Competition and Antitrust

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Canadian Competition Policy: Preparing for the Future
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Competition and Prosperity
Global Competitiveness Report

Regression

Dependent Variable: 1999 GDP per capita

Independent Variables	Significance	Adj R2
Effectiveness of antitrust policy	at 5% level	.700
Intensity of local competition	at 5% level	.320

Regression

Dependent Variable: 1994 - 99 GDP per capita growth

Independent Variables	Significance	Adj R2
Intensity of local competition	at 5% level	.255
Effectiveness of antitrust policy	at 5% level	.117

"...countries where the intensity of competition is rising showed by far the greatest improvement in GDP per capita."

Source: M.E. Porter, "The Current Competitiveness Index: Measuring the Microeconomic Foundations of Prosperity", *The Global Competitiveness Report 2000*, Geneva: World Economic Forum

Competition and Prosperity
Evidence from Japanese Industry

Competitiveness

- Measured by World Export Share

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Local Competition

- Measured by Fluctuations in Domestic Market Share

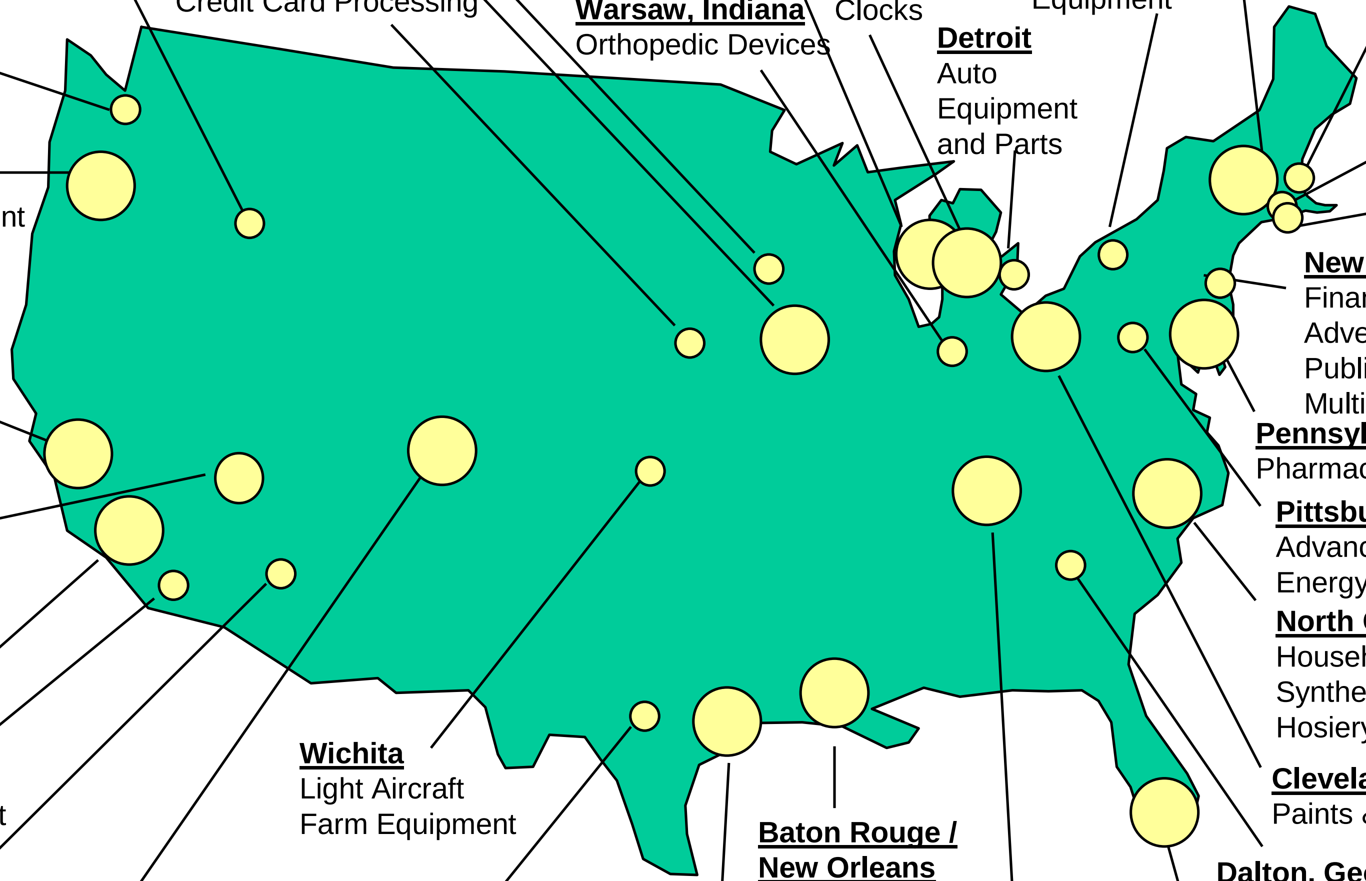
Sakakibara/Porter:

"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."

Source: M. Sakakibara and M.E. Porter, "Competing at Home to Win Abroad: Evidence from Japanese Industry", *Review of Economics and Statistics*, forthcoming May 2001.

Selected Regional Clusters of Competitive U.S. Industries



Boise
Sawmills
Farm Machinery

Wisconsin / Iowa / Illinois
Agricultural Equipment

Minneapolis
Cardio-vascular Equipment and Services

West Michigan
Office and Institutional Furniture

Western Massachusetts
Polymers

Boston
Mutual Funds
Biotechnology
Software and Networking
Venture Capital

Seattle
Aircraft Equipment and Design
Boat and Ship Building
Metal Fabrication

Omaha
Telemarketing
Hotel Reservations
Credit Card Processing

Rochester
Imaging Equipment

Michigan
Clocks

Warsaw, Indiana
Orthopedic Devices

Detroit
Auto Equipment and Parts

Hartford
Insurance

Providence
Jewelry
Marine Equipment

Oregon
Electrical Measuring Equipment
Woodworking Equipment
Logging / Lumber Supplies

New York City
Financial Services
Advertising
Publishing
Multimedia

Silicon Valley
Microelectronics
Biotechnology
Venture Capital

Pennsylvania / New Jersey
Pharmaceuticals

Las Vegas
Amusement / Casinos
Small Airlines

Pittsburgh
Advanced Materials
Energy

North Carolina
Household Furniture
Synthetic Fibers
Hosiery

Los Angeles Area
Defense Aerospace
Entertainment

Wichita
Light Aircraft
Farm Equipment

Carlsbad
Golf Equipment

Cleveland / Louisville
Paints & Coatings

Baton Rouge / New Orleans
Specialty Foods

Phoenix
Helicopters
Semiconductors
Electronic Testing Labs
Optics

Dalton, Georgia
Carpets

Dallas
Real Estate Development

Southeast Texas / Louisiana
Chemicals

Nashville / Louisville
Hospital Management

South Florida
Health Technology
Computers

Colorado
Computer Integrated Systems / Programming
Engineering Services
Mining / Oil and Gas Exploration

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)

Alternative View

Innovation
(dynamic efficiency)

