

The Competitive Advantage of Nations, States and Regions

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October 7, 2008

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 2007](#) (World Economic Forum, 2007), "Clusters and the New Competitive Agenda for Companies and Governments" in [On Competition](#) (Harvard Business School Press, 1998), 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: September 26, 2008, 12pm

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

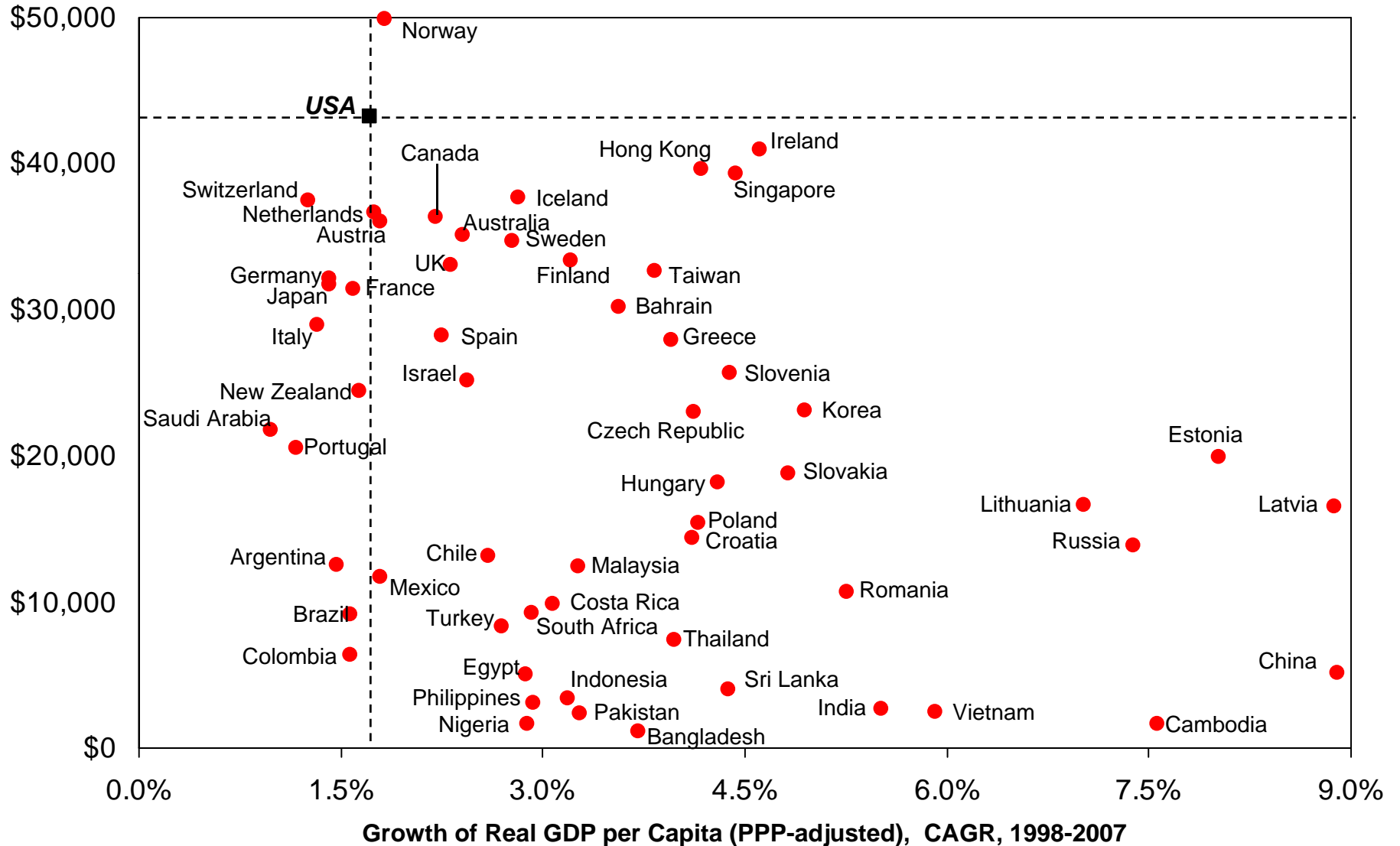


- Improving competitiveness is **increasingly essential** to a country's prosperity

Prosperity Performance

Selected Countries

PPP-adjusted GDP
per Capita, 2007

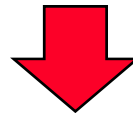


Source: EIU (2008), authors calculations

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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

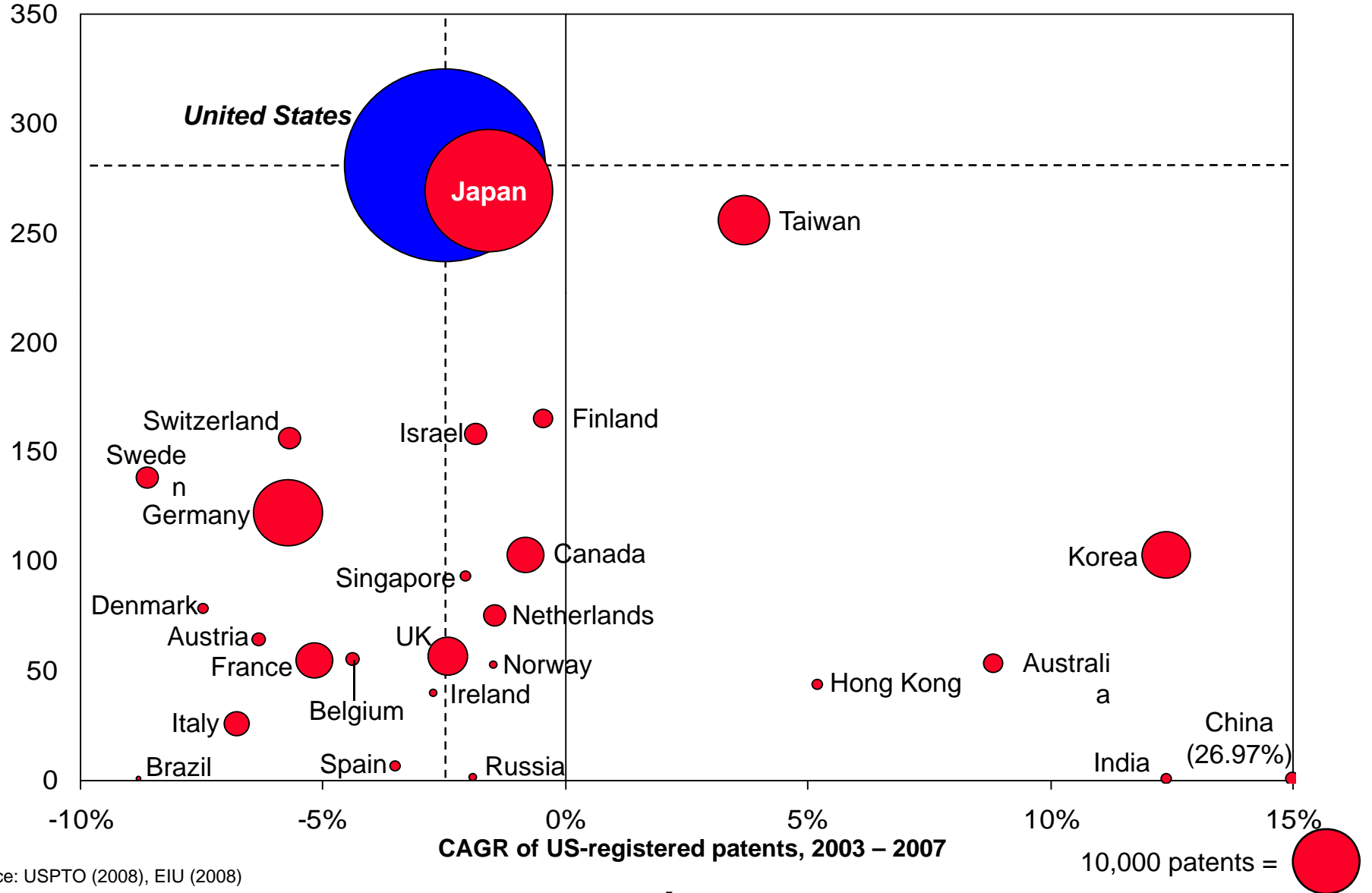


- Nations compete to offer the **most productive environment for business**
- The public and private sectors play **different but interrelated roles** in creating a productive economy

