

Microeconomics Foundations of Competitiveness

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This presentation draws on ideas from Professor Porter's books and articles, in particular, "Building the Microeconomic Foundations of Prosperity," 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. 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 the author
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Microeconomics of Competitiveness

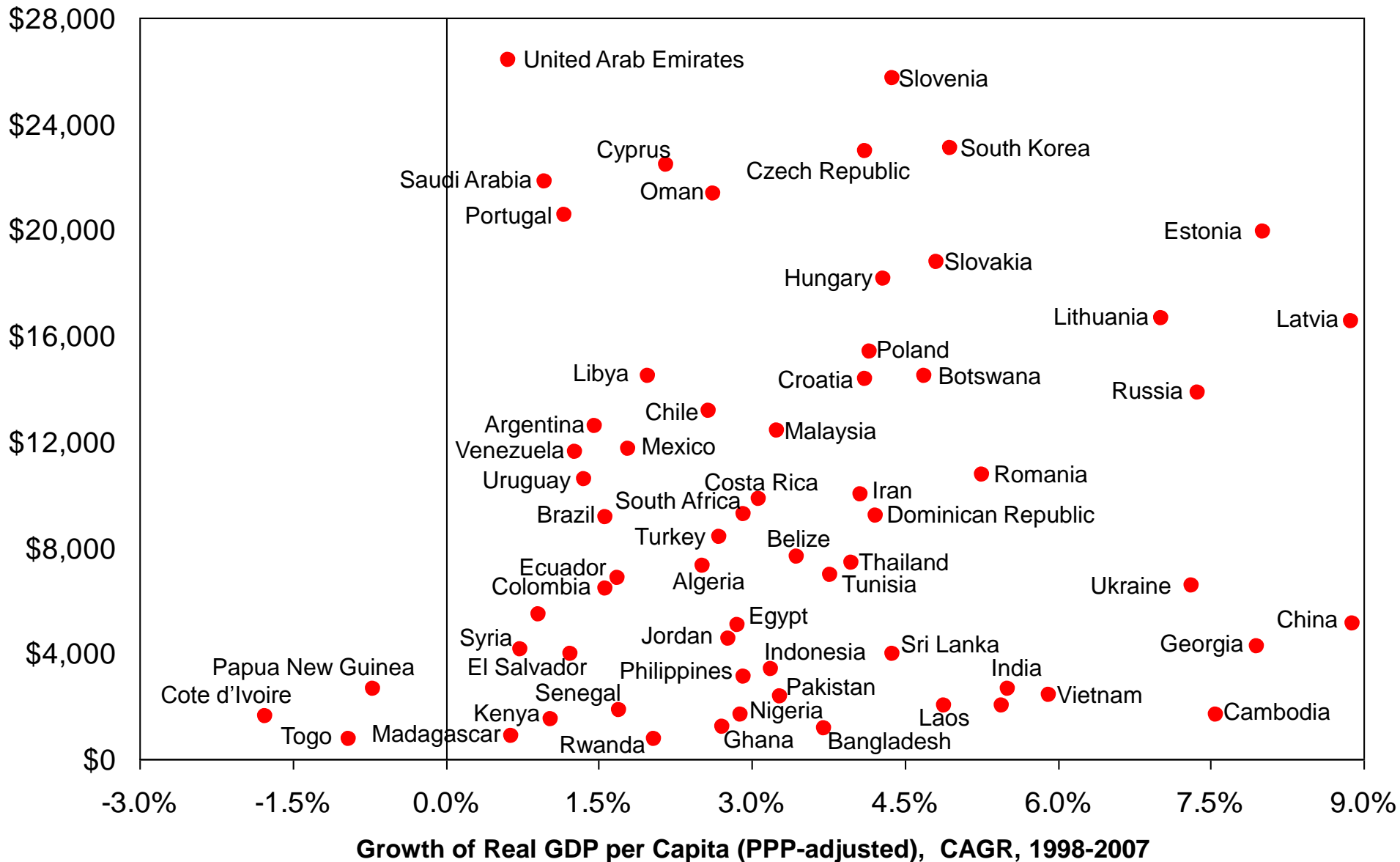
Participating Universities, 2007-08

North America		Middle East/Central Asia	
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		Israel	IDC-Herzliya
		Jordan	University of Jordan German Jordanian University
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		Pakistan	Lahore University of Management Sciences
		Asia Pacific	
Mexico		Australia	Macquarie Graduate School of Management
Mexico	CETYS Universidad ITESM UPAEP	China	Peking University Tsinghua University Wuhan University Zhejiang University
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Sweden	Stockholm School of Economics	Peru	ESAN
Switzerland	Robert Kennedy College University of Applied Sciences Northwestern Switzerland University of Fribourg	Uruguay	Universidad Católica
		Venezuela	IESA
Ukraine	IMI-Kyiv	Africa	
UK	Manchester Business School University of Bradford	Ghana	Ghana Institute of Management & Public Administration (GIMPA)
Caribbean		Kenya	Strathmore Business School
Trinidad & Tobago	University of the West Indies	Mauritius	University of Mauritius
		South Africa	Gordon Institute of Business Science (GIBS)
		Tanzania	University of Dar es Salaam

