

Competitiveness: Implications for Central and Europe and the Czech Republic

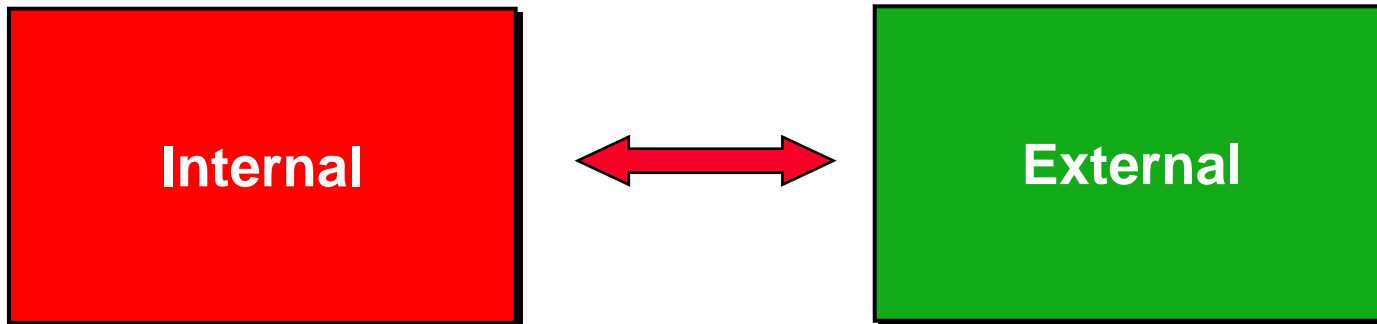
Professor Michael E. Porter
Harvard Business School

Prague, Czech Republic
22 October 2007

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 2006 (World Economic Forum, 2006), "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

Perspectives on Firm Success



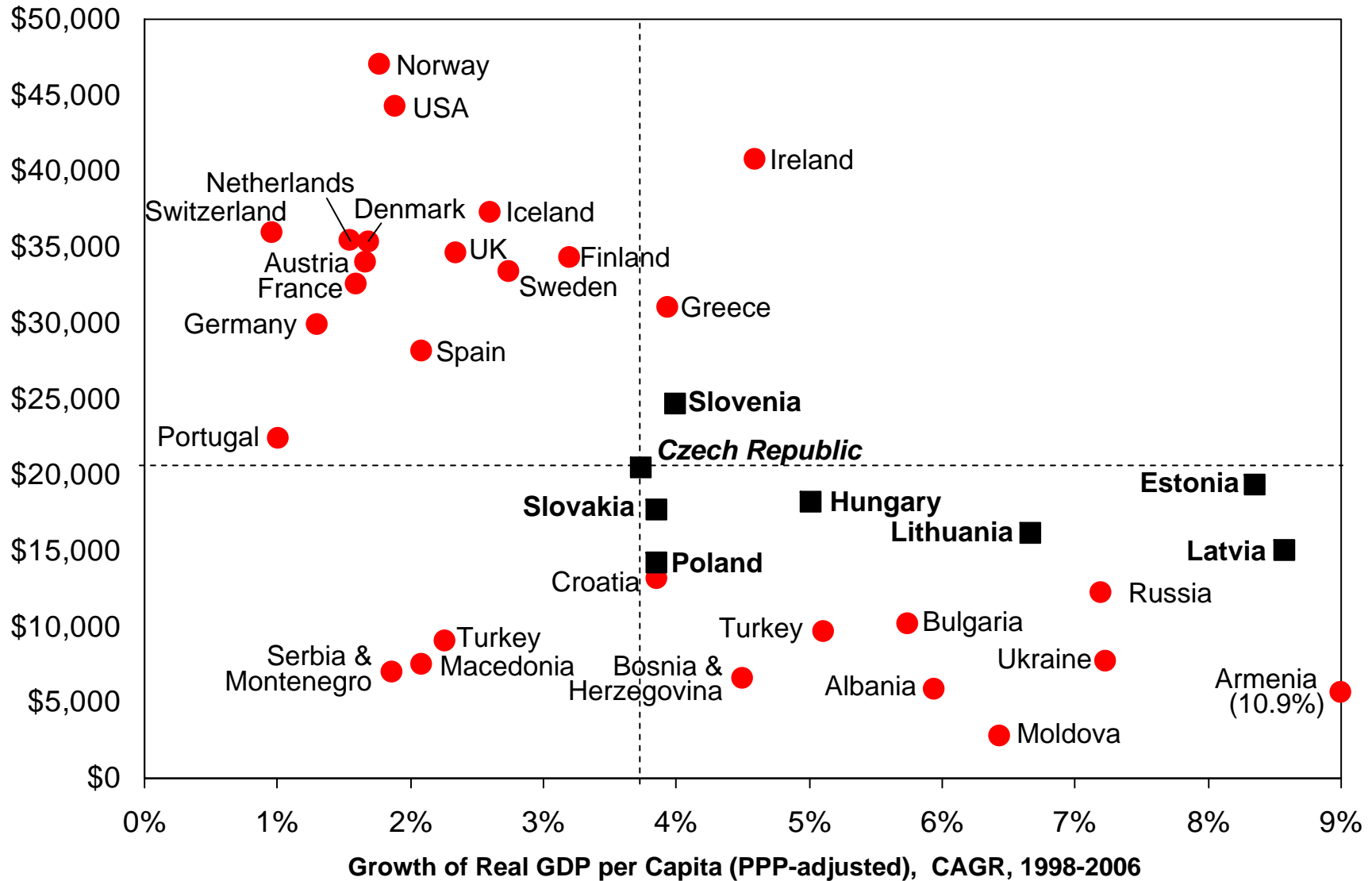
- Competitive advantage resides solely **inside** a company or in its industry
- Competitive success depends primarily on **company choices**

- Competitive advantage (or disadvantage) resides partly in the **locations** at which a company's business units are based
- **Cluster participation** is an important contributor to competitiveness

Prosperity Performance

Selected Countries

PPP-adjusted GDP
per Capita, 2006



Source: EIU (2007), authors calculations

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Central and Eastern European Economies in 2007

Common Themes

- Strong **economic growth** and fast rate of **prosperity catch-up**
- Opening to **foreign investment** and **European integration** have driven growth

However

- Rapid **wage growth** is threatening a key traditional source of the region's attractiveness
- Concerns about macroeconomic **overheating** are rising



- The region needs to prepare for the **next stage of economic development** in a more challenging global economic environment

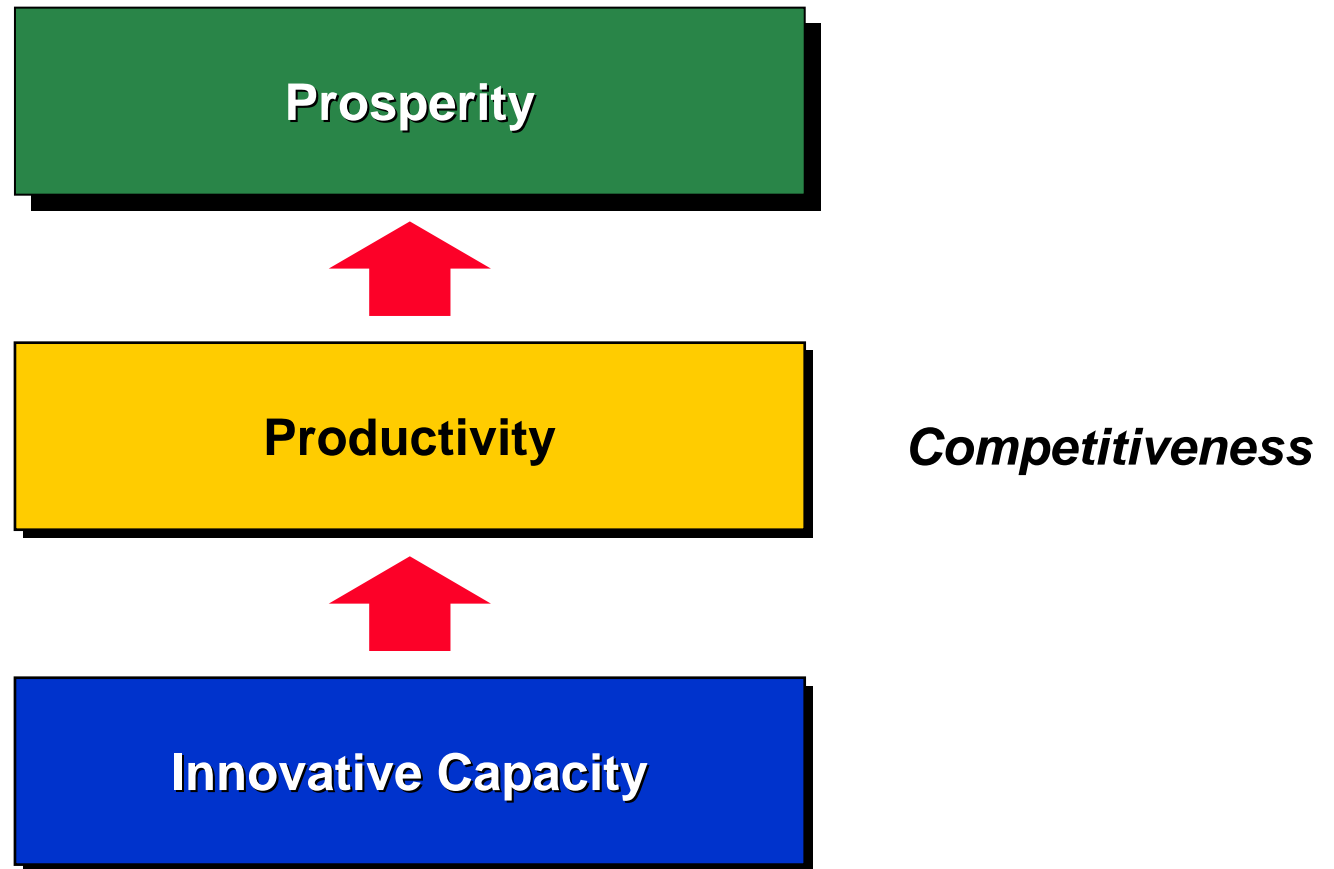
What is Competitiveness?

- Competitiveness is determined by the **productivity** with which a nation uses its human, capital, and natural resources.
 - Sets the **standard of living** (wages, returns on capital, returns on natural resources) that a country can sustain
 - Productivity depends on the **prices per unit** that a nation's products and services can command (due to uniqueness and quality), not just on efficiency
 - It is not **what** industries a nation competes in that matters for prosperity, but **how** it competes in those industries
 - Productivity requires a **combination of domestic and foreign firms** operating in the nation
 - The productivity of **“local” or domestic industries** is fundamental to competitiveness, not just that of traded industries

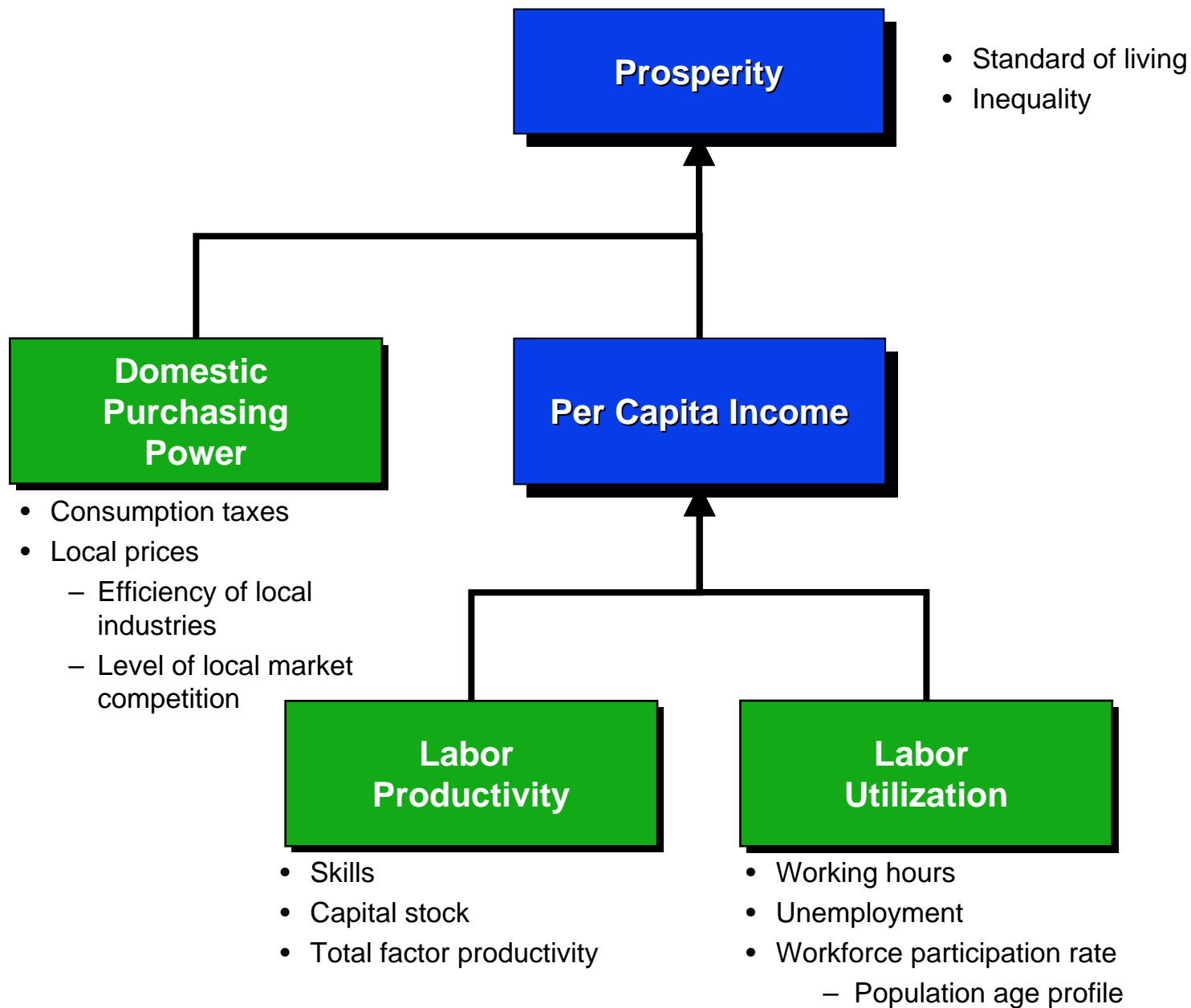


- Nations compete in offering the **most productive environment** for business
- The public and private sectors play **different but interrelated roles** in creating a productive economy

What Creates Sustainable Prosperity?

