

Exclusionary Contracts

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When have market participants the incentive to enter contracts that exclude competitors?

exclusive dealing*;
tying;
loyalty contracts;
long term contracts*

History of thought

Traditional View : ~~Monopolist has power to impose exclusionary contracts to detriment of consumers. In fact, such contracts can signal monopoly power.~~

– E.g. expert in Canadian case: *Laidlaw* (1991):

“if one contracting party is a monopolist ... it can preserve its market power by *insisting* that its customers (or suppliers) sign long-term contracts”

“buyers gain nothing from the . . . provisions in the contract [at issue in the case]. Hence, the very fact that nearly all buyers sign such contracts is evidence that Laidlaw has and exercises market power”

The (early) Chicago School Response : Two propositions:

- 1) Contracts are not “imposed”. Contracts must maximize combined wealth of contracting parties.
- 2) ~~Therefore, contracts are efficient.~~

The post-Chicago view (Aghion-Bolton AER 1987... + ...)

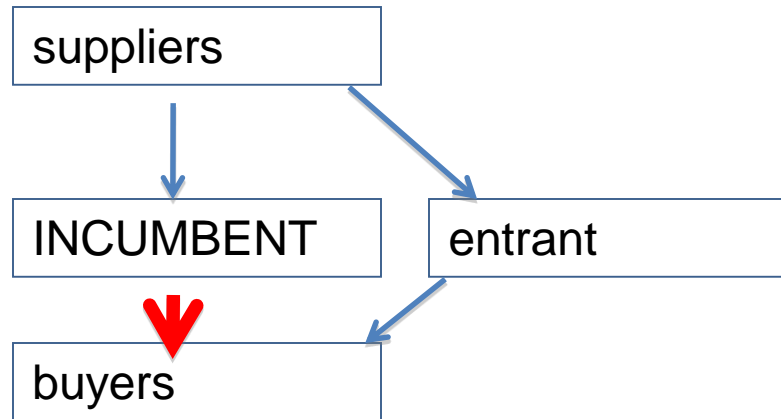
Voluntary contracts can be anticompetitive when they impose externalities on parties outside the contract.

This paper

- synthesizes, extends theory of exclusionary contracts
 - downstream contracts
 - [where incumbent has 1st-mover advantage]
 - upstream contracts
 - [where incumbent and entrant move simultaneously]
- *"Nielsen" 1994 (Canada)*

Director of Investigation and Research v. D&B Companies of Canada Ltd., CT- 1994-01 (Canada),

First-mover advantage: Downstream Contracts

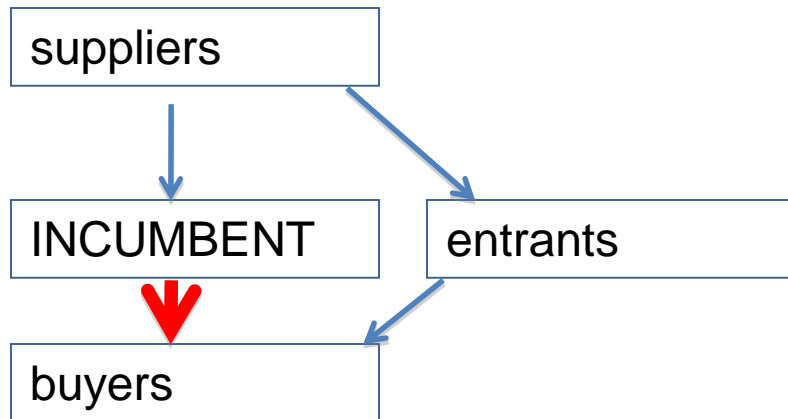


- homogenous product, common buyer value v for one unit
- Incumbent unit cost: c_I
- potential entrants' unit cost: random: $c : G(c)$, η = elast. of supply
- Incumbent can write ex ante contract: (p, d)
- equivalent to: call option
Price $p_o = d$; Exercise price: $x = p - d$

Meaning of exclusionary contracts: $x^* < c_I$

Incentive?

