

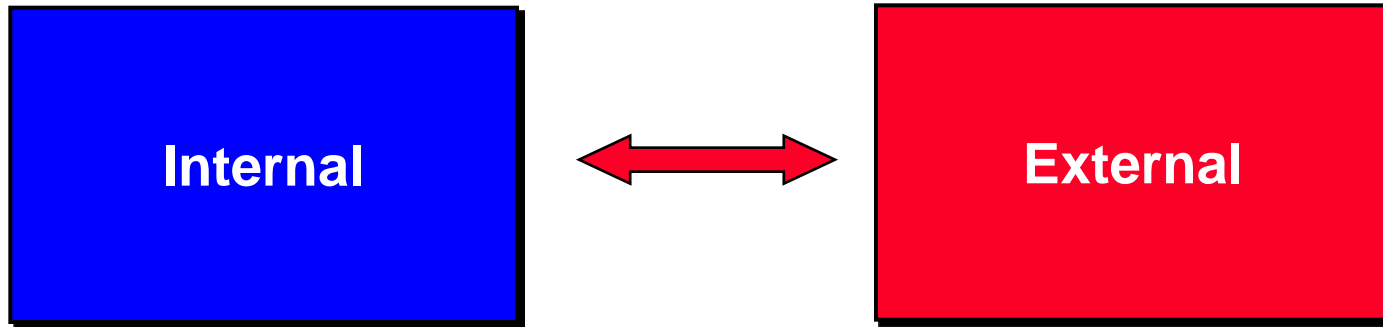
The Competitive Advantage of Nations, States and Regions

Professor Michael E. Porter
Harvard Business School

Advanced Management Program
April 15, 2009

This presentation draws on ideas from Professor Porter's articles and books, in particular, *The Competitive Advantage of Nations* (The Free Press, 1990), "Building the Microeconomic Foundations of Competitiveness," in *The Global Competitiveness Report* (World Economic Forum), "Clusters and the New Competitive Agenda for Companies and Governments" in *On Competition* (Harvard Business School Press, 2008), and ongoing research on clusters and competitiveness. 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. Further information on Professor Porter's work and the Institute for Strategy and Competitiveness is available at www.isc.hbs.edu Version: April 15, 12pm

Competitive Advantage and Competitiveness



- Competitive advantage resides **inside** the company
- Competitive success depends on **company choices**
- Competitive advantage resides in the **locations** in which the company is based
- **Cluster participation** is an important contributor to competitiveness

The Changing Nature of Domestic and International Competition

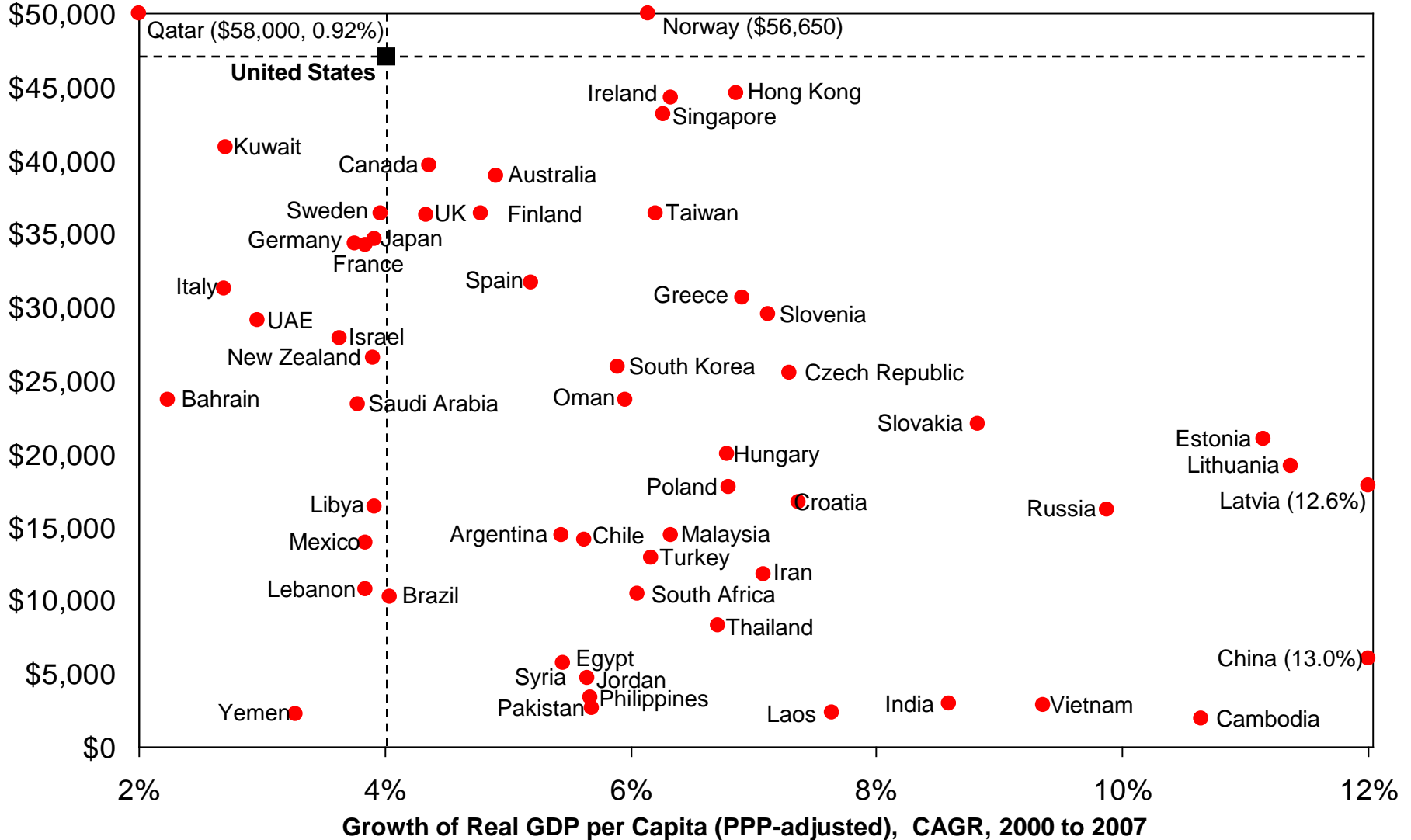
- Falling barriers to trade and investment
- Globalization of markets
- Globalization of capital investment
- Globalization of company value chains
- Rapidly increasing stock and diffusion of knowledge
- Increasing knowledge and skill intensity of competition
- Value is increasingly concentrated in service functions, not manufacturing activities themselves
- Shift from vertical integration to relying on outside suppliers, partners, and institutions
- Rising logistical costs due to costs of energy and emissions
- Costs in China and India are rising rapidly
- Competitive upgrading is occurring in many countries



- Improving competitiveness is **increasingly essential** to a country's prosperity

Prosperity Performance Selected Countries

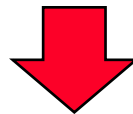
PPP-adjusted GDP per
Capita, 2007 (\$USD)



Note: highlighted countries are part of the East African Community (EAC). Source: EIU (2009), authors calculations

What is Competitiveness?

- Competitiveness depends on the **productivity** with which a nation uses its human, capital, and natural resources.
 - Productivity **sets the sustainable standard of living** (wages, returns on capital, returns on natural resources) that a country can sustain
 - It is not **what** industries a nation competes in that matters for prosperity, but **how productively** it competes in those industries
 - Productivity in a national economy arises from a **combination of domestic and foreign firms**
 - The productivity of **“local” or domestic industries** is fundamental to competitiveness, not just that of export industries

