Competition and Antitrust

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This presentation draws on ideas from Professor Porter’s books, in particular, Competitive Strategy (The Free Press, 1980), Competitive Advantage (The Free Press, 1985), “What is Strategy?” (Harvard Business Review, Nov/Dec 1996), The Competitive Advantage of Nations, and other publications cited. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means - electronic, mechanical, photocopying, recording, or otherwise - without the permission of Michael E. Porter.
### Competition and Prosperity

**Global Competitiveness Report**

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<th>Regression</th>
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<td><strong>Dependent Variable:</strong> 1999 GDP per capita</td>
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“...countries where the intensity of competition is rising showed by far the greatest improvement in GDP per capita.”

Sakakibara/Porter:

“We find a positive and highly significant relationship between the extent of market share fluctuations [a measure of local rivalry] and trade performance

Contrary to some popular views, our results suggest that Japanese competitiveness is associated with home market competition, not collusion, cartels, or government intervention that stabilize it.”

Selected Regional Clusters of Competitive U.S. Industries
Sources of Rising Prosperity

- A nation’s standard of living (wealth) is determined by the **productivity** with which it uses its human, capital, and natural resources. The appropriate definition of competitiveness is productivity.
  - Productivity depends both on the **value** of products and services (e.g. uniqueness, quality) as well as the **efficiency** with which they are produced.
  - It is not **what** industries a nation competes in that matters for prosperity, but **how** firms compete in those industries.
  - Productivity in a nation is a reflection of what both domestic and foreign firms **choose to do in that location**. The location of ownership is secondary for national prosperity.

- An improving standard of living depends on sustained **productivity growth**
  - Ongoing **innovations** in products, processes, and methods are essential to prosperity in advanced nations.
Productivity and Competition

• Improvements in productivity depend on **healthy competition**

• **Productivity** and **productivity growth** are the connection between competition and standard of living
The Goals of Antitrust Policy

Traditional View

- Profitability (allocative efficiency)
- Cost (static efficiency)
- Innovation (dynamic efficiency)

Profitability standard

Alternative View

- Innovation (dynamic efficiency)
- Value improvement (static productivity)
- Profitability (allocative efficiency)

Productivity growth standard
Measuring the Health of Industry Competition

Five Forces Model

1. Threat of Substitute Products or Services
2. Threat of New Entrants
3. Rivalry Among Existing Competitors
4. Bargaining Power of Suppliers
5. Bargaining Power of Buyers

Threat of New Entrants

Rivalry Among Existing Competitors

Bargaining Power of Suppliers

Bargaining Power of Buyers

Threat of Substitute Products or Services
Types of Rivalry and Productivity Growth

**Imitation and Price Discounting**
- Homogeneous products
- Low prices
- Little true customer choice

“Zero sum competition”

**Strategic Differentiation**
- Multiple, different value propositions
  - e.g., features, processes, prices
- Expanded market

“Positive sum competition”
Measuring the Health of Local Competition
Locational Determinants of Productivity and Productivity Growth

Context for Firm Strategy and Rivalry

- A local context that encourages investment and sustained upgrading
- Open and vigorous competition among locally based rivals

Factor (Input) Conditions

- Availability of high-quality and specialized inputs

Related and Supporting Industries

- Presence of capable, locally based suppliers and firms in related fields
- Rivalry among locally-based competitors is not only important to productivity directly but also creates positive externalities for the local business environment

Demand Conditions

- Sophisticated and demanding local customer(s) whose needs anticipate those elsewhere
- Unusual local demand in specialized segments that can be served globally

The Houston Oil and Gas Cluster

Upstream

Oil & Natural Gas Exploration & Development

Oil & Natural Gas Completion & Production

Equipment Suppliers
(e.g. Oil Field Chemicals, Drilling Rigs, Drill Tools)

Specialized Technology Services
(e.g. Drilling Consultants, Reservoir Services, Laboratory Analysis)

Subcontractors
(e.g. Surveying, Mud Logging, Maintenance Services)

Specialized Institutions
(e.g. Academic Institutions, Training Centers, Industry Associations)