First-mover advantage: Downstream Contracts



exog: $v, c_I, G(c), \eta$
endog: p_o, x^*

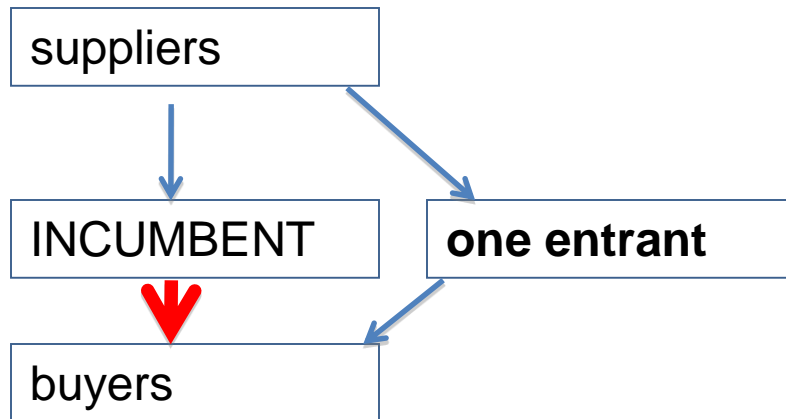
when is $x^* < c_I$?

Benchmark:

- perfect competition upstream, and among entrants
- CRS in entrant technology

$$x^* = c_I$$

First-mover advantage: Downstream Contracts



exog: $v, c_I, G(c), \eta$
endog: p_o, x^*

when is $x^* < c_I$?

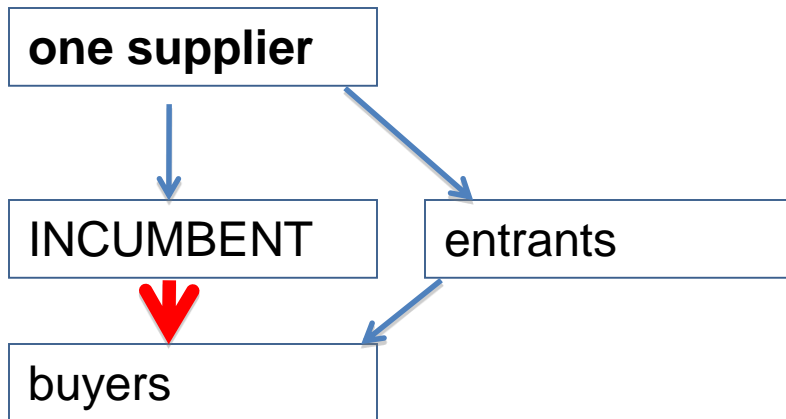
Aghion-Bolton (1987):

- perfect competition upstream, one entrant
- CRS in entrant technology
- ex post Bertrand game if no contract; if contract ...
- contract → transfer from entrant to contracting parties

Optimal Contract: $\text{Max } v - xG(x) - c_I[1 - G(x)]$

$$\frac{c_I - x^*}{x^*} = \frac{1}{\eta}$$

First-mover advantage: Downstream Contracts



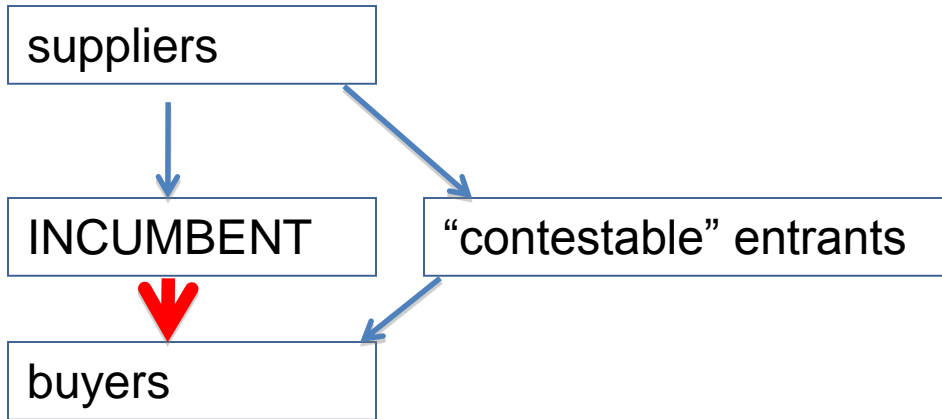
exog: $v, c_I, G(c), \eta$
endog: p_o, x^*

when is $x^* < c_I$?

