

Article



Financial statement filing lags: An empirical analysis among small firms

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Abstract

This article examines financial statement filing lags among a sample of Belgian small firms. Our results indicate that around one-third of small firm financial statements are filed late (after the legal deadline), but that monetary sanctions could be an effective tool to encourage compliance with legal deadlines. Whereas the deadline and late filing sanctions are filing incentives, various factors, such as firm size and presence of an external financial statement audit, also affect financial statement filing lags. Evidence indicated that extremely late filings were associated with lower financial statement quality.

Keywords

filing requirements, financial reporting, reporting lag, small firms

Introduction

This article analyzes the determinants of financial statement filing lags among a large sample of Belgian small firms.¹ Conceptual accounting frameworks recognize timeliness as one of the main characteristics determining the relevance of financial statement information. The International Accounting Standards Board (IASB, 2010), for example, argues that '[t]imeliness means having information available to decision-makers in time to be capable of influencing their decisions. Generally, the older the information is the less useful it is' (p. QC29). In addition, national regulators acknowledge the importance of timeliness by imposing filing deadlines. Prior studies on financial reporting timeliness have focused mainly on large listed firms² and can be categorized into two main types. The first explores the impact of reporting timeliness on stock prices (Atiase et al.,

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1989; Chambers and Penman, 1984). Overall, findings indicate that a short financial reporting lag³ yields a more pronounced stock price reaction. The second is mainly concerned with factors influencing timely reporting behavior (Dyer and McHugh, 1975; Leventis and Weetman, 2004; Owusu-Ansah, 2000). In this article, we contribute to the second strand of literature by examining factors related to financial statement filing lags among Belgian small firms. Belgium provides a useful context as all limited liability firms, irrespective of their size or stock listing, are required to prepare annual financial statements that have to be filed with the National Bank of Belgium (henceforth NBB).

Our focus on Belgian small firms offers a meaningful contribution to the existing literature. First, in the absence of capital market pressures to report in a timely manner, small firms may be expected to exhibit considerably more tardiness with regard to their filing behavior than listed firms. For example, while prior studies indicate that late filings are the exception for listed firms,⁴ Graydon reveals that about 35% of Belgian firms⁵ did not file their financial statements for accounting year 2003 within the legal maximum period of seven months (Stolle, 2004). While the latter observation is striking, especially given that private firms get a longer deadline to file their financial statements,⁶ to date the issue has not been explored. Second, given the specific Belgian setting, we are able to assess the impact of a monetary sanction on filing practices. As noted above, Belgian firms have to file their financial statements within a period of seven months after the closing date of the accounting year. However, the administrative monetary sanction for late filings is only applicable if the financial statements are filed more than eight months after the closing date. Because of this discrepancy, we are able to differentiate between the effect of a monetary sanction and the legal deadline itself. Third, our focus on small firms allows us to explore the impact of variables that have not been considered in prior research. For example, unlike for most listed firms, banks and suppliers are the main financiers of small enterprises (Berger and Udell, 2006). Accordingly, we examine the impact of leverage, as well as the relative importance of different types of creditors, on financial reporting timeliness in a creditor-oriented setting. Moreover, because an external financial statement audit is voluntary for Belgian small firms, in contrast to being mandatory for listed firms, we are able to explore the relationship between the presence of an external financial statement audit and financial reporting timeliness.

Our results provide additional insights into financial reporting practices and incentives of small firms; as such, they are useful for both small firm managers and external stakeholders. Small firm financial reporting requirements have received considerable attention from standard setters and regulators. Examples include the development of International Financial Reporting Standards for small and medium-sized entities (IFRS for SMEs)⁷ and a European Directive aimed at, among others, simplifying accounting requirements for small firms.⁸ As discussed in Schiebel (2008), standard setters are struggling with developing financial reporting standards tailored to the special needs of small firms because, although they represent the overwhelming majority of entities preparing financial statements, academic research into their financial reporting is scant. Various authors and organizations have thus called for further work in this area (see, for example, Di Pietra et al., 2008; Evans et al., 2005; IASB, 2007; International Federation of Accountants (IFAC), 2006; Schiebel, 2008). Reported results will improve our general understanding of the causes of delay in the public disclosure of financial statements.

The remainder of the article is organized as follows. We begin with a brief discussion of relevant prior literature and the development of our hypotheses. Next, we introduce the sample and the research methods employed. Then, we present and discuss our results. Finally, we summarize our conclusions.

Review of the literature and development of hypotheses

The Belgian legal framework

Filing obligations for financial statements aim to ensure that a minimum of financial information is made publicly available to all outside stakeholders (Eierle, 2008). Belgian firms are required to prepare their financial statements according to Belgian Generally Accepted Accounting Principles (GAAP), based on the Fourth European Union (EU) Directive, and a prescribed format in which the different items to be disclosed are explicitly defined. For commercial firms, there are two financial statement formats: a complete and an abbreviated format. A firm has to file the complete format if it has more than 100 employees or if at least two of the following criteria are satisfied in at least one of the two preceding accounting periods: (1) more than 50 employees, (2) turnover of at least 7,300,000 EUR, and/or (3) total assets of at least 3,650,000 EUR. Firms that do not meet these criteria are allowed to use the abbreviated format. Importantly, regardless of the financial statement format used, the firm is obliged to provide all information contained in that type of format (Beuselinck et al., 2008). While the abbreviated format is less detailed than the complete format,⁹ it provides considerable information to external stakeholders. Consisting of 22 pages, the abbreviated format of the financial statements contains a balance sheet, an income statement, and various notes to the financial statements.

All Belgian firms have to file their financial statements, regardless of the format, no later than 1 month after approval by the annual meeting of shareholders, with a maximum of seven months after the closing date of the accounting year. If a firm files its financial statements late and third parties suffer a loss, the loss is assumed to result from the late filing unless proof to the contrary is provided. In other words, the onus of proof is reversed and lies with the firm filing its financial statements late. In addition, late filings are subject to administrative sanctions. Nevertheless, it is important to note that the aforementioned sanction only comes into effect if financial statements are filed more than eight months after the closing date of the accounting period. The administrative sanction depends upon the actual reporting lag and ranges from 120 EUR up to 360 EUR for the abbreviated format of the financial statements. If a firm does not file financial statements for three consecutive accounting years, each stakeholder or the Public Prosecutor can claim its judicial annulment.

Hypotheses development

We develop our hypotheses based on three arguments. First, we consider demand for information by external stakeholders. Small firms are often labeled 'informationally opaque' compared to large firms (Berger and Udell, 1998; Niemi and Sundgren, 2012). Whereas the business environment of large listed firms is characterized by various information intermediaries, for example, financial analysts, financial press et cetera, such sources of information are absent in a small firm setting. As discussed in Xiang et al. (2014), a large body of literature considers the restricted ability of small firms to obtain external financing, largely due to their inherent informational opacity. As such, financial statements are arguably a relatively more important piece of information for small firms than for listed firms to mitigate information asymmetries with external stakeholders (Niemi and Sundgren, 2012). As noted above, banks and suppliers are the main financiers of small firms (Berger and Udell, 2006) and are also the most important users of financial statements in Belgium (Tuymans, 2012). For the development of our hypotheses with regard to demand for information, we, therefore, focus on creditors. Second, we consider specific reporting incentives that may affect the timing of filing the financial statements, for example, delaying the disclosure of unfavorable

information. Third, we consider the financial statements production process. Unlike large listed firms, small firms do not have large administrative departments that deal with financial administration including the preparation of the financial statements. Accordingly, the financial statement production process in small firms may also affect financial statement filing lags.

