. Sectors with moderate growth in reporting levels were energy and healthcare. Utilities had a marginal growth rate; however the overall sector reporting rate was very high at 96.8% in 2008 and grew to a 100% in 2010.

The Utilities sector reporting levels in 2008 were at least 30% higher than the next closest sector.

There are two primary reasons for the large increase in the reporting rates within the 2008 to 2010 period. The first was the implementation of mandatory climate disclosure reporting within the 10K form, under the SEC's guidelines. The primary reason as to why the reporting of climate disclosure became mandatory was due to the investors needs to understand the climate risks and opportunities associated with a corporation or organisation. This SEC requirement reflects the changing investor environment and has been at the forefront of changing reporting standards in the European Union, Australia and Asia.

The secondary reason that the SEC brought into force mandatory climate disclosure reporting and that that all sectors had positive growth in their levels of reporting between 2008 and 2010, was as a result of the changing legislative and regulatory frameworks. The United States Environmental Protection Authority, federal and state government threatened to implement potential legislative changes, which would have severe financial and compliance cost implications for corporations.

**Sector Growth in the 2010 to 2013 period:**

In the 2010 to 2013 period, growth was significantly lower than in the aforementioned period. The 2010 to 2013 period saw stagnant or incremental growth in the level of reporting within most sectors. The most significant growth increase in climate disclosure reporting was a 7.6% increase in the consumer staples sector. Although the energy, industrial and telecommunications sectors experienced slight decreases in their reporting rates, the overall trend was slight growth at best. Low enforcement, coupled with the high compliance cost for companies who had had no incentive to report and felt it unnecessary, meant that those companies who had yet to produce a climate disclosure within their 10K form, had no incentive to begin to do so. Furthermore, low enforcement levels from the SEC through compliances did little to spur these companies to improve their reporting rates.

**The current position at the end of 2013:**

In 2013, the current position of the S&P500 group in the SEC was mixed. Those sectors who had high levels of climate disclosure reporting rates were consumer staples, energy and material and utilities. Consumer discretionary and industrials had moderate levels of climate disclosure reporting and need improvement. Sectors who had low rates with significant room for improvement included financials, healthcare, information technologies and telecommunication. It should be noted however, that although some sectors had high reporting rate and others low, there was a weak correlation between the level of reporting and the quality of those reports. Sectors that had high levels of climate disclosure reporting did not have sufficient depth in their reporting. Many companies used a generic line, which would be to mention climate change with terrorist activities in their disclosures, without looking at the real climate risks and opportunities. Quality and depth of reports varied greatly from sector to sector as well as within each sector producing no significant trends.

***Climate disclosure reporting within the CDP framework:*****The current position at the end of 2013:**

The 10K filing forms are not the only avenue used for climate disclosure reporting. S&P 500 companies can also report voluntarily to the CDP. The current levels of reporting, with most sectors moderate reporting levels of climate disclosure. Consumer staples is an exception, as it has high levels of climate disclosure reporting to the CDP. While at the other end, the energy sector has low levels of climate reporting. This is in contrast to the levels of reporting to the SEC which are high.

**S&P 500 and Global 500:**

In order to gain a global perspective, a comparison of the CDP reporting rate between the S&P 500 and the Global 500 companies is useful. Most sectors in the S&P 500 and Global 500 have similar levels of reporting that are within the five to ten percent range. However some sectors have moderate differences in their reporting levels, such as the consumer discretionary, healthcare and energy sectors, all of which have higher levels of reporting rates in the Global 500 than the S&P 500.

Sector	2013 CDP Reponses Rate – S&P 500 (%)	2013 CDP Response Rate – Global 500 (%)
Consumer Discretionary	59	77
Consumer Staples	88	88
Energy	39	69
Financial	70	75
Healthcare	67	83
Industrial	72	77
Information Technology	81	85
Materials	77	90
Telecommunication Services	56	66
Utilities	66	74

*Table 2: 2013 CDP Response Rates*

Global 500 and S&P 500 companies have similar levels of reporting, despite a greater spread in the regulatory authorities overseeing Global 500 companies (Table 2). One reason for this is the dominance of US companies who are headquartered in the USA, within the Global 500. Based on these origins, a possible reason why the Global 500 companies responded to the CDP questionnaire is because both the SEC and CDP are driven by the investors, whom are concerned by the climate risks and opportunities for corporations. The CDP hails from a primarily investor driven origin while, of course, the SEC is a legislative and federal authority.