Vertical externality:

- one supplier, perfect competition among entrants
- story: incumbent faces prospect of negotiating with input supplier...
- two types of transfers from supplier to contracting parties...

First-mover advantage: Downstream Contracts



exog: $v, c_I, G(c), \eta$
endog: p_0, x^*

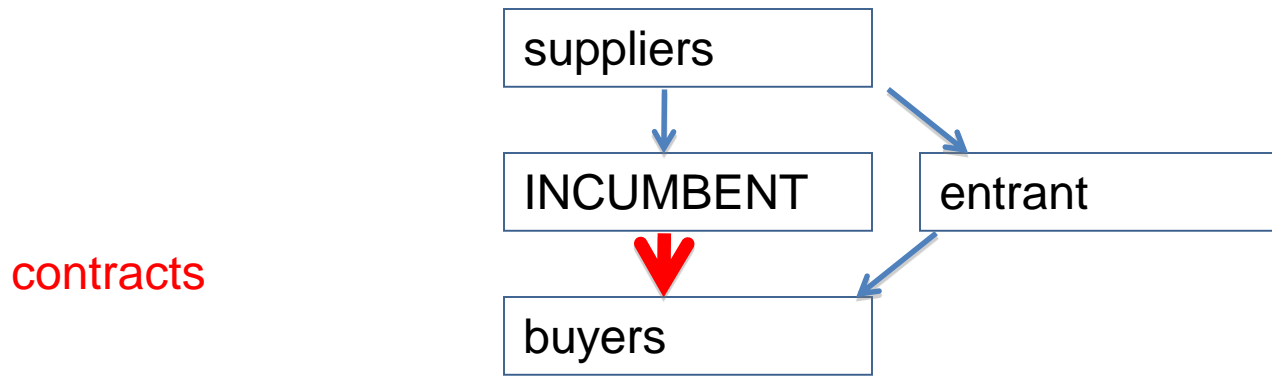
when is $x^* < c_I$?

Horizontal externalities:

- perfect competition upstream
- entrants have fixed cost – incurred after contract accepted
- ex post, after contract: entrants may discipline price to free buyers or displace incumbent – to the extent that there are free buyers and x is not “too low”