Leverage. Given the lack of public access to capital markets, private debt – provided by trade creditors and banks – constitutes the main source of finance for small firms (Berger and Udell, 2006; European Commission, 2011). So, despite the fact that small firms are not subject to capital market pressures for timely financial reporting, they rely very heavily on external debt, providers of which also require timely information for their decision making (Collis, 2008; Peek et al., 2010). Based on a survey among financial statement users, suppliers and creditors are found to be the most important users of Belgian financial statements (Tuymans, 2012), which lends strong support for the latter argument. In a similar vein, Maingot and Zeghal (2006) find that, besides fiscal purposes, Canadian small firms consider borrowing as the main reason for preparing the financial statements. Specifically, financial statements may mitigate asymmetric information problems by providing useful and reliable information to the lending agent for evaluating the underwriting decision (Allee and Yohn, 2009). In addition, Jensen and Meckling (1976) argue that creditors might demand monitoring and bonding contracts to mitigate agency problems with debt. These contracts are often based on accounting data (Leftwich, 1983; Smith and Warner, 1979), creating a demand for timely financial statements. Prior studies have shown that private creditors typically include more and tighter covenants in debt contracts than public creditors because the former can more efficiently renegotiate debt (Dichev and Skinner, 2002; Smith and Warner, 1979).

Conversely, some argue that information asymmetries between private firms and their stakeholders are mainly resolved via private channels (Ball and Shivakumar, 2005; Burgstahler et al., 2006). Private firm financial statements may have limited relevance as such reports are published less frequently and are subject to lower scrutiny by public markets and the financial press than those of listed firms (Berger and Udell, 2006). Financial statements are, nevertheless, likely to be a very important source of information in a small firm setting. So, publishing financial statements is more credible than handing information individually to creditors. Filing financial statements with an independent third party (i.e. the NBB in Belgium) commits the firm, as filed statements cannot be modified and future financial statements will have to be consistent with those filed in the past (Arrunada, 2011).¹⁰ Although small firms could provide creditors with information through private channels, it is generally deemed more efficient to file financial statements at a public depository than to respond to multiple requests for this information (Dedman and Lennox, 2009). This is especially true in a setting where such filing is required by law as is the case in Belgium. As such, from the creditor's point of view, contracting on hard information, for example, financial statements, is efficient because within large lending institutions soft information, for example, reputation based on past experience, is more difficult to document verifiably and to pass credibly from one individual to another (Berger et al., 2005). In addition, it is much easier for the creditor to legally enforce an explicit contract based on hard information than an implicit contract based on soft information (Berger and Udell, 2006). Thus, while some creditors are likely to have the power to obtain private information about the firm, other creditors may not because their competitors do not make such demands (Schiebel, 2008). Importantly, we do not argue that creditors merely consider financial statement information. Rather we believe that creditors rely on different types of information, including financial statements. Moro et al. (2012), for example, find that loan managers rely on a combination of publicly available hard financial information, soft information collected through observation and third parties, and voluntarily disclosed information.

Various empirical studies report results that are consistent with financial statements playing an important role in lending decisions for small firms (see also Collis (2012) for a comprehensive

overview). Allee and Yohn (2009) and Minnis (2011), for example, find that privately held US firm financial reporting practices affect their access to and their cost of external debt. In a similar vein, based on a sample of UK and German small firms, Hombach et al. (2013) report results consistent with their hypothesis that mandatory disclosure and auditing contribute to a higher share of financial statement lending as proxied by the share of trade credit. Based on a sample of Belgian small firms, Meersschaert et al. (2013) show that external credit market dependence positively affects the informative value of earnings figures. In addition, Van Caneghem and Van Campenhout (2012) observe a positive relationship between leverage and both the amount and the quality of the information disclosed in the financial statements. In sum, the aforementioned evidence is consistent with a demand for financial reporting by small firms to mitigate information asymmetries between the firm and its creditors. Financial statements serve as a monitoring device, and timely disclosure of the financial statements could be a way of mitigating agency problems between managers/owner(s) and creditors. Based on the aforementioned considerations, we hypothesize the following:

- *H1*. There is a negative relationship between leverage and the financial statement filing lag.

Financial statement audit. Different types of lending technologies exist (Berger and Udell, 2006), such as financial statement lending. As argued by Berger and Udell (2006), informative financial statements, such as audited financial statements prepared according to widely accepted accounting standards, are a necessary condition for this type of lending technology. Consistent with this argument, Allee and Yohn (2009) find that private firms with audited financial statements are significantly more likely to be granted credit. Although an external financial statement audit is not legally required for Belgian small firms, they can voluntarily opt for an external financial statement audit. Such an audit is assumed to provide stakeholders with independent assurance regarding the accuracy of the financial statements and the going concern status (Van Tendeloo and Vanstraelen, 2008) as it increases the informative value of financial statements. Thus, we expect that financial statements are more likely to be used as a screening and/or a monitoring device by creditors if they are externally audited, which creates a stronger demand for timely information. We therefore, hypothesize the following:

- *H2*. There is a negative relationship between the presence of an external financial statement audit and the financial statement filing lag.

Firm size. Prior research demonstrates an effect of firm size on financial reporting practices. For example, McMahon (2001) finds that financial reporting practices of medium-sized firms are more comprehensive than those of small firms. In a similar vein, Eierle (2008) demonstrates that voluntary disclosures are significantly more likely for medium-sized than for small firms in Austria. Analogously, Dedman and Lennox (2009) demonstrate a positive relationship between firm size and voluntary disclosure of sales and cost of sales among a sample of medium-sized UK private firms from the manufacturing sector. In line with these findings, Allee and Yohn (2009) observe a positive relationship between firm size and demand for financial statements among a sample of privately held small US firms. As argued by Minnis (2011), larger firms are likely to face more agency problems and have more resources such as specialist accounting staff and/or more advanced accounting information systems enabling more efficient reporting (Allee and Yohn, 2009; Owusu-Ansah, 2000). Reflecting Eierle (2008), we argue that firm size is likely to affect cost/benefit perceptions of filing choices and thus, filing practices, so we hypothesize the following:

- *H3*. There is a negative relationship between firm size and the financial statement filing lag.

Growth prospects. Growth creates a need for resources likely to exhaust internal funds (Michaelas et al., 1999; Psillaki and Daskalakis, 2008); accordingly, growth firms are more likely to turn to external funds (Allee and Yohn, 2009). As argued by Minnis (2011), firm growth is associated with investment opportunities which might create a financial reporting incentive to facilitate both internal capital decisions and the attraction of external funds. Consistent with these arguments, McMahon (2001) observes a significantly positive relationship between comprehensiveness of financial reporting practices and firm growth. Similarly, Allee and Yohn (2009) find that firm growth is an important driver of the production and use of financial statements. There is substantial evidence that small firms face larger growth constraints and have less access to formal sources of external finance (Beck and Demirguc-Kunt, 2006), which is ascribed to the fact that small firms are more informationally opaque. In order to facilitate their access to external funds, we expect firms with growth prospects to be more transparent and thus report in a more timely fashion. Growth firms are also more likely to produce timely financial statements because of increased internal information needs. That is, as the firm grows, complexity increases creating a stronger need for timely financial information to aid in internal decision making (Allee and Yohn, 2009; Bushman and Smith, 2001). Moreover, firm growth is linked to potential agency problems, creating a stronger demand for timely financial information (Allee and Yohn, 2009). Based on the aforementioned considerations, we hypothesize the following:

- *H4.* There is a negative relationship between firm growth prospects and the financial statement filing lag.

Unfavorable information. Dye and Sridhar (1995) theoretically demonstrate that managers will disclose favorable information more quickly than unfavorable information. In addition, several studies empirically demonstrate that financial statements that contain favorable information are disclosed more quickly (Givoly and Palmon, 1982; Haw et al., 2000; Owusu-Ansah, 2000; Whittred, 1980). Different explanations have been offered; Givoly and Palmon (1982), for example, argue that managers delay the disclosure of unfavorable information because they 'wish to continue and complete recent negotiations and contracts in the best possible light' (Givoly and Palmon, 1982: 490). While the aforementioned studies are based on samples of large listed firms, we expect their findings to hold for small firms. After all, unlike large listed firms, small firms generally have few information intermediaries and their financial statements are likely to convey even more news about the firm. We therefore, formulate the following hypothesis:

- *H5.* There is a positive relationship between the presence of unfavorable information in the financial statements and the financial statement filing lag.

Firm age. Based on learning curve theory, older, well-established firms are believed to be more proficient in collecting, processing, and disclosing information because of learning effects (Owusu-Ansah, 2000). As the firm accountant learns more, 'teething problems' that would cause unusual reporting delays are minimized. Based on these considerations, we expect that financial statement filing lags decrease as the number of financial statements prepared by the firm increases. Thus, we hypothesize the following:

- *H6.* There is a negative relationship between firm age and the financial statement filing lag.

