

**DO RATING DOWNGRADE AND DEFAULT
REDUCE INFLATED RATING OF CREDIT
RATING AGENCIES IN CHINA? THE
MODERATING EFFECT OF BOND ISSUERS'
PROFILES**

HUANG RUI

UNIVERSITI SAINS MALAYSIA

2025

**DO RATING DOWNGRADE AND DEFAULT
REDUCE INFLATED RATING OF CREDIT
RATING AGENCIES IN CHINA? THE
MODERATING EFFECT OF BOND ISSUERS'
PROFILES**

by

HUANG RUI

**Thesis submitted in fulfilment of the requirements
for the degree of
Doctor of Philosophy**

September 2025

ACKNOWLEDGEMENT

I would like to express my sincerest gratitude to my supervisor Prof. Dr. Hooy Chee Wooi, a very senior and experienced scholar. I am grateful that he always finds the time in his busy schedule to patiently listen to my research and respond seriously. He has made me feel the beauty of academic exploration and the character of diligence, humility, erudition, and studiousness as a scholar. I hope that in the future I can also become a scholar like him.

I would like to thank my examiners, Dr Lok Char Lee and Assoc. Prof. Dr. Zamri Ahmad, for listening carefully to my research and giving detailed suggestions. I would also like to thank my best friend, Hu Yujie, whom I met in Malaysia. With your company, I was not lonely in Malaysia. You have given me a lot of help both in my studies and in my life. It is very rare to meet such a compatible friend, and I cherish it very much. I hope our friendship can continue forever.

Finally, I would like to thank my family. My beloved Sun Di, during my studies, he has given me the most and all-round support, which is the foundation for me to be able to focus on studying abroad. I would also like to thank my parents and in-laws for being tolerant of all my decisions and giving me their utmost support. Finally, I would like to thank my children. I am grateful to Sun Chuyi for being sensible, considerate, optimistic and positive. The way you smile with your eyes narrowed always heals me, and your attitude of studying hard always inspires me. I am also grateful to Sun Chuxuan for being brave, well-behaved and independent. I hope to become a better person and a role model for you to pursue your own self and become a better person in the future.

TABLE OF CONTENTS

ACKNOWLEDGEMENT	ii
TABLE OF CONTENTS.....	iii
LIST OF TABLES	viii
LIST OF FIGURES	ix
LIST OF ABBREVIATIONS	x
ABSTRAK	xi
ABSTRACT	xiii
CHAPTER 1 INTRODUCTION.....	1
1.1 Introduction	1
1.2 Research Background.....	1
1.2.1 Credit Rating Failure and Inflated Rating	2
1.2.2 The Impact of Rating Downgrades and Defaults on Rating Agencies	6
1.2.3 China's CRA and Inflated Rating.....	10
1.3 Problem Statement	16
1.4 Research Questions	20
1.5 Research Objectives	21
1.6 Significance Of the Study	22
1.7 Definition of Key Terms	24
1.7.1 Credit Risk.....	24
1.7.2 Issuer-Paid Mode & Investor-Paid Mode.....	24
1.7.3 Inflated Rating.....	24
1.7.4 Rating Quality	25
1.7.5 Credit Quality	25
1.7.6 Rigid Payment & Government Implicit Guarantee.....	25

1.7.7	Private & State Ownership	26
1.8	Organization of Chapters	26
CHAPTER 2 LITERATURE REVIEW		27
2.1	Introduction	27
2.2	Inflated Rating	27
2.3	Factors Influencing Inflated Ratings	29
2.3.1	Conflicts of Interest	29
2.3.2	Issuer's Characteristics	32
2.3.3	Supervision	35
2.4	Measurement of Inflated Rating	38
2.5	Inflated Credit Ratings in China	44
2.5.1	Distribution Of Credit Bond Ratings in China	44
2.5.2	Inflated Rating in China's Enterprises with Different Ownership Nature	49
2.5.3	Influence Of Geographical Factors on Inflated Rating	54
2.6	Rating Downgrades and Defaults	58
2.6.1	Definition of Credit Risk	59
2.6.2	Rating Downgrade	61
2.6.3	Default	62
2.6.4	Credit Risk and CRAs	64
2.7	The Impact of Rating Downgrade and Default On Inflated Rating – A Theoretical Perspective	65
2.7.1	Asymmetric Information Theory	65
2.7.2	Agency Theory	67
2.7.3	Reputation Theory	69
2.7.4	Relationship of the Rating Downgrade, Default and Inflated Rating	71
2.8	The Impact of Rating Downgrade and Default on Inflated Rating –An Empirical Perspective	80

2.8.1	The Impact of Downgrades on Inflated Ratings by CRAs	80
2.8.2	The Impact of Default on Inflated Ratings by CRAs.....	83
2.9	The Moderating Effect of Chinese Issuers' Profiles	86
2.9.1	The Moderating Effect of Credit Quality	86
2.9.2	The Moderating Effect of State Ownership	88
2.9.3	The Moderating Effect of Geographical Proximity	90
2.10	Research Hypothesis	94
2.11	Research framework.....	102
2.12	Summary of the Chapter	103
CHAPTER 3 METHODOLOGY.....		105
3.1	Introduction	105
3.2	Research Variables	105
3.2.1	Dependent Variable: Inflated Rating.....	105
3.2.2	Independent variable: Rating downgrade and default.....	108
3.2.3	Moderating Variables	109
3.2.4	Control Variables	110
3.3	Sample Selection	118
3.4	Empirical Model and Research Design	119
3.4.1	Baseline Model Development	119
3.4.2	Moderating Effect Model Development	120
3.5	The Effects of Rating Downgrade and Defaults on Inflated Rating: Difference-In-Differences Analysis.....	123
3.6	The Effects of Rating Downgrade and Defaults on Inflated Rating: Propensity Score Matching Method (PSM)	126
3.7	Robustness Test for Substitution Variables	128
3.7.1	Replace the Measurement of The Rating Downgrade Variable...	128
3.7.2	Replace the Measurement of The Credit Quality Variables	128

3.7.3	Replace the Measurement of The Geographic Proximity Variable	129
3.8	Summary of the Chapter	129
CHAPTER 4 EMPIRICAL RESULTS AND FINDINGS		131
4.1	Introduction	131
4.2	Sample Firms and Descriptive Statistics	131
4.2.1	Descriptive Statistics of The Dependent and Independent Variables.....	132
4.2.2	Descriptive Statistics of The Moderating Variables	134
4.2.3	Descriptive Statistics of Control Variables	137
4.3	Correlation Analysis.....	141
4.4	Multicollinearity Analysis.....	144
4.5	Results of Econometric Analysis	146
4.5.1	Relationship Between Rating Downgrades, Defaults, and Inflated Rating.....	146
4.5.2	The Moderating Effect of The Issuers' Profiles.....	149
4.6	Result Of Difference-In-Differences Analysis.....	158
4.7	Result Of Propensity Score Matching Method (PSM).....	161
4.8	Results of robustness Tests for Substituting Variables	164
4.8.1	Result of Replacing the Variable of Rating Downgrade.....	164
4.8.2	Result of Replacing the Variable of Credit Quality	166
4.8.3	Result of Replacing the Variable of Geographic Proximity	168
CHAPTER 5 CONCLUTION		171
5.1	Introduction	171
5.2	Recapitulation.....	171
5.3	Discussion of the Main Findings.....	175
5.3.1	The Impact of Rating Downgrades and Defaults on Inflated Rating	176

