Università
Ca' Foscari
Venezia

**Department
of Management**

Working Paper Series

Chiara Mio and Marco Fasan

**Materiality from financial
towards non-financial
reporting**

**Working Paper n. 19/2013
October 2013**

ISSN: 2239-2734

This Working Paper is published under the auspices of the Department of Management at Università Ca' Foscari Venezia. Opinions expressed herein are those of the authors and not those of the Department or the University. The Working Paper series is designed to divulge preliminary or incomplete work, circulated to favour discussion and comments. Citation of this paper should consider its provisional nature.

Materiality from financial towards non-financial reporting

Chiara Mio
mio@unive.it
Department of Management
Ca' Foscari University Venice

Marco Fasan
marco.fasan@unive.it
Department of Management
Ca' Foscari University Venice

(September 2013)

Abstract. The article aims at discussing the evolution of the concept of materiality in financial and, more specifically, non-financial reporting. Materiality will play a central role in the next years in order for reports to reach conciseness, which is at present one of the main goals both financial and non-financial reporting (in particular Integrated Reporting) aims to achieve. The article reviews the most relevant materiality frameworks and definitions and provides further insights for the advancement of the debate on materiality. It also analyzes the main differences (in terms of financial performance and governance characteristics) of the companies joining the IIRC Pilot Program that tackled the issue of materiality more effectively.

Keywords: materiality, non-financial information, integrated report

JEL Classification Numbers: M41

Correspondence to:

Marco Fasan Dept. of Management, Università Ca' Foscari Venezia
San Giobbe, Cannaregio 873
30121 Venezia, Italy
e-mail: marco.fasan@unive.it

1. Introduction

The definition of what “material” information lies at the heart of the accounting, as the main aim of both financial (see Barth et al (2001)) and non financial reporting (see GRI (2011), IIRC (2012)) is to provide material information to users. The intended users of the reports are generally considered to be the investors for financial reporting and the broader category of stakeholder for non-financial reporting. Despite this perception, there are some relevant pieces of non-financial information specifically intended to inform investors, for instance market share or customer satisfaction. According to Lydenberg (2012) “many social and environmental issues can be considered potentially material to all investors”. Therefore, we argue that the main difference between the two typologies of reporting (financial and non-financial) is the different nature of the information disclosed rather than the different aims or users of the report.

The first definitions of materiality were proposed in the financial reporting context, as the first reports usually contained mainly financial (rather than non-financial) information. In this context, a piece of information is considered to be “material” if its omission or misstatement would influence the economic decision taken by the reports’ users (i.e. the investors). As it will be discussed below, companies can rely on some threshold in order to assess materiality, for instance considering information being material if exceeding the 10% of the net income value.

When the debate on non-financial information (NFI) started (see, among the others, Amir and Lev (1996) and Healy and Palepu (2001)), roughly 15 years ago, it became clear that the definitions of materiality, created for the financial context, could not be employed *sic et simpliciter* in order to define “materiality” for NFI. We define NFI as a residual category including all the information not expressed in monetary terms. An interesting study by Ocean Tomo (2011) provides evidence confirming that financial information is not enough for investors and stakeholders to have a complete understanding of companies’ performance and value. According to the findings of the study, physical and financial assets reflected on a company’s balance sheet comprise only approximately 20% of the true value of the firm. Therefore, roughly 80% of the market capitalization of the S&P 500 companies is determined by intangible assets, that require both financial and, most importantly, NFI in order to be properly evaluated by investors and stakeholders.

The need for NFI led to the raise of sustainability reports, or Corporate Social Disclosure, defined, following Gray et al (2001), as the provision of “information relating to a corporation’s activities, aspirations and public image with regard to environmental, community, employee and consumer issues. Within these headings will be subsumed other, more detailed, matters such as energy usage, equal opportunities, fair trade, corporate governance and the like.” (see Gray et al (2001), p 329).

In the context of NFI reporting, and more specifically of CSD, to reach a precise definition of “materiality” is a difficult task, mainly because of two reasons. First, the quantitative thresholds employed for the financial materiality cannot be employed for NFI, because NFI refers to objects that are often not traded in a market. Second, CSD aims at informing a wider array of subjects, compared to financial reporting, thus making it difficult to answer to the question “material to whom?”.

The lack of a clear definition of materiality in the NFI context, also due to these issues, has not represented a major problem for CSD and sustainability reports, as the most widely employed standards do not focus on the conciseness of the reports, but rather on their completeness (see GRI (2011)). Besides, as NFI disclosure is often voluntary, there has not been a strong pressure from audit firms nor standard setters towards a precise definition of materiality.

The debate on materiality gained new insights and attention with the introduction of the Integrated Report (IR), that, because of the aims it plans to achieve and its general framework, may be seen as the evolution of CSD. The International Integrated Reporting Committee (IIRC), in its 2012 prototype framework, defines IR as “a set of processes and activities that result in communication, most visibly a concise, periodic “integrated report”, about the way in which the organization’s strategy, governance, performance and prospects lead to the creation and preservation of value over the short, medium and long term” (IIRC (2012)).

According to the IR advocates, financial and sustainability reports have proved not to be adequate to describe how companies create value. On the one hand, financial reports are increasingly complex (thus investors have difficulties in understanding the economic substance of transactions) and backward oriented (thus, for the most part, they provide information about the past, while investors need to understand how companies’ performance will evolve in the future). On the other hand, sustainability reports often contains too much information, thus generating in the users an “information overload”, where it is difficult to understand which information is material and which is not. Besides that, sustainability reports often employ rigid categories in order to disclose information, such as “social”, “environmental”, “governance”. This classification impedes users to make connections between different pieces of information that, ultimately, lead to the same concept, that is: how value is created. These shortcomings are confirmed by the empirical evidence, which shows that investors do not really take into account sustainability reports because they consider them to be scarcely useful.

According to Eccles and Krzus (2010), “in its simplest terms, One Report means producing a single report that combines the financial and narrative information found in a company’s annual report with the non-financial (such as environmental, social, and governance issues) and narrative information found in a company’s “Corporate Social Responsibility” or “Sustainability” report in order to explain the linkages between organization’s strategy, governance and financial performance and social, environmental and economic context within which it operates”.

IR aims to make it easier for the user to draw insightful connections between key pieces of information in the context of the investment decision-making process, to give a clear view of the firm’s strategy and process and to allow long term quantifiable risks or opportunities to be taken into account (UBS (2012)). It is interesting to notice that the improvements in company disclosure that the IR may introduce have gained momentum especially after the 2008 financial crisis and credit crunch. These events have drawn the attention on the risks inherent in taking a narrow view of companies’ performance (USB (2012)). The raise of the ESG reports confirms this trend also, which is synergic with the increasing central role of the IR.

In august 2010, through the initiative of the Prince’s Accounting for Sustainability Project (A4S) and of the Global Reporting Initiative (GRI), the “International Integrated Reporting Committee” (IIRC) has been created. The 2011 IIRC Discussion Paper defines IR as follows: “Integrated Reporting brings together material information about an organization’s strategy, governance, performance and prospects in a way that reflects the commercial, social and environmental context within which it operates. It provides a clear and concise representation of how an organization demonstrates stewardship and how it creates and sustains value”.

The attention devoted by the IIRC to the conciseness of the reports brought back the focus on the discussion of what a material issue is. Not only: the discussion focused more intensely on how actually providing a framework for companies in order to allow them to define materiality. Theoretical and general definitions (mainly principle based and referring to the decision usefulness approach, discussed below) were not deemed to be enough to sustain the “conciseness” pillar of IR.

