

FINANCIAL STATEMENTS' DISCLOSURE IN THE ELECTRONIC FEDERAL GAZETTE AND PROPRIETARY CONCERNS – A DIFFERENTIAL DISCLOSURE FRAMEWORK FOR POLICY MAKERS AND EXPLORATORY EVIDENCE ON EFFECTS DEPENDENT ON SIZE, OWNERSHIP AND DIVERSIFICATION

*Markus Grottko, Johann V. Löffelmann, Felix Haendel, Thomas Späth**

Abstract: We develop a framework for discussing regulatory activity in the area of differential disclosure systems. In particular, we define differential disclosure systems as being composed of three elements. The first element consists of the pieces of information that are unregulated and, therefore, subject to a market solution. The second element is made up of those pieces of information that are regulated and, therefore, subject to a compulsory disclosure requirement. Finally, the third element is the criteria that determine which pieces are regulated and unregulated for which firms, respectively. To illustrate the usefulness of our framework we examine the repercussions of the Electronic Federal Gazette that was introduced in Germany in 2007. In particular, we present exploratory empirical findings from an online survey of 126 small and medium-sized entities in Bavaria, a federal state of Germany. The survey participants' ultimate judgment of the Electronic Federal Gazette turns out to be negative. They

* Markus Grottko is research assistant at the Chair of Taxation, University of Passau (Full Chairholder: Prof. Dr. Markus Diller) and lecturer at the SRH Hochschule für Wirtschaft und Medien in Calw. Thomas Späth was research assistant at the Chair of Taxation, University of Passau and is founder of Devatax GmbH a leading software provider for tax consultants. Dipl.-Kfm. Johann V. Löffelmann is research assistant at the Chair of Financial Accounting and Auditing, University of Regensburg (Full Chairholder: Prof. Dr. Axel Haller). Felix Haendel is assistant at Ernst & Young GmbH Munich. The authors thank Thomas Genosko, Dietrich Höschele, Jürgen Kilger, Doris Landvoigt, Christoph Pelger, Thomas Schildbach, Christian Strohmeier, Martin Wehrfritz, and Kilian Wimmer for their fruitful comments. They thank Thomas Genosko, Jürgen Kilger, and Peter Küffner for their engagement in order to provide the contacts to the participants of the survey. They thank participants at the 2011 Taxation Research Colloquium, Passau, and at the 5th Accounting and Auditing Convergence Conference 2011, Cluj Napoca, for helpful comments on prior versions of this paper. They are grateful to Armin Aufsatz, Paul Kaag, Maximilian Kittl, Johannes Lorenz, and Veronika Widmann for their research assistance. Remaining errors are their own. The research instrument is available from the authors upon request to Markus Grottko, markus.grottko@uni-passau.de.

perceive it to be affected by the chosen solution in their business environment in various dimensions such as, for example, competition or price negotiations. We demonstrate that it is not size that accounts for their negative evaluation but rather the lack of diversification among those small and family-owned firms. Informed by these results, we discuss what might follow for different regulatory alternatives to assist policy makers in future regulations.

Key words: family firms, financial reporting, Electronic Federal Gazette, differential disclosure of financial statements, competitor accounting

JEL Classification: G18, K20, K42, L1, M41

1. Introduction

In the 28 Member States of the European Union (EU), 99% of the 20.4 million business entities are small or medium-sized. These SMEs generate 87 million jobs and account for 67% of employment (European Commission, 2013a, Table 2, p. 10).¹ Estimates of the share of family firms vary dependent on the chosen definition between 70% and 80% of the European firms (Austrian Institute for SME Research, 2008, p. 39). The sheer numbers provide evidence of the extraordinary importance of both SMEs and family-firms for the European economy and, thus, why it is relevant to consider their needs in regulatory decisions.

As of 1 January 2007, according to Art. 1 No. 3 of the EU Directive 2003/0058/EC, all Member States of the European Economic Area had to set up a central register, a commercial register, or a firms' register until the end of December 2006. Since 1st January 2007, all companies with limited liability and large firms with unlimited liability are required to disclose their financial statements electronically at this register. The preface of the Directive 2003/58/EC sets out that one of the main goals was to make firm information more easily and rapidly accessible for interested parties. The regulatory efforts in the EU behind this reform can be traced back to a new conceptual information model. European policy makers intended to establish this information model within the EU to level the playing field for market participants (Cordewener, 2009). The aim was to

¹ The underlying definition of SMEs is employed by the EU to provide statistics about all kinds of enterprises and to discuss necessities in their regulation. It should be noted, however, that its size criteria [Employees: Micro < 10, Small < 50, Medium-sized < 250, turnover: Micro: ≤ € 2 m, Small ≤ € 10 m ≤ € 50 m, volume of assets: ≤ € 2 m, Small ≤ € 10 m ≤ € 43 m] is not exactly equivalent to the size criteria that have been laid down in the laws.

reduce information asymmetries, with the purpose of providing a theoretically optimal quantum of information for decision-making issues of market participants (Grohmann, 2006), and to establish a favorable climate for business and growth across borders (Cordewener, 2009). Even though policy makers have succeeded in pushing the reform through, it remains unclear, however, which specific repercussions the model has had. One reason for the uncertainty about the effects of this regulatory activity might be that we still lack a comprehensive framework for policy makers, which would allow us to identify the effects of previously introduced disclosure regimes and their costs and benefits in detail. Another reason resides in a lack of detailed empirical evidence on the effects of the new regime. In this respect, the European Commission itself noted a need for a more detailed, particularly empirical, research to support decision makers in their regulatory process (European Commission, 2009a). To provide such support, a careful empirical examination is necessary to determine whether the policy makers have achieved their intended consequences and whether unintended side effects have appeared.

The overall objective of this study is to provide such support. With this in mind, we provide, first, a theoretical framework that allows us to evaluate the effects of differential disclosure regimes. These regimes contain not only disclosure elements which are required by the legislator but also elements that are determined by taking recourse to a market solution. Second, we apply our framework and provide exploratory empirical evidence from a sample of 126 firms with respect to the reform of the Electronic Federal Gazette in 2007 (Elektronischer Bundesanzeiger) and its repercussions within the institutional environment of Germany.

With respect to this sample our framework allows us to address two research questions:

- 1) Which firms benefited from and which lost with the introduction of the Electronic Federal Gazette?²

² Clearly, the chosen focus on firms in this paper neglects the viewpoint of other stakeholders such as employees, the government, the fiscal authority, or the press to name just a few examples. This was done because only preparers are subject to the influences of all those parties as they remain the residual claimants (see also Grottko, 2011).

II) What factors affect the costs and benefits of differential disclosure regimes?

There are several reasons why a location based in Germany offers an ideal environment for studying these effects. First, more than 95% of all German firms are controlled and managed by family owners (Haunschild and Wolter, 2010). In terms of SMEs, 2.1 million German SMEs are responsible for 16.3 million jobs (European Commission, 2013b). Second, the disclosure requirements may affect particularly the behavior of German private entities, which have been renowned for their long-standing interest in secrecy. Their behavior has either been justified by cultural reasons (Gray, 1988) or, as small and medium-sized firms are at the same time the major force of the German economy, as an important feature of a highly successful business model (Heidhues and Patel, 2011). In the latter case, the public financial statements' disclosure policy could be, for example, explained as a strategy designed for preserving monopoly rents that are based on ensuring a high degree of secrecy (Guttentag, 2004). Third, thanks to an inefficient enforcement, the institutional environment in Germany enabled the firms to reject a disclosure of their financial statements before the introduction of the Electronic Federal Gazette, and, as a result, it could be classified as a differential disclosure system *de jure* but a market solution *de facto*. This allows us to analyze the effects of a move towards a differential disclosure system *de facto* and, therefore, we can expect to observe an influence on of the firms in our sample with respect to the changes in regulation. Finally, German small and medium-sized entities typically rely on bank financing (Nobes, 1998) for which the information needed could also be provided via private exchange of information. Therefore, enforcement of public disclosure for capital providers is not necessary (Leuz and Wüstemann, 2004). In this respect, Germany constitutes a role model for Continental Europe's private entities' financing structures (Mazars, 2008, p. 9, for example states that 80% of European small and medium-sized entities pointed out that banks are the main users of their financial statements).

Our results provide exploratory detailed evidence for European

policy makers concerning their regulatory activity and might be of particular relevance with respect to the recently increasingly employed criterion “think small first” that aims at taking into account the viewpoint of SMEs at a very early stage of the political process (Small Business Act, 2008). They are, moreover, particularly relevant for countries in which the significance of SMEs is extraordinarily high, such as for example Portugal. In Portugal, according to the Fact Sheet of the European Commission,

“There are approximately 81 SMEs per 1000 inhabitants in Portugal, which is more than double the EU average of almost 40. In line with this, SMEs in Portugal have an exceptionally high importance for the domestic labour market compared to other EU Member States. More than four out of five jobs depend on SMEs and the contribution to the overall economy in terms of value-creation also exceeds considerably the EU average.” (EC, SBA Fact Sheet Portugal, without date).

With our study we contribute to the existing literature in two ways. First, our research results relate to the debate on the extent to which a government should provide differential disclosure rules as far as financial statements’ disclosure is concerned. Prior research on potential determinants of differential disclosure rules has regularly relied on the size criteria, on the differentiation between publicly traded and private businesses, or on explaining the utility of full financial accounts by management or agency factors (e.g. Meek et. al., 1995; Eierle, 2008; Eierle and Haller, 2009; Collis, 2012). To our knowledge, neither the influence of different ownership structures of private businesses nor the interaction between diversification and family-ownership has been put in the center of analysis before. Our framework allows us to detect the factors that explain potential reactions to regulatory activities in this area and our exploratory evidence hints on previously unknown influences on firms’ evaluation of obligatory disclosure and interaction effects between size, family-ownership and the degree of firms’ diversification.

The remainder of the paper proceeds as follows. First, we develop

our differential disclosure framework with a focus on enabling evaluations of policy makers' regulatory activities. Then we explain the institutional environment in Germany before and after the introduction of the Electronic Federal Gazette. Based on literature on this subject we develop three hypotheses with respect to alternative criteria for differential disclosure. Next, we will describe our survey sample. In the subsequent section, we will present empirical results. Afterwards, we discuss the results and point to possible reform alternatives. Finally, we conclude and point out possible limits of our study.

2. A Theoretical Framework for the Evaluation of Differential Disclosure Regimes

Market participants need appropriate information on which they can base their decisions. Differential disclosure systems are concerned with the question of how to ensure the supply of such appropriate information. Essentially, differential disclosure systems divide all potential pieces of information into two different categories: either these pieces are produced in a privately negotiated information exchange (market solution) or they are produced on the basis of a governmental disclosure requirement (regulatory solution) (Coates, 2001; Shleifer, 2005). Both options provide a wide range of benefits and costs. As a consequence, a differential disclosure system targets on the maximization of benefits and the minimization of costs by combining preferential aspects of the two systems according to both characteristics of the environment and of different firms. In other words, one must find appropriate criteria that determine in which cases a market solution and in which cases a regulatory solution should be chosen. Subsequently, we will first outline the costs and benefits involved in choosing a market solution or a regulatory solution for a certain piece of information. Then, we will turn to the question how a regulator can find out where to draw the line between market solution and regulatory solution for different types of firms.

2.1. Market Solution

A market solution proposes that market participants are free to exchange information within a given legal framework of property rights (Furubotn and Pejovich, 1972). As they are assumed to act in their best interest they should acquire as much information as necessary and - due to information production costs - as little information as possible. In other words, both partners will exchange sufficient information to close a deal (Ross, 1979). With respect to the pieces of information for which a market solution is appropriate, the regulatory authority can follow a *laissez faire* strategy.

The central advantage of a market solution consists in its flexibility. The market solution adapts to any new information of which market participants become aware without any need to initiate lengthy regulatory processes. If a net benefit exists, a firm has an incentive to disclose information on a voluntary basis (Ross, 1979). When a piece of information leads to negative effects for a firm or generates costs without a corresponding higher benefit for third parties, it will not be produced.