Downstream

Oil Transportation

Oil Trading

Oil Refining

Oil Distribution

Oil Wholesale Marketing

Oil Retail Marketing

Gas Gathering

Gas Processing

Gas Trading

Gas Transmission

Gas Distribution

Gas Marketing

Business Services
(e.g. MIS Services, Technology Licenses, Risk Management)

Oilfield Services/Engineering & Contracting Firms
The California Wine Cluster

Sources: California Wine Institute, Internet search, California State Legislature. Based on research by MBA 1997 students R. Alexander, R. Arney, N. Black, E. Frost, and A. Shivananda.
Finnish Wireless Cluster

Context for Firm Strategy and Rivalry
- A history of **competition** in telecommunications services throughout the 20th century
- Early to **deregulate** in telecom related industries

Demand Conditions
- World’s most **sophisticated consumers**, with 70 percent penetration of mobile phones (20 percent of households have abandoned wireline phones)
- **First** country to allocate licenses for 3rd generation wireless networks (3 competitive groups)
- Heavy usage of **short message services**
- Finland a **test market** for WAP applications

Related and Supporting Industries
- Home of **Nokia**, the world’s most competitive handset company
- Approximately **3,000 Finnish firms** in telecom and IT related products and services

Factor (Input) Conditions
- Substantial **public investment** in telecommunications-related R&D, focusing on **wireless technology**
- Finland an **international center for WAP** development (e.g., Hewlett Packard, Siemens)
- Significant **local venture capital** for mobile applications

More than **100 local operators**
Active **local rivalry** in wireless communications

The Effect of Mergers and Other Combinations on Competition

• Mergers should be treated with caution versus other corporate growth strategies

  – acquiring another company requires only capital and no new products, technologies, processes, or marketing approaches
  – the empirical evidence is striking that mergers have a low success rate
  – strategy research reveals that smaller, focused acquisitions are more likely to improve competitive fundamentals than mergers among leaders
  – reducing the number of significant rivals is much more likely to reduce competition than enhance it
Towards a New Merger Evaluation Process

Baseline Industry Performance

Merger Effect on the Health of Industry Competition

Merger Effect on the Health of Local Competition

Expected Offsetting Productivity Gains Specific to the Merged Firms
Baseline Industry Performance

- Past industry performance in achieving **productivity gains**
  - measures of productivity (value of output per unit of labor and capital)
- Historical vitality of rivalry, measured by **fluctuations of market shares** in all relevant markets/submarkets

- If the industry has registered **weak** productivity growth in the past, this raises level of scrutiny of combinations
- If the industry has exhibited **limited** rivalry historically, this raises the level of scrutiny of combinations
Merger Effect on the Health of Industry Competition

Five Forces Analysis

**Determinants of Supplier Power**
- Cost relative to total purchases in the industry
- Differentiation of inputs
- Impact of inputs on cost or differentiation
- Switching to a new supplier
- Presence of substitute inputs
- Supplier concentration
- Importance of volume to supplier
- Threat of forward integration relative to threat of backward integration by firms in the industry

**Determinants of Substitution Threat**
- Relative price performance of substitutes
- Switching costs
- Buyer propensity to substitute

**Determinants of Buyer Power**
- Buyer concentration vs firm concentration
- Buyer volume
- Buyer switching costs relative to firm switching costs
- Buyer information
- Ability to backward integrate
- Substitute products
- Pull-through

**Rivalry Determinants**
- Switching costs
- Informational complexity
- Diversity of competitors
- Corporate stakes
- Exit barriers

**Entry Barriers/Mobility Barriers**
- Economies of scale
- Proprietary product differences
- Brand identity
- Switching costs
- Capital requirements
- Access to distribution

- Proprietary learning curve
- Access to necessary inputs
- Proprietary low-cost product design
- Government policy
- Expected retaliation
Evaluating the Effect of Merger
Five Forces Analysis vs. Previous Approaches

Advantages
• Fact-based analysis unique to each industry
• Widely accepted approach in companies
• Embodies a much broader conception of competition
  – seller concentration is misleading
• Can apply to any market definition
• Allows analysis of both near-term and longer-term effects

