The London School of Economics and Political Science

The Role of Non-State Actors in Transnational Risk Regulation:
A Case Study of How the Credit Rating Industry Performs Regulation

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Declaration of Authorship

I certify that the thesis I have presented for examination for the PhD degree of the London School of Economics and Political Science is solely my own work.

I warrant that this authorisation does not, to the best of my belief, infringe the rights of any third party.

Abstract

This thesis looks at the role of non-state actors in the regulation of risks. Regulation, conceptualised in this thesis as revolving around the anticipation and management of risks in economic life, is no longer considered to be a purely state-based activity, but is increasingly viewed as an activity that can involve a variety of actors including non-state actors such as civic organisations and commercial firms. The limits on the ability of states to regulate risks on their own are becoming more and more visible in today's integrated and interdependent markets. Our thinking about the capacity of the state to control is especially challenged by transnational risks, such as exemplified by the global financial crisis of 2007-08. Transnational risks easily spread across national borders. However, our knowledge about how non-state actors may be and can be involved in the regulation of risks, at both national and transnational levels, is predominantly theoretical and needs to be examined more critically and above all empirically. In this thesis a case study is presented of the credit rating industry. The credit rating industry has recurrently been identified as an important industry with regard to helping manage credit risk in the global debt capital markets. Using data collected through a documentary survey and 31 semi-structured interviews with current and former staff of rating agencies, this thesis explores the extent to which the credit rating industry is involved in three main components of a risk regulation regime: standard-setting, information-gathering, and behaviour-modification. The thesis will show that there are strong indicators that the credit rating industry is exercising regulation even though rating agencies expressly deny being a regulatory actor. It will discuss the ways in which rating agencies set standards of credit risk, gather and analyse vast amounts of information to assess how issuers of debt measure up to these standards, and aim to influence the behaviour of actors in debt capital markets through their rating processes and the credit ratings that they publish.

Acronyms and Abbreviations

ABS	Asset-backed security
BIS	Bank for International Settlements
CACP	Credit Analyst Certification Program
CDO	Collateralised debt obligation
CESR	Committee of European Securities Regulators
CLO	Collateralised loan obligation
CPDO	Constant proportion debt obligation
CRAs	Credit rating agencies
CRA 1	First round of European Union regulation credit rating industry
CRA 2	Second round of European Union regulation credit rating industry
CRA 3	Third round of European Union regulation credit rating industry
CRARA	Credit Rating Agency Reform Act
CRD	Capital Requirements Directive
CRR	Capital Requirements Regulation
Dodd-Frank Act	Dodd-Frank Wall Street Reform and Consumer Protection Act
EBA	European Banking Authority
ECAI	External Credit Assessment Institutions
EMEA	Europe, Middle East, and Africa
ESMA	European Securities and Markets Authority
EU	European Union
FSB	Financial Stability Board
GDP	Gross Domestic Product
ICMA	International Capital Market Association
IOSCO	International Organisation of Securities Commissions
IMF	International Monetary Fund
MBS	Mortgage-backed security
NRSRO	Nationally Recognised Statistical Rating Organisation
OECD	Organisation for Economic Co-operation and Development
PIT	Point-in-time
RMBS	Residential mortgage-backed security
UK	United Kingdom
US	United States
SEC	Securities and Exchange Commission
Sf	Structured finance
SPE	Special purpose entity
SPV	Special purpose vehicle
TTC	Through-the-cycle

Contents

PART I Introduction

1 Introduction

Thesis Aim and Objectives

The purpose of this thesis is to gain a better understanding of the involvement of non-state actors in risk regulation. Non-state actors have always played a role in regulation, including in the regulation of economic life which is the focus of this thesis (Kagan and Coglianese 2007, p. xxvii).[1] However, in modern society the role of beyond the state actors has generated renewed interest (see e.g. Cutler et al. 1999; Haufler 2000; Johnstone and Mitchell 2004; Quack 2013; Teubner 1997; Vogel 2010). In part this renewed interest is due to a process of economic globalisation creating a world in which states on their own are increasingly viewed as being incapable of controlling the risks that they face, both at domestic levels as well as at transnational levels (see e.g. Abbott and Snidal 2009, p. 44; Beck 1999; Büthe 2010; Haufler 2001, p. viii; Held et al. 1999; Lodge and Wegrich 2014; Sassen 2000). In this world, non-state actors play a role in controlling risks and, as this thesis aims to show, this role can be considered as regulatory even if it is largely the result of the unintentional consequences of the actions of non-state actors.

The continuing integration and interdependence of markets across a wide range of domains of economic life is producing risks that transcend the boundaries of individual states. Developments at the local level can thereby easily acquire transnational consequences and vice versa (Giddens 1990; Held et al. 1999). The risks of environmental pollution, terrorism, financial crises, foodborne diseases, health pandemics, and nuclear power are all transnational in character as their causes and consequences can quickly extend across national borders (Linnerooth-Bayer et al. 2001). Modernisation and technological advancements are especially important in this regard as they inadvertently cause risks to proliferate (Beck 2006b). To address risks in modern society more effectively, multi-level regulatory responses are needed

[1] Commonly a distinction in the regulatory literature is drawn between the regulation of social life, dealing with the protection of the environment, consumers, and employees, and the regulation of economic life, dealing with financial markets, prices, profits, and the protection of clients of financial institutions (Dodd and Hutter 2000; Hutter 2001).

involving both state and non-state actors at national and transnational levels (Levi-Faur 2011, p. 11).

In recent years our awareness of the potential role of non-state actors in regulation has grown (Black 2001a; Grabosky 1994; Grabosky 1995; Haufler 2001; Hutter 2006b; Hutter 2011; Kagan and Coglianese 2007; Scott 2004). Non-state actors are by now widely recognised for being able to play a meaningful role in the regulation of economic life and contributing to providing solutions to public policy problems, even more in a globalised world (Büthe and Mattli 2011; Cashore 2002; Grabosky 2013; Haufler 2001). The question is, therefore, no longer *whether* non-state actors are involved in regulation, but *how* they are involved (Büthe 2004, p. 281). Empirical work by, for example, Bartley (2003; 2007) and Meidinger (2009) on certification schemes, Ericson et al. (2003) on the insurance industry, Schuilenburg (2015) on security, and Vandenbergh (2007) on large retail and industrial firms, shows the ways in which non-state actors may be involved in regulating behaviour.

Despite a growing body of scholarship, our knowledge about the role of non-state actors in regulation is still predominantly theoretical and insufficiently empirically informed (Aalders 2002; Hutter 2011; Hutter and Jones 2007). Much of the literature on regulation has traditionally focused on regulation by the state and even when the role of non-state actors in regulation is considered, this is usually as it takes shape under state auspices such as happens when states delegate regulatory responsibilities to non-state actors (Grabosky 2013). Non-state actors can, however, also play meaningful roles in regulation independent from the state (Mattli and Büthe 2005; Meidinger 2009). With regard to the regulation of risks with transnational dimensions, it is especially important to consider how non-state actors may be involved (Hutter 2006a, pp. 219-20). This thesis seeks to contribute to filling this gap in the literature by providing an empirical analysis of non-state regulation.

Many different types of non-state actors can be distinguished that can potentially be engaged in regulation (see e.g. Abbott and Snidal 2009; Arts 2003; Havinga 2015; Higgott et al. 2000; Hutter 2006b; Levi-Faur 2011). For example, a broad distinction can be made between non-state actors that directly or indirectly work for-profit, such as commercial firms, and non-state actors that are non-profit, such as civic organisations like non-governmental organisations (NGOs) or consumers. The way in which non-state actors may be involved in regulation is likely to vary depending on type of non-state actor. Different categories of non-state actors have different regulatory tools at their disposal which determine the extent to which they are able and capable of influencing behaviour. Different types of non-state actors may also have a different relationship with other, regulatory and regulated, actors in a regulatory regime.

The main objective of this thesis is to learn to what extent non-state actors can be relevant regulatory actors at national and transnational levels. In an attempt to develop our understanding about beyond the state regulation this thesis will not consider all types of non-state actors. Instead, the thesis focuses on a case study of a specific for-profit non-state actor with transnational reach. A case study of one category of non-state actor inevitably limits the scope of this thesis, but it also allows for greater depth and an opportunity to explore empirically how non-state actors can regulate behaviour within and beyond state borders. Furthermore, a case study can help to illuminate features that may more generally be illustrative for (beyond the state) regulation (Merriam 1995, pp. 57-9) and subsequently allow for further analyses focusing on how regulation by private actors compares to regulation by public actors. The particular case study presented in this thesis is of one industry that has recurrently been identified as regulatory, both in its own right and as it is part of the outsourcing of risk regulation activities by public and private actors, this is the credit rating industry (Braithwaite and Drahos 2000; Flood 2005; Kruck 2011; Partnoy 1999; Sassen 2006; Schwarcz 2002; Sinclair 2005).

Credit rating agencies operate all around the world and provide information to investors about the credit risk of central and local governments, financial institutions such as banks and insurance companies, and corporations that borrow money on the debt capital markets, also known as bond markets, through the issuance of bonds. Credit risk means the risk that an issuer of a bond will default, in other words it refers to the willingness and ability of the issuers of bonds to repay their debt in full and on time. Debt capital markets are characterised by information asymmetries that exist between issuers of bonds and bond investors. On these markets intermediaries such as rating agencies are regarded as playing a critical role offering information about credit risk that is otherwise hard to come by. The information that rating agencies transmit in the form of credit ratings and publications is relied upon by both public and private actors as indicators of what can be considered as creditworthy. This reliance has led to rating agencies being perceived as able to steer the flow of events in debt capital markets and has led some to argue that the agencies present an example of a private actor performing a public function as they *"wield immense, quasi-governmental power"* (Lieberman 2002).[2]

Although the credit rating industry is perceived as exercising considerable power, we know very little about the industry and the work of rating agencies. The global financial crisis of 2007-08 and subsequent economic downturn did cast a spotlight on the industry as rating agencies were held responsible, at least in part, for causing the

[2] See e.g. also Darbellay (2013), Partnoy (2009), Schwarcz (2002), and Sinclair (2005).

crisis. However, despite more attention, severe criticism, and considerable reputational damage as the agencies perceived failures were seen to have *"broke[n] the bond of trust"* between them and investors (Waxman 2008),[3] several years on from the crisis credit rating agencies remain little understood and continue to be relevant actors in the debt capital markets. This thesis addresses this paradox as it examines to what extent we can conceive of rating agencies as regulatory actors in the debt capital markets by providing an empirical analysis of the work that they do.

The empirical analysis on which this thesis is based forms one of the central contributions of this thesis to existing knowledge. The account of the rating industry presented provides a unique insight into the world of credit rating agencies and their activities which have not been subjected to thorough academic study even though they are regarded to be a very influential actor. Especially the question to what extent rating agencies can be considered as a regulatory actor has not been scrutinised and the analysis offered in this thesis can add significantly to the literature on non-state regulation and regulation more broadly. In general the regulatory role of rating agencies tends to be ignored in the literature or assumed to quickly. An empirical anlysis of credit rating agencies and their work offers not only a more refined view of rating agencies, the way they are organised, the people that work for the agencies, the context in which they operate, and how they consider the work that they do, but also offers an in-depth analysis of the extent to which their role can and cannot be considered as regulatory. Using the credit rating industry as a case study, this thesis provides an important addition to the regulatory literature on non-state regulation.

Regulatory Regimes

To study regulation empirically, I operationalise the concept of regulation using Hood et al.'s (2001, pp. 20-7) distinction between three main components of a regulatory regime: standard-setting, information-gathering, and behaviour-modification. By considering credit rating processes this thesis analyses whether and how credit rating agencies are contributing to the setting of standards (Chapter 4), the gathering of information (Chapter 5), and the modification of behaviour (Chapter 6) in relation to credit risk in the debt capital markets. The thesis will describe the ways in which the agencies fulfil the regulatory components of the regime aimed at regulating credit risk and to what extent. It will show that in some respects rating agencies appear quite

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[3] In one of the first hearings held on the financial crisis in the US it was argued that (Waxman 2008): *"[T]he story of the credit rating agencies is a story of a colossal failure. The credit rating agencies occupy a special place in our financial markets. Millions of investors rely on them for independent objective assessments. The rating agencies broke this bond of trust (…)."*

successful regulatory actors, whereas in other respects their regulatory role is less clear and warrants further study, especially with regard to the behaviour-modification component. Compared to the setting of standards and the gathering of information, behaviour-modification is very much affected by how market participants respond to ratings and changes in ratings and cannot be fully assessed in this thesis. The scope of this thesis is narrowed to understanding the regulatory role of rating agencies by analysing the processes by which they assign credit ratings. The thesis does, however, raise several interesting issues that could be addressed in a follow-up study focusing on other actors, in particular rated entities, and how they perceive ratings and react to them.

The notion of regulatory regimes shares parallels with the concept of regulatory space as coined by Hancher and Moran (1989) and considers the norms, the way they are applied, and the various actors involved in regulation from those to whom the norms apply to the private and public actors involved in setting and enforcing the norms. Understanding regulation using the concept of regulatory regimes allows for a more dynamic view on regulation and the landscape of regulation and is for this reason suitable for this thesis looking at the role of beyond the state actors. Nevertheless, it should be emphasised that the regulatory regime perspective in this thesis has been chosen mainly for practical considerations. The three distinct components of standard-setting, information-gathering, and behaviour-modification offer a way to consider regulation when conducting an empirical analysis. Also, this thesis uses the concept in a much more narrow sense to open up the 'black box' that surrounds one of the key actors in the regime regulating credit risk in the debt capital markets. The rating industry is the central focus of the thesis, the other actors and the interaction and interdependence with these other actors completing the regulatory regime, is not within scope. This implies also that the thesis is unable to offer a full account of the regime regulating credit risk. Instead, the contribution of this thesis lies in providing an exclusive insight into the regulatory role of a non-state actor that has thus far remained mostly hidden from critical analysis. In this first chapter of the thesis the main literature that forms the foundation for analysing and understanding the regulatory role of the rating industry will be discussed.

What is Regulation?

Starting from the 1970s, regulation proliferated as a field of interest to scholars from a variety of academic disciplines such as economics, law, political science, and sociology. Consequently, there is now a vast literature on regulation.[4] At a basic level regulation is understood in this thesis as part of a wider set of governance activities that specifically concerns the steering of economic life and behaviour through processes of standard-setting, information-gathering, and behaviour-modification (Hood et al. 2001).[5,6] For any regime to be effective at regulating a particular risk there has to be some capacity to set standards to allow for a distinction to be made between more or less preferred states of the regime, some capacity for information-gathering to monitor or feed-back information about deviation from standards, and some capacity to change behaviour to correct behaviour that is not in line with the standards (ibid., p. 23). Similar distinctions are made by Black (2003) and Abbott and Snidal (2009) who argue that regulatory processes start with placing an issue on the regulatory agenda, followed by the negotiation, drafting, and promulgation of standards, the monitoring of compliance, and ultimately the enforcement of standards.

The components of regulation identified by Hood et al. (2001) have often been considered in the context of regulation by the state. They are, however, equally suitable for providing analytical guidance to studying the extent to which beyond the state actors may be playing a regulatory role. Hood et al. point out that many regulatory regimes involve not just exclusively the state, but also private actors (p. 8). Hutter (2006b) provides a good example of how Hood et al.'s components can be applied to investigate beyond the state regulation. Following Hutter, I apply the components in this thesis in a heuristic sense to enable an empirical examination of beyond the state regulation.

Academic discussions over the past decades focused in particular on how regulation takes place, by whom, and using what mechanisms (see e.g. Levi-Faur 2011, pp. 7-11). Influenced by changes in regulatory practice over time, ideas evolved about the actors that are considered to be regulating and the mechanisms that are considered to be regulatory. Regulation has long been conceptualised as a state activity arising from the need to intervene in the market to protect citizens against all sorts of harms (Bardach and Kagan 1982, ch. 1). This so-called command-and-control understanding of regulation views the state as the regulator, authoritative rules backed by sanctions

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[4] For a broad introduction and overview of the literature on regulation see, for example, Baldwin and Cave (2012) and Morgan and Yeung (2007).

[5] Hood et al. (2001) consider standard-setting, information-gathering, and behaviour-modification while studying the regulation of social life, but I will apply these components in this thesis to answer questions about the regulation of economic life.

[6] In addition to regulation, Braithwaite, Coglianese and Levi-Faur (2007) identify providing and distributing as two other governance activities. In this thesis the concept of regulation has been preferred over governance as it is considered to be a more specific concept focused on steering behaviour and not also on providing and distributing, although it is recognised that regulation can also have consequences for the other two activities (Davis et al. 2012, p. 10).

as the regulatory mechanism, and economic actors such as firms as the regulated. This understanding of regulation has been subjected to considerable changes over the last few decades and we have witnessed the development of an understanding of regulation as something that takes place both within and beyond the state through a multitude of actors and a multitude of formal and informal mechanisms. This development has been set in motion during the 1980s at a time when criticism emerged on command-and-control regulation that came to be seen as having gone too far and having been ineffective and inefficient. This led to a strong deregulatory rhetoric and emphasis on regulatory reform (Majone 1990).

Policies of deregulation did not result in less regulation (Ayres and Braithwaite 1992, pp. 7-12). They did, however, prompt a turn to different understandings of regulation and attention for less command and direct mechanisms of control. Silbey (2011) argues that it no longer makes sense to speak of more or less regulation, or as Crawford Spencer (2010, p. 16) writes, whether or not to regulate is no longer the question. Regulation is present all around us and we should discuss what form of regulation is in place as there are various sources and mechanisms of regulation. Understandings of regulation have slowly moved away from only taking into account the state as regulator and legal mechanisms as regulatory tools and consideration has grown for both non-legal mechanisms of regulation, such as market mechanisms, and non-state sources of regulation. A variety of non-state sources have come to be recognised as regulatory and there has been increasing awareness of the ways in which states delegate regulation to third parties, forms of regulation taking place independently from the state such as self-regulation, and forms of hybrid regulation involving a mixture of both state and non-state regulatory efforts such as co-regulation and enforced self-regulation (Aalders 2003; Aalders and Wilthagen 2002; Ayres and Braithwaite 1992; Grabosky 1995; Gunningham and Grabovsky 1998; Gunningham and Rees 1997; Hutter 2001; 2006b; 2010; Levi-Faur 2011; Rees 1988; Sinclair 1997).

In recent years regulatory scholarship has continued to encourage an understanding of regulation that involves a variety of actors as more than just the subject or object of regulation (see Black 2001a; Black 2002; Hutter 2006b; Moran 2003; Scott 2004). Firms, public interest groups, and NGOs are examples of non-state actors that can be engaged in regulation, either by sharing regulatory responsibility with the state or autonomous from the state (Hutter 2006b; Pattberg 2005). With this recognition of the possible regulatory roles of non-state actors, the boundaries between public and private have been redefined. The state is still an important actor in regulation, but the role of the state in regulation is no longer regarded as exclusive (Higgott et al. 2000). There is not necessarily a central role for the state, something which is highlighted by the notion of decentred regulation (Black 2008a). State and non-state actors are seen to be involved in hybrid forms of regulation where they can be both regulator and regulated at local, national, and transnational levels (Braithwaite 2000, p. 10).

A concept underlining the development towards an understanding of regulation involving various sources and instruments is that of regulatory governance. The term governance highlights changes in governing where the authority and sanctions of government are only one source and mechanism and a range of other, private, forms are acknowledged for their capacity to govern too (Stoker 1998). Regulatory governance emphasises how the power to regulate has become dispersed amongst a range of different actors within and beyond the state employing a range of different mechanisms (see e.g. Scott 2004).

Another relevant concept which has gained traction in recent years is that of regulatory pluralism (Grabosky 2013). This concept has been used after the concept of legal pluralism indicating that there is more than one normative order than the one that is given and controlled by the state (Griffiths 1986). According to Parker (2008, p. 351), regulation is fundamentally pluralistic and encompasses definitions that are wide-ranging and involving a plurality of actors and mechanisms that do not fall into any obvious hierarchy. Actors find themselves in a dense network of regulatory relationships where they may sometimes be the regulator and sometimes the regulated (Drahos 2014).

Regulatory governance and regulatory pluralism are both useful concepts for pointing to the varied regulatory landscape that characterises the world around us. Nevertheless, regulatory governance and regulatory pluralism do not offer much analytical guidance when trying to study regulation beyond the state empirically. Many questions remain regarding the ways and the extent to which non-state actors are involved in regulation and how we can observe this. In the regulatory literature a number of different conceptions of regulation have been put forward which have different consequences for how regulation is studied and ultimately understood.

At its broadest, all mechanisms affecting behaviour, whether state-based or from other sources, are deemed regulatory and there is no need for regulation to be deliberate or intentional (Baldwin and Cave 2012, p. 3). In a wide definition of regulation there is no notion of intentionality *"and anything producing effects on behaviour may be considered regulatory"* (Levi-Faur 2011, p. 6). Some regulatory scholars argue, however, that this stretches regulation too far (see e.g. Koop and Lodge 2015). Black (2002, p. 19), for example, finds that a broad definition including unintentionality would make regulation *"indistinguishable from all other questions of social control and ordering"*. This is similar to Tamanaha's (1993) criticism on the concept of legal pluralism. According to Tamanaha a broad conception of law blurs the distinction between the legal and non-legal and provides no delineation of where one ends and the other begins. In response many scholars propose a more narrow view of regulation limiting it by requiring regulation in some form to be the result of *"sustained and focused control"* (Selznick 1985, p. 363).

In this thesis, however, I will make the argument for the use of the broadest conception of regulation. The case study on the credit rating industry presented in this thesis will challenge the assumption that intentionality is essential to regulation. By adopting a broad conception of regulation that considers a wide range of actors and mechanisms as potentially regulatory, it becomes possible to recognise the multitude of actors and actions that in reality may have intended as well as unintended regulatory consequences. If we limit our definition of what constitutes regulation to intentional forms, we place certain actors and actions outside of a framework from where their role can be critically assessed. Furthermore, at transnational level especially, much remains to be explored and a broad conception of regulation enables such exploration. Using Hood et al.'s (2001) regulatory components of standard-setting, information-gathering, and behaviour-modification as analytical tools, this thesis ascertains the extent to which non-state actors might be playing a regulatory role even if this is unintentional.

The Role of Non-State Actors in Regulation

There are various different ways in which non-state actors may be engaged in regulation. Non-state actors, for example, regulate their own behaviour or the behaviour of other actors separately from the state such as in self-regulation. Non-state actors may also be involved in regulation in an alliance with the state in hybrid forms of regulation. Levi-Faur (2011, pp. 10-1) lists a number of different forms of hybrid regulation such as co-regulation, where regulatory tasks are shared between state and non-state actors, and meta-regulation, where states regulate non-state forms of regulation or vice versa.

Hybrid forms of regulation are especially important to consider as regulatory regimes are often fragmented in the sense that not one single actor controls all features of regulation, but various actors are involved with different aspects of a regime (Hood et al. 2001, p. 9). The internationalised nature of contemporary regulation has intensified the dispersing of regulatory authority within and across borders and between different types of actors (Lodge 2014, p. 69). Black (2008a, p. 4) writes how regulatory functions are:

> (…) dispersed amongst actors in a regulatory regime, including market actors, civil society organisations, non-state regulators (NSRs), and international and national state-based actors, who are interrelated in a myriad of different ways. Just at the transnational level, the range and variety of non-state organisations which seek to exercise some kind of regulatory function are significant.

The extent to which beyond the state actors may be involved depends on each regime and differs with regard to each regime component (Scott 2001; 2008).[7] Scott (2005) points especially to instances where the components of a regulatory regime are diffused by state actors drawing in non-state actors in order to make a regulatory regime work. Non-state actors can have the capacity, although not necessarily the incentive, to contribute to exercising control over the behaviour of others. In this thesis credit rating agencies proof to be a good example of the diffused nature of regulatory regimes and the lack of incentive to be seen as a regulatory actor. The agencies appear to be especially involved in standard-setting and information-gathering, but behaviour-modification stems very much from the way other actors respond to rating decisions.

Non-state actors may not only be engaged in regulation as a result of any deliberate attribution of tasks by state actors. Non-state intermediation in regulatory governance may take place in a much less scripted way and can involve the generation of norms, monitoring, and enforcement with or without the state orchestrating this in some way (Grabosky 2013, p. 115). Non-state actors may even exercise considerable power in constraining public actors such as governments and government agencies and operate more complete regulatory regimes controlling standard-setting, information-gathering, and monitoring (Scott 2002; 2012). In that sense, Braithwaite and Drahos (2000, p. 3) discuss how in the context of globalisation, states are increasingly becoming rule-takers as opposed to merely rule-makers. The case of the rating industry also demonstrates this. As will be discussed in the next chapter, public actors incorporate the creditworthiness standards set by rating agencies into the rules they promulgate and additionally are also held to account for adhering to the agencies' standards themselves as the agencies assess their creditworthiness.

The regulatory literature has discussed both the potential and the limitations of engaging beyond the state actors in regulation. One advantage of involving non-state actors lies in their capacity to regulate beyond the borders of individual states (Abbott and Snidal 2009). Non-state actors can effectively help solve inherently transnational problems that no government could solve unilaterally (Büthe 2010, p. 22). Regulation

[7] Hancher and Moran (1989) also discuss the dispersal of regulatory power among different state and non-state actors using the concept of regulatory space.

by non-state actors can be an effective and efficient means of social control which brings benefits of speed, flexibility, sensitivity to market circumstances, and lower costs compared to regulation by state actors (Gunningham and Grabovsky 1998; Gunningham and Rees 1997). Standards developed by private actors may also have a positive impact on behaviour because they are voluntary and an alternative to deterrence-based enforcement (McAllister 2012) and their standards may be more efficient, flexible, and easier to implement (Haufler 2001). In addition, non-state actors can increase accountability in global regulatory arrangements, especially through the pressure that civil society can exert (Scholte 2004) or as they enhance the scrutiny of public bodies (Scott 2002). They also possess potentially higher levels of expertise and technical know-how (Hutter 2006b; McAllister 2012) and may have access to a greater amount and better quality information compared to state actors (Scott 2005).

Asides from benefits, regulation by non-state actors also has weaknesses and regulatory arrangements involving private actors are equally subject to criticism as command-and-control regulation previously (Cheit 1990; Lodge and Wegrich 2014). One criticism is that non-state actors may be more prone than state actors to serving industry interests rather than public interests. In the regulatory literature a divide exists between those looking at regulation as a means to protect public goods and those looking at regulation as a means to ultimately serve private interests (see e.g. Breyer 1982, Chapter 1; Mitnick 1980; Ogus 2004, Chapters 3 and 4). Such a binary account of regulatory objectives does not do justice to the complexities of real life, but whether non-state actors can intervene for a public good is an issue that remains to be explored and that it is raised by, for example, Mattli and Woods (2009) and Scott et al. (2011). Nevertheless, what interests' actors pursue and what motivates them, from making a profit to specifically targeting problems, is not always easy to identify and the intentions of actors, whether they are non-state or state actors, may have different consequences from those that they have set out in advance (Sunstein 1994). Other shortcomings of beyond the state regulation are its potential lack of rigorous standards, enforcement mechanisms, and explicit sanctions (Braithwaite and Fisse 1987; Vogel 2010). Further issues are with regard to non-state actors' alleged lack of accountability (Grabosky 2013; May 2007), legitimacy (Bernstein 2011; Bernstein and Cashore 2007), and transparency (Graeme and Gulbrandsen 2010). These issues may in turn lead to a lack in credibility and undermine non-state regulatory efforts.

Gunningham and Rees (1997) write that it is difficult to agree or disagree in general with either the proponents or critics of non-state regulation. The particular subject matter of regulation and the social, economic, and political context will determine to what extent non-state regulation will be successful at safeguarding public interests. The most promising regulatory strategy would be one where state and non-state actors make use of each other's strengths and where they reduce possible drawbacks of each form of regulation (Abbott and Snidal 2009; Gunningham and Grabovsky 1998; Hutter 2006b; Rees 1997; Verbruggen 2013; Vogel 2010). For example, with regard to standard-setting it has been argued that standards developed by non-state actors are more likely to be adopted when there is an effective state-based regulator in the background who may act as a *"gorilla in the closet"* and establish more stringent requirements when needed (Rees 1997, p. 519).

Against this background, hybrid forms of regulation are particularly important to consider. At transnational level especially, hybrid forms of regulation could be effective at filling regulatory gaps. A meta-regulatory arrangement, for example, could involve the capacity of private actors to regulate transnational issues while subjecting them to monitoring and control by public actors. This regulation of regulation, or meta-regulation, has been discussed by Grabosky (1995), Parker (2002, Chapter 9), and Braithwaite (2003), and could prove a way forward to regulating transnational risk. Empirical research needs to be conducted to understand better how hybrid forms of regulation function and to assess the extent to which they may be successful at addressing risks at domestic and transnational levels. This thesis seeks to contribute to such knowledge by discussing the configuration of non-state and state actors that has come about in the regime regulating credit risk in the debt capital markets and by analysing the strength and weaknesses of the role played by the rating industry in particular.

Risk and Regulation

This thesis is concerned with regulation as a way of anticipating and controlling risks in economic life (see also Hutter 2010, p. 17). Such a view on regulation has become prominent amongst regulatory scholars with regulation and risk being two concepts that are considered to be closely bound together (see e.g. Black 2010; Rothstein et al. 2006). As Hutter (2001; 2006a) writes, regulation plays a key role with regard to the anticipation, prevention, and management of risk. Risk has become an organising principle for regulation from especially the 1980s and risk and its control and management are now central in regulatory processes (Moran 2002, p. 407). From the 1990s several scholars systematically explored the connection between risk and regulation and applied a specific risk perspective to their analyses of regulation as risk-based approaches became part of both government regulatory strategies and of the strategies of non-state actors performing regulation (Hood et al. 2001; Hutter 2001; 2005; 2010; 2011).

The linking of risk and regulation is not surprising considering the centrality of the concept of risk in modern society and in how we organise the world around us (Beck 1992; Giddens 1990; 1999a; 1999b). As argued by Beck (2006a), we are now living in a world risk society where debating, preventing, and managing risks have become prominent issues. According to Beck, the risks characterising modern society are potentially much more catastrophic than the risks known to previous societies as they are manufactured risks, or man-made (Turner and Pidgeon 1997), as opposed to external factors that were perceived to be a matter of fate or determined by the gods (Bernstein 1996). These manufactured risks are the by-products of the scientific and technological advancements of modernity, the growth of large-scale organisations, and globalisation.

Risks are also no longer seen as objective phenomena that can be identified through measurement and calculation. Rather in modern society risks are increasingly regarded as unquantifiable uncertainties. Furthermore, the risks of global risk society are increasingly transnational risks that challenge existing configurations and ideas about how risks can be regulated and in particular by whom. Beck (2009, p. 14) goes as far as to write that *"traditional methods of steering and control are proving to be inoperable and ineffectual in the face of global risks"*. Transnational risks do, however, not make the role of the state obsolete, but they have caused a shift in the traditional focus in academia and policy circles on the role of the state and its institutions in regulating risk. In modern risk society, the governance of risk is increasingly privatised and dispersed amongst various actors (Ericson and Haggerty 1997, p. 6). This, and the transnational context of the risk society, warrants closer consideration for beyond the state actors (Hutter 2006b).

Risk and Organisations

Organisations are an especially important subject for the study of risk and regulation (Hutter and Power 2005). Organisations are both producers and managers of risk (Short and Clarke 1992), something which Beck (2006a, p. 332) refers to as the great irony of risk society. Many of the risks we are facing today, find their origins in the decisions and actions of organisations (Hutter and Power 2000). Beck (1997, p. 19) discusses how the risks we are facing today are very much *"the results of efforts to control risk"*. In modern risk society we are witnessing an increasing use of a language of calculable risk in which we think and act and with which we try to render the unpredictable consequences of our decisions predictable and controllable. This language, however, contributes to an increase in risk as risk *"is not reducible to the product of probability of occurrence multiplied with the intensity and scope of* *potential harm."* Instead, risks are a socially constructed phenomenon *"in which some people have greater capacity to define risks than others"* (ibid., p. 333).

The inherent socially constructed nature of risk turns the defining of risk into an exercise of power (Slovic 1999, p. 697). Different approaches to defining and measuring risk can be taken and whoever is in control of determining the approach, can direct the course of action and define agendas (Beck 1992, p. 4). Organisations, in addition to producing and managing risk, are also important actors in the development of expert knowledge about risk. Although organisational definitions of risk may appear objective, they are not value free. Research on risk shows that context matters. Individual, group, social, institutional, and cultural contexts shape how risks are perceived, assessed, quantified, and responded to (see Baldwin and Cave 2012, p. 87-93; Douglas and Wildavsky 1982). As Luhmann (2000, p. 100) writes, *"the perception and evaluation of risk is a highly subjective matter"*. People in organisations do not define risk according to some objective scientific process, they define risk *"to further goals that bear at best a very loose connection to their expressed purpose of assessing and managing the objective danger that exists in the world"* (Ericson and Haggerty 1997, p. 19).

Despite becoming increasingly dependent on others and in particular experts *"in matters of our own affliction*" (Beck 1992, p. 53), trust in the role of expert organisations is declining. Trust is fundamental for sustaining social relationships and action in general and it underlies the taking of risk decisions in modern markets (see e.g. Luhmann 2000; Simmel 1906; Simmel 2004[1900]). According to Giddens (1991), trust is needed if expert knowledge and the abstract systems they produce are to be accepted. Equally important is the concept of reputation. Reputation, or the symbolic beliefs about an organisation, can uphold power including regulatory power. The reputation-based power of an organisation rests in the judgement of its audiences (Carpenter 2010, p. 18). Because there is more awareness about shortcomings in decisions by experts and disagreement amongst experts, which stem from the inevitability of the existence of a range of alternative approaches, trust in experts and their reputation is being undermined (Taylor-Gooby and Zinn 2006, p. 403). Nevertheless, as Giddens (1991) argues, the contingent nature of knowledge leads people to look to experts for guidance even if doubt about expert knowledge increases. People are compelled to depend on professional knowledge as risks only exist through expert knowledge of risk (Ericson and Haggerty 1997, p. 102). With the emergence of transnational risks, the extent to which non-state actors may be influencing or even controlling the definition of risks, is becoming much more pertinent. These non-state actors may often be obscure to the people affected by risks (Beck 1992, p. 4) and developing a better insight into the non-state actors involved with controlling and creating risks is, therefore, of great importance.

This thesis seeks to increase our understanding of the sometimes hidden and unintentional involvement of non-state actors in controlling and creating risks by focusing on the role of credit rating agencies in the debt capital markets. In the thesis it will be examined to what extent rating agencies serve as an example of non-state expert organisations that have come to play an invaluable role in defining, controlling, and creating risks in modern-day society, something which became more apparent in the aftermath of the global financial crisis of 2007-08.

Transforming Uncertainty into Risk

The defining and managing of risk by organisations is a key element in the ordering of markets and the coordination of market activities. Beckert (2009) argues that market actors are continuously confronted with profound coordination problems due to the dynamic flux of markets and corresponding uncertainty: *"(…) market exchange is full of contingencies beyond the control of single actors and, thus, of a high degree of uncertainty in regard to outcomes"* (p. 248). The debt capital markets, or bond markets, in which rating agencies are active, are a good example of dynamic and uncertain markets. The debt capital markets are characterised by information asymmetries between lenders and borrowers, with lenders being faced by uncertainty regarding the likelihood and willingness of borrowers to repay their debt in time (Carruthers 2005). Credit markets are nowadays also global in scope with debtors borrowing money not just domestically, but on international markets (see e.g. Hutter and Amodu 2008). This further adds to the dynamics and uncertainty of the debt capital markets.

The problem of information asymmetries has received considerable attention in the economics literature (Akerlof 1970; Stigler 1971), but sociological scholars have begun to make notable contributions. As Cohen (2012) writes, the conventional economic account of rating agencies portrays the agencies as providing efficient and convenient credit information to actors who could use that information to make rational investment decisions. The agencies are viewed in terms of bringing about transparency and moving markets closer to perfect information. Beckert (2009) discusses how sociologists would argue that such an explanation is an example of a reductionist understanding of economic action and markets. Beckert writes how in sociological explanations organisations and institutions (p. 251):

> (...) are understood not from a contractarian perspective as the efficient result of an agreement of socially unbound individuals, but rather as

situated within a specific political, social and cultural context that constitutes the actors' goals, strategies, and cognitive orientations.

The concept of embeddedness used within sociology is useful here as it refers to the ordering processes that lead to a reduction of uncertainty and the social structuring of decisions in markets (Granovetter 1985). Contrary to economic theories it is not assumed that such ordering processes can be explained by the efficiency concerns of market actors (Beckert 2009). Society has always known embedding mechanisms that can help actors to coordinate with other actors in situations of uncertainty. For a long time these were based in informal direct relations. For example, evaluating trustworthiness and creditworthiness, both relevant in the context of credit rating, occurred with the help of networks of social relations. Money would only be loaned to people one knew, one would rely on direct knowledge or knowledge of someone's reputation within a community. Direct experience provided a measure of security, though possibly illusory, that you knew who you were dealing with (Lauer 2008, p. 306). Often, all this was based on rather broad stereotypes and the personal moral fibre and personal character of a borrower played a vital role in deciding who was trustworthy or not (Carruthers 2005).

Both in Europe and America the evaluation of creditworthiness formalised in the nineteenth and twentieth centuries when businesses grew bigger and began to operate over large geographical areas on a more extensive basis (Sylla 2002). As Olegario (2006, p. 6) writes, trust no longer referred to confidence to lend based on personal ties, but came to denote the willingness of creditors to risk their capital on borrowers they did not know. In order to learn about these unknown debtors, businesses began to hire agents or share information through local associations to protect themselves from credit losses (Madison 1974). Instead of relying on personal opinion, financial data became much more important and specific organisations developed collecting information about debtors. These represented an innovative new technology of institutional disciplinary surveillance introducing an *"entirely new way of identifying, classifying, and evaluating"* (Lauer 2008, p. 304). Within credit markets a development could be seen from a form of embeddedness relying on ties between individuals to a form of embeddedness constructed around ties between organisationally based guarantees of reliability (Heimer 2002, p. 129).

In credit markets the credit rating agencies became the organisational sites for the embedding of the social relations of trust (Cohen 2012). Credit rating agencies can be regarded as an organisational response to solve problems of uncertainty. A way of dealing with uncertainty is to transform it into risk and rating agencies are an example of a practical solution moving credit decisions from uncertainty into risk (Carruthers 2013). The difference between uncertainty and risk can be viewed as based on the amount of information that you have. Following Knight (1971[1921]), under uncertainty one does not know the consequences of action, nor the probabilities of the consequences of action. Risk, on the other hand, refers to a situation where one does not know all the consequences, but one can assess the probabilities with which certain consequences may occur. Transforming uncertainty into risk makes actions and decisions possible which is needed in debt capital markets, however, it is not without problems (Carruthers 2013).

Carruthers points out that the transformation from uncertainty to risk through credit ratings is imperfect. Uncertainties still abound, but they are now hidden. What happens in the case of rating agencies is a *"quantitative estimation of features that may in fact be fundamentally uncertain"* (p. 2). As Lauer writes about the early credit reporting agencies, financial behaviour and performance are obscured behind a *"veil of quantification and technical neutrality"* (2008, p. 305). Nevertheless, this is not a problem that only rating agencies face when making claims regarding risk considering the imponderable character of risks in modern society. As Garland points out, inherent to claims about risk nowadays is that they are always *"impressionistic guesses, informed estimates and probabilistic predictions about a future that cannot be fully known"* (2003, p. 52). Nevertheless, even if imperfect, rating agencies contribute to solving a wider problem of social order in markets (MacKenzie 2011). According to MacKenzie (p. 1786) rating agencies and credit ratings are:

> [A] way of turning what might otherwise be radical uncertainty into a form of order that – while never unchanging – is stable and predictable enough to permit coordination and rational action.

Credit ratings may in that sense also be an example of the rhetorical tools that organisations create to convince audiences that experts are in charge, even if these tools may simultaneously increase risk by giving a fall sense of security (Clarke 1999).

Credit rating agencies can more broadly be understood as a specific type of organisation that plays an especially critical role in situations of risk. These organisations are what Pixley (1999) refers to as global mediating organisations. Examples of such organisations other than credit rating agencies are consultancy firms, accountancy firms, auditing firms, insurance firms, and law firms. Global mediating organisations have an important function with regard to the management of trust relations and risk between corporations and corporations and other actors in modern society. Many economic transactions are seemingly no longer embedded in direct social relations (Calhoun 1992; Shapiro 1987). Instead, transactions take place at a transnational level and this is in particular true for financial transactions *"unencumbered by distance, time, commodity, or familiarity"* (Shapiro 1987, p. 629).

In modern society, mediating organisations started to play an important role as an impersonal way to manage trust and risk. Global mediating organisations *"guarantee, ensure, or guard against future risk"* by performing surveillance operations in corporations (Pixley 1999, p. 659). Mediating organisations are a way for principals, such as investors, to cope with risk. In situations where there is a lack of information or an inability to assess whether information is correct, for instance because it requires specific expert knowledge, principals benefit in particular from the hiring of external organisations to reduce risk and uncertainty. Here trust in expert organisations serves as a bridge, a *"middle state between knowledge and ignorance"* (Simmel 1968). Examples are the hiring of accountants to validate finances for investors or creditors, auditors to assure that the accounts of the actions by the corporation are accurate (Power 1997), management consultants to legitimate management decisions or to signal management quality (Armbrüster 2006), or credit rating agencies to assess the creditworthiness of issuers of debt (Cohen 2012; Schwarcz 2002).

Quantifying and Classifying as Regulatory Tools

In order to manage trust and risk, quantification and classification are two important tools organisations can rely on. Quantification has become a dominant feature of modern society. According to Porter (1996), quantification has become pervasive because most issues are easily formulated by the language of numbers and because it can be used in response to solving problems of trust. However, quantification can be used for more than generating trust, quantification is also about power and control (Fligstein 1998). Davis et al. (2012) describe how indicators, rankings, ratings, measurements and other forms of quantification became popular governance tools used by state and non-state actors from the national to the transnational level. What these forms of quantification have in common is that they are a simplification of raw data, transforming a range of qualities into a smaller number of quantitative differences (Espeland and Stevens 1998), about complex social phenomena organised into some form of rank-ordered data. Such classifications can infuse certainty and legitimacy into the knowledge that organisations produce, allowing people to accept it and use it as scripts for action (Ericson and Haggerty 1997, p. 6).

Quantification and classification are important formats in which organisations aim to manage and communicate risk. These formats, however, also shape how organisations select and define risks and they ultimately determine the course of action as alternatives become irrelevant (Espeland and Stevens 2007, p. 430). The way risks are communicated by organisations can institutionalise a particular risk discourse and determine how people will routinely act. In addition, Douglas (1986) points to the capacity of numbers and classifications to become self-fulfilling prophecies. Quantification and classification emphasise certain aspects, while leaving others out (Douglas 1986; Ericson and Haggerty 1997; Powell and DiMaggio 1991). What gets quantified and classified can change the behaviour of individuals or organisations as it entails people to act and respond in a certain way. Reputation also plays an important role here. Reputational concerns are an important motivation for compliance (see e.g. Hutter 2011, pp. 141-9). Quantification and classification, for example in the form of scores, rankings, or ratings, impact on reputation and function as a powerful mechanism of control as they can serve as signals to reward or punish regulated actors (Van Erp 2007; Van Erp 2009).

Quantification and classification are closely bound with control and discipline. Through quantification and classification, what is normal and what is deviant is identified and experts are created who maintain the boundaries (Espeland and Sauder 2007). Drawing on Foucault, Espeland and Sauder (ibid.) discuss how techniques of surveillance and normalisation play a role with regard to control by numbers and in explaining how quantitative authority can intervene in reality. Remote surveillance, or governance at a distance, is possible as numbers circulate easily, are concise, portable, and often *"seem most objective to those remote from the messiness of their production"* (ibid., p. 72). Furthermore, numbers define a class of subjects as the same and then use normative criteria to establish differences. Espeland and Sauder argue that this linking and distinguishing can be viewed as a modern form of power because a classificatory system "*immediately rewards or punishes those it classifies"* (ibid.). Numbers define what the norm is and evaluate how well each subject measures up to the standard.

The steering of behaviour through quantification and classification can occur intentionally, but also unintentionally. There are two understandings of quantification and classification that can be differentiated (see Espeland and Stevens 2007). The first is an understanding of quantification and classification as valid, neutral depictions. The second is an understanding of quantification and classification as vehicles inducing changes in performance. Some forms of quantification and classification are designed as incentives to change behaviour, others are supposed to be neutral depictions of the world. Nevertheless, even supposedly neutral quantification and classification can influence behaviour. Quantification and classification do not just represent or describe, they intervene in reality and can play a performative role in the sense that they bring about a particular reality. This reality simplifies and makes information more authoritative by obscuring the discretion, assumption, and arbitrariness that infuses information and by absorbing uncertainty and contingency (ibid., p. 17).

