

LECTURE 12: THE PORTER HYPOTHESIS

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Porter Hypothesis Quick Reaction

- Write one reason to believe that the Porter Hypothesis is true.
- Hand in at 2:39 by the room clock.

Agenda for Today

The Porter Hypothesis

- Productivity Overview
- What is the Porter Hypothesis?
- Evidence for/against the Porter Hypothesis.
- Policy Implications

Productivity Overview

- $Y = A \cdot f(K, L)$
 - $Y = \text{Output}$
 - $A = \text{Total Factor Productivity}$
 - $K = \text{Capital}$
 - $L = \text{Labor}$
-
- Question 1: How can we decompose a change in output?
- Question 2: How can I show the bias in TFP growth from ignoring environmental inputs?

Productivity Takeaways

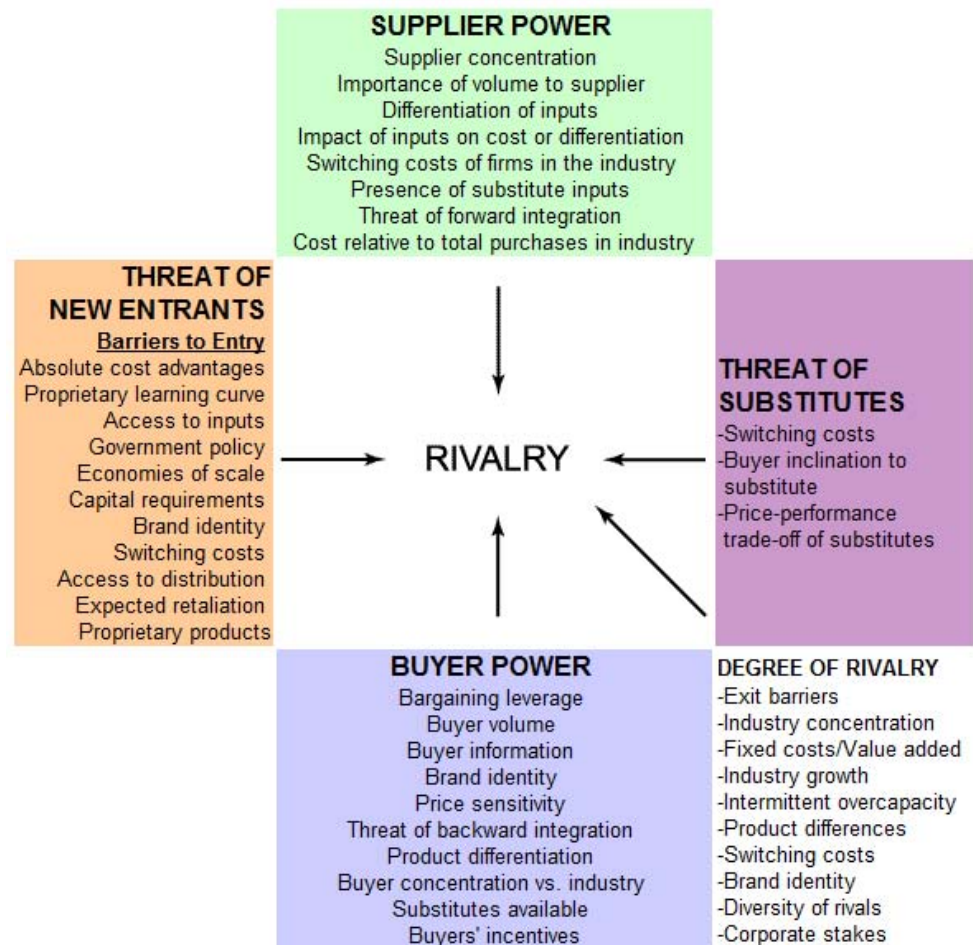
- Total factor productivity is an unexplained “residual” that increases output
 - Reflects technology, institutions, etc.
- Failing to account for a factor that is used more (less) over time can cause us to overstate (understate) productivity growth.
- Induced innovation: factor price increases (e.g. environmental regulation) induce innovation that economizes on that factor.

Michael Porter and the Porter Hypothesis



Image by Nestle on [Flickr](#).

Diagram of Porter's 5 Forces



The Porter Hypothesis

- “Properly designed environmental standards can trigger innovation that may partially or more than fully offset the costs of complying with them. Such “innovation offsets,” as we call them, can not only lower the net cost of meeting environmental regulations, but can even lead to absolute advantages over firms in foreign countries not subject to similar regulations. Innovation offsets will be common because reducing pollution is often coincident with improving the productivity with which resources are used. In short, firms can actually benefit from properly crafted environmental regulations that are more stringent (or are imposed earlier) than those faced by their competitors in other countries. By stimulating innovation, strict environmental regulations can actually enhance competitiveness.”
- **Question: How could this be true?**

Evaluating the Porter Hypothesis

- What arguments for/against the Porter Hypothesis?

Porter's Policy Recommendations

- Clear goals with flexible approaches: let industry innovate
 - Market-based regulation gives continual incentives to innovate
- Provide information on “innovation offsets” to firms

Takeaways

- Environmental regulations are not likely to be costless, and costs must be traded off against benefits.
 - For environmental regulation to improve profitability requires firms that are misoptimizing *and* regulators that are better informed.
- But it is important to design policy to improve firms' information and allow flexibility in compliance.
 - Porter and van der Linde (1995) focus on dynamic (innovation) reasons for this, on top of the static gains that we discussed before spring break.
- My assessment of Porter and van der Linde (1995):
 - What's new is wrong, and what's right has already been said.
- Were Porter not famous, this would have been ignored because it's so poorly argued.
 - Takeaway: become famous, then you can say anything you want.

Reading

- Thursday:
 - For discussion: “Providing Safe Water: Evidence from Randomized Evaluations.”
 - Other readings if you want/have time

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