On the Merits of Antitrust Liability in Regulated Industries.

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- Usually the essential facility is some costly infrastructure, such as the local loop in telecommunications or the power distribution network in electricity.
- Typically, *ex ante* laws are used to ensure downstream competitors' access to the upstream facility. (For example, Telecommunication Act of 1996 in the United States).
- Downstream competitors pay a regulated access price to the Incumbent to cover the cost of access.

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- Regulatory authorities penalize the Incumbent if such actions are detected.

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- So, an Incumbent, even if it is regulated, may be subjected to Antitrust enforcement.

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- The FCC and the New York Public Service Commission investigated and found Verizon guilty.
- Verizon was subjected to monetary penalties and other requirements.

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- Eventually, the case went to the US Supreme Court.

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- Justice Scalia, who summarized the Court's justification, wrote (among other things):
- "One factor of particular importance is the existence of a regulatory structure designed to deter and remedy anti-competitive harm. Where such a structure exists, the additional benefit to competition provided by antitrust enforcement will tend to be small, and it will be less plausible that the antitrust laws contemplate such additional scrutiny."

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- Are the competing firms better off with additional antitrust enforcement?

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- The Regulator sets the Access price that the Entrant (E) must pay to the Incumbent (V).
- The Incumbent's (V) income from access must cover its cost of providing access.

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- The Antitrust and the Regulatory authorities decide independently.

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- r = probability the regulator assesses V's action accurately. $(r \in [\frac{1}{2}, 1])$

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- V pays any penalties that are levied.

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- The Entrant earns non-negative profits. (Always holds for low entry cost. We do not focus on this constraint.)

The Incumbent's Participation Constraint:

$$\frac{w}{3\,b}\left[a+3\;u+c_v-2\,\underline{c}\,\right]-\frac{2\,w^2}{3\,b}-\phi\;\geq\;0$$

where

$$\phi\;\equiv\;\frac{u}{3\,b}\left[a+u+c_v-2\,\underline{c}\,\right]+\left[1-r\,\right]D_R+\underline{d}\;D_C+F_u\;>\;0$$

$$\underline{c}\;\equiv\;\underline{q}\;c_H+\left[1-\underline{q}\right]c_L$$

The Incumbent's Incentive Compatibility Constraint:

$$-\frac{1}{9\,b}\left[\overline{q}-\underline{q}\right]\left[c_H-c_L\right]\left[2\,a+2\,u+c_L+c_H-4\,c_v-4\,w\right]$$
$$+\left[2\,r-1\right]D_R+\left[\overline{d}-\underline{d}\right]D_C \;\geq\; 0\,.$$

The Regulator's Problem:

Choose $w \geq 0$, $r \in \left[\frac{1}{2}, 1\right]$, $D_R \geq 0$, to maximize

$$\underline{q}\, S(c_H) + \left[1 - \underline{q}\right] S(c_L) - k \left[r - \frac{1}{2}\right]^2 + \left[1 - r\right] D_R \left[1 - f_R\right] + \left[1 - f_C\right] \underline{d}$$

subject to:

$$\frac{w}{3\,b}\left[a + 3\,u + c_v - 2\,\underline{c}\right] - \frac{2\,w^2}{3\,b} - \phi \;\geq\; 0$$

$$-\frac{1}{9\,b}\left[\overline{q} - \underline{q}\right]\left[c_H - c_L\right]\left[2\,a + 2\,u + c_L + c_H - 4\,c_v - 4\,w\right]$$

$$+ \left[2\,r - 1\right] D_R + \left[\overline{d} - \underline{d}\right] D_C \;\geq\; 0\,.$$

Does Consumer Surplus go up with antitrust enforcement?

Lemma

$\frac{\partial r}{\partial D_C} < 0$ *and* $\frac{\partial w}{\partial D_C} > 0$ *at the solution to [RP].*

Theorem

$\frac{dS^*}{dD_C} > 0$ *if* $f_R - f_C - \frac{k}{D_R} > 0$.

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$\frac{dS^*}{dD_C} < 0$ *if* a *is sufficiently large,* $\frac{k}{D_R} + f_C - f_R > 0$, *and*

$$\left[\overline{d} + \underline{d}\right]\left[f_C - \frac{1}{3}\right] > \left[\frac{k}{D_R} + f_C - f_R\right]\left[\overline{d} - \underline{d}\right].$$

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- a substantial fraction of the regulatory penalty accrues to consumers (since f_R is not too much larger than f_C, to ensure $f_R < f_C + \frac{k}{D_R}$);
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- the regulatory instrument is potentially powerful because it can be employed to create substantial deterrence at relatively low cost (since D_R is large and k is small).

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Thank you

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