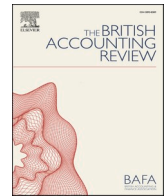




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COVID-19 profit warnings: Delivering bad news in a time of crisis

Niamh M. Brennan^{a,*}, Victoria C. Edgar^b, Sean Bradley Power^c^a University College Dublin, Ireland^b University of Agder, Norway^c TBS Business School, France

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ABSTRACT

Profit warnings (large negative earnings surprises) are important corporate reporting documents for delivering bad news and a distinctive corporate communication genre. The 2020 COVID-19 exogenous shock provides a unique worldwide crisis context for company disclosure of bad news.

The research develops a genre-based typology/analytical framework for assessing COVID-19 profit warnings' quality comprising: (1) Four profit warning/forecast quality characteristics and (2) Eight profit warning/forecast disclosures. For a sample of 160 profit-warning documents, the research manually analyses their content, culminating in a disclosure quality score/index. The research tests a model of the factors influencing disclosure quality.

The research finds companies regress to silence when investors most need guidance and poor-quality disclosure, coy ambiguous language, possibly reflecting minimal regulatory guidance on this form of corporate report. Two variables are significant – Profit warnings disclosed following Financial Reporting Council guidance are of higher quality and quality varies by industry. The paper finds faux disclosure and the performativity of disclosure, which may allow boards of directors to tick-box compliance with market abuse regulations. The paper concludes with recommendations for policymakers on improvements required to enhance the quality of these highly important corporate documents.

1. Introduction

The COVID-19¹ crisis is a life-and-death context not only for human beings but also for businesses and bodies corporate. This paper examines crisis communication in this COVID-19 context in the form of the disclosure quality of profit warnings. Reflecting the human life-and-death context, the following trading statements open with moving announcements (see Illustration 1 and Illustration 2):

Illustration 1: Life-and-death context (1)

“Several members of staff have suffered from the direct effects of COVID19, and we were extremely saddened to lose a senior Managing Director and employee of some 40 years who passed away in March. Our thoughts are with his family at this time.”
(Clarkson PLC, Trading Update, 21 April 2020)

* Corresponding author.

E-mail address: Niamh.Brennan@ucd.ie (N.M. Brennan).

¹ The acronym COVID-19 stands for CORona VIRus Disease 2019. Corona virus is so called because of its appearance under microscope as a halo or crown. Following an outbreak in Wuhan China in December 2019, COVID-19 led to the first worldwide pandemic in over one hundred years.

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Illustration 2: Life-and-death context (2)

“Our colleagues

Tragically, we have lost two colleagues to Covid-19. We are providing support to both families and they have our utmost sympathy at this incredibly difficult time. Both were highly-regarded colleagues and will be very fondly remembered by all who knew them.” (National Express Group PLC, Trading Update, 14 April 2020)

Annual reports have been subject to extensive study as corporate communication genres. Yet, many would argue that their value has eroded due to excessive length, incomprehensible technical detail and they are riddled with boilerplate disclosures (Raiborn, Payne, & Pier, 2008). Conversely, profit warnings as corporate communication genres are under-researched. “Profit warning” is primarily a UK term. The equivalent US term is “large negative earnings surprise.” Profit warnings are announcements to the stock market, often as press releases, which companies file with the relevant regulatory authority. A profit warning is a revised forecast/trading statement/trading update, updating the market with material negative news on a company’s previous guidance/forecast and/or prevailing market expectations.

Profit warnings are a unique communication genre (Hursti, 2011). Companies publish them under pressure, possibly in a crisis. Elder (2020) comments, “Only in a crisis does it become clear to what extent profit warnings are more art than science.” They are material price-sensitive disclosures of bad news and considerably impact markets, which has been the focus of most prior research on profit warnings. Roberts (2014) refers to the old adage that profit warnings come in threes and describes investors trading on profit warnings as the equivalent of catching a falling knife. Therefore, profit warnings facilitate the study of how companies deliver bad news, a growing area of research interest, for example, in medicine and within business organisations (Bies, 2013). Our focus on profit warnings as a communication genre complements most prior academic research, which considers the share price reaction to such disclosures. Profit warnings contain forward-looking information. Due to their immediacy, they are likely to contain less boilerplate language, more rhetoric and be more prone to emotional language (see, for example, Edgar, Brennan, & Power, 2021).

We focus on a form of crisis communication (a profit warning) disclosed during (COVID-19-induced) extreme uncertainty, an intense crisis context. COVID-19 is a unique once-in-a-100-years’ exogenous shock and ideal for the study of profit warnings. Hassan, Hollander, van Lent, and Tahoun (2020) study three diseases – COVID-19, SARS, and H1N1 – and observe that COVID-19 is unique in its frequency of mentions in conference calls, which is much higher than for other previous diseases. In normal times, companies release profit warnings for a variety of causes. Our COVID-19 context provides a unique opportunity to collect all-at-once a large sample of profit warnings released for the same cause. Prior researchers generally study firm-specific crises. Our crisis context is worldwide, somewhat similar but more extreme than the 2008 global financial crisis.

Tompkins (2020) describes the frequency of profit warnings in the first quarter of 2020 as “significantly higher than any quarter we’ve [EY] recorded in the last 21 years.”² Tompkins (2020 – emphasis in the original) highlights the uniqueness of COVID-19 profit warnings when she observes,

“The language and rhythm of all corporate reporting, including profit warnings has altered significantly. We’ve moved from companies talking about profits being ‘below expectations’ to the more fundamental ‘material impact’. Companies also lack the visibility to talk in the usual way about their new earnings profile. Indeed, almost all companies are withdrawing forward earnings guidance – a topic I’ll return to soon because it has deeper implications.”

One purpose of corporate reporting is to reduce information asymmetry between managers and investors. Annual reports are used to “fill the gap” but annual reports are less useful in a rapidly changing crisis context (such as COVID-19). Investors require immediacy and so profit warnings as a means of communication are more relevant. To reduce information asymmetry, profit warnings need to include appropriate content. There is less prior research on the content of profit warnings. This paper fills that gap by (1) examining the content of profit warning documents and (2) designing a framework for, and computing, a disclosure-quality score to assess whether profit warnings reduce information asymmetry. Information asymmetry is likely to be higher during periods of uncertainty, ideally prompting enhanced disclosures to investors by managers. PwC partner, Tony Debell (2020), expresses the issue well: “... to emphasise the overarching issue, which is around communication and disclosure. When there is uncertainty, when there is increased uncertainty and increased risk, I think it is essential that management explains the assumptions that it has made ... and explains the risks and sensitivities ... Disclosure is key. It is important that management explains the judgements it has made and explains the risks and uncertainties.”

Until COVID-19, little regulatory guidance was available to companies on their earnings-guidance disclosures. COVID-19 caught regulators on the back foot, scrambling to fill this regulatory vacuum. Regulators released multiple guidance during March and April 2020. Concerned at appropriate disclosure during this unique period, in March 2020 UK standard-setter, the Financial Reporting

² EY issues a quarterly report on UK profit warnings, commencing in 1999. See https://www.ey.com/en_uk/transactions/20th-anniversary [Accessed 17 April 2020]. EY reports a frequency of profit warnings much higher than our numbers. EY (2020) defines a profit warning as an “official statement to the stock exchange from a publicly listed company that says that it will report full-year profits materially below management or market expectations.” Our restriction in collecting the data from the trading updates’ section of the LSE website may explain the difference.

Council (FRC) (2020a),³ issued advice on company guidance to investors during COVID-19. The Financial Conduct Authority (FCA), the FRC and the Prudential Regulation Authority (PRA) (2020) also issued a joint statement. In April 2020, the US Securities and Exchange Commission (SEC) advised companies to fully disclose information during COVID-19 (Clayton & Hinman, 2020, SEC 2020). The SEC recommends and commends, “High quality disclosure will not only provide benefits to investors and companies, it also will enhance valuable communication and coordination across our economy – including between the public and private sectors – as together we pursue the fight against COVID-19.” (Clayton & Hinman, 2020). The UK FRC (2020a) is more specific, urging boards to disclose certain items critical for a COVID-19 context to enable investors to understand company expectations of the possible impacts of COVID-19 on the business. Conversely, the *Financial Times* described the quality of COVID-19 trading statements as “muffled” (Lex, 2020). Table 1 contrasts the advice from regulators with views expressed in the media by managers and analysts (proxy investors) on how best to report during COVID-19 uncertainty. Regulators urge high-quality disclosure to keep investors informed while managers express reluctance to do so, and investors vary in their expectations of companies. Comments by regulators, accounting standard-setters, and the business press inform our research questions. We address three research questions: (i) silence in profit warnings, (ii) the quality of profit warnings in the form of the profit warning/forecast quality characteristics and the specific disclosures in the profit warning/forecast document and (iii) the factors associated with profit-warning disclosure quality.

We make two contributions to the prior literature. First, our study occurs in a unique COVID-19 crisis context, which contributes insights into how companies communicate in a crisis to deliver bad news. Our paper contributes to prior literature on firm disclosure of bad news (e.g., Kasznik & Lev, 1995; Lev & Penman, 1990; Skinner, 1994), including whether firms should remain silent (e.g., Hollander, Pronk, & Roelofsens, 2010; Le, Teo, Pang, Li, & Goh, 2019; Lundholm & Van Winkle, 2006). We also contribute to a growing literature examining COVID-19 in a corporate reporting context, such as Crovini, Schaper, and Simoni (2021), de Villiers and Molinari (2021), Ding, Levine, Lin, and Xie (2021) and Humphreys and Trotman (2021). Second, following Rutherford’s (2013) discussion of corporate reporting genres, we draw out the genre-theoretic features of profit warnings by developing a genre-based typology/analytical framework for assessing the quality of profit warnings whose content as a communication genre is under-researched. Our objective is to provide a more nuanced, granular analysis of profit warnings’ genre-theoretic features. Our findings raise issues for regulators in terms of the lack of corporate communication and the poor-quality corporate disclosures. As profit warnings are largely unregulated, we conclude our paper with recommendations for financial reporting regulators arising from our research.

2. Theory and prior empirical research

We organise our review of the prior literature by reference to the unique features of profit warnings: crisis communication, delivering bad news containing forward-looking information and communication genre. Our COVID-19 context provides a unique opportunity to study silence, so the section ends by considering silence in prior corporate reporting research. We commence this section with a consideration of theory.

2.1. Disclosure theory

Several theories predict voluntary disclosure, including economic theory, agency theory, signalling theory, legitimacy theory, stakeholder theory, institutional theory and impression management theory (e.g. An, Davey, & Eggleton, 2011; Shrivs & Brennan, 2015). Our study could apply many of these theories. However, given our context of high information asymmetry between companies and investors, heightened by a worldwide crisis, we locate our study in the economic theory stream of the literature, which considers managerial incentives for disclosing/not disclosing bad news. Prior research assumes increased disclosure reduces information asymmetry. Disclosure theory predicts that firms benefit from increased disclosure, assuming no disclosure costs. Where there are disclosure costs, managers make trade-offs between the costs and benefits of disclosure in deciding whether to disclose. In a forecast disclosure context, a cost is the risk the forecast is incorrect. However, in a crisis communication context, Kim, Pandit, and Wasley (2016) acknowledge the tension arising from investor demand for more information, pressuring managers to issue more earnings forecasts. Thus, managers have to weigh up the risk of disclosure versus addressing investor demand for information. We adopt the latter perspective and expect more disclosure and higher quality disclosure during our crisis communication context. We refer to institutional theory and impression management theory in our concluding Section 5 of the paper to add further theoretical insights to the discussion of our findings.

