“To the press alone, chequered as it is with abuses, the world is indebted for all the triumphs which have been gained by reason and humanity over error and oppression.” (Madison, 1799)

“Through clever and constant application of propaganda, people can be made to see paradise as hell.” (Hitler, 1923)
Roadmap

- Long-ish introduction with survey of media capture, media bias, media regulation
- Baseline model of media power with naive non-ideological voters
- More general model with two kinds of sophistication and ideology
- Merger analysis and other issues
Media Influence and Influence on Media

- Democratic accountability requires informed voters
- Media reporting makes politicians behave differently
  - Large body of evidence, often based on natural experiments
  - e.g. Stromberg 2004: Radio’s impact on New Deal spending
- Lobbies and/or the government can try to coerce/bribe the media into suppressing/manipulating information for electoral purposes (Besley-Prat 2006)
- Forensic evidence of capture (MacMillan and Zoido 2004)
<table>
<thead>
<tr>
<th>TV Channels</th>
<th>Bribe Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>America Television (Channel 4) Jose Francisco Cossio</td>
<td>$9,000,000 in a signed contract for $1,500,000 per month from November 1999 to April 2000, possibly more</td>
</tr>
<tr>
<td></td>
<td>$615,000 in October 1999, promised more monthly payments</td>
</tr>
<tr>
<td></td>
<td>(C) (IH)</td>
</tr>
<tr>
<td>Frequencia Latina (Channel 2) Samuel and Mendel Winter (owners after</td>
<td>$5,000,000 in a signed contract for $500,000 per month from November 1999 to April 2000, possibly more</td>
</tr>
<tr>
<td>Baruch Ivker exiled)</td>
<td>$3,073,467 on December 1999 for an increase of capital that gave 27% of shares to Montesinos</td>
</tr>
<tr>
<td>Panamericana Television (Channel 5) Manuel Delgado Parker (brother of</td>
<td>$9,000,000 contract agreed by Shutz and Montesinos on video 1783. In total Montesinos claims he handed</td>
</tr>
<tr>
<td>Genaro) and Ernest Schutz (shareholders)</td>
<td>$10,600,000 to Schutz (IH) $356,000 handed by Montesinos to Shutz, video screened by congress 10/02/01</td>
</tr>
<tr>
<td></td>
<td>(IH)</td>
</tr>
<tr>
<td>Cable Canal De Noticias CCN (Cable Channel Network) Vicente Silva Checa</td>
<td>$2,000,000 for his shares in the CCN to the Ministry of Defense in November 1999</td>
</tr>
<tr>
<td>(Video 1778)</td>
<td>(C)</td>
</tr>
<tr>
<td>Andina de Televisión (ATV) (Channel 9) Julio Vera</td>
<td>$50,000 to fire Cecilia Valenzuela and Luis Iberico</td>
</tr>
<tr>
<td></td>
<td>(C)</td>
</tr>
<tr>
<td>Red Global (Channel 13) Genaro Delgado Parker (brother of Manuel)</td>
<td>In exchange business help and judicial favors, Delgado Parker fired popular commentator Cesar Hidelbrandi</td>
</tr>
<tr>
<td></td>
<td>(C)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Print Media</th>
<th>Bribe Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expresso (mainstream newspaper)</td>
<td>$1,000,000 in two installments, to buy shares in the newspaper (C) and videos 1492, 1736, 1753</td>
</tr>
<tr>
<td>Eduardo Cembali del Solar (director and stockholder)</td>
<td></td>
</tr>
<tr>
<td>El Tio, (Chicha/popular press) Jose Olaya Correa (owner and director)</td>
<td>$1,500,000 between 1998 and 2000 (C) $3,000-$4,000 per headline, $5,000 for full coverage inside, $500</td>
</tr>
<tr>
<td></td>
<td>for smaller stories (C)</td>
</tr>
<tr>
<td>La Cuchicha (Chicha/popular press) Olvera and Estamos (owners)</td>
<td>$8,000 weekly, same press house as El Mañanero,</td>
</tr>
<tr>
<td>El Chatto, Rafael Document (founder) and Ruben Gamarra (director) out</td>
<td>also available (B)</td>
</tr>
<tr>
<td>Media Not Captured</td>
<td>Newspapers: La República and El Comercio</td>
</tr>
<tr>
<td>Magazine: Caretas</td>
<td>Cable News TV Channel: Canal N (owned by El Comercio)</td>
</tr>
<tr>
<td>State-Owned Media</td>
<td>Newspaper: El Peruano</td>
</tr>
<tr>
<td>TV Channel: Televisión Nacional Peruana</td>
<td>Radio Station: Radio Nacional</td>
</tr>
<tr>
<td>Sources: (B) Bresani (2003), (IH) Bowen and Holligan (2003), (C) Conaghan</td>
<td>(2002), (R) La República</td>
</tr>
</tbody>
</table>
Measuring Media Bias

