REGULATORY PRESSURE AND ORGANIZATIONAL BEHAVIOR IN THE DUTCH BANKING SYSTEM

A SYSTEM DYNAMICS APPROACH

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A Thesis Submitted to Nijmegen School of Management in Partial Fulfilment of the Requirements for the Degrees of

M. Phil in System Dynamics (Universitetet i Bergen, Norway)

M. Sc. in System Dynamics (Universidade NOVA de Lisboa, Portugal)

M. Sc. in Business Administration (Radboud Universiteit Nijmegen, the Netherlands)

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Acknowledgments

Abstract

The Dutch financial sector is relatively large compared to other European countries and is dominated by a small number of large financial firms. By the end of 2009 the size of the bank assets from the three biggest banks was five times the country's GDP. Considering the staggering size of the financial system, effective industry regulation is of crucial importance for the financial stability. The recent financial crisis in 2008 has amply demonstrated the limitation of self-regulation and market discipline and the need for more rigorous external control. However, the rigorous external control has been perceived by the industry as a regulatory pressure which significantly impacts their business and operations. This research is an empirical study of control mechanisms which shape the compliance behavior of financial firms in the Netherlands: internal control, external control, market control and private litigation control.

The aim of the study is to develop a system dynamics model which can act as a helpful tool in analyzing structural changes in the regulatory system and help regulators and industry to steer the system's behavior towards the desired outcome. A dynamic hypothesis suggests that a tension between commercial targets and rule compliance in the financial firms drives the behavior of the system and leads to accumulation of rule violations. Consequently, this leads to a change of compliance culture and periodic compliance erosion, which in return trigger the regulatory response from financial supervisors.

The results of the study show how boundedly rational decision-making leads to the dysfunctional outcomes for the firms. Additionally, the results provide an explanation that the behavior of the system is primarily driven by the interaction of internal and external control. Actors across different layers in the system are subject to conflicting objectives: regulators: to regulate and not slow down economic, and bank employees: to make a profit and comply with the rules. Continuous prevalence of these objectives creates a dynamic system characterized by cycles of increasing and decreasing regulatory activities, which is recognized as a regulatory pendulum.

The key contribution of the paper is a model that captures the consequences and causes of rule violations in the Dutch financial industry in a systemic way including time delays, feedback loops, and accumulations.

Keywords: rule compliance, compliance culture, regulatory pendulum, regulatory pressure

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Chapter 1. Introduction

1.1 Background

The core business of every organization is to produce a certain type of output, such as cars, planes, electricity, toys, services and many others. From an economic point of view, organizations exist to create a surplus in income over cost by meeting their needs in the marketplace. At the same time, they are political structures which provide individuals with various incentives such as career opportunities, vast monetary awards, and social statuses. However, incentive-driven individual producers who disregard the broader effects of their actions can cause problems ranging from failed coordination to catastrophic legal violations and accidents. Undoubtedly, organizational misbehavior comes with a hefty price tag. With the cost comes a growing awareness of it (Vardi & Weitz, 2004). Thus, organizations always have rules and procedures, however structured, governing production (Adler & Borys, 1996).

How organizations manage the tension between production pressures and rule compliance affects the quality of service provided to their customers, patients, or clients, as individuals weigh completing tasks thoroughly versus taking shortcuts (Martinez-Moyano, McCaffrey, & Oliva, 2014). Recent corporate scandals have evoked a heightened concern among members of the public, government officials, and business leaders about whether businesses can regulate the conduct of their employees, as well as about how to effectively secure employee adherence to corporate rules and policies (Tyler & Blader, 2005). Some of the recent examples include Enron (2001), ABN Amro (2008), Lehman Brothers (2008), and Bear Stearns (2008). The Dieselgate affair at Volkswagen in 2015 is the latest example of employees manipulating data, in this case cheating on emission tests. Due to the major push to sell diesel vehicles in US market, the company deliberately cheated on these tests in order to gain market share. The everlasting tension between production goals and rule compliance has been a topic of interest in both theory and practice.

The tension between on the one hand large incentives, rewards and increased commercial targets and on the other hand rule compliance is evident in the financial markets. The latest financial crisis in 2008 has shaken the foundation of the global financial system and its reliance on

traditional neoclassical economic theory. Ignacio Agneloni, member of supervisory board at ECB started his speech at "The New Financial Regulatory System: Challenges and Consequences for the Financial Sector" conference in 2014 with the words:

"Diagnoses for the crisis in 2008 are plentiful and point in different directions: overinvestment in real estate, excessive leverage, overly complex and opaque financial instruments, wrong incentives, conflicts of interest, excessive central bank liquidity, and so on. But more deeply there is, I think, an element that brings many explanations to a single one: this was, and still is, primarily a crisis of trust. Trust in business counterparties, in financial institutions, in well-functioning markets, perhaps also in the ability of regulators to successfully perform their function"(Agneloni, 2014)

The present study describes the process and outcomes of five-month system dynamics project in order to analyze rule compliance and rule development in Dutch banking industry. For external regulators, knowledge about markets, products and customer needs is essential in order to create effective policies which will serve the best interest of society. Ultimately being able to achieve sufficient rule compliance in the industry aims to lead to a better service and trust in the banking industry.

1.2 Client and motivation

This research was undertaken together with De Nederlandsche Bank (DNB) and the Autoriteit Financiële Markten (AFM). De Nederlandsche Bank is the Dutch national bank and seeks to safeguard financial stability and thus contributes to sustainable prosperity in Netherlands. The Authority for Financial Markets has been responsible for supervising the operation of the financial markets since 1 March 2002. By supervising the conduct of institutions in the financial markets it aims to make a contribution to the efficient operation of these markets. Departments for Supervision of Behavior and Culture in both institutions are actively involved in regulating the conduct of financial institutions, thus, their interest lies in identifying and analyzing the regulatory mechanism which contributes to prudential regulations and financial stability.

1.3 Research objective

The aim of this study is to identify the underlying structure behind the interaction of financial regulations and organizational behavior in Dutch banking system in the last 25 years. The research integrates studies on rule development, compliance and organizational change to model rule development in the Dutch regulatory system and organizational compliance, making underlying processes explicit by using causal loop diagrams. It will extend prior research and discussion on rule development and compliance and follow the research about organizational learning, showing how organizational behavior arises from the interaction of physical and institutional structures with boundedly rational decision-making, and often leads to dysfunctional outcomes (Adler & Borys, 1996; Forrester, 1961; March, 2010; March, Schulz, & Zhou, 2000; Martinez-Moyano et al., 2014; Rahmandad, Sterman, & Repenning, 2009; Sterman, 2000; Sterman, Repenning, & Kofman, 1997). It will contribute to the organizational theory about rule development and rule compliance by explaining the dynamic processes operating in the Dutch banking industry from 1990-2015. The consequences of rule compliance in the banking industry have an impact on organizational reputation and can lead to a severe market deficiency.

After every financial crisis, be it global or sectoral, regulators look to learn lessons and generally look to tighten the regulatory framework. Inevitably industry does not like it. Gradually, however, the government will start looking for ways to make life easier for business, for example by cutting red tape, and regulatory regimes start to loosen again (Kenmir, 2011). In financial markets, this phenomenon is known as 'regulatory pendulum' (Coyne, 2006; Di Donato, 2015; Gills, 2008). Although different in specifics, I believe that these cycles of increasing and decreasing regulation have the same underlying structure. In a highly dynamic and complex environment such as the financial industry, it seems as if regulations are hardly catching up with fast-paced change. The recent rise of FinTech industry proves this hypothesis with fast developing software packages for the financial industry (Deloitte, 2015). Sound supervision may help to bridge the gap between industry practice and regulatory oversight and ensure that quality of the services and products in the banking industry remains constant.

The research aims to identify a plausible explanation for this cyclical behavior of intensity of external regulations and its consequences on organizational behavior.

The thesis aims at answering the following research questions:

1. Why and how do the pressure to meet targets and extensive incentives play a role in rule compliance in the banking industry?
2. In what ways do external regulations impact the behavior of banks?
3. What is the structural explanation for the 'regulatory pendulum' in the banking industry?

The practical objective of the study is to develop a system dynamics model which can act as a helpful tool for policy makers and supervisors (DNB and AFM) to identify the structure responsible for the behavior observed in the past and possible changes to steer the future behavior in the desired direction. During one of the interviews with supervisors, one interviewee mentioned that:*"Supervisors often see the world as a big laboratory, and themselves as an external hand performing experiments."*

Hopefully, this research will contribute to a change in this perspective by portraying the interconnectivity between all stakeholders in the financial markets.

1.4 Thesis outline

This research seeks to investigate the rule compliance process and its consequences in the banking industry in the Netherlands which could help the regulators and supervisors to perform their activities and ensure financial stability. To achieve this, the author used the system dynamics methodology to explain how the behavior of the banks and regulatory response shape the financial system which is characterized by periodic compliance erosions and strengthening of the supervision process.The research is based on an in-depth case study of the Dutch banking industry. The first chapter provides a brief introduction to the research and explains the relevance of the topic for the client. It also defines the research objective and research questions. Chapter 2 outlines the literature research and describes the existing research in the field. Chapter 3 explains the suitability of system dynamics to tackle this issue and the research process. Chapter 4 is dedicated to explaining the problem in detail by explaining the state of the Dutch financial system and gives a step by step analysis of the modeling process. The study results and validation of the research design are provided in chapter 5. In Chapter 6, policy suggestions are briefly outlined. The last chapter is dedicated to the discussion of the findings, research limitations and directions for further research.

Chapter 2. Literature Review

The thesis is related to several fields of literature. By bridging theories on rule development and compliance, organizational learning, and trust in banking industry this research tries to contribute to building a dynamic model of rule development and rule compliance in the Dutch banking industry. In order to analyze what shapes rule compliance behavior, different control mechanisms have to be examined and explained. Existing research explaining circumstances under which employees break the rules will provide the background for possible rule violations. From the initial interviews with regulatory representatives, it became clear that trust in the banking system represents the key indicator and deliverable for their operations. Thus, an elaboration of how trust is connected with rule violations and rule development is needed. Regulatory pressure is often seen as a reaction to rule violations. The pressure can be multidimensional in nature and it will be described further.

2.1 Rule compliance and rule development

A wide body of research exists to explain rule violation and circumstances under which employees violate the rules (Lawton & Parker, 1999; Reason, Parker, & Lawton, 1998). Studies in this field analyzed many situations under which violations of rule compliance occur and identified three main types of violations. The first category concerns violations which occur when employees cut corners in order to gain advantages in time needed to finish the task, money or even in social statuses such as prestige. If they don't get punished by internal or external regulators, they perceive their behavior as a common practice which erodes compliance standard in organizations by lowering the standard level of compliance. Oliva and Sterman (1999) recognized this pattern in their study at the National Westminster Bank, where cutting corners contributed to the erosion of desired compliance standards. This type of violation is called routine violation. The second category concerns violations which occur when rules cannot be followed under the circumstances which arise in the current situation. That means that employees sometimes have to improvise in order to execute an action. Lastly, there are violations which occur in exceptional situations, where employees violate the rules because of time pressure, their emotional state or

other subjective factors. These violations cannot be stopped by regular procedures, but the rules in place must be communicated orally and emphasize a thinking before action strategy.

Abundant practical examples clearly point to the some of the aforementioned factors for rule violations. An interesting study at Shell reveals the factors for rule violations in a Dutch organization (Hudson, Lawton, Parker, Reason, & Verschuur, 1998). The authors found that people who think they will not be able to achieve targets if they follow all the rules and people who think they have skill and knowledge to successfully avoid the rule are the most probable candidates for violating the rules. Questionnaire studies of Shell managers and employees showed that over 60% of the much broader population either admitted to being rule violators or said they would violate if the incentive was there (Hale, Heijer, & Koornnef, 2003).

Other examples showed the conflict between short-term salient benefits and long-term sustainable risk management (Oliva & Sterman, 1999; Rahmandad et al., 2009; Sterman, 2000; Sterman et al., 1997). A case study at the National Westminster Bank showed that high production pressure can influence the behavior of employees and result in lower service quality (Oliva & Sterman, 1999). Oliva and Sterman argue that high production pressure can lead to short-term financial benefits, but also to long-term quality erosion. Employees have three different ways to deal with increased pressure: work harder, cut corners or work longer. However, all three might lead to financial gains for managers in the short-term but in the long-term, they lead to quality erosion and ultimately to financial losses for the organization. This comes as a result of non-compliance with rules and procedures in the organization and often goes undetected by managers.

When it comes to the financial industry, rule compliance can also depend on the benefits employees can gain from violating the rules. Some authors stress the need to analyze the gains and losses from rule compliance in order to identify the conditions under which the deviation will happen. Using a behavioral economic framework, the research on rule compliance tries to analyze how humans optimize their behavioral efficiency within the limits defined by internal and external controllers (Battmann & Klumb, 1993). Bounded rationality and inability to distinguish between short-term and long-term benefits can lead to dysfunctional outcomes and threaten organizational survival (Forrester, 1961; Sterman et al., 1997). This idea was further explored by Martínez-

Moyano, McCaffrey, and Oliva (2005) when they analyzed rule compliance in the securities industry in the United States. They concluded that production pressure decreases compliance in organizations leading to accumulating rule violations in order to achieve targets and secure personal benefits. The same group of authors explains the mechanism between self-regulation, internal and external regulation systems (Martinez-Moyano et al., 2014). They analyzed a set of the financial crises in the United States, focusing on consequences of eroding rule compliance followed by increased regulations and tighter control mechanisms. In the financial industry, pressure for production competes with organizational rules which are often seen as obstacles that slow down the production process, leading to organizational misbehavior and rule violations. They considered different layers of control mechanisms, focusing on external and internal controls, leaving out the market self-correcting mechanism because it did not seem strong enough to influence rule compliance in US financial industry. They argued that personal and institutional investors did not act in a way which could have prevented the rule violations and punished the firms for their misbehavior. A systemic overview of all control mechanisms, including social control is necessary in order to explore the feedback structure of rule compliance in the Netherlands.

2.2 Social trust and trust in banking industry

As mentioned in the introduction, trust plays a very important role in every financial system. It is, therefore, important to explain what it means and what its role in the system is. Trust is the belief that an opponent in a relationship behaves accordingly to what he promised and does not take advantage of the person he is trading with (Guiso, 2010).Throughout history, financial contracts required a commitment to settle an obligation in some period in the future. The word credit derives from Latin expression 'credere' which means to trust. Although this commitment can be ensured by external mechanisms such as the law, usually the transactions depend on mutual trust between service provider and customer. This is especially true in the case of uninformed households to whom complete information about markets, risks and regulations is not available and thus individuals put their trust in the hands of intermediaries when investing in stock markets. As history showed, the decline in trust could cause the fearful depositors to withdraw their deposits from the banks, which threatens to lead to financial instability caused by

bank runs. Therefore, trust should be considered as an important factor in managing financial stability of the country or the region.

Although trust has been an important factor in the financial stability of countries and the financial industry in particular, only limited research exists to identify the drivers of trust in the banking industry. Recent studies by Guiso, Sapienza, and Zingales (2007, 2009) found a correlation between investments in stock markets and trust. They concluded that investors consider the probability of being cheated as the main determinant of investing decision. This risk contains the objective state of the markets and subjective perceptions of investors. In Dutch and Italian data, they found evidence that lack of trust explains limited participation in the stock market. Another study found evidence that great financial frauds such as Madoff case, diffused through media have a high impact on trust in the banking system (Guiso, 2010). One major fraud, followed by minor ones can destroy the reputation and trust in the whole industry. The fall in trust is likely to have a negative effect on people's willingness to engage in a financial transaction, and can slow down financial development.

A research based on Austrian household surveys argues that subjective sentiment variables such as perception of institutional performance, play a much more important role in determining the trust in the banking industry than sociodemographic characteristics (Knell & Stix, 2010). Thus, financial trust is likely to be influenced by the expected and perceived performance of banks. A set of sociodemographic variables such as age, gender, education, marital status is shown to have an effect on general trust, which as a form of social capital has an indisputable effect on the functioning of market economies (Alesina & La Ferrara, 2002; Putnam, Leonardi, & Nanetti, 1993). Since the Netherlands and Austria have similar demographic and social characteristics, this research will adopt the view that generalized trust is not a detrimental variable when it comes to trust in the banking system. The same authors provide evidence that trust is not an isolated but rather contagious phenomenon where the trustful environment has a re-enforcing effect. In other words, the financial stability of a country can compensate for the lack of trust in financial institutions. Mosch and Prast (2008), based on surveys over 2003-2006 found a positive link between the economic performance of a country and trust in financial institutions.

Carbó-Valverde, Maqui Lopez, and Rodríguez-Fernández (2013) found evidence that trust in banking institutions depends on customer perceptions of several bank-specific characteristics. They conclude that a bank's sensitivity towards its clients' problem and focus towards clients' interests have an impact on building the trust in the institution. The insensitivity of general trust to trust in financial institutions was noticed in this study from Spanish banking industry.

While Putnam et al. (1993) focused on researching determinants of social trust, Knack and Keefer (1997) found evidence based on World Values Surveys from 29 market economies, that social trust and civic norms have a positive impact on economic performance.

This research will explore the relationship between the performance of the banks and trust in the financial industry following the results of the Austrian study in which generalized trust did not play an important factor in determining the trust in the financial industry. The lack of this type of research in the Dutch market and similarity of the sociodemographic and economic characteristic of Austria and the Netherlands were the main reasons for this approach. Therefore, the effect of the generalized trust of the trust in the financial industry will be considered outside of the boundary for this research.

2.3 Regulatory pendulum

The studies about the rule violations and their connection to trust in the financial industry provide the background for the policies set by the internal and external regulators. Interaction of these different parts shapes the behavior of the regulatory system. In the literature, cycles of eroding rule compliance followed with increasing regulations and external control mechanisms in the financial industry are referred to as the regulatory pendulum. There are many ways in which authors approached the study of the regulatory pendulum.

Some authors looked at it on a meta level, considering all regulations as means to an end, ensuring that high regulatory quality would prevent market failures (Di Donato, 2015). Di Donato shares the view that regulatory quality does not correspond to a single sector but covers all policies, and explains the regulatory pendulum as a phenomenon which depends on the focus of government when creating policies. He refers to the regulatory pendulum from a quality perspective and argues that quality of regulation oscillates through time, and the challenge is to move regulations towards stakeholder's perspective. In other words, it seems that governments make policies without

considering all the stakeholders in the system. When it comes to the EU legislation system, some scholars recognize this challenge of changing direction "to go back to Better Regulation and Smart Regulation and assess their success from the point of view of citizens" (Xanthaki, 2014) and stressed its importance in further rule development process.

Others focused on legislation quantity and supervision level and its impact on bank's performance (Coyne, 2006; Martinez-Moyano et al., 2014). The authors explained the regulatory pendulum as the pressure from regulatory organizations on the financial industry, and banks specifically, and explained its structure through rising number of legislation and control mechanisms after the crisis and increasing pressure on organizational behavior. Same authors argue that recent corporate collapses increased public pressure on governments by criticizing its actions as slow, not being focused on core issues or not having enough resources to prevent market failures. As a result of these criticisms, there has been an increase in the number of regulatory interventions, both through the implementation of new legislation and strengthening of supervision. Needless to say, many of the regulatory proposals that are under scrutiny go beyond the purpose of rebuilding trust. Rather, they are justified by regulatory failures that have become manifest during the financial crisis (Guiso, 2010). "This phenomenon is repeated throughout history on a global level and we are witnessing a number of historic turns simultaneously: from boom to bust; from global inflation to global deflation; from hyper-privatization to the renewal of nationalization. There is a pendulum swing from an excessive reliance on market authority to the restoration of faith in state authority to re-stabilize domestic and global economic systems "(Gills, 2008).

Perhaps the most famous theory which can be related to the regulatory pendulum is provided by Minsky (2008). Hyman Minsky, a neo-Keynesian economist developed the *financial instability hypothesis* which described the financial system as an incessant equilibrium seeking process. In the highly complex financial system, the only determinant which drives system behavior remains the level of profit. He described three phases in which business process of financial institutions develop: The Hedge phase, Speculative phase, and Ponzi phase.

The first phase relates to the after crisis period in which banks are cautious when it comes to lending and only engage in safe transactions. This is the only phase where the economy tries to

reach equilibrium. Once the banks build their confidence they start speculating and increasing risks, seeking higher rewards. "Credit - the disposition of one man to trust another - is singularly varying. In England, after a great calamity, everybody is suspicious of everybody; as soon as that calamity is forgotten, everybody again confides in everybody" (Bagehot, 1873). In this phase, increased confidence of the bankers is usually rewarded with increased trust in their services. The Ponzi phase represents a period of prosperous economies where asset prices reach unsustainable levels creating high profits for financial institutions. Minsky argues that in these two phases the economy is a deviation amplifying system, rather than an equilibrium seeking one.

The financial instability hypothesis assumes that business cycles are the result of internal dynamics of profit seeking economies and the system of interventions and regulations which are designed to keep economies operating within certain boundaries. Additionally, he describes the tension between financial innovation, such as the development of new products or new technologies, and financial regulations which are trying to catch up, as a fight where regulatory institutions are doomed to fail. Governments operate on a lower level incentive basis, thus, can deal with externalities of financial innovation only after they happen.

Chapter 3. Methodology

3.1 System Dynamics

This section explains why the system dynamics approach is suitable to tackle the complex issue of rule compliance and rule development in the banking industry.