Research methods

Data collection

All data, except for the date of filing the financial statements with the NBB, were collected from Bureau Van Dijk's BELFIRST database, which contains financial statement data for Belgian and Luxembourgian firms. Financial statement filing dates, which are not available in the BELFIRST database, were obtained directly from the NBB for accounting years 2006 up to 2008; we use this period as our sample period. For the purposes of our study, we selected all Belgian firms that filed the abbreviated format of the financial statements. Although the small firm definition is subject to considerable differences in prior studies (see, for example, Psillaki and Daskalakis (2008) for a discussion), there is an increasing tendency to rely on the European Commission SME definition. Under the European SME definition, a clear distinction is made between small and micro-enterprises. Accordingly, inspired by the European definition, we eliminate firms that had fewer than 10 employees over the sample period. Because filing practices of subsidiaries are likely to be affected by the parent firm's reporting incentives, we excluded firms for which at least 20% of the shares were held by another firm (i.e. based on ownership data contained in the BELFIRST database). Finally, we discarded observations with missing data. Doing so, we end up with a final sample of 22,108 firm-year observations. To mitigate the potential impact of outliers, reported results are based on winsorized data. Winsorization restates outlying values to the largest non-outlying value. Continuous variables were winsorized at 1% and 99%.

Dependent variable(s)

First, we consider a dummy variable (to be denoted by *LATE*) that distinguishes between timely and late filers. This dummy variable is coded 1 if the firm filed its financial statements late (i.e. more than seven months after the closing date of the accounting year), and 0 otherwise. Second, we consider an ordinal variable (to be denoted by *ORDLATE*) that takes into account the increasing administrative sanction that becomes applicable depending upon the actual reporting lag (see Table 1 for further details regarding the definition of this variable). Considering these increasing fines is relevant because, as argued by Dedman and Lennox (2009), managers would not be willing to pay any extra amount with regard to financial reporting choices unless they perceive some benefit. A similar approach has been used in Clatworthy and Peel (2013).

Independent variables

To test the relationship between leverage and financial statement filing lags (i.e. H1), we include the ratio of total liabilities over total assets (to be denoted by *LEV*)¹¹ in our model. We include a dummy variable that captures the presence of an external financial statement audit (to be denoted by *AUDIT*) to test H2. This dummy variable is coded 1 if the financial statements were subject to an external financial statement audit, and 0 otherwise. To assess the impact of firm size on our dependent variables (i.e. H3), we include the natural logarithm of total assets (see, for example, Heyman et al., 2008; Sogorb-Mira, 2005) (to be denoted by *SIZE*) in our model. To test the relationship between firm growth prospects and financial statement filing lags (i.e. H4), we include the ratio of intangible assets to total assets (see, for example, Esperança et al., 2003; Michaelas et al., 1999; Sogorb-Mira, 2005) (to be denoted by *GROWTH*) in our model. In line with prior studies, we consider different variables in order to capture the presence of unfavorable information contained in the financial statements (i.e. H5). More specifically, we include several dummy variables

Table 1. Variable definitions.

Variable name	Variable description	Predicted sign
<i>LATE</i>	Dummy variable that is coded 1 if the firm filed its financial statements late (i.e. more than 7 months after the closing date of the accounting year), and 0 otherwise.	Dependent
<i>ORDLATE</i>	Ordinal variable that is coded as follows: 0 if the financial statements are filed within 7 months after the closing date; 1 if the financial statements are filed between 7 and 8 months after the closing date; 2 if the financial statements are filed between 8 and 9 months after the closing date; 3 if the financial statements are filed between 9 and 12 months after the closing date; and 4 if the financial statements are filed more than 12 months after the closing date.	Dependent
<i>NONEARLY</i>	Dummy variable that is coded 1 if the firm filed its financial statements more than 6 months after the closing date of the accounting year, and 0 otherwise.	Dependent
<i>LEV</i>	The ratio of total liabilities over total assets.	– (H1)
<i>AUDIT</i>	Dummy variable that is coded 1 if the financial statements were subject to an external financial statement audit, and 0 otherwise.	– (H2)
<i>SIZE</i>	Natural logarithm of total assets.	– (H3)
<i>GROWTH</i>	The ratio of intangible assets over total assets.	– (H4)
<i>CHLOSS</i>	Dummy variable that is coded 1 if the firm reports a loss in the current accounting period and a profit in the previous accounting period, and 0 otherwise.	+ (H5)
<i>CHCURRENT</i>	Dummy variable that is coded 1 if the firm has a current ratio below 1 in the current accounting period and a current ratio above 1.50 in the previous accounting period, and 0 otherwise.	+ (H5)
<i>CHEXPDEBT</i>	Dummy variable that is coded 1 if the firm has tax and/or social security liabilities that are overdue in the current accounting period, while this was not the case in the previous accounting period, and 0 otherwise.	+ (H5)
<i>AGE</i>	Natural logarithm of the number of years since the date (of incorporation) mentioned on the first page of the financial statements.	– (H6)
<i>TRADEDEBT</i>	The ratio of trade debt over total debt.	Control
<i>FINDEBT</i>	The ratio of financial debt over total debt.	Control
<i>DISTRESS</i>	Ooghe-Verbaere (1982) financial distress score (with a lower score implying a higher probability of default).	Control
<i>LAGDEP</i>	Lagged dependent variable.	Control
<i>IND</i>	Dummy variables that denote the specific industry to which the firm belongs (see Note 16 for additional details).	Control
<i>YEAR</i>	Dummy variables that denote the specific year (i.e. we include dummies for 2007 and 2008; 2006 is used as the year of reference).	Control

that capture a substantial negative evolution in the firm's financial performance or position. First, we consider a dummy variable that is coded 1 if the firm reported a profit in the previous accounting period and a loss in the current accounting period, and 0 otherwise (to be denoted by *CHLOSS*). As argued by Degeorge et al. (1999), there is a '[...] psychologically important distinction between positive and negative numbers (or zero)' (p. 2). Various studies have scrutinized the distribution of reported earnings figures and report results that are consistent with loss avoidance (i.e. turning

small losses into small profits by managing reported earnings) (see, for example, Burgstahler and Dichev, 1997; Degeorge et al., 1999; Holland and Ramsay, 2003). Interestingly, while the bulk of studies have focused on samples of large listed firms, Belgian private firms are found to exhibit this type of behavior (De Clercq et al., 2008). Accordingly, regardless of the absolute change in earnings, going from a profit in the previous accounting period to a loss in the current period can be considered bad news. Second, we consider a dummy variable that is coded 1 if the current ratio (i.e. the ratio of current assets over current liabilities) exhibits a marked decrease compared to the previous accounting period to be denoted by *CHCURRENT*. More specifically, this dummy variable is coded 1 if the firm has a current ratio below 1 in the current accounting period and a current ratio above 1.50 in the previous accounting period, and 0 otherwise.¹² A current ratio below 1 might be indicative of liquidity problems. Third, we consider a dummy variable that is coded 1 if the firm has tax and social security liabilities that are overdue in the current accounting period, while this was not the case in the previous accounting period, and 0 otherwise (to be denoted by *CHEXPDEBT*). As discussed in Gaeremynck and Willekens (2003), the existence of expired debt to privileged parties, such as tax and social security authorities, has proven to be an extremely powerful measure to estimate liquidity problems in Belgium (see also Ooghe et al., 1995). In order to test the effect of firm age on our dependent variables (H6), we include the natural logarithm of the number of years since the date of incorporation mentioned on the first page of the financial statements¹³ (to be denoted by *AGE*) in our model.

