**EU vs. USA: Boycotts**

- The World Values Survey provides more precise data on the fractions of consumers that have participated in boycotts.
- This fraction is larger in the US than in European countries (except for Sweden).

**Figure:** Share of consumers that have already boycotted (The World Values Survey as illustrated in Hoffmann, 2014).

- Boycotts are described as an “American political tradition” and “American custom” (Glickman ’09)
- Couttenier et al. ’17 show that NGOs reveal mostly "bad news"
"Informal consultation includes all forms of discretionary, ad hoc, and unstandardised contacts between regulators and interest groups. It takes many forms, from phone-calls to letters to informal meetings, and occurs at all stages of the regulatory process. The key purpose is to collect information from interested parties."

"Informal consultation resembles 'lobbying'"
Informal consultation is carried out in virtually all OECD countries, but its acceptability varies tremendously.

In the United Kingdom, regulatory bodies have traditionally had close and informal contacts.

The same tradition of informal contacts exists in France.

In Japan, informal consultation is crucial.

In Canada, the government has encouraged regulators to consult informally prior to formal consultation.

By contrast, informal consultation is viewed more suspiciously in the United States as a violation of norms of openness and equal access, and in many cases it is a violation of the administrative procedure act requiring equal access for all interested parties".
Facts

1. NGOs reveal **mostly "bad news", but sometimes "good news"** (Couttenier et al, 2017)
2. More boycotts in the US than in Europe
3. More informative lobbying in Europe than in the US
4. "Open-door policy" in EU, "closed-door policy" in the US
Papers on informational lobbying (Austen-Smith ’93; Grossman & Helpman ’94, ’01; Dal Bo ’06)

...distinct from literature on activism and boycotts (Baron ’03, ’09; Baron and Diermeier ’07, Egorov and Harstad ’17, Feddersen and Gilligan ’01).

Few papers study the activists’ strategic choice of targeting consumers versus regulators. Lyon and Salant ’13: activists use corporate campaigns to make some firms self-regulate, which in turn makes these firms willing to lobby for regulation.

Empirically, Eesley, Decelles, and Lenox ’15 study different activists’ tactics (e.g., boycotts or lawsuits) and show that activists’ tactics often vary with their cause.

Firms’ investments ("self-regulation") increase demand as in Baron ’01.

Self-regulation is a response in order to avoid a boycott (Baron ’03, among others), government action (e.g., Maxwell, Lyon, and Hackett, ’00), or both (Baron, ’14; Egorov and Harstad ’17).

See also Daubanes and Rochet ’13, for society’s trade-off between having informed but captured regulators versus uninformed activists exert pressure on the industry (and Daubanes and Rochet ’16).
Setting

- All buyers and regulators have incomplete information
- Some agents have, or can acquire, product information.
- This information can be communicated to buyers/regulators
- There may be different types of information:
  - Verifiable information may be technical and hard to understand
  - Soft information is easy to understand but hard to verify
Questions

- What is the equilibrium (recipient and effect)?
- Should informational activism/lobbying itself be regulated?
- How do the answers depend on
  1. the firms likely types?
  2. the market structure?
- What if both are endogenized? (By allowing for self-regulation and entry)
1. The Market (Cournot)
2. Information acquisition
   - Boycotts
   - Lobbying
3. Endogenizing the market structure
   - Investments
   - Entry
4. Policy
The Market

- Cournot: At marginal cost \( c \), each firm \( i \in \{1, \ldots, n\} \) produces \( x_i \), and \( x \equiv \sum_i x_i \).
- With individual harm \( h_i \), and the representative buyer’s utility:

\[
    u = -\frac{a}{2} \left( \frac{b}{a} - x \right)^2 - \sum_i h_i x_i - \sum_i p_i x_i,
\]

firm \( i \) must reduce its price \( p_i \) if the expected \( h_i \) is large:

\[
    p_i = b - ax - Eh_i.
\]