Nevertheless, there are also serious drawbacks in the market solution. First, it is crucial that signals for the reliability of contracting partners are trustworthy. When sanction mechanisms are insufficient, the market solution can no longer guarantee that potentially welfare-enhancing transactions are carried out because market participants will put a price on the risk of maybe being deceived (Watts and Zimmerman, 1986). In a setting characterized by information asymmetry, they might, for example, simply choose to refrain from potentially favorable transactions (e.g. because they cannot be sure to buy lemons, Akerlof, 1970). One could argue that a firm providing misleading information will become known as unreliable in the course of time. However, this mechanism of building up a reputation is limited in cases in which business partners rarely meet, which implies that they are not interested in building a stable business partnership. Second, the market solution fails when market power allows one of the business partners to withhold necessary information from the other business partner. A third reason for a market solutions' failure can be found in

the information asymmetry between firms and users of financial information, for example lenders, when these users have already entered into a relationship, for example, because they provided a loan to the firm. This induces agency conflicts between managers or owners, on the one hand, and lenders, on the other hand (Jensen and Meckling, 1976; Ewert and Wagenhofer, 2007). Even though there is little doubt that these conflicts are solved by the banks via contracts (banks normally hold a good negotiation position) (e.g. Smith and Warner, 1979; Peek, Cuijpers and Buijink, 2010), they remain essential, for example, for small suppliers that offer trade credits.

2.2. Regulatory Solution

A regulatory solution prescribes that market participants have to disclose a certain set of information. There are several advantages of this solution. First, it can reduce the drawbacks of the market solution. For example, if firms are obliged to disclose information on their creditworthiness, contracting partners in a less favorable position are able to collect decisive information. As a result, the chosen disclosure requirement levels the playing field and diminishes adverse effects of market power (Fishman and Hagerty, 1989). Furthermore, regulatory disclosure requirements can reduce information asymmetries (Hart, 2009) and avoid costs that arise from fraudulent statements (Mahoney, 1995). It could, for instance, centralize previously scattered knowledge of informational remedies against agency conflicts and corporate fraud. The predominant argument for regulatory disclosure, however, is standardization. Standardized information processes oblige all preparers to fulfill the same requirements (with respect to format, time, and communication medium, for example). Consequently, all users know that there is one channel to access the information needed. Such standardization reduces information acquisition efforts and compliance costs; both lead to market-wide cost savings (Mahoney, 1995).

Nonetheless, regulatory disclosure requirements also have disadvantages. First, applying standardization to heterogeneous firms and leveling only a restricted playing field could induce considerable

adverse external effects. So it is remarkable that the USA's FASB delimits its proposal on a disclosure system for private firms, arguing that "there are exemptions and qualifications due to the large volume and diverse needs of users and preparers of both private company and public company financial statements" (FASB 2011, p. 2). Regulatory disclosure requirements cannot pay due regard to individual contingencies – they are designed to be applied on a large number of firms. Moreover, taking into account that information is accessible to the public, a number of preparers will have to worry that third parties could use the information for detrimental purposes. The information may, for example, be used by current competitors that try to get detailed information to catch up with their opponent or by potential competitors that search for attractive markets (Dedman and Lennox, 2009). With respect to competitiveness, another important drawback of a regulatory disclosure requirement comes to the fore when the scope of its application is limited, for example, because the requirement is only applied locally. Then it might induce competitive distortions: Internationally competing firms of other countries that do not have to disclose these particular pieces of information might, nevertheless, make use of information available from their competitors which are subject to the regulatory requirement (Elliott and Jacobson, 1994). In addition, a regulatory disclosure requirement needs a suitable infrastructure for its implementation. Not only technical requirements have to be fulfilled, but also professional training issues and the setup of disclosure processes (Ball, 2001). Probably not every firm can fulfill these requirements at the same level. Taken together, it might be a considerably difficult task to identify "one size fits all" regulatory disclosure requirements (Coates, 2001, p. 534).

2.3. Criteria for Differential Disclosure Systems

In essence, a disclosure regulation needs to be appropriate. This means that it should assure the socially optimal level of discretion (Leuz, 2010). Searching for suitable criteria which make appropriate solutions possible, is, therefore, the most important (and difficult) chal-

lence of differential disclosure systems. Differential disclosure systems stem from the insight that the same accounting disclosures will be subject to different evaluations with respect to the costs and benefits involved for different types of entities (Harvey and Walton, 1996). Only insofar as general requirements to disclose elements of financial statements for a certain range of firms translate into net benefits their demand is reasonable. Similarly, advantages and disadvantages of the market solution for certain elements of financial statements are unevenly distributed among firms, therefore it may be equally sensible to opt for a market solution only for those range of firms for whom a net benefit can be realized. However, this entails, first, the need to clarify which differences and characteristics of the firms should be taken into account. Literature has enumerated several different criteria for this purpose. The FASB, for example, identified six potential factors in which private firms differ from public firms. These are the types of users (limited number of investors and providers of debt capital), the access to the management (for supplementary information), the investment strategies (long term financial performance), the ownership structures (tax effects of ownership), the accounting resources (less educated accountants), and the education (not continuously) of the accountants (FASB, 2011). Other (partly overlapping) criteria include listing status, legal form, and the size of the firm (Eierle, 2005).

When differential disclosure systems' criteria are poorly chosen, there might also arise certain disadvantages. First, differential disclosure regimes then introduce two classes of disclosures which demand a higher quantity/quality of information from one type of firm and a lower quantity/quality of information from the other type (Eierle, 2005). Second, differential disclosure could distort the competitive environment when it leads to different competitive gains for firms that are among one class and losses for firms which belong to another class (Grottke, 2011).

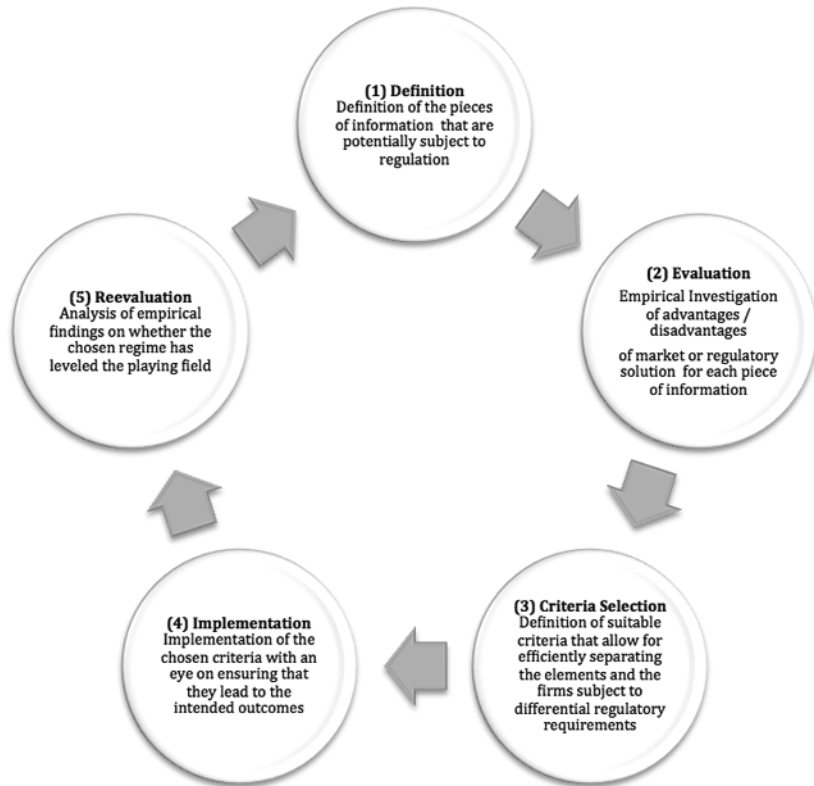
When we look at the objective of the European Union's informational model which was to level the playing field for market participants, we would expect that the most suitable way to identify the appropriateness

of the differential disclosure system might be to ask for its acceptance: All involved firms should be more or less equally satisfied with the system when they find that their differences are reflected in the system. If this is not the case, however, there may be additional, not yet identified, firm characteristics that hinder the chosen differential disclosure system to level the playing field. These criteria might then represent more suitable criteria for an appropriate differential disclosure regime.

It has to be noted that differential reporting can take place at several stages, that is, preparation of the financial statements, audit of the financial statements, publication of the financial statements and enforcement of the disclosure of the financial statements (Eierle, 2005). From the viewpoint of a policy maker it is important to concentrate on the final impact of all stages taken together. To give an example: of course identical disclosure requirements might turn out to be very different when they are differently enforced across Europe.

Moreover, the timing, that is, the velocity until information becomes obsolete in a certain business environment and changes in this velocity have to be taken into account. What has been a functioning differential disclosure system in the past might turn out to be highly distortive in the present when the underlying economy has changed. In other words, a continuous process of evaluation, adaptation and reevaluation has to be carried out to verify whether a given differential disclosure system will work as desired or may need to be adapted further. Figure 1 summarizes the preceding elaborations on differential disclosure and outlines the basic questions from the viewpoint of policy makers that have to be continuously answered to evaluate whether a given differential disclosure system needs to be improved or not.

Figure 1: The theoretical framework for the evaluation of differential disclosure regimes



3. The Introduction of the Electronic Federal Gazette in Germany

In the following pages we apply our theoretical framework to the case of Germany. This involves, first, to understand the character of both the differential reporting regime prevalent in Germany before and the differential reporting regime prevalent after the reform that introduced the Electronic Federal Gazette. We will focus on differential disclosure with respect to differential filing requirements. Differential filing requirements are especially sensitive for firms because they deal with differential reporting requirements that permit unspecified third parties insights into the financial situation of a firm – which is different from other forms of differential reporting in which differential reporting requirements often only have an impact on owners or providers of debt capital.

While we focus in our analysis only on differential filing requirements³, we will nevertheless take into account whether there were side effects that, *de facto*, hindered the filing requirements to play their envisaged role in practice.

3.1. The Regulatory Changes and the German Background before and after the Reform

De jure Germany was subject to a differential disclosure system before and after the Reform (Eierle, 2005). In line with Art. 326 of the German Commercial Code (Handelsgesetzbuch), small private limited companies⁴ have to disclose only balance sheets and an abbreviated version of the notes. According to Art. 327 of the German Commercial Code, medium-sized private limited companies have to disclose less in their notes than large private limited companies but are already obliged to disclose an abbreviated profit and loss account. The disclosure that is to be provided by unlimited firms in the legal form of a sole proprietor, regular partnership, limited partnership with at least one partner with unlimited liability and other forms of unlimited liability (foundations, clubs, and public corporations) is regulated by the German Public Disclosure Act (Publizitätsgesetz). Herein, the German legislator has linked the disclosure requirements for large unlimited companies in Art. 9 German Public Disclosure Act (Publizitätsgesetz) which is based on the first Directive 68/151/EEC (currently replaced by the Directive 2009/101/EG) with the requirements for limited companies in Art. 325 of the German Commercial Code.

Small unlimited firms are exempt from any filing requirement and are not listed in the Gazette. Large unlimited partnerships and sole proprietors do not need to publish a management commentary and they

³ See Eierle (2005) for further differential reporting issues.

⁴ The most commonly used legal forms with limited liability are: Aktiengesellschaft – stock corporation; Gesellschaft mit beschränkter Haftung – private limited company; & Co Gesellschaften – qualifying limited partnerships with a limited liability legal entity as a partner. The most commonly used legal forms with unlimited liability are: Einzelkaufmann – sole proprietor; Offene Handelsgesellschaft – regular partnership; Kommanditgesellschaft – limited partnership with at least one partner that has unlimited liability.

provide only reduced information with regard to the profit and loss account. Only for large private limited companies all disclosure rules contained in the German Commercial Code apply (Buchheim, 2010). Since the implementation of the Directive 90/605/EEC in the KapCoRiLiG (Qualifying Partnerships Act) in 2000, qualifying limited partnerships, that is, firms with unlimited liability of at least one partner that are owned solely by companies with limited liability have been classified on the basis of the criteria for private limited companies.

However, as a matter of fact, before the introduction of the Electronic Federal Gazette the German legal differential filing requirements were almost never applied in practice. In the 1990s between 80% and 95% of all German private limited companies did not comply with the obligatory disclosure of their financial statements in the local court register (von Gamm, 1998). An empirical investigation after the KapCoRiLiG revealed even lower disclosure rates: between 5% and 6% (Dallmann and Marx, 2004).

The reason for the low disclosure rates is to be found in the enforcement of the filing requirements. Essentially, an ineffective monitoring system allowed the firms to refrain from filing their financial statements.