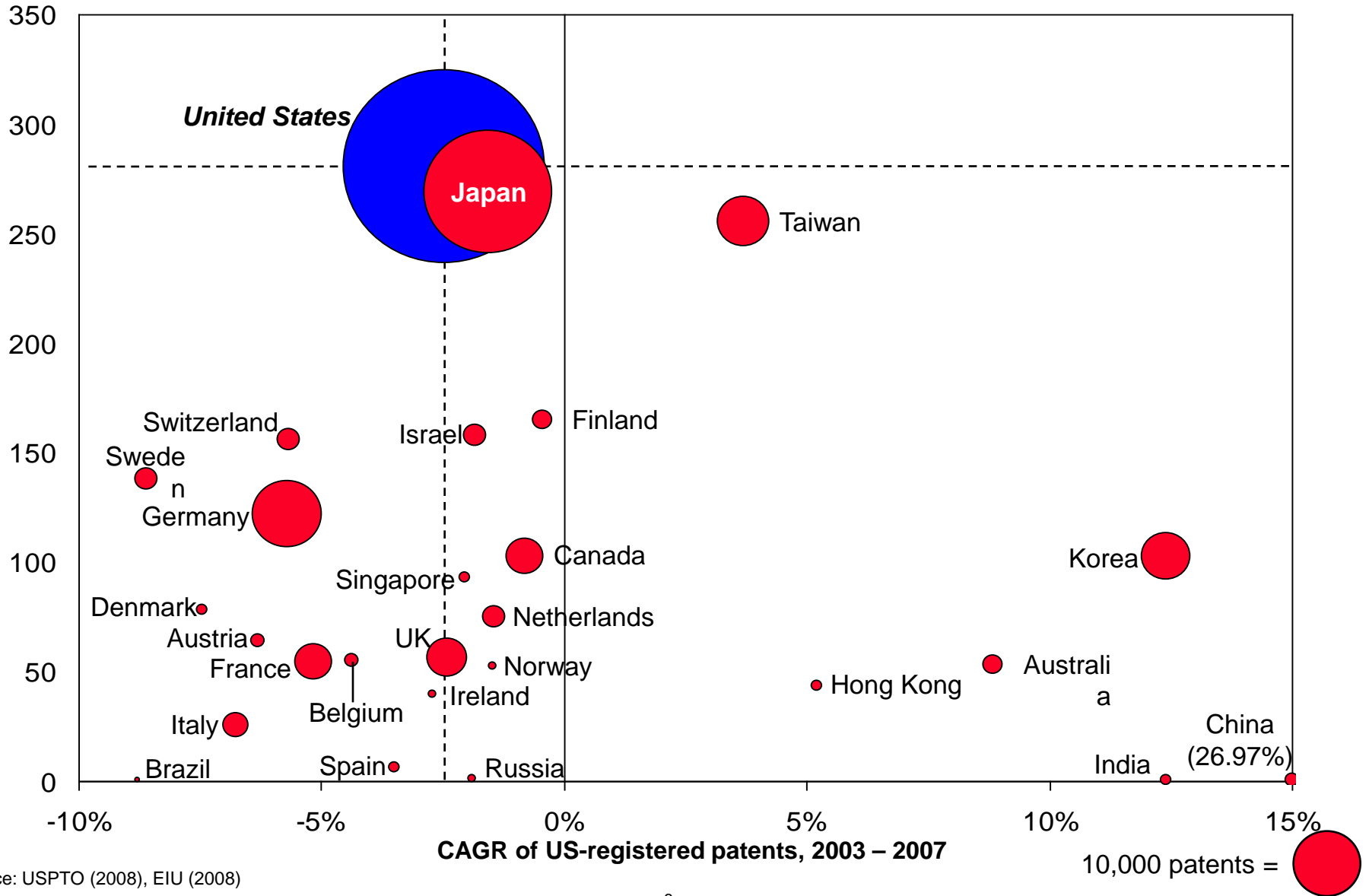


- Nations compete to offer the **most productive environment for business**
- The public and private sectors play **different but interrelated roles** in creating a productive economy

Innovative Capacity

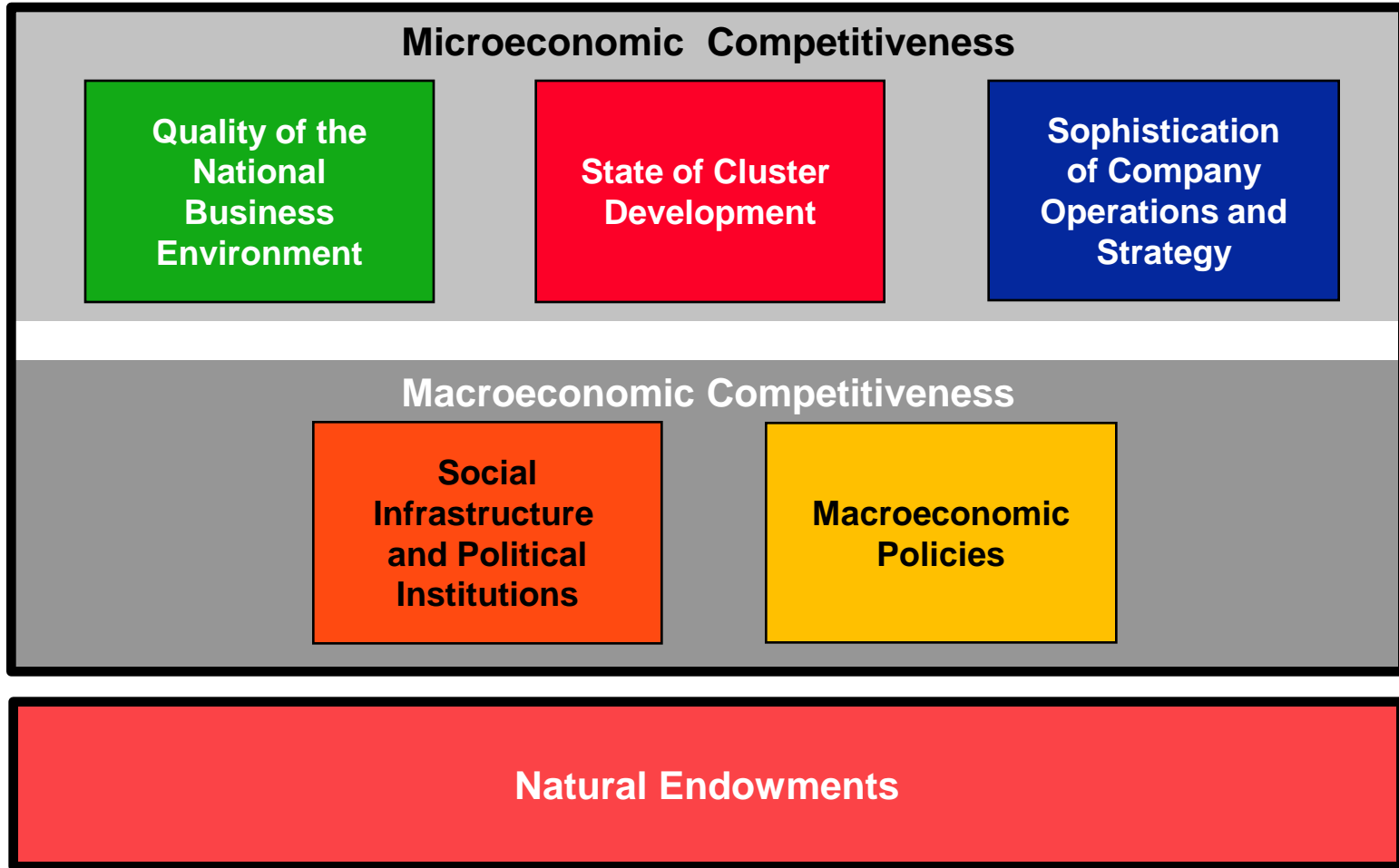
Innovation Output of Top 25 Patent Producing Countries

Average U.S. patents per 1 million population, 2003-2007



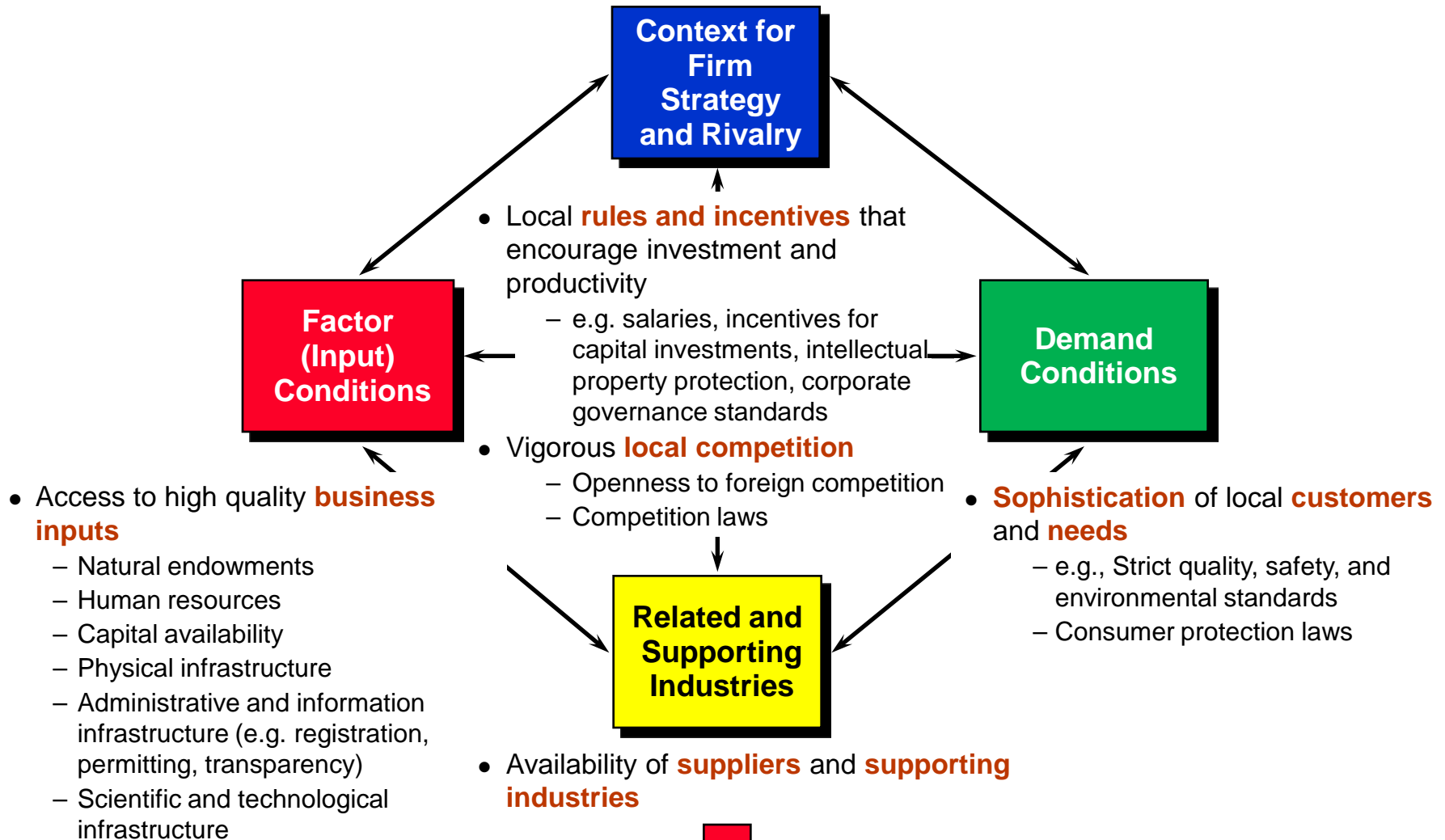
Source: USPTO (2008), EIU (2008)