Using models to represent social systems is nothing new. Each of us uses models constantly, whether in private life, business, family issues, cities, governments or countries (Forrester, 1971). These models are mental images of how we perceive the situations around us, thus, we form concepts and relationships to represent real systems. These images are models and decisions are taken based on mental models. Throughout history, laws have been passed based on it, wars have been fought, businesses have been built, so the question is not whether to use models or not, but more which type of models to use. Since mental models are fuzzy, incomplete, change over time, even over one conversation, computer simulation helps to elucidate systems' behavior without relying on mental capacity to simulate complex structures.

The potential of system dynamics to foster learning and shed light on cases with a high degree of complexity and uncertainty has been proven exhaustively. So far, system dynamics modeling has been applied to many dynamic problems treated by organizational science, economics, and natural sciences. Many of these complex systems are characterized by nonlinearities, delays, and feedback structure. To ignore these characteristics and the complexities inherent to interconnected systems, can cause policy resistance and lead to erroneous knowledge (Sterman, 2000). The research about rule development, rule compliance and its dynamics in Dutch banking industry requires combining theories from organizational sciences, economic and social theories. System dynamics as interdisciplinary methodology allows for this approach of merging different disciplines.

The system dynamics method helps explain the dynamic behavior of complex systems, over time, through causal theory, feedback relationships, and delays, while capturing all these complexities through modeling (Lane, 2008). In other words, the methodology allows for capturing mental models of various stakeholders in the banking industry and explicitly portraying them using feedback structure. These models are not statistically derived from time series data.

Instead, they are statements about system structure and the policies that guide decisions (Forrester, 1971).

The most common approach when starting system dynamics is to map the system of interlocking feedback loops which portray important relationships which could test the hypothesis which is being developed. This approach uses very practical forms of program logic or concept mapping. One of these forms and methods of system dynamics methodology is the Causal loop diagram. This type of diagrams was not initially part of SD models but was popularized by Senge (1990) in his book The fifth discipline. Causal loop diagrams (CLDs) aid visualization of how interrelated variables affect one another (Sterman, 2000). In other words, a CLD is a diagramming technique used to visualize feedback structure in understandable and simplified way. Typically, a diagram consists of nodes which represent important and relevant variables in the system, connected via links, which indicate cause-effect relationships. Those links visualized by arrows which connect the variables can be labeled as positive or negative. The mentioned polarities are represented by symbols '+' and '-'. A plus sign represents the positive relationship between variables, meaning that if one variable increases in value, the other one will increase as well. Similarly, if one decrease, the other will decrease as well. A minus sign represents a negative causal link, meaning that if one variable decreases in value, the other one will increase, and vice versa. In some cases, a CLD takes delays into account to portray significant time constraints in the system which might cause for oscillating behavior, and they are represented with symbol '‖'. Ideally, the set of these variables and links will create feedback loops in the system. They can be positive and negative. Positive or reinforcing loops enhance or amplify changes. These loops tend to disturb the system and move it out of equilibrium. On the other side, negative or balancing feedback loops tend to dampen or buffer these changes, bringing the system close to an equilibrium state.

One popular example of CLD structure is population dynamics.
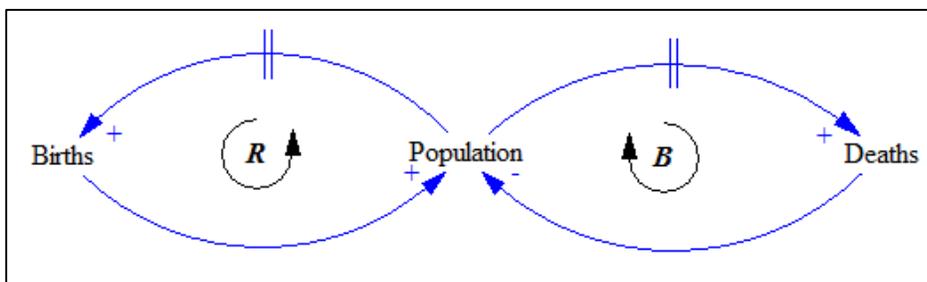
Figure 1: Population dynamics

An example of a positive link is between a number of births and population level. More births, all else being equal, will lead to higher population. Quite the opposite, more deaths will lead to less population. Although this relation can capture the population at a certain period, it does not tell us much about its dynamics. Thus, if we apply feedback structure, population dynamics will become clearer. The higher the population, the more births we will have in the future, assuming constant birth rate. The delay mark depicts the duration from birth to having another child, therefore, there is a significant delay there. This is an example of a positive feedback loop, where increase/decrease in population will increase/decrease births, resulting in increasing/decreasing population again. As mentioned before, a set of relationships between variables will lead to a creation of feedback loops. A positive feedback exists when a change in one direction of a variable, all else being equal, ultimately leads to a change in the same direction of the same, original variable. This is the case with population growth. However, more deaths will decrease the level of population, therefore, the sign "- "which describes the negative link. A loop where a change in one direction of a variable ultimately leads to a change in opposite direction of the same original variable is called negative, balancing feedback loop.

To summarize, if people are not dying, the population loop will exponentially increase the number of people. But with the introduction of deaths and balancing loop, the growth loop is constrained by it. To further test the validity of the model against the observed behavior of the system and explore alternative policies which would steer the behavior to a desirable behavior, quantification of the CLD is needed.

For modeling regulatory pressure and its effects on the organizational behavior, I have chosen the use of system dynamics for several reasons which are explained below. As I mentioned before, system dynamics is a suitable method which allows for interdisciplinary approach while tackling the complex issues. The lack of comprehensive and robust data on the interaction between external and internal regulators makes it difficult to quantify the model and develop meaningful mathematical equations for every relationship in the model, thus the model presented here is fully exploratory. The world and business system are more complex than just like a simple short time linear cause-effect. They are never in equilibrium and are continually changing (Forrester, 1971).This particular problem contains many relationships which are non-linear in nature, and their identification proved to be very difficult. Some examples include the tension between commercial targets and rule compliance where many different underlying factors can contribute

to this tension. The effect of a bank's reputation on trust in the banking system is not yet defined with a certain amount of precision. Conclusions drawn from the interviews with various regulatory executives point to the gray area of rule compliance and rule violations, and it seems very difficult to capture that complexity using mathematical equations. While statistical studies provide correlational data at some particular relationships, nonlinear nature of model suggests that those correlations might be different under different circumstances. Additionally, system dynamics practice does not particularly advise to use correlational data as a model input. Although correlations provide useful insight into variables, they don't explain the causal relationship between them. Thus, using CLDs might provide a useful alternative to data-driven models and helpful tool to develop an explanation for the dynamics of rule compliance and rule development in the Dutch banking system. In particular, a CLD structure can be a first step towards fully quantified, mathematical model, once the data is available and collected.

3.2 Research approach

To understand the process of rule compliance and rule development and forces driving organizational behavior and regulatory policies in the banking industry, a detailed analysis of context is essential. The study of the banking industry and its control systems requires detailed quantitative and qualitative research and will be analyzed through the in-depth investigation of the Dutch banking sector. Due to the lack of available data and empirical evidence on relations between core variables, the model developed in this research will be qualitative. As the topic of regulatory pressure and organizational behavior will be developed on the example of the Dutch banking industry, the case study design seems to be the most appropriate approach in tackling this issue. This approach suggests investigation and analysis of the individual or collective case in order to capture the complexity of the object of study (Stake, 1995). It explores the real life bounded system, or multiple systems over time through detailed, in-depth data collection of multiple information sources. Researchers who use this approach are urged to discover what is common and what is particular about the case. This requires careful and in-depth consideration of the nature of the case, historical background, physical setting, and other institutional and political contextual factors(Stake, 2005). This seems to be an appropriate method to supplement system dynamics methodology used in this research. The mixing of data types is also often thought to help

in validating the claims that might arise from a study (Olsen, 2004). Triangulation method involves the conscious combination of quantitative and qualitative methodologies as a powerful solution to strengthen a research design where the logic is based on the fact that a single method can never adequately solve the problem of rival causal factors (Denzin, 1978), and it will be used later in later stage of the research to validate the findings.

3.2.1 Process and data collection

Field research

Interviews with stakeholders
- Graphs over time
- Data input
- System structure
- Industry trends
- Perceptions

More interviews and modeling workshops with external regulators
- External regulatory system structure
- Perceptions of experts from different regulatory organizations

Model building

Preliminary model

Validation

Policies

Industry Sources
- AFM& DNB reports
- Company data
- AFM database
- National statistics offices
- KPMG & PwC studies

System Dynamics Literature
- Market research
- Control Systems
- Revenues/Costs
- Organizational behavior

Banking Literature
- Financial regulation textbooks
- Banking structure textbooks
- Organizational behavior papers

Desk Research

Figure 2: Research process

Desk research: The main aim of desk research was to collect all necessary data in order to develop a system dynamics model, and to establish the groundwork for interviews with stakeholders across different fields in the banking industry. Data sources are categorized into three main sectors. First, SD literature was researched in order to prove the adequacy of the methodology for the related problem. Reviewing past research on similar topics enabled me to gain certain knowledge about the parts of the structure (internal and external control systems). Getting familiarized with financial control and banking activities required reviewing of various textbooks

on financial regulations, banking structure, and business strategies. The most time-consuming part of desk research was related to industry reports, customer complaints AFM database, yearly reports from AFM & DNB, and national and international press. AFM and DNB reports were also used to validate the stories and data collected through the interviews and modeling workshops.

Field Research: The main objective of field research is to fill the gaps in systems structure. The system is driven not only by rules, standards, and guidebooks but also by actions of players in it. Their experiences and stories contributed to some important parts of the model. The plan was to validate my preliminary model and hypothesis and expand the system structure to represent more disaggregated and detailed mechanisms which are relevant for decision makers.

Interviews: The first interviews were conducted with regulatory executives as they were the most relevant stakeholder in controlling the banking industry. These interviews helped to develop an initial hypothesis and prepare the workshops at a later stage. Interviews with bank employees were conducted at a later stage as it takes the time to organize everything and find an appropriate time for interviews. These interviews are then used to elicit information about bank's business models and their perceptions of regulatory systems. The aim was also to see if bankers have different perceptions about regulations and their effectiveness than regulators themselves. All interviews were recorded and coded using Atlas Ti software.

Workshops: The wide body of research in system dynamics suggests added value of involving stakeholders directly in modeling process (Andersen, Vennix, Richardson, & Rouwette, 2007; Rouwette, Vennix, & Mullekom, 2002; Vennix, 1996). Eliciting mental models of stakeholders is one of the key factors in system dynamics modeling and these workshops aimed at eliciting these models from executives at AFM and DNB. Two workshops were scheduled to map the system of the external regulatory system which could explain how regulators make their decisions and which variables are affected by their decisions. The output model was used in the thesis as an external control system.

3.2.2 Research Sample

This research was conducted using mostly snowball sampling, in which subsequent members of the sample are identified by earlier members of the sample (Saunders & Lewis, 2012). Early interviews with executives from AFM and DNB proved to be the starting point for a snowball

effect. They helped with identification of executives from the four large banks in Netherlands who might be willing to participate in the research. Later on, these members provided contacts of their colleagues which were also interested in participating in interviews. Identification of stakeholders who might be relevant and willing to participate in the workshops was done with help from AFM and DNB representatives Danny Van Dijk and Sophie Cohen Tervaert. A person who "helps to select appropriate people within the organization with whom to work before the workshop, works with the modeling team to plan those pre-workshop meetings, schedules them, and participates in them is called a gatekeeper" (Andersen & Richardson, 1997). Danny and Sophie acted as gatekeepers for the modeling sessions and my external supervisors for this research. The interviewee list included the following people:

- Senior Supervisor from Regulatory Agency 1
- Senior Supervisor from Regulatory agency 1
- Compliance Consultant -External expert
- Compliance Officer- Bank 1
- Public Affairs Manager-Bank2
- Compliance & Risk Officer- Bank3
- Head of Business Banking Compliance Division- Bank2
- Manager-Private Lending -Bank3

Chapter 4. Regulatory Pressure and Trust in the Banking Industry: A Dynamic theory

4.1 Problem description

Testifying before the Financial Crisis Inquiry Commission, the body established by Congress to determine the causes of the Wall Street debacle, Lloyd C. Blankfein, the chairman and chief executive of Goldman Sachs, drew most of the fire. Mr. Blankfein parried repeated questions over his bank's extraordinary profits and salaries. At one point, when he likened aspects of the financial crisis to a "hurricane" and similar acts of God, the commission's chairman, Phil Angelides, a Democrat and former California state treasurer, cut in to say, "Acts of God, we'll exempt. These were acts of men and women."

New York Times, January 14, 2010

As the quote above suggests, financial crisis 2008 was not an act of God, but the act of men, and I believe that all crises, although different in specifics have the same underlying structure. The problem that the Netherlands had faced during the crises, as many of the other countries, relates to excessive risk taking in financial markets increasing the number of problems and rule violations in financial markets. Scandals and rule violations have always happened in organizations which have a high tension between 'production' targets and rule compliance (Martínez-Moyano et al., 2005). In the high contact service industry such as banking, this is certainly the case. The study "Bankers focus on clients-but what do banks do?", 2014[1] shed light on the striking problem of organizational culture within the banks which still remains highly competitive with high commercial targets, despite the claims of the banks that focus on clients is the heart of the new business models. Based on the sample of 617 bank employees, they found out that 92% of the sample wants to focus on clients' interest but many of them feel unmotivated to do so because of high pressures to meet the targets, lack of autonomy and distrust in employers. More than 40 % experience that work pressure puts a constraint on serving client interests. Although the culture did change after the crisis, according to the above-mentioned study and

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[1] Bankers focus on clients-but what do banks do? is study undertaken by Sustainability Finance Lab in Utrecht, aiming to explain current cultural context at three largest banks in Netherlands. Thes study is based on survey results from 617 employees mostly employed by ABN AMRO, ING and RABOBANK.

interviews with various regulatory and bank representatives, this tension is still present in the industry. Variable pay has almost vanished from most of the banks, but performance targets remain important and many of the employees are subject to Key Performance Indicators (Van Staveren & Van Tilburg, 2015). The quality of Dutch of financial markets remains relatively good compared to other countries. The ranking on financial market development and availability of financial services puts them in 31st and 11th place respectively, but trustworthiness and confidence in financial institutions and soundness of banks are ranked 55th and 60th compared to 140 countries(World Economic Forum, 2015). Nevertheless, the latest rule violations and scandals, involving bailouts of ABN Amro[2] and ING[3] in 2008, interest rate manipulation in Rabobank 2012[4] show that regulatory system still has a lot of legal and operational problems.
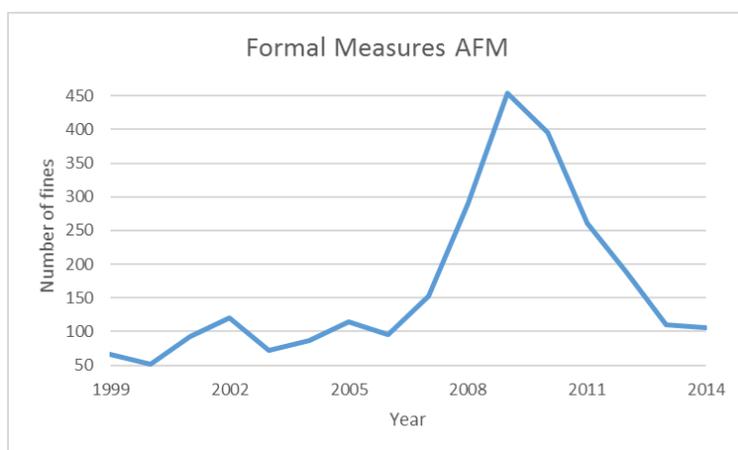
Figure 3: Formal Penalties given to financial institutions by AFM. Source: Autoriteit Financiële Markten

Data about a number of fines from AFM reports goes since 1999, and for the prior period, there is no available data. However, the oscillatory trend is clearly visible suggesting the variability of regulatory actions in the last 15 years. Observed behavior shows the particularly high number of measures in the post-crisis period between 2008-2010, which could suggest the lower compliance with the rules prior the crisis and/or increased willingness to enforce the rules from AFM after the crisis. Working under the assumption that regulators detect 50 % of all rule breaches in the companies (AFM, 2014) , this graph also suggests the variability of the rule violations in financial

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[2] The Dutch state had to intervene in 2008 to rescue the Dutch operations of both ABN and Fortis to avoid a crippling bankruptcy. The affair cost taxpayers around 24 billion euros. Reuters, November 20, 2015
[3] ING received 10 billion euros in aid in October 2008, and then transferred the risk on 21.6 billion euros of U.S. mortgage assets to the Dutch government in January 2009. Bloomberg, April 11, 2012
[4] U.S. and European regulators have fined Dutch lender Rabobank $1 billion for rigging benchmark interest rates, making it the fifth bank punished in a scandal that has helped to shred faith in the industry. Reuters, March 1, 2012

firms. However, formal measures do not present the complete picture of regulatory activities. Investigations and informal measures should also be taken into account, but at present, there are no available and consistent data about these measures which could provide useful insights.

4.2 The model

Should safety rules permit the achievement of personal as well as organizational goals, there would be little need for external enforcement. However, there is often a conflict between individual and organizational goals (as embodied in rules and procedures) making enforcement necessary (Hale et al., 2003). Hale et. al describe three types of conflicts between organizational and individual goals. First, when organizational rules and procedures stand in the way of personal benefits, and employees cut corners to achieve bonuses, even if it's against company's policy. Second, when a company needs to meet a deadline and it might do that with less strict adherence to rules. Third, when organizational goals are in direct conflict with rule compliance, for example, the conflict between achieving production goals and adherence to rule compliance.

Both, the study results from ''Bankers focus on clients-but what do banks do?'' as well as interviews with regulatory representatives back up mentioned theory that bank employees are constantly faced with two confronting pressures: 1) pressure to 'produce' and 2) pressure to comply with the rules. In many cases, there is a high tension between these pressures, as it is often believed that rule compliance slows down profit-making processes. One compliance officer mentioned:

'I think the big problem for compliance is that compliance was not seen as a driver for profit, but more as a burden for profit. The compliance people were always left out from the decision meetings. Business side always thought: 'these guys will, of course, say that what we are doing is not right, and try to talk us out of it.'

To further analyze underlying causes and effects of mentioned pressures, different control mechanisms governing those pressures will be explained:1) internal control, 2) external control and 3) market control. The private litigation control constitutes the fourth control mechanism which shapes the behavior of the system, but the author did not find any significant data describing the size and the amount of the private lawsuits against financial firms in the Netherlands, thus this

type of the control remains outside of the model's boundary. This model will build up on the system dynamics models developed in order to analyze the effectiveness of control systems in the United States (Martinez-Moyano et al., 2014; Martínez-Moyano et al., 2005).

4.3 Internal control system

Internal control is known as the second line of defense in financial markets. For the simplification issues, 'producer's' self-regulation as the first line of defense is neglected in this model. Partly because it couldn't impact the behavior of the system in the past. It includes legal and compliance, risk management, and auditing offices in the banks and their main goal is to ensure organization's compliance with applicable laws and regulations in the country. Although the offices are separately classified inside the banks, based on their final objectives this research considers their activities as a part of the unified internal control. Basel Committee on banking supervision defined the internal process control as "*a process effected by the board of directors, senior management and all levels of personnel. It is not solely a procedure or policy that is performed at a certain point in time, but rather it is continually operating at all levels within the bank*" (Basel, 1988).

How companies implement their internal control system varies depending on their budget, size and adherence to compliance. Research has shown that small companies tend to violate the rules more often than the big ones (Akkermans, 2007). The reason is the budget allocated to compliance process, which tends be significantly lower for small companies. Willingness from management to support internal control processes has been different for different companies. Study on effectiveness of governance code during the period between 1997-2002 showed disappointing results, although recommendation for improvements has been communicated to the companies in advance (Jong & Roosenboom, 2002).

Interviews have also shown that some companies have more effective internal control systems than others. This depends on multiple factors. One of the most important factors is the quality of internal control systems. This is recognized by the both sides regulators and the banks. As one of the compliance officers said:

"Compliance is a relatively young field in the banking industry. The process evolved in [..] in the last 5 years. It changed from only purely monitoring and advice functions to the more compliance-

risk management function. Now compliance risk assessment is a huge part of the work. We do risk assessments to identify which risk controls we have to emphasize towards the business side."

However, in order to establish effective internal control system, companies must pay attention to other important factors as well. One of them is the communication between compliance and business side in the banks. This has the direct impact on the influence of the internal control on the behavior of the employees. More often in the past, internal control was not able to control every aspect of business or didn't have enough knowledge about the complex products and activities in the banks. A former senior executive in one bank remembers: *"In the retail banking, [..] had 20.000 boots on the ground in 2004, and only one compliance officer. That says enough."* Another compliance and risk officer commented: *"The problem is that compliance officers are not specialists in the field. So, you have to oversee the field, but you don't actually know anything about it."* Thus, making sure that compliance officers have enough knowledge about the activities and products can significantly influence the effectiveness of internal control.