2.2. Crisis communication

Beattie (2014) distinguishes between (i) routine communications such as annual reports and (ii) non-routine communications such as crisis communication following a critical event. Beattie (2014, p. 118) observes that “the periodic nature of financial reporting means that the story in corporate annual reports is provided in instalments. Disturbances to the initial equilibrium come in the form of

³ In May 2020 and December 2020, the FRC updated its guidance. The March 2020 guidance remained unchanged but for minor amendments. However, the May 2020 guidance added three new sections on Exceptional or similar items, Alternative Performance Measures (“APMs”) and Interim reports. The December 2020 guidance added advice on the risk of fraud, stakeholder interests, leases, information about potential sensitivities to changes in assumptions or ranges of possible outcomes and expanded guidance on interim reports. Consequently, the FRC’s link to the March 2020 guidance no longer works. Thus, we include a web archive link to the March 2020 guidance in the references.

external events (e.g. takeover or financial crisis) and/or changes in the company's business model." Beattie (2014) finds that accounting narratives have been changing rapidly, partly in response to shocks. Beattie (2014) predicts that, following the 2008 global financial crisis, investors are likely to rely more on accounting narratives (such as those contained in profit warnings) than on technical impenetrable lengthy financial statements. Abdelrehim, Maltby, and Toms (2015) observe that while crises have attracted considerable research interest, their implications for corporate reporting has attracted less attention. They examine whether narrative reporting during crises is incremental information or impression management. Some authors study the effects of crises (e.g. the 2008 global financial crisis) on corporate reports, rather than focussing on corporate reports as a crisis-communication genre.

Joyce (2020) considers the role of accounting in building trust. She locates her study in the crisis context of insolvency and the trust relationships between insolvency practitioners and creditors. Joyce finds that context-specific qualitative characteristics of accounting information build trust, including perceived objectivity, comparability, cash flow accounting, "matching" secured liabilities with secured assets and "crisis" audit. Based on insights from the medical (delivering bad news to patients), psychology and sociology literature, Bies (2013) develops a model for disclosure of bad news within organisations based on a multiphase approach. Our context involves delivering bad news external to organisations.

2.3. Disclosure of forward-looking information

A profit warning constitutes a forecast of forward-looking negative information. Company directors experience risks in that the forward-looking information may turn out to be wrong. US companies routinely voluntarily disclose earnings forecasts. They benefit from "safe harbor" rules if the forecast is wrong (Skinner, 1995), an advantage not available in the UK. Thus, profit forecasts are less common in the UK. André, Filip, and Moldovan (2019) report that management guidance by European firms is "softer," broader and less focussed on earnings.

Dominated by US share price reaction studies, prior research focuses on quantitative disclosures in earnings forecasts, including large negative earnings surprises. The US literature operationalises management forecast disclosure quality crudely, possibly because these studies draw on databases such as First Call. For example, Brockman, Campbell, Lee, and Salas (2019) operationalise forecast disclosure quality as forecast accuracy, Goodman, Neamtiu, Shroff, and White (2014) as accuracy/precision/horizon and Baginski and Rakow (2012) as a factor based on three dimensions – forecast issuance x frequency x precision. Kasznik and Lev's (1995) share price reaction study assesses eight forecast features: point, range, qualitative forecasts, operating data, capital expenditures, shareholder payouts, non-operating disclosures, and no discretionary disclosure. Cazavan-Jeny and Jeanjean (2007) examine the frame managers use to disclose their forecasts in terms of the levels of detail in forecast disclosures, which they operationalise by reference to five factors: disclosure of (i) a (simplified) forecast balance sheet, (ii) a simplified or detailed income statement, (iii) a cash flow statement, (iv) key figures, and (v) details of assumptions. In the high information asymmetry environment of Initial Public Offering (IPO) prospectuses, they find more detailed forecasts to be more reliable. Krause, Sellhorn, and Ahmed (2017) study forward-looking disclosure quality and quantity for German listed companies. Regulations require German companies to disclose forward-looking information in their financial statements. Similar to our study, they conduct a content analysis of the forward-looking statements to generate a disclosure quality measure based on 28 disclosures. They measure forward-looking disclosure quantity as forward-looking statement length in words. They find poorer quality disclosure during the 2008 global financial crisis than in the pre-crisis period.

2.4. Profit warnings as a communication genre

Communication plays a crucial role for organisations informing external parties about outcomes and events and in managing their relationship with organisational audiences, especially with shareholders in the case of profit warnings (e.g. Brennan, Merkl-Davies, & Beelitz, 2013; Merkl-Davies & Brennan, 2017). Rutherford (2013) identifies six elements of a genre-theoretic approach to analysing corporate documents: composition, users, discourse community, situated communication, intertextuality and dynamism. Our study focuses on communication situated in a crisis, profit-warning composition and the dynamism between these factors. Biber and Conrad (2009) use six characteristics to describe the situational characteristics of communications: (1) Participants to the communication, (2) Relationship among the participants, i.e. interaction, social roles, personal relationships, shared knowledge, (3) The topic, (4) Production circumstances, i.e. planned vs unplanned communication, (5) Setting, i.e. private vs public; present vs past, and (6) Communicative purpose, i.e. narrate, inform, entertain. Comparing the communicative context of profit warnings with annual reports, the production circumstances (comparatively unplanned and rushed) and the communicative purpose (to alert rather than inform) make the communicative context interesting.

Rutherford (2013, p. 297) defines a genre as "a category of texts marked out by the conventions employed in their production." He advocates a genre-theoretic approach to "draw out the complex, subtle and elusive nature of financial reporting as communication." Profit warnings include several conventions. Companies generally disclose them in the form of a press release containing negative

information about future expected performance. Managers describe the circumstances causing the profit warning/unexpected bad news, disclose supporting information to the profit warning, disclose assumptions underlying their assessment of future expected performance, and their proposed actions managers are taking and will take to address the negative news. Profit warnings often contain a quotation from the Chief Executive Officer. Brennan and Gray (2000) observe that profit forecasts (of which profit warnings are a sub-set), which are largely unregulated, follow a fairly standard layout but vary considerably in content and the range of items and assumptions disclosed and in the level of detail disclosed. Thus, there is considerable variability in profit-forecast disclosure practices. In a takeover context, Brennan and Gray (1998) examine the frequency of items and assumptions disclosed in profit forecasts, while Brennan and Gray (2000) study the detailed content of those disclosures.

Profit warnings, negative earnings surprises, and hostile takeover defence documents are corporate reports uniquely focussed on crisis events. Through the lens of crisis communication, Liff and Wahlström (2018) discuss the role of Northern Rock's profit warning in 2007 before the Bank experienced a run on deposits and its eventual collapse and nationalisation. Liff and Wahlström (2018) highlight that, notwithstanding management's assertions concerning the Bank's business model, profit warnings may indicate that problems lie ahead. Thus, the credibility of a profit warning is critical. Bédard, Coulombe, and Courteau (2016) view forecast credibility as a function of their disclosure characteristics.

2.5. Silence

In corporate disclosure, Guthrie and Parker (1989, p. 351) observe that managers set and shape the agenda, "to tell its own story or refrain from doing so" (emphasis added). Several authors study silence in corporate communications (e.g. Buhr, 2001; Chwastiak & Young, 2003; Leung, Parker, & Curtis, 2015). Merkl-Davies and Brennan (2017) observe that communication is crucial in gaining and maintaining the support of organisational audiences during times of crisis, citing profit warnings as a crisis-communication example. They contend that all behaviour, including silence, generates meaning and thus constitutes communication. For example, investors will assign meaning to silence if they expect companies to communicate on an issue or event. Prior literature considers conflicting theories to explain silence. The early accounting literature argues that investors cannot infer bad news from silence. However, Skinner (1994) believes managers have incentives to disclose bad news to avoid litigation or reputational risks. In their study of voluntary forecast disclosure, Lev and Penman (1990) conclude that investors interpret silent firms as withholding the worst possible information. Kasznik and Lev (1995) consider managers' dilemmas between remaining silent about bad news versus warning investors. They find that investors react more negatively to firms that warn. In a crisis communication context, Le, Teo, Pang, Li, and Goh (2019) develop a typology of strategic silences, differentiating delaying, avoiding and hiding silences, concluding that delaying silences can be beneficial. In their study of conference calls with analysts, Hollander et al. (2010) argue that "silence speaks". They find that investors and financial analysts negatively interpret managers' refusal to disclose information requested during conference calls. They conclude that investors interpret no news as bad news. Lundholm and Van Winkle (2006) conjecture that firms can only get away with not disclosing information if some friction makes this no-news-is-bad-news market belief irrational. Frictions could be (i) the firm does not know, (ii) the firm cannot tell for some reason or (iii) the firm does not care. Merkl-Davies and Brennan (2017) write that non-disclosure is difficult to study. It is often not clear whether an item is deliberately not disclosed or whether a disclosure does not apply to the company.

Our research contributes to a paucity of prior literature examining the role of corporate reports in crisis communication. Disclosure quality is critical in building trust and credibility. Prior research largely operationalises forecast disclosure quality crudely. Considering profit warnings as a communication genre deepens an assessment of their content. Finally, our crisis context supports a consideration of corporate reports from the perspective of silence.

3. Research questions and methodology

In this section, we consider our three research questions and the methods to address those questions.

3.1. Research questions

Our overarching research question is: How do companies deliver bad news in a crisis? Our bad news context is COVID-19, and our bad news disclosure vehicle is profit warnings. We address this overarching question with three research questions:

RQ1: Is there evidence of silence in corporate documents disclosed during a crisis?

RQ2: What is the quality of bad news disclosure during a crisis?

RQ2.1: What are the COVID-19 profit warnings'/forecasts' quality characteristics?

RQ2.2: What is the extent of supporting disclosures in COVID-19 profit warning/forecast documents?

RQ3: What factors influence bad news disclosure during a crisis?

3.2. Research methodology

Our research methods involve data collection, sample selection, developing our typology/analytical framework, applying the framework using manual content analysis and modelling profit warning disclosure quality.

3.2.1. Data collection

We commenced collecting our sample of profit warnings in April 2020. We identify companies that issued COVID-19 profit warnings in a two-stage process. First, we collect Regulatory News Service (RNS) announcements from the “Trading updates” section of the London Stock Exchange (LSE) website, limiting our search to the period 1 January to 30 April 2020. We only search RNS releases that are trading statements updating the market and thus do not include RNS earnings announcements filed elsewhere on the LSE website. Second, from these trading statements we extract the ones that mention “corona”, “COVID”, and “sars”. RNS releases mentioning these keywords during January–April 2020 are more likely to be profit-warning trading statements/updates. Once we identify suitable announcements, we then collect the trading statements from the LSE RNS website. This process generates 428 COVID-19 trading statements (see Panel A, Table 2). We manually add a further 23 documents containing a profit warning (see Section 3.2.2).

We prepare two sets of guidelines (see Appendix 1), first, classification guidelines for the preparatory analysis to classify all the trading statements from which to identify profit warnings and second, coding guidelines to code the profit-warning documents. Two authors each classified one half of the 428 COVID-19 trading updates/statements. Following that process, both authors double-checked the others’ preparatory classification analysis. Notwithstanding the short time window for collecting the trading statements, and reflecting the extent of uncertainty in the market, Panel B, Table 2 shows that 35 companies issued two trading statements and six issued three trading statements. Some companies issued trading statements updating the markets within one week of the previous trading statement. For example, Associated British Foods issued a trading statement on 24 February 2020, another 21 days later on 16 March 2020 and a third trading statement on 23 March 2020. The speed of change for some companies is notable. For example, on 19 March 2020, Inland Homes plc confirmed that trading was in line with the board’s expectations. Less than two weeks later, the board issued another trading update on 30 March 2020 announcing that COVID-19 “will now inevitably have a material impact on the Group’s results for the half-year ending 31 March 2020.” We differentiate trading statements (documents) and trading updates (specific updates in the documents). Panel C, Table 2 shows that 99/9 trading statements contain two/three updates. We find 203 (36%) trading updates disclaim providing a forecast, while 75 (13%) do not contain a forecast, and 11 (2%) reaffirm prior company guidance (see Panel D, Table 2). Zhou and Zhou (2020) find companies not providing guidance in quarterly earnings announcements suffer an abnormal return of –41 basis points around their subsequent quarterly earnings announcement, suggesting that investors do not fully price the implications of non-guidance.