Determinants of Competitiveness



- Macroeconomic competitiveness creates the potential for high productivity, but is **not sufficient**
- Productivity ultimately depends on improving the **microeconomic capability** of the economy and the **sophistication of local competition**

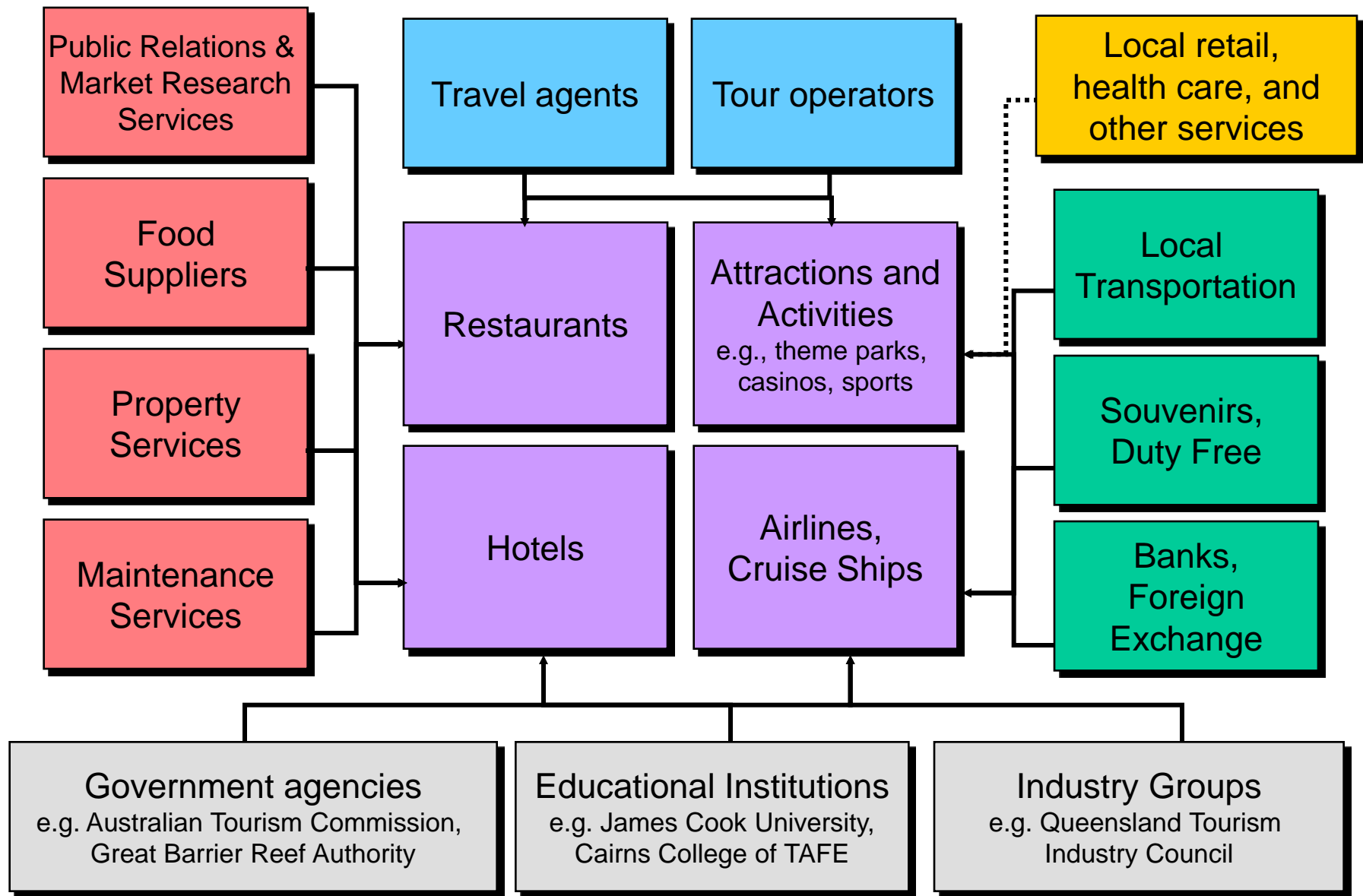
Microeconomic Competitiveness: Quality of the Business Environment



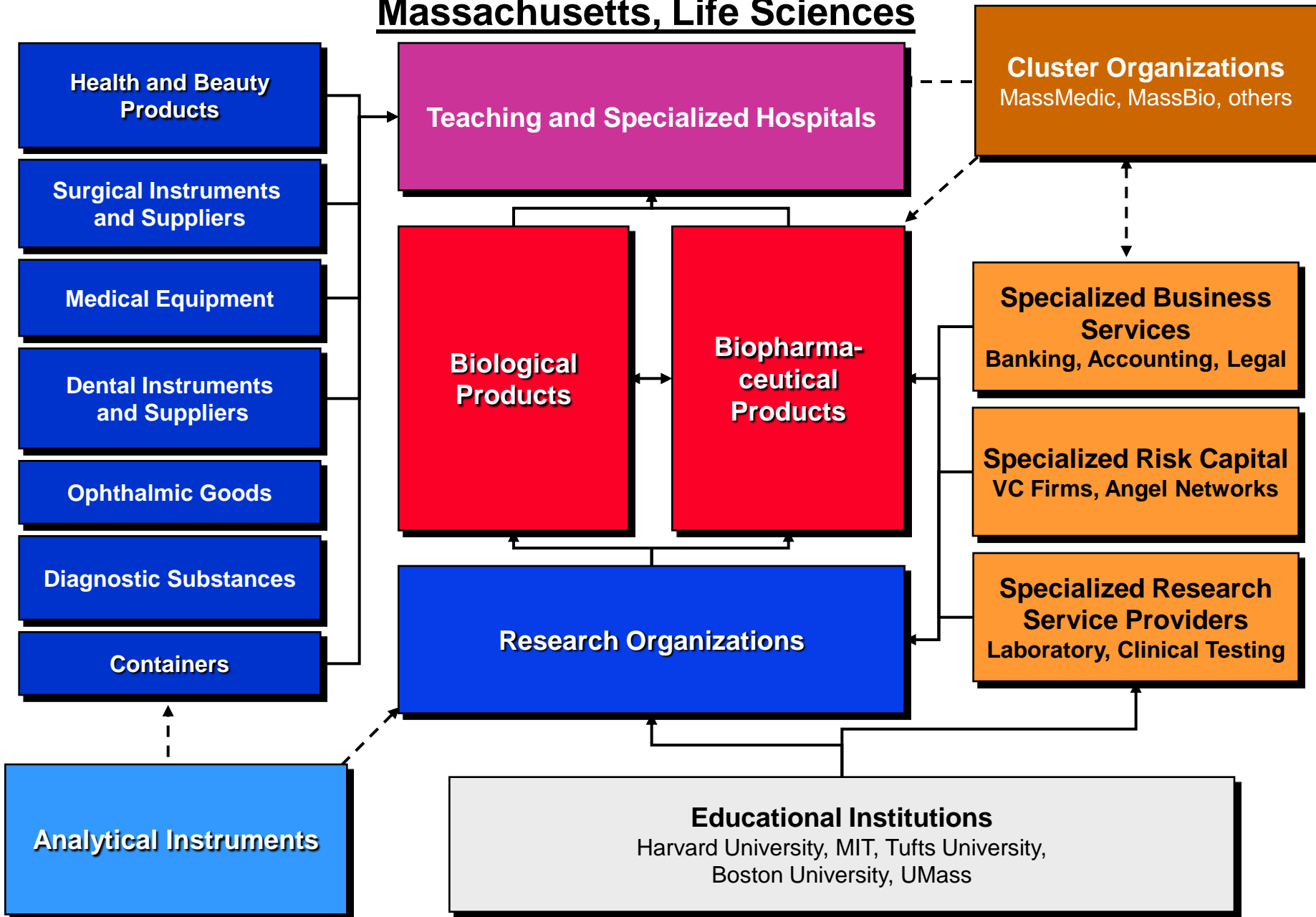
- **Many things matter** for competitiveness
- Successful economic development is a process of **successive upgrading**, in which the business environment improves to enable increasingly sophisticated ways of competing