Another factor which is important for effective internal control is the support of the management. In this line of research, studies show that most of the Wall Street companies which survived turbulent times had one distinctive characteristic: the willingness of the board and senior managers to support internal control personnel (Becht, Bolton, & Röell, 2011; McCaffrey & Hart, 1998). This has been a very important feature in the Netherlands as well. Government's initiative with 'Peters Committee'[5] in 1997 had the purpose of increasing compliance in corporations and improve the system through self-regulation. However, the effectiveness of this initiative was disappointing and suggested that external enforcement was needed in order to establish necessary compliance level (De Jong, DeJong, Mertens, & Wasley, 2005). The companies did not improve their compliance and they lacked the support of board management for its implementation. The example told by the risk& compliance manager supports the study results:

"*The problem was that bosses broke the rules often, and then employees were thinking: why wouldn't I do it, if my boss is doing it. That was the tone from the top. That always comes to the pressure to make a profit no matter what, in order to secure bonuses and keep the job.*"

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[5] 'Peters Committee' is known as 40 recommendations on Corporate Governance in Netherlands for sound management, supervision and accountability. -European Corporate Governance Institute|www.ecgi.org

Recent changes in the support from the management support proved its importance for effective self-enforcement. Another banker noticed: "*Overall, awareness of playing by the rules is much stronger than a decade ago...I think that started after the crisis…The role or risk managers has become much more important because of that… Ten years ago the banks didn't have chief risk officers.*"

4.3.1 Internal control and self-regulation challenge

Probably the circumstances most conducive to successful self-regulation are those where an industry, or at least industry leaders, perceive the future prosperity and perhaps even the very survival of the industry as dependent upon some form of self-control…[6]

Gunningham & Rees

4.3.1.1 Shareholder value and pressure to produce

The Dutch financial sector is relatively large compared to other European countries and is dominated by a small number of large financial firms. This partially comes as a result of their rich merchant history. Competitiveness drives the behavior of financial firms, as they have to fight for market share and secure revenues. This has led to many developments in the industry over the last 20 years. ABN Amro was the largest Dutch bank in the 1990s and has followed an aggressive merger & acquisition strategy (Mügge, 2008). During 2007, the same bank was taken over by a consortium of the banks for €71 billion which was back then the largest takeover in the global banking industry. However, the takeover deal was altered by a financial crisis in 2008. Other firms went through significant restructuring as well. As a result of market consolidation, in 2008, 85 % of banking sector consisted of five banks (based on balance sheet figures) (DNB, 2010b). To clearly portray the size of the banking sector, the balance sheets of 3 biggest banks (ABN Amro, ING, and Rabobank) was nearly 5 times, or 490% the equivalent of Dutch GDP.

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[6] Gunningham, N., & Rees, J. 1997. Industry self-regulation: an institutional perspective. *Law & Policy*, 19(4): 363-414.
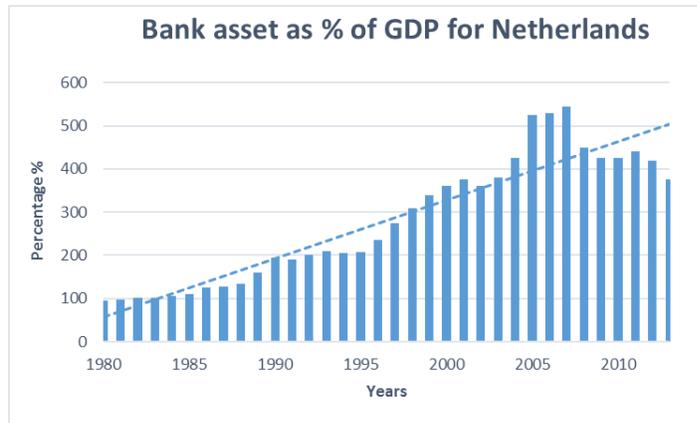
Figure 4: Size of the Dutch banking sector. Source Federal Reserve Bank of St. Louis

Figure 4 shows the development of banking sector through time. There is an almost 3-fold increase since the 1990s until today. This growth is partly fueled by extremely competitive culture in the financial industry (Van Staveren & Van Tilburg, 2015).

According to the Palmer report on a failure of insurer HIH (Palmer, 2002):

"...It is important to recognize that financial institutions today face many pressures, of which pressure from the Regulator is but one. Most important by far are pressures from shareholders and financial markets for performance, including historically high returns on equity and growth in those returns. These pressures are overwhelmingly strong, and, in many cases, are augmented by the compensation systems of financial institutions, which are increasingly performance based, and tied to earnings and share price performance. These pressures have led to highly complex financial engineering to boost income, reduce capital levels, enhance the tax-efficiency of capital and reduce the risk-weighting of the balance sheet for regulatory capital purposes."
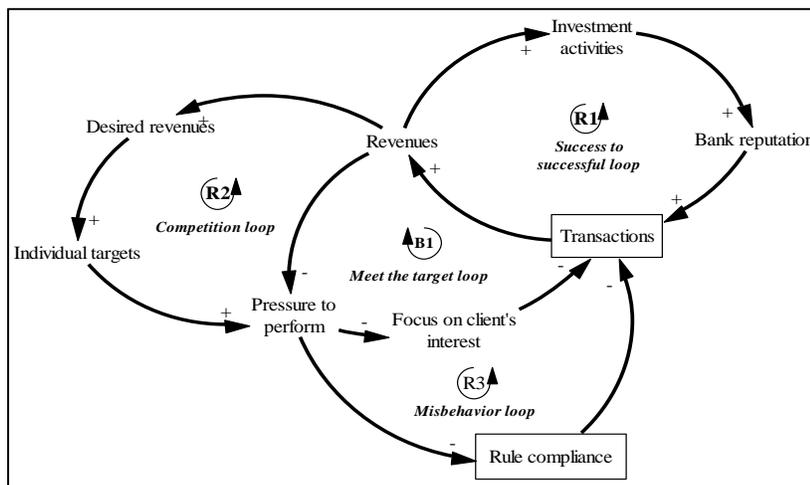
Figure 5 CLD: Pressure to produce and compliance erosion

Banks compete for their place in the market by increasing the number of transactions which in turn gives them more revenues. This revenue can be used to invest in different social and environmental projects in order to increase the reputation and attract even more clients (Loop R1). This causal relationship has been researched and proved continuously (Bivona & Daza, 2009; Simpson & Kohers, 2002; Wright & Rwabizambuga, 2006). The equator principle[7] represents the attempt of major Dutch banks to increase reputation through social and environmental projects. Once the targets are achieved, employees can focus on other things, such as a focus on client's interests (Loop B1). This determinant has been extremely important in the Dutch regulatory system since the introduction of MIFID I[8] in 2004. As one of the regulators described:

"…MIFID was focused on a customer protection. Rules of conduct made sure that people in banks behaved in a way they are supposed to. That was a huge change. MIFID required a lot of documentation about the transactions and clients. Since then, we have seen a lot of growing attention for the protection of clients' side. Treating customers was a big issue, and that's how AFM started."

However, based on the size of the banking sector in the previous 20 years (figure 2), it's hard to believe that the banks have fixed goals. The revenue race with other competitors will further increase the desired revenues which will put continuous pressure on employees to reach the commercial targets (Loop R2). Based on the literature, employees faced with high 'production' pressures have three ways of reaching the targets: work harder, work longer or 'cut corners' in order to reach the targets faster (Oliva & Sterman, 1999). Working harder and longer is a short term solution, and ultimately leads to fatigue and decreased productiveness (Homer, 1985). On the other hand, it should not impact the quality of work in short term, and it could be beneficial in reducing the workload after a sudden change of demand. Same authors found out that most of the workers at National Westminster Bank were willing to reduce the time allocated to a customer (cut corners) when feeling under the pressure to increase the output. Loop R3 portrays the mechanism where constant target pressure on employees results in less focus on clients and 'cutting the

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[7] The Equator Principles is a risk management framework, adopted by financial institutions, for determining, assessing and managing environmental and social risk in projects. Source: www.equator-principles.com
[8] The Markets in Financial Instruments Directive ("MiFID") is a comprehensive regulatory regime which affects how firms carrying on investment business and ancillary activities will organize their internal systems and controls and how they will conduct business with their customers across Europe. *Source: www.ec.europa.eu*

corners' in order to perform and reach the targets. This assumption goes in line with the study on banking culture in Netherlands in 2014 (Van Staveren & Van Tilburg, 2015) and testimonials of many regulators and compliance officers:

"*.. Managers often gave the high targets to the employees in the retail banking, e.g. by saying just make €20 000 on this product, and 1 million on the other, just do it, I don't care how…* "

"*Employees did not really comply with rules before 2004, it was almost not there at all…* "

"*...If only top performers are getting the bonuses, that makes you prone to do whatever it takes to earn more. I think that situation resembles general picture of financial industry in Netherlands in past.*""

Since the burden of compliance is being transferred to a business line, the assumption is that more adherence to compliance would decrease their sales.

4.3.1.2 Problem accumulation and pressure to comply

Without further externalities, this system would work perfectly for the financial institutions and would increase their revenues and share values. However, decreasing rule compliance has its negative consequences on the firm's operations. Less adherence to rule compliance will lead to more rule violations, which could negatively impact the firm's performance (Loop B2).
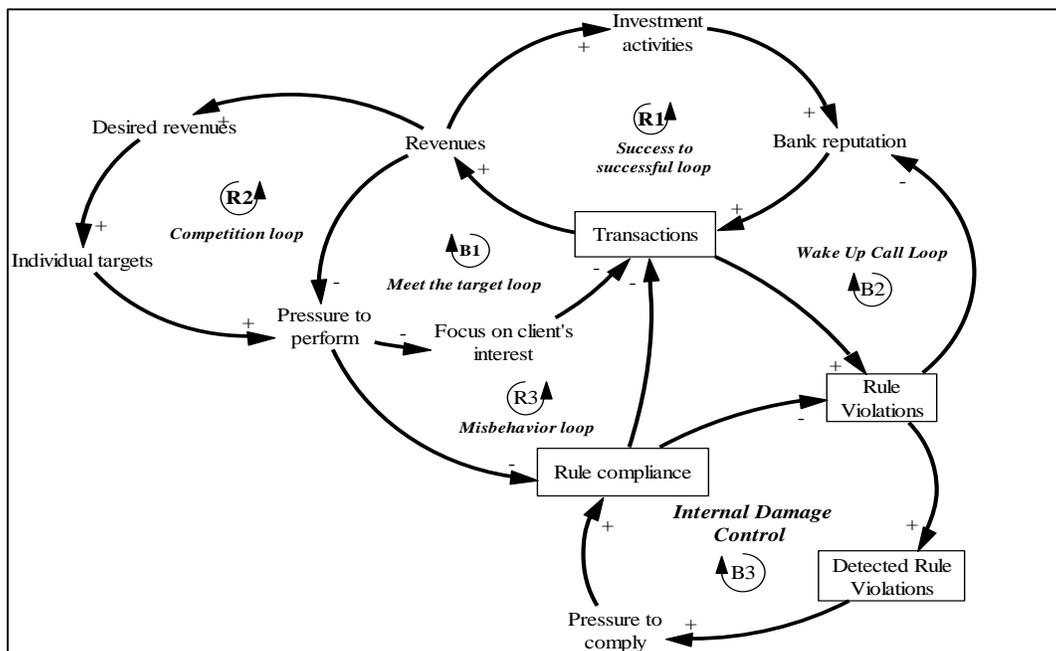

Figure 6: Internal control system

Rule violations consist not only of non-compliant behavior but also behavior which is not in the spirit of the law and failure to implement regulatory requirements. More rule violations will lead to the loss of reputation and result in a lower number of transactions for the firm. Internal control challenge is to maintain the rule compliance level in order to prevent or resolve rule violations (Loop B3).

A compliance officer explained the process of dealing with non-compliance in the banks:

" Compliance departments can influence the board to increase the capacity when the violations are increasing. They can get more people, more senior resources, but also to help with the compliance tasks… Boards are willing to deal with violations with increasing capacity of compliance departments. On the other side, when everything is fine, capacity is reduced and sometimes not enough to cope with all the procedures."

The effectiveness of the internal control varies across the industry (Akkermans, 2007) and compliance department has to overcome many obstacles in order to increase the compliance level and reduce the risk of losing reputation, or paying high fines for breaching the rules.[9] The purpose of internal control is to support business operations and make sure they are conducted lawfully. However, lack of the support from the management and internal influence on business operation makes their job challenging. When the number of transaction declines, compliance is often seen as an obstacle to making a profit, and internal control loses its influence. Because rule violations are different and they have a different impact on the firm, their weight will be detrimental to an internal control process. Shortly after the scandals, they will have the highest influence and get immediate attention from the board, which is often not the case with small breaches. The report from the Committee of Parliamentary Inquiry on financial crises concludes about willingness of firm's management to act on identified risks in prosperous times:

"…According to the documents that were reviewed, the supervisory board expressed concerns about the growth of the mortgage portfolio as early as the beginning of 2006. Beginning in the autumn of 2007, particular emphasis was placed on the importance of clear communication regarding the Alt-A portfolio, for reasons including the credibility of ING in this area… It also

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[9] Royal Bank of Scotland Group Plc. may have to set aside 10 billion pounds ($15.4 billion) in additional conduct costs, following probes into currency market rigging and U.S. mortgage-backed securities. Bloomberg news, February 2015

concludes that the board of directors ultimately made an insufficient effort on its own initiative to resolve the Alt-A problem…The boards of directors of the financial institutions deserve the primary blame…The boards of financial companies underestimated, failed to see or consciously took risks, possibly stimulated by variable compensation structures and their own packages of shares and options" (The Committee of Parliamentary Inquiry into the Financial System, 2012).

Time needed to detect the rule violations is a very important factor in determining the dynamics of internal control and it reflects the quality of internal control systems. Most of the banks I interviewed have policies and systems in place for tracking the compliance level quarterly, which means they access the compliance situation with a certain lag. One compliance officer explained:

"For mortgage advice, there is a monitoring audit every quarter. After that, we can detect who complied and not. If they didn't comply, local management should do something about that. If we notice big anomalies in many local offices, then we might take a look at central policies in place and whether they are good or not."

Another problem that compliance departments face is the ambiguity of what is a rule violation and what is not. In many cases, it is not really clear if employees breached the rules or if they acted within applicable laws and rules. Many actions which are in accordance with the rules could be harmful to the company (Sparrow, 2008). It is important that internal control recognizes those behaviors before they affect the systemic risk in the firm. This could lead to a compliance erosion by accepting the certain norms which are below the desired standards (Loop R4). Compliance standard describes the adherence to the spirit of the law and prescribed norms in firms. We have seen earlier that lack of communication between compliance and business departments, insufficient management support for compliance processes and overcomplicated financial instruments can lead to a lower rule compliance in the firms, and subsequently, affect the compliance culture. In the literature, this phenomenon is recognized as an anchoring and adjustment bias and could lead to a degradation of compliance culture in the firms (Tversky & Kahneman, 1973).
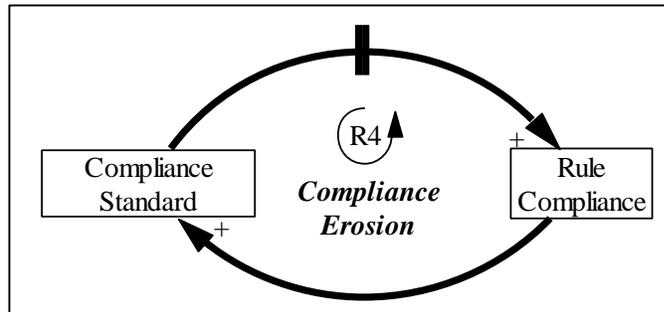
Figure 7: Erosion of Compliance Standard

It is important to mention that compliance standard will affect the actual rule compliance with a significant delay, which means that it takes much longer to rebuild the compliance culture than to erode it (Oliva & Sterman, 1999).

The after-crisis period revealed many deficiencies in internal control systems, and both, regulators and industry agree that much has changed since then. Banks are undergoing structural changes and aggressively increasing compliance departments and their responsibilities in order to meet specific requirements prescribed by the laws. Translated into operational metrics, increased compliance standards mean a substantial increase in labor and IT costs for the firms. However, as defined by Basel Committee, internal control is a continuous process and the firms should aim at improving their control systems continuously.

4.4 **External control system**

Regulation forms the foundation upon which supervision and enforcement in financial markets are built. This foundation refers to the establishment of the specific set of rules of behavior. Supervision and enforcement rely on general monitoring of financial institutions and intervening when needed to ensure they are compliant with applicable laws and the spirit of regulatory framework (see Lim & Teo, 2013). Institutions responsible for supervision of financial markets in the Netherlands are the Authority for Financial Markets and the Dutch Central Bank, together constituting the Dutch Twin Peaks regulatory model. After the reforms in 2002 and creation of AFM, both institutions were delegated with clear responsibilities and missions. DNB became the single supervisory body responsible for the prudential stability of all financial institutions (micro-prudential) and for the stability of the financial system (macro-prudential).

As an independent central bank, supervisory authority and resolution authority, DNB works in tandem with its European partners to achieve: price stability and a balanced macroeconomic development in Europe; a shock-resilient financial system and a secure, reliable and efficient payment system; and strong and sound financial institutions that meet their obligations and commitments and can be orderly resolved if needed.[10]

AFM was assigned responsibilities of previous securities regulator and additionally became responsible for the conduct of business supervision of all firms.

AFM supervises the conduct of the entire financial market sector: savings, investment, insurance, and loans. By supervising the conduct of the financial markets, AFM aims to make a contribution to the efficient operation of these markets.[11]

The question which is often asked is what is a good supervision? Good supervision allows financial markets to operate smoothly and reduces the risk of market disturbance by countering the inherent market failures, external effects and information asymmetries (Barth, Caprio, & Levine, 2006). As mentioned in the previous chapter, trust is the foundation upon which financial markets exist. Thus, the main objective of regulatory supervisors is to foster the trust and ensure the financial stability of the country. This makes trust a very important indicator upon which financial regulators base important policies. During the interview, one senior supervisor mentioned: "*Trust in the banking sector is one of the key deliverables for the AFM. The goal is to increase the trust, together with the sector.*"

In achieving these goals, supervisors often meet with many constraints. Some of them include informational constraints, operational costs, and timing constraints (Nouy, 2013).

It is logical that bank managers have better information of their risks and compliance levels in the firms than regulators. They can assess the needed information much faster and make decisions accordingly, compared to the supervisors for whom it sometimes takes years to identify certain risks or rule violations. On the other side, the regulators have a systemic overview of the

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[10] http://www.dnb.nl/en/about-dnb/onze-missie/index.jsp
[11] https://www.afm.nl/en/over-afm

information collected from all the players in the market which provide them with better data for assessing the financial stability.

The supervising process is costly and supervisors often face insufficient budgeting in order to ensure a higher level of financial safety. Sometimes, this can lead to a reduction of requirements from the firms in order to cut the cost and achieve efficient supervision with current capacity (DNB, 2004). This often becomes a matter of contention during the crisis period when self-regulation fails to prevent the market crashes.

Even if supervisors are provided with perfect information from the banks and in a timely manner, there is a certain lag between identification of issue and reaction of firms on supervisors' decisions. One regulator described this process:

"You first have to ask for the data from the bank. That takes up to six weeks. Then checking with our lawyers, that takes another six weeks. Afterward going to the bank and trying to fix the thing for another couple of weeks. The lawsuit then takes years to finalize."

It is, therefore, crucial that supervisors develop and implement organizational processes which minimize these constraints, detect market deficiencies and take preventive actions consequently.

4.4.1 External control and regulatory challenge

It was previously mentioned that bank employees are faced with conflicting objectives: to make a profit and comply with the rules. Regulatory representatives are also subject to a conflict of objectives. They have to ensure the financial stability and promote sound banking system in order to boost economic development. However, by doing this, too many constraints on the financial firms could be interpreted as a driver which slows down banking activities and therefore impact the economic growth of the country considering the staggering size of the Dutch banking system and its influence on the economy.

In the Utopian system, there would be no need for the external supervision and self-regulation would be efficient enough to prevent market failures. In the Netherlands, the country which didn't have a major financial crisis in the period after the Word War II until the global financial crisis, self-regulation seemed to be working together with external regulation on maintaining financial stability (De Jong & Roell, 2005). However, the crisis in 2008 has amply

demonstrated the limitation of self-regulation and market discipline and the need for more rigorous external control.

DNB and AFM as the main supervisors are using a risk-based approach in supervising the financial firms (DNB, 2004, 2005, 2006). This means that they target only the high-risk firms for investigations, thus, for the remaining firms have to heavily rely on internal control in order to prevent the major crashes in the market. As of 2013, AFM's average workforce (FTE) was 541 and the number of institutions under supervision was 10,500 (AFM, 2014). Their supervising strategies mostly focus on high impact financial areas such as mortgages, derivatives, high-frequency trading, where the risks identified are highest. Depending on the supervisory strategy and focus area they can be seen as effective in the eyes of the public. The risk is that the non-covered areas cause the major problems in the system and thereby question the ability of supervisors to ensure financial stability (The Committee of Parliamentary Inquiry into the Financial System, 2012).

Supervisors control the financial firms through investigations, surveillance, and enforcement. They ensure that financial markets operate relatively efficiently, without slowing down business operations. However, they sometimes fail to prevent the scandals, cycles of compliance erosion in firms, strengthening of control and scandals again.