5.3.2	The Impact of Rating Downgrades and Defaults on Inflated Rating: The Moderating Effect of Credit Quality	178
5.3.3	The Impact of Rating Downgrades and Defaults on Inflated Rating: The Moderating Effect of Ownership Nature.....	179
5.3.4	The Impact of Rating Downgrades and Defaults on Inflated Rating: The Moderating Effect of Geographic Proximity	181
5.4	Contribution and Implication of the Study	182
5.4.1	Theoretical Contributions.....	182
5.4.2	Practical Implication	184
5.5	Study Limitations	186
5.6	Suggestions for Future Research.....	188
	REFERENCES.....	190

LIST OF TABLES

	Page
Table 1.1	Payment methods and establishment dates of major CRAs..... 12
Table 1.2	Debt solicits by China's major CRAs in 2022..... 12
Table 2.1	Factors Influencing Inflated Ratings.....37
Table 2.2	Recognition of default by international CRAs.....63
Table 2.3	Summary of Hypothesis..... 104
Table 3.1	Variable definition table..... 117
Table 4.1	Observations by year..... 132
Table 4.2	Descriptive statistical results..... 134
Table 4.3	Frequency Distribution of Dummy Variables..... 134
Table 4.4	Correlation analysis results 143
Table 4.5	VIF results..... 145
Table 4.6	Main Regression Results..... 147
Table 4.7	Moderator regression results: CreditQuality 151
Table 4.8	Moderator regression results: SOE 155
Table 4.9	Moderator regression results: Loc..... 157
Table 4.10	DID results 159
Table 4.11	PSM results 162
Table 4.12	Result of main regression (RatingDownSum variable replaced) ..165
Table 4.13	Result of moderating effect regression (CreditQ variable replaced) 166
Table 4.14	Result of moderating effect regression (Loc variable replaced) ..169
Table 5.1	Hypotheses and findings 175

LIST OF FIGURES

	Page
Figure 1.1 Amount and default amount of credit bonds issued by Chinese companies from 2005 to 2023 (unit: 100 million yuan)	11
Figure 1.2 Number of issuer rating downgrades (including negative outlook downgrades) and companies postponing or canceling bond issues, 2006-2023	18
Figure 2.1 The proportion of issuers at different issuer rating in China (2022)	45
Figure 2.2 The proportion of bonds at different bond rating in China (2022)	45
Figure 2.3 Number of issuer rating downgrade (2006-2022).....	48
Figure 2.4 Number and amount of bond defaults of state-owned enterprises and private enterprises from 2014 to 2021.....	52
Figure 2.5 Registered corporate CRAs regional distribution	55
Figure 2.6 Causal chain for rating downgrade & default reduces inflated rating through CRA	76
Figure 2.7 Research framework.....	103
Figure 4.1 Average Rating Difference by Credit Quality, 2010–2023	136
Figure 4.2 Average Rating Difference by State-Ownership, 2010–2023.....	136
Figure 4.3 Average Rating Difference by Geographic Proximity, 2010–2023.	136

LIST OF ABBREVIATIONS

CRA	Credit rating agency
CPA	Certified Public Accountant
SOE	State-owned enterprise
CSOE	Central State-Owned Enterprise
SASAC	State-Owned Assets Supervision and Administration Commission
CDS	Credit Default Swap
BIS	Bank for International Settlements
CIA	Central Intelligence Agency
CSRC	China Securities Regulatory Commission
EJR	Egan-Jones Ratings
IMF	International Monetary Fund
MBS	Mortgage-Backed Security
NAFMII	National Association of Financial Market Institutional Investors
NRSRO	Nationally Recognized Statistical Rating Organization
PSM	Propensity Score Matching
VIF	Variance Inflation Factor

**ADAKAH PENARAFAN MENURUN TARAF DAN KEMUNGKIRAN
MENGURANGKAN PENARAFAN MELAMBUNG AGENSI PENARAFAN
KREDIT DI CHINA? KESAN PENYEDERHANAAN OLEH PROFIL
PENERBIT BON**

ABSTRAK

Kajian ini meneliti sama ada penurunan penarafan dan kegagalan pembayaran dalam kalangan pelanggan penerbit mendorong agensi penarafan kredit (CRA) untuk mengurangkan penarafan yang terlebih anggaran. Disebabkan oleh asimetri maklumat dan masalah ejen, CRA sering memberikan penarafan yang terlalu optimistik, sekali gus menimbulkan risiko sistemik terhadap kestabilan pasaran bon. Berdasarkan set data syarikat tersenarai di China dari tahun 2010 hingga 2023, bukti empirikal menunjukkan bahawa peningkatan dalam kejadian penurunan penarafan dan kegagalan pembayaran dalam kalangan pelanggan penerbit CRA meningkatkan kemungkinan penarafan yang terlebih anggaran akan diperbetulkan apabila CRA menilai penerbit lain. Penemuan ini selari dengan teori reputasi, yang menyatakan bahawa CRA akan menyemak semula penarafan yang terlebih anggaran untuk melindungi kredibiliti jangka panjang mereka di mata pelabur dan pengawal selia, terutamanya selepas kejutan reputasi seperti kegagalan pembayaran dan penurunan penarafan. Analisis lanjut menunjukkan bahawa kecenderungan untuk pembetulan penarafan dipengaruhi oleh ciri-ciri penerbit, mencerminkan usaha CRA untuk mengimbangi pendedahan risiko kredit dengan pemeliharaan keyakinan pasaran. Pertama, kesannya didapati lebih lemah bagi penerbit yang diberi penarafan tinggi, kerana CRA cenderung mengelakkan penurunan penarafan tertinggi bagi mengurangkan kerosakan reputasi dan mencegah gangguan kepada sentimen pelabur.