Prosperity Performance

Selected Middle- and Lower-Income Countries

PPP-adjusted GDP
per Capita, 2007



Source: EIU (2008), authors calculations

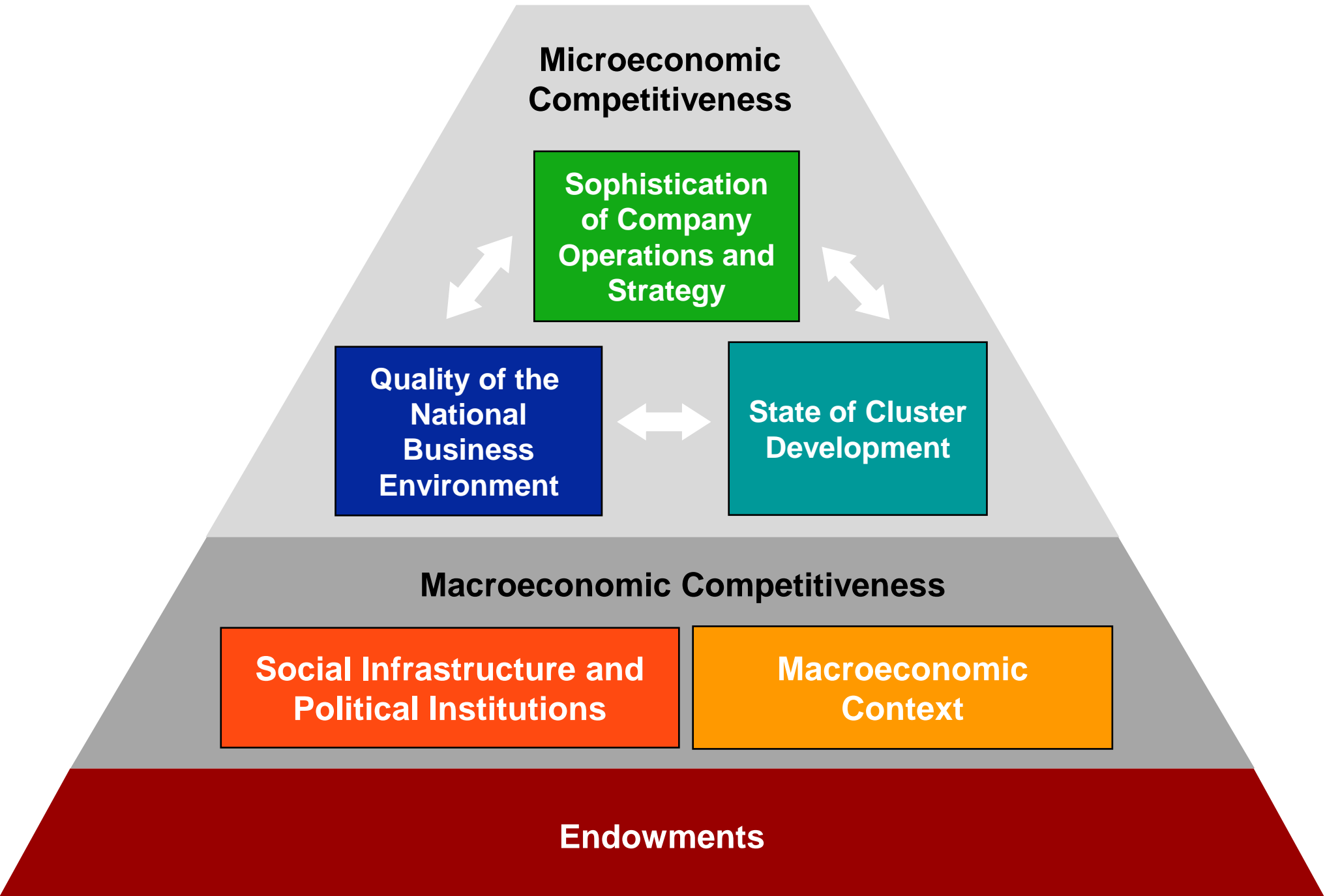
What is Competitiveness?

