



Contents lists available at [ScienceDirect](#)

Management Accounting Research

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



Exploiting regulatory changes for research in management accounting[☆]

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ARTICLE INFO

Keywords:
Research opportunities
Regulatory change
Performance measures
Compensation

ABSTRACT

This paper describes recent regulatory changes in the European Union to illustrate opportunities for research in management accounting. Issues are whether a regulation is effective in achieving its objective, how it affects the organizational design and decision making in firms, and what additional data become available. I particularly consider the areas of management compensation, risk management, performance measures, non-financial information, the influence of financial reporting, and accountability.

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1. Introduction

I have been invited to share my views on opportunities for future research in management accounting. These views are necessarily subjective and shaped by my own research perspective, which is economics-based. Accordingly, my comments should be read as complementing, rather than substituting, other perspectives. This commentary is not intended to be a survey; I am highly selective in presenting opportunities I find promising and worthwhile exploiting.

The theme I focus this commentary on is motivated by increases in regulation in many areas, including, of course, corporate governance and financial markets. With regulation I broadly mean existing (and sometimes emerging) laws, other legal requirements, standards, and widely recognized guidelines. We have seen cycles in which regulation or deregulation was more prevalent; but during the last one or two decades, we experienced a significant increase in regulation that is relevant for management accounting. This regulation was boosted mainly by financial or economic crises. For example, in the aftermath of the Internet bubble in the early 2000s regulation of corporate governance and transparency made a leap forward; a similar development occurred after the global financial crisis in the late 2000s and further, more current, regulation

deals with the consequences of the economic crisis that followed the financial crisis.

Regulatory changes like these provide fertile ground for management accounting research for at least three reasons:

- i) The stated objective of a regulatory change is to affect firms and managers, respectively, to motivate desirable behaviors or to discourage behaviors that are considered undesirable. A straightforward (but not at all simple) research question is whether the regulation is effective in achieving its objective, including an assessment of its direct and indirect costs and benefits.
- ii) A related research question is how regulation alters the organizational design of firms, i.e., how firms optimally react and adjust or innovate their internal organization, decision-making and operations.
- iii) In many cases, new regulation or standards require firms to disclose more information on corporate governance and on their business operations. The availability of such data provides researchers with new opportunities for empirical tests.

At the first glance, it might seem odd that regulation should have a significant effect on management accounting because firms determine their internal organization and management decision processes internally. But as will become apparent, there are many regulatory influences that provide constraints to organizational design, incentives, and management accounting procedures.¹

[☆] This Commentary is based on my remarks in a panel discussion at the Management Accounting Research 25th Anniversary Conference at the LSE in April 2015. I thank the Founding Editors of Management Accounting Research, Bob Scapens and Michael Bromwich, for inviting me to participate on this panel and Wim Van der Stede (Editor-in-chief) also for helpful comments.

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¹ [Van der Stede \(2011\)](#) discusses opportunities and challenges resulting from regulatory reforms as a consequence of the financial crisis. Some of his observations are also reflected in this commentary.

I use recent regulatory changes in the European Union (EU) as an illustration to explore opportunities for research in management accounting. The EU is one of the largest economies and its legal structure is special in that most of the regulatory action occurs at the country level, although the kick-off often occurs at the EU level. The result is a high level of harmonization across EU countries, but differences on the country level prevail and can be exploited by research.

2. Recent regulatory changes in the European Union

The European Union has been highly active in developing new regulation in the area of corporate governance and financial markets. Most of the major regulatory initiatives were motivated by the desire to harmonize company law and to develop a common financial market within Europe. The early directives in the area of financial accounting and company law attempted to make member countries' legal systems more comparable to foster a common market. In 1999, the Financial Services Action Plan set out a road map to create an integrated financial market; recently, the Green Paper "Building a Capital Markets Union" from 2015 aims at facilitating investment and growth. Other regulatory actions were responses to economic and financial crises.

To achieve its objectives, the EU uses a variety of regulatory instruments: (i) The most common instrument are directives, which require member states to transform the directives into national law, usually within a period of two years after the directive became effective. (ii) Occasionally, the EU enacts regulations that directly apply to companies located in the EU; a prominent example is the IAS Regulation from 2002, requiring listed companies to adopt International Financial Reporting Standards for their consolidated financial statements. (iii) A weaker instrument are recommendations by the European Commission, which are issued if a consensual proposal for a legal instrument is deemed difficult to achieve. Examples are recommendations that restrict compensation of managers of listed companies and for banks and investment companies. Recommendations create awareness in the member states on the particular issue and invite them to take measures to implement the substance of the recommendation. The Commission monitors the implementation through reports by member states, which generates an incentive for governments to apply them. (iv) The European Commission issues Green Papers that include tentative views on particular issues, White Papers that offer more concrete plans, and communications to inform about its plans for future regulatory initiatives.