Innovative Capacity

Innovation Output of Top 25 Patent Producing Countries

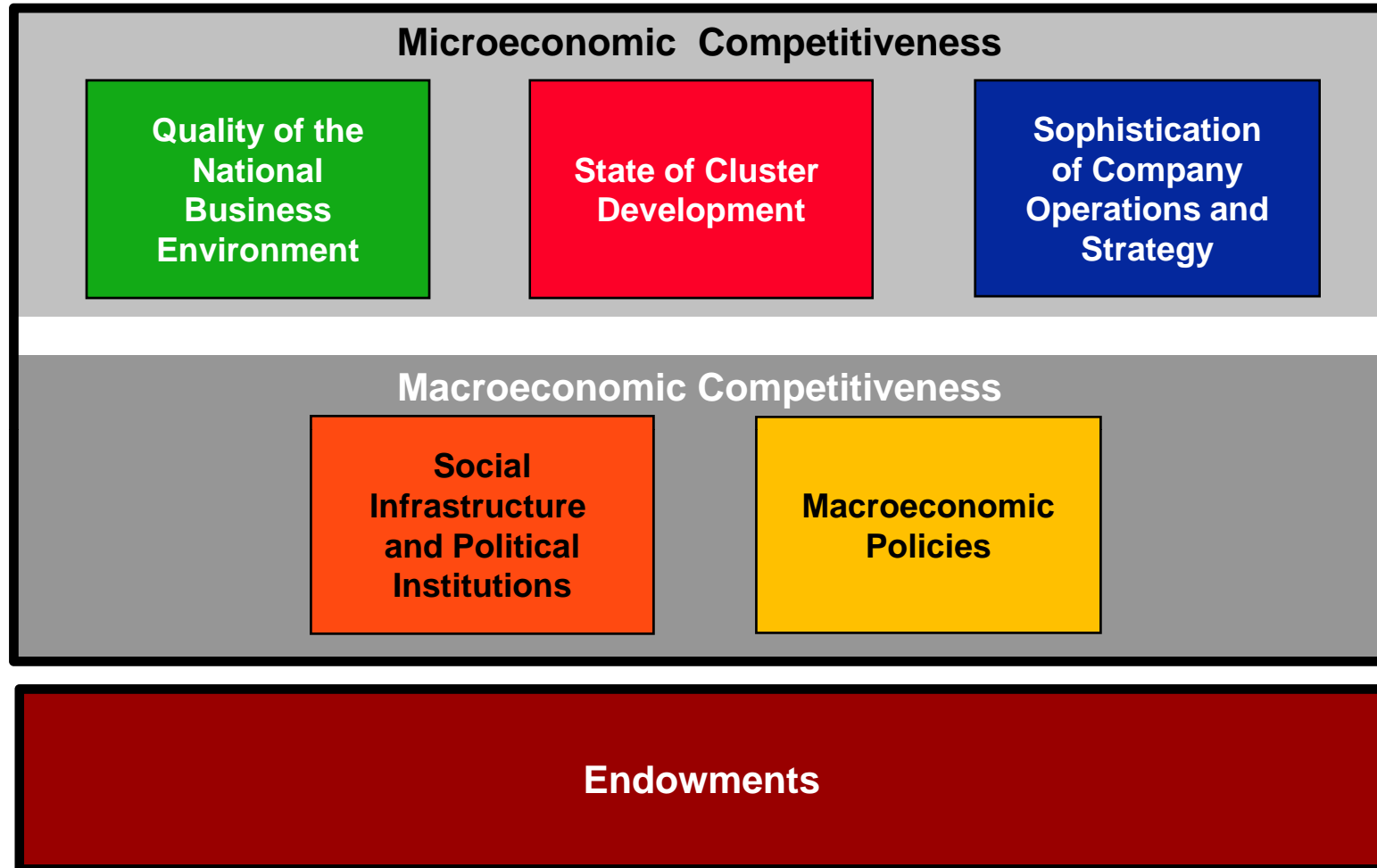
Average U.S. patents per 1 million population, 2003-2007



Source: USPTO (2008), EIU (2008)

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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**

Macroeconomic Competitiveness

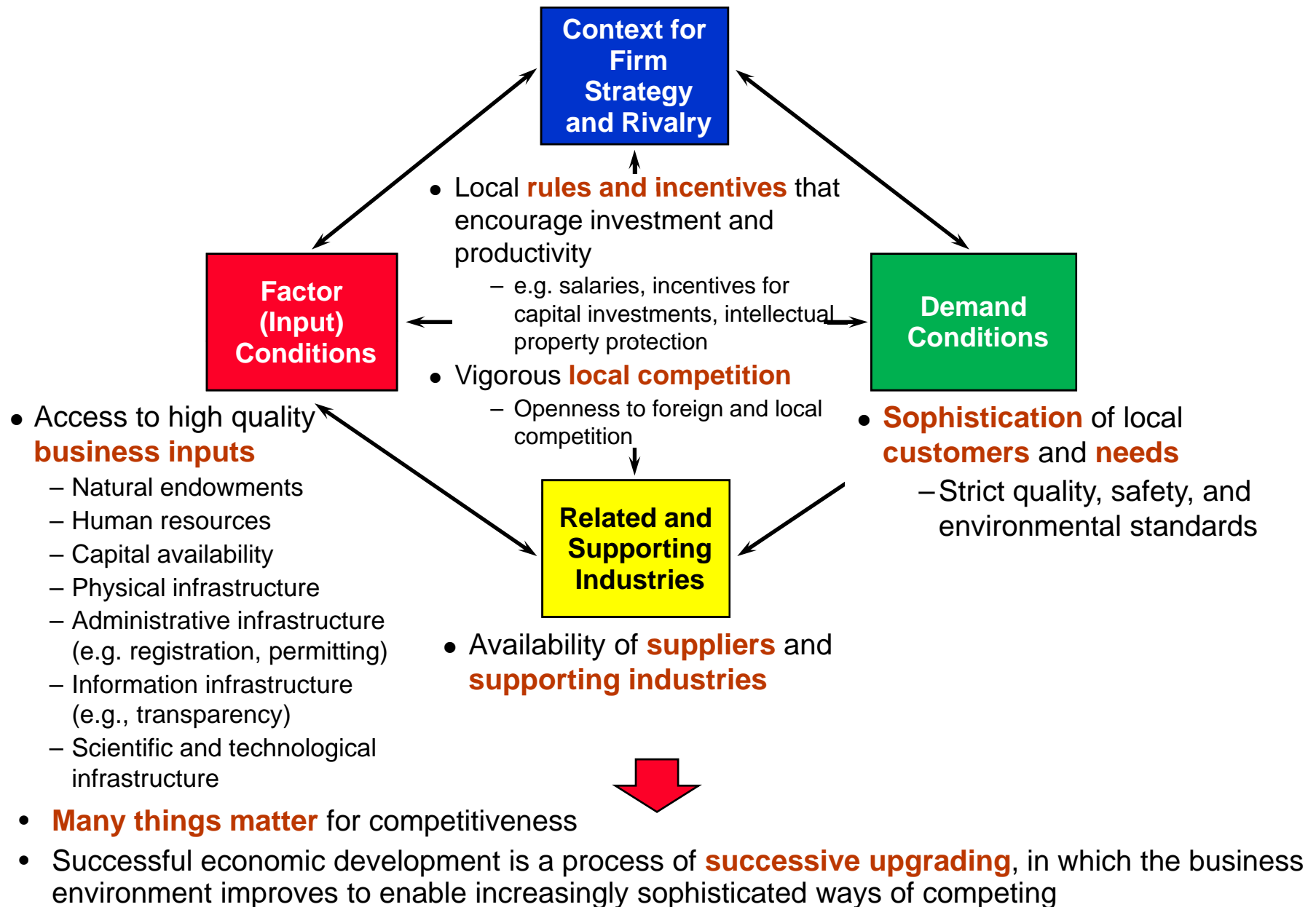
Social Infrastructure and Political Institutions

- **Basic human capacity**
 - Basic education
 - Health system
- **Safety and security**
 - Reliability of police
 - Prevalence and costs of crime
- **Political institutions**
 - Political freedom
 - Voice and accountability
 - Political stability
 - Government effectiveness
 - Centralization of economic policymaking
- **Rule of law**
 - Judicial independence
 - Efficiency of legal framework
 - Business costs of corruption
 - Civil rights

Macroeconomic Policies

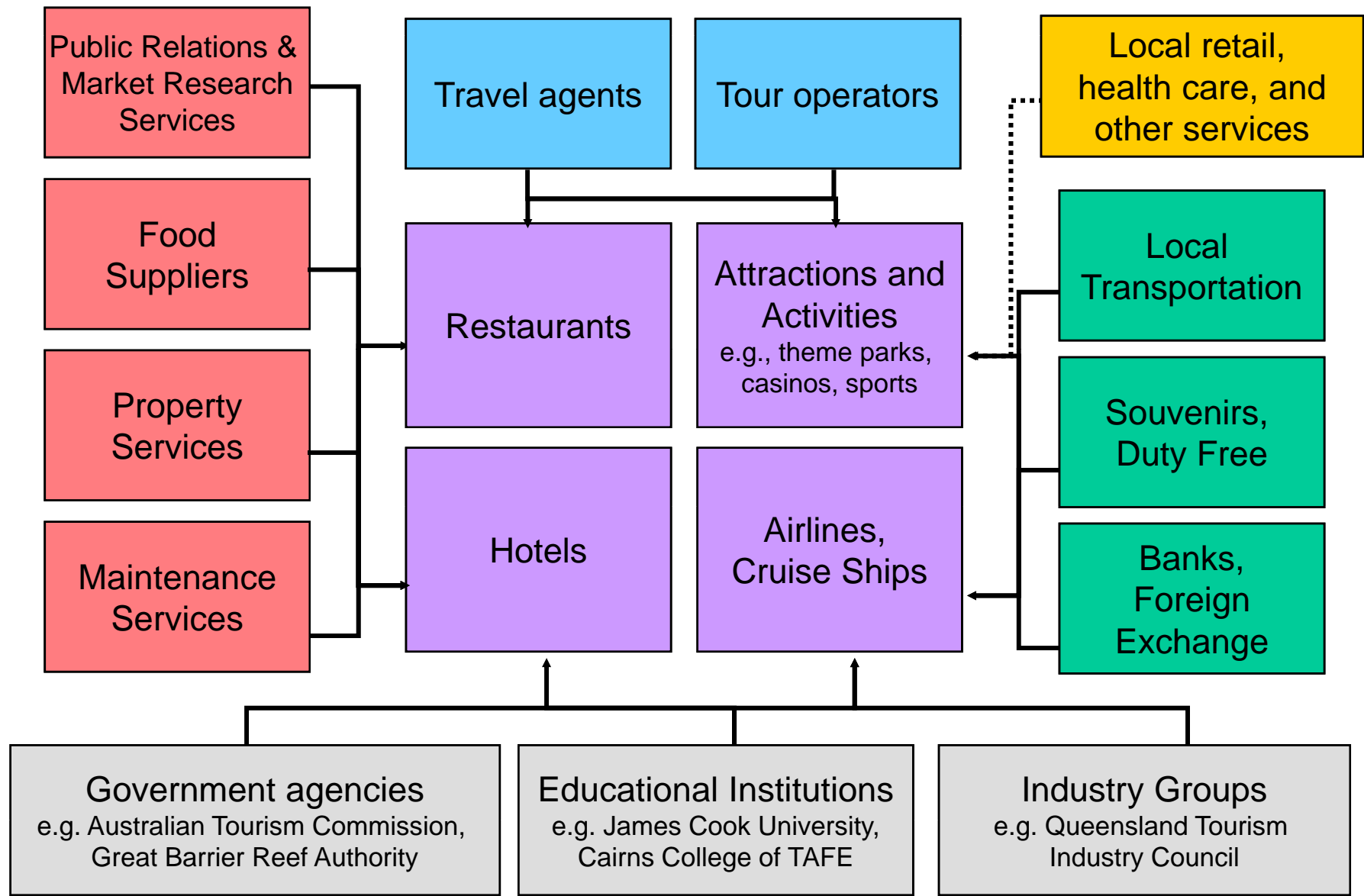
- **Fiscal policy**
 - Government surplus/deficit
 - Government debt
 - Savings / Investment rates
- **Monetary policy**
 - Inflation
 - Interest rate spread
- **Economic openness**
 - Average tariff rate
 - Exchange rate and capital controls