There are various examples of intended and unintended forms of regulation that involves quantification and classification. Schleifer (2013) has analysed how food labelling governs individual consumption and corporations that manufacture the products as they aim to anticipate how consumers may change their behaviour in response to labelling. Van Erp (2007) has noted how scores on the doors aimed at revealing to what extent restaurants comply with hygiene standards, not only inform consumers, they also provide an incentive for businesses to stay on their toes. Quartz et al. (2013) studied how hospital rankings inform patients of the quality of health care, while at the same time providing incentives for quality improvement on the part of hospitals. Espeland and Sauder (2007; 2009) looked at how university rankings advise prospective students, but also transform the way universities operate. The study of the rating industry in this thesis will contribute to this literature by discussing the extent to which credit ratings can serve as performative tools inducing behavioural changes as they serve as signals about the creditworthiness of issuers of bonds.

Thesis Outline

In this thesis an in-depth analysis of the credit rating industry will be presented aimed at addressing the main research question to what extent the rating industry serves as an example of a beyond the state actor performing a regulatory role. This will be done based on the broad conceptualisation of regulation set out in this chapter. The thesis will use Hood et al.'s (2001) distinction between standard-setting, information-gathering, and behaviour-modification in regulatory regimes to help identify beyond the state regulation empirically. Before presenting the empirical analysis of the role of the rating industry in regulation, the next chapter (Chapter 2) provides an introduction to the rating industry and its role regarding risk and regulation using the existing literature. The chapter reviews how the literature has considered rating agencies as mediating organisations whose role in regulating risk developed throughout the twentieth and early twenty-first century. Chapter 3 turns to the methods used to conduct the case study research for this thesis. It discusses how the research has been set-up, how data has been collected, the context in which data collection took place, how data has been analysed, and it will highlight the ethical considerations and limitations of this study.

Chapters 4-6 comprise the empirical core of the thesis. In these chapters it will be examined in detail to what extent the rating industry is performing standard-setting, information-gathering, and behaviour-modification roles through their rating processes to regulate credit risk in the debt capital markets. Several of the issues discussed in this introductory chapter will come back in the empirical chapters. Chapter 4, for example, analyses how the rating agencies unintentionally develop standards of credit risk as they produce credit ratings and select which risk factors they take into account in rating processes and determine how to classify credit risk. In part due to the incorporation of ratings in public regulation, the way that the agencies have come to consider credit risk has become a regulatory standard. Chapter 5 considers how rating agencies gather and analyse information to assess how issuers of debt measure up to standards of credit risk. Chapter 6 addresses the role of the agencies in behaviour-modification, albeit in a limited sense as the influence of ratings on behaviour cannot be explained solely by considering the role of the rating industry as this thesis does. Chapter 6 sheds light on how credit rating decisions are made by summarising a range of information and data into a single rating symbol. This symbol, the credit rating, aims to incentivise certain behaviour by market participants. It has been beyond the scope of this study to take into account how, for example, rated actors respond to ratings and this should be included in a follow-up study on behaviour-modification by rating agencies to assess more fully the success with which the agencies steer behaviour in the debt capital markets.

The concluding Chapter 7 pulls together the key findings of the thesis and addresses the core added value of this thesis to the literature by discussing what we can learn about the role of non-state actors in risk regulation from the case study on the rating industry. In particular highlighted is the importance of unintentionality as this thesis reveals how actors may perform a regulatory role without explicitly seeking such a role, thereby questioning how we understand regulation and the relevance of intentionality. The concluding chapter ends with a number of policy recommendations on the use of credit ratings and the role of the rating industry in risk regulation.

2 The Credit Rating Industry, Risk, and Regulation

The Rating Industry and Regulation

The credit rating industry and the debt capital markets, also known as bond markets, in which credit rating agencies operate are introduced in this chapter. Attention will be paid to how the role of the rating industry in the bond markets has evolved from the twentieth century onwards. Regulation will be of key interest in the discussion on the development of the industry. There are three ways in which regulation came to characterise the role of the rating industry during the twentieth and early twenty-first century. The first that will be highlighted is of credit rating agencies as regulators beyond the state. Rating agencies came to be central actors in bond markets in terms of the setting of standards of creditworthiness gathering, the transmitting of information about credit risk, and the modifying of market behaviour. These elements are all suggestive of the regulatory role of rating agencies. Secondly, it will be discussed how standards of creditworthiness developed by the rating agencies came to be used by public regulatory bodies leading to a form of meta-regulation as, thirdly, also rating agencies came to be the subject of regulation by the state. The latter has been in large part due to a series of credit crises occurring in the 1990s and 2000s, including the global financial crisis of 2007-08 and European sovereign debt crises beginning in 2009. These crises increased the visibility of the rating industry and prompted a greater interest in the role of the industry in the management of credit risk. The literature I will draw on in this chapter is predominantly the economics and finance literature since this is the main literature that has analysed the rating industry. Where relevant I will, however, also refer to the broader social science literature that discusses the rating industry.

Bond Markets and Credit Risk

Bond markets form a substantial part of the global financial markets (Langohr and Langohr 2008, Chapter 3). They are an increasingly important alternative to banks in providing long term funding to countries, municipal governments, corporations, and financial institutions (Boot and Thakor 1997; Langohr and Langohr 2008; Wehinger 2012). Bonds are loans directly provided by investors, also referred to as the bondholders or creditors, to issuers of bonds, the debtors.[8] The amount of capital that investors provide, called the principle, has to be paid back by bond issuers with interest, known as the coupon, over a certain period of time until a bond matures.[9] Examples of a bond issuance are a corporation that requires additional capital to expand or a government that needs to raise money to fund its public expenditure. To raise that capital the corporation or government may decide to issue a bond instead of borrowing money from a bank or from global institutions like the International Monetary Fund (IMF) or the World Bank. However, raising capital in bond markets tends to be reserved for larger issuers because investors need to be somewhat familiar with an issuer. Smaller issuers are more reliant on bank borrowing or other forms of borrowing (Stiglitz 1994).

Risks are an intrinsic part of bond markets and investing in bonds. One of the most significant risks are that bond issuers are not able to make the interest payments, to pay back the principle amount, or to make either of those payments in full and on time.[10] These risks are referred to as credit or default risk, also labelled the oldest form of risk in financial markets as it as old as lending itself (Caouette et al. 1998, p. 1). Since the twentieth century, credit rating agencies came to play a central role with regard to assessing credit risk.[11] For issuers of bonds it is vital how investors perceive their creditworthiness, or in other words how they view their willingness and ability to repay their debt. Credit ratings came to be important signals of creditworthiness and as such came to influence the access that issuers of debt have to investors and the terms under which they gain access, most significantly the cost of borrowing (Cantor and Packer 1996; Ferri et al. 1999; Kisgen 2006; Kisgen and Strahan 2010; Kliger 2000; Reinhart 2002; Schwarcz 2002). For example, an issuer with a low credit rating is perceived to be more at risk of not repaying its debt on time. This makes it more likely that the issuer will be attractive to a smaller pool of investors and will be charged a higher interest rate to compensate those investors who are prepared to take a greater risk.[12]

[8] Issuers of debt are corporations, financial institutions, or (sub-)sovereigns, the specific types of debts that they issue are, for example, bonds or structured credit products such as a residential mortgage-backed security (RMBS).

[9] When a bond matures it ceases to exist and the outstanding principle has to be paid back. Rating agencies are predominantly rating bonds and bond issuers that are (issuing) long-term debt. This is debt with a maturity of over at least one year.

[10] These are all situations of default as there is some form of non-payment (Langohr and Langohr 2008).

[11] Investors face various other risks when investing in bonds in addition to credit risk. These risks are collectively referred to as market risk because market forces may affect the value of investments (Caouette et al. 1998). Examples are liquidity risk and interest rate risk. Market risk is not discussed in this thesis as I examine the role of rating agencies and they focus solely on assessing credit risk (see also Adelson 2012).

[12] Whether rating agencies actually influence access to investors and the cost of borrowing is subject to considerable discussion in the economics and finance literature. However, as Sinclair (1994, p. 146) writes, what matters is the perception that ratings have influence. These perceptions by themselves can already have an impact on behaviour (see further Chapter 6).

The Rapid Growth of the Bond Markets and the Rating Industry

From the United States to the Rest of the World

Various authors have argued that the growth of bond markets and the growth of the credit rating industry are very much intertwined (see e.g. Utzig 2010). Cohen (2012, p. 844) writes that this is not surprising because information is a key component of market activity and rating agencies *"developed a niche as major purveyors of information"* in the debt capital markets. Information is crucial to understanding credit risk. Investors need information about the willingness and ability of borrowers to repay their debt to inform their decisions about whether to invest or not. Rating agencies act as an intermediary providing information about credit risk to investors. Although bond markets originated in The Netherlands in the seventeenth century, followed by the UK in the eighteenth century, bond markets truly began to develop from the early twentieth century in the US where corporations began to access the bond markets for capital as they started to conduct business over much larger geographical areas (Homer 1975).

The growth of corporations and conducting business over greater geographical distances meant that corporations could no longer rely on informal social ties to borrow money. Instead, corporations came to rely on institutions and intermediaries like rating agencies to vouch their credibility with investors they did no longer know personally (Olegario 2006). Sylla (2002, p. 34) explains how rating agencies emerged in this context because they addressed the needs of investors *"to sort out the great variety of [debt] issues with which they were presented"*. For Sylla, the rating agencies became the *"pillars of the investment community"* in the US during the first decades of the twentieth century (ibid.).

For most of the twentieth century bond markets and the rating industry remained a US development (ibid., p. 33). However, from the 1980s bond markets became a viable source of financing also outside the US and not only for corporations, also sovereign entities and financial institutions began to tap the bond markets. In Europe and Asia in particular, bonds came to be issued more often as a means of funding as opposed to relying on banks for capital, a process known as financial disintermediation (Hester 1969). Sinclair (1994, p. 136) argues that financial disintermediation has led to the empowerment of rating agencies. This has also been noted by Cantor and Packer (1994, p. 2) who write that *"[a]s capital flows in international financial markets have shifted from the banking sector to capital markets, credit ratings have also begun to make a mark overseas"*. By the 1990s the originally US-based rating agencies had become relevant at a global level, rating a wide range of entities and debt issues in every continent. Some go even as far as to argue that without rating agencies the development of international financial markets would not have been possible (Utzig 2010, p.

1):

> The growth of the international financial markets over the last twenty years would have been unthinkable without CRAs. Only because of the availability of clear, internationally accepted indicators of the risk of default were investors willing to invest in international securities – whether corporate or government bonds – whose credit quality they would have been virtually unable to assess on their own. The CRAs worked for decades on designing a simple and readily understandable system that would allow any investor to invest in international securities with which they were not directly familiar.

The expansion of the rating agencies from the 1980s is reflected in the number of staff that the agencies employed. At the beginning of the 1970s, the major rating agencies as we know them today only employed a few handful analysts. In the 1990s their number had increased to several hundred analysts in the US, Europe, and Asia (Partnoy 1999, p. 649).[13]

Continuing Growth of Bond Markets and the Rating Industry

Bond markets continue to gain in importance with the deepening of financial globalisation and ongoing financial disintermediation. In Europe domestic bond markets are still developing and in relation to emerging markets and actors, there is significant room for bond markets to become more important for raising capital (Bustillo and Velloso 2013; ESMA 2015, p. 9; Szilagyi et al. 2003). Whether the future growth of bond markets will be accompanied by further growth of the rating agencies is, however, disputed. Although the agencies maintain that they see an important role for themselves in the future (see e.g. Moody's Investors Service 2014e), not everyone agrees that bond markets will continue to require the information provided by rating agencies with greater public availability of information about credit risk and alternative sources of information compared to when rating agencies first appeared (Partnoy 1999).

Criticism on the ability of rating agencies to provide accurate information about credit risk following the role of the agencies ahead of and during various credit crises, has led many to become more vocal about alternatives to credit ratings and encouraging market participants to conduct their own credit risk assessments (European Commission 2014; Financial Stability Board 2010; IOSCO 2014). Recent regulatory initiatives in the EU and the US have made it a

[13] According to Partnoy (1999) Standard & Poor's, the biggest rating agency in terms of total number of staff, employed 30 rating professionals by 1980, 40 by 1986, and 800 by 1995. Another major rating agency, Moody's, had expanded to 560 analysts by 1995. See Appendix C for a more recent overview of the number of (analytical) staff of the major rating agencies working in the EU.

core objective to reduce reliance on credit ratings by both market participants making investment decisions as well as formal regulatory bodies using ratings to regulate those decisions. Historically, however, the importance of rating agencies has been tied mainly to growth or decline in private capital flows as opposed to any other developments (Bruner and Abdelal 2005).

The discussion around the relevance of rating agencies with regard to providing necessary information about credit risk is not new. An extensive literature has developed in the economics and finance fields that looks at alternative indicators of credit quality that could be used in place of or in addition to credit ratings (see e.g. Di Cesare 2006; Estrella et al. 2000; Hilscher and Wilson 2013). An early example is the study by Hickman (1958) in which information provided through credit ratings is compared to information that can be gathered free from the market. A range of indicators can be derived from publicly available market data which can be used to learn about the likelihood of default. Examples are leverage, cash flow, volatility, and interest rate and credit default swap spreads. Market-based indicators can be gathered easily and quickly compared to the sometimes lengthy processes by which credit ratings are developed, incorporating private and qualitative information (see further Chapters 4, 5, and 6). Asides from being more convenient, according to some, market-based indicators do better at evaluating the risk of default than credit ratings (Hilscher and Wilson 2013; Polito and Wickens 2012; Polito and Wickens 2013). Market-based indicators can, nevertheless, be equally subjected to criticism. For example, market-based indicators may be more unstable as they are more sensitive to changing conditions in the markets and they may provide false signals (Di Cesare 2006).

The Credit Rating Industry and Its Role

Transmitting Information about Credit Risk

The first, and most broadly recognised, role of the rating industry is in relation to the transmission of information about credit risk. According to the mainstream economics and finance literature, rating agencies act as an information intermediary that contributes to more transparent bond markets (Langohr and Langohr 2008). Ramakrishnan and Thakor (1984), for example, discuss the rating agencies as "*information brokers"* who intermediate by acquiring and processing information and thereby reducing the cost of exchanging capital. Millon and Thakor (1985) discuss credit rating agencies as *"information gathering agencies"*, and Boot, Milbourn, and Schmeits (2003, p. 84) argue that *"rating agencies could be seen as information-processing agencies*" that provide an efficient mechanism through which information can be disseminated to financial markets.

Economists have argued how for bond markets to operate efficiently and effectively, investors need to be equipped with information about the willingness and ability of borrowers to repay before they can make investment decisions (Akerlof 1970). Bond markets are characterised as markets of asymmetric information because bond issuers know more about their willingness and ability to repay than investors (Cafaggi 2010; Carruthers and Ariovich 2010; Stiglitz 2000; Stiglitz and Weiss 1981). Furthermore, bond issuers are not readily regarded as credible if they themselves provide investors with the information they would need to fully assess whether money will be repaid and on time (Dittrich 2007). Also, bond issuers with a weak level of creditworthiness may lack an incentive to provide investors with information about their situation.

Olegario (2001) portrays the nineteenth century credit reporting agencies, the predecessors of the modern-day rating agencies, as pioneering organisations that formed *"an early institutional response to the problem of information asymmetry"* (p. 3).[14] At the time, information transmission mechanisms were not yet well developed and credit reporting agencies facilitated trade and encouraged transactions *"over vast distances even before a national transportation system was fully in place"* (ibid.). Today, rating agencies are important information sources for investors as the debt capital markets became increasingly transnational and complex. Duff and Einig (2008, p. 64) describe:

> In today's global capital markets, the number of debt issuers and issues usually exceeds by far the resources of most investors. Ever more complex financial products such as asset-backed and derivative securities require in-depth specialist knowledge that most investors do not have. Therefore, ratings provide users with valuable information for their investment decision.

For investors it is costly to acquire information about the creditworthiness of a wide range of borrowers, especially considering the time and resources that go into producing and processing information which may only be possible for some of the largest professional investors (Financial Services Authority 2009, p. 76; IOSCO 2008). Rating agencies are said to be able to acquire information specifically about credit risk much more cost-effective than the average investor as rating agencies can benefit from economies of scale (Partnoy 1999; White 2010). It is with the help of rating agencies that investors can acquire information at a lower cost than if they were to gather that information by themselves. The capacity of the rating agencies to gather and transmit information about credit risk puts the agencies in a unique position in the debt capital markets and enables the agencies to fulfil an important role in the regulation of credit risk.

[14] Credit reporting agencies emerged in the 1830s in the US and laid the foundation for the credit rating agencies that were established in the early twentieth century.

Incorporating Ratings in Private and Public Standards of Credit Risk

A second role identified in the literature, and another important indicator of the agencies' involvement in regulation, is their role in determining a universally accepted standard of credit risk (Caouette et al. 1998). The literature discusses how rating agencies make particular forms of action and the coordination of action possible through the credit ratings that they issue. For example, Boot, Milbourn and Schmeits (2006) suggest that rating agencies provide a focal point to investors, allowing an equalisation of investor information and coordination of expectations. Rating agencies inform investors in a similar and consistent way about debt issuers and debt issues that are considered to be creditworthy or not. Bruner and Abdelal (2005, p. 193) describe how the agencies have invented a new language to talk about credit risk, *"a simple code"* that has been adopted by investors *"to describe and grapple with the uncertainties inherent in investment"*.

According to Millon and Thakor (1985) the credit rating agencies act as *"screening agents"*, certifying the values of the entities that they analyse. Olegario (2001) observes how during the early phases of the credit rating industry, rating agencies transmitted information about business values to *"nearly every American community"* and in doing so *"the agencies helped to standardize the criteria for creditworthiness in a country that was large, regionally varied, and heterogeneous"* (p. 3). Today, the rating agencies standardise information about creditworthiness at a global level as rating agencies came to be relevant around the world while using the same approach for assessing credit risk (Estrella et al. 2000). Kerwer (2002, p. 294) writes how rating agencies *"by rating a wide range of different borrowers in accord with the same scale and publishing these risk assessments, […] have established an important standard for credit risk"*. According to some, an implication of the global expansion of the originally US-based rating agencies is that the agencies helped export US financial orthodoxy (Fight 2001; Sinclair 1994, p. 149).

The accusation that the agencies export US financial orthodoxy has become even more pronounced since the early 1990s at a time when several European sovereigns were downgraded (Sinclair 1994, p. 151). This led to criticism on the agencies for not understanding Europe and of bias as they were essentially US firms (Organisation for Economic Co-operation and Development 2010). Bruner and Abdelal (2005, p. 192) describe how in Europe resentment has grown over *"the perceived lack of understanding that the U.S.-based agencies have shown toward differing accounting standards and corporate financing customs"*. [15] The

[15] For example, when Moody's downgraded Portugal's credit rating in July 2011 to below investment-grade José Manuel Barroso, the president of the European Commission (EC) and former prime minister of Portugal, responded by saying that *"there may be some bias in the markets when it comes to the evaluation of the specific issues of Europe"*.

agencies are aware of the criticism of bias, one of the agencies discusses (Moody's Investors Service 2014f):

> One question that has been actively debated over the past several years, and which may be of particular interest to today's discussion, is whether owing to Moody's origins in the United States, our analytical approach, or our deployment of analytical resources may be biased in favor of the US, or Englishspeaking countries more generally.

Characterising the major rating agencies or the rating industry in general as a US phenomenon does, however, not entirely do justice to an industry which has become a much more international industry with the debt capital markets having expanded beyond the US. The agencies also argue that they develop universal ratings using a global approach, as opposed to exporting US standards to the rest of the world (Schwarcz 2002, p. 8; Standard & Poor's Ratings Services 2014a).

The role of rating agencies as standard-setters is bolstered considerably by private and public actors that came to use credit ratings to regulate risk-taking in financial markets (Kruck 2011). For example, large institutional investors refer to ratings in their guidelines around the composition of investment portfolios, stipulating how investments are limited to bonds with ratings above a certain level from the main rating agencies. Another example are debt covenants, specifying the terms of the agreement between debt issuers and their creditors, in which debt issuers are required to maintain their credit rating above a certain threshold. If the rating is downgraded below that threshold, certain actions become enforceable in order to protect investors (Duff and Einig 2007; Duff and Einig 2008). In such cases credit ratings, or changes in credit ratings, function as triggers. The various ways in which credit ratings came to serve as standards for evaluating creditworthiness is extensive as illustrated by Hilscher and Wilson (2013, p. 1):

> Investors use credit ratings to make portfolio allocation decisions; in particular pension funds, banks, and insurance companies use credit ratings as investment screens and to allocate regulatory capital. Central banks use credit ratings as proxies for the quality of collateral. Corporate executives evaluate corporate policies partly on the basis of how their credit rating may be affected.

The extent of the embeddedness of ratings in the debt capital markets puts rating agencies in a position of having an important constitutive role. Hutter (2001) discusses two features of regulation, its capacity to control and its capacity to be constitutive in the sense that it structures relationships and is part of the process of ordering. In the economics literature it is also recognised how regulation can be a constitutive element of the market (North 1990). From the literature, a picture emerges of a credit rating industry that constitutes what is creditworthy at global level and determines what actions are possible for different actors in the debt capital markets. Sinclair (1994, pp. 141-2) also describes how the agencies have a coordinative position with regard to economic and financial behaviour. According to Sinclair, rating agencies condition the context in which events occur as they give shape to the frameworks used by market actors to understand events and limit the choices that are considered to be within an acceptable range. Schwarcz (2002) refers to the rating industry as an example of private ordering by non-state actors.

The constitutive role of rating agencies is further enhanced as public regulators around the world began to incorporate ratings into regulation from as early as the 1930s (White 2010). For example in the US, ratings from certain government registered rating agencies, the so-called Nationally Recognised Statistical Ratings Organisations (NRSROs), came to be used to regulate banking, insurance, pension, and securities, giving rise to a system of meta-regulation. As described by the International Organisation for Securities Commissions (IOSCO 2003, p. 1), capital markets regulation aims at:

> (…) protecting investors, ensuring that securities markets are fair, efficient, and transparent, and reducing systemic risk. In offering informed, independent analyses and opinions, CRAs contribute to achieving these objectives. Rating agencies that the market recognizes as credible and reliable can play a valuable role in global securities markets.

Regarded as useful indicators of creditworthiness, regulators started to prescribe the use of credit ratings, for example, when calculating minimum capital requirements for banks or for determining the composition of investment portfolios. In effect, as Paly (1938) writes, rating agencies came to determine whether a bond was of investment quality. Regulatory references to ratings increased especially during the 1990s and 2000s as regulators moved from prescriptive rule-making to a risk-based approach (Flood 2005). This in a sense codified the authority of the rating agencies (Bruner and Abdelal 2005). A key example of the last two decades are the EU's Capital Requirements Regulation and Directives (CRR/ CRDs) developed in response to the Basel Accords stipulating global recommendations for banking regulation. In the CRR/ CRDs, rating agencies, referred to as External Credit Assessment Institutions (ECAIs), are assigned an important function as eligible entities that banks may rely on to differentiate the risk weights of their exposures to determine what percentage of their assets they need to set aside to cover for the possibility of default (see e.g. De Haan and Amtenbrink 2011).

According to Horsch and Kleinow (2014), the use of ratings for regulatory purposes is very much crisis-driven. The first set of ratings-based regulation was initiated after the Wall Street Crash in 1929 and the following years of the Great Depression. The experience of that period of crisis encouraged regulators in the US to look for ways to prevent banks from investing in securities that they considered to be speculative. To make this distinction, regulators began to use ratings developed by credit rating agencies. It is also from this era that the divide between investment-grade and non-investment grade stems. US regulators designated ratings below a certain threshold as non-investment grade, a divide that is still used today with considerable implications for bond issuers and issues falling in the non-investment grade category (Duff and Einig 2008; Schwarcz 2002, pp. 7-8).

The use of ratings to regulate financial markets has been criticised severely in recent years, recognising that the centrality of ratings in the debt capital markets implies that when *"rating agencies (…) make mistakes, those mistakes would have serious consequences for the financial sector"* (White 2010, p. 212). Other problems associated with ratings-based regulation are, for example, that ratings may become a goal in itself as they are so important. Ratings may become enshrined in plans that may stand in the way of what may actually be good and they may crowd out any other risk analyses (Sinclair 1994, p. 149). The global financial crisis of 2007-08 has served as a wake-up call for regulators that credit ratings may not accurately reflect credit risk at all times and incorporating ratings into regulation may pose a risk in itself. Greater caution with regard to ratings has since led to proposals aimed at removing ratings from regulations which will be discussed further in the final sections of this chapter.

Modifying Behaviour in the Debt Capital Markets

The third indicator that rating agencies may have a role in risk regulation, and one that also comes forward strongly in the literature, is the ability of rating agencies to steer behaviour in the debt capital markets. The quote by *The New York Times* columnist Thomas L. Friedman in 1996 arguing that the rating agencies have *"almost Biblical authority"*, offers a good example of the power that rating agencies are perceived to have with regard to modifying behaviour:

> There are two superpowers in the world today in my opinion. There is the United States and there is Moody's Bond Rating Service. The United States can destroy you by dropping bombs, and Moody's can destroy you by downgrading your bonds. And believe me, it is not clear sometimes who is more powerful.

Such statements are not unique and there have been various others such as the following by US Senator Joseph Lieberman issued during a hearing on rating agencies in 2002:

> The credit raters hold the key to capital and liquidity, the lifeblood of corporate America and of our capitalist economy. The rating affects a company's ability to borrow money; it affects whether a pension fund or a money market fund can

> invest in a company's bonds; and it affects stock price. The difference between a good rating and a poor rating can be the difference between success and failure, prosperity and bad fortune.

In Fight's (2001) introduction on the rating industry, the agencies are described as extremely powerful *"arbiters fulfilling a quasi-official regulatory role (yet subordinated to the profit motive)"*:

> They can literally make or break a company, exert influence over governments that circumvents the democratic process, and act in ways which have been compared to a classic Mafia protection racket and in some cases holding the taxpayer indirectly to ransom.

Though such portrayals are sensational, they do reveal the perception that rating agencies are incredibly dominant actors in today's financial markets (see also Sinclair 1994, p. 144). A reflection of that is also that changes in credit ratings are followed closely by the press and the public and are often front-page news (Partnoy 1999, pp. 622-23).

There are different ways in which the rating agencies are seen to be influencing behaviour which are mentioned in the literature. Ratings can be considered as part of a wider range of indicators or signals that are used to judge risk and to discipline the market as they are able to influence the actions of market participants and monitor developments in their level of creditworthiness (Flannery 2001).[16] For rating agencies the first form of influence lies in their direct interaction with entities looking to issue debt. For example, as Mintz and Schwartz (1987) describe, the activities of issuers may be conditioned by a desire to appeal to the preferences of rating agencies in order to gain access or not to lose advantageous access to capital. Paudyn (2013, p. 790) gives an example of this in the context of sovereign issuers:

> Investment-grades [credit ratings above a certain threshold] grant access to liquid capital markets so governments must adapt to satisfy their (austere) criteria and align with the norm in order to perform the functions of 'government' and refinance existing debt obligations.

According to Sinclair (1994, p. 150) ratings serve as a seal of approval in order to obtain funds. Cohen (2012) also writes how rating agencies may steer the behaviour of market participants through reputational means. Reputation, as discussed by Van Erp (2009), is one of the strongest forms of control in markets especially as more and more transactions take place without involving personal ties, something which came to be characteristic of modern society.

[16] Relying on the ability of markets to enforce discipline has been discussed in the economics and finance literature in the context of banks. Market indicators are, for example, seen as complementing public regulation of bank's risk exposures (see e.g. Avery et al. 1988).

In particular numbers and classifications are tools that can govern behaviour through their reputational effects (Bevan and Hood 2006).

The second form of influence, gained through ratings surveillance, is also highlighted in the literature. Rating agencies can have considerable influence modifying behaviour as the agencies conduct surveillance on outstanding ratings throughout the lifetime of a debt issuance (Amtenbrink and De Haan 2009; Boot et al. 2006). Once rating agencies have assigned a rating to a bond issuer or bond issue, the agencies continue to monitor how this debt develops over time as conditions may change that could influence credit risk (see further Chapter 6). In case the agencies find that there is a greater risk than before, they may downgrade a particular rating, or if they argue that there is less risk than before, they may upgrade a rating. Olegario (2001, p. 2) writes how rating agencies, therefore, not only fulfil a role as *“information clearinghouse”*, but also as an *“enforcer of contracts”*.

By making information about bond issuers more widely known, the actions of rating agencies can have disciplinary effects and encourage borrowers to try harder to meet their obligations. According to Bannier and Hirsch (2010), the role of rating agencies has moved from simply providing information to *“an active monitoring role”* through the surveillance that they perform on ratings (p. 3038). Dittrich (2007, p. 10) explains how rating agencies *“ease the moral hazard situation after credit has been granted”*. A moral hazard situation could arise if rating agencies did not undertake any monitoring and an issuer could be tempted to *“act opportunistically, taking risk prone decisions in his own favor while lowering the investor's expected return”*. However, as ratings are monitored, rating agencies can influence issuers to take corrective actions to avert downgrades (Boot et al. 2006).

The influence of rating agencies is given critical impetus through the embeddedness of credit ratings in private and public standards aimed at regulating risk-taking. The IOSCO (2003, p.1) describes some of the far-reaching influence of credit ratings:

> These [credit ratings] tend to be relied upon by investors, lenders, and others, and, accordingly, CRAs can have an effect on securities markets in a variety of ways. Credit ratings can affect issuers’ access to capital, influence the structure of financial transactions, and determine the types of investments fiduciaries and others can make.

The use of ratings for regulatory purposes by the state or international bodies is seen as an important underpinning of the ability of credit rating agencies to steer behaviour (Partnoy 1999). As ratings became a bigger part of markets, their ability to influence behaviour moves more and more beyond the direct relationship between rating agency and a particular debt issuer. Market participants and public actors have increasingly come to look at credit ratings and to taking these into account when making decisions. The behaviour-modification effects of ratings therefore evolve in part from the actions of other actors.

Credit Crises and the Role of the Rating Industry

The Sovereign Defaults and Corporate Scandals of the 1990s and Early 2000s

Credit crises have an important part to play in the development of the rating industry.[17] At times of credit crises, issues of credit risk and the ways credit risk can be managed receive more attention. The rise of rating agencies very much coincides with the occurrence of credit crises. Credit ratings were an invention of the nineteenth century at a time of the Century Railroad Crisis in the US. The American railroad industry expanded rapidly in the late nineteenth century and railroad companies looked to raise capital through the issuance of bonds. These bonds were complex and skill and industry knowledge were required to assess the risk involved when investing. At the same time, investing in these bonds presented significant risks as railroads often fell into distress due to high fixed costs and bitter competition between firms (Tufano 1997). This provided the context in which rating agencies could develop (Rutledge and Litan 2014, p. 3). The relevance of ratings increased when railroad companies went bankrupt.

In a sense it could be argued that rating agencies are a product of crises. Throughout history, credit crises time and again resulted in greater awareness about the importance of credit risk and in turn enhanced the role of rating agencies as their ratings provided information that could be used to manage credit risk in debt capital markets. Crises even led to the incorporation of ratings into private and public standards such as happened after the 1929 Wall Street Crash. White (2010) gives an example of another major US credit crisis that served to impress upon bond market participants the necessity of having information about credit risk and that reinforced the role of the rating agencies. This was the default of the Penn-Central Railroad Company in 1970. According to White (p. 214), this crisis:

> [S]hocked the bond markets and made debt issuers more conscious of the need to assure bond investors that they (the issuers) really were low risk, and they were willing to pay the credit rating firms for the opportunity to have the latter vouch for them.

[17] Credit crises are situations involving default, either at a micro-level involving one entity or at a macro-level involving many different entities.

Crises have, however, not only strengthened the centrality of rating agencies in bond markets, they also prompted an examination into their role. This is especially true for the crises that occurred from the 1990s onwards.

A series of credit crises during the 1990s and early 2000s led to the agencies emerging from *"relative obscurity"* (Sinclair 2003). A good example are the sovereign debt crises in East Asia in 1997-98. These revealed the critical role of rating agencies in assessing credit risk, but also resulted in blame for the rating agencies because their ratings were seen to have failed to anticipate the crises. Instead of adjusting credit ratings in time to warn about increased risk, the agencies adjusted their ratings after the crisis had already been set in motion (Reinhart 2002; Sy 2004). Especially since the crises during the late 1990s, the agencies have recurrently been criticised for lagging behind changes in the market, instead of anticipating them (González-Rozada and Levy Yeyati 2008). As a result of the East Asian crises, rating agencies also became *"excessively conservative"* as Ferri et al. (1999) write. In the aftermath of the crises the agencies assigned lower ratings than justified to affected entities. This unduly worsened crises as low ratings resulted in higher costs of borrowing and a limiting of the supply of capital (ibid., p. 353). This criticism has also been expressed before and after the East Asian crises as it is argued that credit ratings could have a pro-cyclical effect contributing to exacerbating crises and boom and bust cycles in financial markets (Hickman 1958; Sy 2009).

The high-profile corporate defaults of Enron, Parmalat, and WorldCom are other prominent examples that turned attention to the role of rating agencies during the 1990s and 2000s. Again the agencies were faulted for not having predicted the defaults, even though all these cases involved corporate fraud (Frost 2007). The overall belief is that rating agencies should have been able to *"see through crookedness – the agencies' expertise ought to go beyond assessing credit in situations where management is honest"* as Hill (2002, p. 1150) expresses. This view also comes forward in the investigations into the defaults, especially in the case of Enron where it was argued that the rating agencies displayed a lack of diligence in assessing creditworthiness. The rating agencies were accused of not asking "*sufficiently probing questions in formulating their ratings, and in many cases merely accepted at face value what they were told by Enron officials"* (US Senate Committee on Governmental Affairs 2002a).

Perhaps paradoxically, all the criticism on the rating industry did not harm the profitability of the rating agencies. Partnoy describes in 2006 how the crises of the 1990s and early 2000s led to a general decline in the reputation of the agencies, but credit ratings only became *"more prominent, important, and valuable"* (p. 60). In fact, during the first few years of the new century, the major rating agencies were one of the most profitable companies in the world (Morgensen 2008).

The Global Financial Crisis of 2007-08 and European Sovereign Debt Crises

The global financial crisis of 2007-08 and the ensuing sovereign debt crises troubling a number of EU countries, again led to attention for the role of credit rating agencies. Although the discussion around rating agencies in response to the EU sovereign debt crises echoes discussions around the role of the agencies during the debt crises of the 1990s, for example that the agencies behave pro-cyclically, the role of the rating agencies in the built-up to the global financial crisis sparked unprecedented criticism on the role of the rating industry. The roots of the global financial crisis are tied to one specific area of the debt capital markets in which rating agencies have been heavily involved, this is the market for structured debt products and in particular those backed by residential mortgages.[18] This market collapsed and this set in motion widespread consequences throughout financial markets and the global economy from 2007-08 as the credit risk associated with these products had been grossly underestimated, including by rating agencies.

Structured debt products are a result of financial innovation and a process of securitisation. Securitisation developed from the late 1980s and involves the pooling of assets, for example mortgages that are bundled in mortgage-backed securities (MBS) or loans in collateralised loan obligations (CLO). These pools are frequently organised into different tranches that offer differing degrees of risk as the tranches result in different claims on the cash flows generated by the assets backing the securities. For that reason structured products are a lot more complex than, for example, a standard corporate bond which promise the same returns per bond to all investors (Rutledge and Litan 2014). The potential benefits of securitisation are widely acknowledged (see e.g. Schwarcz 1994). Debt securities can be catered to the preferences of investors with differing risk appetites, allowing for risks to be shifted to those investors who want to bear it. Also, losses can be contained in case the borrowers of underlying loans do default as different assets are pooled and sliced. Nevertheless, securitisation may also create problems as happened in the build-up to the financial crisis of 2007-08 and as summarised by the Chair of the US Securities and Exchange Commission (SEC), charged with governing the securities industry, Mary Jo White (2014):

> Done correctly, securitizations can facilitate economic growth, providing critical liquidity to financial markets and help households and businesses get the capital they need. But, when done poorly, as during the years leading up to the financial crisis, securitization can destabilize markets by wrapping serious financial risks in a thin veneer of creditworthiness. When the true nature of these risks was

[18] The crisis revolved primarily around asset-backed security (ABS) collateralised debt obligations (CDOs) issued in the US backed by pools of subprime mortgage loans. For a number of sociological accounts discussing mortgage securitisation, the financial crisis, and the role of rating agencies see Carruthers (2010), Fligstein and Goldstein (2010), Pozner, Stimmler, and Hirsch (2010), Rona-Tas and Hiss (2010), and MacKenzie (2011).

> revealed and asset values collapsed, investors in asset-backed securities suffered significant losses.

With regard to the development of the structured debt market, rating agencies played a crucial role (MacKenzie 2012). The structured debt market serves as a good example of the constitutive role that rating agencies may fulfil. Due to the complexity of structured products, the market for structured products could arguably not have been created or sustained without rating agencies (Flood 2005; Goodhart 2008; IOSCO 2008). As Coffee (2006, p. 296-7) writes, the structured market is very much *"ratings-driven"*. Without the rating agencies' *"seal of approval"* structured securities could not have been marketed and sold (The Financial Crisis Inquiry Commission 2011, p. xxv). Also Utzig (2010, p. 1) describes the fundamental role of ratings in the constitution of the structured finance market:

> In the markets for structured products (…) the role of the CRAs goes far beyond eliminating information asymmetry. Markets for structured products could not have developed without the quality assurance provided by CRAs to unsophisticated investors about inherently complex financial products. CRAs have operated as trusted gatekeepers.

Tett (2009, p. 99), in a more colourful way, describes it as follows:

> Investors generally relied on the ratings agencies to guide them through this strange new land [of structured products], which seemed a rational, easy solution to contending with the complexity (…) Like priests in the medieval church, ratings agency representatives spoke the equivalent of financial Latin, which few in their investor congregation actually understood. Nevertheless, the congregation was comforted by the fact that the priests appeared able to confer guidance and blessings. Such blessings, after all, made the whole system work: the AAA [highest rating] anointment enabled SIVs to raise funds, banks to extend loans, and investors to purchase complex instruments that paid great returns, all without anyone worrying too much.

The trust in the ratings of the agencies to gain insight into the creditworthiness of structured products evaporated, however, with the global financial crisis of 2007-08. As the crisis unfolded it became apparent that rating agencies had assigned overly optimistic ratings to the mortgage-backed structured debt products widely regarded as having been at the heart of causing the financial crisis (Financial Services Authority 2009; The Financial Crisis Inquiry Commission 2011). A number of explanations have since been put forward as to why, with regard to this particular crisis, the rating agencies underestimated credit risk and failed to assign accurate ratings. Most notably explanations point to flaws in the rating process of the agencies for rating structured products and conflicts of interests stemming from the issuer-pays business model that is used by all the main rating agencies.

The rating of structured products is quite a different and relatively new area in which rating agencies became involved compared to the traditional *"plain vanilla"* debt instruments issued by corporates, sovereigns, and financial institutions to which the agencies have been assigning ratings for decades (White 2010, p. 221).[19] As Partnoy points out (2010), a dark side of financial innovation is that it tends to outstrip the ability of intermediaries to process information and this may have been true for rating agencies with regard to structured products. Structured debt products tend to be much more complex than traditional debt products. This is due to the very nature of structured products which involve many *"moving parts"* as the credit underlying the products is assembled from a variety of sources (Raynes and Rutledge 2003, p. 5). As structured finance products are backed by a pool of assets, a greater degree of uncertainty is involved when assessing their credit quality.[20] In order to rate structured products, rating agencies rely on statistical models and this is where many of the problems in assessing their credit risk are argued to find their origin (Utzig 2010). For these models to work, sufficient historical data is necessary and this is what was lacking with regard to the structured products involved in causing the financial crisis. Furthermore, key assumptions on which the models were based, specifically about the correlation of defaults in a downturn, turned out to be wrong (Financial Services Authority 2009).

Explanations for the agencies' failure in rating structured products that focus on conflicts of interests in the rating industry, have been expressed before, but not as vigorously as in the aftermath of the crisis of 2007-08. Most of the revenue of rating agencies comes in the form of fees paid by the issuers that they rate.[21] And, as the IOSCO (2008, p. 12) notes:

> The fear is that where a CRA receives revenue from an issuer, the CRA may be inclined to downplay the credit risk the issuer poses in order to retain the issuer's business.

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[19] For an explanation of the differences between traditional and structured debt products, also in relation to rating, see for example a 2005 report issued by the Bank for International Settlements (pp. 14-6), Coval et al. (2007), or the papers by the IOSCO (2008) and CESR (2008).

[20] An example of how complex structured products can be is given in a landmark Australian court case against, amongst others, Standard & Poor's for the rating of a certain type of structured debt product known as a constant proportion debt obligation (CPDO) that was sold to local Australian councils. In a lengthy 1459-page ruling, the judge referred to the CPDO as a product of *"grotesque complexity"* for which the local council officers to whom it was sold *"had neither the capacity nor resources to assess"* to truly understand the risks involved with investing in that product (Federal Court of Australia 2012).

[21] Up until the 1970s rating agencies received fees from investors buying their research and ratings as opposed to receiving fees from issuers of debt. This changed with the arrival and spread of photocopying and a fear that investors could free ride obtaining photocopies (White 2010, p. 214).

Prior to the global financial crisis, various authors already addressed the conflicts of interests in the rating industry (see e.g. Covitz and Harrison 2003). However, before the crisis of 2007-08 the view that seemed to be generally accepted was that reputational concerns would provide enough of a deterrent for rating agencies against inflating ratings to favour issuers (Fulghieri et al. 2014; Mathis et al. 2009). For example, Smith and Walter write in 2002 with regard to one of the agencies, that it had: *"probably learned how to manage the natural conflicts and temptations of the business, although as long as it is possible to fudge a rating, the company must remain vigilant"* (p. 311).

The belief in the ability of rating agencies to manage potential conflicts of interests disappeared almost completely in recent years. It has been argued that the rating agencies were much more prone to conflicts of interest when rating structured debt than in any other rating area as it generated a lot of income for the rating agencies who subsequently came to be quite dependent on that particular revenue stream (Tett 2009; Tomlinson and Evans 2007). With a large part of agency revenue dependent on rating structured debt products, conflicts of interests may have been much harder to manage and many have accused the agencies of not having resisted the temptations to issue more favourable ratings to maintain or attract business in that area (Mathis et al. 2009). In addition, as opposed to traditional debt products, structured products are often issued through just a handful of major international investment banks. If an agency would lose the business of one such bank, this could have a substantial impact on the revenue of the rating agency.[22] Tett (2009) describes how different from other areas in which rating agencies rate issuers and products, such as for corporations and their debt, in structured finance the debt products to be rated were produced by a small circle of banks and the agencies were much more vulnerable to their pressure. According to Tett (ibid., p. 119):

> Those banks constantly threatened to boycott the agencies if they failed to produce the wished-for ratings, jeopardizing the sizeable fees the agencies earned from the banks for their services. From time to time, the ratings agencies took a stand, to show they couldn't always be pushed around, but they were careful not to offend the banks too deeply.

There is also considerable evidence that in the structured debt market, issuers shopped around for the most favourable ratings requesting ratings from multiple agencies and choosing only to hire those agencies that would issue the desired rating (Skreta and Veldkamp 2009).

[22] In general, credit markets are dominated by just a number of major banks that are involved in both commercial and investment banking and other types of investment related services and lending (Caouette et al. 1998).

The Rating Industry Today: A Regulated Industry

The IOSCO Code and US Regulation

The event of large scale credit crises or defaults has not only led to greater centrality and visibility of rating agencies and criticism on their role in the debt capital markets. As the SEC notes in a report on the rating industry in 2003, credit defaults have often coincided with a review of the regulatory treatment of rating agencies (p. 10). Regulatory action remained, however, very limited during the 1990s and early 2000s. The collapse of Enron in 2001 and the Parmalat scandal in 2004 prompted the European Commission and European Parliament to examine the role of rating agencies, but this did not result in legislative proposals. Amongst others they considered potential conflicts of interests within rating agencies, transparency regarding the way rating agencies work, the information used for ratings, and concerns about a possible lack of competition in the market for the provision of ratings (European Commission 2004).

Prior to the financial crisis of 2007-08 the main regulation of the industry came in the form of the voluntary Code of Conduct Fundamentals for Credit Rating Agencies developed by the IOSCO in 2004. The IOSCO Code had been developed in recognition of the valuable role that credible and reliable rating agencies could play in global securities markets, but also in response to the role of the rating industry in the corporate scandals of Enron, Parmalat, and WorldCom (Amtenbrink and De Haan 2009). Issues covered by the Code are related to the processes by which rating agencies assign credit ratings, the independence of ratings from political and economic pressure and conflicts of interests, how and when ratings are disclosed, and the confidentiality of information provided to the agencies by issuers. According to Amtenbrink and De Haan the significance of the IOSCO Code has always been questionable because of the abstract and generic character of the standards it sets out and because *"it lacks any enforcement mechanisms"* (Amtenbrink and De Haan, 2009, p. 1920).