Besides, and constrained by, these activities on the EU level, member states regulate other areas of corporate governance and financial markets on the national level. Corporate governance is a particular case in which there exists little EU-level regulation. Regulation (in a broad sense) of corporate governance occurs through local law and through corporate governance codes that include comply-or-explain rules. The codes offer companies some flexibility in applying governance principles and combine this flexibility with a transparency requirement rather than strict compliance with a particular rule.²

This rich regulatory environment provides a plethora of interesting areas for management accounting research. Before I give examples for specific research questions, I briefly consider different approaches to study such questions.

First, if an issue moves on the agenda of regulatory bodies, this move indicates that the issue is deemed important and, thus, research on it can easily be motivated to be relevant. Research can

seek to assess the phenomena that trigger regulatory action and the measures that are discussed in the regulatory domain and those that are finally selected. As outlined above, the process of developing new regulation in the EU occurs in several stages and moves usually relatively slow.

Second, research can study how regulation affects company behavior, including the organization, management, performance measures, and other design choices. Ex ante research includes theoretical research that attempts to understand the likely effects of regulation, not only the direct and intended effects, but also undesirable consequences. Empirical studies at this stage include experimental research and, if existent, archival, field, and case studies from countries or areas that are subject to regulation that is similar to the proposed regulation. In a way, impact assessments required by the EU for proposed legislation attempt to do something similar, albeit usually with less rigorous means than researchers use. Note that the more comparable and uniform institutions become across the world, the less opportunities exist for such ex ante empirical studies.

Ex post research exploits the change in the regulation to study the actual effects on companies and markets. Some regulatory bodies require post-implementation reviews to learn if the regulation achieved its objective and whether it is advisable to adjust the regulation.³ From an empirical perspective, regulation ideally provides an exogenous shock as a natural experiment that allows identifying and assessing the changes that were caused by the regulation. However, one might question the truly exogenous nature of regulation; for example, many commentators argue that the global financial crisis was triggered by poor corporate governance in financial institutions; and subsequent regulation tried to exactly improve governance. In the absence of a clear exogenous shock, causality is difficult to establish, but the econometric tool set is growing.⁴ Typical issues include, for example, the lack of a control group that is not affected by the regulation, but is otherwise comparable to the treatment group. Regulatory changes often occur jointly with changes in other areas or in the economic environment, which makes it hard to attribute any observed changes in behavior to the particular regulation. A practical difficulty is that the regulatory process takes time, and companies use the time to already start adjusting their organization to cope with the anticipated changes. That means there are possible self-selection issues empirical research has to deal with already before a regulation becomes effective.

The EU environment provides several research opportunities. Despite the many efforts to harmonize laws in the member states, differences continue to exist. For example, there is diversity across Europe in several areas of corporate governance, e.g., some countries have one-tier boards while others have two-tier boards, which implies directors have different responsibilities. Moreover, using the *Societas Europaea* (SE), a European corporation, as their legal form companies can choose between the two governance forms. Of course, just comparing, say, company performance in two countries with different board structures does not provide insights into causal relations because there are many other (and often unobservable) reasons for different performance.

A specific feature that enables empirical research to exploit regulatory change in Europe is that member states may implement EU directives at different times within a period. In financial accounting, the requirement to adopt IFRS in Europe illustrates ways to take this opportunity. For example, [Daske et al. \(2013\)](#) specifically

³ For example, the IASB requires post-implementation reviews of its major new standards as part of its standard-developing process.

⁴ Recent work includes, e.g., [Gippel et al. \(2015\)](#) and [Gow et al. \(2015\)](#).

² Recently, there seems to be a trend to more regulation by law.

use cross-country adoption patterns to identify economic effects of the adoption of IFRS.