- Competitiveness is determined by the **productivity** with which a nation uses its human, capital, and natural resources.
 - Productivity **sets the 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** 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

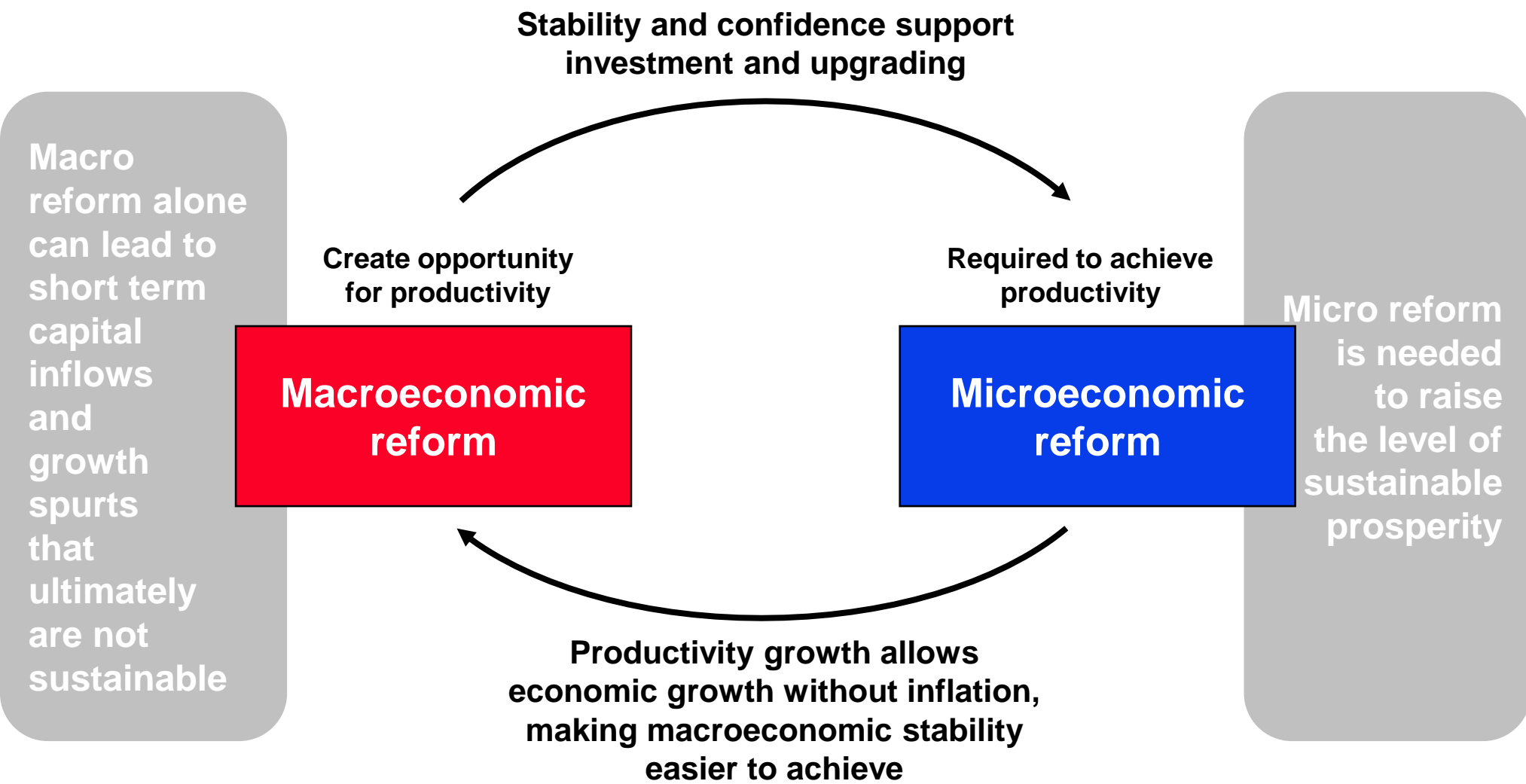


- Nations compete in offering the **most productive environment for business**
- The public and private sectors play **different but interrelated roles** in creating a productive economy