Issues
• Requires the weighing and balancing of numerous elements (an expert system)
• Quantification of the net effect of competition is difficult
• However, the scoring of effects can allow a systematic approach to assessing a merger’s impact
Network Effects as a Justification for Dominant Companies

• Standard view:
  – the New Economy is characterized by pervasive network effects
  – the presence of such effects provides rationale for allowing large dominant firms in an industry
• However:
  – substantial network effects leading to a dominant position occur in only a subset of industries
  – network effects are often not proprietary to individual firms
• In the case of proprietary network effects, antitrust policy should require interoperability or an open standard
Schumpeterian Competition for the Market

• The Argument:
  – the New Economy is characterized by Schumpeterian competition in which drastic innovations create winner-take-all races
  – the presence of such effects will prevent companies from establishing long-term monopoly positions
  – Chicago School: the above is true as long as government does not intervene in the industry

• However:
  – drastic innovations in industries occur only once every few decades
  – dominant positions are usually maintained for decades, with substantial cost to productivity growth and society
Merger Effect on the Health of Local Competition

Diamond Analysis

Context for Firm Strategy and Rivalry

- How does the merger affect the number and balance of locally-based rivals?

Factor (Input) Conditions

- How is the merger likely to affect the quantity and quality of specialized inputs available to firms locally?
  - human resources
  - specialized capital providers
  - physical infrastructure
  - administrative infrastructure
  - information infrastructure
  - scientific and technological infrastructure

Demand Conditions

- How will the merger affect the competitiveness and innovative ability of local customers?

Related and Supporting Industries

- How will the merger affect the vitality of locally-based supplier industries?
Evaluating Offsetting Productivity Gains Specific to the Merged Firms

Hierarchy of Productivity Enhancements

I. Reduce operating costs
   II. Amortize fixed/semi-fixed costs (e.g., advertising, service locations)
   III. Eliminate redundant corporate overhead

I. Improve product/service quality and features
   II. Increase marketing and distribution strength
   III. Enhance brand identity

- Customer satisfaction is an important sign of healthy competition
A (low) minimum share threshold is used to screen out small transactions

Baseline Industry Performance

Merger Effect on the Health of Industry Competition
(analysis done for all relevant markets and submarkets)

Merger Effect on the Health of Local Competition

Significant adverse effect on competition

Offsetting Productivity Gains Specific to the Merged Firms

Gains do not outweigh effects on competition

Gains outweigh effects on competition

Merger rejected

Merger approved
Merger Case Study: Offshore Drilling

Merger of Company A and Company B
- Significantly higher combined share of most markets than the next largest rival
- "Dominant" share in ultra deepwater segment

Five Forces Analysis
- Customers are powerful
- Undifferentiated product with an ugly cost structure
- Low entry barriers

- Highly competitive industry overall
- Ultra deepwater segment serves the most powerful customers
- Customers, through long-term contracts and financing, can readily put new competitors (who operate in other segments) into the ultra deepwater business

- Little or no risk to competition

Externalities Analysis
- Numerous rivals remain
- Little effect on supplier base
- No stranger cluster exists anywhere else in the world

- Little or no risk to externalities
Supporting Policy Changes That Would Reinforce Antitrust

- Other policy changes would reinforce antitrust policy in limiting questionable mergers
  - eliminate pooling of interest
  - stricter rules on merger write-offs and restructuring charges
  - modifications in reporting requirements (e.g., requirements to report **equity before write-offs and charges** in the previous five-year period)
  - collection and reporting of systematic information on merger outcomes (e.g., longevity, profitability, customer satisfaction, quality and service metrics)
Conclusions

• The current approach to antitrust is based on questionable foundations

• A **productivity growth approach** would better link the health of competition to competitiveness and national policy, and make the rationale for competition clearer

• A **broader approach** to analyzing the health of competition would minimize artificial and counterproductive debates over relevant markets and HHI, and redirect discussions with the government to more constructive issues

• With a better process of antitrust review, companies contemplating combinations would **focus more on the consequences for productivity growth**

• Such a new approach would better align the interests of companies, consumers, workers, and the overall economy