Figure 8: External Control System

Just as bank employees face the pressure to produce, supervisors feel the pressure to regulate once the outbreak of rule violations is made public (Loop B5). This pressure often results in increased political willingness to regulate the financial industry and justifies the regulatory measures which have a goal of regaining financial stability. The most recent examples of bank failures, such as failures of Icesave Bank in October 2008 and DSB Bank in October 2009 together with several bailouts mentioned earlier made a significant impact on the trust in the banking industry (Van der Cruijsen, 2013). Low trust in the industry can threaten the financial stability of the country as it increases the probability of the bank runs. Thus, the external supervisors perceive this as an important driver for supervision improvement. During the interview, one supervisor mentioned: *"Account management team was, let's not put it nicely, "drinking coffee" with institutions. This became a bit absurd of course. We were talking a lot, but nothing was changing. Once we realized the size of the problem in 2008, we needed to change something, change our approach."*

Some of these changes are described by DNB and AFM in their yearly reports:

"New regulations are being prepared for banks and insurers, whilst the Financial Assessment Framework (Financieel Toetsingskader / FTK) for pension funds is being reviewed…supervision will more often operate from a system-wide perspective…supervision will give more attention, on the one hand, to business models and strategies and, on the other, to the conduct and culture of financial institutions' (DNB, 2010a)… The extensive legislation was passed in 2013 which gave the AFM the necessary means to be able to supervise the quality of financial services provided to consumers and semi-professional investors" (AFM, 2014).

The response from external control to identified rule violations can be diverse. However, for reasons of simplification, these responses will be captured through increased regulations (Loop B5) and increased monitoring (Loop B4).

Recent scandals suggest that internal control has limited effectiveness on maintaining compliance level and that many rule violations remain undetected or neglected. External control through monitoring and investigations has the ability to detect the violations and act accordingly. Operation costs and timing constraints have an impact on supervisory effectiveness as well. Research has shown that the perception among market players is that regulators detect about 50

% of illegal activities and that they deal with 70% of identified violations (AFM, 2014). This could also suggest the limited reach of external control. The supervisory responses act as a balancing mechanism for market efficiency and are usually reactive in nature. The first attempt to promote self-regulation in the corporate world in the Netherlands which came from the 'Peters Committee' was replaced by 'Tabaksblat Committee' as a reaction to disappointing results in its implementation (Akkermans, 2007). Basel III came as a reaction to the global financial crisis, although this applies to a global level, rather than just as a reaction of the Dutch government.

On the other hand, when supervisors try to be proactive they often face unresponsive policy makers. In 2000, the proposal from DNB to regulate and abolish the mortgages with loan-to-value ratios over 100% faced negative responses both from the industry, as well as from the Ministry of Finance. The Dutch Banking Association claimed that by abolishing the mortgages with LTV ratio higher than 100 % , it would threaten the stability of the housing market (NRC, 2000). The Ministry of Finance also refused the proposal stating that: 'it is not up to the government to determine the choice of the consumer and the lender'.[12] The same efforts from AFM and DNB after the crisis resulted in the Dutch Cabinet's policy to reduce the allowed LTV ratio to 100 % by 2018, and plans to reduce the ratio even further. [13]

Time needed to detect the rule violations plays an important role in the effort to maintain financial stability. Problems accumulate over time, and the timing of their identification influence the dynamics of rule violations and rule development. This has been recognized by the regulators:

"*The problems accumulating at the bank in the course of 2009 arose from procedures which had been a source of concern for the supervisory authorities – DNB and the Authority for the Financial Markets (AFM) – for a longer time.*" (DNB, 2010a)

As previously mentioned, internal control may detect the breaches every quarter on average. However, external control lags behind internal control due to the lack of information availability. Restricted access to the non-public information allowed the author to analyze the documents about the formal penalties given by AFM for 2013 and 2014. There is a substantial lag behind the internal control. Namely, the period between breaching the rule and prescribing the formal penalty varies

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[12] Kamerbrief 26 800 IXB 'Vaststelling van de begroting van de uitgaven en de ontvangsten van het Ministerie van Financiën (IXB) voor het jaar 2000'
[13] http://www.dnb.nl/en/news/news-and-archive/dnbulletin-2015/dnb322357.jsp

from 17 to 65 months and was on average three years for the available sample of 31 formal penalties. This implies that external supervisors need about 3 years on average to affect the compliance level considering the rule-based strategy and zero tolerance policies (Loop B4). Principle-based strategies work differently and have an impact on the organizational behavior earlier, but heavily rely on firms to adopt their behavior. Although this strategy may have shorter time span between breaching the rules to having an impact on the organization, nonetheless it certainly lags behind the internal control.

Many governmental decisions related to financial markets are based on media coverage of the incidents. However, more often than not, these incidents reveal major flaws in the system, and the government feels increased social pressure to regulate the industry (Loops B5&B6). A former policymaker in Ministry of Finance remembers:

'Parliament always responds to the incidents and the Ministry of Finance has to give their opinion. Sometimes the response is to talk to the banks, and sometimes the new legislation. Their main KPI is political and they have to make political points even if they are not in best societal interest.'
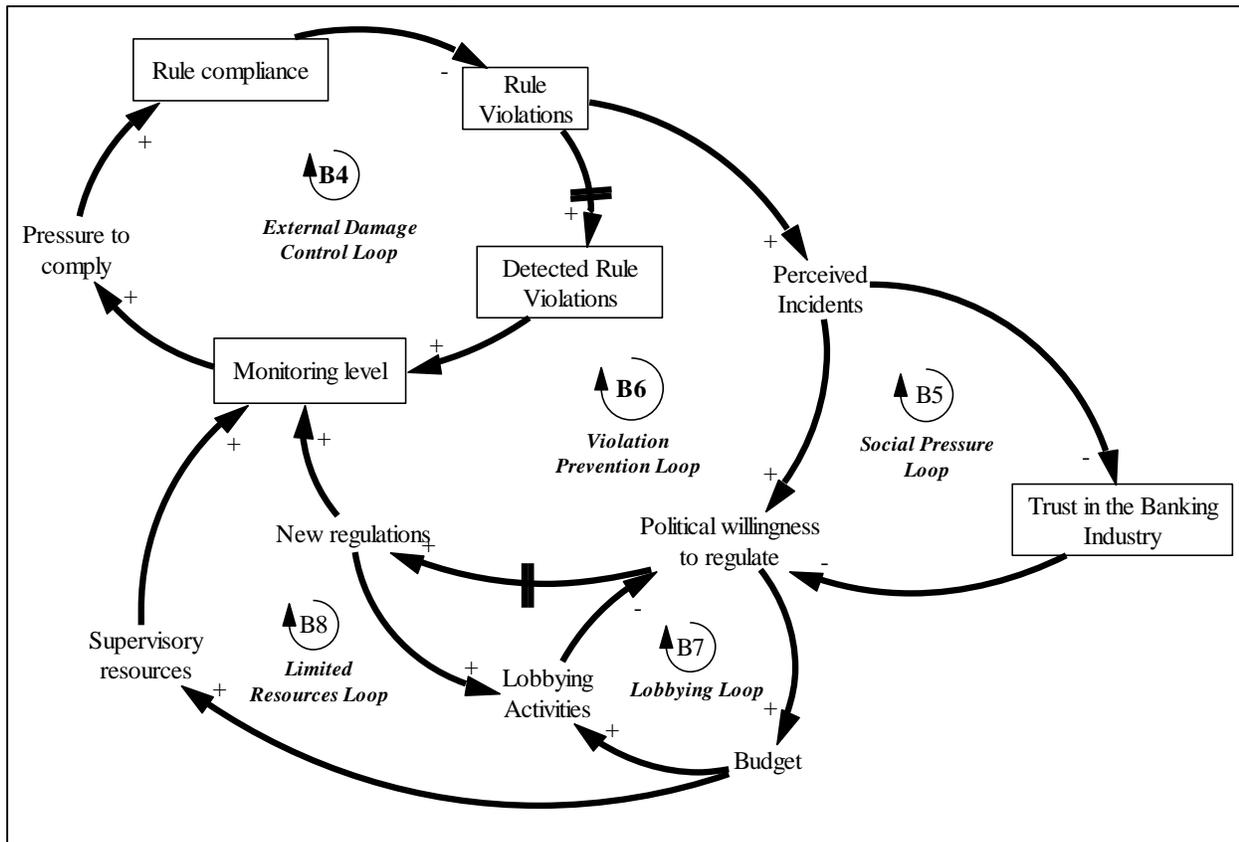

Figure 9: Regulatory Challenge

However, public pressure is not always the only factor which impacts the political willingness to regulate the industry. Financial firms can have an influence on the policy making process and ensure that their interests are taken into account (Loop B7). This, in turn, would decrease the intensity or context of the regulation.

Lobbying activities have been a focus of parliamentary inquiry after the crisis. The 'Commission de Wit' concluded that the policy process of Basel Committee on Banking Supervision has not been fully transparent. On a national level, the same commission found that there was a lack of transparency regarding the actors and opinions that have influenced decision-making in financial policies (Römgens, 2013). NRC Handelsblad, the Dutch newspaper investigated the lobbying efforts of the financial institutions to initiate the process of removing the lending activities from the balance sheet (Wester, 2009). In 2003, Minister of Justice Donner submitted an amendment which allowed the banks to resell the loans in their portfolio without informing the customers of the bank. The amendment was followed by an explanatory memorandum which was based on the letter from the Dutch Banking Association (NVB) and explained why the change of the law was necessary. Although the letter from NVB was allegedly just a copy of an earlier letter by DNB, only the selective quotes from DNB were used in the revised edition (Wester, 2009). This particular example, however, does not prove the influence of the financial institutions on policy making process but suggests their active involvement in it.

This concern was brought up during the modeling session with regulatory representatives and shows that lobbying activities can impact their supervisory activities as well (Loop B8). By influencing the policy making process, the supervisory budget could be adjusted according to the preferences of the policy makers. Since there are no quantitative studies related to the lobbying activities in the Netherlands and their impact on the policy-making process, it is hard to determine the strength of the loops B7 & B8. However, the fact that these activities were recognized by the experienced supervisors could suggest their not so negligible effect on the system.

4.4.2 Negative consequences of regulatory pressure

Group model building is the methodology based on the academic research and work by Vennix (1996), Andersen & Richardson (1997; 2007), Rouwette (2002) and others. It usually consists of multiple group meeting, workshops designed to create the system dynamics models together with the group of stakeholders who are closely familiar with the topic being discussed. During the modeling process, a learning network is established that enhances the systemic understanding of the topic, creates consensus on certain issues and increases skills for system dynamics modeling.

The group model building project as a part of the thesis consisted of two sessions with the primary aim to elicit expert knowledge from the regulatory representatives. Participants from both AFM and DNB were present at the sessions where author acted as a modeler and facilitator. The project goal was to create a system dynamics model of the external control system and identify main drivers behind the regulatory pressure. The model above (Figure 9) presents the views of the participants and is consistent with the data analyzed to explore the regulatory actions.

Regulatory pressure has been flagged as one of the major issues and risks in the financial markets. The annual survey designed by CSFI[14] revealed that financial professionals perceive regulatory pressure as one of the main issues for financial industry continuously since 2005. It stays in the top three of banking risks in 2005,2006,2010,2014 and 2015 (CSFI, 2015). Often, this risk is explained as the risk of over-regulation which does not allow banks to focus on the other activities than compliance. During the interview, one banker explained the consequences of the regulatory pressure: "*I think that regulatory pressure made banks reconsider their strategic goals. Many banks were forced to abandon some business areas and focus on others.*"

While regulating the markets, external regulators must avoid being seen as the obstacles for the economic growth. Thus, they try to make the policies which will not negatively impact the bank activities. On the other hand, modeling sessions revealed some of the ways a regulatory action can have negative consequences for the regulatory system, and should be taken into account when

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[14] The Centre for the Study of Financial Innovation(CFSI) is a non-profit think-tank, established in 1993 to look at future developments in the international financial field – particularly from the point of view of practitioners. Its goals include identifying new areas of business, flagging areas of danger and provoking a debate about key financial issues

making policies. Considering the varying effectiveness of internal control systems, it is logical to assume that new regulations will lead to a more violations in the short-term (Loop R5). Interviews also showed that companies have issues updating the systems to all the new legislations, thus making it more probable to break the new rules. New regulations will also lead to increased complexity of the compliance process which could negatively impact the compliance levels (Loop R4). Regulators will eventually increase the supervisory norms based on the size of perceived incident which ideally leads to better compliance, but could also impact the complexity of the process, thus making it less efficient. The model described in figure 10 portrays the main dynamics of the negative consequences of the regulatory response from the government. For the simplicity reasons, the loop R3(Appendix B, figure 17) is left out of the model as it reinforces the difficulty to comply through increasing norms. Loop B7(Appendix B, figure 17) describes the social change loop which is recognized as the wishful balancing mechanism in the modeling session, and could present the policy rather than the mechanism which influenced the past behavior. The complete modeling report and the model as a result of the workshops can be found in Appendix B.
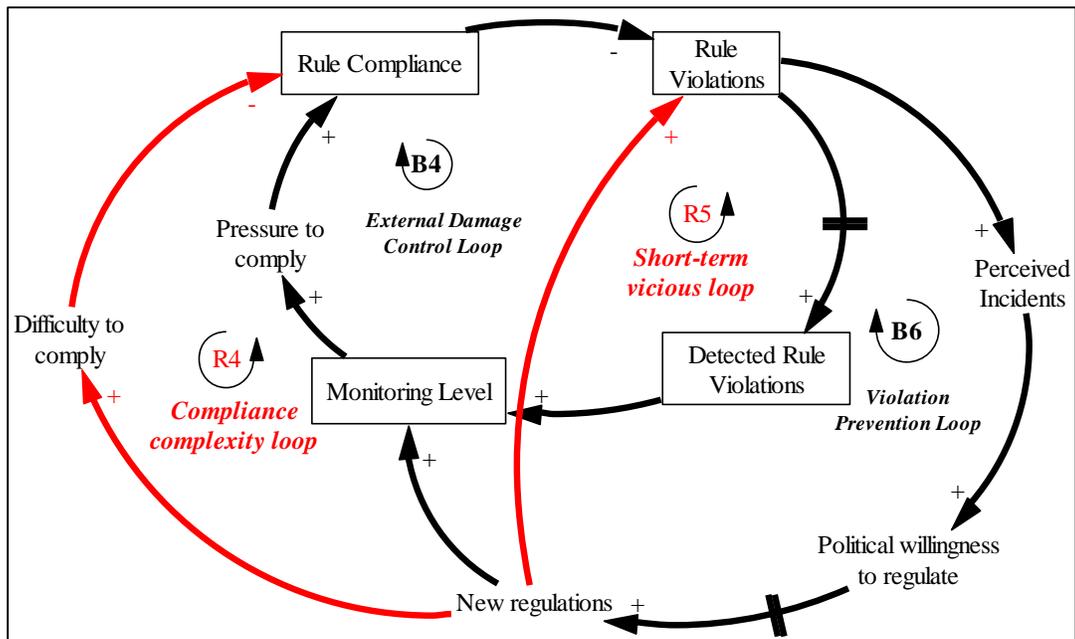

Figure 10: Negative consequences of regulatory response

4.4.3 Regulatory challenge and Game Theory

Other theoretical models can provide useful insight into the interaction between regulators and firms and complement the system dynamics model developed in this research. Scholz (1984) introduced the game-theory model as a representation of regulatory interaction with firms. The model can be applied to financial firms and show the interaction with the regulators.

REGULATOR'S STRATEGY

	Cooperate	Enforce
Comply	Voluntary compliance; regulatory discretion Principle-based strategy	Enforcement and investigative costs Rule-based strategy
Evade	High payoff for the firms; Regulatory objectives not achieved	Investigation and compliance costs followed by additional compliance obligations for the firms

FIRM'S STRATEGY (to the left of the table)

Figure 11: Prisoners' dilemma

In this simplified set-up with a regulator and financial firm, a firm chooses between two strategies: to comply with the rules or to evade the rules. Evasion includes not only formal non-compliance, but actions which are not in the spirit of the law, or failure to implement certain regulatory requirements. The firm wants to avoid compliance costs and regulatory actions and regulators want to achieve their compliance objectives while minimizing the costs of enforcement. Regulators then choose whether to implement principle-based strategy collaborative approach with the aim to achieve the objective through flexible actions and negotiations or rule-based approach with strict compliance rules and zero-tolerance strategy. The principle-based approach makes an assumption that firms have and recognize the incentives of complying with the rules and that the best way of ensuring compliance is when firms make their processes compliant within the organization. However, this strategy can be perceived as an indicator of regulatory capture. Regulatory capture theory describes the tendency of the regulators to be influenced by or adopt the objectives of entities being regulated (Stigler, 1971). Another strategy would be to choose the zero tolerance rule-based strategy which would mean punishing every non-compliant action with penalties and new compliance obligations.

This example can be portrayed as a 'prisoner's dilemma' paradigm, where both of the entities would be better off choosing to comply and cooperate. However, the economic theory suggests that salient short-term benefits and immediate payoffs would most likely lead the company to boundedly-rational decision making and choosing evasion strategy. This would force regulators to choose a zero-tolerance strategy and both entities would end up with worse payoff than they would have if chosen comply and cooperate strategies.

This theoretical model closely replicates the system dynamics model described in this research where loops R1,R2 and R3 portray dysfunctional behavior of the employees or organizations by choosing certain short-term payoffs against the future uncertain legal problems. Loops B4 and B5 describe the regulatory actions which are focused on detecting the violations and ensuring the financial stability of the country.

4.5 Market control system

Besides internal control and the regulators, investors could also discipline the banks by choosing not to do business with them and influence their behavior. This control mechanism has become an important part of supervisory strategy since The Basel Committee on Banking Supervision classified the market discipline as one of the Three Pillars on which the financial regulation should rely upon because it "imposes the strong incentives for banks to conduct their business in a safe, sound and efficient manner."(see Bank for International Settlements, 2006). The bank runs are particularly dangerous for financial institutions, thus, market discipline may have an important role in controlling financial markets. This control system describes the process where private investors assess the market condition and punish the financial institutions for their misbehavior by refusing to engage in the transactions (Bliss & Flannery, 2002). The propensity to invest is directly correlated with the trust in the financial industry, thus lower trust would increase the indirect pressure on the firms to conduct their business in a safe, sound and responsible way (Loop B9) (Guiso et al., 2007).

Rule compliance

Rule Violations

−

B4

External Damage Control Loop

+

Pressure to comply

+

Detected Rule Violations

Perceived Incidents

+

+

Monitoring level

−

+

B6

Violation Prevention Loop

B5

Social Pressure Loop

New regulations

+

Political willingness to regulate

−

Trust in the Banking Industry

−

B9

Market Discipline Loop

−

−

Private Investor's Propensity to Invest

+
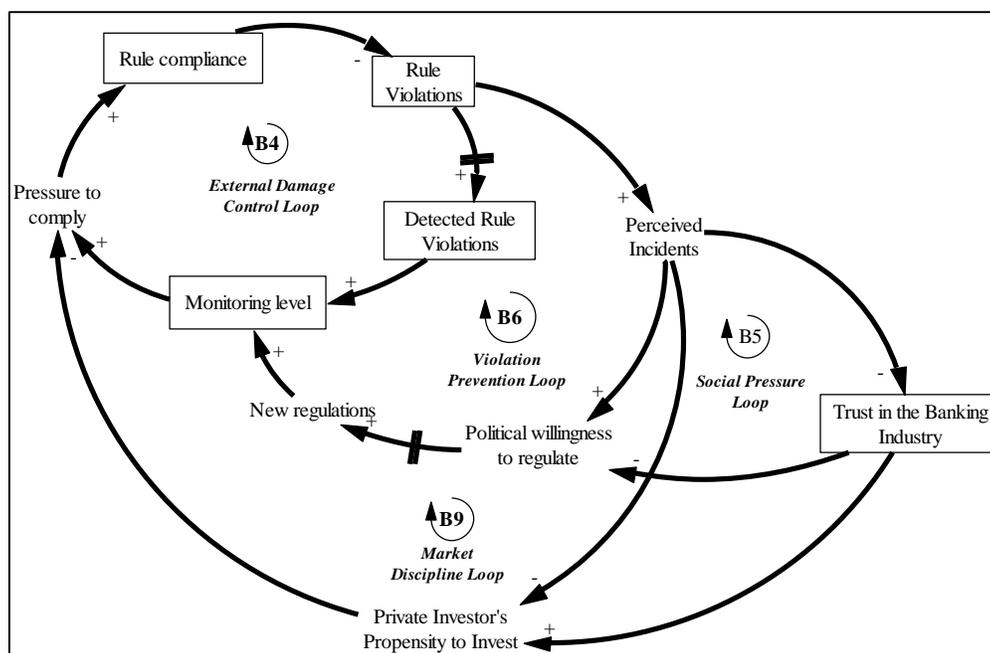
Figure 12: Market Control

The author analyzed and coded more than 400 complaints (2010-2015) received by AFM from consumers, in order to check whether the consumers assess the risk before they engage in the transaction. However, most of the complaints were based on already existed transactions such as mortgage and insurance contracts and almost none has mentioned the possibility to change the bank. The recent study from DNB investigated the propensity of the consumers to change the banks they currently have an account with and found that the vast majority of the surveyed respondents never actually switched the banks and majority do not plan to switch (Van der Cruijsen & Diepstraten, 2015). When it comes to institutional investors, to authors knowledge no empirical study for the Netherlands exist which investigates their impact on banks behavior. However, the empirical results from the USA suggest that there is no evidence that institutional investors oppose the risk-taking behavior of the financial firms, thus do not lead to an increased pressure on their behavior (Becht et al., 2011; Song & Wang, 2008). Research has shown that the market discipline has played a role in the pre-crisis financial markets in the EU but did not stop the market crash (Berger & Turk-Ariss, 2014). The Dutch government's reaction to the crisis included expanding the deposit insurance guarantee, nationalization of the ABN AMRO(2008) and SNS REAAL (2013), helping other financial institutions which otherwise would not be classified as too important to fail. Besides positive outcomes of these policies which aimed at securing financial

stability, these reactions may have some unintended consequences on the reduction of the market discipline which would penalize the institutions for risk-taking behavior. Since Netherlands has always had an adequate financial safety net, such as one of the first countries to implement deposit guarantee coverage in the EU, the trust in financial sector remained relatively high over the last years (Van Lelyveld, 2004). Thus, it could be argued that the trust in the banking industry is partly fueled by financial stability of the country and its financial policies. The empirical results from Austrian economy suggest that country's trust in financial institutions remained high despite economic crash due to the stable financial system of the country (Knell & Stix, 2010).