- Air time (Durante-Knight 2006 on Italian TV networks)
- Space devoted to partisan issues (Puglisi 2006 on New York Times)
- Partisan references (Groseclose-Milyo 2005 on think-tanks quoted by US media vs think-tanks quoted by legislators)
- Textual analysis (Gentzkow-Shapiro 2010 on words used by newspapers/legislators)
Bias and Voting Outcomes

- Della Vigna and Kaplan (2007): effect of Fox News sequential entry into different media markets (nationally 0.5% more to Reps)
- Enikolopov, Petrova and Zhuravskaya (2011): Effect of entry of NTV into selected Russian regions = -8.9% for government parties
- But see field experiment but Berger-Gerber-Karlan (random subscription to Washington Post and Washington Times before 2005 Virginia gubernatorial election)


Media capture: Besley and Prat (2006)

Here: “behavioral” voters, rich media landscape, media power index
Unregulated or poorly regulated media is vulnerable to large-scale capture (e.g. Italy)

High levels of concentration in most countries (Djankov et al 2003), but see US (Noam 2009)

Stated goal of regulation: “Media plurality”

See Ofcom Review (2012)
Existing Regulation

1. Standard competition policy: ability to affect prices within appropriately defined market
   Media markets $\neq$ political information fora
   - e.g. tv and newspapers are two distinct markets for competition policy purposes (while we want to analyze them together)
   - e.g. entertainment tv and news tv are in the same market (while they are different from our viewpoint)

2. Ad hoc media rules
   - Platform-specific: eg. rules that apply only to newspapers/ tv, radio, etc
   - Partial analysis
   - Increasingly arbitrary and irrelevant in a world with media convergence (physical newspaper treated differently from internet newspaper?)
Introduction

Previous Notions of Media Power

- FCC (2003) introduced an Index of media diversity
  - Index included: broadcast TV (33.8%), newspapers (20.2%), weekly periodicals (8.6%), radio (24.9%), cable internet (2.3%), all other internet (10.2%)
  - within each platform, all outlets assigned equal market share
  - use of Index struck down in *Prometheus Radio Project v. FCC* because of “irrational assumptions and inconsistencies.”

- Noam (2009) discusses the index

\[
\frac{HHI}{\sqrt{n}}
\]

where \( n \) is the number of outlets in the sector

- attempts to give extra weight to the number of players (or “plurality”)

- Ofcom 2012 *Measuring plurality* review: identifies relevant factors, but does not construct an “index”
FCC (2003) introduced an Index of media diversity

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- use of Index struck down in *Prometheus Radio Project v. FCC* because of “irrational assumptions and inconsistencies.”

Noam (2009) discusses the index

\[ HHI = \frac{\sum_{i=1}^{n} p_i^2}{\sqrt{n}} \]

where \( n \) is the number of outlets in the sector

- attempts to give extra weight to the number of players (or “plurality”)

Ofcom 2012 *Measuring plurality* review: identifies relevant factors, but does not construct an “index”
Media Power Model: Ingredients

- Some model of how the media influences the democratic process
- Complex media landscape, multiple platforms
- Pessimistic assumptions on media and voters
This Paper

Explores worst-case scenario:

1. Possibility that media influences the democratic process
2. Potentially ‘evil’ media group
3. Potentially naive voters

Results:

- Power index: maximum damage evil owner can inflict on voters
- Regulation to limit media power
Model: Candidates and Voters

- Candidates: $A$ and $B$
- $N$ binary items: $v_1, \ldots, v_N$
- Each item is favorable to $A$ ($v_n = 0$) or to $B$ ($v_n = 1$).
- Quality differential between the two candidates

$$\sigma = \frac{\sum_n v_n}{N}$$

- Voter would like to elect $A$ if $\sigma \leq \frac{1}{2}$ and $B$ if $\sigma > \frac{1}{2}$.
- Mass of voters who have homogenous preferences
Model: Media