Microeconomic Competitiveness: Quality of the Business Environment



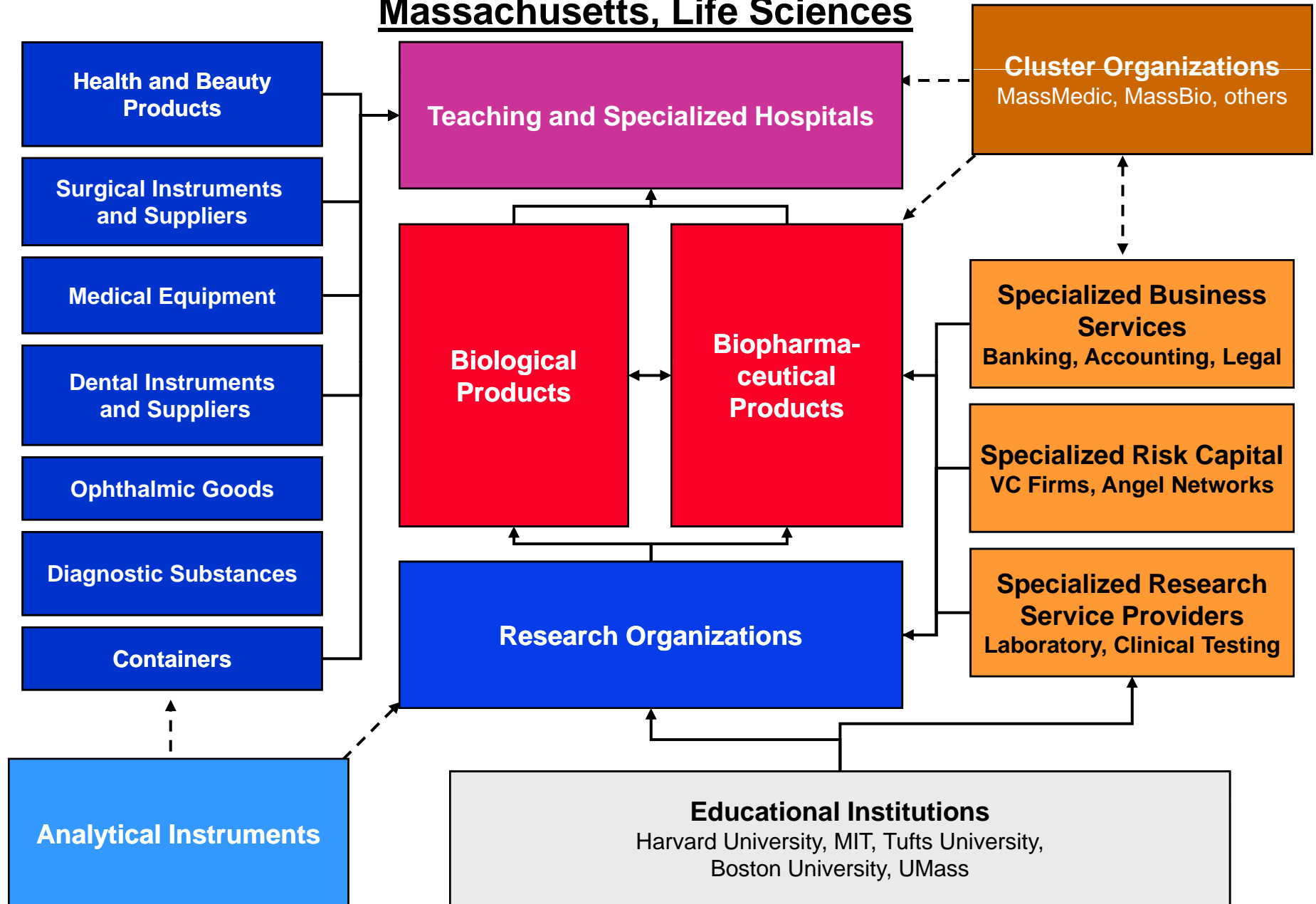
Microeconomic Competitiveness: State of Cluster Development

Tourism Cluster in Cairns, Australia



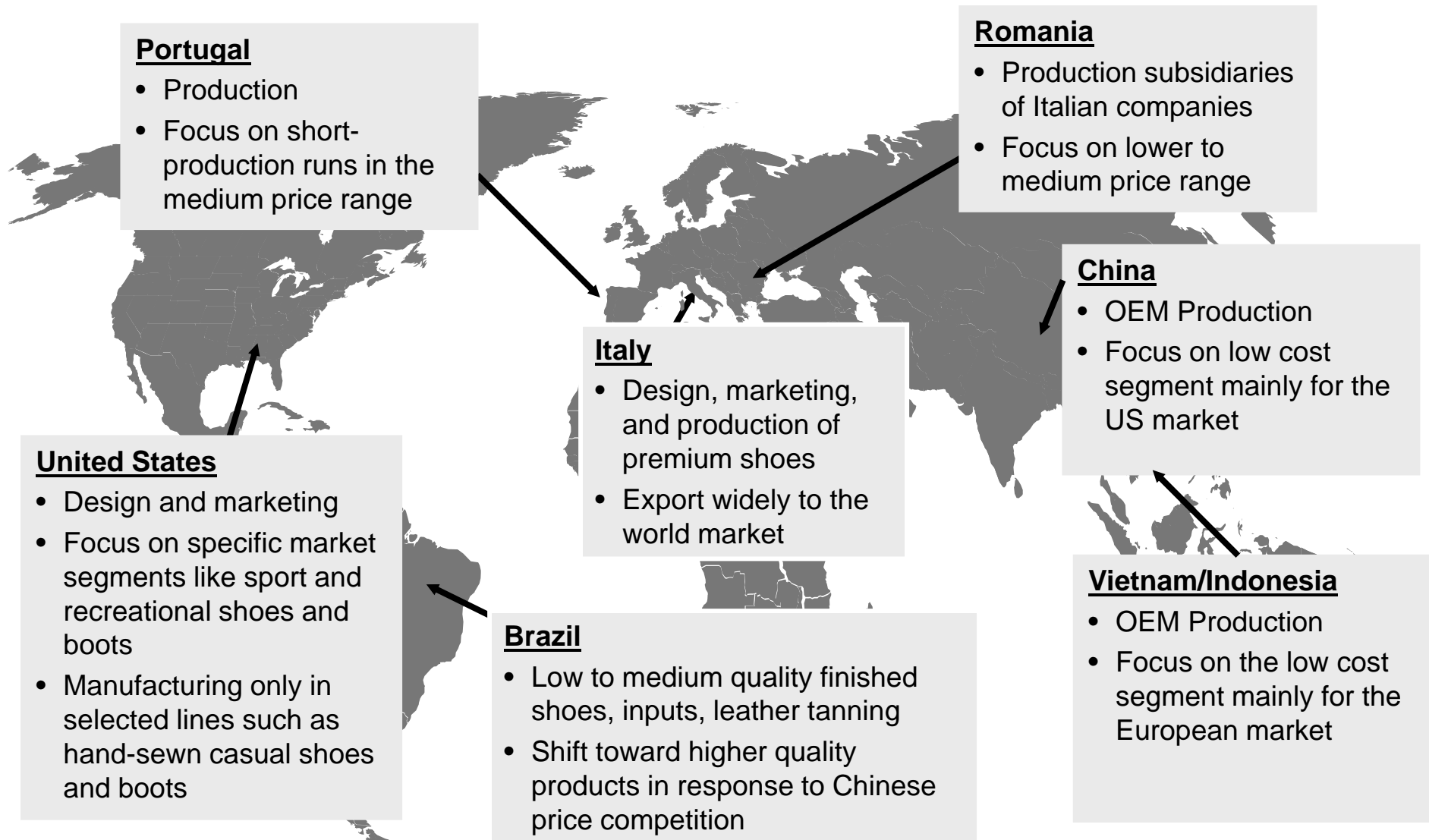
Sources: HBS student team research (2003) - Peter Tynan, Chai McConnell, Alexandra West, Jean Hayden