Kedua, perubahan dasar kerajaan China nampaknya ditafsirkan oleh CRA sebagai pengurangan kemungkinan penyelamatan oleh kerajaan, terutamanya selepas berlakunya kegagalan pembayaran. Oleh itu, pembetulan penarafan yang lebih agresif telah dilaksanakan sepanjang tempoh kajian—kesimpulan ini disokong oleh keputusan analisis perbezaan-dalam-perbezaan (DID). Ketiga, kesannya dibentuk oleh kecekapan penyampaian maklumat: penerbit yang terletak lebih dekat secara geografi dengan CRA lebih berkemungkinan dikenakan pelarasan penarafan, menunjukkan bahawa jarak fizikal yang dekat memudahkan aliran maklumat yang lebih baik dan meningkatkan kepekaan reputasi, seterusnya mendorong pembetulan penarafan yang lebih proaktif. Penyelidikan ini menyumbang secara teori dengan memperkaya pemahaman terhadap tingkah laku CRA melalui kerangka asimetri maklumat, teori reputasi, dan teori agensi. Dari segi praktikal, dapatan ini menyokong usaha kerajaan China untuk memasarkan peraturan pasaran bon dan mengurangkan kebergantungan terhadap penarafan kredit. Kajian ini juga mencadangkan bahawa penarafan terlebih dalam kalangan penerbit berpenarafan tinggi masih berterusan walaupun selepas berlakunya penurunan penarafan dan kegagalan pembayaran, yang menunjukkan keperluan terhadap strategi pengawalseliaan yang lebih terperinci dan bersasar bagi meningkatkan kualiti penarafan dan memperkukuh disiplin pasaran. Bagi pelabur, memahami syarat-syarat yang mendorong CRA melaraskan penarafan terlebih boleh memperbaiki penilaian risiko dan keputusan pelaburan. Secara keseluruhan, kajian ini menegaskan bahawa risiko kredit bukan sahaja merupakan ancaman, malah berfungsi sebagai pemangkin pembetulan dalam meningkatkan kualiti penarafan di pasaran baru muncul.

**DO RATING DOWNGRADE AND DEFAULT REDUCE INFLATED
RATING OF CREDIT RATING AGENCIES IN CHINA? THE
MODERATING EFFECT OF BOND ISSUERS' PROFILES**

ABSTRACT

This study explores the impact of rating downgrades and defaults on inflated ratings provided by credit rating agencies (CRAs) in China, with a particular focus on the moderating effects of issuers' profiles. As China's bond market has rapidly developed, inflated ratings and the associated risks have emerged as critical issues, undermining market stability and investor confidence. Using a listed company dataset and an empirical econometric approach, this research examines whether downgrades and defaults act as mechanisms for CRAs to adjust their inflated ratings, providing more accurate assessments to market participants. The findings reveal that rating downgrades and defaults significantly reduce inflated ratings, driven by information asymmetry reduction, agent role weighing and reputation maintenance mechanisms. However, the situation varies among different issuers, and the impact is also different. Although high-rating and state-owned issuers are both areas where initial ratings are more likely to be overvalued, our empirical results show that after downgrades and defaults have occurred, CRAs adjust high-rating issuers more mildly, while low-rating issuers are adjusted more greatly. However, conversely, the inflated rating of state-owned enterprises (SOEs) with similar characteristics is adjusted more significantly than that of private issuers. This may be related to the fact that the government has broken the rigid payment, and the default of SOEs has increased, making CRAs more inclined to pay attention to investor reputation. Proximity to the CRA headquarters also amplifies the impact, because issuers in closer proximity are initially more likely

to obtain inflated ratings through relationships, but it is also more sensitive to risks due to more direct information flow and monitoring, and thus adjusts the inflated rating status. This study introduces moderating variables – credit quality, ownership structure and geographic proximity – to reveal the subtle relationship between credit risk and rating inflation. The results show that although state-owned enterprises, high-rating issuers and geographically proximate issuers are more likely to be overrated, they have different sensitivities to credit risk. These adjustments highlight the characteristics and transformation of China's bond market. For example, the implicit ‘risk-resilience belief’ of SOEs is being undermined. And after the market encounters risks, potential risks are more likely to converge and hide towards high- ratings. In addition, geographical proximity highlights the dual role of localized information advantages in improving the efficiency of local financing and the accuracy of ratings. By addressing the intersection of credit risk and CRA behavior in an emerging market context, this research provides important theoretical and practical contributions. It enriches the existing literature on reputation, agency and information asymmetry theories while offering actionable insights for regulators and market participants. Regulatory bodies can leverage these findings to refine policies, encouraging more transparent and market-oriented practices in the rating industry. Investors, in turn, can use these insights to better assess risks and optimize portfolio strategies. Overall, this study highlights the dual role of credit risk as both a challenge and an opportunity for CRAs to reduce inflated rating. The findings underscore the necessity of continued reform in China’s bond market to ensure long-term stability, transparency, and trustworthiness.

CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter introduces the research outline of this study. It begins by presenting the background of the study, highlighting the issues of inflated ratings in China's bond market and the role of credit risk, such as downgrades and defaults. The chapter discusses the problem statement, research questions, and objectives that guide the investigation. Furthermore, it emphasizes the study's significance, focusing on its academic and practical contributions. Finally, the chapter provides an overview of the thesis structure, outlining the content of subsequent chapters.

1.2 Research Background

As an important infrastructure and intermediary in the bond market, credit rating agencies (CRAs) provide rating information to market participants as a basis for investment on the one hand. On the other hand, they are also an important basis for regulators to supervise issuers (enterprises or companies which issue bonds). However, in previous financial crises, the role of CRAs has been widely criticized, seriously undermining investor confidence in the credit bond market. In China, a large and rapidly developing emerging market, there are characteristics such as a high proportion of high ratings, implicit government guarantee by state-owned enterprises (SOEs), and large regional differences. The corporate default crisis that has gradually erupted in recent years have exposed problems such as inflated rating by CRAs. This has led panic and selling among market participants, while simultaneously, the market's skepticism has hindered firms' capacity to raise capital, significantly disrupting the bond market. Therefore, this study aims to examine whether credit rating agencies

(CRAs), after issuing inflated ratings and subsequently facing reputational pressure from client downgrades and defaults, are motivated to adjust their rating practices. Specifically, it investigates whether Chinese CRAs respond to such events by reducing inflated ratings for other issuers in order to enhance rating accuracy and maintain credibility with investors and regulators.

1.2.1 Credit Rating Failure and Inflated Rating

Over the past decade, direct finance methods, particularly debt financing, have disrupted the prevailing dominance of low-cost, bank-centric indirect financing. An increasing number of companies are pursuing direct funding internationally, resulting in an unprecedented surge in demand for ratings. CRAs have undoubtedly contributed significantly to this transformation (Sinclair, 2021). They deliver rating information to market participants, serving a role in information transmission and evaluation. they also provide rating information to market regulators, serving as a crucial foundation for supervision of firms (Saadaoui, Elammari, & Kriaa, 2022).

Historical development across different regions significantly influences the market structure of CRAs (He & Packer, 2019). Three dominant agencies primarily control the multinational credit rating market: Standard & Poor's (S&P), Moody's, and Fitch. Established in the 1990s, these agencies have effectively monopolized the international sector, particularly in the evaluation of sovereign and corporate debt ratings. The corporate credit rating market in the United States exhibits characteristics of a natural oligopoly. The three international CRAs hold 90% of the industry, which is consistent with the global market.

In countries outside the United States, the market share of large international CRAs varies significantly due to regulatory barriers to entry, the incomplete

assessment of default risk inherent in credit ratings, economies of scale, and network effects (Hung, Kraft, Wang, & Yu, 2021). Local CRAs frequently exert greater market power in the region, even with the involvement of prominent international CRAs. As of August 2024, incomplete statistics from the global open-source credit rating platform Wikirating indicate that there are 119 active CRAs across 47 countries. Local CRAs in East Asia have historically held a prominent position a (Bank for International Settlements, 2000), largely due to government support during the shift from a bank-dominated financing model to a market-oriented one (Ferri et al. 2013). Local CRAs possess informational advantages over global CRAs attributable to their localized knowledge and regulatory backing.