$$x^* < c_I$$

Downstream Contracts: Summary

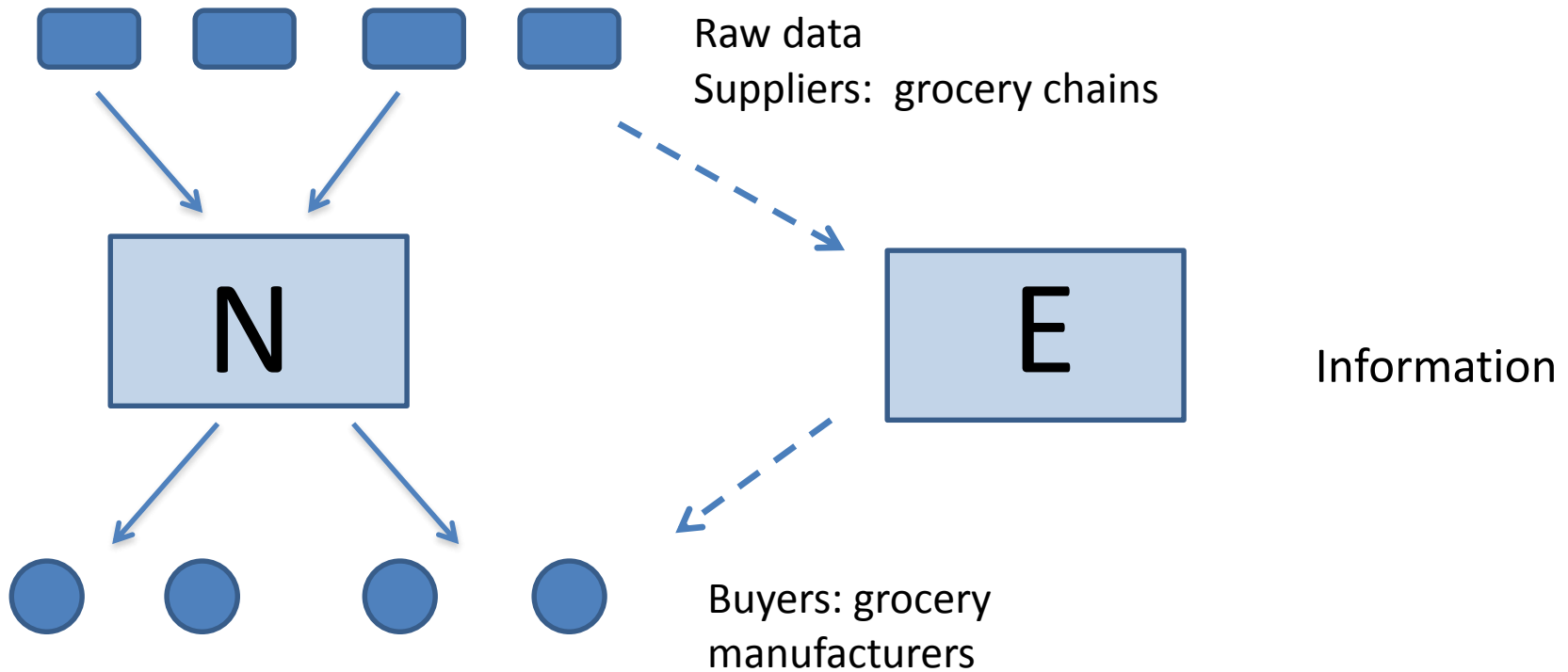


Chicago benchmark	suppliers, entrants competitive; CRS	$x^* = c_I$
Aghion-Bolton	externality on single entrant	$\frac{c_I - x^*}{x^*} = \frac{1}{\eta}$
Vertical theory	externality on single supplier	“ “
Horizontal theory	externalities across $m < n$ buyers; contestable entrants	$x^* < c_I$

Nielsen*

- product: scanner-based market information
- Incumbent: Nielsen
- Potential entrant: IRI
- Upstream suppliers: 11 grocery chains
- Downstream buyers

** Director of Investigation and Research v. D&B Companies of Canada Ltd., CT-1994-01 (Canada)*



Issue: contracts signed with upstream suppliers and downstream buyers, when E appeared as potential entrant: anticompetitive?

- upstream 5-year exclusives
- downstream: long term contracts

Nielsen

- Nielsen and IRI were in “simultaneous” negotiations with input suppliers
- outcome: Nielsen won the bidding for all inputs, result: monopoly.
- Questions for theory:
 - Why?
 - Outcome in general of bidding for rights to upstream inputs? When does it → exclusion?

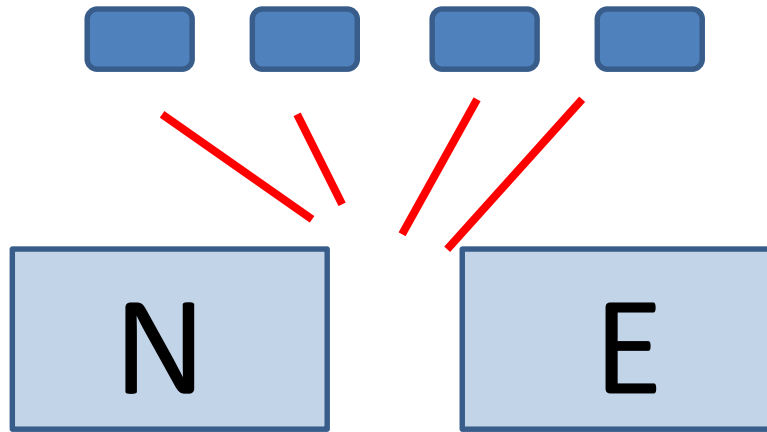
What is the potential SLC in this case?