3.2.2. Profit warnings’ sample⁴

We define a profit warning broadly as a trading update with material negative news on the company’s trading prospects. In practice, people use the term “profit” warning loosely, and usage may be a misnomer. The warning may not explicitly reference the effect of the negative news on profit *per se*. Some trading updates warn about “provisions”, “commitments”, “high street footfall”, “operations”, “service volumes”, “content projects”, “certain areas”, “clients”. Thus, the warning about profit is indirect/implicit. Hobson (2017) expresses frustration at “mealy mouthed directors” and advises investors to “stay well clear” of companies unwilling to face up to reality. We empathise with his sentiment. We had difficulty in identifying profit warnings arising from companies’ unclear and ambiguous language use. In a few cases, we classify the trading update as a profit warning based on the tone of the narratives. We commend Finnish US-listed company, Konecranes plc (not part of our sample), for its clarity. The headline to its press release is in capital letters and 27-point font (see Illustration 3).

Illustration 3: Clear signposting of a profit warning

“Konecranes plc: Profit warning: Konecranes updates its demand outlook due to the coronavirus (Covid-19) pandemic and withdraws its financial guidance for full-year 2020.” (Konecranes plc, 26 March 2020)

In contrast, we find no RNS announcement in our sample uses the term “profit warning” or equivalent. The wording in some of the qualitative trading updates is so imprecise as to be unclear whether the trading update comprises a profit warning. For example, while

⁴ Prior researchers identify profit warnings in a variety of ways. Kasznik and Lev (1995) identify positive and negative earnings surprises by comparing earnings’ numbers relative to analysts’ forecasts, selecting firms with surprises larger than one per cent of their stock price. Tse and Tucker (2010) use the First Call Company Issued Guidance (CIG) database to identify profit warnings. First Call uses analysts’ earnings expectations as the benchmark to code earnings guidance as positive, negative, or in-line guidance. Johnson and Zhao (2012) content analyse a small sample (120) of quarterly positive and negative earnings-surprise press releases. Possibly because manual content analysis is so labour intensive, such manual approaches are not common. Unlike US studies, few UK profit warnings forecast quantitative earnings, so benchmarking against analysts’ forecasts is not practical. Thus, we adopt a manual approach to identify profit warnings.

Table 1

Comparison of regulatory advice, manager and analyst views on reporting during COVID-19.

	FRC (2020a)	Clayton and Hinman (2020) [i.e. SEC]	Managers' views	Analysts' (proxy investors') views
Difficulty	Making forward-looking assessments and estimates when preparing financial statements and providing other corporate reports is particularly difficult currently	Providing detailed information regarding future operating conditions and resource needs is challenging ... but it is important on many levels	We're going to be 100% precisely wrong (Maurer & Tokar, 2020)	"It's going to be very, very challenging for companies to maintain their guidance or revise it." "We're assuming a lot of companies will pull their guidance on the first-quarter call." (Maurer & Tokar, 2020)
Information	Provide clarity on the use of key forward-looking judgements Need for narrative reporting to provide forward-looking information that is specific to the entity Investors and other users of corporate reports want to understand a company's resilience in the face of current uncertainty Reasonable for investors to expect companies to be able to articulate their expectations of the possible impacts on their specific business in different scenarios	We urge companies to provide as much information as is practicable Company disclosures should reflect this [COVID-19] state of affairs and outlook Historical information may be relatively less significant High quality disclosure will not only provide benefits to investors and companies, it also will enhance valuable communication and coordination across our economy This transparency can foster confidence in countless specific instances	"Guidance is a bad business. We're out. We're not doing it anymore ... Diller [Barry Diller chairman of US Expedia Group and digital media group IAC (InterActiveCorp)] said the amount of time companies spend to develop guidance is "wasteful" and that employees' time would be better spent "actually doing some work." "The whole thing is nuts," he added. (Stankiewicz, 2020)	Investors are steadfast in their expectation of transparency from corporate issuers, with a large majority (65 per cent) expecting enhanced ESG disclosure from companies. "Corporates will need to up their game. Assume that in one year from now, it will be much harder to have no disclosure in the market. It will be unacceptable", an investor noted. (White, 2020)
Investor information needs	Investors have highlighted that their key information needs relate to the liquidity, viability and solvency of companies			
Company's specific circumstances	Being clear on the company's specific circumstances and the degree of uncertainty about the future is important information		"It's a matter of being directionally correct and being very transparent and clear about our thought process and our assumptions as we look to extrapolate the year," he said. "If we can't do that in a very credible manner, then maybe we forego that." (Maurer & Tokar, 2020)	

we classified Illustration 4 as a qualitative profit warning, we are unsure as to whether we correctly classified it due to the vague wording. We also classified Illustration 5 as a qualitative profit warning, but it is poorly worded and says almost nothing. Maybe such disclosure is to provide cover to the board of directors?

Illustration 4: Vaguely worded profit warning

“Therefore, the Board can no longer be confident of delivering results which are in line with market expectations either for the current period ending 31 March 2020 or for the year to 31 March 2021.” (The Ince Group, Covid-19 update and Dividend cancellation, 26/3/2020).

Illustration 5: Profit warning reveals little

“Like many other organisations, Covid-19 has since impacted our business.” (International Personal Finance plc, Q1 2020 and April 2020 trading update, 30 April 2020).

Some companies write their trading updates so badly that readers cannot interpret the narratives on a stand-alone basis and must revisit other sources. For example, we find companies disclosing current guidance without referring to previous guidance. Thus, it is not clear whether the new forecast is an increase/decrease (profit warning) on prior guidance. In Illustration 6, Investec does not indicate whether its expectations are higher or lower than prior expectations, so it is difficult to interpret whether this is a profit warning without revisiting Investec’s prior guidance (if any) or prevailing consensus analysts’ forecasts. The negative tone of the trading update influences our classification as a profit warning.

Table 2
Data and sample.

	No./Frequency	No./Frequency	%	No. words
Panel A: Company COVID-19 trading statements				
Data collection				
January 2020		1		
February 2020		6		
March 2020		177		
April 2020		<u>244</u>		
		428		
Manually added profit warnings		<u>23</u>		
		451		
Panel B: Frequency of company trading statements in the sample period				
One company trading statement		410		
Two company trading statements		35		
Three company trading statements		<u>6</u>		
		451		
Panel C: Frequency of trading statements/updates				
Trading statement containing 1 update	343	343		
Trading statement containing 2 updates	99	198		
Trading statement containing 3 updates	<u>9</u>	<u>27</u>		
Total trading statements/updates in trading statements	<u>451</u>	<u>568</u>		
Panel D: Forecasts/profit warnings				
No forecast		75	13%	
Disclaimer of forecast		203	36%	
Reaffirms previous guidance		<u>11</u>	<u>2%</u>	
		289	51%	
Forecast not a profit warning		115	20%	
Profit warnings (141 _{From trading statements} +23 _{Manually added}) (See analysis Table 5)		<u>164</u>	<u>29%</u>	
		<u>568</u>	<u>100%</u>	
Panel E: Chronology of profit warnings				
January 2020		0		
February 2020		6		
March 2020		75		
April 2020		<u>83</u>		
		164		
Panel F: Text analysed				
Trading statements containing 164 profit warnings/words		160		285,463
Trading statements containing 164 profit warnings/words (excluding tables)		160		189,861

Illustration 6: Absence of data on prior expectations

“Group basic earnings per share is expected to be between 135% and 148% (122p and 129p) above the prior year (FY2019: 52p), while Group headline earnings per share (HEPS) is expected to be between 41% and 46% (31p and 28.4p) behind the prior year (FY2019: 52.6p).” (Investec, pre-close trading update, 20 March 2020)

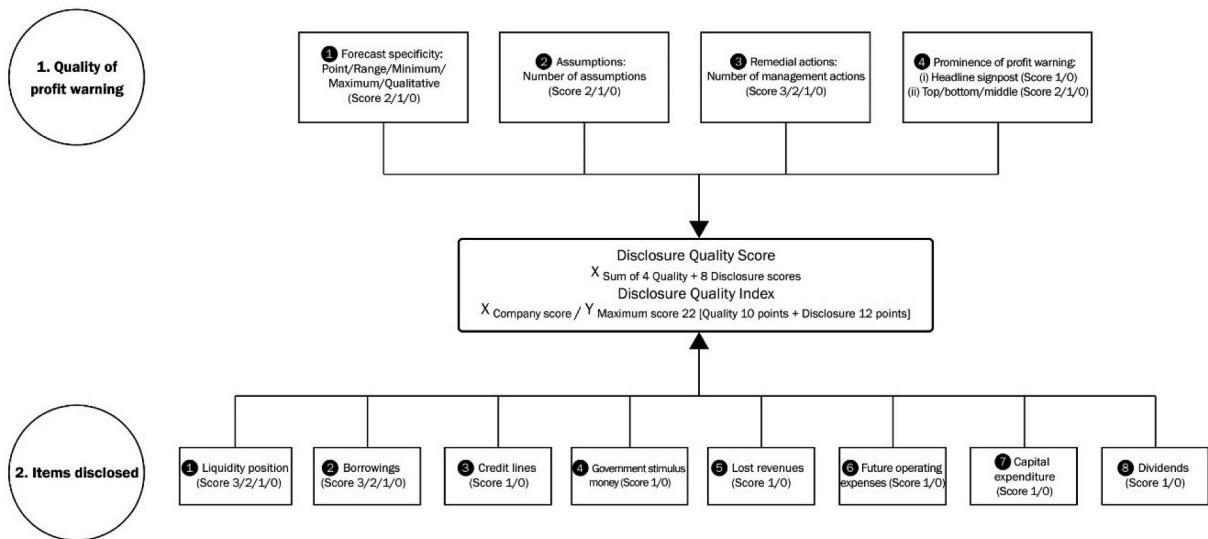


Fig. 1. Analytical framework COVID-19 profit warnings.

Our sample comprises trading updates citing COVID-19 classified as profit warnings. We identify the relevant trading update in the 428 COVID-19 trading statements to find profit warnings. From 428 COVID-19 trading statements, we extract 256 forecasts, of which we judge 115 not to be profit warnings, resulting in 141 profit warnings (see Panel D, Table 2). By way of methodological triangulation, we also manually identify COVID-19 profit-warning companies using a variety of sources such as the *Financial Times*, Google News, Twitter and Nexis and a variety of keywords such as “profit warning”, “trading update”, “trading statement”, “warn”, “warning” “COVID-19”. Some RNS announcements warn investors but do not forecast profit or any other financial amount. We include these as part of our “profit warnings” sample. Once we classify the 428 company trading statements and identify the profit warnings therein, we reconcile our list of profit warnings against our manual identification of profit warnings.⁵ This led to a refinement of some trading updates’ classification. We only include profit warnings contained in trading statements. We exclude manually identified profit warnings contained in preliminary results announcements as the extra data in preliminary results announcements adds too much noise to our analysis of trading-update profit warnings. This process adds 23 manually identified profit warnings to our sample, resulting in 164 profit warnings in total (see Panel D, Table 2) contained in 160 company trading statements. Reflecting the unfolding COVID-19 saga, the number of profit warnings increased considerably over the four months of our sample period (see Panel E, Table 2). We noticed fewer profit warnings in the early period and fewer disclaimers/no forecasts in the later period of our research. The change in disclosure pattern possibly reflects initial first-mover reluctance, softening as companies became more comfortable with COVID-19 disclosures, perhaps having learned from the first movers. Finally, Panel F, Table 2, shows the quantum of text analysed from 160 company trading statements containing 164 profit warnings.