The article is organized as follows: Section 2 provides a discussion of the most relevant definitions of materiality developed both in the academic and in the standard setters’ context. Section 3 focuses on the NFI context, and in particular on the definitions of materiality (Section 3.1), on the frameworks proposed in order to determine whether an issue is material or not (Section 3.2) and on the analysis of the characteristics of some companies that tackled the issue of

materiality most effectively (Section 3.3). Section 4, finally, provides a discussion of future challenges still to be addressed in the debate on materiality.

2. Materiality in Financial reporting

The debate on what constitutes material financial information involved both academics (since value relevance of accounting numbers is of paramount importance for accounting) and practitioners (as accounting firms, courts and other subjects need to often tackle the issue of financial information materiality).

In this paragraph, we will discuss some of the most relevant definition of materiality. From an evolutionary perspective, the notion of materiality was born in the financial context in order to qualify financial information. Only later on, the concept was applied to the NFI context.

In general, the notion of materiality “presupposes the accountants’ ability to determine whether a judgment on materiality affects users’ decisions” (Faux (2012)). In other words, and in accordance with the user utility theory, this means that information is material if it manages to influence the decision making process of the user such information.

The International Standard on Accounting (ISA) 320 points out three main characteristics of materiality definitions in the financial reporting frameworks (ISA (2009)) around which the whole discussion about materiality develops:

- an issue is material if it influences the economic decisions of users taken on the basis of the financial statements;
- users are intended as a “group” and do not refer to any specific individual user;
- judgments about materiality are affected by the size or nature of a misstatement or a combination of both.

According to Paragraph 7 of IAS 1 (Revised), “omissions or misstatements of items are material if they could, individually or collectively, influence the economic decisions of users taken / that users make on the basis of the financial statements”. Also according to the Australian Accounting Standard Board (AASB) “omissions or misstatements of items are material if they could, individually or collectively, influence the economic decisions of users taken on the basis of the financial statements” (AASB (2009)).

In order to make the concept easier (or possible) to apply, the accounting profession, the SEC and the courts (see Lydenberg (2012)) provided additional information on the issue “material to whom?”, identifying the average characteristics of the user which is supposed to employ the information. They qualified the user as “reasonable”. According to FASB (1980): “the magnitude of an omission or misstatement of accounting information that, in the light of surrounding circumstances, makes it probable that the judgment of a reasonable person relying on the information would have been changed or influenced by the omission or misstatement”. The specification of the “reasonable” nature of the user is mainly due to a juridical approach. In fact, in 1976 the Supreme Court of the United States sentenced that a “fact is material if there is a substantial likelihood that the ...fact would have been viewed by the reasonable investor as having significantly altered the 'total mix' of information made available”.

At this broad, principle-based, level of analysis, which considers basically the first two characteristics of the materiality definition as pointed out by the ISA 320, there seems to be a consensus on the fact that an information is material when it influences the decision of the financial statement’s (reasonable) user. However, if we dig deeper and if we focus on the third element proposed by the ISA 320 (the consideration of size and/or nature of the misstatement), some important differences emerge, in terms of approaches employed for determining which information

are material and which are not.

Some authors (Tuttle (2002), Lydenberg (2012)) and standards (AASB (2009)) give a predominant importance to thresholds in determining materiality. This methodology is particularly important for audit firms, that do not have a deep knowledge of the company and its operations and that must rely on such quantitative methods to proxy for materiality as they can only rely only on accounting numbers. According to ISA 320, which argues that also the nature of the misstatement ought to be considered, “a percentage is often applied to a chosen benchmark as a starting point in determining materiality for the financial statements as a whole” (ISA (2009)). As it will be discussed in the following paragraph, this represents an extremely relevant difference between materiality in the non-financial and in the financial sector, as NFI materiality cannot be assessed through thresholds.

The Australian Accounting Standards Board (AASB) provides the following guidelines for the disclosure of economic events: above 10 percent material to decisions; below 5 percent immaterial to decisions; between 5 and 10 percent preparer discretion is to be exercised (AASB (2009), Faux (2012)). According to Tuttle (2002), conventional materiality thresholds are the misstatement that are less than either 10 percent of net income or 0.5 percent of sales. According to Lydenberg (2012) “Among financial indicators often cited as material are those that constitute: “1) 10% to 15% of average net income after taxes in recent years; 2) 5% to 10% of the current year’s income from continuing operation before taxes; 3) 0.5 to 2% of total revenue or total assets; 4) 1% to 2% of owners’ equity”. Also according to the International Accounting Standards Board’s “Framework for the Preparation and Presentation of Financial Statements”, materiality provides a threshold or cut-off point rather than being a primary qualitative characteristics which information must have if it is to be useful.

Conversely, a number of scholars (see Eccles et al. (2012)) and institutions argue that the materiality determination process ought to consider the nature of the misstatement as well as the quantity.

Among those, there is the IASB, which, changed its position, now being among the main detractors of considering only the quantity of a misstatement in order to determine materiality. According to Deloitte (2010), the IAS/IFRS framework argues “materiality is an entity specific aspect of relevance based on the nature or magnitude (or both) of the items to which the information relates in the context of an individual entity's financial report”. Compared to the IASB, the FASB argued for the necessity to look at the nature of the information disclosed even before, arguing that materiality judgments are made in light of surrounding circumstances and necessarily involve both qualitative and quantitative considerations.

The European Securities and Markets Authority (ESMA) published a summary of responses to a Consultation Paper it issues about materiality in financial reporting. According to the feedbacks received (see ESMA (2013)), “several respondents maintained that the qualitative and quantitative aspects of materiality judgments cannot be separated – doing so could lead to development of a ‘tick-box’ mentality rather than using of judgment in assessment of materiality”.

This focus on qualitative aspects of materiality is also embedded into the ISA framework: “although it is not practicable to design audit procedures to detect misstatements that could be material solely because of their nature, the auditor considers not only the size but also the nature of uncorrected misstatements, and the particular circumstances of their occurrence, when evaluating their effect on the financial statements” (ISA (2009)).

In the last years, also the Australian Accounting Standard Board seems to “converge” towards the IASB and FASB position: “materiality depends on the size and nature of the omission or misstatement judged in the surrounding circumstances. The size or nature of the item, or a combination of both, could be the determining fact.” (AASB (2010)).

3. Materiality in Non Financial reporting

Increasing the level of NFI disclosure by companies is of paramount importance in order to rebuild the distrust towards companies' behavior (see AccountAbility (2003), Lydenberg (2012)) and to allow investors and stakeholders to take more informed decisions. However, companies need to be careful in avoiding the "information overload", which causes investors and stakeholders being required to process an ever-increasing amount of data. The information overload is certainly one of the problems of the CSD, and one of the issues Integrated Reporting aims at tackling.

In this paragraph, we will discuss the evolution of the concept of "materiality" in the context of NFI through an analysis of the most important definitions proposed both by academics and by standard setters.

Even if, as it will be more carefully discussed below, materiality definitions in the context of financial and non financial information differ substantively, at the broader level of analysis it is possible to find a similarity between the definitions of materiality in the two contexts: they both refer to the decision usefulness of the information for the intended user of the report (according to the user utility theory (see Faux (2012), Guthrie and Parker (1990) and Dierkes and Antal (1995)).

On the one hand, the definitions based on the user utility theory are general and broad enough to gather consensus. On the other hand, they are too broad to be actually useful for companies to decide what is material and what is not.