Microeconomic Competitiveness: State of Cluster Development

Tourism Cluster in Cairns, Australia



State of Cluster Development Massachusetts, Life Sciences



Globalization and Cluster Specialization

Footwear

Portugal

- Production
- Focus on short-production runs in the medium price range

Romania

- Production subsidiaries of Italian companies
- Focus on lower to medium price range

China

- OEM Production
- Focus on low cost segment mainly for the US market

Italy

- Design, marketing, and production of premium shoes
- Export widely to the world market

United States

- Design and marketing
- Focus on specific market segments like sport and recreational shoes and boots
- Manufacturing only in selected lines such as hand-sewn casual shoes and boots

Brazil

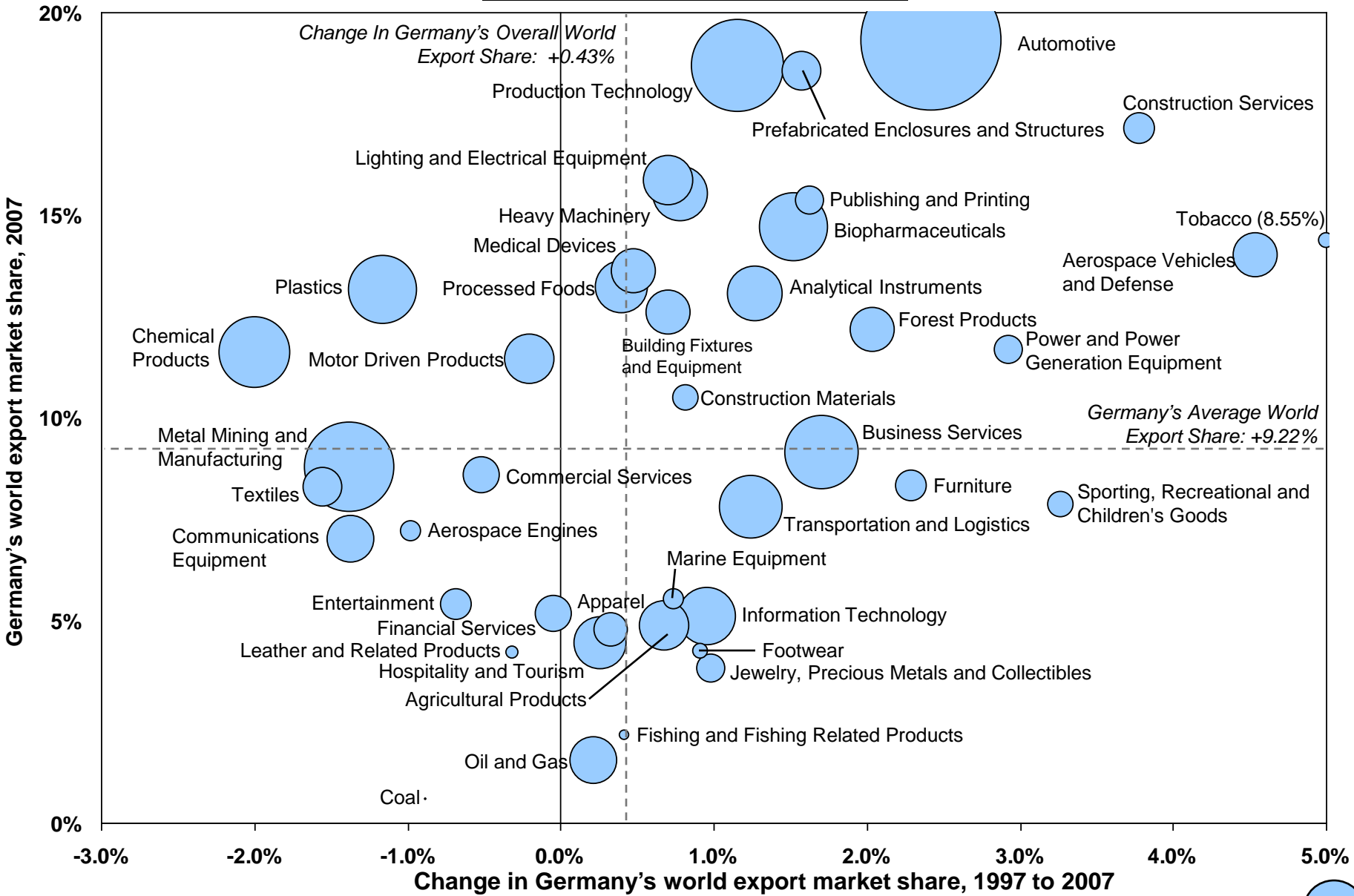
- Low to medium quality finished shoes, inputs, leather tanning
- Shift toward higher quality products in response to Chinese price competition

Vietnam/Indonesia


- OEM Production
- Focus on the low cost segment mainly for the European market

National Cluster Export Portfolio

Germany, 1997 to 2007

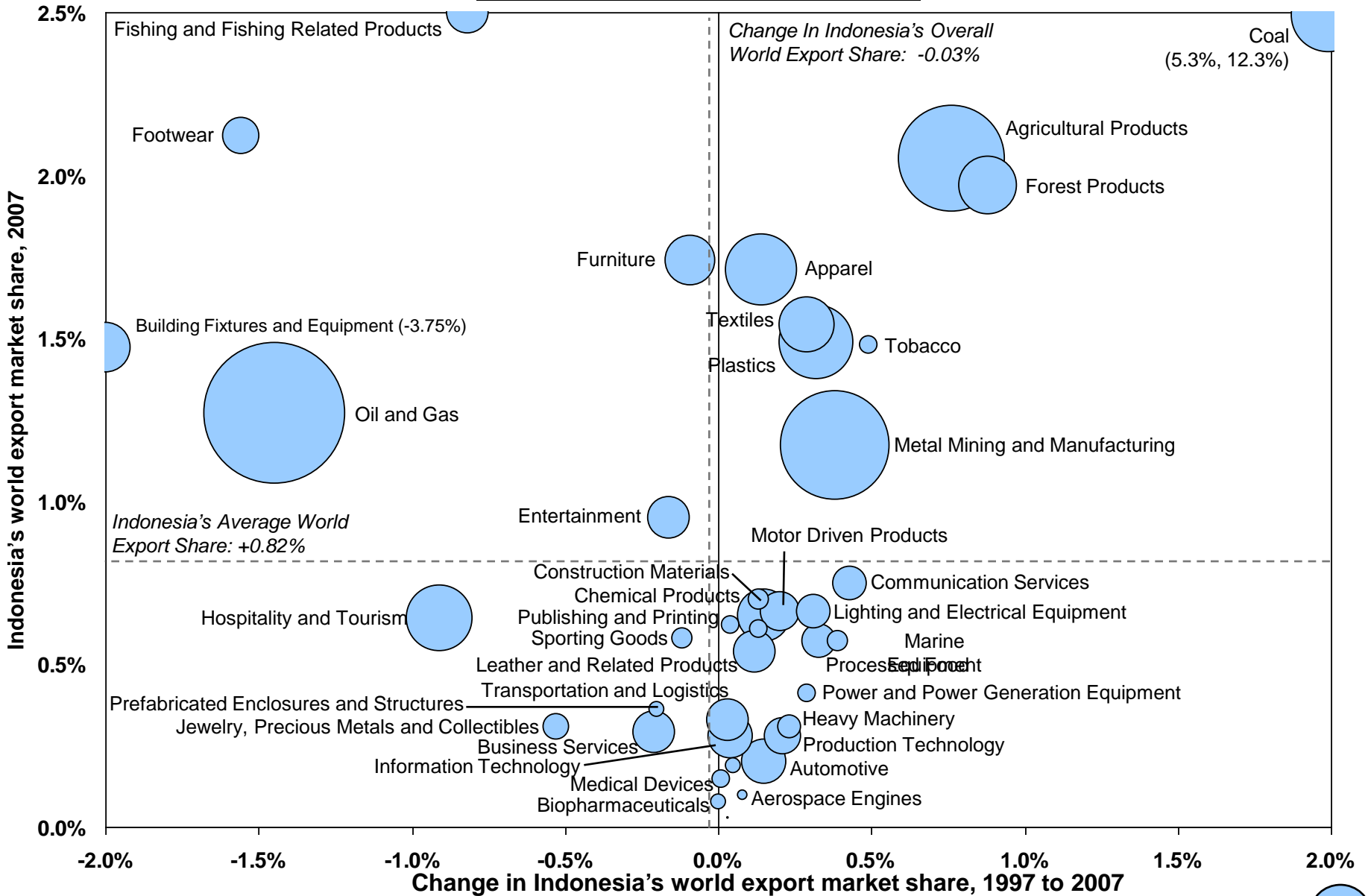


Source: Prof. Michael E. Porter, International Cluster Competitiveness Project, Institute for Strategy and Competitiveness, Harvard Business School; Richard Bryden, Project Director. Underlying data drawn from the UN Commodity Trade Statistics Database and the IMF BOP statistics.