State of Cluster Development Massachusetts, Life Sciences



Globalization and Cluster Specialization

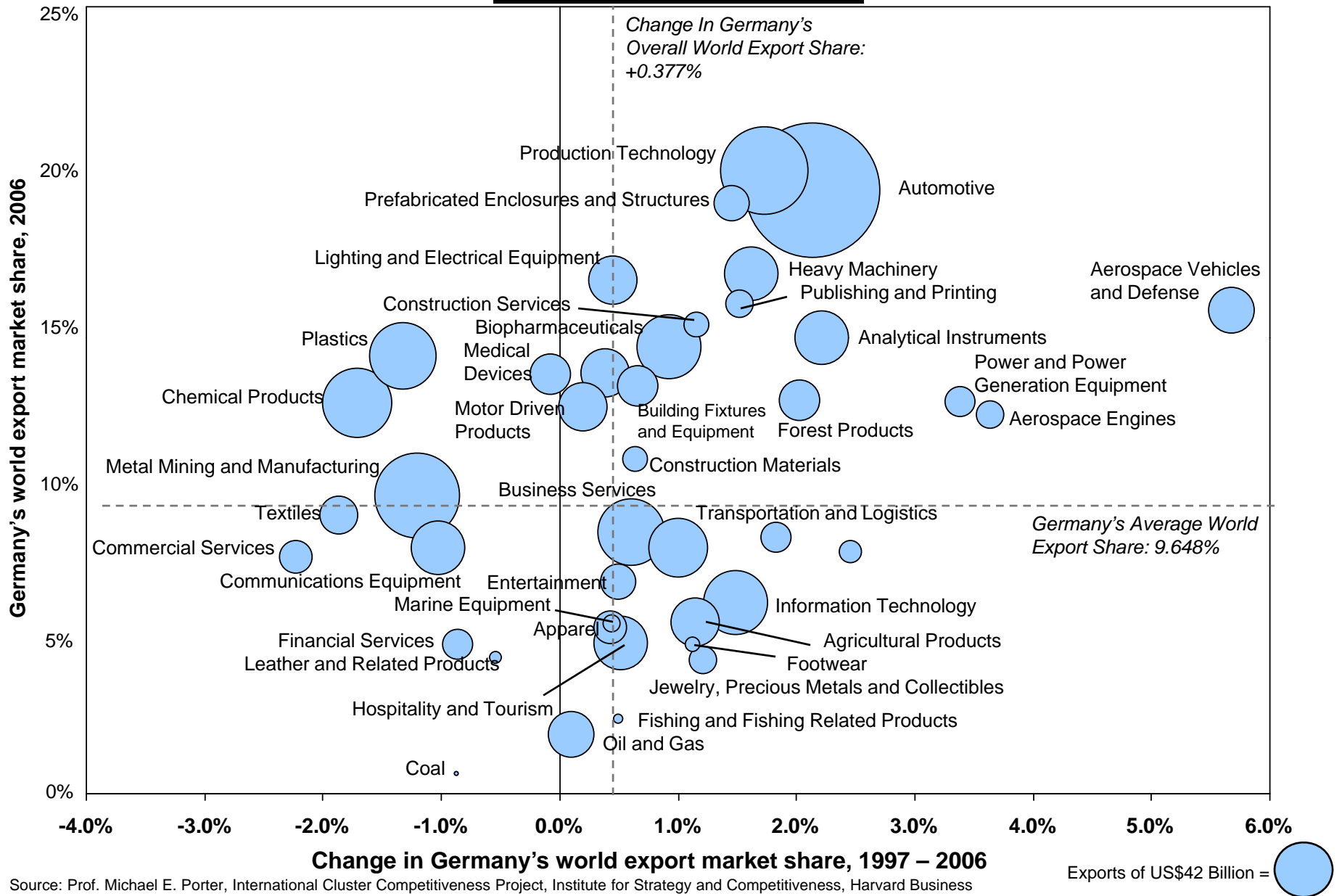
Footwear



Source: Research by HBS student teams in 2002 – Van Thi Huynh, Evan Lee, Kevin Newman, Nils Ole Oermann

National Cluster Export Portfolio

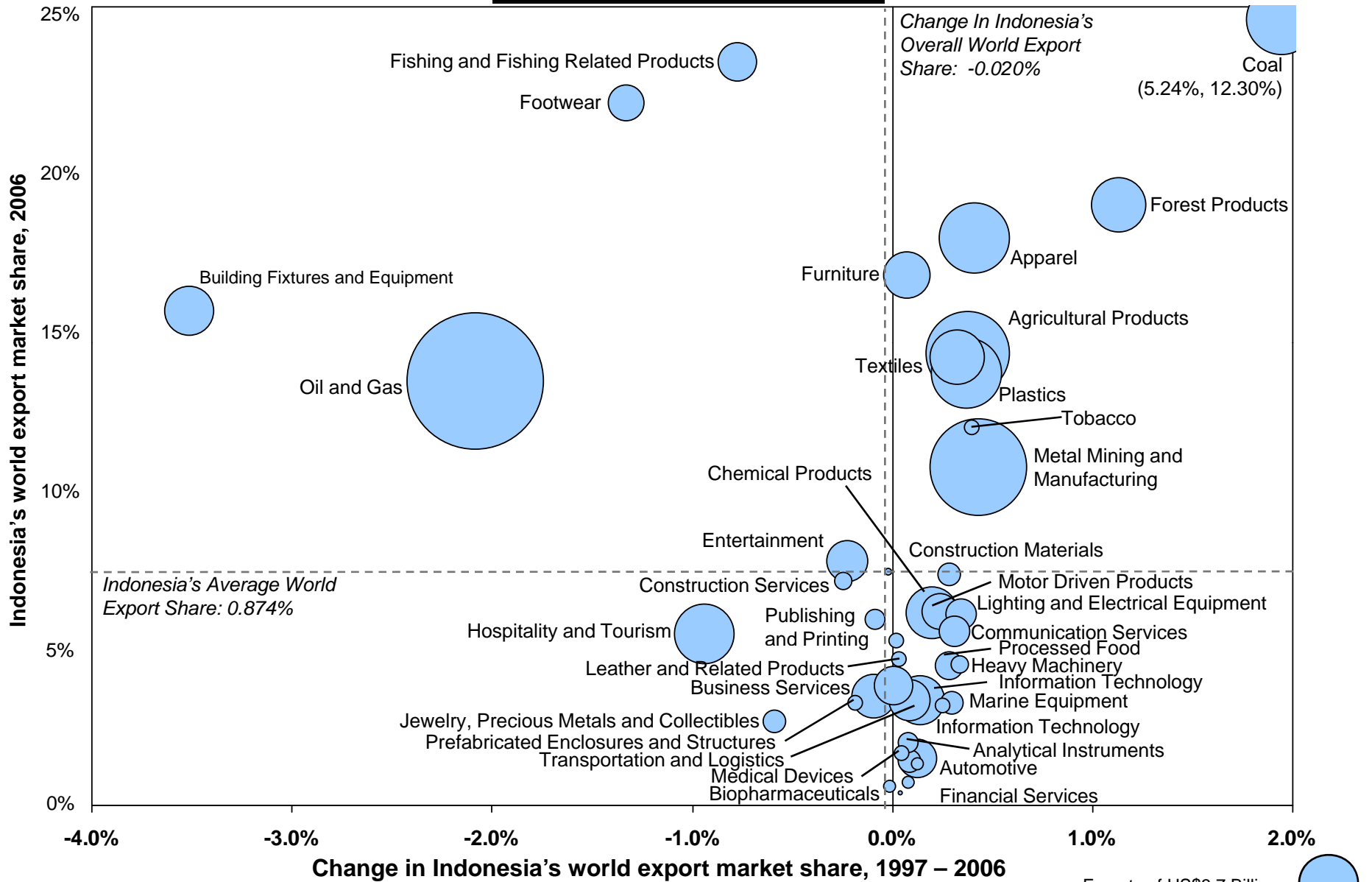
Germany, 1997-2006



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.
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National Cluster Export Portfolio

Indonesia, 1997-2006



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.