Nonetheless, this informational advantage does not inherently result in improved rating quality. Hung et al. (2021) analyzes a global sample of 26 countries from 1994 to 2019 and find that increased market power of global CRAs, indicated by their market share at the country level, correlates with more stringent corporate ratings. The market power of global CRAs results in stricter rating standards and more timely ratings due to enhanced reputational concerns; however, this also leads to an increase in false warnings. Consequently, the regulation and enhancement of rating quality in regions with predominant local CRAs call for increased focus and comprehensive investigation.

The quality of ratings is crucial for CRAs, as it influences the confidence of investors, regulators, and the overall financial market in these agencies (White, 2010, 2013). The misestimation of credit quality by major global rating agencies was exposed by a series of adverse events in the early 2000s, including the Enron incident, the Lehman Brothers incident, the 2008 subprime mortgage crisis, and the European

sovereign debt crisis. This led to the focus of regulatory practice and academic discussion on rating quality (Matthies, 2013).

Many empirical papers have studied the problem of rating failure from different perspectives and with different data, and many scholars believe that inflated rating is one of the main reasons (Pagano&Volpin,2010; Skreta&Veldkamp,2009). Bolton et al (2012) proposed credit rating inflation, which means that the ratings in the rating report are usually higher than the true information. Credit rating inflation exacerbates market information asymmetry and results in low-risk premiums, which is also considered an important cause of the debt crisis.

A large number of studies have found that conflicts of interest are one of the main causes of inflated rating (Mathis, McAndrews, & Rochet, 2009; Frenkel,2013). In addition, regulatory authorities require companies to obtain a certain rating from a CRA when issuing bonds, so as to assess the company's operating conditions and creditworthiness over a period of time from an independent third party's perspective. Therefore, regulatory requirements for CRAs provide an incentive for issuers to seek higher ratings from CRAs in order to meet regulatory thresholds for financing or lower financing costs, which is also an important cause of inflated rating (Opp, Opp, & Harris, 2013; Becker & Opp, 2013).

Conflicts of interest are more serious in the issuer-paid CRAs. CRAs are categorized into investor-paid and issuer-paid CRAs based on the entities for paying the rating fees. The issuer-paid rating predominates in the industry, with the majority of CRAs, including the three principal international agencies, employing this payment mode. Mathis et al. (2009) demonstrated that when a CRA's income predominantly derives from assessing complex securities (such as structured financial products), it

will possess an adverse incentive to diminish the quality of ratings. In the issuer-paid rating, reputational factors cannot resolve this incentive issue. Subsequent research has validated the damaging impact of conflicts of interest, particularly the issuer-paid rating, on rating quality (Kovbasyuk, 2013). The investor-paid rating, which alleviates conflicts of interest to some degree, provides superior rating quality. Bongaerts (2014) demonstrates that the issuer-paid rating results in a decline in social welfare, while shifting to the investor-paid rating can enhance the overall outcome. Wu et al. (2020) assesses the two ratings based on indicators including rating accuracy and predictability. The conclusion shows that the investor-paid CRAs generally provides more objective ratings because it is not dependent on the funding of the issuers, thereby reducing conflicts of interest. This investor-paid mode may result in limited information coverage, whereas the issuer-paid rating offers more extensive market information despite potential conflicts of interest.

The academic community has diametrically opposed attitudes regarding whether CRAs will adjust inflated ratings under risk pressure. Mariano (2012) illustrates that during periods of uncertainty, CRAs often tend to convey private information by giving ratings that are inconsistent with the prevailing market perspective, regardless of their potential inaccuracy. Attig et al. (2021) examines the performance of CRAs amid growing economic uncertainty to evaluate whether ratings accurately represent the true risk of an issuer or its debt. The conclusion indicates that CRAs encounter higher challenges during uncertain periods, and the quality of ratings may be weakened by market volatility and data limitations, potentially resulting in an inaccurate assessment of the issuers' actual risk.

Although some scholars suggest that the increase of inflated rating is more

pronounced during economic booms than in periods of higher risks. Bolton (2012) demonstrates that inflated rating is most apparent when the risk of being publicly wronged decreased due to a reduced fear of reputational damage, resulting in a decline in rating quality during economic downturns. Bar-Isaac and Shapiro (2013) demonstrate in a comprehensive theoretical model that CRAs possess an incentive to lower their accuracy during economic booms, resulting in rating quality being countercyclical.

A series of negative events involving CRAs in recent years has drawn the attention of the public and academia to rating failures and related mechanisms. However, academic research has yet to reach a consensus on whether and how CRAs revise inflated ratings in response to common negative risk events in the market, such as rating downgrades and defaults. This remains an important topic that requires in-depth investigation.

1.2.2 The Impact of Rating Downgrades and Defaults on Rating Agencies

Rating downgrades and defaults are both major manifestations of credit risk. Duffie and Singleton (2003) define credit risk in their book “Credit Risk: Pricing, Measurement, and management” as the risk of default or a decline in market value due to changes in the credit quality of the issuer or counterparty, noting that these changes in credit quality directly influence the pricing of corporate bonds. Credit risk constitutes a component of market risk, specifically referring to the potential for fluctuations in the market value of a company's securities portfolio, which includes the risk of issuer default and variations in credit quality. Credit risk related to a bond refers to the potential loss encountered by the bond issuer if there is a failure to fulfil the repayment of principal and interest as specified in the contractual agreement. In a broad sense, credit risk on bonds also includes the risk of rating downgrade of the

issuer and the variability of credit spreads. The risk of a rating downgrade refers to the potential reduction in a bond's rating by CRA, resulting in a decline in both the bond's price and its yield. credit spread variability refers to the potential change in the bond spread resulting from fluctuations in market risk.

In recent years, against the backdrop of global market integration, economic entities have been closely linked together by the continuous development of the Internet and the increasingly efficient transmission of information (Ciocîrlan et al., 2024). The global economic downturn, credit risks have ignited the fire of risk transmission (Nataf & De Moor, 2023). These trends have continuously alerted investors and regulatory authorities to pay more attention to the credit rating behavior of CRAs and the impact of this risk on the relevant CRAs. Rating agencies play a role in information transmission by issuing ratings (Cüppers, 2016). However, despite the many criticisms and concerns about CRAs in practice and in the media, CRAs claim that they will learn from that information and improve their ratings (Bonsall et al., 2018). However, there have been few academic articles focusing on the behavioral impact of credit risk on rating CRAs, and whether defaults and rating downgrades will affect the subsequent rating behavior of CRAs.

Previous literature includes the CRAs' own claims (Altman, E. I., & Saunders, A., 1997; Moody's Investors Service, 2010) that exposure to credit risk can enable CRAs to accumulate experience and improve rating models or decision-making processes through in-depth analysis of credit risk. These improvements, often reflected in more rigorous rating standards and better identification of specific risks, are said to result from the knowledge gained during high-profile negative events. Such experiences help CRAs make more accurate judgments in the future.