Exports of US\$44 Billion = 

National Cluster Export Portfolio

Indonesia, 1997 to 2007



Source: Prof. Michael E. Porter, International Cluster Competitiveness Project, Institute for Strategy and Competitiveness, Harvard Business School; Richard Bryden, Project Director. Underlying data drawn from the UN Commodity Trade Statistics Database and the IMF BOP statistics.

Exports of US\$4.2 Billion =

Institutions for Collaboration

Selected Massachusetts Organizations, Life Sciences

Life Sciences Industry Associations

- Massachusetts Biotechnology Council
- Massachusetts Medical Device Industry Council
- Massachusetts Hospital Association

General Industry Associations

- Associated Industries of Massachusetts
- Greater Boston Chamber of Commerce
- High Tech Council of Massachusetts

Economic Development Initiatives

- Massachusetts Technology Collaborative
- Mass Biomedical Initiatives
- Mass Development
- Massachusetts Alliance for Economic Development

University Initiatives

- Harvard Biomedical Community
- MIT Enterprise Forum
- Biotech Club at Harvard Medical School
- Technology Transfer offices

Informal networks

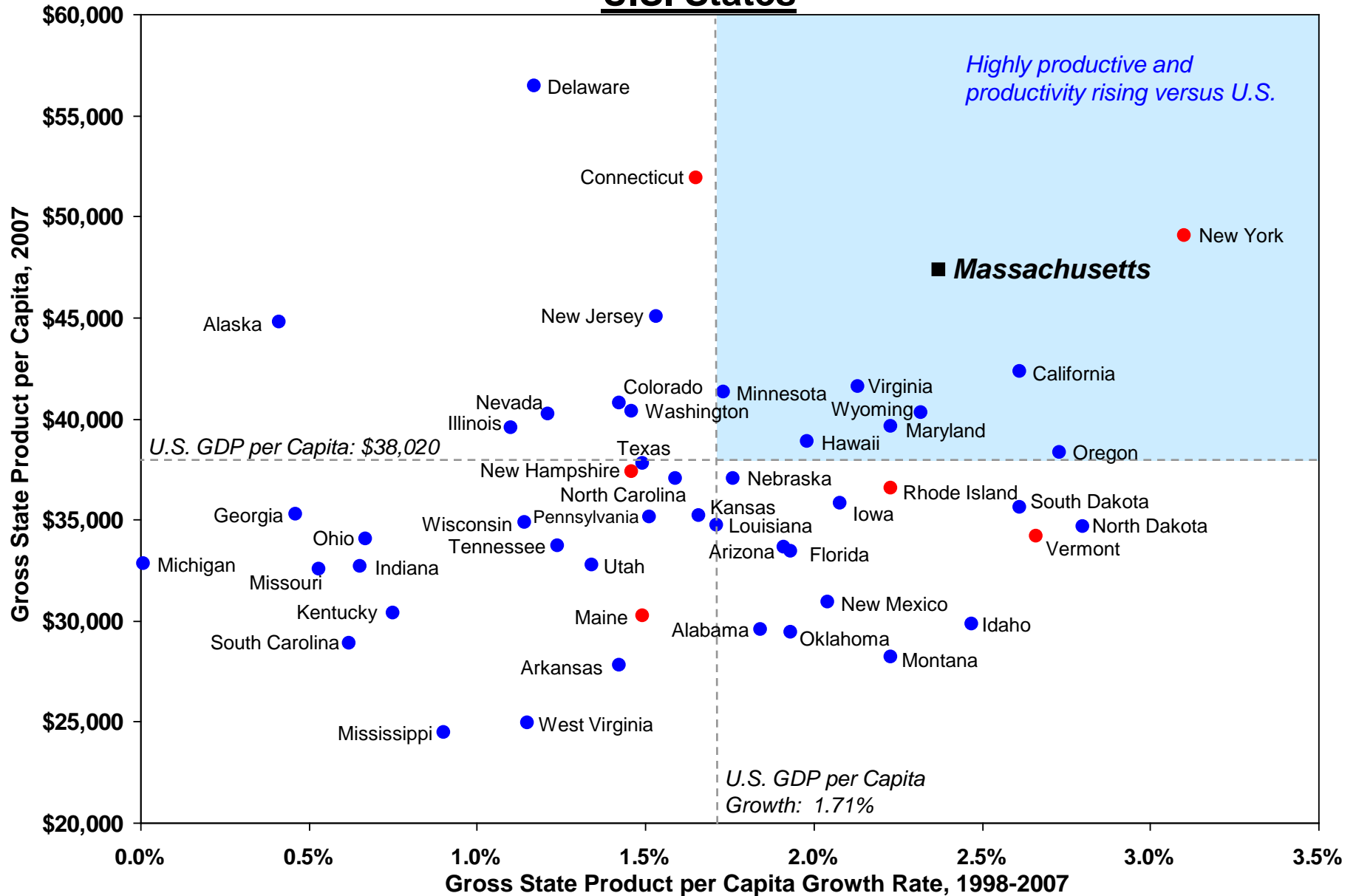
- Company alumni groups
- Venture capital community
- University alumni groups

Joint Research Initiatives

- New England Healthcare Institute
- Whitehead Institute For Biomedical Research
- Center for Integration of Medicine and Innovative Technology (CIMIT)

Regional Economic Performance

U.S. States

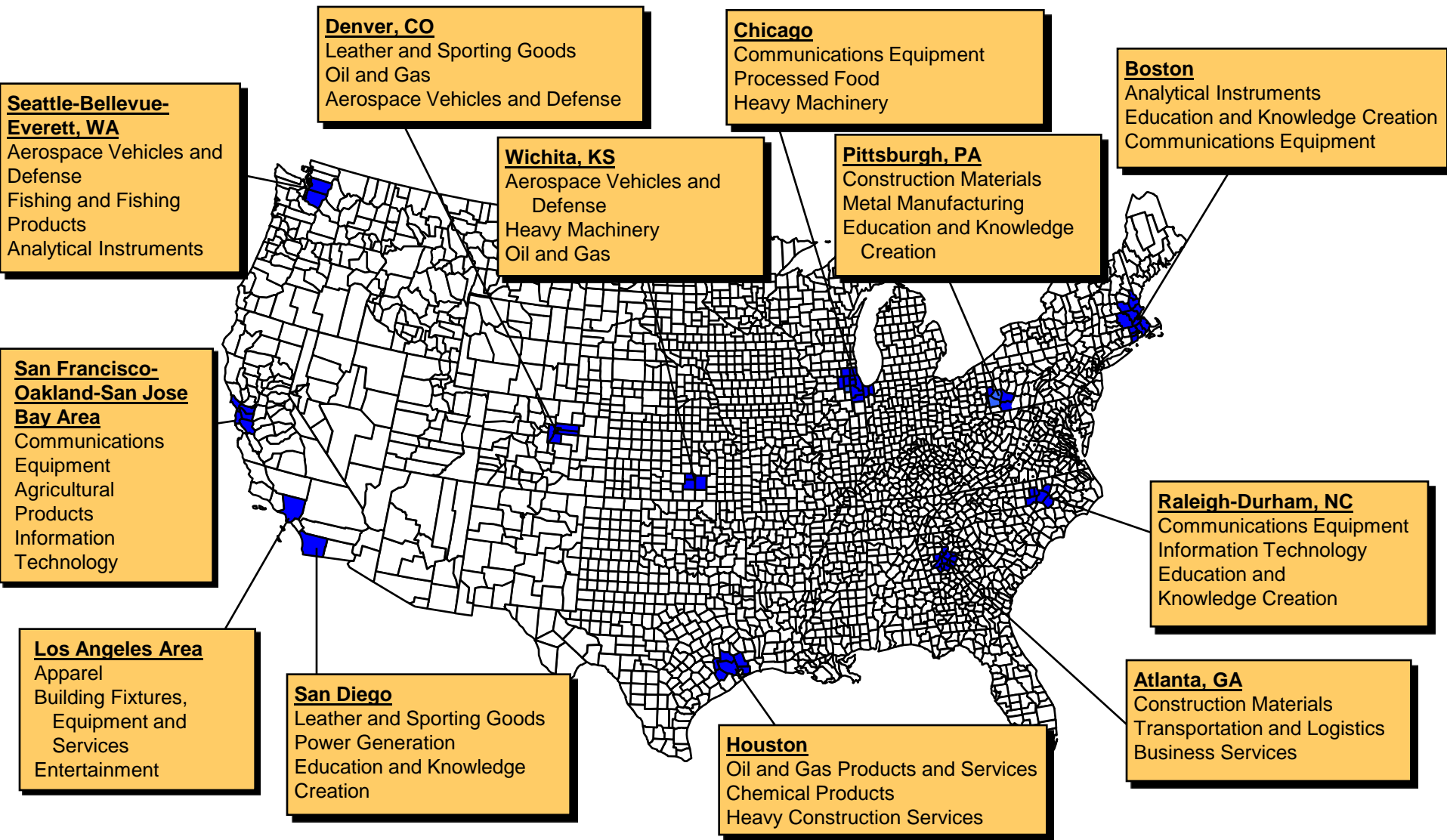


Source: Bureau of Economic Analysis. Growth calculated using compound annual growth rates. Gross state product figures in 2000 chained US dollars.

