CHAPTER FIVE
OVERVIEW AND GENERAL DISCUSSION

This dissertation addresses the question of how regulatory authorities can supervise firms. In line with the theory of responsive regulation that proposes to align supervision with firm motivations (Scholz, 1984; Ayres & Braithwaite, 1992; Braithwaite, 2002; 2007; Nielsen & Parker, 2009), I examined whether firms are more compliant and responsive to regulatory supervision if they have economic motivations to do so. I specifically focused on the firm characteristics of time horizon and incentive compensation as these are associated with firms’ economic motivations. I find that differences in firms’ time horizon and the use of incentive compensation explain differences in firm compliance and responsiveness to supervision.

There are two implications based on the results in this dissertation. First, economic motivations, e.g. longer time horizon and incentive compensation, provide insights into which firms are more likely to comply. Firms with a longer time horizon are more compliant (Chapter 2), while firms that have incentive compensation for front-office employees and/or managers are less compliant with regulations (Chapter 3). Second, monitoring and enforcement instruments work well for some firms, but can be counterproductive for others. The results indicate that firms with a longer time horizon are more likely to respond to feedback mechanisms in self-regulation (Chapter 2), and a supportive regulatory attitude in the authority’s official communication (Chapter 4). However, firms with a short- and medium-orientation are more likely to exploit a supportive attitude in the authority’s official communication by reporting lower quality information to the regulatory authority (Chapter 4). The overall conclusion in this dissertation is that differences in firms’ economic motivations can explain variation in firm compliance and responsiveness to monitoring and supervision. These results can help authorities to supervise more efficiently and effectively.

5.1 Overview of the main findings

In Chapter 1, I presented theory on firm motivations, compliance, and responsiveness to supervision. It is generally assumed that supervision on compliance is necessary to achieve regulatory objectives (Gunningham & Sinclair, 1999b). The authority’s regulatory and enforcement strategy comprise the way in which firms are supervised (Braithwaite,
Regulatory strategies differ in terms of intrusiveness (e.g., self-regulation and command-and-control regulation), and enforcement strategies determine how regulatory strategies are enforced (e.g., education, feedback, or fines). However, all regulatory strategies have advantages and disadvantages, which is why combining them, could lead to better regulatory outcomes (e.g., compliance and responsiveness to supervision).

The theory of responsive regulation indicates that firms are more compliant and responsive to supervision if the rules and supervisory approach are more closely aligned with their motivations (Ayres & Braithwaite, 1992; Braithwaite, 2002; 2007). A firm is economically motivated if it complies or responds to regulation because it is economically beneficial to do so (Burby & Paterson, 1993; Winter & May, 2001; Nielsen & Parker, 2012). Given that most firms have clear economic objectives, economic motivations can be relatively important for them in making regulatory decisions. This provides a theoretical foundation to examine firm compliance and responsiveness to supervision in relation to firms’ economic motivations.

In Chapter 2, I examine feedback mechanisms in the self-regulatory setting of financial intermediation in the Netherlands. Feedback is used to help firms identify how to comply with existing regulations and how to get there from the existing situation. Responding to feedback increases short-term costs, but may help to avoid future regulatory costs such as more intensive supervision or the risk of penalties for non-compliance. Assuming that firms with economic motivations have a longer time horizon, I expect them to (i) value the avoidance of future costs relatively more, and (ii) have (future) resources available to respond to feedback, which could lead to more responsiveness.

I use a unique compliance dataset collected by the Dutch self-regulatory organization, the Stichting Financiële Dienstverlening, and provide evidence that firms that value future costs and benefits relatively more (i.e., firms with a longer time horizon) are more responsive to feedback. This responsiveness in turn results in higher compliance, which indicates that the association between time horizon and compliance is (partially) mediated by responsiveness to feedback. The findings are robust to series of robustness tests.