In addition to the possibility of obtaining new information from credit risk exposures, the purpose of maintaining reputation is also crucial to the business development of CRAs. Ratings convey information to the market and affect investors' decisions. CRAs must maintain the impartiality and objectivity of their ratings in order to maintain their reputation and win the trust of investors. However, the exposure of credit risks such as rating downgrades and defaults will increase the attention of the public and regulatory authorities on CRAs and affect their reputation. Abad et al. (2019) discovered that reputation shocks can influence market responses to rating adjustments announced by CRAs. Following significant reputational catastrophes like the Enron, WorldCom, and Lehman Brothers defaults, alongside regulatory reforms, stock market fluctuations became increasingly associated with information regarding the implications of rating downgrades.

Investors used to believe that reputational damage will prompt CRAs to improve their rating procedures and restore their reputation. Many investors believe that under the reputation mechanism, in order to restore or defend their reputation, CRAs will regulate their own rating behavior, improve the quality of rating information, and play the monitoring role of credit ratings (Mathis et al., 2009). Furthermore, in order to reduce financing costs and ease financing constraints of issuers, CRAs will also pay attention to the quality of ratings and maintain a good reputation. Xu and Liu (2021) studied whether the reputation capital of CRAs affects the bonds they rate. The results show that due to the reduction in reputation capital, the average yield spread of China Lianhe Credit Rating's (one of the major CRAs in China) medium-term notes increased by 0.23% to 0.33%. When the reputation of CRAs becomes uncertain due to a negative credit shock, bond issuers will take action to improve their own credit quality and improve the efficiency of corporate

information transmission. Issuers also have an incentive to improve their credit quality and convey positive information to the market. Sethuraman (2019) studied the impact of CRA reputation shocks on the voluntary disclosure behavior of bond issuers and found that when the credibility of the reputation shock rating decreases, issuers will disclose more qualitative content to help investors assess credit risk.

However, many people question whether these good mechanisms are being used effectively by CRAs. CRAs came under heavy criticism during the financial crisis, particularly for their failure to adequately identify and warn of the risks of subprime mortgage-backed securities (MBS) and complex financial products. These agencies had erroneously rated many risky assets as AAA before the crisis, leading to a large number of defaults following the market collapse. This rating failure is believed to have contributed to systemic risk and exacerbated the depth of the financial crisis (DeHaan, 2017).

The study by Kartasheva and Yilmaz (2020) points out that risky environment can also have a negative impact on CRAs. The research examines the impact of noisy information on the precision and predictive quality of rating. The authors pointed out that noisy information increases the complexity of risk assessment by rating agencies, which may lead to biased rating results and short-term fluctuations, affecting the quality of ratings. In addition, due to agency problems, CRAs often face pressure to regain market share when they face reputational losses. Bolton et al. (2012) claim that when CRAs face reputational crises and a decline in market share, they may adjust their rating standards to attract more customers in order to compensate for the loss of market share. This behavior may lead to a decline in the quality of ratings, and ratings may become more “catered” to market demand. CRAs may also adopt aggressive

measures after a reputational crisis. Bar-Isaac, H., & Shapiro, J. (2013) studied the behavior of rating agencies after a reputational shock and found that rating agencies will adopt a more conservative rating approach after a reputational crisis to make up for the previous loss of credibility. However, this over-conservative attitude may lead to ratings deviating from their true credit risk, which in turn undermines the precision and predictive nature of the rating quality.

Consequently, the findings of current studies regarding the influence of rating downgrade and default on CRAs are inconsistent, which requires additional empirical analysis and theoretical investigation for a comprehensive exploration.

1.2.3 China's CRA and Inflated Rating

The Chinese bond market has experienced fast development. Since 2005, the relaxation of bond issuance regulations and the introduction of varied bond products, which constitute 20.6% of the total bond offerings, have facilitated the rapid expansion of China's credit bond market. In under twenty years, China's bond market has ascended from obscurity to become the second largest globally. Since the default of the "11 CHAO RI bond" in March 2014, by the end of 2023, a total of 1,539 bonds in China's credit bond market had defaulted, involving a total bond value of 1,755 billion yuan and 553 issuers, posing significant risks to China's financial security.

The magnitude of China's bond market has reached a relatively stable phase of expansion; nonetheless, rating downgrades and defaults have surged to a considerable level. In terms of corporate credit bond defaults, the increase in the default amount of corporate credit bonds has mostly paralleled the growth rate of bond issuance. Figure 1.1 shows that, especially after 2017, the relevant authorities introduced a series of policies to promote the integration of bond market regulation, regulate the behaviors

of intermediaries, and unify product standards. As a result, compared with 2016, the amount of corporate credit bond defaults fell sharply, totaling 33.32 billion yuan in 2017. However, under the multiple factors of a downward economic trend, the concentrated maturity of debts, and the transformation of the government regulation, bond default surged in 2018, resulting in an annual default amount of 90.86 billion yuan. Defaults on corporate credit bonds continued to increase, reaching a record high of 225.3 billion yuan in 2022.

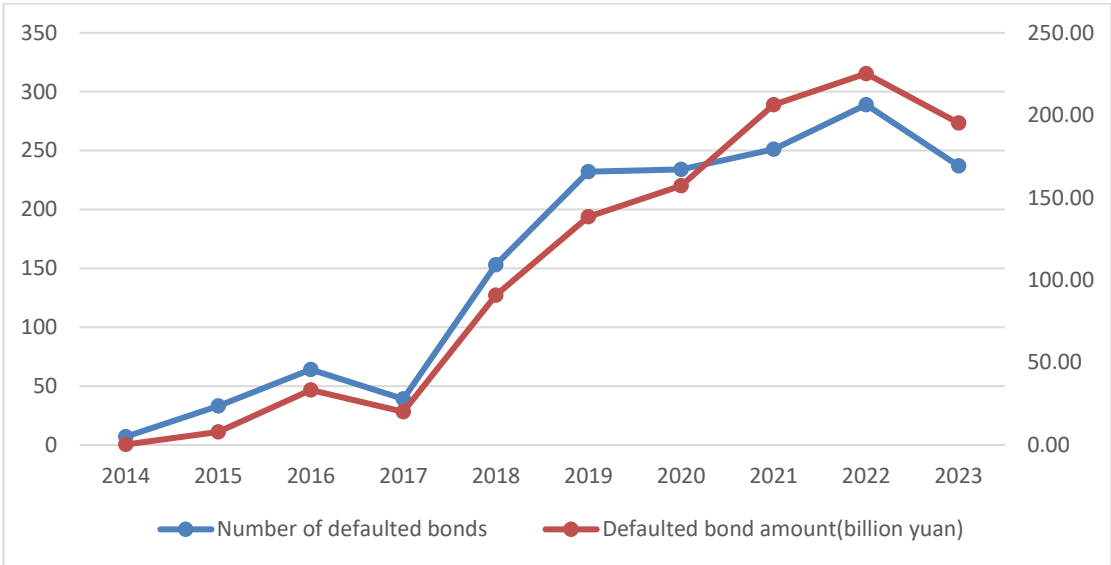


Figure 1.1 Amount and default amount of credit bonds issued by Chinese companies from 2005 to 2023 (unit: 100 million yuan)