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

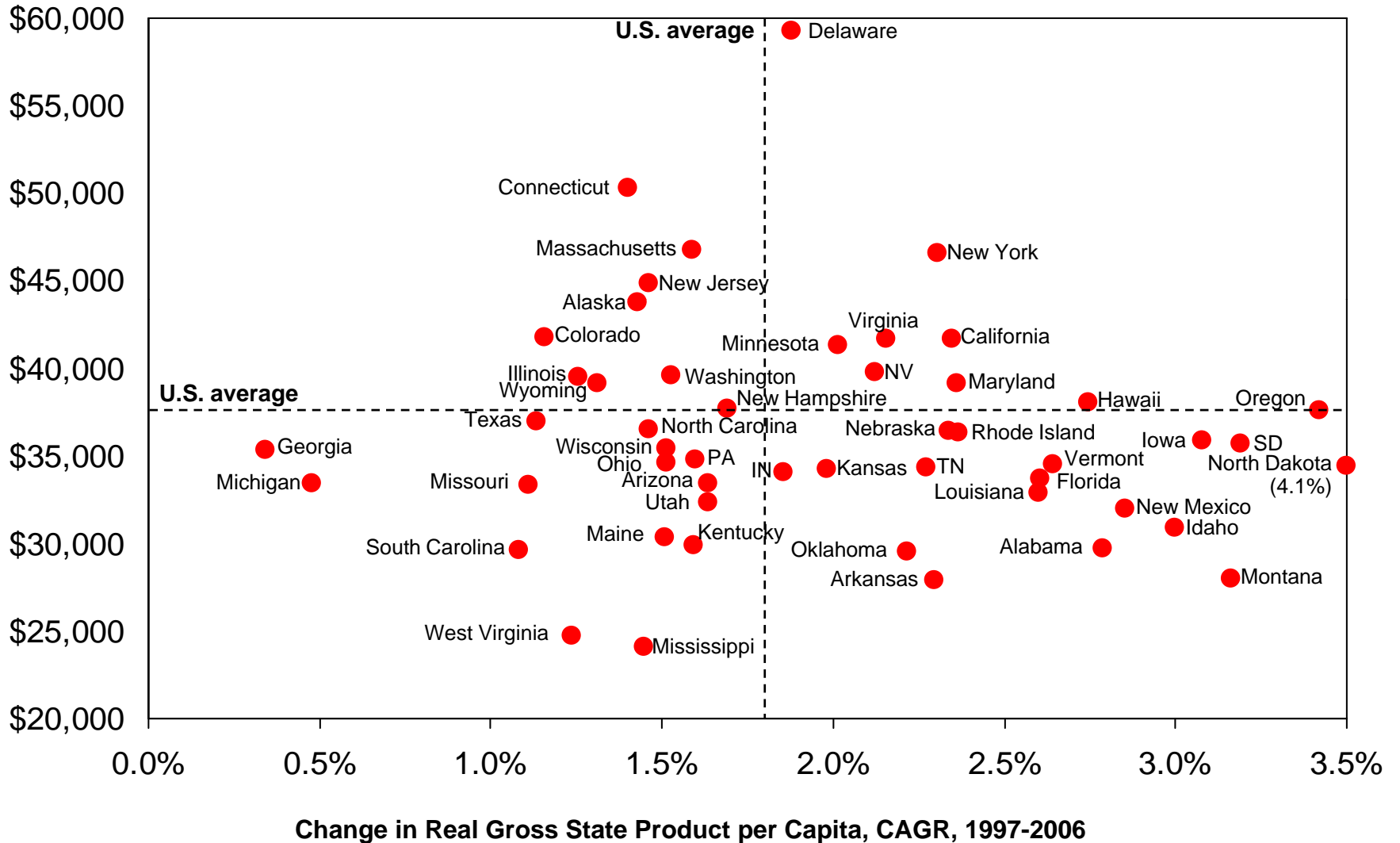
Joint Research Initiatives

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

Regional Economic Performance

U.S. States

Real Gross State Product
per Capita, 2006



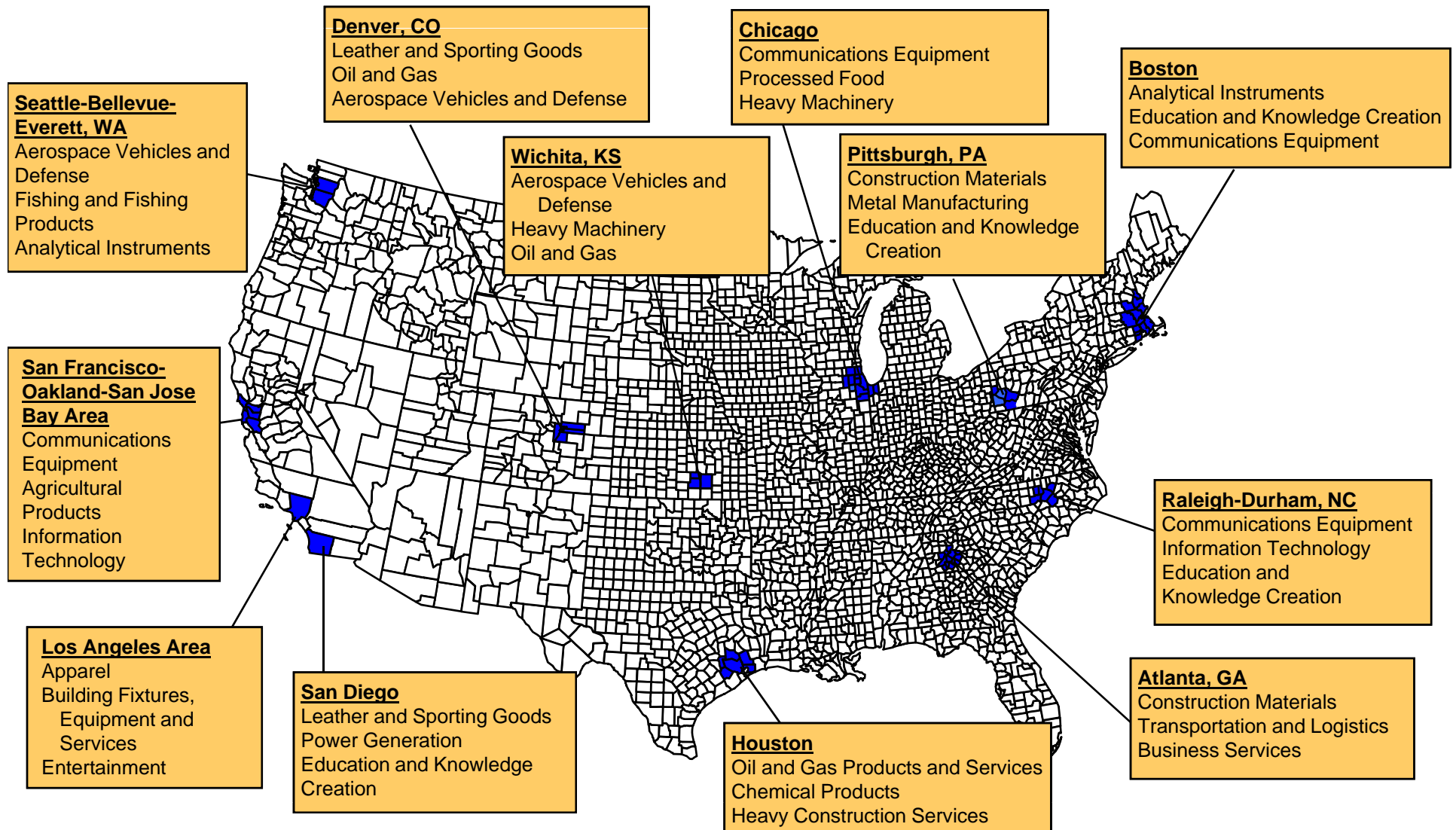
Note: Southern states as defined by the U.S. census highlighted in blue. All figures in chained 2000 dollars.

Source: BEA, 2007

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Specialization of Regional Economies

Selected U.S. Geographic Areas

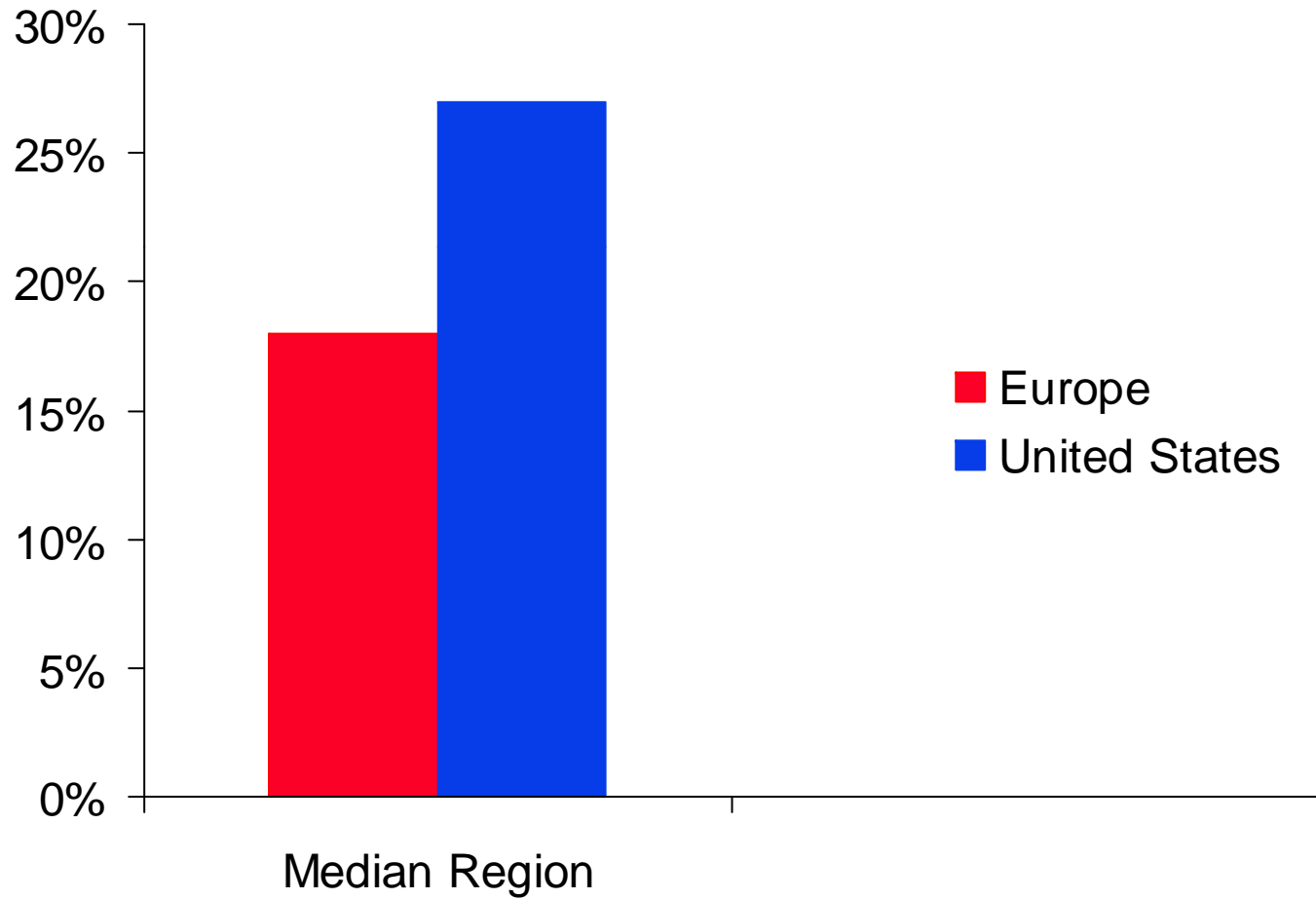


Note: Clusters listed are the three highest ranking clusters in terms of share of national employment.

