Accounting, Organizations and Society xxx (2017) 1–22

Contents lists available at ScienceDirect

Accounting, Organizations and Society

journal homepage: www.elsevier.com/locate/aos

The economic consequences associated with integrated report quality: Capital market and real effects

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A R T I C L E I N F O

Article history:
Received 4 December 2015
Received in revised form
23 August 2017
Accepted 24 August 2017

Keywords:
Integrated reporting
Corporate social responsibility
Firm value
Cost of capital
Expected future cash flows
Liquidity
Investment efficiency
South Africa

A B S T R A C T

The International Integrated Reporting Council's Framework identifies two goals for integrated reporting: improved information for outside providers of financial capital and better internal decision making. We extend prior research that finds a positive association between integrated report quality (IRQ) and firm value by examining two channels through which this association may arise—a capital market channel and a real effects channel. To conduct these tests, we disaggregate firm value into three components: liquidity, cost of capital, and expected future cash flows. Using data from South Africa where integrated reporting is mandatory and an IRQ measure based on proprietary EY data, we find a positive association between IRQ and liquidity, which supports the capital market channel. We find no evidence of a relation between IRQ and cost of capital. We also find a positive association between IRQ and expected future cash flows. Because this association could reflect better investor cash flow forecasts—a capital market effect, better internal decisions—a real effect, or both, we attempt to distinguish these explanations. We find higher IRQ is (not) associated with higher realized future operating cash flows (greater analyst target price forecast accuracy), and find higher IRQ is associated with higher investment efficiency. These findings support the real effects channel. Together, our findings are consistent with integrated reporting achieving its dual objective of improved external information and better internal decisions.

1. Introduction

The question we address is how integrated report quality, IRQ, is associated with firm value. In particular, we identify two channels through which IRQ may be associated with firm value—a capital market channel that relates to improved information for outside providers of capital and a real effects channel that relates to improved internal decision making. Our motivation for focusing on these effects is that the International Integrated Reporting Council's (IIRC) Framework identifies two aims for integrated reporting: (1) improving the quality of information available to outside providers of financial capital to enable more efficient capital allocation and (2) supporting integrated internal thinking, decision-making, and actions that focus on value creation for the firm. Thus, in contrast to accounting standards or other types of disclosure regulation, e.g., the U.S. Securities and Exchange Commission's (SEC) Form 10-K, integrated reporting has the dual objective of providing information to external and internal decision makers. We empirically evaluate the extent to which, and how, integrated reporting achieves this dual objective.

Since the release of the IIRC Framework in 2013, worldwide interest in integrated reporting continues to grow. According to the IIRC, more than 1500 firms currently prepare an integrated report, including AES Brasil, Clorox, GE, Mitsubishi, Novo Nordisk, Tata Steel, and Vivendi. There also has been strong support for integrated reporting from the large accounting firms as well as standard-setters and professional accounting bodies in various countries. Among regulators, the IIRC Framework recently was endorsed by China's Ministry of Finance, and the Securities and Exchange Board of India (SEBI) is encouraging the top 500 listed firms in India to adopt voluntarily integrated reporting starting with the 2017–2018 financial year. Further, the IIRC has started to engage with other standard-setters, including the International Accounting Standards Board (IASB) and the U.S. Financial Accounting Standards Board (FASB), as part of the Corporate Reporting Dialogue to consider alternative disclosure models, and Richard Howitt, the IIRC Chief Executive Officer, has identified 2018 as the start of a "global

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http://dx.doi.org/10.1016/j.aos.2017.08.005
0361-3682/

Please cite this article in press as: Barth, M. E., et al., The economic consequences associated with integrated report quality: Capital market and real effects, Accounting, Organizations and Society (2017), http://dx.doi.org/10.1016/j.aos.2017.08.005

adoption phase," the goal of which is to make integrated reporting the norm (Howitt, 2017). Against this backdrop, empirical evidence on the benefits associated with integrated reporting is sparse.

As a first step in our evaluation, we determine whether the finding in prior research of a positive association between IRQ and firm value holds for our sample. We then disaggregate firm value into three components—liquidity, cost of capital, and expected future cash flows—and determine whether IRQ is associated with greater liquidity, lower cost of capital, and higher expected future cash flows. We conduct the analyses of each component using levels and changes specifications. Relating to the two channels through which IRQ can affect firm value, we view liquidity and cost of capital as capital market effects. However, a positive relation between IRQ and expected future cash flows could be attributable to capital market participants being able to estimate future cash flows more accurately because they have better information—a capital market effect—or managers making better decisions that generate higher future cash flows—a real effect—or both. Thus, we determine whether analysts' target price forecast accuracy is higher for firms with higher IRQ, which would support the capital market interpretation, and whether realized future operating cash flow is higher for firms with higher IRQ, which would support the real effect interpretation of the relation between IRQ and expected future cash flow. We provide additional evidence on the real effect channel by determining whether IRQ is associated with firms' investment efficiency by examining a specific type of internal decision, i.e., investment decisions.

