## Chapter 9 Structural Empirical Analysis of Vertical Contracting

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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  $C = \{y, t\}$ , y includes other provisions and t is a lump-sum transfer.
- Firms' payoffs:  $\Pi_U(\mathcal{C}) \equiv \pi_U(y) + t$ ;  $\Pi_D(\mathcal{C}) \equiv \pi_D(y) t$
- Pareto efficient contract
  - $y^* \in argmax_{(y,t) \in \mathcal{Y} \times \mathcal{R}} \pi_U(y) + \pi_D(y)$
  - Bilateral contracting principle: complete information and lump-sum transfers.

## Basics - Examples

• A successive monopoly setting

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# The offer game

# The bidding game

# Nash-in-Nash bargaining

## Conclusion