Chapter 3 presents the results of a study in which I examine whether incentive compensation is associated with firm non-compliance. The study focuses on the regulatory setting of financial intermediation in the Netherlands in which some front-office employees...
(i.e., employees with direct customer contact), and/or managers receive sales- and/or profit-based incentives. There are two ways in which these economic incentives can lead to non-compliance: managers and front-office employees may (i) neglect compliance activities and focus primarily on activities that lead to higher compensation, and (ii) take more risks and pursue a short-term focus in activities that are associated with compensation. The effects may differ with firm size as larger firms have higher political and reputation costs, and have more formal internal control systems which may all weaken the association between incentive based-compensation and non-compliance.

I separately test the effects for front-office employees and managers, and find that (i) sales-based incentives for front-office employees reduce firm compliance with regulations where these employees are responsible for, unless the firm is sufficiently large, and (ii) profit incentives for managers reduce overall firm compliance and compliance with regulations where managers are responsible for. I thus observe that whether incentives are associated with lower compliance depends on who receives incentives, which types of incentives are provided, and the size of the firm.

Chapter 4 describes the results of a field experiment[^45] that was conducted in collaboration with the Authority for Financial Markets (AFM). The AFM annually requests financial intermediaries to provide them with information about the firm in the so-called Market Monitor (MM). Completing this request is obligatory, and the AFM uses this information to get an overview of the market, and to support other supervision activities. For supervision purposes, it is important that the information that firms provide is complete, accurate, and on time. Based on the combination of various theories, it is predicted that a more supportive attitude from the regulatory authority would result in better reporting quality, and that the strength of the effects weakens with firm size, and weakens and eventually reverses with a firm’s time horizon.

To test the hypotheses, I manipulated the extent to which the authority’s attitude in the official communication about the MM reflected high or low support. I recorded the reporting quality of the responses of the intermediaries based on the completeness and precision of information, and whether the intermediary provided voluntary information. Based on an analysis on approximately 4,500 intermediaries, I find that whether a

[^45]: The field experiment was part of a registered report process in which we registered the theory and hypotheses before collecting the data.
supportive attitude in official communication results in higher quality information depends on the firm’s time horizon. Short- and medium-term oriented firms are more likely to exploit the authority’s supportive attitude by reporting lower quality information. However, long-term oriented firms do not exploit such attitude and report higher quality information.

5.2 Implications

5.2.1 Chapter 2

The results in Chapter 2 indicate that firms with a longer time horizon are more likely to respond to feedback, which results in higher (future) compliance. The findings contribute to the theory of responsive regulation (e.g., Ayres & Braithwaite, 1992; Braithwaite, 2002; 2007) as they indicate that feedback mechanisms (to support enforcement) are effective when firms value the future sufficiently. They also contribute to the literature on compliance motivations (e.g., Nielsen & Parker, 2012) by demonstrating that a firm’s time horizon influences compliance (partly) through its responsiveness to feedback. Furthermore, the study adds to the literature on self-regulation as it shows that self-regulation can be an effective regulatory strategy to supervise firms with a longer time horizon. The study also adds to theories on the antecedents and effects of time horizon (e.g., Laverty, 1996; 2004; Reilly, Souder & Ranucci, 2016).

The findings have several practical implications. First, feedback mechanisms in self-regulation can be an effective mechanism to improve firm compliance in self-regulatory settings. The use of feedback mechanisms may be warranted when firms value the future sufficiently. Second, the results may help regulatory authorities to build more effective supervision strategies. Long-term oriented firms are more likely to respond to low intrusive enforcement mechanisms (and as a result are more compliant) and may therefore be monitored to a lesser extent. Lastly, the results can be used to decrease the problem that some firms behave opportunistically when they are involved in self-regulation. Time horizon may be used as a firm characteristic to determine which firms can participate in self-regulatory initiatives.

5.2.2 Chapter 3

In Chapter 3, I find that the association between incentive-based compensation and non-compliance depends on who receives the incentive (front-office employee or manager), the type of incentive (sales or profit), and the size of the firm. The results contribute to the
literature in several ways. First, they contribute to other studies that examine antecedents of compliance (e.g., Becker, 1968; Winter & May, 2001; Nielsen & Parker, 2012) by demonstrating that incentives for employees and/or managers can be positively associated with firm non-compliance, especially when firms are small. Second, the results contribute to the literature on incentive compensation. Many studies indicate that incentive-based compensation is associated with an increase in organizational performance after implementation (see for example, Banker, Li & Potter, 1996; Wagner, Rubin & Callahan, 1988; Banker, Lee, Potter & Srinivasan, 2001). However, the results in Chapter 3 demonstrate that incentive-based compensation plans may also have negative consequences for firm compliance. This is in line with previous studies that indicate that incentive-based compensation can have negative consequences for the firm (for instance, Harris & Bromiley, 2007; Elayan, Li & Meyer, 2008; Chow, Cooper & Waller, 1988; Walker & Johnson, 1999; Anderson, Dekker & Sedatole, 2010).