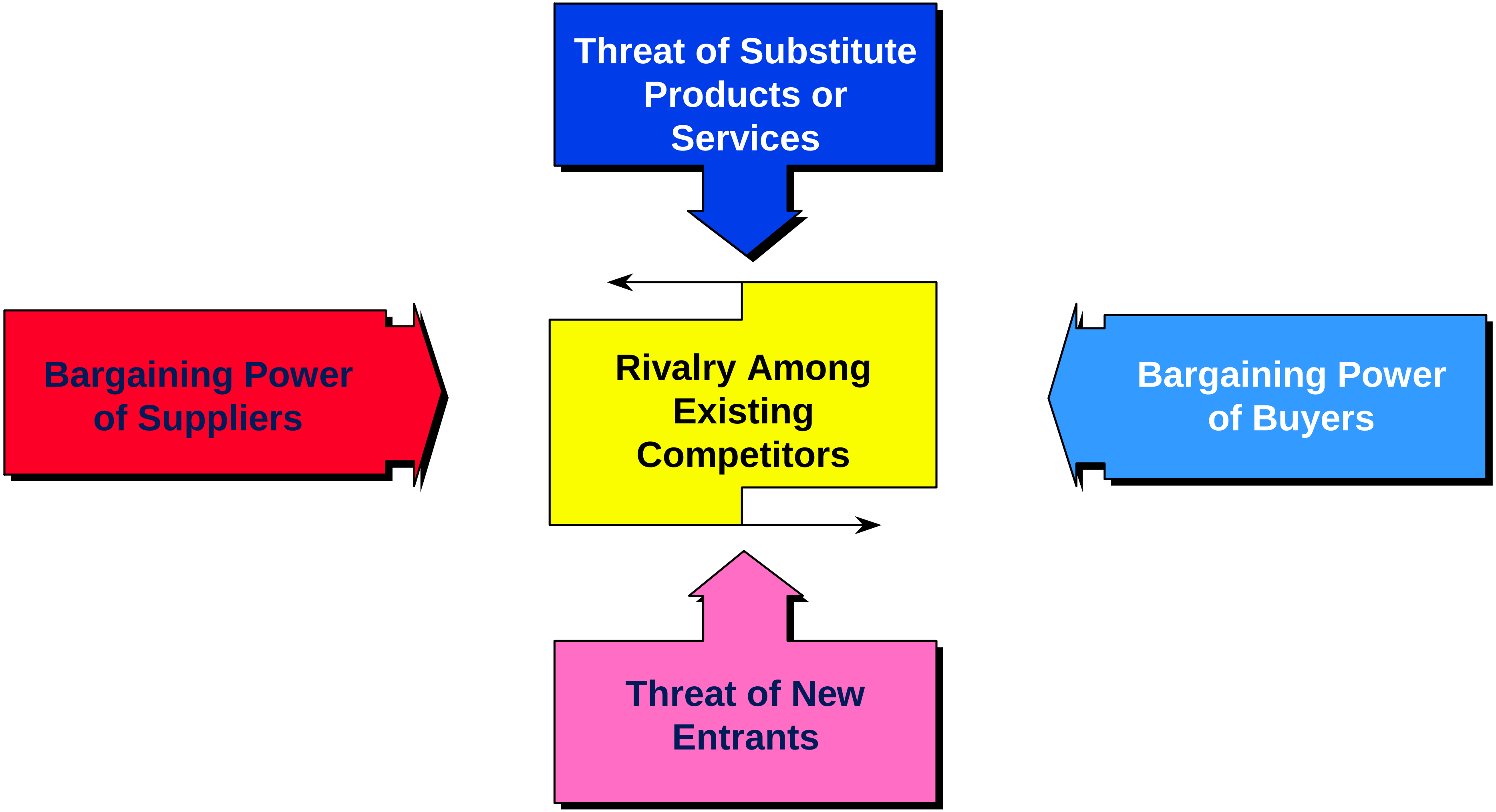
Value improvement
(static productivity)

Profitability
(allocative efficiency)