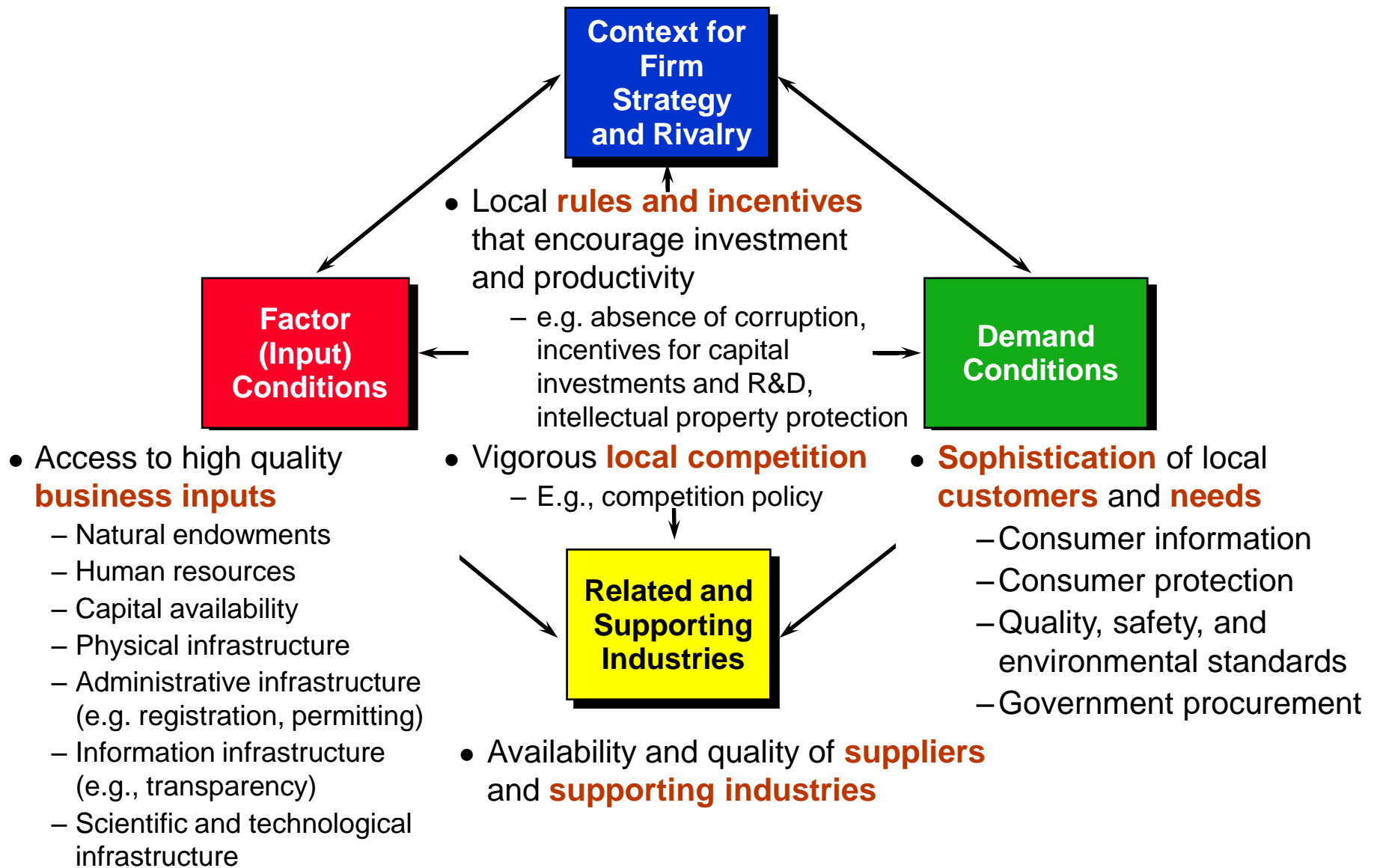
Determinants of Prosperity



Macroeconomic Reform and Competitiveness



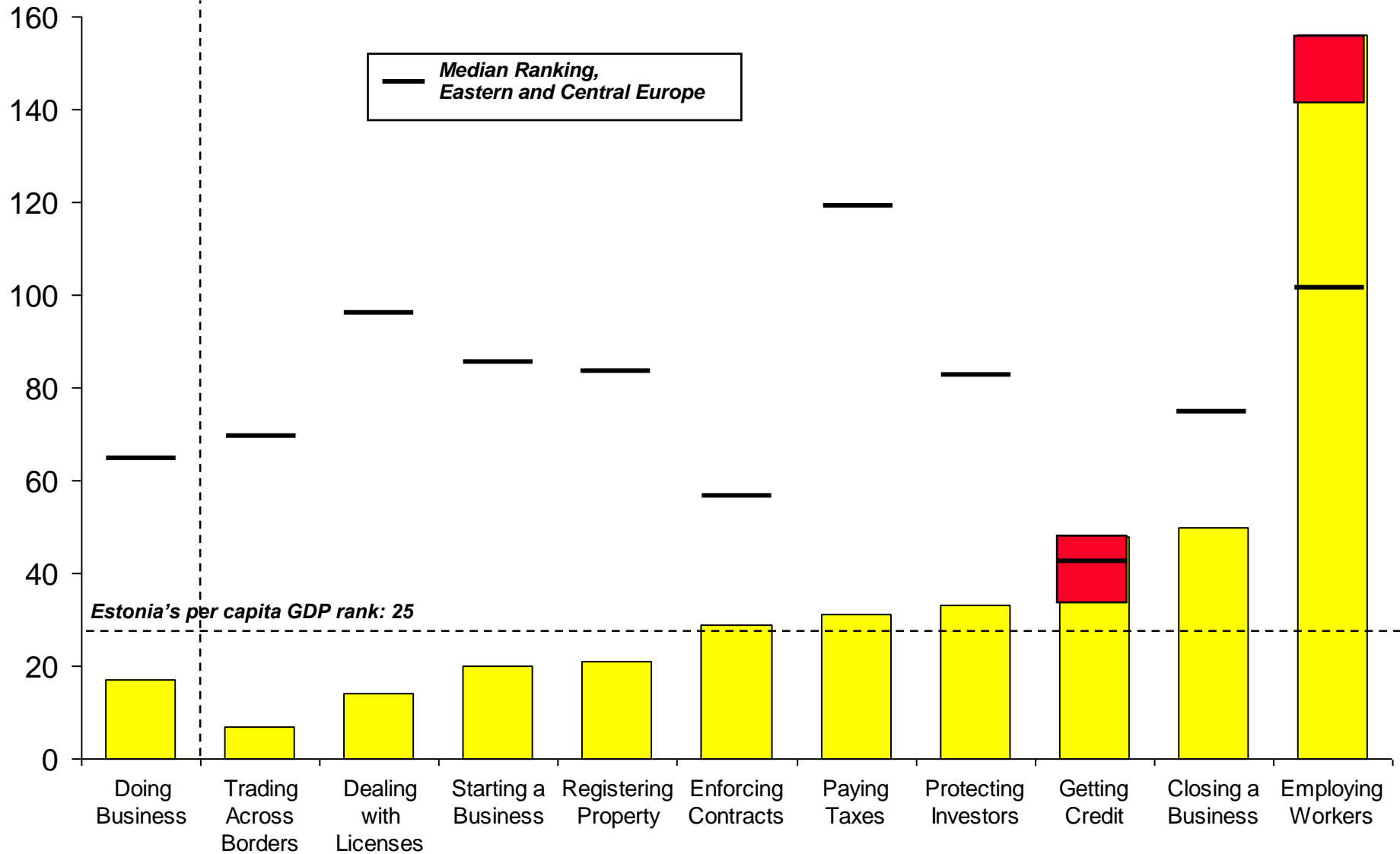
The Business Environment: The Diamond



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

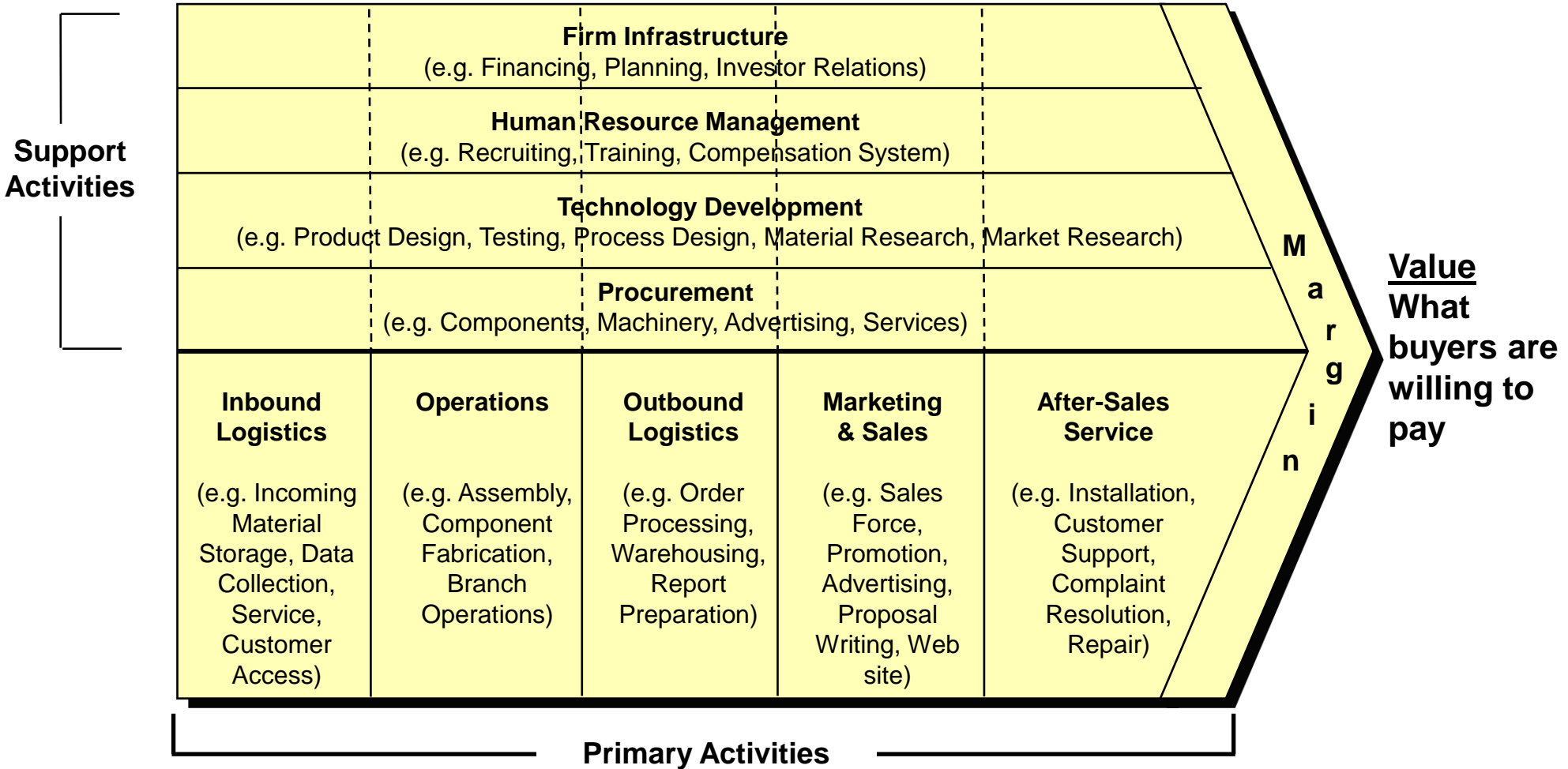