***SEC response rates versus CDP response rates in 2013:***

The S&P 500 climate disclosure reporting rates to the SEC and CDP vary from sector to sector. Consumer Discretionary and Consumer Staples reporting rates for both the SEC and CDP, remain similar. Financials, healthcare, industrials, information technology and telecommunications services sectors have higher levels of climate disclosure reporting to the CDP, ranging between approximately 16 to 42%, compared to their reporting to the SEC. Energy, materials and utilities reporting rates to the CDP are lower than their climate disclosure reporting rates to the SEC. The level of reporting decreased by between 19.4% and 58.5% for the energy, materials and utilities sector response to the CDP, compared to the SEC.

The reasons as to why this occurs are unclear, but could include the following:

- Stock turnover is high in tertiary and secondary (business or household) sectors than the primary sectors. For example, consumer discretionary and information technology, and telecommunication for home use form part of the tertiary sector. Tertiary and secondary sectors generally report higher levels of climate disclosures to the CDP, than the SEC. Tertiary and secondary sectors have higher levels of stock turnover due to their structure, therefore investors will have a higher demand in regards to identifying climate risks and opportunities in these sectors, as opposed to the primary sectors.
- Investments tend to be longer term for primary sectors. Primary sector corporations generally have longer term investments and higher upfront capital costs, as opposed to significant ongoing capital outlays. This results in the aforementioned, lower investor turnover in the primary sector, compared to the secondary and tertiary sectors. This leads to less investor demand for information concerning the climate risks and opportunities in the primary sector.
- The auditing standards are vague for the SEC, compared to the CDP, consistency is low and investors do not want to be controlled by the SEC. The SEC reporting guidelines and requirements are vague, whereas the CDP questionnaire requires participating companies to provide certain information. Generally, S&P 500 companies increased their levels of reporting to the CDP, compared to the SEC. The reason behind this is because it is much easier to respond to the CDP, than the SEC.

### **Sector Analysis**

In this section the trends in reporting rates, key risks and quality of reporting are examined. The reasons for these above characteristics will be analysed and deconstructed to give a full picture of the energy, utility, and food and agriculture sectors (Table 3).

Sector/Industry	Response Rate	Average Physical Risk (%)	Average Regulatory Risk (%)	Average Other Risk (%)
Energy	95%	21.1	41.7	40.7
Utilities	100%	23.8	36.9	50.8
Food & Agriculture	86%	61.3	17.4	35.8

*Table 3: Breakdown of physical, regulatory, and other risks in the Energy, Utilities, and Food and Agriculture sector based on the percent of total risk*

### **Energy**

The Energy sector is comprised of organisations that primarily generate and supply power, as well as explore and develop oil and gas reserves, including the drilling of these reserves. From 2008 to 2010 the energy sector within the S&P 500 increased their response rate within the SEC 10K reporting scheme from 62.9% to 97.6%. This remained stable from the 2010 to 2013 time period. In 2010 the CDP response rate was 39% for this sector. The Energy sector has a clear preference in climate risk disclosure reporting to the SEC, as opposed to the CDP. One of the key reasons why this may be is due to the nature of investments in the Energy sector. Companies in this sector, often are very large and profitable, but require significant infrastructure and capital investments. This means investors expect long term gains as a sacrifice for the time between their initial investment and any dividends. Furthermore the Energy sector is often static and slow paced, resulting in a low stock and investor turnover. As describe previously, high stock turnover for secondary and tertiary sectors often means investors and companies prefer to report to the CDP. The opposite is true in this case.

In 2013 the CDP climate disclosure response rate from S&P 500 companies was 39% compared to 69% from energy sectors companies from the Global Fortune 500. This may be because the CDP has a global focus targeting and working with a range of international companies, however all comparable response rates between the Global Fortune 500 and the US based S&P 500 companies show that Global 500 companies have a higher CDP response rate.

Despite having a high climate disclosure reporting rate to the SEC, only 5.7% of companies identified at least one risk with a strategy to mitigate those risks. This would indicate that much of this reporting is superficial and is not used to minimise climate risks or exploit “green” opportunities. Because of this companies in the energy sector still have significant room to further develop their climate risk reporting. This can be achieved by changing the culture within a company, in order to make organisations realise the true climate risks and opportunities they face. This can be done by using relevant tools, which will assist in preparing energy sector companies for climate change.