3. Research opportunities in particular areas

3.1. Management compensation

Management compensation has come under scrutiny by regulators particularly in the aftermath of the global financial crisis. In 2009, the European Commission issued two recommendations to constrain the remuneration of directors, one for listed companies and the other for companies in the financial sector.⁵ Despite being only recommendations, most of the member states adopted measures that implemented the proposals laid out in the recommendations within a year. In their recommendations, the European Commission questions whether executive remuneration has increased “too much”, creating a mismatch between executive pay and performance, has become “too complex”, and whether it provides “appropriate” incentives or, as the Commission suggests, leads to excessively short-term decision making and excessive risk-taking, including “pay for failure”. The recommendations propose that executive remuneration be aligned with the long-term interest of companies and avoid “perverse incentives” (European Commission, 2009c, p. 18). To effectuate this alignment, they include constraints on the structure of compensation and the payout of compensation, stock-based compensation, and termination payments. Moreover they suggest strengthening corporate governance with respect to the design and the review of compensation. In 2014, the European Commission made a proposal for a directive that requires a more detailed remuneration report and gives shareholders the right to approve the remuneration policy (European Commission, 2014).

Besides the potential availability of additional compensation data, these recommendations (and their adoption in member states) motivate many interesting research questions, including the base question whether it is appropriate to presume that companies are unable or unwilling to implement “optimal” compensation systems in their self-interest, which is what the European Commission suggests, and if so, why this is the case. There has been research addressing desirable and undesirable consequences of several specific proposals, but there is still much to learn about the consequences of imposing constraints on compensation as one, but only one, measure to shape incentives of decision makers in companies, and whether effectiveness should be assessed in a broader context.

3.2. Risk management

In its recommendation for the financial industry, the European Commission (2009b) specifically suggests ways to control risk-taking and risk management in firms. Measures include a specific long-term framework for compensation, adjustments for current and future risks related to performance, and deferred compensation. A key issue is that common compensation packages create asymmetric consequences of high and low performance, resulting from risk aversion, the convexity of compensation functions, or institutional constraints (organizations are often blamed for failure, but not lauded if things go well).

Various angles of risk management have been a focus of much research in management accounting, particularly following the Sarbanes–Oxley Act of 2002 in the U.S. that has been seen as

imposing high costs of compliance to firms.⁶ But there are still open questions. Fundamentally, risk is the second moment of a performance distribution, which is difficult to handle, and risk is not observable per se, but is only inferred through past realizations of performance. Compensation that is sensitive to risk may have unconventional characteristics; e.g., inducing less risky activities can require non-monotonic compensation in performance with lower compensation for both low and high performance; high actual performance is indicative of risky decisions combined with luck, which should be discouraged. Of course, this comes at the cost of inducing lower effort in general.⁷ It is also interesting to study risk management actions, particularly hedging (or speculation), which essentially transform cash flow profiles earned through operating activities into arbitrary other cash flow profiles by the use of financial instruments.

Even if it were possible to measure risk attitudes and risk appetite (and design compensation to adjust it to a desirable level), it is another issue what is the appropriate level of measuring risk: the individual, group, institutional, or cultural levels? Many decisions in companies are made by committees, and our knowledge of how such groups really work is still limited, although important to assess how specific regulatory constraints affect collective decisions. It is also worthwhile asking what constraints to compensation schemes for executives mean for the compensation of managers at lower levels of a firm; e.g., do firms impose similar constraints to their compensation packages to align their incentives with top management incentives?

3.3. Performance measures

The discussion of management compensation also touches on the issue of short-termism and the alleged lack of a long-term perspective of managers. Restrictions on compensation or incentive functions or structures are one way to deal with this issue; another way is the selection and design of the performance measures that form the basis for the compensation.

Management accounting research has been developing and studying performance measures for a long time. The push from regulation promotes research that engages in examining measures that capture long-term performance. Questions include, but are not limited to, the following issues:

- Do performance measures useful for decision-making purposes also fulfill the need for stewardship and accountability?
- How do short-term and long-term measures interact, are they complementary or substitutive, and how should they be aggregated (or weighted) in the compensation function?
- How do performance measures capture risk?
- Is it useful to focus on lead measures, what is the value of lagging measures, and how might they be considered jointly?
- How do performance measures generally, and long-term measures particularly, relate to subjective performance measures? Does specific compensation regulation suppress subjective performance measures or encourage their more widespread use?
- Regulation requires firms to provide more transparency about their performance measures. How does that affect their choice and implementation?

To briefly elaborate on one of these questions, consider the interplay between performance measures and compensation in a

⁶ One major issue with natural experiments using the Sarbanes–Oxley Act is the lack of a control group in the U.S. Iliev (2010) is an example of a possible way to address this issue.

⁷ See, e.g., Chen et al. (2010).