3.2.3. Typology/analytical framework

Researchers have used typologies to analyse corporate reports (e.g. Beattie, McInnes, & Fearnley, 2004 for annual reports; Shrivs & Brennan, 2015 for corporate governance non-compliance explanations). We develop a typology/analytical framework (Fig. 1) for our manual content analysis of profit warnings customised to a COVID-19 context, using a combination of approaches from prior research and based on regulatory guidance. As shown in Fig. 1, our typology/analytical framework comprises two components and 12 sub-components: (1) The profit warning itself (four characteristics) and (2) Disclosures in the company trading statement containing the profit warning (eight disclosures). We adapt Brennan, Guillamon-Saorin, and Pierce’s (2009) methodology computing an impression management score, and we compute a disclosure quality score. Appendix 1 includes coding guidelines to support our analysis.

We analyse four characteristics of the profit warning itself as discussed below. We score the four characteristics as either 1/0, 2/1/0 or 3/2/1/0 (see Fig. 1 and Appendix 1).

⁵ Most companies file their trading statements in the Trading Updates news category of the LSE website, from which we collect our data. However, we find some companies file the additional profit warnings we collect manually in the “Miscellaneous”, “Statement re company event” or “Strategy company operations update” LSE news categories, which explains why we did not collect these profit warnings in our main data collection exercise.

Table 3

FRC (2020a) Guidance on forward-looking information and justification for the eight disclosure items.

Disclosure item	Justification prompted by FRC (2020a) guidance
Forward-looking information (e.g. profit warning)	<ul style="list-style-type: none"> • “provide clarity on the use of key forward-looking judgements ... need for narrative reporting to provide forward-looking information that is specific to the entity and which provides insights into the board’s assessment of business viability and the methods and assumptions underlying that assessment” • “key assumptions and judgements a board is making”
(i) Liquidity position	<ul style="list-style-type: none"> • “Investors have highlighted that their key information needs relate to the liquidity, viability and solvency of companies.” • “consider the impact ... on their company’s cash flow requirements” • “access to further cash through existing and potential financing facilities”
(ii) Borrowings	
(iii) Credit lines	
(iv) Government support	<ul style="list-style-type: none"> • “consider ... access to government support measures that have been announced.”
(v) Lost revenues	<ul style="list-style-type: none"> • “consider the impact ... on their company’s revenues”
(vi) Future operating expenses	<ul style="list-style-type: none"> • “consider the impact ... on their company’s ... costs (both fixed and variable)”
(vii) Future capital expenditure	<ul style="list-style-type: none"> • “consideration of current and likely operational and capital needs”
(viii) Dividends	<ul style="list-style-type: none"> • “approach to dividends and their shorter-term dividend policies to support their balance sheets and provide financial flexibility”

- (i) Forecast specificity: Researchers broadly classify profit forecasts into two categories: Quantitative and qualitative. Investors prefer more precise quantified forecasts (Bamber & Cheon, 1998).⁶ Bamber and Cheon (1998) classify forecasts into point, range, open-ended (i.e. minimum, maximum) and qualitative. We classify forecasts into five categories: (i) Point forecast, where the company quantifies the precise amount forecast, (ii) Range, where quantification of the forecast is a range between two amounts, (iii) Minimum where the amount quantified is the minimum performance expected, (iv) Maximum, where the amount quantified is the maximum performance expected, (v) Qualitative, where the company does not quantify the forecast.
- (ii) Assumptions: Assumptions about the future are necessary for making forward-looking disclosures. Given the extent of uncertainty around COVID-19, investors need to know the assumptions behind profit warnings to enable investors to assess their reasonableness. Prior literature adopts two conflicting arguments concerning assumptions in forecasts. Brennan and Gray (1998) observe that assumptions qualify the certainty in achieving the forecast – the forecast will only be achieved if the underlying assumptions in the forecast hold true. They add that the more assumptions disclosed, the more protection offered to those preparing the forecast. Brennan and Gray (1998) document the type and frequency of assumptions disclosed in 250 profit forecasts during 701 UK takeover bids. They find an average of 5.4 assumptions per forecast, with significantly more assumptions disclosed in forecasts with longer forecast horizons. This argument is consistent with Clarkson (2000) who includes the variable number of assumptions as a proxy for business risk. Clarkson (2000) finds an association between the number of assumptions and forecast accuracy at a 10 per cent significance level. The FRC (2020a) and SEC (2020) emphasise the importance of disclosing assumptions behind a forecast. Disclosure of assumptions supports investors in interpreting the forecast. Based on the Chartered Professional Accountants of Canada guidance, Bédard et al. (2016) posit that forecasts accompanied by more supporting information are more credible. They use the number of underlying assumptions disclosed as a measure of a forecast’s ex ante credibility. Bédard et al. (2016) report an average of 9.12 assumptions, much higher than Brennan and Gray (1998). Bédard et al. (2016) do not find an association between forecast assumptions and forecast credibility. While Brennan and Gray (1998) argue that assumptions qualify/undermine the certainty of a forecast, in this research, we treat disclosure of assumptions as evidence of quality following FRC (2020a) guidance and consistent with Bédard et al. (2016). Our research counts the number of assumptions disclosed in each forecast. We search on the term “assum*” to identify and count assumptions in each forecast.
- (iii) Remedial actions: Statements of board and management remedial actions to address the problems implied by the poor performance almost always accompany profit warnings. In the context of corporate governance non-compliance explanations, Shrives and Brennan (2017) classify four sub-categories of corrective action. Their detailed analysis is too difficult to apply to profit warnings. Instead, we count the number of management remedial actions disclosed to address the issues causing the decline in performance.
- (iv) Prominence: Hobson (2020) confesses to “a pathological hatred of hidden profit warnings.” Prompted by Hobson’s (2017, 2020) concerns at the propensity of companies to disclose yet not disclose (faux disclosure) profit warnings, we assess the prominence of the profit warnings in terms of the use of headings in the RNS announcement to signpost the profit warning and in terms of the location of the profit warning in the RNS announcement. Guillamon-Saorin, Osmá, and Jones (2012) observe that headlines at the start of press releases are a framing feature to capture and retain readers’ attention. Similarly, headings in trading statements have a key role in company communication strategies. Shrives and Brennan (2015, p. 89) commend disclosure location for facilitating “quick identification.” We adopt three of their five location categories (the other two not

⁶ Intriguingly, Hayward and Fitza (2017) characterise precision in earnings forecasts as a form of impression management, used by management to convey a greater sense of authority and control over organisational performance after material setbacks.

being relevant): start/middle/end of the document. They argue that start and end are better locations than middle. Following the prior literature, we code the prominence of the profit-warning text in the RNS announcement in two ways. First, we code whether companies signpost their profit warnings using a heading or similar. Second, we code the location of the text containing the profit warning as in the top/middle/bottom of the document.

Concerning disclosures to support the profit warning, [El-Erian \(2020\)](#) comments that during COVID-19, balance sheets dominate income statements in investors' minds with a spotlight on cash burn, liquid assets and debt maturity schedules. This comment reflects [FRC \(2020a\)](#) guidance. Largely following [FRC \(2020a\)](#) guidance, we assess eight disclosures. In [Table 3](#), we summarise [FRC \(2020a\)](#) guidance, to justify our eight disclosure items. Our analysis involves some judgement in coding each disclosure (coded 1/0, 2/1/0 and 3/2/1/0, similar to our coding of profit warning characteristics). In the coding guidelines ([Appendix 1](#)), we provide examples of disclosures that we coded disclosed/not disclosed.

- (i) Liquidity position: The [FRC \(2020a\)](#) observes, "Of particular importance is the availability of cash within a group of companies." We interpret liquidity position as quantified disclosure of (net) cash and cash equivalents balances. As it is a non-GAAP metric, we do not code "free cash flow" as disclosure of liquidity. We score recent (within one month of the company trading statement date) disclosures higher.
- (ii) Borrowings: We interpret borrowings as a clear explicit quantified disclosure of (net) debt position. We score recent (within one month of the company trading statement date) disclosures higher.
- (iii) Credit lines: We expect companies to quantify their disclosure of available lines of credit.
- (iv) Government support: We code disclosure when the company refers to government support (even if not quantified) such as the UK government's job retention scheme, the Coronavirus Business Interruption Loan scheme and taxation deferred.
- (v) Lost revenues: We code disclosure when the company refers to revenue lost, such as percentage of selling space closed or negative impact on revenues relative to prior periods and attributed to COVID-19. We code lost revenue as disclosed when the disclosure is quantified.
- (vi) Future operating expenses: We code future operating expenses as disclosed when the disclosure is quantified.
- (vii) Capital expenditure: We code capital expenditure as disclosed when the disclosure is quantified or that "all" capital expenditure is delayed.
- (viii) Dividends: We expect companies to explicitly disclose their dividend plans (even if not quantified). Reference to dividends is not sufficient.

Following coding the 12 sub-components of profit warnings' quality and items disclosed in company trading statements, we compute a disclosure quality index for each company trading statement containing a profit warning, comprising an individual score divided by the maximum score possible. Thus, the disclosure quality index ranges between 0 and 1 for each company trading statement containing a profit warning. Like [Beattie et al. \(2004\)](#) and [Beretta and Bozzolan \(2008\)](#), our disclosure quality index is multidimensional. Prior research computes disclosure quantity indices and disclosure quality indices. Criticising prior one-dimensional approaches, [Beattie et al. \(2004\)](#) justify their holistic, multidimensional approach to analyse narratives in annual reports because disclosure is complex and multifaceted. Their four dimensions are topic, time, financial/non-financial and quantitative/qualitative. In the context of forward-looking information, [Beretta and Bozzolan \(2008\)](#) develop a risk disclosure quality index comprising a quantity and a richness dimension. The richness dimension comprises two sub-dimensions – width (range/coverage and spread/dispersion of topics covered) and depth (economic sign – positive/equal/negative/not disclosed), type of measure (financial/non-financial; quantitative/qualitative), and outlook profile (time orientation; management action) of disclosures. [Beretta and Bozzolan \(2008\)](#) conclude that quantity is not a good measure of disclosure quality.

3.2.4. The manual content analysis process

We manually analyse the two components in our typology/analytical framework, profit warning characteristics and disclosures in company trading statements. Validity ensures the results of the content analysis can be accepted as true ([Krippendorff, 2013](#)) and that it is "measuring what it is intended to measure" ([Holsti, 1969](#), p. 142). Two of the three authors complete the coding independently. To ensure validity, we design an excel spreadsheet for recording the coding. This process commenced by inputting the text of each company trading statement into the spreadsheet, with a row for each paragraph of company trading statement text. Our standardised spreadsheet reflects the coding guidelines in [Appendix 1/ Fig. 1](#). Thus, there were 164 tabs, one for each profit warning (our level of analysis). We code the text paragraph by paragraph using 13 columns, one for each sub-component (we measure one of our 12 sub-components in two ways). The standardised spreadsheet, which two authors independently populate, ensures a standardised presentation of scores.

Our standardised spreadsheet also makes it easier to conduct reliability statistics. Reliability refers to the consistency of the coding ([Weber, 1990](#)), ensures objectivity ([Holsti, 1969](#)) and provides confidence in the data ([Krippendorff, 2013](#)). We assess the two coders' inter-coder reliability using [Krippendorff's \(2013\)](#) alpha coefficient of agreement. Prior research assesses inter-coder reliability only on a coding sample. In this research, we adopt a more robust approach by assessing inter-coder reliability on our entire coding. [Krippendorff \(2013\)](#) suggests a threshold level of 0.80 for the alpha coefficient of agreement with scores between 0.67 and 0.80 suitable for drawing tentative conclusions. Two authors code a total of 13 profit warning characteristics. One of the 12 sub-components shown in the analytical framework (4. Prominence of profit warning) has two coding fields: whether companies signpost the profit warning in the RNS title and the location of the profit warning (top, middle or bottom). The final levels of inter-coder reliability found, after we

Table 4
Dependent variable and independent variables.