- Set $\mathbb{M}$ of media outlets
- Voters differ in the subset of media they consume
- Let $q_M$ be the share of voters that consume $M \subset \mathbb{M}$
- Of course
  \[ \sum_{M \subset \mathbb{M}} q_M = 1. \]
- Wlog assume that all voters consume at least one outlet
- The *reach* of an outlet is the share of voters who consumes it
  \[ r_m = \sum_{M \text{ s.t. } m \in M} q_M. \]
## Example

<table>
<thead>
<tr>
<th>Segment</th>
<th>Share</th>
<th>Tv1</th>
<th>Tv2</th>
<th>Np1</th>
<th>Np2</th>
<th>Np3</th>
<th>Web1</th>
<th>Web2</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>10%</td>
<td>■</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2</td>
<td>10%</td>
<td>■</td>
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<td></td>
</tr>
<tr>
<td>3</td>
<td>10%</td>
<td>■</td>
<td></td>
<td>■</td>
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<tr>
<td>4</td>
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<td></td>
<td>■</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>5</td>
<td>10%</td>
<td>■</td>
<td></td>
<td></td>
<td></td>
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<td>■</td>
</tr>
<tr>
<td>6</td>
<td>10%</td>
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<td>■</td>
<td>■</td>
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<td></td>
<td></td>
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<tr>
<td>7</td>
<td>10%</td>
<td>■</td>
<td>■</td>
<td>■</td>
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<tr>
<td>8</td>
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<td>■</td>
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<td>■</td>
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<td>9</td>
<td>10%</td>
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<tr>
<td>10</td>
<td>10%</td>
<td></td>
<td>■</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reach</td>
<td>30%</td>
<td>40%</td>
<td>20%</td>
<td>30%</td>
<td>30%</td>
<td>50%</td>
<td>40%</td>
<td></td>
</tr>
</tbody>
</table>
Each outlet reports a subset $N_0$ of the $N$ items.

Assume that $N_0$ is relatively small and $\sigma$ not too extreme, so the media can always find $N_0$ items that are all zeroes or all ones.
Model: Naive Voters

- Each voter receives a vector of signals for each outlet he observes.
- But he only recalls one signal, randomly selected among all the signals they receive.
- Vote for $B$ if the report is 1 and they vote for $A$ if it is 0.
The Media Owner’s Problem

- No distortion under unbiased media: If all outlets report truthfully,
  \[
  \sum_{M \subset \mathcal{M}} \frac{q_M}{|M|} \sum_{m \in M} \sigma = \sum_{M \subset \mathcal{M}} q_M \sigma = \sigma, 
  \]

  Candidate A is elected if and only if \( \sigma \leq \frac{1}{2} \)

- Coalition \( G \) of outlets under the control of owner who wants A to be elected.

- Will the coalition succeed?
All media in $G$ report that all signals are zero: $\hat{\sigma} = 0$

All media outside $G$ make unbiased reports: $\hat{\sigma} = \sigma$

The probability that a voter who consumes $M$ votes for $B$ is now

$$\frac{1}{|M|} \sum_{m \in M \setminus G} \sigma ,$$

Let $g_M$ be the attention share of coalition $G$ within media segment $M$. The vote share for $B$ is

$$\sigma \sum_{M \subset M} q_M (1 - g_M) ,$$
What’s the worst A candidate that can get elected thanks to G’s biased reporting?

Highest value of $\sigma$ such that $A$ gets half of the votes

\[
\frac{1}{2} = \bar{\sigma}_G \sum_{M \subset M} q_M (1 - g_M).
\]

Measure the loss in terms of quality for voters

\[
\Pi_G = 2\bar{\sigma}_G - 1
\]

$\Pi_G = 0$: no power; $\Pi_G \geq 1$: absolute power
The media power of coalition $G$ is:

$$\Pi_G = \frac{a_G}{1 - a_G}.$$ 

where

$$a_G = \sum_{M \subset \mathcal{M}} q_M g_M.$$

is the average attention share of the coalition media.