In the US rating agencies were subject to some government regulation prior to 2007. In 2002 the Sarbanes-Oxley Act required the SEC to write a yearly report on the rating agencies. In the reports published by the SEC a number of concerns were raised in relation to the industry, for example around information disclosure regarding rating decisions, conflicts of interests, alleged anticompetitive practices, barriers to entry, and the regulatory use of ratings (see e.g.

US Securities and Exchange Commission 2003). In 2006 the Credit Rating Agency Reform Act (CRARA) was signed into law. This Act stipulated the criteria for becoming a recognised rating agency and gave the SEC limited powers to oversee recognised rating agencies. As a result of CRARA rating agencies had to make a series of disclosures, including on the processes by which they assign credit ratings. The agencies also became subject to inspection by the SEC (Sy 2009).

EU and US Regulation since 2007

Within the EU, regulation of rating agencies became one of the first priorities in response to the financial crisis of 2007-08. In late 2010 the EU Regulation on Credit Rating Agencies, Regulation (EC) No 1060/2009, also known as CRA 1 had been adopted. This regulation established the mandatory registration of rating agencies that are operating in the EU. Furthermore, it outlined requirements for avoiding conflicts of interests, the quality of ratings, rating criteria, and the transparency of the agencies. In May 2011, the CRA 1 regulation was amended to establish the European Securities and Markets Authority (ESMA) as the body responsible for registering and supervising rating agencies in the EU. With the establishment of ESMA in CRA 2, the supervision of rating agencies in the EU has been centralised.

In 2013 further changes were made to the regulation of rating agencies in Europe with the implementation of CRA 3. The main focus of CRA 3 has been on removing or replacing any references that lead to the sole or mechanistic reliance on the ratings of rating agencies. This follows the wide-spread consensus amongst public regulators worldwide that the use of ratings and their impact on the debt capital markets should be reduced as set out by, for example, the Financial Stability Board (FSB) (2010). Also in the US, regulation has been adopted that requires the review of existing regulation that relies on ratings and to remove imprimatur references to ratings when appropriate (U.S. Securities and Exchange Commission 2009).[23] The Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) adopted in 2010 recognises that rating agencies can be systemically important actors and therefore they require oversight and accountability. The Dodd-Frank Act augments CRARA by imposing liability on the rating agencies, mandating new governance and internal control requirements, addressing conflicts of interests, specifying certain disclosures to be made on criteria and procedures used in rating processes, and enhances the oversight by the SEC.

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[23] Section 939A of the Dodd-Frank Act requires all Federal agencies to review and replace references to credit ratings in their regulations with alternative measures of creditworthiness.

Other significant changes introduced with the third round of rating agency regulation in the EU, have been the limiting of the issuance of sovereign ratings. This is a direct result of the EU sovereign debt crises and a view amongst EU regulators that credit ratings disrupted the market and made the EU sovereign debt crises worse despite evidence to the contrary (Arezki et al. 2011; House of Lords European Union Committee 2011; International Monetary Fund 2010). How regulation will or will not shape the rating industry and the role that it plays is beyond the scope of this thesis. All these developments are very much ongoing, but they do paint a picture of the context in which rating agencies have been operating while undertaking the research for this thesis.

Discussion

During the twentieth century and the start of the twenty-first century, the rating industry came to be the dominant system through which information about credit risk is communicated in increasingly global debt capital markets. The consensus view emerging from the literature portrays rating agencies as an intermediary providing information about credit risk to investors. Viewing the gathering, processing, and transmission of information as the primary role of rating agencies is in accordance with how the major rating agencies portray their role in the debt capital markets. Rating agencies claim that they provide a service to investors reducing information asymmetries. One of the rating agencies that has been particularly adamant about what they view as the *"main and proper"* role of rating agencies describes (Moody's Investors Service 2012; 2014e):

> [T]he main and proper role of credit ratings is to enhance transparency and efficiency in debt capital markets by reducing the information asymmetry between borrowers and lenders. We believe this function to be beneficial for the market as it enhances investor confidence and allows borrowers to have broader access to funds.

However, the role of rating agencies goes much beyond that of being an information provider. Ericson et al. (2003, p. 33) write how risk communication systems should not be viewed as mere conduits through which knowledge is transferred. In addition to transferring knowledge, risk communication systems have the capacity to make things real, a social fact. They circumscribe what is possible and govern behaviour.

This chapter has described how the literature recognises that the agencies, in addition to gathering and transmitting information, have a role setting standards of what is considered as creditworthy. Furthermore, as ratings came to be used for a variety of purposes to regulate risk-taking in the debt capital markets, rating agencies became involved in a system of indirect co-regulation. This in turn increased the potential influence of ratings to steer behaviour in the debt capital markets. The impact of ratings is therefore not so much merely the result of the efforts of rating agencies to assess credit risk, but also of how rated actors, other market participants, and public actors use and respond to ratings. The information-gathering, standard-setting, and behaviour-modification roles of rating agencies are indicative of their role as regulators beyond the state and as being part of a meta-regulatory regime. And despite more sustained efforts to regulate rating agencies since the global financial crisis of 2007-08, the influence of rating agencies does not appear to have faded giving further impetus to the need to analyse in-depth how rating agencies may operate as regulators beyond the state. In this thesis this is done through an empirical analysis of rating processes based on a documentary survey and interviews with current and former staff of rating agencies.

PART II Empirical Analysis Credit Rating Industry and Rating Processes

3 Research Methods

A Case Study of the Credit Rating Industry

This chapter discusses the case study research that has been undertaken for this thesis. It addresses the selection of the case of the credit rating industry, the sample of credit rating agencies, the interpretive approach of the research, the methods of a documentary survey and semi-structured interviews, the context in which the data for the research has been gathered, the analysis of the data, ethical considerations, and the strengths and limitations of the research.

The choice for a case study research design has been prompted by the explorative nature of this doctoral study. As Gerring (2007, pp. 39-40) explains, especially when it comes to more explorative research, case studies enjoy a natural advantage. Case studies are, however, useful for more than just exploration, they are also suitable for offering descriptions and explanations of phenomena within their real-world context (Yin 2009). As the purpose of this thesis is to provide insight into how non-state actors may be involved in the regulation of risks within and beyond the state, a topic that is still lacking thorough empirical grounding, the choice for studying the particular case of the rating industry has been instrumental. Instrumental case studies facilitate understanding of phenomena beyond the particular case and help to refine theory as the case itself plays a secondary role, yet the case is *"looked at in-depth, its contexts scrutinized, its ordinary activities detailed (…) [to] pursue the external interest"* (Stake 1994, p. 237).[24]

A variety of different cases could be selected to study beyond the state regulation, however, the credit rating industry in particular appears to offer an *"opportunity to learn"* (ibid., p. 243). The credit rating industry has explicitly been discussed as playing some sort of role in the regulation of risk (Braithwaite and Drahos 2000; Flood 2005; Kruck 2011; Partnoy 1999;

[24] In addition to instrumental case studies, Stake (1994, 1995) identifies intrinsic case studies and collective case studies. Intrinsic case studies are focused on the idiosyncracies of the case itself and not on generalising across cases. Collective case studies are an extension of one instrumental case to several instrumental cases which allows for making comparisons between issues or phenomena.

Sassen 2006; Schwarcz 2002; Sinclair 2005), but this has not yet been explored empirically. In addition, the industry has transnational reach and is, therefore, relevant for studying not only risk regulation by non-state actors in a domestic context, but also a cross-border context something which is becoming increasingly important with the prominence of transnational risks.

Selecting Credit Rating Agencies

The credit rating industry is a transnational industry. Even though today's rating agencies developed from small organisations set up in the nineteenth century in the US, by now the rating industry is composed of rating agencies which assign ratings to a large variety of debt issuers and debt issues all around the world. Despite this reach beyond national borders, the industry remains rooted in certain key locations. One of these locations is London where several rating agencies have their headquarters or other main office from where ratings are given to issuers of debt far beyond London and the UK. The offices of rating agencies in London primarily cover the activities of the agencies in Europe, the Middle East, and Africa (EMEA). However, also activities outside of these regions may be coordinated or undertaken from the European offices. Many rating agencies are organised in a global structure with staff reporting first to regional heads who in turn report to global heads. For some agencies their global operations, or parts thereof, are organised from London. Because this research has been undertaken while based at the London School of Economics and Political Science, the rating agencies selected for the case study were those with an office in London.

Next to focusing on rating agencies with an office in London, further choices were made as to which particular agencies to include in the sample. Several types of rating agencies can be distinguished. Some rating agencies rate all sorts of debt issuers and debt issues in many different countries while other agencies specialise in the type of issuers or debt securities that they rate or the geographical area in which they are active. For this case study research the agencies considered were those that provide ratings to all four categories of debt issuers and the specific debt securities that rating agencies distinguish: (1) financial institutions, brokers, dealers, and insurance companies, (2) corporate issuers, (3) issuers of structured debt securities, and (4) issuers of government securities, municipal securities, and securities issued by a foreign government. This choice has been made because such agencies potentially have the most far-reaching influence. In addition, the research sample was composed of agencies that did not only assign ratings to issuers or issues in the UK, but also outside of the UK as the scope of these agencies goes beyond the national level. Lastly, the rating agencies in the sample were agencies registered with ESMA in the EU.[25] Only the ratings of registered

[25] In Appendix C an overview is provided of all the credit rating agencies that are registered with ESMA in the EU.

agencies may be utilised by market participants for regulatory purposes and for that reason are likely to carry the most weight.

Three rating agencies dominate the rating industry globally and in the UK, these are Standard & Poor's, Moody's, and Fitch. These agencies stand out compared to other rating agencies in terms of their geographical reach, number of outstanding ratings, number of rating analysts, and their revenue. These three rating agencies also have the biggest market share. In 2014 Standard & Poor's accounted for 39,7 percent of all outstanding ratings, Moody's for 34,5 percent, and Fitch for 16,2 percent. Together, these agencies therefore issued 88,4 percent of all outstanding ratings worldwide (ESMA 2014). Due to the hegemony of Standard & Poor's, Moody's, and Fitch, much of this thesis has inevitably been informed by what these agencies do.

Asides from the three major rating agencies, there are many smaller agencies active in the rating industry. These agencies tend to specialise either in geographical area or the type of debt issuers and issues that they rate. Especially within the EU, smaller rating agencies have received an impetus as part of efforts to increase competition in the rating industry and in response to an overall criticism on the major agencies that, amidst the global financial and EU sovereign debt crises, were portrayed as being biased against Europe. One interviewee of a major rating agency responded to this portrayal as follows (Interview 3):

> [S]omehow [the perception exists that] we are harsher on Europe than we are on others. We reject it, 50 percent of our resources are outside the US, the leadership of this firm is heavily diversified, the rating agency is actually led by a [not a US national, nationality omitted] based here in London.

The rating agencies that originated and evolved in the US, all established offices in Europe and emerging markets from the 1980s onwards. Standard & Poor's, for example, set up its first European office in London in 1984, followed by an office in Tokyo in 1985. It now has offices in 23 countries in all corners of the world (Standard & Poor's Ratings Services 2013). As opposed to Standard & Poor's, Moody's first set up a foreign office in Tokyo in 1985, which was then followed by an office in London in 1986. Today, Moody's maintains offices in 31 countries (2013). Lastly, Fitch established itself in London in 1997 as the agency merged with IBCA, a London-based rating agency owned by a French company that already had a presence in Europe rating European banks and later sovereigns (Fimalac 2013). Fitch currently has rating offices in 35 countries (2013c).

Not only did the originally US rating agencies become more international by establishing offices outside the US and the recruiting staff locally, also new rating agencies were set up during the 1990s and 2000s that had no ties to the US. Germany is a good example in Europe where smaller rating agencies were initiated focused on rating the debt of the *Mittelstand*, the mostly privately-owned small- and medium-sized enterprises (SMEs). The global financial crisis of 2007-08 has furthermore been seized as an opportunity by smaller, non-US, rating agencies to expand to other geographical areas and especially Europe. Examples are Canadian-based agency DBRS which re-established itself in Europe with an office in London in 2011 after an earlier endeavour in Europe had failed, Dagong, a Chinese rating agency, that opened its first foreign office in Milan in 2012, German rating agency Scope Ratings that expanded in Europe by opening offices in London and Paris in 2013, and ARC Ratings, representing an alliance of five emerging market rating agencies, launching in London in 2014. Paradoxically, some of these new agencies are equally accused of bias. Gehring and Fuchs (2013) describe how the Chinese agency Dagong assigns higher ratings to the Chinese territories and lower ratings to many Western economies compared to the three originally US based rating agencies. They argue this may be due to cultural proximity, trust, and greater local knowledge (see also Hale 2014).

An Interpretive Approach

The term case study is ambiguous, it can refer to a heterogeneous set of research designs (Gerring 2004; 2007). However, while there is little consensus on what constitutes a case study research or how it is done, a defining characteristic is that it revolves around *"holistic description and explanation"* (Merriam 1998, p. 27, see also Stake 1994, pp. 239-40). In this research I have chosen an interpretive approach to achieve a holistic description. An interpretive understanding of the regulatory role of the credit rating industry is focused on providing an understanding from the actor's point of view, in this case the rating agencies and more specifically their staff. As the agencies have grown in prominence, we still know very little about how they understand their role. In the empirical chapters that follow this chapter I will explore how the agencies develop ratings, undertake the analysis behind it, and how they look at the consequences of their ratings in the present time.

An interpretive research approach has been an important feature of much sociological research. Starting with Dilthey (1989) and Weber (1978; 1981), the interpretive approach developed in response to a positivistic approach to social science seeking value-free causal explanations using variables determined externally to the actors (David 2010 , p. xxvi). It was held that in order to comprehend behaviour, researchers needed to develop an understanding of the meaning with which actors invest their actions. What it means to be doing interpretive sociology has been discussed further by Swedberg (2007).

Swedberg seeks to apply the interpretive approach to the field of economic sociology relying on Weber's work. According to Swedberg the interpretive approach proposed by Weber revolves around understanding a topic from an interpretive perspective, delineating the social action in question, figuring out the causality involved, and establishing the course and consequences of the social action, including its intended results and unintended consequences. As Swedberg points out, there are some issues related to the interpretive approach that need to be addressed. The first is that research needs to be conducted with the aim of wanting to understand the meaning with which actors invest their actions, but how does a researcher gain access to the meaning that actors give to their behaviour and how does a researcher do this in a reliable manner?

Swedberg points to the value of qualitative methods. Grasping and rendering the behaviour of actors and the meanings given to their behaviour falls within the ambit of qualitative research methods. It is important to point out that an interpretive approach does not imply that a researcher needs to get inside the heads of his or her research subjects to explore meanings given to actions. As Taylor (1971 , p. 27) writes, meanings are reflected in practical activity, they *“are not just in the minds of the actors but are out there in the practices themselves”*. In the next section it will be discussed which qualitative methods have been chosen for this research to understand the meanings that rating agency staff give to their actions and the consequences of their actions.

Developing an interpretive understanding ultimately rests on giving a complete description of social action that captures as best as possible the context in which action is situated (Denzin 2001; Geertz 1973; Geertz 1987). As argued by Geertz (1987) understanding action is very much analogous to textual interpretation. For an action to be intelligible, reference to its larger context is required, akin to needing to look at a text as a whole in order to understand its parts. Interpretation by an observer requires the explication of context and the action and its context needs to be described richly and ‘thickly’. In this thesis, the context in which rating agencies make decisions will be of important consideration. The particular action that interpretive sociologists are concerned with is social action, which can be characterised as action that is oriented towards other actors or towards an order (Weber 1981). The latter involves, for example, a prescription of how to act through norms, laws, or organisations.

According to Taylor (1971, pp. 13-4), we can say that we make sense of an action when there is coherence between the action and the meaning attached to that action by a particular actor. This does, however, not imply that action is always rational or purposive. Weber, for example, focused in his work primarily on behaviour as being rational and intended, but this obscures that social action can be more than just purposive, overt, and explicit (see also Giddens 1993). This leads to another issue with the interpretive approach which is of relevance to this research, namely the issue of causality and the recognition that there is more to what happens when an actor acts than that the actor just does what he or she intends to do. What happens in reality is not necessarily what an actor intends. For this reason an interpretive researcher needs to deal not only with intended results, but also with unintended consequences of action (Swedberg 2007). In this thesis attention will go to the intended and unintended effects of the actions of rating agencies and in particular to how they view the possible intended and unintended effects of what they do.

Qualitative Methods

To establish an interpretive understanding a range of qualitative methods can be employed. Bryman (1989, pp. 125-34) distinguishes between four types of qualitative research and associated methods on a continuum from high to low participation by the researcher that can be used to collect data that can help with understanding social action. At one extreme there is total participation where the researcher employs a method of participant observation, usually coupled with some interviewing and some examination of documents. In the other types of qualitative research, the methods' emphasis shifts to less intensive forms of observation and becomes more interview-based. Bryman points out that interview-based research usually does not only involve interviewing, it can also involve some examination of documents and observation. In this research observation has not been used as a method. Although an observational study of the work of rating agencies would quite likely lead to interesting data on what rating agencies do and how rating agency staff view their actions, such a study is not realistic bearing in mind the confidential nature of the work of rating agencies and their commercial interests. Gaining access for an observational study would at the very least have been highly problematic and in the wake of the global financial crisis also highly unlikely.

The research has instead relied on two other methods to uncover the perspectives of the rating agencies through their staff, these were a documentary survey and semi-structured interviewing. Both these methods can also be considered as suitable tools for eliciting the point of view of the actors involved while being much less intrusive compared to (participant) observation (Marshall and Rossman 2006, pp. 101-10). Using a documentary survey and interviewing has been part of a strategy of triangulation to rely on multiple methods, empirical materials, and perspectives to add depth to the research (Flick 2009, pp. 444-6). Asides from adding depth, the use of different methods helps with corroborating data derived from different sources (Bryman 1989, p. 124). For example, using documentary sources has not only been beneficial for gaining a background understanding of the rating industry, it has also helped with checking information collected through interviews. Vice versa, interviews have been used to clarify and elaborate on issues that came forward in documents. The following sections explain further how these two methods have been employed in the research starting with the documentary survey.

Documentary Survey

Documents have been an important source of qualitative data in this research. Before turning to explain how documents have been used as a source of data, it is worth mentioning that there are also two other purposes that documents served in this research. Firstly, documents were used to get a broad sense of the topic and to familiarise myself with issues pertinent to the rating industry during the initial stages of the research. Secondly, documents were used as a tool to discover and select potential interviewees, to prepare for interviews, and for contextualising and cross-checking interview data. Most importantly, however, documents were used as a source of information about the regulatory role of rating agencies. Atkinson and Coffey (2011, p. 78) explain how documents are a particularly useful source for discovering how organisations work and how they represent themselves collectively to insiders and outsiders. In the analysis section it will be further explained how the analysis of the documents has looked beyond merely the content of documents and paid particular attention to what their function is for actors involved and how they are used in practice (Prior 2011).

The primary documents that I considered to provide data about the regulatory role of rating agencies were publicly available documents produced by the rating agencies. I did not have access to internal documents due to the confidential nature of the work of rating agencies. The most important material I considered were documents giving information about the way rating agencies operate and documents in which the rating agencies outline their ideas about their role in the market or the role of credit rating more broadly. All of these documents are freely available on the websites of the respective rating agencies. Documents about the way rating agencies operate ranged from material pertaining to rating definitions explaining how the agencies look at credit risk and how they approach credit risk analysis, material setting out the credit policy of rating agencies and the criteria used to rate issuers and debt instruments, to material explaining rating processes and how issuers and debt instruments are rated. Documents in which rating agencies outline how they view their role and the role of credit rating in the market have been more common recently as regulatory and legal developments after the crisis have prompted the agencies to explain their role more vocally and publicly. These views are expressed using the financial press, but also in the form of special comments, research papers, reports, presentations, or videos posted on their websites.

Further important sources of information were the regulatory filings of the agencies. For example, in the US the rating agencies annually have to file for registration with the SEC and provide numerous exhibits about their organisation and the way they go about credit rating. In the EU registered rating agencies have to produce such information in annual Transparency Reports. The rating agency documents considered can be seen as a form of public relations.

These often are, implicitly, aimed at justifying what the agencies do, their value in the past, and their need in the future.

Asides from documents produced by the rating agencies, I also relied on documents from other parties to develop an understanding of the regulatory role of rating agencies. Of particular interest were the inquiries into rating agencies, consultations on the role of the agencies, and litigation against rating agencies from after the financial crisis of 2007-08. Also documents from before the financial crisis have been taken into consideration. These are mainly documents from the early 2000s onwards as from then on attention in general increased for the role of rating agencies. Examples of these are the rating agency consultations by the European supervisory body ESMA, and its predecessor the Committee of European Securities Regulators (CESR), and the UK House of Commons' and House of Lords' inquiries into credit rating agencies. The consultations and inquiries rely upon evidence given by those working or formerly having worked in the credit rating industry, but also on evidence given by others, most notably market participants such as investors. These documents offer insights into how other parties interpret the actions of rating agencies and insights into the broader context in which rating agencies operate. Furthermore, litigation involving the rating agencies has increased significantly since the financial crisis. A number of high profile cases provided a unique inside view of rating agencies, how they work, and how they interpret what they do. Next to inquiries and litigation there are various organisations and commentators frequently discussing the role of rating agencies in the public domain, an example of such a body is the IOSCO that regularly publishes reports on the rating industry.

Selecting Interviewees

In addition to the documentary survey, this research relied on data gathered through semi-structured interviews. Semi-structured interviews in particular provide a means to explore a phenomenon from the point of view of actors involved. It provides access to the meanings actors attribute to their experiences and realities and the conceptual frames that they use to make sense of their experiences and the world around them (see Miller and Glassner 2011). As this thesis seeks to explore how rating agencies understand their role and the consequences of their role, the research has focused on interviewing those people with direct experience in the rating industry, more specifically current and former rating agency staff.

Within rating agencies a distinction can be made between rating and non-rating activities and the staff that is involved with either of these two. Rating activities consist of all actions and staff directly involved in assigning credit ratings in the credit policy departments and the analytical departments. The non-rating activities are quite diverse and involve, for example, business development, communications, compliance, human resources, information technology, regulatory affairs, and senior management. Many of these non-rating activities are centralised in the headquarters of the major rating agencies in cities such as London or New York. Especially in the wake of the financial crisis, the distinction between analytical rating activities and non-rating activities became very strict to prevent analytical staff from being influenced by commercial considerations. Because rating agencies finance their activities predominantly from fees they receive from the issuers that they rate, the agencies face considerable potential conflicts of interests. In my empirical research I looked primarily at the credit policy and analytical departments of rating agencies as these determine the criteria according to which credit ratings are assigned and apply these criteria in practice to rate issuers of debt and debt issues.

Credit policy departments within rating agencies are a quite recent development. They are largely a response to the criticisms expressed after the global financial crisis on the rating criteria of rating agencies. Before the crisis the establishment of rating criteria and the application of rating criteria by rating analysts represented a more fluid process whereas now credit policy departments are separated from all other departments in the rating agency, including the analytical departments. Credit policy departments are led by a Chief Credit Officer (CCO) who is ultimately responsible for all rating criteria used in a rating agency. The CCO is supported in his role through, for example, Regional Credit Officers (RCO), overseeing criteria in a geographic area, and Group Credit Officers (GCO), overseeing criteria in a particular industry sector.

The analytical departments of rating agencies are organised along the different categories of debt issuers: (1) financial institutions, (2) corporate finance, (3) structured finance, and (4) public finance. These four analytical groups are each headed up by one person. The global head of a ratings group may be based in any ratings office, this does not necessarily have to be the headquarters of a rating agency. Within the analytical group there are subsequently region heads responsible for rating activities in (1) the Americas, (2) the EMEA, or (3) Asia-Pacific. The region head can be based in any office in that specific region. At the next level there are analytical groups that are composed of analytical teams that specialise further, for example, based on industry sector in corporate finance or asset class in structured finance. The analysts in these teams can be based in various offices in one region and do not have to be located in the same office.

The rating analysts have been of special interest in my empirical research. Because analysts play a key role in credit rating processes, I aimed to learn about what rating agencies do through the analysts. Contrary to what may be said about analytical departments and analysts in financial markets more generally, the analytical departments and the analysts in rating agencies should not be regarded as necessarily junior or entry-level roles. Wansleben (2012; 2013), for example, observes how analysts in banks are often seen as subordinate in relation to the traders who are viewed as the experts that analysts give advice or assistance to. In contrast, in rating agencies analysts are considered to be the experts and they can have considerable standing within rating agencies depending on their experience within an agency as will be discussed further in the empirical chapters.

There are various analytical roles starting with junior analysts going up to analytical managers, often called analytical supervisors, who oversee a group of analysts that are part of a team. Rating analysts typically work in pairs, with one analyst taking a lead role and another analyst acting as a support analyst. The amount of issuers or debt issues that each analyst is responsible for differs per rating agency and depends on the particular area that the analyst covers. A lead sovereign analyst can for example be responsible for anywhere between five to fifteen sovereigns. All of the junior analysts in rating agencies are required to have at least a Bachelor's degree, for more senior analytical positions the same educational requirements apply but they are required to have more extensive experience. In recent years rating agencies have started to formalise the training that they offer to rating analysts and have begun to develop programmes that analysts need to follow before they are allowed to make decisions about credit ratings. These so-called internal certification programmes now exist for all major international rating agencies, an example is Standard & Poor's' Credit Analyst Certification Program (CACP). In Chapter 5 of this thesis, the analysts and their role in rating processes will be discussed extensively.

Negotiating Access

Before starting data collection, I identified who I could approach for interviews, developed an approach for contacting potential interviewees, and then contacted potential interviewees. I initially used documentary sources to purposively select people I could contact within agencies and some people that previously worked for rating agencies (Wengraf 2001, pp. 95-6). For example, inquiries initiated in the UK after the financial crisis provided an indication of people that could be well-placed to discuss the role of rating agencies. Key documents by the rating agencies, such as those commenting on their role in the debt capital markets, often also provided contact details of the writer. I also attended various events in London, such as round-table discussions on rating agencies, to familiarise myself with important issues in the rating industry and to get in touch with potential interviewees. I developed a list of possible interviewees with the key criteria for selection being experience in the rating industry and accessibility, in particular whether they were based in London.

After the list of possible interviewees had been developed I considered how I would approach interviewees. Interviewees that were currently working for rating agencies were approached more formally. Although I aimed to contact staff for interviews directly, sometimes I was directed to other departments such as the communications, press, or regulatory affairs departments. Between the agencies, or even the individuals I approached, there was variation in terms of the degree of formality of the process of gaining access and what conditions I had to agree to, such as whether or not interviews could be recorded. In general, when I wanted to speak with analysts, gaining access involved others within the rating agencies that had to agree on the interviews. This was usually not necessary for people in more senior positions with greater responsibility.

Next to considering how I would approach interviewees, I also considered how the research was going to be framed in a way that it would be understandable for interviewees and something that they would be willing to offer up their time for (see Feldman et al. 2003; Wengraf 2001). Time constraints can be very pressing for interviewees and of importance in deciding whether or not to agree to an interview (Marshall and Rossman 2006, p. 105). This is something that I took into account when contacting interviewees and planning interviews. A one page research outline, included in Appendix A, was prepared for interviewees containing information about the goal of my research, the broad questions I wanted to address, the way I gathered data, what I would do with data, assurance of anonymity, time the interviews would take, and information about the university and department I was affiliated to. This outline was send to interviewees when requesting an interview together with a clear reasoning why I was contacting them in particular and what I was hoping to learn from their advice (Feldman et al. 2003, p. 7).

In addition to using documentary sources for selecting potential interviewees, snowball sampling also became an important technique as the research progressed. Interviewees were asked if they could suggest other people I could contact for my research and on some occasions interviewees came up with suggestions on their own before I had even asked. Marshall and Rossman (2006, pp. 105-6) describe how snowball sampling can be useful when relying on experts as they may be more difficult to access. By asking interviewees to suggest others they would point me in the direction of people they were expecting might be willing to cooperate and it would be an additional advantage if I could use their name in contacting the person they suggested. Gaining access for interviews was a continuous process during this research, with access having to be negotiated for each interview. Even when access to individual rating agencies had been established, this did not mean I could speak to anyone I wanted to within the agencies.

Gatekeepers played an important role in all of the agencies. As Feldman et al. (2003, pp. 31-2, 56) make clear, gatekeepers can make the research easier but they can also form an obstacle. In my research gatekeepers helped to arrange interviews within the rating agencies and took away the need for me to convince people individually to gain access. However, gatekeepers also controlled who I had access to and under what conditions I could speak with them, determining the boundaries of critical aspects such as the amount of time I would have for an interview, whether or not I could record an interview, or on occasion even preventing me from asking the questions I wanted to ask or from probing any further.

Collecting Data in the Aftermath of the Financial Crisis of 2007-08

The global financial crisis of 2007-08 and the European sovereign debt crisis that followed it, shaped the context in which the research for this thesis has been conducted in particular ways, especially influencing the interactions I had with rating agencies and their staff.[26] The crisis of 2007-08 thrust the spotlight on the credit rating industry like never before. As this analyst describes, the gradual and steady growth in attention for the industry combined with criticism on the industry, is very much linked to crises (Interview 20):

> [W]hen I joined it [the industry] was a very obscure little noticed corner of the capital markets. (…) People did not pay a whole lot of attention to them [rating agencies], well big investors did. (…) I would say there was mild attention paid to them until you had Enron and WorldCom and Parlamat and all the kind of blow-ups in the early 2000s that people started to really focus on the industry and say: 'Hey, wait a second, look at these guys over here. Oh my God, they are paid by the companies they rate. Oh my God, these companies are very profitable, you know something is going on here, it does not smell right. People started having a better look at it. (…) Of course after the subprime disaster they started to get blamed for the crisis and for playing a serious role in the crisis. So they went from being fairly obscure, low profile players to front and centre, you know 'blood on their hands contributors to financial chaos'.

To many commentators, politicians, regulators, academics, and practitioners, credit rating agencies were at least in part responsible for causing the financial crisis of 2007-08 and for exacerbating the Eurozone sovereign debt crisis (see e.g. Stiglitz 2009; The Financial Crisis Inquiry Commission 2011). Criticism on the agencies, in wide ranging degrees from more to less nuanced, has been widespread since the crisis and this has not gone unnoticed within the rating agencies. Staff at the agencies were very aware that they are under more scrutiny than ever before, not just from outsiders such as the general public, but also their own clients began to question the role that the agencies play. One of the interviewees described the sentiment during the 2007-08 period as follows (Interview 24):

[26] As noted in Chapter 2, greater awareness for the role of credit rating agencies began to develop already from the late 1990s as the industry expanded with the growth of the global bond markets. With a greater role for the rating industry, their exposure also increased in particular from the East Asian financial crisis of 1997-8 onwards (Ferri et al. 1999). The magnitude and severity of the latest crises, however, intensified the attention for rating agencies markedly.

> When it [the crisis] was happening, there was a good year to eighteen months where I think there was a lot of finger-pointing, bankers were public enemy number one, we [the rating agencies] were public enemy number two, I am sure we swapped places from time to time.

The hostility towards rating agencies resulting from the financial and sovereign debt crises, had an effect on my research especially with regard to the process to gain access for interviews and the conditions under which I could gain access. I needed to place great emphasis on the anonymity of the rating agencies and their current and former staff that participated in my research and not all interviews were tape-recorded. Those interviews I could not record, I had to rely on extensive notes taken during and after interviews. Furthermore, the agencies and staff I approached expressed concern about their views potentially being misrepresented, ignored, or even misused as they previously had had bad experiences with academic researchers. This has meant, for example, that I agreed to share drafts of my work with interviewees whenever those drafts were informed by what my interviewees shared with me. Moreover, when attempting to gain access I emphasised that I was especially interested in gaining a better understanding of how rating agencies and their staff view the role of the rating industry and the extent to which it may be seen as involved in the regulation of risk. There has not yet been any research that has focused on how rating agencies view and explain their activities and the interaction with the world around them.

Nevertheless, the critical environment may not just have made access more difficult, it may also have created an opportunity to conduct a case study of this particular industry at this particular moment in time. The rating industry has regularly been described as a rather secretive industry (see e.g. Sinclair 2005) and the global financial crisis has led to an opening up of the industry. Either in response to regulatory demands or through their own initiatives, the agencies have made attempts to increase transparency about how they operate, for example, by making documents publicly available regarding their rating definitions, criteria, and policies. In a way, that rating agency staff agreed to speak with me for this research should also be understood as part of their attempt to be more open about what they do and how they operate. In addition, also other parties such as regulatory and supervisory bodies produced and developed public documents on the rating agencies in the aftermath of the crisis which were used for this research.

Semi-Structured Interviews

In total 31 interviews were conducted from the summer of 2012 to the summer of 2013 with people that work or worked for various rating agencies with an office in the UK. All interviewees were assured anonymity and their names are, therefore, not mentioned in this thesis nor are the rating agencies mentioned that my interviewees worked for. Of my interviewees eight recently stopped working for a rating agency, but they were still very involved in the rating industry, for example, through initiatives setting up new rating agencies or credit rating consultancies or because they were involved in giving evidence to inquiries. A large number of my interviewees had considerable experience in the rating industry with over 20 years of experience or more in several functions not being exceptional. In that sense my interviewees could be regarded as experts in the industry able to reflect on industry developments throughout a period in which the industry expanded globally. Five of my interviewees had also worked for more than one agency during their career.

Most interviews were conducted in the offices of the rating agencies or other offices of the interviewee when they were no longer employed by a rating agency. Eight interviews have been conducted over the phone because these interviewees were not available in London at the time of the interview. For practical reasons, a further two interviews were conducted at other locations in London suggested by interviewees. All interviews lasted between an hour and an hour and a half with the exception of one interview which, due to time constraints of the interviewee, lasted only half an hour. Interviewees were not selected based on their specific function in the rating agency or based on the rating agency they work or worked for as long as their agency had a basis in the UK and operated across national boundaries. As explained previously, experience in the rating industry and accessibility were the main selection criteria.

Fourteen of my interviewees were currently employed in an analytical role and another four interviewees had held an analytical position in the past, but had moved on to another function in the firm or left the rating agency. Of the other interviewees eight were involved in credit policy or had been in the past, four interviewees currently held a position in regulatory affairs, four held research positions or previously held such a position, four held senior management positions, two held a commercial position, and one held a position in communications. The diversity of the functions of my interviewees and the diversity of rating agencies, has been beneficial for this research. Miller and Glassner (2011) explain how through interviews both dominant views as well as contradictory accounts can come forward. Within case study research it is always a question how much and how long the complexities of the case should be studied (Stake 1994, p. 238), but the diversity of my interviews has helped me to establish that the views about the role of the rating industry were largely shared amongst a variety of rating agency experts.

In semi-structured interviewing, questions are prepared before each interview, but there is no strict interview schedule and search for answers that fit fixed categories. The goal of the interviews has been to ask questions that would leave interviewees space to answer in the way that they wanted, using the words that they wanted. Interviewees would be given time to elaborate on things or to clarify things whenever needed and quite often they took their time to explain things to me until they were clear. This has been a particular advantage of interviewing elites that are used to being interviewed and well-suited to questions that allow them to make use of their knowledge (see also Marshall and Rossman 2006). Also interviewees could ask me to clarify certain questions that may have been vague to them. Not following a strict set of questions allowed me to explore beyond the questions that I initially prepared. By going with how the interview was unfolding I could react to leads as introduced by the interviewee. Ultimately, the interview data that I gathered are based on the interviewees using their own words offering me an opportunity to develop an understanding of how they view the role of the rating agency and how the role of the agencies is formulated within the organisations they work or worked for.

A list of interview questions has been provided in Appendix B. This list is only indicative of the type of questions asked and at most an idealised version of how interviews unfolded in practice where there would usually not be enough time to go through all the questions listed. Furthermore, the list in Appendix B is idealised because questions developed as the case study progressed and did not remain the same from the start of data collection to its completion. Data collection informed and gave shape to the questions that were asked. Also, the questions listed in Appendix B are mostly relevant for the interviews focusing on analytical issues. These are questions that were less relevant in interviews with, for example, management which tended to focus on broader questions about the role of rating agencies. As stated before, not all interviews have been recorded, in total 23 interviews were recorded and the remaining interviews were conducted while writing down elaborate notes. I would take time after interviews to work out notes more fully and to add more details.

Data Analysis

The analysis of the data collected for the thesis has been based on elements from grounded theory as developed by Glaser and Strauss (2010) in the sense that data analysis has been interwoven with data collection. The findings of this thesis have been grounded in the attitudes and perspectives of the organisations and people studied. Grounded theory emphasises the interplay between ideas and methods, with ideas emerging out of immersion in the field (Bulmer 2003, p. 12). Data analysis taking place concurrently to data collection has been especially useful for developing initial understandings and themes and modifying these as data were collected (see Marshall and Rossman 2006). However, the first major period of data analysis occurred in the summer of 2013 after the data collection phase had been completed. To draw out the underlying meanings of the data, both documents and interview data were analysed by developing emerging themes during data collection and more thoroughly after data collection. Because no identical questions were asked, interviews were coded for general themes rather than precisely defined variables. The recorded interviews were all transcribed and of the interviews without recordings the handwritten notes were transcribed to a computer file to make analysis easier. The data were coded and grouped under particular themes, while preventing that coding could lead to defragmentation or decontextualisation by providing sufficient description.

As a result of the first general data analysis, some important themes came forward regarding, for example, the changes in the rating industry over the last two decades developing from a small industry into a transnational industry today, the changes that were set in motion after the financial crisis of 2007-08, credit rating processes and the role of analysts, the role of rating committees and credit policy, the qualitative and quantitative nature of credit rating, rating criteria, the interaction with market participants and public actors, the use of ratings in practice, and the consequences of rating agency actions and how in particular analysts respond to these in their day-to-day work. These initial themes informed the macro-structure of the thesis and were explored more in-depth while writing-up the particular chapters of the thesis that correspond to these data themes. In the analysis of documents and interviews, attention has gone not just to the content of the data, but special attention has gone to their function in a wider social and organisational context and how they construct the organisations that they are describing. Documents and interview material are not neutral, transparent reflections of organisational life (Atkinson and Coffey 2011). As Brown and Yule (1983) explain, all written and spoken texts have underlying purposive construction by agents who have specific intentions in producing them for particular audiences.

Ethical Considerations, Research Strengths, and Limitations

There are several elements I wish to highlight with regard to ethics. From the start I aimed to offer full disclosure about the intentions of this research project towards interviewees. Most importantly this was done through a one page research outline send to interviewees prior to meetings with them.[27] In addition, during interviews I asked whether the goals of my research were clear or whether interviewees still had questions about the research or myself. Typically, I started interviews with a short explanation of my project and the purpose of the interview. Another important element has been the protection of participants' anonymity and that of the agencies they worked for. All interviewees were assured anonymity in order not to compromise their interests. Any use of material has been anonymised to make sure that interviewees are not recognisable. For individual interviews some further guarantees to the interviewee have been made, for example, that quotes cannot be used without their permission, that drafts of written material would be shared with the interviewee, that certain information will be kept confidential, or that there would be no recording of the interview.

[27] See Appendix A.

Due to the anonymity of the interviewees and the importance of confidentiality, interview material has also been encrypted and password protected.

An important limitation of this research is the extent to which it can be regarded as representative of the entire rating industry. Within case study research generalisation is often seen as a problem (see e.g. Gomm and Hammersley 2002). This research has focused on the London offices of rating agencies, considering time and budget constraints it was not possible to study agencies in other locations. Yet the London offices are very much part of the transnational operations of rating agencies. With regard to the representativeness of this study, readers should also be cautious that it has only been possible to analyse a limited number of documents and to conduct a limited number of interviews within the time available for data collection and analysis. Despite these limitations, the documents consulted and the various interviewees did express very similar views about the rating industry and the potential regulatory role that it plays. Furthermore, there have not been many studies that included the views of rating agency staff to this extent and in that sense this study holds value providing unique insights into the world of rating agencies, how they work, how they make decisions, and how these may have regulatory consequences.

Another question that needs to be addressed is the extent to which this study is representative of regulation by beyond the state actors. The purpose of this instrumental (Stake 1995) or exemplifying (Bryman 2012) case study is to contribute to developing an understanding of larger phenomena beyond the specific case of the rating industry (Gerring 2007). Ultimately, the goal of this thesis is not just to understand the role of rating agencies in regulation, but to use rating agencies to learn more about how actors beyond the state are involved in the regulation of risks including at transnational level. By describing the case study of the rating industry in sufficient detail, I aim to make comparisons to other cases possible (Stake 1994, p. 241). It is, however, a misconception to view this case study as necessarily representative of all other sorts of non-state actors and their involvement in regulation. While recognising its limitations, this case study does offer substantial scope for the elaboration of theory about the role of non-state actors in regulation and their relations with other actors in a particular regulatory regime. What this thesis shows is of relevance beyond merely the rating industry and the regulation of credit risk in debt capital markets. Especially as the field of non-state regulation is relatively unexplored, this case study contributes to developing a better understanding of pluralised forms of regulation that are especially important in the area of global or transnational risks and points to areas that we need to look at more closely. Using general theories of regulation and analysing the role of rating agencies through three commonly used components of regulation, also seeks to make comparison with other and future studies on non-state regulation possible.

Two final limitations of this thesis relate to the interpretive approach of the research. Firstly, the interpretive approach in this thesis has implied that the thesis focusus on the viewpoint of the agencies and their staff and much less so on other actors in the regime regulating credit risk. The picture presented in this thesis of the regulation of credit risk is therefore incomplete. For example, to understand how the agencies modify behaviour would also require to look at the effects of ratings in the debt capital markets, such as on rated actors. This has been beyond the scope of this thesis which has deliberately looked to understand the role of rating agencies from their perspective as this has been absent in the existing literature.

Another limitation of the interpretive approach, shared with other qualitative studies, is that the researcher has been the instrument and the data are for that reason also very much my construction *"of other people's constructions of what they are up to"* (Geertz 1973, p. 9). Throughout the thesis I aim, however, to involve the reader as much as possible in the world of the rating agencies and how my interviewees describe it through the extensive use of verbatim quotes. Another drawback related to being the research instrument myself, is that in particular with regard to interviews it should be borne in mind that interviewees may have given certain responses based on who I am as a researcher, in this case perhaps an outsider, a female, a social scientist (Miller and Glassner 2011, p. 134). In general, however, I tried to use who I am to my advantage by presenting myself as an interested outsider who wanted to understand better what rating agencies do and the issues they are dealing with. Nevertheless, I was also aware that with my background, which for example lacks experience in financial services and markets, I needed to make an extra effort to appear competent by preparing interviews well and displaying knowledge of the topic (Feldman et al. 2003, p. 7). As Meuser and Nagel (1991, p. 448) wrote, preparation in expert interviews is especially important so you are able to show familiarity with the topic and do not appear as an *"incompetent interlocutor"*.

Looking Ahead: The Empirical Chapters

In the following empirical chapters the data collected through the documentary survey and semi-structured interviews will be discussed in detail. In the introductory chapter I outlined how the analytical framework around risk regulation regimes set out by Hood, Rothstein, and Baldwin (2001) will be used in this thesis. The notion of risk regulation regimes developed in the context of regulation by state actors, but it can be used as an analytical tool to study the role of non-state actors in regulation as for example discussed by Hutter (see 2006b). The focus in the empirical chapters will be on the extent to which credit rating agencies are involved in the three different components of a regulatory regime: standard-setting, information-gathering, and behaviour-modification. Each of these three control components will be discussed in a separate chapter discussing the relevant stages of rating processes that correspond closely to the three components. Together the empirical chapters address the potential regulatory role of the credit rating industry.

Although credit ratings seem to have become ubiquitous in the world around us, we know very little about how ratings are developed and to what extent credit rating can be considered as a regulatory process. As Paudyn (2013) argues, how ratings are produced is an area that is seldom problematised. The main objective of rating agencies is to evaluate the creditworthiness of issuers of debt and debt issues through the development of credit ratings. Creditworthiness refers to the willingness and ability of issuers to meet their financial commitments in full and on time. Credit ratings are used by investors as a tool to assess credit risk or the risk of default. The following three empirical chapters will examine how the major credit rating agencies produce credit ratings with a goal of assessing to what extent credit rating agencies are involved in the regulation of risk. The process by which rating agencies develop ratings can be divided into three stages. The first stage is composed of the key principles of credit analysis and the more specific rating criteria that are set by the various rating agencies. In Chapter 4 the first stage will be examined and to what extent principles and criteria stipulating what is likely to be assessed as more or less creditworthy can be considered as regulatory standards. The second stage consists of the gathering and analysing of information by rating analysts based on the principles and criteria. In Chapter 5 the agencies' information-gathering and information-analyses processes will be discussed, again with consideration for how these may be deemed as part of regulatory processes. The third stage revolves around the determination of ratings by analysts and other staff in rating committees and the surveillance of issued ratings. In Chapter 6 this stage will be reviewed with particular focus on the extent to which it resembles regulatory decision-making and surveillance processes aimed at modifying behaviour.