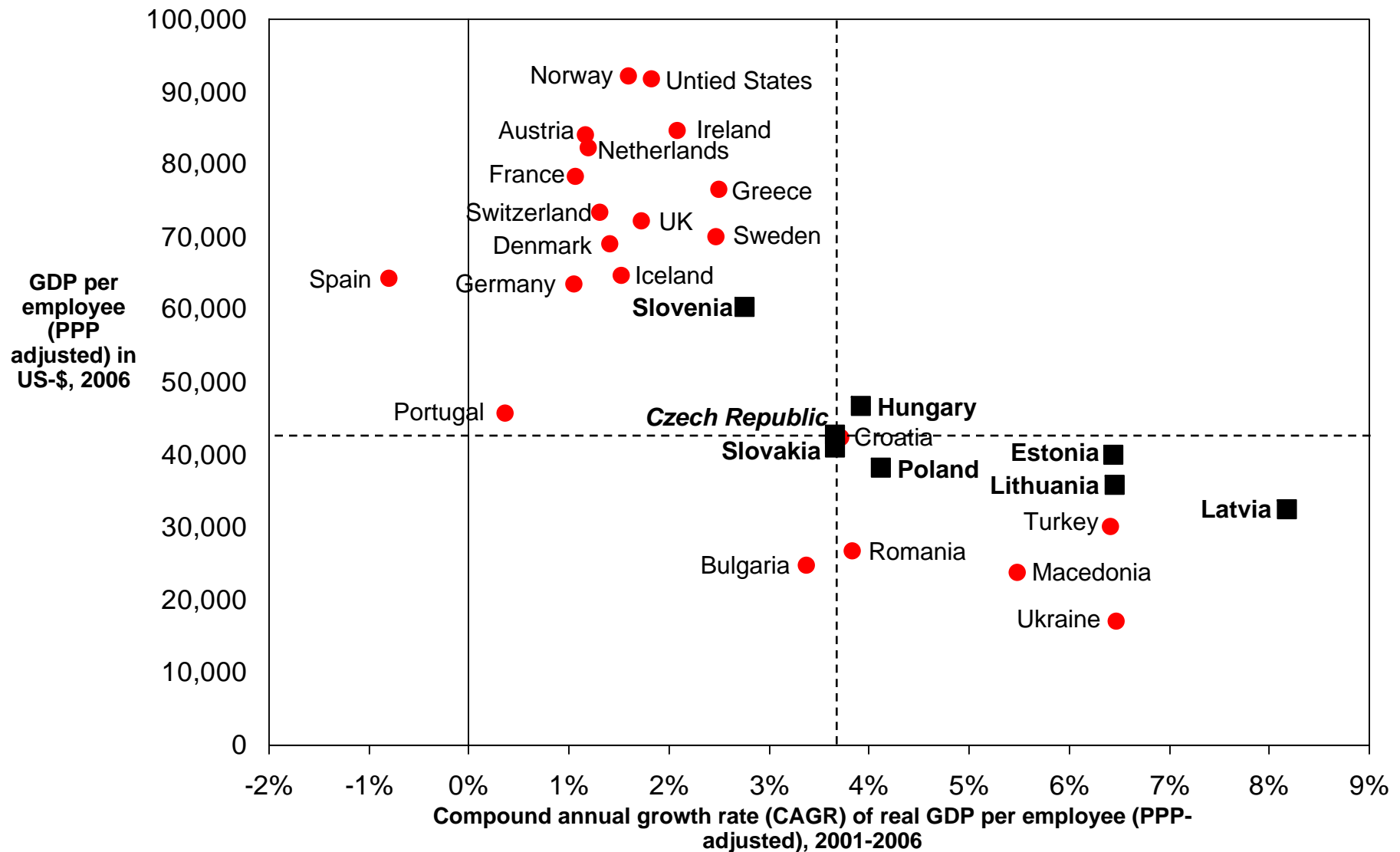


Decomposing Prosperity



Comparative Labor Productivity Performance

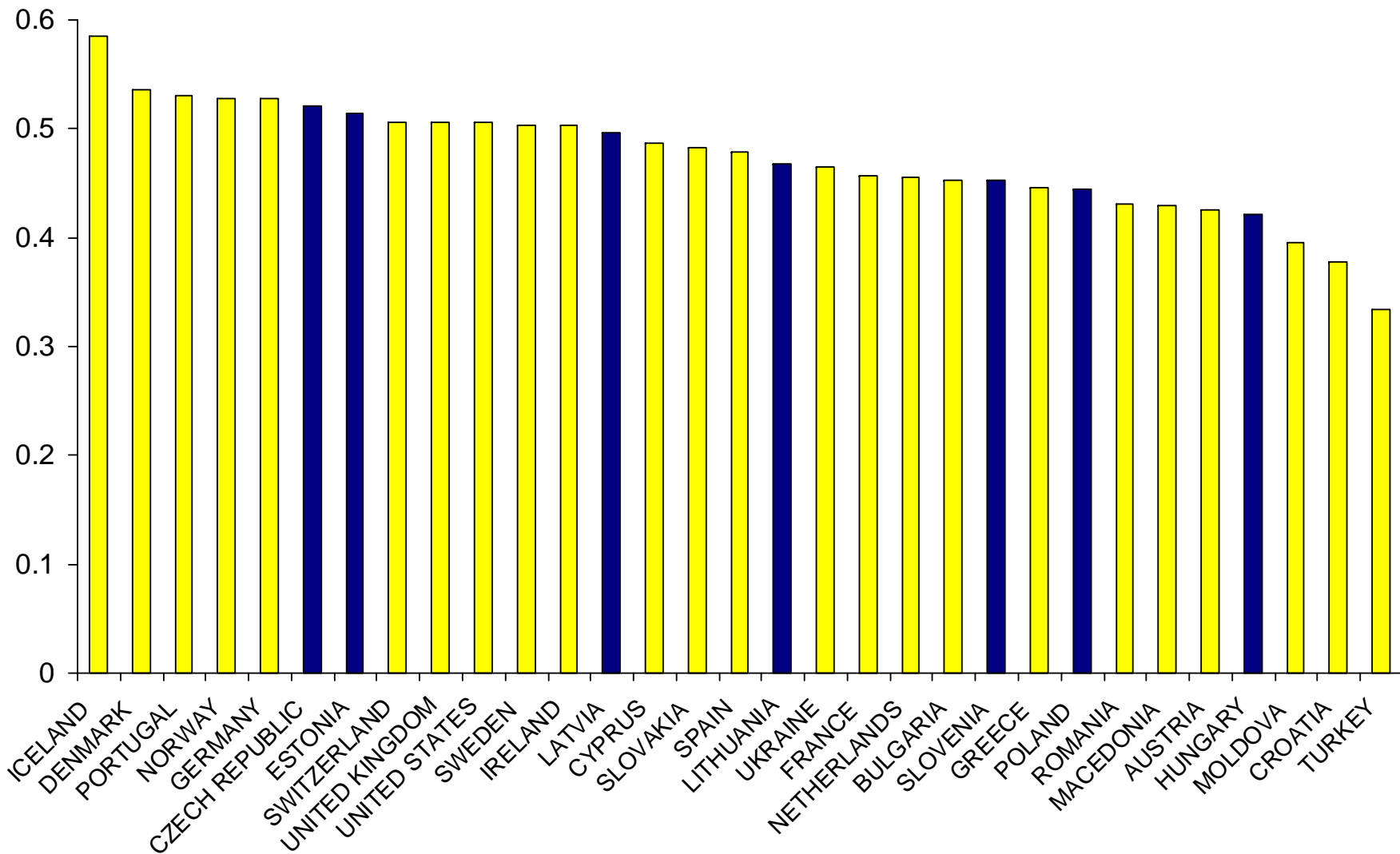
Selected Developing Countries



Labor Force Mobilization

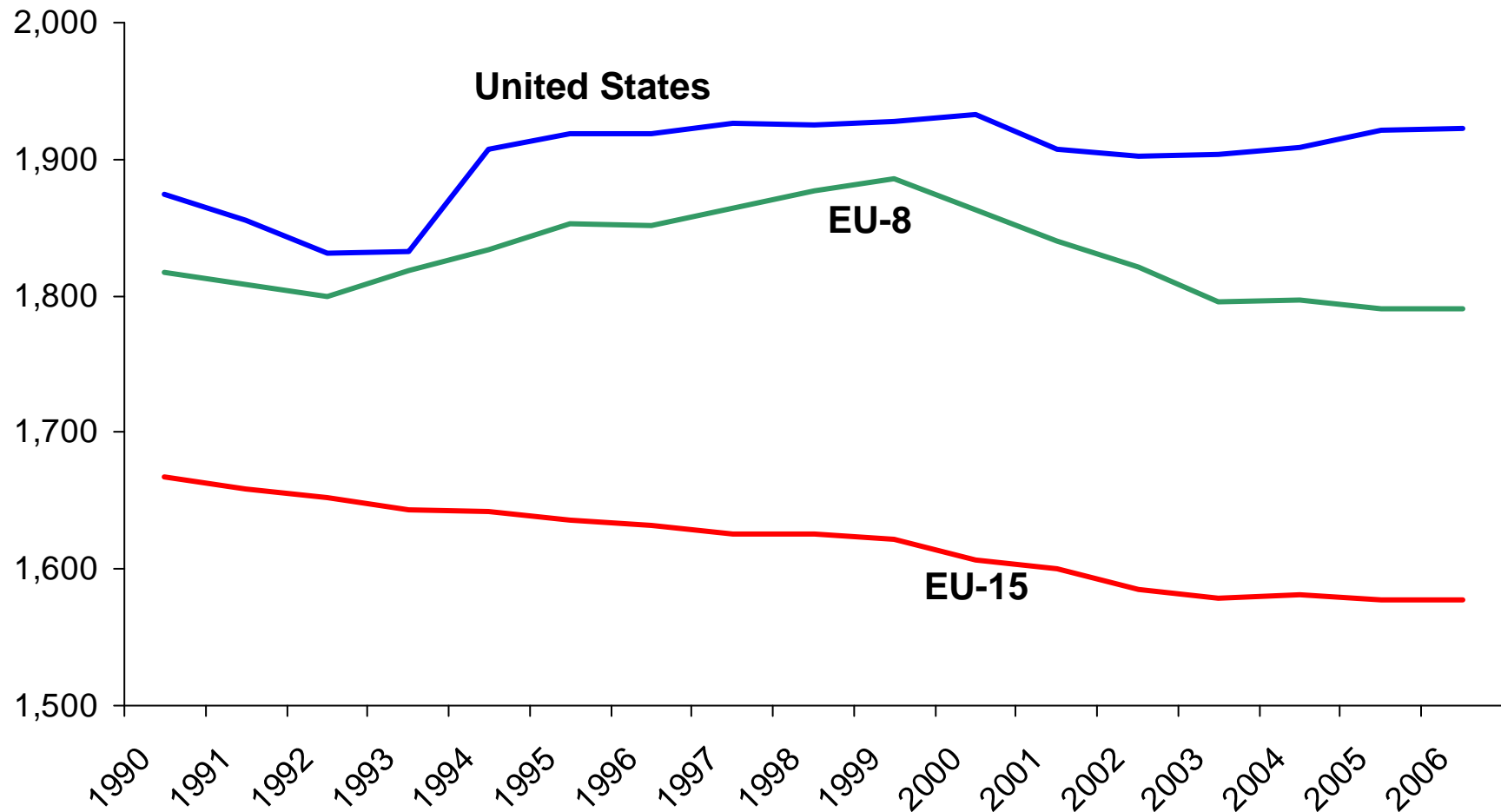
Selected Countries

Employees as % of Population, 2006



Labor Mobilization

