

Contracting, Competition, and Rent Distribution in Commodity Value Chains

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What is interlinking?

A **transaction** in 1 market
(eg product market)
is **linked** to
a **transaction** in a 2nd market
(eg credit market)

Why?

Ensure contract enforcement in 1st market

Reduce transaction costs in 1st market

Examples of Interlinking

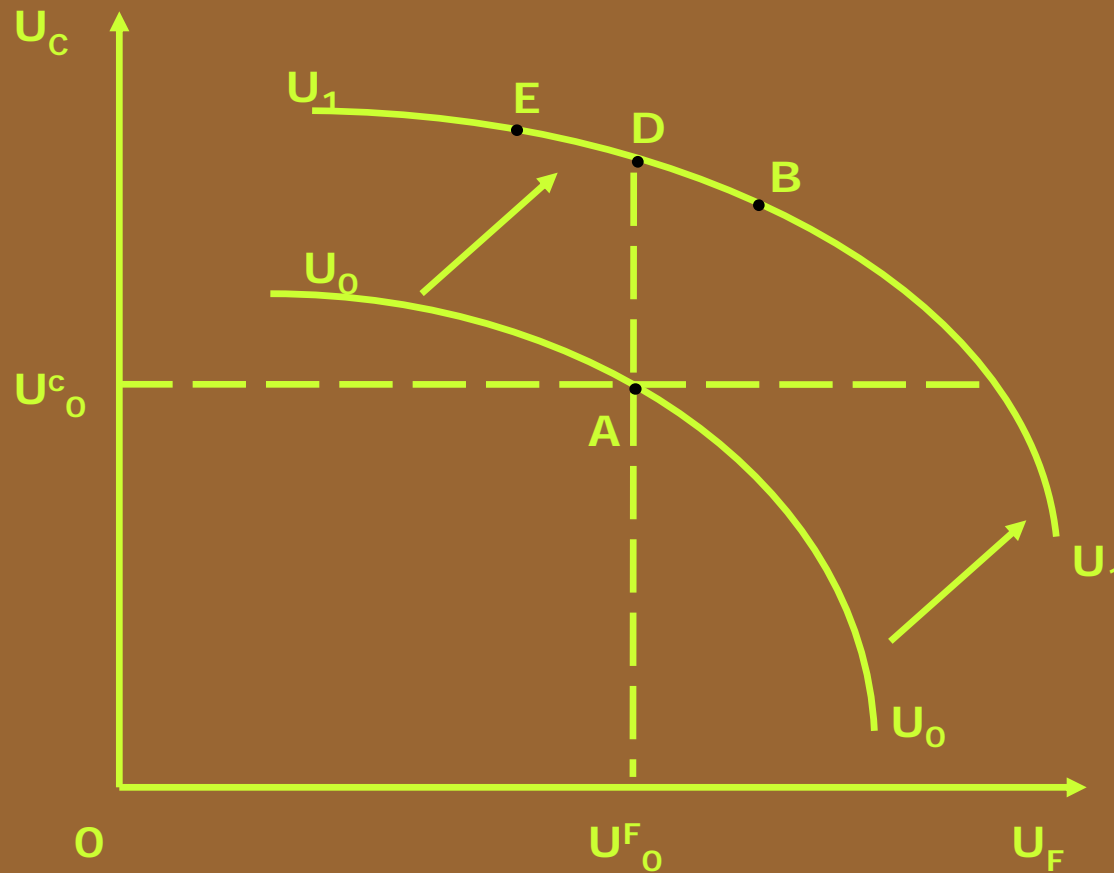
Processor of agri products provides inputs on credit to suppliers to ensure quantity and quality of supply

- Frigoken (horticulture, Kenya)
- Cargill (cotton, Zimbabwe)
- Delmonte, Heinz, Campbells (vegetables, Mexico)

Trader provides inputs on credit to cultivators

- The Punjab, the Sindh, virtually all traders : *kachi bol* or *kabala*
- Kerala: Islamic society where it is not common to charge *explicit* interest rates: earn profits through interlinking