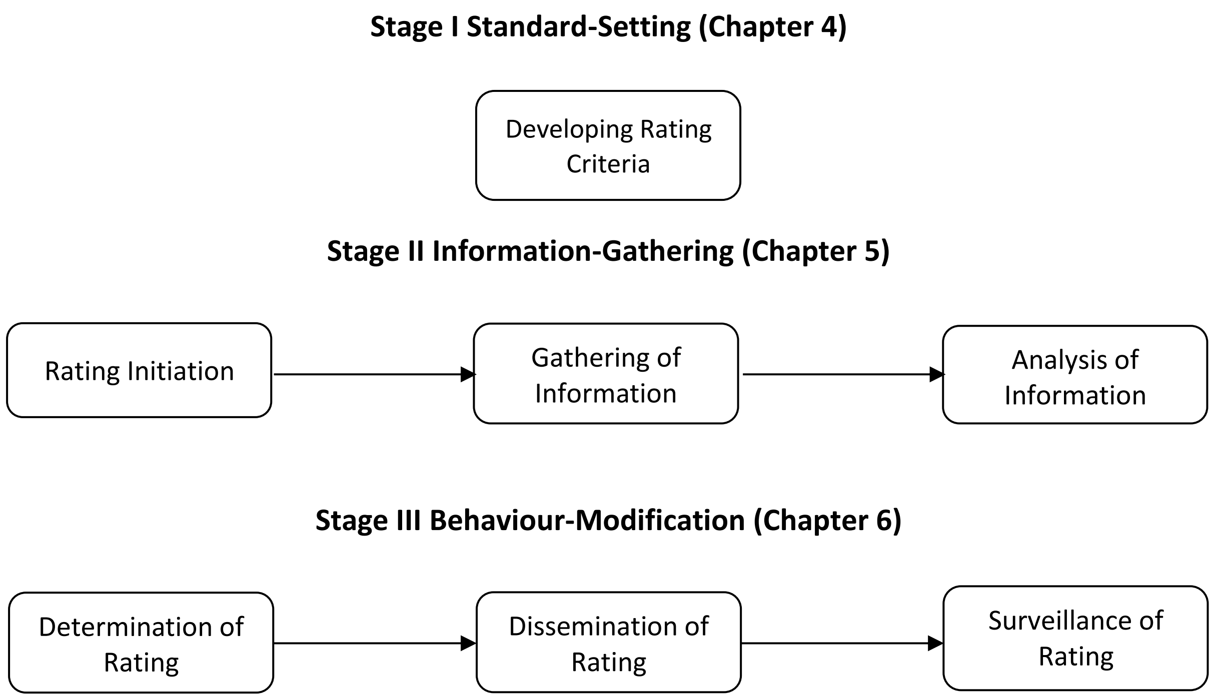


Figure 3.1: Stages of Credit Rating Processes

4 Developing Standards of Credit Risk

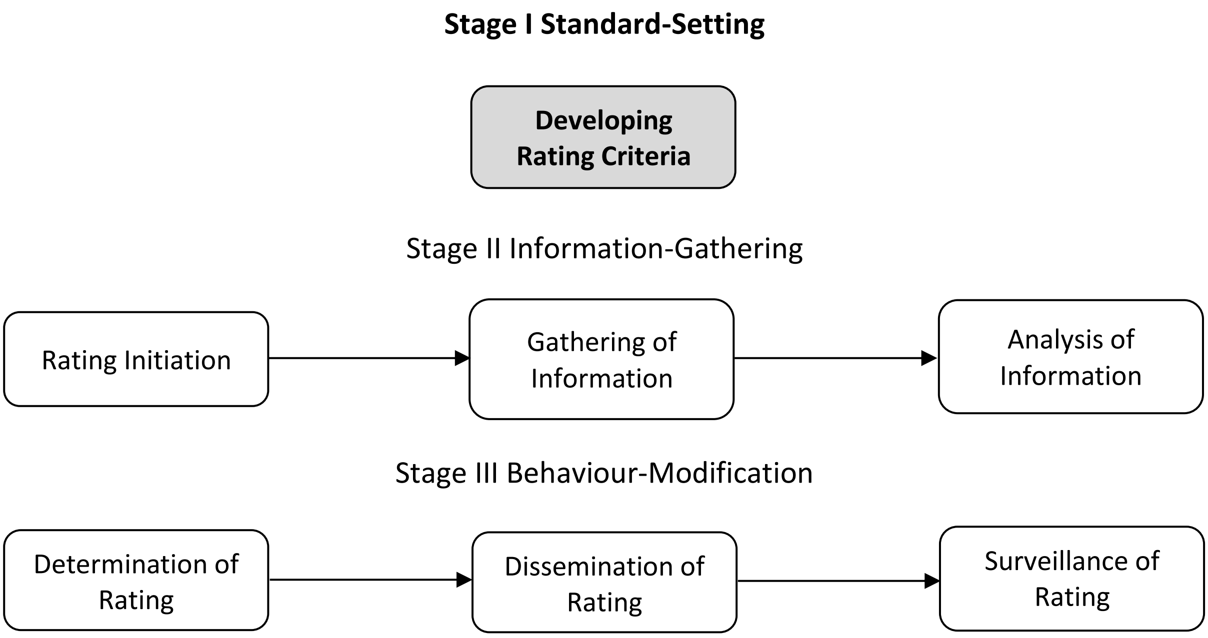


Figure 4.1: Stages of Credit Rating Processes

In order to assess how credit rating agencies may perform a regulatory role, this chapter will discuss the first stage of credit rating processes to analyse the extent to which rating agencies develop standards of credit risk in a regulatory sense. Standards are central to all regulatory regimes (Scott 2010). Through standards an expression is given of what behaviour should adhere to (Hood et al. 2001; Scott 2010). Regulatory standards can be defined in various ways, but in this thesis I follow Braithwaite and Braithwaite's (2012, p. 307) broad definition of regulatory standards as instruments that encourage the *"pursuit or achievement of a value, a goal or an outcome, without specifying the action(s) required"*. The processes by which standards are created, their varieties, and how standards influence decisions, have been central topics in regulatory research (Kagan and Coglianese 2007).

Standards can be set by state and non-state actors at domestic and transnational levels and can come in many forms from legally binding instruments to non-binding guidance. Non-binding standards can also become part of binding standards as they become incorporated into legislation (Börzel and Risse 2002), an aspect that is especially relevant in relation to credit rating agencies as their ratings are used in public regulation. In the regulatory literature an increasing number of authors have come to consider the role of private actors in standard-setting (see e.g. Grabosky 2013; Hutter 2006b). However, in comparison public standard-setting has received far more scrutiny even though private standards are equally critical and pervasive in risk regulation, also historically speaking (Braithwaite and Drahos 2000; Cheit 1990; Schepel 2005). A considerable amount of conventional wisdom exists about private standard-setting, but this may not always be well-founded. For example, ideas exist that private standards are more lenient or developed through procedures which are less formal and less solicitous of due process than those produced by state actors (Cheit 1990). Private standards are also suspect because they appear as voluntary lacking monitoring and enforcement provisions and appear ill-suited to protect the public interest (Bartley 2007).

Opposite arguments are also made, namely that private standard-setting may actually be more efficient and effective at achieving goals in the common interest, especially at transnational level (Büthe and Mattli 2011; Cafaggi 2014). Nevertheless, as Cheit (1990, p. 11) points out, *"private regulation, like public regulation, varies in so many respects, internal and external, that no single theory fits all forms."* A mixture of motives, factors, and complexities exist that affect private regulation, similar to public regulation. As private standard-setting is becoming of growing significance in today's global economy (Büthe and Mattli 2011), there is a greater need for understanding how it develops, especially as the processes by which non-state actors develop standards are generally more opaque.

Whether rating agencies are involved in regulatory standard-setting is discussed in this chapter by examining the credit rating principles and criteria that are used to determine what is regarded as creditworthy and to assign credit ratings. The chapter focuses on what these principles and criteria entail, how they are developed, and on the role of credit policy departments as they are ultimately responsible for establishing rating criteria within rating agencies and for "*policing"* the rating process as a whole (Interview 8). In addition to considering whether principles and criteria are regulatory standards, the chapter will also discuss issues such as accountability and legitimacy and how these influence how rating agencies may or may not be able to enforce standards on debt issuers or other market participants. Accountability and legitimacy are of key concern in regulatory research and even more with the diffusion of regulatory roles to beyond the state actors (Bernstein 2011; Black 2008a; Scott 2010). Before addressing such issues, the chapter will begin by describing what credit ratings are, what they look like, and what they mean according to rating agencies. This chapter will make use of the documents produced by the agencies' credit policy departments and interviews conducted with credit policy officers.

Rank Ordering Credit Risk

An evaluation of creditworthiness, or credit risk, is expressed in the form of a credit rating that takes the shape of a letter grade ranging from 'AAA', the highest possible rating denoting the least amount of credit risk, to 'D', meaning default. Through these letter grades, rating agencies position the credit risk of debt issuers and debt issues in relative rank order. Credit ratings are a *"system of gradation"* indicating different levels of credit risk (Moody's Investors Service 2014b). One interviewee explained it as follows:

> We produce a rank ordering. So we basically tell the market that we think this risk is greater than that risk. (Interview 3)

A higher rating of an issuer or their debt issue indicates that these are expected to default less frequently than issuers and issues with lower ratings. Credit ratings should be understood as ordinal and relative measures of credit risk as opposed to cardinal and absolute measures of credit risk. Ratings *"do not imply or convey a specific statistical probability of default"* (Fitch Ratings 2013a, p. 4), nor are ratings *"a guarantee"* (Standard & Poor's 2011c, p. 4) of credit quality. Rating agencies argue that even the highest rating is not a guarantee that an issuer or a bond issue will not default, it only indicates that they are less likely to default than a lower rated issuer or issue. With the rank ordering of credit risk, rating agencies aim to set *"a global benchmark"* (ibid., p. 6) that will enable comparability of credit risk of issuers and issues across a broad range of regions, sectors, and asset classes. Ratings are assigned to issuers and debt issues, *"as diverse as a Canadian mining company, a Japanese financial institution, a Wisconsin school district, a U.K. mortgage-backed security, or a sovereign nation"* (ibid.). Although rating agencies claim that issuers and issues with the same rating share similar credit risk characteristics, they warn that:

> Obligations carrying the same rating are not claimed to be of absolutely equal credit quality. In a broad sense, they are alike in position, but since there are a limited number of rating classes used in grading thousands of bonds, the symbols cannot reflect the same shadings of risk which actually exist. (Moody's Investors Service 2014b)

Therefore, despite the agencies using largely similar letter grades it cannot be assumed *"that a given letter rating from different agencies indicates the same degree of credit risk"* (Moody's Investors Service 2015b). Raynes and Rutledge (2003, p. 262) explain that debt issuers or debt issues can be given the same rating by a number of agencies, while giving rise to widely disparate credit risk. That the underlying credit risk may be different is obscured as similar letter grade ratings are published. Also because very different types of debt can be given similar ratings the agencies have made various issuers and financial instruments commensurable. The different issuers and issues are viewed in quantitative terms as having more or less risk and not in terms of their potential qualitative differences that disappear behind a rating (Langohr and Langohr 2008, pp. 44, 90).

That rating agencies regard ratings as comparable across all types of issuers and debt issues has been subject to considerable criticism. It has been argued that in particular when it comes to structured finance, debt instruments have very different credit risk characteristics compared to debt instruments in other categories such as corporate bonds. Structured debt instruments are, for example, considered to be more volatile (see e.g. Bank for International Settlements 2008, pp. 14-7). After the financial crisis of 2007-08 one of the regulatory initiatives in Europe has been to require rating agencies to add a specific symbol, such as (sf), to differentiate structured finance ratings from other ratings (European Parliament and European Council 2009, Article 10(3)). But as is argued by Darbellay and Partnoy (2012, p. 282), although different symbols could help signal to investors that the risk characteristics of one security are different from another security, such symbols may also create more confusion.

The rating classes, or rating categories, used by the agencies are based on the ‘AAA’ to ‘D’ letter grades. Each rating agency uses their own rating categories that are part of rating scales, but their scales and the meanings given to them look very akin to the example rating scale provided in Appendix D. In Appendix D the most commonly used rating categories and their meanings are summarised. Asides from letter grades as displayed in the table, rating agencies also use other indicators such as the modifiers ‘+’ and ‘–‘ (Fitch Ratings 2013a; Standard & Poor’s 2011c) or ‘1’, ‘2’, and ‘3’ (Moody's Investors Service 2013d, p. 5), to further distinguish the higher or lower standing of issuers or issues within a category.

Similar Ratings, Different Agencies, Different Risk Assessments

When the agencies produce different ratings for the same debt issuer or debt issue, it is immediately obvious that a rating agency has a different view of the credit risk involved, something which is referred to as split ratings. However, when the agencies assign the same credit rating to an issuer or issue, something which is not unlikely as all the major rating agencies use similar broad rating categories, this does not imply that they share the same ideas about the level of credit risk (see e.g. Baker 2002; Cantor and Packer 1997). Similar ratings by different agencies may be based on a different credit risk analysis, which is why the agencies emphasise that the ratings of the various agencies are not interchangeable (Moody's Investors Service 2015b). Every rating agency develops their own criteria to arrive at credit ratings, meaning that each rating agency (Interview 30):

> [W]ill look at things differently and even if they come to the same conclusion then they [rating agencies] could have gotten there in very different ways (...) Ratings from different rating agencies reflect different definitions of what is credit quality or creditworthiness.

As the following interviewee explained further (Interview 1):

> The business may the same, the underlying analytics may be similar, but (...) sometimes you come up with different answers with the same information, a different interpretation. It is just that we look at risk differently, we evaluate it differently.

The rating agencies do not view this ambiguity with regard to analysing credit risk as a problem, in fact they argue that the agencies serve the market best when they offer diverging views on credit risk as it enables market participants to make better decisions. As Langohr and Langohr (2008, p. 63) write, split ratings could be viewed as very valuable to the market especially if investors combine the information from the different agencies.

The agencies also use the different ways that they look at credit risk as a way to compete with each other. As explained by one of the agencies (Standard & Poor's 2002):

> There is no one model or [set of criteria] for producing sound credit ratings. Resources, procedures and form of organization are simply tools to use to build market credibility and recognition. (…) The financial markets have greatly benefited from the robust and healthy competition among the various NRSROs [registered agencies], each of whom possesses a varied and constantly evolving operational and personnel structure, [criteria], business focus and pool of resources.

This competition on standards is, however, not always ‘healthy’. In recent years the agencies are argued to have been involved in a ‘race to the bottom’ in their assessments of credit risk. The literature on regulation has discussed both the potential for competition between different regulators and standards to lead on the one hand to a race to the top and on the other hand to lead to a race to the bottom (Jordana and Levi-Faur 2004, pp. 97-8; Prakash and Potoski 2006; Vogel 1995; Vogel and Kagan 2004). Competition could pull standards up if different standard-setters compete for credibility and standard-setters are disciplined by the choices made by those using the standards. However, competition could equally pull standards down if standard-setters compete for those using the standards to sign up to their standards ultimately resulting in regulation that does not serve the public interest in the best possible way (Scott 2010). In the case of the rating industry, a race to the bottom would mean that competition between agencies weakens the standards they use to evaluate credit risk, potentially reducing the protection provided to investors.

Competition between rating agencies can potentially force their standards downwards especially because the majority of the agencies' revenue comes from fees paid by issuers who choose which agency will rate their creditworthiness. In the wake of the financial crisis various examples revealed how debt issuers choose the agency which has the most favourable criteria resulting in the best possible rating for them (see e.g. Tett 2009, Chapter 6). A good rating generally leads to easier and cheaper access to the debt capital markets. Shopping around for the best rating by selecting agencies on the criteria that they use, took place in particular in the area of structured finance. The OECD (2010, p. 19), reflecting on the financial crisis, argued as follows:

> In the structured finance market, the competitive dynamics could be described as a "race to the bottom", i.e. CRAs were racing against each other in order to have the criteria that would allow them to provide the largest AAA tranche, which increased the incentive to dismantle the existing regulatory standards.

In 2014, SEC Commissioner Aguilar concluded (US Securities and Exchange Commission):

> We know now that the rating agencies' paramount concern in the years leading up to the crisis was to maximize their revenues and market share. This led the rating agencies to appease certain clients by lowering ratings criteria, failing to require reasonable due diligence reviews, and delaying the implementation of improved ratings models. As a result, the ratings issued on structured products became less and less defensible.

Such statements are not surprising in light of the evidence brought out by investigations such as those by the US Senate Committee on Homeland Security and Governmental Affairs Permanent Subcommittee on Investigations (2010). Internal rating agency e-mails relied upon in that investigation reveal how criteria were, at least in some instances, adjusted to appease banks involved with the issuance of structured products. The following two internal e-mails are examples (ibid, p. 2):

> We just lost a huge Mizuho RMBS deal to Moody's (…) Losing one or even several deals due to criteria issues, but this is so significant that it could have an impact in the future deals.

And (ibid.):

> We are meeting with your group this week to discuss adjusting criteria for rating CDOs [collateralized debt obligations] of real estate assets this week because of the ongoing threat of losing deals.

Other internal e-mails, however, also point out that negotiation on criteria was not necessarily accepted practice (United States Senate Permanent Subcommittee on Investigations 2010, p. 2):

> Why these questions [from bankers on criteria] come up every month is obvious – issuers don't like the outcome. However, the right thing to do is to educate all the issuers and bankers and make it clear that these are the criteria and that they are not-negotiable. If this is clearly communicated to all then there should be no monthly questions (…) Screwing with criteria to 'get the deal' is putting the entire S&P franchise at risk – it's a bad idea.

However, the possibility for issuers to shop around for favourable ratings should not be overstated. With the exception of structured credit products, it is highly unlikely that issuers of debt can fundamentally change their credit risk characteristics. Also, there are only a limited number of relevant globally active rating agencies that are considered to be reputable and generally issuers seek or are even required by regulation to seek ratings from several different agencies. The extent to which competition on standards, either positively or negatively, influences the criteria developed and used by rating agencies to assess creditworthiness may, therefore, be limited.

Principles of Credit Risk Analysis

The way that rating agencies approach credit risk analysis, something that they refer to as the *"craft of ratings"* (Interview 20), shares a number of basic characteristics across the different agencies and with risk regulation in general. Interviewees described credit analysis as *"a well-established discipline"* (Interview 30) or *"tradition"* (Interview 20) where not many innovations are possible. In this section I will highlight four broad principles that inform how the main credit rating agencies approach credit risk analysis, these are: forward-lookingness, subjectivity, stability, and consistency and comparability.

Forward-Lookingness

The key principle of credit risk analysis is forward-lookingness, a concept that has also become commonplace in risk regulation which is *"inherently about the anticipation of risk and preventing its realisation"* (Hutter 2010, p. 17). Increasingly, organisations are required to make planning documents in anticipation of risk (Clarke 1999). As stated by Standard & Poor's (2010, p. 9), rating agencies argue that:

> [C]redit ratings are most useful when they are forward looking. That is, they are the most useful when they embody an analysis that considers not only the past and the present but also extends into the future.

Because *"[c]redit is essentially a question about the future"* (ibid., p. 18), rating agencies look at the *"future performance"* (Fitch Ratings 2013a, p. 4) of issuers and issues by conducting a credit analysis that looks beyond *"the past record and the status of the present"* (Moody's Investors Service 2014b).[28] Past events do, however, inform rating agencies' forward-looking credit analysis. Credit risk analysis in part consists of assessing how issuers or issues are able to withstand *"plausible crisis scenarios"* without defaulting (Moody's Investors Service 2015a). These crisis, or stress, scenarios are based on real-world historical events. Standard & Poor's (2009a, p. 15), for example, argues that each rating in the 'AAA' category should be able to withstand *"an extreme level of stress and still meet its financial obligations".* An example of a scenario that they use where such extreme levels of stress were present is the Great Depression in the US. This crisis was characterised by sharp declines in levels of real gross domestic product (GDP) and high unemployment. Rating agencies are cautious about the extent to which they are able to produce forward-looking ratings. They acknowledge that *"as in the case of any forecast, there can be a range of actual outcomes and a range of uncertainty about the forecast"* and they will normally assign a rating based on their perception of what is the most likely outcome (Moody's Investors Service 2014b).

One interviewee observed (Interview 30):

> Rating agencies have no special ability, special power to predict the path of the economy, or the global business environment any better than anybody else does. What you can legitimately expect a rating agency to do is to give you some indication that if your national economy or the world economy goes into a

[28] Usually this means that ratings are based on an analysis that looks ahead three to five years, with ratings below the 'BBB' category generally based on an analysis that looks ahead around two years in time because these ratings are more vulnerable to adverse developments (Standard & Poor's 2010, p. 16). Rating agencies also inform investors about the creditworthiness of short-term debt. These are debt issues whose maturity does usually not exceed twelve-eighteen months. In this thesis I focus on the ratings for long-term debt as this is what ratings are most commonly used and known for.

> stressful phase how will different groups of credit perform? Will they survive or will they fail?

Another interviewee emphasised the limitations of rating agencies to forecast the future as follows (Interview 1):

> [I]f you are asking the rating agencies for prescience, you are asking for more than they can do. And if you are asking them to be better than the market, than you make a huge mistake because if they are really better than the market they would be trading their own money, not working in a rating agency.

Subjectivity

Related to forward-lookingness is the principle of subjectivity. The agencies approach credit risk analysis as a subjective process in the sense that it reflects the opinion of rating analysts about risk. One agency indicates, for example: *"Because it involves a look into the future, credit rating is by nature subjective"* (Moody's Investors Service 2014b) and credit risk analysis *"cannot be mechanized"* (2015b). Hence, the rating agencies argue that credit analysis consists of *"opinion forecasts"* of the relative credit risk of issuers and obligations (ibid.2002, p. 5). Instead of presenting ratings as facts, all agencies emphasise that their ratings are opinions in their standard liability disclaimers accompanying the publication of ratings (see e.g. Fitch Ratings 2013a; Moody's Investors Service 2013b; Standard & Poor's Ratings Services 2012). Portraying ratings as opinions is based on a view that the agencies' analysts are financial journalists who participate *"in the market place of ideas"* and that the agencies are intrinsically organisations with a *"journalistic culture"* (Moody's Investors Service 2014e, p. 1). The agencies are keen to promote ratings as *"the world's shortest editorial"* (Moody's Investors Service 2014e, p. 5).

This view of credit rating as a form of journalism is, however, strongly criticised as ratings can have significant consequences, more than other forms of financial press reporting. This is in particular because ratings are used for regulatory purposes by public actors such as the state (see e.g. Partnoy 2006). Furthermore, by relying on ratings as opinions, the agencies have for long been able to avoid legal liability as opinions are protected in most countries by free speech provisions.[29]

[29] This legal protection from liability is no longer applied and upheld uniformly by courts around the world. A very significant exception is the ruling in 2012 by the Australian Federal Court holding a rating agency liable for the first time.

The large majority of interviewees stressed in some form or another that credit risk analysis resembles an art more than it does *"rocket science"*. As explained by this interviewee (Interview 12):

> What we are talking about here is credit. Credit is not a science, credit is an art. It is expressing a view about something, about the future. So it has nothing to do with science, although people think it does, which is a mistake.

For this reason rating agencies favour what is called fundamental credit analysis *"performed by professional credit analysts"* (Standard & Poor's 2009b, p. 2) over model-driven credit analysis. Although models allow for *"low-cost, high-speed"* credit analysis, the agencies emphasise that models *"inherently lack the ability to capture qualitative nuance"* (ibid.). Several interviewees argued that models are to a large extent at odds with the nature of credit risk (Interview 2):

> You know if you go back to the nature of credit. Which comes from the Latin 'to earn trust'. So you know two people talking in a room trying to work out, if I give you that, will I get it back or not? And that is really what it boils down to. You cannot model that mathematically.

Nevertheless, depending on what is being rated, models do play a role in rating processes. The analysis of some debt issuers or issues may not require the use of any models, whereas the analysis of others may require a substantial role for models (Fitch Ratings 2013b). The role of models should be understood as supporting fundamental analysis by rating analysts. When there are large volumes of data that need to be analysed, which is especially the case for structured credit products, models can be a convenient tool used *"in order to simplify"* and *"to have the first snapshot of analysis"* (Interview 12). Rating agencies in general place great importance on qualitative considerations and qualitative skills especially as they argue that decisions require *"business judgment, experience, intuition, imagination, and common sense"* (Standard & Poor's 2009b, p. 5). But even when it comes to using models, rating agencies argue that this does not mean that judgement is by any means removed from the analysis. Rating agency models are based on subjective assumptions made by rating agency analysts (Interview 12):

> If you do not understand that, you are going to make mistakes. Without those [assumptions] the model is nothing (...) To me the model is as qualitative as when you go and decide about the manager, do they have good governance, which you could say is very qualitative. But (...) the assumptions that the model is working on, that is also qualitative. By the way, qualitative does not mean pick up from the air from nothing, it means there is qualitative thinking behind it, again because you are thinking about the future.

Because credit risk analysis is focused on the future, rating agencies point to the importance of qualitative aspects of credit risk and having the skills as an analyst to understand these. As a former analyst and now manager described, good analysts need experience and an ability to look beyond numbers (Interview 18):

> When you work for an organisation like a rating agency, you need good quality people and you need people that are highly experienced because they 'have lived it'. So if I have a bunch of numbers and I get a bunch of guys out there who are just out of school who are crunching numbers, they can tell me how great a company is based upon the numbers and based upon their perception. But because they have not lived and they have not experienced things in life, they cannot tell me about those qualitative aspects. So for me quantitative aspects are important, but the qualitative are more important.

Also other interviewees described how experience is a necessary skill required in order for analysts to conduct credit analysis. In the next chapter it will be discussed further how analysts combine both quantitative and qualitative skills when making rating decisions, from using models to relying on their intuition and *"gut feeling"* (Interview 18).

Stability

Another core principle for the agencies is that credit risk analysis is aimed at producing relatively stable ratings. An important way through which rating agencies enhance stability is by focusing on long-term risks in their analyses as explained in the discussion on forward-lookingness. Rating agencies are said to be producing through-the-cycle ratings in the sense that they look at how issuers or issues are likely to behave through the next economic upturn or downturn (see Moody's Investors Service 2013e). Credit ratings are, therefore, not *"high-frequency sources of information. Instead, they are based on careful, deliberate analysis and will sometimes appear to 'lag the market'"* (ibid.2002, p. 13). Rating agencies argue that *"ratings are not intended to ratchet up and down with business or supply-demand cycles or to reflect last quarter's earnings report"* (ibid.2013e).

According to the rating agencies, investors also expect rating stability (Mahoney 2002, p. 3):

> Investors are strongly opposed to volatile ratings; they expect ratings to be a stable signal of medium to long-term fundamental credit risk. This is in part because ratings have become so embedded in investment guidelines and bond

> indices that volatile and unexpected rating changes force asset managers to buy and sell securities against their will, and at inopportune times.

Credit ratings are supposed to be *“credit opinions that look beyond each day’s news in order to provide a more stable signal than market-based mechanisms”* (Mahoney 2002). According to the agencies a range of market-based indicators exist that market participants could turn to if they want more current, but also more volatile, information such as, for example, bond spreads. Rating agencies argue that they provide information for investors who are looking to the long-term because this is where credit risk becomes a more important consideration in the decision whether to invest or not (Interview 12):

> [C]reditworthiness becomes a bit less important. What becomes important [in the short-term] is your financial risk, pricing, liquidity, can I roll my investment? And that becomes 95% of the decision whether to invest in A or B. But if you go long-term then probably you want to know a bit more about credit.

That rating agencies favour ratings stability can endanger the timeliness and accuracy of ratings. As this analyst explained, the agencies are often in a position where they *“cannot win”* (Interview 3):

> The rating agencies are always either too quick to move or too late, you cannot get it right. Why? Because the market is driven by market perceptions and of course these move quicker, I am not saying moves properly than the rating agencies can. Spreads and market sentiments are by definition a quick thing, a short-term view, whereas a rating is a long-term view.

The tension between on the one hand stability and on the other hand being on time is especially present when deciding at what exact moment ratings need to be updated. Former employees described that there has been hesitance amongst senior management to rate outstanding debt with new information as this could *“significantly increase rating volatility and possibly result in lost revenue”* (Raiter 2010). In the economics and finance literature rating agencies are frequently discussed as being too slow to adjust their ratings and lagging behind actual changes in credit risk (Altman and Rijken 2004; Löffler 2005). The agencies are reluctant to update ratings and only want to do so when changes are seemingly permanent and unlikely to be reversed even if the pressures can be quite challenging as this former analyst and credit policy officer explained (Interview 12):

> It is a very funny world to be in, it is very challenging to keep your mind steady and still when everything happens in the market. And to be honest internally as well, the emails that we send to each other saying have you seen this, that, should we act? But our position is to say take a step back and try to see for the long-term,

> which is not what the world is all about. The world is all about short-term, right now.

In the next chapters I will discuss further how the principle of ratings stability plays a role in the decisions of rating analysts and in rating committees.

Global Consistency and Comparability

Consistency and comparability are another set of principles that lie at the basis of the approach of rating agencies' analyses of credit risk (Interview 4):

> Whenever we rate something we have to strive for comparability around ratings, and sectors, and regions, because we are a global rating agency so we have to strive as much as possible that when we give a triple 'A', single 'A', double 'B' it means the same regardless of what it is [we are rating].

This ability to establish global comparability may be one of the attractive features that rating agencies share with beyond the state regulators setting standards to regulate in transnational markets (Büthe and Mattli 2011).

There are various ways through which the agencies claim that they can make sure that credit risk analysis leads to universal consistency and comparability of ratings. The most important are a range of checks and balances within the organisation (Moody's Investors Service 2014b). One of these, the rating committee system, will be discussed in Chapter 6 as it plays a crucial role in the rating process and the determination of ratings. Comparability and consistency are also established through what are called the credit policy departments in rating agencies composed of credit policy officers. As one credit policy officer explained, in a sense rating agencies are *"structured like regulators. Many regulators separate their line regulators from policy. We separate rating teams and credit policy"* (Interview 8).

Credit policy departments became quite important within rating agencies *"driven by the crisis and driven by regulation [as] regulation has required us to have in place an internal review function, that is what we [the credit policy department] are"* (ibid.). Credit policy is responsible for developing criteria that are another important tool by which rating agencies aim to achieve consistency and comparability of ratings. Credit policy officers also act like *"policemen"* making sure that rating analysts take decisions according to those criteria as credit policy groups have the right to appeal rating decisions *"if we feel that the outcome does not make sense in terms of our criteria, or aspects have not been taken into account"* (Interview 12). Another tool, used to enhance comparability in particular, is that of the rating scales. As the same letter grades are used to rate across *"a critical mass"* of corporates, financial institutions, sovereigns, and structured finance *"in each key sector of the capital markets globally"* (Moody's Investors Service 2013f). Rating scales *"provide a common language for comparing creditworthiness, regardless of the type of entity or assets underlying the debt instrument or the structure of the financial obligation"* (Standard & Poor's Ratings Services 2012). According to the rating agencies whether a rating is assigned to a structured credit product, a bank, or a local government, they are all comparable on their level of credit risk (ibid.).

The Role of Rating Criteria

In order to evaluate credit risk or creditworthiness, rating agencies develop rating criteria. Criteria could be considered as the *"rules"* (Interview 12) needed to evaluate creditworthiness or the *"blueprint"* (ibid.) or *"recipe"* (Interview 16) of how rating agencies go about credit rating. Another way to portray it is as follows (Fitch Ratings 2015):

> Rating criteria reports describe methodology used in assigning ratings. They contain clear, concise descriptions of the minimum rating factors in ratings of particular debt instruments or entities.

The way that rating agencies operated in the past has been described as secretive and non-transparent (Paudyn 2013). Also interviewees have argued that criteria used to be quite vague (Interview 1):

> For a long time the way rating agencies published their criteria was to keep it very vague. Almost on purpose, you really could do it this way or that way and no one could complain.

However, due to the global financial crisis of 2007-08 greater transparency became an important topic for the rating agencies. The crisis prompted the agencies to become *"more vocal about what credit ratings actually mean"* and how rating agencies arrive at those ratings (Interview 2). As part of this push for greater transparency to restore lost confidence in ratings, criteria played an important role. As a result of the financial crisis and the alledged role played by the rating agencies in causing it, rating agencies' reputation in the market *"had been horribly damaged*" and they had a business imperative *"to fully explain, fully publish to the readership the recipe, the method of doing the analysis to come up with the ratings"* (Interview 1). However, not only did rating agencies have a business imperative to become more transparent with regard to their criteria, regulations developed in response to the crisis, such as those in the EU, demanded that rating agencies disclose the criteria on which they base their ratings (European Parliament and European Council 2009, Article 8). Criteria are described by credit officers as serving the purpose *“to tell the market how we rate things”* (Interview 12). After the crisis rating agencies began to position themselves by saying to market participants (Interview 1):

> We are showing you exactly how we make the ratings, you can replicate this process yourself, you can decide for yourself whether you think this is the right way, the best way to conduct a credit analysis. And if you agree that it is, that you should absolutely want to use the ratings. If you think there is a better way then maybe you do not want to use the ratings, maybe you want to use someone else’s ratings. But you can see and you can decide.

Another credit officer explained (Interview 12):

> We basically wanted to be able to say to the market (…) that they would be able to come up with a similar credit view if they followed our guidelines.

Rating agencies did, however, not just become more transparent to better inform market participants of how issuers and issues are rated. Since the crisis also internally rating criteria have become much more important in the day-to-day work of rating agencies. In part this is also due to regulation, for example, the introduction of rating agency regulation at EU level has led the rating agencies to increase *“the level of formalization of their activities, to follow more rigorous policies and procedures and to clearly allocate detailed roles and responsibilities to the staff”* (ESMA 2012, p. 7). Another important explanation for the increasing formalisation of processes at rating agencies is the growth of the agencies. One interviewee explained it is a *“very, very old rule”* (Interview 30) that rating agencies develop their ratings according to criteria. Until IOSCO embodied this in the voluntary code of conduct for rating agencies in 2004, it existed as unwritten rule. Yet, for a long time *“rating agencies to a large degree […] violate[d] that rule”* (Interview 30). Many interviewees described how rating agencies underwent significant changes during the 1990s and 2000s. Interviewees who had worked for rating agencies throughout this period argued that rating agencies in the early 1990s were more like academic departments or publishers and shifted slowly to more formal organisations (ibid.):

> They came from very kind of journalistic traditions, where there weren’t a lot of policies and procedures, there weren’t a lot of internal controls. (…) [A]s they grew they were transforming from being small businesses to medium-sized businesses and as small businesses in the 70s and 80s, and still good measure the early 90s, the force of personality of a few key leaders could really define the way people behaved.

The interviewee went on to explain that internal policies and procedures did not develop with the growth of the agencies and staff was very unaccustomed to policies and procedures prescribing behaviour, something which became much more common in recent years (Interview 30):

> There is a lot of analytic staff that has been there [the rating agencies] for decades, so they have their way of doing things and change is something that they do not accept very readily. So you had this idea that was very widespread that criteria are basically a suggestion, it is not a requirement to follow them, it is a suggestion and that is how people behaved (...) The analysts really did not like having a very specific methodology to follow because some felt that it demeaned their jobs.

According to the rating agencies the increased focus on criteria guiding rating processes does, however, not mean that they are now attaching less value to the analysts and analytical judgement. As one credit officer explained, rating criteria (Interview 12):

> [A]re not a formula, it does not programme a computer and spits out what a rating is. It is for our analyst to have a clear roadmap to go from the credit debt in front of them to a rating.

The rating analysts continue to be regarded as essential to rating processes, as this credit officer explained (Interview 8):

> We rely on the judgement of a diverse group of credit risk professionals [the analysts]. (...) We did not hire them because they can apply criteria, but because they can do credit risk, they are the risk experts.

The balance between analytical thinking and following the guidelines is, nevertheless, difficult. Even though rating agencies claim that they want analysts *"who are independent in their thinking*" (Interview 3) and argue that criteria are *"not supposed to curb the analytical judgement of an analyst"* (Interview 12), they also want to *"put them [analysts] into an environment where they are forced to get to [our] view"* (Interview 3). According to one credit officer *"the challenge with criteria is how to make them sufficiently precise to explain and to offer guidance, but also to allow for sufficient discretion"* (Interview 8). A credit policy officer described the balance between the criteria and analytical judgement by making an analogy to motorway design and driving (Interview 12):

> One thing is knowing very well the code where to drive, how to drive, you can have all the signs that you want. A good motorway is the one that has perfect signs that really tell you what to do. But all of that does not make you a good driver, you can still be crap at driving. It is still your analytical judgement, how do

> I use those signs. (...) The analytical judgement is huge and it still is. We just want to make sure that by the guidelines that we have, not only the analytical judgement is channelled through the right things of what we think the risks are. But also that the analytical judgement cannot change too much from one situation to another. Because otherwise you can forget about the comparability [of ratings].

Developing and Revising Rating Criteria

Every rating agency develops their own criteria explaining which credit risk factors they take into account when they rate particular issuers or issues and how these factors are weighed. Within each agency a range of different criteria exists. Some criteria are very broad, for example applying to a group of issuers in general, whereas other criteria apply specifically to particular regions, particular market sectors, or asset classes. The reason why rating agencies use multiple criteria is that there are many characteristics unique to what is being rated and there can be no one set of criteria suitable for rating all issuers and debt (Standard & Poor's 2009a). New criteria are not often developed, but typically only when a new type of debt instrument is introduced. More relevant is the regular revising of rating criteria. According to the agencies standards have to be *"nimble and flexible"* as there is *"no provably correct view about the future"* (Moody's Investors Service 2014e, p. 1).

The revision of criteria can be either the result of a periodic review that is conducted at least once a year for each set of criteria,[30] or because there are *"new problems or new ideas"* in the market that the agencies need to respond to (Interview 12):

> We have seen this particular thing is happening, we do not think that our criteria are necessarily equipped to do it. Because back then, when this criteria were made, this new thing was not there so the criteria does not capture it.

Revisions may also be initiated to incorporate something that already existed, but that was *"not picked up"* before. The revising of criteria is important as criteria are *"a living and breathing animal that have to evolve with the evolution of the market"* (Interview 12). In the aftermath of the crisis it became clear that criteria revisions are not considered lightly especially when they can have significant consequences. For example, Gaillard (2012, Chapter 10) argues that during the Greek debt crisis, some of the agencies delayed taking action to

[30] This periodic reviewing of criteria is now also laid down in European Union regulation which requires that rating agencies establish *"a review function responsible for periodically reviewing methodologies, models and key rating assumptions"* (see article 6 (2) in conjunction with point 9 of Section A of Annex I European Parliament and European Council 2009).

revise their criteria because of the consequences downgrades would have on Greece's access to investors and costs of borrowing (see also Pénet and Mallard 2014).

The process by which rating agencies develop and revise criteria is different depending on what is at stake. Most changes are relatively minor and do not entail *"a complete overhaul"* of criteria (Interview 8). When changes are more significant the process to revise criteria is more formalised and there is more involvement of staff who are part of the credit policy departments within rating agencies. The more significant a change, the more likely that *"it involves individuals who have a greater scope of responsibility and think about things in a bigger picture"* (Interview 12). As explained earlier, credit policy departments are ultimately responsible for criteria, but often they are only involved from a distance. As one credit policy officer explained: "*We can de jure impose what we want, but de facto rating teams develop criteria"* (Interview 8). If it is less formalised the development or revision of criteria remains mostly with the analysts, team leaders, and managers within the rating groups to which the criteria are relevant. A particularly important consideration whether a revision has to involve people higher up in the organisation, is whether a criteria change would lead to substantial rating upgrades or downgrades. As this credit policy officer explained (Interview 12):

> Revising a rating assumption that would not lead to significant rating changes does not have to go up the chain, if a revision would lead to significant rating changes it does have to go up the chain (...) For example if you change a very small assumption that only has an impact on very few credits only in a sector in Germany, I am just making it up, then there is a high chance it will stop at the first or second level of decision-making. Whereas if a more substantial change is made and you would change loads of ratings, or you will be particularly impactful in many regions. That then by definition could probably be brought to a higher level of criteria.

That credit policy departments within rating agencies have an important function with regard to both the development and revision of criteria is because according to the agencies they can act as an independent body within the rating agency. Nevertheless, the agencies claim that the role of analysts is still substantial as criteria are not *"something that comes from an ivory tower imposed down the different teams, that would be a disaster"* (ibid.) Rating agencies argue that the criteria are the result of a collaboration between the analytical departments and credit policy (ibid.):

> Criteria are not an imposition from a separate part of the organisation, it is created and it is done together with the analytical units (...) They do not get the criteria for utilities as something from above that they do not know anything about and just implement. They have been part of the process of creating those criteria, so they have complete buy in of what their thinking is.

Also, criteria changes can be initiated bottom-up by rating analysts. When evaluating issuers or issues they may *"identify a new risk characteristic or view a structural or regulatory shift in an industry that is not already captured"* (Fitch Ratings 2013b) by criteria. This would then prompt an investigation into whether a modification of the criteria is necessary. The development or revision of criteria does not only involve people internally at the rating agencies, it also involves external stakeholders such as investors, issuers, and regulators. After rating agencies have finished their own internal research, the agencies invite third parties and in particular investors to submit comments on proposed changes by putting out a request for comment (ibid.):

> When we have done a good amount of work on the change we want to implement and we are pretty comfortable that we are in the position that we want to change the criteria. We go to the market to tell what we are intending to do and what are the changes from the current thinking to the new proposed thinking. We ask the market if they see any problem with that and in particular do you think we are missing something? We want to hear as much as possible. Clearly we only listen to analytical discussions, we do not care if someone says: 'Well if you do this you are going to downgrade me, it is a problem'. Unless the person says you are downgrading for the wrong reason then that is an analytical reason.

Engaging in *"market dialogue"* (Moody's Investors Service 2002) is particularly important for policy officers as they argue: *"You always want to be out there in the market in order to understand what is new"* (Interview 12). In addition, however, it is now also compulsory in the EU with regulation stipulating that rating agencies need to have a consultation period when they make *"a material change to, or use, new rating [criteria] (...) which could have an impact on a credit rating"* (European Parliament and European Council 2009, Article 8).

Asking others to comment on proposed criteria may also be an important way for the agencies to raise the legitimacy of the criteria that they use to assess creditworthiness. As with non-state standard-setting, traditional mechanisms of public accountability or control are limited (Scott 2010), but by inviting the participation of, for example, the investing public, the legitimacy of rating criteria may be enhanced. Furthermore, oversight now also comes from the EU as it requires that the criteria used are *"rigorous, systematic, continuous and subject to validation based on historical experience, including back testing"* (European Parliament and European Council 2009, Article 8). After the comments from third parties, rating agencies will internally make a final decision about the changes to the rating criteria. The approval of revisions always involves credit policy staff, which explains why they *"de jure"* determine criteria: *"By not approving (...) it [the criteria] does not get implemented"* (Interview 8).

Examples of Credit Risk Factors

Rating criteria are not conclusive when rating issuers or debt issues. Instead, rating criteria *"contain clear, concise descriptions of (...) minimum rating factors"* (Fitch Ratings 2013b). As one interviewee explained:

> It [criteria] is not a bible that is supposed to cover everything (...) they cannot possibly cover every single aspect that is out there, because the criteria are not (...) A to Z. Otherwise you have criteria that are an encyclopaedia and you would miss the art aspect of what our job is, which is having the experience to look at the credit and knowing exactly what the specifics of that credit are. (Interview 12)

Another interviewee explained how this is not always well understood (Interview 4):

> [P]eople think (...) if we do sovereign ratings, that we analyse absolutely everything, that we do a full analytical piece of work on that sovereign. No we have criteria that focuses on just a number of things.

In next sections some examples of key rating factors that rating agencies use will be discussed to give some idea of the type of qualitative and quantitative considerations that may determine a credit rating. It should be noted that there are differences between the agencies regarding the specific factors that they take into account and how they weigh the importance of each factor when deciding on a rating. Especially weightings can have a substantial impact on the rating that is assigned, but they are not known publicly (Interview 16). A broad distinction can be made between factors that are relevant when assigning ratings to issuers, factors that are used when assigning ratings to specific debt securities, and factors that are applied to rate structured credit products. The examples I will discuss below are the credit risk factors relevant for rating sovereign issuers, corporate issuers, and the credit risk factors that are relevant for rating structured credit products.

Sovereign Issuer Risk Factors

Rating agencies define sovereign issuers as governments that exercise primary fiscal authority over a jurisdiction. In general, sovereign borrowers enjoy a high credit standing. Because sovereigns have the right to print their own money, sovereign default is mostly an academic question. The main risk in relation to sovereigns is that they can service their own debt through excessing money creation thereby eroding the value of their obligations through inflation. Another risk arises when sovereigns borrow in a foreign currency and cannot print the means for servicing their debt (Fitch Ratings 2002). Sovereign ratings are quite important in the debt capital markets. Firstly, sovereign ratings can form a ceiling above which other borrowers in a country cannot rise. Until the late 1990s the major rating agencies had a strict sovereign ceiling policy in place, but it has since been relaxed making it possible, although still not likely, that private debtors receive a higher rating than the sovereign (Borensztein et al. 2007). Sovereign ratings remain a key consideration in the credit risk assessments of private entities in a country. As Standard & Poor's (2011a) explains:

> This is because the unique, wide-ranging powers and resources of a national government can affect the financial, operating, and investment environments of entities under its jurisdiction. Past experience has shown that defaults by otherwise creditworthy borrowers can stem directly from a sovereign default, or indirectly from the deterioration in the local macroeconomic and operating environment that typically is associated with a sovereign default.

