POLITICAL ECONOMY OF AGRICULTURAL MODERNIZATION AND TRADE

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Course : EE 390 Economics of Agricultural and Rural Development

- Trends in agri-food systems
  - Increasing coordination and consolidation in the supply-chain both upstream and downstream
  - How can we explain this new market arrangement?
  - Price theory/ equilibrium/ quantitative analysis → Qualitative institutional analysis

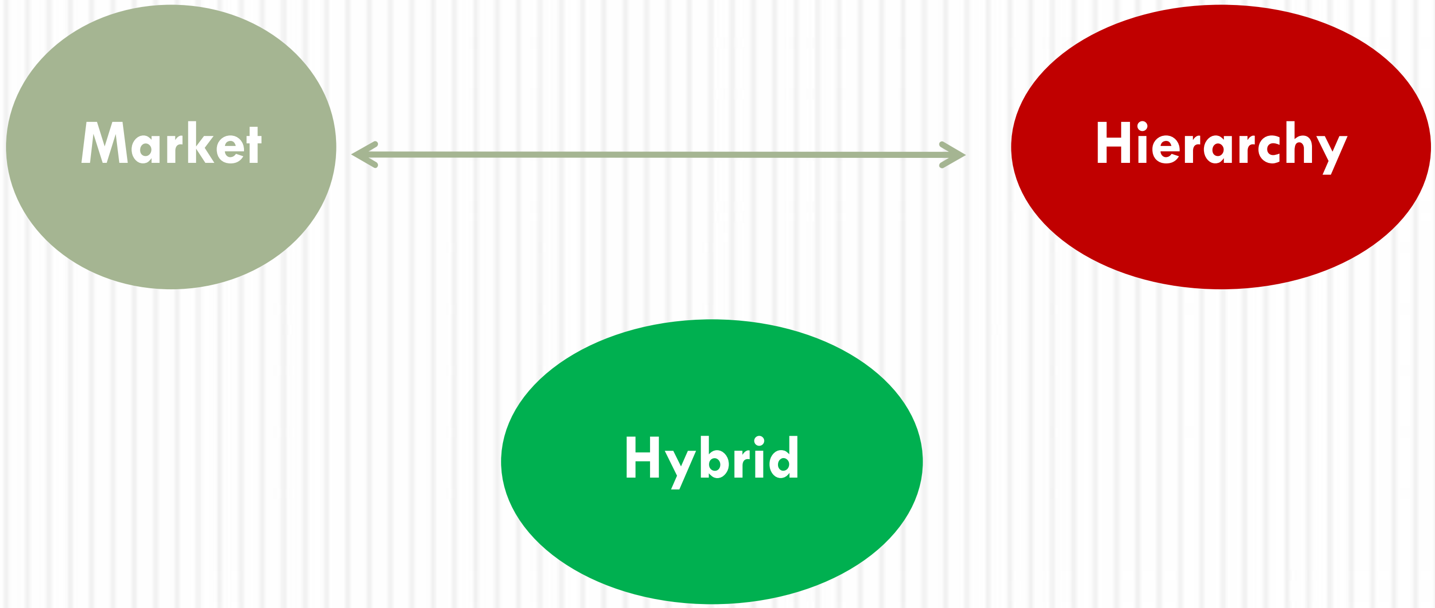
- “Transaction Cost Economics” (TCEs)
  - Broad definition:
    - Transaction cost: “costs of running the economic system”
  - Institutional Economics: two focuses

    1. Institutional rules of the game: customs, laws, politics

    2. Modes of Governance: microanalytic structure of transaction: (Williamson, 1991)

       - Market/ Hierarchy/ Hybrids

- Two polar forms



Hierarchy

- Many economic activities take place within firms
- “economies of scales”/ “comparative advantage”: ‘to make’ instead of ‘to buy’
- Employers & Employees contract