Variable		Definition	Expected direction of impact on DISQUAL
Dependent variable			
DISQUAL	Disclosure quality index	Proportion of the disclosure quality score over maximum disclosure score x 100 (i.e. expressed as a percentage)	
Independent variables			
FHOR	Forecast horizon	Number of days between the date of the profit warning/forecast and the period end date of the forecast	-
LOG(SIZE)	Company size	Log of total assets in thousands of GBP£	+
ROA	Profitability – Return on assets	Profit before tax over total assets in thousands of GBP£ x 100 (i.e. expressed as a percentage)	+
GEAR	Gearing	Total debt over total equity x 100 (i.e. expressed as a percentage)	+
LIST	Listing status	Firms listed on the LSE Alternative Investment Market = 0; Firms listed on the LSE Main market = 1	+
FRC	FRC guidance	Pre-release of FRC guidance on 26 March 2020 = 0; Post-release of FRC guidance after 26 March 2020 = 1	+
IND	Industry	Five dummy variables: Financials = (Indicator); Technologies (IND_TEC); Consumers (IND_CON); Resources (IND_RES); Industrials (IND_IND) (obtained from FTSE Industry Classification Benchmark)	
BETA	Historical beta	Five-year historical beta calculated at 28 February 2020	Not specified
FHOR_MISSING	Missing forecast horizon	Firm discloses a forecast horizon = 0; Firm does not disclose a forecast horizon = 1	Not specified

pre-test and modify the coding rules in two rounds, are over the acceptable level of 0.8 for 10/13⁷ of the disclosure items and in the acceptable range of 0.66–0.8 for 2/13. One metric, Lost Revenue, scored 0.64, just below Krippendorff's tentative level of agreement. The two authors agreed on all the differences to arrive at a final disclosure quality score for each company trading statement. As is typical of manual coding, coding disclosure items that are not applicable is especially challenging. For example, a company that does not avail of government support may not disclose anything about government support. We score this as non-disclosure (0) when it would be more accurate to denote it as not applicable. This ambiguity between non-disclosure and not applicable is an inherent limitation of manual coding of this nature. As we select an extreme sample of companies – those disclosing bad news – we believe non-applicable disclosures are less likely.

3.2.5. Modelling profit warning disclosure quality

Our dependent variable is disclosure quality index. We test the following model using ordinary least squares (OLS) regression:

$$\text{DISQUAL}_i = \beta_0 + \beta_1 \text{FHOR}_i + \beta_2 \text{SIZE}_i + \beta_3 \text{ROA}_i + \beta_4 \text{GEAR}_i + \beta_5 \text{LIST}_i + \beta_6 \text{FRC}_i + \beta_7\text{-}10 \text{IND}_i + \beta_{11} \text{BETA}_i + \beta_{12} \text{FHOR_MISSING}_i + \epsilon_i$$

We summarise the variables in the research in Table 4. We compile our disclosure quality (DISQUAL) variable through manual content analysis, as explained in Section 3.2.3. Baginski and Hassell (1997) and Brockman et al. (2019) find a negative association between forecast quality (proxied as forecast accuracy) and forecast horizon (FHOR). Forecast horizon is the number of days between the date of the profit warning/forecast and the end date of the forecast. Forecast horizon is usually positive but can be negative where a company discloses a forecast for a period already ended. Prior research examines forecast quality and company size (SIZE) (e.g. Baginski & Rakow, 2012; Brockman et al., 2019; Goodman et al., 2014), profitability (ROA) (e.g. Brockman et al., 2019; Goodman et al., 2014), leverage/gearing (GEAR) (e.g. Goodman et al., 2014), listing status (LIST) (e.g. Barth, Cahan, Chen, & Venter, 2017; Dunstan, Gallery, & Truong, 2011) and industry (IND) (e.g. Brockman et al., 2019). We log transform SIZE to mitigate the effect of skewness in the data. IND is a categorical variable coded to five dummy variables following the FTSE Industry Classification Benchmark (see Table 4). LIST is a dummy variable which equals 0 for firms listed on the Alternative Investment Market (AIM) of the London Stock Exchange and 1 for firms listed on the Main Market. We also control for the release of FRC (2020a) guidance on 26 March 2020 by a dummy variable with 0 representing the pre-guidance period up to 26 March 2020 and 1 representing the post-guidance period after 26 March 2020. As shown in Table 4, we expect larger, more profitable, more highly leveraged⁸ companies listed on the LSE Main Market to have higher quality disclosure in their profit warnings. We expect higher-quality profit warnings with shorter forecast horizons and following the release of FRC (2020a) guidance. COVID-19 impacted industries differently, so we expect industry

⁷ We measure one of our 12 sub-components in two ways.

⁸ The prior literature (e.g. Waymire, 1995) predicts that higher risk makes forecasting more difficult, thereby negatively impacting the likelihood of disclosing a forecast and forecast quality (i.e. accuracy). However, others argue that gearing/leverage would positively influence forecast disclosure and quality given debtholders' concern on disclosure quality (Reeb & Zhao, 2013)/information demand from debtholders (Guan, Lobo, Tsang, & Xin, 2020). FRC (2020a) guidance references investor demand for information as follows: "Investors have highlighted that their key information needs relate to the liquidity, viability and solvency of companies." For this reason, we predict that higher leverage/gearing will be associated with better quality disclosure.

Table 5
Quality of the profit warnings.

	Companies No.	Profit warnings No.	
Panel A: Frequency of profit warning disclosure			
Companies disclosing 1 profit warning	141	141	
Companies disclosing 2 profit warnings	10	20	
Companies disclosing 3 profit warnings	<u>1</u>	<u>3</u>	
Companies/profit warnings	<u>152</u>	<u>164</u>	
Panel B: Forecast specificity ① (maximum score 2)			
Quantitative forecast (2/1)		56	34%
Qualitative forecast (0)		<u>108</u>	<u>66%</u>
		<u>164</u>	<u>100%</u>
• Quantitative forecast			
1. Point forecast (score 2)	26		
2. Range forecast (score 2)	21		
3. Minimum forecast (score 1)	1		
4. Maximum forecast (score 1)	<u>8</u>	<u>56</u>	
• Amount quantified			
Profit	37		
Revenue	11		
Other metric	<u>8</u>	<u>56</u>	
• Measurement			
Financial amount (£s)	44		
Percentage (%)	11		
Other measure	<u>1</u>	<u>56</u>	
Panel C: Assumptions ② (maximum score 2)			
0 Assumptions (score 0)		147	No. Assumptions
1-2 Assumptions (score 1)		10	0
>2 Assumptions (score 2)		<u>7</u>	13
		<u>164</u>	<u>33</u>
			<u>46</u>
Panel D: Remedial actions ③ (maximum score 3)			
>8 Actions (score 3)		28	No. Remedial actions
4-8 Actions (score 2)		74	358
1-3 Actions (score 1)		52	363
0 Actions (score 0)		<u>10</u>	100
		<u>164</u>	<u>0</u>
			<u>821</u>
Panel E: Prominence of profit warnings ④			
Headline/signposting: (maximum score 1)			
Present (score 1)		6	4%
Absent (score 0)		<u>158</u>	<u>96%</u>
		<u>164</u>	<u>100%</u>
Location: (maximum score 2)			
Top (score 2)		39	24%
Bottom (score 1)		31	19%
Middle (score 0)		<u>94</u>	<u>57%</u>
		<u>164</u>	<u>100%</u>
Total maximum score (10)			
Key: ① to ④ cross-reference to the analytical framework in Fig. 1			

to be a relevant variable. Following Campbell, Chen, Dhaliwal, Lu, and Steele (2014), we include a pre-profit warning proxy for firm risk (BETA). BETA is the historical 5-year beta calculated at 28 February 2020 (the end of the month preceding most profit warnings in our sample). FHOR_MISSING is a dummy variable that controls for firms that do not disclose a forecast horizon. Where companies do not provide the forecast horizon, we estimate the model separately for missing values and zeros. We include the FHOR_MISSING dummy variable in the estimation which records the missing forecast values as zeros. FHOR_MISSING equals 1 where no forecast horizon is provided and 0 otherwise. The inclusion of the FHOR_MISSING variable captures whether firms with missing forecast horizons have different disclosure quality than firms which disclose a forecast horizon. ϵ is a cluster robust standard error.

We retrieved company-level data (total assets, return on assets, gearing percentage, market) from the FAME database. We retrieved the 5-year historical beta for firms from Datastream. Data was unavailable for six recently listed companies. We collected data for these six companies manually and calculated the relevant ratios. The data relates to the most recent financial statements.

4. Findings

In this section, we report our findings for our three research questions. The sample includes 164 profit warnings contained in 160 company trading statements issued by 152 companies between January and April 2020 (see Table 5).

4.1. Silence (RQ1)

Silence in corporate reporting is difficult to research. However, COVID-19 provides a unique context to examine non-disclosure. Many commentators emphasised the importance of communication during COVID-19, yet many companies chose to remain silent. We differentiate two types of silence: The silence of saying nothing versus the silence of saying too little, which Leung et al. (2015) label “minimal narrative disclosure.” Consistent with anecdotal evidence in the press at the time (e.g. Armstrong, 2020; Henderson, 2020), Panel D Table 2 shows that 203 (36%) trading updates disclaim providing a forecast, 75 (13%) do not contain a forecast, while 11 (2%) companies reaffirm prior company guidance. Thus, a total of 51% of trading updates engage in silence, one way or another (faux disclosure). Even for companies disclosing a profit warning, there is evidence of silence. For example, many companies disclose extensive COVID-19 mitigating actions yet do not refer to their dividend policy. Also, some disclosures, while containing words, say little. For example, Illustration 7 discloses two management actions in response to COVID-19 but with few specific details. The lack of

Table 6
Items disclosed in the profit warnings.

	No.	%
Panel A: Liquidity position (maximum score 3) ❶		
Not disclosed (score 0)	88	54%
Previous position disclosed (score 1)	5	3%
Recent position disclosed (score 2)	54	33%
Previous and recent position disclosed score (3)	<u>17</u>	<u>10%</u>
Profit warnings	<u>164</u>	
Average score (score, %)	1.00	33%
Panel B: Borrowings (maximum score 3) ❷		
Not disclosed (score 0)	116	71%
Previous position disclosed (score 1)	8	5%
Recent position disclosed (score 2)	28	17%
Previous and recent position disclosed (score 3)	<u>12</u>	<u>7%</u>
Profit warnings	<u>164</u>	
Average score (score, %)	0.61	20%
Panel C: Credit lines (maximum score 1) ❸		
Not disclosed (score 0)	79	48%
Disclosed (score 1)	85	52%
Profit warnings	<u>164</u>	
Average score (score, %)	0.52	52%
Panel D: Government support (maximum score 1) ❹		
Not disclosed (score 0)	100	61%
Disclosed (score 1)	64	39%
Profit warnings	<u>164</u>	
Average score (score, %)	0.39	39%
Panel E: Lost revenues (maximum score 1) ❺		
Not disclosed (score 0)	112	68%
Disclosed (score 1)	52	32%
Profit warnings	<u>164</u>	
Average score (score, %)	0.32	32%
Panel F: Future operating expenses (maximum score 1) ❻		
Not disclosed (score 0)	134	82%
Disclosed (score 1)	30	18%
Profit warnings	<u>164</u>	
Average score (score, %)	0.18	18%
Panel G: Future capital expenditure (maximum score 1) ❼		
Not disclosed (score 0)	143	87%
Disclosed (score 1)	21	13%
Profit warnings	<u>164</u>	
Average score (score, %)	0.13	13%
Panel H: Dividends (maximum score 1) ❽		
Not disclosed (score 0)	100	61%
Disclosed (score 1)	64	39%
Profit warnings	<u>164</u>	
Average score (score, %)	0.39	39%
Total maximum score for disclosures (12)		
Key: ❶ to ❽ cross-reference to the analytical framework in Fig. 1		

specificity (silence) results in this disclosure having little or no meaning. The silence of saying too little (“minimal narrative disclosure”) is insidious in that it makes it look as if companies are closing the information asymmetry gap when they are not. That appearance/performativity of disclosure may allow boards of directors to tick-box compliance with market abuse regulations. For example, in Illustration 8, managers declined to speak with analysts at a time when, arguably, managers most needed to keep investors informed.