A range of broad categories of factors for rating sovereign issuers can be distinguished amongst the different agencies, usually representing a combination of both political and economic factors (Cantor and Packer 1995; Cantor and Packer 1996; Gaillard 2012). Standard & Poor's (2012) distinguishes institutional effectiveness and political risks, economic structure and growth prospects, external liquidity and international investment position, fiscal flexibility and fiscal performance combined with debt burden, funding and monetary flexibility. It also compares sovereigns to peers before assigning a rating. Moody's (2013a) on the other hand, refers to the economic resilience of a country depending on economic strength and institutional strength. Economic strength can be sub-divided into GDP per capita, diversification and size of the economy, and long-term economic trends. Institutional strength results from quality of governance, respect for property rights, and the transparency, efficiency, and predictability of government action. Moody's also considers the financial strength of a country and its susceptibility to event risk. The agency looks, for example, at the sustainability of public debt and the ability to raise taxes and access foreign currency. Other factors Moody's takes into account are economic resilience and financial robustness. As a final example, Fitch (2014d) emphasises qualitative factors in addition to quantitative financial strength factors comprising a country's public and external finances. According to Fitch, the activities and the policy of a sovereign can profoundly impact the economy as a whole. Fitch, therefore, assesses the coherence and credibility of policy and prospects, economic stability, and macroeconomic performance. Furthermore, Fitch analyses the structural features of a sovereign's economy that make it more or less vulnerable to economic and political shocks.

Corporate Issuer Risk Factors

Corporate issuer analysis tends to consider two broad categories of risk factors, business risk and financial risk. Business risk focuses on the strengths and weaknesses of the operations of a corporation, incorporating such factors as competition, diversification, and market cyclicality. Financial risk consists of an analysis of the financial flexibility of a corporation. Factors that the different rating agencies may take into account are, for example, growth expectations, liquidity, margins, or sales and profitability (Santos 2010). Standard & Poor's (2011b) outlines how the creditworthiness of corporate issuers typically involves an evaluation of the industry and market in which the corporation is active and the specific business and financial factors of a corporate issuer. Analysts consider corporations both on a stand-alone basis and they compare them to their peers. Business risks are country risk, industry characteristics, and company position. Country risk specifically is comprised of a corporation's operating environment in a particular country, considering for example the legal infrastructure. Industry characteristics typically encompasses factors such as competition, growth prospects, technological developments, and volatility. The analysis of a company's position considers how a corporation may distinguish itself from its peers through, for example, diversification of products and services. It also includes factors such as operational effectiveness, financial policies, governance, risk management practices, and risk tolerance, and strategy. The financial risks include an evaluation of accounting principles and practices, cash flow adequacy, financial flexibility leverage, liquidity, and profitability. Fitch (2014a) and Moody's (2002) equally consider business and financial risk factors. Fitch (2014a), for example, mentions industry risk, operating environment, company profile, management strategy and profile, group structure, financial profile, cash flow and earnings, and financial flexibility. Fitch also makes use of a peer analysis whereby the strength of a corporation is compared relative to that of others in their industry or assigned to the same rating category.

Structured Debt Instrument Risk Factors

For structured finance ratings the various agencies also mention very similar factors that they take into consideration. Standard & Poor's (2011b), for example, focuses on five key risks when rating structured finance products. These are the credit quality of the securitised assets, the legal and regulatory structure, the payment structure and cash flow mechanics, the operational and administrative risks, and the counterparty risk. The first area, credit quality of the pool of assets underlying a security, aims to determine how much credit support or credit enhancement is needed to maintain a 'AAA' rating on an asset pool. The assessment of legal and regulatory risks is focused on determining the extent to which the pool of assets are isolated from the bankruptcy or insolvency risk of entities that participate in the transaction.

These are mainly the entities that originated and owned the assets before they were securitised. Rating agencies aim to measure the insolvency remoteness of the assets. A very common legal mechanism to achieve remoteness is to sell the assets from the originator to an SPE with the purpose of achieving isolation. The assets are then no longer part of the originator's bankruptcy or insolvency estate. Also other arrangements may be sought and these are analysed by the rating agencies. The third area is an analysis of the payment structure and cash flow mechanics. The objective is to assess whether the cash flow from the securitised assets would be sufficient, in relation to the applicable rating levels, to make timely payments of interest and ultimate payment of principal to the related securities. The fourth area involves the analysis of operational and administrative risks. It is focused on determining whether key transaction parties are capable of managing a securitisation over its lifetime. The fifth part of the rating analysis is the analysis of counterparty risk. That analysis focuses on third-party obligations to either hold assets, including cash, or make financial payments that may affect the creditworthiness of structured finance instruments. Examples of counterparty risks include exposures to institutions that maintain key accounts and exposures to the providers of derivative contracts such as interest rate swaps and currency swaps. The counterparty risk analysis considers both the type of dependency and the rating of the counterparty for each counterparty relationship in a transaction.

Discussion

This chapter has discussed the general principles and criteria that underlie the development of credit ratings. In an important sense the principles and criteria of rating agencies can be considered as regulatory standards as they determine what is considered in the assessment of creditworthiness and how various credit risk factors are measured and weighed. The principles and criteria developed and used by the agencies establish a particular order as they prioritise what is considered as contributing to more or less creditworthiness. The order that the agencies produce is influential because the agencies, despite recent failures to measure credit risk accurately, are still perceived as authoritative actors with regard to assessing credit risk. In the introductory chapter it has been described how the appeal of standard-setting by beyond the state actors lies, amongst others, in their perceived higher levels of expertise, know-how, and information with regard to certain subject matters compared to state actors. In relation to credit risk this is especially true for rating agencies as they have been able to gather and analyse vast amounts information on credit risk since the early twentieth century. As expert organisations the agencies are able to encourage the pursuit of particular values since the access to investors and cost of borrowing of issuers of debt is influenced, or at least perceived to be influenced, by how well they measure up to the factors outlined by the criteria of the rating agencies. The standard-setting capacity of the rating agencies is bolstered further as ratings, resulting from the principles and criteria, came to be incorporated into other standards, both private as well as public standards, as has been discussed in Chapter 2. Important to mention is that rating agencies do not seek such a role for their criteria and the regulatory standard-setting role of rating agencies is therefore to some extent imposed upon them.

Despite the success of rating agencies to set regulatory standards, the process by which rating agencies develop their criteria can be criticised for being secretive and for producing standards that are too lenient towards rated entities, for example because of ratings shopping. One of the potential drawbacks of private standards mentioned in the first chapter of this thesis is that they are more prone to serving private interests as opposed to public interests compared to standards developed by state actors. The evidence presented in relation to rating agencies, for example in the aftermath of the global financial crisis of 2007-08, shows how the agencies are not immune to this weakness. Nevertheless, in recent years the process of producing rating criteria has been subject to more scrutiny. Rating criteria are nowadays more easily accessible, in part due to demands stemming from post-crisis regulatory pressure in the EU and US, and publicly and freely available. Market participants such as investors are also invited to comment on proposed criteria. In addition, since the global financial crisis some oversight has been introduced, such as by ESMA in the EU, resulting in more accountability. Although this may enhance the legitimacy of the standards of creditworthiness developed by the rating agencies, the setting of criteria remains mainly an internal process involving the agencies’ credit policy departments. Also, as the next chapters will show, even though criteria may be more widely known, they are only one explanatory feature with regard to how and what ratings come about and the (unintentional) consequences that they have.

5 Gathering Information about Credit Risk

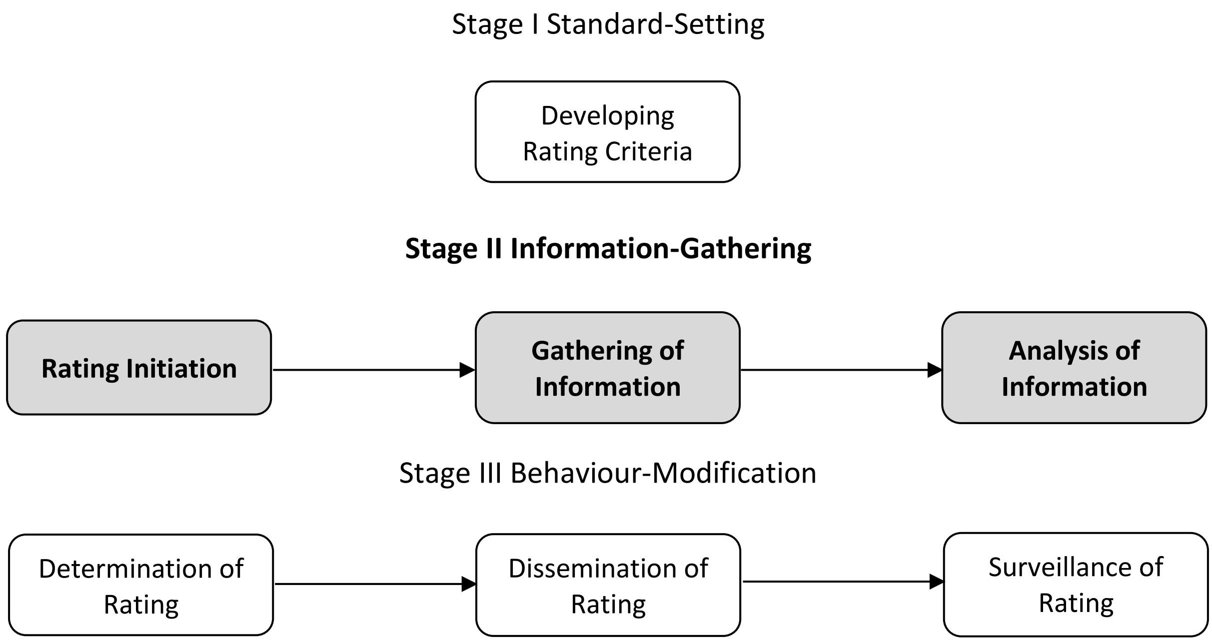


Figure 5.1: Stages of Credit Rating Processes

Gathering and Analysing Information

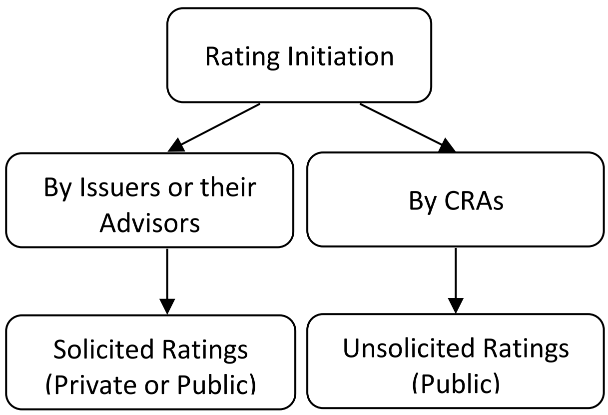
The previous chapter has examined how rating agencies develop standards in the form of rating criteria that are used to assess the creditworthiness of issuers of debt and the specific debt instruments that they issue. Regulatory standards are, however, only the beginning of the regulatory process. What follows is the gathering and analysing of information to check whether behaviour complies with those standards and to be able to enforce standards in cases of non-compliance. With regard to how regulation turns out, it matters considerably how information-gathering is organised and approached by the regulator and its field-level agents and in what context it takes place (see e.g. Bardach and Kagan 1982; Braithwaite 1985; Grabosky and Braithwaite 1986; Gunningham 1987; Hawkins 1984; Hutter 1988; 1989; Kagan 1978; Reiss 1984). In this chapter it will be examined how rating agencies establish whether issuers and the debt that they issue measure up to their standards of credit risk.

This chapter focuses on the gathering and analysing of information by credit rating analysts in order to assess to what extent issuers or debt issues conform to standards of credit risk and to determine a credit rating. Information and data are crucial to support regulation. The chapter considers the information that the analysts collect, the ways in which they gather this information, and the interaction between rating analysts and the actors from whom they collect the information. The chapter highlights the relationship between rating agencies, the debt issuers that they rate, and the rating advisors working on behalf of the issuers. These relationships are of great importance to rating agencies while undertaking the rating process and for gathering the information that is needed for developing a credit rating. All of the main credit rating agencies argue that rating analysts are crucial for producing their 'analyst-driven' credit ratings, but in contrast to the attention for ratings, analysts and the work that they do have remained largely outside the public and academic purview.

Before turning to the information-gathering and analysis undertaking in credit rating processes, the chapter begins by explaining how ratings are initiated. In this chapter I will primarily use material from my interviews with rating analysts to shed light on how information is gathered and processed, decisions are made, and on the dilemmas that are involved. The material from the analyst interviews is supported by data collected from public documents about credit rating processes produced by the rating agencies and others such as public regulators. Where relevant the chapter also draws in the broader literature on regulation to reveal the parallels between what rating agencies do and rating processes and what regulators do and regulatory processes.

Initiating a Credit Rating

Solicited and Unsolicited Ratings



All major international rating agencies issue two forms of credit ratings, solicited and unsolicited ratings. A rating is deemed solicited when the rating has been requested and has been paid for by or on behalf of the issuer.[31] When ratings are assigned without any specific request, but at the initiative of a rating agency, they are called unsolicited ratings. Rating agencies do not receive any fees for unsolicited ratings. The agencies claim to publish unsolicited ratings as a service to investors and to publish such ratings only when it is in the interest of capital markets and there is sufficient information on which to base unsolicited ratings (Fitch Ratings 2011a; Moody's Investors Service 2013c).[32,33] The majority of unsolicited ratings are published in the area of sovereign issuers. Sovereign ratings are important benchmarks for ratings in other areas and rating agencies use sovereign ratings to rate other, private, entities in a particular country.

Similar to all processes aimed at regulating risk, the availability, sufficiency, and accuracy of information is critical (Hutter and Power 2005; Wilke et al. 2014). It determines the extent to which rating agencies are able to assess credit risk and able to classify it by assigning credit ratings. However, as a credit policy officer explained (Interview 8):

> [W]e are not too precise on what is enough information. There are no hard and fast rules (…) Ultimately it is a judgment. The rating team and credit policy sit together and think whether there is enough information.

Information is even more of a complication with regard to unsolicited ratings than with regard to solicited ratings. Unsolicited rating processes tend to rely more heavily on publicly available information as there is generally less participation of the issuer in the rating process, for example in the form of the issuer providing private information to the rating agency. There is no contract which could provide an imperative for issuers to participate in an unsolicited rating process and even if they do choose to participate, it will quite likely be of a different nature and the level of information on which unsolicited ratings are based will usually be weaker. The greater degree of uncertainty involved with unsolicited ratings is reflected in the tendency of unsolicited ratings to be more conservative than solicited ratings. The majority of the ratings that are assigned by the main international agencies are, however, issuer

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[31] Ratings for structured debt securities are technically not requested by the issuers. In most cases the issuer is a special purpose vehicle or entity (SPV or SPE). Instead, ratings for structured products are requested by the arranger or sponsor which is the ultimate borrower. The arranger or sponsor is usually a large commercial or investment bank.

[32] There are more cynical explanations as to why rating agencies assign unsolicited ratings. Fulghieri et al. (2014) describe, for example, that the agencies may issue unsolicited ratings to pressure issuers to start paying for more favourable ratings. Unfavourable unsolicited ratings may serve as a punishment for entities not willing to purchase a rating.

[33] The agencies claim that it is quite common for issuers to participate in unsolicited rating processes. The 2013 EU CRA regulation (2014) requires that rating agencies clarify for each rating whether or not a rated entity participated in the rating process and whether the rating agency had access to the accounts, management, and other relevant internal documents for the rated entity or a related third party (Article 10(5)).

solicited ratings and therefore I will focus on discussing the process of assigning these type of ratings.[34]

Usually, both solicited and unsolicited rating processes will result in a rating that is publicly and freely available.[35] An exception can be made if issuers solicit a rating, but indicate that they wish to keep the rating private. Private ratings are requested by issuers if they want a rating only for internal purposes, for example, to gauge how successful a potential future bond issuance could be or to get a view on hypothetical scenarios such as a merger, acquisition, or restructuring (see e.g. Fitch Ratings 2013a). The majority of private issuer solicited ratings are point-in-time (PIT) ratings. This means that the rating process ends as soon as the rating has been provided to the issuer. Sometimes issuers may also ask that private ratings be monitored throughout their lifetime (Moody's Investors Service 2014d). The rating process is then exactly the same as when public ratings are assigned with the only difference being that the rating remains confidential. Another exception to publicly available ratings, are ratings requested by issuers wishing to access the private placement market as opposed to selling their bonds on the open market. Issuers may choose to publish ratings for private placement debt instruments only confidentially to its investors, this is all up to the issuer.

Another situation that may lead to a solicited rating remaining private occurs when an agency has initially been hired to assign a public rating, but prior to making the rating public an issuer decides it does not want to disclose the rating. Very likely this would be as a result of an issuer being dissatisfied with the rating that they received. If a rating agency has been hired to provide a public rating, but an issuer decides it does not want the rating of that agency to be made public after all, the issuers have to pay a breakup fee for the analytical work done up to the point. This is a situation which is certainly not desired by the agencies because it means the rating process and rating relationship ends. As one interviewee put it, the breakup fee *"is not the interesting part of the business, that is the ongoing relationship, the annual fees, the recurrent fees"*, which they will no longer receive when an issuer does not wish to continue the rating relationship (Interview 5).

Rating agencies can still make public their opinion about an issuer or debt issue even if an issuer does not want them to provide a public rating. They can do so either in the form of issuing an unsolicited rating or by issuing a comment. Since the financial crisis this has occurred on a few occasions, but it remains quite rare. An example that has been covered

[34] Since 2013, EU regulation demands that rating agencies make clear whether or not a rating has been solicited or not (Article 10(5)). The information that the major international rating agencies have since provided shows that unsolicited ratings represent only a small feature of their business. The majority of unsolicited ratings involve sovereign entities.

[35] It should be emphasised that only the ratings are publicly and freely available. The reports containing the research behind the ratings is often only available as premium content on the websites of the rating agencies requiring payment to access.

widely in the financial press is related to a structured debt product proposed by Credit Suisse in 2012 (see e.g. Neumann 2012; Shenn 2012). One of the rating agencies, Fitch Ratings, decided to come forward after they were asked not to provide a public rating on the product for which they were initially hired. In a commentary published on the agency's website, Fitch cautioned against the 'AAA' ratings that had been assigned by the other rating agencies and that had been publicly used by Credit Suisse to market their debt issuance. According to Fitch the risks associated with the product were much higher and it did not warrant a 'AAA' rating.

Exploratory Discussions

Issuers may solicit and sign contracts with multiple rating agencies to provide them with a credit rating. It is quite common to see debt issuers and issues with ratings from multiple agencies, a practice that will be looked at later in this chapter. Prior to signing, issuers enter into discussions with the rating agencies they consider hiring to get an idea of the rating criteria that are used by the different agencies, the rating processes, the analysts working for the agencies, and to get an indication of the rating that could be assigned.[36] An indicative assessment is, however, not a credit rating. An important role during these discussions is often played by rating advisors. Rating advisors are third party intermediaries, usually working at the credit departments of banks or at consultancy firms who are hired by issuers to advise them on issues regarding the structuring, marketing, and sale of their bond(s) and the process of getting a credit rating. Banks facilitate the issuance of a bond by helping issuers developing the bond issue and finding investors amongst its client base (Stiglitz 1994). If issuers hire advisors, the advisors usually represent the issuer in all communications with the rating agency. Not all issuers hire advisors, as this interviewee explained, this may be *"if they think they are capable of undertaking the rating process without the help and support of the rating advisors"* (Interview 31). A more sophisticated and experienced issuer may be less likely to hire an advisor compared to a smaller, inexperienced issuer.

For rating agencies the relationship with rating advisors, in particular those working for the major global banks, is of significant importance. Advisors help direct issuers to the rating agencies as they suggest to issuers which agencies they should hire as this corporate analyst explained with regard to companies looking to issue corporate debt (Interview 28):

[36] Issuers can also request rating agencies to provide them with a more formal indicative assessment to get an idea of a rating that would be assigned to them if they go through with a rating process. An indicative assessment is a *"confidential, unpublished, unmonitored, point-in-time opinion of the potential Credit Rating(s) of an issuer or a proposed debt issuance by an issuer contemplating such a debt issuance at some future date"*. (Moody's Investors Service 2013d, p. 2).

> Companies make their decisions [which agencies to hire] mainly based on the advice from investment banks, from rating advisors and that advice is based on what is helpful to sell a bond.

Testament to the importance of rating advisors during rating processes, are the specific teams at rating agencies dedicated to maintaining the relationship with rating advisors. All of the major rating agencies have staff who, at least a few times during the year, meet with the advisors working for the bigger banks. Those meetings are aimed at keeping the advisors up-to-date regarding any developments, for example, in the agency's rating criteria. The rating advisors, therefore, know how the different agencies operate to such an extent that they are even familiar with the different analytical teams and the analysts that are part of those teams. Because of their knowledge about the rating agencies and their rating processes, rating advisors can serve as important gatekeepers of the rating process.

On the part of rating agencies the relationship or client managers and not the analyst take the lead during the exploratory discussions. They are the *"middle person in the process to get deals done"*, as a relationship manager described it (Interview 31). They coordinate between the external parties, the issuers and their advisors, and the internal parties, the rating agency's analytical teams. The relationship managers at the rating agencies are the first point of contact for issuers or their advisors considering to request a rating. The relationship managers set out and explain rating processes and any applicable rating criteria. When issuers or their advisors have more specific questions, the relationship managers call for staff from the relevant analytical teams or credit policy to sit in on meetings (Interview 26). Prior to the actual signing of a contract all meetings are, however, led by the relationship managers.

Another part of the exploratory discussions revolves around rating fees and contract negotiations. [37] These negotiations are handled by the rating agencies' commercial and legal teams.[38] Fees are paid by issuers for the initial issuance of a rating and annually for as long as a rating is outstanding.[39] The amount of the fees varies and depends predominantly on what is being rated and whether it involves an initial, first time rating or the surveillance of an existing rating, the complexity of the analysis that needs to be performed, and the principal

[37] Rating agencies have set fee schedules, but these are not publicly available. Fees are only provided to those requesting the rating and to the supervisory authorities. With the regulation of rating agencies in the EU, rating agencies are required to disclose to ESMA on an annual basis a list of fees charged to each client and the pricing policy. The fees are also not fixed as there is room for negotiation. What is disclosed by some agencies is very general information indicating the range of fees charged. For example, Moody's indicates that their fees range from \$1,500 to \$2,400,000. For more information about rating agency fees and fee policies (Langohr and Langohr 2008; Mattarocci 2013, Chapter 5).

[38] Previously, it was not uncommon for analysts themselves to discuss fees with issuers. However, since the 2000s the bigger rating agencies have begun to separate the analytical work and fee negotiations in line with Provision 2.12 of the voluntary IOSCO Code of Conduct (2004) stating that rating agency staff who are directly involved in the rating process should not *"initiate, or participate in, discussions regarding fees or payments with any entity they rate"*.

[39] The former are called upfront fees, the latter are called surveillance fees.

amount of the debt that is being issued or that is remaining. In general, the time and effort that is expected to go into developing a credit rating, 'the analytical workload', will be most important for determining the fee quote. This requires input from the analytical teams informing the commercial teams of how much work they expect will be involved. Of importance is also whether there is an existing rating relationship with regular issuers usually getting a discount (Interview 26).

Managing Expectations

According to interviewees an important objective during the exploratory discussions for issuers is to try to get some sort of indication of the rating that would be assigned if they go through with the rating process. The main objective for the rating agencies on the other hand, is to manage the expectations of issuers around possible rating levels. Depending on the issuer and its familiarity with the agencies' rating process, the agencies may have to spend considerable time and effort prior to the signing of a contract setting out what can be expected, for example through what one agency referred to as 'transparency presentations'. These presentations are, as this corporate analyst explained, meant *"to make very clear where [an issuer] is positioned and what it takes to maintain a rating, what could put pressure upwards or downwards with the mantra being: 'do not surprise'."* (Interview 28).

The emphasis on not surprising issuers should be seen in light of the agencies trying to prevent any disputes after the rating has been formally assigned. As will be discussed later, the agencies and rating analysts are very aware that a credit rating can have considerable consequences and regard it as especially challenging to have to communicate a rating that may not be at the level that the issuers had expected (ibid.):

> Whenever you pass judgement on people, there is a risk that those judged do not like their marks, their results. To give an inadequate rating [example omitted], or one that is perceived as inadequate, or a lower than expected rating, is challenging, in particular for junior analysts.

Noteworthy in managing the expectations is again the role of the rating advisors. The rating advisors help make issuers understand rating processes and set out what they can expect from the process, as the same corporate analyst continued to explain (ibid.):

> One very important concept is: the job generally goes well if expectations have been managed properly and that is where the guys in the banks come in, the rating advisors who sort of position the company in a corridor of expected ratings and if they have done their job right, and we do not surprise them

> because we come up with another angle, that makes the process generally relatively smooth. There may be disappointment if we come out with a [rating omitted] instead of [rating omitted] in the lower end of the corridor, but in the vast majority of cases that is handled very professionally.

Nevertheless, as reflected in the voluntary rating industry code developed by IOSCO (2004, p. 5), rating staff cannot *"either implicitly or explicitly give any assurance or guarantee of a particular rating prior to a rating assessment"*. Those involved at rating agencies during the exploratory discussions have to be careful with what they communicate to an issuer during the initial stages. Rating agency staff can only rely on what is publicly available and on information about the rating level of similar issuers or transactions to explain how they compare to the issuer or debt issue seeking a rating, as this relationship manager for corporate issuers explained (Interview 31):

> We cannot anticipate a rating level, but that is what they [issuers] want to know beforehand. We can only explain how we see the sector, explain our rating criteria, and give an overall feeling of what the rating level will be.

Preparing for the Rating Process

Prior to issuing the specific debt, issuers first have to make decisions around how they structure the debt that they want to issue. This includes choices regarding features such as the size of the debt issuance, when it matures, and whether the interest rate will be fixed or floating.[40] During this phase of preparing the debt issuance the rating agencies do not have any formal involvement. Instead, when a rating agency is approached by an issuer or its advisor, what they want to have rated already needs to be fully developed. Especially in relation to the rating of structured products, rating agencies have been accused of advising issuers on how to structure a debt security in order to achieve a certain desired rating. The former and current staff I interviewed strongly denied that such giving of advice ever happened, although requests to do so from especially smaller or new issuers were, prior to the crisis, relatively common as this former structured analyst and now relationship manager explained (Interview 26):

> We have to rate what is given to us. And often particularly small banks or new issuers would come to us with something like: 'This is what we want to do, we got these assets, we want to raise some money on the back of them, can you help us get there?' We would have to say 'no'. We get very few of those

[40] These decisions are influenced primarily by the funding needs of the issuer and what the issuer regards as the best way to raise additional capital.

> requests now, most of the people we interact with are much more sophisticated and they do understand that they need to give us a reasonably thought through term sheet with, if you like, a mini prospectus which describes the transaction. We still have lots more questions on aspects of it, but they [issuers] will not expect us to structure it for them and tell them which is the optimal deal that they can create.

Rating agencies do, nevertheless, provide information publicly about the way that they rate and what they look for. In addition, the rating industry is also characterised by the existence of the revolving door phenomena between rating agencies and rated issuers as is common also to regulatory agencies (see e.g. Ayres and Braithwaite 1991; Cafaggi 2010; Dal Bó 2006; Gormley Jr. 1979; Sparrow 2000). Rating analysts can go on to work for rated issuers bringing with them a wealth of knowledge about rating processes (Cornaggia et al. forthcoming).[41] Information about the way rating agencies assign ratings can be used by issuers or their advisors to learn how to structure a security so that it is likely to attain a high credit rating. Although some commentators have argued that thereby issuers can reverse engineer, or game credit ratings, this demonstrates a lack of understanding of structured products which are essentially created with the aim of targeting high ratings (IOSCO 2008). For example, in the UK the Turner Review (2009) held that it would pose a risk if issuers could design structures just to meet relevant criteria. But in structured finance it is decided beforehand by issuers what rating is desired as this influences how the product will be structured (IOSCO 2008, p. 5). Structured products are amenable allowing a transaction to qualify for a particular rating (Interview 26):

> The issue about structured finance is that people will typically try and structure their deals so they can get a triple A rating (...) So it is not: 'Here is the deal, just give me whatever rating comes out'. It is more of an iterative process on the structured side.

Also in other rating areas the rating criteria are known by issuers and their advisors and they can use this information to their advantage before they request a rating. However, the rating analysts argued that although in structured finance it could be possible to alter a deal structure to attain a high rating, changing the characteristics of a corporate or sovereign to qualify for a high rating is much more difficult as this sovereign analyst for example explained (Interview 16):

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[41] In the US the Dodd-Frank Act of 2010 requires that rating agencies report to the SEC cases where former employees obtain employment with a company for which they have issued a rating in the last twelve months before taking up employment with the rated issuer. The data that has been provided by the agencies is, however, so far incomplete. The figures range between 150 and 200 transitions for the major rating agencies between 2005 and 2013 in the US alone (see Cornaggia et al., forthcoming). Also in the EU the agencies are required to report information about staff turnover to ESMA, but this information is not made public.

> They [sovereign issuers] know the criteria, they know what it takes to get a triple A. It is easier said than done though. And of course they have multiple objectives, a rating is one of them, but it may be pretty far down the line on the priority list actually. Also, many of the things they could do to improve their creditworthiness are probably things that are in the national interest anyway.

This corporate analyst also explained how transactions in structured finance can be self-constructed whereas a corporation generally is not set-up, or altered, to target a certain rating (Interview 28):

> As the name suggests [structured finance] you can design the process to achieve that objective [avoiding default] and we have methodologies to then test whether those objectives are achieved. Whereas what you look at with a corporate is almost like a live organism, it already exists in a certain form. An investment grade company is there, it is what it is. What you see is what you get and you look at that [as an analyst].

However, it is quite common for companies and sovereigns to explicitly target certain ratings such as the UK government explicitly targeting the triple A rating (Treanor and Syal 2013).

Hiring a Rating Agency

Investor Regulations and Guidelines

There are a range of considerations that issuers may take into account when deciding which agency or agencies to hire. Undeniably the height of a rating, which issuers try to learn about through the exploratory discussions, is of importance to issuers. There are, however, various aspects that limit the options of issuers to only hire the agency or agencies that they think will provide them with their desired rating. One such aspect comes in the form of regulations and guidelines that investor’s face which stipulate that they are only allowed to invest when ratings from certain named rating agencies are attached. Usually these are the ratings of the major international rating agencies that are recognised by the formal regulatory bodies such as ESMA in the EU. And as discussed in Chapter 3, there are only a few rating agencies active transnationally. Furthermore, investors often are required to invest in bond issues and issuers that have ratings from more than one internationally recognised rating agency attached (Bongaerts et al. 2012). Numerous studies have shown that issuers prefer to use multiple ratings to market their bonds (Mattarocci 2011). When issuers are able to show multiple ratings, and even more if these are coherent, this could be interpreted positively by investors and lead to reduced funding costs for issuers. Having more than one rating, can still be beneficial even if rating opinions diverge (Interview 22):

> By having a second rating agency they [issuers] are not kind of putting all of their eggs in one basket. If they fall out of favour with one and get downgraded, it is not definitely going to be the case that the other rating agency will [also] downgrade them.

As long as regulatory requirements exist to have more than one rating from an internationally recognised rating agency, while there are only a small number of such agencies continue to exist, there may actually not be much choice for issuers in selecting which rating agencies to hire.

Investor Expectations

Asides from limitations arising from regulations and guidelines, there are also other considerations that may influence the choice for a rating agency. Investors, for example, may expect to see the ratings of certain rating agencies assigned to an issuer or debt issue because they ascribe particular characteristics to the ratings of these rating agencies possibly related to the different criteria that they use to assess creditworthiness, or the perceived timeliness and accuracy of ratings from a certain rating agency. Whichever characteristics investors find important are very likely related to how these investors intend to use the ratings (Baker 2002).

According to interviewees, investors would be especially interested in the reputation of a rating agency and its 'track record', despite the reputation of the major agencies having been damaged severely by the financial crisis. This interviewee argued, for example, that only the major agencies are asked for a rating because they are known and trusted by investors (Interview 6):

> If bank X or anybody comes out with a bond and says it is rated by this tiny German rating agency or this unknown Czech agency, it does not serve its function. Its function [of rating agencies] is for investors to be able to say 'that has been looked at, I trust that rating agency by and large and therefore I will buy it [the bond]'. But if you [an issuer] come up with three unknown agencies, that has no value [to investors].

For new rating agencies trying to gain entry to the rating industry, something that is actively promoted in the EU after the crisis, the significance of reputation and track record may be problematic as this interviewee explained (Interview 22):

> Reality is that the big three have a very dominant position whether it be in banks, in corporates, or structured securities. And the markets have come to rely on ratings specifically from those companies. And it is very difficult for a new or a smaller rating agency to break into that market.

As an interviewee of one the newer international rating agencies explained, up-start agencies face a sort of chicken-and-egg problem when they try to establish themselves as a relevant industry player (Interview 18):

> We went to issuers and said: 'We would like to rate you'. And they said: "No, we are happy to work with you, but only if there is investor demand because there is a huge amount of management time that we have to use to give you the detail and we do not want to give you that time unless there is demand." Then you would go to investors and they would say: 'Yes, we would love to have more information, we would love to have your opinion. Who do you rate?' So it is a chicken and egg situation.

Also other interviewees mentioned that it is hard for new agencies to reach a certain critical mass of issuers and investors that want to make use of them. Interviewees argued that new agencies could only be attractive by assigning higher ratings than the established agencies (Interview 6):

> How do I persuade, [company x] to pay me money for rating them if I have a lower rating than [rating agency a] or [rating agency b]. You can imagine that it is a very difficult sell if they have never heard of you. You keep plucking away at it, but you will definitely see a new rating agency tends to have higher ratings than the old ones because otherwise you cannot do it.

If these perceptions of new agencies assigning inflated ratings is shared in the market, it may lead to higher borrowing costs as investors demand to be compensated for a higher (perceived) risk. Market perceptions in turn are part of the decision for issuers about which agency to hire as this corporate analyst explained (Interview 28):

> When companies make their decision they also look at: 'What can I get away with and if the market accepts a [rating agency name deleted] rating and I do not want the premium rating I just care about the alphanumerical symbol as a company, then that might be enough for my purposes'.

Rating Agency Fees and Processes

Not all issuers are able to choose whichever agency they think may be best for them also because they are constrained by what they can afford. Especially smaller issuers or new issuers may find it challenging to pay the fees that are asked by the major international agencies and will therefore have to go *"for the cheap solution"* with a rating from the smaller or newer agencies or they may have to decide to issue their bonds without any rating at all (Interview 28). Next to agency fees also the demands of the rating processes of the major international rating agencies may be an obstacle, in particular in terms of how much information issuers have to provide for a rating to be assigned and the time they have to set aside to go through the rating process (Interview 28):

> The expense of a rating becomes a factor and the expense of preparing financial information in a way that is digestible both for agencies and for debt capital markets is quite an investment.

Existing Relationships

When selecting a rating agency to hire also existing rating relationships with rating agencies may be relevant. When issuers or their advisors, who are often the ones directing issuers to certain rating agencies, are already familiar with a certain rating agency and its rating process, for example because they have hired them in the past, this may prevent an issuer from considering other rating agencies. Rating processes demand considerable time and effort from all participants and according to interviewees issuers prefer long-lasting rating relationships. As this interviewee explained *"(...) not because they [issuers or their advisors] feel they have an influence over you or influence over any of the analysts, it is just that they get used to working in a certain way"* (Interview 26). Also other interviewees stressed that the time going into a rating process and relationship is a major obstacle to changing agency as issuers often *"do not have time to spend with another rating agency building out a new rating relationship"* (Interview 18). This finding is confirmed by the work of Duff and Einig (2007) who observed how rating relationships are often enduring because of the considerable investment needed to establish the relationship and educate the rating agency with regard to the strategy and peculiarities of the issuer. Issuers tend to be monogamous. In a 2014 survey, Duff and Einig showed, for example, that amongst issuers of corporate debt, the commitment and continuance of existing rating relationships is highly valued.

Gathering and Analysing Information

Appointing Rating Analysts

Once an issuer or their advisor has selected a rating agency, rating agencies and issuers sign a contract, an engagement letter. This sets out the terms under which the agency will determine a credit rating. The rating process then begins with the appointing of rating analysts by the rating agency. As the remainder of this chapter will show, the rating analysts and the work they do resembles to considerable extent the work of agents enforcing regulation at field level as described in a range of scholarly work (see e.g. Hawkins 1984; Hutter 1997). Similar to most standards aimed at regulating risk in today's complex interconnected world, the application of credit rating standards requires interpretation and the exercise of discretion (Hawkins 1984; Hutter 1997; Hutter and Power 2005). At its very core, risk regulation implies not the elimination of risk, but the management of it. Assessing credit risk is not a straightforward issue, especially not when considered in the context of everyday reality. It involves high levels of uncertainty, there are a range of factors that can influence creditworthiness and considering how issuers of debt or debt issues measure up to these factors in practice is never unambiguous. Assessing credit risk therefore requires a certain level of autonomy and discretion on the part of human agents.

All of the major international rating agencies regard analysts as essential for developing their credit ratings. Only one area of credit rating, that of structured finance, can be argued to rely less on analysts and more on models. Credit rating processes are quite comparable when it comes to what rating agencies refer to as 'traditional' or fundamental credit rating. Traditional credit rating refers to the rating of corporate, financial institutions, and sovereign issuers and issues. Rating these issuers and issues is analyst-driven. Nevertheless, as explained earlier, the agencies maintain that judgements are still important when using models to rate structured debt. It is the judgement of rating analysts that is needed during rating processes. Again very similar to other regulators, the discretion that rating analysts have is functioning within the confines of, amongst others, the rating criteria as they are set out by each agency and the organisational environment within each agency shaping how criteria are routinely applied. A significant constraint on analytical discretion comes also in the form of more senior staff who oversee the work of analysts mainly through so called rating committees which will be discussed further on in this thesis.

Rating agencies generally appoint two analysts who will be responsible for rating a particular credit. One of these analysts is designated as the lead or primary analyst. He or she is in charge of the gathering and analysing of information and for formulating a rating recommendation that will be discussed in a rating committee. Lead analysts are *"the main face for the client"*

(Interview 22). The lead analyst is supported by a secondary or back-up analyst. The analysts are further supported by others in the rating agency such as research assistants or economists. This interviewee described the respective duties of the lead and back-up analyst in the area of sovereign rating (Interview 9):

> Every credit has a lead and a back-up analyst. The lead analyst is the person who takes the lead on the analysis of the credits, the investor relations, investor outreach, manages the relationship with the issuer. And you have a back-up analyst in part because people go on vacation, in part because it is always useful to have two pairs of eyes on a credit. A back-up analyst will often though not always travel to the country when you go to meet an issuer. If the lead analyst is not around to answer questions internally or externally, than that responsibility falls to the back-up analyst.

Rating analysts all have a particular portfolio of issuers and/ or debt issues, called credits, for which they are responsible. There is no specific information on how many credits analysts are commonly responsible for. This number varies depending on agency and the type of issuers or debt issues the analyst usually rates.[42] The analytical teams at rating agencies allocate analysts to particular credits depending on the expertise of the analyst and the resources that are available at the time. Usually analysts specialise in a type of credit that falls into one of the broad rating areas that the agencies distinguish: corporates, financial institutions, sovereigns, and structured products. Within those areas analysts may have expertise, for example, with regard to a certain industry, sector, or a type of structured product such as mortgage-backed securities. During interviews the analysts, wished to present themselves as credit experts with a broad knowledge of various rating areas and as having a *"comparative bird's eye view"* (Interview 16). According to the rating agencies the analysts do not necessarily need superior expertise in the specific area they are assessing credit risk in as this corporate analyst tried to illustrate by *saying "if we have a chemical analyst, he does not need to be a chemical engineer"* (Interview 24). A sovereign analyst expressed the same with regard to sovereign credit analysis (Interview 16):

> There are probably a 1000 people who know more about country X than I do, probably more than that. But I do not think there are many who have a better view on how country X compares in terms of credit quality compared to other sovereigns in the region or elsewhere (…) I think you need to have the ability to resist the temptation to want to know everything about the country that there is. Because chances are it is not going to change the outcome of what it is we are supposed to do.

[42] Estimates interviewees provided me with ranged from five to ten credits per analyst.

Most of the analysts I spoke to had considerable experience in the rating industry and felt that that experience was crucial to being a good analyst. Especially for lead analysts, experience was considered vital (Interview 18):

> (...) because these are people who have to have the ability to go in front of CEOs, and CFOs, and treasurers and have to be very knowledgeable about what they are doing. So it is going to take them years and years to gain that experience to be able to be put into that position.

Having experienced analysts was also regarded as beneficial to being accepted more easily, for example with regard to the decisions you make as this corporate analyst explained (Interview 28):

> To be able to do the job properly, to put the financial information into context, but also to be accepted as a competent discussion partner with companies. Especially if these companies are to accept your verdict of them. There are numerous examples of companies accepting slightly lower ratings if the rationale is convincing and there is evidence of the analyst in question to have a good grasp of what is going on.

Rating Relationships and Analyst Rotation

With the adoption of Regulation (EC) No 1060/2009 in the EU, rating analysts now have to be rotated after four years for issuers or issues where they are a lead analyst and after five years for issuers and issues where they are a back-up analyst. This regulation has been initiated to prevent long-term relationships between analytical staff and rated entities *"which could compromise the independence of rating analysts and persons approving the ratings"* (García Alcubilla and Ruiz Del Pozo 2012, p. 173). The rotation that is now required appears very similar to the rotating of personnel that has been common practice within regulatory agencies to deal with risks of corruption and getting too close to regulated actors. Within rating agencies there is a period of two years before analysts can rate the same issuer again. Outside the EU, only Japan has similar rules on analyst rotation (ibid.).

Although it is equivocal whether rotating of personnel is a good practice or not within regulatory agencies, most interviewees thought these new rules on analyst rotation were a good development to prevent any bias that could result from a close relationships with issuers (Fracassi et al. 2013a). One interviewee gave an example of what that bias could look like when describing how a long-term relationship led the analyst to believe (Interview 1):

> (...) what they [issuers] said and over time it lead to me being more generous with them than warranted. And when someone new took it over it [the rating] immediately got downgraded and it was the right thing and I had been wrong, I had it for too long.

Nevertheless, interviewees did worry about rules that would prescribe analyst rotation too strictly (Interview 23):

> In principle, analyst rotation can be a good thing. Everyone gets too comfortable in their own area at some point. In my Group the analysts that add most value are those that have gained experience in various [rating] areas, they have a broader perspective. But you may lose something if you prescribe too strictly that an analyst has to be rotated off, the value of an analyst is his knowledge, you may run the risk of losing that experience. Also, we may run into a capacity problem if we have to be very strict with rotation rules.

Viewing close relationships mainly as a risk to objectivity and to rating analysts over time potentially sympathising and identifying with issuers may, however, discard too quickly the benefits of a close relationship. Various studies have shown that close relationships between regulators and regulated actors are not necessarily bad (Cafaggi 2010; Grabosky and Braithwaite 1986; Gunningham and Rees 1997; Hutter 1997). In fact, close relationships may be required for regulation to achieve its goals (Gunningham and Rees 1997, p. 437). Sharing a common level of understanding is important for both regulator and regulatee as Etienne (1994) points out and for that to develop a close and cooperative relationship may be beneficial. Also, a considerable body of work specifically on the enforcement of regulation has shown that a cooperative style may lead to better outcomes (see e.g. Bardach and Kagan 1982; Hawkins 1984; Kagan and Scholz 1980; Reiss 1984). The major international rating agencies considered for this research all maintain a close relationship with the issuers that they rate. Some of the agencies even pride themselves on the accessibility of their analysts that can be contacted at any time by issuers and investors alike (see e.g. Fitch Ratings). They argue that this is inevitable if the agencies want to be able to gather the information that is necessary to learn about issuers and the extent to which they measure up to rating criteria. A dialogue with issuers is an essential part of interactive rating processes that are central to all major international rating agencies.