- $\Pi_G = 0$: coalition has no power
- $\Pi_G \geq 1$: coalition can get anyone elected
Back to the example: Media power of individual outlets

<table>
<thead>
<tr>
<th>Media Source</th>
<th>Power Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>tv1</td>
<td>0.333</td>
</tr>
<tr>
<td>tv2</td>
<td>0.165</td>
</tr>
<tr>
<td>newspaper1</td>
<td>0.176</td>
</tr>
<tr>
<td>newspaper2</td>
<td>0.091</td>
</tr>
<tr>
<td>newspaper2</td>
<td>0.101</td>
</tr>
<tr>
<td>website1</td>
<td>0.176</td>
</tr>
<tr>
<td>website2</td>
<td>0.154</td>
</tr>
</tbody>
</table>

Different from reach!
General Case: Two Approaches

1. Make precise assumptions on the psychology, information and preferences of voters, which will generate a behavioral response to news
   ... but the outcome is highly model-dependent.

2. Consider a large range of behavioral responses to news, which are likely to contain 1.
   ... good for a regulator who is not willing to commit to a particular model.
Voter Dimensions

1. **Across-segment sophistication**: willingness/ability of voters to switch to outlets outside their segments in response to biased reporting.

2. **Within-segment sophistication**: willingness/ability of voters to detect/discount/ignore biased news items.

3. **Ideology**: presence in voters of preference/prejudice on candidates

Allow voters to differ across segments (homogeneity within a segment is wlog)
Across-segment Sophistication

- Strongest form of sophistication
- The voter will not be influenced by biased outlets
- $\alpha_M \in [0, 1]$: Share of across-segment sophisticated voters in segment $M$
The voter does not switch outlets but he may pay more attention to unbiased ones.

$\beta_M \in [0, 1]$: weight the voter in segment $M$ puts on news from biased media (or probability he is fooled by them).

He puts weight 1 on unbiased news.

Could $\beta_M > 1$? Discuss later...
Ideology

- $\gamma_M \in [-1, 1]$: voter ideology in segment $M$
- Interpretable as having observed past signals in favor of one candidate or the other.
- A voter with $\gamma_M$ has $N_0 r_A(\gamma_M)$ “ideological” signals in favor of $A$ and $N_0 r_B(\gamma_M)$ in favor of $B$.
- $r_A(\cdot)$ decreasing with $r_B(\gamma_M) = 0$ if and only if $\gamma_M \geq 0$
- $r_B(\cdot)$ increasing with $r_B(\gamma_M) = 0$ if and only if $\gamma_M \leq 0$. 
Possible Representation of a Voter’s Cognitive Process

- With probability \( \frac{r_A(\gamma_M)}{r_A(\gamma_M)+r_B(\gamma_M)+1} \), the voter chooses on the basis of his A-lean ideology; with probability \( \frac{r_B(\gamma_M)}{r_A(\gamma_M)+r_B(\gamma_M)+1} \), he votes according to his B-lean ideology.

- With probability \( \frac{1}{r_A(\gamma_M)+r_B(\gamma_M)+1} \), he votes on the basis on signals received from the media, in which case:
  - With probability \( (1 - \alpha_M) \) he is across-segment sophisticated and avoids biased media altogether; with probability \( \alpha_M \) he is across segment naive and
    - He reads/remembers a biased news item with probability \( \frac{\beta_M g_M}{\beta_M g_M + (1-g_M)} \)
    - He reads/remembers an unbiased news item with complementary probability \( \frac{1-g_M}{\beta_M g_M + (1-g_M)} \)
Vote Share with an Evil Media Owner

\[ x_M = \frac{r_B (\gamma_M) + \alpha_M \left( \frac{\beta_M g_M}{\beta_M g_M + (1-g_M)} \times 0 + \frac{1-g_M}{\beta_M g_M + (1-g_M) \sigma} \right) + (1 - \alpha_M) \sigma}{r_A (\gamma_M) + r_B (\gamma_M) + 1} \]
As before, define $\bar{\sigma}_G$ the highest quality differential under which $G$ can still get $A$ elected and $\Pi_G = 2\bar{\sigma}_G - 1$.

**Proposition**

The media power of group $G$ is

$$\Pi_G = \frac{\sum_M q_M \rho_M \frac{\alpha_M \beta_M g_M}{1-(1-\beta_M)g_M}}{\sum_M q_M \rho_M - \sum_M q_M \rho_M \frac{\alpha_M \beta_M g_M}{1-(1-\beta_M)g_M}}.$$

where

$$\rho_M = \frac{1}{r_A(\gamma_M) + r_B(\gamma_M) + 1}$$

represents ideological flexibility in segment $M$. 
Across-segment sophistication makes capture hard (unless $G$ includes absolutely all media)

Voters just sneak away from biased outlets

If $\alpha_M = 1$ in all $M$, then $\Pi_G = 0$ for all $G \in \mathbb{M}$

The stronger across-segment sophistication is, the less we need media regulation.
Worst-Case Scenario for Given Ideology

