Voluntary and mandatory reporting: a continuum of disclosure

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Abstract

Purpose – The purpose of this paper is to open a debate on the interrelationship between categorisation, labelling, disclosure and enforcement. The extant literature on the accounting reporting environment explores the provision of both mandated and voluntary disclosures. Often disclosure is defined in a less than rigorous manner, mislabelled, misclassified and uses a strict dichotomy that limits information fineness.

Design/methodology/approach – The authors advance a non-dichotomous continuum of disclosure from voluntary and innovative at one end of the spectrum, to mandatory at the other, that helps reduce mislabelling and miscategorisation.

Findings – Firms' voluntary disclosures cannot be properly interpreted without reviewing their interrelationship with mandatory disclosures and vice versa. Definitions of voluntary disclosure that have been used in empirical studies are examined, including the mislabelling and misclassification of voluntary disclosures and the authors provide examples of truly voluntary and innovative disclosures by companies.

Originality/value – This paper constructs, and provides evidence consistent with, a reporting continuum rather than the dichotomous disclosure measure that dominates decades of prior literature.

Keywords Miscategorisation, Mislabelling, Disclosure, Voluntary reporting, Mandatory reporting

Paper type Research paper

1. Introduction

Theories explaining corporate disclosure include agency, institutional, impression management, legitimacy, signalling, stakeholder and retrospective sense-making (e.g. De Klerk *et al.*, 2015). The dangers of mislabelling and miscategorisation are documented in fields such as insolvency (e.g. Beaver, 1968; Norton and Smith, 1979; Barniv, 1990), auditing (Dopuch *et al.*, 1987) and regulation (e.g. Laux and Stocken, 2018) but are overlooked somewhat in the disclosure literature. Mislabelling refers to giving the wrong name to an item, while miscategorisation is the allocation of an item to the wrong group. In the context of corporate disclosure, mislabelling is a macro issue that permeates at a higher theoretical level in assessing if a type of disclosure is mandatory or voluntary; while misclassification is a micro consideration within a particular study trying to

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group individual disclosures [1]. Standard setters discuss disclosure [2] but the distinction between voluntary and mandatory disclosures is disregarded, confused, miscategorised and/or mislabelled (e.g. Botosan, 1997, 2006). Interpreting a requirement imposed by legislation, regulation or standard as an absolute mandate for disclosure, regardless of whether it will be other than indifferently enforced or enforced at all by the regulator, can result in the misrepresentation of the financial position and performance with adverse consequences. This paper reviews disclosure definitions as well as the miscategorisation and mislabelling of voluntary disclosures. We contribute by outlining the implications of mislabelling and propose a continuum that categorises disclosure from purely voluntary, informative and innovative to mandatory with substantial adverse consequences for non-disclosers. We demonstrate applicability by providing examples of genuinely voluntary and innovative disclosures, evidence of non-compliance with mandatory disclosures with sanctions and non-compliance with mandatory disclosures that escaped sanctions.

The distinction between voluntary and mandatory disclosure is well documented (e.g. Leuz and Verrecchia, 2000; Leuz and Wysocki, 2016). We argue "mandatory disclosure", which is assumed by much prior work to be all disclosure required by law and/or the accounting standards (Healy and Palepu, 2001; Ali *et al.*, 2017), is a misnomer. In a sense, the majority of disclosure is discretionary [3]. There are types of information which are required to be disclosed under legislation or regulation, but the format that this takes is up to management, unless it is in a prescribed form with no discretion. When discretion on the form of disclosure exists, management can choose ***not*** to disclose items whose disclosure is required by regulation that will be enforced. Management weigh the costs of disclosure (preparation, audit, publication, loss of secrecy) against the costs of rule-breaking (non-disclosure). Costs and benefits are well documented in the voluntary disclosure literature (e.g. Dye, 1990) but extensions to a mandatory setting are scarce (Bamber and McMeeking, 2010). Empiricists define and operationalize voluntary disclosure as a residual after establishing what constitutes mandatory disclosure:

$$\text{Total Corporate Disclosure (TCD)} = \text{Voluntary Disclosure (VD)} + \text{Mandatory Disclosure (MD)}$$

where, TCD =1 and VD and MD are ≤ 1 and therefore:

$$\text{VD} = 1 - \text{MD}$$

This dichotomous model implicitly assumes that VD and MD are independent variables and MD is rigorously enforced. The theoretical framework provides identification of VD and MD and generates a greater fineness of information than the traditional dichotomy approach that enhances our understanding of managerial disclosure decision-making processes. In contrast, our non-dichotomous model is based on continuum theory that does not make the implicit assumptions of the dichotomous model.

Leuz and Wysocki's (2016) broad definition of disclosure and reporting regulation "includes a central authority formally creating and interpreting disclosure and reporting rules, monitoring compliance with these rules, and enforcing and imposing penalties for deviations from the rules". In contrast, Gibbins *et al.* (1992) define financial disclosure as "the release outside the organization of information concerning the economic performance, position or prospects of the organization, particularly as measured in financial terms" (p. 5). In addition, Meek *et al.* (1995) argue that:

> Disclosures in excess of requirements – represent free choices on the part of company managements to provide accounting and other information deemed relevant to the decision needs of users of annual reports (p. 555).