Before the KapCoRiLiG, requests for filing were restricted to owners, creditors, and trade associations. As a result, requests from these parties rarely happened. The registration office of Munich stated in the nineties that in 1988 and 1989 these parties had requested the financial statements of only 25 out of 35,000 private limited companies (Seigel, 1992). The KapCoRiLiG extended the notion of third parties to everybody, that is third parties could be creditors but also competitors (Court of Justice of the EU 23.09.2004 – Rs. C-435/02, NZG, 2005, p. 35). According to Art. 335a sentence 1 No. 1 and sentence 2 of the German Commercial Code in the version prevalent before the reform, a request was based on Art. 335 (2nd sentence) of the German Commercial Code which granted a third person the right to apply to the courts to enforce disclosure against both any German company and any qualifying partnership (see also Eierle, 2008).

A second reason for the ineffectiveness before the introduction of the Electronic Federal Gazette consisted in third parties having to ask

explicitly for official authorities pursuing nondisclosures (Schreiber, 2010) something that rarely happened (Henselmann and Kaya, 2009).

A third reason for the low disclosure rates in the nineties was the type of sanction in place. Before the KapCoRiLiG, sanctions consisted in a compulsory fine to be imposed should the firm not react as desired. As a result, even when third parties asked for disclosure this merely triggered official authorities to set a deadline. When the firm filed within the deadline nothing happened. As a consequence, it was completely riskless to wait with filing (Henselmann and Kaya, 2009) – third parties could not ask for sanctions. This changed with the Kap-CoRiLiG which introduced an administrative fine between 2,500 € and 25,000 €. Differently from the compulsory fine, this fine was always imposed when the firm was found to have not disclosed (Kaya, 2010).

In summary, the German institutional setting before the introduction of the Electronic Federal Gazette allowed firms to circumvent the public disclosure of their financial statements. As a result, the outcome of the differential disclosure regime at that time was close to a market solution. Then the introduction of the Electronic Federal Gazette took place. In Germany, this reform fundamentally changed the institutional environment.

For users, the introduction of the Electronic Federal Gazette simplified the access to financial statements. In the past users had to travel to the local registration office, now they can access the data electronically via the Electronic Federal Gazette. The financial statements are available free of charge and without registration (Kussmaul and Ruiner, 2007).

For preparers, the enforcement system changed. The filing of financial statements is monitored *ex officio* now. If a firm refuses to file its financial statements, it has to pay first a fee of 50 €. Then, if it does not file within six weeks, a fine between 2,500 € and 25,000 € will be imposed. The fines could be imposed repeatedly (Kussmaul and Ruiner, 2007). Compared with the prior regulatory environment, the Electronic Federal Gazette closed the previously existing gap in the German enforcement system and, therefore, for the first time, put the differential disclosure system into practice.

3.2. German Firms' Reaction to the Electronic Federal Gazette – Summary of Empirical Findings

In the wake of the introduction of the Electronic Federal Gazette, several empirical studies analyzed the subsequent reaction of German firms to the new requirements. Schlauß demonstrated that even four years after the introduction more than 100,000 German firms constantly refused to file their financial statements on time and that more than 49,000 firms were fined in 2010 (Schlauß, 2011). The numbers account for more than 10% and 5%, respectively, of all limited companies that are obliged to disclose their financial statements in the Electronic Federal Gazette (Buchheim, 2010). Henselmann and Kaya (2009) investigated a sample of 4,000 limited companies of three company registers (one in the north: Kiel, one in the south: Ingoldstadt and one in the middle of Germany: Kassel) between January 2007 and July 2008. Their investigation of disclosure timing between 2007 and 2008 provided evidence that only between 9% and 14% of the firms filed their financial statements timely enough to make them available at the end of December of the following year (Henselmann and Kaya, 2009).

By March, fifteen months later, between 53% and 56% had filed their financial statements. Furthermore, they found that medium-sized companies filed later than small companies and that large companies filed often more timely than small companies. Buchheim (2010) analyzed a random sample of 150 qualifying partnerships (GmbH & Co. KG) from the Berlin registration office in 2008. While her sample is less representative than that of Henselmann and Kaya (2009), as it is restricted to the location Berlin, it fills an important gap: qualifying partnerships have often been deemed to be a legal form that is deliberately chosen to avoid disclosure. Again her results showed that almost all qualifying partnerships tried to make use of the full time period until the end of the deadline and beyond.

However, she reported higher filing rates: 71% of German qualifying partnerships had filed their financial statements after 12 months and 90% after 15 months. Interestingly Buchheim (2010) did not find any unlimited partnership within her sample that deliberately or be-

cause of the German Public Disclosure Act disclosed its financial statements. Eierle, Eich and Klug (2011) apply a more comprehensive approach to identifying their sample. Instead of using single registration offices which could be biased with respect to the region, they rely on a random sample from the MARKUS database of all German companies that are small or medium-sized qualifying or limited companies. They found that only 33% of their sample of small companies and only 25% of their sample composed of 221 small and 241 medium-sized companies file financial statements within the legal time period. 20 months after the reporting date, at least 90% had filed their financial statements. Wittmann and Bravidor (2016), based on a sample of 720 large private companies in Germany, provide evidence that between 2011 and 2013, the companies still made use of the entire time period until publication and even accepted that they had to pay fines.

In view of the enormous number of contributions in practitioner journal that are full of recommendations on how to avoid the filing of the financial statements or to reduce the Electronic Federal Gazette's perceived negative effects (for a summary, see Kaya, 2010; for a typical example, see Plagens, Wolter and Henke, 2007), these numbers probably mark the lower bound of firms that engage in avoiding negative effects of disclosure.

Taken together, the empirical evidence in Germany shows that firms reacted differently to the reform insofar as a considerable quantity of firms tries very hard to continue avoiding disclosure. This evidence suggests that the criteria on which the differential reporting regime relied might have led to unexpected outcomes. In particular, and contrary to regulatory expectations, it might not have contributed to the leveling of the playing field.

3.3. Alternative Criteria to those chosen for Differential Reporting in Germany

3.3.1. Hypothesis Development

To trace whether these empirical findings can be explained with the aid of systematic differences between firms that are still not ad-

equately captured in the differential disclosure system established by the reform, we will compare the differences in firms' ultimate judgment of the Electronic Federal Gazette with respect to the criteria size, ownership and diversification. The size criterion ascribes the firms' behavior to the division of labor (Allee and Yohn, 2009). For larger firms it is relatively less costly to analyze financial statements (for example, for competitive reasons), which is why they can fully exploit the advantages of the Electronic Federal Gazette. They also rely more on institutionalized information because the size of the firm leaves little opportunity for informal and personal information systems. Small firms, on the other hand, are more concerned with the administrative burden of filing their financial statements; in addition, they will often not possess the necessary resources for analyzing other firms' accounts as elaborately and systematically as large firms (Golde, 1964; Guiding, 1999; Lehne, 2010). As the European disclosure regulation follows a differential disclosure regime that varies its requirements for firms primarily on the basis of size criteria, we assume that these effects outweigh each other. Moreover, it is important to note that potential differences in the size criteria could also have already been addressed by reforms of the European Union (MicroBilReG based on the micro Directive 2012/6/EU, No. 9) after the Electronic Federal Gazette with their mantra "think small first" that focuses specifically on reducing administrative burden for small firms (European Commission, 2009b). To measure size, we used the size criteria contained in the rules of the EC Directive 2003/0038/EC that were introduced into German GAAP in 2009 for limited companies and the size criterion in the German Public Disclosure Act for unlimited firms. To obtain a binary variable, we composed size summarizing all small limited and unlimited firms under the label small and all others under the label large. We assume that even before the MicroBilReG the size criterion made it possible to address the differences between small and large firms that can be captured by size. That is why we hypothesize:

⁵ To make sure that this procedure will not lead to a bias, which is created by the binary definition, we calculated all tests with an alternative size definition in which middle sized companies are attributed to the small group instead of the large group and referred to differences in the findings.

H1: Larger firms do not differ from small firms in their ultimate judgment of the introduction of the Electronic Federal Gazette.

However, we suspect that there might be further important differences between firms, which should be addressed within a differential reporting regime. In particular, we suspect that the importance of the stewardship function dependent on accounting ownership may play a major role. So as to operationalize ownership in our analyses we referred to a functional definition which is transparent with regard to its referred dimensions (for requirements on family firm definitions Klein, 2000; Astrachan et. al., 2002) and which allows us to compare the results. Hence, we based our questionnaire on the most commonly employed definition of family firms in Germany, which is established by the IfM Bonn. This definition specifies firms as family firms whenever, simultaneously, fewer than three natural persons or their relatives hold at least 50% of the voting rights and when these individuals are part of the management of the firm (Haunschild and Wolter, 2010). In order to have an operational definition which is less lengthy but captures the essence of this definition, we adjusted the definition of a family firm asking whether the management is separated from the ownership of the firm or not.

Whenever ownership is separated from management, stewardship issues increasingly need to be taken into account. Caused by agency conflicts, managers of firms that are not family-owned might, for instance, be less interested in protecting the firms' assets because these assets are not their personal property (Jensen and Meckling, 1976; for empirical evidence in this respect Ang, Cole and Lin, 2000). Hence, there is a special need to provide objective, non-discretionary information about the firm (Allee and Yohn, 2009). A particular side effect of addressing such needs consists, however, in managers being constrained in their actions that involve information when compared with owner-managers. While family-owned firms can flexibly determine case by case how much information to provide to different stakeholders of the firm, firms that are not family-owned are less flex-

ible because they, in addition, have to pay due regard to stewardship purposes (Gjesdal, 1981). Whereas privately held firms might produce similar financial statements for their stakeholders even in unregulated or ineffectively regulated environments, they will tailor information to the needs of their stakeholders (for the scenario of creditors e.g. Peek, Cuijpers and Buijink, 2010) and more carefully weigh the costs and benefits when they decide which information to produce and to whom they are reporting (Allee and Yohn, 2009). Furthermore, family firms have other means than non-family-owned firms: while managers have to reduce agency costs with transparency, family firms can reduce agency costs alternatively by pledging personal collateral (Steijvers and Voordeckers, 2009). Moreover, the equity position of a family-owned firm also reflects, to a certain degree, the private wealth (Starck, 2008) of the family owners and, hence, the owners could be interested in more secrecy. All in all, these considerations suggest that there might be different characteristics of family-owned firms in comparison with non-family-owned firms, which could allow for differential reporting requirements that have not been addressed in the current system so far. Therefore, we hypothesize:

H2: Firms that are not family-owned evaluate the introduction of the Electronic Federal Gazette more positively than family-owned firms.

A third important candidate for differential reporting requirements is diversification. To take one example, it is difficult for competitors, suppliers or customers to profit from a detailed analysis of diversified firms' financial statements. Financial statements of firms producing only a narrow range of products, on the other hand, are highly transparent: their revenues and expenses directly reflect margins, cost structures, etc. As a consequence, such firms might have good reasons to remain silent on their financial statements (Starck, 2008; Schön, 2009). As definitions of diversification are manifold (e.g. segments, products, services, customers, competitors, suppliers), we opted for an open definition: firms could classify themselves either as more or less diversified. Therefore, we asked firms about their diversification and hypothesize:

H3: Diversified firms evaluate the introduction of the Electronic Federal Gazette more positively than their undiversified counterparts.

3.3.2. Research Design and Data

Questionnaire

We conducted an online survey to assess the effects of the Electronic Federal Gazette. The questionnaire was developed in three consecutive steps. First, we exploited prior literature to design a preliminary questionnaire so as to obtain an idea of the issues that could play a crucial role in evaluating the filing requirements. Afterwards, we conducted an interview study with 15 SMEs participants (three auditors, one tax consultant, and 11 executives of SMEs from different industries of the same type that later took part in the survey), based on the preliminary questionnaire as a first pretest. We used the transcripts of the interviews to refine the questionnaire to practitioners' reality and to interpret the results. Finally, we discussed the questionnaire design with 11 practitioners and survey experts, who commented on the order and wording of the questions.