Notes: District of Columbia: \$124,363, %3.09. Growth rate calculated as compound annual growth rate (CAGR).

Specialization of Regional Economies

Selected U.S. Geographic Areas

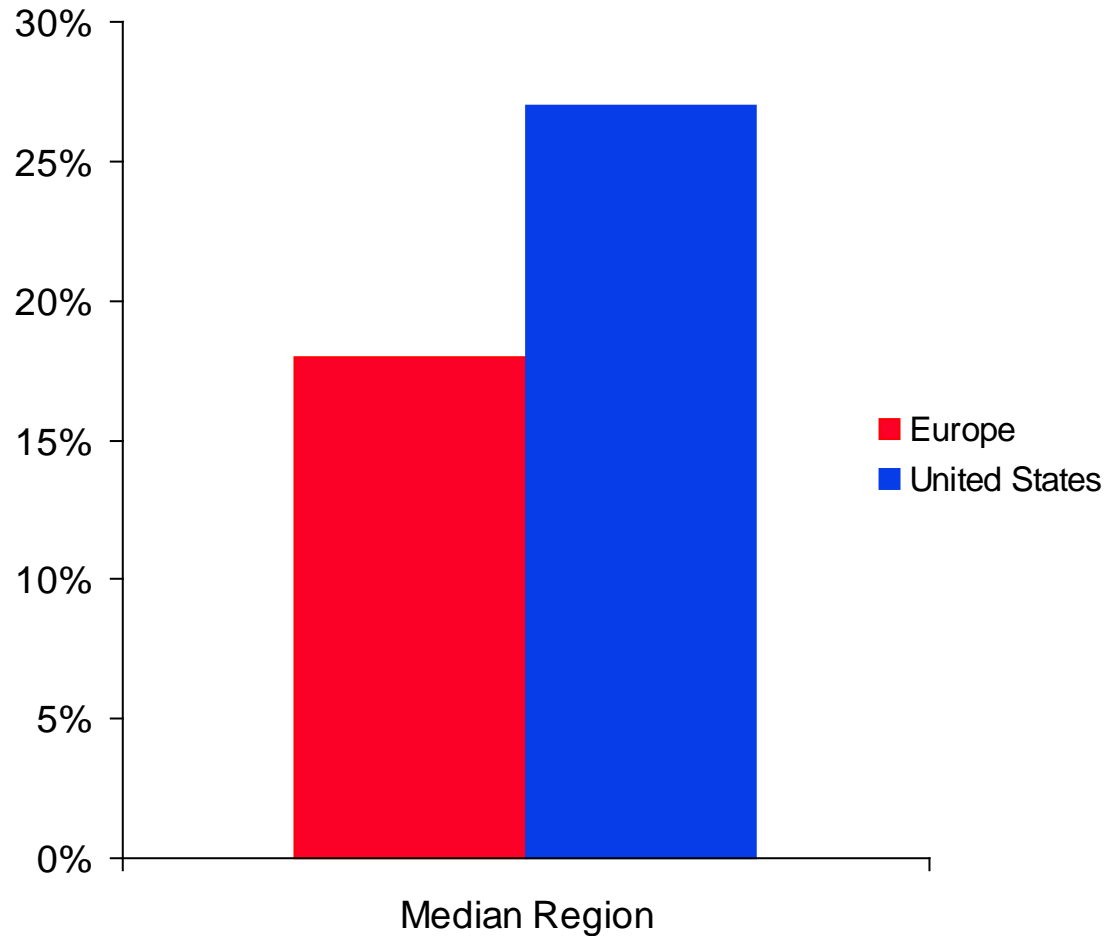


Note: Clusters listed are the three highest ranking clusters in terms of share of national employment.

Source: Cluster Mapping Project, Institute for Strategy and Competitiveness, Harvard Business School, 11/2006.