Hybrid

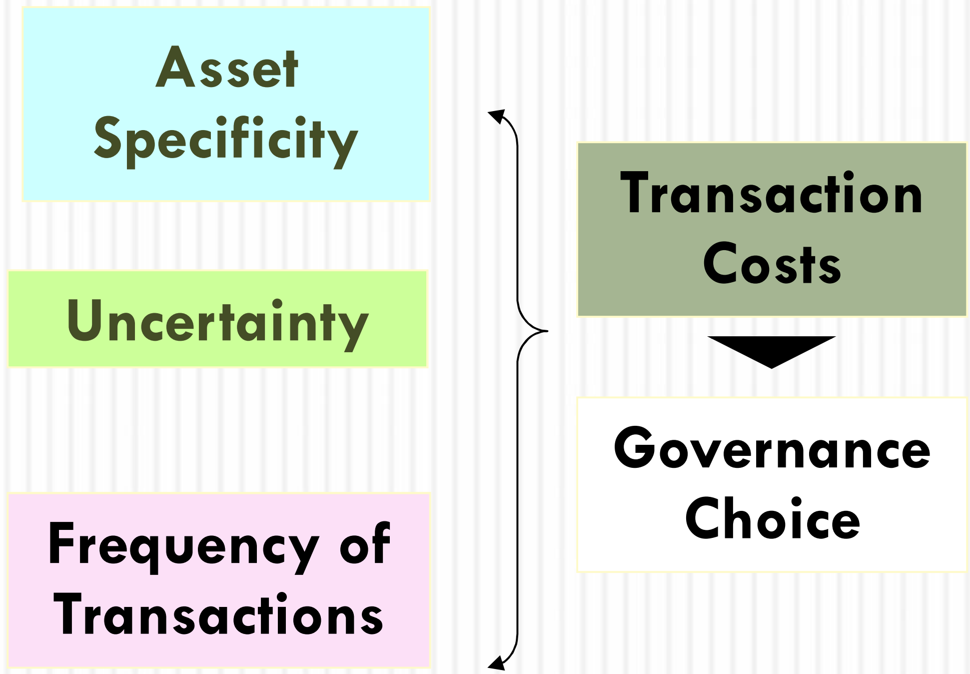
- *Pooling Resources*
- *Reciprocal Returns*
- *Contracting* (to regulate the relationship among partners)

- Cooperatives/ Franchising/ Sub-contracting/ Contract farming/ Sharecropping

Distinguishing Attributes of Market, Hybrid, and Hierarchy Governance Structures*

Attributes	Governance structure Market	Hybrid	Hierarchy
Instruments			
Incentive intensity	+ +	+	0
Administrative controls	0	+	+ +

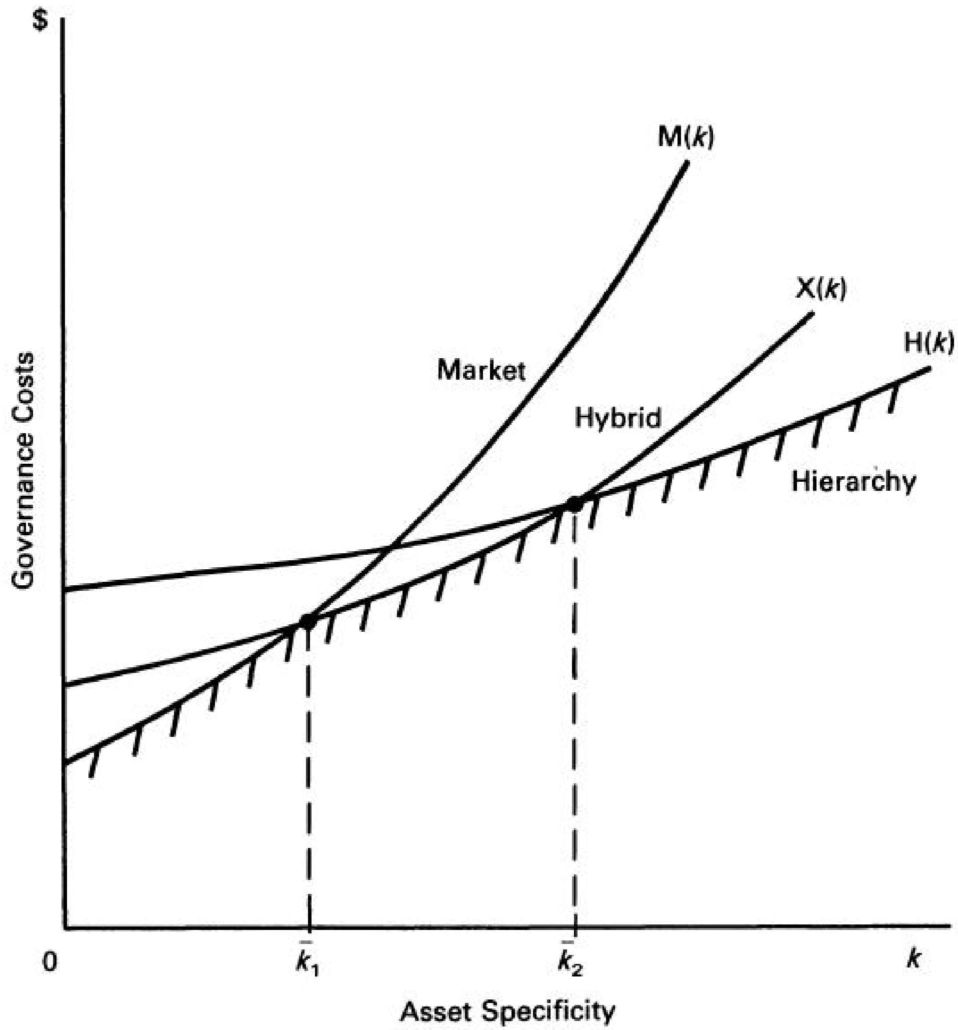
* + + = strong; + = semi-strong; 0 = weak.


