## Bargaining Models

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## Illustrative Example

- 1 upstream content provider
  - Little competition from other content (e.g., CNN or ESPN)
- 2 downstream distributors
  - 1 small and 1 large
- Linear demand
- Merger effects under 2 alternative models of upstream pricing
  - TIOLI: Content provider makes a take-it-or-leave-it offer to each distributor
  - Bargaining: Content provider negotiates with each distributor
- TAKE AWAY: VERY DIFFERENT RESULTS ACROSS MODELS

		w1	w2	<b>p1</b>	p2	q1	q2
<b>TIOLI</b> Observable contracts	No merger	\$56	\$56	\$64	\$67	80	176
	U-D1 merger	NA	-2%	-7%	-2%	41%	-6%
	U-D2 merger	-1%	NA	-7%	-15%	-49%	73%
TIOLI Unobservable contracts Passive beliefs	No merger	\$64	\$62	\$70	\$71	55	155
	U-D1 merger	NA	-10%	-15%	-8%	104%	6%
	U-D2 merger	-13%	NA	-14%	-20%	-26%	96%
TIOLI Unobservable contracts Wary beliefs	No merger	\$60	\$58	\$67	\$68	64	174
	U-D1 merger	NA	-4%	-11%	-4%	76%	-6%
	U-D2 merger	-8%	NA	-10%	-17%	-36%	75%

- w1, w2 : upstream prices of content
- p1, p2 : downstream prices ("a la carte")
- q1, q2 : sales volume
- D1, D2: small distributor, large distributor
- U: Upstream content provider
- TIOLI implies little if any anticompetitive effects, which is <u>consistent with the Chicago school</u>
  - There is no raising rival's cost (RRC)
  - All prices fall post-merger
  - Robust to different observability assumptions
- Merged firm expands dramatically
- Rival distributor typically loses sales, not because of RRC but because merged firm reduces price
- <u>Intuition</u>: Large inefficiency or double mark-up problem pre-merger, because U has all the bargaining power.

		w1	w2	<b>p1</b>	p2	q1	q2
<b>TIOLI</b> Observable contracts	No merger	\$56	\$56	\$64	\$67	80	176
	U-D1 merger	NA	-2%	-7%	-2%	41%	-6%
	U-D2 merger	-1%	NA	-7%	-15%	-49%	73%
Bargaining Observable contracts	No merger	\$33	\$35	\$47	\$52	137	271
	U-D1 merger	NA	32%	16%	14%	-9%	-23%
	U-D2 merger	59%	NA	24%	6%	-62%	14%
Bargaining Simultaneous pricing	No merger	\$52	\$49	\$60	\$63	84	214
	U-D1 merger	NA	1%	-7%	-1%	43%	-10%
	U-D2 merger	3%	NA	-3%	-11%	-43%	43%

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- With observable contracts, the bargaining model yields very different results from the TIOLI model, which is consistent with the post-Chicago school
  - There is substantial RRC
  - All prices rise post-merger
- <u>Intuition</u>: Inefficiency or double mark-up problem pre-merger is much smaller, because D1 and D2 have bargaining power
- With unobservable contracts, the bargaining model of Crawford et al. (2017) yields results similar to the TIOLI model