An Interactive Approach to Gathering Information

Hood et al. (2001) write how there are different ways in which information about risks can be gathered. They make a distinction between active, reactive, and interactive approaches to gathering information. An active approach involves the regulator scanning its environment and seeking out information. A reactive approach means that the regulator relies on others to come forward with information to which it will then respond (Gormley Jr. 1979; Makkai and Braithwaite 1992). This is also known as the 'fire alarms' approach Hood et al. (2001, p. 25). The third approach, an interactive approach, can be regarded as a mixture of the active and reactive approach as information is pro-actively seeked out on the initiative of the regulator and is provided to it by outside parties. For the majority of ratings assigned, rating analysts make use of an interactive approach towards information-gathering. This is also the case with unsolicited ratings, although, as explained earlier, unsolicited ratings are based quite heavily on an issuer's public financial information and other information that is openly available as opposed to private information (Standard & Poor's 2012).

The major rating agencies assign predominantly solicited ratings and rely on private information gained through interaction with issuers and other parties. Similar to inspectors relying on businesses to provide them with information to enforce regulatory law, this makes the relationship between the two particularly precarious. This interactive approach is regarded by all of these agencies as crucial for assessing future creditworthiness as this financial institutions analyst explained (Interview 22):

> It is a critical element of the process. A lot of what we look at is historic, so of course we are looking at the prior balance sheet, we are looking at performance over a five or a ten year time horizon, but with the nature of the ratings being prospective we spend a lot of time talking to companies about their business strategy, about their forecasted performance over the next five years, where they expect to perhaps launch new products, whether they are in a mode of looking for acquisitions. So we try to really bake a lot of forward-looking analysis into our rating opinions and for that the interactive process is very critical. We receive of course tons of confidential information that we would never just get out in the public market. And we have an-depth, at least, annual management meeting where we look at a company's forecast. We spend a lot of time trying to determine whether we think they are going to be successful in meeting their plan and what might some of the obstacles be in their way.

Some interviewees, however, also claimed that close ties and interaction with issuers are not as important it used to be. Technological progress has led to information being much more easily acquired and also public disclosure on the part of issuers has increased as this analyst explained with regard to banks (Interview 5):

> I would say fifteen to twenty years ago if you wanted to assign ratings to banks you really had to get into a lot of confidential information because most information was not public. Now I would say most information is public, there

> is a lot of disclosure out there in reports, presentations, webcasts. So you can base your analysis on information which exists publicly.

Not all rating agencies have access to or use private information. There are several smaller agencies that rely solely on public information. An example is Egan-Jones Ratings Company (EJR) whose ratings are paid for by investors. An important reason for an agency like EJR to rely only on public information is that they believe their ratings will be more independent and more transparent if they do so. Initiatives that focus on public information have been encouraged more by the recent criticism on the major international rating agencies and how they have traditionally gone about assessing credit risk using subjective and qualitative components in addition to quantitative data.

The majority of interviewees, however, regarded private information as important for *"fine-tuning*" the rating and rating analysts were seen as adding substantial value (Interview 24):

> There is generally a base of public information like accounts filed with regulatory authorities. Generally there is also an independent basis of industry knowledge and third party information. You have the basic input of the rating and for the fine-tuning of the process and for looking forward a number of years, I think it is helpful for the process if the companies share information and it helps to accelerate the process. But at the end of the day we make a determination of whether we can rate companies based on what is in the public domain. If we cannot do that then maybe we have to decline a rating. But clearly to explain the workings and looking at the way the company plans its future it [issuer cooperation] is very helpful.

That rating agencies' favour an interactive approach is very much influenced by a particular way of analysing credit risk, fundamental analysis, that has historically been dominant within the credit rating industry. Fundamental analysis informs the way rating agencies gather information about credit risk, the sources that they rely on, what type of information is gathered, and how this information is analysed.[43] At its most basic, fundamental analysis takes into account certain economic fundamentals when assessing the credit risk of a rated entity. These fundamentals are financial ratios, for example for a sovereign entity a rating agency is likely to take into account ratios such as GDP or GNI per capita, GDP growth, and government debt, or for a company it is likely to take into account ratios like growth, leverage, profitability, and liquidity (Cantor and Packer 1996).

[43] Fundamental analysis is a term that is used broadly in financial markets. It refers to a type of investment analysis that uses historical and current quantitative and qualitative data to make long term financial forecasts. Another type of investment analysis which is often contrasted with fundamental analysis is technical analysis. Technical analysis could be argued to be more focused on short term forecasts and makes use only of market data such as prices and trading volume (Reilly and Brown 2012).

Usually, rating analysts begin the information-gathering stage by sending a questionnaire to issuers asking for a range of standard financial data. Analysts will also examine public financial ratios. Financial ratios alone and the data provided by the issuer are, however, not seen as offering a full picture of credit risk. Rating agencies argue that analysts are needed to dig deeper and wider as borrowers are not seen as providing neutral information but as having an interest in presenting what they do in a certain way (Wansleben 2012, p. 256). This digging deeper and wider implies that rating analysts interact with the issuers and also other parties that can provide information about the issuers or debt issues, *"to probe pertinent information in greater detail"* (Standard & Poor's 2012). The agencies encourage analysts to apply their judgement to the data that is presented and to meet with issuers in person at the offices of the issuers.

Issuer Meetings

After reviewing the data that have been provided by the issuer and the public information, analysts organise on-site meetings with the management of the issuer to go through all the information and the questions analysts may have. Lead analysts never meet with issuers alone, generally the other person attending on behalf of the rating agency is the back-up analyst. Depending on the size and complexity of the issuer, meetings may stretch out over more than one day and involve various participants from the issuers as this financial institutions analyst explained (Interview 13):

> If you start with simple organisations, for instance a UK building society. It is easier to understand what they are about, how the system is organised, there are not as many people to see and they are generally all in one location. So we can cover a building society in a day. Whereas some of the large global banks, annually we do a very in-depth update on all topics, every section of the scorecard. You can be meeting with all the functional heads, and usually the chief executive, the CFO, CRO, heads of credit risk of the different business divisions, and potentially CFOs of those divisions, and other senior executives. That is quite intense and very time-consuming, it may not be possible to do all those meeting in a day. But let us say we will do a big chunk in person in a day and then we might have some additional meetings scheduled over the next few weeks which can be done by conference call. The other thing is that the banks [we rate] and we are spread all over the place, so some of these people at the banks, they will be heads of division or something, they may have some in the States, they may have some in the country where they are based. So we end up

> doing a lot of stuff by conference call. Somebody from us who is in the country where the executive is may go to the meeting in person the rest of us dial in.

After the first meetings, analysts keep in regular contact with issuers, although this follow-up contact is usually over the phone or via e-mail, all of the major agencies have a policy to meet with the issuer face-to-face at least once a year as this sovereign analyst explained by saying that *"even the smallest sovereigns that we rate, we go at least once a year"* (Interview 10). In addition to analysts seeking out information, it may also be that issuers contact the analysts with information. In fact, the agencies expect that issuers keep them up-to-date although, as will be discussed in the next section, this does not always happen (Interview 26):

> As a rating agency we need to ask a company pertinent questions. At the same time if there is something major happening to the company we expect them to tell us and keep us informed of any relevant information that could positively or negatively impact the company. From that perspective, we need to be active, we need to know what is going on in these markets, we need to question these companies when we see fit, we have regular meetings with the companies [and] we will get updates from the companies on a regular basis.

Next to issuers being a source of information to the agencies, analysts also initiate contact with other parties to gather information about issuers or debt issues and the environment in which they operate. Compiling and comparing information from various sources is an important way in which the analysts try to challenge information. An example of all the parties analysts may get information from is provided by this analyst giving an overview of the parties a sovereign analyst may interact with (Interview 10):

> You go and meet with key policy makers, the exact mix of the kinds of people you would talk to will vary a little bit by country and institutional set-up in that country. But ministries of finance, treasuries, debt management office, central bank, ministry of the economy, often if you have an independent forecasting body something like the OBR here or the CPB in the Netherlands, you talk to them, you talk to private sector interlocutors, you talk to academics they are sometimes very helpful. And really you try to get a mix of views ultimately.

Scrutinising Information

As discussed by Hutter and Power (2005), having gathered information is only the beginning of regulatory processes. How organisations handle and process the information that they gather to measure compliance is crucial. Information may be inaccurate, a situation which also rating agencies may face. The extent of the scrutiny placed by the agencies on issuers and the information that they provide or that is provided to rating agencies by others, is something that has repeatedly been questioned. In Chapter 2 it has been described how rating agencies have been accused of not having been the *"watchdog"* that *"should have barked"* to warn ahead of credit crises as they did not verify information appropriately (US Senate Committee on Governmental Affairs 2002a). Well-known examples are the corporate bankruptcies such as that of the energy company Enron in 2001, the telecoms company WorldCom in 2002, and the dairy and food company Parmalat in 2003. All these companies had high investment-grade ratings until right before their collapse. More recently there have been the examples of the complex mortgage-backed securities that proved to be significantly less creditworthy than the ratings given to them made them appear to be and the collapse of the investment bank Lehman Brothers in 2008 and the brokerage firm MF Global in 2011 (Dal Bó 2006), again with investment-grade ratings until just before they had to declare bankruptcy. The rating agencies have argued that cases such as these are anomalies where issuers were either intentionally misleading the rating agency by providing incomplete or false information, or they were cases were conditions deteriorated much more rapidly than they anticipated.

Whether it is possible to gather all the information that is needed to forecast credit risk accurately or to scrutinise information even if there is no fraud involved, is questionable. There are vast amounts of information that have to be gathered, sifted through, and analysed to assess credit risk. Rating agencies' claims regarding what they are capable of in terms of accurately assessing credit risk, may contribute to the perhaps unrealistic expectations, unless indeed everyone understands that these claims are *"mere puffery"* as Standard & Poor's argued defending itself against a lawsuit initiated by the US Department of Justice (2013). Furthermore, what may make the rating agencies an easy target of criticism is their very emphasis on having greater access to information than anyone else. As Byoun and Shin (2003, p. 2) write, the general view exists that rating agencies are "*information specialists who obtain information that is not in the public domain"*. Whether this view is justified is doubtful, but the majority of interviewees did subscribe to it (Interview 25):

> Organisations do not have the resources, if you look at investors or credit departments at banks for example, nor do they have access to as much information as we have to do as much analysis and coverage and have as much insight in a sense.

It is important to note that rating agencies do not have any legal powers to compel anyone to provide information to them nor do they argue do they *"seek formal investigative authority"* (Moody's Investors Service 2002). The power of rating agencies to persuade does not rest on any legal basis as is the case for government regulatory bodies. They do not have the powers to coerce similar to those that state regulators may have who can, for example, demand access to certain documents (Hutter 1997; Stigler 1971; Stiglitz 1994). As rating agencies lack any formal authority they make all sorts of reservations regarding the information that goes into developing credit ratings, for example in their standard disclaimers. Also during interviews, analysts emphasised that they are dependent on others with regard to the information that they use. Firstly, in terms of whether or not information will be provided to them and secondly, in terms of checking whether that information is accurate as analysts rely mainly on accounting firms (Interview 19):

> Our primary data source is the issuer himself, who may or may not choose to share information with us, we cannot force anything. Similarly we rely on public information but we will not verify the information, we are not going to check the auditors. We start off with audited accounts, if they are failing there it is not our responsibility.

In addition to relying on accountancy firms as *"credible sources to validate some of the information that we rely on"*, it comes down to analysts and their experience to spot 'outliers' (Interview 22):

> We rely on what we know and what we learn about the market (...) For the most part we are relying on the experience and the judgements of the analytical team.

Nevertheless, although rating agencies cannot demand that anyone provides information to them, at a much more subtle level rating agencies can still exert pressure through other means. As Nielsen and Parker (2008) point out, non-state actors have other tools at their disposal to monitor compliance compared to official state regulatory bodies. They have different resources, a different relationship with regulated actors, and a different type and frequency of contact with the regulated actors. What could be true for rating agencies is that they indeed may have more sustained management attention and more detailed access to information than state regulators as this analyst argued (Interview 25):

> Our contact with [issuer] management is exceptional, we do have access to very senior management and we should have access (...) I think we are very privileged.

Regarding information issuers may feel compelled to provide information in response to analysts telling them it is in their best interest to do so. In interviews rating analysts explained how issuers were advised to give them more information because more information would increase the likelihood of a higher rating. If information is missing a rating analysis will be more conservative, possibly resulting in a lower credit rating (Interview 22):

> When information that is necessary for the rating analysis is missing, we will take our own view which is inevitably a much more pessimistic view than probably the actual case and companies realise that it is in their best interest to tell us exactly what is going on because usually it leads to a more favourable rating than if we are just left to making our own assumptions.

Analysts described how issuers could be less willing to share information with the agencies when times are more difficult for them, as this financial institutions analyst explained by saying: *"when a company is going through a difficult time, they may not be inclined to give us the full details"* (Interview 26). There is not always willingness on the part of issuers to *"be as transparent and open"*, but as this analyst put it (Interview 24):

> Our job is to reduce information asymmetry, that is something painful for some people if they do not see the benefit for them. It is not that by human nature we are very happy to open up totally.

Certain types of issuers were in particular regarded as less ready to provide private information, such as smaller issuers or issuers from emerging markets who analysts regarded as perhaps *"not yet there, professionally, to talk about things openly"*, or as not able to share the information because they do lacked the knowledge themselves (Interview 25). For issuers in those categories or for issuers who in general seemed less prepared to share information, rating analysts mentioned how they would adopt a more proactive approach to information-gathering than usual (Interview 22):

> With a client that is habitually a little bit slow with information we are going to stay on top of that account and reach out to them much more regularly than a client that we know is very good about keeping us in the loop when something has happened. We might have monthly conversations with them rather than getting an update on a quarterly basis.

Also, certain issuers are only interested in a rating because they need to have a rating for regulatory purposes and do not see any added value, getting a rating strictly for getting a rating (Interview 23):

> Most see the added value of ratings and they will also very likely argue that rating agencies are 'difficult', we want more information than in the past. And sometimes we encounter an issuer who only needs a rating to have a rating and that is something that affects the way you work together. (...) They may show less understanding we ask for more things, when ask for more information, they will try to get away with as little as they can give us.

Asides from telling issuers that more information will lead to a higher rating, analysts also explained that they try to convince issuers to provide information to them by emphasising that rating agencies can keep private information confidential. For a long time rating agencies did not commit to information disclosure rules. In the US, for example, the agencies were exempt from the SEC's Regulation Fair Disclosure (FD) and, therefore, not under any obligation to make public any non-public material information that is provided to them. The Dodd-Frank Act has directed the SEC to remove the exemption of agencies from Regulation FD, but it is too soon for this thesis to write anything about the extent to which the agencies will be able to keep private information to themselves. There are also other options for rating agencies that would avoid public disclosure of private information, for example providing for confidentiality agreements (MacKenzie 2009).

A more far-reaching tactic to put issuers under pressure to provide information is to threaten to withdraw a rating. Rating agencies reserve the right to withdraw ratings, for example, if they do not have sufficient information on which to base a rating or if they have been provided with incorrect information (Lucchetti and NG 2010). According to this interviewee threatening to withdraw a rating can provide the right incentive for issuers to be more forthcoming with information especially considering the signal that a rating withdrawal can send to investors (Interview 22):

> When something bad happens, something adverse to the financial strength of the organisation often times they are not as forthright with us as they would be perhaps if they had good news to share with us. So we do try to make it clear to these organisations that the interactive process means that if something happens and they are no longer going to meet their plan, they need to share that with us right away. And our role is to be quite timely in our reaction to changing market conditions or changing conditions within a company. So in the worst case scenario if a company is not fulfilling their end of the bargain we will drop the rating. But often just the threat of dropping the rating with a client that is not being as transparent or as forthright with information, kind of gets them on the right track. Because they do not want to have to explain to the market that they have lost a credit rating.

This is where the influence of credit ratings in the market becomes important, an issue that will be looked at in-depth in the next chapter.

Quantitative and Qualitative Information

A fundamental credit analysis aims to provide information about future creditworthiness which, as interviewees explained, is composed of the ability and willingness to repay debt on time. Willingness and ability are in general important considerations in regulatory enforcement processes and studies have looked at these in relation to understanding compliance with regulations showing, for example, that although willingness or a motivation to comply is important, it is not enough (Huisman 2001; Hutter and Amodu 2008; Kagan and Scholz 1980; May and Winter 2011a). Vice versa, ability does not imply that there is also willingness to comply, a situation that rating analysts are very familiar with as this analyst explained (Interview 25):

> Willingness is the more challenging one because that means sometimes a rating can be lower because we perceive that even though there is an ability, the willingness is not so high.

Rating analysts undertake the same balancing of an assessment of ability and willingness as field-level regulatory enforcement agents do in determining what credit rating to recommend.

The two components of ability and willingness are measured with on the one hand quantitative factors, such as earnings and cash flow, and on the other hand qualitative factors, such as management policy. To assess ability, rating agencies use quantitative approaches which rely heavily on computer models and statistical data considering the past record to make assessments about future creditworthiness. As in general with regard to assessing risk, past experience may be the best predictor there is of future events especially when the past can be quantified and analysed statistically (Garland 2003). Nevertheless, *"even at its best the past is an unreliable guide"* (ibid, p. 53). As risks are reactive, they are altered by human behaviour as soon as they are identified and estimated and this may change the future course of events (Treanor and Syal 2013). Furthermore, especially with credit transactions, its duration through time amplifies uncertainty (Reilly and Brown 2012, p. 219-20). The major international rating agencies do, however, not just rely on the past. They complement past information with non-statistical qualitative information to establish long-term risks and willingness to repay.

Although the ability to repay debt is regarded as easier to establish, analysts emphasised that learning only about ability is not enough to develop a credit rating especially as credit ratings are aimed at providing an insight into future creditworthiness (Interview 25):

> The ability is something you can measure with quantitative things. The willingness you cannot measure at all with quantitative things, so you need a lot of qualitative judgement. The other thing is we are talking about the future and the future requires you to have some judgement, what do you expect, and why and it needs a rational ground. And while you can express this in a forecast in a quantitative way, you still need to have the qualitative description, the qualitative rationale and your qualitative decision. If you rate a telecom company in Europe today, you need to make a judgement call what will happen to the mobile price you pay on a monthly basis. Our job is to analyse why things are the case, and to make the judgements and these are qualitative judgements. If you do not do these qualitative judgements, your ability to distinguish the defaulters from the non-defaulters is significantly lower. If you make a pure quantitative model you will see, internally we have proven that, significant difference. Qualitative judgement means of course that our analytically judgemental opinions, we try to make it objective by disclosing what it is, but at the end it is our judgement. At the end you need to make a judgement call, it is like a valuation, a valuation is very subjective, you try to make it objective but it is never an objective valuation.

The quantitative and qualitative factors that rating analysts take into account are determined by the standards in the form of rating criteria (see Chapter 4). But even though the criteria set out what factors analysts should look at, interviewees were keen to point out that credit risk analysis requires more than the simple application of the criteria and stressed the importance of analytical judgement (Interview 25):

> You should see the criteria as a theoretical framework that guides a well-informed analyst where he or she should make the judgement calls. But the criteria does not give the judgement calls.

Despite the emphasis on both quantitative and qualitative factors, from the 1990s onwards quantitative approaches have become more dominant in credit analysis especially with the increasing importance of structured debt products in the debt capital markets. Quantitative approaches are regarded as measuring more *"unambiguously"* (Moody's Analytics 2010, p. 7) and more *"accurate"* and as being *"a more scientific approach to looking at risk"* (Interview 29). A paper by Moody's Analytics (2010) discusses for example:

> A quantitative approach provides a sound foundation for assessing credit risk. Such an approach is efficient, because it can be implemented systematically and automatically on a large portfolio. The same process is applied to each name, so the output has a consistent interpretation, and is objective and less prone to human error. In addition, a quantitative approach is easier to test and

> validate, because quantitative measures can be created accurately for previous years as well as for a very large number of companies beyond the portfolio of interest.

The appeal of quantitative models is not surprising. As Petersen (2004, p. 1) for example discusses, referring to quantitative information as hard information: *"Hard information is quantitative, easy to store and transmit in impersonal ways, and its content is independent of the collection process"*.

The dependence on models developed prior to the crisis especially in the area of structured finance, but also after the crisis various smaller and newcomer rating agencies have begun to stress quantitative factors and approaches to measure credit risk as they would avoid the subjectivity and lack of transparency that some associate with qualitative factors and analysis. In a way focusing more on quantitative analysis is also a response to demands for greater openness from regulators and market participants. Polito and Wickens (2012) argue that an exclusively model-based analysis will be more transparent because it will be possible for anyone to reproduce the outcome of the model. Furthermore, a model-based analysis will be more independent as it avoids the inclusion of subjective evaluation of analysts and does not take into account willingness to repay.

The major rating agencies, however, remain adament on proposing that quantitative approaches need to be complemented with qualitative approaches. For the analysts, models are regarded as useful, but they serve as an input into the analysis and do not dictate the outcome (Interview 6):

> I am all for using models, I have got a [x] background which is mathematical, but you need a lot of common sense there. Models I think are absolutely vital, but it is an insight and not an answer.

Also this structured analyst explained the role of the analysts in relation to models (Interview 19):

> We are there to verify, does this [modelling output] make sense? (...) Modelling does not immediately give us our rating, that is where the analyst comes in, by looking at the data we point out where the strengths and weaknesses are to give a balanced view.

For interviewees qualitative factors and judgement were inherent to credit risk. Interviewees argued that *"credit is all about judgement and belief"* (Interview 1):

> In the empirical world everything is more an art than a science. Sometimes we try to say we can make a science out of everything. The real world is much more complex than you can be. We also have to simplify things and we have to build simple tools, but at the end it is an opinion (...) The rating cannot be a kind of science, it is not a scientific thing that you can do and therefore you are correct or incorrect. (Interview 25)

An example of how qualitative factors could matter in a rating process is given by this corporate analyst. Especially in the area of corporate credit ratings the management and governance of the corporation is an important consideration (Interview 25):

> Just because a company has everything very good on paper it does not mean their risk management is very good. It is all well and good companies having those frameworks in place, but it is how do they use it to make their business better, what actions are they taking, what have they identified in the past that is a concern to them, what have they done to mitigate those risks. To a certain degree that is very difficult to quantify, you can only have a feel of how that works when you have the interaction with the company. It is more how are you applying it, how are you using it. What is driving the company, what is driving their business, it is the management of the company. So you need to get a feeling in terms of the quality of the management, what their track record is like, where have they been, what type of job have they done there.

Gorton (2008, p. 45) describes how information is lost due to complexity in structured products such as happened in the built-up to the crisis: *"The information problem is that the location and extent of the (...) risk is unknown to anyone. It is very hard to determine the location of the risk, partly because of the chain of interlinked securities, which does not allow the final resting place of the risk to be determined."*

Making Sense of the Information: Rating Analysis

Rating analysts gather a range of quantitative and qualitative data and information from public and private sources, but how all of that matters in the rating that an analyst proposes, is not clear to outsiders including the issuers of debt. How each analyst puts the different types of information together is not made public. For example, it is not made public which weights analysts assign to particular variables or factors in case of a particular rating. Furthermore, analysts may apply adjustments to certain outcomes. This is why proponents of the use of solely or primarily quantitative data have criticised the major rating agencies as this former employee argued by saying that credit ratings are *"subject to bias because they are given by humans as opposed to a machine"* (Interview 29).

What determines credit ratings, more specifically which factors influence the rating and in which measure, has been discussed in the economics and finance literature. Various authors have attempted to study how each factor plays a role in the ratings that are issued by the major agencies. For example, Bissoondoyal-Bheenick (2005), Bissoondoyal-Bheenick and Treepongkaruna (2011), and Bozic and Magazzino (2013) have tried to establish in various rating areas which factors mattered and in which measure. These authors have, however, struggled as they are not able to replicate the same result as the rating agencies because they do not have access to the private information on which ratings are in part based. The authors are, therefore, left to conclude that ratings are based on more than just the quantitative factors that can be assessed using publicly available information. In addition, it is not possible to replicate rating results even for the quantitative factors as rating analysts also interpret the outcome of those and the authors do not have knowledge of the subjective considerations of analysts. Bissoondoyal-Bheenick (2005, p. 279) writes with regard to sovereign rating analysis:

> Consequently, sovereign risk analysis is an interdisciplinary activity in which the quantitative analytical skills of the analysts must be combined with sensitivity to historical, political, and cultural factors that do not easily lend themselves to quantification.

Cantor and Packer (1996, p. 39) describe similarly:

> In their statements on rating criteria, Moody's and Standard and Poor's list numerous economic, social, and political factors that underlie their sovereign credit ratings (…) Identifying the relationship between their criteria and actual ratings, however, is difficult, in part because some of the criteria are not quantifiable. Moreover, the agencies provide little guidance as to the relative weights they assign each factor. Even for quantifiable factors, determining the relative weights assigned by Moody's and Standard and Poor's is difficult because the agencies rely on such a large number of criteria.

The interpretation of quantitative data and the use of and interpretation of qualitative information, explain why it is difficult to replicate how the agencies came to certain ratings. It also explains why different agencies may produce different ratings for the same issuer or debt issue, although this may also be influenced by the criteria used which may be different for each agency as explained in the previous chapter.

A banking analyst explained how it was essential for a good analyst to go beyond simply what the criteria stipulate (Interview 13):

> We do not rate based on the scorecard, it is an input in the ratings process. Scorecards like anything of that sort, they do not always fit a certain business model as well as you might like, so it is the analyst's role to understand the scorecard and the business model of the issuer they are dealing with and to suggest overrides to scores or weightings where they feel the scorecard is driving the wrong outcome. We are trying to be forward looking and the scorecard is more backward looking, it is historical information. We need to take the outcome of the scorecard process and put it together with other analysis and an understanding of that institution, its peer group, regulatory changes that are coming and other things. And all that needs to come into the recommendation. I think a good analyst will go beyond the framework, the worst thing is that someone just plunks in the numbers and says this is my recommendation because that is actually not enough.

How important analysts really are in shaping the information that goes into a rating and a rating recommendation is difficult to assess. Interviewees who worked for rating agencies for a longer period of time have described how the agencies have changed from a relatively *"free environment"*, with rating agencies resembling more of a *"academic department"* to an environment in which there is much less freedom to be able to apply analytical expertise. This analyst argued for example that the quantitative factors and model outcomes are the only thing that truly matter nowadays and that there is no room for analysts to deviate from what the financial ratios and the criteria dictate (Interview 5):

> As an analyst you cannot say well the ratios say one story but the way I look at this credit I get a different story. You cannot get a different story. Even if the [criteria] leads you to the wrong rating at least you can justify the wrong rating versus assigning the right rating and taking the risk of being wrong later on without appropriate [criteria]. That is the changed nature of the business.

Although most interviewees agreed that criteria had become more important in rating agencies, they stressed that even today it is not a matter of simply applying criteria as this analyst explained (Interview 18):

> Our process is quite strict and prescriptive so every account goes through the same set of steps towards the rating decision. But because we are rating a living, breathing organisation that is going to be dependent upon people making decisions there is always going to be the need to put emphasis in the analysis in one direction or another. It could never be: `Run the numbers through a formula and here is your rating’, because we have to assign different

> weightings sometimes to the elements of the analysis. So for that there is flexibility and there is judgement.

In the discussion below I will suggest that using an analyst-driven approach to develop ratings, implies that we should look much closer at how analysts are involved, for example as done in the work by Fracassi, Petry, and Tate (2013b) on how analyst-specific biases may influence ratings. They studied the influence of individual analysts on corporate rating processes (p. 2):

> Though the rating agencies stress their focus on measuring the fundamentals of rated firms, the identity of the analyst covering the firm may matter if analysts gather different information before reaching a rating recommendation. Alternatively, different analysts may interpret the same information differently, even if the information gathering process is standardized within the agency. Moreover, analysts covering a firm develop long-term relationships with firm management (...) creating the potential for conflicts of interest or bias arising from familiarity with the rated firms.

Discussion

This chapter has considered the role of rating analysts in the collection and analysis of information that is needed to assess how issuers of debt and debt issues measure up to the standards used to assess credit risk. Information plays a critical role in the debt capital markets and the access to and provision of information about credit risk, gives credit rating agencies a critical advantage. The existing literature on the rating industry has long recognised the importance of rating agencies in gathering and providing information that helps constitute and improve the functioning of the debt capital markets and this remains true today. Rating analysts gather vast amounts of quantitative data and qualitative information and arguably have more access than any other party to information about credit risk. The information-gathering capacity of the rating agencies is in particular strong because of the close interaction that they have with rated actors and access to detailed information.

Like the standards that are developed in the form of rating criteria, also rating analysts do not operate in a vacuum. Research on risk perception has showed that risk assessments are part of a social process involving personal, organisational, and cultural values (Pidgeon et al. 2003). From this chapter it becomes clear that with regard to the ratings produced by the rating agencies there should be much greater acknowledgement of this aspect and a greater understanding has to be developed of the rating analysts and the teams and organisations in which they operate and how they help define how information is gathered, given shape, and plays a part with regard to the rating that is recommended. This would warrant an empirical study of the internal organisational processes of rating agencies.

Furthermore, as ratings are based to a large degree on information that is provided by the entities that they rate, ratings are not more reliable than the information given to the analyst (Schwarcz 2002, p. 6). An important question that this raises is whether the information that analysts are able to gather is a sufficient basis on which to manage risk. In that sense, rating agencies are not any different from state regulators who are often also constrained by the need to work with regulated entities. When regulators have to rely on information from regulated entities there are difficulties with a potential lack of information or a suspicion that information may be biased (Bethsass and Wu 2007). Rating agencies are similarly dependent on the information that they receive from the entities that they rate. Rated entities may withhold information or provide suspect information. Although the agencies have ways to overcome these issues they do not have the powers that a formal regulatory body may have which could, for example, impose a fine if a regulated entity does not provide information.

Another important issue with regard to the data gathering and analysis undertaken by rating agencies is that there continues to be limited public scrutiny and, therefore, a potential lack of accountability. The information provided by issuers to the rating agencies is given on a basis of confidentiality. However, this is it odds with greater demands for transparency and oversight of the information used by the agencies to determine a credit rating. It is not possible for others to evaluate the quality of the data underlying rating decisions. At present, there is only an opportunity for *ex-ante* assessments of the quality of the final rating through performance statistics. Rating agencies are now required to publish information about the performance of their ratings in order for users of ratings to compare how ratings of different agencies have performed over a given period of time.[44] Considering the potential regulatory consequences of the actions of rating agencies, this is an area where further improvements would be desirable and the agencies may have to be held to similar expecfaced by public regulators.

[44] Performance statistics consist of transition rates and default rates. Transition rates provide information about the percentage of rated entities that were downgraded or upgraded by a rating agency in a certain period of time, default rates provide information about how many rated entities went into default. Rating agencies also have to provide historical information about all specific issuers or debt instruments showing the initial rating and any subsequent modifications to that rating.

6 Credit Risk Decisions to Modify Behaviour

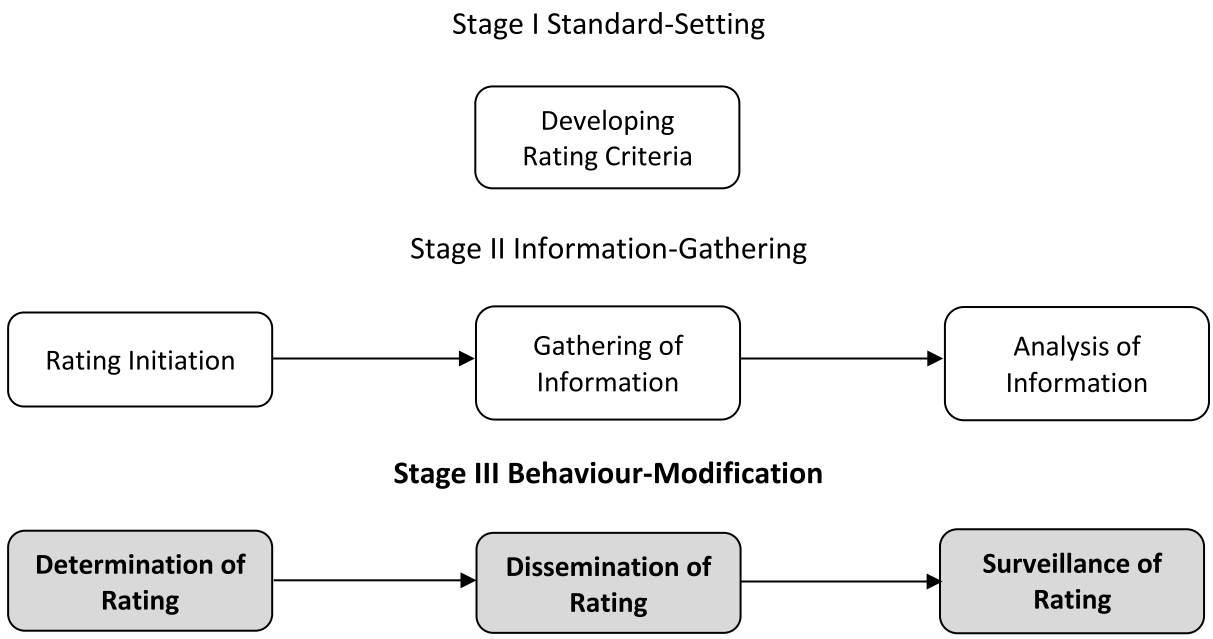

Figure 6.1: Stages of Credit Rating Processes

Regulatory Enforcement beyond the State

Regulatory processes revolve around the setting of standards to specify what behaviour is desired, information-gathering to monitor or feed-back information about deviation from standards, and the enforcement of standards to secure conformity to the standards (Hood et al. 2001, p. 23). In this chapter the third stage of credit rating processes in Figure 6.1 is examined to consider to what extent it corresponds to regulatory enforcement as it has been discussed in the regulatory literature. The main objective of regulatory enforcement is to ensure compliance with standards. Although the regulatory literature has focused predominantly on enforcement by state actors, the enforcement capacity of non-state actors is increasingly recognised (see e.g. Grabosky 1995; Hutter 2006b). Compliance with regulatory standards can be achieved through surveillance and sanctioning, or the threat thereof, or rewards. Legal tools are one way to secure compliance, but regulatory research has long recognised that they are far from the only tools and that they are often used reluctantly (Braithwaite 1985; Hawkins 1984; Hutter 1988; Hutter 1989). Theories such as responsive regulation (Ayres and Braithwaite 1992) or smart regulation (Gunningham and Grabovsky 1998) have pointed to the potential uses of a combination of more and less interventionists tools and strategies involving both state and non-state actors. The combination of different kinds of enforcement mechanisms are seen as especially promising for achieving compliance, ranging from using more direct forms such as legal methods to more indirect forms, such as market based or community pressures (Kagan et al. 2003).

The advantages of combining state and non-state and efforts are potential increases in capacity to enforce regulation, increased awareness about regulatory standards, and a broader support for regulation and its enforcement (Van Rooij and McAllister 2013). Non-state actors such as consumers, firms, employees or investors may condition important decisions on compliance and improve efficiency, flexibility, and responsiveness to businesses (Abbott and Snidal 2009). Regulatory enforcement beyond the state is also criticised for being too lax, lacking independence, or missing any authority to enforce regulation. In contrast to empirical research on regulatory enforcement by state regulatory agencies there is, however, limited empirical research on enforcement by non-state actors.

An important area in which enforcement by non-state actors has been discussed is in the context of the state failing to enforce regulation (see e.g. Börzel and Risse 2010). In situations where the state fails, there may be a greater reliance on non-state mechanisms, such as social norms and pressures, to resolve issues. Examples of regulatory enforcement beyond the state are citizen complaints or the work of NGOs. Much of the literature has considered the role of non-state actors in enforcing regulation as it takes shape in some form of alliance with the state (Grabosky 1995; Van der Heijden 2009). Collaborative arrangements between state and non-state actors may either be mandated, encouraged through incentives or they may involve non-state actors voluntarily (Van Rooij and McAllister 2013). With regard to transnational risk, collaborative arrangements using the capacity of non-state actors to apply standards are in particular interesting. Abbott and Snidal (2008; 2009), for example, discuss a form of facilitative orchestration at transnational level whereby states and intergovernmental organisations strengthen transnational regulation by relying on non-state actors such as NGOs.

This chapter will discuss whether credit rating processes can be regarded as a form of regulatory enforcement at domestic and transnational levels. Because this thesis has only considered rating processes, the thesis does not have in scope the effect of rating decisions on rated and other actors in the debt capital markets and this limits the extent to which the thesis is able to fully assess the enforcement capacity of rating agencies. A follow-up study would be required to address this. In this chapter the enforcement capacity is assessed in a narrow sense by looking only at the decision-making processes at rating agencies aimed at narrowing the gap between compliance and non-compliance with rating agency standards and what happens after ratings have been determined in the form of the dissemination and the surveillance of issued ratings.The existing literature on regulatory enforcement is used to understand credit rating decision-making processes and to what extent they are similar to enforcement processes. As summarised by Kagan (1989, p. 92), regulatory research on state actors has been preoccupied with the way compliance or non-compliance with regulatory objectives is assessed. For example, depending on whether standards are more or less specific, are they interpreted more literally or with greater discretion? Another key issue in regulatory research concerns what is done once actions are regarded as violations of standards. In this chapter it will be shown how such issues are equally relevant in the context of regulation beyond the state.

Shadowed Place of Decision-Making: The Rating Committee

In the third stage of rating processes an important role is played by so called credit rating committees. All major credit rating agencies determine what ratings they will assign and if and when these need to be revised, either upwards or downwards, in committees composed of various staff members. How ratings are actually determined may be the *"most secretive aspect of the rating business"* (Sinclair 2005, p. 33). Despite their importance in credit rating processes, rating committees have not been subject to scrutiny in existing academic or other work on the rating industry.[45] The lack of discussion regarding the agencies' internal decision-making processes, may be explained in particular by the fact that the deliberations of rating committees are confidential. One of the agencies' *Code of Conduct* reads (Moody's Investors Service 2014a, p. 13):

> Except as required under any applicable law, rule, regulation or at the proper request of any governmental agency or authority, MIS's internal deliberations and the identities of persons who participated in a rating committee will be kept strictly confidential and will not be disclosed to persons outside MIS except on a 'need-to-know' basis and where such persons are bound by appropriate confidentiality provisions.

By keeping the content and participants of committee deliberations hidden, the agencies keep outsiders away from knowing how rating decisions are reached and who is involved in the decision. As a result, decision-making by rating committees can be regarded an example of what Douglas (1986, pp. 69-70) calls the *"shadowed places"* of decision-making within organisations *"in which nothing can be seen and no questions asked"*. This chapter aims to

[45] Some brief general descriptions about rating committees are provided by rating agencies themselves and in the academic literature see e.g. Creswell et al. (2011), Fight (2001, p. 51), Fitch Ratings (2011b), García Alcubilla and Ruiz Del Pozo (2012, pp. 20-2), Moody's Investors Service (2011), Partnoy (1999), Standard & Poor's Ratings Services (2014b; 2014c).

shed more light on rating committees, how they function, and make decisions using the data from interviews and the, albeit limited, publicly available information on rating committees.

The perceived failures of the agencies in the build-up to the global financial crisis of 2007-08 resulted in some increase in public information. A range of formal government inquiries, investigations, and litigation looking into rating agencies and how they operate, has revealed information about rating committees (see e.g. IOSCO 2012; UK House of Commons Treasury Committee 2009; US Securities and Exchange Commission 2014b). The documents that came forward from these initiatives have been an importance source to learn more about rating committees. In addition, the post-crisis regulation and supervision of rating agencies across jurisdictions has laid down requirements for the agencies to document the steps in their rating processes and to identify the factors that they consider when developing ratings.[46] Nevertheless, internal decision-making by rating committees has thus far remained a topic that authorities prefer to avoid. Paudyn (2014, Chapter 2) argues that this may be because regulatory and supervisory authorities are wary of potentially intruding in rating processes. EU regulation stipulates that the analytical independence of a credit rating agency should not be jeopardised by regulation and supervisory authorities should not interfere in relation to the substance of credit ratings and how rating agencies determine credit ratings (CESR 2010; Commission of the European Communities 2008). In the US similar concerns have been raised in relation to the SEC not interfering with credit rating processes or criteria (2012).

The lack of public information heightened the importance of interviews with former and current staff for trying to better understand rating committees and how they make decisions. Although I did not have access to rating committee deliberations, as these are confidential, and interviewees were reluctant to discuss committees at length, a number of interesting features came forward in interviews regarding how committees are formed, operate, and make decisions. The chapter will concentrate on the considerations that are explicitly and implicitly taken into account when making rating decisions. An important finding of the chapter is that rating decisions are influenced by the regulatory consequences of ratings. As ratings have become ingrained in the functioning of the debt capital markets, the importance of ratings has been elevated and determines access to investors and the conditions under which access is gained.

[46] Notwithstanding these requirements, the agencies have regularly been criticised by supervisory authorities for not documenting what happens in rating committee meetings. For example, ESMA noted in 2012 that rating agencies do not *"appropriately or systematically"* record how they arrive at decisions in rating committees (p. 7). ESMA argued that rating agencies should strive for a *"higher degree of formalisation and recording of its internal processes, in particular with reference to the activity of the RCs [rating committees]"* to make sure that decisions have been taken in accordance with the internal policies, procedures, and criteria of a particular rating agency (p. 8). Similarly, the US SEC concluded in 2014 that some of the rating agencies did not have on file *"complete and accurate documentation related to rating committee presentations and records or the methodology, criteria, or models applied"* (p. 11).

Decision-Making by Committee

Although rating analysts are the key actors in the preceding stage of the rating process, the gathering and analysing information on debt issuers and issues, individual analysts do not decide what rating will ultimately be assigned nor do they decide whether a rating should be updated. Instead, rating committees are the core decision-making body within rating agencies. This is very similar to regulatory decision-making at state level, where the different stages involve different participants. The standard-setters may be different from those gathering the information and those enforcing the standards (Scott 2010). The main reason why decisions are made by committees is that it prevents individual analysts from having any undue influence on assigned ratings as this analyst explained (Interview 3):

> You know we do not want a system where it is one analyst deciding because that is going to be dangerous.

In interviews rating analysts stressed that rating decisions are a team effort as opposed to the analyst acting alone (Interview 25):

> It is a team process, because we would say a one man opinion is not as much worth as a team opinion. Committees are the only body who can make the judgement and approve it and say it is final.

Rating agencies argue that rating committees are a critical element in internal control processes (Standard & Poor's Ratings Services 2012). Committees have to ensure that potential analytical biases and inconsistencies in rating decisions are eliminated (IOSCO 2012, p. 20). Committees assess whether the information analysts have gathered is sufficient to support a particular rating decision and whether they analysed the information correctly by probing the findings that the analysts present (Interview 23):

> The committee aims to ask questions, such as: 'Did you think about this, did you think about that, what if this happens, what could change your credit opinion?'

In addition to evaluating the work done by analysts, committees provide additional perspectives to the credit analysis and review whether internal policies, procedures, and rating criteria have been applied correctly. The consistent application of policies, procedures, and rating criteria is considered essential for making sure that ratings are assigned in a similar manner across issuers and debt issues as this contributes to the comparability of ratings (IOSCO 2012, pp. 10-1; Standard & Poor's Ratings Services 2012).

Making decisions by committee also shields individual analysts from pressure from rated entities over rating decisions. As one interviewee put it: *"Behind every analyst stands a committee"* (Interview 23). To outsiders only the final outcome of a committee meeting and a summary of the main analytical considerations, the rationale for the rating decision, are known. Rated entities do not know who participated in a committee meeting and the decision that they favoured. This analyst discussed how being able to hide behind a committee has certain benefits, for example when communicating the outcome of a rating to an issuer (Interview 18):

> Everyone [issuers] thinks that ratings should be higher. I have never had anyone say to me: 'Oh I think our ratings should be lower'. So there is always this conflict. Because it [the rating] impacts the funding costs (...) From my own experience the most frustrating thing is when you go to a rating committee and the rating is [X] for example and you make a recommendation that the rating should be [X] high. And the rating committee says: 'No, we will give it an [X]'. And then the issuer starts giving you a hard time, but you as an analyst think: 'This is what the committee has decided'. I have been in things when the rating has been [X] and I have recommended that it should be [X] low. And then the company pitches [X] and you think: 'Hey guys you are just so lucky it [the rating] is not lower, if it is down to me, it would be lower'. You do not feel the conflict. On the times when I felt rough from issuers, you do not take it personally because it is a committee decision and you cannot influence the committee decision.

The protective shield provided by making decisions by committee can be especially useful in cases where rating decisions are more controversial.[47] By limiting the information on how a decision has been reached, the agencies are able to convey a message of consensus, even if in reality rating decisions may have been more complicated and, therefore, contestable.

Preparing for a Rating Committee and the Committee Composition

In advance of a rating committee, rating analysts aggregate the information and data they collected and analysed on a specific issuer or debt security and prepare a rating memorandum referred to as the rating memo or pack. This rating pack is presented to the rating committee alongside their recommendation for a specific rating. The following analyst explained what a rating pack looks like (Interview 13):

[47] Robbins (2012) discusses how anonymous decision-making is used a strategic tool when deciding difficult cases in courts.

