

# Chapter 9 Structural Empirical Analysis of Vertical Contracting

Presented by Siyuan (Bruce) Jin and Yangfan Sun

Hong Kong University of Science and Technology

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# Outline - Theory

Introduction

Basics

Non-cooperative bargaining models

- The offer game

- The bidding game

Nash-in-Nash bargaining

# Introduction



# Basics

- Setting
  - A upstream seller  $U$  and a downstream buyer  $D$  agree on a contract  $\mathcal{C}$  from some feasible set.
  - The contract  $\mathcal{C} = \{y, t\}$ ,  $t$  is a lump-sum transfer and  $y$  includes other provisions.
  - Firms' payoffs:  $\Pi_U(\mathcal{C}) \equiv \pi_U(y) + t$ ;  $\Pi_D(\mathcal{C}) \equiv \pi_D(y) - t$
- Pareto efficient contract
  - $y^* \in \max_{(y,t) \in \mathcal{Y} \times \mathcal{R}}$

# The offer game

# The bidding game

## Nash-in-Nash bargaining

# Conclusion