Profitability standard → Productivity growth standard

Measuring the Health of Industry Competition

Five Forces Model

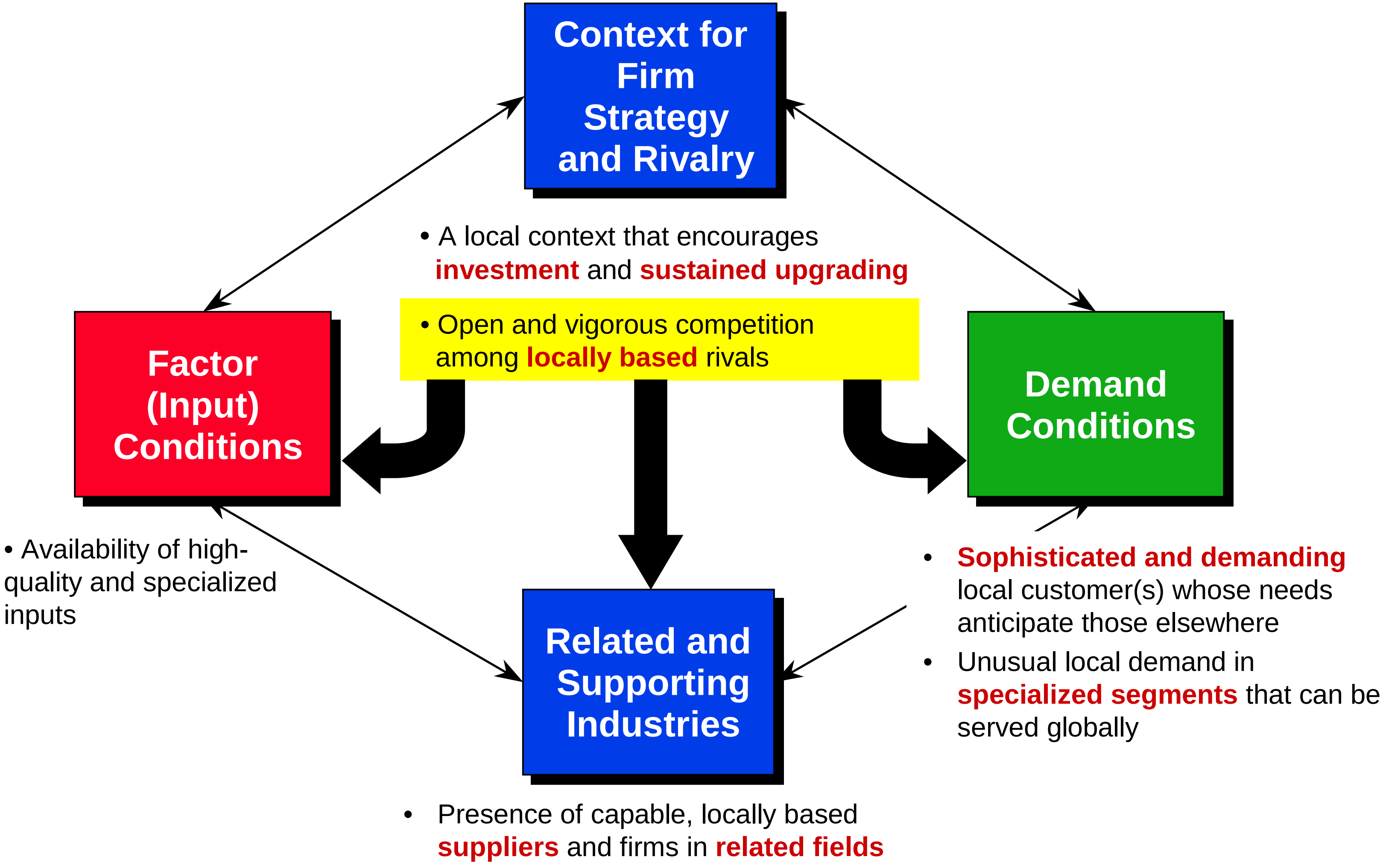


Types of Rivalry and Productivity Growth

Imitation and Price Discounting	Strategic Differentiation
• Homogeneous products • Low prices • Little true customer choice	• Multiple, different value propositions – e.g., features, processes, prices • Expanded market
"Zero sum competition"	"Positive sum competition"