- is it combining all upstream inputs into one unit?

No: complementary inputs

- upstream product is pure information:
 - assume: no investment to produce this information
 - non-rivalrous →
max competition has both firms producing

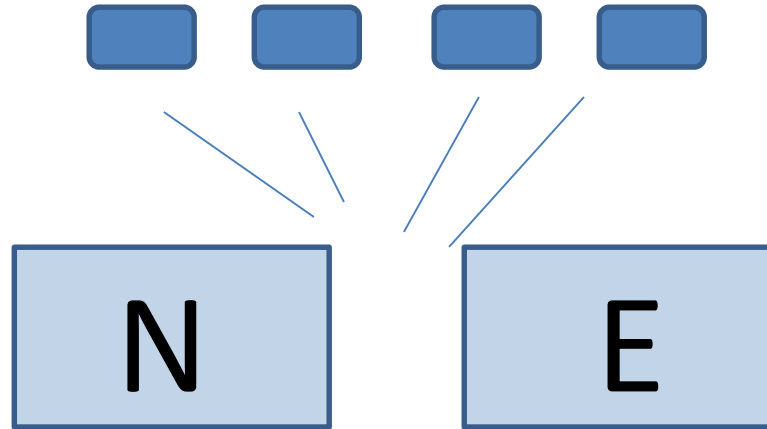
Model: upstream contracts



Bidding Game:

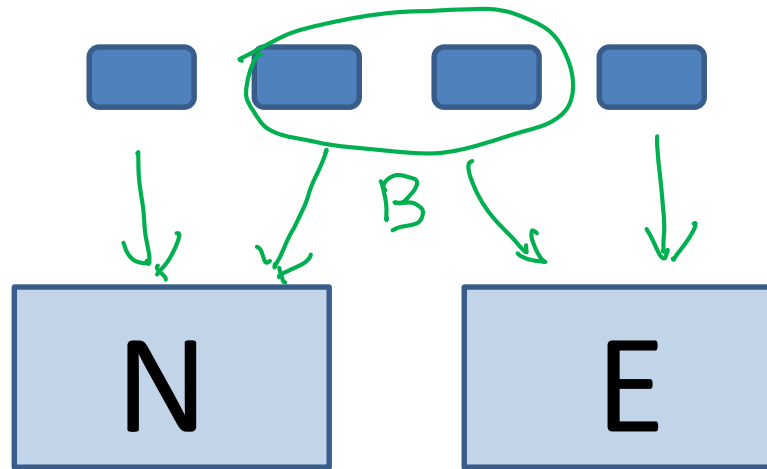
- N and E ($i = 1, 2$) submit bids (b_j^i, e_j^i)
- each supplier j chooses $\max(e_j^1, e_j^2, b_j^1 + b_j^2)$
- determines allocation $a = (a_1, \dots, a_n)$
 $a_j \in \{1, 2, B\}$

UPSTREAM CONTRACTS



- Exogenous Payoffs to N,E: $\pi_1(a)$ $\pi_2(a)$
- derived from downstream competition
 - buyers each purchase from N or E
 - value to buyers is increasing in set of raw inputs
 - N, E are inherently differentiated to some degree

UPSTREAM CONTRACTS



Key facts:

- complementary among inputs: valued as bundle
- inherent substitutability downstream
- greater overlap → greater substitution

UPSTREAM CONTRACTS

- define $a^* = \arg \max \pi_1(a) + \pi_2(a)$
(artificial “semi-cooperative game”)