Source: Wind database

As of July 14, 2023, there are a total of 52 registered corporate CRAs in the country, Table 1.1 and Table 1.2 show the business distribution of major CRAs. From the perspective of rating business, the issuer-paid CRA still dominates the rating industry at present, and the issuers usually choose the Issuer-paid CRAs. Among those agencies, China Chengxin and China Lianhe have a more favourable development position and a greater share of the market. The earliest agency Far East Credit has been blocked in its development and has a small market share due to licence restrictions and other factors. After being severely punished by the regulatory authorities in 2018,

Dagong International's business stagnated, its market share decreased, and it underwent restructuring. Fitch Bo Hua and S&P Credit Rating are subsidiaries of foreign rating giants Fitch and S&P respectively, which is a new change in the opening up of China's rating industry and a new attempt at the reform and development of the rating industry.

In terms of investor-paid CRAs, China has one major investor-paid agencies. China Bond Rating has attained comprehensive coverage of credit bond issuers through collaboration with regulatory bodies and over a decade of development. The remaining are relevant small and the business are in the initial stage.

Table 1.1 Payment methods and establishment dates of major CRAs

Method of Payment	CRA	Date of Establishment
Investor-paid	China Bond Rating CO.,Ltd	2010
	Fareast Credit Evaluation Co., LTD	1988
	Shanghai Brilliance Credit Rating & Investors Services Co., LTD	1992
	Pengyuan Credit Ratings Co., LTD	1993
	Dagong Global Credit Rating CO.,LTD	1994
Issuer-paid	China Chengxin International Credit Rating CO.,LTD	1999
	China Lianhe Credit Rating Co. Ltd	2000
	Golden Credit Rating International Co.,Ltd.	2005
	Anrong Credit Rating Co., Ltd.	2015
	Fitch Bohua Credit Rating Co., Ltd.	2018
	S&P Credit Rating(China) Co., Ltd.	2018

Source: People's Bank of China

Table 1.2 Debt solicits by China's major CRAs in 2022

CRA	Non-financial debt	Corporate bonds	Enterprise bond	financial bond	ABS	other debt	Total	Proportion (%)
Dagong	134	133	125	11	54	8	465	5.2
Golden	239	233	212	32	133	96	945	10.7
Lianhe	879	483	59	133	533	735	2822	31.8

Fareast	-	39	-	-	8	-	47	0.5
Pengyuan	109	298	280	15	75	73	850	9.6
Shanghai Brilliance	204	144	97	63	275	143	926	10.4
China Chengxin	1493	491	107	259	436	23	2809	31.7
Total	3058	1821	880	513	1514	1078	8864	100.0

Source: People's Bank of China

With the development of the bond market, the Chinese State Council established a rating system in 1987, which coincided with the modernization of the market as China implemented its “The Opening-Up” policy and moved from a traditional planned economy to a market economy. Compared with Western countries, the credit rating industry in China is relatively young. The quality of Chinese bond ratings has been widely criticized. Most Chinese bonds are rated AAA, AA+, and AA by Chinese CRAs. The work report of the People's Bank of China (2017) pointed out that domestic rating agencies on the same issuer rating higher than the international rating on average 6-7 levels, which aroused people's concern and doubt about the accuracy of Chinese ratings, indicating that there is a serious problem of rating inflation. As a result, bond market participants have doubts about the credibility of ratings. Some critics believe that Chinese CRAs have “lost their influence.” For example, Kou et al. (2015) based on a study of corporate bond data from 2008 to 2014, found that domestic CRAs in China lacked the public trust necessary for market recognition and failed to play a role in optimizing capital market efficiency. Chen & Qian (2023) argue that the prevalent issuer-paid CRAs in China leads to rating inflation, reduced accuracy, and conflicts of interest, with CRAs incentivized to give issuers favourable ratings.

Default has occurred frequently in recent years, and many scholars believe that the emergence of default has a certain corrective effect on the behaviour of rating agencies. Livingston, Poon, and Zhou (2018) found that before 2014, since there had

never been a default, credit ratings mainly served the function of regulatory compliance, and the market was unable to judge the effectiveness of credit ratings, so the reputation mechanism did not function. After 2014, the outbreak of default had a negative impact on the reputation of CRAs. In order to maintain their reputation, CRAs have conducted more prudent ratings. The reputation mechanism has begun to work, but CRAs are still weighing reputation against revenue. Liu et al. (2023) studied the impact of market competition on the reputation of CRAs in the Chinese bond market and found that when the market share distance between the incumbent CRA and the nearest industry competitor shrinks, credit ratings will improve, and market competition will worsen the predictive power of ratings for future bond defaults. The results show that due to the market inefficiency of emerging economies, credit rating agencies will prioritize current profits over reputation issues. Sun (2022) studied the impact of rating change announcements on the prices of fixed-income corporate bonds in the Chinese market environment. The results show that the impact of upward and downward announcements on bond prices is asymmetric. The results show that the pricing function of credit ratings has taken effect, and market efficiency has improved compared to previous years.

Similar to other developing economies, China is frequently perceived as possessing an insufficient legal framework and inadequate disclosure rules (Lubman, S., 2006; Anderson, D. M., 1999). The Chinese government has been regulating the rating market by drawing on the experiences of Western nations and integrating them with its own practices. In 2006, the People's Bank of China released an order (Yinfa [2006] No. 95) mandating the establishment of a rating symbol system and clarifying symbol meanings for the interbank market. In 2007, it issued the China Securities Regulatory Commission Order No. 50 (2007) titled "Interim Measures for the

Administration of the Credit Rating Business in the Securities Market,” which defines the particular criteria for credit ratings inside the securities market. It implements several regulations to guarantee the independent nature of CRAs to avoid conflicts of interest, mandating the establishment of internal firewall systems and mechanisms for rating independence to prevent shareholder or related party influence on the rating process, while also specifying information disclosure and compliance obligations for rating personnel. The regulatory authority released National Development and Reform Commission Notice No. 3451 (2012), which enhanced supervision of the corporate bond market and clarified the particular regulations that CRAs must adhere to when delivering services. The notice emphasizes the avoidance of conflicts of interest and requires rating agencies to manage the interests of relevant personnel to reduce potential violations such as “rating shopping” and destructive competition. In 2018, Dagong Global Credit Rating Group was punished by the China Securities Regulatory Commission (CSRC) for violating the principle of credit rating independence, involving conflicts of interest, and the rating process being non-transparent. These violations included failing to provide objective evaluation of the credit risk and causing rating inflation to the market. On August 6, 2021, the central bank and four other ministries and commissions jointly issued the “Notice on Promoting the Healthy Development of the Credit Rating Industry in the Bond Market.” The notice carries out a series of regulations and reforms on the rating market, including relaxing the mandatory rating requirements. Previously, many bond or corporate financing products were required to be credit rated at the time of issuance. The notice allows companies to decide for themselves whether to conduct a rating based on market demand. This change mainly targets some of the more mature bond products in the market, such as short-term financing bonds and medium-term notes. The policy

encourages the development of market-oriented credit ratings, allowing CRAs to improve the quality of ratings through market competition. At the same time, the policy has relaxed the entry barriers and approval conditions for some financing products. In this way, ratings are no longer a prerequisite for issuance, which also reduces the mandatory reliance of enterprises on ratings.