3.1 Definitions

Even if the definitions of materiality in the financial context rely on some quantitative benchmarks that are not applicable to NFI materiality, if the comparison is kept at a broad enough level of analysis, it is possible to identify some similarities between definitions in the two contexts.

According to AccountAbility (2006), "materiality requires that the Assurance Provider states whether the Reporting Organization has included in the report the information about its sustainability performance required by its stakeholders for them to be able to make informed judgments, decisions and actions". This definition relies on the concept of the "decision usefulness of the information for the intended report's user". *Mutatis mutandis*, the definition is pretty similar to those found for the financial context. AccountAbility (2006) focuses on "stakeholders" rather than on "investors" and on "judgments, decisions and actions" rather than on "investment decisions". Nevertheless, the underlying criterion is the same both for financial and NFI context: the decision usefulness of the information.

Similarly, three years before AccountAbility (2003) proposed the following: "A meaningful definition of 'materiality' must effectively identify information that, if omitted or misstated, would significantly misrepresent the organization to its stakeholders, and thereby influence their conclusion, decisions and actions". According to GRI (2011b), "the report should cover topics and Indicators that: reflect the organization's significant economic, environmental, and social impacts or that substantively influence the assessments and decisions of stakeholders". The Climate Registry proposes that "Verification Bodies use the concept of materiality to determine if omitted or misstated GHG emissions information will lead to significant misrepresentation of your emissions, thereby influencing conclusions or decisions made on the basis of those emissions by intended users".

The focus on the usefulness of the information for the intended user of the report (user utility theory) is well represented also in the definition by Spacek (1969): "a material fact is a fact to which an average, reasonably prudent person would attach importance in determining a course of conduct to be taken or followed upon learning the fact, such as in deciding whether or not to buy or sell stock, or to lend or refuse to lend money, or to cancel a loan". This definition, which Faux (2012) defines "legalistic" is broad enough to be applied both to financial and to non-financial information. The focus is on the outcome – in terms of action taken – of the user of the information.

With the introduction in the debate of the IR, the issue of how to define materiality gained more relevance. The IIRC (2012) argues that “a matter is material if it is of such relevance and significance that it could substantively influence the assessments and decisions of the organization’s highest governing body, or change the assessments and decisions of intended users with regard to the organization’s ability to create value over time.” The IIRC introduces the concept of usefulness not only for the external users of the report but also for the “organization’s highest governing body”. This is coherent with the attention the IIRC devotes to the process of integrated *reporting*, which ought to provide relevant information for the company decision makers and, in some cases, also shape the corporate governance of the company.

Given the strategic importance materiality plays in the IIRC framework, IIRC (2012) continues the definition by proposing some suggestions in order to define materiality: “in determining whether or not a matter is material, senior management and those charged with governance consider whether the matter substantively impacts, or has the potential to substantively impact, the organization’s strategy, its business model, or one or more of the capitals it uses or affects.”

Other authors add some elements in the definition of material information by stating that information is material when it can make a difference in influencing the decisions taken by the users of the information, the reason being that the information has “predictive capacity” about the future performance of the company.

According to the definitions provided above (both financial and non-financial), accountants are required to determine the judgment of an external party on a certain piece of information. Even if some of the definitions discussed above provide some further insight on how to accomplish this task, it is clear that such general framework does not allow reaching a commonly shared methodology.

The issue is particularly severe in the NFI context. In fact, when applied to the NFI context, the definitions of “financial” materiality lose much of their utility, as it is impossible to employ the same quantitative criteria of financial information also for NFI. Financial information refers to a market in which goods and services are being exchanged and often have a well-defined price. Conversely, objects represented by NFI cannot be “priced” in a market, simply because an efficient market does not exist. How much is it worth a death in the workplace? How much is it worth damaging the reputation of the firm? This is impossible to define, at least by relying on an active market. Since a quantitative value does not exist, we cannot apply the thresholds suggested in the financial information context, making it more difficult to separate material from non-material information.

Besides this aspect, while financial reports are intended to provide information mainly to investors, non-financial reports address to a broader array of subjects (i.e. the stakeholders). Given the broadness of the definition of stakeholders (see Freeman (1984)), it may be the case that a certain piece of information is material for a certain stakeholder and not material for another. If this is the case, should the company disclose the information because material or not? Faux (2012) writes that “users are individuals and may consider information differently, one individual may consider that an event warrants some form of negative action, another may consider the event positively and still another may consider the same event to be irrelevant”.

Finally, the user utility approach, both in the financial and non-financial information context, does not take into account the fact that some information may not give rise to any action in the short term, but may form part of a future decision process (Faux (2012)). If this is the case, someone may argue that an information ought to be disclosed because material even if it does not lead the user to take any action, thus apparently violating the indications of the user utility theory.

Those are some limitations of the materiality definitions provided above, deriving both from some inherent limitations of the user utility approach and from the application of those definitions

in the NFI context.

3.2 Frameworks

As discussed above, the main challenge for the debate on materiality for NFI is to go beyond broad definitions and provide companies with more precise guidelines on how to identify material issues. The three main standards that (attempt to) provide some guidance on the issue are: the GRI Guidelines, the AccountAbility AA1000 and the IIRC Background Paper. It is important to underline that the AA1000 and the GRI Guidelines are frameworks created for the sustainability information disclosure, while the IIRC aims at disclosing also other kind of NFI (such as market share or customer satisfaction).

3.2.1 GRI – Guidelines (Version 3.1)

In the GRI Guidelines, the issue of materiality is tackled in the paragraph devoted to “Reporting Principles for defining Content”. Besides materiality, the other reporting principles are: stakeholder inclusiveness, sustainability context and completeness.

As discussed above, GRI defines information as “material” when it “reflect the organization’s significant economic, environmental, and social impacts or that would substantively influence the assessments and decisions of stakeholders” (GRI (2011)).

The GRI definition of materiality is close to the definitions provided for the financial information context. In fact, GRI proposes that the materiality for sustainability reporting needs to consider the economic, environmental, and social impacts that cross a *threshold* in affecting the ability to meet the needs of the present without compromising the needs of future generations. The GRI makes clear that “the concept of a threshold (...) in sustainability reporting (...) is concerned with a wider range of impacts and stakeholders” (GRI (2011)). According to this perspective, also investors may find such information useful because they may have an indirect impact on the future financial performance of the company.

By considering both internal (i.e. the organization mission) and external (i.e. influence of the organization on other entities) factors, companies ought to define whether information is material or not, following two parameters: influence on disclosed assessments and disclosures and significance on economic, environmental and social impacts. In the final part of the principles, the GRI also proposes some tests in order to determine the significance to stakeholders and the significance to the organization, thus making it clear that both perspectives ought to be considered.

The GRI – which has also proposed the Sector Supplement - has the merit of framing the issue of materiality in a sector-specific way. According to Eccles et al (2012), this is an aspect that ought to be improved in the current reporting framework: “developing sector-specific guidelines on what sustainability issues are material to that sector and the Key Performance Indicators (KPIs) for reporting on them would significantly improve the ability of companies to report on their ESG performance” (Eccles et al (2012))

3.2.2 AccountAbility - AA1000

AccountAbility established a standard for CSD under its AA1000 framework, updated in 2008. AA1000 (2008) determines some criteria that ought to be met when tackling the issue of materiality. In particular, it proposes a five-step test in order to determine materiality, which is described more in detail in the Guidance Note (AccountAbility (2008)). This is aimed at providing companies with some more information, compared to the definitions already discussed above.

The first test is “direct short term financial impacts”. Some non-financial performance indicators (such as carbon emission) may have a financial impact in the short term and for this reason need to be disclosed.