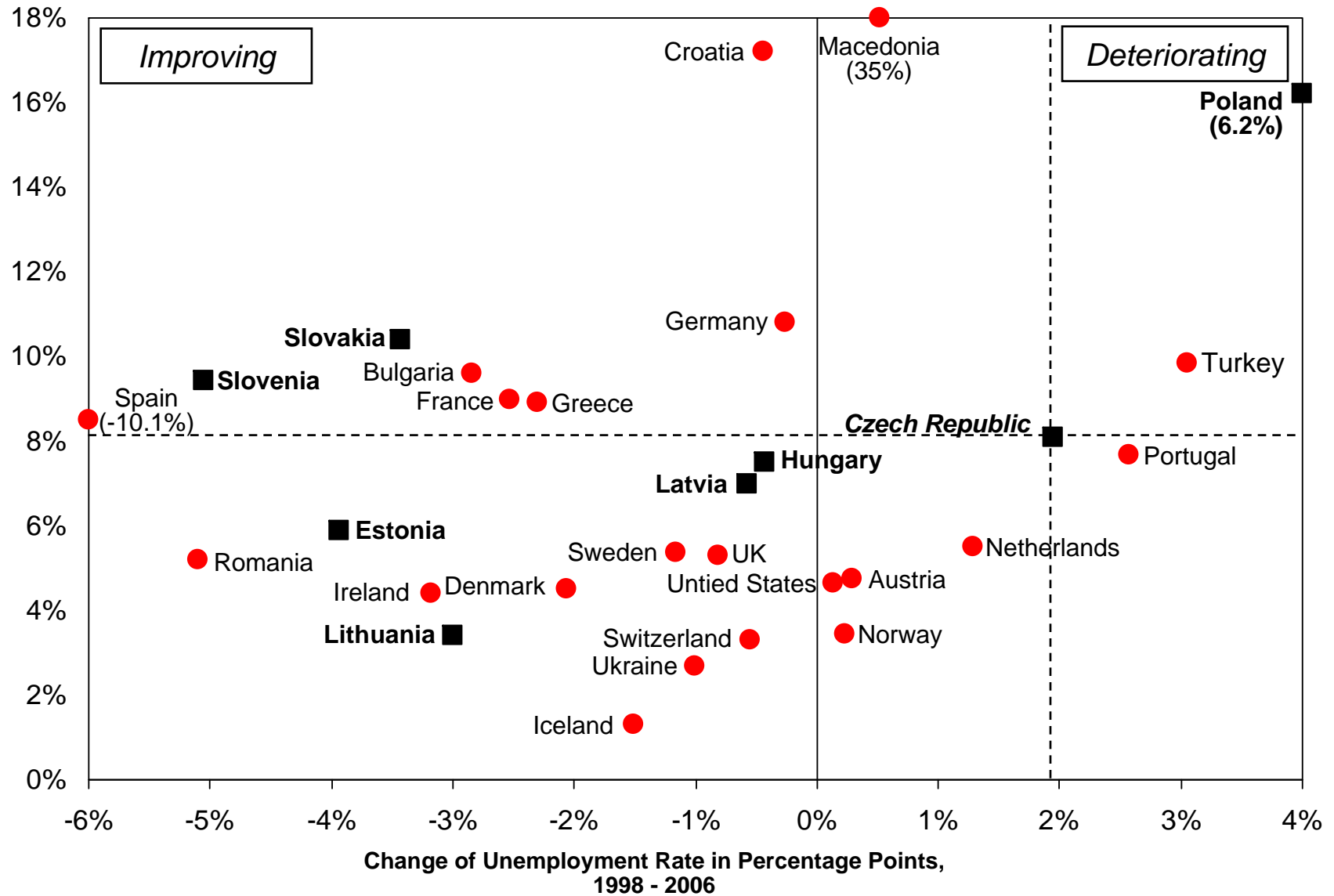
Hours Worked Per Employee



Unemployment Performance

Selected Countries

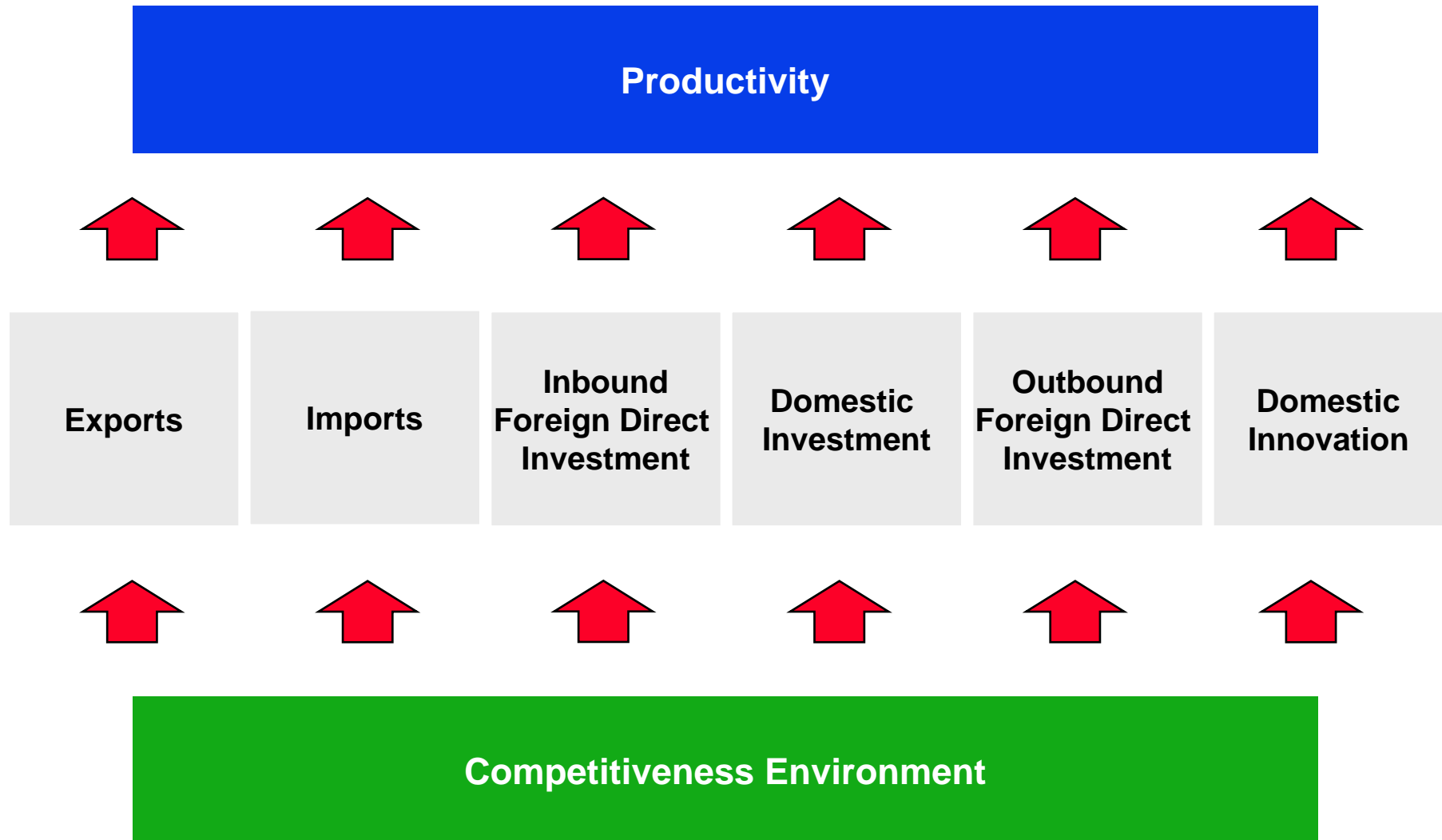
Unemployment Rate, 2006



Source: EIU (2007)

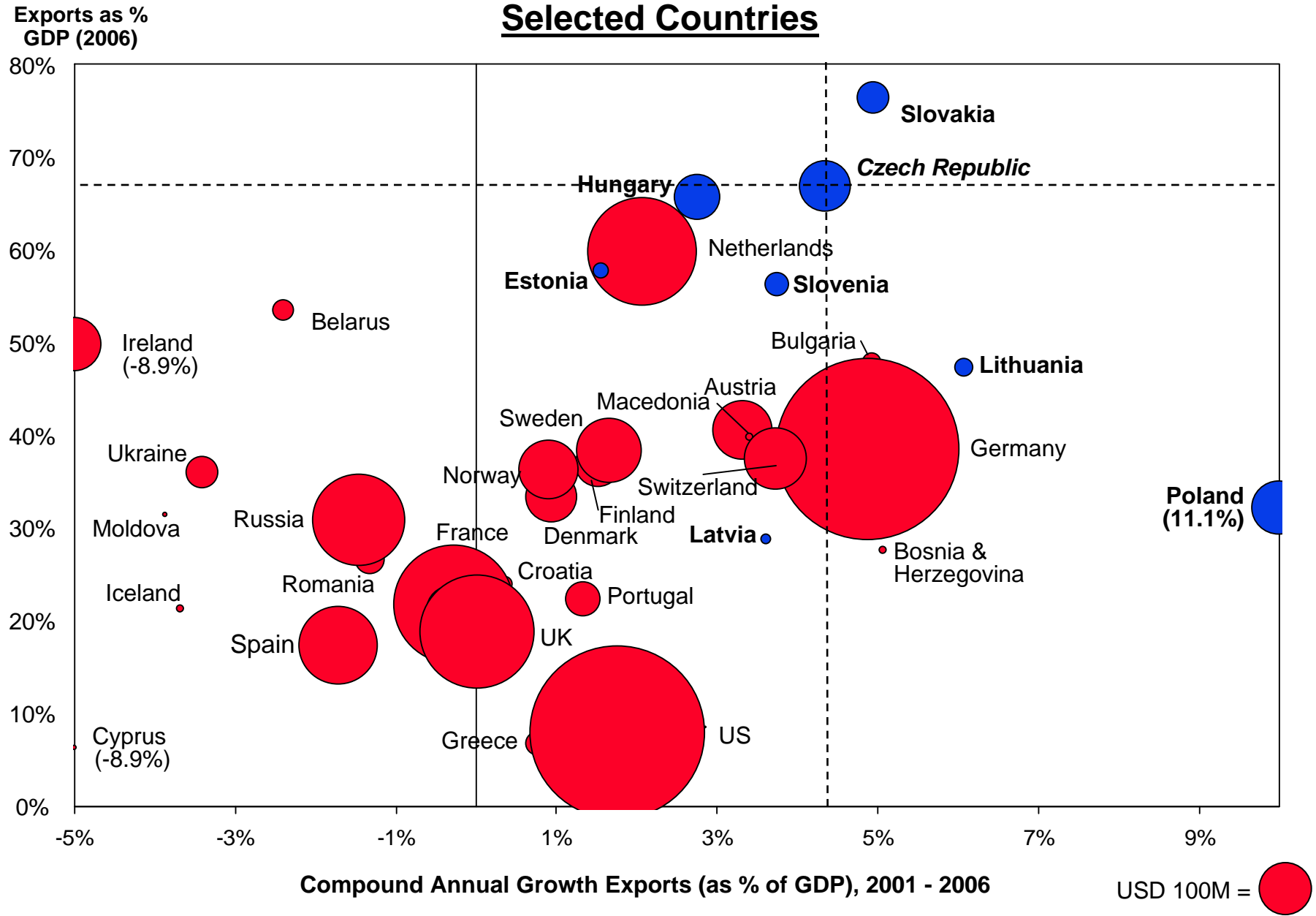
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Enablers and Indicators of Competitiveness