From a macroeconomic perspective, China's rating market has developed rapidly. However, in recent years, default events have begun to erupt, which has had a serious impact on market stability. At the same time, the rating industry is still relatively young in China, and there are problems such as inflated rating and insufficient information disclosure, which have led to a lack of rating credibility. The development of the rating industry and the enhancement of its credibility are crucial to the bond market. Therefore, the regulatory authorities have taken a series of measures to regulate the rating industry and promote its healthy development. Against this background, it is necessary to further study the impact of rating downgrades and defaults on the rating inflated of CRAs, in order to provide a more reliable basis for investors and regulators, and thus promote the sound operation and development of the bond market.

1.3 Problem Statement

China's bond market and rating industry are both relatively young, but they have leapt to become the world's second-largest issuance market in just 20 years. Prior to 2014, there had never been a substantial default in the bond market. Research on ratings mainly focused on the factors that determine ratings (Matthies,2013). Issuers can obtain higher ratings by improving these factors, obtain higher financing and lower financing costs. After the first substantial default in 2014, the market began to

experience frequent defaults, and rating downgrades gradually became the norm (Geng&Pan,2024). This was followed by harsh criticism of ratings, and the market began to doubt whether CRAs accurately described the quality of a company's rating, or whether they had long since lost their initial intentions and provided issuers with false high ratings in order to increase profits (Mathis et al.,2009). If, as critics say, CRAs have lost the constraints of reputation and instead seek to maximize profits, then once trust collapses, systemic financial risks will be triggered, because these investors who trade with each other will no longer trust the financial products. The 2008 financial crisis is a case in point. Before the crisis, many securities backed by subprime mortgages (such as mortgage-backed securities and collateralized debt obligations) were given high ratings (such as AAA) by CRAs, even though these products were extremely risky. When the wave of subprime mortgage defaults broke out, investors realized that these ratings were much higher than the actual credit quality, leading to a massive sell-off and market panic, which ultimately triggered severe turbulence and a collapse of global financial markets. Another example is the European sovereign debt crisis. Some highly indebted countries (such as Greece, Italy, and Spain) received high ratings before the crisis, but when the crisis hit, these countries' debt problems were exposed, leading to sharp downgrades in ratings, triggering panic selling in the market, and even causing the debt markets of some countries to collapse.

China has long been considered an emerging market with a low degree of marketization and a market with serious information asymmetry (Lubman, S. ,2006; Anderson, D. M., 1999). The outbreak of credit risk in the market has seriously affected the stability of China's bond market. In November 2020, one month before China's state-owned enterprise Yongcheng Coal Mine defaulted, the company was awarded the highest AAA credit rating by China Chengxin International, one of

China's major CRAs. In the same month, another large state-owned enterprise, Tsinghua Unigroup, defaulted. The sudden defaults of these highly rated state-owned enterprises sent shockwaves through China's corporate bond market. In November, a total of 100.4 billion yuan of corporate bonds were cancelled or postponed nationwide, compared with 34.3 billion yuan in October. In response, 2021 has seen a peak in the downgrading of Chinese ratings. The downgrading has triggered panic in the bond market, with net primary bond market financing in 2021 amounting to 2.73 trillion yuan, a year-on-year “halving”. However, such incidents are not unique to China and have become the norm in the capital market since 2014.

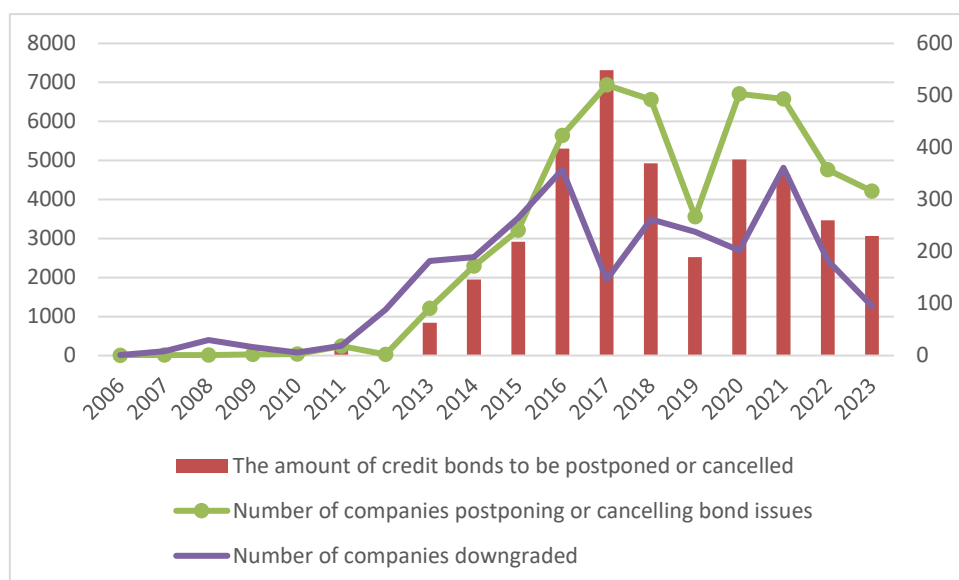


Figure 1.2 Number of issuer rating downgrades (including negative outlook downgrades) and companies postponing or canceling bond issues, 2006-2023

Source: Wind database

The increasing number of defaults and rating downgrades in China's bond market, and the spread of these to high-rated, state-owned enterprise bonds, represents the Chinese government's gradual abandonment of support for “rigid payment” and “state-owned enterprise beliefs,” allowing high-rated, state-owned enterprises to default (Mo et al., 2021). Bond market participants, including investors, issuers, and

intermediaries, need to regard corporate defaults and rating adjustments as the norm. In 2020, the State-owned Assets Supervision and Administration Commission of the State Council (SASAC) issued a guidance document on strengthening the management of local state-owned enterprise debt risks. The document requires local SASACs to strictly monitor the debt structure of high-risk state-owned enterprises, formulate practical and feasible bond repayment plans, and encourage enterprises to restructure their debts with creditors when necessary (SASAC,2020). This measure aims to enhance the market-oriented awareness of state-owned enterprises and reduce their reliance on implicit guarantees. The policy shift of promoting risk self-absorption aims to break the market's implicit guarantee expectations for state-owned enterprises and promote risk self-absorption, thereby improving market participants' risk awareness and investment judgment.