- Hold ideology vector \((\rho_M)_{M \subset M}\) fixed
- Media power is weakly decreasing in the two forms of sophistication.
- Worst case scenario is \(\alpha_M = \beta_M = 0\), yielding

\[
\Pi_G = \frac{\sum_M q_M \rho_M g_M}{\sum_M q_M \rho_M - \sum_M q_M \rho_M g_M}.
\]
Robust Media Regulation

- Ideological flexibility is potentially observable in an equilibrium without capture (from voting patterns), sophistication is not.
- Suppose the regulator knows (or has a lower bound on) the ideology vector \((\rho_M)_{M \subset \mathcal{M}}\).
- The regulator wants to put in place rules that guarantee that media power (damage on voters) is always below a certain level \(\bar{\Pi}\).

**Proposition**

For a given ideological distribution, \(\bar{\Pi}\)-robust media regulation requires that

\[
\frac{\sum_M q_M \rho_M g_M}{\sum_M q_M \rho_M - \sum_M q_M \rho_M g_M} \leq \bar{\Pi}.
\]

**Corollary**

The baseline case index achieves \(\bar{\Pi}\)-robust media regulation for non-ideological voters.
Effect of Ideology

1. An evil media owner targets ideologically flexible voters (high $\rho_M$), not staunch opponents or staunch supporters.
   $\implies$ Regulators should be particularly worried by concentration in media targeted to moderate voters

2. However, the presence of many ideologically flexible voters reduces media power.
Explore Within-segment Sophistication

Interesting because of complementarities

1. Best case scenario
2. Nightmare scenario
3. Merger analysis

(shut off across-segment sophistication and ideology)
Exclusivity and Reach

- If $G \subseteq \mathcal{M}$ is a group of media outlets, define $E(G)$ to be share of people who exclusively see $G$’s outlets:
  \[
  E(G) = \sum_{\emptyset \neq M \subseteq G} q_M
  \]
  - $E(G)$ is super-additive:
    \[
    \text{If } G_1 \cap G_2 = \emptyset \text{ then } E(G_1 \cup G_2) \geq E(G_1) + E(G_2)
    \]

- If $G \subseteq \mathcal{M}$ is a group of outlets, define $R(G) \geq E(G)$ to be the combined reach of $G$’s outlets:
  \[
  R(G) = 1 - \sum_{M \subset \mathcal{M}/G} q_M
  \]
  - $R(G)$ is sub-additive:
    \[
    R(G_1 \cup G_2) \leq R(G_1) + R(G_2)
    \]
  - sum of each outlet’s reach is equal to average number of outlets that people see
Voters have maximal sophistication

Proposition

*If* \( \beta_M = 1 \) *in all* \( M \), *the media power of* \( G \) *is determined by the exclusive share of* \( G \)

\[
\lim_{\beta_M \to 0, \forall M} \Pi_G = \frac{E(G)}{1 - E(G)}
\]
Within-segment Sophistication

"Worst"-case Scenario

- Voters give same weight to biased and unbiased news

Proposition

If $\beta_M = 0$ in all $M$, the media power of $G$ is determined by the attention share of $G$

$$\lim_{\beta_M \to 0, \forall M} \Pi_G = \frac{a_G}{1 - a_G}$$
Nightmare Scenario: Bias Lovers

- Perhaps, biased news affect certain voters more than unbiased news (more fun? more memorable?)
- Within-segment sophistication could be “negative”, namely $\beta_M < 0$
  - gives more weight to biased news

**Proposition**

If $\beta_M \to -\infty$ in all $M$, the media power of $G$ is determined by the reach of $G$

$$\lim_{\beta_M \to -\infty, \forall M} \Pi_G = \frac{R(G)}{1 - R(G)}$$
<table>
<thead>
<tr>
<th>Media Source</th>
<th>$\beta \rightarrow -\infty$</th>
<th>$\beta = 0$</th>
<th>$\beta = \frac{1}{2}$</th>
<th>$\beta = \frac{10}{11}$</th>
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</tr>
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<td>0.333</td>
<td>0.304</td>
<td>0.263</td>
<td>0.252</td>
</tr>
<tr>
<td>tv2</td>
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<td>0.165</td>
<td>0.096</td>
<td>0.020</td>
<td>0.002</td>
</tr>
<tr>
<td>newspaper1</td>
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<td>0.176</td>
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<td>newspaper2</td>
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<td>0.091</td>
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<td>0.097</td>
<td>0.019</td>
<td>0.002</td>
</tr>
<tr>
<td>website2</td>
<td>0.666</td>
<td>0.154</td>
<td>0.089</td>
<td>0.019</td>
<td>0.002</td>
</tr>
</tbody>
</table>