Export Intensity

Selected Countries

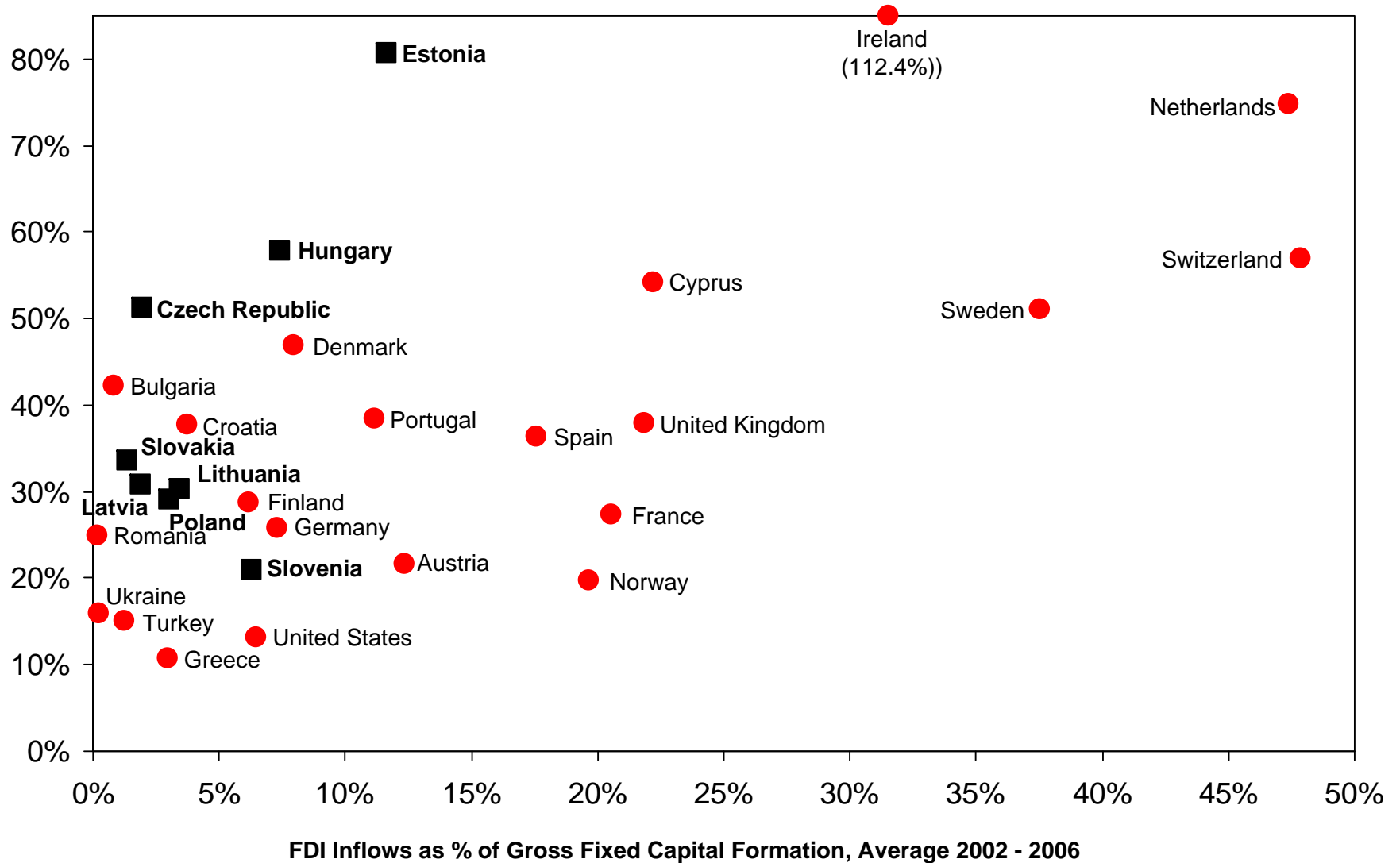


Source: EUI (2007), authors' analysis

Inbound Foreign Investment Performance

Stocks and Flows, Selected Countries

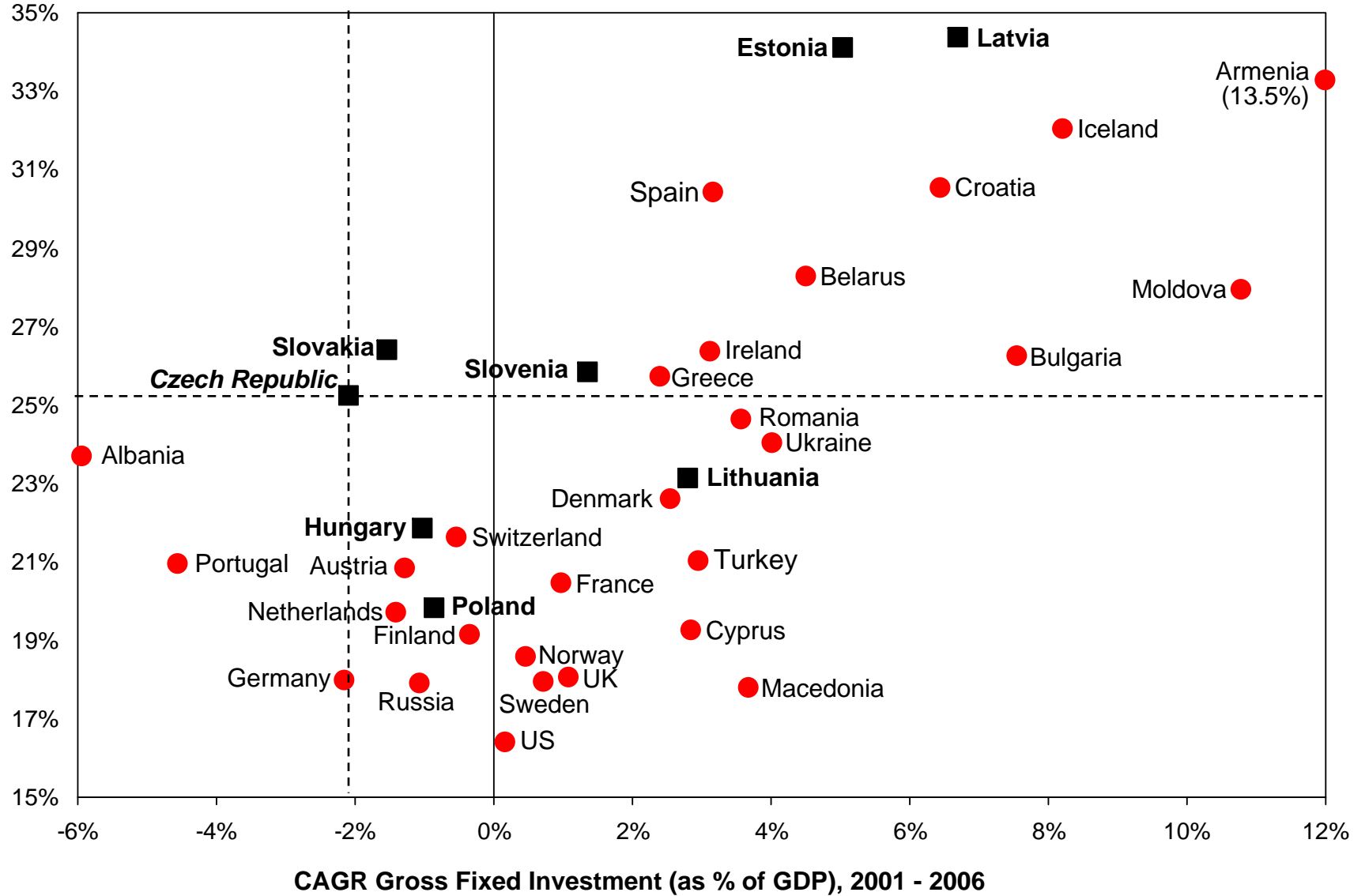
FDI Stocks as % of GDP,
Average 2002 - 2006



Fixed Investment Rates

Selected Countries

Gross Fixed Investment
as % of GDP (2006)



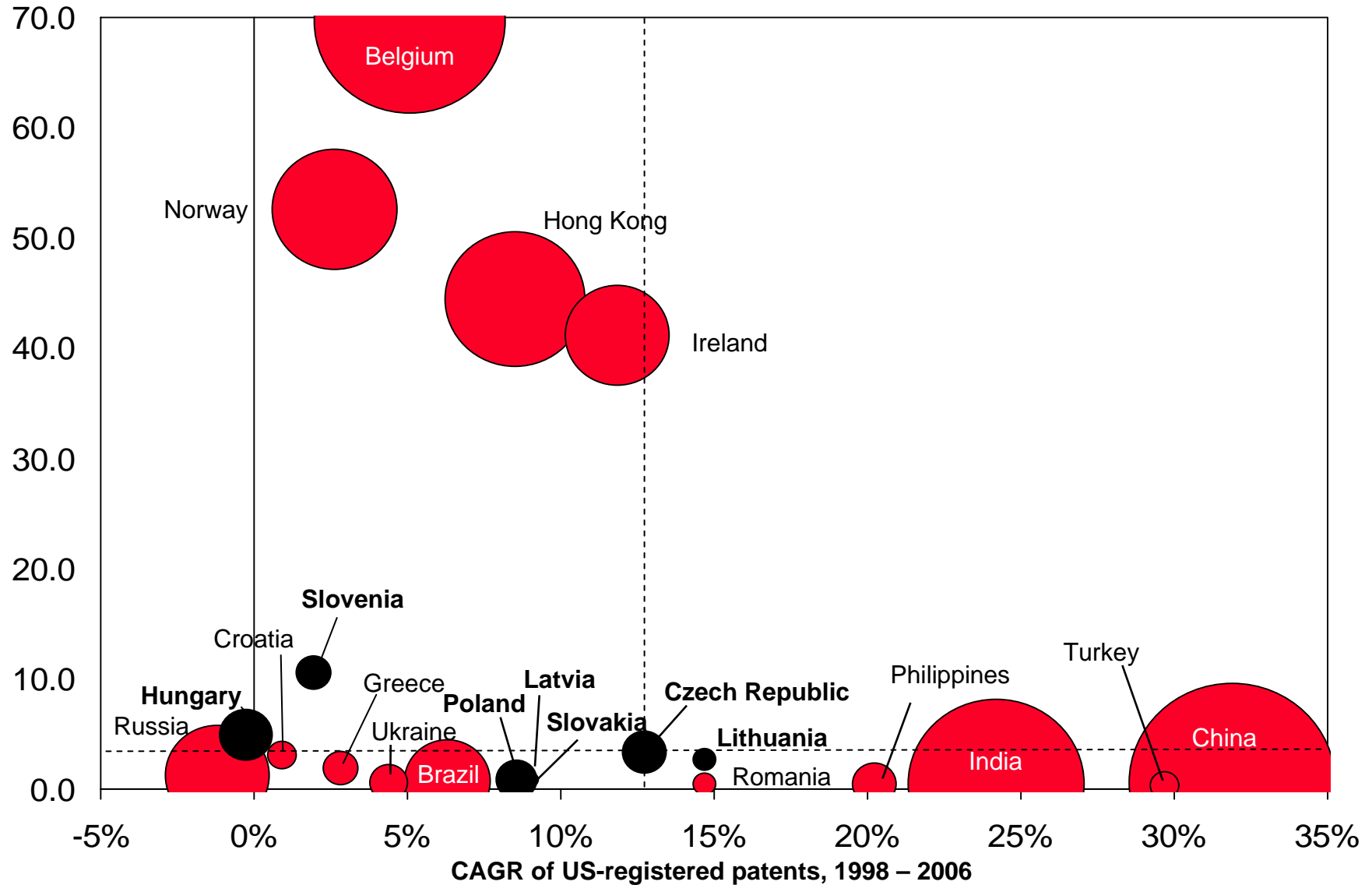
Source: EIU, 2007.

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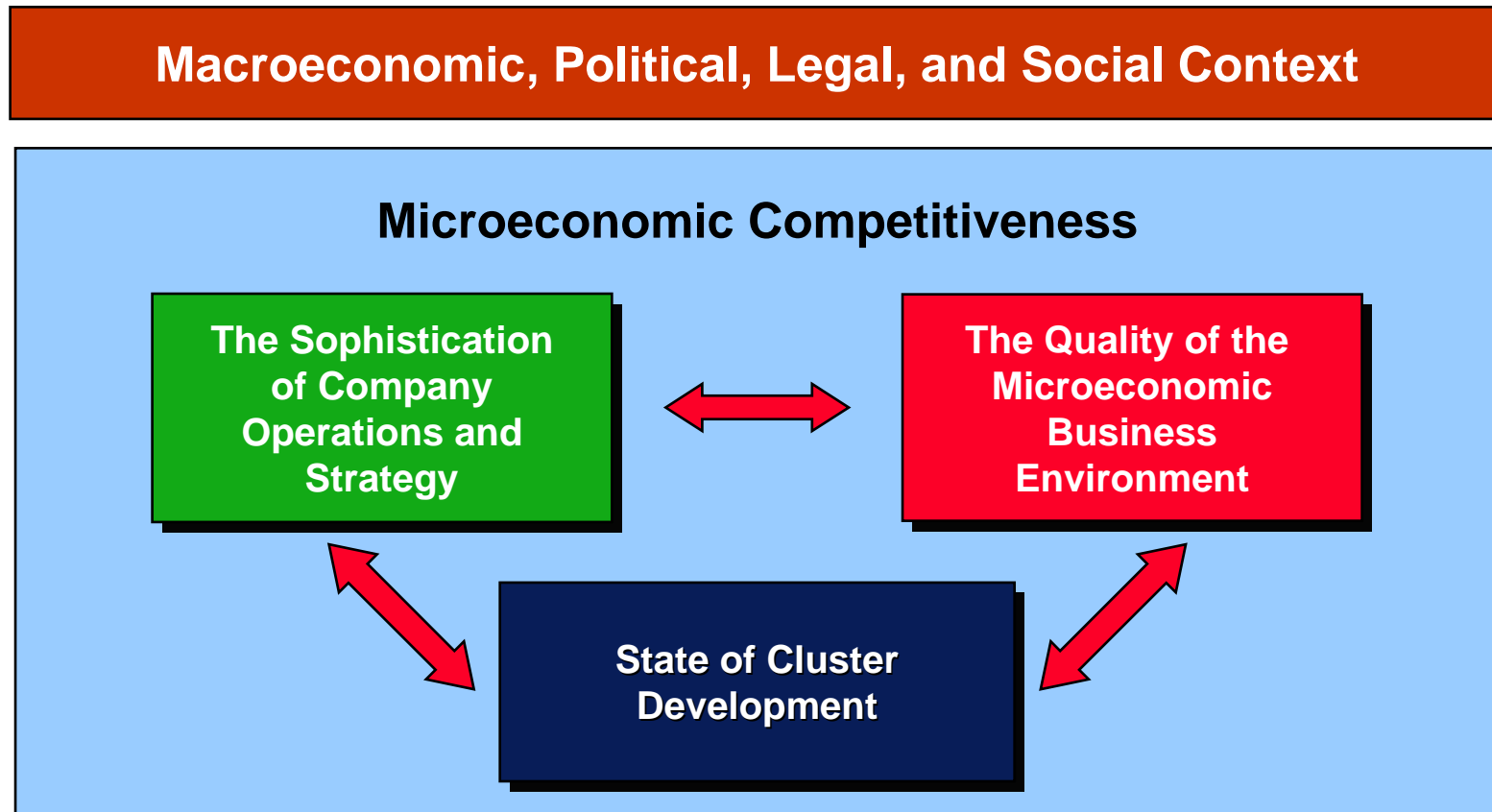
International Patenting Output

Selected Countries

Annual U.S. patents per 1 million population, 2006



Determinants of Competitiveness



- A strong context creates the potential for competitiveness, but is **not sufficient**
- Competitiveness ultimately depends on improving the **microeconomic competitiveness** of the economy

Macroeconomic, Political, Legal, and Social Context

Macroeconomic policies

- **Sound fiscal and monetary policies** create stability and encourage business investment and upgrading
- **Sound and stable macroeconomic conditions** hold down interest rates and provide accurate price signals for market transactions

Political governance

- **Due process in political decisions and orderly transfers of power** create a stable planning horizon for business
- **Checks and balances** in the political system mitigate instability and the abuse of power