The switching inertia and relatively high level of trust in the financial institutions compared to the rest of the EU could suggest the ex-ante perception on the part of the private investors that the Dutch banks are likely to enjoy too important to fail government protection, or alternatively that they are less aware of the bank's risks. Thus, it could be argued that market control did not play any significant role in correcting the market and punishing the firms for their misbehavior in the last 20 years.

Chapter 5. Model results

The model explains how dysfunctional behavior in the firms can threaten the organizational existence and periodically lead to scandals and market crashes. The interviews have shown how the lack of internal control can lead to an erosion of the compliance culture in organizations and subsequently to a regulatory intervention in order to increase compliance levels.
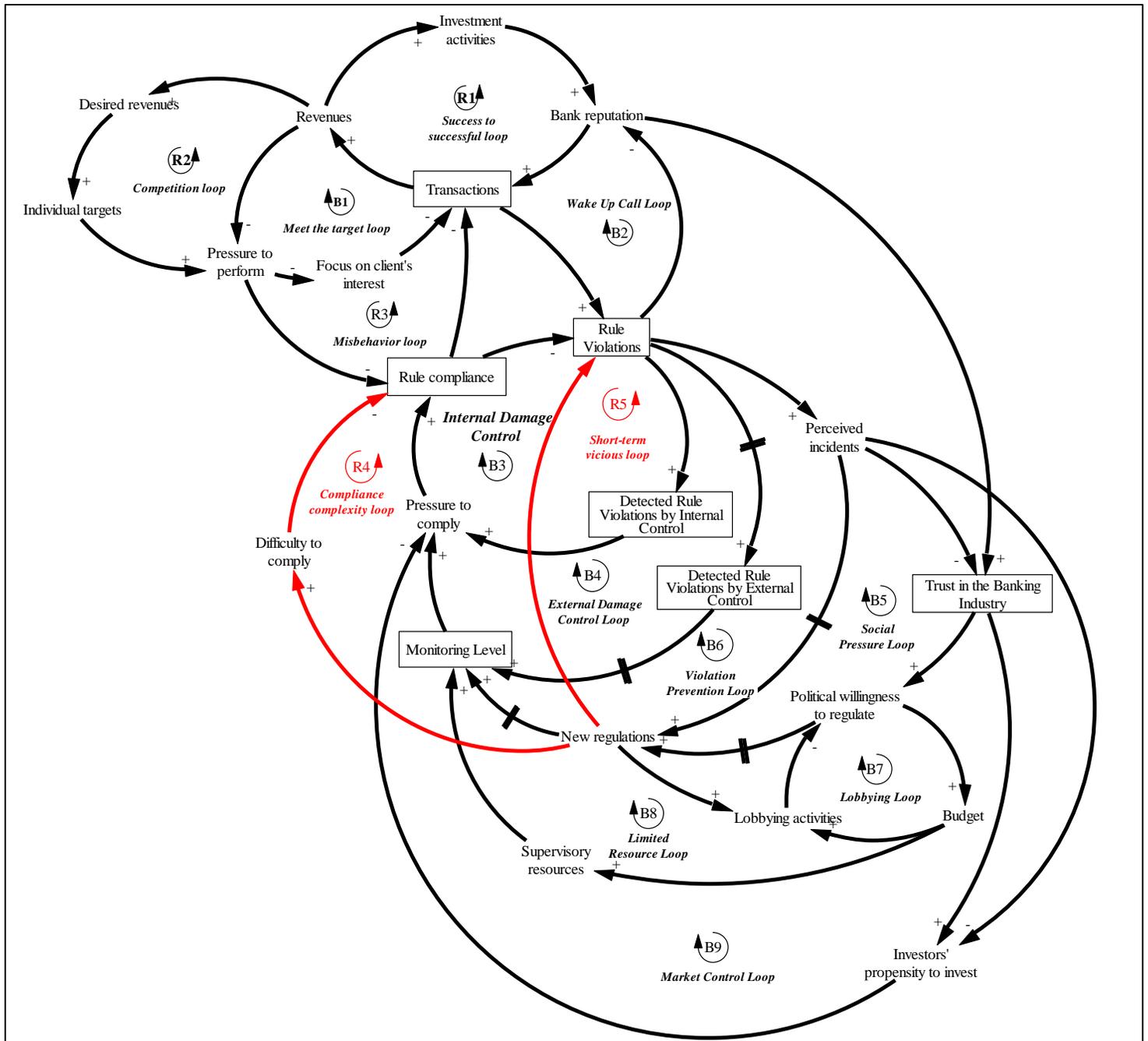

Figure 13: Regulatory Pendulum

The structure above could provide an explanation for the strengthening of regulations in 1970 after the financial boom from 1955 to 1970, to limit the excessive risk-taking by the biggest financial firms (De Jong & Roell, 2005). The Nederlandsche Bank as the only regulator at that time prescribed a number of rules which prohibited the mergers of large banks with insurance companies and brought consumer protection legislations with the Act on Supervision of the Credit Systems. Many risk-increasing developments and the failure of Teixeira de Mattos in 1961 contributed to the drafting of a new act (Van Lelyveld, 2004). The period after 1990 saw the radical regulation loosening. The regulation on merger prohibition was lifted and the market has undergone immediate changes with the new fusions between banks and insurance companies (De Jong & Roell, 2005). Media covered scandals and changes in financial markets in the late 1990s led to a reorganization of supervisory entities and creation of AFM which was given the new authority to regulate the financial firms. It also provides a plausible explanation for the development of 'Tabaksblat' governance code in 2004 as a response to a negative implementation of 'Peters' code (De Jong et al., 2005) and recent credit crisis in 2008 (Van der Cruijsen, 2013).

The research was primarily focused on the period between 1995-2015, and the regulatory pendulum has swung from more market-based approach to more prudential supervision approach in the after crisis period. Basel III as a reaction to the financial crisis in 2008 brought many changes in supervision process and resulted in what one compliance officer called 'regulatory tsunami.' Once again, after the crisis period and failure of market mechanism to establish fully functioning financial markets, the Dutch government is strengthening the supervision process maybe more than ever before. In comparison with other countries, such as the USA and many EU countries, the Dutch economy suffered relatively mild financial scandals in the period 1955-2007, which did not threaten the financial stability of the country, thus, this period is characterized by relatively few and slow regulatory changes. The period between 2008-2015, on the other hand, brought many changes to the regulatory system and emphasis on rule enforcement, and compared to other swings, it seems that this one has gone farther than any before.

The 'instability hypothesis' described by Minsky (2008) which suggests three phases of financial stability could be recognized in the financial crisis in 2008, but other than that the Dutch economy did not encounter these phases since 1948 (Van Lelyveld, 2004). The 'instability' phases could be a part of a long-term cycle, but as far as the author could find, the Netherlands did not

have any significant financial crisis which could threaten the financial stability since the financial burst known as 'tulipmania' in 1637 (see Kindleberger & Aliber, 2005). However, the periodic erosions in compliance which have led to some bank failures and regulatory responses which aim to prevent the same in the future are evident in the recent history.

The model developed in this research helps to answer the research questions defined at the beginning of the paper. Interviews, modeling sessions, case study 'Bankers focus on clients-but what banks do?' supplemented with AFM & DNB reports and 'Credit Lost' report have deepened and widened author's understanding of the topic and provided diverse qualitative and quantitative data for the research.

The main assumption in the model and first research question are both related to competing pressures to make a profit and to comply. The part of the interview questions aimed at eliciting information about this pressure from the participants in the research. The assumption is investigated through the interviews with the compliance experts and bank employees based on their personal experience and supplemented with significant literature review, a report from the Parliamentary Inquiry into the Financial System and a case study on banking culture 'Bankers focus on clients-but what banks do?'. The cross reference of different data sources suggests the presence of these pressures and the model gives a structural explanation how the pressure to meet the targets and extensive incentives lead to a lower compliance and increased number of problems and violations in the banks.

To investigate in what ways do external regulations impact the behavior of the firms, the author organized group modeling sessions with regulatory experts which aimed at explaining the structure of the external regulatory system and how regulators perceive the regulatory pressure. The outcome of the sessions provided the model structure related to the external control. Interviews with the bank employees and compliance experts supplemented this approach by providing a different perspective on the same issue. Both, the regulators and bank employees agree that excessive regulations can negatively impact the banking operations and slow down their performance. As mentioned earlier, external regulations significantly increase the cost of labor and IT costs within the bank. However, the model indicates that regulations stabilize the system in the absence of other control mechanisms and increase the influence of the internal control in the firms. A manager in the private lending department of the bank observed:

'It was an external pressure which created the power of compliance departments and especially for audit. You could lose the job if you don't pass on audit control. That started after the pressure of AFM and DNB'.

This finding is also confirmed through the interviews with internal control employees and compliance experts.

Finally, the research question related to the structural explanation of the regulatory pendulum is answered by the model structure in figure 13 and shows the structure of the control mechanisms in the Dutch banking industry. In the literature, cycles of eroding rule compliance followed with increased regulations and supervision in the financial industry are referred to as the regulatory pendulum. The model provides the explanation for the process of rule compliance and rule development, which underlines the theory of the regulatory pendulum. It shows the structure characterized by accumulations, feedback loops, and time delays.

5.1 Assessment of model's reliability

The model testing is an essential step embedded in every system dynamics model construction process. Due to the lack of simulation model, the present model cannot be tested against the observed reference mode as it is usually done. However, some other approaches can be used to test the validity and reliability of the model. Senge and Forrester (1980) describe the structure verification test:

The model must not contradict knowledge about the structure of the real system. Structure verification may include review of model assumptions by persons highly knowledgeable about corresponding parts of the real system. Structure verification may also involve comparing model assumptions to descriptions of decision making and organizational relationships found in relevant literature.

The group model building sessions were conducted with the experts from AFM and DNB, and the part of the model which relates to the external control system is a result of these sessions. The sessions provided structural verification for that part of the model (Loops B4, B5, B6, B7, B8, R4and R5) as they were built by the participants highly knowledgeable about the topic. This structure is then cross-referenced with the interviews and reports from the AFM and DNB, national

and international press and 'Credit lost' report. There is a high level of confidence in the model structure which explains external control system due to the fact that formulated structure seems to be responsible for the events and decisions found in the reports.

The main assumption in the model is based on competing pressures between commercial targets and rule compliance. In order to build a significant confidence in the assumption, triangulation method is used to check different sources of data and further validate the assumption. In social sciences triangulation is defined as the mixing of data or methods so that diverse viewpoints or standpoints cast light upon a topic. The mixing of data types is also often thought to help in validating the claims that might arise from an initial pilot study (Olsen, 2004). Consistent with the literature, early interviews with regulators and bank employees suggested that work pressure significantly impacts the adherence to rule compliance. The stories told by the interviewees mostly relate to the 1990-2004 period. Additionally, a case study 'Bankers focus on clients-but what banks do?' supplements these observations with a recent investigation of a banking culture in 2014. The authors of the case study discovered that 40% of surveyed participants felt restrained by the work pressure to focus on a client's interest.

The biggest variations in the data analysis occurred in the analysis of the internal control of the banks. Limited existing research in this area specifically for the Dutch financial sector suggests varying effectiveness of the internal control in different firms. This research complements these finding through the interviewing of internal control employees in three biggest banks in the Netherlands and external compliance consultant who consults for different banks. Coding of the interviews has shown that some banks break more than others and interviewees have also referred to different compliance cultures in the company, which is acknowledged in the paper.

Some system dynamicists argue that causal loop diagrams prior to publication and wide consumption should be scrutinized and examined by a few outsiders for face validity (Burns & Musa). Goldratt (1992) is a strong proponent of using a person with a 'scrutinizer 'role to assess the validity of the CLD structure before it is used for policy suggestions in the real world. Representatives from AFM and DNB who are external supervisors for this research acted as a 'scrutinizers' and verified the structure of the causal loop diagram built during the modeling process. Another way of a model validation is through disconfirmatory interview (Luna-Reyes & Andersen, 2003). One semi-structured disconfirmatory interview with an examining officer

(toezichthouder specialist/jurist) from DNB was conducted at the end of the research to validate the model structure. The interview was not recorded and author only took notes related to the model. Validation of the model was performed loop by loop in the 1.5h interview. The validation process mostly consisted of the stories and personal experiences told through the parts of the model. According to the interviewee, the model was consistent and was able to capture the main dynamics in the Dutch regulatory system.

Chapter 6. Policy Suggestions

Chapter four described the plausible process of rule compliance and rule development in the Dutch banking industry. It explains how the behavior of banks and response from regulators shape the functioning of the regulatory system in the banking industry. The next step should focus on the identification of the leverage points through which the functioning of the system could be improved. The lack of simulation model makes the analysis of alternative policies unfeasible. However, certain conclusions from the model analysis can provide the policy suggestions which help to improve the functioning of the system.

Delays: Many delays are identified in the system, and most of them are related to the supervisory and regulatory activities. As mentioned in the previous chapter, it takes three years on average for the financial supervisors to identify and sanction rule violations in the industry. The assumption in the model is that financial institutions change their compliance behavior based on the final measure of the regulators and the whole process from identification of the violation and ultimately imposing the formal measures is, therefore, an important part of the system (Loop B4&B6, Figure 9). This causes the accumulation of violations in the industry and leads to a periodic compliance erosion. From the purely operational view, the rule violations stock is controlled by the internal and external control systems which act as a balancing mechanism that diminishes the stock by identifying and resolving these problems. The research has identified different issues which limit the effectiveness of internal control to cope with problems, which underlines the importance of external control to oversee and regulate the industry. A shorter period between identification of the problem and the final measure would lead to a shorter average life of compliance erosion in the firms, thus leading to less accumulated problems in the industry. Similar conclusions were made in the research on the American regulatory system where the delays were identified as the main reason for the oscillatory behavior of the enforcement actions. (Martinez-Moyano et al., 2014).Although present research did not distinguish the principle and rule-based supervision, it could be argued that principle based supervision tends to have a much faster response on identified problems in the firms avoiding the legal pipeline through which every investigation has to move. However, it heavily relies on the firms to internally change their compliance behavior.

Bank's business models: We have seen that loops R1, R2 and R3 (figure 5) destabilize the system and probably represent the most important driver for the rule violations in firms. Although supervised, the business models rarely reveal any legal inconsistencies, thus, the change has to be initiated from inside of the company and supported across hierarchy levels. Many changes which aim to mitigate the problem at its core occurred after the recent financial crisis One effort which directly aims to influence the target pressure is the banking oath. "The Oath is an effort to re-assert the ethical foundation of the industry beyond regulation and compliance, by broadening expectations and discussion to include ethics, integrity, honesty, and trust."[15] However, the oath imposes a moral, but not a legal obligation on banking professionals to put clients' interests first, therefore, its effectiveness can be questioned. The author has asked all interviewees about the oath and its effectiveness, and while all of them agree it's a good effort to promote integrity within the industry, none of them thinks it will significantly impact the compliance culture within the firms. Further research is needed to assess the effectiveness of the oath in the Dutch financial industry.

Internal control effectiveness: The interviews with the bank representatives involved in the compliance process have shown the cyclical behavior of their effectiveness. As discussed before, the effectiveness of internal control depends on various factors including the support of the management structure, their influence on the business side of the bank and the quality of their compliance systems. Effective internal control would stabilize the system and prevent scandals in the firms from happening, thus, improvements in this direction are necessary (Loop B3, Figure 6). The policies should ideally come from inside the organization, but the lack of these policies within organizations and financial crisis have resulted in regulatory actions in his area. Regulators in the Netherlands are among the few countries in the world which initiated the management assessment that aims to provide a clear picture of the suitability of the management structure to responsibly govern the organization. It was mentioned earlier that internal control did not have a particular role in the decision-making process, and these interventions could investigate those patterns. By supervising the behavior and culture of the firms, signs of compliance could be identified earlier, and supervisors can react proactively to ensure the management support for the internal control.

Changing social norms: During the modeling sessions, one wishful thinking link was proposed between willingness to comply and rule compliance (loop B7). Participants agreed that the best

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[15] http://www.thebfo.org/About-us/Background

way to increase the compliance is through increasing willingness to comply so that employees do it because it is the right thing to do while at the same time not distracting them from their daily duties.
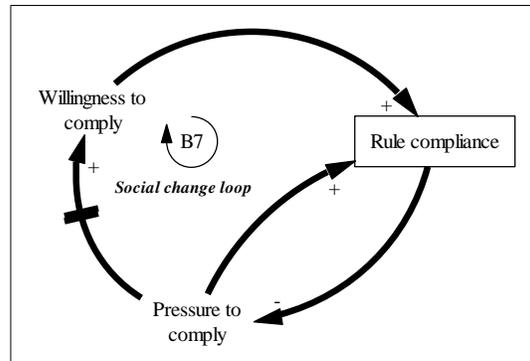

Figure 14: Changing social norms

In the new regulatory environment, with increased enforcement and supervision, it might be worthwhile to start thinking about compliance within a different dimension- a convenience. A nudging theory has recently risen to a prominence within various economic and social fields. The theory underlines that non-rational human behavior is often triggered by the right option being difficult to reach or not being so obvious. Since the assumption in the model states that more compliance means fewer sales for employees, it's an obvious conclusion that making compliance easier within the organizations would increase willingness to comply. With today's technological improvements, employees can be 'nudged' into complying with the rules. The theory can be applied to change the compliance culture within the firms and ultimately lead to reduced conflicting pressures to comply and to reach the targets. If the process of compliance is being automated and made much easier and unobtrusive, without requiring much time or brainpower from employees, the compliance would improve. This policy is mainly aimed at the industry and their effort to change the culture from the inside. However, the regulators could also adopt this approach, and think about the ways the regulations are imposed on the companies, by minimizing the negative effects of difficulty to comply (loop R4) and indirectly impact the willingness to comply.

To conclude, the chapter offered four broad policy suggestions which aim at improving the functioning of the system by regulatory and industry actions. Some of the policies are already being implemented by the regulators and bellow you may find how they relate to the model developed in this research.

Banker's oath: This policy is directly related to the variable *Focus on clients' interest* and aims at decreasing the strength of R3 loop in the model (figure 13). The main variable in the model which decreases the focus on clients' interest was defined as target pressure. This policy aims at increasing the focus on clients' interest by appealing to integrity and imposing the moral obligation to do what is the best for a client.

Supervision of behavior and culture: This policy was implemented in 2010, and aims at investigating the cultural aspects in financial firms. The policy has multiple effects across the system and impacts the different loops in the model. This research highlighted the importance of the compliance influence on the business side of the firms. In the past, compliance representatives did not have a sit at the board meetings and the banks did not have chief risk officers. The board assessments, as part of this policy, could have helped to identify those patterns if implemented earlier. The policy aims at strengthening the loops B3 and B4 (figure 13) by checking the suitability of the board, as well as to see if the internal control has its desired influence in the meetings. Interviews and self-assessments are other methods used to investigate the cultural conditions in the firms, and can be a useful tool to identify compliance erosion in the firms. The ultimate goal of this policy is loosening the strength of reinforcing loops R2 and R3 (figure 13).

Changing social norms: The policies in this direction would aim at strengthening the loop B7 (figure 14) and lead to increased compliance by making the compliance process easy and unobtrusive using nudging techniques.

Chapter 7. Conclusion

7.1 Discussion

The main objective of this study was to explore the dynamics of the regulatory system in the Dutch banking industry which could help regulators and industry participants to analyze the structural changes in the rule compliance and rule development process. The system dynamics model has been built over a period of five months and the process included thorough desk and field research.

The model describes different layers of the control systems which shape the rule compliance and development process including internal, external and market control. It investigates how routine violations described by Reason et al. (1998) caused by work pressure can lead to severe consequences for organizations. It shows how boundedly rational decision-making of the participants in the financial markets can lead to the dysfunctional outcomes. The participants across the system are subject to conflicting objectives. Industry representatives are subject to conflicting pressures to comply and produce while regulators want to regulate the industry and at the same time do not threaten economic growth and development. The model offers a plausible explanation for behavior of financial systems which seems to be shaped based on the prevalence of these pressures, causing periodic compliance erosions and scandals, leading to a strengthening of the regulations and to scandals again. Banking is an extremely complex industry to regulate, thus, the main practical contribution of this research lies in highlighting the systemic structure of the different control systems, rather than exact policy measures which could be argued to improve the system. However, some policy suggestions are outlined and argued to be beneficial for functioning of the system. In addition, it provides the endogenous picture of the regulatory system and clearly portrays the interaction between regulators and the industry. Modeling sessions with experts have shown that the excessive rules can also bring negative consequences and that they should not be neglected in policy making processes.