The ASB viewed disclosure as economic information whether financial or non-financial, of a company's financial position, performance and adaptability. The IASB's *Conceptual Framework for Financial Reporting* (2018) restricts disclosures to financial information for "existing and potential investors, lenders and other creditors". To the best of our knowledge, all prior definitions, and most prior studies, are silent on enforceability and implicit or explicit pressures. Our broader definition of disclosure embraces (non)-quantitative, written and verbal information and a wide stakeholder base:

> Public disclosure relates to (i) non-private information that updates or confirms earlier guidance or market expectations and (ii) previously private information about an entity that is released in a variety of forms, including quantitative and non-quantitative narrative and pictorial presentations, and oral representations at meetings and conference calls, that should assist users in understanding the past, present and future operations of the organization and its interaction with society.

We define pure voluntary disclosure as:

> Voluntary disclosure relates to (ii) non-private information and/or (ii) previously private information about an entity that is not required to be disclosed by rules and regulations that are both enforceable and enforced and in which no peer or market pressure exists.

Mandatory disclosure is information required by state or private body regulation that is enforceable insofar as the regulation can be and is expected to be enforced. Enforcement depends on incentives, the severity of adverse consequences and varies cross sectionally and across time [4].

2. Theoretical and conceptual underpinnings: a continuum of disclosure

Continuum theory may be considered to be the study of related items in a metric space or distance function where distance can be measured between elements. The theory has been used in fluid mechanics, psychology, management leadership, mathematics and physics. In the management literature, Dhami and Thomson (2012) have used cognitive continuum theory to help explain decision-making where the continuum consists of a range from intuition to analytic thought. Moving from one end of the spectrum of intuition, management introduces increasing levels of analytical thought to make "quasirational" decisions based on both intuition and analytical thought, a process that is "the prevalent mode of cognition" (Dhami and Thomson, 2012, p. 316). We explore continuum theory in relation to disclosure and while a continuum may be thought to be infinitely divisible, to enhance understanding we locate six elements (i.e. six elements of gradation).

We assume that **most** disclosure is voluntary and determined by management. The only exceptions are some types of information that are required disclosures under regulation or legislation ***and*** the disclosure requirements include a prescribed format with zero discretion (e.g. audit fees under the UK Companies Act 2008) as well as effective enforcement. Otherwise, even where information is mandated, there is managerial scope as to the format and quality of the associated disclosure. Moreover, IAS1 states "When items of income or expense are material, an entity shall disclose their nature and amount separately". Regulators cannot conceivably enforce this because they could not possibly know what items are material and which are not. In this regard the cost of regulation falls on the auditors and regulators focus on low cost, observable compliance (are the financial statements signed).

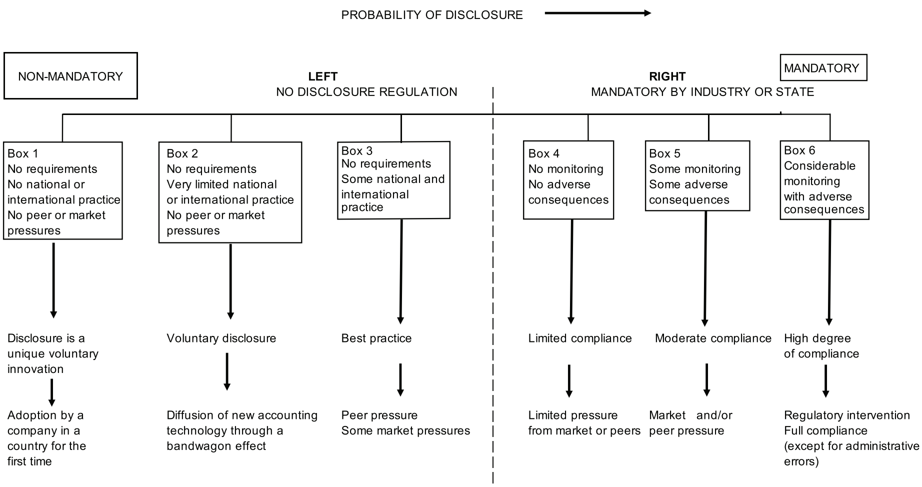
Disclosure strategies are motivated by corporate communication objectives, external pressures and stimuli (Beyer *et al.*, 2010). The mandatoriness of disclosures is influenced by the organisation form, societal context and, for corporations, whether the shares are publicly listed. Although certain disclosures are mandatory according to accounting standards and/or law, management determines the extent, i.e. full-, partial- or non-compliance, quality and the timing of disclosures. Consequences of non-compliance may be significant, but this depends on cultural values, market incentives and degree of regulation. There is heterogeneity in the institutional settings for reporting, auditing and the enforcement of compliance (Brown *et al.*, 2014). Management can provide clear, concise and comprehensive disclosures that enhance the information environment or unclear, complex and/or incomplete disclosures that obfuscate (Bushee *et al.*, 2018). Management also has discretion over the timing of information disclosure (Kothari *et al.*, 2009). Thus, corporate disclosure is a six-stage process in which managers decide (i) whether a disclosure requirement exists and its applicability, (ii) whether to comply, (iii) how much to disclose, (iv) disclosure quality, (v) when to disclose and (vi) the economic consequences. Based on this, we construct a six settings non-dichotomous continuum (i.e. six elements of gradation). Our model allows firms/countries to lie anywhere on the disclosure dimension rather than in extreme positions. The model is indicative, not definitive and helps explain phase transitions with, or without, sudden changes or discontinuities [5].