Impact of Interlinking on Efficiency and Equity



Impact of Competition on Interlinking

1. Positive Equity Effect
2. Positive Efficiency Effect
3. Negative Efficiency Effect

Positive Equity Effect

Competition

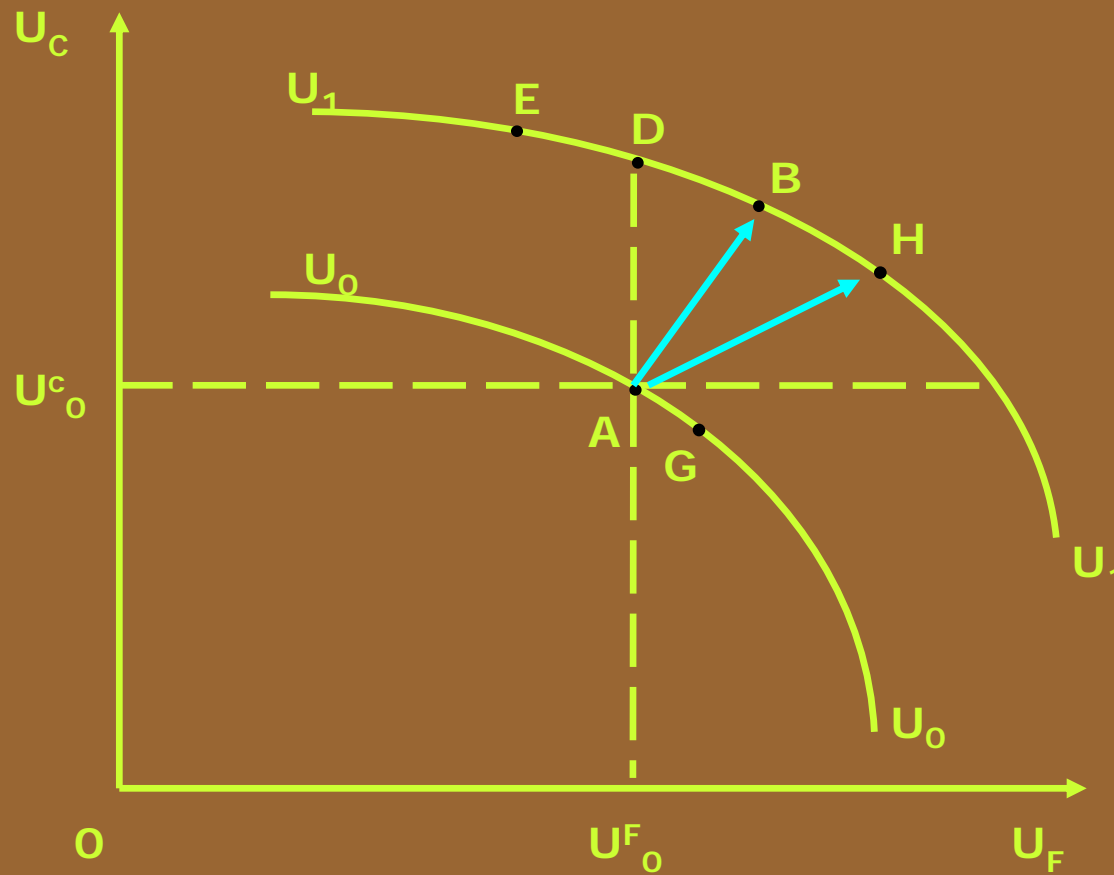


Outside option and bargaining power
of suppliers increase



Suppliers receive larger share of surplus
generated through interlinking

Positive Equity Effect



Positive Efficiency Effect

Competition



Buyers compete on prices AND on services

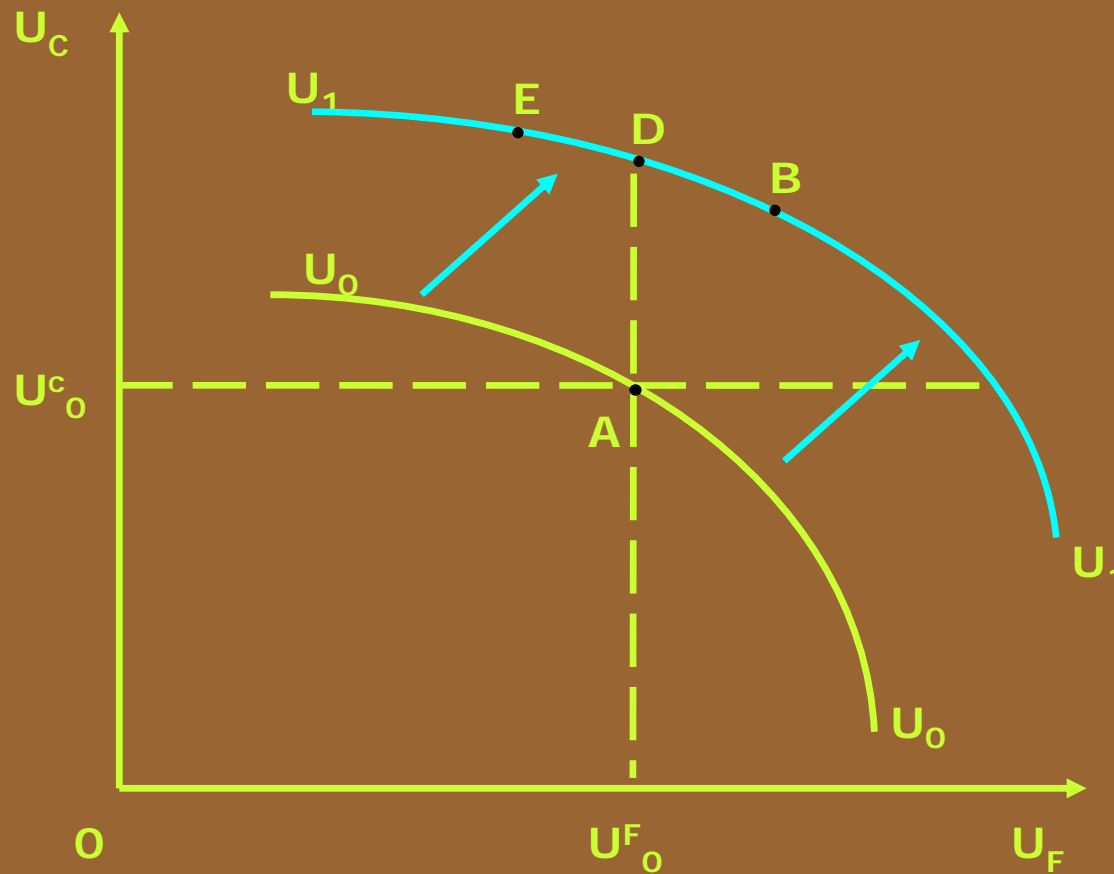