Cluster Strength in Europe versus the United States

Share of Employment in Strong Clusters

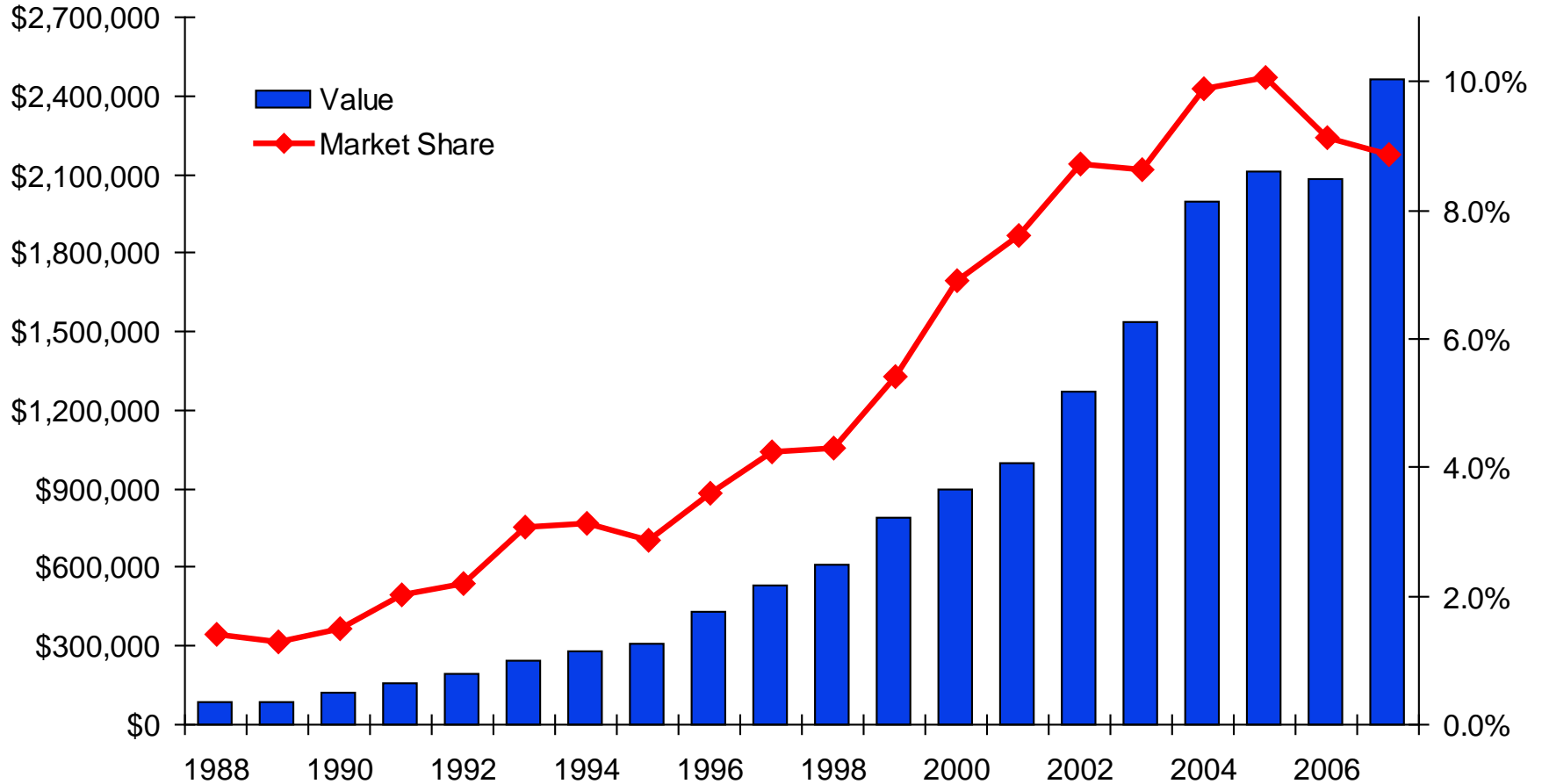


The Australian Wine Cluster

Trade Performance

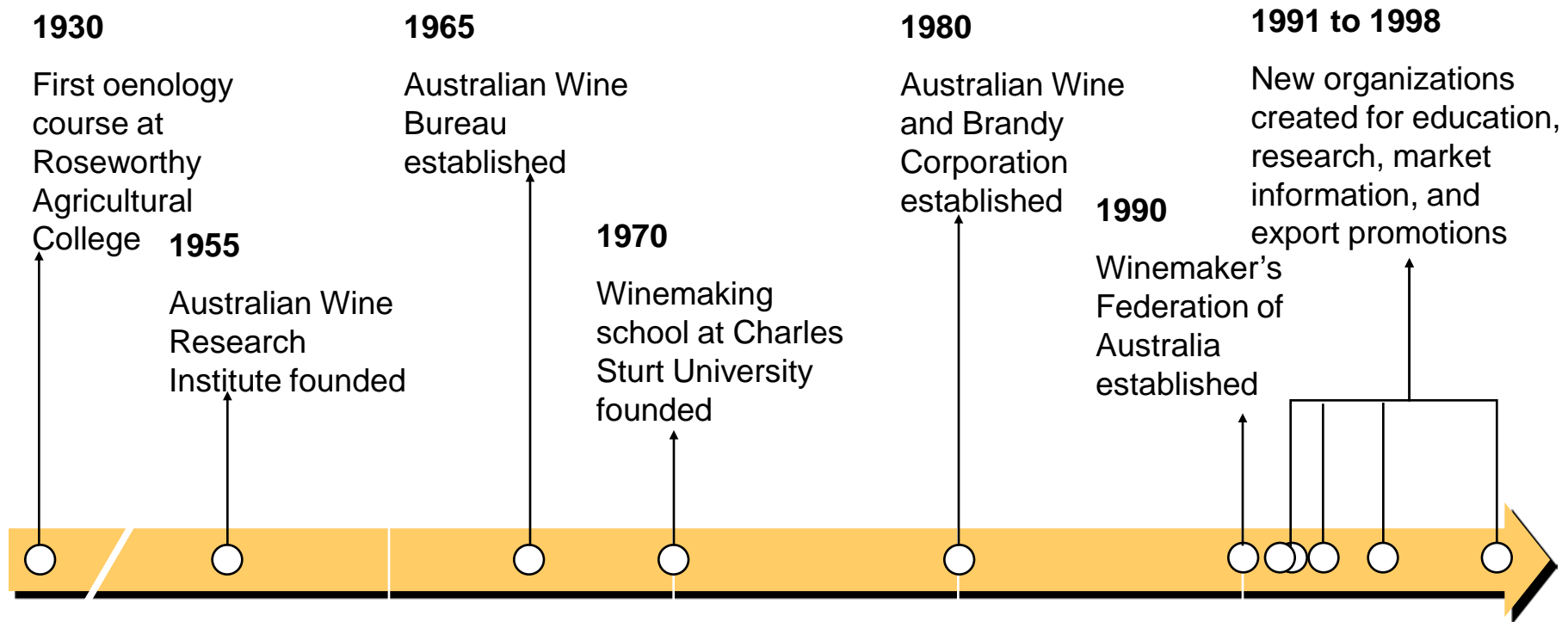
Australian Wine Exports in thousand US \$

Australian Wine World Export Market Share



Source: Prof. Michael E. Porter, International Cluster Competitiveness Project, Institute for Strategy and Competitiveness, Harvard Business School; Richard Bryden, Project Director. Underlying data drawn from the UN Commodity Trade Statistics Database.

The Australian Wine Cluster History



1950s

Import of European winery technology

1960s

Recruiting of experienced foreign investors, e.g. Wolf Bass

1970s

Continued inflow of foreign capital and management

1980s

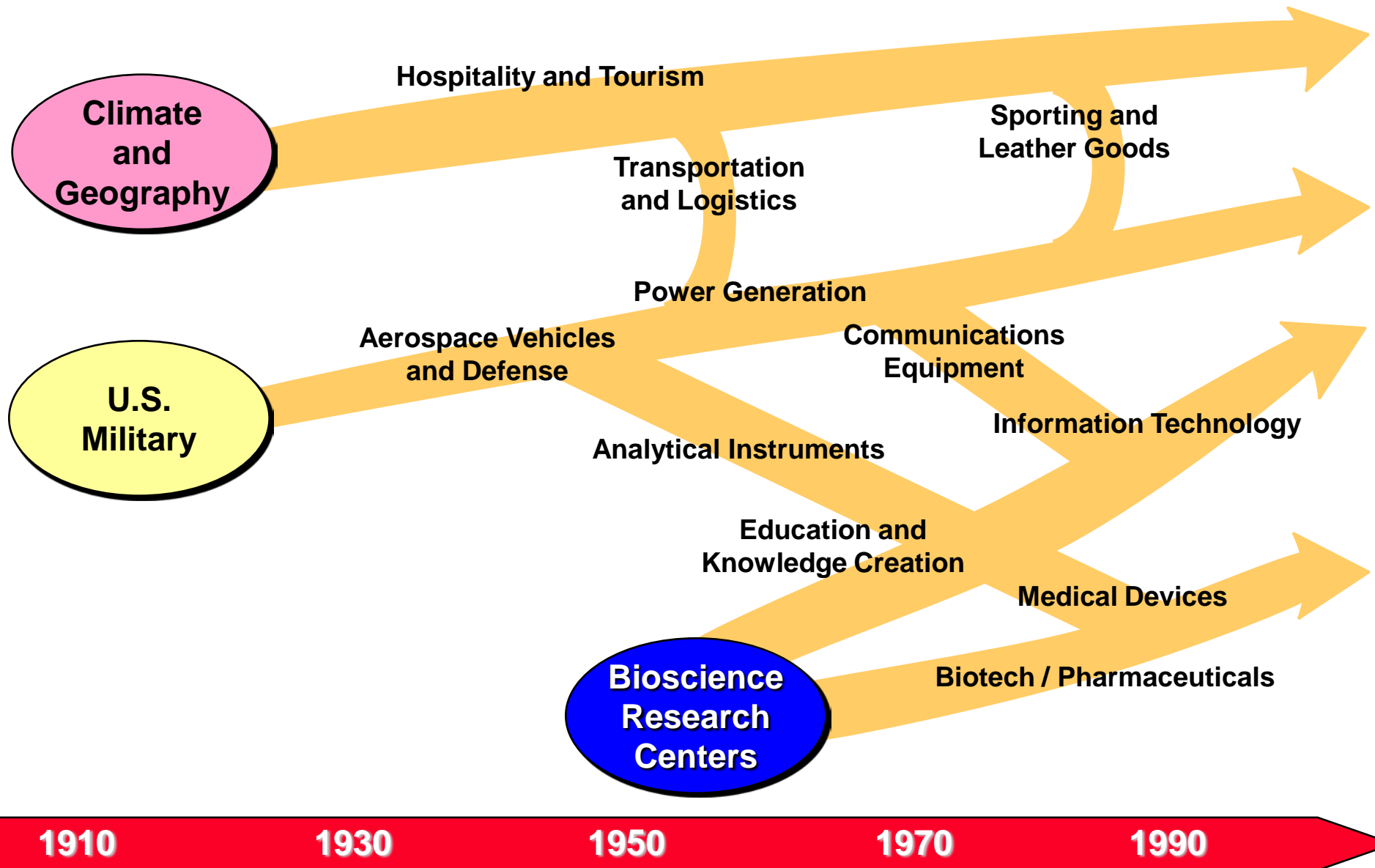
Creation of large number of new wineries