⁵ See European Commission (2009a,b).

balanced scorecard. When it comes to weighting the measures for incentive compensation, little attention is usually paid to correlations between the different performance measures in the scorecard. Economic theory suggests that in the case two measures are individually positively associated with performance and are positively correlated between each other, the optimal weight of one of them may be negative in the optimum, despite the fact that it is positively associated with performance in isolation.⁸ The reason is that the negative weight helps eliminate some common risk factor in the individual measures in the aggregate. Insights such as these are worth studying empirically, and the opportunities to do so rise because more data on key performance measures and management compensation have become available.

The European Commission addresses means to stimulate long-term financing in a Green Paper (European Commission, 2013) and a follow-up Green Paper on a capital markets union (European Commission, 2015) that particularly focuses on small and medium-sized firms and their access to financing. This initiative identifies potential reasons for short-termism that result from accounting, such as fair value measurement and the volatility it introduces, and the high frequency of reporting. I will discuss fair value measurement below. With regard to reporting frequency, the Commission acknowledges that “too” frequent reporting might create wrong incentives by pushing users of reports to focus on short-term performance and ignoring long-term consequences.⁹ Indeed, some research suggests that this occurs if users make rational inferences about long-term effects based on short-term performance measures. Applied to management accounting, this suggests there may be costs of frequent internal reporting and, accordingly, an “optimal” reporting frequency. It is likely that concerns about reporting frequency, as well as the sheer volume of reports, increase with the greater availability and the lower cost to analyze big data.

3.4. Reporting non-financial information

Since the early 2000s, the European Union has taken several initiatives to require companies to report non-financial information. This initiative was less driven by capital markets and governance concerns, but more by general concerns about sustainability and environmental issues. In a communication, the European Commission (2011) sets out its strategy for corporate social responsibility for the next three years.¹⁰ It praises the EU for its global leadership in companies providing corporate social responsibility (CSR) and similar reports. However, the European Commission does not provide guidelines for reporting nor prescribe a particular form of the reports. These are the domains of several other institutions and groups, such as more recently the International Integrated Reporting Council (IIRC) that develops the International <IR> Framework (IIRC, 2013).

In a follow-up directive, the European Union (2014) mandates disclosure of non-financial indicators and diversity information by certain large companies to improve consistency and comparability of such information throughout the EU.¹¹ Among others, it requires preparation of a “consolidated non-financial statement,” which includes a description of the business model, the policies pursued, principal risks, and non-financial key performance indicators. It remains to be seen how member states transform the requirements and what non-financial information firms do disclose

in this statement in practice and why they do so. In any case, this regulation will lead to the availability of more data about performance measures other than those reported in financial statements, which can be used to gain more insights into the choice of non-financial measures, their characteristics and interactions.

3.5. Influence of financial reporting on management accounting

Financial information used in management accounting usually derives from the financial accounts; sometimes, it is adjusted for specific purposes and analyses. For example, constructing an economic-value-added measure usually includes an analysis of incentive effects the measure has on operating and investment decisions and making adjustments where deemed appropriate, such as, e.g., for research and development or non-recurring items.

Given this interdependence, the IAS Regulation (European Union, 2002) that requires listed companies to adopt IFRS in the consolidated financial statements (and the option for member states to mandate IFRS for individual accounts and for private firms as well) has had an impact on management reporting systems. It is then interesting to gain a better understanding if firms make additional adjustments to reduce the impact or fewer adjustments if they believe IFRS better depicts the economic substance of managerial decisions. It is also possible that some performance measures that had been used for management reporting are replaced by others supplied after the adoption of IFRS.

Through the interdependence of financial and management accounting, interesting questions also arise when new or amended IFRS are enacted. For example, the recent IFRS 15 on revenue recognition requires allocating the transaction price of a multi-components contract to separable performance obligations based on their fair values. An effect is that revenue and profit are often deferred to later periods, thus interfering with measuring performance and providing incentives at the time of closing a deal. A more widespread use of fair values can curb management incentives if the market anticipates future management performance in forming current prices; in that case the manager is evaluated based on expected rather than on delivered performance (see Dutta and Zhang, 2002). Determining fair values of assets and liabilities using subjective assumptions (“level-3” fair values) creates opportunities to bias performance measurement and may lead to wrong decisions.