If 1 buyer introduces a supplier assistance program, competitor will have to follow suit, otherwise he loses suppliers



Input programs spread

Positive Efficiency Effect



Negative Efficiency Effect 1

Competition



Competitors offer higher prices for agri produce under contract



Suppliers behave opportunistically and side-sell to these competitors



Low credit recovery for interlinking firms



Input programs are shut down

Negative Efficiency Effect 2

Competition



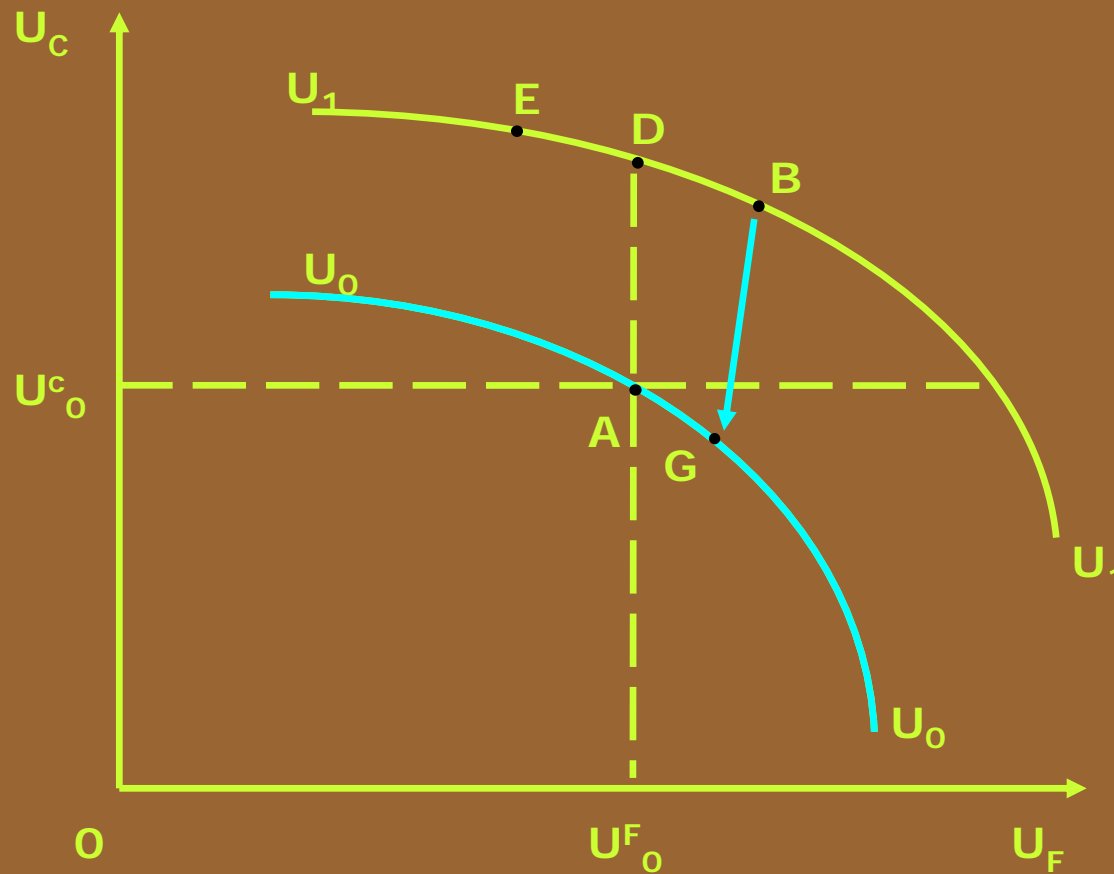
**Penalty for opportunistic
behaviour reduced:**