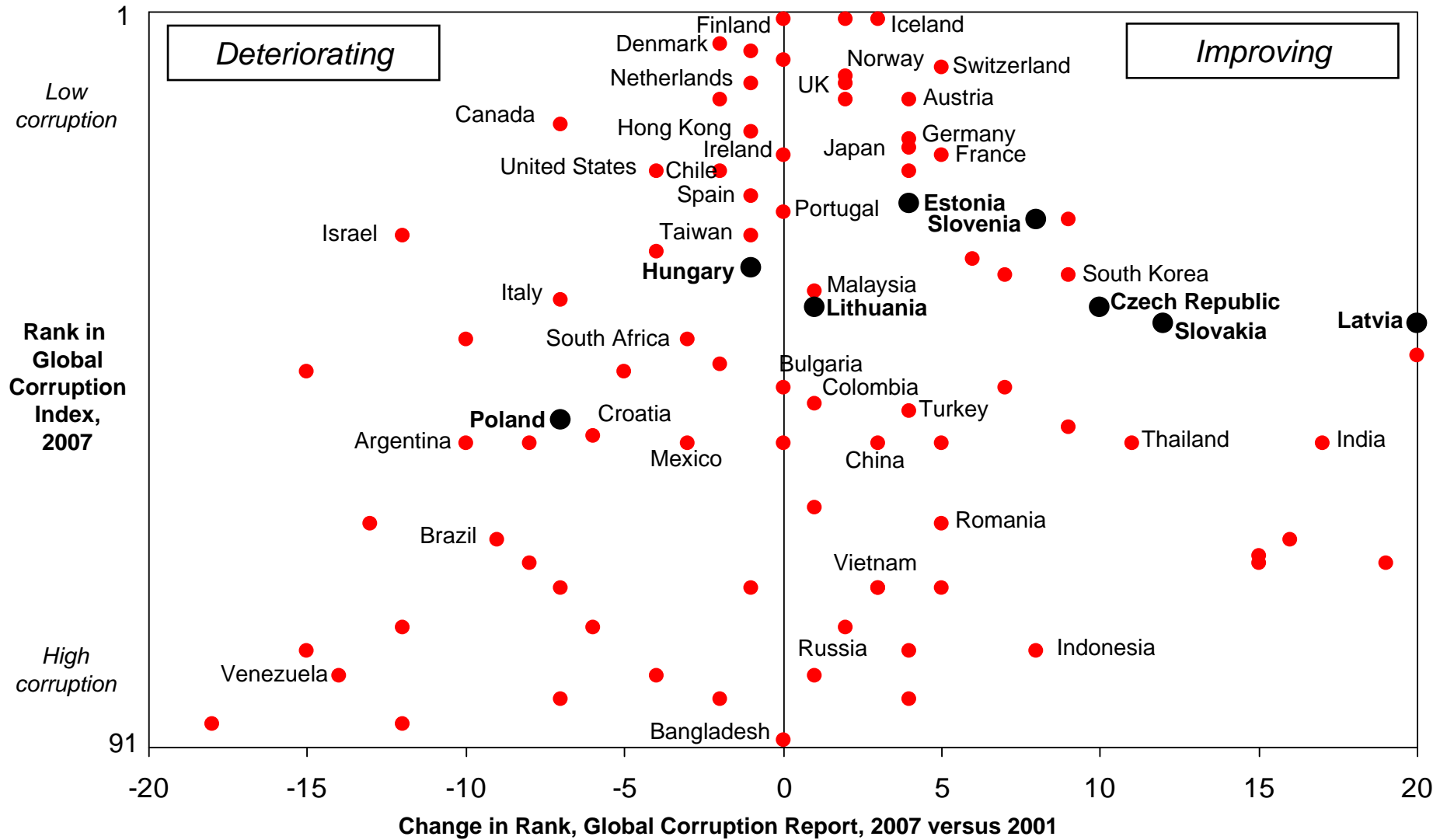
Legal system

- An **independent, timely, effective and trusted legal system** solidifies the rule of law and provides a **fair environment for business**, encouraging investment
- Strict monitoring and prosecution of **corruption** rewards productivity instead of favoritism

Social conditions

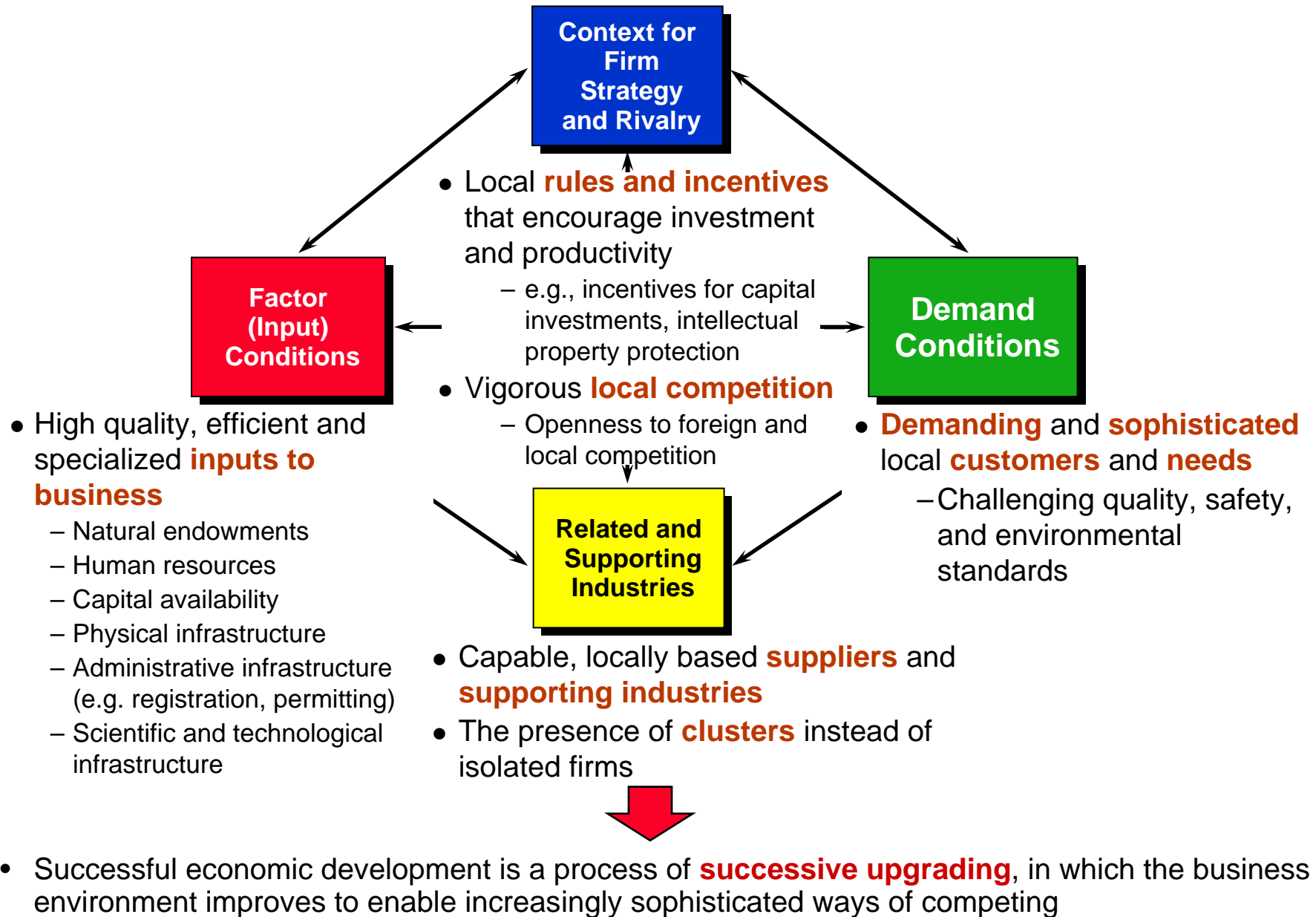
- **Improving social conditions** in basic education, housing, health, and absence of discrimination enhance productivity
- A **functioning social safety net** gives citizens the confidence to accept and deal with change in the economy
- **Improvements of social conditions** signal the benefits of reforms and **increase the political support** for policies to enhance competitiveness

Corruption Perception Index, 2007

















Note: Ranks only countries available in both years (91 countries total)
 Source: Global Corruption Report, 2007

Improving the Business Environment: The Diamond



Quality of the Business Environment

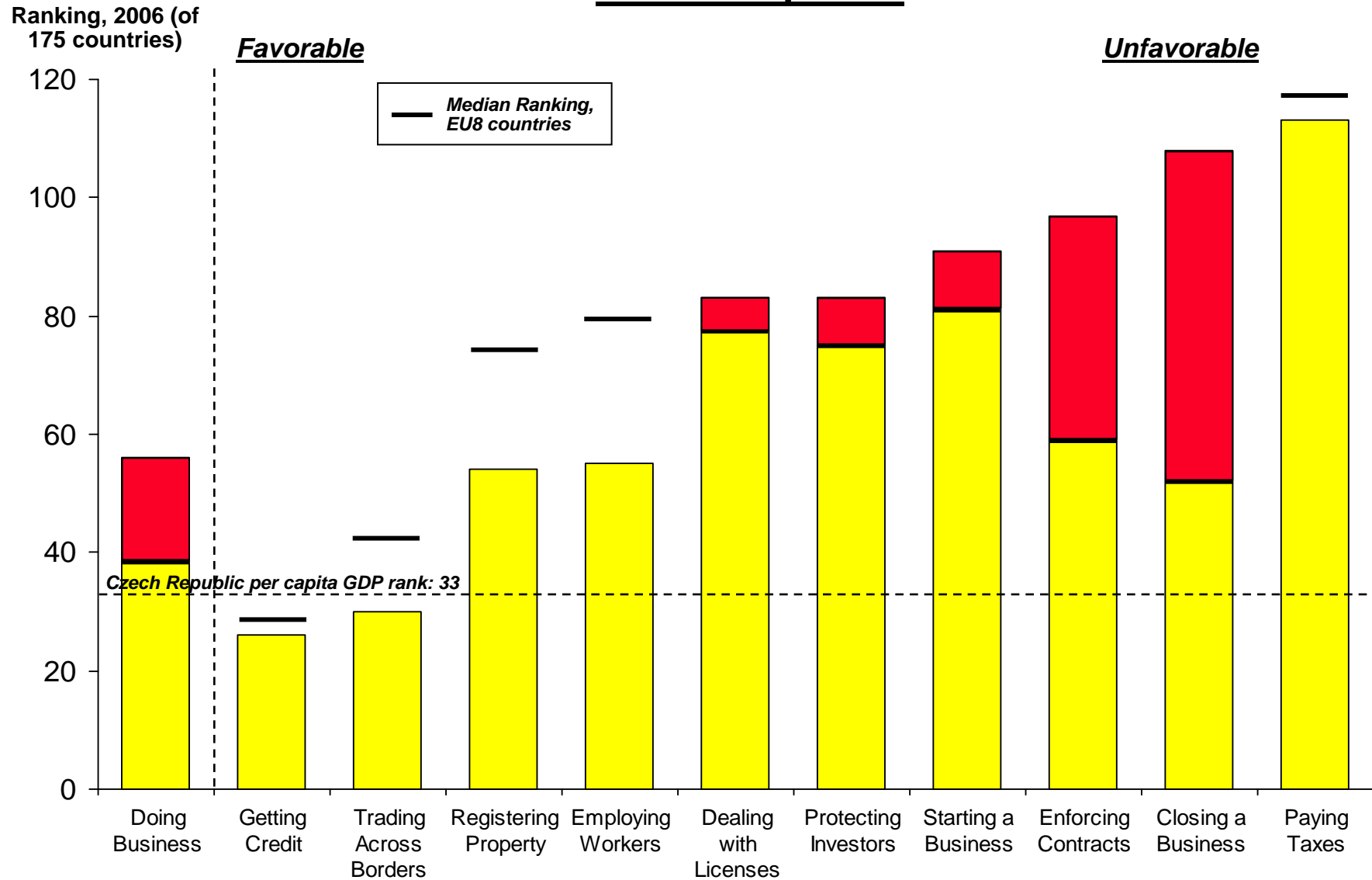
Czech Republic

Competitive Advantages Relative to GDP per Capita		Competitive Disadvantages Relative to GDP per Capita	
Cellular Telephones per 100 inhabitants	4 	Control of international distribution	59 
Availability of scientists and engineers	5 	Neutrality in decisions of government officials	56 
Quality of math and science education	8	Local equity market access	53 
Quality of primary education	10	Reliability of police services	51 
Absence of trade barriers	10 	Efficiency of legal framework	51
Intensity of local competition	11 	Venture capital availability	49 
Decentralization of economic policymaking	13 	Ease of access to loans	48
Extent of regional sales	16	Quality of port infrastructure	45 
Stringency of environmental regulations	16	Extent of incentive compensation	43 
Local supplier quantity	16	Business costs of corruption	43
Quality of electricity supply	22	Nature of competitive advantage	42 
Presence of demanding regulatory standards	22	Financial market sophistication	42 
Local supplier quality	23	Degree of customer orientation	41
		Judicial independence	41



Change up/down of more than 5
ranks since 2002

Ease of Doing Business Czech Republic

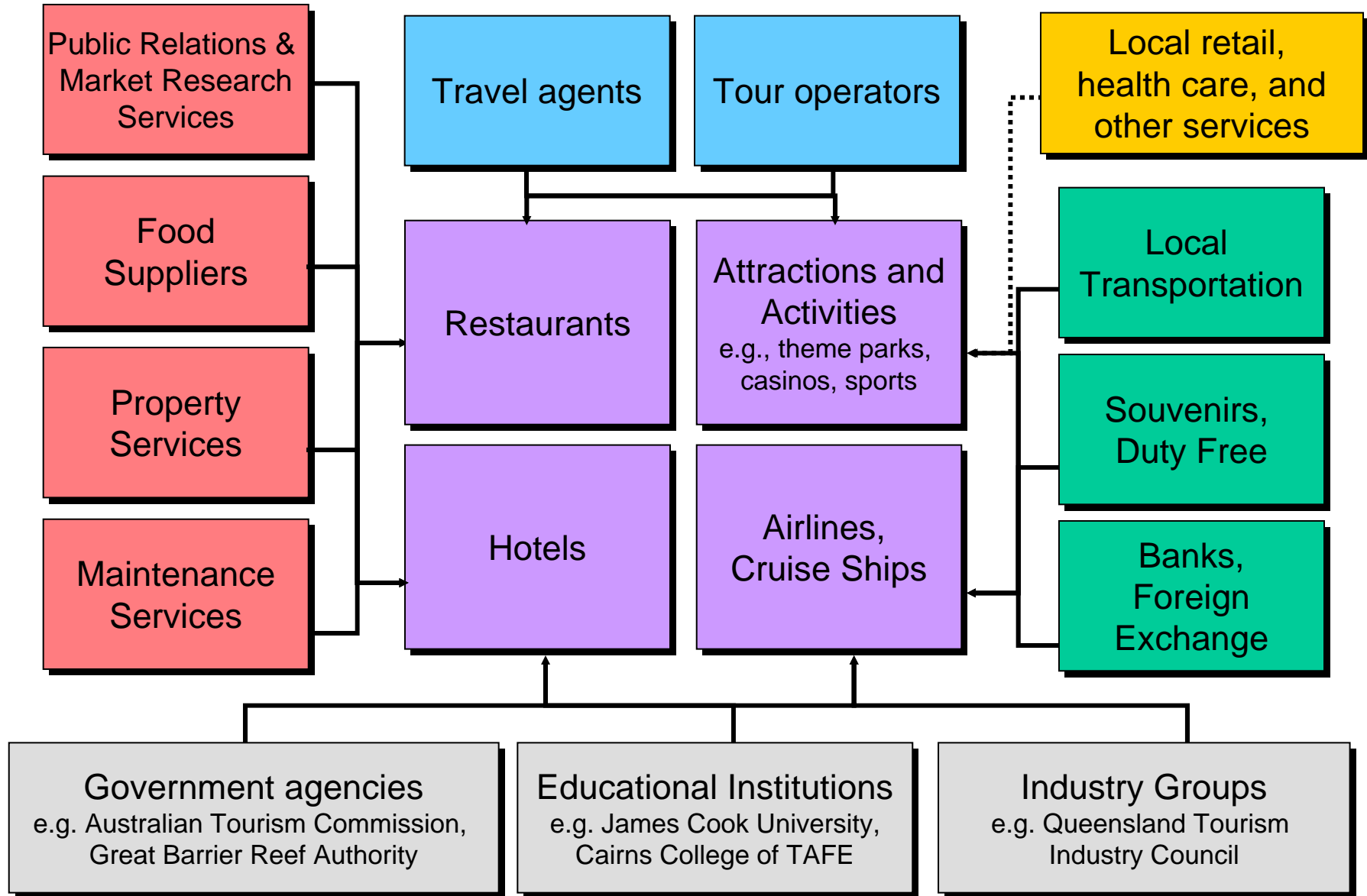


Source: World Bank Doing Business (2007)