The second test is “policy-related performance”, requiring the disclosure of those issues that do not have any impact on short-term financial performance but that are related to some policies the company agreed upon.

The third test is “business peer-based norms”. According to this test, information that the company’s competitors deem to be material ought to be considered material by the company as well.

The fourth test is “stakeholder behavior and concerns”, that considers issues that will impact on stakeholders’ behavior as material. This test is pretty similar to the definitions proposed following the user utility theory, and probably is the least insightful of the five tests proposed by AccountAbility, because it does not add much to the indications provided by the materiality definitions discussed above.

Finally, the fifth test (“societal norms”) requires companies to disclose issues or matters that are embedded into the regulations or that will become likely regulated in the future.

While the GRI Guidelines framework is mostly “principles-based”, the AccountAbility framework is “process-based”. Thus, it focuses on the relationships of the company with its stakeholders. On the one hand, this “process-based” approach is positive because it focuses to the highest extent the company’s peculiarities. On the other hand, it is not very effective in terms of “standardization” of the process outcome.

3.2.3 IIRC - Background paper on materiality

Before the introduction of the IR, the debate on materiality in the NFI context was certainly scarcer. The issue was taken into consideration by AccountAbility and GRI, but it did not have the relevance it gathered today. The GRI proposes a list of indicators and issues the company ought to report on. The more of these indicators a company manages to cover, the higher will be the report’s rating. Inevitably, following this approach the issue of materiality loses some relevance, despite being listed among the “Reporting Principles for defining Content” by the GRI.

Conversely, the IR, especially in the IIRC framework, confers a central role to materiality. The IR “conciseness” is one of the key feature stressed by the framework, and to gather a clear and accepted definition of materiality is, in the IR context, fundamental and much more important than for previous standards.

The latest (and probably the more complete) framework for the identification of material issues is provided by the IIRC (2013) in the “Background paper for <IR>” about materiality.

The IIRC (2013) stresses the importance of materiality since, as we argued above, it is one of the main principles that ought to guide the creation of an IR. According to IIRC (2013), the process leading to the definition of materiality “requires a high degree of judgment and involves numerous strategic considerations. This requires senior management and those charged with governance collectively to exercise judgment to determine which matters are material for purposes of <IR> and to ensure that they are appropriately disclosed given the specific circumstances of the organization, including the application of generally accepted measurement and disclosure methods as appropriate” (IIRC (2013)).

The IIRC (2013) takes a step further towards the identification of which are the intended users of IR and, as a consequence, *to whom* a certain matter or information ought to be considered material in order to be disclosed in the report. According to IIRC (2013), “while the communications that results from <IR> will be of benefit to a range of stakeholders, they are principally aimed at providers of financial capital in order to support their financial capital allocation assessment”. This clarification is embedded into the definition of materiality, which is the following: “a matter is material if it is of such relevance and importance that it could substantively

influence the assessments of providers of financial capital with regard to the organization's ability to create value over the short, medium and long term".

As argued by the detractors of the user utility theory (see Faux (2012)), there may be issues relevant to certain stakeholders but, at the same time, not relevant to other stakeholders. This creates a problem for the organization. The decision taken by the IIRC to choose the "providers of financial capital" as main intended users of the IR helps in reaching a clearer framework that can be useful for companies. The sustainability reporting (CSD) and the IR contains NFI and are aimed at communicating the performance of the organization to a wider array of stakeholders. Nevertheless, the decision taken by the IIRC is a necessary and "unavoidable" first step towards the identification of material information.

The framework proposes three steps in the "<IR> materiality determination process".

The first is to identify relevant matters for inclusion in the integrated report, defined by the IIRC as "those matters that have a past, present or future effect on the organization's ability to create value over time". In order to identify such issues, the management would need to consider: the organization value drivers, matters identified during stakeholder analysis and engagement and other factors internal/external to the organization.

It seems clear that this activity depends upon a full understanding of the business model of the firm, which is defined by the IIRC (2013b) as "the chosen system of inputs, business activities, outputs and outcomes that aims to create value over the short, medium and long term". The IIRC (2013 b) also specifies that: "features that can enhance the effectiveness and readability of the description of the business model include (...) identification of critical stakeholder and other dependencies, key value drivers and important external factors".

The process of identifying such "relevant matters" touches upon many aspects of the company business model and strategy and therefore needs to be tackled by the top managers of the organization.

The second step is the determination of the importance of the relevant matters, in order to prioritize issues. The IIRC (2013) proposes two dimensions in order to assess importance: magnitude of the effect (for matters that have occurred, currently exist or will occur with certainty); magnitude of the effect and likelihood of the occurrence (for matters where there is uncertainty about whether the matter will occur). As the most important phase is the determination of the potential magnitude of the effect on the organization's ability to create value over time, the IIRC proposes some factors companies ought to consider: quantitative and qualitative factors; financial, operational, strategic, reputational and regulatory perspective of the effect; area of the effect; time frame of the effect.

Finally, the third and final step requires the prioritization of material matters, based on their importance.

The three-step model proposed by the IIRC (selection of the issues, determination of their importance, prioritization) presents some ambiguities. When the IIRC defines the broadness of the issues that ought to be taken into account, it argues that the only perspective to be considered in the materiality determination process is the investors'. Then, it points out that, because every non-financial issue has a financial impact in the medium-long term, the scope of the analysis ought to be broader and not limited to issues with a short-term financial impact.

This position of the IIRC about the broadness of the information to be taken into account may be confused with the *usage* of the information. In other words, the fact that the IIRC suggests to enlarge the scope of the issues under analysis to issues referred to stakeholders other than investors may be confused with the enlargement of the "material to whom?" question. Therefore, some companies may analyze the materiality to the broader category of stakeholders, rather than only to investors.

The perspective proposed by the IIRC is the investors' perspective, that is similar to the perspective of Porter's shared value concept (Porter (2006)). The IIRC ought to better clarify this

point, since the interpretation of the role of the IIRC six capitals may be very different if considered from a “shared value” perspective or from a single stakeholder perspective.

It is interesting to notice that if the “shared value” perspective is assumed, the materiality determination process has very different implications if we are in a win-win situation or not.

If the company is in a win-win situation, in which for instance the CO₂ emissions are reduced through a more efficient usage of plants, that decrease their operating costs, the shared value perspective is adequate and well suited. The company would report on the CO₂ emission reduction as this has an impact on the company’s financial performance.

Conversely, in the case of a company increasing its CO₂ emissions without this influencing the financial performance, the CO₂ issue would be considered material from the environmental perspective but non-material from the investors’ perspective. Therefore, the company may decide not to report on it.

3.3 Empirical analysis

In the previous pages we have discussed materiality definitions and frameworks, following an evolutionary path towards a consistent identification of materiality.

In this paragraph, we aim at providing some evidence on firms that are actually tackling the issue of materiality in the business world. More specifically, we will focus on 5 out of the 83 companies that are currently part of the IIRC program. These five companies (Unilever, Vancity, SASOL, Eskon Holdings SOC limited and CLP Holdings Limited) have been selected because they meet two criteria.

First, they are included in the list provided by the examples database by the IIRC when the “Conciseness, reliability and materiality” guiding principle is selected. Reports included into the IIRC examples database have been selected to provide companies with a range of emerging reporting practices. Such selection has been reviewed by the IIRC’s Secretariat and Technical Task Force. Even if, as explicitly stated by the IIRC, the example reports are not the *best* reports, since they are not rated according to some criteria designed to rate and award them, we argue that the five companies hereby analyzed are those tackling the materiality issue most effectively and relevantly. A reporting practice the IIRC chooses to focus on and to indicate as “example” is necessarily significant and can provide useful insights.