Sample

The sample selection is based on databases from the Chamber of Handicrafts Niederbayern-Oberpfalz, the Chamber of Industry and Commerce Niederbayern and Regensburg for Oberpfalz-Kehlheim and the National Association of tax consultants and auditors of Bavaria. As a result, it is based on all different kinds of firms (handicrafts, commercial firms and liberal professions such as tax consultancy firms). In the case of firms with unlimited liability, a threshold of 50 employees helped us choose which firms to include in the sample. Concerning firms with limited liability, all firms from the database were included. E-Mail addresses were available for 2,934. After eliminating wrong E-Mail addresses, the questionnaire was sent out to 2,930 firms in July 2010, with reminders in August and September. This resulted in responses from 126 firms (a response rate of 4.3%).⁶ Our response rate

⁶ Note that we published a short report on descriptive results of a part of the questions used also in this survey in a German practitioner journal (Grottko et al. 2012).

was lower than those achieved in other surveys in continental Europe and the UK. We assume that the main reason for the differences is that prior literature relied on postal questionnaires with at least one (Eierle and Haller, 2009) and up to three reminders with prepaid reply envelopes (Collis, 2008), which resulted in response rates of 10.3% (Eierle and Haller, 2009) and 14% (Collis, 2008), respectively. However, in comparison to occasional surveys carried out by the Chambers for internal purposes and based on the same databases that were chosen here and where normal response rates were between 3% and 5%, our response rate is within the range of expectations. Generally, directors of small businesses have little time to respond to surveys (e.g. Collis, 2008) – this was also reflected in E-Mails that we received and in which the directors pointed to the importance of our questions but, simultaneously, complained about the length of the questionnaire. As many small firms participated in our survey, this could be a further reason for the low response rate.

The responding parties of the firms were the management (75%), the head of accounting (10%), and external providers of accounting services, for example, tax consultants (5%) or others (10%). Table 1 summarizes the major characteristics of our sample with respect to our three hypotheses.

Table 1: Sample characteristics

Legal form	Limited companies			Unlimited companies		126 (100%)
		97 (77%)			29 (23%)	
Diversification criteria	Diversified			Not diversified		120 (100%)
	46 (38.3%)			74 (61.7%)		
Size criteria	Limited companies			Unlimited companies		126 (100%)
	Small	Medium	Large	Small	Large	
	59 (47%)	11 (9%)	27 (21%)	27 (21%)	2 (2%)	
Family firm criteria	Management and ownership are fully separated			Management and ownership are not fully separated		126 (100%)
	16 (13%)			110 (87%)		

The possible existence of a sample selection bias was one of our major concerns. Therefore, we tested, first, whether firms that did not respond differed substantially from those that responded to our sur-

vey (non-response bias). To this end, we applied the Mann-Whitney-U-test on the ultimate judgment of the Electronic Federal Gazette to test whether there is a difference between the group of respondents that filled out the questionnaire after the last reminder and the other groups (Wallace and Mellor, 1988). The result indicates that the early and late respondents were not significantly different in their ultimate judgment of the Electronic Federal Gazette. It is important to take into account, however, that our small sample size might also account for this result (Wallace and Mellor, 1988, for example, mention a lower threshold of 15%, which is still above our response rate). Therefore, we cannot completely rule out that there may be a difference between the first and the last group. As a possible remedy Wallace and Mellor (1988) suggest referring to further important characteristics of the sample obtained in comparison to the rest of the population.

In view of the firms' reaction to the Electronic Federal Gazette one could expect that the most critical difference in characteristics might be found in the fact that only those firms responded which are interested in secrecy and which fear transparency. To obtain clarity about the extent of this effect, we asked participants in our survey whether they avoided the disclosure in the Electronic Federal Gazette and compared the results with the non-compliance rate published by the German Federal Ministry of Justice, which stated for 2006 (the only officially available number) that administrative fines were imposed on 20% of the firms for not filing their financial statements on time (Bundesministerium der Justiz, 2009). In our survey, 11 of 126 respondents informed us that they avoided a disclosure in the Electronic Federal Gazette, in other words, 9% of the final sample. This is not only below the non-compliance rate but also below the 10% mentioned by Buchheim (2010). One reason for this result could be that those firms that are critical to the Electronic Federal Gazette are also critical with respect to providing their E-Mail addresses to their local Chambers (from which we obtained our E-Mail databases) or with respect to participating in online surveys at all. On the other hand, however, this is not too likely because firms normally interact with their Chambers regularly via E-Mail. While

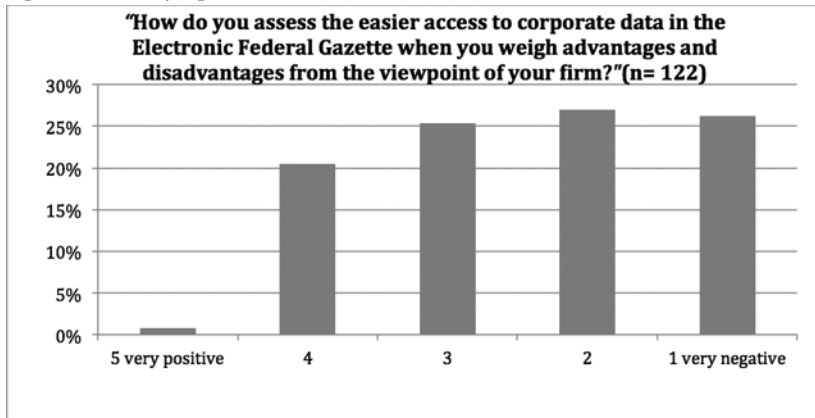
we cannot fully rule out any sample selection bias, we cautiously conclude that there is at least no clear indication that such a bias exists.

3.4. Empirical Results

3.4.1. The Ultimate Judgment of the Electronic Federal Gazette

We asked the participants for an ultimate judgment of the Electronic Federal Gazette on a Likert scale from 1 (very negative) to 5 (very positive). Figure 2 and Table 2 show that more than 50% see more disadvantages than advantages in the Electronic Federal Gazette. Only 21.3% think that the advantages outweigh the disadvantages (0.8% consider it as very positive). These results correspond well to the empirical findings with regard to the filing rates mentioned above.

Figure 2: Ultimate judgment of the Electronic Federal Gazette



With respect to the question of the criterion chosen for differential reporting, the distribution of the answers is even more interesting. With an average of 2.42 and a variance of 1.23 the answers are far from being homogeneous and suggest that firms substantially differ in their ultimate judgment. This is where further exploratory scrutiny is necessary to evaluate the current differential disclosure system and this is the context in which our three hypotheses have to be placed.

To exclude a possible α -error-inflation we applied a conservative Bon-

ferroni correction to the main test results with respect to the three hypotheses (Abdi, 2007): each significance level was divided by the number of the hypotheses tested, that is, by three, to ensure the internal validity of our test results. Therefore, with respect to our three hypotheses we will speak, differently from standard conventions, of significance when $p \leq .033$, of high significance when $p \leq .0167$, and of highest significance when $p \leq .0033$. If not stated otherwise, the tests are one-sided, as we theoretically expect a certain direction of the differences between the distribution of answers of the different groups. Detailed results for the sample characteristics with respect to the hypotheses can be found in Table 2.

Table 2: Ultimate judgment of the Electronic Federal Gazette ordered by size, ownership, and diversification

Overall judgment	sample in total		Size				Family firm			Diversified				
			small		large		yes	no		yes	no			
1 - very negative	32	26.2 %	25	29.4%	7	18.9%	30	28.3%	2	12.5%	5	11.1%	24	33.3%
2	33	27.0 %	21	24.7%	12	32.4%	28	26.4%	5	31.3%	10	22.2%	22	30.6 %
3	31	25.4 %	25	29.4%	6	16.2%	26	24.5%	5	31.3%	12	26.7%	18	25.0%
4	25	20.5 %	13	15.3%	12	32.4%	21	19.8%	4	25.0%	18	40.0%	7	9.7%
5 - very positive	1	0.8 %	1	1.2%	0	0.0%	1	0.9%	0	0.0%	0	0.0%	1	1.4%
	122	100.0%	85	100.0%	37	100.0%	106	100.0%	16	100.0%	45	100.0%	72	100.0%
p-value			0.1				0.06			0.00				

In order to test our hypotheses, we apply a Mann-Whitney-U-test on the ultimate judgment using a binary variable for each hypothesis. Furthermore, we provide the mean values to give an indication of the direction of differences. For H1, that is, for size, the results show lower ultimate judgments of small firms in comparison to large firms (2.34 versus 2.62), these being, however, not significant. Therefore, in line with H1 there is no evidence to reject the null-hypothesis ($p \geq .033$). The evidence suggests that - taken on the whole - the differences according to size have been captured appropriately by the current differential reporting regime. With respect to family-ownership, we cannot reject the null-hypothesis for H2 ($p \geq .033$). That implies that, contrary to H2, the ultimate judgments of family-owned firms are not significantly lower than the ultimate judgment of firms that are not family-owned (even though they exhibit again differences in means as expected (2.39 versus 2.69)). Finally, we can reject the null-hypothesis in the case of H3: in accordance with H3, diversified firms exhibit a more positive ultimate

judgment of the Electronic Federal Gazette than undiversified firms (2.96 versus 2.15, $p \leq .0033$). This evidence suggests that the current differential reporting system does not sufficiently reflect existing differences between the diversified and the undiversified firms of our sample.

In the next step we tested for interactions between the three criteria. Results are reported in Table 3:

Table 3: Interactions between the three criteria size, ownership, and diversification

Size	small		large	
Diversified	yes	no	yes	no
n	27	55	18	17
mean	3.04	2.07	2.83	2.41
p-value	0.00		0.25	

Size	small		large	
Family firm	yes	no	yes	no
n	79	6	27	10
mean	2.29	3	2.67	2.5
p-value	0.1		0.81	

Family firm	yes		no	
Diversified	yes	no	yes	no
n	42	61	3	11
mean	2.92	2.08	3.33	2.55
p-value	0.00		0.15	

Family firm	yes		no	
Size	small	large	small	large
n	79	27	6	10
mean	2.29	2.67	3	2.5
p-value	0.07		0.87	

Diversified	yes		no	
Family firm	yes	no	yes	no
n	42	3	61	11
mean	2.92	3.33	2.08	2.55
p-value	0.25		0.08	

Diversified	yes		no	
Size	small	large	small	large
n	27	18	55	17
mean	3.04	2.83	2.07	2.41
p-value	0.67		0.13	

Testing for differences in subsamples showed that diversification only plays a role for small firms, that is, small diversified companies evaluate the Electronic Federal Gazette much more positively than small firms which are undiversified (3.04 versus 2.07, $p \leq .001$), whereas diversified and undiversified large firms do not significantly differ ($p \geq .1$). This result is also robust when we change our definition of size and include medium-sized firms in the small instead of the large group. The result suggests that there might be advantages and disadvantages for small firms that could be handled by additionally taking diversification into account while it is not necessary to take care of diversification when size increases. Moreover, we find that small family firms possess a more negative ultimate judgment of the Electronic Federal Gazette than small firms that are not family-owned (2.29 versus 2.83, $p \leq .05$). This suggests that within the realm of small firms also the ownership criterion deserves attention as it seems to capture differences in advantages and disadvantages of the Electronic Federal Gazette for the firms. Analyzing the interaction between family-ownership and diversification, we find a significant interaction between family-ownership and diversification in two directions. First, as one would expect, family firms which are undiversified possess a more negative ultimate judgment than diversified family firms (2.08 versus 2.92, $p \leq .01$). Moreover, we find among undiversified firms that family firms possess a more negative judgment than not family-owned firms (2.08 versus 2.55, $p \leq .1$). These results suggest that it is in particular the combination of the two characteristics of being a family firm and being undiversified that drives the results. The results obtained suggest that complicated interactions between the different criteria take place. Those would need a differential disclosure system that takes additional advantages and disadvantages linked to the characteristics of small, family-owned and undiversified firms into account.⁷ To obtain further insights into the ad-

⁷ It is important to note that a lack of significance might in some cases be attributed to the very small sample size. In particular, this might be the case when a subsample consists of firms that are not family-owned.

vantages and disadvantages, the following section will take both the preparer's and the user's view of firms on those issues into account, where these three criteria could influence the ultimate judgment.

3.4.2. Views of Preparers and Users

Subsequently we analyze whether we can relate the results obtained above with the entities' daily work with financial statements (as preparers and as users). The legal requirements not only force preparers to disclose their financial statements, they also provide them with the option to analyze disclosed financial statements of other firms. This means that firms always adopt not only a preparer and but also a user position. With a range of different questions we tried to gain insights into the respective costs (negative consequences) and benefits (positive consequences) which potentially could explain our test results. Note that we report for subsamples only the significant results here.⁸

The Preparer's View

For the preparer's view, questions only related to those preparers who had to file their annual reports, that is, small unlimited firms were not asked the questions which are subsequently outlined.