Asset Specificity
Uncertainty
Frequency of Transactions
Transaction Costs
Governance Choice

Asset-specificity

- Site specificity
- Physical asset specificity
- Human-asset specificity that arises in learning by doing
- Brand name capital;
- Temporal specificity, which is akin to technological

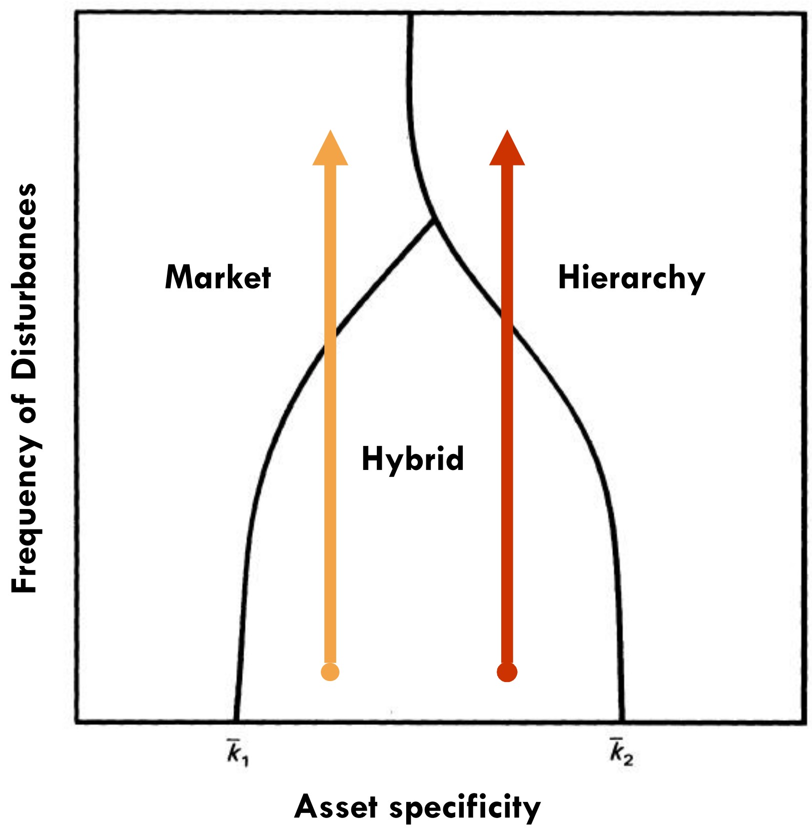
• Ex. HVFs, Products requiring post-harvest technology, Specificity in farm capitals, Standardization/labelling (HACCP, GAP, IFOAM, etc.)


$
Governance Costs
M(k)
X(k)
H(k)
Market
Hybrid
Hierarchy
0
$\bar{k}_1$
$\bar{k}_2$
k
Asset Specificity

Uncertainty: → Choice of 'governance structure'

Higher uncertainty ↑
costs for carrying out
and secure transactions go up (for overcoming information deficiency, safeguarding against risk).

for low asset specificity:
hybrid → market
for high asset specificity:
hybrid → hierarchy



Mode of governance	Asset Specificity		Uncertainty		Frequency		Examples
	Low	High	Low	High	Low	High	
Market	✓		✓		✓	✓	Meat cows, fishery products, Fruits and vegetables, Rubber, Rice
Contract		✓	✓	✓	✓		Chicken, Pig, Potato, Sugarcane, Cage fish, Fruits and vegetables for export
	✓			✓		✓	
Plantation/ Factory Farm		✓	✓	✓		✓	Chicken, Shrimp, Wine grapes