Proposition: Whenever $a^* = (1,1,\dots,1)$ then either

- (a) $(1,1,\dots,1)$ is the unique equilibrium allocation of the bidding game; or
- (b) an equilibrium does not exist

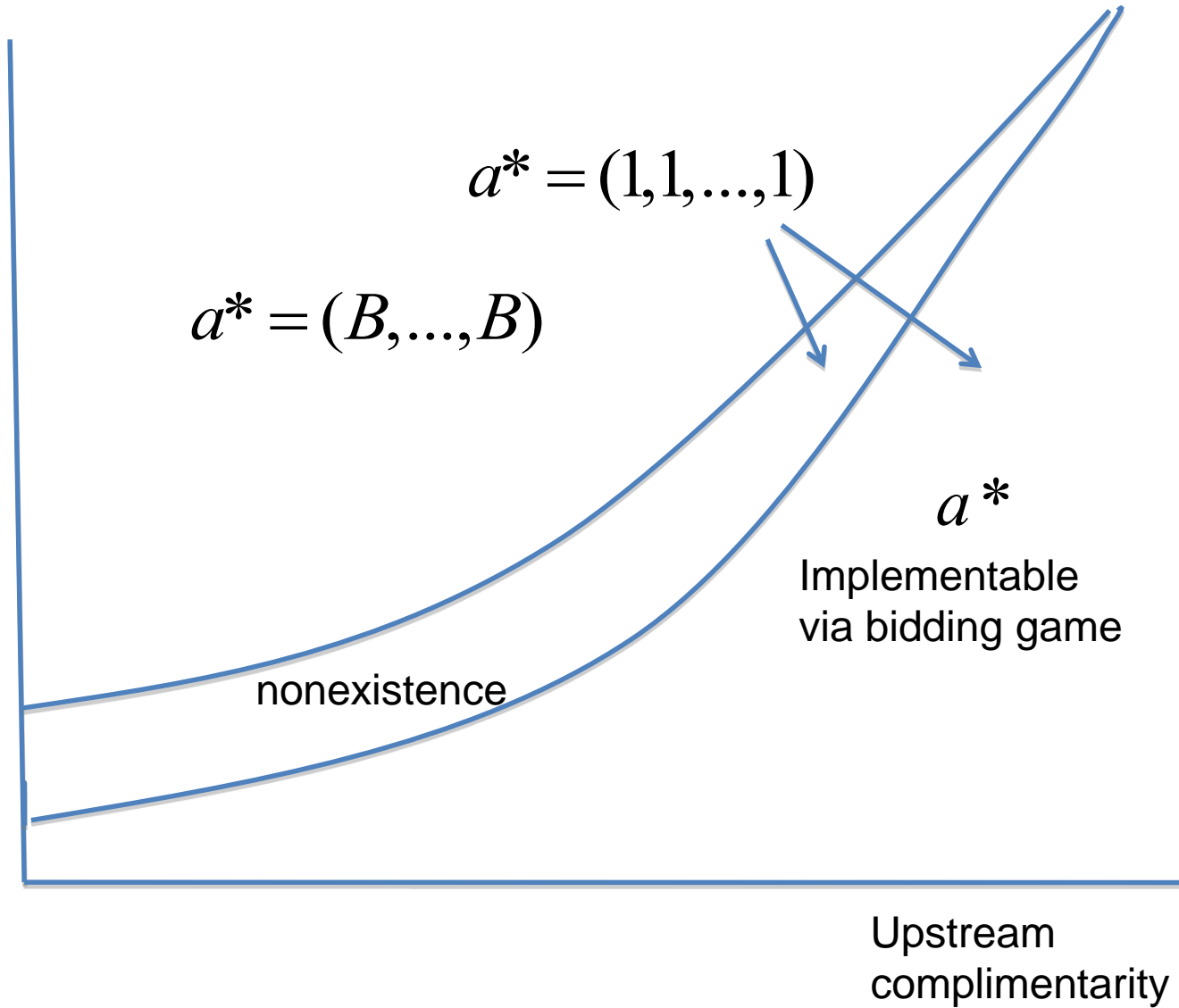
- proof: try any other allocation...
- why non-existence?