Ease of Doing Business Estonia, 2007

Ranking, 2007 (of
178 countries)



Sophistication of Company Operations and Strategy

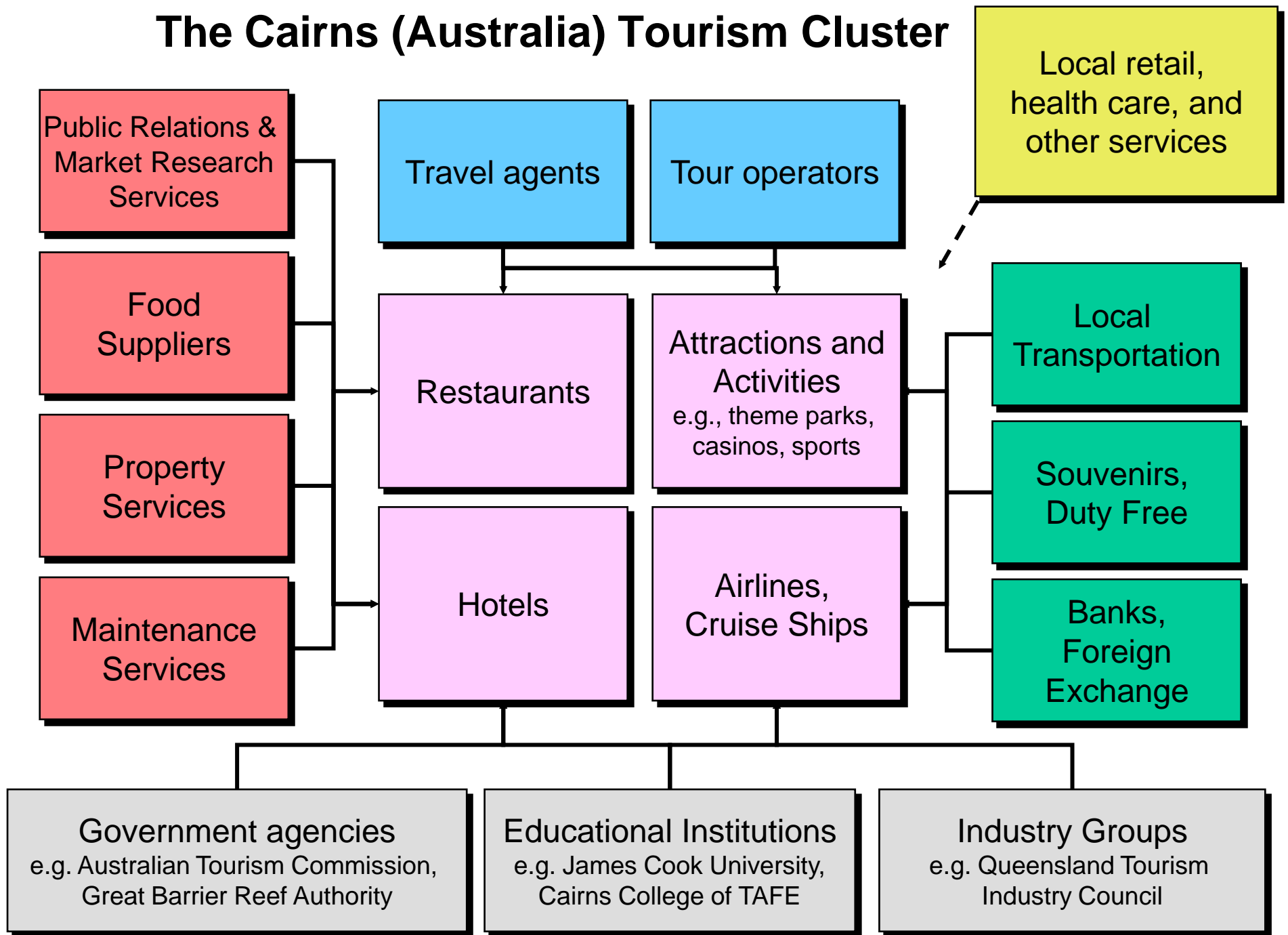
The Value Chain



Company Weaknesses in Developing Countries

- Opportunistic
 - Short term
 - Fast pay-back
 - Operationally inefficient
 - Low investment
 - Compete on input costs
 - Imitate products and services
 - Domestic focus
 - Conglomerate business groups
- 
- A variety of policies and programs can directly target company sophistication, such as diaspora engagement, quality certification, lean manufacturing centers, and micro-lending