**Compare Newspaper1 and Website1**
<table>
<thead>
<tr>
<th>Media Source</th>
<th>$\beta \to -\infty$</th>
<th>$\beta = 0$</th>
<th>$\beta = \frac{1}{2}$</th>
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<td>0.154</td>
<td>0.089</td>
<td>0.019</td>
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</tbody>
</table>

- Compare Newspaper1 and Website1
Merger Analysis

- Website2 is for sale. The potential acquirers are Tv2 or Website1
- Which acquirer would create a more powerful media entity?

<table>
<thead>
<tr>
<th>Segment</th>
<th>Share</th>
<th>Tv1</th>
<th><strong>Tv2</strong></th>
<th>Np1</th>
<th>Np2</th>
<th>Np3</th>
<th>Web1</th>
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<td><strong>50%</strong></td>
<td><strong>40%</strong></td>
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</tbody>
</table>

Armstrong-Prat ()
Media Power
April 2013 43 / 51
Standard Answers

1. Competition policy answer:
   See which merger is more likely to raise prices.
   Limited interest because: customers may be advertisers; markets are fragmented; concentration levels are relatively low; citizens may benefit as consumers but be hurt as voters.

2. Ad hoc answers:
   Is it cross-platform (US, relaxed in 2003; many countries)? Is it cross-country (US). Is the resulting share in a particular platform too high (US; many countries). Is it “against the public interest,” as assessed by the government? (UK)
Example of Merger Analysis

No a-s sophistication ($\alpha_M = 0$), some w-s sophistication ($\beta_M = \frac{1}{2}$), no ideology ($\gamma_M = 1$)

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<tr>
<th>Original entity</th>
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<tr>
<td>Tv2 + Website2</td>
<td>60%</td>
</tr>
<tr>
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<td>Tv2 + Website2</td>
<td>60%</td>
<td>0.262</td>
</tr>
<tr>
<td>Website1 + Website2</td>
<td>60%</td>
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A merger with Tv2 is more dangerous, because they will monopolize certain segments.
Example of Merger Analysis

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**Proposition**

*A media group can be strictly more powerful than another media group even if the individual sources in the latter have larger power indices and larger reaches.*
Cross-Ownership Rules

- Are cross-platform mergers intrinsically more/less dangerous than within-platform mergers?
- It depends… two extreme cases

**Proposition**

(i) If voters follow at most one source per platform, cross-platform mergers create more powerful entities than within-platform mergers.

(ii) If voters use at most one platform, cross-platform mergers create less powerful entities than within-platform mergers.
Internal Plurality

- External plurality: different media outlets have different voices
- Internal plurality: different voices within the same outlet
- Operationalized by forcing the outlet to give some space to both sides of an argument
- Can force unbiased media to provide space to views that most experts consider wrong
  - e.g. BBC’s coverage of the alleged link between MMR vaccine and child autism
**Effect of an Internal Plurality Rule**

- Hard to see how a government-mandated internal plurality rule can depend on the truth

- Consider a rule that limits the share of positive/negative reports
  - Outlet $m$ must choose a share of positive reports $\hat{\sigma}_m \in [\delta, 1 - \delta]$
  - $\delta$: blandness parameter

- Impose the rule to a subset $I$ of media

**Proposition**

*For any $\delta$, imposing internal plurality weakly reduces the Media Power Index of any subset of $I$ and weakly increases the Media Power Index of any subset of $M/I$.***

*Within subset*: biased media are hurt more than unbiased media

*Outside subset*: more free rein

*Conclusion*: danger of internal plurality rules that apply only to some media (e.g. network television)
Summary

- Stylized model of media’s ability to influence the democratic process
- Accommodates pessimistic views on media motives and voter rationality
- Family of media power indices
- Power depends on:
  - Attention patterns
  - Sophistication, ideology
  - Ambiguous effects of cross- vs within-platform concentration
- Merger analysis: requires consumer-level info
- Internal plurality: double-edged sword
- Need for more data on how citizens get their political info (FCC Nielsen 2007)