Preparers are confronted with advantages and disadvantages of disclosures. On the one hand, in line with the advantages of regulatory elements, preparers could use the disclosure of financial statements for reputational purposes and to standardize communication with their various stakeholders. However, these advantages might be merely relevant to large or capital market-oriented firms (Dedman and Lennox, 2009). On the other hand, firms are confronted with the costs of the disclosure; direct and indirect costs. Direct costs are negligible. Costs for the annual preparation of financial statements have to be paid independently from disclosure and the fee for filing is of minor importance (e.g. 55 € for medium-sized firms, see AGB Bundesanzeiger, 2013).

⁸ Given the number of questions, another approach to reporting would go beyond any reasonable size limits for this paper. However, all other results and exact (in-)significance levels can be obtained from the authors on demand.

Indirect costs, however, are more critical. They can arise from a variety of sources. Most intuitive are indirect costs that emerge from current competitors exploiting the financial statements to obtain advantages in the calculation of margins or when increased profits attract new competitors. As indirect costs are difficult to measure we asked the firms how they perceive these costs to obtain at least qualitative insights into their importance.

For the preparer there are two different perspectives on those indirect costs. The preparer has to take into account who reads his financial statements (personal perspective). In addition, the preparer has to consider the specific contents of his financial statements (content perspective). The content perspective is concerned with different areas of interest.

The following Table 4 exhibits descriptive evidence for the personal relationships which could play a role for preparers.

Table 4: Preparers' perceived risks of disclosure - personal perspective

Statement: I perceive a risk, that my firm could suffer disadvantages because of the disclosure to the following group of people.								
group of people/answer	entirely incorrect (1)	more incorrect (2)	partly correct(3)	more correct (4)	entirely correct (5)	mean	var	
competitors (n=94)	1.06	6.38	8.51	26.60	57.45	4.28	1.10	
customers (n=95)	3.16	7.37	22.11	32.63	34.74	3.87	1.15	
suppliers (n=95)	9.47	16.84	15.79	24.21	33.68	3.54	1.84	
banks (n=94)	24.47	18.09	15.96	15.96	25.53	3.00	2.37	
employees/trade unions/staff associations (n=94)	20.21	22.34	15.96	15.96	25.53	2.99	2.29	
financial investors (n=93)	38.71	22.58	11.83	9.68	17.20	2.44	2.27	
press/media (n=94)	14.89	25.53	17.02	24.47	18.09	3.00	1.89	
professional database providers (n=92)	7.61	13.04	13.04	28.26	38.04	3.63	2.06	
political actors/regulatory bodies (n=93)	22.58	31.18	17.20	11.83	17.20	2.69	1.95	
fiscal authorities (n=93)	25.81	26.88	12.90	13.98	20.43	2.76	2.23	

In line with Porter (1998) the firms in our sample obviously worry most that their statements are analyzed by competitors, customers, suppliers, and professional databases. This is an important impact of the regulatory change that has taken place with the introduction of the Electronic Federal Gazette, as, traditionally, accounting choices of German private firms used to focus mainly on tax authorities and banks (Plagens, Wolter and Henke, 2007). The results obtained could also partly explain why we found a significant result for the criterion of diversification: in our interview study undiversified firms felt more vulnerable to such analyses than diversified ones. This is also supported by one-sided Mann-Whitney-U-tests of the answers provided by undiversified and diversified firms: undiversified firms perceive

themselves to be significantly more vulnerable than diversified firms with respect to competitors and suppliers (4.45 versus 4.23, $p \leq .1$ and 3.70 versus 3.36, $p \leq .1$ respectively). However, it is important to take into account that with respect to customers in particular family firms perceive themselves to be more vulnerable (4.11 versus 3.36, $p \leq .05$) and, contrary to expectations, large firms perceive themselves to be more vulnerable than small firms (4.19 versus 3.77, $p \leq .1$). Probably, it is rather relevant that family firms relied more on personal relationships with their customers before the reform and are confronted increasingly with financial statement data from their customers after the reform, while large firms are more active in very competitive mass markets and are, therefore, accustomed to competitor analyses.

A second group of users that can preoccupate preparers of financial statements is formed by employees/trade unions, press/media, financial investors, and political actors (Leuz, 2010). Following literature on the subject, we expect issues in this area to be related to size: large firms are more vulnerable and, in consequence, more anxious about reputational effects than small ones, because they are of more interest to the referred parties (for further empirical evidence Link, 2009). This, however, is not confirmed by the respective Mann-Whitney-U-tests which do not yield significant results. Interestingly, with respect to political actors we find that differences between family firms and not family-owned firms are of highest significance (2.75 versus 1.43, $p \leq .01$).

The last group is composed of tax authorities and banks. According to our interview study, family firms often used their financial statements mainly to prepare their tax account, to provide information to the bank and for self-information with respect to strategic decision-making. In the wake of the Electronic Federal Gazette, however, they cannot solely concentrate on optimizing their accounts for credit and tax purposes anymore, but have to react to other informational effects as well. This is the case at least when they still continue with their strategy to save costs via minimizing differences between financial accounts and tax accounts (some empirical evidence in this respect is provided by Haller, Ferstl and Löffelmann, 2011). Therefore, having

to file their financial statements after the introduction of the Electronic Federal Gazette makes them more vulnerable to the bank and tax authority reactions to their financial statements than they had been before. However, again our sample does not support these considerations ($p \geq .1$ in both cases). Instead, it turns out that in particular small firms are more concerned with fiscal authorities and banks than large firms (3.03 versus 2.33, $p \leq .05$; 3.31 versus 2.51, $p \leq .01$, respectively). One possible reason might be that small firms are more reliant on cost savings via providing identical financial statements to all parties than large firms which could simply produce two sets of accounts.

With regard to the content perspective we asked for the issues outlined in Table 5 (which also contains the descriptive statistics).

Table 5: Preparers' perceived risks of disclosure - content perspective

content element/answers	Question: Did you perceive increased risks to suffer one of the following disadvantages because of the Electronic Federal Gazette?					mean	var
	risk does not exist (1)	risk remained constant (2)	risk has partly increased (3)	risk has more increased (4)	risk has clearly increased (5)		
target for takeover (n=94)	39.36	19.15	12.77	13.83	14.89	2.46	2.23
firm strategy becomes generally known (n=95)	10.53	22.11	18.94	36.53	17.89	3.23	1.63
inferences on personal wealth (n=95)	3.16	6.32	11.58	28.42	50.52	4.17	1.14
attracting new competitors because lucrative markets become generally known (n=94)	9.58	21.28	11.70	28.72	28.72	3.46	1.84
risks and losses become generally known (n=95)	8.42	11.58	13.68	33.68	32.64	3.71	1.61
negative reputational effects on business partners (n=95)	11.58	14.74	17.89	39.53	25.26	3.43	1.76
deteriorating loan terms (n=95)	16.84	34.74	15.79	18.95	13.68	2.78	1.73
deterioration of negotiation position with employees (n=95)	28.42	18.95	12.63	24.21	15.79	2.80	2.18
deterioration of negotiation position with business partners (n=95)	10.53	11.58	16.84	32.63	28.42	3.57	1.69

Classifying the firms responding to the survey into those that perceive a risk and those that do not, we find, first, that less risk is perceived that the respective firm might become a target for takeovers or that the negotiation position with trade unions and employees might deteriorate. Our interview study revealed that these perils may be especially relevant for large firms. Large firms stated that staff associations, trade unions and employees did also receive the information before. However, the Electronic Federal Gazette makes a difference in that those parties were usually obliged to remain silent with regard to the critical contents of the financial statements; in particular they were obliged not to use the information obtained beyond the ascertained negotiation. For example, an interview participant told us that his firm was in a very difficult financial condition and in this situation he provided trade unions with information about the financial difficulty of the firm to

explain why he was forced to transfer a work shift to cheaper countries in order to ensure the jobs of the remaining workforce in Germany. Of course he was not interested in making his situation public since this would have involved multiplying negotiations with different stakeholders. Now those parties can use the disclosed financial statements publicly to improve their negotiation position, simultaneously, directing the attention of other parties, creditors or investors for example, to the firm. In line with the interviews, within the sample of our survey, large firms can be demonstrated to be more concerned about becoming a takeover target or losing ground in negotiations with employees and/or trade unions (2.76 versus 2.26, $p \leq .1$; 3.32 versus 2.47, $p \leq .01$, respectively).

A second category can be grouped around the competitive situation, that is, around the questions whether there is a risk that the firm's strategy or lucrative markets become known (Porter, 1998), whether there are negative reputational effects on business partners or whether the negotiation position with business partners deteriorates. Our interview study revealed that these effects matter more to undiversified firms because they become more transparent to their business partners and competitors. The results of the interview study are partly in line with the data of the online survey. Diversified firms assessed the consequences of negative reputational effects as less risky (3.13 versus 3.64, $p \leq .05$) and the risk of lucrative markets becoming known as less likely (3.19 versus 3.69, $p \leq .05$). We obtained no significant results concerning the negotiation position with business partners and the firm's strategy (3.53 versus 3.67, $p \geq .1$ and 3.17 versus 3.27, $p \geq .1$, respectively). However, in these dimensions family firms turned out to be more sensitive than firms which are not family-owned (3.33 versus 2.64, $p \leq .05$ and 3.67 versus 3.00, $p \leq .1$, respectively). Moreover, in this case our robustness check in the size variable additionally reveals that medium-sized companies are a decisive factor. When they are included in the group of small firms then most of the variables become significant, if small and large are compared (strategy: 3.08 versus 3.61, $p \leq .05$; negotiation with business partners: 3.43 versus 3.92, $p \leq .1$; lucrative markets: 3.24 versus 4.04, $p \leq .01$). When they

are attributed to the group of large firms, however, results remain insignificant. These results suggest that medium-sized firms are less concerned with these effects than small firms and corroborates the efforts of the MicroBilReG (based on the micro Directive 2012/6/EU, No. 9) to improve the competitive situation for small firms at least as far these firms are compared to large firms.

A third category is concerned with personal wealth. Our interview participants suggested that family-owned firms whose owners are often well known in the region would appreciate avoiding that their personal income and wealth (which is essentially identical with their firms' income and wealth) could be publicly obtained (also Weimar and Reeh, 1988). Again a Mann-Whitney-U-test of the distributions of family firms and firms that are not family-owned in our survey confirms these results (4.28 versus 3.5, $p \leq .05$). However, such a publication of income and wealth seems also to be critical to undiversified firms: with respect to both the public availability of their risks and losses and the publication of their wealth, they are much more concerned than firms which are diversified (3.91 versus 3.44, $p \leq .05$, and 4.45 versus 3.81, $p \leq .05$).

There is also an explanation why respondents answer that the risk of deterioration of loan conditions had been prevalent before: according to the interview study, banks usually received the financial statements before the introduction of the Electronic Federal Gazette. In this respect small firms turn out to be less concerned with the Electronic Federal Gazette than large firms (2.46 versus 3.32, $p \leq .01$).

The Users View

To obtain a comprehensive picture about the impact of the Electronic Federal Gazette, however, one has to take into account that the firms also benefit from the Electronic Federal Gazette, as they themselves can start exploiting information contained in the financial statements of other firms. The level of analysis depends on the firms' resources to perform certain analyses. One interview participant, for example, said that after the introduction of the Electronic Federal Gazette he decided to establish a job position which is solely dedicated to the analysis of

customers and competitors. However, for smaller firms such effort is probably financially out of reach. According to Effing (2002) the use of financial statements involves that the outcome varies with the purposes of the analysis.

First, we asked about the extent of the analysis. While 72.4% of the firms seek to gain a rough overview, 26.4% make a detailed analysis and 1.6% do not analyze at all (Carsberg et. al. obtained similar results, 1985). Our interview study revealed that large firms analyze financial statements more often in detail than small ones, mirroring the impact of labor division (also Golde, 1964; Guilding, 1999). It also suggested that family firms act more often based on personal relationships than firms that are not family-owned. We asked respondents whether they analyzed the financial statements of existing customers and suppliers, potential customers and suppliers and/or competitors. The results and descriptive statistics are provided in Table 6.