2.1 Non-mandatory disclosure regime, purely voluntary innovative disclosure

At one end of the spectrum (Figure 1, Box 1) there are no national or international requirements [6] to disclose a particular piece of information, no established disclosure practice or any peer or market pressures. A first mover company that discloses provides a unique innovation.

2.2 Non-mandatory disclosure regime, no requirements or best practice, no peer pressure

The purely voluntary innovation can lead to a bandwagon effect (Figure 1, Box 2) in which other companies follow the lead of the innovator (Cooke, 1989a; Leventis and Weetman, 2004). This enables accounting technology to be diffused and reflects a movement away from no requirements towards a form of best practice (Watson *et al.*, 2002).



Source: Figure by authors

Figure 1. Disclosure continuum

2.3 Non-mandatory disclosure regime, no requirements, peer pressure and best practice
Other diffusion methods are through education, especially the international exchange of people, and communication through books, research papers, oral presentations and conference calls. Additional pressure to disclose comes from peer pressure, e.g. reports, opinion columns and telecasts in the financial press, by academics, by financial analysts, or by influential investors [7], and although the disclosure is not mandatory it is not in any real sense voluntary (Cao *et al.*, 2018). In actuality, best practice is established (Figure 1, Box 3).

2.4 Mandatory disclosure regime, no monitoring or adverse consequences
Best practice can lead to the promulgation of a disclosure regulation, standard or law by the national or international regulatory body. In jurisdictions with a weak accounting profession and a mild litigious environment, a disclosure might be mandated but if market and peer pressure is limited, this leads to scant compliance (Figure 1, Box 4). Ukraine (4–6), Chile (7–9), Argentina (7–11) and Morocco (6–11) fall into this category (Brown *et al.*, 2014).

2.5 Mandatory disclosure regime, some monitoring and adverse consequences
If disclosure is regulated by industry or the state and there are market and peer pressures, this implies a moderate degree of monitoring and adverse consequences for non-compliance. Moderate compliance (Figure 1 Box 5) is expected in Brazil (10–26), South Korea (12–28) and Mexico (13–27) (Brown *et al.*, 2014).

2.6 Mandatory disclosure regime, full compliance (except for administrative errors)
Finally, in the US (39–56), voluntary disclosure by listed companies is anything not mandated by the FASB or SEC (Brown *et al.* (2014). The US is highly litigious, with active monitoring of *t* listed firms and a well established accounting profession. These characteristics suggest a high (probably full) compliance, ignoring administrative errors, because the consequences of non-compliance are significant, and extend to the company, executives and auditors. This scenario is the other tail of our disclosure continuum (see Figure 1, Box 6) and is the perception of many US academics who view mandatory disclosure *in all jurisdictions* as binding (e.g. Verrecchia, 2001). However, even in the US regulatory environment, annual checks on SEC-registered companies are limited to large companies, and quarterlies are not frequently reviewed. The Sarbanes-Oxley Act stipulates that the SEC should inspect annual filings only at least once every three years. The irregular inspections might explain why full compliance is not observed even in mandatory disclosure settings with substantial sanctions, as evidenced by GAAP violations and earnings restatements (Schwartz and Soo, 1996; Desai *et al.*, 2006; Glaum *et al.*, 2013; Zakolyukina, 2017; Hellman *et al.*, 2018).

Boxes 1 and 6 represent the extreme positions in the continuum in which the left-hand side is non-mandatory and the right-hand side is mandatory. Moving from left- to right-hand side of Figure 1, the greater the degree of regulation, including adverse consequences, the higher the probability of disclosure. What is crucial as an item of disclosure moves in the direction of becoming mandatory is an effective monitoring system that imposes serious consequences for non-compliance [8]. Enforcement cultures vary within a country and also between countries. For example, within a country, enforcement may be more stringent for listed companies than for non-listed companies. Internationally, enforcement cultures vary and as a consequence regulatory compliance varies.

3. The importance of our non-dichotomous continuum theory

Categorisation along our continuum is important in developing theories of disclosure and in undertaking empirical work. Disclosure categorisation is centrally important in understanding the information environment and the economic consequences of disclosure choices. Beyer *et al.* (2010) segregate the environment into (1) managers' voluntary disclosure decisions, (2) disclosures mandated by regulators and (3) reporting decisions by analysts. They conclude (p. 335):

> One of the biggest challenges and opportunities facing researchers is considering the interactions among the various information sources. To date, little is known about the relations between firms' voluntary disclosure policies, mandatory disclosure requirements, and the information provided by security analysts.

To better understand disclosure choices, we need a research design that separates voluntary and mandatory disclosures (Beyer *et al.*, 2010, p. 312) and avoids miscategorisation. Without this distinction, replication and generalisability is problematic and inaccurate inferences may arise.

In developing the theoretical underpinnings, we must understand the costs and benefits of market regulations and market failure which require appropriate categorisation. Despite numerous disclosure laws, there is "no unifying theory of mandatory disclosure" (Beyer *et al.*, 2010, p. 305). Moreover, firms may deliberately miscategorise mandated disclosures. For example, 12%–26% of one category of 8-K disclosures in the US are strategically miscategorised (Bird *et al.*, 2019) and, as an example, Enterprise Inns did not present financial instruments' gains/losses at fair value in their 2007 profit and loss account. These misleading disclosures suggest a rationale and need "for the existence of asymmetric financial rules mandating disclosures of unfavorable events" (Bertomeu and Magee, 2015, p. 284) [9]. We recognise some corporate miscategorisation may be a rational response to proprietary costs in which competitors use disclosures to the detriment of the discloser (Verrecchia, 1983).