Hybrid governance

- more efficient than pure public forms given coordination, incentives, and control advantages.
- Involvement of farmers, beneficiaries and interest groups
  - increases efficiency
  - decreases asymmetry of information
  - restricts opportunisms
  - increases incentives

Hybrid governance

- for private
  - costs-sharing
  - reduces management costs
  - quality controls
  - possibilities in enforcement of most labor, animal welfare, environmental standards

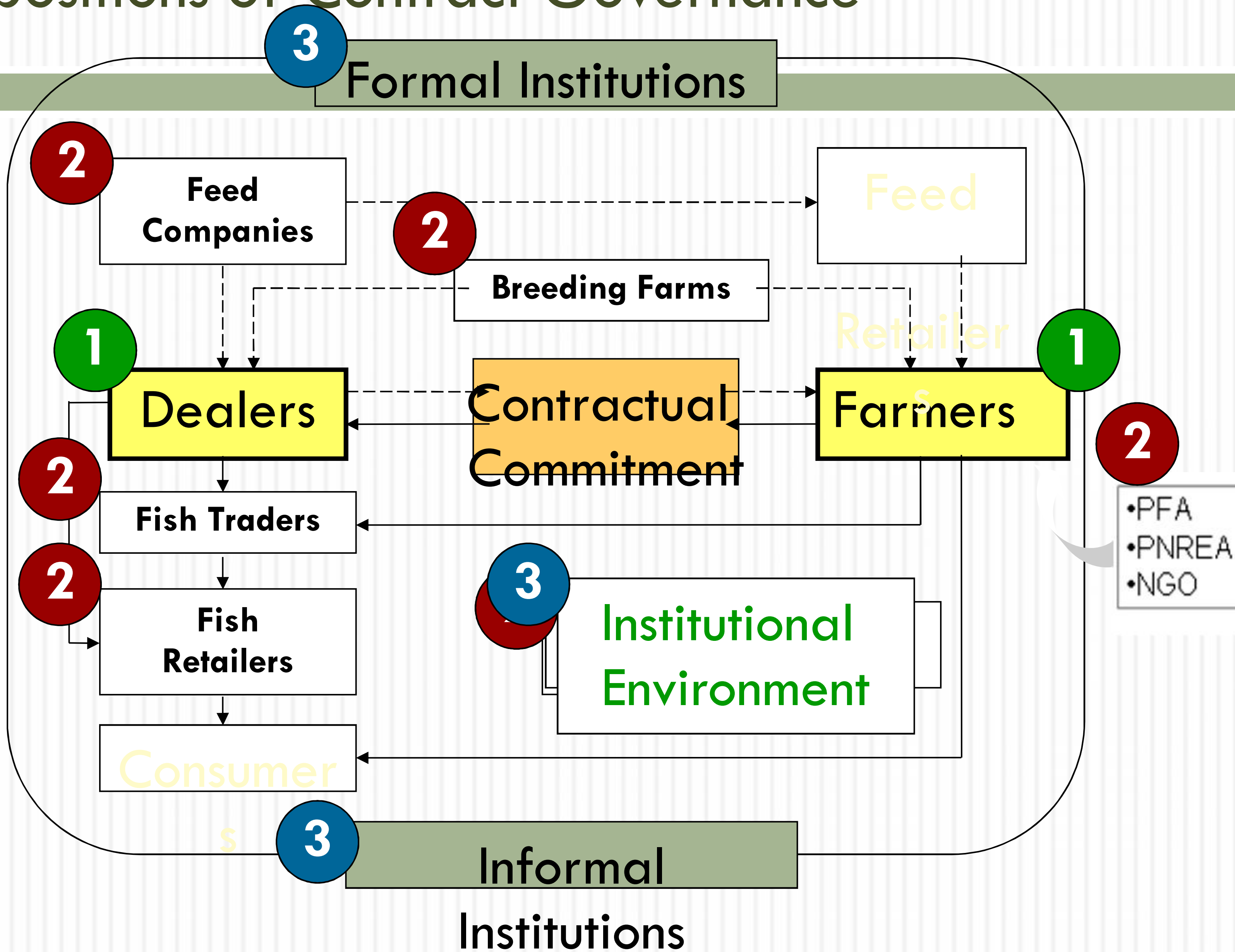
Hybrid governance

- for farmers
  - certain markets
  - advanced inputs and/or credits
  - technology transfer