In each company’s own 10K filings the risks identified are broken down by physical, regulatory and other. Physical risks are defined as “how climate and weather generally affect their business and its operations, including their supply chain” (Climate Risk Disclosure Initiative Steering Committee, 2006, p. 8). Regulatory risks can be explained “as governments begin to address climate change by adopting new regulations that limit greenhouse gas emissions, companies with direct or indirect emission may face regulatory risks that could have significant implications” (Climate Risk Disclosure Initiative Steering Committee, 2006, p. 9). Other risks are risks that do not fall in to the physical and regulatory risks, such as renewable technologies.

Energy faced relatively little physical risks with only 21.1% of the average risks identified as being of a physical nature. Regulatory and other risks make up approximately 40% of the remaining risks. The reason why the Energy sector may not consider the physical risks in their climate disclosures is because it is more difficult to comprehend how a changing climate and weather will affect the performance of the company.

### ***Utilities***

The Utilities sector is comprised of companies which generate, transport and distribute electricity, oil and water. The S&P 500 Utilities companies have had consistently high reporting rates to the SEC, ranging from 97% from 2008 to 100% in 2013. S&P 500 companies within the utilities sector had a climate disclosure response rate of 66% to the CDP in 2013, compared to a 100% response rate to the SEC. The low comparable response rate to the CDP

is due to the similar reasoning to that described in the previous section, in regards to the Energy sector. That is, low stock turnover and a long term view taken by investors. The S&P 500 and the Global Fortune 500 utilities companies have similar climate disclosure response rate. In 2013 the S&P 500 utilities companies had a response rate of 66% to the CDP, and similarly the Global 500 companies had a 74% climate disclosure response rate.

The reporting rates of climate disclosures within the utilities sector are high, however only 35.5% of S&P 500 companies identify at least one risk and a strategy to mitigate this risk. This is approximately seven times higher than that of the energy sector. Though is an improvement, but the climate risk disclosure reporting can still be bettered. More depth can be given in the climate disclosure with alterations in the culture of the company, which will assist the organisations with understanding the true risks and opportunities associated with climate change. Also the use of appropriate tools will allow companies to assist the risks they could face.

The Utilities companies' climate disclosure reporting in their 10K filings found that this sector on average identified 23.8% physical risk. 36.9% of the risks identified were linked with the regulatory risks, whereas 50.8% of the risks were considered as other risks. This sector is concerned with the regulatory and other risks, due to the fact there is a high level of regulatory control.

### ***Food and Agriculture***

The food and agriculture industry primarily supplies to companies within the consumer staples companies, as well as several companies within the consumer discretionary sector. In 2010 the food and agriculture industry within the S&P 500, had a response rate of 79% to the SEC, while in 2013 the response rate increased to 86%. This latter rate is in line with the consumer staples sector as a whole, of which food and agriculture is a major subset. This would indicate that food and agriculture makes up a significant portion of the consumer staples sector. In 2013, within the food and agriculture industry the most prevalent risk identified is one of a physical nature. 61.3% of risks identified within this industry were physical, with all companies identifying at least some physical risks. 17.4% of the risks

associated with the food and agriculture industry was with regulatory risks and 35.8% of risks identified were considered as other. This is in line with the nature of the food and agriculture industry where most of the assets are of a physical nature i.e. farms, livestock, crops.

## **Conclusion**

Although there is a vague and overall low level of enforcement in climate disclosure reporting by the regulatory authorities, such as the SEC, reporting rates have climbed steadily since 2008. An overwhelming majority of sectors in the S&P 500 saw year on year growth in their reporting rates, between 2008 and 2013. However the final level of reporting is currently mixed at best. The consumer discretionary, financials, healthcare, industrial, information technology and telecommunications services sectors all have room to drastically improve their reporting rates. The split between sectors which have high reporting rates and those which have low reporting rates are in line with the economic sectors. The primary and secondary sectors generally have high levels of climate risk reporting, while the tertiary sector (generally those sectors listed above) have middling or moderate levels of reporting.

Despite various rates of reporting the overall quality of reports to the SEC is low to moderate. Many of these reports are brief, vague, imprecise, and confuse the real risks associated with climate change. Nebulous references to terrorism, extreme weather events and other thinly related environmental factors form large parts of many of the reports submitted to the SEC. These reports do not identify the real risks and hence offer no authentic information for investors to make informed decisions or for companies to offer developed or usable mitigation strategies.

Although there is a general increase in the demand for climate change related investor information, due to the increase costs of ignoring such risks, stemming from increased insurance rates, business level costs, “green” competition, and reputation costs, only the CDP offers a reporting framework which investors can gain substantial knowledge in regards to investing decisions. In this regard, the current push in reporting standards and rate is currently coming from the private sector, while the public sector and regulatory authorities lag significantly behind.

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