Driven by the current market environment and the government's reform concept, CRAs, as a key infrastructure in the bond market, must maintain the authenticity and accuracy of ratings and even provide higher-quality rating services to support a more transparent and mature market. If the inflated rating problem continues to worsen during the risk, making it impossible to truly reflect the credit status of enterprises, the original intention of this reform will be greatly undermined. On the one hand, concealed credit risks may accumulate to a critical point, eventually triggering major crisis that impact the entire financial market; on the other hand, the credibility of CRAs will gradually be lost in frequent risk exposure, ultimately leading to further exacerbation of systemic risks. These problems will hinder market-oriented reforms and affect the long-term stable development of China's bond market.

In academia, the impact of rating downgrade and default on CRAs is still

unclear. A series of literatures have shown that credit risk will prompt rating agencies to improve the quality of ratings (Altman& Saunders, 1997; Moody's Investors Service, 2010). Another strand of literature takes the opposite position, arguing that credit risk may not be sufficient to induce CRAs to reduce inflated rating, and may even lead to a further decline in rating quality (Bolton et al., 2012; Mathis et al., 2009). Therefore, whether rating downgrades and defaults can really push CRAs to reduce inflated rating remains a controversial issue, especially in the Chinese market, which needs further research.

The main objective of this study is to explore the impact of rating downgrade and default in the Chinese market environment on the inflated rating problem of CRAs, and to provide an empirical basis for market-oriented reform policies in the context of the normalization of risks in the Chinese bond market. The study will use Chinese companies as a sample to construct an econometric model to quantitatively analyses the impact of rating downgrade and default on the inflated rating of CRAs. In view of the problems of “rigid payment” and information asymmetry that are unique to China's bond market, the credit quality, state ownership and geographical proximity with CRA will be used as moderating variables to analysis of how these factors affect the rating quality of CRAs when CRAs directly face downgrades and default, and whether they can alleviate the problem of inflated rating.

1.4 Research Questions

Based on the research questions mentioned above, this study raises several issues:

1. Do clients' rating downgrades and defaults influence CRAs to reduce the inflated rating of issuers?

2. Do issuers' rating tiers moderate the effect of clients' rating downgrades and defaults on CRA's inflated ratings of issuers?
3. Do issuers' ownership moderate the effect of clients' rating downgrades and defaults on CRA's inflated ratings of issuers?
4. Do issuers' geographic proximity to CRA moderate the effect of clients' rating downgrades and defaults on CRA's inflated ratings of issuers?

1.5 Research Objectives

Based on the research problem described in the section above, this study indented to reach several objectives as follows:

1. o examine whether clients' rating downgrades and defaults influence CRAs to reduce the inflated rating of issuers.
2. To examine whether issuers' rating tiers moderate the effect of clients' rating downgrades and defaults on CRA's inflated ratings of issuers.
3. To examine whether issuers' ownership moderate the effect of clients' rating downgrades and defaults on CRA's inflated ratings of issuers.
4. To examine whether issuers' geographic proximity to CRA moderate the effect of clients' rating downgrades and defaults on CRA's inflated ratings of issuers.

In Chapter 2, the study provides a detailed explanation of the rationale behind selecting these moderating variables and the theoretical foundations supporting this choice.

1.6 Significance Of the Study

The significance of this research lies in both theory and practice. In particular, in China's rapidly developing emerging bond market, with the intensification of bond market risks and frequent downgrades and defaults triggered by market-oriented reforms, exploring its impact on the inflated rating by CRAs has far-reaching practical and academic value.

First, from a theoretical perspective, this study will enrich the research on the relationship between credit risk and inflated rating. In the field of traditional credit ratings, existing research has mainly focused on the influencing factors of credit ratings (such as macroeconomic conditions, issuer characteristics, institutional competition, etc.) (Afonso & Jalles, 2019; Bannier & Hirsch, 2010; He, Qian, & Strahan, 2016), while relatively little research on the impact of defaults and downgrades on the rating behaviour of the CRAs, especially in a market context such as China's, where information asymmetry and incomplete supervision are the norm. This study proposes and examines the hypothesis that downgrades and defaults reduce inflated rating, which will help fill this research gap. By analysing how credit risk affects the rating behaviour of CRAs through different channels, this study will provide new empirical support for existing theories of rating behaviour, thus promoting the development of related theories.

Second, this study focuses on areas where inflated rating is more significant, based on the background of market-oriented reforms in China's bond market. In practice, there are significant differences in the performance and risk tolerance of high-rating/state-owned issuers, low-rating/private issuers and far/near issuers due to the different levels of government support. High-rating bonds generally represent lower

risk and higher market confidence, while low-rated bonds have relatively low market acceptance and face higher default risks. However, it is still unclear whether the impact of rating downgrade and default on CRAs will be different. Introducing these variables into the analysis as moderating variables can help further reveal the internal mechanism of credit risk affecting the inflated rating. By analyzing the performance of these variables in credit risk, this study will provide theoretical support for the market-oriented reform and refined management of bond ratings.

In practical terms, the significance of this study lies in providing a reference for regulatory policies in China's bond market. With the development of China's bond market, the impact of credit risk has become increasingly significant due to the increase in downgrades and defaults. Against this background, whether credit risk is a blessing or a curse for CRAs and whether CRAs can ensure the authenticity and impartiality of ratings are important challenges facing Chinese regulators. By studying the different effects of rating downgrades and defaults in different rating categories, an empirical basis can be provided for regulators to formulate tiered regulation and targeted response measures. For example, based on the conclusions of this study, the regulatory agency can implement a more refined management strategy and adopt different regulatory measures for issuers in different profiles to ensure the stability and consistency of rating quality.

Finally, this study has practical application value for investors' risk management and investment decisions. Credit risk tends to exacerbate market uncertainty, which can have a significant impact on the bond market. If investors can understand the specific impact of credit risk on different issuers, they can optimize their investment portfolio and reduce their risk exposure, and thus maintain a more

stable investment strategy in an uncertain market environment. This will not only optimize the return-to-risk ratio of the investment portfolio, but also improve investors' risk management capabilities.

In summary, the significance of this study lies in providing empirical support for the relationship between credit risk and inflated rating, which enriches the existing credit rating studies. It also has important guiding significance for policy formulation in China's bond market, the business strategies of CRAs, and the risk management practices of investors.

1.7 Definition of Key Terms

1.7.1 Credit Risk

The credit risk referred in this study is the rating downgrade and default in the bond market. A rating downgrade is that a rating agency downgrades a bond's credit rating. A bond default is when a bond declares that it will not be able to meet its principal or interest payments in a timely manner.

1.7.2 Issuer-Paid Mode & Investor-Paid Mode

Rating agencies are usually divided into two categories according to their payment mode, the rating agency that is paid by the bond issuer is called the issuer's payment mode, and the rating agency that is paid by the investor is called the investor's payment mode. Rating results under the investor-paid model are considered to have higher rating quality because there is no conflict of interest.

1.7.3 Inflated Rating

Inflated Rating refers to the phenomenon that credit rating is artificially raised or exaggerated. In other words, the CRAs give a rating that is higher than the actual