> There is a standard way rating committee packs are put together within the [criteria] used for the particular issuer. The analyst and the associate [back-up analyst] will work on putting that pack together and in that indicate what their recommendation is and what their rationale for that or the key drivers for the rating are. And they are encouraged to include peer group information.[48] They have to distribute that and there are rules about ensuring that the participants have the information 24 hours before the committee and that is actually confirmed by the chair [of the committee], has everyone received the pack, if they had time to read.

IOSCO (2012, p. 9-10) summarises how a rating pack typically includes:

> (…) a rating recommendation and rationale, a discussion of key analytical considerations, the principal methodologies and criteria applied, a draft press release and/ or rating report, financial metrics, comparisons with similar ratings, peer ratings, financial forecasts, stress analysis and pro forma metrics, and key information from the issuer or obligor, market information relevant to the issuer or obligor, and background information on the rating and relevant industry.

The rating pack is sent to all staff members who will attend the committee meeting. Although the agencies maintain that rating packs are circulated at least some time in advance, for example 24 hours as stated in the interview quote above, a 2013 investigation into EU sovereign rating processes revealed that material is sometimes circulated as little as a few hours before the meeting (ESMA 2013). This could be problematic as the degree to which committee members are informed, and this may be less if there is less time to prepare, is likely to influence the quality of the decision made (Gerlinga et al. 2005).

Rating committees are formed as required for each rating decision depending on what expertise is required. It is mainly driven by the type of issuer or debt that is rated. Generally, several analysts, other than the lead and back-up analysts, with expertise on the specific type of issuer or debt will be involved in a committee meeting. Furthermore, analysts specialising in other areas may join meetings and decide on the rating that they think should be assigned to enhance consistency and comparability of ratings across regions and types of debt (Fitch Ratings 2011b, p. 3):

> Rating committees are required to include analysts from outside the immediate asset class, subsector, or geographic area of the entity under review, since peer

[48] Peer group information is information about similar issuers or debt issues and how they compare to the issuer or issue being rated. Because ratings are an ordinal ranking system of risk, comparison to other issuers and issues are quite important.

> analysis (on a transaction or entity basis) is a central element of the rating committees' discussions.

Or (Moody's Investors Service 1999):

> In order to promote consistent rating practices, analysts from different rating groups often participate in rating committees and experienced analysts and managers are rotated across rating groups.

The selection of staff members is typically made by the lead and back-up analysts and their managers. That analysts can influence who is on the committee could lead to situations where they may choose to have those staff members on the committee from whom they expect the least opposition (Interview 14). Not all staff members are eligible to participate in a committee and decide by way of voting which rating will be assigned.[49] Rating agency policies require, for example, that staff have a number of years of analytical experience and training before they can vote on a committee.

It is also common for someone from credit policy to attend committee meetings. Although credit policy officers usually do not have the right to vote, they monitor adherence to internal policies, procedures, and rating criteria and *"throw sand in the wheels and appeal decisions"* when they are *"not in line with criteria or they [the analysts] have not taken into account certain risks"* (Interview 8). As the interviewee from credit policy explained, credit policy officers execute a bit of a *"police function"* during committee meetings (Interview 8):

> People always have automatic views in credit. The [global financial] crisis has made us aware of the consequences of rating teams not taking into account everything they should and taking too rosy a view. We [credit policy] have the expertise and we can be awkward a lot. We can be unpopular asking questions whether they [the analysts] are really sure and whether they have understood this or this or this.

Checking whether criteria, policies, and procedures are adhered to is also the responsibility of the committee chairperson. Each committee meeting is led by a committee chair. The chair is in charge of leading the discussion and the voting process. They are senior members of staff who have *"to make sure that in this [committee meeting] discussion we highlight the pros and cons and we come to a logical and very good judgement"* (Interview 13).

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[49] Serving on a committee and voting on a committee are separate issues. Staff members may be invited to attend a committee meeting to act as an observer only, this may be part of training, or to participate in the discussion without being allowed to vote.

How many staff members attend a committee meeting varies. It is in particular determined by the complexity of the credit (Interview 3):

> Rating committees can be quite big, can be quite small depending on the complexity of the credit.

Practical constraints in terms of who is available on the day of the committee meeting, also influence who is on a committee and impacts the size of a committee (Interview 13):

> [Rating agency name omitted] has formalised requirements for having committees. What the composition has to be, no conflicts of interest, independence, you have to have someone from outside the team within your same line of business, supposed to have credit policy there, then you have a chair and co-chair, and obviously a lead analyst and back-up analyst. So when the committee has been formed we can get that composition of people on a certain day, this is one of our biggest challenges because everyone is so busy that you have to find another day that you can get the right composition of people.

Some agencies stipulate a quorum for rating committees. This may be a minimum of three to five voting members (Fitch Ratings 2011b; IOSCO 2012; Standard & Poor's Ratings Services 2014a). Information about voting members is, however, not made public and it is not possible to find out how many voting members were part of the committee that came to an opinion.[50]

Rating Committee Proceedings

During the committee meeting the lead analyst will present the rating pack and rating recommendation which is followed by a discussion led by the committee chair. Each committee member is invited to ask the lead analyst questions and to assess whether the information that has been gathered is sufficient and has been analysed appropriately to support the analyst's rating recommendation. On assessing whether sufficient information is available, this credit policy officer argued (Interview 8):

> We are not too precise on what is enough information. There are no hard and fast rules (…) ultimately it is a judgment. The rating team and credit policy sit together and think whether there is enough information.

[50] In interviews the number of voting members ranged from three to twenty.

At the end of the meeting the committee chair polls each member for their vote. Most rating agencies have a reverse order in place with more junior committee members voting first to prevent them from feeling intimidated to vote in line with how more senior staff voted. All voting members will say what they think is the appropriate rating and are encouraged to provide a rationale. The rating is then determined by a simple majority vote with each vote carrying equal weight or until a consensus is reached depending on rating agency.

This analyst described the proceedings of the rating committee meeting more generally (Interview 13):

> In the rating committee discussion you provide an opportunity for the analyst to give an overview initially, to summarize their recommendation, and their rationale. And then there is going around the table and giving each person an opportunity to say what things they would like to discuss in more detail and what questions they have. And the analyst takes all those questions and works through them. At the end there is summing up and the analyst will present the recommendation again, which could have changed as a result of the discussion. And then going around the table and voting usually in the order of more junior people first so that they are not overly influenced by the opinions of the more senior people and then it is a majority vote.

Another analyst described the committee proceedings as follows (Interview 10):

> When a committee convenes the lead analyst gives a presentation, we will also have a discussion varying in length depending on the rating decision that has to be made in time. And in sovereign we have a position called the 'prosecutor' which is basically a devil's advocate, so it is another analyst in the sovereign team who prepares a short note in advance and gives a presentation raising questions that the memo may not have raised. Perhaps advocating a different view. But basically it is there to, in a very structured way, encourage different points of view to be put on the table. A discussion then ensues talking about the sovereign and peer comparisons and then a vote is taken.

The deliberations of rating committees vary in time depending on rating area and the complexity of the credit. Disagreements over the rating that should be assigned is quite common (Interview 25):

> There are plenty of times where there is a heated debate and discussion, perhaps even a bit of a disagreement. We have fairly detailed criteria and rules around how we look at certain key metrics, but there might be a bit of

> disagreement about one company or another. (…) The dissenting voter is a notch above or below [in their preferred rating].

In general it is argued that especially in the area of sovereign rating there is more debate in committees (Interview 20). Also at agency level, disagreements across rating agencies are more frequent when assessing sovereign credit risk than in any other rating area (Alsakka and Gwilym 2010). When the same issuer or debt issue is rated differently by two or more agencies, something called split ratings, this has generally been regarded as a result of the different criteria that the various agencies use, discretion in the rating process (Van Laere et al. 2012), cultural bias (Fuchs and Gehring 2013), and greater opaqueness with regard to issuers or the debt rated. The more opaque the more likely different risk assessments will result (Livingston et al. 2007; Morgan 2002). Specifically with regard to sovereign ratings, Bartels (2014) points to the use of sovereign ceiling policies as an important reason why in this area rating decisions may be more contentious. Although rating decisions in all rating areas can have a significant impact, the influence of a sovereign rating extends much further and impacts the ratings of all issuers of debt in a given country (Borensztein et al. 2007).[51] Furthermore, sovereign ratings attract much political attention and pressure which may make decisions more difficult.

This sovereign analyst explained the differences between more and less controversial cases (Interview 17):

> Some cases may be less controversial than others and can be dispatched pretty swiftly. So when you talk about Norway for example there is only so much controversy, yes you can discuss is there a bubble in the housing market, and some people would think that there is, others not, but all things considered it is not likely to change the rating. The committee should not be a forum where you discuss matters of general interest, but where you zoom in on those developments that you think could have a bearing on the rating. On the other hand you may have cases like Ireland, or Spain, or Cyprus, and you can imagine that there are many more issues to discuss and this can take a pretty long time until that is gone through and when I say pretty long time I mean hours.

In complete contrast to sovereign rating committees stand structured finance committee deliberations. According to a recent US Department of Justice complaint against Standard & Poor's, committee meetings in structured finance often take *"less than 15 minutes to*

[51] Up until the late 1990s, rating agencies applied a strict sovereign ceiling policy. No issuer in a country could get a higher credit rating than the sovereign. Over time the rating agencies have relaxed their sovereign ceiling policies and it is now possible for issuers to get a higher rating than the sovereign. Nevertheless, sovereign ratings still are an important consideration when determining the rating of issuers in a country (Borensztein, Cowan, and Valenzuela 2007, p, 3).

complete" (2013, p. 19). This is very likely due to the fact that structured debt transactions have already been discussed thoroughly internally and between analysts and issuing entities prior to a rating recommendation being discussed in a rating committee. *"It [structured finance] is a much more iterative process"*, as one interviewee explains (Interview 23). Instead of much time spent during committee meetings, a lot of time is involved prior to these meetings to adapt the features of a structured transaction to attain a desired rating level (García Alcubilla and Ruiz Del Pozo 2012, p. 24). Models are run and results are shared with issuers and discussed internally, possibly resulting in changes by the issuer to the proposed structure until the structured can achieve the rating that is targeted. Only after the model results are accepted internally and externally, the analyst prepares a presentation for a rating committee. Another reason for rating committees being conducted more swiftly in structured finance, is due to the large number of repeat issuances of similar structured debt products involving the same parties.

Rating Committee Voting

Some interviewees argued that despite safeguards, junior committee members are indirectly influenced to vote in a certain way by more senior members of staff (Interview 14). One former analyst (Harrington 2011, p. 17), described the following with regard to rating committees on certain structured debt instruments prior to the financial crisis:

> The managers are accustomed to having influenced very, very many committees over very many years, principally for CDOs but also for other asset classes. Their modes of intimidation have encompassed interrupting subordinates, grimacing while opposing views are voiced and voted, belittling both opposing views and members who voice them and inflating the impact of voting an opposing view to indicate that that view is inappropriate to even raise.

In interviews with current staff this atmosphere of intimidation was not confirmed. Senior staff members, for example, argued they had no problem being *"outvoted"*. Nevertheless, the literature on group decision-making shows how individual members may be concerned not just with making what they believe is the right decision, they may also be concerned by their career and reputation and may engage in strategic voting (Levy 2007a; 2007b). Groupthink is also of relevance here. Especially if the same group of people meet regularly, which is the case in rating agencies, individual members may be inclined to hide disagreement to be perceived favourably by other members. Once members know the opinion of the other members, they may be tempted to move in the direction of the dominant view (Sibert 2002).

According to the same former employee, a distinction can be made between analysts' public opinion and their private rating opinion (Harrington 2011, p. 10):

> Members of committees vote one opinion for publication and keep their private opinions to themselves. A committee member who votes differently, i.e. one who votes the same opinion for publication as she holds privately, earns her own self-respect. She also courts retaliation from management.

The employee felt that ratings do not reflect what analysts themselves conclude as they do not vote in accord with their private opinion and ratings therefore *"fail their purpose"* as they are not durable or informed. Such a distinction between public and private opinions seems to resonate in the decision-making literature. Austen-Smith and Banks (1996) describe for example how it is often wrongly assumed that individuals will vote sincerely in collective decision-making.

The Role of Rating Criteria and Other Considerations

Rating criteria are an important guide during committee proceedings. The criteria provide the main framework for the rating decision. For this reason, keeping track of the changes in rating criteria is important to debt market participants. Knowing what criteria the agencies use to make decision can be relevant assessing what type of rating may be likely, but criteria alone do not dictate the outcome of a rating process. Interviewees stressed that there are situations when the applicable criteria are less suitable and flexibility is required. Criteria always need to be interpreted in the relevant context as this analyst described (Interview 17):

> All the committee members are expected to apply the criteria when they score and vote on these various categories, but of course you cannot legislate for all possibilities in life right so there is always the question of interpreting the criteria in a certain environment of a specific case. But outside the criteria there is nothing, this is the only thing we have when we assess.

One of the rating agencies formulates how analytical *"perceptions and insights"* are relevant factors on top of rating criteria (Standard & Poor's Ratings Services 2014a):

> The final rating assigned by the committee is primarily determined by applying the rating criteria to the information that the analysts have collected and evaluated. However, rather than providing a strictly formulaic assessment, Standard & Poor's factors into its ratings the perceptions and insights of its analysts based on their consideration of all of the information they have obtained.

> This process helps the committee to form its opinion of an issuer's overall ability to repay obligations in accordance with their terms.

During interviews, all staff emphasised qualitative aspects and the importance of exercising judgment when determining a rating as this analyst did (Interview 22):

> Our [rating] process is quite strict and prescriptive so every account goes through the same set of steps towards the rating decision, but because we are rating a living breathing organisation that is going to be dependent upon people making decisions there is always going to be the need to put emphasis in the analysis in one direction or another. It could never be: 'Run the numbers through a formula and here is your rating', because we have to assign different weightings to the elements of the analysis. So for that there is flexibility and there is judgment. Qualitative aspects such as management's credibility, the competitive market position of an organisation which will eventually have an impact on its ability to outperform its competitors. Softer, more subjective things within the analysis, they are given the appropriate attention.

Existing rating criteria may also be silent on certain issues as this analyst made clear by saying that the *"world simply moves too quickly for all pertinent issues to be fully encapsulated"* in the criteria (Interview 25). Especially in relation to risk, very precise standards are difficult to formulate. Instead, standards in risk regulation may be of a highly generalised nature (Fisher 2000). Rating committee decisions are formally not influenced by the potential consequences that a rating could have for an issuer, whether economic or political. The agencies stipulate that their decisions are independent and free from economic or political pressures. Nevertheless, anecdotal evidence suggests that considerable pressure is exercised especially when it comes to sovereign ratings or systemically important issuers in a country, like a major bank (Fuchs and Gehring 2013; García Alcubilla and Ruiz Del Pozo 2012, p. 250). Also, rating agencies are accused of giving into political considerations. In interviews analysts confirmed that they are put under pressure by rated entities to rate favourably, some argued they were not influenced by this as did this analyst (Interview 5):

> When you assign a rating the only criterion is what is the rating going to be based on the creditworthiness of the issuer. You do not really care about whether the issuer is going to find the rating useful or not and you really do not care whether the investor is going to find the rating harsh or not harsh. That is not something that you care about. It is an objective and independent opinion.

The majority of interviewees, however, did not display such distancing from the decisions that they make and how their decisions may affect issuers, although they all argued that they would not be influenced by the pressure (Interview 18):

> I have been in some uncomfortable positions with issuers over the years because they have not respected the position that we were [the rating that they assigned]. Over the years there has been a lot of pressure, you know I personally had one situation where it was one of these unsolicited ratings that we were doing. And the company was not happy with the rating and they came to appeal it (...) And the CEO of the company took me aside and asked: 'What will it take (...) what if we pay?' And I said: 'It would not make any difference.' And then he said: 'What do we pay you?' And I was like: 'The conversation ends.' You cannot manipulate the process, and even if I was someone that could be manipulated, the checks and balances that we have in place, and the committee process you cannot influence the rating.

It is, however, quite unlikely that rating agencies could shield their analysts entirely from the pressures put on them, especially considering the close interaction that analysts have with the issuers that they rate in the process of gathering information. As one former analyst explained, other considerations beyond purely creditworthiness can play a role in rating committees (Interview 29):

> I challenge the idea that you can sit on a committee and not be somehow guided by these [other] considerations.

According to some interviewees, consideration for the interests of issuers, especially those that were commercially important to the rating agency, went too far.

Communicating Outcomes

After the rating committee decision the issuer is notified of the rating and the key reasons for the decision as this analyst explained (Interview 13):

> After the rating committee there is a whole standard number of steps that have to occur in a specific time frame. The issuer would always know we were having a committee because the analyst will tell them so they are waiting for the outcome. First thing is the press release and try to get that out the same day or the next morning. And to give the issuer an opportunity to review the press release for accuracy and also to make sure we have not put in any confidential information. They are given some time to do that. Then we put the press release out.

All rating agencies have an appeals process in place for when issuers disagree with the rating that they have been assigned. According to interviewees, appeals were uncommon. I did not have access to information to verify this. How often appeals are initiated, let alone granted, is not made public. An appeal is only allowed if an issuer *"can provide new and significant information to support its point of view"* (Standard & Poor's Ratings Services 2014a). This is a relatively high threshold. If it is met, the rating committee reconvenes and votes again. If issuers are not awarded an appeal, they can still express their unhappiness with a rating, but this would not influence the rating assigned. Rating analysts have become quite accustomed to issuers expressing discontent with their assigned rating. The analysts argue that this due to the consequences rating decisions can have. Quite often, however, this discontent is mainly displayed publicly. This analyst gives an example of the contrast between the criticism given in public and the private interaction after some highly prominent sovereigns were downgraded in the aftermath of the global financial crisis (Interview 17):

> You have a number of countries which have been under pressure from the financial markets and I think we need to put us in their shoes and recognise they are human beings. So whereas normally we have almost without exception fairly professional interactions with them [issuers], behind closed doors it is very rare that they become aggressive or let alone abusive in private. But of course what they say to the press or to third parties is a different matter. It is a little bit thankless for us, you know you sit in the room and you discuss it seriously. And the next day you read in the newspaper something quickly disparaging about our analysis. That is a normal instinct I think of human beings if you feel that you are threatened that you try to disperse the attention and direct it towards someone else and find someone else to be responsible for it.

A well-known example that the analyst cited is the response of the US Department of the Treasury to the decision by one major rating agency to downgrade the US sovereign rating in August 2011. Within hours after the downgrade had been announced, an official of the US Treasury put out a public statement pointing to errors in the analysis of the rating agency that led the agency to a *"flawed judgment"* (Bellows 2011). When the same rating agency was sued in 2013 by the US Department of Justice for its role in the build-up to the global financial crisis, while no other rating agency was sued, the agency claimed that this should be regarded as retaliation for the earlier sovereign downgrade.[52] The CEO and President of the rating agency argued that it was *"angrily chastised"* for the downgrade not only in the media, but

[52] On February 3rd 2015 it was announced that the Justice Department entered into a $1,375 billion settlement agreement with Standard & Poor's *"to resolve allegations that S&P had engaged in a scheme to defraud investors in structured financial products known as Residential Mortgage-Backed Securities (RMBS) and Collateralized Debt Obligations (CDOs)"*. The agreement resolved the lawsuit against Standard & Poor's and the rating agency did not have to admit any wrongdoing but it did have to agree formally to *"retract an allegation that the United States' lawsuit was filed in retaliation for the defendant's decisions with regard to the credit of the United States"* (U.S. Department of Justice 2015).

also in private communications with the then Treasury Secretary Timothy Geithner (United States of America v. McGraw-Hill Companies 2014, p. 4).:

> As I reported contemporaneously to my colleagues, [Mr. Geithner] said that 'you have done an enormous disservice to yourselves and to your country,' that the US economy was bad and that the downgrade had done real damage. S&P's conduct would be 'looked at very carefully' he said. Such behaviour could not occur, he said, without a response from the government.

The example shows the significance of ratings and a rating downgrade, perhaps not so much economically, but certainly politically and symbolically (Dorning et al. 2012). The analyst used an analogy to explain how publicly the rating agencies are often scapegoated similar to *"when children come home with a bad mark, it is usually the teacher['s faults]"* (Interview 18).

With regard to the communication of outcomes and why appeals are rare, analysts returned to the point of managing expectations discussed previously in the thesis. Analysts pointed to the importance of providing rating opinions that are *"backed by a rationale which is of use to the issuers and other market participants (...) we need to explain why we make a certain decision to make sure it is not a black box how we ended up with a certain rating"* (Interview 23). Another analyst explained (Interview 28):

> Appeals are quite rare, they [issuers] might not be happy with it, but what we try to do is explain our rationale and make sure everything we based our opinion on is factually correct. But obviously some parts of the process are judgemental, it is not just backward looking it is forward looking as well. Good analysts are good at managing that relationship and conveying both positive and not so positive news, but in a professional and as transparent as possible way. So there is a lot of effort put in rating transparency meetings. Where you play this back to them within the context of the [criteria] so they understand the key areas that are affecting their rating and how we look at them relative to peers. (...) I think most issuers understand that, and they may not like what we say, they may not totally agree with how we interpreted something or our view on it, they can say that but they know that in saying that they are just expressing themselves but they are not asking us to reconsider necessarily.

All this is part of stricter internal policies and procedures on the communication of rating outcomes which have been put in place after the financial crisis (Interview 23):

> In particular regarding how we communicate ratings to the market, our internal policies and procedures have become a lot stricter. We have seen how the ratings issued by rating agencies can cause a very real reaction in the market, especially

> on the sovereign side. And even though we are not that happy with the weight that is given to our rating decisions by market participants, we do have a responsibility to be careful or at least to think through how we communicate rating decisions. We have to think about when we publish rating decisions and how we explain them and make sure that we are transparent and consistent in the way we communicate.

Another reason why appeals may not be requested regularly is that even issuers do not know the exact basis of any particular rating decision. Issuers will know the criteria that have been used and the key determinants of rating decisions, but not all aspects of what the decision is based on will become clear. For that reason, rating decisions can remain relatively uncontested. In addition, by limiting the information provided to rated entities issuers are prevented from targeting ratings. As CESR writes (2004, p. 33):

> Taken to an extreme, if an issuer fully understood precisely how a CRA came to a particular decision, it might attempt to influence future ratings by only providing information it believed would result in a favorable rating. This could result in less information being provided, or worse, it might result in the provision of inaccurate or misleading information in the hope that this would be result in a more favorable rating.

As discussed by Bevan and Hood (2006) in the context of governing by targets, complete specification of targets and how performance will be measured can invite gaming. Regulated actors may focus entirely on that what is measured. Instead of specifying targets, Bevan and Hood argue that governance will benefit from uncertainty on targets or unpredictability in the monitoring process, for example, by introducing randomness. Scholarly work on regulatory enforcement has shown how regulated entities develop strategic responses to regulatory demands and may act in accordance with different motivations (see e.g. McBarnet 1994; Parker and Gilad 2011). The primary motivation for issuers to cooperate with rating agencies is likely not that it enables debt capital markets participants to be optimally informed about their credit risk. Instead, the main objective of issuers will be to gain access to capital markets under the most favourable conditions. When all the details about how the agencies make decisions are known, issuers could take advantage in the form of creative compliance which could undermine the goal of rating agencies to contribute to investor protection. Except for the area of structured products, it is, however, not easy for issuers to manipulate information on their credit risk situation. Furthermore, it would require significant resources to implement criteria and factors exactly as required (Estrella et al. 2000, p. 12).

Ratings Surveillance

Rating processes do not end once a rating has been issued. With the exception of point-in-time (PIT) ratings that provide information about credit risk at a given moment only, all public ratings are subject to ongoing surveillance.[53] In that sense rating processes resemble the dynamics of regulatory processes, they take place over a certain period of time and do not lead to a static outcome (Mitnick 1980, p. 6). A number of scholars have discussed the surveillance process of rating agencies in particular in a regulatory sense. Boot, Milbourn and Schmeits (2006) and Bannier and Hirsch (2010) write how surveillance serves as an important regulatory mechanism of the rating agencies inducing issuers from risk-augmenting actions.

Rating agencies charge issuers an upfront or annual surveillance fee for keeping their rating up-to-date. The main reason why credit ratings undergo surveillance on an ongoing basis is that the credit quality of most issuers and their financial obligations are not fixed and steady over a period of time. Credit quality tends to undergo change (Moody's Investors Service 2014b; Standard & Poor’s Ratings Services 2014a). Ratings may be altered not just because a rating agency perceives that there has been a change in creditworthiness, it may also be because *“the previous rating did not fully reflect the quality of the bond as now seen”* (Interview 3). This implies a change internally on the perspective within a rating agency over how a certain type of bond should be rated. This way of thinking is stipulated in the rating criteria (see Chapter 4). Rating agencies update their rating criteria containing their way of thinking about credit risk. Updates in rating criteria very often lead to updates in the ratings covered by those criteria and sometimes quite significantly as happened during the global financial crisis of 2007-08. In 2007 the major rating agencies downgraded a great number of securities backed by residential mortgages as they implemented new rating criteria.

The surveillance stage involves many of the same steps of rating processes as discussed previously in this thesis. It similarly involves the gathering of information, analysis of information, and committee meetings to determine whether a rating update is warranted. In general, however, monitoring involves less comprehensive information-gathering and analysis than is usual when assigning ratings for the first time. Compared to initial rating processes, monitoring processes concentrate more on particular aspects relevant to potentially changing a rating. Monitoring activities can have several outcomes. Firstly, they may lead to changes in a rating outlook. All ratings that are issued are given an outlook. The outlook indicates the likely changes that may occur in a rating in the medium to long-term.[54] Outlooks are based, for example, on certain financial or market trends that may trigger a

[53] The major international rating agencies rarely issue PIT ratings because they favour issuing through-the-cycle (TTC) ratings which place more emphasis on long-term trends. PIT ratings are also private ratings and for that reason not considered in this thesis.
[54] Depending on the rating agency this could be anywhere between six to 36 months.

rating action if they are to continue. The majority of rating outlooks are stable, but they may also be positive or negative. A positive or negative outlook indicates that there is a good possibility that a rating will be upgraded or downgraded in the future, but they do not necessarily lead to a change in the rating. Surveillance of credits may also lead to ratings being placed on watch or under review, meaning that a rating may be changed in the near-term. Again, a rating may be placed under review for a possible upgrade or a downgrade, although a review may also lead simply to the confirmation of a rating. Finally, surveillance may result in ratings being updated, either through a downgrade or an upgrade, without any prior changes in outlook or ratings being placed under review. For example, if there are very acute changes, perhaps following the release of new information by an issuer or a major market event, a rating may change without prior warning. Usually, however, rating changes are preceded by changes in outlooks or reviews indicating a positive or negative upcoming change.

According to the agencies, updates are rarely the result of rash decisions as they are careful to avoid surprising the market and issuers with a sudden change as this interviewee discussed referring to the downgrading of corporate issuers (Interview 17):

> Obviously companies do get upset if they get downgraded or whatever, we as a rating agency need to make our point clear to them, what the decision is, why we are making that decision. No company likes to be downgraded, but we have to make sure the ratings are current and in line with where they should be and take those necessary actions. But it is never a case that we spring a surprise on them, we will be liaising with the company so if we know something then they need to provide us with the relevant information and we need to assess that. So we try to avoid say rash decisions.

The surveillance of credit ratings is the responsibility of the lead analyst.[55] All credits that an analyst is responsible for are periodically reviewed. It is common for reviews to occur once every year or once every six months. However, to make sure ratings reflect up-to-date information they may also be reviewed and updated at other points than during the official periodic review. An exception applies to sovereign ratings issued within the EU. With the implementation of Regulation (EU) No 447/2012, sovereign ratings may only be updated at predetermined times *"to avoid market disruption"* (García Alcubilla and Ruiz Del Pozo 2012, p. 276). Especially during the Eurozone sovereign debt crises, EU sovereigns experienced many rating changes with considerable cascade effects for the governments involved and the Eurozone in general (ESMA 2013). Rating agencies were subsequently accused of

[55] Some rating agencies use separate *"surveillance teams"* composed of different analysts than those involved with providing the initial rating. This is meant to enable a new perspective and avoid possible issues that may arise as a result of the original analysts feeling obligated to stand by their original ratings (IOSCO 2008).

"precipitating and exacerbating the euro area crisis" by downgrading sovereigns *"too far and too fast"* (House of Lords European Union Committee 2011).

This analyst explained the surveillance of credits in general (Interview 9):

> It is the lead analyst's responsibility through monitoring of those credits to form a view if it is necessary to call a rating committee to consider either a change in the rating or to put the rating under review which would mean that within a three month period we would reassess the rating. We will put a press release if we put them under review. Once a year we do portfolio reviews, with credit policy we will look at the whole. It is more to make sure that there is no reason anything should go to a rating committee sooner. Say you have some issuers which have not been to a rating committee for a while because really not much has been going on.

With regard to updates, critics have argued that timing may be influenced by other considerations such as the business considerations of senior management who may not want to make a decision that could be uncomfortable for an important client of the rating agency (Interview 14). This former employee discussed how that might work (Interview 29):

> We would publish a result that might suggest that a credit should be downgraded or even upgraded, but they [rating agency management] would not act on that immediately. There might be various reasons for that, there might be a standardised review cycle or there may have been commercial considerations influencing the timing of the downgrade.

For analysts, however, business considerations may be less pressing than other factors can be. All interviewees displayed a level of awareness that ratings are, as they described, *"consequential"* and there are several considerations that may impact decisions around ratings and rating updates beyond merely getting the right information to investors as soon as possible. This interviewee went on to explain how more emotive considerations may influence the decision-making during ratings surveillance (Interview 29):

> They [analysts] may have considerations that are not credit driven, it might be: 'How are people going to react, what is going to happen to this company, maybe there are some people at this company that I like, I do not want to be in the headlines as being the person that drove this company into bankruptcy'.

The burden that may come with the fact that ratings can have the impact that they have is something that can be quite high for some analysts (Interview 29):

> In a way the rating downgrade caused [x] to go bankrupt because they lost access to funding. In all fairness to people at rating agencies, that is quite a cross for them to bear. When they are thinking about: 'Wow, if I downgrade this company, I am going to put it out of business'.

More senior analysts argued in interviews that although they are aware of the potential consequences, they would not impact their decisions. This corporate analyst explained (Interview 28):

> Yes, ratings are important and depending on the size of the company and the size of the debt and the potential volatility, it is important for companies to have a dialogue with agencies. Rating decisions that are detrimental to the company can cost them a lot of money so in that respect we have power and influence. But I think in the analytical work, our day to day work, we focus on just getting the rating right and so I think we are not conscious every hour of the day that we are sort of mighty arbiters. And frankly that is by and large exaggerated.

Analysts pointed especially to the incorporation of ratings into regulations and investment mandates. They argued that in rating committee discussions it may be difficult knowing that especially rating downgrades to just below investment grade could be especially consequential (Interview 17):

> Yes, there is an extra consideration, the cliff effect that you have. Of course you ask yourself if you downgrade now to the double B category the situation may get even worse for them [the issuers]. Should we therefore not do it, and then we say: 'No, we have to do what is right'. We are in favour of taking those rules out [ratings-based regulations] and make it easier to express your opinion with less consequences.

The financial crisis revealed that the agencies do not indeed update ratings when this may be warranted (US Securities and Exchange Commission 2014):

> Crucially, when the housing market finally began its collapse, and the issuers' financial alchemy could no longer stave off the inevitable, the rating agencies hesitated to correct the flawed ratings they had previously issued. This delay intensified the resulting crisis.

Discussion

The purpose of this chapter has been to consider the extent to which credit rating agencies can be regarded to undertake regulatory enforcement. As highlighted in the introduction, the extent to which this thesis has been able to analyse the enforcement capacity of rating agencies is limited because the focus of the empirical research has been on the agencies, their rating processes, and how they view their role. To understand whether and how agencies give shape to the behaviour of rated actors and market participants would require a consideration of the effects of ratings on those actors. The scope of this chapter is instead restricted to consider the decision-making processes at rating agencies that are aimed at assessing compliance with rating agency standards and the dissemination and surveillance of issued ratings.

The chapter has discussed how the major credit rating agencies reach decisions on compliance with standards of credit risk through rating committees who subsequently decide what action to take when changes occur in the credit risk of an issuer, the broader environment in which issuers operates, or the agencies' way of thinking with regard to what is considered a greater or smaller credit risk. As all ratings undergo surveillance from the moment they are issued, non-compliance results in a change in the assigned credit rating. Although rating agencies cannot act as sanctioners themselves, they may activate sanctions from others, in particular the market and market participants (Abbott and Snidal 2009). Through their work the agencies raise the salience of credit risk, make public to what extent issuers of debt measure up to their standards of credit risk, and motivate issuers to action as lower credit risk ratings are likely to result in higher borrowing costs. Considering this, rating agencies seem to have a critical role in performing regulatory enforcement.

The agencies' effectiveness at ensuring compliance with credit risk standards depends on several aspects which would be an interesting aspect to take into account in follow-up studies on the enforcement capacity of rating agencies. For example, whether the agencies are regarded as independent, experts, legitimate, and used by a range of stakeholders (Abbott and Snidal 2009). Rating agencies have long presented their ratings as objective and (quasi-)scientific, but the deliberations in rating committees make clear that it is not always self-evident what rating should be assigned and that decisions may be the result of messy deliberations based on other aspects in addition to purely quantitative and qualitative financial data. Even though interviewees habitually still spoke of ratings as *"independent, objective credit opinions"* (Interview 23), the chapter has made clear that rating agencies and their staff are not ignorant of the consequences of credit ratings and take these into account when making rating decisions. Awareness of the presence of ambiguities in rating committee deliberations does, however, not contribute to an image of an objective rating that is used by market and public actors to assist in transforming market uncertainty into calculable risk and that may be a key reason why rating committee processes continue to be rather secretive.

The secrecy surrounding rating committees is in part also due to rating agencies being commercial firms, they are not keen on outsiders knowing the details of rating processes. The confidentiality of rating committees is, however, perhaps better seen as a deliberate attempt to appear as legitimate, independent, and expert organisations. It may not be in the interest of rating agencies to reveal exactly how rating committee deliberations occur, in fact it may be better for rating agencies if it remains unclear. Sparrow (2000, p. 240) describes how regulators do not like to admit that they use discretion to make decisions. If there is no defensible rationale for the choices made, it could be embarrassing to have to be open about the decision-making process. For rating agencies not being fully transparent could be a way to avoid getting into discussions on the criteria and methods used.

The regulation literature has documented repeatedly how regulation inevitably requires some level of discretion in decision-making processes (Hawkins 1984; Hawkins 1992; Hutter 1988; Hutter 2001). Regulatory standards are often formulated in such a way that they do not clearly forbid something in a way that legal standards tend to do. They are often broad and vague and leave scope for interpretation during the enforcement stage. Discretion does not imply that decisions are unbound (Black 2001b) or uncontrolled Silbey (2011), it does, however, imply that decisions are affected by more than what is given by the standard. As Silbey (ibid., p. 148) describes, discretion is responsible for introducing non-legal and political considerations into regulatory processes. Regulatory scholars have pointed to the importance of, for example, the regulatory task and political environments (Kagan 1989), in shaping the decisions that are taken on the ground. When rating agency staff need to make a decision regarding what rating to assign they too are influenced by more than the rating criteria. The rating criteria provide guidance for what to consider and what to look for, but in addition to that other factors are of relevance. Organisational and social norms and practices, perceptions and attitudes, past experiences, interaction with rated entities, and broader political and economic pressures, all come into play when making a rating decision, even if this often remains implicit or is formally denied.

By making decisions through committees agencies may also bestow greater legitimacy on credit ratings (Gehring and Kerler 2008). Using committees, the agencies can present their ratings as the products of deliberative decision-making that is free from the influence of the bargaining power of rated entities. The ability of rating agencies to appeal to their ratings as independent and objective is crucial for rating agencies to maintain their relevance in the marketplace. As Eccles and Youmans (2015) write, investors have a material need for independent ratings in order to address information asymmetries on bond markets. According to Eccles and Youmas *"credit ratings are assumed to be independent and unbiased and, as such, are of commercial value to these same investors"* (p. 7). A lack of independence, objectivity, and quality of ratings, or even the mere perception thereof, can undermine investor confidence in ratings and a lack of confidence in ratings in turn negatively influences the reputation of rating agencies and could potentially diminish the agencies' regulatory power (CESR 2004, pp. 20-3).

In addition, the extent to which reliance on credit ratings has become an inevitable part of the debt capital markets, may explain the capacity of ratings as signals that can steer behaviour. As ratings have become incorporated into formal and informal rules, market participants need to consider credit ratings when accessing the debt capital markets and similarly the consequences of credit ratings and potential changes in credit ratings. This turns credit ratings into a powerful tool of regulatory enforcement. It will be crucial to further develop our knowledge of the influence of ratings on the behaviour of rated actors and the debt capital markets by considering the effects of ratings. This thesis has een restricted to looking at the viewpoint of rating agencies and understanding rating processes, but how rated actors undergo these and consider the ratings that are assigned to them, will be essential to advancing our understanding of how successful rating agencies really are at modifying behaviour.

PART III Conclusion

7 Unintended Consequences: Performing Transnational Risk Regulation

In this final chapter I draw conclusions and discuss the theoretical implications of this thesis for beyond the state regulation and regulation more broadly. The first sections of this chapter provide a summary of the research findings with the aim of addressing the main research question, namely to what extent the credit rating industry is involved in regulatory standard-setting, information-gathering, and behaviour-modification. This thesis seeks to answer this question by offering an inside account of the world of credit rating agencies in the words of the credit raters themselves based on a documentary survey and interviews. Doing so, the thesis offers a unique perspective on understanding the role of rating agencies and whether it may be considered as regulatory. This adds significantly to the existing literature which has failed to problematise the regulatory role of rating agencies and which has been not been able to unlock the 'black box' of rating processes by which the agencies assign credit ratings to debt issuers all around the world. On the other hand, because the empirical research on which this thesis has been based has focused on the rating agencies, the extent to which the thesis is able to assess the full extent to which rating agencies may be regulatory actors is limited. Other actors partake in the regime aimed at regulating credit risk, such as rated actors, other market participants, and the state, and the effects of ratings stem in part from the actions of these actors. Further academic work would have to be undertaken to analyse this for which this thesis can provide valuable insights.

In this conclusion both the evidence for the extent to which rating agencies do play a regulatory role and the evidence for the extent to which they do not play a regulatory role will be presented. In analysing the regulatory role of the rating industry, I will also consider what we can learn from the case study on the rating industry about the potential advantages and disadvantages of involving non-state actors in the regulation of risk. Although credit rating agencies represent a specific type of non-state actor, namely commercial firms acting at transnational level, there are valuable lessons we can take away from this case study about the involvement of beyond the state actors in regulation generally.

The chapter subsequently addresses the main contribution of this thesis to regulatory theory. This thesis raises the question what regulation in its core amounts to and challenges the importance that is conventionally attributed to intentionality in existing regulatory research. This can be considered as the core added value of this thesis to the regulatory literature. I will also reflect on the implications of this finding for how we study regulation empirically. The chapter ends by offering suggestions for policy-making in relation to the existing configuration of the transnational regulatory regime around credit risk in the global debt capital markets and how it may be enhanced with or without the rating industry.

Analysing the Regulatory Role of the Credit Rating Industry

The credit rating industry is composed of rating agencies that are hired by bond issuers in the debt capital markets to assess the risk that they, or the bonds that they issue, will default, also known as credit risk or creditworthiness. This thesis has been based on data collected on credit rating agencies with a presence in the UK and more specifically London.[56] These agencies play a role far beyond the UK as they help to evaluate the credit risk associated with a wide range of bond issuers and issues at transnational level. Credit rating agencies assess credit risk by producing credit ratings that summarise a wide variety of financial data and more qualitative information into a single quantifiable symbol such as the highly coveted triple A 'gold standard' (Sy 2009, p. 16).

Over the course of the twentieth century and in particular from the 1970s onwards, rating agencies became important sources of information on credit risk. Private actors, such as investors, and public actors, such as nation states, increasingly came to rely on the judgements of rating agencies when making decisions about investments. In part this has been due to the appeal of credit ratings that are relatively easy to understand and that allow for a quick comparison between different bonds from anywhere around the world. Credit ratings have very much become the universal language of credit risk. In addition, as private and public actors turned to credit ratings, these actors also began to refer to ratings in contracts and formal regulatory law to distinguish between what would be considered as a safe or unsafe investment. Contractual requirements and so-called ratings-based regulation, increased the dependence on the ratings issued by credit rating agencies.

According to a number of authors (e.g. Partnoy 1999; Partnoy 2002; Partnoy 2006; Sinclair 1994; Sinclair 2005), as credit ratings gained more and more influence the agencies came to play a (quasi-)regulatory role although this role was largely imposed on them as they did not explicitly seek it. Despite the importance of rating agencies there is still a lack of understanding about how the agencies really work and whether they can indeed be regarded as regulatory actors. Even the financial crisis of 2007-08, which resulted in considerable attention for the industry and severe criticism on the role of rating agencies, did not generate much additional insight and there continues to be an absence in in-depth research on the

[56] See Appendix C for an overview of EU registered rating agencies including those with an office in London.

rating industry. The aim of this thesis has been to shed more light on what rating agencies do with the objective of developing an understanding of the extent to which rating agencies can be considered as beyond the state regulators.

To analyse whether and to what extent the rating industry plays a regulatory role, this thesis has focused on three main components of regulation that have been used to analyse regulation both within and beyond the state in other academic studies, these are standard-setting, information-gathering, and behaviour-modification (see e.g. Black 2003; Havinga 2006; Hutter 2006b; Hutter and O'Mahoney 2004; Levi-Faur 2006). As Hood et al. (2001) discuss, these three components are essential in order to achieve the objectives of any risk regulation regime. Although focusing on these components may seem simplistic, it has provided important analytical guidance in this thesis and also enables going beyond mere description as the findings presented here can be compared with other accounts of regulatory regimes using similar components to assess regulation, whether these are focused on public or private actors or a mixture (see also Hutter 2006a, p. 211; Lodge 2007, p. 347). The analysis set forth in this thesis of the agencies' involvement in standard-setting, information-gathering, and behaviour-modification has been based on a review of existing work on the rating industry, an examination of publicly available documents on the role of the industry, and 31 semi-structured interviews conducted with current and former staff of rating agencies.

Standard-Setting

Standard-setting is no longer regarded as the exclusive domain of states or governmental entities. The authority to set standards is dispersed between a number of actors operating on a continuum between state and non-state actors (Peters et al. 2009). In Chapter 2 it became clear that in the existing literature rating agencies are increasingly viewed as private standard-setters who define *"what credit quality is about and how it can be enhanced"* at transnational level (Kerwer 2002, p. 300). Chapter 4 discussed in greater detail how rating agency standards appear in the form of rating criteria that underlie the processes by which credit ratings are produced. Rating criteria stipulate the factors that rating analysts take into account during rating processes in order to assess the credit risk of specific bond issuers or bond issues.

The way in which rating agencies formulate their rating criteria resembles more formal rule-making processes (see e.g. Black 1995). Specific credit policy departments, in cooperation with analysts, draft proposals about new or revised criteria, publish these for consultations with market participants, and review responses to the consultations internally before publishing and implementing new criteria. Each rating agency develops their own criteria, but ratings assigned by the same agency are comparable as they apply the same rating process involving the same steps and factors to all issuers and bond issues that they are hired to rate.

Rating criteria do not explicitly stipulate what is preferred, instead criteria list the factors that are used to classify issuers and bonds on a credit rating scale from least amount to greatest amount of credit risk. Rating agencies, therefore, separate risk assessment from the decision of what to do about credit risk and argue that this decision will be different for each issuer as the risks may be different in each case. Although rating criteria do not state a desirable level of creditworthiness, debt issuers can infer from rating criteria what conduct and what activities are likely to result in the rating assessment they seek.

Credit ratings issued by rating agencies that are recognised for regulatory purposes are also used both by private market participants and public actors to develop their own standards to regulate behaviour. When this is the case, ratings are used to specify a particular target. For example, private actors such as investors use ratings in guidelines or contracts to stipulate that investments in debt with ratings below a certain level are not allowed or require more collateral. From as early as the 1930s, nation states and international bodies such as the BIS also turned to credit ratings to outline what they regard as safe investments for regulated entities, such as pension funds, distinguishing between investment-grade and non-investment grade issuers and bonds. The use of ratings in private and public standards bolsters the first form of direct influence by rating agencies on issuers through their own criteria and gives shape to the behaviour of investors (Kruck 2011). As a consequence of their inclusion into other standards, ratings became even more widely used and in turn having ratings above the non-investment grade level became even more important to issuers of bonds.

Information-Gathering

Promulgating standards is only one part of regulation (Abbott and Snidal 2009). In fact, the lion's share of regulation constitutes of acquiring and analysing information about regulated activities (Applegate 1991). The availability of relevant information is critical to regulatory processes, not only to be able to detect deviation from regulatory standards, but also to be able to set efficient and effective standards in the first place. A lack of information may result in either overregulation placing the burden of proof on regulated entities, or underregulation placing the burden of proof on regulators or, for example, consumers. Adequate information needs to be available to develop and meet standards that are suitable for generating a desired order, whatever that may be. Without information, it is not possible to identify what requires action, to make decisions about what can be managed, and what needs to be addressed first and what can be dealt with later. Also for rating agencies, as they rate issuers and bonds they acquire new knowledge that may feed back into rating criteria and may lead to criteria being revised when that is regarded as necessary.