Measuring the Health of Local Competition

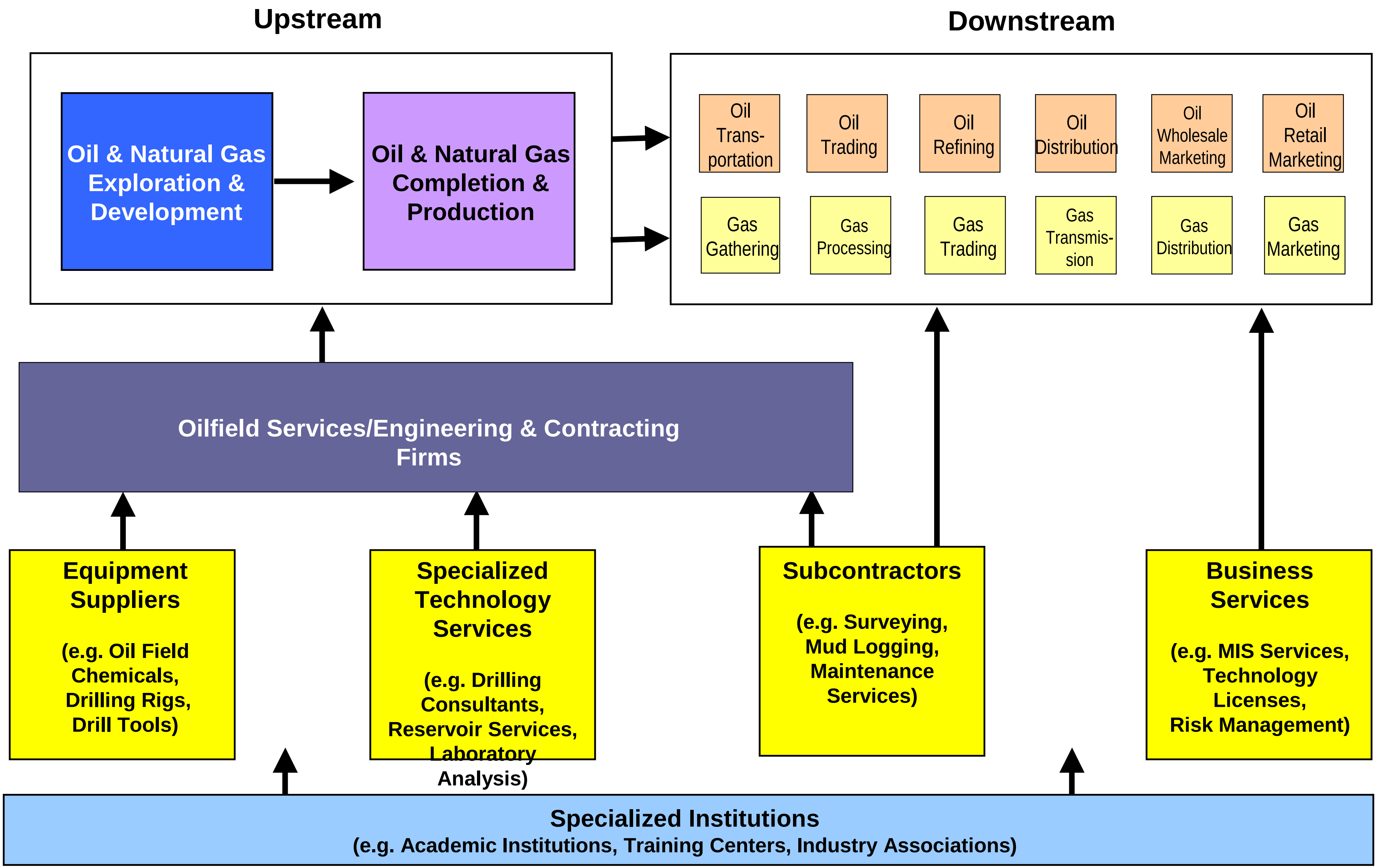
Locational Determinants of Productivity and Productivity Growth