The Cairns (Australia) Tourism Cluster

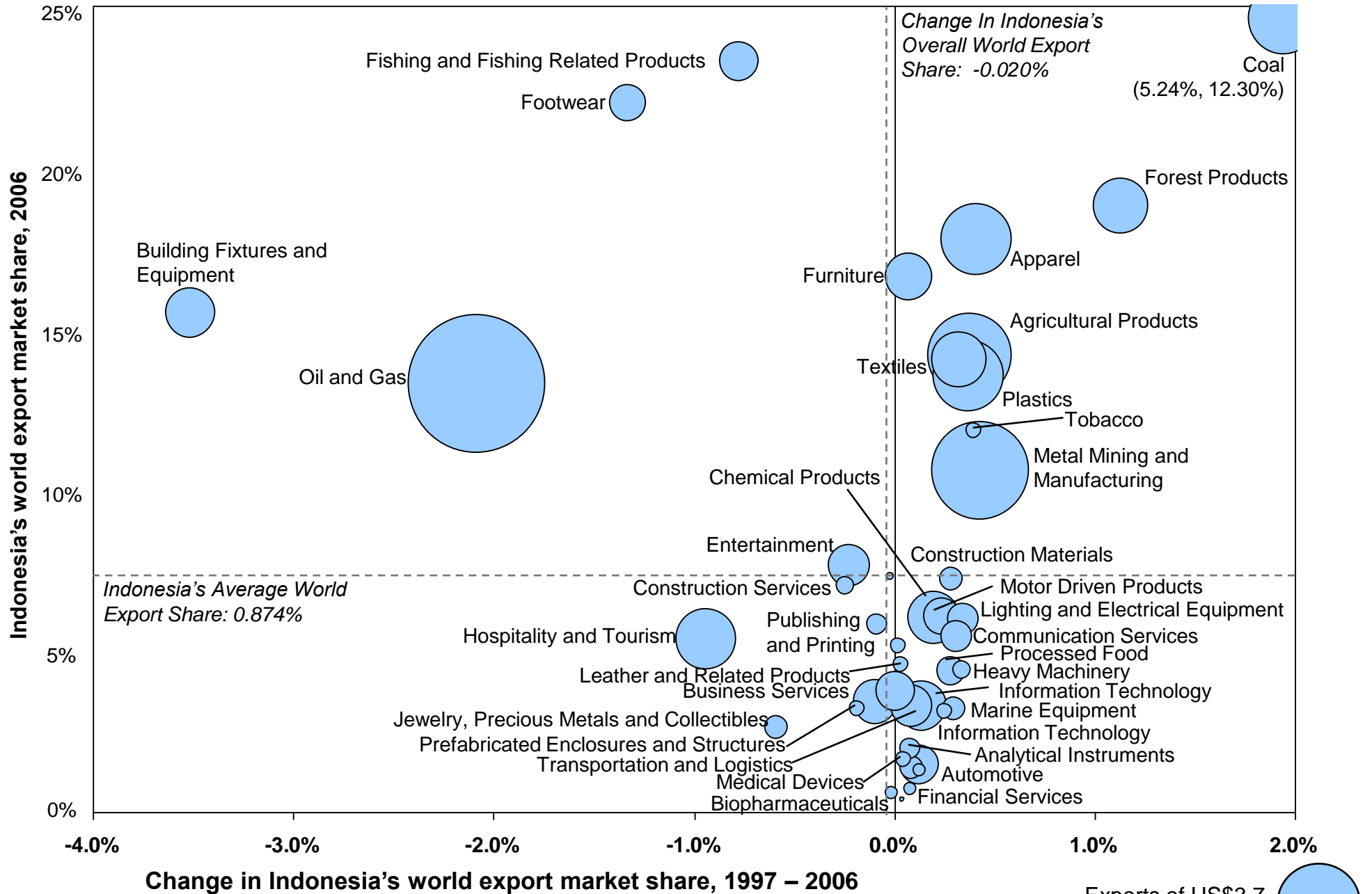


Clusters and Competitiveness

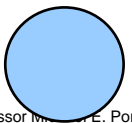
- **Clusters Increase Productivity / Operational Efficiency**
 - **Efficient access** to specialized inputs, services, employees, information, institutions, training programs, and other “public goods” (local outsourcing)
 - Ease of **coordination** and transactions across firms
 - Rapid **diffusion** of best practices
 - Ongoing, visible **performance comparisons** and strong incentives to improve vs. local rivals
 - Proximity of rivals encourages strategic differentiation
 - **Clusters Stimulate and Enable Innovations**
 - Density enables recognition of **innovation opportunities** (e.g., unmet needs, sophisticated customers, new combinations of services, or better technologies)