Table 6: Users' use of the disclosure in the Electronic Federal Gazette - personal perspective

Statement: When I use information published in the Electronic Federal Gazette I am interested mainly in the following group of people.							
group of people/answer	entirely incorrect (1)	more incorrect (2)	partly correct(3)	more correct (4)	entirely correct (5)	mean	var
existing business partners (customers/suppliers) (n=121)	4.13	14.88	23.14	30.58	27.27	3.62	1.34
potential business partners (customers/suppliers) (n=121)	4.13	8.26	13.22	42.98	31.40	3.89	1.15
competitors (n= 122)	2.46	6.56	16.39	30.33	44.26	4.07	1.09

The majority of our survey participants actively analyze financial statements of its business partners (e.g. customers or suppliers) and competitors. Within the analysis their focus is first on competitors and then on potential business partners. Financial statements seem to be mainly used to offset a lack of basic information and lose importance once the business relationship is established. As already mentioned, large firms in our interviews were more interested in such information, while small firms acted more on the basis of personal relationships. The statistics for the respective subsamples of our survey confirm these results for large versus small firms (existing business partners: 3.92 versus 3.48, $p \leq .05$; potential business partners: 4.11 versus 3.80, $p \leq .05$; competitors: 4.53 versus 3.87, $p \leq .01$). Moreover, we find that undiversified firms are significantly more interested in informing themselves

about their competitors than diversified firms (4.45 versus 4.23, $p \leq 0.1$).

Continuing to parallel the questions to the preparer side, we also asked respondents which range of contents they find interesting during their financial statements analysis and to what degree. Their responses and the respective descriptive statistics are shown in Table 7.

Table 7: Users' use of the disclosure in the Electronic Federal Gazette - content perspective

Question: For which purposes do you use information from the annual report of business partners or competitors?							
content element/answer	entirely incorrect (1)	more incorrect (2)	partly correct (3)	more correct (4)	entirely correct (5)	mean	var
to estimate the creditworthiness (n=122)	4.92	6.56	18.03	41.80	28.69	3.83	1.15
to find arguments for price negotiations (n=120)	20.00	22.50	22.50	18.33	16.67	2.89	1.88
to gain new customers (n=120)	21.67	25.83	24.17	17.50	10.83	2.70	1.66
to benchmark with competitors (n=123)	5.69	8.94	26.02	30.89	28.46	3.68	1.32
to identify takeover targets (n=122)	48.35	31.15	12.30	4.10	4.10	1.84	1.12
to identify competitive edges, lucrative markets (n=123)	26.02	21.14	29.27	14.63	8.94	2.59	1.60
to investigate the strategy of competitors (n=122)	20.49	21.31	31.15	15.57	11.48	2.76	1.60
to collect information for my own R & D (n=122)	47.54	24.59	16.39	6.56	4.92	1.97	1.35
to investigate margins and calculation details (n=122)	28.69	22.13	15.58	18.85	14.75	2.69	2.07

The means reported in Table 7 provide evidence that financial statements are mainly used to obtain an impression of other firms' creditworthiness and to analyze the competitive strength of rivals. However, there is also a direct influence on price negotiations. In the users' views, size is again an important explanation for some of these differences. Interviewed small firms often told us that they know their business partners (for example customers or suppliers) and competitors personally or that they were not overly interested in knowing much about them, while large firms relied heavily on institutionalized analysis. Moreover, only large firms thought about searching for takeover targets and new customers, while small firms stick to their core competences. Again these patterns are supported by the statistics of our survey (takeover target: 2.18 versus 1.69, $p \leq 0.1$; benchmarking with competitors: 4.18 versus 3.45, $p \leq 0.1$; strategy of competitors: 2.97 versus 2.67, $p \leq 1$; margin calculations: 3.05 versus 2.53, $p \leq 0.05$; price negotiations: 3.16 versus 2.77, $p \leq 1$; lucrative markets: 2.96 versus 2.46, $p \leq 0.05$). However, there is a further remarkable result. Family firms turn out to be less interested in financial statements for the purpose of assessing the creditworthiness (3.78 versus 4.13, $p \leq 0.05$). One explanation for this result could be that they rely more on personal relationships and more on timely soft information when carrying out these analysis (similar evidence is provided by Peek, Cuijpers and

Buijink, 2010). Similarly, large firms are more interested in analyzing financial statements for the purpose of creditworthiness than small firms (4.18 versus 3.66, $p \leq .01$). Possibly this result is explained by the availability of a more formal and institutionalized screening process in large firms.

Assuming that diversified firms choose their strategy of diversification consciously, one could expect that they gain a competitive edge through diversification. In this case one would expect differences in the aspects of identifying calculation details and margins, in identifying the competitive strength and finally in gaining arguments for price negotiations. Interestingly, none of these arguments is supported by the data.

Instead, we find that in particular firms which are not family-owned use the financial statements to benchmark with competitors (4 versus 3.63, $p \leq .1$), to identify takeover targets ((2.25 versus 1.78, $p \leq .1$). The disadvantage of undiversified companies is to be found elsewhere: diversified firms exploit R&D information in financial statements significantly more than their undiversified counterparts (2.27 versus 1.82, $p \leq .05$).

3.4.3. Analysis of the Electronic Federal Gazettes' Consequences

Most consequences of the Electronic Federal Gazette are straightforward. Given that a number of consequences used to be only presumed in literature (for the assumed consequences e.g. Schulze-Osterloh, 1992), resulting in a lack of clarity on whether these consequences really exist, we asked the participants with respect to those consequences whether they really exist. For all consequences we analyzed how they are related to our three differential disclosure criteria. The question order chosen in the questionnaire assured that the judgment already summarizes both preparers' and user's view. Table 8 shows the results and descriptive statistics of those consequences that undoubtedly exist:

Table 8: Consequences of the Electronic Federal Gazette

Question: What do you think about the following consequences of the Electronic Federal Gazette?							
consequence/answer	very negative [1]	more negative [2]	neutral [3]	more positive [4]	very positive [5]	mean	var
The enforcement and sanction system becomes easier, faster and more effective. (n=122)	26.23	31.97	27.87	12.30	1.64	2.31	1.09
The information collection is easy and fast. (n=122)	21.31	21.31	27.87	25.41	4.10	2.69	1.40
The user stays anonymous and needs not to tell the firm about his interest. (n=123)	25.20	14.63	28.46	24.39	7.32	2.74	1.63
The access to the information is guaranteed even when the firm voluntarily would not offer it. (n=122)	34.43	13.93	19.67	26.23	5.74	2.55	1.81

The majority of respondents gave nearly every consequence a negative assessment. Especially the new enforcement mechanisms were judged negatively. The anonymity and easier access to the data for the firms themselves were evaluated only slightly better. Analyzing associations with the three differential disclosure criteria, the following issues came up. First, we expected that small firms that do not experience scale effects in paying the fine would evaluate the strengthened enforcement system more negatively than large firms (Löffelmann, 2011). However, our empirical findings do not support this argument (2.42 versus 2.26, $p \geq .1$). According to the interviewed firms this is also a problem for family-owned and undiversified firms that used to remain silent about their financial statements. Family-owned firms indeed evaluate the enforcement (2.25 versus 2.75, $p \leq .1$) and the accelerated collection of information (2.59 versus 3.47, $p \leq .05$) less positively than not family-owned firms. One reason might be that they possessed valuable direct contacts which are used to have quick access to information and which are now deflated. The easier collection of information promises positive effects for diversified and negative effects for undiversified interviewed firms. Again this is also what our survey data tells us when comparing the evaluation of diversified and undiversified firms (2.93 versus 2.56, $p \leq .1$).

Now we turn to possible benefits of the Electronic Federal Gazette:

Table 9: Potential benefits of the Electronic Federal Gazette

Statement: Please take a position concerning the following potential benefits of the Electronic Federal Gazette							
benefit/answer	entirely incorrect [1]	more incorrect [2]	partly correct [3]	more correct [4]	entirely correct [5]	mean	var
replacement of database providers (n=126)	8.73	23.81	32.54	28.57	6.35	3.00	1.14
creation of confidence (n=124)	19.35	28.23	38.71	13.71	0.00	2.47	0.92

As we can see from Table 9, the majority of firms did not agree with the presumed benefits. Again, our interview study gave us indications as to how an interpretation of the findings should look like. Firstly, only large firms and firms that are not family-owned told us that they hoped for more confidence via the Electronic Federal Gazette; for small and family-owned firms the personal contact was of more importance. Secondly, some of the large but none of the small firms started to replace professional databases with their own analyses. The data of the survey confirms that there are significant differences especially for the criterion of diversification. With respect to confidence and the replacement of professional databases, more diversified firms find the advantages to materialize than firms which are undiversified (2.69 versus 2.40, $p \leq 0.1$, 3.20 versus 2.89, $p \leq 0.1$, respectively). Moreover, we verify that small firms see the benefits from raising confidence significantly more often (2.47 versus 2.38, $p \leq 0.1$) and the replacement of professional database providers highly significantly more often (2.89 versus 1.88, $p \leq 0.01$) than large firms.

4. Discussion

4.1 Exploratory Implications of the Findings

Our findings provide some exploratory evidence why the introduction of the Electronic Federal Gazette might not have, as has been intended by the European policy makers, contributed to leveling the playing field for market participants. While differential disclosure with respect to size criteria already exists, the current institutional environment has not yet considered the aspect of diversification. As a result of this gap, our evidence suggests that the introduction could have led to differences in the treatment of diversified and undiversified firms. At least the perceptions of firms on the strengthened enforcement mechanism signal that firms which are different in terms of diversification and sometimes of ownership have become subject to identical rules. This provides an explanation why those firms avoided disclosure before the reforms and are sometimes even willing to pay fines to avoid disclosure after the reforms. Moreover, we find that the impact of the three criteria is heavily related to a complex and heterogeneous set of

consequences that the Electronic Federal Gazette has had on the firms as both preparers and users of financial statement information. Even the size criterion is not – as we assumed – unanimous in its impact – sometimes small firms profit and sometimes large ones do.

The importance to further research and discuss the impact of existing or the impact of a lack of certain differential reporting criteria seems to become all the more evident when embedding our results in the context of globalization and the accompanying competition on a global scale. According to Siegel (2010) US state law does not impose any financial disclosure burden on private firms. While there are no filing requirements for sole proprietorships or general partnerships, filing requirements for private limited companies are very limited and do normally not include financial information. As a result, in the US environment private firm reporting is found to be more driven by market participants rather than by regulation (Botosan et al., 2006). Botosan et al. (2006) point out that market players simply choose GAAP rules to the extent to which the benefits outweigh the costs and do not apply GAAP when this is not the case. Based on a profound examination of legal and political obstacles Siegel (2010) predicts that mandatory disclosure will remain restricted to public listed companies in the US, while private firms' information on their financial position will remain largely undisclosed. As a result, Ebke (2010) questions whether the European strategy, which is to enforce mandatory disclosure in a competitive environment, makes sense given that other large parts of the world, in particular the US, do not impose disclosure requirements on their firms. Such concerns might be of especial relevance when firms are undiversified.

However, on the other hand, it is important to note that Collis (2008) found for the majority of UK small and medium-sized firms the benefits of filing full accounts outweighing the disadvantages (Collis, 2008). While the opportunities for abbreviated accounts are more or less the same as in Germany (for a detailed account see e.g. Enchelmaier, 2010; Collis, 2012), there is a large number of firms in the UK

that swiftly fulfill their disclosure requirements (based on the publications of the Companies house Enchelmaier (2010) concludes that in 2007/2008 95% of the accounts were filed on time). These results rather suggest that also cultural or other institutional differences could account for the reaction within our sample.

However, it is important to note that in a longitudinal analysis (2003, 2008) initially all firms of this study provided full accounts but 50% of the firms of the study of Collis (2012) started to use abbreviated accounts five years later. Collis did not account for the perceived effects of diversification on the firms answers; they could possibly explain why the results in Collis (2012) are not significant with respect to micro-firms. Another possible explanation could be that size thresholds increased in the meantime.

Similarly, Eierle (2008) scrutinized the filing practices of 158 small and 108 medium-sized private limited companies in Austria. She finds that more than 99% of the small companies took full advantage of all available concessions and most companies did not provide required disclosures, for example, with respect to the average of employees during the financial year. However, she also finds that more than 53% of medium-sized companies provided more information than required. She concludes that smaller firms have net costs while medium-sized firms have net benefits from voluntary disclosures. This corresponds well to our result stating that diversification plays only a major role for small companies.