Much prior literature ignores the interrelationship between voluntary and mandatory disclosures (Einhorn, 2005; Grossman and Hart, 1980; Basu *et al.*, 2022). Aggregated information may be mandatory but additional explanation could be voluntary (Bamber and McMeeking, 2010). Miscategorisation leads to error and misinterpretation, particularly when estimating the association with other variables. Firms' voluntary disclosures cannot be considered without reviewing the interrelationship with mandatory disclosure (Einhorn, 2005).

Academics often use self-constructed disclosure indices or data produced by the Association for Investment Management and Research (AIMR). These proxies capture voluntary *and* mandatory disclosures, making interpretation problematical (Beyer *et al.*, 2010). Furthermore, empirical studies use a variety of independent variables. If the voluntary disclosure variable is misspecified, any resulting regression can lead to erroneous results and interpretation. Where voluntary disclosure is a discrete-response model, logit and probit regression are used (e.g. Mitchell *et al.*, 1995). However, miscategorisation causes inconsistent coefficients and biased results [10]. One can correct dependent variable misclassification several ways, including a modified maximum likelihood estimator (Hausman *et al.*, 1998). However, categorising correctly is an important part of research design: "You can't fix by analysis what you bungled by design" (Light *et al.*, 1990, p. viii).

With respect to IFRS compliance empiricism, researchers investigate changes to the reporting infrastructure, as well as the implementation process. While IFRS aim to increase harmonisation, the regulatory impact within a country depends on enforcement effectiveness. IFRS implementation varies from full convergence (Australia), adoption by the EU with some deletions, optional (Switzerland), to limited convergence (Venezuela).

These arguments lead us to not assume that everything that is non-mandatory is voluntary, nor that everything that is "mandatory" is not voluntary. As Einhorn (2005, p. 613) has shown that:

> Firms' strategies for providing voluntary disclosures cannot be studied in isolation without considering the impact of their mandatory disclosures. Correspondingly, the value of mandatory disclosure requirements cannot be properly assessed without an understanding of what, if any, voluntary disclosures might be made in addition to the mandatory disclosures.

The quantity and quality of disclosures depend on regulation, compliance and type of business organisation prevalent within a country, and an inexorable obligation to social welfare (Mitchell *et al.*, 2015). These factors apply even when IFRS are introduced [11]. Some empirical work has misunderstood the impinging factors on disclosure and miscategorised voluntary disclosure.

4. Empirical research on disclosure

Table 1 summarises differences between types of company and impact on disclosure. In economies where family businesses dominate and a credit-based financial system (Zysman, 1983) exists, the strength of the enforcement agencies is low. This probably will result in low mandatory disclosure compliance because of the lack of enforcement. Thus, any disclosure is voluntary, not least because of a lack of pressure from capital markets or peer pressure (Figure 1, Box 1).

An alternative form of business control may be referred to as alliance business systems or allied firms. Such organisations have lower levels of involvement by management and concentration of ownership when compared to the direct form of owner control. Alliances can come in two main forms, either through corporate networks (Japan and South Korea) or banks (Germany). Often, disclosure is internalised rather than made public, and again there is often a lack of pressure from capital markets and a lack of peer pressure from outside the alliance (Figure 1, Box 2).

In contrast, economies with many listed companies (capital market-based financial system) are likely to have enforcement agencies with a high degree of monitoring and adverse consequences for non-compliance. Mandatory disclosure is enforceable *and is enforced* (Figure 1, Box 6) [12]. Differences in reaction to mandatory disclosure that result from differences in financial systems may reflect themselves as though it is a developed/

Table 1. Characteristics of owner-control types

	Types of owner control		
Characteristics	Direct	Alliance	Market
Owners	Family	Banks/allied firms	Fund managers
Involvement in management	High	Moderate	Low
Concentration of ownership	High	Moderate	Low
Owners' knowledge of business	High	Moderate	Low
Risk-sharing and commitment	High	Moderate	Low
Scope of owner interest	High	Moderate	Low
Financial system	Credit based	Credit based	Capital market based
Influence of tax on accounting	High	Moderate	Low
Strength of accounting enforcement agencies	Low	Moderate	High

Source: Table by authors

developing country dichotomy [13]. As such, empirical studies may provide different results for developed than for developing countries [14]. However, countries categorised as developed are not homogeneous, and therefore disclosure may be inconsistent even within this group (Zarzeski, 1996; Jaggi and Low, 2000).

Camfferman (1997) recognised that most empirical studies have adopted the definition for voluntary as being that not required by legislation or accounting standards [15]. In effect, voluntary disclosure is the residual after having specified what constitutes mandatory, an approach that can be misleading [16] because of the factors we have highlighted [17]. However, Camfferman (1997) recognised "that disclosures may be induced by all sort of non-regulatory pressures which may make the decision to disclose anything but spontaneous to those involved in that decision" (p. 10).