We also consider some control variables. As noted above, financial debt, that is, bank loans, and trade debt, that is, credit provided by suppliers, are considered to be the most important types of credit for small firms (Berger and Udell, 2006). While all creditors are likely to rely on financial statement information (cf. H1), the extent to which the alternative types of creditors rely on financial statement information might differ. On one hand, Hombach et al. (2013) and Kitching et al. (2013) argue that trade creditors are likely to benefit more from publicly available financial statements because they are less likely to receive information through private channels. Banks typically maintain a close, long-term relationship with the borrower, and they have contractual means to oblige borrowers to provide certain information during the credit period (Diamond, 1984; Petersen and Rajan, 1994). The short-term nature of trade credit renders such contracting unfeasible and relatively more costly for trade creditors (Hombach et al., 2013). On the other hand, as argued by Petersen and Rajan (1997: 663),

[t]he supplier may visit the buyer's premises more often than financial institutions would. The size and timing of the buyer's orders also give an idea of the condition of the buyer's business. The buyer's inability to take advantage of early payment discounts may serve as a tripwire to alert the supplier of a deterioration in buyer creditworthiness. While financial institutions may also collect similar information, the supplier may be able to get it faster and at a lower cost because it is obtained in the normal course of business.

Because of these competing arguments, the impact of alternative types of creditors on our dependent variables remains an empirical question, and we, therefore, include the ratio of trade debt over total debt, denoted by *TRADEDEBT*, and the ratio of financial debt over total debt, denoted by *FINDEBT*, as control variables in our model. Next, we include a financial distress score in our model, denoted by *DISTRESS*, as a proxy for the general time-varying quality of the firm. Specifically, we relied on the Ooghe-Verbaere (1982) model for the calculation of the financial distress score (see Ooghe and Van Wymeersch (2008) for further details), with a lower score implying a higher probability of default and, consequently, lower overall firm quality. Finally, as reporting practices can be largely ritualistic, we include the lagged dependent variable in our model, denoted by *LAGDEP*, as a control variable. Adding the lagged dependent variable also implies control for omitted firm characteristics that are not available in the database employed for this

study. In addition, we include both industry, denoted by *IND*,¹⁴ and year, denoted by *YEAR*, dummies in our model.

Research model

In sum, we estimate the following model to test our hypotheses

$$\begin{aligned} \text{Dependent}_{it} = & \delta_0 + \delta_1 \text{LEV}_{it} + \delta_2 \text{AUDIT}_{it} + \delta_3 \text{SIZE}_{it} + \delta_4 \text{GROWTH}_{it} + \delta_5 \text{CHLOSS}_{it} + \\ & \delta_6 \text{CHCURRENT}_{it} + \delta_7 \text{CHEXPDEBT}_{it} + \delta_8 \text{AGE}_{it} + \delta_9 \text{TRADEDEBT}_{it} + \delta_{10} \text{FINDEBT}_{it} + \\ & \delta_{11} \text{DISTRESS}_{it} + \delta_{12} \text{LAGDEP}_{it} + \delta_{13} \text{IND}_{it} + \delta_{14} \text{YEAR}_{it} + \varepsilon_{it} \end{aligned}$$

where *i* and *t* denote firms and years. Table 1 summarizes variable definitions and predictions.

As noted, we consider different dependent variables, and we will, therefore, consider alternative estimation techniques. Using *LATE* as the dependent, that is, a dummy variable, we rely on a logit regression. Employing *ORDLATE* as the dependent, that is, an ordinal variable, we rely on an ordered logit regression. All models are estimated using the cluster option in Stata to obtain robust standard errors.

Results

Descriptive statistics

Panel A of Table 2 details the timing of filing the financial statements for the sample. It emerges that, it is only from the sixth month onward that financial statements are filed in large numbers. More specifically, about 80% of the sample filed their financial statements in the period of 6–8 months after the closing date of the accounting year. Additionally, both the reporting deadline and the administrative sanction appear to have a significant effect on filing practices. The greatest number of financial statements, about 31%, is filed in the seventh month after the close of the accounting year. These filings just meet the legal deadline. In addition, about 23% are filed in the eighth month after the closing date. These financial statements are filed late, but the administrative sanction is not yet applicable. The impact of the reporting deadline and the administrative sanction on filing practices becomes more pronounced when considering the number of financial statements filed in the last week before these deadlines. Untabulated results indicate that about 22% of the financial statements (or 4662 financial statements) are filed in the last week before the end of month seven or eight¹⁵ Panel B of Table 2 presents descriptive statistics for the variables included in our model.

A correlation matrix is presented in Table 3. All correlation coefficients among the independent variables fall below the cutoff of .600, frequently used to assess potential multicollinearity problems. Nevertheless, we also considered variance inflation factors (VIFs). The maximum VIF (average VIF) equals 1.80 (1.33). Thus, we conclude that our multivariate results are not affected by multicollinearity problems.

Multivariate results

Regression results are presented in Table 4. Reported results for Model I are based on a logit regression with *LATE* as the dependent variable, while results for Model II are based on an ordered logit regression with *ORDLATE* as the dependent variable. In order to facilitate the interpretation of our results, we report both the coefficients and the odds ratios in Table 4.¹⁶ Table 4 indicates that both models yield very similar results, and we will, therefore, focus on Model I in our discussion below.

Table 2. Descriptive statistics.

Panel A: Breakdown based on month during which the financial statements are filed

	Number of observations	Percentage	Cumulative percentage
1st month	3	.014	.014
2nd month	23	.110	.125
3rd month	163	.783	.907
4th month	345	1.656	2.564
5th month	1398	6.711	9.275
6th month	6040	28.997	38.272
7th month	6424	30.840	69.112
8th month	4884	23.447	92.559
9th month	733	3.519	96.078
10th up to 12th month	655	3.145	99.222
>12 months	162	.778	100.000
	20,830		

Panel B: Descriptive statistics

Variable name	Mean	Median	SD	25th percentile	75th percentile
<i>LATE</i>	.309				
<i>LEV</i>	.672	.697	.248	.513	.839
<i>AUDIT</i>	.055				
<i>SIZE</i>	14.183	14.227	.842	13.639	14.769
<i>GROWTH</i>	.008	.000	.032	.000	.001
<i>CHLOSS</i>	.108				
<i>CHCURRENT</i>	.001				
<i>CHEXPDEBT</i>	.013				
<i>AGE</i>	2.909	2.944	.599	2.485	3.332
<i>TRADEDEBT</i>	.349	.319	.221	.171	.501
<i>FINDEBT</i>	.370	.367	.258	.143	.576
<i>DISTRESS</i>	7.824	7.102	5.227	4.493	10.483

SD: standard deviation.

Panel A of this table presents a breakdown of sample observations based on the month (after the closing date of the accounting year) during which the financial statements are filed. Panel A of this table is based on unwinsorized data. The variables are defined in Table 1.

Whereas we predicted a negative relationship between leverage and our dependent variables, we observe a significantly positive coefficient for *LEV* in both models. This means that no evidence is found of heavier reliance on external debt financing, ultimately leading to more timely public disclosure of financial statement information. Results are, therefore, inconsistent with H1. The odds ratio for the coefficient on *LEV* in model I equals 1.3461. This implies that, controlling for all other variables, the odds for filing the statements late increase by about 35% for a one-unit increase in leverage.¹⁷ We observe a significantly negative relationship between an external financial statement audit (*AUDIT*) and both dependent variables. This observation provides support for H2 and is consistent with our argument that financial statements are more likely to serve as a monitoring and/or screening device if they are externally audited. The odds ratio for the coefficient on *AUDIT* in model I equals .5951. This implies that, controlling for all other variables, the odds for filing the statements late are about 40% lower if the financial statements are externally audited.

Table 3. Correlation matrix.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
LATE (1)	1.000											
LEV (2)	.082 (.000)	1.000										
AUDIT (3)	-.068 (.000)	-.073 (.000)	1.000									
SIZE (4)	-.065 (.000)	-.156 (.000)	.194 (.000)	1.000								
GROWTH (5)	.021 (.002)	.146 (.000)	.004 (.535)	-.026 (.000)	1.000							
CHLOSS (6)	.045 (.000)	.143 (.000)	.007 (.326)	-.075 (.000)	.027 (.000)	1.000						
CHCURRENT (7)	.012 (.075)	.033 (.000)	.003 (.712)	-.009 (.190)	.018 (.007)	.041 (.000)	1.000					
CHEXPDEBT (8)	.023 (.001)	.062 (.000)	.004 (.515)	-.024 (.000)	.027 (.000)	.019 (.004)	.002 (.789)	1.000				
AGE (9)	-.051 (.000)	-.304 (.000)	.133 (.000)	.259 (.000)	-.194 (.000)	-.019 (.004)	-.026 (.000)	-.034 (.000)	1.000			
TRADEDEBT (10)	.008 (.251)	-.093 (.000)	.002 (.754)	.042 (.000)	-.062 (.000)	-.043 (.000)	-.033 (.000)	-.016 (.018)	.072 (.000)	1.000		
FINDEBT (11)	.002 (.814)	.256 (.000)	-.038 (.000)	.177 (.000)	.043 (.000)	.079 (.000)	.022 (.001)	.006 (.340)	-.000 (.996)	-.558 (.000)	1.000	
DISTRESS (12)	-.041 (.000)	-.226 (.000)	-.061 (.000)	-.095 (.000)	.005 (.504)	-.279 (.000)	-.029 (.000)	-.044 (.000)	-.121 (.000)	-.136 (.000)	-.005 (.458)	1.000

The variables are defined in Table 1. *p*-values are reported within brackets.