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

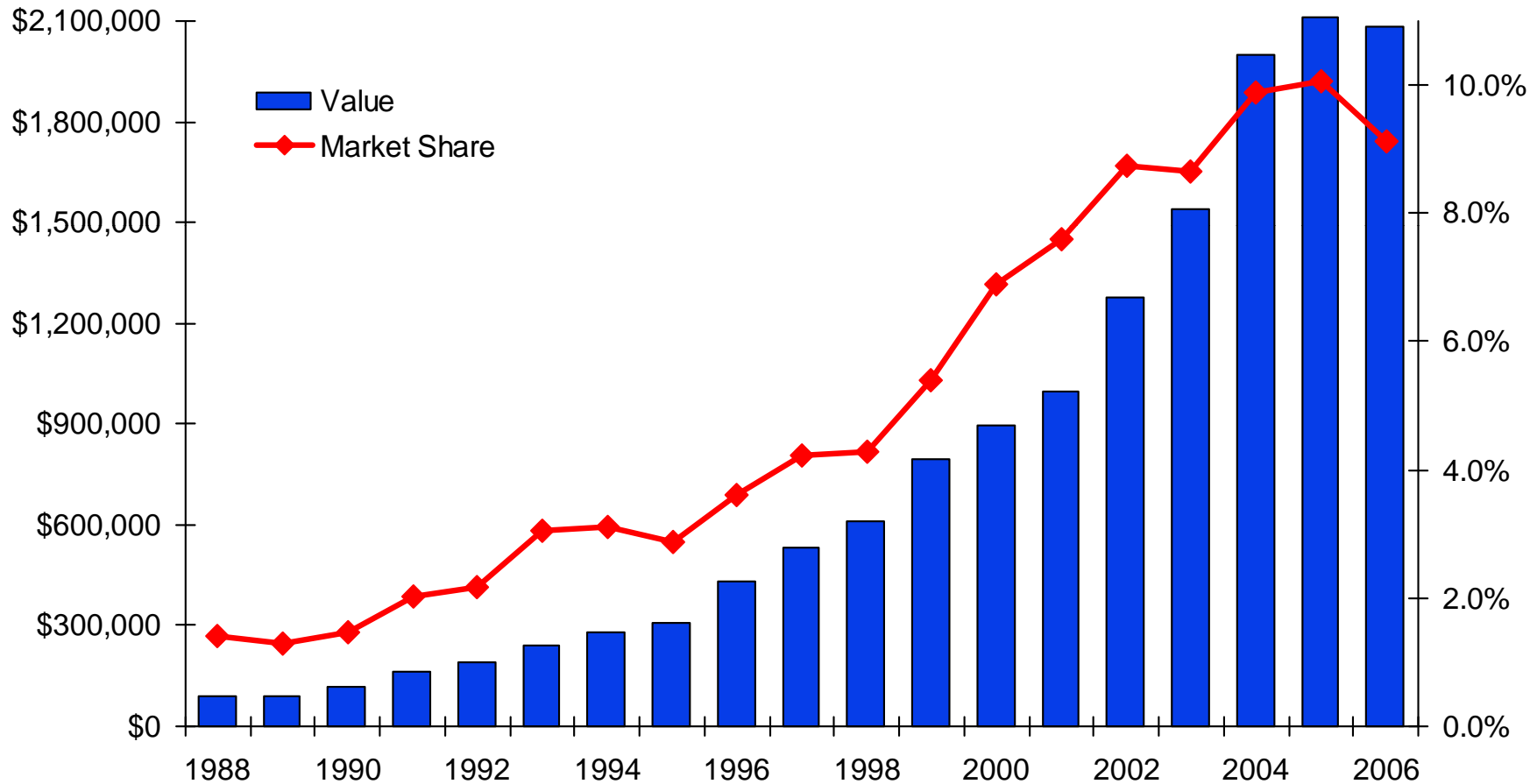


The Australian Wine Cluster

Trade Performance

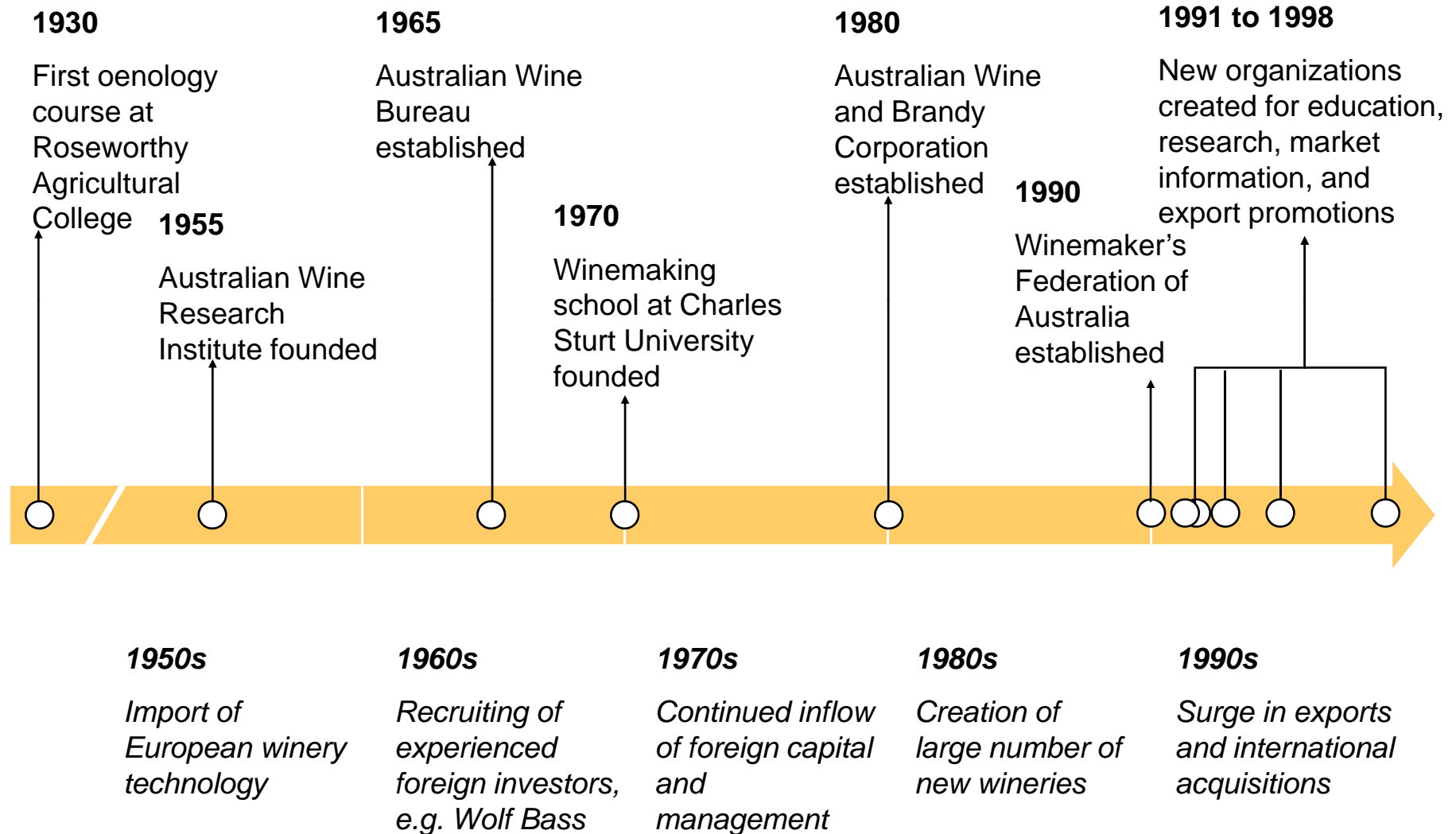
Australian Wine Exports in thousand US \$

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.