Next to being essential to setting efficient and effective standards, information is necessary to check compliance with standards and to make decisions when behaviour deviates from standards (Gunningham 2011, p. 25). The existing literature on the rating industry has long recognised the importance of rating agencies in gathering and providing information that helps constitute and improve the functioning of the debt capital markets. Debt capital markets are characterised by significant information asymmetries between the issuers of bonds and investors. As debt capital markets grew bigger and more impersonal, these markets became increasingly reliant on organisations such as rating agencies which established themselves as valuable intermediaries. The agencies are portrayed as narrowing the information deficit in debt capital markets and they are discussed in the literature as screening agents, information gathering agencies, or information intermediaries (Diamond 1984; Millon and Thakor 1985; Ramakrishnan and Thakor 1984). Credit rating agencies are considered as essential actors gathering information about borrowers at a cost advantage compared to other actors. Without rating agencies, individual investors would have to seek information about each borrower themselves or rely on other sources such as more volatile market-based indicators of credit risk. Rating agencies arguably provide an efficient way to gather vast amounts of information about a wide range of borrowers around the world and standardise this information in the easy to understand format of ratings which allows for comparison between different bonds and issuers of bonds.

In addition, rating agencies collect proprietary information from issuers which they argue improves their assessment of credit risk. Having sufficient information and information that is of good quality is crucial to regulation. The wider the gap between the information that is needed and the information that is available, the more problematic (Applegate 1991; Gunningham 2011). However, that rating agencies claim to have access to private information does not imply that the information on which they base their ratings is of better quality. In Chapter 5 a number of problems have been discussed that can occur as rating analysts rely in particular on issuers as their main source of information on which to base their assessments of creditworthiness. State regulators face many of the same problems when gathering information. Issuers, like other regulated actors may not always be willing to provide information or they may slant, conceal, or falsify information either intentionally or unintentionally. Although the agencies stress that they tend to have a good dialogue with issuers, their relations can be adversarial which can affect the effectiveness of the information-gathering stage.

Asides from the need for information to set regulatory standards and to consider how behaviour measures up to those standards, also information disseminated by regulators is an important tool to shape behaviour (Konar and Cohen 1997). This third component of regulation identified by Hood et al. (2001) will be discussed next.

Behaviour-Modification

Information can act as important regulatory mechanism for changing behaviour to bring it up to or beyond the standards that are set and this is especially relevant for rating agencies. Rating agencies are well equipped to disseminate information about standards efficiently as they standardise information about credit risk in a similar format making it is easy for ratings to be distributed and compared. The information provided by rating agencies through credit ratings can have an effect, or at least is perceived to have an effect. In the literature it is discussed how a higher credit rating implies easier access to capital and lower costs of borrowing. As Schwarcz (2002, p. 2) argues, for that reason rating agencies have become *"the universally feared gatekeepers for the issuance and trading of debt securities"*. There are, however, contradictory studies showing that ratings do not influence access to and costs of capital, or not in any significant way as ratings are regarded as lagging behind market events (Cantor and Packer 1996). Nevertheless, the perception that ratings do influence access and costs is ingrained in debt capital markets and this perception may be enough to steer behaviour (Sinclair 1994, pp. 14-5).

Because the empirical analysis on which this thesis is based has looked at the perspective of rating agencies only, it has not been within the ambit of this thesis to assess the effect rating agencies have on, for example, the access of bond issuers to the debt capital markets and the decisions that they make. Instead, this thesis has focused on the rating processes which generate, unintended, regulatory consequences. Further empirical work on the influence of rating agencies on market participants is needed to develop our knowledge on their regulatory role and especially their capacity to modify behaviour. Such a study would do good to consider the importance of reputation and to what extent it helps to explain the influence that rating agencies exert over issuers of debt. The credit ratings issued by rating agencies are perceived to influence the reputation of bond issuers. In the regulatory literature it has been discussed how reputation and fear of reputational damage are important motivations for compliance (Braithwaite and Fisse 1987; Hutter 2011; Van Erp 2007). The threat of rating downgrades could be especially important in modifying behaviour to comply with published rating criteria. In Chapter 5 it has been discussed how rating analysts also use this threat to compel issuers to provide information to them. Rating agencies conduct surveillance on the large majority of ratings that they assign. When significant changes occur that can affect the creditworthiness of an issuer or bond, rating agencies update credit ratings either downwards or upwards. In the existing literature on rating agencies, the potential for ratings to be changed is considered as an important reason for the behavioural leverage that rating agencies wield over rated entities. This will require more attention in subsequent analyses of the rating industry.

In the area of sovereign ratings several examples highlighted the importance that is attached to rating downgrades in relation to reputation, perhaps even more than to their potential economic consequences. The widespread economic downturn following the financial crisis of 2007-08 affected many sovereigns and resulted in various downgrades of sovereign ratings, including those of traditionally AAA countries such as the UK, the US, France, and the Netherlands. When in 2013 the UK sovereign rating was downgraded to Aa1 for the first time since receiving its AAA rating in 1978, it was perceived as a *"humiliating blow"* to the credibility of the UK (Milliken and Bases 2013). This even though the downgrade subsequently had very little effect on the gilt market and the UK's cost of borrowing.

In addition to the information transmitted by the agencies in the form of ratings and rating downgrades, the rating criteria that are published by the agencies may also steer behaviour. Debt issuers have knowledge of the criteria before structuring their debt issuance and can determine what is conducive to receiving their preferred rating. Furthermore, rating agencies also implicitly indicate how issuers can qualify for a certain credit rating in publications that they distribute or presentations in which they explain, for example, that an issuer should budget realistically to conservatively, formulate what-if scenarios, develop contingency plans, frequently monitor revenues and spending, continue long-term financial planning, and stay within financial policies (Fitch Ratings 2014b). Many of these financial management attributes are within the control of issuers who can try to influence them, at least to some extent, by changing their risk mitigation decisions in such a way to receive a particular credit rating. A follow-up study considering rated actors might uncover how this works in practice.

Assessing Credit Rating Agencies as Beyond the State Regulators

In this section I consider the three regulatory functions of standard-setting, information-gathering, and behaviour-modification and assess the capacity of the rating agencies with regard to each of these. Attention will be paid to how rating agencies compare to what we know about other non-state regulatory actors. An important literature this thesis seeks to contribute to focuses on the benefits and limitations of involving non-state actors in regulation. The literature has argued that harnessing beyond the state actors could result in better policy outcomes at less costs while freeing up the scarce regulatory resources available to the state (Gunningham and Grabovsky 1998). Non-state actors can be especially important in the regulation of transnational risks. As states often lack the resources to regulate beyond their own borders, non-state actors can act as a supplement or alternative (Hutter 2006b). I will examine to what extent this also holds true for the credit rating industry.

Rating Criteria as Regulatory Standards

Standard-setting in a regulatory sense is considered in this thesis to revolve around guiding behaviour and action towards a goal, outcome, or value without necessarily specifying the action or actions required (Braithwaite and Braithwaite 1995, p. 307). Regulatory standards are a broad category that encompass many varieties. For that reason, in the thesis a distinction is drawn between types of regulatory standards as the characteristics of a standard give shape to the practical implementation of standards and compliance behaviour (Black 1995; Hutter 1988; May and Winter 2011b, p. 223). Standards can be differentiated by (1) the actor developing the standard, ranging from state to non-state actors, (2) the degree of formality, ranging from formal to very informal, (3) the level at which the standard seeks to regulate behaviour, ranging from the local to the transnational, and (4) how a standard is formulated, ranging from prescriptive to principles-based.

In the regulatory literature, non-state actors are recognised for their ability to have a significant and substantive role in developing standards and their capacity and expertise can be harnessed especially to develop regulatory standards that mesh with market interests (Hutter 2006b). Also, as non-state actors may have greater expertise about a particular subject matter this can ensure more efficient standards and standards that are produced at lower cost (Abbott and Snidal 2009). On the negative side, standard-setting by non-state actors may also result in standards that are too business friendly and self-serving (Cheit 1990, Chapter 1; Hutter 2006b). Whether a standard is developed by a state actor or a private actor will influence what a standard looks like and what its outcomes may be, for example, as it may determine what enforcement mechanisms are available (McAllister et al. 2010). The degree of formality, for example, is likely to increase the impact of a standard and depending on the specific circumstances a formal or informal standard may be more suitable for addressing certain problems. For example, informal standards are argued to be attractive for dealing with situations of uncertainty as they are more flexible (Abbott and Snidal 2000; Henson 2008; Vogel 2010). In terms of how standards are formulated to regulate behaviour, both state and non-state actors can use a range of options. Standards can specify certain processes or they may demand a certain performance or target without specifying how to arrive at that performance or outcome. Standards can be very precise and prescriptive, but they can also be very broad and principles-based (Baldwin and Cave 2012, Chapter 14; Black 2008b). How standards are articulated impacts how they shape behaviour. Broader standards, for example, may leave more scope for interpretation (Scott 2010).

The standards developed by rating agencies, in the form of rating criteria, do not stipulate what creditworthiness should look like. The voluntary character of rating agency standards does, however, not disqualify them as regulatory standards. Many other regulatory standards developed by non-state actors at transnational level are voluntary in nature. For example, NGOs promote standards that firms can choose to adopt. As Abbott and Snidal (2009) write, these standards are still regulatory standards because they address certain problems or risks and they are monitored and enforced. The standards produced by rating agencies in the form of rating criteria rely significantly on the expertise of the agencies developed over more than a century of rating issuers and bonds and the large amounts of information about credit risk that they have amassed over many decades. The standards by rating agencies and the extent to which issuers and debt issues measure up to these standards, are monitored through surveillance processes. Where rating agencies may struggle on their own is to ensure that their standards are adopted and implemented, but pressure from the market and others such as the state to adopt rating agency standards does result in the agencies having considerable authority. As ratings are incorporated into private contacts and formal regulation the importance of rating criteria as standards of creditworthiness is bolstered.

One of the major weaknesses of the standards developed by rating agencies is their vulnerability to ratings or regulatory shopping by issuers. Because rating criteria are known and issuers decide which rating agency they hire to rate them, issuers can shop around for the agency that has published the most favourable rating criteria or that is known to apply them in particular favourable ways. The financial crisis has brought forward substantial evidence that regulatory shopping took place and there are several reports that the practice continues to affect the industry (Alloway 2014; BloombergBusiness 2015; Lucchetti and NG 2010). However, as explained in Chapter 5, only a handful of rating agencies are considered as important by investors and regulatory authorities. According to the rating agencies, investors look only for the ratings of those agencies that are considered to be reputable based on the length of their track-record rating certain issuers and issues. This argument is hard to maintain. The financial crisis of 2007-08 severely damaged the reputation of the rating industry, but rating agencies continue to be important. Reputational capital has been argued to be a key asset for information intermediaries such as rating agencies to attract and retain business (Macey 2013). However, a decline in the reputation of the rating industry has not led to a decline in their relevance. Instead, as Partnoy (2006, p. 60) writes *"credit ratings have become more prominent, important, and valuable"*. A much more plausible explanation for why investors continue to consider the same rating agencies as before lies in contractual obligations and formal regulations that limit the choice of investors to bonds with ratings from particular registered agencies. Bond issuers, therefore, have limited choice when selecting which rating agency to hire. Without a rating from an agency that investors are allowed to rely on, issuers may have difficulty to sell their bonds to investors.

Nevertheless, the agencies do compete for issuers and use their standards as one tool to appeal to issuers. Rating agencies can potentially become less demanding or stricter to try to differentiate themselves from other agencies to appease certain issuers. There is considerable evidence that the agencies neglected to develop new standards or update existing standards in the build-up to the global financial crisis, but also after the crisis evidence has come forward that this practice continues. In January 2015, one of the major rating agencies, Standard & Poor's, settled with the SEC as it accused the agency of *"'race to the bottom' behaviour"* by loosening rating criteria *"to obtain business and then obscuring these changes from investors"* (2015).

Interviewees confirmed that this race to the bottom may drive the standards by which the rating agencies assess creditworthiness down due to the considerable competitive pressure for market share. In the lead up to the financial crisis, there was considerable competition for market share in particular in the area of structured securities. These securities played an important role contributing to the financial crisis and were also one of the main growth areas for rating agencies. As one witness before the Financial Crisis Inquiry Committee (2010, p. 210) said:

> The threat of losing business to a competitor, even if not realized, absolutely tilted the balance away from an independent arbiter of risk towards a captive facilitator of risk transfer.

Internal documents reveal how the agencies were very aware of the tension that was building up before the crisis between market share and the quality of ratings as one executive discussed (ibid., pp. 210-1):

> Ideally, competition would be primarily on the basis of ratings quality, with a second component of price and a third component of service. Unfortunately, of the three competitive factors, rating quality is proving the least powerful given the long tail in measuring performance (...) The real problem is not that the market underweights ratings quality but rather that, in some sectors, it actually penalizes quality by awarding rating mandates based on the lowest credit enhancement [important rating factor for structured products] needed for the highest ratings. Unchecked, competition on this basis can place the entire financial system at risk. It turns out that ratings quality has surprisingly few friends: issuers want high ratings; investor's want rating downgrades; and bankers game the rating agencies for a few extra basis points on execution.

Despite this, the agencies continue to put forward reputational concerns as the mechanism that prevents them from lowering their standards and that insulates them from undue influence from rated entities. As Darbellay (2013, pp. 126-8) argues, a reputation for accurate ratings has been critical for the agencies that managed to establish themselves as recognised intermediaries. Being able to predict probability of default that proved reliable after the fact and accumulating reputational capital made it possible for some agencies to become critical to the debt capital markets over the last century (Goodhart 2008, p. 139). As one of the agencies stated in 2002 (Standard & Poor's):

> Market acceptance and recognition of a credit rating depends on the credibility of the opinions of the credit rating agency issuing the credit rating, not only with issuers and investors, but also with bankers, financial intermediaries and securities traders. Underlying the credibility of Standard & Poor's credit ratings is the market's recognition of the independence and objectivity of Standard & Poor's credit ratings and rating process and its excellent track record.

However, even if this may have been true for the agencies to establish themselves, reputation does not serve to explain the continuing relevance of the agencies today. As Carpenter (2010) argues, regulatory power depends to a considerable extent on reputation. Also Lodge (2009) writes, how reputation is of considerable importance to regulatory organisations. Reputation is considered in the literature as important for regulatory organisations to develop and continue. Carpenter (2010) explains that the audiences that a regulator interacts with are critical. These can be consumers, the public at large, the media, other regulators, all of these have different expectations, interests, and views. Gilad and Yogev (2010) write how these play a key role in regulatory processes and decisions. Reputation regulates the regulator and also regulates the behaviour of regulated entities. For rating agencies, however, this is not entirely the case. Although the reputational consequences of certain ratings for issuers are present as ratings are still considered by market participants, reputation cannot explain the regulatory power of the rating agencies.

Information-Gathering for Regulatory Purposes

This thesis has considered the extent to which the rating agencies are involved in information-gathering for regulatory purposes. In the regulation literature, non-state actors are recognised for their potentially important role in gathering information for regulatory purposes. Non-state actors can be involved in information-gathering in a number of ways. They can simply provide information by reporting facts that may or may not influence behaviour, but they can also go further by offering an analysis, policy suggestions, or evaluate behaviour (Hutter 2006b). Especially for rating agencies it is true that they do more than simply transmit information, they also seek to provide an analysis and to evaluate risk. Compared to states, non-state actors such as credit rating agencies may have greater capacity in terms of financial resources and expert knowledge to gather and analyse information. Rating agencies are particularly well placed to gather and disseminate information. Their ability to collect information from issuers, combined with an extensive amount of information and data from other sources and economies of scale, has resulted in a niche for credit rating agencies in the debt capital markets to provide information about credit risk.

Compared to state regulators who can often rely on formal provisions such as legislative mandates to obtain information, rating agencies cannot rely on these, although legalistic approaches are not always appropriate or desirable as, for example, the literature on responsive regulation shows (see e.g. Ayres and Braithwaite 1992). How the agencies aim to overcome issues when gathering information can, therefore, also be different from state regulators. For example, one strategy the agencies use when issuers do not provide or are unwilling to provide information, is to cap or threaten to cap ratings. Rating analysts can, for example, tell issuers that their credit rating will be more conservative if the analysts regard the information as insufficient or of insufficient quality. Such a threat can encourage greater participation by issuers in the rating process.

A problematic issue with regard to the regulatory information-gathering by rating agencies is their dependence on issuers for information. State regulators may be equally dependent on regulated actors for information, but the problem becomes even more significant for rating agencies as they are being paid by issuers to provide a rating. The decisions that rating agencies make, like other regulatory decisions, are subject to judgement, inference, and bias (Applegate, p. 311), but the issuer-pays business model makes conflicts of interests and potentially flawed assessments appear more likely. The wish to retain the business of issuers could result in issuer friendly ratings and meetings with issuers where they are coached into structuring features or modifications in order to attain a certain rating (Kormos 2008).

Another issue with the information that rating agencies gather, analyse, and subsequently transmit, is that the ultimate product, the credit rating, obscures the detail on which credit risk assessments are based. In particular in connection with a lack of accountability, this may be problematic. Undoubtedly ratings became so appealing because they simplify reality. Credit ratings help to transform a situation of uncertainty into one of risk, but as they simplify information they may also create risk. In credit rating, information travels a long way from issuers to the highly aggregate form in which information is eventually communicated to the market. In this process information is not only transferred, it is also given shape by rating analysts and rating committees. Firstly, as the analysts embark on collecting information, they interpret it and integrate it with other information that they have and their knowledge that has accumulated over time. From that information they draw inferences which they subsequently package up and put forward to a rating committee, a small selection of rating agency staff who consider the information and analysis and make a decision about the rating that should be assigned. This rating reflects a compendium of information that is used by market participants, in particular investors. This becomes especially dangerous when there is too much reliance on ratings by, for example, incorporating ratings into regulations. Credit rating symbols may magnify some of the complexities inherent to credit risk. Caouette et al.

(1998, Chapter 6) point, for example, to the problem of obscuring the underlying differences between rating grades and between the ratings of the different rating agencies.

Modifying Behaviour: Meta-Regulation?

As Abbott and Snidal (2009) write, not many actors possess all the essential competencies to regulate behaviour and collaboration between different actors is therefore important for effective regulation. Non-state actors such as rating agencies may, for example, lack in credibility, legitimacy, independence, and representativeness, but on the other hand they do have considerable expertise and operational capacity. Although rating agencies can be argued to set regulatory standards, to be involved in information-gathering for regulatory purposes, and to modify behaviour, their role, especially with respect to steering behaviour, is difficult to disentangle from the role of other private and public actors such as the state. In this thesis the extent to which the agencies are involved in modifying behaviour has been assessed only in a very limited sense by considering how rating agencies make decisions aimed at influencing rated issuers. To assess the behaviour-modification effects of ratings would, however, require attention for the other actors in the regime regulating credit risk in the debt capital markets and how they use ratings and respond to them. The system by which rating agencies are involved in regulation may be a particularly good example of meta-regulation understood as the *"proliferation of different forms of regulation (whether tools of state law or non-law mechanisms) each regulating one another"* (Parker 2007). Therefore, to fully understand the regulatory role of rating agencies would warrant consideration for the role of other private and public actors making use of the ratings to induce behavioural changes.

In meta-regulation, actors manage risk but they do not regulate directly. They risk manage the risk management undertaken by other actors (Gunningham 2011, p. 211-2). It relies on, for example, private actors to put in place systems of and oversight mechanisms, in other words it is regulation at a distance. Meta-regulation is often discussed in a deliberate sense with public regulators inducing or mandating firms to take on a regulatory role. It is discussed in a sense of the state allocating responsibility to other actors. With regard to the rating industry the situation is notably different. At most in a very implicit sense the state allocates a regulatory role to rating agencies. Although rating agencies do not seek to be involved in such an arrangement, they are aware they are a part of it as the following comment from one of the agencies makes clear (Gerring 2004, p. 6):

> There are (…) many successful ways of creating the right environment for savers, companies, banks and governments. The critical thing [for well-functioning capital markets] is that all the design features work together. Here, the public sector has proven to be an effective catalyst. Its actions establish the rules of the system and

> help solve problems. But once the catalyst role has been played, the public sector should enable the private sector to act so that it can generate wealth and promote development. In this respect, the creation and operation of well-functioning capital markets is a shared responsibility of both the public and private sectors. Both have important, though different, parts to play; but by working effectively together, they can help economies build and grow.

A meta-regulatory regime for credit risk is attractive for public actors as it can make use of the capacity of rating agencies to address issues at transnational level. With many risks being potentially transnational in nature and concerns about the capacity of states to solve these problems, consideration for *"decentralised, private, or hybrid regimes"* is becoming more and more important (Wegrich and Martin 2014, p. 3). It can be argued that rating agencies help fill a regulatory vacuum at transnational level as other actors can use the standards and the information-gathering and monitoring capacities of rating agencies to regulate behaviour in the debt capital markets. In that sense, rating agencies help overcome other actors' inhibitions to regulate (Grabosky 2012). That rating agencies and, for example, nation states using their ratings may have different motives and interests should not have to be a problem (Cheit 1990). The objectives of rating agencies and the objectives of the state may sometimes appear to be in direct conflict. Firms such as rating agencies are ultimately focused on profits (Grabosky 2012). But that is not to say that, therefore, they have or should have no role in regulation. In fact, firms may depend on regulation and benefit from it. For rating agencies in particular it can be argued that their continued relevance to the debt capital markets depends on the regulatory role that they in part created for themselves, but that to an even greater degree is given shape by other actors including state actors.

For meta-regulation to be effective, the state does need to scrutinise the risk management undertaken by rating agencies and take action when they are not working effectively to protect investors (Gunningham 2011, p. 200). A meta-regulation regime, should ensure that rating agencies are held accountable, for example, when they violate the rights of investors. The financial crisis of 2007-08 has been the best example where rating agencies did not warn investors in time of the risks that were building up in the market for mortgage-backed securities. In the EU and US, regulators have since pushed for regulation of rating agencies (see Chapter 2). To some extent this has made the rating agencies more accountable and transparent, but it remains to be seen whether the regulation of the rating agencies will improve the way they operate. Although the behaviour of rating agencies is now regulated much more intensively in the EU and US, rating agencies also continue to regulate the behaviour of states as they seek to borrow money on the capital markets. States are rated by rating agencies as states are also a *"supplicant in the financial markets, a borrower to be assessed by the lending institutions and specialised agencies which evaluate creditworthiness"* (Picciotto and Haines 1999).

Unintentionality and the Notion of Performativity

This thesis has highlighted how the rating industry not only became a critical part of constituting the debt capital markets, the industry also came to constitute an important part of the regulatory regime aimed at anticipating and managing risk taking in the debt capital markets. Of relevance is, however, that rating agencies proclaim they do not want to be involved in this regulatory regime. Although the agencies argue that they contribute to market efficiency, transparency, and investor protection (see e.g. McDaniel 2002), they strongly deny playing a regulatory role. Nevertheless, the agencies are very aware of their role in regulation and do recognise a *"dilemma of reconciling [the] dual roles of private-sector opinion provider and public-policy regulatory tool"* (Moody's Investors Service 2012). This thesis also discussed how in rating assessments the potential effects of rating decisions are taken into account by rating analysts, especially when it comes to downgrading ratings. So even though rating agencies argue that they do not intend to play a regulatory role, they do foresee that their actions have certain consequences, some of which are regulatory.

The existing literature on non-state actors in regulation focuses largely on non-state actors cooperating in some form with the state and other actors. The relationship between rating agencies and other actors can hardly be described as cooperative. The involvement of rating agencies is much more an unintentional consequence of their rating processes and actions and the way markets and governments have started to rely on ratings and rating agencies. Cafaggi (2014, p. 2) discusses the situation where *"private regulators are charged with the pursuit of public interest by legal obligation not by their own choice"*. This may occur, for example, as private standards are incorporated into public law without the consent or approval of the private actor.

The fact that the involvement of rating agencies is unintended or incidental does, however, not make it any less regulatory. As Silbey (1979, p. 148) writes, regulation is not the result of what one actor does, forbids, or prescribes, regulation is a product of the interaction between different actors and their environment. If we focus only on intentional forms of regulation we are ignoring the significant role of forms of regulation which may not explicitly set out to regulate, but which nevertheless contribute to exercising control. Including these unintentional forms as regulation inevitably makes the regulatory picture much more complex as these unintentional forms interact with intentional and explicit forms of regulation as is the case for privately developed credit ratings that are incorporated into formal standards published by public actors.

Recognising the contribution of unintentional regulation in ordering behaviour implies that we can develop a better understanding of regulation as it takes place in reality and also that we can call it into play in circumstances where it may be of value. There are numerous examples of potentially unintentional forms of regulation, such as Gunningham's (1991) commodity and futures traders or consumers in Hutter's (2011) work on food safety regulation. When it comes to understanding regulation, ideology should not cloud reality (Cheit 1990). What matters is ultimately the result. A plurality of regulatory forms exist with numerous actors influencing behaviour in a variety of complex and subtle ways (Rees 1988). The focus should not be on what rating agencies claim to do, but rather how their actions can have unintended regulatory consequences. Therefore, in this thesis it is argued that the agencies do set standards that should be considered as regulatory, do gather information for regulatory purposes and do influence the behaviour of bond issuers and investors.

A number of authors argue that intentionality is a key condition of regulation. According to these authors regulatory standards are standards that are intended to have normative effects (Black 2002; Scott 2010). Black (2002, p. 26) refers to regulation as the:

> [S]ustained and focused attempt to alter behaviour of others according to defined standards or purposes with the intention of producing a broadly identified outcome, which may involve mechanisms of standard-setting, information-gathering and behaviour-modification.

Although recognition for the role of beyond the state actors has become more commonplace, non-intentional forms of regulation are still largely neglected. In this thesis it is proposed that we should be more aware of subtle forms of regulation, in particular the unscripted results of certain actions that in practice amount to regulation. This requires in-depth empirical studies of non-state forms of regulation, even though beyond the state regulation is a difficult topic to study empirically. What non-state actors do is generally much less visible and especially if they exercise regulation unintentionally, or perhaps even unconsciously, it becomes even harder to observe it. Non-state actors operate in relative obscurity, but their universe is massive and for that reason critical to include in our analyses of regulation (Cheit 1990, p. 21).

A useful notion to help designate the role of rating agencies in regulation is that of performativity. The notion of performativity finds its origin in philosophy of language studies, but in economic sociology it has been introduced by Callon (2011) and discussed further by MacKenzie et al. (2007). They use the notion of performativity to explain that economic theory does not just describe the world as we know it, it also produces it. Economic knowledge *"performs, shapes and formats the economy, rather than observing how it functions"* (Callon 1998, p. 2). For the rating industry it can be argued that through their actions they are performing regulation. As MacKenzie et al. (2007, p. 5) write, performativity is designed to capture the interweaving of on the one hand representations, in this study credit ratings, and on the other hand interventions, in this study regulation. The behaviour of market participants is given shape by credit ratings. Ratings and the criteria on which they are based are incorporated into how bond issuers organise themselves to raise money on the debt capital markets and continue to influence in which bonds investors can invest. Therefore, ratings are not merely opinions as the agencies indicate, but critical regulatory tools. As MacKenzie (2006, p. 37) writes:

> At its core is the way in which credit ratings are not simply opinions on the creditworthiness of financial instruments, but govern investment managers (who are, for example, frequently constrained to buy only instruments with investment-grade ratings) and determine crucial regulatory matters such as the size of the capital reserves that banks need to hold in relation to their portfolios of securities (with much smaller reserves being needed for instruments with higher ratings).

Sustaining Importance through Crisis and Blame

One of the key paradoxes that has been raised a number of times in this thesis, is how rating agencies continue to be relevant in global financial markets despite all the criticism and the reputational damage for the industry that resulted from the financial crisis. Credit rating agencies were also criticised after the Asian Financial Crisis and the corporate scandals of Enron and WorldCom (see e.g. Ferri et al. 1999; Hill 2002). However, the blame assigned to the rating agencies for their part in causing the crisis of 2007-08 has been unprecedented. Rating agencies have been criticised by scholars, politicians, and the mass-media. In the public opinion and that of investors, the reputation of the rating agencies has plummeted. Since the crisis there has been a surge in civil litigation against rating agencies with investors suing the agencies for negligence, fraud, and deceit, there have been class actions involving rating agencies, governments that have sued rating agencies and there has been significant regulatory change (Grabosky 1994; Maas 2011). And yet, the agencies remain important and in fact are more profitable than ever before. Figure 7.1 shows an example of the remarkable surge in stock price since 2009 of the only rating agency that is publicly listed. How can we explain this sustained importance?

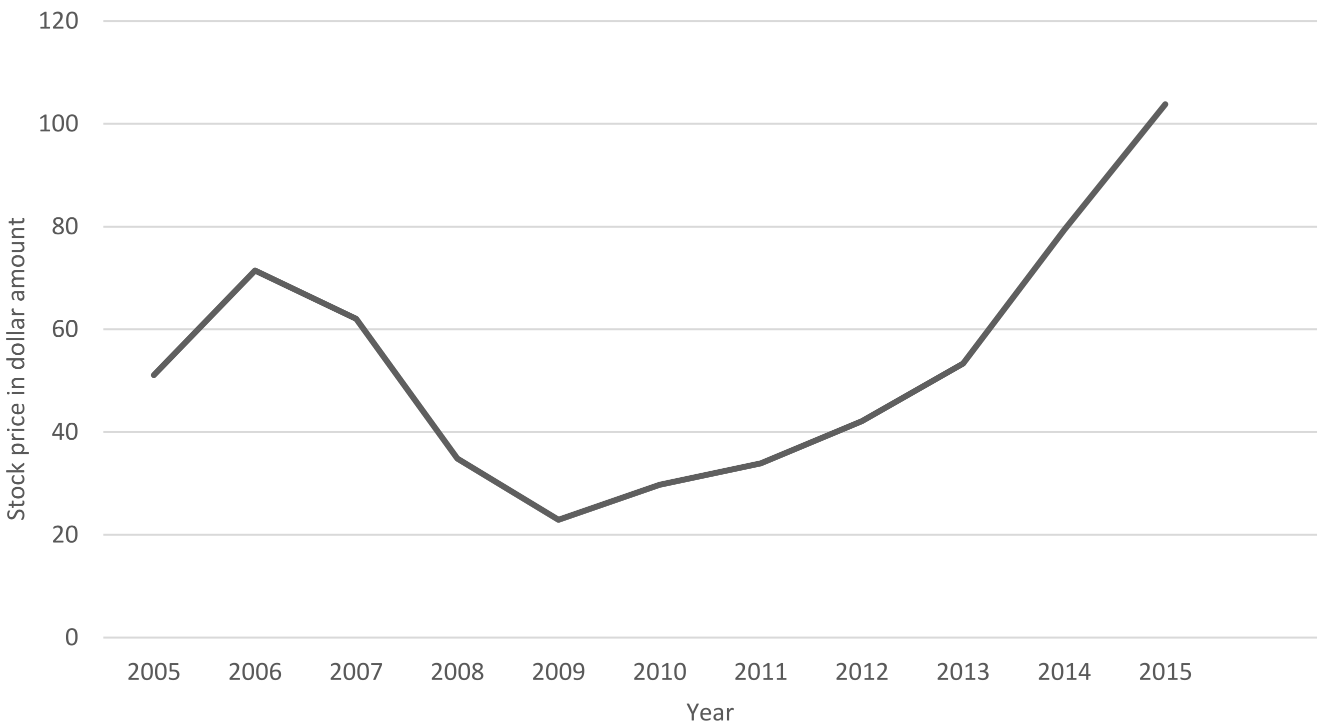

Figure 7.1: Behaviour of Moody's Investors Service Stock Price 2005-2015

This chapter has briefly discussed the role of reputation as an explanation for the power of rating agencies, but the findings in this thesis suggest that the continued relevance of rating agencies can be found in their role in sustaining and regulating debt capital markets. Rating agencies provide critical information transforming uncertainty into risk. As long as alternatives are absent, market participants continue to rely on this information. It is essential to constituting the debt capital markets and steers the behaviour of market participants in significant ways. Furthermore, with more regulation of the rating industry in the EU and beyond, the quality of credit ratings and how they are produced may also improve and gain in accountability and legitimacy.

Policy Suggestions

Since the financial crisis of 2007-08 the rating industry and its role in steering behaviour has been one of the key concerns for policy-makers and regulators around the world and as a result we have seen a push for regulatory reform. On the one hand the approach of state regulators has been focused on reducing the reliance on ratings in regulations, on the other hand, recognising the important role of the rating industry and the lack of alternatives, regulators focused on bringing the industry under (greater) regulatory control. For example, the US Dodd-Frank Act considers rating agencies as having systemic importance and considers rating agencies as gatekeepers in the debt markets requiring oversight and accountability. It seems that with acknowledging that rating agencies have a role the way they operate is also required to meet the expectations that are in place for public regulators.

Caouette et al. (1998, p. 95) discuss how the relationship between regulators and the rating agencies has been ambiguous for a long time. They write:

> The regulators are attracted to the high quality, the independence, and very widespread acceptance of the rating agency opinions on credit quality. On the other hand, they are concerned about putting so much reliance on the agencies over whose activities they have no control. For the agencies, the use of their opinions by the regulators is an important validation of their work. Also, because the regulators only accept the ratings of a few of the agencies (…), this creates an important competitive advantage.

Since the crisis, regulators became more critical of the quality and independence of ratings, but they are still widely accepted and for that reason important. According to Caouette et al. (ibid., p. 96) the benefits of this reliance are that the agencies can improve efficiency by providing information *"reliably, conveniently, and at low cost"*.

What is needed most, however, is a far more realistic view of credit ratings and what they can be used for and what their limitations are. The global financial crisis has served as an important wake-up call, making clear that ratings are fallible. It is important to emphasise that regulation does not aim to take away the behaviour that is subject to regulation, but aims to *regulate* that behaviour in an attempt to mitigate any harms that may result from it (Mitnick 1980). Rating agencies highlight that their analyses of credit risk are inherently subjective. Credit risk assessments cannot be separated from judgements made by rating analysts as the agencies stress by arguing that ratings are opinions about credit risk.

As some interviewees explained, ratings have long been viewed as *"very very very precise measurements of credit risk"* (Interview 1). This is at odds with what rating agencies are capable of providing. Rating agencies emphasise that credit rating *"is not a super exact science"* (ibid.). In fact, interviewees even proclaimed that *"ratings may be inaccurate, they may be wrong, they may have errors in them. (...) But you know we are human we make mistakes"* (Interview 18). When ratings are used as very precise measures of credit risk in practice, this obscures that *"rating is an art"* and may lead to potential problems as one credit policy officer explained: *"Seeing credit rating as a science is what led to the problems we had with structured finance"* (Interview 8). All this does not excuse rating agencies from assuming greater responsibility when ratings are obviously assigned wrongly. A strong meta-regulatory regime could ensure that there is more accountability for rating decisions and the consequences that ratings can have.

A meta-regulatory regime as the one considered in this thesis shows the importance of numerous actors in regulation, especially in relation to transnational risks, the ways in which these actors may be involved, and the ways in which they interact with each other. With meta-regulation being a hallmark of contemporary governance (Parker 2007), research, and in particular empirical research, that considers how state and non-state actors both regulate behaviour at domestic and transnational levels is of critical importance. Such research can help challenge existing ideas about regulation and provide ideas regarding how risk regulation is best organised in the increasingly interconnected world around us. In this thesis the main addition to regulatory theory is how non-state actors may perform regulation as an unintentional consequence of their actions. This unintentionality should not prevent us from considering the important potential regulatory role of non-state actors to enable us to critically analyse it and how it can contribute to risk regulation.

Appendix A Research Outline for Interviewees

This outline has been provided to all interviewees in advance of the interviews.

PhD Research on the Role of Credit Rating Agencies (2011 – 2015)

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Introduction

I am a research student at the London School of Economics, Department of Sociology. The topic of my PhD research concerns risk regulation and governance and the actors involved in governing risks beyond the state. I am focusing my research in particular on credit rating agencies and want to learn more about the role CRAs have in governing risks. The research is supervised by Bridget Hutter, Professor of Risk Regulation at the LSE.

Research outline

The goal of the research is to get a better understanding of the role and importance of CRAs in financial markets. Since the recent global financial crisis it has become all the more visible that CRAs play an important role in the functioning of credit markets, however the role of CRAs seems also to have been the subject of misunderstandings. This research attempts to contribute to a greater understanding of who CRAs are, how CRAs operate, and what CRAs do by soliciting the advice and expertise from people working in the industry through interviews. In addition I am also analysing publicly available documents that could help to facilitate more insight into the role of CRAs.

In the interviews and documentary research I am especially interested to learn about credit rating processes, for instance about the gathering of information, the interaction with issuers, the making of rating decisions, and surveillance. In addition, I aim to learn more about CRA perspectives on broader issues such as the purposes served by CRAs in the market, the information that ratings convey to market participants, the way ratings are used by different parties such as the state and investors, and the recent (regulatory) pressure and criticism on CRAs and their past and future role.

In order not to take too much time out of interviewees' busy schedules, the interviews will last approximately one hour. Information from the interviews will be anonymised and will only be used for this PhD research and together with the documentary research will form the basis of my PhD thesis.

Appendix B Interview Questions

Below is a list of common interview questions used to interview current and former staff of rating agencies. I did not use a specific interview schedule, instead I prepared questions in advance for each interview with questions adapted to the interviewee and his or her experience and previous and current position(s) in the rating agency. The questions below will nevertheless give an idea of the type of questions that I asked.

Background questions

Could you describe what you do/ did at [CRA]?

Broad questions on the role of CRAs

Could you tell me how you view the role of rating agencies in the market?

What in your opinion is the role of rating agencies for market participants, in particular for issuers and investors?

What do you think of the way ratings are used by market participants and the state (e.g. ratings-based regulation)?

How do you think does the role that you just described correspond with how ratings are used in practice?

How does a credit rating compare to other measures of credit risk that are available in the market?

What do you consider to be the biggest challenge in rating processes?

Standard-setting

How are credit ratings developed? What [principles/ criteria/ methodology/ factors] are taken into account?

Could you broadly describe to me the process of rating [e.g. structured finance products/ corporate issuers/ sovereign entities]?

How does this rating process differ from the rating of other issuers/ bond issues at [CRA]?

What role do credit rating principles and criteria play in rating processes?

Information-gathering

What information do you need for a credit rating?

Could you describe how you or analyst at your firm go about collecting the information you need?

Could you describe the interaction with issuers during the process of collecting information?

How do you decide that you or analysts at your firm have gathered enough information to recommend a rating?

What do you do if you have doubts about information that has been given to you, either by an issuer or another party?

What do you do if you cannot get access to certain information, e.g. because the issuer refuses to give you information?

Decision-making and behaviour-modification

Could you describe the rating committee process to me?

How do you interact with issuers regarding the outcome of a rating committee?

Could you give an example of a situation where it was especially challenging to decide on a rating in a rating committee?

What kind of interaction do you have with issuers after the rating has been assigned, i.e. during the monitoring process?

Could you give an example of when you had to decide upon a rating change? What did you find most difficult in that process?

Questions on broader context

How do you personally experience the environment in which you currently work for a rating agency (and how does it compare to before the financial crisis)?

What do you view as the biggest challenge for rating agencies in the next 5-10 years?

Appendix C List of EU Registered Credit Rating Agencies

The information in this Appendix, except for the information about market share, has been based on the 2014 Transparency Reports published by all registered rating agencies in the EU in March 2015 as required by Article 12 of Regulation (EC) No. 1060/2009 of the European Parliament and of the Council.

Credit rating agency	Office location(s)	Market(s) coverage	Credit analysts[57]	Market share[58]
A.M. Best Company	UK, US, Hong Kong, Mexico, Singapore	Global: insurance companies	19	0,72 %
ARC Ratings	UK, Brazil, France, Portugal, India, Malaysia, South Africa	Global: sovereigns, financial and non-financial corporations, sf	5	0,03 %
ASSEKURATA Assekuranz Rating-Agentur	Germany	Mainly Germany: insurance industry	20	0,26 %
Axesor SA	Spain	Mainly Spain: corporations	5	0,58 %
BCRA	Bulgaria	Mainly Bulgaria: corporations and sovereigns	7	0,03 %
Capital Intelligence	Cyprus, Hong Kong, India	Global: financial and non-financial corporations, sovereigns	13	0,13 %
CERVED Group	Italy	Mainly Italy: non-financial corporations	105	2,19 %
Creditreform Rating	Germany	Mainly Germany: corporates and sf	16	0,53 %
CRIF	Italy	Mainly Italy: financial and non-financial corporations	18	0,76 %
Dagong Credit Rating	Italy, China	EU (and China): financial and non-financial corporations, sovereigns	5	< 0,01 %
Dominion Bond Rating Services (DBRS)	Canada, UK, US	Global: financial and non-financial corporations, sf, sovereigns	43	1,27 %

[57] This number includes any member of staff based in the EU directly involved with assigning credit ratings.
[58] This information is based on the annual turnover of these agencies over 2013 (ESMA 2014).

Euler Hermes Rating	Germany	Mainly Germany: corporates and sf	16	0,24 %
European Rating Agency	Slovakia	Mainly Slovakia: Financial and non-financial corporations, sovereigns	8	< 0,01 %
EuroRating	Poland	Financial and non-financial corporations	3	< 0,01 %
Feri EuroRating Services	Germany	Mainly Germany: financial and non-financial corporations, sf, sovereigns	6	0,67 %
Fitch Ratings	UK, US, and further 44 regional offices in the Americas, EMEA, Asia-Pacific	Global: financial and non-financial corporations, sf, sovereigns	279	16,22 %
GBB-Rating Gesellschaft für Bonitätsbeurteilung	Germany	Mainly Germany: financial and non-financial corporations	unknown[59]	0,33 %
ICAP Group	Greece	Mainly Greece: corporations	21	0,75 %
Moody's Investors Service (MIS)	UK, US and further 33 regional offices in the Americas, EMEA, Asia-Pacific	Global: financial and non-financial corporations, sf, sovereigns	263	34,53 %
Scope Ratings	UK, France, Germany	EU: financial and non-financial corporations, sf	26	0,14 %
Spread Research	UK, France	EU: non-financial corporations	5	0,09 %
Standard & Poor's Ratings Services (S&P)	UK, US, and further 38 regional offices in the Americas, EMEA, Asia-Pacific	Global: financial and non-financial corporations, sf, sovereigns	347	39,69 %
The Economist Intelligence Unit (EIU)[60]	UK, Czech, France, Germany, Switzerland, Turkey	Global: sovereigns	50	0,83

[59] GBB-Rating does not give information about the number of analytical staff it employs, it only provides a percentage in its Transparency Report. During 2014, 83,3% of GBB-Rating's staff was involved with assigning credit ratings.
[60] The EIU assigns ratings based on public information only, its ratings are unsolicited.

Appendix D Example Credit Rating Scale

This example credit rating scale has been based on the global long-term rating scale by Moody's Investors Service (2013d, p. 5), the general summary rating scale by Standard & Poor's (2011c, p. 10), and the long-term issuer credit rating scale by Fitch Ratings (2013a, pp. 9-10). It should be noted that many more specific rating scales exist.

Category	Meaning
AAA	**Highest credit quality** Lowest expectation of credit risk. Assigned only in cases of exceptionally strong capacity for payment of financial commitments. This capacity is highly unlikely to be adversely affected by foreseeable events.
AA	**Very high credit quality** 'AA' ratings denote expectations of very low credit risk. They indicate very strong capacity for payment of financial commitments. This capacity is not significantly vulnerable to foreseeable events.
A	**High credit quality** 'A' ratings denote expectations of low credit risk. The capacity for payment of financial commitments is considered strong. This capacity may, nevertheless, be more vulnerable to adverse business or economic conditions than is the case for higher ratings.
BBB	**Good credit quality** 'BBB' ratings indicate that expectations of credit risk are currently low. The capacity for payment of financial commitments is considered adequate but adverse business or economic conditions are more likely to impair this capacity.
BB	**Speculative** 'BB' ratings indicate an elevated vulnerability to credit risk, particularly in the event of adverse changes in business or economic conditions over time; however, business or financial flexibility exists which supports the servicing of financial commitments.
B	**Highly speculative** 'B' ratings indicate that material credit risk is present, but a limited margin of safety remains. Financial commitments are currently being met; however, capacity for continued payment is vulnerable to deterioration in the business and economic environment.
CCC	**Substantial credit risk** Default is a real possibility. It is currently vulnerable and dependent on favourable business, financial and economic conditions to meet financial commitments.
CC	**Very high levels of credit risk** Default of some kind appears probable.
C	**Exceptionally high levels of credit risk** Default is imminent or inevitable, or the issuer is in standstill.
D	**Default** Payment default on financial commitments.

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