- With no additional information, a firm’s exact harm is unknown to everyone:

\[
    h_i = h + \theta_i, \quad \theta_i \sim \text{iid } U \left[ -\frac{\sigma}{2}, \frac{\sigma}{2} \right].
\]

- We can ignore additive consumption externalities as they are not payoff relevant.
The Market: Equilibrium

**Proposition**

The equilibrium quantity $x_i$, profit $\pi_i$, and total harm $H$:

\[
x_i = \frac{b - c - nEh_i + \sum_{j \neq i} Eh_j}{(1 + n) a},
\]

\[
\pi_i = \frac{1}{a} \left( \frac{b - c - nEh_i + \sum_{j \neq i} Eh_j}{1 + n} \right)^2,
\]

\[
H \equiv \sum_j h_j x_j.
\]
Activist group A seeks to minimize $H$.
A can target a single firm $i$ to learn $h_i$.
A can report on $h_i$ (or $\theta_i$) to the (representative) buyer B.
Large $Eh_i$ reduces $x_i$, increases $x_j$, and reduces $x$.
Large $Eh_i$ reduces $H$ if and only if $h_i$ is indeed large:

$$
\frac{\partial H}{\partial Eh_i} = -\frac{n}{1 + n} \left( \frac{h_i - h}{a} \right) - \frac{h}{(1 + n) a}
$$
Informing the Market: Equilibrium

Proposition

- A sends one of two messages in equilibrium.
- A claims $h_i$ is 'low' if $h_i < \hat{h}_B$, and 'high' if $h_i > \hat{h}_B$, where 
  $\hat{h}_B \equiv h - \min \{h/n, \sigma^2/2\} < h$.
  - A reports efficiently (in that $\hat{h}_B \to h$) only if $n \to \infty$ or $h \to 0$.
  - A is more 'biased' (toward claiming 'high') if $n$ is small or $h$ large, or more 'credible' when $n$ is large and $h$ is small.
  - If $n < 2h/\sigma$, A provides no information to B.
  - Otherwise:

- When A informs B, the expected decrease in H is:

$$\Delta_B = \frac{\sigma^2 - (2h/n)^2}{4an(1+n)} \frac{n}{1+n}.$$
Informing the Regulator

- Adopt a similar model?
- Suppose R can regulate firm $i$ by taxing/capping $i$’s quantity $x_i$.
  - If $x_i$ is capped, $x_j$ increases.
- R is willing cap $x_i$ only if R believes $h_i$ is particularly high.
- A prefers to send such a signal if... $h_i > \hat{h}_B$.
- Similar to boycott!
  - ...except that R’s cap may be larger/smaller than $x_i$ under boycott
  - ...and R might not force $i$ to $\uparrow x_i$ if A claims "good"
In reality, a fundamental difference is that R might regulate \( m > 1 \) firms, and not only firm \( i \).

The larger is \( m \), the smaller is \( \hat{h}_B \), and the less A communicates (and thus R regulates less).

Assume \( m \rightarrow n \). Then, \( \hat{h}_B \downarrow 0 \), and A always claims "bad." Thus, R never regulates
Boycotts and Lobbying Combined

- The cheap-talk message to B persuades R to regulate if it ensures \( E_R h_i \geq \hat{h}_R \).

### Proposition

- **R is passive in the unique equilibrium if:**

  \[ \hat{h}_R > \frac{\hat{h}_B + (h + \sigma/2)}{2} \]

- **Otherwise:**
  - There is a unique equilibrium: A claims \( h_i \) is "high" iff \( h_i > 2\hat{h}_R - (h + \sigma/2) < \hat{h}_B \);
  - R’s decision is in mixed strategies: R regulates with some probability.
  - B’s reaction to A’s message makes A’s communication with R credible.
  - R’s reaction to A’s message makes A’s communication with B less efficient.
  - EH can be larger than in the equilibrium without R.
If only R understands and requires hard evidence, there exists equilibria in which A *discloses* $h_i$ to R iff $h_i \geq \hat{h}_R$, and otherwise:

1. A discloses $h_i$ to B
   - this possibility increases $\hat{h}_R$,
   - although B may not have expertise to interpret $h_i$.