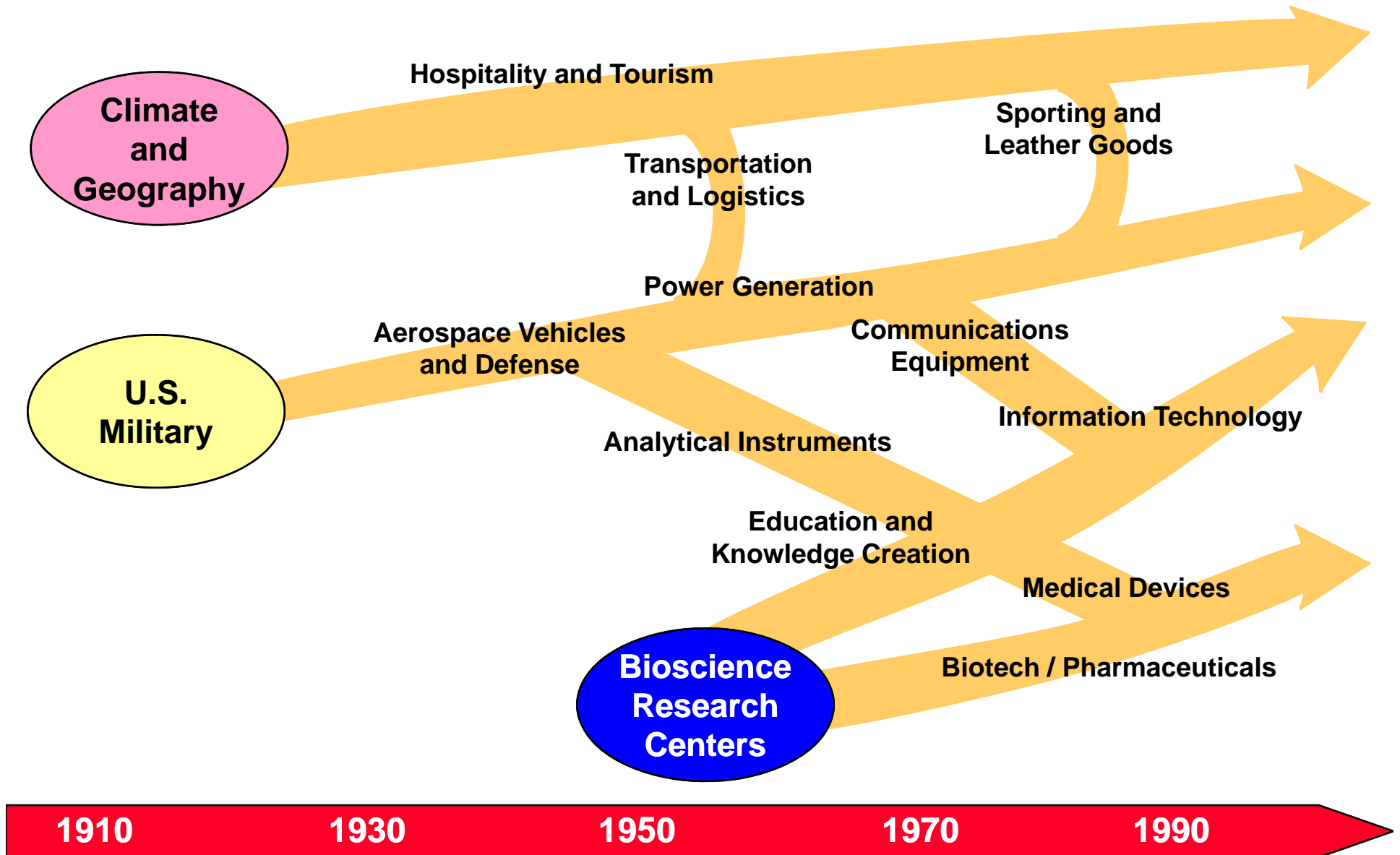
The Australian Wine Cluster History



Source: Michael E. Porter and Örjan Sölvell, The Australian Wine Cluster – Supplement, Harvard Business School Case Study, 2002