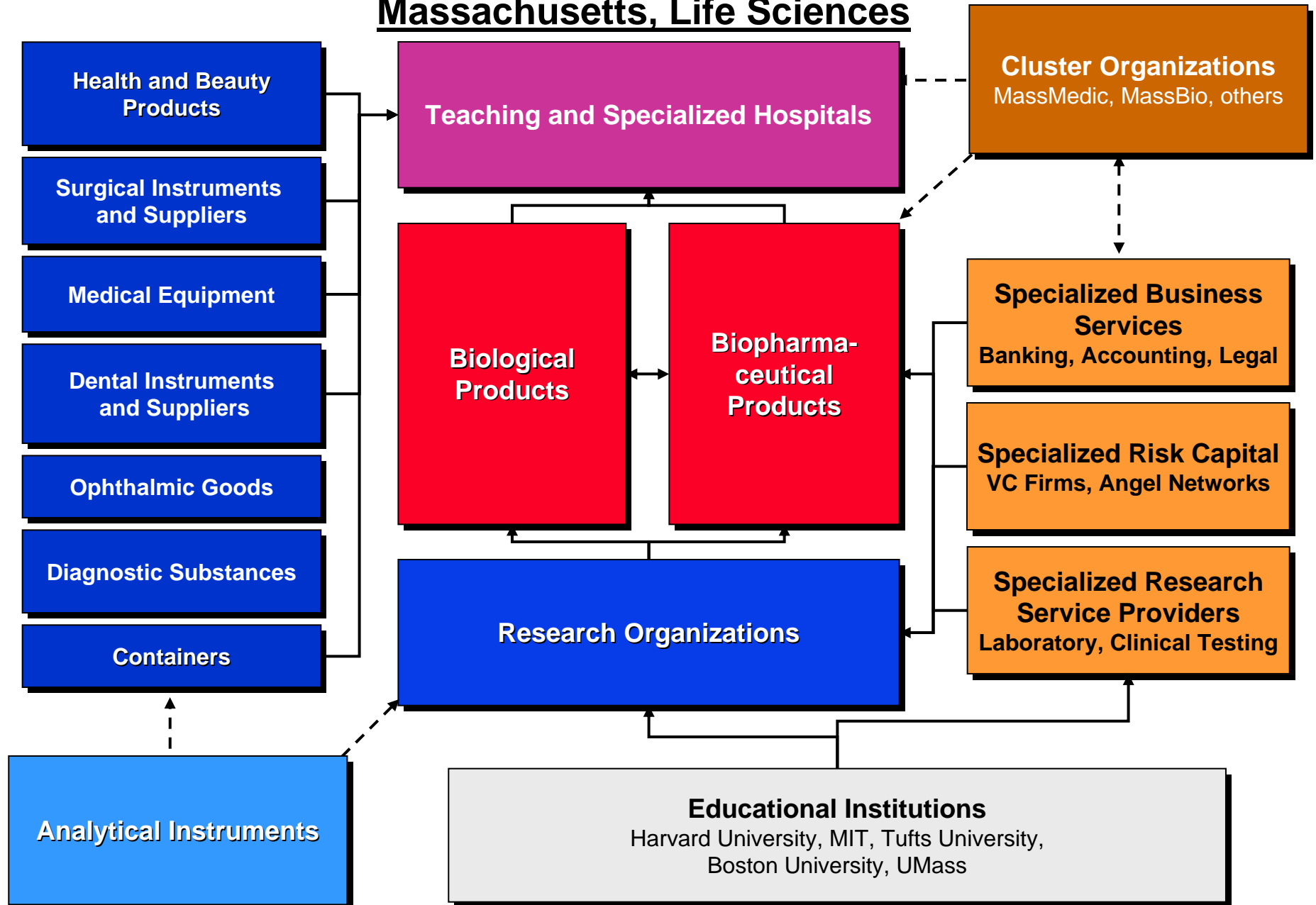
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Enhancing Cluster Development

Tourism Cluster in Cairns, Australia



State of Cluster Development Massachusetts, Life Sciences



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

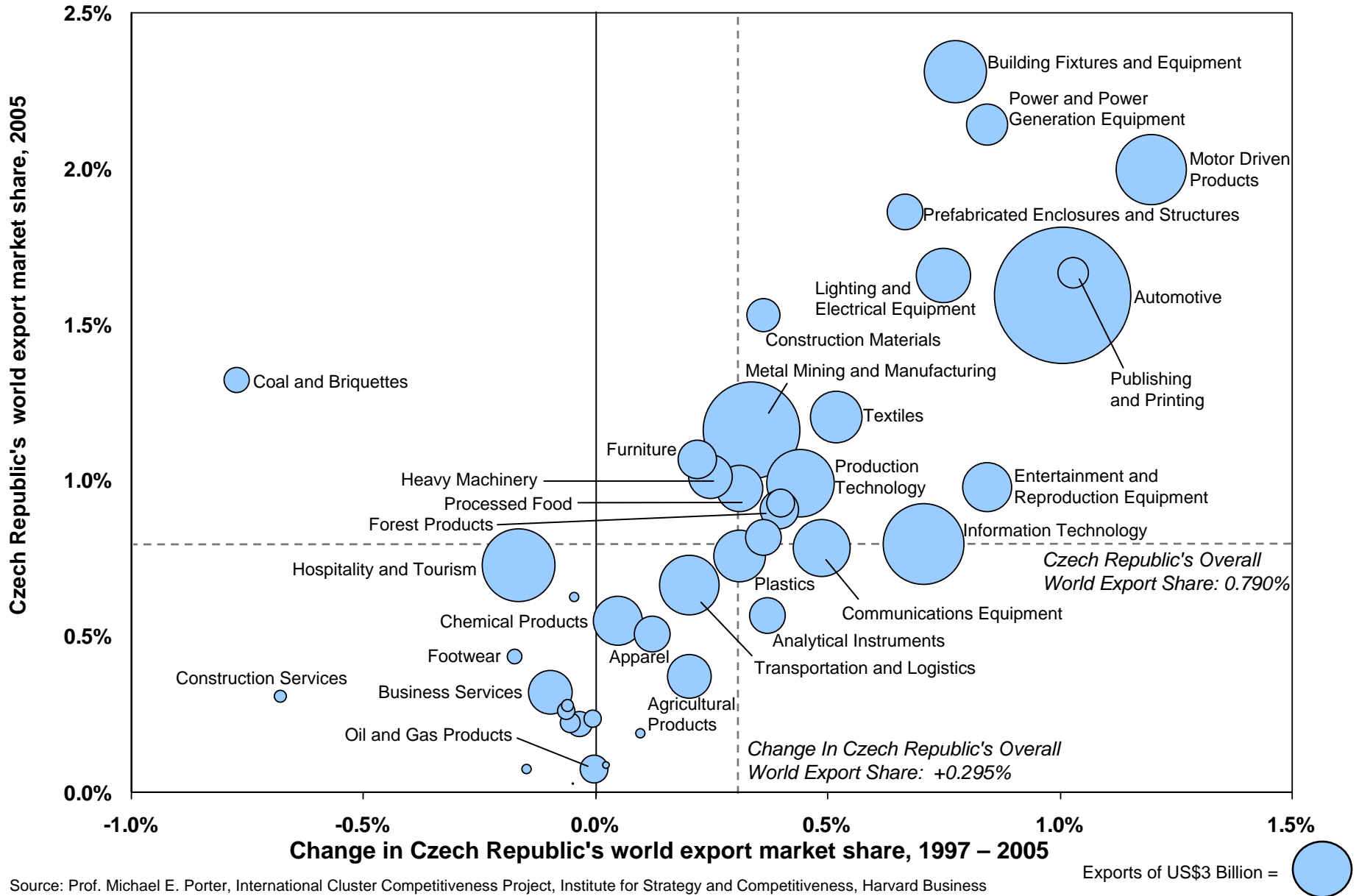
- Company alumni groups
- Venture capital community
- University alumni groups

Joint Research Initiatives

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

Czech National Cluster Export Portfolio

1997-2005



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.

The Process of Economic Development

Shifting Roles and Responsibilities

Old Model

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



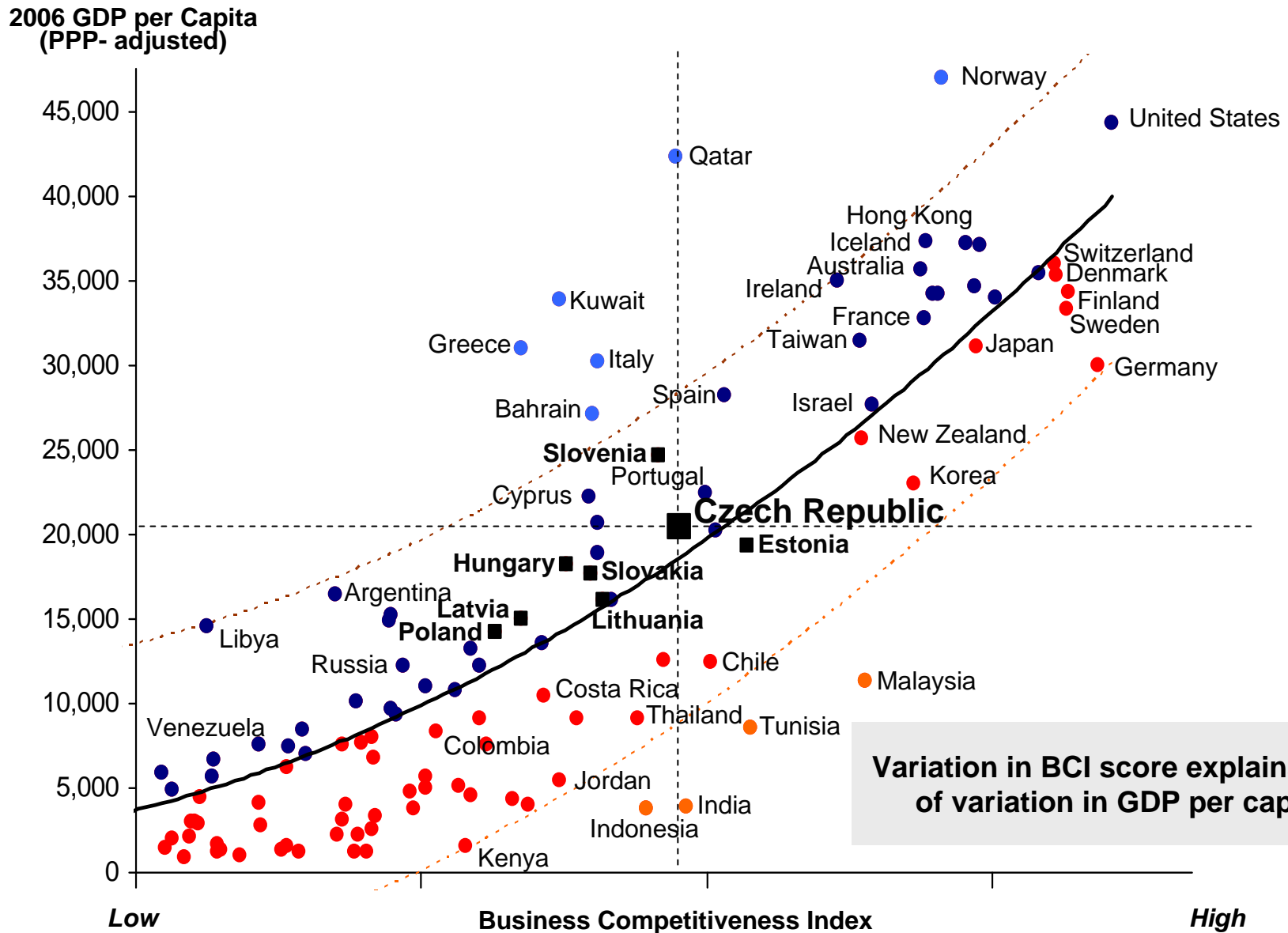
New Model

- Economic development is a **collaborative process** involving government at multiple levels, companies, teaching and research institutions, and institutions for collaboration

