

# INEQUALITY-AVERSION, CONTRACTS AND INCENTIVES

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# Table of Contents

Table of Contents	ii
Abstract	iv
Declaration	vii
Acknowledgements	viii
<b>1 Introduction</b>	<b>1</b>
<b>2 Theories of Reciprocity and Fairness and Applications in Behavioral Contract Theory: A Review</b>	<b>15</b>
2.1 Introduction . . . . .	15
2.2 Theories of Reciprocity and Fairness . . . . .	18
2.2.1 Distributional Preferences Theories . . . . .	20
2.2.2 Intention-Based Reciprocity Theories . . . . .	27
2.2.3 Axiomatic Approach . . . . .	37
2.3 Social Preference and Behavioral Contract Theory . . . . .	40
2.4 Conclusion . . . . .	51
<b>3 Aligning Fairness with Incentives: Optimal Financial Contracts with Inequality-Averse Agents</b>	<b>53</b>
3.1 Introduction . . . . .	53
3.2 The Model . . . . .	59
3.2.1 Setup . . . . .	59
3.2.2 Timing . . . . .	62
3.2.3 Assumptions . . . . .	63
3.3 Optimal Contracting . . . . .	64
3.3.1 Benchmark Case . . . . .	64
3.3.2 Inequality-Averse Agent . . . . .	65
3.4 Analysis . . . . .	83

3.4.1	The Optimal Contract . . . . .	83
3.4.2	Incentives . . . . .	88
3.4.3	Efficiency . . . . .	92
3.5	Concluding Remarks . . . . .	97
<b>4</b>	<b>Is Inequality-Aversion the Missing Link: From Experiment to Theory</b>	<b>100</b>
4.1	Introduction . . . . .	100
4.2	A Simple Model . . . . .	109
4.2.1	Hidden-Ability Setting . . . . .	113
4.2.2	Revealed-Ability Setting . . . . .	118
4.3	A Signaling Model with Career Concerns . . . . .	121
4.3.1	The Signaling Model . . . . .	122
4.3.2	The Second Period . . . . .	123
4.3.3	The First-Period Revealed-Ability Setting . . . . .	124
4.3.4	The First-Period Hidden-Ability Setting . . . . .	133
4.4	Discussion . . . . .	139
4.5	Conclusion . . . . .	155
<b>5</b>	<b>Conclusion</b>	<b>157</b>
	<b>Appendix A</b>	<b>163</b>
	<b>Appendix B</b>	<b>167</b>
	<b>Appendix C</b>	<b>175</b>
	<b>Appendix D</b>	<b>177</b>
	<b>Bibliography</b>	<b>189</b>

# Abstract

In standard contract-theoretic models, the underlying assumption is that an agent is purely selfish, and his objective is to maximize his own payoff. A large amount of empirical evidence has pointed out that many individuals are also motivated by other psychological considerations, such as fairness concerns and reciprocity. Theorists have been engaged in finding more realistic assumptions that are consistent with the ways in which economic agents behave in real life. Among the existing theories, the theory of inequity aversion developed by Fehr and Schmidt [35] has attracted enormous attention. It soon became a useful tool in behavioral contract theory, which capitalizes on the power of social preferences theories to enhance understanding of real-world contracting phenomena. The present thesis aims at contributing to the behavioral contract literature by investigating how inequality aversion preferences impact on the optimal contract design in a financial contracting environment and the agent's incentive in a career concerns experiment.

Chapter 2 reviews some of the recent theoretical contributions to the development of the theories of reciprocity and fairness. Emphasis is placed on sketching the theories, demonstrating their abilities to explain experimental regularities and pointing out some potential problems that are inherent in the existing theories. In addition, we present a survey of the recent theoretical contributions linking inequality aversion and

the theory of incentives, where the traditional selfish agent assumption is replaced by the more realistic assumption that the individual agent is also inequality-averse. Incorporating more realism into economic modeling, such as assuming some individuals are inequality-averse, appears to be a promising avenue for research in the theory of incentives, as it generates more refutable predictions that models based on the selfish agent assumption cannot offer.

Chapter 3 analyzes a tractable two-period staged financing model in which a single principal interacts with an agent who is risk-neutral and inequality-averse, offering him an equity contract. We fully characterize the menu of the optimal sharing contracts. Our results show that inequality-aversion changes the structure of the optimal contract. More importantly, we show that it is more likely we will observe an equal sharing contract when the agent is inequality-averse. Our findings for efficiency comparison indicate that inequality-aversion exacerbates the distortions caused by moral hazard, which leads to a further downward distortion in terms of total social welfare in this staged financing context. Incorporating inequality-aversion into a dynamic staged financing game thus allows us to interpret real-world contractual arrangements in the venture capital industry where equal split contracts dominate.

In Chapter 4, we revisit the innovative Holmström's-type career concerns experiment by Irlenbusch and Silwka [47]. In particular, we introduce inequality-aversion, a theoretical short cut for reciprocity, into the analysis and investigate if it is the missing link that potentially drives the results in the experiment. Two related but conceptually different models are considered. The complete information model confirms that inequality-aversion induces positive effort in the second period, but does not predict any differences in the effort choices across both periods in the revealed-ability setting.

The incomplete information model's predictions conform more closely to the observations in the revealed-ability setting, and its predictions for the hidden-ability setting can partly explain the lower effort choices observed in the hidden-ability setting. Our analysis suggests that inequality-aversion is part of the missing link, but not all. Incorporating fairness intentions into the analysis should open more opportunities for explaining the experimental results in Irlenbusch and Silwka.

# Declaration

This work contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and beliefs, contains no material previously published or written by another person, except where due reference has been made in the text.

I give consent to this copy of my thesis, when deposited in the University Library, being available for loan and photocopying.

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Signature of Author

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