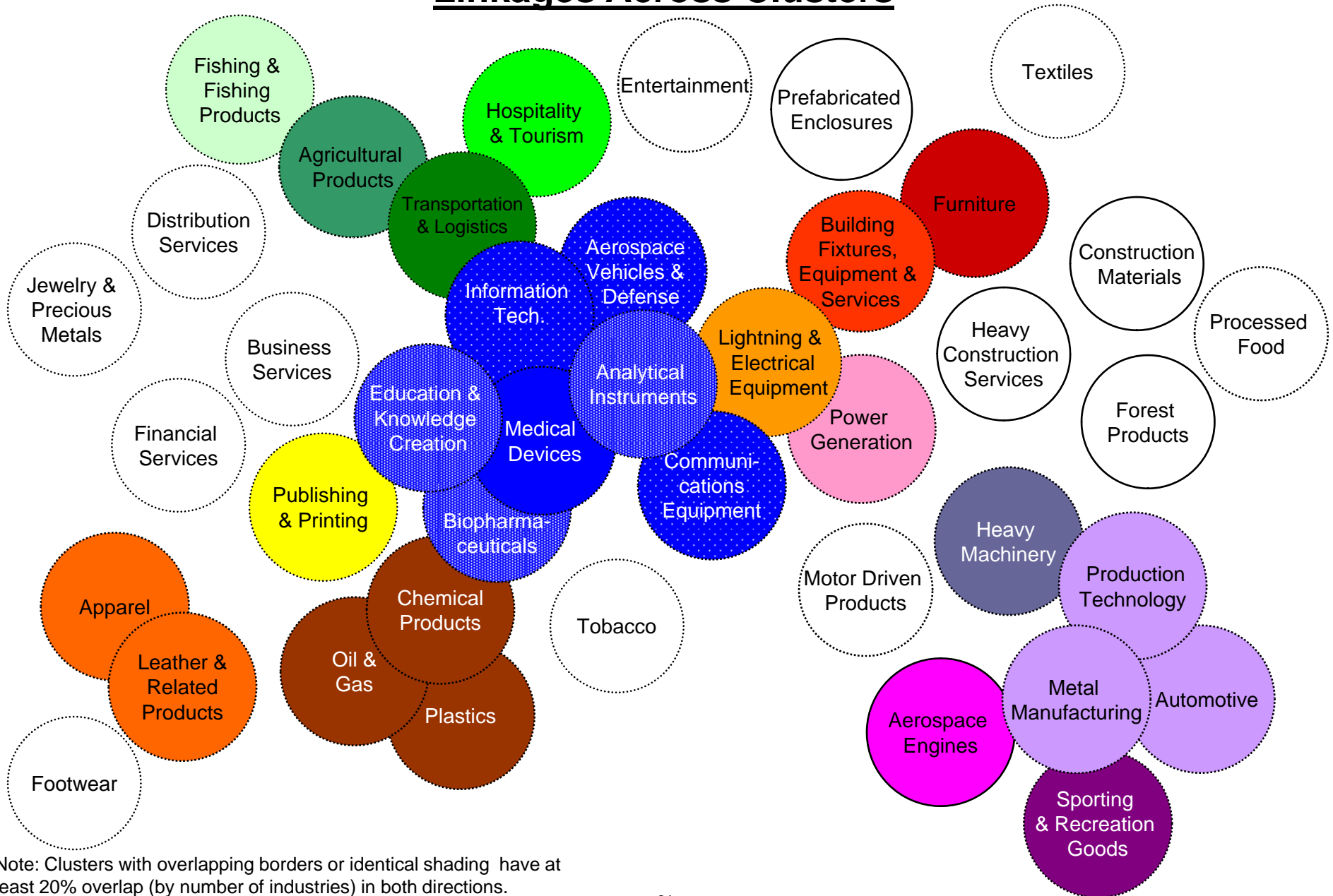
The Evolution of Regional Economies

San Diego



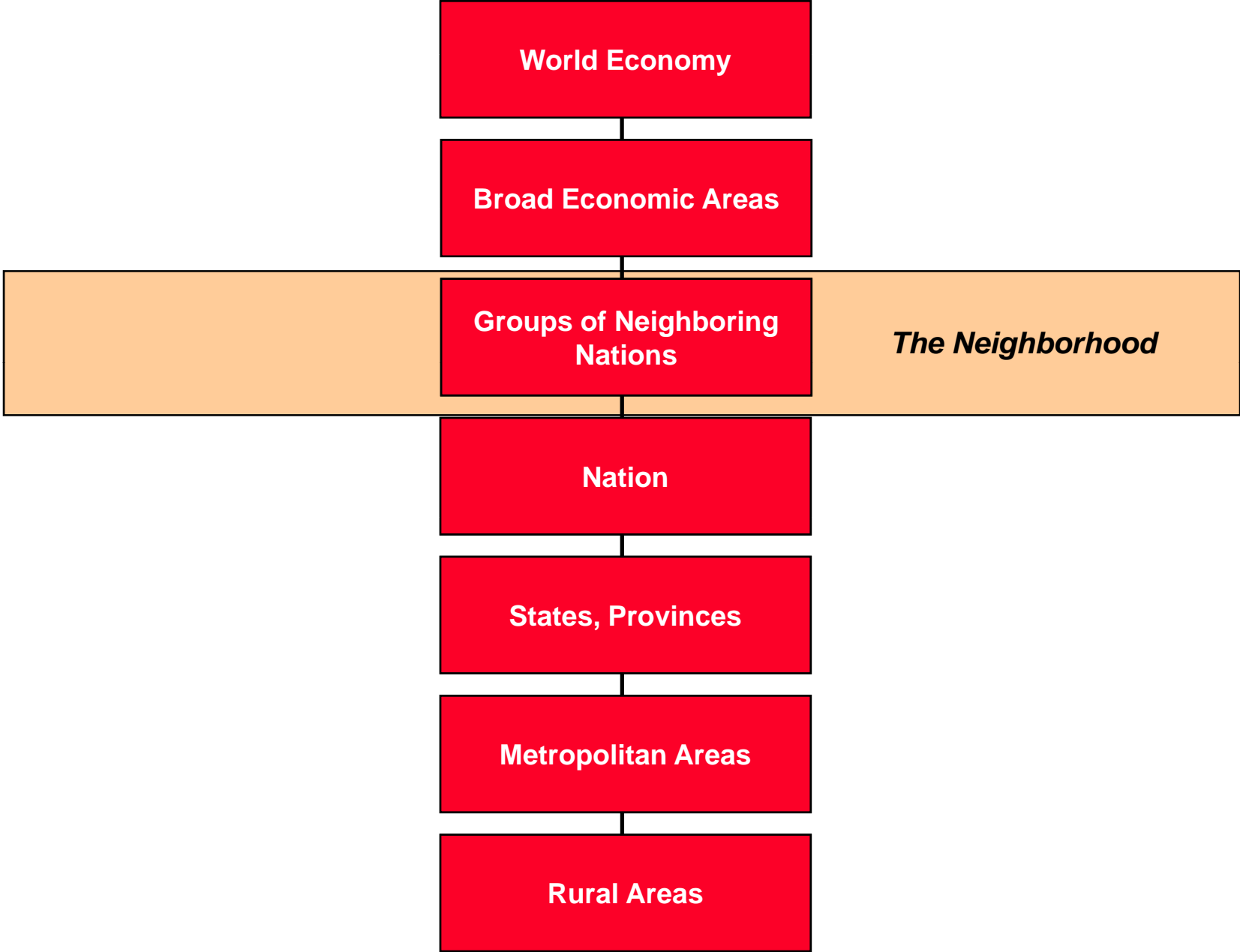
Creating Competitiveness

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

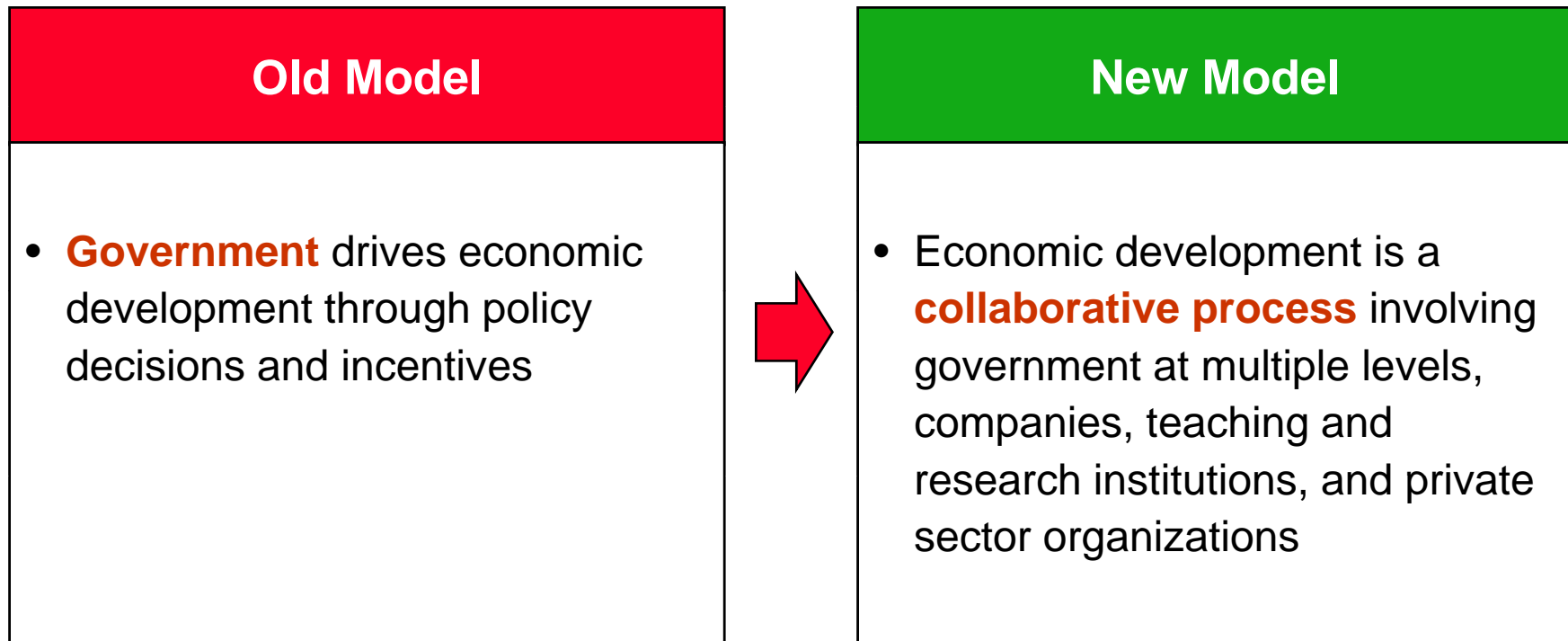
Scandinavia



- 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



- Competitiveness must become a **bottoms-up process** in which many individuals, companies, and institutions take responsibility
- **Every** community and cluster can take steps to enhance competitiveness
- The **private 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**
- Companies have a strong **role to play** in upgrading their business environment



- Take an **active role** in upgrading the 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



- An important role for **trade associations**
 - Greater influence if many companies are united
 - Cost sharing between members

Corporate Role in Economic Development

Nestlé in India

- Nestlé's history in the Moga region of India begins in 1962, when the region was in **severe poverty**
 - Local milk supply was hampered by small parcels of land, poor soil, periodic droughts, animal disease, and lack of a commercial market
 - Nestlé established local milk purchasing organizations in each town
 - Nestlé invested in improving competitive context
 - Collection infrastructure such as refrigerated dairies was accompanied by veterinarians, nutritionists, agronomists, and quality assurance experts to assist small farmers
 - Medicines and nutritional supplements were provided to improve animal health
 - Monthly training sessions were held for local farmers
 - Wells to secure water supply for animals were dug with financing and technical assistance from Nestlé
 - Nestlé has built a productive **milk cluster** in Moga, and buys milk from more than 75,000 farmers in the region through 650 dairies in local villages
- 
- Moga has advanced its economic development versus other nearby regions
 - Nestlé has developed a **long-term competitive advantage** in the milk cluster in numerous developing countries

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 roles with neighbors, the region, and the broader world?
 - What unique value as a business location?
 - For what types of activities and clusters?

Developing Unique Strengths

- What **elements of macroeconomic competitiveness** and the **business environment** are crucial priorities?
- What **existing** and **emerging clusters** should be developed first?

Achieving and Maintaining Parity with Peers

- What **weaknesses** must be addressed to achieve parity with peer countries?

- Priorities and sequencing are necessity in economic development

Globalization and U.S. Economic Performance

- The U.S. Economy has registered **remarkable economic performance**

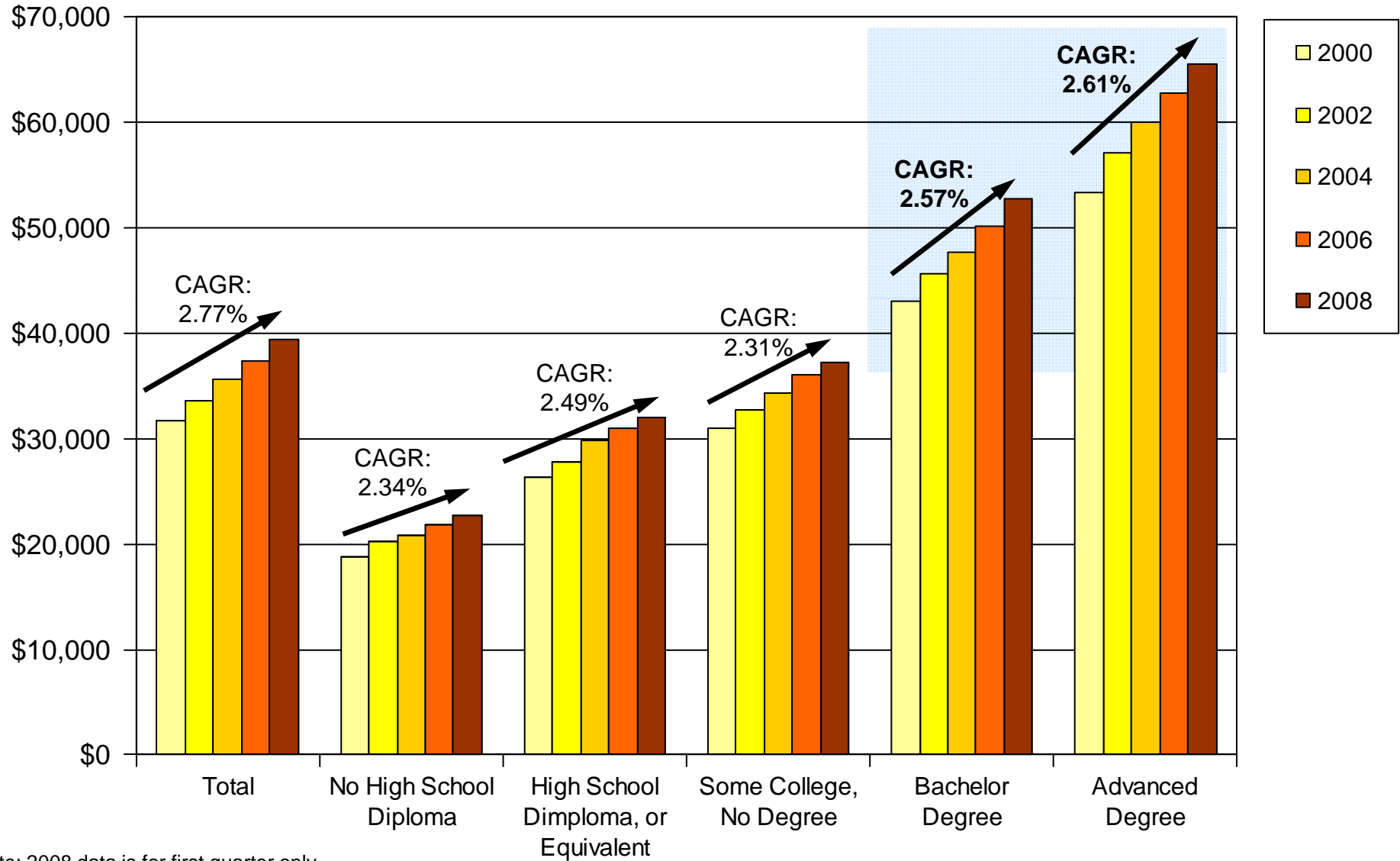
BUT

- The value of education and skills have **risen dramatically**
- Less skilled Americans face **more competition for work** and **restraint on wages**
 - Exacerbated by low skilled immigration
- There is a high rate of **job churn**
 - High job creation but high job loss

Rising Returns to Skills in Advanced Economies

United States

Median Annual Wage
(2008 current dollars)



Note: 2008 data is for first quarter only

Source: Based on median weekly wages, Bureau of Labor Statistics (2008)

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Strategic Issues For the United States

Core Strengths

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

Weaknesses

- Unnecessary cost of doing business
 - Burdensome regulations
 - Litigation costs
 - High-cost / high complexity tax system
 - Energy inefficiency
 - High healthcare costs
- Distortions in the international trading system
 - Intellectual Property protection
 - Market access in advanced services
 - Market 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
- Low savings and investment
- Human resources challenges
 - Need to restructure public education
 - Financing access to higher education
 - Training Americans vs. low skilled immigration