Second, the five companies listed above are covered by Bloomberg, which is the database we employed in order to gather financial and ESG data.

Therefore, we will analyze some relevant peculiarities of the financial and ESG performance of these five companies (“materiality subsample”), compared to the “whole sample” of IIRC Pilot Program companies.

On the one hand, it is important to stress that this analysis is only descriptive. We will not perform any regression (the limited number of observations does not allow to do so) and therefore we do not control for important variables such as industry, size or country. On the other hand, it is reasonable to expect the 83 companies joining the IIRC Pilot Program to have similar characteristics. Therefore, a significant difference in certain variables describing “materiality subsample” and “whole sample” companies can be considered relevant. Since we are looking at “structural” characteristics of companies and at how they are related to the way in which the companies tackle the issue of materiality, we will take into account the average of the past three years (2009-2011), in order to get more “stable” and relevant data.

We calculated the average of each financial and ESG variable (the full list of variables is provided in the Appendix) for the whole sample of companies¹ and we compared it with the

¹ The whole sample includes 61 companies, given that some of the companies of the IIRC Pilot Program are not covered by Bloomberg.

average for the materiality subsample². We find that the following variables are significantly different for the whole sample and the materiality subsample³.

Insert Table 1 here

According to the empirical results displayed in Table 1, the five companies included into the materiality subsample present, in general, variables that are more coherent with the profile of a company with a good “social performance”, defined, following De Quevedo-Puente et al (2007) as “the comprehensive assessment of firm’s performance with every stakeholder group”.

Firms included into the materiality subsample have a better environmental performance, as measured by environmental fines (lower than the whole sample) and embed more often a discussion about climate risks in their annual reports, compared to the whole sample companies.

About the performance toward the human capital, the materiality subsample firms have a lower number of fatalities (1,82 compared to 4,59) but they spend less hours on employee training (2,3 million compared to 0,4 million).

The dividend per share indicator is lower for the materiality subsample companies, and this could mean either that the financial performance of these companies is lower or that these companies prefer to invest rather than distribute dividends.

Finally, probably the most interesting evidence is about the different governance structure of the two kinds of companies: materiality subsample companies seem to be more focused on the social issues, in terms of corporate governance structure. In these companies, the compensation of both the board and the executives is more often linked to ESG performance. Besides, these companies more often possess a CSR/sustainability committee and have a greater proportion of women employees.

In sum, it seems that the companies that tackled the issue of conciseness, reliability and materiality more effectively and relevantly have in general a corporate governance system that is more focused on sustainability – related issues. As we discussed above, the process for determining materiality is complex and needs to consider carefully many factors, also related to the business model of firms.

These results seem to suggest that only companies that already developed a higher consciousness about sustainability performance, as reflected in their corporate governance system, manage to tackle the issue of materiality more effectively, probably because of the high degree of judgement and knowledge of the relationships with the stakeholders needed in order to successfully implement the materiality determination process.

More research is needed in order to better determine the relationships existing between the corporate governance system, the degree of “integrated thinking” and the way in which materiality is determined.

4. Conclusions and future challenges

The article described the evolution of the debate on materiality from financial towards non-financial reporting. According to the consultation paper on materiality published by ESMA (2012), many stakeholder groups raised concerns about the length of disclosure and considered that proper

² The materiality subsample includes the five companies tackling the issue of “conciseness, reliability and materiality” in a relevant manner.

³ We define a difference “significant” if the percentage difference for whole sample and materiality subsample variables is greater than 50%. The percentage difference has been calculated as (value for whole sample – value for materiality sample) / value for whole sample.

application of the materiality concept could address this problem. Therefore, it seems that materiality will play an ever increasingly relevant role both in financial and integrated reporting in order to reach reports' conciseness. According to Lydenberg (2012), "some in the accounting and corporate communities have expressed concerns that financial disclosure documents have become confusing and that valuable information can be hidden among masses of data without significance".

The increasingly relevant role materiality is playing in the market is not backed up by definitions and frameworks, which are too broad and general and that do not manage to provide an effective guidance to companies in the materiality determination process. According to ESMA (2012), a majority of respondents to the consultation paper considered that the concept of materiality is generally well understood, but there is diversity in its application.

In particular, to assess the materiality of NFI is even more challenging, because companies (and assurance providers) cannot employ thresholds and because NFI generally refer both to investors and to other groups of stakeholders.

The latest framework on materiality was proposed by the IIRC. The background paper on materiality (IIRC (2013)) provided some guidance on how to solve the issue "material to whom?", stating that the integrated report is addressed to the "providers of financial capital". It also proposed a more in detailed procedure in order to determine which issues are material and which are not.

Nevertheless, several issues still need to be addressed.

First, as argued by Faux (2012), some information may not give rise to any action in the short term, but may form part of a future decision making process. This issue is still to be addressed both in the financial and non-financial reporting context. In particular, the IIRC (2013), which provided the latest definition of materiality, is still relying to a large extent on a "user utility" approach that does not tackle nor solve the issue pointed out by Faux (2012).

As discussed above, the IIRC (2013) identified in the "providers of financial capital" the intended users of integrated reports. This indication gives rise to another issue, thus: it is not clear which is the role the "instrumental" stakeholder theory plays in the process yet. To what extent the investors are assumed to consider the impact issues described through NFI have on financial performance? If we assume that investors will, following an instrumental stakeholder theory approach, take into account in their economic decisions issues that stakeholders consider relevant, the company ought to determine the relevance of the issue for the stakeholders anyway. The IIRC (2013) writes: "(the ability of the firm to create value over time) is determined by considering whether the matter has a past, present or future effect on the organization's strategy, its business model, or one or more of the different forms of capital it uses or affects". More precise discussion would be needed on the relationship between these factors (namely, the IIRC capitals) and the investors' decisions.

Third, the position of the IIRC (2013) about the broadness of the information to be taken into account may be confused with the *usage* of the information, as some companies may analyze the materiality to the broader category of stakeholders, rather than the only investors.

Fourth, the investors' perspective proposed by the IIRC has very different implications if we are in a win-win situation compared to other situations. On the one hand, if an issue that is relevant for a certain stakeholder has also a financial impact, the company is required to report on it, so that the stakeholder would benefit of such information. On the other hand, if an issue relevant for a certain stakeholder does not have any impact on financial performance, the company may decide not to disclose it.

Fifth, there is the necessity of defining more in detail the amount of information about the materiality determination process that ought to be provided in the report compared to the information that ought to be provided to the assurance provider. The "conciseness" principle of reporting does not allow for a complete description of the process in the report, and a higher amount of information ought to be disclosed to the assurance provider, possibly in adherence to some specific guidelines.

Materiality both in financial and non-financial reporting will be one of the central issues to tackle in order to make accounting better. In this article we provided an “evolutionary” discussion of definitions and frameworks and we pointed out which are the main future challenges companies and standard setters will have to face. We also provided an empirical analysis about the main differences between companies tackling the issue of materiality more effectively compared to the whole population of the IIRC Pilot Program firms, finding that the governance system plays a role in determining how companies deal with materiality. Future research needs to investigate deeper the relationship between corporate governance and materiality reporting and also to describe how companies are translating standard setters frameworks and definitions into practice.