The main contribution to the existing literature is in providing systemic perspective of rule violation and rule development with example developed specifically for the banking industry. It complements the studies about organizational behavior and how boundedly rational decision-

making can lead to dysfunctional outcomes (for example Forrester, 1961; Oliva & Sterman, 1999) on the basis of an in-depth study of the Dutch banking industry. At present, only the efforts from Martinez-Moyano et al. (2014) exist to explain the regulatory system in the financial industry using system dynamics methodology. The present research contributes to these efforts by researching the Dutch banking system and providing additional model structure related to lobbying activities and the trust in the banking industry and their impact on decision-making process. It also shows the negative consequences of the regulatory pressure. The group model building sessions helped in eliciting and aligning mental models of participants and provided the main structure for the external control mechanism. Additionally, they contributed to the structural validation of the model based on the experts' knowledge.

The main assumption in the model lies in the conflicting pressures to produce and to comply. The assumption is backed up by the extensive literature, a study from the Sustainable Finance Lab (Van Staveren & Van Tilburg, 2015) and interviews with regulatory and industry representatives. Depending on the firm, these pressures could create a compliance culture with adherence to rule compliance or a culture with the adherence to making a profit. The latter would lead to what is described in the model as compliance erosion and more accumulated problems in the organization. When different layers of control fail to mitigate these problems in time, scandals and crisis would trigger the regulatory reaction which aims to stabilize the system, thus, creating the regulatory pendulum.

This research was partly funded by AFM as a part of the internship program. The author tried to avoid biases related to the client's needs and remained objective during the modeling project. All participants in the research gave an informed consent and were fully informed about the procedures and risks involved in the research. Due to the politically sensitive purpose of the interviews involving a review of the internal processes and rule violations, research guaranteed the confidentiality to the participants in order to protect them from potential harm. Information about the banks and bank employees will not be disclosed in the research or to any third parties involved in the research.

7.2 Limitations and further research

The main limitations of the research are related to the time constraints and available data. The Dutch banking industry is characterized by an extreme degree of complexity and given to four-five months for data collection, model building, validation, and producing a report, the research could be improved in several areas.

First of all, the limited availability of the data resulted in a qualitative model which provides a plausible explanation for the behavior of the system. Further quantification would undoubtedly provide an added value and contribute to the further validation of the model and more detailed policies. The gap in the available data and lack of empirical evidence on the relations between core variables were the main reasons for choosing to go forward with causal loop modeling. After all, like the most of the models, SD models are no exemption from the rule "garbage in-garbage out".

The trust of the public sector in banking industry could not be completely explained endogenously as a result of the system structure, and most likely it is influenced by other factors besides firm's performance and reputation, which were out of the scope of this research. The literature research provides a hypothesis that one of the important factors could be financial stability of the country, but further research is needed in this direction.

Finally, the aggregation level chosen while scoping the research was set high in order to uncover the main dynamic structure behind the regulatory pressure in the industry. However, it is possible that further classification of the existing rules and rule violations could provide a useful insight into particular consequences of the certain rule violations and compliance requirements.

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Appendix A. Interview transcripts

INTERVIEW with senior executive from regulatory body 1

Time: 15.30h- 16.30h

Place:

[…] is a senior supervisor at [….]) for 3 years. He is part of a project team which is directly involved in supervision of the biggest banks in Netherlands. Prior to this role, he worked at the bank wholesale and retail department for 24 years and held various senior positions

How is it to work as a supervisor for the …?

There is a big difference between commercial business and regulators. In the commercial world, if you have a new idea you just try it and if it does not work, that is fine, just go into another direction. They are quicker, result driven and more optimistic. As a regulator, you cannot be optimistic.

How does supervision process work in your organization? Could you explain its development through time, in the last 20 years?

I can remember the introduction of MIFID back in the nineties. There were some large scandals to call it, in equity markets. After that came two line of changes. MIFID which was focused on customer protection. Rules of conduct made sure that people in banks behaved in a way they are supposed to. That was a huge change. MIFID required a lot of documentation about the transactions and clients. Since then, we have seen a lot of growing attention for the protection of clients' side. Treating customers was a big issue, and that's how AFM started.

What is the cultural context of banks you supervise? What is desired culture?

It differs from the departments. In investment banking, it changed a lot. In retail banking, the change was noticeable. Retail banking changed a lot through a way of treating the customers. Investment banking is transaction driven professional business and the law does not apply for professional business. You could go into the banks and try to regulate, but up to today, we have no laws giving us the authority to do that. So they are not good in weighing their interest and interest of corporation clients. On the retail side, customer protection regulations assured that weight of acting in clients' interest is higher than your own interest. It also more relation is driven. You have your clients for 30 years, mortgage for example.

Rule compliance and rule development

Could you describe rule compliance development in the last 20 years? What is the trend in complying with the rules in the banks you supervised?

In the retail banking, [...] had 20.000 people in 2004, boots on the ground, and only 1 compliance officer. That says enough. When I left in 2012 there was a whole department of compliance officers. There were also some scandals in my department after the crisis. Lately, there was a change in minds of senior managers that compliance people should control the first line of business. Before that, it was only ticking the box on simple regulations, and not acting in the interest of the client. After 2004, compliance was established more as an internal issue, and it became clear that compliance was given more importance. Managers often gave the high targets to the employees in the retail banking, e.g. by saying just make 20 000e on this product, and 1 mil on the other, just do it, I don't care how. But that changed after 2004 when conduct rules got introduced. Now we are at the moment where the compliance is fully stuffed and broadly involved in decision making. Small companies feel the pressure of regulations much more than big companies, because they don't have enough capacity to deal with increasing regulations.

Employees did not really comply with rules before 2004, it was almost not there at all. But now we are at a very high level, 9-10 I would say. But there will always be employees who do not comply with rules, it is just inherent in human nature.

What do you regard as main problems in external control?

The biggest issue is still miss-selling of insurance products. Individual clients were covered by customer protection laws, but corporate clients are not. And sometimes, even corporate clients are as 'stupid' as an individual when it comes to complicated financial instruments. Non-retail banking is the biggest issue for the external control now.

What do you think about the influence of external control on the behavior of the bank employees?

What AFM and DNB don't understand is that companies are in tilt mode when we come in. They are afraid of us. We try to establish a two-way connection, where they will be in charge of their compliance with our guidance. But still, when we come in, you can see the anxiety and that they are afraid.

How does rule compliance influence bank's performance? Does it have an effect on bank's reputation?

If they are playing their role properly, they are becoming more customer oriented. That does not necessary mean it is not profitable. In the short term maybe, but it is much better in the long run. However, that is still to be proven.

What are the main reasons for not complying with internal rules?

That differs. At the beginning, there were no rules. MIFID introduced the rules, and people started complying with them. Competition between the banks is becoming furious. If the ING cuts

1000 jobs and focus on commercial projects and succeed, you will see RABO doing the same next year. So employees are more worried about losing their jobs by not reaching the targets than getting the bonus nowadays. Bonuses worked a bit probably. So employees are more worried about losing the job by not reaching the targets: Income ratio had to decline, commercial performance had to go up. Those were the 2 main policies of the big banks. At ING, we had yearly sales awards where the best performers were given trips to New York, and the worst ones were taken on the stage and exposed to everyone. That does not happen anymore. Steering has been changed from commercial only to more balanced (customer oriented).

What are the consequences of not complying with internal rules, both for bank and employees?

Noncompliance before the MIFID was not sanctioned at all. After MIFID, it became a bit stricter but you could not see anyone being prosecuted. After conduct rule introduction, you could lose your license to be a banker, and AFM becomes strict when it comes to that.

As for the banks, their reputation gets hurts by scandals. After 2009 and bailout of ABN AMRO people lost their faith in the financial sector. Normally, individual noncompliance hurts the bank reputation a little, but there are bigger drivers or bank's reputation.

How do you measure rule compliance, what indicators do you track? What time on average is needed for you to detect rule violations? Do you notice rule violations which are not detected by external regulators, and how do you deal with them?

What we do with the account teams, we get all the internal reports from compliance departments. We have our own observations. We want to see that compliance is an authentic function, and not just a help for the first line. It's not really a 'hard' thing which could be measured, but we make our own assessments.

You first have to ask for the data from the bank. That takes up to 6 weeks. Then checking with our lawyers, that takes another 6 weeks. Afterward going to the bank and trying to fix the thing for another couple of weeks. The lawsuit then takes years to finalize.

I think we detect about 50 % of the total amount of violations.

What are your perceptions of banking regulations now?

There was a huge effort to switch the banks towards customers' interest first. AFM did a great job when it comes to that. Now it's getting harder to improve it much more. I think it's wiser to look at the other parts of the industry which lack attention. Regulations are increasing and that will go on. But the effectiveness of it, I doubt. Rising regulations are increasing IT pressure, costs of these new departments. DNB let derivatives markets grow without knowing what does it mean, which is not really desirable. Regulators are sometimes not innovative, stuck into doing business old way.

There is a pressure from politics and society when it comes to regulation intensity.

Trust and financial stability

In your opinion, how does the rule compliance relate to trust in the banking industry?

There is a role of it, but it isn't seen by the society. There is essential role for compliance to have a balanced way of decision-making

Does trust in the banking system have an impact on supervision process?

That is one of the key deliverables for the ..., to increase the trust, together with the sector.

What is your opinion on banking oath and its effectiveness?

It depends on how is it being implemented by the company.

INTERVIEW with senior executive from regulatory body 1

Time: 15.40h- 16.50h

Place: ….

Personal background, compliance process and current cultural context in banks

[...] is a senior supervisor at [...] for 8 years. She is part of a project team which is directly involved in supervision of the biggest banks in Netherlands. Prior to this role, she worked at Ministry of Justice in the department for fighting money laundering and corruption.

How is it to work as a supervisor for the […] ?

Very nice. Especially with the role I have. It's a really important one in the system. We try as a team to manage the regulation pressure and not just impose the rules on the banks, but also care how they cope with the rules. We are also focused on the process, not only the content. Project organization is there to think about the content, that financial advice is appropriate and useful, but we care about the process, and how are these contents communicated to the banks. We care about the feedback from the banks.

How does supervision process work in your organization? Could you explain its development through time, in the last 20 years?

The supervision process changed very much in the last 15 years. But the crisis in 2008 was the milestone. Urgency was really different back then. The project organization was there before the crisis, and everyone was an account manager, and another part of the time they were participating in the projects. Account management was, let's not put it nicely "drinking coffee" with institutions. This became a bit absurd of course. We were talking a lot, but nothing was changing. Once we realized the size of the problem in 2008, we needed to change something,

change our approach. Account management got really small and changed their business model from ''drinking coffee'' to supervising the banks. We changed our model. Before we hardly visited institutions before and now we are there, speaking with them, supervising, trying to find the right balance. We also had an external influence, the societal pressure was strong for banks and us, so banks had to change, and we were there to guide them into the right direction. But the change is really big.

What is the cultural context of banks you supervise? What is desired culture?

It depends. The retail side of the banks is different than corporate side. The corporate side of organization does not really care about their clients. On the other side, the retail side changed a lot, I think. The intention is there to treat customers fairly. But supervisors and banks have different perspectives on what is fair. I don't think that retail side is focused on sales that much anymore like it used to be. The corporate side of the bank is providing the services for businesses and its very relevant that they become less sales focused, and more customer focused.

Rule compliance and rule development

Could you describe rule compliance development in the last 20 years? What is the trend in complying with the rules in the banks you supervised?

Eight years ago, this 'drinking coffee' model was with compliance departments. We realized that business side is doing the business, so we have to talk to them. There was a big change when we realized that. Before, internal compliance was telling the business side what is wrong, and now we can intervene and tell them ourselves. We became more involved. Now compliance is not in the middle of regulators and business, anymore, we all have a helping role now. They help business from the inside, we help them from the outside. Business complies now better than they did. Once we start an investigation, they start being compliant. Once we start looking into the subject, the compliance is low, but then it gets higher. That is the case with different types of services and products. Before the crisis, we didn't use to enforce the rules that much. Now we do. Below is the graph over time over time, which describes how bankers complied with the rule in the post. As we have a lot of investigations now, they are more cautious in complying with the rules.

Rule compliance

(Chart with y-axis from 0 to 10 and x-axis marking 2000, 2008, 2015)
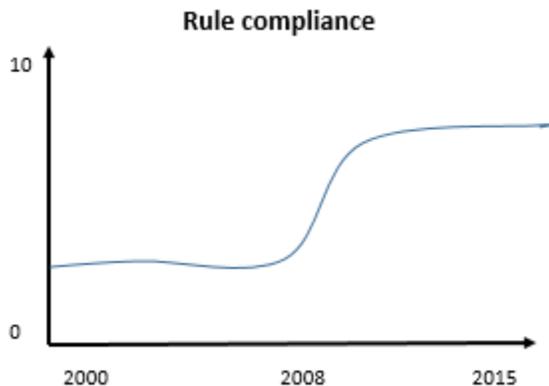
How do you prevent rule violations?

So, of course, we have fines. We have warning letters, which work as statements of non-compliance. There is no money penalty for this type of control. More of these statements, higher the chance they will get a fine in the end. And of course, we talk to them. We believe that a dialog is a helpful tool for supervision.

What do you regard as main problems in external control?

The main problem is the balance between dialog and sanction based control mechanism. Before it was dialog, then after the crisis it was a period of sanctions, and now we are back to dialog again. It's important to find the right balance. Sanctions helped a lot, in a way that banks became scared of us and followed the rules more, or, at least, got better in hiding the violations.

What do you think about the influence of external control on the behavior of the bank employees?

If we increase our enforcement they might comply, but only for a while. The challenge is to find the way to influence they long term behavior. It is not really clear what is a violation or not. There is a big gray area, where it is not easy to prove the violations.

What is desired state of internal control influence?

It should always be a balance between the fines and dialog. The ultimate goal is to make them compliant, but that will never happen. Compliance is in its core Utopia. Our goal is to make banks assess their compliance by themselves. Individual banks should be critical to their own business.

How does rule compliance influence bank's performance? Does it have an effect on bank's reputation?

Well, we keep them busy. As long as we keep them busy, they are not focused on their business. On the other side, they are not focused on compliance as well, but more on giving us the answers

to our inquiries. Somehow, we are not helping the system. The rule compliance decreases their economic performance, and we cost a lot of money.

What are the main reasons for not complying with internal rules?

That is really diverse. It depends on the banks. Some banks have good policies but have problems with implementation of the compliance processes, others don't have clear policies, but everything works well. Individual workers don't comply for various reasons: too many rules, you don't know them all, you are influenced by your boss. The boss always says discipline is important as much as being fast. In the end, they reward the once who were fast, which means they are more keen of speed then discipline. Incentives and bonuses could be the reasons as well. I think that biggest problems lie in corporate side. They are the ones who don't care about clients.

**What are the consequences of not complying with internal rules, both for bank and employees?**

Employees get fired after getting a fine from us. Some lost their positions. For the banks, there are not many consequences. They don't like the fines of course, but it doesn't have a big impact on them. They like compliments, so they might strive for the better system because of that. They don't get impacted by the loss of reputation individually. But sometimes general trust in banking system gets hurt. They want to keep the general trust high, and that's what they worry about.

How do you measure rule compliance, what indicators do you track? What time on average is needed for you to detect rule violations? Do you notice rule violations which are not detected by external regulators, and how do you deal with them?

We measure compliance by all investigations we do. We don't have any specific indicators. We measure the risk and then use professional judgment to decide where to begin the investigation. We also look into the data, but professional judgment is a big part of a decision where to look into.

I cannot really estimate average time to detect the violations. I know that we became better and faster in it. It really depends on the case, and size of the problem. Sometimes we are very late, maybe years but sometimes we are on time. I cannot really put a number on that. The criminal violations like LIBOR fraud will be always found out after a while. People hide it well. As long as we don't do an investigation, we don't know if they are compliant or not.

New products are part of the system which is important for our enforcement, and violation detection time. The products are very simple now, and we don't have a problem assessing the risks, but I think that will change in ten years. They will become more complex like they were before the crisis, and we will have a problem again, just like before the crisis.

Complexity of the new products
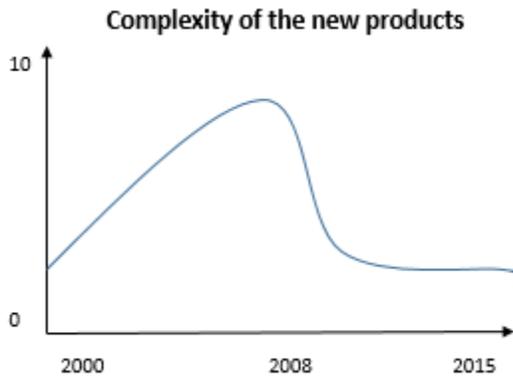
Of course, there are violations which are not detected, but I cannot say how many. We don't detect all the rule violations, but we detect a lot of important violations. Once we detect some of them, we give them the warning to improve their compliance. More violations we discover; more pressure we will put on them to comply. I have to say again, violation area is very gray, it's hard to prove if the advice is good or not.

Trust and financial Stability

In your opinion, how does the rule compliance relate to trust in the banking industry?

I don't think that customers are really into judging that aspect of the banks. They are more used to read articles and make a perception about the whole industry, rather than only one bank. When there are more violations, there will be more bad articles which will influence the trust. Is difficult to say how does it impact the trust in an exact way.

Does trust in the banking system have an impact on supervision process?

The trust is very relevant to us. Gaining the trust back is one of the biggest goals of the banks, thus, it makes it very important for us, and it becomes our goal. We have the trust in our minds always, so we make sure the banks have good products, service etc. We don't track the trust every day, but in the end, we look into it and take into account while designing processes. It questions us are we doing a good job with supervision. It's more on a higher level than just daily level.

What is your opinion on banking oath and its effectiveness?

It's never a bad thing to do it. At the moment of taking the oath, it impacts you and makes you think about why are you there. I don't really know does it have a real effect on employees' behavior. I think it's a great idea, but I am not sure if it really makes a difference. From my experience, as I took the oath as a civil servant, I find it as a special moment, and you take it with you. I don't know if it changed my behavior.It's always difficult to judge that.

Did you notice any change in compliance with the rules since implementation?

It's too early to say. It is still being implemented. I think that it will make a difference for new employees, but not for old ones. New employees will feel the pressure of profession, and what are they supposed to do, but it will not make a big impact on current employees. In the end, I think it's a charming idea.

INTERVIEW with external compliance consultant

Time: 13.00h- 14.35h

Place: ….

Personal background, compliance process and current cultural context in banks

[…] holds an MBA degree and is a law graduate. He works as an independent compliance consultant for the banks and insurance companies in Netherlands. His latest project was with ABN Amro on optimization of compliance procedures. He works as a compliance consultant for the last 9 years, and before he was a supervisor at AFM and insurance company.

How is it to work as a compliance officer for banks?

Frustration is the big part of the of the role, with the latest trend of increasing legislation, it is very hard to meet the objectives and make sure compliance process is managed properly. Moreover, senior managers and board don't always see the importance of compliance process, and it is not on the top of their minds when it comes to strategy development. This occurs in all the banks, in lesser or larger extent.

On a positive side, compliance is very important department as you have oversight of the company. You know where the risk is, and that makes the work very challenging and relevant.

How does compliance process work in your organization? Could you explain its development through time, in the last 20 years?

The compliance process always works in a simple way:

1. *Identify legislations*
2. *Analyze the impact of legislations on organizations*
3. *Control and monitor implementation*

Companies comply in general, but the compliance process is not very efficient. There are high costs related to it, thus optimization is very important for banks in order to reduce the costs.

The process didn't change through time, but what you see is that more people are involved in compliance, interests are rising. Senior managers perceive its importance and it has more weight now. At the beginning, I saw relevance in it, but I had less support from the board.

What is the cultural context of banks you consult for? What is desired culture?

Companies are starting to merge conduct and compliance department. They are employing psychologists in order to deal not only with legal issues but also ethical and behavioral issues. This is a big progress for the system, although a lot has to improve yet. The desired culture for banks would be transparency, the board should give a good example of it. It is also important to collaborate with business. It doesn't work well between the business side and compliance side, and that should be a focus of the companies. Bridging the views of a different side of the banks.

Rule compliance development

Could you describe rule compliance development in the last 20 years? What is the trend in complying with the rules in the banks you worked for?

Compliance exists in Netherlands for 15 years and it used to be very legal accountancy approach. Lately, is getting broader and conduct element is involved now. Not as much as we would like it to be, but it's a good first step. That's a very important trend in the last years. People in banks start to realize that too many rules are getting counterproductive. Too many rules, and its not working well. That's a compliance and business opinion. So, the way to go with conduct is going in good direction.

Its difficult to adhere to all these rules. There were fewer rules in the beginning, but banking didn't comply with that as well. There is no significant improvement in compliance, although the regulations are rising.

What do you regard as main problems in internal control?

One of the problems is a lack of collaboration between different internal control departments. Everyone is trying to protect their domain. The collaboration of business side and compliance is a problem, though its getting better. After all these incidents, business side increased an awareness of the importance of compliance process. The business guys always work independently, in their own tunnels, and its hard sometimes to deal with them. Explaining the importance of compliance is still a major issue.