1990s

Surge in exports and international acquisitions

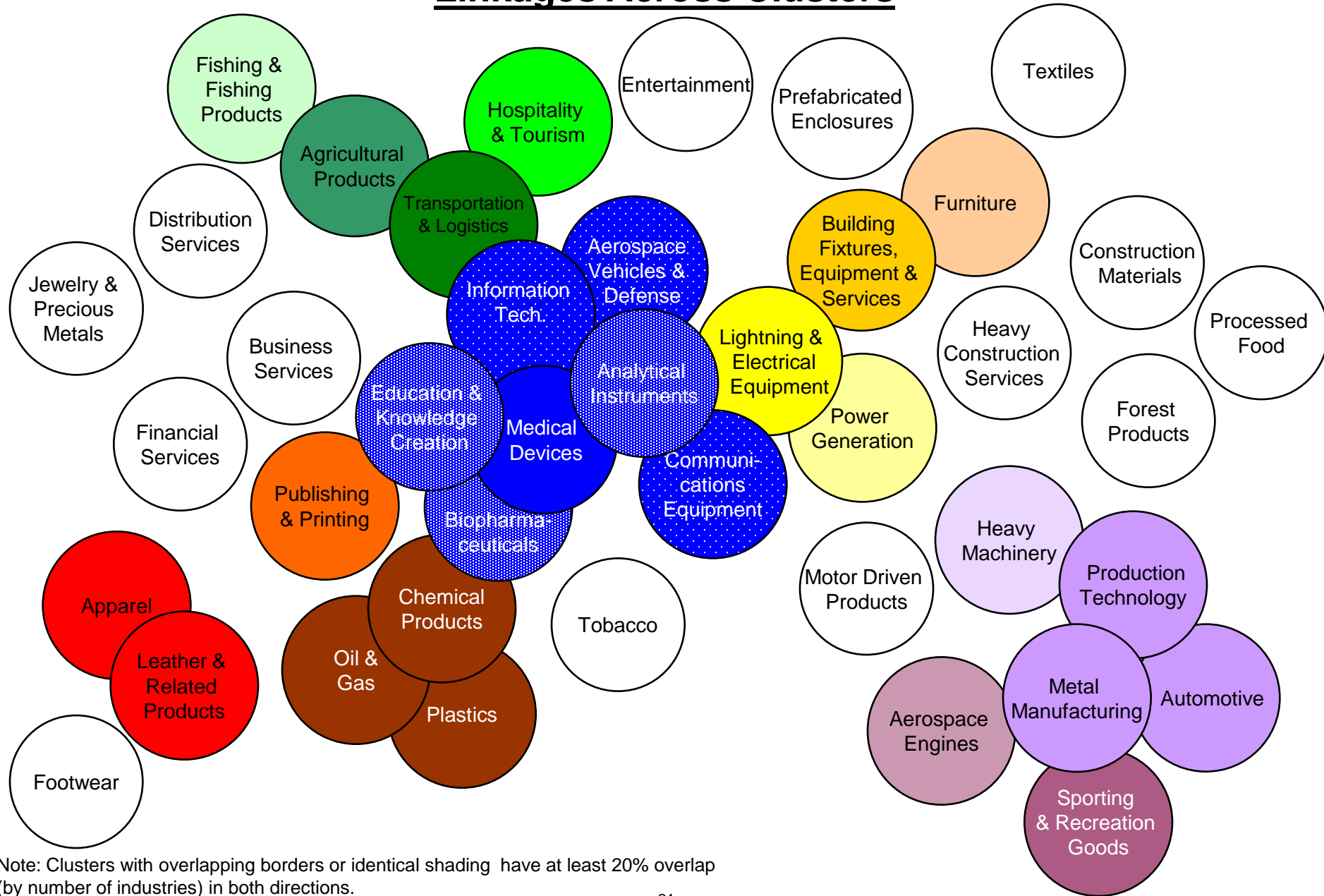
The Evolution of Regional Economies

San Diego



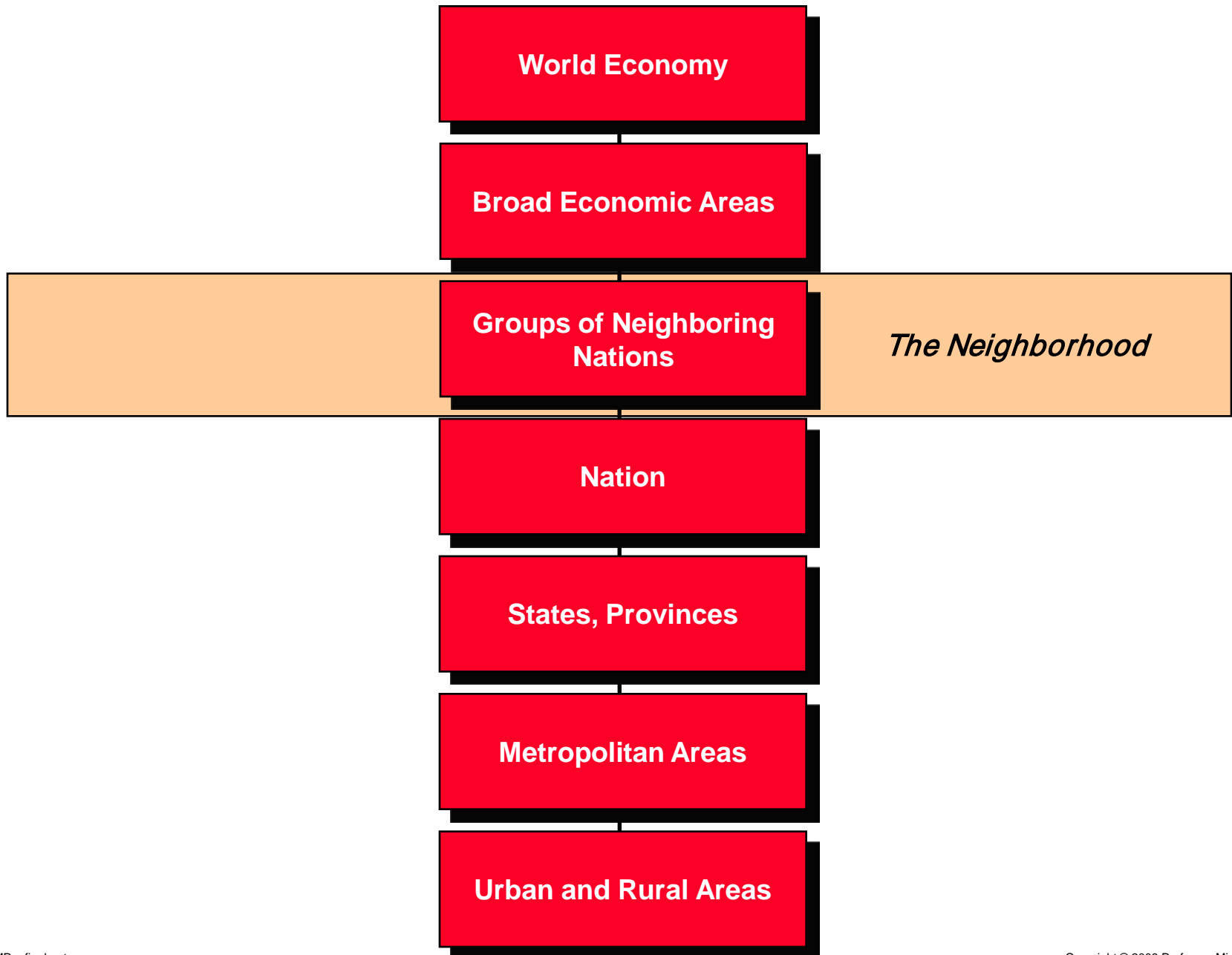
Competitiveness and the Composition of the Economy

Linkages Across Clusters



Note: Clusters with overlapping borders or identical shading have at least 20% overlap (by number of industries) in both directions.

Geographic Influences on Competitiveness



The Neighborhood

Southeast Asia



- Economic coordination among neighboring countries can significantly enhance competitiveness
- Integration offers greater opportunities than participation in broader economic forums (e.g., APEC)

The Process of Economic Development

Shifting Roles and Responsibilities

Old Model

- **Government** drives economic development through policy decisions and incentives



New Model

- Economic development is a **collaborative process** involving government at multiple levels, companies, teaching and research institutions, and private sector organizations

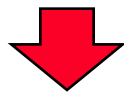
- Competitiveness must become a **bottoms-up process** in which many individuals, companies, and institutions take responsibilities
- **Every** community and cluster can take steps to enhance competitiveness
- The **rapid sector** must become more engaged in competitiveness to improve rapidly

Role of the Private Sector in Economic Development

- A company's competitive advantage depends partly on the **quality of the business environment**
- A company gains advantages from being part of a **cluster**



- Take an **active role** in upgrading local infrastructure
- Nurture **local suppliers** and attract foreign suppliers
- Work closely with local **educational and research institutions**, to upgrade their **quality and create specialized programs addressing the cluster's needs**
- Inform government on **regulatory issues and constraints** bearing on cluster development
- Focus **corporate philanthropy** on enhancing the local business environment
- Leverage **trade associations** for competitiveness
 - Greater influence if many companies are united
 - Cost sharing between members



- Businesses must **drive the process** of competitiveness improvement at the national and regional level

Defining an Economic Strategy

National Value Proposition

- What is the **unique competitive position** of the nation or region given its location, legacy, and existing and potential strengths?
 - What role can it play with neighbors, the region, and the world economy?
 - What unique value as a business location?
 - For what types of activities and clusters?

Developing Unique Strengths

Achieving and Maintaining Parity with Peers



- Priorities and sequencing are necessity in economic development

Strategic Issues For the United States

Core Strengths

- Innovation
 - Science, technology, R&D
 - Entrepreneurship
 - Free and open competition
 - Capital markets (current uncertainty)
 - Economic decentralization
- 
- Dynamism and flexibility

Weaknesses

- Human resources challenges
 - Need to restructure public education
 - Access to higher education
 - Training Americans vs. low skilled immigration
- Distortions in the international trading system
 - Intellectual Property protection
 - Foreign market access for advanced services
 - Distortions/currency/subsidies
- Falling U.S. leadership in international economic development
 - U.S. influence, authority, and focus has diminished
- Weak transitional “Security Blanket”
 - Retraining system
 - Pension security
 - Health insurance access and mobility
- Unnecessary cost of doing business
 - Burdensome regulations
 - Litigation costs
 - High-cost / high complexity tax system
 - Energy inefficiency
 - High healthcare costs