Table 4. Regression results.

Variable name	Predicted sign	Model I (Logit – LATE)			Model II (Ordered Logit – ORDILATE)			Model III (Logit – NONEARLY)		
		Coefficient	Odds ratio	p-value	Coefficient	Odds ratio	p-value	Coefficient	Odds ratio	p-value
Intercept		-.4924		(.121)				.0642		(.837)
LEV	– (H1)	.2972	1.3461	(.000)	.2887	1.3347	(.000)	.1884	1.2073	(.013)
AUDIT	– (H2)	-.5191	.5951	(.000)	-.6103	.5432	(.000)	-.2048	.8148	(.005)
SIZE	– (H3)	-.1019	.9031	(.000)	-.0861	.9175	(.000)	-.0506	.9507	(.018)
GROWTH	– (H4)	.6085	1.8376	(.213)	.5729	1.7734	(.207)	.5060	1.6586	(.320)
CHLOSS	+ (H5)	.2138	1.2384	(.000)	.2234	1.2504	(.000)	.2579	1.2943	(.000)
CHCURRENT	+ (H5)	.0498	1.0510	(.819)	.1469	1.1583	(.457)	.3496	1.4184	(.136)
CHEXPDEBT	+ (H5)	.1806	1.1964	(.253)	.1512	1.1633	(.305)	.6580	1.9308	(.000)
AGE	– (H6)	-.0201	.9801	(.457)	-.0189	.9813	(.464)	-.0611	.9407	(.023)
TRADEDEBT	Control	.1793	1.1964	(.079)	.1625	1.1765	(.092)	.0001	1.0001	(.999)
FINDEBT	Control	.0822	1.0857	(.345)	.0871	1.0910	(.296)	-.0648	.9372	(.433)
DISTRESS	Control	-.0081	.9919	(.031)	-.0079	.9921	(.025)	-.0105	.9896	(.003)
LAGDEP	Control	2.4483	11.5690	(.000)	1.5182	4.5642	(.000)	2.3051	10.0251	(.000)
Cut1					.5055					
Cut2					2.7528					
Cut3					3.6345					
Cut4					5.6722					
Number of observations		22,108			22,108			22,108		
Pseudo R ²		.2180			.1610			.2065		
Chi-squared		3764.31		(.000)	2647.01		(.000)	3807.52		(.000)

The variables are defined in Table 1. p-values are reported within brackets. In order to preserve overview, coefficients for the industry and year dummy variables are not reported.

Consistent with H3, we observe a significantly negative relationship between firm size and both dependent variables. This observation lends support for larger firms facing more severe agency problems and thus having a greater need for monitoring. The odds ratio for the coefficient on *SIZE* in model I equals .9031. This implies that, controlling for all other variables, the odds for filing the statements late decrease by about 10% for a one-unit increase in firm size. Results do not provide support for H4, as the coefficient for *GROWTH* fails to attain statistical significance. Consistent with H5, we note that the coefficients for all unfavorable information proxies reveal the predicted sign. Nevertheless, it is important to acknowledge that only the coefficient for *CHLOSS* differs significantly from 0 at the conventional levels. The odds ratio for the coefficient on *CHLOSS* in model I equals 1.2384. This implies that, controlling for all other variables, the odds for filing the financial statements late are about 24% higher if the firm reported a profit in the previous accounting period and a loss in the current accounting period compared to all other possible scenarios. In sum, our results lend support for the idea that firms delay the disclosure of unfavorable information. Finally, the coefficient for *AGE* is not statistically significant and H6 is not supported.

With regard to the control variables, we find for both models a significantly negative relationship between *DISTRESS* and the dependent variable. This indicates that firms of higher overall quality tend to have shorter reporting lags. The odds ratio for the coefficient on *DISTRESS* in model I equals .9912. This implies that, controlling for all other variables, the odds for filing the financial statements late decrease by about 1% for a one-unit increase in the distress score. Furthermore, we observe a significantly positive relationship between the lagged dependent variable (*LAGDEP*) and the dependent variable in both models. This finding is consistent with the idea that reporting practices are largely ritualistic, and the magnitude of the odds ratio for *LAGDEP* clearly indicates that past filing behavior is the most important predictor of current filing behavior. Coefficients for the control variables that capture the importance of alternative types of creditors do not attain statistical significance.¹⁸

The legal reporting deadline and/or imposed administrative sanctions are found to have an important impact on filing practices. We estimated an additional logit regression in which we distinguish between firms that filed their financial statements well before the legal deadline, denoted by 'early filers', a subsample of firms for which the legal reporting deadline itself is not a primary filing incentive, and all other observation, denoted by 'non-early filers'. Specifically, results for Model III in Table 4 are based on a logit regression for which the dependent variable, denoted by *NONEARLY*, is coded 1 if the firm filed its financial statements more than 6 months after the closing date of the accounting year, and 0 otherwise. When we compare results for Model III with those obtained for Model I, we see that coefficients for two additional variables attain statistical significance. In Model III, the coefficient for *CHEXPDEBT* is significantly positive, consistent with H5. Based on the odds ratio, we note that the odds for being a non-early filer are about 94% higher if the firm has tax and/or social security liabilities that are overdue in the current accounting period, while this was not the case in the previous accounting period, compared to all other scenarios. In addition, unlike for Model I, Model III yields a significantly negative coefficient for *AGE*, which is consistent with H6. The odds ratio for the coefficient on *AGE* in model III equals .9372. This implies that, controlling for all other variables, the odds for being a non-early filer decrease by about 6% for a one-unit increase in *AGE*. For the other variables, results are similar to those obtained based on Model I.

Financial statement filing lags and financial statement quality

Prior studies, based on large listed firms, suggest a negative relationship between financial reporting lags and the quality of the information provided in the financial statements (Knechel and Payne, 2001; Mohd-Sulaiman, 2008). In a small firm context, however, one could argue that a trade-off

might arise between financial statement quality and reporting timeliness to meet financial reporting requirements. While not being the main purpose of our study, we performed an additional analysis in order to assess the relationship between financial statement filing lags and financial statement quality in a small firm context. Analogous to Atwood et al. (2011) and Meersschaert et al. (2013), we proxy for financial statement quality by examining the usefulness of current period earnings in predicting the next period's operating cash flow. As argued by Atwood et al. (2011), the main conceptual accounting frameworks state that financial reporting should provide information helpful to users in predicting future cash flows (see, for example, Financial Accounting Standards Board (FASB), 1978; IASB, 2010). Specifically, we estimate the following model¹⁹

$$CFO_{it+1} = \delta_0 + \delta_1 ROA_{it} + \delta_2 LOSS_{it} + \delta_3 ROA_{it} * LOSS_{it} + \delta_4 SIZE_{it} + \delta_5 ROA_{it} * SIZE_{it} + \delta_6 AUDIT_{it} + \delta_7 ROA_{it} * AUDIT_{it} + \delta_8 LAG_{it} + \delta_9 ROA_{it} * LAG_{it} + \delta_{10} IND_{it} + \delta_{11} ROA_{it} * IND_{it} + \delta_{12} YEAR_{it} + \varepsilon_{it}$$

Panel A of Table 5 presents variable definitions. All control variables, except for *AUDIT* and *LAG*, are based on prior studies (Atwood et al., 2011; Meersschaert et al., 2013). Hayn (1995) and Collins et al. (1999) conclude that losses are less informative than profits about a firm's future prospects, and accordingly, we include *LOSS* and its interaction with *ROA* in our model. Meersschaert et al. (2013) indicate that larger firms have more useful earnings, and so, we include *SIZE* and its interaction with *ROA* in our model. Unlike prior studies, we control for an external financial statement audit. As discussed earlier, an external financial statement audit is not mandatory for the firms in our sample unlike the samples considered in prior studies, but is likely to have a positive effect on the quality of the information provided in the financial statements. In order to assess the relationship between the financial statement filing lag and financial statement quality, we include *LAG* and its interaction with *ROA* in our model. *ROA*LAG* is the main variable of interest because the coefficient on this variable indicates whether there is a relationship between the financial statement filing lag and the usefulness of reported current period earnings in predicting next period cash flow.