Table

Table 1 - Whole sample and Materiality subsample significantly different variables

Variable	Variable Description	Whole Sample	Materiality subsample	% Difference
Environmental fines	Total amount of environmental fines paid by the company in the period, in millions. Field part of Environmental, Social or Governance (ESG) group of fields.	0,21	-	100%
Climate risks	Indicates whether the Management Discussion and Analysis (MD&A) and its equivalent section of company's annual report discuss business risks related to climate change	0,11	0,50	-338%
Fatalities	Total number of employees and contractors who have died on a company site, at a company facility, or as a result of a company's operations	4,59	1,82	60%
Hours on employee training	Hours the company spent on employee training during the reporting period as reported by the company.	2.280.562,64	430.870,91	81%
ESG linked bonus	Indicates whether executive compensation is linked to Environmental, Social and Governance (ESG) goals.	0,04	0,33	-739%
CSR / Sustainability committee	Indicates whether the company has a CSR/sustainability committee that reports directly to the board.	0,25	0,50	-97%
ESG linked compensation	Indicates whether board compensation is linked to Environmental, Social and Governance (ESG) goals.	0,02	0,25	-1017%
% of women employees	% of women employees	33,17	52,58	-59%
Dividends per Share	Dividends per Share	0,67	0,23	66%
Community spending	Amount of money spent by the company on community-building activities, in millions	51,23	15,55	70%

References

- AASB. (2010). 'Standard AASB 1031, Prepared on 23 February 2010 by the staff of the Australian Accounting Standards Board'. Available at: http://www.cpaaustralia.com.au/cps/rde/xbcr/cpa-site/aasb_1031_materiality.pdf (accessed 30 march 2013)
- AccountAbility. (2003). "Redefining Materiality. Practice and Public Policy for effective corporate reporting". Available at: <http://www.accountability.org/images/content/0/8/085/Redefining%20Materiality%20-%20Full%20Report.pdf> (accessed 30 march 2013)
- AccountAbility. (2006) "Guidance Note on the Principles of Materiality, Completeness and Responsiveness as they Relate to the AA1000 Assurance Standard". Available at: <http://www.accountability.org/images/content/1/8/189/AA1000%20Guidance%20Note%20-%20Low%20Res.pdf> (accessed 30 march 2013)
- AccountAbility. (2008). "AA1000 AccountAbility Principles Standard 2008". Available at: <http://www.accountability.org/about-us/publications/aa1000.html> (accessed 30 march 2013).
- Amir E. and Lev Baruch. (1996). "Value-relevance of nonfinancial information: The wireless communications industry", *Journal of Accounting and Economics* 22(1-3): 3-30.
- Australian Accounting Standards Board. (2009). "Australian Accounting Standard AASB 1031: Materiality", Australian Accounting Standard Board, Melbourne
- Barth M., Beaver W. and Landsman W. (2001) "The relevance of the value relevance literature for financial accounting standard setting: another view", *Journal of Accounting and Economics* 31, pp. 77-104.
- De Quevedo-Puente E, de la Fuente-Sabatè JM and Delgado-García JB.. (2007). "Corporate Social Performance and Corporate Reputation: Two Interwoven Perspective" *Corporate Reputation Review* 10(1): 60-72.
- Deloitte. (2010). "The IFRS framework". Available at: <http://www.iasplus.com/en/standards/standard4> (accessed 30 march 2013)
- Dierkes, M. and Antal, A.B. (1985), "The usefulness and use of social reporting information", *Accounting, Organizations and Society*, Vol. 10 No. 1, pp. 29-34
- Eccles R. G. and Krzus M. P. (2010). *One report. Integrated reporting for sustainable strategy*. (Hoboken, New Jersey: John Wiley & sons).
- Eccles, R.G., Krzus M.P., Rogers J., Serafeim G. (2012). "The need for sector-specific materiality and sustainability reporting standards", *Journal of Applied Corporate Finance* 24 (2): 8-14.
- ESMA. (2013). "Feedback statement. Considerations of materiality in financial reporting". Available at: <http://www.esma.europa.eu/system/files/2013-218.pdf> (accessed 30 march 2013)
- FASB. (1980). "Concepts Statement No. 2, Qualitative Characteristics of Accounting Information". Available at: <http://www.fasb.org/jsp/FASB/Page/SectionPage&cid=1176156317989> (accessed 30 march 2013)

Faux, J. (2012). "Environmental event materiality and decision making", *Managerial Auditing Journal* 27 (3)

Freeman RE. (1984) *Strategic Management: a Stakeholder Approach*. (Boston: Pitman).
Gray R., Javad M., Power D.M. and Sinclair C.D. (2001). "Social and environmental disclosure and corporate characteristics: a research note and extension", *Journal of Business Finance and Accounting* 28(3).

GRI (2011). "Reporting Guidelines, Version 3.1". Available at: <https://www.globalreporting.org/reporting/latest-guidelines/g3-1-guidelines/Pages/default.aspx> (accessed 30 march 2013)

GRI (2011b). "Technical Protocol. Applying the Report Content Principles". Available at: <https://www.globalreporting.org/resourcelibrary/GRI-Technical-Protocol.pdf> (accessed 30 march 2013)

Guthrie J. and Parker L. (1990). "Corporate social disclosure practice: A a comparative international analysis", *Advances in Public Interest Accounting*, Vol. 3, pp. 159-75.

Healy P. M. and Palepu K. G. (2001). "Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature", *Journal of Accounting and Economics* 31(1-3): 405-440.

IIRC (2012). "Working Draft to Prototype Framework". Available at: <http://www.theiirc.org/wp-content/uploads/2012/10/DraftPrototypeFramework.pdf> (accessed 30 march 2013)

IIRC. (2013). "Materiality - Background paper for <IR>". Available at: <http://www.theiirc.org/wp-content/uploads/2013/03/IR-Background-Paper-Materiality.pdf> (accessed 30 march 2013)

IIRC. (2013b). "Business Model - Background paper for <IR>". Available at: http://www.theiirc.org/wp-content/uploads/2013/03/Business_Model.pdf (accessed 30 march 2013)

ISA (2009). "Materiality in planning and performing audit". Available at: <http://www.aicpa.org/research/standards/auditattest/downloadabledocuments/au-c-00320.pdf> (accessed 30 march 2013)

Lydenberg (2012). "On materiality and sustainability: The Value of Disclosure in the Capital Markets", Initiative for Responsible Investment Hauser Center fo Nonprofit Organizations at Harvard University. Available at: http://hausercenter.org/iri/wpcontent/uploads/2010/05/OnMateriality_Final.pdf (accessed 30 march 2013)

Ocean Tomo (2011). "Intangible Asset Market Value". Available at: <http://www.oceantomo.com/about/intellectualcapitalequity> (accessed 30 march 2013).
Spacek, L. (1969). *A Search for Fairness in Financial Reporting to the Public*, Arthur Anderson & Co., Chicago, IL.

Porter, M. E., & Kramer, M. R. (2006). "Strategy and society: The link between competitive advantage and corporate social responsibility". *Harvard Business Review*, 84(12): 78– 92.

Tuttle, B., Coller, M. and Plumlee R. "The Effect of Misstatements on Decisions of Financial Statement Users: An Experimental Investigation of Auditor Materiality Thresholds" *Auditing: A Journal of Practice and Theory* (March 2002): 11–27.

UBS (2012). "What is integrated reporting?" Available at: <http://www.sasb.org/wp-content/uploads/2012/06/UBS-on-Integrated-Reporting.pdf> (accessed 30 march 2013)

Appendix

The following tables report the list of all the variables analyzed in the empirical analysis and the relative descriptions as provided by Bloomberg.