Our data come from South Africa where integrated reporting is a requirement of the Johannesburg Stock Exchange (JSE). The advantage of the South African setting is that we avoid concerns about self-selection that arise when issuance of an integrated report is voluntary. A distinguishing feature of our study is that we obtain proprietary data from EY, which rates the quality of integrated reports of the top 100 JSE firms each year in terms of market value of equity, to measure IRQ. We have access to each firm's report quality category, which is released publicly, and the underlying scores for each quality dimension, which are not. According to the chair of the EY panel that rates the reports, the ratings focus on the quality of the disclosure, specifically whether the integrated report gives readers a sense of the firm's strategy and value creation process. Thus, our measure of IRQ is not simply a disclosure index that captures the presence or absence of particular items. In addition to the independent nature of the rating and its focus on quality, there are two benefits of using the EY ratings: the EY adjudicators are experts and the detailed EY score sheet and data allow us to disaggregate the IRQ score into its components based on the IIRC Framework.[1]

We find a positive relation between IRQ and firm value, measured by Tobin's Q, which is consistent with the findings in Lee and Yeo (2016). We also find that firms with larger annual increases in IRQ have larger increases in firm value. Relating to liquidity, as predicted, we find that IRQ is negatively associated with bid-ask spread, an inverse measure of stock liquidity, after controlling for corporate governance, Corporate Social Responsibility (CSR) performance, accounting quality, firm complexity, overall disclosure quality, and other factors. We also find that firms with larger annual increases in IRQ have larger decreases in bid-ask spreads. Relating to expected future cash flows, we find a significant positive association between annual changes in IRQ and changes in analyst estimates of future share prices, i.e., target prices. The relation also is positive for levels of expected cash flows, but not significantly so. Relating to cost of capital, we find no evidence of a relation between IRQ and the average of four cost of capital proxies commonly used in the literature. Taken together, these findings indicate that IRQ is associated with firm value through increased liquidity and expected future cash flows.

To provide additional insights into which features of integrated reports are associated with firm value, we map the proprietary disaggregated EY quality data into 12 categories that reflect the guiding principles and content elements in the IIRC's integrated reporting framework. We find that connectivity, stakeholder relationships, materiality, and conciseness are the most important drivers of our findings for firm value and for its liquidity and expected cash flow components. The importance of connectivity is particularly pertinent because connectivity is closely linked to integrated thinking, which is key to achieving the dual objective of integrated reporting.

Results from our analyses relating to analyst cash flow forecast accuracy and realized future operating cash flows indicate that our finding of a positive relation between IRQ and expected future cash flows is driven by real effects rather than capital market effects. First, we do not find an association between IRQ and analysts' target price forecast accuracy, which suggests that higher IRQ is not associated with more accurate cash flow forecasting. Second, we find a significantly positive association between IRQ and *ex post* operating cash flows, which is consistent with improved decision making by managers. We also find a significantly positive association between IRQ and investment efficiency, which also supports the real effects channel. Our investment efficiency evidence is consistent with integrated reporting facilitating integrated thinking whereby managers of firms with higher IRQ recognize interdependencies between various types of capital and parts of the firm, which enables them to make better investment choices.

Our study contributes to the literature and practice in several ways. First, we add to the limited empirical research on integrated reporting by extending Lee and Yeo (2016) and Zhou, Simnett, and Green (2017), which also focus on South African firms. Whereas Lee and Yeo (2016) examine whether IRQ is associated with firm value, we investigate the channels by which this association occurs. Whereas Zhou et al. (2017) investigate two capital market effects of integrated reports, i.e., analyst forecast properties and cost of capital, they do not link these effects to firm value and do not consider real effects, which we do. Second, we answer Leuz and Wysocki's (2016, 530) call for research on disclosure in "novel settings" in countries outside the U.S. and to examine "nontraditional disclosure" and "the real effects of disclosure mandates." Third, we extend the literature on implications of extra-financial information (Dhaliwal, Li, Tsang, & Yang, 2011; Dhaliwal, Radhakrishnan, Tsang, & Yang, 2012; Lu, Shailer, & Yu, 2017; Plumlee, Brown, Hayes, & Marshall, 2015). The relations we document include controls for the issuance of a standalone CSR report as well as accounting quality and overall disclosure quality. Thus, our evidence shows that integrated reports are associated with benefits incremental to those associated with existing reports, such as standalone CSR reports. Fourth, we provide evidence for managers, practitioners, standard-setters, regulators, and investors as they evaluate the merits of integrated reporting. For example, the SEC issued a Concept Release on proposed changes to business and financial disclosures required by Regulation S-K and asked, "How important to investors is integrated reporting, as opposed to separate financial

[1] Regarding the first benefit, the three adjudicators who evaluate the integrated reports on behalf of EY are professors at the University of Cape Town with extensive experience in reading and evaluating firms' corporate reports. Together they have more than 50 years of such experience. One adjudicator serves on the board of directors of the Global Reporting Initiative and was a member of the Integrated Reporting Working Group of the South African Integrated Reporting Committee, and another offers an elective module in integrated reporting at the University of Cape Town Business School. Regarding the second benefit, we are among the first to provide evidence on the association between the separate components of IRQ and economic consequences. These benefits come at the expense of a sample restricted to the top 100 JSE firms.

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