It remains to be discussed how potential disadvantages could be relieved by potential reforms that are arising from further differential disclosure criteria, which are lacking so far. This is where our additional criteria of diversification and ownership turns out to be very difficult to enforce. While we could ask in a questionnaire about the status of diversification and ownership, differential reporting systems need objective, reliable, and therefore enforceable criteria to avoid gaming. However, our further evidence linked with those criteria enables us to search for some more reliable paths to ensure that small or family-owned undiversified firms are not discriminated. In the following part

we discuss three alternatives to the current regime, so as to support regulators in their policy-making. With respect to the predominant function of creditor protection without providing transparency on assets or income we discuss the British solution of a collateral register. With respect to a potential restriction of accessibility to data in very competitive areas, we discuss the alternative of filing even more abbreviated accounts. Finally, with respect to the aggregation of financial information, we discuss whether governmental rating agencies could be of assistance providing a 'value judgment' about the financial health of a firm without, however, providing detailed transparency.

4.2. The Collateral Register

Our first proposal intends to provide alternative information to users, which does not involve competitive harm for the firm or insight into the personal wealth situation via creating a collateral register. This would involve reducing public disclosure to a kind of information found today as a part of the information provided about a firm at the British Companies House. Such a register of firm charges could fulfil an important function within the overall concept of financial reporting (French et. al., 2009; Enchelmaier, 2010).

According to the British Companies Act 2006 (c. 46, Part 25, Chapter 1, paragraph S 860 (1)) companies registered in England, Wales or Northern Ireland are required to register particulars of all company charges (including mortgages created or acquired by the company). Like other information registered at the British Companies House, information is available to the public. The information contains (S 869 (4) CA) “[a] if it is a charge created by a company, the date of its creation and, if it is a charge which was existing on property acquired by the company, the date of the acquisition, [b] the amount secured by the charge, [c] short particulars of the property charged, and [d] the persons entitled to the charge.”

When compared to the current disclosure requirements, the collateral register offers two advantages. First, it reduces the depth of possible analyses since only information about the rank of the charge

is given. Secondly, the register is much more up to date since the information has been delivered more timely. In the UK the register has only a maximum delay of 21 days after the charge has been provided [S 870 (1) CA] (Enchelmaier, 2010). While the register allows weaker suppliers in terms of market power to obtain information about the creditworthiness of a firm (Haug, 2009), which would have had to act without such information because of their lack of market power otherwise, it remains open to debate whether the publication of charges alone is sufficient to secure uncollateralized debts for suppliers.

4.3. Filing of Abbreviated Financial Statements

Our second proposal consists in extending the abbreviation rules for regulatory elements such as the profit and loss account. A useful abbreviation for undiversified firms could be to withhold any information that allows for drawing conclusions on earnings and earnings production. However, such abbreviated financial statements are probably not useful (enough) for other users with legitimate interests in the financial statements (Jarvis and Collis, 2003). They especially increase the likelihood of misunderstandings and erroneous judgments since abbreviated accounts can be chosen for many reasons. It is most probable, for example, that both economically highly successful and economically very unsuccessful firms file abbreviated financial statements, in order to avoid (for very different reasons) that third parties can establish a clear picture of their economic situation. However, if necessary, this disadvantage of abbreviated financial statements could be diminished by privately and bilaterally added information.

On the other hand, the manifoldness of interpretation constitutes an advantage in our case. While abbreviated accounts signal to users that less disclosure is favorable for the firm they do not signal why. As a result, unraveling processes are avoided. Therefore, they could allow undiversified family-firms to shield themselves against insights from competitors.

4.4. Information Intermediaries and directed Disclosure

The last way to reduce the disadvantages of being forced to dis-

close proprietary information while still ensuring an acceptable level of information to creditors (and suppliers) could consist in introducing intermediaries which can provide aggregated information to certain user groups without revealing the proprietary content of the information.

Creditors without collateral and information about collateral need financial statements' information about the creditworthiness of their debtors. Private or public intermediate institutions could help increase information aggregation in such a way that the information needed about creditworthiness is provided while the chance for competitors to learn something about the competitive edges of the firm is still limited. Contrary to Collis (2012), our study shows that providers of debt capital receive more timely information (as abbreviated accounts are filed later while banks are regularly informed earlier). As a result, a differential user reporting that obliges firms to deliver financial accounts on time to certain stakeholders but alleviates the firms from an undifferentiated disclosure requirement could offer a reasonable solution.

5. Final remarks

As any change in a differential disclosure system, introducing the Electronic Federal Gazette changed the market for financial statements disclosure. Our theoretical framework in combination with our survey provided some exploratory evidence that the current solution might not be sufficient. In particular, diversification might also play a decisive role. As diversification is difficult to regulate, we suggested three different reform alternatives which could mitigate problems associated with the current solution. However, these are also not free from (other) disadvantages.

There are four limitations to our study worth mentioning. First, our response rate is low and has also been limited to a region of Germany. As a consequence, the external validity of the study's findings has to be treated with utmost caution: our sample is small and stems from a small region of Germany. Therefore, it cannot be assumed to be statistically representative (Krejcie and Morgan, 1970) for Bavaria, Germany or even Europe. Instead, the findings presented here are explor-

atory and provide rather an opportunity to obtain first glimpses into the complex interaction taking place in many dimensions that might play a role in disclosure requirements and that should be taken into account. Such analyses are clearly promising: as we have demonstrated in the literature review and by our analyses of sample selection biases, the results correspond well to the general feeling of German firms about the Electronic Federal Gazette and as we have shown in the introduction, the extraordinarily important role played by SMEs is visible also in other countries in Europe such as, for example, Portugal or Spain. Moreover, the internal validity of the study is high: the main significances are obtained in a very small sample and remain robust even when the most conservative correction mechanisms are applied. Finally, the study does avoid common method biases (Podsakoff et al., 2003), such as the scale format bias by continuously varying the scale format in the questionnaire or the consistency motive bias by attributing questions to different places in the questionnaire and by demanding from the participants that they take different perspectives (preparer and user) on certain items. Whether it is possible to extend the findings to other regions of Europe, is difficult to estimate; to our knowledge, apart from the UK and Austria, similar studies about firms' disclosure behavior are lacking so far. Replications using larger, representative, and different samples are extremely desirable but have to be left to further research. Secondly, the questionnaire was based on self-declaration. This could have led to strategic answers. It could also imply that results do not coincide with overall welfare concerns. However, a similar study analyses the impact of the Electronic Federal Gazette from the viewpoint of traditional order politics (Grottke, 2011). It yields comparable results. Third, we asked only management to take a position and did not involve other important stakeholders' such as banks, outside equity holders or trade unions. However, as Eierle and Schultze (2013) demonstrate, managers internalize the demands of users. Therefore, we believe that they provide the most comprehensive viewpoint on financial statements - at least as long as they are asked, as in our survey, to take both positions: the position of a

preparer and the position of a user. Finally, our analysis is restricted because it only examines the publication and filing requirements. If the accounting system does not provide meaningful information, obviously none of the consequences discussed will result.

References

- Ang, S., Cole, R. A. and Lin, J. W. (2000) Agency Costs and Ownership Structure, *The Journal of Finance*, 55(1), pp. 81-106.
- Abdi, H. (2007) The Bonferroni and Sidak corrections for multiple comparisons, in: N. J. Salkind (Ed) *Encyclopedia of Measurement and Statistics*, pp. 1-9 (London: Sage).
- Akerlof, G. A. (1970) The Market for 'Lemons': Quality Uncertainty and the Market Mechanism, *The Quarterly Journal of Economics*, 84(3), pp. 488-500.
- Allee, K. D. and Yohn, T. L. (2009) The Demand for Financial Statements in an Unregulated Environment: An Examination of the Production and Use of Financial Statements by Privately Held Small Businesses, *The Accounting Review*, 84(1), pp. 1-25.
- Astrachan, J. H., Klein, S. B. and Smyrnios, K. X. (2002) The F-PEC Scale of Family Influence: A Proposal for Solving the Family Business Definition Problem, *Family Business Review*, 15(1), pp. 45-58.
- Austrian Institute for SME Research (2008) Overview of family business relevant issues, http://ec.europa.eu/enterprise/policies/sme/files/craft/family_business/doc/familybusiness_study_en.pdf, last visited: 15.06.2014.
- Ball, R. (2001) Infrastructure Requirements for an Economically Efficient System of Public Financial Reporting and Disclosure, *Brookings-Wharton Papers on Financial Services*, pp. 127-169.
- Botosan, C. A., Shbaugh-Skaife, H., Beatty, A. L., Davis-Friday, P. Y., Hopkins, P. E., Nelson, K. K., Ramesh, K., Uhl, R., Venkatachalam, M. and Vrana, G. (2006) Financial Accounting and Reporting Standards for Private Entities, *Accounting Horizons*, 20(2), pp. 179-194.
- Buchheim, R. (2010) Die Publizität der Kapitalgesellschaften & Co. nach dem EHUG, *Der Betrieb*, 63(21), pp. 1133-1141.
- Bundesanzeiger (2013) Preisliste Bundesanzeiger für entgeltliche Publikationen, online available at: https://publikations-plattform.de/download/D045_Preisliste.pdf, last visited: 23.06.2013.
- Bundesministerium der Justiz (2009) Mehr Transparenz durch elektronische Offenlegung der Bilanzen erreicht, press release: 5.3.2009, http://www.bmj.de/enid/6a10c5197a21ebc19bf9d5ed91eba7f7f,192e60636f6e5f6964092d0935373633093a095f7472636964092d0933313035/Pressestelle/Pressemitteilungen_58.html, last visited: 29.11.2010.
- Carsberg, B. V., Page, M. J., Sindall, A. J. and Waring, I. D. (1985) *Small company financial reporting* (Englewood Cliffs, N.J. et. al.: Prentice-Hall International in association with the Institute of Chartered Accountants in England & Wales).
- Coates, J. C. (2001) Private vs. Political Choice of Securities Regulation: A Political Cost/Benefit Analysis, *Virginia Journal of International Law*, 41(3), pp. 531-582.
- Collis, J. (2008) Directors' Views on Accounting and Auditing Requirements for SMEs, BERR Department for Business Enterprise & Regulatory Reform, <http://www.berr.gov.uk/files/>

- file50491.pdf, last visited: 19.06.2014.
- Collis, J. (2012) Determinants of voluntary audit and voluntary full accounts in micro- and non-micro small firms in the UK, *Accounting and Business Research*, 42(4), pp. 441-468.
- Cordewener, A. (2009) Der Europarechtliche Rahmen für die Unternehmenspublizität, in: W. Schön (Ed) *Rechnungslegung und Wettbewerbsschutz im deutschen und europäischen Recht*, pp. 105-270 (Berlin: Springer).
- Dallmann, H. and Marx, F. J. (2004) Jahresabschlusspublizität mittelständischer Unternehmen. Empirische Befunde und konzeptionelle Überlegungen, *Betriebsberater*, 59(17), pp. 929-935.
- Dedman, E. and Lennox, C. (2009) Perceived competition, profitability and the withholding of information about sales and the cost of sales, *Journal of Accounting and Economics*, 48(2-3), pp. 210-230.
- Ebke, W. F. (2010) Publizität – (k)ein Thema? in: W. F. Ebke and A. Möhlenkamp (Eds) *Rechnungslegung, Publizität und Wettbewerb*, pp. 29-37 (Baden-Baden: Nomos Verlagsgesellschaft).
- EC, SBA Fact Sheet Portugal [without date] online available at: <https://infoeuropa.euroid.pt/files/database/000053001-000054000/000053117.pdf>, last visited: 20.04.2016.
- Effing, W. (2002) *Jahresabschlussbasierte Konkurrenzanalyse, Eignung von Jahresabschlüssen zur Befriedigung des Informationsbedarfs der Konkurrenzanalyse* (Aachen: Shaker).
- Eierle, B. (2005) Differential Reporting in Germany – A Historical Analysis, *Accounting, Business & Financial History*, 15(3), pp. 279-315.
- Eierle, B. (2008) Filing Practice of Small and Medium-sized Companies, Empirical Findings from Austria, *International Small Business Journal*, 26(4), pp. 491-528.
- Eierle, B., Eich, B. and Klug, C. (2011) Das Offenlegungsverhalten kleiner und mittelgroßer Kapitalgesellschaften sowie Kapitalgesellschaften & Co. nach dem EHUg - Eine empirische Untersuchung, *Zeitschrift für internationale und kapitalmarktorientierte Rechnungslegung*, 11(5), pp. 243-253.
- Eierle, B. and Haller, A. (2009) Does Size Influence the Suitability of the IFRS for Small and Medium-Sized Entities? – Empirical Evidence from Germany, *Accounting in Europe*, 6(2), pp. 195-230.
- Eierle, B. and Schultze, W. (2013) The Role of Management as a user of accounting information: Implications for Standard Setting, *Accounting and Management Information Systems*, 12(2), pp. 155-189.
- Elliott, R. K. and Jacobson, P. D. (1994) Costs and Benefits of Business Information Disclosure, *Accounting Horizons*, 8(4), pp. 80-96.
- Enchelmaier, S. (2010) Publizität aus englischer Sicht, in: W. F. Ebke and A. Möhlenkamp (Eds) *Rechnungslegung, Publizität und Wettbewerb*, pp. 55-80 (Baden-Baden: Nomos Verlagsgesellschaft).
- European Commission (2009a) Final Report of the Expert Group, Overview of Family-Business-Relevant Issues: Research, Networks, Policy measures and Existing Studies, http://ec.europa.eu/enterprise/policies/sme/promoting-entrepreneurship/family-business/family_business_expert_group_report_en.pdf, last visited: 15.06.2014.
- European Commission (2009b) Final Report of the Expert Group, Think Small first – considering SME-interest in policy-making, http://ec.europa.eu/enterprise/policies/sme/files/docs/sba/report_think_small_first_en.pdf, last visited: 19.06.2014.