An example of the difficulty in defining mandatory disclosure is provided by Camfferman and Cooke (2002), who assessed the comprehensiveness of disclosure in corporate annual reports in The Netherlands and the UK. Assessed disclosure was based on the main headings specified in the Fourth and Seventh European Company Law Directives. The European Union (EU) has two ways by which it gives effect to its requirements: regulations are legal obligations on member states without a change in national law, whereas Directives are implemented by member states through a change in legislation. The main changes to accounting in the EU, noticeably on formats, measurement and group accounts, have been implemented through Directives, by which member states interpret and decide on the detailed requirements needed to comply. While member states must comply with the general requirements, and in this sense they constitute mandatory requirements, the extent of detail required is left to individual countries and therefore is not necessarily consistent from one country to another. The degree of effective financial reporting regulation across countries, and even within the EU, varies considerably. Thus, a given item of disclosure might be mandatory in one EU member state and voluntary in another even though the disclosure is linked to, rather than independent of, a mandatory disclosure item. Therefore, voluntary but linked to mandatory disclosures are, in a sense, not strictly voluntary even though not specified by regulation.

Camfferman and Cooke (2002) found that in 11 sub-areas there were significant differences in the comprehensiveness of disclosure by companies in The Netherlands and the UK, and in eight of those sub-areas disclosure was greater in the UK. Differences were explained in terms of historical factors: the UK has a capital-market based financial system, like The Netherlands, but with an active market for corporate control; and differences in corporate governance in which the UK is perceived as being shareholder-oriented (outsider model) as opposed to the stakeholder (insider) model in The Netherlands. Thus, what constitutes voluntary and mandatory disclosures, even between two countries in the EU, may differ, and we agree with Lang and Lundholm (1996, p. 468) who argue that "even for mandatory disclosures, such as those found in annual financial statements, firms have substantial discretion in the informativeness of the disclosures and the amount of detail provided". Systematic differences in the IFRS practices in Germany and the UK, the two largest economies and capital markets in Europe, persist even after the adoption of IFRS across the EU.

4.1 Experiences with genuine voluntary disclosure

4.1.1 Disclosure is a uniquely voluntary innovation, adoption by a company for the first time. Given that the nature of mandatory disclosure is sometimes difficult to define we now provide examples at the other end of the disclosure spectrum, namely, pure voluntary disclosures (Figure 1, Box 1). Examples of genuine voluntary reporting, where there is virtually no pressure on companies to improve their reporting, are not easy to find, probably because they represent unique innovations. One clear case was the disclosure by Lever Brothers of its total consolidated sales turnover both in pounds sterling and tonnage of product for 1925 to 1937 and its global profit in pounds sterling by eight or more product lines and by up to eight geographical regions for 1926 to 1930. It was not until the 1960s, a decade in which numerous conglomerate mergers occurred, when there were the first calls for segmental reporting of companies' financial figures [18]. Lever Brothers' chairman, Francis D'Arcy Cooper, revealed all of this information in his chairman's annual address to the shareholders. Lever Brothers was one of the very early conglomerate enterprises, and D'Arcy Cooper, an English chartered accountant, believed that shareholders required this innovative information in order truly to be able to gauge the progress of the company (Camfferman and Zeff, 2003). In 1945, Unilever, under Chairman Geoffrey Heyworth (who was appointed to the Cohen Committee on Company Law Amendment in 1943), began including in its annual report to shareholders a supplemental breakdown of its consolidated sales by nine product lines and one service line (Camfferman and Zeff, 2003). These supplementary disclosures had not been seen before in company annual reports and were therefore an example of genuine voluntary disclosure. There had been absolutely no pressure brought to bear on Unilever to make such segmental breakdowns.

Another example of genuine voluntary disclosure was the publication by USA Steel Company of consolidated financial statements for the financial year 1902. It was the first listed holding company to publish consolidated statements. They were the "dream" of the company president, Judge Elbert H. Gary (DeMond, 1951). The 1902 annual report was also "greatly influenced" by Arthur Lowes Dickinson, a leading English chartered accountant who was the senior partner in the US of the British firm, Price, Waterhouse and Co., the company's external auditor. Other innovations in the company's 1902 annual report were the reporting of earnings by month and providing supporting statements and schedules to expand upon important balance sheet accounts (Vangermeersch, 1986). Claire (1945, pp. 43-44) has stated that US Steel, beginning with its 1902 annual report:

> Always gave the impression that there was no reluctance on the part of the company toward giving full details […]. To a very considerable extent US Steel set the standards and pattern for financial reporting during [the early 1900s].

A somewhat less enterprising, but comparable, instance of genuine voluntary reporting occurred in the UK, when Dunlop Rubber Company, Ltd., in its annual report for 1933, became the first major UK company to publish a consolidated balance sheet. In the US, by contrast, Dickinson said in 1924 that:

> The almost universal practice for more than fifteen years past has been [for holding company groups] to publish a consolidated statement of the earnings, and a consolidated balance sheet aggregating the assets and liabilities of all the subsidiary companies […]. The practice in Great Britain is in its infancy, and only a few concerns have yet adopted it [19].

In The Netherlands, N.V. Philips' Gloeilampenfabrieken displayed a consolidated balance sheet for the first time in 1931, yet two other Dutch enterprises had published consolidated balance sheets in 1926 and 1928, and in 1934 the earlier of the two added a consolidated profit and loss statement (Zeff *et al.*, 1992, pp. 66-67). These were further examples of financial reporting innovation before voices were raised that such reporting should be supplied. Of course, it is conceivable that Unilever, US Steel and Dunlops made voluntary disclosures to draw favourable attention to their companies with economic consequences, such as through a decrease in the cost of capital.