2. A claims $h_i$ is "high" iff $h_i \geq \hat{h}_B \Rightarrow \mathbb{E}_B h_1 = \left( \hat{h}_B + \hat{h}_R \right) / 2$ but
   - this possibility increases $\hat{h}_R$,
   - is dominated by lobbying only when $\hat{h}_R \approx \hat{h}_B$ and by boycotts only when $\hat{h}_R \approx h + \sigma / 2$.

3. A babbles $\Rightarrow \mathbb{E}_B h_1 = \left( h - \sigma / 2 + \hat{h}_R \right) / 2$.

This reduces $\hat{h}_R$, and all results above continue to hold.
Suppose regulation can reduce the harm (say, $H \to 0$).

A regulator $R$ introduces such regulation if $R$ believes $h_i \geq \hat{h}_R$.

The threshold can be endogenized in several ways:

- With requirement $E \sum h_j/n \geq \tilde{h}_R$, then $\hat{h}_R \equiv n\tilde{h}_R - (n - 1) h$.
- $R$ may maximize welfare and regulate iff: $u + \sum_i \pi_i \leq \alpha EH$.

Since regulation always benefits $A$, $R$ needs hard evidence.

$A$ can obtain hard evidence on a single $h_i$ and ensure regulation if $h_i \geq \hat{h}_R$.

With this strategy, the expected reduction in $H$ is:

$$\Delta_R = \left(\frac{1}{2a} - \frac{\hat{h}_R - h}{\sigma a}\right) \left(\frac{b - c - h}{1 + n}\right) \left(\frac{\hat{h}_R - h + \sigma/2}{2} + nh\right).$$
Boycott vs. Lobbying

Proposition

- We have $\Delta_B \leq \Delta_R$ iff $n$ is small or $h$ is large:

$$\left(\frac{n\sigma}{2}\right)^2 - h^2 \leq 4n(b - c - h)\left(\frac{1}{2} - \frac{\hat{h}_R - h}{\sigma}\right)\left(\frac{\hat{h}_R - h + \sigma/2}{2} + nh\right).$$
Boycotts are preferred when $n$ is large or $h$ is small.

- If $n$ is large, communication with buyers is more credible.
- If $h$ is large, communication with buyers is less credible.
The result is strengthened if \( \hat{h}_R \) is endogenized by (I) or (II):

- Easier to persuade R if \( h \) is large, or there are few other firms.
- This reduces \( \hat{h}_R \); and increases \( \Delta_R \).
Incentivizing Firms (endogenizing h)

- The results above are in terms of $h$ and $n$. Both can be endogenized:
  - Let $h_i = (\bar{h} - y_i) + \theta_i$, so $i$ can reduce $h_i$ at cost $c(y_i)$ at the beginning of the game.
    - Above, we had $\bar{h} - y_i = h$, so $h$ can be interpreted as the equilibrium $\bar{h} - y_i$.
  - If $i$ is targeted,

$$
\Pr(h_i \leq \hat{h}_J) = \Pr(\theta_i \leq \hat{h}_J - \bar{h} + y_i) = \frac{\hat{h}_J - \bar{h} + y_i}{\sigma} + \frac{1}{2}, \ J \in \{B,R\}.
$$
Proposition

- **When** A **is expected to influence** J ∈ \{B, R\}, **there is a unique equilibrium** where all firms invest s.t. \( \bar{h} - y_i = h_J \).