The results also have several practical implications. First, regulatory authorities can use the results to improve their supervision strategy. For instance, authorities may use more intrusive supervision for (small) firms with incentive compensation. Second, the results provide a more nuanced argument to the discussion on incentive compensation. After the financial mortgage crisis, many critics argued that incentive-based compensation was bad for financial firms (such as intermediaries) because it created perverse incentives that made the financial crisis more severe (e.g., Crotty, 2009; Kirkpatrick, 2009; Bhagat & Romano, 2009; Mehran, Morrison & Shapiro, 2011; Bhagat & Bolton, 2014; Bebchuck, Cohen & Spamann, 2010; Uhde, 2016). However, incentives were not necessarily always ‘bad’ for firms’ non-compliance with regulations: it depends on who received which incentives and the size of the firm. Third, the results may help firms to decide when and for whom to use incentive-based compensation, as it may have negative consequences for firm compliance.

5.2.3 Chapter 4

In Chapter 4, I find that whether a supportive attitude in an official information request by the regulatory authority leads to higher or lower reporting quality depends on firms’ time horizon. The theoretical implications are threefold. First, the study adds to the literature on responsive regulation (e.g., Ayres & Braithwaite, 1992) by showing that firms with a longer time horizon respond to a supportive regulatory attitude of a regulatory authority (e.g., low intrusive enforcement style), while others do not. Second, the findings
contribute to the stream of literature that examines how firm behaviour is influenced by altering parts of official communication (e.g., Wenzel, 2006). Third, the study adds to the few other studies that conduct field experiments in regulatory settings. Regulatory authorities are generally reluctant to participate in field experiments because they are responsible for the firms they supervise, may fear that the firms perceive that they are treated unequally, and can face legal constraints in sharing regulatory data. The experiments that are conducted mostly focus on tax settings (e.g., Blumenthal, Christian & Slemrod, 2001; Wenzel & Taylor, 2004; Ariel, 2012). The focus on financial intermediaries is thus unique.

The results can be useful for regulatory authorities in multiple ways. First, authorities can use the results to differentiate regulatory strategies, actions, and official communication based on a firm’s time horizon. A supportive regulatory attitude works for firms with a longer time horizon. However, this attitude can be counterproductive in interactions with firms with a short and medium time horizon. A supportive attitude may signal that the authority is ‘weak’ and is ineffective in enforcing regulation. Second, the results can help authorities to determine on which firms to target data quality checks: long-term oriented firms provide better quality data and may therefore require less data quality checks. Third, the results can add to the public discussion on the use of support in supervision. While it is generally believed that support is the preferred strategy (e.g., van Duin et al., 2018), the results support the idea that it is not necessarily the better alternative for all firms. Instead, this likely depends on industry characteristics and past interactions between the industry and authority.

5.2.4 General implications

The main implication of the findings in the preceding chapters is that authorities can use information about firm characteristics that is related to firms’ economic motivations such as time horizon and the use of incentive compensation to (i) have ex-ante indications about which firms are more or less likely to comply and respond to feedback, (ii) determine which firms should be supervised more or less intrusively, and (iii) decide on the regulatory attitude in communication with the firms under supervision. However, authorities should be careful when applying different monitoring and enforcement mechanisms as they can work well for some, but can have counterproductive effects for other firms.
5.3 Limitations