4.1.2 Diffusion of new accounting technology through a bandwagon effect. Technological innovations and the dissemination of accounting ideas, skills and techniques have occurred at both a national and international level (Figure 1 Box 2). For example, Cooke (1989b) argued that companies in Sweden tended to follow leading disclosers like Volvo, Esselte, Pharmacia and Saab-Scania. Similarly, companies began to recognise their role in society in Europe from the 1960s and in the US from the 1970s. The bandwagon effect accelerated from the 1980s when a group of small and medium-sized businesses used extremely advanced environmental management systems to document the effect of their activities on society. Contemporaneously, sustainability reports were used by tobacco and chemical companies in the face of increasing public scrutiny of their activities. Following the ideas of "self-presentation" (Goffman, 1959), companies with poorer environmental reports [20] use corporate social responsibility reporting as an obfuscation strategy to legitimise their business operations. At the time of writing, sustainability reports are voluntary disclosures in most jurisdictions, but the pressures on large listed companies to disclose on a "comply or explain" basis in accordance with the Global Reporting Initiative (GRI) are consistent with Figure 1 Box 3, with the exception of mandatory disclosure requirements in accordance with the International Integrated Reporting Council (Integrated Reporting, <IR>) in South Africa.

4.1.3 Peer pressure some market pressure.

4.1.3.1 The United Kingdom's operating and financial review. An example of voluntary disclosure that was practised by leading companies was the UK's Operating and Financial Review (OFR) (Figure 1 Box 3). The ASB's July 1993 statement encouraged companies to include an objective discussion explaining the main features underlying their reported results and financial position, uncertainties that underlie the business and the structure of its financing. On May 10, 2005 the ASB issued RS 1, making the non-mandatory requirement mandatory, but the UK Government decided in November 2005 to repeal the mandatory requirement and instead required a Business Review, on cost burden grounds. When the OFR was first introduced from an authoritative, but non-mandatory source, business had the choice of non-compliance without adverse consequences. However, many large companies decided the OFR represented good governance, judged the recommendations would become mandatory and complied in anticipation of the change. Thus, disclosures were originally located left of centre (Figure 1, Box 3), moved to the right as mandatory requirements were introduced (Boxes 4–6) and then left as a result of government abolition (Box 2 or 3).

4.1.3.2 Reaction to Scottish institute initiative. The aim of the Institute of Chartered Accountants of Scotland's report "Making Corporate Reports Valuable" was to encourage innovative corporate reporting, including using current values. A follow-up report was commissioned to investigate the extent of innovative voluntary disclosure in practice (Gray *et al.*, 1991). The Gray *et al.* (1991) report found that companies are innovative when management are pressurised, presumably because the benefits of disclosure exceed the costs [21].

4.1.3.3 Instances of apparent voluntary disclosure that were in reality prompted by outside pressure. By contrast, the trend from 2002 to 2004 of US public companies reporting of stock option expense in the income statement, when the relevant accounting standard required only footnote disclosure, was not an action of pure volition. The movement towards displaying stock option expense in the income statement began in July 2002, when Warren Buffett, a major investor and director of The Washington Post Company and Coca-Cola, persuaded their boards to move from footnote disclosure to inclusion in the income statement (Washington Post Follows Coke's Lead, 2002). Buffett persuaded Jeffrey Immelt, the chairman and chief executive of General Electric Company to do likewise. These developments were promptly noticed in the financial press and by institutional investors and shareholder groups, and a groundswell of pressure began building on companies to move from footnote disclosure to reporting in the income statement. By early 2004, more than 800 companies had followed suit (Figure 1 Box 3). In November 2002, the FASB had issued an Invitation to Comment on whether to consider adopting the IASB's proposed income-statement recognition of stock option expense, and in March 2003 the FASB placed this project on its agenda. Hence, there was a good prospect that the Board would make income-statement recognition mandatory. This was an example of voluntary disclosure for the first few companies to adopt, following which enormous peer pressure and media pressure and shareholder pressure drove the remaining hundreds of companies to switch [22]. From 2002 onward, the public and private pressure on companies to show stock option expense in the income statement was intense. For virtually all of the hundreds of switching companies, this was an example of non-mandated disclosure but was not, in any meaningful sense, a true act of volition. Yet Aboody *et al.* (2004), Johnston (2006) and Cheng and Smith (2013), among others, have characterised it as an example of "voluntary" recognition.

Another example of widespread adoption of an accounting practice that was not mandated occurred in the 1960s, after the US Accounting Principles Board had in 1963 only tepidly recommended (but did not require) that companies issue funds statements, but they did not have to be audited. In 1964, the president of the New York Stock Exchange wrote to its more than 1,200 listed companies to urge that they include funds statements in their annual reports, and that, preferably, they should be audited. In the same year, the financial analysts organisation also said it favoured the publication of funds statements. From 1963 to 1970, in a survey of 600 companies, the number of companies publishing audited funds statements soared from 65 to 573 (Zeff, 2015, pp. 96–97). On its surface, this might have seemed to be an exercise in non-mandated disclosure that was therefore voluntary. But it was driven by pressure from the Stock Exchange and analysts.