- European Commission [2013a] SME Performance Review, http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/performance-review/files/supporting-documents/2013/annual-report-smes-2013_en.pdf, last visited: 15.06.2014.
- European Commission [2013b] 2013 SBA Fact Sheet Germany, http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/performance-review/files/countries-sheets/2013/germany_en.pdf, last visited: 15.06.2014.
- Ewert, R. and Wagenhofer, A. [2007] *Externe Unternehmensrechnung*, 2. Aufl., (Heidelberg/New York: Springer).
- FASB [2011] Private Companies: The Path to a Differential Standard-Setting Framework (Norwalk).
- Fishman, M. J. and Hagerty, K. M. [1989] Disclosure Decisions by Firms and the Competition for Price Efficiency, *Journal of Finance*, 44[3], pp. 633-646.
- French, D., Mayson, S. W. and Ryan, C. [2009] *Company law* (Oxford et al.: Oxford University Press).
- Furubotn, E. G. and Pejovich, S. [1972] Property Rights and Economic Theory: A Survey of Recent Literature, *Journal of Economic Literature*, 10[4], pp. 1137-1162.
- Gjesdal, F. [1981] Accounting for Stewardship, *Journal of Accounting Research*, 19[1], pp. 208-231.
- Golde, R. A. [1964] Practical Planning for Small Business, *Harvard Business Review*, 42[5], pp. 147-161.
- Gray, S. J. [1988] Towards a Theory of Cultural Influence on the Development of Accounting Systems Internationally, *Abacus*, 24[1], pp. 1-15.
- Grohmann, U. [2006] *Das Informationsmodell im Europäischen Gesellschaftsrecht* (Berlin: De Gruyter Rechtswissenschaften Verlag).
- Grottko, M. [2011] Ordnungspolitische Wirkungen des elektronischen Bundesanzeigers und einer Einführung der internationalen Rechnungslegung für nicht kapitalmarktorientierte Unternehmen (IFRS for SMEs), *Zeitschrift für Wirtschaftspolitik*, 60[3], pp. 285-314.
- Grottko, M., Löffelmann, J.V., Spaeth, T. and Haendel, F. [2012] Offenlegung im elektronischen Bundesanzeiger - konzeptionelle Überlegungen und empirische Wirkungen, *Deutsches Steuerrecht*, 50[2], pp. 94-100.
- Guilding, C. [1999] Competitor-focused accounting: an exploratory note, *Accounting, Organizations and Society*, 24[7], pp. 583-595.
- Guttentag, M. D. [2004] An argument for imposing disclosure requirements on public companies, *Florida State University Review*, 32, pp. 123-196.
- Haller, A., Ferstl, E. and Löffelmann, J. V. [2011] Die "einheitliche" Erstellung von Handels- und Steuerbilanz – Empirische Erkenntnisse über die Bilanzierungspraxis von Kapitalgesellschaften, *Der Betrieb*, 64[16], pp. 885-889.
- Hart, O. D. [2009] Regulation and Sarbanes-Oxley, *Journal of Accounting Research*, 47[2], pp. 437-445.
- Harvey, D. and Walton, P. [1996] *Differential Reporting – an analysis* (London: Foundation for Manufacturing and Industry).
- Haug, F. [2009] *Ex-post-Gläubigerschutz in der private company limited by shares* (Jena: JWV - Jenaer Wissenschaftliche Verlagsgesellschaft).
- Haunschild, L. and Wolter, H. [2010] Volkswirtschaftliche Bedeutung von Familien- und Frauenunternehmen, in: Institut für Mittelstandsforschung Bonn, IfM-Materialien, Bonn: IfM.

- Heidhues, E. and Patel, C. (2011) A critique of Gray's framework on accounting values using Germany as a case study, *Critical Perspectives on Accounting*, 22(2), pp. 273-287.
- Henselmann, K. and Kaya, D. (2009) Empirische Analyse des Offenlegungszeitpunkts von Jahresabschlüssen nach dem EHUG, *Die Wirtschaftsprüfung*, 62(9), pp. 497-501.
- Jensen, M. and Meckling, W. (1976) Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure, *Journal of Financial Economics*, 3(4), pp. 305-360.
- Jarvis, R. and Collis, J. (2003) IFRSs and Differential Reporting, Working Paper, presented at the Annual Conference of the South Eastern Accounting Group of the British Accounting Association (London).
- Kaya, D. (2010) *Strategien zur Verminderung und Vermeidung der Jahresabschlusspublizität* (Aachen: Shaker Verlag).
- Klein, S. B. (2000) Family Business in Germany - Significance and Structure, *Family Business Review*, 13(3), pp. 157-182.
- Krejcie, R.V. and Morgan, D.W. (1970) Determining sample size for research activities, *Educational and Psychological Measurement*, 30(3), pp. 607-610.
- Kussmaul, H. and Ruiner, C. (2007) Das Gesetz über elektronische Handelsregister und Genossenschaftsregister sowie das Unternehmensregister (EHUG), *Zeitschrift für Kapitalmarktorientierte Rechnungslegung*, 5(12), pp. 672-682.
- Lehne, K.-H. (2010): Europarechtliche Hintergründe und Perspektiven, in: W. F. Ebke and A. Möhlenkamp (Eds) *Rechnungslegung, Publizität und Wettbewerb*, pp. 225-231 (Baden-Baden: Nomos Verlagsgesellschaft).
- Leuz, C. (2010) Different approaches to corporate reporting regulation: how jurisdictions differ and why, *Accounting and Business Research*, 40(3), pp. 229-256.
- Leuz, C. and Wüstemann, J. (2004) The Role of Accounting in the German Financial System, in: J. P. Krahn and R. H. Schmidt (Eds) *The German Financial System*, pp. 450-477 (Oxford: Oxford University Press).
- Link, S. P. (2009) Unternehmensinformation und Wettbewerbsschutz – Problemeinschätzung deutscher börsennotierter Unternehmen, in: W. Schön (Ed) *Rechnungslegung und Wettbewerbsschutz im deutschen und europäischen Recht*, pp. 529-561 (Berlin: Springer).
- Löffelmann, J. V. (2011) Strength of Regulation for Financial Statements Disclosure: Evidence from the German Enforcement System, Working paper, University of Regensburg, online available: <http://ssrn.com/abstract=1863930>.
- Mahoney, P. G. (1995) Mandatory Disclosure as a Solution to Agency Problems, *Chicago Law Review*, 62(3), pp. 1047-1112.
- Mazars (2008) The IFRS for SMEs accounting standard: perceptions and expectations across Europe.
- Meek, G. K., Roberts, C. B. and Gray, S. J. (1995) Factors Influencing Voluntary Annual Report Disclosures by U.S., U.K. and Continental European Multinational Corporations, *Journal of International Business Studies*, 26(3), pp. 555-572.
- Nobes, C. (1998) Towards a General Model of the Reasons for International Differences in Financial Reporting, *Abacus*, 34(2), pp. 162-187.
- Peek, E., Cuijpers, R. and Buijink, W. (2010) Creditors' and Shareholders' Reporting Demands in Public Versus Private Firms: Evidence from Europe, *Contemporary Accounting Research*, 27(1), pp. 49-91.
- Plagens, P. W., Wolter, G. and Henke, J. (2007) Neuausrichtung der Bilanzpolitik im Lichte des

- EHUG?, *Deutsches Steuerrecht*, 45(32), pp. 1413-1419.
- Podsakoff, P. M., MacKenzie, S. B., and Lee, J.-Y. (2003) Common method biases in behavioral research: A critical review of the literature and recommended remedies, *Journal of Applied Psychology*, 88(5), pp. 879-903.
- Porter, M. E. (1998) *Competitive strategy, Techniques for analyzing industries and competitors* (New York: Free Press).
- Ross, S. A. (1979) Disclosure regulation in Financial Markets: Implications of Modern Finance Theory and Signaling Theory, in: F. R. Edwards (Ed) *Issues in Financial Regulation*, pp. 177-202 (New York: McGraw-Hill).
- Schlauff, S. (2011) Die neue Offenlegungskultur seit Inkrafttreten des EHUG, *Der Betrieb*, 64(14), pp. 805-806.
- Schön, W. (2009) Unternehmenspublizität und Wettbewerb – eine ökonomische und rechtspolitische Perspektive, in: W. Schön (Ed) *Rechnungslegung und Wettbewerbsschutz im deutschen und europäischen Recht*, pp. 563-616 (Berlin: Springer).
- Schreiber, W. (2010) Publizität in Deutschland – Das EHUG in der Praxis, in: W. F. Ebke and A. Möhlenkamp (Eds) *Rechnungslegung, Publizität und Wettbewerb*, pp. 109-132 (Baden-Baden: Nomos Verlagsgesellschaft).
- Schulze-Osterloh, J. (1992) Die Rechnungslegung der GmbH als Spiegelbild sich wandelnder Bilanzauffassungen und Publizitätsinteressen, in: M. Lutter and P. Ulmer and W. Zöllner (Eds) *100 Jahre GmbH-Gesetz*, pp. 501-521 (Köln: Schmidt).
- Seigel, G. (1992) *Offenlegung der mittelgroßen GmbH – Die Auswirkungen auf das Rechnungswesen und die Unternehmenspolitik* (Hamburg: S + W Steuer und Wirtschaftsverlag).
- Shleifer, A. (2005) Understanding Regulation, *European Financial Management*, 11(4), pp. 439-451.
- Siegel, S. (2010) Financial Disclosure and Transparency: A U.S. American Perspective, in: W. F. Ebke and A. Möhlenkamp (Eds) *Rechnungslegung, Publizität und Wettbewerb*, pp. 39-54 (Baden-Baden: Nomos Verlagsgesellschaft).
- Small Business Act (2008) online available: http://ec.europa.eu/growth/smes/business-friendly-environment/small-business-act/index_en.htm, last visited: 20.04.2016.
- Smith, C. and Warner, J. (1979) On financial contracting: an analysis of bond covenants. *Journal of Financial Economics*, 7(2), 117-161.
- Starck, C. (2008) Bilanzpublizität und Datenschutz, *Deutsches Steuerrecht*, 46(42), pp. 2035-2039.
- Steijvers, T. and Voordeckers, W. (2009) Private Family Ownership and the Agency Costs of Debt, *Family Business Review*, 22(4), pp. 333-346.
- Von Gamm, K. (1998) *Betriebsgeheimnisse und bilanzrechtliche Publizität* (Köln: Heymanns).
- Wallace, R. S. O. and Mellor, C. J. (1988) Nonresponse Bias in Mail Accounting Surveys: A Pedagogical Note, *British Accounting Review*, 20(2), pp. 131-139.
- Watts, R. L. and Zimmerman, J. L. (1986) *Positive Accounting Theory* (Englewood Cliffs (NJ): Prentice-Hall, Inc.).
- Weimar, R. and Reeh, M. (1988) Rechts- und Gestaltungsformen zur Vermeidung der Register- bzw. Hauspublizität, *Der Betrieb*, 41(32), pp. 1637-1643.
- Wittmann, C. and Bravidor, M. (2016) Better late than never!? Disclosure timing behavior of German private companies, Working Paper presented at the Annual Congress of the European Accounting Association, Maastricht 2016.