Of current interest to management accounting is the development of a new Conceptual Framework. The IASB published an exposure draft in 2015 (IASB, 2015) that, among others, discusses ways to portray financial performance of firms, which is fundamental for management accounting. According to the exposure draft, rather than assessing period performance directly, financial performance is a result of the definition, recognition, and measurement of assets and liabilities. The exposure draft discusses historical cost and current value (including fair value and value in use) and how changes in the values affect either profit or loss or other comprehensive income. Earnings figures can differ widely, and so would management decisions that are based on these figures. It also makes a big difference for budgeting and variance analysis whether historical-cost or current-value based measures are used. Research questions include, for example, how organizations cope with these and other effects.

Some IFRSs include a “management approach”, which requires companies to disclose in their financial statements management accounting information if it is reported internally. The two most prominent examples are segment reporting and risk reporting. Under IFRS 8 companies are obliged to disclose segment earnings as they are used internally (regardless on what basis they are calculated, i.e., it need not be IFRS). Under IFRS 7, companies must disclose aggregated quantitative risk measures that

⁸ See, e.g., Feltham and Xie (1994).

⁹ In fact, the Transparency Directive (European Union, 2013) generally prohibits member states from imposing more frequent financial reporting than half-yearly. See Gigler et al. (2014) for an analysis of reporting frequency.

¹⁰ Williamson et al. (2014) provide a list of CSR activities in each EU member state.

¹¹ See also the standards developed by the Sustainability Accounting Standards Board (SASB) in the U.S., which develops industry-specific metrics.

are reported internally to key management. A research opportunity arises because internally used information must be disclosed. Another interesting question is whether the disclosure requirement itself affects the selection of the data that are reported internally.¹² For example, if the key performance measure by segment reveals (too) much information to, say, competitors, firms may refrain from using that measure in the first place, which is presumably costly to the firm because it foregoes information for its own decision making.

3.6. Accountability of management

My final example for the impact of regulation on management accounting is the increasing importance of accountability of management from a legal perspective. Managers act as agents for their principals and are subject to duty of care in making decisions that may adversely affect company performance. Managers have come under scrutiny because of instances of egregious behavior that became public and subsequent court cases that were prominently featured in the press. Such instances have also led to additional regulation to increase accountability and legal liability in many countries.¹³

The problem of course is that it is difficult to distinguish between careful management that just turned out to be unlucky and reckless management that inevitably increases the risk of a loss. In many countries there exists a business judgment rule that, loosely speaking, presumes that management acts in the best interest of the company if they acted in good faith and on an informed basis. Thus, management should not fear legal action simply because a management decision turned out to be unsuccessful in hindsight. A key requirement of the business judgment rule is that decisions should be made on an informed basis. This requirement translates into a need for extensive documentation of the process of arriving at significant decisions, for example, what sources of information were available and used (or not used), the methods employed to evaluate alternatives, and how the decision was reached. These issues are usually the responsibility of management accountants, who are also instrumental in providing information, effective internal controls, risk management, and corporate governance in place. Requiring documentation that is the basis of possible later justification may alter the decisions taken by management in the first place. For example, options for which better data are available may become preferable, regardless of the opportunities and risks of the respective decisions (although these usually correlate). It may also lead to a standardization of decision processes and even to increased outsourcing of work to prepare decisions to consulting experts rather than relying on management accountants in the firm. More research on such issues is important to better understand the effects of legal liability regimes on management accounting.

4. Conclusions

This commentary seeks to highlight opportunities for research in management accounting that result from changes in regulation broadly defined, using the example of regulatory activities in the European Union. I discuss some initiatives and reforms that constrain management compensation, require risk management, the reporting of performance measures including financial and non-financial information, the influence of financial reporting on management accounting, and accountability. For each of

these initiatives, I note some (in my personal view) interesting and under-explored research questions.

Some of these research questions are more apt for theory work, others for empirical studies. Many of these regulatory changes come along with disclosure and transparency requirements, thus providing new data that can be used in empirical studies. Moreover, positing that a change in regulation is an exogenous event, it allows to better test causality rather than to merely document associations between variables of interest.

An interesting question – that is more often asked in the financial accounting area – is whether management accounting research can inform regulators and standard setters or takes their decisions as given and analyzes them ex post. Unfortunately, it appears that research findings does not seem to have had a strong impact on the regulation of corporate governance. More research in the area may increase its impact, though.

On a final note, presuming that regulators and standard setters do not usually reduce their activities, there are, and will be, plenty of research opportunities. It is therefore unlikely that management accounting research driven by regulatory changes will dry up in the future.

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¹² See, e.g., Angelkort and Weißenberger (2011).

¹³ This development is not specific to managers. Consider auditing, consulting, medical doctors, and other areas.

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