4.2 Experiences with mandatory disclosure

4.2.1 Mandatory disclosure, no monitoring, no adverse consequences limited pressure. A common misconception is that a requirement imposed by a country's law, regulation or standard is an absolute mandate for disclosure, regardless of whether it will be other than indifferently enforced, if enforced at all, by the securities market regulator. Some researchers naively think that disclosure is mandatory in every country, and that monitoring operates as the US, where the SEC rigorously enforces its regulations and the FASB's standards, usually in detail. Yet, if companies in another country know that the country's securities market regulator is a "paper tiger" and that the external auditor is susceptible to pressure, they may elect not to comply. Those companies that do comply in such circumstances are, in effect, engaging in voluntary disclosure (Figure 1 Box 4) [23].

4.2.2 Mandatory disclosure, some monitoring, no adverse consequences limited pressure. One problem among developing countries is that the securities market regulator, if one exists, has a lower degree of authority, and limited budget, training and recruiting practices. Furthermore, the regulatory culture of developing countries is considerably weaker than that of the US. Put briefly, disclosures may be, adverse consequences and pressure are limited because developing countries' governments do not want anything as intrusive as the US SEC.

However, these arguments might apply at times in relation to regulators (and corporatedisclosures) in developed countries. For example, in Germany, although many had thought that the Auditor Oversight Body (AOB – Abschlussprüferaufsichtsstelle/APAS) and The Federal Financial Services Authority (BaFin) were strong regulators, their credentials as effective regulators have been sharply called into question over the Wirecard affair.

Similarly, criticisms have been levelled at the Financial Reporting Council in the UK in the wake of Carillion, BHS and other auditing scandals, leading to the forthcoming replacement of the FRC with the Audit, Reporting and Governance Authority (ARGA) which will set and enforce standards for FTSE 350 companies' audit committees.

4.2.3 Mandatory disclosure, full compliance (except for administrative errors). The US market in 2021 is the closest environment to mandatory disclosure, full compliance (Figure 1, Box 6). The US has a very strong accounting profession, active analyst following (at least for large company stocks), and, crucially, the SEC rigorously enforces its regulations and the FASB's standards, usually in detail. The consequences for non-compliance are usually severe, such as the $100,000 penalty charged in January 2019 to ADT (a home security company) for reporting its non-GAAP accounting metrics more prominently than its GAAP metrics, contrary to Regulation S-K.

5. Conclusions

Disclosure decisions are made by management and many can be thought of as a voluntary act. Even when a regulatory authority mandates disclosure, unless the requirements are extremely prescriptive and the enforcement regime is robust, management makes a cost-benefit decision. Companies disclose if they believe there is a real threat to make non-disclosers worse off. Companies may not disclose if the threat is minimal, with few if any adverse consequences. Thus, mandated disclosures must be both enforceable and enforced if the coercion threat is to succeed. Thus, compliance and enforcement cultures vary from country to country.

We advance a disclosure continuum from purely voluntary and innovative to full compliance with mandatory requirements with real adverse consequences threats. The strict dichotomous approach used in much empirical research is false. The disclosure continuum is set up so that some entities are considered to release better, and/or more respected disclosures than others, i.e. it has a gradation of positions within it. Our continuum model helps researchers improve categorisations of voluntary and mandatory disclosure, their interrelationships and our understanding of the corporate information environment. Location along our disclosure continuum is important in developing disclosure theories and in undertaking empirical studies of compliance/explanation. It helps identify where one nation state is positioned in relation to other countries and the changes that have occurred over time. Within a single nation state, it helps locate where a country is in its regulation of its corporations be they private, public or listed. Given recognition of position along the continuum can help decision-making if regulatory changes are to be made and help to assess the effectiveness of changes over time. Continuum theories improve our understanding of phase transitions from one state to another with or without sudden changes or discontinuities.

Consideration has been given to the use of voluntary disclosure used in empirical studies. Voluntary disclosure is generally defined as a residual after defining mandatory disclosure. Because some countries do not exercise real threats to non-disclosers, information that is perceived as mandatory is actually voluntary and subject to mislabelling. Disclosures treated as voluntary may be miscategorised because actual disclosure is inevitable as a result of market pressures. Finally, we provide examples of truly voluntary and innovative corporate disclosures.

We reiterate our underlying contention: researchers should not assume that everything that is non-mandatory is voluntary, nor that everything that is "mandatory" is not voluntary.