Panel B of Table 5 presents results from estimating the aforementioned multivariate model.²⁰ As can be seen from Panel B, we estimated the model three times employing three different financial statement filing lag variables. In Model IV, we distinguish between firms that report within 6 months after the closing date of the accounting period (i.e. the early filers) and all other firms (i.e. the non-early filers). In Model V, we distinguish between firms that report within seven months after the closing date of the accounting period (timely filers) and firms that violate the legal deadline (late filers). In Model VI, we distinguish between firms that report within eight months after the closing date of the accounting period – those firms that file their financial statements before the administrative sanction becomes applicable – and firms that are subject to the administrative sanction. While all three models yield a negative coefficient for *ROA*LAG*, only the coefficient for Model VI differs significantly from 0. Thus, reported results indicate that financial statements that are subject to an administrative sanction for being filed late exhibit lower quality. Worded differently, our results indicate that extreme financial statement filing lags are associated with lower financial statement quality. Results are inconsistent with a trade-off between financial statement quality and financial reporting timeliness, but provide support for the previously observed negative relationship between financial reporting lags and the quality of the information provided in the financial statements. We note that the other variables in the models have the predicted signs.

Sensitivity analyses

We performed several robustness checks. First, in an attempt to discern the impact of high leverage resulting from a deliberate financing decision versus high leverage resulting from a poor

Table 5. Relationship between financial statement filing lags and financial statement quality.

Panel A: Variable definitions

Variable name	Variable description
<i>CFO</i>	Cash flow from operations, being measured as operating profit (or loss) minus accruals. Consistent with prior research (see, for example, Leuz et al., 2003; Meersschaert et al., 2013), accruals are calculated as follows: $((\Delta\text{current assets} - \Delta\text{cash and cash equivalents}) - (\Delta\text{current liabilities} - \Delta\text{short-term debt} - \Delta\text{tax liability}) - \text{depreciation and amortization})$. Cash flow from operations is then scaled by total assets.
<i>ROA</i>	Return on assets, being the ratio of net income over total assets.
<i>LOSS</i>	Dummy variable that is coded 1 if the firm reports a loss, and 0 otherwise.
<i>AUDIT</i>	Dummy variable that is coded 1 if the financial statements were subject to an external financial statement audit, and 0 otherwise.
<i>LAG</i>	Dummy variable that is coded 1 if the financial statements were filed after a certain period of time, and 0 otherwise. Three periods are considered for this variable: filing the financial statements within 6 months (i.e. Model IV), 7 months (i.e. Model V), or 8 months (i.e. Model VI) after the closing date of the accounting year.
<i>IND</i>	Dummy variables that denote the specific industry to which the firm belongs (see Note 16 for additional details).
<i>YEAR</i>	Dummy variables that denote the specific year (i.e. we include dummies for 2007 and 2008; 2006 is used as the year of reference).

Panel B. Regression results

Variable name	Predicted sign	Model IV (6 months)		Model V (7 months)		Model VI (8 months)	
		Coefficients	p-values	Coefficients	p-values	Coefficients	p-values
Intercept		.1919	(.000)	.1917	(.000)	.1906	(.000)
<i>ROA</i>	+	.7214	(.000)	.7174	(.000)	.7174	(.000)
<i>LOSS</i>	?	-.0030	(.500)	-.0029	(.509)	-.0027	(.542)
<i>ROA * LOSS</i>	-	-.3520	(.000)	-.3514	(.000)	-.3463	(.000)
<i>SIZE</i>	?	-.0095	(.000)	-.0096	(.000)	-.0095	(.000)
<i>ROA * SIZE</i>	+	.1401	(.000)	.1397	(.000)	.1401	(.000)
<i>AUDIT</i>	?	-.0228	(.000)	-.0231	(.000)	-.0230	(.000)
<i>ROA * AUDIT</i>	+	.1316	(.009)	.1298	(.010)	.1257	(.013)
<i>LAG</i>	?	-.0041	(.044)	-.0056	(.009)	-.0129	(.001)
<i>ROA * LAG</i>	?	-.0205	(.407)	-.0282	(.260)	-.1199	(.004)
Number of observations		20,830		20,830		20,830	
Adjusted R ²		.1073		.1074		.1086	
F		143.63	(.000)	143.81	(.000)	144.39	(.000)

The variables are defined in Panel A of this table. *p*-values are reported within brackets. In order to preserve overview, coefficients for the industry and year dummy variables are not reported.

financial condition, we included an interaction term between *LEV* and a dummy variable indicating the presence of retained losses on the balance sheet in our models. The inclusion of this interaction term does not affect our findings.

Second, as leverage decisions are not a random choice, we also considered the industry median, separately for each sample year, for all leverage-related independent variables in our models. This approach is inspired by the work of Rajan and Zingales (1998), Bertrand et al. (2007), and Giannetti and Ongena (2009), among others. Note that we excluded industry dummy variables from our models when considering the industry median for the leverage-related variables in our models. Using the industry median for the leverage-related variables, we obtain a significantly positive coefficient for *FINDEBT* in all three models, while coefficients for *LEV* and *TRADEDEBT* do not attain statistical significance in any of the models. Our results suggest that firms in industries that rely more heavily on financial debt, as a fraction of total debt, exhibit longer financial statement filing lags.

Third, opting for an external financial statement audit is not a random choice either, and self-selection issues may bias the coefficient for *AUDIT*. In order to control for potential self-selection bias, we rely on propensity score matching (PSM). The selection model is estimated using a parametric estimator of the external financial statement audit equation (in our case a probit model), and the probabilities (propensity score) of opting for an external financial statement audit are obtained for all sample firms. Each firm for which the financial statements were subject to an external audit is then matched to one or more firms for which the financial statements were not subject to an external audit with a similar propensity score. Based on Van Caneghem and Van Campenhout (2012), the following variables are included in the financial statement audit equation: *SIZE*, *FINDEBT*, *ROA*, *PGROWTH CURRENT*, *LOSS*, and *NOEMPL*. We relied on the *nmatch* command in Stata (Abadie et al., 2004) for PSM. Untabulated results reveal that coefficients for *AUDIT* in the reported models are not affected by selection bias.

Fourth, in a similar vein, our firm growth variable does not result from a random choice, so we considered the industry average, for each sample year, instead of the firm-level variable in our model, excluding the industry dummy variables. Replacing the firm-level growth variable by an industry-level growth variable does not affect our results.

Finally, because of learning effects, we assume a negative relationship between firm age and our dependent variables. Nevertheless, information asymmetries are less severe for older firms because the former have established a track record and reputation (Ang, 1991; Diamond, 1989). As a result, it could be argued that young firms are more likely to file their financial statements in a timely manner. As a robustness check, we replaced *AGE* by a dummy variable coded 1 if firm age does not exceed five years, and 0 otherwise. In line with our original findings, the coefficient for this dummy variable is significantly (i.e. at the 10% level) positive in Model III, while it does not attain statistical significance in Model I and Model II. Results are, accordingly, inconsistent with young firms filing more quickly in order to reduce information asymmetries.