Two major types of contractual arrangement in Thailand

	Outsourcing contract	**Price assuring contract**
Inputs	• Property rights of inputs belong to the firms	• Farmers purchase inputs by themselves (could be deducted after the production cycle)
Outputs	• Firms' property	• Farmers' property
Returns	• "Wage" depends on the agreed price or at the spot price • Formula: e.g. Meat conversion ratio or survival rate	• *Ex ante* assured price which could be higher or lower than the spot price • In some commodities, no assured price

Compositions of Contract Governance



3.3 Contractual Arrangement

Forms of contract: both "*unwritten*" (5 dealers) and "*written*" (1 dealer)

Duration: Short-term contract (cycle-to-cycle)

Shared Investment

Dealer
-Technology
-Inputs (feeds and fries) (*obliged)

Farmer
-All fixed costs (cage, machines)
-Labors
- Other variable costs (electricity, medicine, vitamin)

Dealers' authority in monitoring

1	2	3	4

Production Cycle (4 months)

Dealer's irresponsibility for any losses from risks!!

Obliged sell

Farmer
-Sell fish only to dealer

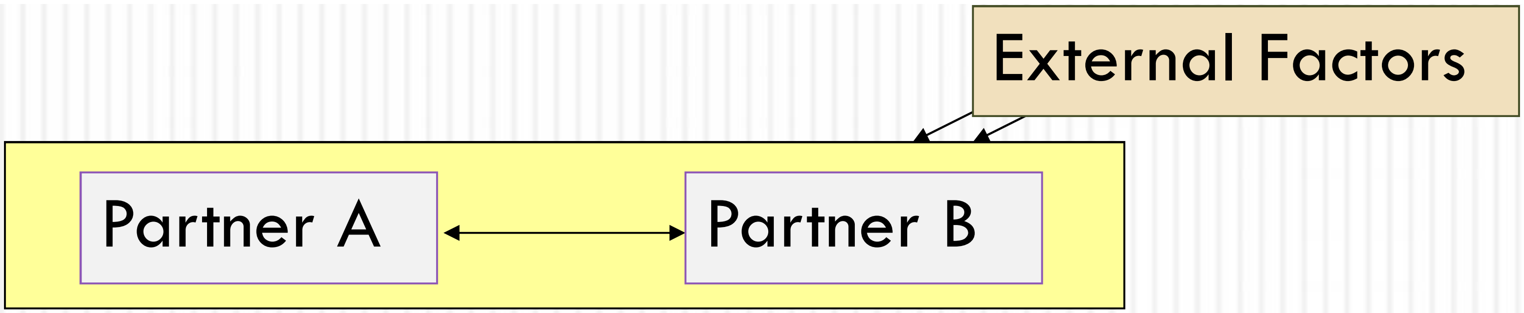
Dealer
-Provide market (Catch service)

Sell Price	**no**
Fish quality	**800g /fish**

Payment

Farmer
-Repay the advanced feed costs

Risks



1. 'Contractual Risks'
• Endogenous risks
- opportunistic behaviors
e.g. Free-riding behavior, hidden information/action, contract breaching

2. 'External Risk'
• Exogenous risks
- market, institutional, or natural uncertainties

Contractual risk

- **Breaching**

Actors' decision functions within hybrid governance

→ Contractual risks (debtors' breach of contracts)

Benefits of breaching > Costs of breaching

$$\pi(f, \tau, \varepsilon) \leq G(\tau, \varepsilon) + P(\tau, \varepsilon, C) + EV(\tau, \varepsilon) + EW(\tau, \varepsilon)$$

Incomplete contracts

- Some contracts are silent on a number of important contingencies and/or have components that are not enforceable by a third party
    - For example, the timing of delivery of a crop from a grower to a processor may be important to both parties, but many agricultural contracts do not include detailed descriptions of how on-time deliveries are to be rewarded or how delays are to be punished
- ‘Signing-without-reading’ problems
- Risk-pooling problems

- **Monopsony/bargaining power**
  - an imbalance of bargaining power between processors and growers
  - may make it ‘necessary’ for growers to accept take-it-or-leave-it, standard form contracts that leave little room for negotiation

- it threatens to destroy the value of the relationship-specific investment in order to force the grower to make decisions that she would otherwise not make.
- Exchanges made under duress resemble zero-sum games rather than surplus-creating cooperative games

Public intervention

Effective modes for public intervention in agrarian sector

Level of Uncertainty, Frequency, and Assets specificity				
Low	⟵	⟶		*High*
New property rights and enforcements	New regulations	New taxation	New assistance and support	New public provision