What is desired state of internal control influence?

There is no influence, not at all. The compliance reports are quite negative. If the business side reads the report, they don't recognize the findings. There Is a big gap between auditing and business side. Compliance department does not have an influence on employee's behavior. This

is because reports don't mention names, they are quite global. There are no big influences of audits. I don't see many consequences of it.

The desired state would be the existence of the influence. I have seen many compliance audits, but conduct audits are not that regular.

How does rule compliance influence bank's performance? Does it have an effect on bank's reputation?

Its quite easy. Many banks see compliance as a huge cost. They know its important but it costs a lot of money. If they comply they prevent big incidents. It doesn't help to get more profit in short term. But in the long term, you get more confidence from suppliers, clients which increase the profit. Many senior managers have short term targets, and that is a big problem in Netherlands. The pressure of short-term targets influences the compliance pushes them away from it. Its getting better but not enough. If you comply with the rules, no incidents and no reputation damage. If you comply, its not evident in short to attract more clients, but in long term it helps. Its hard to point out the importance of compliance with the rules and its benefits. Even senior managers are not doing much about it.

What are the main reasons for not complying with internal rules?

Lack of integrity, sometimes you have a dilemma and you have to choose between two sides, people choose one with higher benefits for them. Its not that rules are not clear or anything, people are aware that they are violating the rules.

What are the consequences of not complying with internal rules, both for bank and employees?

Incidents for the banks, being in the news papers. Investigations from external regulators such as AFM or DNB cost a lot of money, time and effort for the banks. Banks are afraid of external regulators, that they might be punished if they don't comply with rules. Costs the reputation as well.

For personal consequences are different. For fraud its firing. But in most of the time, it's a gray area of violations, and the consequences are not that serious. They sometimes get a warning, but there is no real punishment in any way.

How do you measure rule compliance, what indicators do you track? What time on average is needed for you to detect rule violations? Do you notice rule violations which are not detected by external regulators, and how do you deal with them?

You have risk assessment methodology. Banks have a certain level of compliance oversight using this methodology. A number of incidents is another way you measure. But incidents are vague, and it's hard to define what is incidents. Most banks have policies what kind of incidents might

occur in the bank. The methodology is on the department level, as well as on global level. So, its going from lower levels to higher. They measure how they comply with compliance themes. Compliance reports are made quarterly, and they go to the board as a measurement of compliance. But the input of reports come from the business side. They self-asses rule compliance, and the results go to compliance officers and then the board. Compliance department often finds big gaps between the business self-assessment and the real situation. Compliance department is sharper and detects more rule violations. The whole compliance idea is that business side is responsible for compliance, so they can self-regulate. The time on average needed to detect rule violation is very dependent on the violation. Sometimes its obvious after 2 days when someone broke the rules. But when the products are so complex, compliance officers cannot defend their arguments against the business side. They always claim to know more about the complex products. Nobody challenges these guys so that's when external regulators detect the rule violations because they have bigger capacity. The one example is LIBOR fraud. That's additional value of external regulator.

External regulators have the capacity to investigate only part of misunderstanding and issues. They detect only the top the external regulators can see. When it gets into the papers, external regulators can come and investigate. Many things are under the radar for external regulators.

Too many rules are becoming the problem when it comes to tracking the violations. There is too many of them. We make databases of new legislation, and ask the business to evaluate their process against it. But again, there are too many legislations.
When internal control detects the violation they act according to the size of violation.

How does internal control react to increasing /decreasing rule violation trend in the banks?

Compliance departments can influence the board to increase the capacity when the violations are increasing. They can get more people, more senior resources, but also to help with the compliance tasks. The board can help a lot with bringing awareness of the importance of complying with the rules. This happens every day. There are just too many regulations to meet, Netherlands, Europe . There is a lack of oversight of the whole situation. That's a big problem. Boards are willing to deal with violations with increasing capacity of compliance departments. On the other side, when everything is fine, capacity is reduced and sometimes not enough to cope with all the procedures.

External regulations and interaction internal-external control

What are your perceptions of regulation in the banking industry? Do you perceive them as external hand, on which you don't have influence?

Too many regulations, as I mentioned many times. Banks don't have an influence on regulators. Its quite difficult to bring back the amount of legislation once its there, because it politically driven.

Could you describe the regulatory trend over the last 20 years?

Increasing over the time. The number of legislations are increasing. More rules don't work. They should pay attention to cultural perspective.

How does the regulation relate to the behavior of banks? How does it relate to internal control? What are the consequences or regulatory pressure on banks?

Its mostly the cost. Also, there is a fear of regulators. If you don't comply with all the rules, it can damage your career.

Trust and financial Stability

In your opinion, how does the rule compliance relate to trust in the banking industry?

We already mentioned that before. In the short term, the results are not visible, but in the long term, it increases confidence in banks.

Does trust in the banking system have an impact on internal compliance process?

We look at this indicator. It is something that can help you to pressure the board for more capacity. You have to act on that.

What is your opinion on banking oath and its effectiveness? Did you notice any change in compliance with the rules since implementation?

It helps. I was also subject to banking oath. But the most important things are to keep it alive. Once you take the oath it helps, but after ten days you forget it. But I'm quite positive about it.

I didn't notice any change in compliance since implementation. It would surprise me if compliance department would see the change in compliance in the future. But its because the number of rules is increasing and you can always find something they comply with.

INTERVIEW with compliance officer from the bank 1

Time: 10.00h- 11.00 h

Place:

Personal background, compliance process and current cultural context in banks

[...] is a compliance officer and supervisory relations manager at [...]. He is a law & economics graduate and has more than 15 years of supervisory experience in various organizations. He works for [....] since 2011.

How is it to work as a compliance officer for banks?

I like it. It's always interesting, something is always going on. It's good to work on improving the other side and keep the things under the control.

How does compliance process work in your organization? Could you explain its development through time, in the last 20 years?

I can say something about the last 5 years. Compliance is a relatively young field in the banking industry. The process evolved in [....] in the last 5 years. It changed from only purely monitoring and advice functions to more compliance risk management function. Now compliance risk assessment is a huge part of the work. We do risk assessments to identify which risk controls we have to emphasize towards the business side. These assessments give us insights into the size of risk. Before we dealt more with perceived risk, without proper quantitative analysis, and now we have rigorous analysis about all types of risks. Compliance cycle includes risk assessment, policy analysis, training of employees and giving advice to the business side.

Rule compliance development

Could you describe rule compliance development in the last 20 years? What is the trend in complying with the rules in the banks you worked for?

The number of compliance requirements became bigger, so there are more rules to comply with and we need this more rigorous approach. I can't say exactly what is the trend. There are different types of rules to comply with. One type is how employees behave, not trading with insider knowledge and similar. Another one is the quality of advice, for example, mortgage services. Compliance level as a whole is improving in the company in the last five years. Dashboard program implemented by AFM is one indicator we track for the quality of our services, and we saw improvements from 2010 onwards.

We have monitoring programs on different themes of compliance. We control retail service points around Netherlands, and we check quarterly how are they complying with the rules. We also take all these reports and calculate compliance on an aggregate level. When it comes to

incidents, we track the level of breaches in the [...], and I think these breaches decreased in the last 5 years. But it's not really useful to compare the numbers without taking into consideration changing the environment.

What do you regard as main problems in internal control?

For [...], different strategic goals are hard to reach and align with compliance process. E.g we want to cut the costs, increase our focus on clients and with fewer employees, it's harder to increase the focus on clients. It's hard to combine those goals, but we have to do it. And we have to do it in compliance with rules and regulations.

What do you think about the influence of internal control on the behavior of the bank employees?

I think there is a pretty good cooperation between compliance department and business side. There is some tension on certain topics, but in general, cooperation is on a high level. We have pretty good risk management board structure, among senior level managers. We jointly decide with business side how to go forward.

How does rule compliance influence bank's performance? Does it have an effect on bank's reputation?

It shouldn't negatively influence the performance. But compliance is perceived as the reason for programs to reassess old client files. To deal with the legacy of old behavior. To deal with SME derivative contracts it costs us millions and millions. In that sense, to deal with past deals, its costly process. On the other side, if we have proper systems and procedures in place, compliance shouldn't influence a number of clients served per employee. [...] is constantly working on updating and improving these systems. We do want integrity on employee side and we want to serve clients in their best interest. Rule violations are hurting bank's reputation, and we are trying to prevent rule violations and loss of reputation. The loss of reputation is very costly.

What are the main reasons for not complying with internal rules?

The reasons are ignorance, employees don't know enough about the rules, sometimes, difficulty in complying is essential. It's just too much of a process to comply with the right rules. Improper education, they are not up to the job can also be one of the reasons.

What are the consequences of not complying with internal rules, both for bank and employees?

Some employees were fired because they didn't deliver the quality which was needed. If it's a light breach of regulations, you get a warning, but if it's more serious you can lose the job.

How do you measure rule compliance, what indicators do you track? What time on average is needed for you to detect rule violations? Do you notice rule violations which are not detected by external regulators, and how do you deal with them?

We have monitoring programs in place. For mortgage advice, there is a monitoring audit every quarter. After that, we can detect who complied and not. If they didn't comply, local management should do something about that. If we notice big anomalies in many local offices, then we might take a look at central policies in place and whether they are good or not.

External regulations and interaction internal-external control

What are your perceptions of regulation in the banking industry? Do you perceive them as external hand, on which you don't have influence?

The regulation level is very high at this level. We get constant pressure to check our past transactions. I think it is important to check if we did a good job or not and that helps us to improve on a bigger scale. But it's very costly, a lot of work and not very motivating. Pressure is high from DNB on integrity part. Prudential requirements are mostly coming from ECB and they are huge, but maybe it's necessary. I understand the things ECB asks from the banks. Make sure you have your information in place to make right decisions. All banks should want to have that. But it's going really fast. Sometimes they do onsite investigations, come here for 2 months and, you know this is very intense. Time frames are also very short. On one occasion, we received a request to send hundreds of documents within a week. This puts a lot of pressure on all departments in the banks.

We have good cooperation with regulators in Netherlands. We have an ongoing contact with AFM and DNB, but not that much with ECB. It's an open constructive relationship.

Could you describe the regulatory trend over the last 20 years?

There are two things to take into account: number of rules and intensity of those. AFM is a good example how to implement new techniques of improving compliance levels, e.g dashboard. This provides additional motivation for the banks to improve their services and products.

What do you think when the regulations become counterproductive?

Sometimes, if you have to invest a lot of work and gain small improvements, then I think it is counterproductive.

Trust and financial Stability

In your opinion, how does the rule compliance relate to trust in the banking industry?

There is a great influence of rule compliance on trust in the banking industry. LIBOR case is a clear example how rule violations can affect the reputation of the […].

Does trust in the banking system have an impact on internal compliance process?

We as a compliance department have an important goal of improving the trust in […], so it's really relevant for our procedures.

What is your opinion on banking oath and its effectiveness? Did you notice any change in compliance with the rules since implementation?

I think that we at [….] implemented the banking oath in a very good way. We had a whole week to discuss the oath, what does it mean to the bank, and that is a positive thing. Signing a paper doesn't change the behavior of the 50 000 people in the bank, but it's a good way forward. Reminding people of the oath could also help with its effectiveness. I think it could reduce the number of employee breaches in the future.

INTERVIEW with risk& compliance officer from the bank 3

Time: 10.00h- 11.00 h

Place: ….

Personal background, compliance process and current cultural context in banks

[…] is a compliance officer at [….] working on risk and surveillance. He is an accountant and has more than 20 years of supervisory experience in various organizations. He works for […] since 2016

How is it to work as a compliance officer for banks?

It's really different from my previous job at the exchange. At the exchange, they used to cut personnel in the last years, so it wasn't pleasant to work thinking you might be the next one. I really like it here at the bank, its perfect job for me.

How does compliance process work in your organization? Could you explain its development through time, in the last 20 years?

I can only say about the exchange. At the beginning, we were 5 people covering all the trade activities for 3 or 4 countries. We wrote policies about corruption, monitoring, insider dealing etc. And 5 people wasn't enough to cover all these topics.

Rule compliance development

Could you describe rule compliance development in the last 20 years? What is the trend in complying with the rules in the banks you worked for?

When it comes how much employees complied with the rules, there has been a change over time. At the exchange, we had our own internal rules. In the beginning, it was not accepted to look behind the shoulder of our own people, but we saw regular breaches of our own rules. With time, it became a regular mindset, that they had to ask for a clearance and take compliance seriously. That only started after 2000. Before that compliance was just some strange process, people knew it, but wouldn't accept it. 'Something from those regulators', they said, 'never mind'. We had an exchange fraud scandals in the beginning 2000, police came to arrest some traders on the floor, and that was beginning of prudent supervision of AFM. People started complying after that when they realized they could go to jail. After that, rule compliance increased, but the culture within

the company was not appropriate to stimulate rule compliance. Bonuses were only reserved for top performers, and the rest had feared they will lose the job. That decreased compliance from employees in order to secure the position within the company.

The other thing was that bosses broke the rules often, and then employees were thinking: why wouldn't I do it, if my boss is doing it. That was the tone from the top. That always comes to the pressure to make a profit no matter what, in order to secure bonuses and keep the job.

What do you regard as main problems in internal control?

I think the big problem for compliance is that compliance was not seen as a driver for profit, but more as a burden for profit. The compliance people were always left out from the decision meeting. They always thought: 'these guys will, of course, say that what we are doing is not right, and try to talk us out of it. We have to go on and make a profit'. The other thing is that compliance officers are not specialists in the field. So, you have to oversee the field, but you don't actually know anything about it. That was my experience from the exchange. So, at [...], they are trying to recruit business people for compliance. In the end, it's only about helping employees to make a profit in accordance with rules.

How does rule compliance influence bank's performance? Does it have an effect on bank's reputation?

Non-compliance, if not detected, can have various impacts on the organization. First, you have an exposure to the media ([...] is today in the media cause of Panama papers). Another thing is huge fine which can be imposed on the company. So, it's your image and your profit which is at risk.

What are the main reasons for not complying with internal rules?

I think that main reason for traders is status. They measure each other on profits they make. The primary driver might not be the money, but more the status they gain by being the best. In general, the main driver is feeling of being undervalued. If only top performers are getting the bonuses, that makes you prone to do whatever it takes to earn more. I think that situation resembles the general picture of a financial industry in Netherlands in past.

What are the consequences of not complying with internal rules, both for bank and employees?

At the beginning, lack of laws provided an easy way out for misconduct. After the introduction of MIFID, we started with warnings to employees and if they wouldn't change we would report it to CEO. People were also fired for repeated breaches of rules.

How do you measure rule compliance, what indicators do you track? What time on average is needed for you to detect rule violations? Do you notice rule violations which are not detected by external regulators, and how do you deal with them?

We have risk control framework. Different compliance teams are in charge of different departments. The business side now has to provide to compliance team what they have done each

quarter. Compliance department tests the reports and provides feedback to the employees according to what they did.

When you see the violations, you try to deal with them internally, if you are not obliged to report to AFM. At the […], the head of compliance has a very strong voice on the board, so everyone takes compliance more seriously. There is a big difference with my experience with the exchange.

External regulations and interaction internal-external control

What are your perceptions of regulation in the banking industry? Do you perceive them as external hand, on which you don't have influence?

The regulations are too high at the moment. Some call it' tsunami of regulations' . I see it as a reaction to the crisis. It does not necessarily mean that regulations were not enough, only that they were not followed properly. But governments follow more regulations policy as a reaction to the crisis.

The reality is that more regulations bring more opportunities for loopholes. Traders, lawyers, employees all look for the loopholes in order to maximize the profit.

Could you describe the regulatory trend over the last 20 years?

It's increasing rapidly.

What do you think when the regulations become counterproductive?

Sometimes, when they ask too much from the clients of the banks. The example is the money source regulation. We have to ask our clients where does their money come from, even if it was 40 years ago. And people don't remember the details.

Trust and financial Stability

In your opinion, how does the rule compliance relate to trust in the banking industry?

I think that compliance is the key to regaining the trust.

Does trust in the banking system have an impact on internal compliance process?

I think so, yes. On the opposite, if the trust is too high, the bank will see at as a good signal to cut the compliance workforce. In the crisis, they see a need for compliance, but in good times, they look to cut the unnecessary costs.

What is your opinion on banking oath and its effectiveness? Did you notice any change in compliance with the rules since implementation?

Well, I think it will not have any effect on employees. From my experience, it did not have any impact on me. I was in the line of 6 people, signed the document and left.

INTERVIEW with head of commercial banking compliance division at bank 2

Time: 15.00h- 16.00 h

Place:

Personal background, compliance process and current cultural context in banks

[…] *is the Head of Commercial Banking Compliance division at [..]. He has been working with them since 1998. He also worked with other financial institutions.*

How does compliance process work in your organization? Could you explain its development through time, in the last 20 years?

When I started at [..] the compliance was part of the legal department and it was viewed as a legal function. Now it much more viewed as a part of risk management, so it's also about managing all kinds of systems. All the policies are made at the Bank Compliance Risk Management group level and then distributed to the all the different compliance subdivisions. In 1998, we had 2-3 compliance officers for the entire bank. Most of the compliance was focused on insider trading, which ensured that employees did not use inside information for personal benefits. If you look at the compliance process now, we have hundreds of people. The scope of compliance became much broader. We make sure that every business unit addressed all the topics: personal related topics, client-related, organization-related, industry related.

What is the cultural context in the bank you work for in the last 20 years?

When it comes to compliance: back when I started, people used inside information for personal benefit and it was normal. Now we make sure that people cannot do that. Now it is a criminal offense. Probably it was still back then but no one cared. We care a lot that people are aware of all the regulations as much as possible. Now we spend a lot of time on educating employees through e-learning, presentations etc.

Could you describe rule compliance development in the last 20 years? What is the trend in complying with the rules in the banks you worked for?

If we break it down to consumer protection, we make sure that adequate due diligence is done for every client. There has been a big improvement in that area and we are still improving. However, it is hard to prevent that there will be no money laundering or similar, cause some clients will always try to find the way to avoid our procedures.

When it comes to employees, we have insider trading issues. We have employees who come into contact with inside information, and we have systems in place which prevent them from using it for personal benefits. We check for a trading account within the bank, or system wise if you entered certain transaction which might be suspicious. Is there a way to avoid these checks? Sure, they can open accounts in other countries, so it all comes down to moral standards of the employees.

Organization wise, we have to make sure that dealing rooms do not engage in using information from corporate clients they have contact with, thus don't try to impact the stock prices besides what is publicly available.

When it comes to the industry we have to make sure that we do business by industry standards.

What do you regard as main problems in internal control?

In the banks, we have the rules of the rules of the rules, it is becoming really complicated and implementation of compliance processes is becoming challenging. There is a maybe a bit mismatch of what obligation is and just working by a checklist.

How does rule compliance influence bank's performance?

We try to make sure that employees understand what the rules really mean and when should they ask for a professional advice from us. It's important to explain to employees that these rules mean we don't want criminals as clients, we don't want money laundering etc. Business is responsible for everything, from making money to making sure they comply with the rules. Compliance has the challenge and advisory role on their operations. For example, if the selling the loans is flagged as a high-risk business, compliance monitors, and challenges whether organization does what everyone agreed they should do. Compliance will monitor less frequently the areas where rule breaches are rare and more often when the breaches often pop up.

What are the main reasons for not complying with internal rules?

There are many reasons for that. There will be some people who do it for personal benefit. Others are just not totally aware of all the rules. My perception would be that the reasons are not connected with a willingness to breach the rules.

What are the consequences of not complying with internal rules, both for bank and employees?

Once you start as an employee, you have a contract with the bank where the employer can assess your operations and decide whether you are complying with the rules or not. But we have to make sure that employees are fairly assessed by engaging different parties in the assessment process. They can lose the jobs, get a fine or nothing (if the breach is small). It's really important for us to know that each employee has been told about specific rules, so it shouldn't be that they did not know about it. For the banks, reputation is the big cost. 'Cuba scandal' has cost ING more than $1 billion for legal costs and post-crisis management.

What are your perceptions of regulation in the banking industry?

They are detailed and complicated. There is a lot more coming. At the moment, the rules should be principle-based and there should be many ways to come to a certain outcome. And the outcome should be that people in our organization are complying with the rules. What do we see is that there is a mismatch in the way of getting to the goal. People in the banks often ask us to tell them the exact steps in order to ensure they are compliant with something. So the wish to make it more principle-based has its disadvantages.

INTERVIEW with manager-private lending in bank 3

Time: 10.00h- 11.00 h

Place:

Personal background, compliance process and current cultural context in banks

[…] is responsible for product management & marketing for mortgages and consumer finance in the […] and has extensive work experience as a compliance officer and policy maker in Ministry of Finance. He works at […] since 2006.

What is the cultural context in the bank you work for in the last 20 years?

When I worked in the Ministry of Finance, there were many lobbyists coming to me in order to make passing the legislations as difficult as possible. At that time, they only had negative feedbacks on proposed legislation, which was counterproductive. It wasn't constructive to criticize one side all the time. So at certain moments, we stopped listening. I still don't think they are effective as a lobbyist, but they are trying to engage in the dialog more often now.

Inside the bank, I got really surprised by the compliance standards. Employees at [..] didn't just want to comply with minimum requirements but also wanted to do something more. Internal motivation to do good was very high inside the bank. Unfortunately, some recent scandals such as Libor scandal and mortgage misselling problem have hurt the whole population of the bank.