Illustration 7: Management actions not specified

“It is managing the business to protect profitability and is taking all necessary action to reduce costs and conserve cash.” (Moss Bros Group plc, COVID-19 update, 23 March 2020)

Illustration 8: Not keeping investors informed

“With the markets understandably focused overwhelmingly on coronavirus and the shorter term, we have decided to postpone our capital markets webcast, scheduled for 31 March 2020. Further information on the recovery at ATM, Renewi 2.0 and our strategy for long term growth will be given with our results on 4 June 2020.” (Renewi, Trading Update and Coronavirus, 26 March 2020).

This tendency to silence is at variance with FRC guidance (“It is however reasonable for investors to expect companies to be able to articulate their expectations of the possible impacts on their specific business in different scenarios”, [FRC, 2020a](#)) and SEC guidance (“We urge companies to provide as much information as is practicable”, [Clayton & Hinman, 2020](#)). Arguably, when investors most need information, companies regress to silence. In times of crisis, such as COVID-19, investors are likely to expect sufficient information to understand the impact of the crisis on company performance; information that goes over and above normal disclosure. In the context of the global financial crisis, [Caballero \(2010\)](#) observes that investors re-evaluate their models, become more conservative and disengage from risky activities. [Caballero and Krishnamurthy \(2008\)](#) use the phrase “flight to quality” to describe investors selling risky assets and hoarding safe assets in periods of uncertainty, which could cause investors to withdraw from the market. [Lang and Maffett \(2011\)](#) assess investors’ willingness to trade during a crisis and find that firms with greater transparency experience less liquidity volatility, fewer extreme illiquidity events and lower correlations between firm-level liquidity and market liquidity and market returns.

The lack of disclosure also raises questions concerning market abuse. The [FCA \(2020\)](#) reminded companies that the Market Abuse Regulation remains in full force, which requires listed companies to fulfil their disclosure obligations concerning inside information as soon as possible unless they have a valid reason to delay disclosure: “Firms should continue to take all steps to prevent market abuse risks. This could include enhanced monitoring, or retrospective reviews. We will continue to monitor for market abuse and, if necessary, take action.”

Table 7
Descriptive statistics.

Variable:	Mean	Median	Std Dev	Min	Max	n
Panel A: Continuous variables						
DISQUAL	30.28	28	12.74	0	60	164
FHOR (days) (Missing values)	123.62	68	129.29	-31	+400	134
FHOR (days) (0s for missing values)	100.44	36	126.11	-31	+400	164
SIZE (GBP£ millions)	8741	574	66,400	0.503	834,000	163
LOG(SIZE)	13.10	13.26	2.42	6.22	20.54	163
ROA (%)	3.58	5.24	27.79	-171.44	217.60	163
GEAR (%)	1.01	0.51	1.42	0	7.62	163
BETA	1.00	1.01	0.52	-0.63	3.06	164
Panel B: Categorical variables						
LIST						
- AIM (0)	61					
- Main (1)	103					164
FRC						
- Pre FRC guidance (0)	67					
- Post FRC guidance (1)	97					164
IND						
Financials (Indicator)	18					
Technologies (IND_TEC)	25					
Consumers (IND_CON)	72					
Resources (IND_RES)	12					
Industrials (IND_IND)	37					164
FHOR_MISSING						
- Forecast horizon provided (0)	134					
- Forecast horizon missing (1)	30					164

See [Table 4](#) for variable definitions.

4.2. Profit warnings'/forecasts' quality characteristics (RQ2.1)

This section discusses profit-warning specificity, assumptions re forward-looking information, management remedial actions and profit warning prominence. Panel A, Table 5 shows that ten companies disclose two profit warnings while one company discloses three profit warnings, often one for the current year and one for the following year. Panel B, Table 5 summarises the specificity of the 164 profit warnings in our sample. Only 56 (34%) profit warnings are quantified, of which 26 are point forecasts, 21 are range forecasts, eight are maximum forecasts, and one is a minimum forecast. Only 37 of the 56 quantified forecasts are a forecast of profit, with 11 revenue forecasts and eight forecasts based on a metric other than profit or revenue. Quantification is mostly financial/monetary (44 profit warnings), with 11 percentages and one other quantification method.

For companies providing investors with earnings guidance, FRC (2020a) frequently refers to disclosing assumptions during COVID-19 as does SEC guidance (Clayton & Hinman, 2020), albeit less frequently. FRC (2020a) urges companies concerning “The increased importance of providing information on significant judgements applied in the preparation of the financial statements, sources of estimation uncertainty and other assumptions made.” Given this guidance, we interpret the number of assumptions as reflecting the quality of the profit warnings. However, we find few assumptions disclosed in forecasts. Of the 164 profit warnings, Panel C, Table 5 records that 147 contain no assumptions, ten contain one or two assumptions and seven contain greater than two assumptions. One outlier profit warning contains seven assumptions. This finding represents an average of 0.3 assumptions per profit warning, compared with Brennan and Gray’s (1998) and Bédard et al.’s (2016) average of 5.4/9.12 assumptions per forecast. The higher litigation risk in Brennan and Gray’s (1998) hostile takeover bid context and Bédard et al.’s (2016) IPO context may explain the difference in findings.

Some profit warnings contain a separate section, identified by headings such as “mitigating actions”, disclosing management actions undertaken or planned. However, we experienced difficulty identifying remedial actions in some profit warnings because they were scattered throughout the trading statement. Shrikes and Brennan (2015) observe that scattered disclosures make it difficult for readers to comprehend and cause readers to “hunt the thimble” (Shrikes & Brennan, 2017, p. 43), named after the children’s party game. The SEC (2007) criticises the practice of scattered disclosure. Panel D, Table 5 records 821 remedial actions for 164 profit warnings, an average of 5.0 remedial actions per profit warning. One profit warning (Tesco plc) contains 28 remedial actions. Some trading statements contain compelling (self-serving?) rhetoric concerning management remedial actions. For example, Falanx Group refers to “voluntary salary sacrifice” in return for stock options. Given market conditions, and very low share prices versus pre-COVID-19 trading levels, stock options issued at this point in the cycle may prove valuable in the future and far from a “sacrifice” (see Illustration 9).

Illustration 9: Voluntary salary sacrifice

“• voluntary salary sacrifices by certain directors, management and staff. The Company intends to compensate those participating by the issuance of new share options to those participating at an option price of 1 penny per share, an uplift of 75% above the closing price of 0.57 pence per share on 30 March 2020, the trading day immediately before this announcement.” (Falanx Group Limited, Trading Update, 31 March 2020)

We assess the prominence of profit warnings in terms of a headline signposting the profit warning and the location of the profit-warning statement in the company trading statement. Panel E, Table 5 shows only six companies signpost profit warnings in the headline. For example, Flutter Entertainment/Paddy Power Betfair’s headline reads “COVID-19 update; sporting fixture cancellations.” Although the words “profit” and “warning” are not used, the tone of the headline is negative and is indicative of the profit warning in the trading statement. Of the six profit warnings signposted in the headline, one appears at the top of the profit warning

Table 8
Relation between disclosure quality index and company/forecast characteristics.

Variable		FHOR (with missing values)		FHOR (missing values = 0)	
		Coefficient	(P-value)	Coefficient	(P-value)
FHOR	β_1	-0.0083	(0.437)	-0.0068	(0.514)
LOG(SIZE)	β_2	0.4608	(0.441)	0.6026	(0.305)
ROA	β_3	-0.0524	(0.207)	-0.0055	(0.877)
GEAR	β_4	0.0080	(0.491)	0.0061	(0.496)
LIST	β_5	4.9143	(0.103)	3.5937	(0.195)
FRC	β_6	13.4814	(0.000)***	13.2900	(0.000)***
IND_TEC	β_7	6.6819	(0.181)	5.7046	(0.235)
IND_CON	β_8	8.8446	(0.047)**	10.2644	(0.018)**
IND_RES	β_9	4.0024	(0.586)	3.4781	(0.600)
IND_IND	β_{10}	3.9944	(0.351)	2.2046	(0.579)
BETA	β_{11}	0.3527	(0.905)	1.5008	(0.562)
FHOR_MISSING	β_{12}			3.7154	(0.268)
	N	134		164	
	R ²	0.2324		0.2217	

See Table 4 for variable definitions.

***Significant at 1%.

**Significant at 5%.

document, two at the bottom and three in the middle. Concerning location, 39 profit warnings (24%) appear at the top of the profit warning document, 31 (19%) at the bottom, and 94 (57%) in the middle.

4.3. Supporting disclosures in profit warnings (RQ2.2)

In this section, we discuss the supporting disclosures in profit warning documents summarised in Table 6. The findings show poor-quality disclosure scores ranging from 52% (disclosure of credit lines) to 13% (future capital expenditure plans) of the maximum possible score of 100%.

Panel A Table 6 shows that 88 profit warnings (54%) do not disclose their liquidity position. We find 59 profit warnings (36%) disclose either the recent or previous liquidity position. Of these, the majority (54 profit warnings) disclose the recent position. However, this may reflect that many companies had a year/period end of 31 March 2020 and issued the profit warnings at the end of March or in April 2020. Only 17 profit warnings (10%) disclosed both the recent and previous liquidity positions. Panel B Table 6 shows that most profit warnings (116, 71%) do not disclose either the company's debt or that the company did not have any debt. Within this group, low or limited amounts of debt are referenced but without quantification. We find 36 profit warnings (22%) disclose either a previous or recent borrowing position, but only 12 profit warnings (7%) disclose both. There is evidence of strategic (non) disclosure (Schrand & Walther, 2000) in trading statements. For example, Associated British Foods disclosed its cash (£800m) and debt (£2.8bn) position in its February 2020 trading statement. However, when the company disclosed its profit warning in March 2020, the trading statement only contained details of cash and "available credit" but did not disclose debt levels. Daily Mail and General Trust plc disclosed "pro forma net cash", which *inter alia* excludes (i.e. is gross of) lease liabilities of £75 million under IFRS 16 *Leases*. Panel C Table 6 shows that 79 profit warnings (48%) do not disclose available credit lines. Some profit warnings combined the disclosure of liquidity and credit lines restricting transparency of this disclosure. We find 85 profit warnings (52%) disclose available credit lines.

Governments provided various supports to business to assist in liquidity and some business costs (e.g. salary costs for furloughed staff) (FRC, 2020c). Panel D Table 6 shows 100 profit warnings (61%) do not disclose the use of government support or are unclear whether the company would avail of government support. We find 64 profit warning documents (39%) disclose the use or planned use of government support. Initially, companies viewed COVID-19 as a threat to their supply chains. However, as the virus spread and countries introduced strict measures to slow its spread, normal economic activity came to a standstill. Panel E Table 6 shows 112 profit warnings (68%) do not disclose either the revenue lost or a statement of no lost revenue, due to COVID-19. Some profit warnings report lost revenues but fail to quantify the disclosure. We find 52 profit warnings (32%) disclose revenue lost as a result of COVID-19. Within this group, companies estimate lost revenues based on various measures, including benchmarked against the same prior period or prior expectations.

