

Econ 243 notes October 1, 2018

- The Informant on Netflix. Edited by MSmitka from Wikipedia:

The Informant! is a 2009 American biographical-comedy-crime film directed by Steven Soderbergh. Written by Scott Z. Burns, the film stars Matt Damon as the titular informant named Mark Whitacre, a rising star at the Archer Daniels Midland, as well as Scott Bakula, Joel McHale and Melanie Lynskey. It depicts Whitacre's involvement as a whistle blower in the lysine price-fixing conspiracy of the mid-1990s as described in the 2000 nonfiction book *The Informant*, by journalist Kurt Eichenwald.

... In 1993, Archer Daniels Midland was the subject of a lysine price-fixing investigation by the U.S. Justice Department. Senior ADM executives were indicted on criminal charges for engaging in price-fixing within the international market. Three of ADM's top officials, including [their] vice chairman ... were eventually sentenced to federal prison in 1999. Moreover, in 1997, the company was fined \$100 million, the largest antitrust fine in U.S. history at the time. ... In addition, according to ADM's 2005 annual report, a settlement was reached under which ADM paid \$400 million in 2005 to settle a class action antitrust suit.

- Enough for our purposes with 2-firm models. Illustrate a range of strategies, and looked at factors that might affect the choice of one over another.

Implication of our n-firm oligopoly

$$\text{firm } \pi^* = (p^* - c)q^* = (a - c)^2 / (n + 1)^2 b$$

with fixed costs F we then want to find **n** such that $\pi^* - F$ is positive

also want size of market parameter $S \longleftrightarrow p = S(a - bq)$

but this just multiplies quantities in equilibrium, and profits, while leaving price the same.

so given market size S **then** we have firm level profits of $S\pi^*$ where π^* is as above

thus:

$$S\pi^* = S(a - c)^2 / (n + 1)^2 b - F > 0$$

Solving out gives total market size is $n = (a - c)\sqrt{(S/bF)} - 1$

the text does more complicated model with diminishing returns $d \longleftrightarrow$ rising MC curve

Example:

the US has 15 producers in the domestic auto industry, though Volvo is very small

and the Chinese market is almost double in size $\longleftrightarrow S = 2$

China should have $\sqrt{2} = 1.4$ or 40% more producers, that is, 21 firms. at present there are more in China, though joint ventures make counting challenging. some have only a small market (FCA and PSA) while the Japanese small car specialist Suzuki just exited – the Chinese don't like small cars, either...

so...all of those operating in the US plus perhaps 8 Chinese firm, which gives 23. so the number is far less than 2x that of the US, the order of magnitude fine. I was actually surprised when I first tried this calculation!