- 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

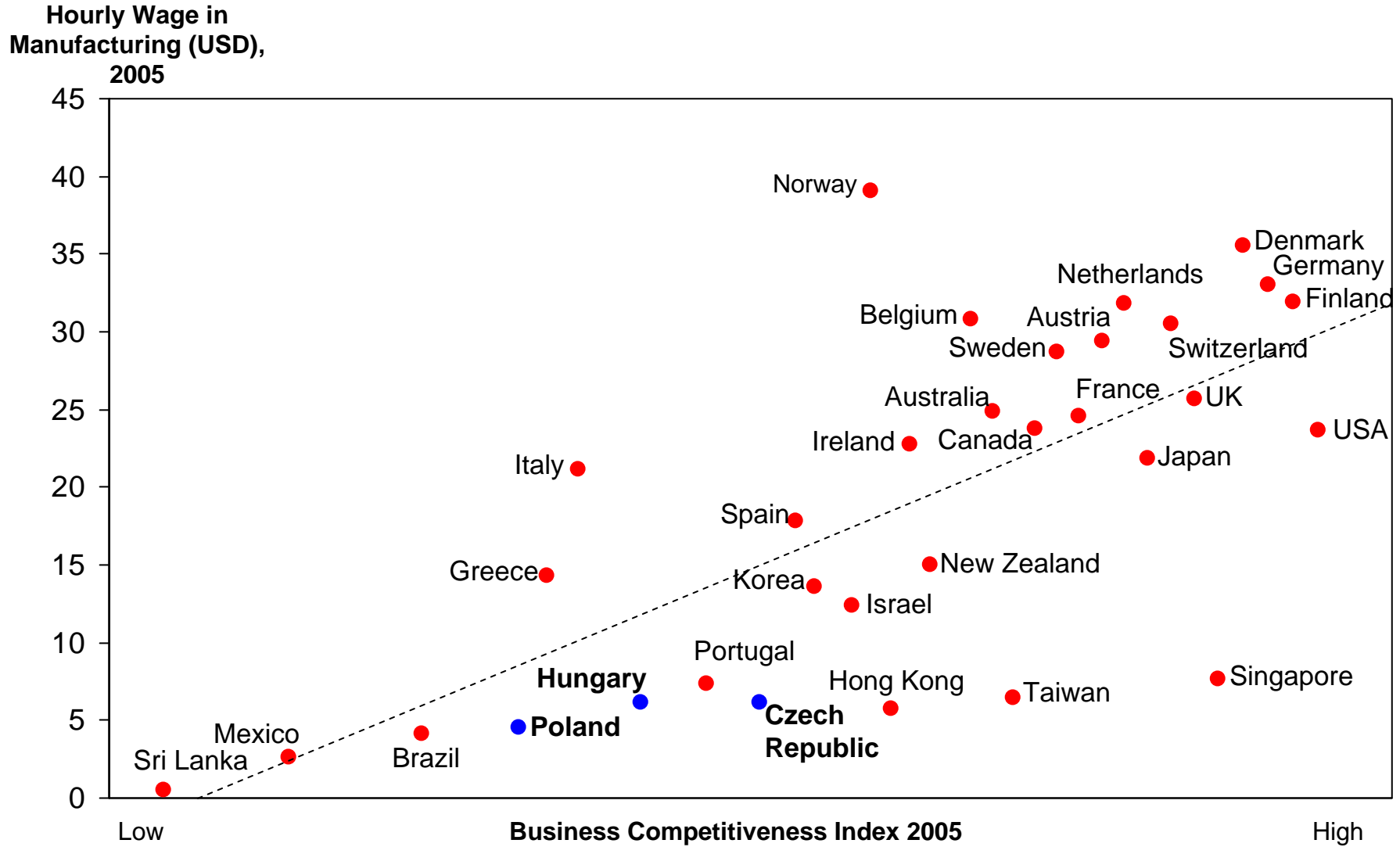
Ranking Microeconomic Competitiveness

Business Competitiveness Index, 2007



Source: Global Competitiveness Report 2007

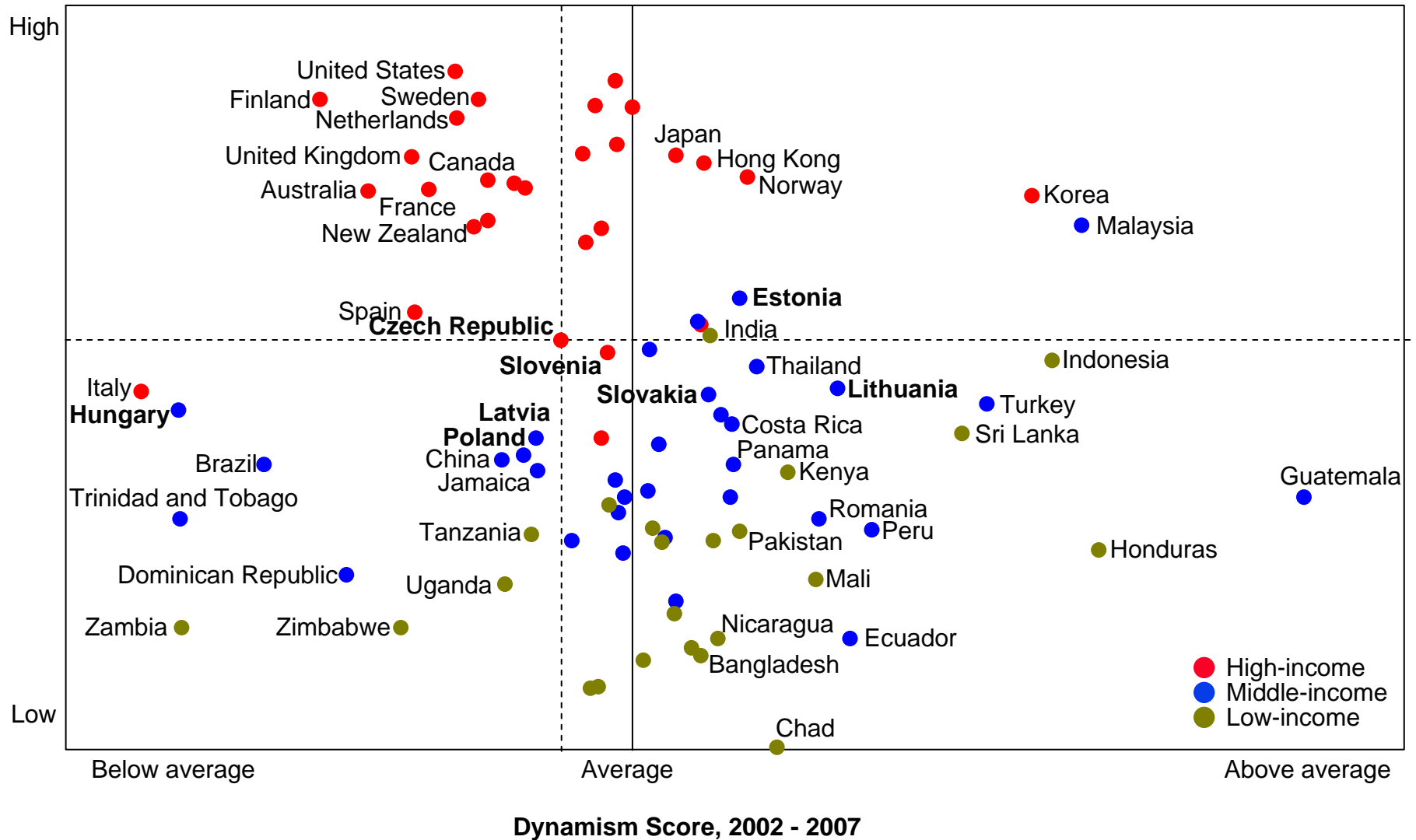
Competitiveness versus Wage Level Across Countries



Source: Global Competitiveness Report
2005-2006 and US Bureau of Labor Statistics

Rate of Competitiveness Improvement 2002 - 2007

BCI Value, 2007



Historical Economic Growth Model

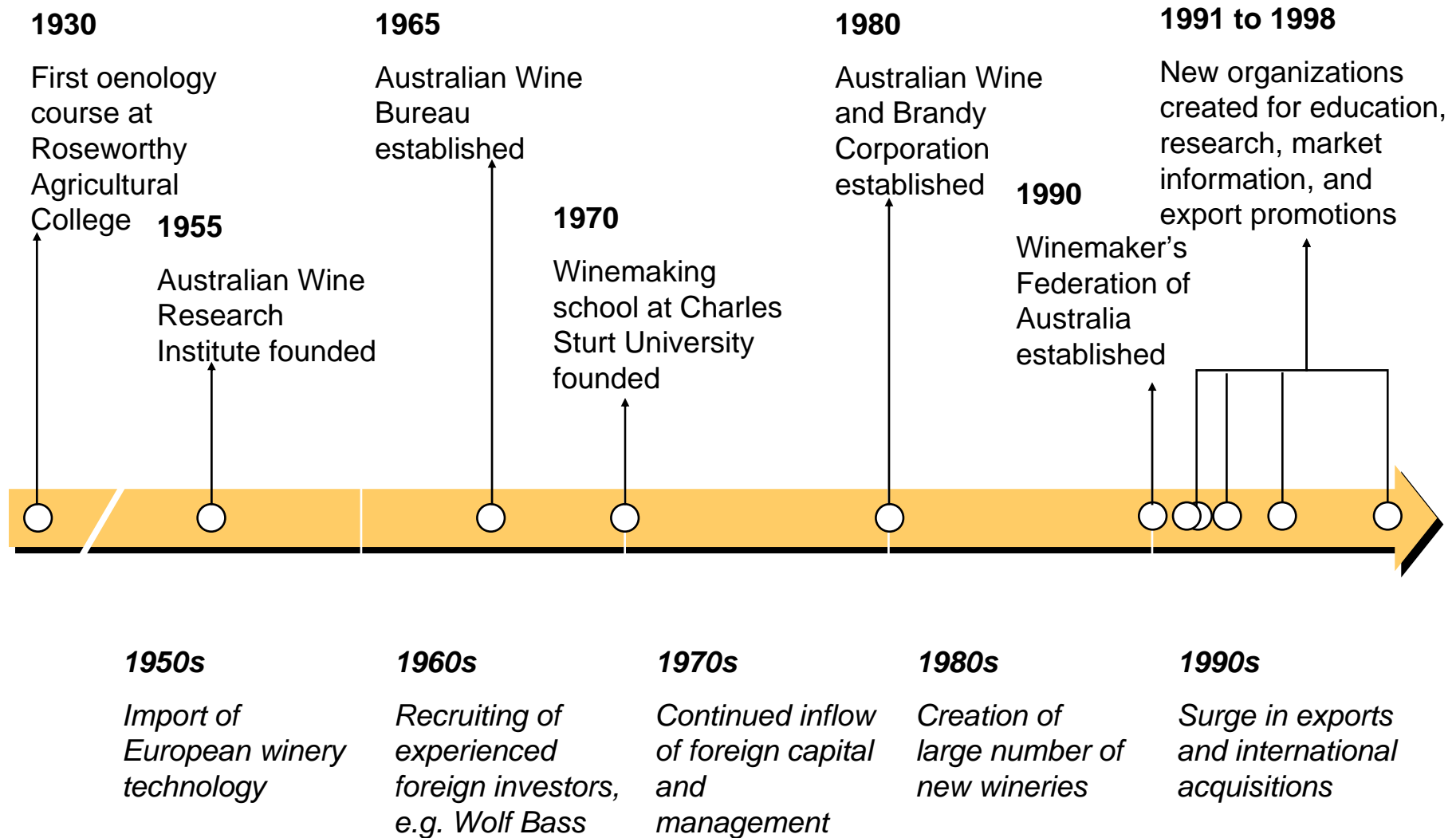
Czech Republic

- Strong manufacturing legacy
- Skill base at attractive wage levels
- Proximity to Germany and other Western European economies
- Strong focus on FDI attraction
- Export-led growth