Due to the lost revenue resulting from COVID-19 and the importance of liquidity, many entities implement measures to control costs and conserve available cash, both in the form of reductions in future operating expenses and putting future capital expenditure on hold. Panel F Table 6 shows that 134 profit warnings (82%) do not disclose any information about future operating expenses, either by not mentioning operating expenses or failing to quantify the disclosure. We find 30 profit warnings (18%) disclose information about future operating expenses. Companies disclose this information in the form of either total future expected operating expenses or savings on future operating expenses. We find 39 profit warning documents (24%) reference "salary sacrifices" by directors or other board members. Some companies report donating the salary sacrifices to charity (see also Illustration 9 earlier). In contrast, Tesco plc (8/4/2020) increased pay for some of its junior staff, "paying a 10% bonus on the hourly rate for hours worked to colleagues across stores, distribution centres and customer engagement centres." Panel G Table 6 shows 143 profit warnings (87%) do not disclose any information about future capital expenditure, either by not mentioning capital expenditure or by failing to quantify the disclosure. Only 21 profit warnings (13%) disclose information about future capital expenditure. These disclosures relate either to the amount (or "all") of capital expenditure saved or total future capital expenditure. Panel H Table 6 shows 100 (61%) profit warnings do not make firm dividend disclosures, either by not disclosing any information about dividends or by making tentative statements (see Illustration 10). We find 64 profit warning documents (39%) disclose information about their dividend policy. IG Design Group issued two trading statements containing three profit warnings, the highest number of profit warnings made by a single company in our sample. Nonetheless, it failed to make a clear dividend intention, stating that it is "assessing" or "continuing to review" its final dividend payment.

Illustration 10: Tentative statement on dividends

"No decision has yet been made regarding the final dividend for FY20." (Auto Trader Group plc, COVID-19 update, 1/4/2020).

4.4. Factors influencing profit warning disclosure quality (RQ3)

Table 7 reports descriptive statistics for the variables in our multivariate OLS regression model. The mean disclosure quality score (DISQUAL) is low at only 30.28%. Reflecting the poor quality, vague disclosure and coy language we found in the profit warnings, we find identifying the forecast end date to be challenging. Profit warning documents express time periods imprecisely, for example as "short term"/"near term"/"going forward"/"coming months"/"looking ahead". For 30 profit warnings, we could not code forecast horizon (FHOR) as the forecast end period is unclear. We verify the correlation between the variables in Table 7 using a Pearson correlation matrix. There are no strong correlations between variables. The highest correlation (0.6874) is between the listing status (LIST) and log of assets (LOG(SIZE)) variables. We expect this correlation as larger firms are listed on the main market of the London Stock Exchange.

Table 8 reports OLS regression results of the relation between the dependent variable, disclosure quality index (DISQUAL), and company and forecast characteristics. The R^2 for the model is low, explaining only 23%/22% of the variation in the disclosure quality (DISQUAL). The two significant variables in the model are the Consumer industry and whether the profit warning was pre/post FRC guidance (2020a). The IND_CON variable includes companies from the Consumer Industry. There is evidence that certain industries (e.g. hospitality, retail, tourism, travel) were especially badly hit by COVID-19. The profit warnings of companies in the Consumer industry have higher disclosure quality. Profit warnings disclosed after the FRC issued its COVID-19 guidance are significantly better quality ($p < 0.001$). Surprisingly, other firm characteristics such as firm size (SIZE), profitability (ROA), leverage (GEAR) and listing status (LIST) are not significant in the model. We suggest this indicates the lack of guidance across all companies, resulting in poor disclosure quality indices regardless of company characteristics. The proxy for pre-profit warning firm risk, BETA (the 5-year historical beta at 28 February 2020), is not significant in the model. The level of risk associated with a firm before the COVID-19 exogenous shock is not significantly related to profit-warning disclosure quality. This finding is important for two reasons. First, it indicates that our conclusions about silence (discussed in Section 4.1) are not because less risky firms disclose less information in profit warnings. Second, the level of risk associated with a firm is not a significant factor for disclosure quality.

We conduct diagnostic tests for multicollinearity by estimating the variance inflation factor (VIF) coefficients for both regressions. The VIF coefficients are below four across variables and regressions, below the threshold of ten (Kennedy, 2008), suggesting multicollinearity does not affect our analyses.

5. Discussion and policy implications

We took advantage of a unique once-in-a-100-year context to collect profit warnings, which companies disclosed in the first four months of 2020 with an unusually intense frequency. Our study of profit warnings responds to calls for research to consider corporate report complexities and subtleties, including technical and social dimensions (Rutherford, 2013). Our research addresses more finely nuanced explanations of the circumstances influencing the nature of these features (Beattie, 2014). Our analysis of profit warnings' features is more extensive than in prior research, going beyond the extent of quantification (Bamber & Cheon, 1998) and forecast accuracy/precision/horizon (Baginski & Rakow, 2012; Brockman et al., 2019; Goodman et al., 2014). Our disclosure quality measure contains a wider range of disclosures, similar to Cazavan-Jeny and Jeanjean (2007) and Kasznik and Lev (1995).

At a time of extreme uncertainty, when investors most need information, we found over 50% of companies regressing to silence, disclaiming to provide guidance or not providing a forecast. Commenting on the lack of earnings guidance from companies, El-Erian (2020) observes that “visibility over future profits is being obscured to an unprecedented degree. Many companies, and not just those operating primarily in physical space, have suspended guidance for the year.” Aside from directors potentially failing in their duty to keep the market informed, this also raises questions around compliance with disclosure and transparency rules and market abuse rules during COVID-19.

We customised our disclosure quality measure to our crisis context. We found poor-quality profit warnings – predominantly qualitative forecasts, containing few assumptions and not signposted in the trading statement document. Coding was difficult because of the vague, ambiguous language in some profit warnings. The disclosure quality score only averaged 30%. Our findings are contradictory. On the one hand, we provide evidence of more frequent disclosure during the COVID-19 crisis; on the other hand, disclosure quality is poor. These findings are consistent with Krause et al. (2017), who find poorer quality disclosure and higher disclosure quantity in forward-looking statements during the global financial crisis than in the pre-crisis period. Our finding also resonates with Abdelrehim et al.'s (2015) conclusion that managers use corporate reporting in a crisis for impression management purposes rather than to inform investors. Many profit warnings include weasel words/mixed messages. They create the impression that everything is fine and make it look as if the document is not a profit warning by disguising/sugar-coating the bad news.

Higher-quality profit warnings followed the FRC's (2020a) guidance published on 26 March 2020, highlighting the importance of good regulatory guidance for these documents. This finding is subject to an alternative interpretation, which deserves further research. Disclosure may have improved because, as time went on, companies had more certainty about the consequences of COVID-19 (or thought they had). We found (untabulated) evidence of isomorphism/mimetic behaviour during our coding of the documents, predicted by institutional theory. Deephouse (1996) conjectures that in periods of uncertainty, organisations imitate each other. In corporate reporting terms, this involves copying the wording of other companies' disclosures. Alvesson and Spicer (2012, p. 1200) comment that organisations may adopt practices because “others are doing it.” Tompkins (2020) notes the change in language and rhythm of corporate communications to the market during COVID-19. By way of example, she highlights the replacement of the phrase “below expectations” by “material uncertainty”.

5.1. Implications for policymakers

Conclusions of the UK Parliamentary Inquiry (House of Commons, 2018, p. 5) into Carillion plc (which disclosed three profit warnings in quick succession shortly before its collapse in January 2018) echo our findings:

“The economic system is predicated on strong investor engagement, yet the mechanisms and incentives to support engagement are weak. This makes regulators such as the FRC and TPR [The Pensions Regulator] more important. The Government has recognised the regulatory weaknesses exposed by this and other corporate failures, but its responses have been cautious, largely technical, and characterised by seemingly endless consultation. It has lacked the decisiveness or bravery to pursue bold measures recommended by our select committees that could make a significant difference. That must change. That does not just

mean giving the FRC and TPR greater powers. Chronically passive, they do not seek to influence corporate decision-making with the realistic threat of intervention. Action is part of their brief. They require cultural change as well.”

Profit warnings are hard to find. Companies file them on the LSE website in multiple news categories. It would be easier to identify profit warnings if the LSE had a separate news category for such announcements. Unlike our Konecranes plc example in Illustration 3, none of our trading statements explicitly identify the trading update as a profit warning. The LSE multiple news categories and the lack of clear labelling in trading statements makes it difficult to identify profit warnings, as highlighted by the variation in the frequency of profit warnings reported by EY (2020) compared with our frequency. These are highly important documents for market participants. We believe companies should have to clearly label their documents as Konecranes plc does so that market participants are in no doubt as to the message in the document.

The content of profit warnings is currently largely unregulated, unlike profit forecasts for inclusion in prospectuses and takeover documents, to which Standard for Investment Reporting 3000 “Investment Reporting Standards Applicable to Public Reporting Engagements on Profit Forecasts” (FRC 2020b) applies. The FRC’s (2020a) and SEC’s (Clayton & Hinman, 2020) COVID-19-induced rushed guidelines for companies highlights a regulatory vacuum. Our research findings of poor-quality disclosures when they are most needed, further emphasise the importance of actively filling that regulatory vacuum.

5.2. Limitations and future research

Our paper is limited by the difficulty we experienced in identifying profit warnings, highlighted by the disparity between the number of profit warnings we collected compared with EY. Some researchers identify profit warnings not by their content (as we did) but by comparing the negative earnings forecast against analyst forecasts, which was not feasible for our research. The regression to silence by over half of our sample of trading statements may bias our sample of profit warnings towards better disclosers. Our disclosure quality measure is an aggregate of several dimensions. An alternative approach would be to focus on individual indicators of quality. We also acknowledge that we based our weighting/allocation of points on researcher judgement – which is common in this type of research (e.g. Botosan, 1997; Brennan, Guillamon-Saorin, & Pierce, 2009; Robb, Single, & Zarzeski, 2001). Some prior research uses attitude surveys to weight the importance of items in a disclosure index (Beattie, 2014; Marston & Shrivs, 1991). Cooke and Wallace (1989, p. 51) observe, “any scaling method for assigning weights to individual disclosure items has the potential to mislead” and further that “the level of importance which is attributable to a disclosure item varies according to the entities, transactions/accounts, the users, company, industry, country and the time of the study.” For large sample sizes, unweighted and weighted scores give similar results (Beattie, 2014). Finally, we acknowledge that manual coding involves subjectivity.

This paper assesses the quality of profit warnings using form-oriented content analysis (Smith & Taffler, 2000). We refer to the vague and ambiguous language in these documents, which deserves more study using, for example, meaning-oriented content analysis or discourse analytic techniques, which would add to the richness of our story. Reviewing profit warning documents through an impression management lens would be another fruitful line of inquiry given our sense that these documents seem to try and disguise that they are profit warnings. Hidden from view is what triggers a profit warning and how boards of directors judge the timing of the release of a profit warning. Kothari, Shu, and Wysocki (2009, p. 246) conjecture that managers have incentives to avoid communicating bad news hoping that future corporate events may turn around and allow them to “bury” it. Research in the style of Gibbins, Richardson, and Waterhouse’s (1990) grounded theory or (auto)ethnographic research could open that black box, acknowledging that access would be challenging but worthwhile.

Appendix 1. Classification and coding guidelines, validation of the coding process, instructions for second coder

These classification and coding guidelines commence with the manual content analysis classification instructions of COVID-19 RNS announcements issued by UK and Irish listed companies.

Following instructions concerning preparatory analysis, the coding guidelines continue with the two quality categories of disclosure: (1) Quality characteristics of the profit warning itself and in the profit warning document (four quality characteristics) and (2) Disclosures in the profit warning document (eight disclosure items).