- Other credit providers available
- Information sharing deteriorates



More incentives to sidesell

Negative Efficiency Effect





Equity: Evidence

Tanzania cotton sector (Baffes, 2004):

before liberalization:

suppliers' share in export price: 41 %

after liberalization: competition increases:

suppliers' share in export price: 51 %

Zimbabwe cotton sector (Baffes, 2004):

before liberalization:

suppliers' share in export price: 42 %

after liberalization: competition increases:

suppliers' share in export price: 53 %

But! more variability producer prices



Equity: Evidence

Pakistan cotton sector (Smith et al., 1999):
since liberalization:
suppliers can easily shift between buyers
buyers compete on prices
→ producer prices increase



Efficiency: Evidence

- Sugar sector Slovakia:

Juhosukor started, other companies followed suit (Gow et al, 2000)

- Cotton sector Central Asia:

competition results in spread of assistance programs (Sadler, 2005)

- Dairy sector Central Europe:

dairy companies offer assistance because their competitors do so, too. (Dries, 2005)



Efficiency: Evidence

Stockbridge et al, 1998: importance of fixed costs

Pakistani sugar sector:

Many processing firms work below capacity

- improve contract terms for suppliers
- give easier access to credit

Pakistani cotton sector (Mirpurkhas district)

Processing firms work at full capacity

- competition for supplies unnecessary
- input programs have ceased.

Efficiency: Evidence

Due to sideselling, input provision failed for:

- Wheat, maize and beans production in Chile (Conning, 2000)
- Honey production (Honey Care Africa) and cashew and macadamia nut production (Kenya Nut Ltd) in Kenya (Ruotsi, 2003)
- Barley production in Central Europe (Interbrew)
- ...

Efficiency: Evidence

Reputation costs

(Ghanaian cotton sector, Poulton 1998)

What if farmer cannot repay input costs?

- (a) Recontract farmer, extra supervision → harvest sufficient to repay inputs of 2 seasons
- (b) Write off debt and “blacklist” farmer

Competition renders (b) ineffective:

no information exchange between companies →
no difficulty for farmer to find new input provider

Making interlinking sustainable under competition

Positive equity and efficiency effects
Already at low level of competition
(oligopoly)

Negative efficiency effects
Only when competition gets too vigorous
(coordination breakdown)

Making interlinking sustainable under competition

Specific institutional arrangements



mitigate negative efficiency effect



competition leads to higher efficiency
and more equitable rent sharing in
interlinking arrangements

Examples

- Building loyalty:
 - offer reliable and attractive contract terms
 - frequent monitoring and field contact
- Sustain coordination:
 - create buyers' associations
 - Support suppliers' associations
- Reinforce reputation effects
 - Public labelling of opportunistic suppliers
- Use local information
 - Peer monitoring
 - Use "guarantors"

Examples

- Building loyalty:

Indian cases studies on contract farming
(Birthal et al. 2005):

Contract p : all above spot market p

- **Dairy products (Punjab)**

Δ revenue = +100-300%

- **Broiler production (Andhra Pradesh)**

- **FF&V (area of Delhi)**

Δ revenue = +20%

Examples

- Building loyalty:

Indian case study on shrimp farming
(Bora et al. 2006)

Attractive contract terms:

- Cheap access to quality inputs, credit and technology
- Producer prices track market prices



No contract enforcement problems