There are several limitations to the studies included in this dissertation. First, all studies focus on the regulatory setting of financial intermediation in the Netherlands. Despite that this setting provides some interesting research opportunities, it may also pose several (additional) challenges. First, compared to other industries and countries, firms in this setting are generally small. It may therefore be difficult to generalize the findings to other industries and countries. Second, compliance tasks are usually performed by owners or high-level managers in small firms, while in larger firms there is usually a professionalized compliance function (e.g., compliance officer or department) that handles compliance tasks and requests from authorities (see Chapter 3 and 4). It may be that the effects reported in Chapters 2 to 4 differ based on how the firms organize compliance-related tasks. However, there was no data available regarding these differences. Third, the firms in the setting are generally positive towards regulation, but question severely the way it is enforced (Baarsma, Risseeuw & Rosenboom, 2012). This attitude may be important in the regulatory authority’s decision on how to supervise firms (see Chapter 4). While there is no evidence for an overall positive response to a more supportive regulatory strategy, this may be the case in other settings. How firms respond to a supportive regulatory strategy may also vary with for instance, how useful the respondents find the information request. The differences dependent on time horizon are expected to extend to other settings, but the general response can differ based on firms’ attitudes towards regulation or enforcement.

Second, all studies are based on firms’ self-reported data. One risk of using such data is that the data can be inaccurate or false. However, this threat is considered to be limited in this setting for several reasons. First, both the firm and the responding individual can be punished if biased or false information is detected (e.g., they can receive fines or penalties). In addition, it is not straightforward for firms to derive how non-compliance is measured. The regulatory authorities use a combination of responses to different questions, and the questions to measure compliance change every year. Furthermore, Chapter 2 provides some support that intermediaries report truthfully: those firms that reported to have responded to feedback indeed are more compliant in the consecutive year. Another risk of solely using self-reported data is the common source bias (e.g., Brannick, Chan, Conway, Lance & Spector, 2010; Meier & O’Toole, 2013). The problem is that all data are obtained from the same set of respondents, which can create non-random error in the measurement of the
variables. If the variables are influenced by a common source bias, the estimated effect will deviate from the “real” effect. However, the results of Harman’s single factor tests in Chapter 2 and 3 do not provide indications of the existence of common source biases.

5.4 Directions for future research

This dissertation identifies various directions for future research. First, future empirical field studies can examine if compliance and responsiveness to supervision depends on other firm characteristics and motivations than the ones identified in this dissertation. For instance, future studies can examine how the dynamics of individuals’ motivations and drivers of compliance within firms drive firm compliance. This provides scholars as well as practitioners with a more complete overview of what influences compliance and which type of supervision is effective for which firms. This may allow authorities to design more efficient and effective supervision strategies, and save public resources.

Second, studies can examine if compliance with regulations leads to the achievement of regulatory objectives. While this may seem obvious, reality may be different because: (i) firms can comply with the “letter” of the law, but not act in the “spirit” of the law (or vice versa), and (ii) laws may be inaccurately designed. For instance, some firms use tax avoidance strategies to reduce the amount of tax paid within the limits of the law, but these strategies may go against the “spirit” of the law. Authorities can use the findings of these studies to evaluate the effectiveness of the regulation that is in place in reaching the ultimate objectives of the law.

Third, authorities are gathering more and more data on the firms they supervise. Future studies may want to examine how these data can (further) contribute to the development of more efficient and effective regulatory processes. Some authorities already use data actively in their supervision strategy (i.e., data-driven supervision or risk-based supervision), for instance to target supervision and to detect market risks in an early stage (DNB, 2018). These authorities may face additional challenges and costs compared to other authorities, such as data quality assessments. Future studies can study these risks and costs more specifically, and try to find ways to decrease them.

Finally, evidence for the use of responsive regulation is limited (Nielsen, 2006). Future research can study ways in which authorities use responsive regulation, and examine whether the use of responsive regulation leads to better regulatory outcomes than other
(stand-alone) regulatory strategies (e.g., self-regulation or command-and-control regulation). It seems especially fruitful to strive for research based on actual field data as (i) this is still relatively limitedly done, (ii) it is questionable to what extent lab experiments are able to provide insight in the real world trade-offs of firms (e.g., Choo et al., 2016; Lindeboom et al., 2016), and (iii) it may contribute to an increased use of academic insights in supervision to realize social benefits.