Coding instructions in respect of profit warning analysis		
Action	Guidance on judgement	
0 <i>Preparatory: Classifying RNS announcements/Identifying profit warnings</i>		
In identifying profit warnings, we classify RNS announcements as follows: (i) No forecast; (ii) Disclaimer of forecast (some companies engaged in language which we interpreted as hedging rather than a disclaimer); (iii) Forecast disclosed not a profit warning; (iv) Reaffirms guidance disclosed previously; (5) Profit warning	ii Disclaimer iii Forecast not a profit warning iv Reaffirms previous guidance	<i>Example (phrase underlined guiding classification)</i> “it is <u>not possible to give FY21 guidance</u> at this time.” (Ryanair Holdings plc 3/4/2020) “At this early stage of the COVID-19 crisis the Board’s preliminary view is that revenue and underlying earnings will be <u>broadly close to FY2019</u> results.” (Alpha FX Group PLC 30/3/2020)

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Coding instructions in respect of profit warning analysis		
Action	Guidance on judgement	
		"The Board expects De La Rue adjusted operating profit for financial year (FY) 2019/20 to be between £20m and £25m, as <u>previously guided</u> ." (De La Rue PLC 31/3/2020)
0	<p><i>Preparatory: Extracting text for analysis from RNS announcements/Identifying text of profit warning</i></p> <p>We extract the text from the announcements, commencing at the headline and ending before the media contact/investor relations housekeeping details at the end of each announcement. [except in a few cases where the announcement continued after the housekeeping details]</p> <p>Identify the profit warning/forecast within the press release/trading statement/trading update</p>	<p>Some profit warnings/forecasts are badly/vaguely worded and it is not possible to identify the disclosure as a profit warning. Some trading updates cannot be read on a stand-alone basis, such that it is clear whether the forecast disclosed is higher/lower than expectations. Where possible, we classify expectations/outlooks/forecasts for the business as a whole. We make a judgement about whether sub-elements of the business convey negative news. When in doubt because of poor writing, we classify the disclosure as a profit warning based on the tone/negative sentiment in the trading statement.</p>
1. Quality of profit warning (Four quality characteristics 1❶ – 1❹ which cross-reference to the analytical framework in Fig. 1)		
1❶	<p><i>Specificity of the forecast</i></p> <p>Code the profit warning/forecast in order of specificity under one of the following five categories:</p> <p>(i) Quantitative point forecast (ii) Quantitative range forecast (iii) Quantitative minimum forecast (iv) Quantitative maximum forecast (v) Qualitative forecast</p>	<p><i>Specificity</i></p> <p>i. Point (£X) (score 2) ii. Range (>£X<£Y) (score 2) iii. Minimum (>£X) (score 1) iv. Maximum (<£X) (score 1) v. Qualitative (score 0)</p> <p><i>Example (phrase underlined guiding classification)</i></p> <p>"we expect Group revenue to be <u>down by approximately £114m (down 90% year on year)</u>, with a reduction in operating profit of approximately £39m compared to last year" (WH Smith plc 6/4/2020)</p> <p>"our best estimate of the impact for the Group is a reduction in EBITA of <u>between £12m and £18m</u> per calendar month" (Britvic plc 23/3/2020)</p> <p>However, since the outbreak of COVID-19 and the subsequent closure of our operations globally, our performance has been impacted. As we are now re-opening our sales channels as discussed above, we estimate our profit before tax for the year ended 31 May 2020 to be <u>no less than £70 million</u>. (Games Workshop Group plc 28/4/2020)</p> <p>"we <u>will not achieve</u> our previous guidance for current year <u>adjusted PBT of £210m</u> or for net debt to be lower year-on-year" (Dixon Carphone plc 26/3/2020)</p> <p>"we no longer expect to achieve our previous expectation" (Stagecoach Group plc 23/3/2020)</p>
1❷	<p><i>Forward-looking information</i></p> <p>Number of assumptions</p>	<p><i>Example (phrase underlined guiding classification)</i></p> <p>1. "<u>assumes</u> that 95% of our store estate remains closed with gradual re-openings" (WH Smith plc 6/4/2020)</p> <p>2. "<u>assumes</u> revenue could be down between 80% and 85%" (WH Smith plc 6/4/2020)</p> <p>>2 assumptions 2 1-2 assumptions 2 None 1 0</p>
1❸	<p><i>Remedial actions</i></p> <p>Number of management remedial actions</p>	<p><i>Example (five remedial actions identified)</i></p> <p>We are implementing mitigating actions to contain costs and protect our financial position, including ❶renegotiating rents, ❷restricting travel and ❸reducing discretionary spending. These include ❹implementing home working for the majority of our office-based teams and ❺reducing work patterns and introducing specific shift rotations for teams whose roles cannot be performed remotely as well as putting in place strict protocols for hygiene and social distancing. (Burberry Group plc 19/3/2020)</p> <p>>8 remedial actions 3 4-8 remedial actions 2 >1-3 remedial actions 1 None 0</p>

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1Ⓐ	Prominence			The wording of the headline intimates bad news <i>Example (phrase underlined guiding classification)</i> Decision to <u>withdraw 2019 dividend proposal</u> (Bank of Ireland 20/3/2020) Q1 robust, full year <u>risks increased due to COVID-19</u> (ConvaTec Group plc 30/4/2020) <u>COVID-19 update; sporting fixture cancellations</u> (Flutter Entertainment 16/3/2020) <u>Covid-19 update Dividend cancellation</u> (The Ince Group plc 26/3/2020) Trading update, Impact of COVID-19 and <u>cancellation of final dividend</u> (RM plc 19/3/2020)
	Heading – Signposting the profit warning	Score		
	Signpost	1		
	No signpost	0		
1Ⓑ	Prominence			Top: Profit warning obviously towards the top of the document Bottom: Profit warning obviously towards the bottom of the document Middle: The majority portion of the document
	Location –	Score		
	Top	2		
	Bottom	1		
	Middle	0		
2.	Items disclosed (Eight disclosure items: 2Ⓐ to 2Ⓒ which cross-reference to the analytical framework in Fig. 1)			
2Ⓐ	Liquidity position			<i>Example (phrase underlined guiding classification)</i> Recent position: “ <u>As at the date of this announcement</u> , cash in bank is circa. £1,700,000.” (Aeorema Communications Plc 5/3/2020) Previous position: “Aeorema has maintained its strong cash position with £1,393,243 in the bank <u>as at 31 December 2019</u> ” (Aeorema Communications 5/3/2020) Not disclosed: “The Company continues to have a positive cash balance” (Van Elle Holdings plc 26/3/2020)
	Cash (quantified)	Score		
	Recent & previous position disclosed	3		
	Recent position disclosed	2		
	Previous position disclosed	1		
	Not disclosed	0		
2Ⓑ	Borrowings			<i>Example (phrase underlined guiding classification)</i> Recent position: “Net debt on a cleared funds basis <u>as at the date of this announcement</u> is approximately £65m.” (Lookers plc 24/4/2020) Previous position: “As reported in the Group’s year end trading update the Board expects to report net debt <u>at 31 December 2019</u> of approx. £62.0m (2018: £86.9m).” (Lookers plc 24/4/2020) Not disclosed: “As the significant land sales referred to above are not progressing, the Group’s net debt level [not quantified] at 31 March 2020 will be similar to that at 30 September 2019” (Inland Homes plc 30/3/2020). Not disclosed: “the Group has two bonds: a £450 million bond maturing in September 2022 and a £300 million bond maturing in May 2032, both of which have no financial covenants” [total debt of the company is not clear] (Melrose Industries plc 30/3/2020).
	Debt (quantified)	Score		
	Recent & previous position disclosed	3		
	Recent position disclosed	2		
	Previous position disclosed	1		
	Not disclosed	0		
2Ⓒ	Credit lines			<i>Example (phrase underlined guiding classification)</i> Disclosed: “The Group has an RCF [Revolving Credit Facility] of £80 million to December 2022. <u>At 31 March 2020</u> , £9.5 million of this facility remained undrawn” (XPS Pensions Group 28/4/2020) Not disclosed: “The cash and available facilities of the Group [cash and credit lines are not separately disclosed] at the year-end were around £515m.” (Mediclinic International plc 17/4/2020)
	Available credit lines (quantified)	Score		
	Disclosed	1		
	Not disclosed	0		
2Ⓓ	Government support			<i>Example (phrase underlined guiding classification)</i> Disclosed: Government cost support: “Government actions across Europe including store business rates suspension, payroll support and lowering of taxes will lower net operating costs. In the UK we expect to lower costs at a <u>rate of over £200m p.a. from the suspension of business rates</u> and the support of our colleague salaries.” Tax deferral: “ <u>The UK Government is allowing deferral</u>
	Support from government	Score		
	Disclosed	1		
	Not disclosed	0		

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			of VAT which reduces our near-term cash outflow by around c.£140m ... and <u>various tax deferrals</u> in International will reduce near term outflow <u>by a further c.£50m.</u> " (Dixons Carphone plc 26/3/2020) Not disclosed: "... we will explore the newly announced Covid Commercial Financing Facility (CCFF) from the Bank of England" (Britvic plc 23/3/2020) <i>Example (phrase underlined guiding classification)</i> Disclosed: "The stores that are now closed were <u>expected to contribute sales of c.£400m</u> for the rest of the year." (Dixons Carphone plc 26/3/2020) Not disclosed: "there is likely to be some reduction in revenue compared to its previous expectations" (Quartix Holdings plc 27/4/2020).
2⑥	<i>Lost revenues</i> Revenue lost /selling space closed (quantified) Disclosed Not disclosed	Score 1 0	
2⑥	<i>Future operating expenses</i> Future operating expenses (quantified) Disclosed Not disclosed	Score 1 0	<i>Example (phrase underlined guiding classification)</i> Disclosed: " <u>Operating expenses, excluding variable remuneration, are now expected to increase by around £40 million in FY20, to £300 million</u> " (IG Group Holdings 24/4/2020) Not disclosed: "Operating costs will continue to fall in 2020 after absorbing additional coronavirus-related expenses" [disclosure not quantified] (Lloyds Banking Group plc 30/4/2020). <i>Example (phrase underlined guiding classification)</i> Disclosed: " <u>Reducing planned capital expenditure</u> for the year ending 30 April 2021 <u>to c.£500 million</u> from the initial range of £1.1 to £1.3 billion" (Ashtead 27/4/2020) Not disclosed: For example, we do not code the following as disclosures of capital expenditure on the grounds that the disclosures are too vague: "these actions have included the deferral of all discretionary capital expenditure" (James Fisher and Sons plc 30/4/2020)/"immediate reductions in capital expenditure" (International Personal Finance plc 30/4/2020). In the first example, the word "discretionary" could mean anything. Disclosed: Conversely, we code the following as capital expenditure disclosure as the reference to "all" is clear, notwithstanding it is not quantified: "The roll-out programme has been paused for the time being, as has <u>all capital expenditure</u> " (Loungers plc 18/3/2020).
2⑦	<i>Future capital expenditure</i> Plans (quantified) Disclosed Not disclosed	Score 1 0	
2⑧	<i>Dividends</i> Dividend position Disclosed with specifics Not disclosed/not specified	Score 1 0	<i>Example (phrase underlined guiding classification)</i> Disclosed: "the Board has decided to act prudently <u>to withdraw its recommendation to pay a final dividend.</u> " (Vivo Energy PLC 30/4/2020) Not disclosed: "No decision has been made regarding the final dividend for FY20" (Auto Trader Group plc, 1/4/2020)

Disclosure quality index: $X_{\text{Company score}} - \text{sum of 12 scores} / X_{\text{Maximum score 22}}$

Profit warning quality characteristics: (① = 2; ② = 2; ③ = 3; ④ = 1; ⑤ = 2 = 10 Maximum)

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Items disclosed: (① = 3; ② = 3; ③ = 1; ④ = 1; ⑤ = 1; ⑥ = 1; ⑦ = 1; ⑧ = 1 = 12 Maximum)

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