- e.g.: $n = 10$; $\pi_{monopoly}/10 < \pi_{duopoly}/3$

UPSTREAM CONTRACTS

- Beyond this, characterization requires more structure.
- Consider buyer preferences:
 - Complementarity upstream of raw inputs, as embedded in final product
 - Inherent substitutability downstream
- characterize a^* , equilibrium in “space” of these two variables
- If two features are strong enough... monopoly

Downstream
Differentiation
t



UPSTREAM CONTRACTS

Two additional points:

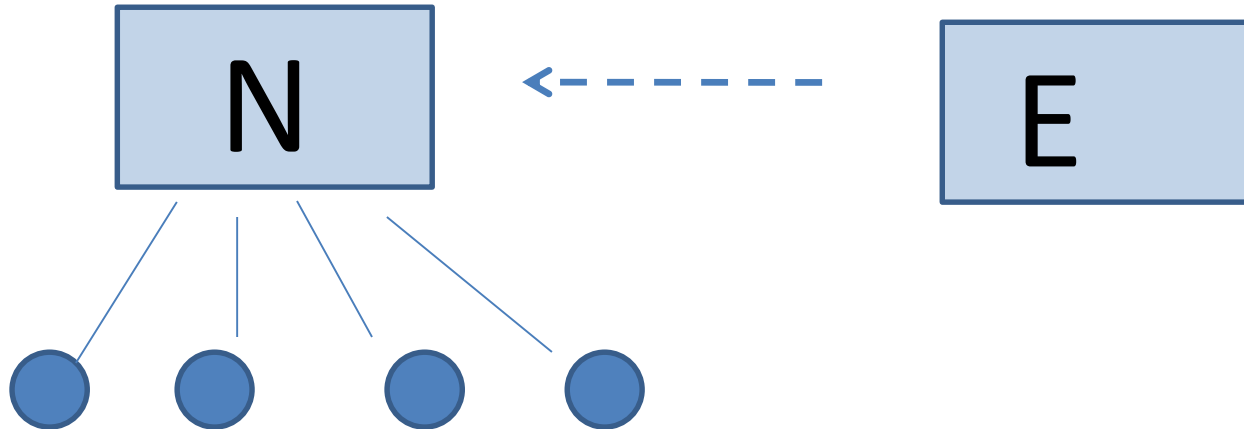
1 constrained efficiency property: under reasonable conditions on demand, at least the “right” monopolist is chosen.

2 who earns the monopoly profits?

key: symmetry in $\pi_1(a)$ $\pi_2(a)$

if perfect symmetry, then all rents flow upstream

DOWNSTREAM CONTRACTS



- Nielsen > tripled length of particular downstream contracts
- price concession; liquidated damages
- why? 3 reasons
- which buyers?

Summary: Nielsen

1. **Upstream contracts:** IRI and Nielsen competed for exclusive rights (summer of 1986) Outcome...

Explanation: monopoly outcome inevitable due to:

1. close inherent substitutes downstream
 2. complements upstream
 3. ...
2. Impact of competition for rights → rents upstream
3. **Downstream long term contracts**
 - Targeted particular subset of buyers for these contracts...
 - 3 Channels for incentives to exclude via contracts

Nielsen

Other strategies adopted in the market:

4. Renegotiation and Staggering of upstream contracts
5. MFN's in upstream contracts
6. Competition for upstream rights was, in fact, not a simultaneous game. IRI's strategy ...

Nielsen

7. Decision: Tribunal struck down the exclusivity clause in the contracts.
So what happened? Is the market now a duopoly?

No. Why?

- exclusivity now enforced through implicit contracts

8. Tribunal foresaw this possibility.

- Could the decision have been better?
- Was the case a waste of time?