Improving Czech Competitiveness

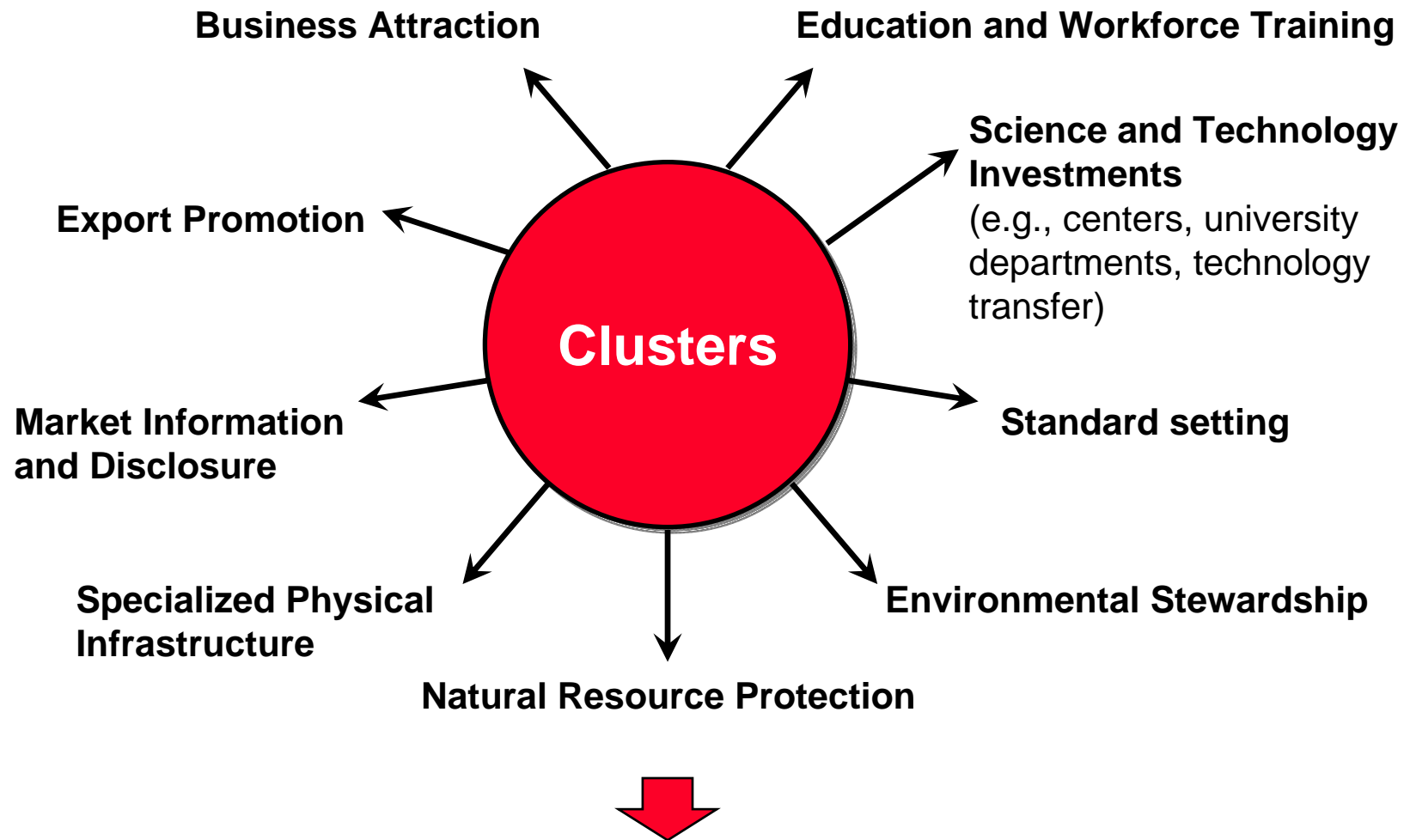
- Improve business regulation and governance
- Upgrade financial markets
- Drive cluster development, including the strengthening of local supplier networks around foreign investments
- Improve innovative capacity
- Strengthen collaboration with neighbors

The Australian Wine Cluster History



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

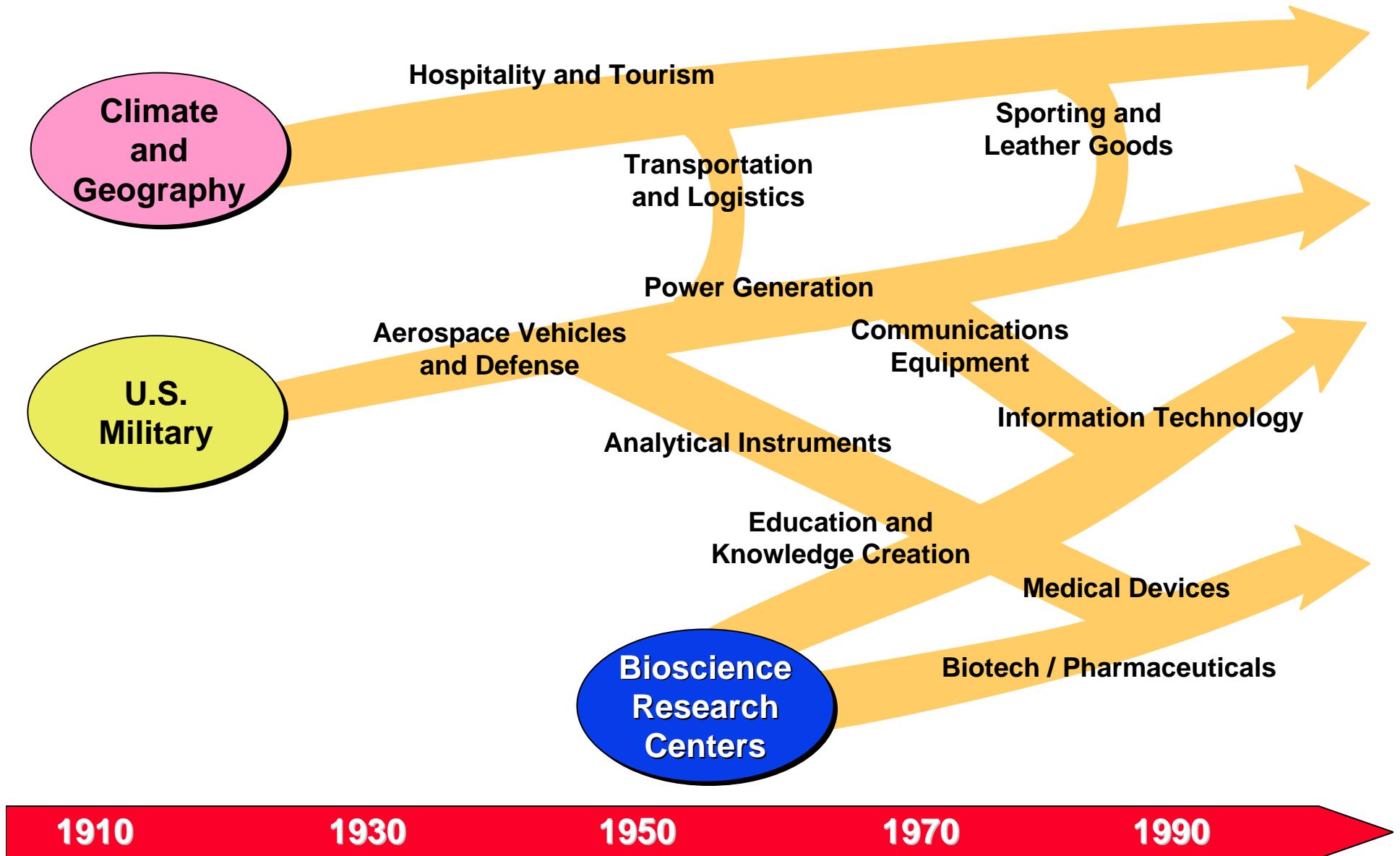
Clusters and Economic Policy



- Clusters provide a framework for **organizing the implementation** of public policy and public investments towards economic development

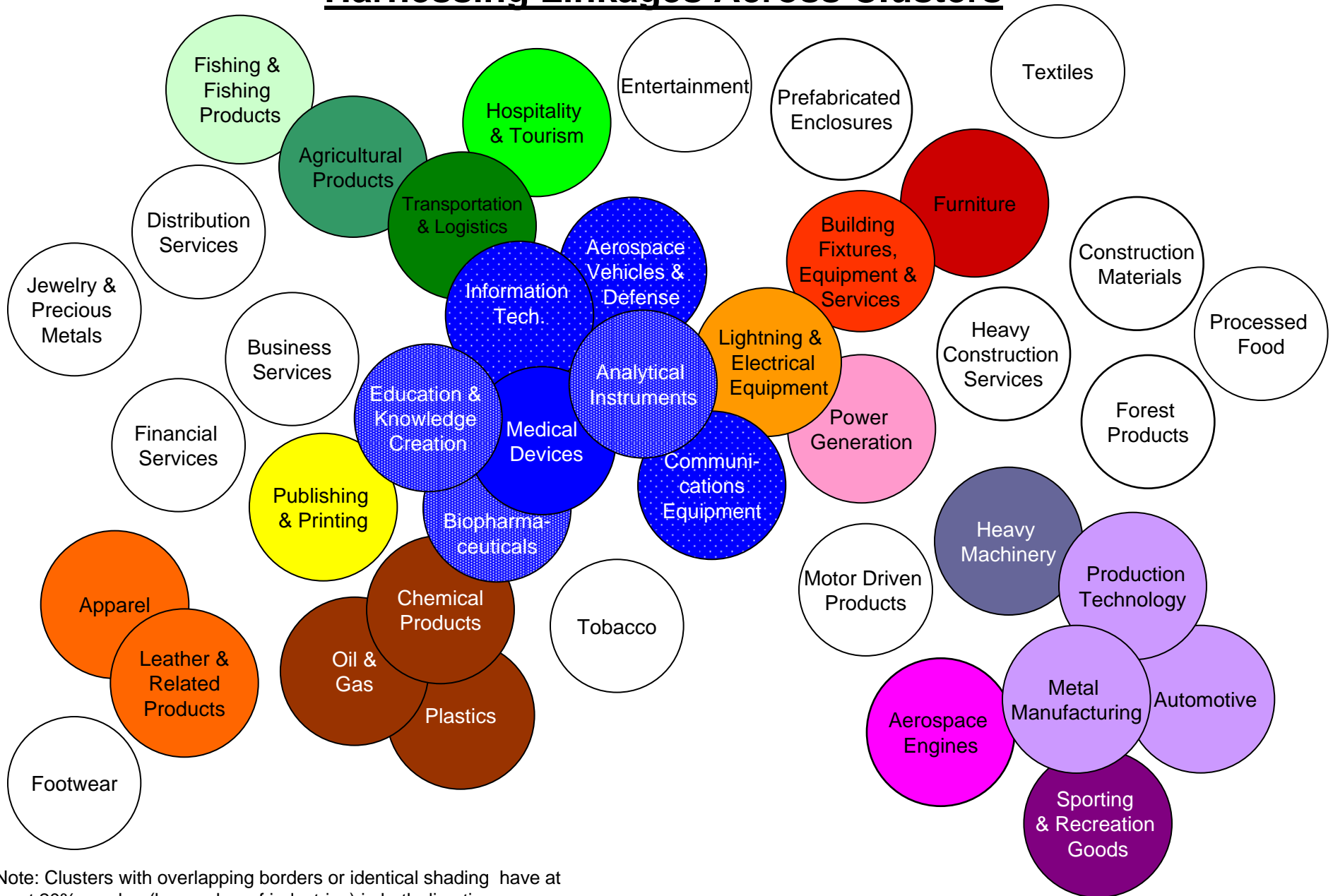
The Evolution of National and Regional Economies

San Diego



Diversifying the Economy

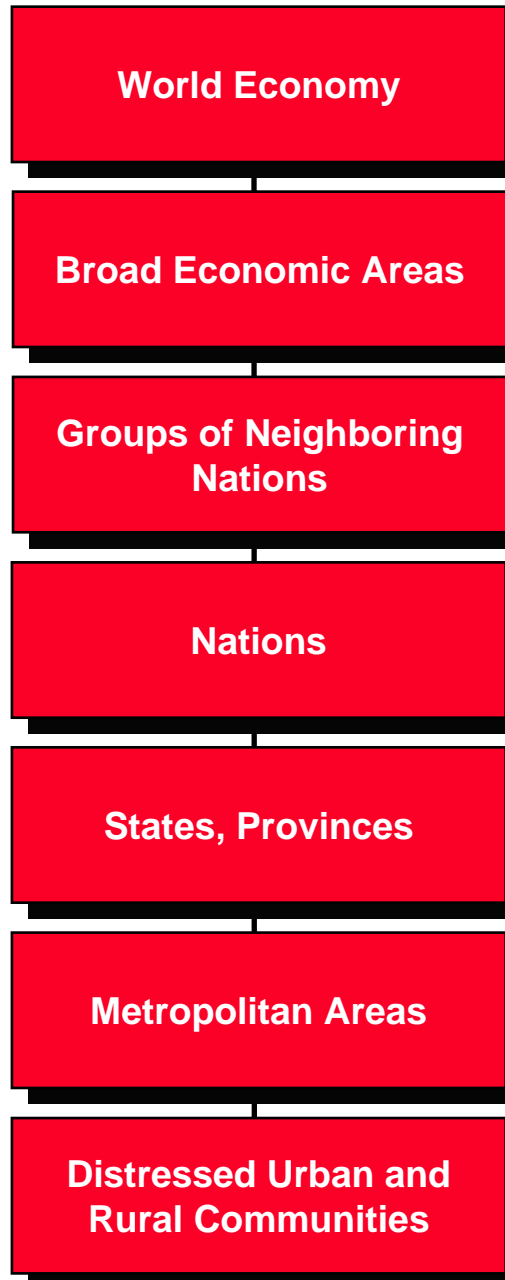
Harnessing Linkages Across Clusters



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

Geographic Influences on Competitiveness

Levels of Influence



The Role of European Union Membership

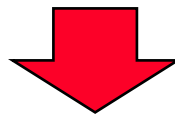
Key Advantages

- Access to **large markets**
- Rapid implementation of **credible and tested regulatory framework**
- Stabilization of fragile **political systems** through external anchor, i.e. reforms needed to achieve EU membership
- Access to **financial resources** for competitiveness upgrading

Key Disadvantages

- **Complex rules and regulations** not aligned with needs of transition economies
- Bureaucracy and **inflexibility**

Central European Neighborhood



- Neighboring countries can move further than the European Union on **economic integration**
- Neighboring countries can **together influence EU policies** more effectively than alone

Regional Economic Coordination

Illustrative Policy Areas

Factor (Input) Conditions

- Improve regional **transportation infrastructure**
- Create an efficient **energy** network
- Interconnect regional **communications**
- Link **financial markets**
- Facilitate the movement of students to enhance **higher education**
- Harmonize **regulatory requirements** for business
- Coordinate programs to improve **public safety**

Context for Strategy and Rivalry

- Coordinate **macroeconomic** policies
- Eliminate **trade and investment barriers** within the region
- Simplify and harmonize **cross-border** regulations and paperwork
- Coordinate **antimonopoly and fair competition policies**

Demand Conditions

- Harmonize **environmental standards**
- Harmonize product **safety standards**
- Establish reciprocal **consumer protection laws**

Related and Supporting Industries

- Coordinate development of **cross-border clusters**, e.g.
 - Tourism
 - Agribusiness
 - Transport & Logistics
 - Business services

Regional Governance

- Share **best practices** in government operations
- Create regional **institutions**
 - Dispute resolution mechanisms
 - Regional development bank
- Develop a regional **marketing** strategy

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