Variable	Description
Operating Income	The reported operating income (loss) is adjusted to correct for non-operating gains and expenses that are included. Non-operating gains include dividend and interest receivable/income, profits on sale of fixed assets/investments, foreign currency gains, share of associates' net profits. Non-operating expenses include interest expenses, finance charges, borrowing costs, loss on sales of fixed assets/investments, foreign currency losses, share of associates net losses.
Net Income	The profit after all expenses have been deducted.
EBITDA	Earnings Before Interest, Taxes, Depreciation and Amortization (EBITDA).
EBITDA margin	Calculated as trailing twelve month EBITDA divided by trailing twelve month sales, times 100.
ROE	Return on Equity (ROE, in percentage) measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested.
Return on Invested Capital	Indicates how effectively a company uses the sources of capital (equity and debt) invested in its operations. Average Invested Capital is the average of the beginning and ending balance of Total Invested Capital.
Dividends per Share	Returns the latest reported annual dividend per share.
R&D expenditures	Research and development expenditures incurred in the fiscal period.
Board Size	Number of Directors on the company's board, as reported by the company. Full time Directors only. Deputy members of the Board will not be counted. Europe: Where the company has a Supervisory Board and a Management Board, this is the number of Directors on the Supervisory Board. Field is part of the Environmental, Social and Governance (ESG) group of fields.
% women on board	Percentage of Women on the Board of Directors, as reported by the company. Europe: Where the company has a Supervisory Board and a Management Board, this is the Percentage of Women on the Supervisory Board. Field is part of the Environmental, Social and Governance (ESG) group of fields.
Number of female executives	Number of female executives, as of the fiscal year end wherever available, otherwise as of the date of the latest filing. Executives are as defined by the company, or those individuals that form the company executive committee/board or management committee/board or equivalent. Field is part of the Environmental, Social and Governance (ESG) group of fields.
% of female executives	Number of female executives, as a percentage of total executives, as of the fiscal year end wherever available, otherwise as of the date of the latest filing. Executives are as defined by the company, or those individuals that form the company executive committee/board or management committee/board or equivalent. Field is part of the Environmental, Social and Governance (ESG) group of fields.
Number of non executive directors on board	Number of non-executive directors on the company board of directors, as of the fiscal year end wherever available, otherwise as at date of latest filing. Includes outside directors in those markets where applicable. Where the company has a two-tier board, this field refers to shareholder representatives on the supervisory board. Field is part of the Environmental, Social and Governance (ESG) group of fields.
Non executive director for CSR	Indicates whether there is a non-executive director on the board with responsibility for corporate social responsibility (CSR)/sustainability. This field will not return "Y" if there is a non-executive director on the board with responsibility for health and safety only. Where the company has a two-tier board, this field refers to the supervisory board. Field is part of the Environmental, Social and Governance (ESG) group of fields.
Number of independent directors	Number of Independent Directors on the company's board, as reported by the company. Independence is defined according to the company's own criteria. Europe: Where the company has a Supervisory Board and a Management Board, this is the number of Independent Directors on the Supervisory Board. Field is part of the Environmental, Social and Governance (ESG) group of fields.
ESG linked bonus	Indicates whether executive compensation is linked to Environmental, Social and Governance (ESG) goals.
ESG linked compensation	Indicates whether board compensation is linked to Environmental, Social and Governance (ESG) goals. The field is part of the Environmental, Social and Governance (ESG) group of fields.
Average age of board	Average age of the members of the board. Field part of Environmental, Social or Governance (ESG) group of fields.
% board meeting attendance	Percentage of members in attendance at board meetings during the period. Field part of Environmental, Social or Governance (ESG) group of fields.
Number of board meetings per year	Total number of corporate board meetings held in the past year. Field part of Environmental, Social or Governance (ESG) group of fields.
Female chairperson	Indicates whether the company chairperson or equivalent is female, as of the date of the last filing. Where the company has a two-tier board, this field refers to the chairperson of the supervisory board. Field is part of the Environmental, Social and Governance (ESG) group of fields.
CEO duality	Indicates whether the company's Chief Executive Officer is also Chairman of the Board, as reported by the company. "N" indicates the two roles are separate. Field is part of the Environmental, Social and Governance (ESG) group of fields.
Female CEO	Indicates whether the company Chief Executive Officer (CEO) or equivalent is female, as of the fiscal year end wherever available, otherwise as of the date of the latest filing. Where the company has a two-tier board, this field refers to the chairperson of the management board. Field is part of the Environmental, Social and Governance (ESG) group of fields.
Total salary and bonuses paid to CEO	Salary and bonus amount the company paid to the Chief Executive Officer (CEO) or the equivalent as determined by Bloomberg. It may include more than one CEO's pay if there were interim or previous CEOs that served during the fiscal year. The number of CEOs or equivalent is (CG053, #_CEO_&_EQUIV_INC_COMP_PD_DUR_FY). Field is part of Environmental, Social or Governance (ESG) group of fields.