Intrinsically, there is a will to do the right things for the clients. But there is also a pressure on wanting to do the right thing such as slow economic development, competition in the market, the supervision standards on capital requirements are higher, so we have to make more profit in order to stay in business. There is a strong pressure from the supervisory side to be prudential and to make more profit. From DNB and ECB side we have investigations that pressure us to make more profit. From AFM side, there is a critical response to making the profits (are they too high). In the end, we have to make a profit to fulfill the Basel requirements.

Could you describe rule compliance development in the last 20 years? What is the trend in complying with the rules in the banks you worked for?

That's very hard question. The legislations were open in 2006 so that businesses could find their way to operate by the rules. After, AFM started to complement those rules with policy statements which were based on best practices. Suddenly there was a gap because not everyone has done it the way they wanted it. After 2011, there was a high pressure from AFM to do the things they wanted. They became critical on the very detailed level. Although they claim the rules are still principle based, they act as they were rule based. That is how we experience it.

What do you regard as main problems in internal control?

The main problem is to get the right balance in putting the clients interest first. That comes from two things which are a bit exclusive, they are not combined very well. The first thing is to have to think with the right mind: what I think is the best for the client and the other is to adhere to the rules. If the organization is focused on being safe in the eyes of supervisors, the pressure is on adherence to the rules. You have to make sure you comply. We discovered that people started doing the wrong things by doing that. Their files were perfect. By the wrong thing I mean they were not giving the credit to clients.' If there is a difficulty to ticking all the compliance requirements, I stop thinking as an advisor because otherwise, I would get into trouble with my compliance or the audit department.' Basically, the pressure to comply with all the rules was that high that people stopped thinking on their own. Now we are starting to program it a bit differently: forget about the rules, and think what is good for the client. You still have to be sensible of course, but don't have to be afraid. This is how we try to reduce this external pressure. The difficulty is to get the right balance between them. On the other side, at [...], we don't feel commercial pressure, but I believe that this pressure was much stronger in the past.

What do you think about the influence of internal control on the behavior of the bank employees?

I think it changed because we got the penalty from AFM. We also got something similar from DNB. It was an external pressure which created the power of compliance departments and especially for audit. You could lose the job if you don't pass on audit control. That started after the pressure of AFM and DNB. Before that it was much easier, so the influence of internal control increased dramatically between 2010-2015. Now it seems it's a bit balanced. We have to find the right balance because the way to be fully compliant is to not sell anything.

What are the main reasons for not complying with internal rules?

I can tell something about the mortgage business. There is a discrepancy on what we think is the right risk appetite, and what the rules say. Our philosophy is based on our experience and how much we encounter the problems and the reasons for the problems to happen. So the discrepancy of what we thought is sensible and what was allowed by the rules was the main reason for non-compliance in the mortgage sector.

On the advice side, employees were not used to keeping track of all they said and putting it on paper, so when regulators started lifting these files they saw insufficient forms of advice, for a

simple reason that they expected too much. Some people are good to give an advice, but to write it down on paper, they find it hard.

What are the consequences of not complying with internal rules, both for the bank and employees?

We have seen a lot of people losing their jobs because their compliance was not in order. That was the culture of fear to have necessary compliance level. On the bank side, the reputational costs are possible but are hard to measure. We have declining reputation since 2011, but it's hard to say if we lose clients because of that or because more innovation in the market, higher competition etc. I don't know.

How does a regulatory pressure influence the bank?

Well, the pressure mechanism works in a way that they write the letter saying you have to get these things in order, and btw you get a fine. If you don't get it in order the people from the board would have to leave. So that creates a lot of pressure within the organization: ok, so we have to make those deadlines and we have to change our processes in order to fulfill all the requirements. It was different in the past. I think that this new style of supervision creates a lot more pressure.

What are your perceptions of regulation in the banking industry?

It's diverse, so it's hard to not separate them. I think that most of the rules are common sense. On the conduct side, some rules just don't make sense for us, but we are adjusting to them. On the prudential side, there are some regulations which we don't really understand. We have to calculate the risks in a way which are completely different than the actual risks. We have to set a lot of money aside for the risks we know we cannot encounter. If the sensible risk coverage is calculated to be $90million, we have to set aside $ 500 million. ECB does not take cultural facts into account. They make the policies based on EU average loss data which are much higher that the Dutch loss data. Those type rules really don't make sense to us.

External regulators respond to individual incidents which are covered by media. Parliament then responds on that and Ministry of Finance has to give their opinion. Sometimes the response is to talk to the banks, and sometimes the new legislation. They main KPI is political and they have to make political points even if they are not in best societal interest.

What do you think about the impact of regulations on the behavior of the banks?

The internal control in the banks became much more influential in the organizations. Much more than they used to be. That changes the way the bank operates. It became more bureaucratic. It's impossible to be quick. So the biggest change is that you have to take their opinions into account.

What are the consequences of the regulatory pressure on the banks?

People changed their behavior. When you have 15-20 thousand employees in the country, it is really a challenge to get to all of them. The regulatory pressure helped to change their behavior.

Appendix B. Group model building report

Group Model Building Project on Mapping the External Regulatory System in Banking Industry

Model Purpose

The goal of our modeling sessions is to build a comprehensive structure of the complex external regulatory system which could help AFM and DNB to analyze the impact of their actions on organizational behavior. This would be part of the model which I am developing for my master thesis where I will focus on each control system. As financial markets have different layers of control system such as internal, external, market control it is very important to make a systemic overview of the controlling systems, and their interactions with industry.

Review of First Session

We began with a short explanation of my thesis project and a brief explanation of system dynamics concepts and symbols. Afterward, we began with the group model building process. Using the group's knowledge and expertise we started building from the simple preliminary model that the facilitator presented. There were no major comments on conceptual model structure, although there was a discussion on the way the variables are connected in the model. It was agreed that we continue with the current model and make changes as the concept of the System Dynamics and system structure become clearer. Thus, we continued to elicit important variables for structuring external control system. We discussed variables and relationships between variables that are important for each of the flows of compliance level. My aim was to begin mapping the system to make complex relationships explicit and to begin to identify key feedback loops that will be central to later policy analysis. As it is not an easy task, and we had to deal with short delay, we finished the first session with the identification of two feedback loops.

If you take a look at the model, you can notice reinforcing loops which are governed by external regulators and have negative consequences on the system. This critical point of view is very important and reveals negative consequences of policies in action. However, my opinion is that there has to be a balancing loop somewhere in the system where external regulations maintain the

stability of the system. There is one thought to think about for the next session. The work we have done is very important and is a large step towards identifying more feedback loops and better understanding the system.

I found the first session to be very productive. I hope that everyone enjoyed it and that we will meet again on 19th to further develop the model. The meeting will be at DNB this time, and you will be informed in time about the exact location.

Model After Session 1

I changed certain names of the variables to give a clearer understanding of the model structure. All the variables and relationships are still in the model.
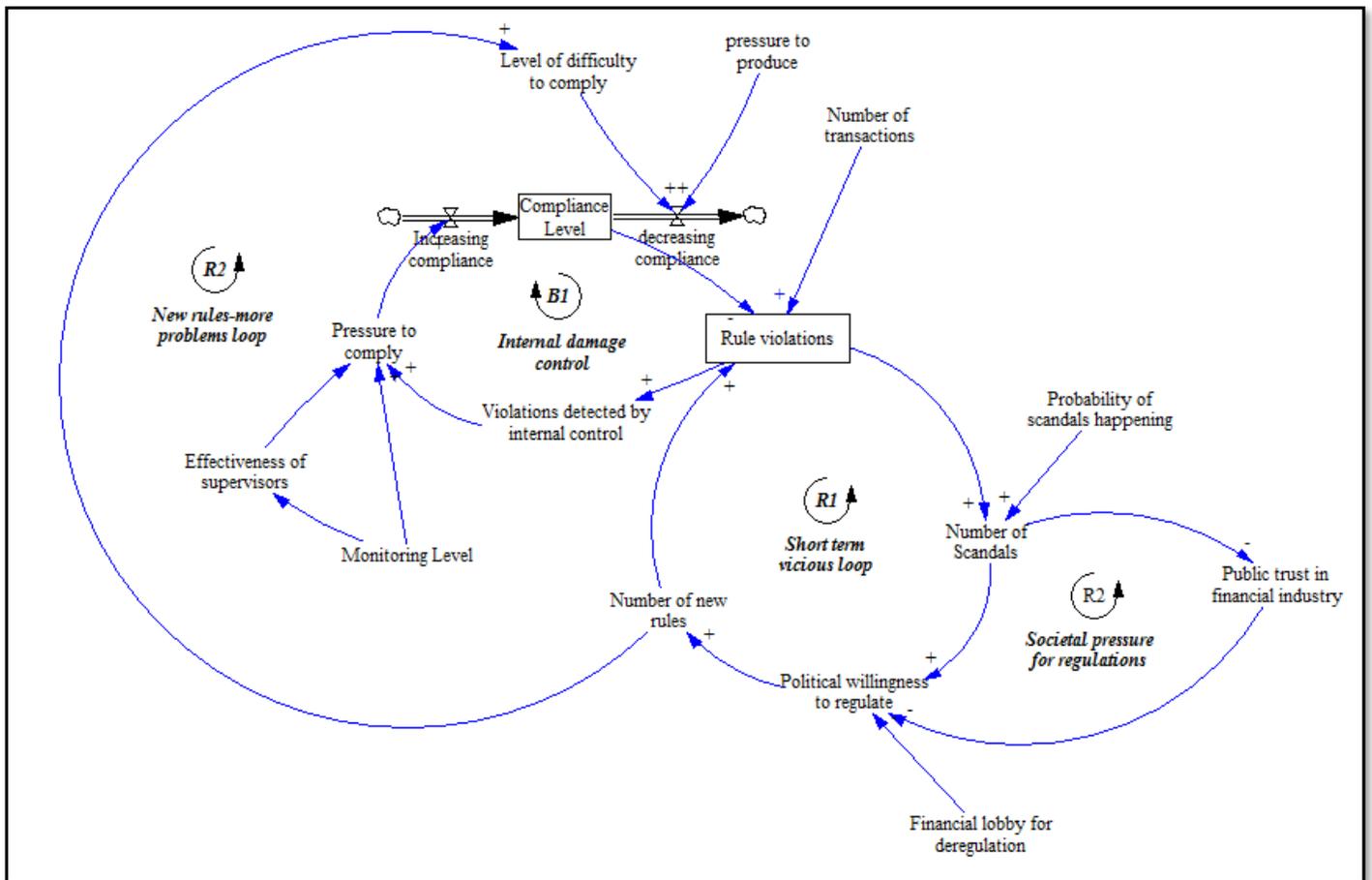

Figure 15: The model after first GMB session

Severity of intervention	Compliance culture
Fraction of detected rule violations	New area of interest
Publication of fines	Limited Resources
Impact on clients interest	Reputation
Supervisory strategy	Enforcement standard
	Repeated rule violations

The variables which were not discussed in the last session will be given priority in the next one, and we will start by expanding the system with proposed variables and by adding new variables important for the system functioning.

Review of the second session

We began the session with a short recap of what we did last time and agenda for the second session. The purpose of the second session was to finalize conceptual model and portray all relevant variables which are important for managing compliance level and financial stability by external supervisors. After fruitful discussion on some topics, such as supervisory effectiveness and severity of intervention, we managed to close the loops and map out the external control system.

The issue of supervisory effectiveness was brought up as a non-existing variable, as it is not possible to establish the effectiveness of supervisory measures. During the discussion facilitator stepped out of his role and asked for clarification of reference mode and explanation why the companies breach fewer rules after their interventions?
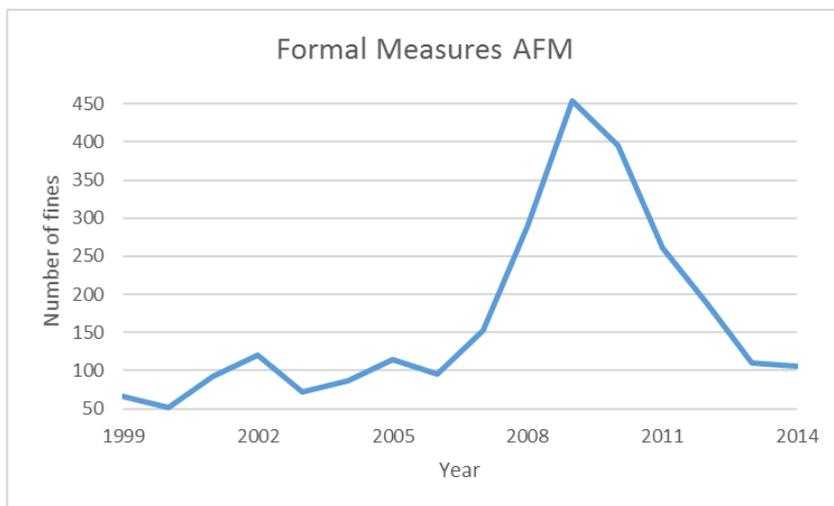
Figure 16: Number of fines written by AFM. Source:AFM

None of the present participants confirmed that system stabilized because of their actions. The result of the discussion was that real effectiveness cannot be measured, but rather the perceived effectiveness. It was explained that supervisors might think that was because of their actions, but that is just their perception, and not necessarily the real state of the system.

In modeling, and system dynamics is not an exception, we start from an assumption that not all the variables from the real system can be captured and replicated in the model. In the end, the model is just a simplification of reality, but even simplified, our final model looks like a complex web of interactions between different players in the market, namely supervisors and bankers.

One of the goals of the modeling process was to identify negative consequences of supervisory actions, and we managed to find some which could be relevant in explaining what can go wrong from the actions of external regulators. It seemed that everyone agreed on negative consequences of regulatory policies and that detailed investigation is needed in order to pass and implement new laws and rules. The current model does not differentiate between different types of rules and their purpose and effectiveness, but rather portrays the main mechanism that takes all the rules and laws to be equal. Of course, necessary adjustments would have to be done, based on the rule and supervisory strategy chosen in order to represent the real impacts of specific rules. However, the model represents the views of employees from AFM and DNB and can be used to

identify leverage points for intervention and show the complete picture of the external control system. The balancing loops identified and discussed in the sessions are stabilizing the system and making sure the compliance level remains (adjusts) to desired levels.

B1-Internal damage loop captures the self-regulatory mechanism, where internal control of the banks manages compliance level and regulates financial stability. However, many times in history, this has been proven to be insufficient.

B2-Increasing norms loop is reactive policy from supervisors to raise the norms after the scandals have disturbed the banking industry. This reaction has the goal to increase compliance level and stabilize the system as fast as possible. This is one of the quickest responses to the crisis.

B3-External damage control loop represents actions taken in order to increase the effectiveness of the supervisory actions. By increasing monitoring level supervisors tend to put pressure on the institutions to improve their compliance.

B4-Violation prevention loop captures a mechanism by which government passes the new laws in order to cover the loopholes identified in the current ones, and to prevent banks from using them again. Supervisors are in charge of implementing these new rules by increasing the pressure to comply on the banks.

B5-Financial lobby loop describes external impacts on the political willingness to regulate the industry, and it often cannot be influenced by external supervisors. It puts pressure on governments to deregulate the industry, or at least to weaken up the new regulatory trends.

B6- Limited resource loop is balancing loop which influences supervisory activities by adjusting their strategies according to the available resources, such as money, technology and workforce. The government adjusts the budget allocated for supervisory activities according to the current state of the system.

B7-Social change loop was discussed at the end of the session, and it describes the change of trends in society, which would make complying with the rules inherent, and increase the level of compliance after a substantial delay. Therefore, the delay mark. The example which was given in the session and relates to this loop is the change in smoking trends.

The reinforcing loops identified in the system are representing negative consequences of supervisory actions and disturbing the system by eroding compliance level in the banks.

R1-Short-term vicious loop represents the simple unavoidable arithmetic law of physics. More rules will mean more opportunities for bankers to make mistakes, or more opportunities to find new loopholes in the system. However, the governments are well aware of these externalities and try to minimize them as much as possible.

R2- New rules -more problems loop takes into account compliance process difficulties, and describes the mechanism that new rules will further erode compliance level if the company does not have proper policies in place to cope with this complexity of new regulations.

R3-Compliance complexity loop enhances the complexity to comply with increased supervisory norms, therefore making it even harder for bankers to increase compliance level.

R4 – Societal pressure for regulations loop is a short term reinforcing loop which would increase the number of rules and enhance rule violations, but long term balancing loop which enhances pressure to comply and increases compliance level.

Identified loops always change their dominance in the system, and based on which loop is more dominant will depend whether impacts of supervisory actions improve the system or further degrade compliance. In other words, if reinforcing loops are dominating in the system, supervisory actions will only worsen the system, making it more complex and harder to comply. If balancing loops are dominant, it will put the pressure to comply on bankers and increase their compliance level, in order to avoid undesired consequences such as fines or another type of punishments from supervisors.

We did not have a chance to discuss the policies and identify leverage points through which supervisors have the biggest impact on the system, but that will be part of my final research, when suggestions will be presented based on the complete model including other control systems, such as market control and private litigation.

To conclude, the final model can be a useful tool to analyze the dynamics in the regulatory system in Dutch banking industry. As we heard in the sessions, from your own experiences, the dominance of the loops is changing throughout the time, thus making the system behaves out of equilibrium. I hope that the sessions contributed to better understanding of the system and gives an insight into the structure behind it.
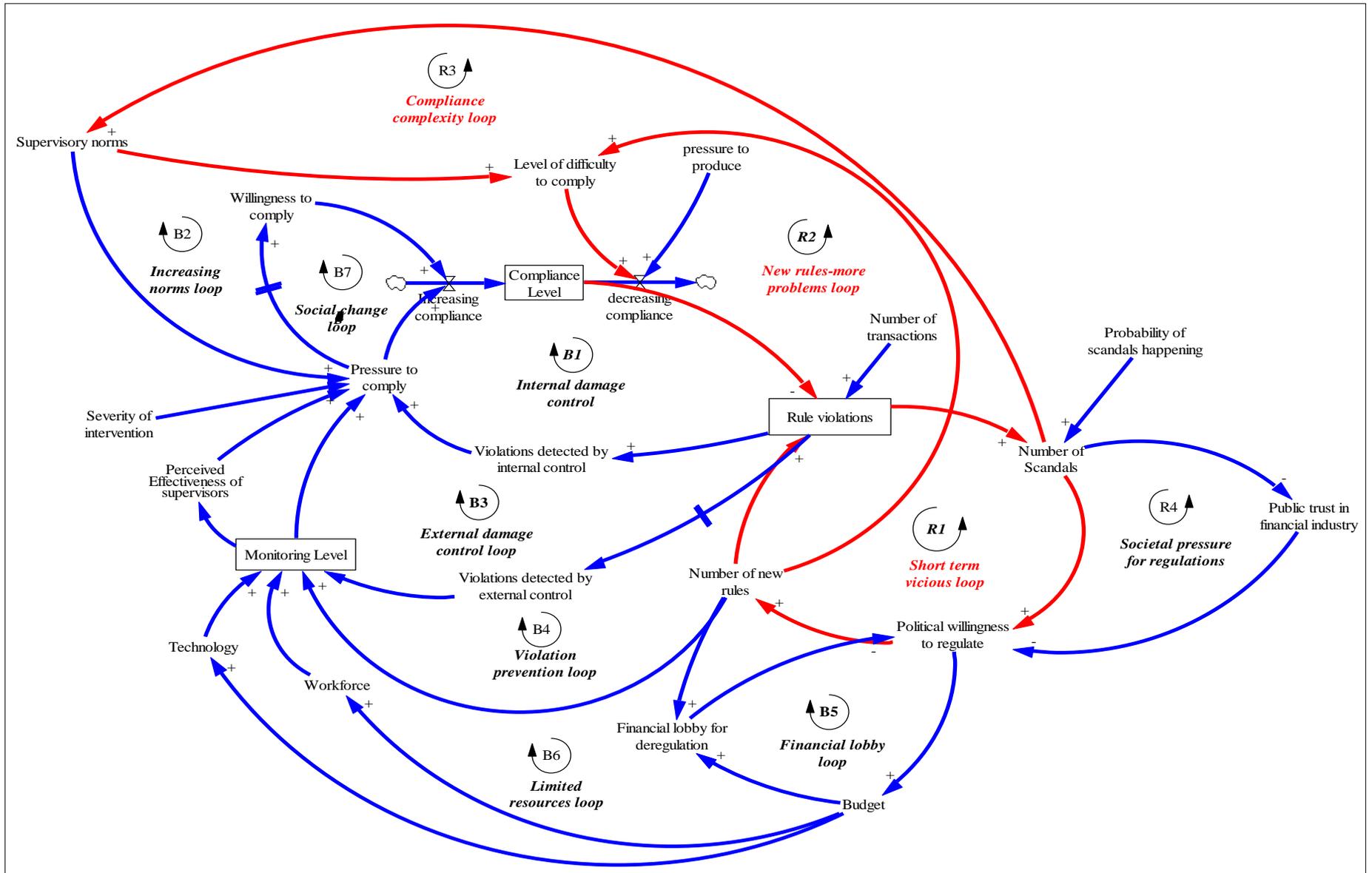
Figure 17: The model as an outcome of the modeling sessions