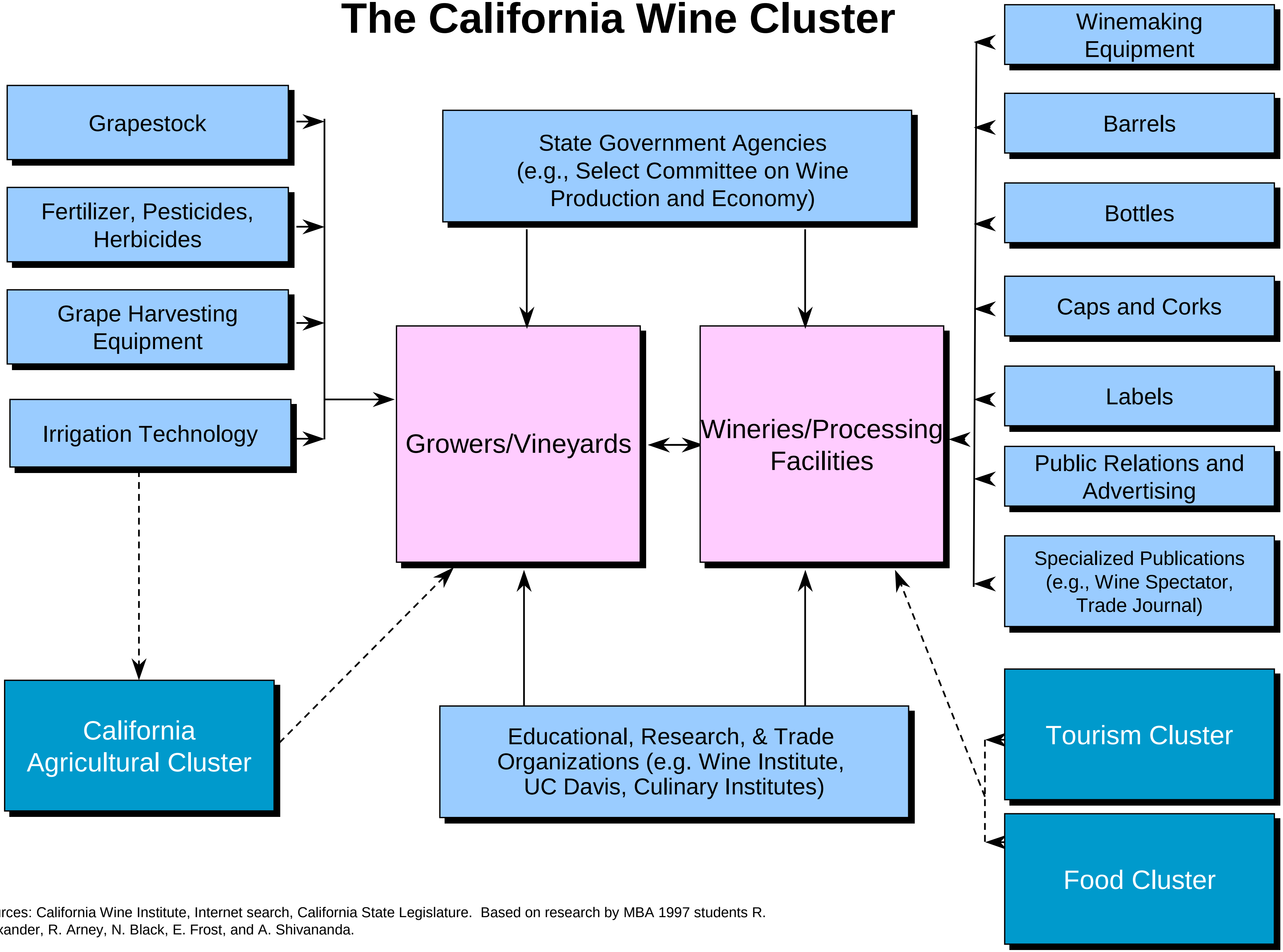
- Rivalry among locally-based competitors is not only important to productivity directly but also creates **positive externalities** for the local business environment

Source: M.E. Porter, *The Competitive Advantage of Nations*, New York: Free Press, 1990.

The Houston Oil and Gas Cluster



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

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

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

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

Source: "The Economic Impact of Third-Growth Wireless Technology," U.S. Council of Economic Advisors, October 2000

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

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  - 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

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Merger Effect on the Health of Industry Competition

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Merger Effect on the Health of **Local** Competition

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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

Threat of Substitute Products or Services

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

Bargaining Power of Suppliers

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

Rivalry Among Existing Competitors

Rivalry Determinants
- Concentration and balance
- Industry growth
- Fixed (or storage costs/ value added
- Intermittent overcapacity
- Product differences
- Brand identity
- Switching costs
- Informational complexity
- Diversity of competitors
- Corporate stakes
- Exit barriers

Bargaining Power of Buyers

Bargaining Leverage
- 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

Price Sensitivity
- Price/total purchases
- Product differences
- Brand identity
- Impact on quality/ performance
- Buyer profits
- Decisionmakers' incentives