Variable	Description
All other compensation paid to CEO	Aggregated amount of the non-cash and non-bonus portion of compensation the company paid to the Chief Executive Officer (CEO) or the equivalent as determined by Bloomberg. It may include more than one CEO's pay if there were interim or previous CEOs that served during the fiscal year. The number of CEOs or equivalent is (CG053, #_CEO_&_EQUIV_INC_COMP_PD_DUR_FY). Field is part of Environmental, Social or Governance (ESG) group of fields.
Options given to CEO	Total amount of options the company awarded to the Chief Executive Officer (CEO) or the equivalent as determined by Bloomberg. It may include more than one CEO's pay if there were interim or previous CEOs that served during the fiscal year. The number of CEOs or equivalent is (CG053, #_CEO_&_EQUIV_INC_COMP_PD_DUR_FY). Field is part of Environmental, Social or Governance (ESG) group of fields.
Non-equity incentives given to CEO	Total amount of non-equity incentives the company awarded to the Chief Executive Officer (CEO) or the equivalent as determined by Bloomberg. It may include more than one CEO's pay if there were interim or previous CEOs that served during the fiscal year. The number of CEOs or equivalent is (CG053, #_CEO_&_EQUIV_INC_COMP_PD_DUR_FY). Field is part of Environmental, Social or Governance (ESG) group of fields.
CEO pension	Total amount of pension and nonqualified deferred pension given to the Chief Executive Officer (CEO) or the equivalent as determined by Bloomberg. It may include more than one CEO's pay if there were interim or previous CEOs that served during the fiscal year. The number of CEOs or equivalent is (CG053, #_CEO_&_EQUIV_INC_COMP_PD_DUR_FY). Field is part of Environmental, Social or Governance (ESG) group of fields.
Other compensation	Aggregated amount of other compensation as defined by the company. It typically includes the use of aircraft or a vehicle.
Size of audit committee	Number of directors on the company's audit committee; includes full time directors only, deputy members of the committee will not be counted. Field is part of the Environmental, Social and Governance (ESG) group of fields.
% of independent directors on audit committee	Independent directors as a percentage of total size of the company's audit committee. Independence is defined according to the company's own criteria. Field is part of the Environmental, Social and Governance (ESG) group of fields.
CSR/sustainability committee	Indicates whether the company has a corporate social responsibility (CSR)/sustainability (or equivalent) committee that reports directly to the board. This field will not return "Y" if the company only has a Health and Safety Committee. Field is part of the Environmental, Social and Governance (ESG) group of fields.
Governance disclosure score	Proprietary Bloomberg score based on the extent of a company's governance disclosure as part of Environmental, Social and Governance (ESG) data. Companies that are not covered by ESG group will have no score and will show N/A. Companies that do not disclose anything will also show N/A. The score ranges from 0.1 for companies that disclose minimum amount of governance data to 100 for those that disclose every data point collected by Bloomberg. Each data point is weighted in terms of importance, with board of directors data carrying greater weight than other disclosures. The score is also tailored to different industry sectors. In this way, each company is only evaluated in terms of the data that is relevant to its industry sector.
Number of employees	This is the total number of company employees at the end of the reporting period disclosed in the company's Corporate Responsibility reports. The number should represent the total for the below figures disclosed by the company.
% employees turnover	Number of employees that left the company within the past year expressed as a percentage of the average total number of employees. High employee turnover may indicate that employees are unsatisfied with their work at the company or their compensation, or that conditions at the company are unsafe or unhealthy. Field part of Environmental, Social or Governance (ESG) group of fields.
% employees unionized	Number of employees that belong to labor unions as a percentage of the total number of employees. Field is part of the Environmental, Social or Governance (ESG) group of fields.
% of women employees	Number of women employed at the company expressed as a percentage of the total number of company employees. Field is part of the Environmental, Social or Governance (ESG) group of fields.
% minority employees	Number of minorities employed at the company expressed as a percentage of the total group number of employees. Minorities should be expressed as such by the company. Field is part of the Environmental, Social and Governance (ESG) group of fields.
% disabled in workforce	Number of employees with disabilities at the company as a percentage of the total number of company employees. Field is part of the Environmental, Social or Governance (ESG) group of fields.
% minority management	Number of minorities employed in management positions at the company expressed as a percentage of the total group number of employees in management positions. Minorities should be expressed as such by the company. Field is part of the Environmental, Social and Governance (ESG) group of fields.
Fair remuneration policy	Indicates if the company has demonstrated a group wide commitment to ensure payment of a fair (could be defined as minimum, living, or some other criteria) wage to all Group employees, even in those countries that do not legally require a minimum wage. Field is part of the Environmental, Social and Governance (ESG) group of fields.
Fatalities	Total number of employees and contractors who have died on a company site, at a company facility, or as a result of a company's operations
Fatalities employees	Number of employees who have died on a company site or on a company facility or as a result of a company's operations. Field part of Environmental, Social or Governance (ESG) group of fields.
Fatalities contractors	Number of contractors who have died on a company site or on a company facility or as a result of a company's operations. Field part of Environmental, Social or Governance (ESG) group of fields.
Fatalities per 1.000 employees	Total number of fatalities reported at the company, both employee and contractor, per thousand employees. Ratio is calculated based on data items disclosed in company filings. Calculated as:
Accidents per 1.000 employees	Number of employee accidents during the reporting period per thousand employees. Ratio is calculated based on data items disclosed in company filings. Calculated as:
Training policy	Indicates whether the company has implemented any initiatives to train new and existing employees on career development, education or skills. Training initiatives should apply to all employee levels, not just to those employees at management level. 'N' indicates that the company has not explicitly disclosed any such efforts in its most recent annual or Company Responsibility Reports.
Employee training cost	Amount the company spent on employee training during the reporting period. Field part of Environmental, Social or Governance (ESG) group of fields.

Variable	Description
Hours on employee training	Hours the company spent on employee training during the reporting period as reported by the company.
Employee CSR training	Discloses whether the company conducts training courses for employees on Corporate Social Responsibility (CSR). Field is
Community spending	Amount of money spent by the company on community-building activities, in millions. Field is part of the Environmental, Social or Governance (ESG) group of fields.
Energy efficiency policy	Indicates whether the company has implemented any initiatives to make its use of energy more efficient. "N" indicates that the
Emission reduction	Indicates whether the company has implemented any initiatives to reduce its environmental emissions to air. "N" indicates that the company has not explicitly disclosed any such efforts in its most recent Annual or Company Responsibility reports. Field is part of the Environmental, Social and Governance (ESG) group of fields.
Waste reduction	Indicates whether the company has implemented any initiatives to reduce the waste generated during the course of its operations. "N" indicates that the company has not explicitly disclosed any such efforts in its most recent Annual or Company Responsibility reports.
Water policy	Indicates whether the organization has undertaken any initiatives to reduce the quantity of water used or to improve the efficiency of its processes, and whether the company is considering the potential water stress to its areas of operation. This field is part of the Environmental, Social, and Governance (ESG) group of fields.
Climate risks	Indicates whether the Management Discussion and Analysis (MD&A) and its equivalent section of company's annual report discuss business risks related to climate change
Climate GHG policy	Indicates whether the company has outlined its intention to help reduce global emissions of the Greenhouse Gases that cause climate change through its ongoing operations and/or the use of its products and services. Examples might include efforts to reduce Greenhouse Gas (GHG) emissions, efforts to improve energy efficiency, efforts to derive energy from cleaner fuel sources, investment in product development to reduce emissions generated or energy consumed in the use of the company's products etc. "N" indicates that the company has not explicitly disclosed any such efforts in its most recent Annual or Company Responsibility reports. Field is part of the Environmental, Social and Governance (ESG) group of fields.
Climate targets	Indicates whether the company provides incentives for individual management of climate change issues including attainment of GHG (Greenhouse Gas) targets. The response is directly from the company's response to the Carbon Disclosure Project (CDP) questionnaire.
Environment supply management	Indicates whether the company has implemented any initiatives to reduce the environmental footprint of its supply chain. Environmental footprint reductions could be achieved by reducing waste, by reducing resource use, by reducing environmental emissions, by insisting on the introduction of environmental management systems etc. in the supply chain. "N" indicates that the company has not explicitly disclosed any such efforts in its most recent Annual or Company Responsibility reports. Field is part of the Environmental, Social and Governance (ESG) group of fields.
Biodiversity policy	Indicates whether the company has implemented any initiatives to ensure the protection of biodiversity. This might include trees and vegetation as well as wildlife and endangered species. Field is part of the Environmental, Social and Governance (ESG) group of fields.
Verification type	Indicates whether the company's environmental policies were subject to an independent assessment for the reporting period. Field part of Environmental, Social or Governance (ESG) group of fields.
Environmental fines	Total amount of environmental fines paid by the company in the period, in millions. Field part of Environmental, Social or Governance (ESG) group of fields.
Environment disclosure	Proprietary Bloomberg score based on the extent of a company's environmental disclosure as part of Environmental, Social and Governance (ESG) data. Companies that are not covered by ESG group will have no score and will show N/A. Companies that do not disclose anything will also show N/A. The score ranges from 0.1 for companies that disclose minimum amount of ESG data to 100 for those that disclose every data point collected by Bloomberg. Each data point is weighted in terms of importance, with data such as Greenhouse Gas Emissions carrying greater weight than other disclosures.
GRI compliance	Indicates whether the company is in compliance with Global Reporting Initiative (GRI) criteria. Field part of Environmental, Social or Governance (ESG) group of fields.
GRI checked	Indicates whether the company's application level was checked by the Global Reporting Initiative (GRI). This field is part of the Environmental, Social and Governance (ESG) group of fields
ESG disclosure score	Proprietary Bloomberg score based on the extent of a company's Environmental, Social, and Governance (ESG) disclosure. Companies that are not covered by ESG group will have no score and will show N/A. Companies that do not disclose anything will also show N/A. The score ranges from 0.1 for companies that disclose a minimum amount of ESG data to 100 for those that disclose every data point collected by Bloomberg. Each data point is weighted in terms of importance, with data such as Greenhouse Gas Emissions carrying greater weight than other disclosures. The score is also tailored to different industry sectors. In this way, each company is only evaluated in terms of the data that is relevant to its industry sector.