Notes

1. We thank the anonymous reviewer for highlighting this distinction.
2. Details of disclosure are discussed in many FASB (FASB) Concepts Statements, chapter 7 of the IASB (IASB) 2018 conceptual framework and the IASB Disclosure Initiative IASB, 2017a, IN2, p. 4.
3. Discretionary and voluntary are often used synonymously (Kasznik and Lev, 1995).
4. Also, some countries may provide options to avoid disclosure. Bradbury *et al.* (2009) investigated the use of a regulatory approved deed of cross guarantee in Australia. The deed allows companies within a group to avoid preparing separate financial statements. They conclude the savings in preparing separate audited financial statements of closed-group subsidiaries is a major incentive of deed adoption.
5. A phase transition is a movement from one position to another. The concept of "phase transition" is well established in the physical sciences but less so in the social sciences. An analogy is a kettle. Initially the water temperature rises steadily but suddenly at 100^{o}C, given sea level atmospheric pressure, the water becomes a gas. The phase transition is movement from one state to another. In our disclosure continuum, reporting may change gradually but an abrupt change may occur when an external force, e.g. IFRS introduction, leads to movement to a new position.
6. In a sense there are only national requirements because IFRS are not mandatory unless adopted by a country or area (e.g. the EU).
7. (Aranya 1974) discuss the increasing influence of consumers of financial information, mainly shareholders and creditors, to counterbalance the resistance by suppliers of information (the company management) in regard to the desirable and even required disclosure of information.
8. Investigating compliance with India's first mandatory corporate governance code, Abraham *et al.* (2015) conclude that disclosure increased after *the imposition of stricter penalties for non-compliance*' (p. 127).
9. Dedman *et al.* (2009, p. 338) find that certain companies "systematically misled the U.K. stock market about the prospects of some of the drugs being developed by those firms, both in terms of actively making overly favourable statements about prospects and hiding negative information, sometimes within the firms concerned as well…… It seems clear from the cases that market forces cannot be relied upon alone to produce honest and timely revelation of information."
10. Ling *et al.* (2018, p. 1) state "contrarily to the binary situation where misclassification occurs between two response classes, noise in ordinal categorical data is more complex due to the increased number of categories, diversity and asymmetry of errors….A latent variable model implemented within a Bayesian *framework* was proposed to analyse ordinal categorical data subject to misclassification using simulated and real datasets."
11. Standard and Poor's, reporting (31 January 2007) on the implementation of IFRS, stated that: "the consistency of information is somewhat limited by the extent of options under IFRS. Furthermore, the level of disclosure is also uneven across companies, with some reports leaving much to be desired in terms of clarity of analytically relevant information" (p. 5).
12. Darrough (1993, p. 535) stated that "mandating disclosures through regulatory agencies such as the SEC or the FASB will force firms to disclose the type of information that firms wish hidden."
13. For example, Saudagaran and Diga (1997) found that, out of 41 countries considered (21 developed and 20 developing), 15 out of the top 21 countries were developed compared with six developing countries, whereas in the bottom 20 countries six were developed and 14 developing. The explanation for this was that emerging countries lack effective enforcement mechanisms. In terms of our disclosure continuum, disclosure is enforceable but not enforced.

14. We acknowledge that there is a strong correlation between the development of capital markets and the stage of economic development. Developing countries are unlikely to have sophisticated capital markets.

15. See, for example, Chow and Wong-Boren (1987). A disclosure list was prepared and audit firms were asked to identify those items that were required. The required disclosures were eliminated to leave what they defined as voluntary. A further example is Anderson and Frankle (1980).

16. Firth (1979) investigated voluntary disclosure in a UK context. He defined voluntary disclosure as those items not required by the Companies Acts, Stock Exchange requirements or the Accounting Standards Steering Committee. However, some items included in the Companies Act were considered to be so loose as to constitute voluntary disclosure, not least because some companies failed to comply. In addition, some of the accounting standards were not complied with and therefore also formed, in his opinion, part of voluntary disclosure. This definition may appear to be somewhat confusing because it mixes enforceability and enforcement. Clearly, regulations forming part of the disclosure regime are enforceable, but if the requirements are not well specified and/or if the consequences of non-compliance are minimal or non-existent, they may not be enforced.

17. Sometimes a definition of voluntary is assumed rather than made explicit. See, for example, Penno (1997) and Scott (1994). In other studies, proxies are used: for example, Lang and Lundholm (1993) and Botosan (1997). They use disclosure rankings produced by the AIMR, today the CFA Institute) as proxies for voluntary disclosure.

18. See Rappaport *et al.* (1968).

19. Quoted in Kitchen (1979, p. 99).

20. Clarkson *et al.* (2011) looked at the level and nature of environmental disclosures found in annual reports and separate environmental or sustainability reports by Australian companies. They find relatively low scores with the maximum being about 50% of total possible disclosures. They suggest the need for mandatory reporting requirements.

21. Specific examples of innovative disclosure by British companies cited in the study included: revaluations involving land and buildings as well as plant and machinery on a current cost or valuation basis; disaggregation of distributable reserves; details of the contributions of an acquisition in the year of acquisition; reconciliation of changes in wealth in a separate statement following the profit and loss account; emphasis of cash flows in the funds statement; trends in market capitalisation; recent trends in share prices; information on related party transactions; area of uncertainty and boundaries thereon; additional segmental reporting; statement of innovation and research and development; market share information; information on the background of directors and their responsibilities; statement of company objectives; summary of financial plans; a statement about the auditors' responsibilities; additional disclosures on personnel.

22. See "To Expense or Not to Expense" (2002), "Employee Stock Option Expense: Is the Time Right for Change?" *Accounting Issues*, Equity Research, Accounting and Taxation (New York: Bear Stearns, July 2002), 8; and "FASB Does It: FAS 123(R) Requires Stock Option Expensing," Equity Research (New York: Bear Stearns, December 16, 2004). Also see: "Analyst Association AIMR Lauds Moves by Coca-Cola and Washington Post to Recognize Stock Options as Expense," Association for Investment Management and Research press release, July 16, 2002 (www.cfainstitute.org/aboutus/press/release/02releases/02stock_options.html), and Demby (2002).

23. Frost (2007) investigated the response to the introduction of mandatory environmental reporting in Australia in 1998. While an increase in overall disclosure was noted, concerns were raised as to whether non-disclosing companies were complying with the spirit of the law.

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