Discussion

Our multivariate analyses contribute to the existing literature by revealing a number of variables significantly related to small firm financial statement filing lags. Consistent with the argument that financial statements are more likely to be used as a screening and/or monitoring device when externally audited, we find that externally audited financial statements are significantly less likely to be filed late (after the legal deadline) and significantly more likely to be filed early (more than one month before the legal deadline). In addition, we find that late/early filings are significantly less/more likely for larger firms. This reflects the argument of Minnis (2011), that in a small firm context, larger firms have a greater need for monitoring as they face more severe agency problems. The latter observation is also consistent with the argument that larger firms have more resources to

manage compliance enabling them to report faster. While not all unfavorable information proxies attain statistical significance in our models, we find support for small firms delaying the public disclosure of unfavorable information. Consistent with a learning curve effect, we find that older firms are significantly more likely to file their financial statements early. Firm age does, however, not affect the likelihood of late filing. Our results reveal that past filing behavior is the most important predictor of current filing behavior.

Additionally, we contribute to the existing literature by demonstrating that the timeliness of financial statement publication by small firms does not appear to be demand-driven. Specifically, our results show that the majority of the financial statements are filed in the seventh or eighth month after the closing date of the accounting year, and about a quarter are filed in the last week before the end of the seventh or eighth month. This indicates that both the reporting deadline and the administrative sanction deadline are important filing incentives. Evidently, many small firms just meet these deadlines, suggesting that they face few other incentives and/or little pressure to file their financial statements in a timely manner. This observation is reinforced by our surprising result that in a creditor-oriented setting, such as the Belgian small firm context, we find no evidence whatsoever that heavier reliance on external credit leads to more timely filing. One potential explanation for these findings is that, reflecting Ball and Shivakumar (2005) and Burgstahler et al. (2006), information asymmetries between small firms and their stakeholders are mainly resolved through private channels. Our results imply that a very substantial portion of small firms regard private channels as being more efficient than timely public filing of financial statements to resolve information asymmetries with stakeholders. This may raise important questions with respect to the usefulness of a generalized obligation for small firms to make financial statements publicly available in a timely fashion. Regulators should be cautious in this respect as efficient behavior at the individual firm level is not necessarily optimal from a public interest perspective. Moreover, our overall sample distribution of reporting lags shows that about 40% of the observations file their financial statements more than one month before the legal deadline. This implies that, even in the absence of capital market pressures, there is a considerable subsample of small firms that do appear to have an incentive to report substantially more quickly than required by law. The fact that small firms resolve their information asymmetries through private channels can, therefore, not be generalized. Thus, any argument for a free market for financial statement information hinges critically upon the assumption that firm managers are able to rationally account for the costs and benefits involved in filing behavior.

The latter consideration potentially provides for an alternative explanation for the findings described above: if (some) small firm owners/managers are unable to assess the costs and benefits involved in filing choices, filing behavior may become inefficient and the timeliness of the publication of financial statement information may appear not to be demand-driven. Herein lies a third contribution of our analyses: the specific Belgian context in which the administrative sanction for late filings only becomes applicable if financial statements are filed more than one month after the legal deadline makes it possible to separately assess the impact of monetary sanctions on filing practices. We find that about a third of the observations in our sample violate the legal filing deadline, with about a quarter of the financial statements being filed in the first month after the legal deadline. From a regulator's perspective, our results suggest that monetary sanctions are an effective tool in enforcing timely filing behavior. This observation reflects prior findings reported by Dedman and Lennox (2009) that even small amounts affect financial reporting practices. As such, our findings raise the question as to why the sanction does not come into effect immediately after the legal filing deadline. From the perspective of small firm owners/managers, however, our observation that nearly a quarter of all filings take place in the first month after the legal deadline casts serious doubts on their rationality in this context. In order for those filings to be cost efficient, firm

owners/managers must see sufficient benefits in postponing the publication of their financial statements just a few weeks beyond the legal deadline, exposing themselves to the risk of being liable for all stakeholder losses resulting from the late filing. Yet, they do not see sufficient benefits in any further delay to offset the small monetary sanction that becomes applicable after the eighth month. Although this possibility cannot be ruled out entirely, the frequency with which this behavior occurs at least suggests that a considerable portion of small firms are primarily focused on the direct and immediate costs involved in the filing process without adequately considering the implicit costs and benefits.

There is some awareness of the use made by stakeholders of publicly available financial statements. Otherwise we would not observe the delay in the disclosure of unfavorable information.²¹ Nevertheless, reflecting Kitching et al. (2013) for example, it seems likely that certain small firm owners/managers are not fully aware of the consequences of disclosure policies. As noted by Kitching et al. (2013), small firm owners/managers typically view regulation as a burden, but it often generates effects beyond those intended. For example, Kitching et al. (2011) argue that clients might choose not to invite a small firm to be a supplier due to the latter's decision to file the abbreviated format of the financial statements. In a similar vein, a small firm might obtain credit at less favorable conditions because of the adopted disclosure policy. Small firm owners/managers might not be fully aware of these adverse effects resulting from the adopted disclosure practices.

Finally, we find that about 7% of the observations in the sample are subject to the administrative sanction for filing the financial statements late. Further analyses reveal that filings that are subject to the administrative sanction are associated with significantly lower financial statement quality. Thus, our results indicate that extremely late filings can be considered as an important negative signal with regard to the quality of the financial statements. That is, for these filings, the financial statement information is not only less useful because it is filed extremely late but is also found to be of lower quality.

Conclusion

Schiebel (2008) notes that small firm financial reporting requirements have received much attention from standard setters and regulators seeking to develop financial reporting standards tailored to the needs of small firms. Although such firms represent the overwhelming majority of entities preparing financial statements and their financial disclosure behavior tends to exhibit considerably more tardiness than that of large listed firms, academic research into small firm financial reporting is scant. Inspired by calls for research on small firm financial reporting practices, we drew upon a large sample of Belgian small firms to examine the determinants of financial statements filing lags. In addition, we explored the relationship between filing lags and quality of the financial statements.

Our focus on the Belgian contexts provides a number of advantages. First, all Belgian limited liability firms are required to prepare annual financial statements to be filed at a public depository providing a large sample of mandatory financial statement filings. Second, the separate deadlines for the legal filing deadline and that for the administrative monetary sanction made it possible to assess the impact of a monetary sanction on filing practices. Third, it enabled us to test the influence of variables that have not been considered in prior research.

The evidence from this study is of relevance to small firm stakeholders as it offers additional insight into financial reporting practices. As such, it clarifies reporting practices, reporting incentives and causes for delay in the public disclosure of small firm financial statements. Considerable delay in filing financial statements might, for example, be a signal of unfavorable information and/or poor financial statement quality. Our findings are also of interest to regulators. For example, results indicate that fines are an effective tool to ensure compliance with filing deadlines, while

reporting practices are significantly affected by firm size. As financial reporting requirements are often differentiated based on firm size, this result suggests that such differentiation is, at least to some extent, appropriate. Additionally, the timeliness of financial statement publication does not appear to be demand-driven. This observation may be due to information asymmetries in the small firm context mainly being resolved through private channels and/or small firm owners/managers not being able to accurately assess the costs and benefits involved in filing choices. Both explanations, which are not exclusive to small firm population, are feasible on the basis of these results.

A limitation of this study is that our analyses are solely based on publicly available information. Thus, we rely on small firm financial reporting processes and, in particular, reporting lags to draw inferences about those underlying processes without being able to analyze them directly. Future research is required which uses survey-based evidence to discretely investigate small firm filing choices. Such an approach may be helpful to differentiate between the alternative explanations suggested for our finding that the timeliness of the publication of financial statement information by small firms does not appear to be demand-driven. Another limitation is that we do not explicitly assess the costs and benefits involved in small firm filing behavior. Thus, future research to examine whether small firm financial reporting lags and/or systematic or exceptional late filings have economic consequences is necessary. Finally, given that financial statements serve as a screening and/or monitoring device, systematic late filings might, for example, have an impact on the cost of, or access to, external debt, which is possibly not fully understood by small firm owners/managers.