- **There exists a threshold** \( \hat{n} \), **such that**:

  \[ n < \hat{n} \iff h_R < h_B. \]

- **When** \( n = \hat{n} \), \( h_B = h_R = h \), and \( \hat{n} \) **can be written as**:

  \[ \hat{n} = \frac{(b - c - h)^2}{\sigma (b - \sigma/2 + h/2)}. \]
Incentivizing Firms (endogenizing h)

Regulation incentivizes most when $n < \hat{n}$; boycotts when $n > \hat{n}$.

An open-door policy is best when $n < \hat{n}$; closed-door when $n > \hat{n}$.
Incentivizing Firms (endogenizing $h$)

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An open-door policy is best when $n < \hat{n}$; closed-door when $n > \hat{n}$.
The two curves $h_R$ and $h_B$ cross when $n = \hat{n}$.

$h_R$ is the equilibrium when $n < \tilde{n}$; $h_B$ when $n > \tilde{n}$. 
The two curves $h_R$ and $h_B$ cross when $n = \hat{n}$.

$h_R$ is the equilibrium when $n < \hat{n}$; $h_B$ when $n > \hat{n}$. 
Incentivizing Firms (endogenizing $h$)

- If $n$ is very large, A prefers boycotts.
- Boycotts motivates firm to reduce $h$ to $h_B$. 

Egorov & Harstad (Kellogg & U. of Oslo) Informative Activism vs. Lobbying July 2020 29 / 38
If $n < \tilde{n}$, A prefers regulation.

A commitment to closed-doors can still be better if $n > \hat{n}$. 
Incentivizing Firms: Multiple Equilibria when n is large

If boycotts expected, firms reduce $h \Rightarrow A$ prefers boycotts.

If lobbying expected, $h$ reduced less $\Rightarrow A$ prefers lobbying.
Incentivizing Firms: Mixed-strategies when $n$ is small

- If boycotts expected, $h$ reduced less $\Rightarrow$ A prefers lobbying.
- If lobbying expected, $h$ reduced more $\Rightarrow$ A prefers boycotts.
A must be indifferent and randomizes between boycotts and lobbying.

Investments are higher with commitment to open-door policy.
Entry (endogenizing $n$)

- The results above are in terms of $n$.
- Suppose firms can enter at some cost, $\kappa$.
  - There will be a mapping from $\kappa$ to $n$, so:
    - Results can be stated in terms of $\kappa$ instead of $n$.
- But $n$ will also depend on A’s strategy:
  - With boycotts, the expected profit of a targeted firm is a mean-preserving spread of $\pi(E\theta_i, h, n)$, which is larger than $\pi(0, h, n)$, since $\pi$ is convex.
  - In turn, $\pi(0, h, n)$ is larger than the expected profit under lobbying (which can lead to costly regulation).
  - Thus, $n_B > n_R$ (unless $h_R \gg h_B$).
Entry (endogenizing $n$): Multiple Equilibria

- If $h_R \approx h_B$, then $n_R < n_B$.
- If boycotts are expected, more firms enter, and thus A prefers boycotts.
Entry (endogenizing $n$): Multiple Equilibria

- If lobbying is expected, fewer firms enter, and thus A prefers lobbying.
- If entry is beneficial, R may want to commit to closed-door policies when $|h_R - h_B|$ is small.
NGOs reveal **mostly "bad news"**, but **sometimes "good news"**

2 More boycotts in the US than in Europe

3 More informative lobbying in Europe than in the US

4 "Open-door policy" in EU, "closed-door policy" in the US

5 This is rationalized by our model ... because competition is fiercer in the US (Global Competitive Index; World Economic Forum)

- But taking into account the effect on the market structure, a closed-door policy may raise competition in Europe.
Extensions

1. The market structure (Salop’s circular city: equivalent)
2. Endogenizing the regulator’s objective and threshold
3. Buyers reacting to (failed) lobbying
4. Regulators reacting to boycotts
5. **Boycotts and Lobbying combined**: Hard & soft Information
6. Multiple industries