Threat of New Entrants

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

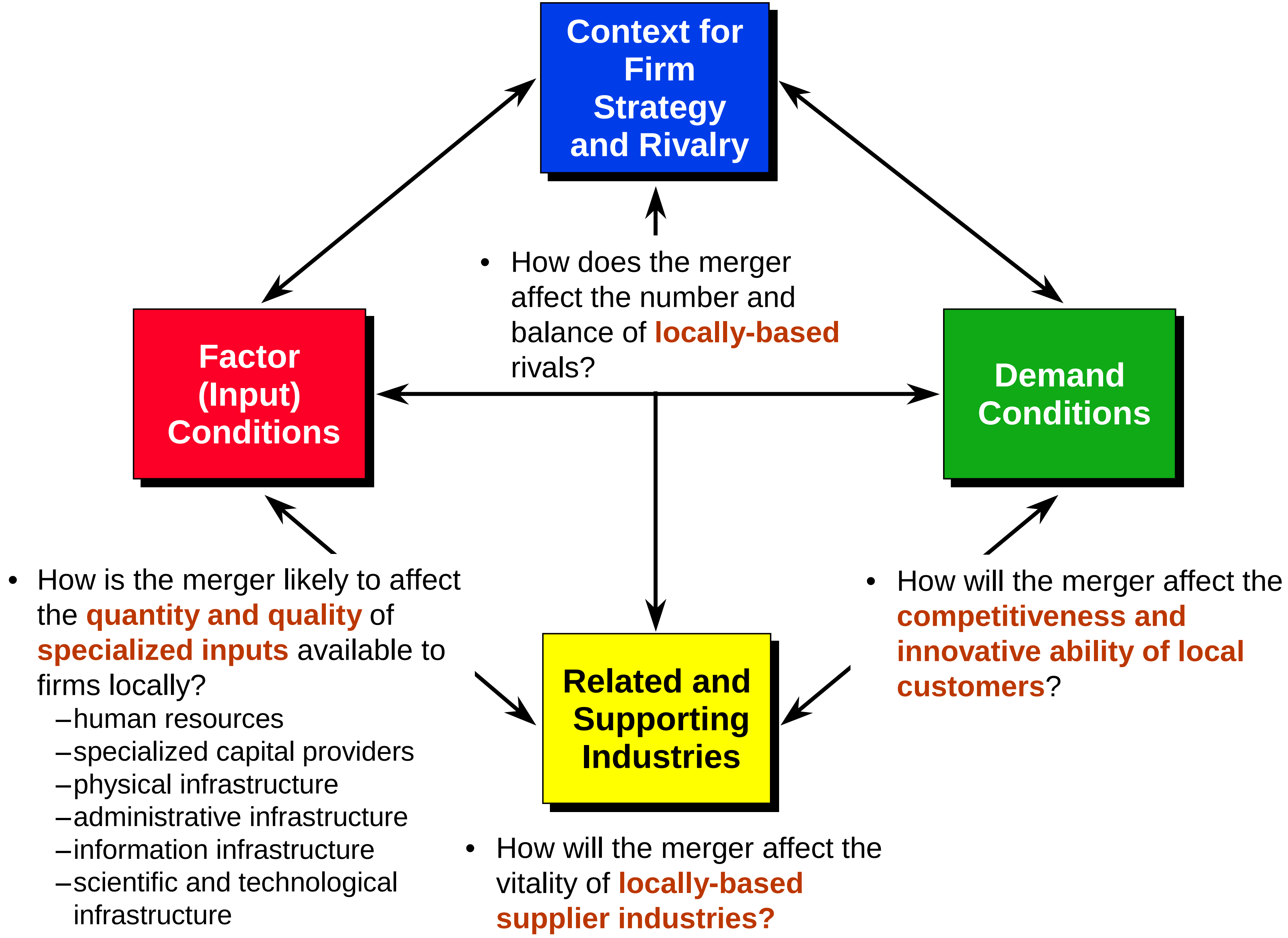
- Standard view:
  - the New Economy is characterized by pervasive network effects
  - the presence of such effects provides rationale for allowing large dominant firms in an industry
- However:
  - substantial network effects leading to a dominant position occur in **only a subset** of industries
  - 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



Evaluating Offsetting Productivity Gains Specific to the Merged Firms

Hierarchy of Productivity Enhancements

Cost	Buyer Value
I. Reduce operating costs	I. Improve product/service quality and features
II. Amortize fixed/semi-fixed costs (e.g., advertising, service locations)	II. Increase marketing and distribution strength
III. Eliminate redundant corporate overhead	III. Enhance brand identity

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- Customer satisfaction is an important sign of healthy competition

Standards for Merger Approval

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

No material effect on competition

Merger approved

Offsetting Productivity Gains Specific to the Merged Firms

Gains do not outweigh effects on competition

Merger rejected

Gains outweigh effects on competition

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

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- 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

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- 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

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- 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