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Notes

1. As a general remark, one should be careful when interpreting (comparing) results of (across) different studies because of sampling differences, and differences with regard to the way small and/or medium-sized firms are defined (see, for example, Psillaki and Daskalakis (2008) for a discussion). Dedman and Lennox (2009), for example, only consider medium-sized private UK firms whose primary activity is within manufacturing. To define medium-sized firms, they require that at least two of the following three conditions hold: (1) £5.6 million < sales ≤ £11.2 million, (2) £2.8 million < assets ≤ £5.6 million, and (3) 50 < employees ≤ 250 (Dedman and Lennox, 2009: 217). As another illustration, Allee and Yohn (2009) rely on a stratified random sample of privately held US firms with fewer than 500 employees and label them small businesses. In this article, we perform an empirical analysis of small Belgian firms and, therefore, adhere to the term small firms throughout. Nevertheless, some studies to which we refer consider samples of both small and medium-sized enterprises (where small and medium-sized enterprises are then defined in various ways, cf. *supra*).
2. Clatworthy and Peel (2013) provide a notable exception. They examine financial reporting timeliness among a large sample of UK private firms but mainly focus on the effect of corporate governance, and their work, therefore, has a substantially different focus.
3. The financial reporting lag is then defined as the time period that elapses between the closing date of the accounting year and the moment the information is actually disclosed.

4. For example, Naimi et al. (2010) report that merely 2.5% of their sample firms failed to publish their financial statements within the time period prescribed by listing requirements.
5. The majority of Belgian firms are small and medium-sized entities (SMEs). For example, based on the Structural Business Statistics Database (Eurostat) more than 99% of Belgian firms classify as SME (European Commission, 2010/2011).
6. For example, subject to Securities and Exchange Commission (SEC) requirements, financial statements (i.e. 10-K reports) have to be filed within a period of 60 days after the closing date of the accounting period.
7. These standards were issued in July 2009, and the European Commission recently rejected the mandatory use of International Financial Reporting Standards for SMEs (IFRS for SMEs) (Girbina et al., 2012), although the European Financial Reporting Advisory Group (EFRAG) identified only six minor differences, that is, incompatibilities, with the European Directives (EFRAG, 2010). Nevertheless, European Union (EU) members may still consider IFRS for SMEs as a benchmark for the modernization of their accounting systems. Some European countries have already adopted IFRS for SMEs or announced plans to do so: Bosnia, Estonia, Macedonia, Switzerland, United Kingdom, and Ireland (IFRS Foundation, 2012). As illustrated by a recent reaction from EFRAG to proposed adjustments to IFRS for SMEs (EFRAG, 2014), the aforementioned European Commission's rejection does not necessarily imply a long-term decision.
8. The European Directive was adopted by the European Parliament and the Council of the EU in June 2013.
9. Specific examples of differences between the complete and the abbreviated format of the financial statements are that, on the balance sheet, the abbreviated format contains less detailed information with respect to financial fixed assets, inventories, investments, and long-term debt. In the abbreviated format of the income statement, operating revenues (e.g. turnover) and expenses are summarized as a gross margin, whereas detailed information on both operating revenues and expenses are mandatory in the complete format. Finally, less information and detail are required in the notes for the abbreviated format of the financial statements.
10. In the Belgian context, firms are able to correct previously filed financial statements. If so, both the original and corrected financial statements are available in the National Bank of Belgium (NBB) database (and, based on the heading, a clear distinction is made between original and corrected financial statements in the NBB database). As such, it is highly visible to the firm's stakeholders that previously filed financial statements were modified.
11. We also considered total debt (i.e. total liabilities minus provisions and deferred taxes) over total assets. In addition, we considered the sum of financial debt and trade debt over total assets. However, these alternative specifications do not affect our results.
12. Alternatively, we coded the dummy variable 1 if the firm has a current ratio below .80 in the current accounting period and a current ratio above 1 in the previous accounting period, and 0 otherwise. This alternative specification does not affect our results.
13. The first page of the Belgian financial statements mentions the date of filing the memorandum of association (i.e. date of incorporation) *or* the date of the most recent piece that mentions this date and the act of amendment to the articles of association. In the latter case, the date of incorporation mentioned on the first page of the financial statements is not the date of incorporation itself. Based on the belief that amendments to the articles of association are not common, we rely on the date mentioned on the financial statements for the purposes of our study. In order to assess the appropriateness of relying on this date, we considered the correlation between our proxy and the percentile to which the observation belongs based on the rank, within the sample, of its unique firm number (i.e. firm numbers are assigned sequentially). The latter correlation amounts to .96, which supports the validity of our proxy.
14. The industry dummy variables employed in this study are based on Eurostat Nomenclature of Economic Activities (NACE) Rev. 2 – Statistical classification of economic activities in the European Community. The inclusion of separate dummy variables for all these industries in our model gives rise to multicollinearity problems among the industry dummy variables with the large majority of the variance inflation factors (VIFs) exceeding 10. We chose to only retain the largest industries, those having more than 2000 observations based on our sample, and aggregated all other industries into an 'other' category. The

largest industries are ‘manufacturing’; ‘construction’; ‘wholesale and retail trade, repair of motor vehicles and motorcycles’; and ‘transportation and storage’.

15. A total of 2059 financial statements (FS) are filed in the last week before the reporting deadline, while 2603 FS are filed in the last week before the administrative sanction becomes applicable.
16. Odds are then defined as the ratio of the probability of success over the probability of failure.
17. An alternative explanation for this finding might be that high leverage is considered to be unfavorable information and that highly indebted firms may delay the financial reporting process. However, Lemmon et al. (2008) show that leverage is quite stable over time. Accordingly, firms with high leverage might have had high leverage in prior years as well. Reflecting Lemmon et al. (2008), we estimate a cross-sectional regression of leverage on 1-year lagged factors that have been previously identified in the literature as being relevant determinants of capital structure in order to capture *unexpected leverage*. More specifically, we regress leverage (i.e. *LEV* as defined in Table 1) on the following 1-year lagged variables: *LEV*, *SIZE* (as defined in Table 1), *ROA* (as defined in Panel A of Table 5), *TANG* (i.e. tangibility defined as the ratio of tangible assets – net fixed assets and inventories – over total assets), an industry variable, and year dummy variables. Unlike Lemmon et al. (2008), we are unable to control for market-to-book because all firms in our sample are unlisted. Also, unlike Lemmon et al. (2008), we do not merely consider industry dummy variables. Rather, we include lagged average leverage within the industry. That is, several studies document important differences in financing patterns across industries (Harris and Raviv, 1991; Michaelas et al., 1999; Romano et al., 2001). One possible explanation is that firms target an optimal leverage ratio and that the industry practice serves as a target. In other words, firms aim for a financing structure that represents a consensus on what is appropriate given prevailing circumstances in the industry (Holmes et al., 2003). Next, we include the residual of the aforementioned model in our financial statement lag models as a proxy for unexpected leverage. Including unexpected leverage together with *LEV* does not pose problems in terms of multicollinearity. The inclusion of unexpected leverage in our models does not affect our results. The coefficient for *LEV* remains significantly positive in all our models, while the coefficient for unexpected leverage does not attain statistical significance at the conventional levels in any of our models. With a view to being complete, we add that the coefficient for unexpected leverage attains marginal significance (i.e. at the 10% level) in Model II and Model III and that the coefficient in both these models is positive. Consequently, overall, our results are not supportive of the possibility that *LEV* might be acting as a proxy for unfavorable information.
18. We also considered an alternative specification of our model in which *LEV*, *TRADEDEBT*, and *FINDEBT* were replaced by the ratio of trade debt over total assets and the ratio of financial debt over total assets. Employing these proxies, we obtain a significantly positive coefficient for the former ratio in both models and a coefficient that does not differ significantly from 0 for the latter ratio. These results suggest that mainly large levels of trade debt cause delay in filing the financial statements.
19. Preliminary analyses revealed very strong correlations between main effects and interaction terms. Therefore, we center the variables in order to calculate the interaction terms, a procedure suggested by Cronbach (1987) and Jaccard et al. (1990).
20. Analogous to previously reported results, results presented in Panel B of Table 5 are based on winsorized data to mitigate the potential impact of outliers. The maximum VIF (average VIF) for the models reported in Table 5 equals 3.93 (1.66). We therefore conclude that the reported results are not affected by multicollinearity problems.
21. It should be noted, though, that this may actually constitute additional evidence of irrational filing behavior in that the late disclosure of unfavorable information is likely to increase the risk of being liable for resulting stakeholder losses.

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