 - Presence of multiple suppliers and institutions to assist in **knowledge creation**
 - Ease of **experimentation** given locally available resources
 - **Clusters Facilitate Commercialization and New Business Formation**
 - Opportunities for **new companies** and **new lines of established business** are apparent
 - **Spinoffs and startups** are encouraged by the presence of other companies, commercial relationships, and concentrated demand
 - **Commercializing** new products and starting new companies is easier because of available skills, suppliers, etc.
- 
- Clusters reflect the fundamental influence of **linkages and spill-overs** across firms and associated institutions in competition

National Cluster Export Portfolio

Indonesia, 1997-2006



Exports of US\$3.7 Billion =

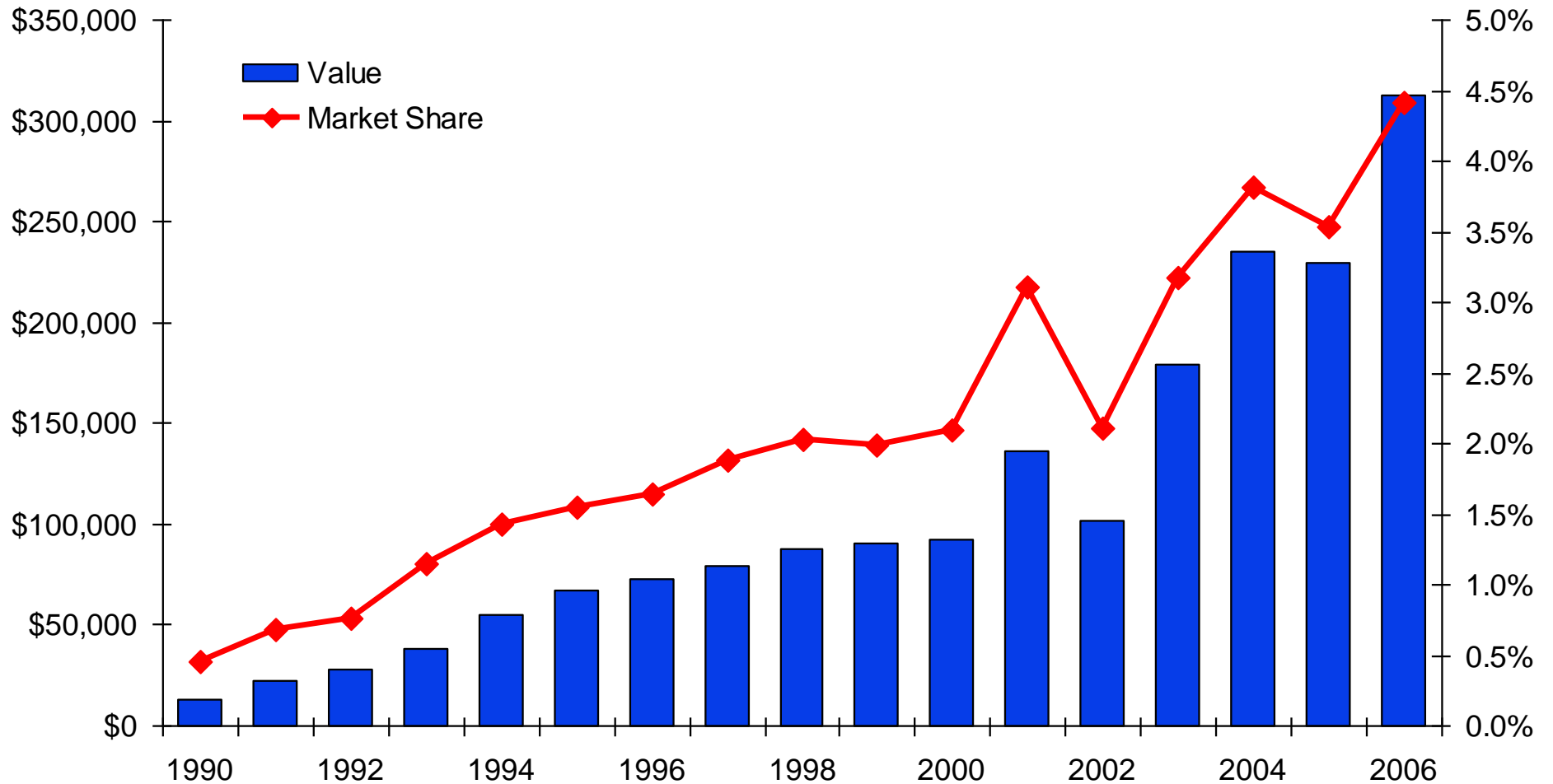


The Kenyan Cut Flower Cluster

Trade Performance

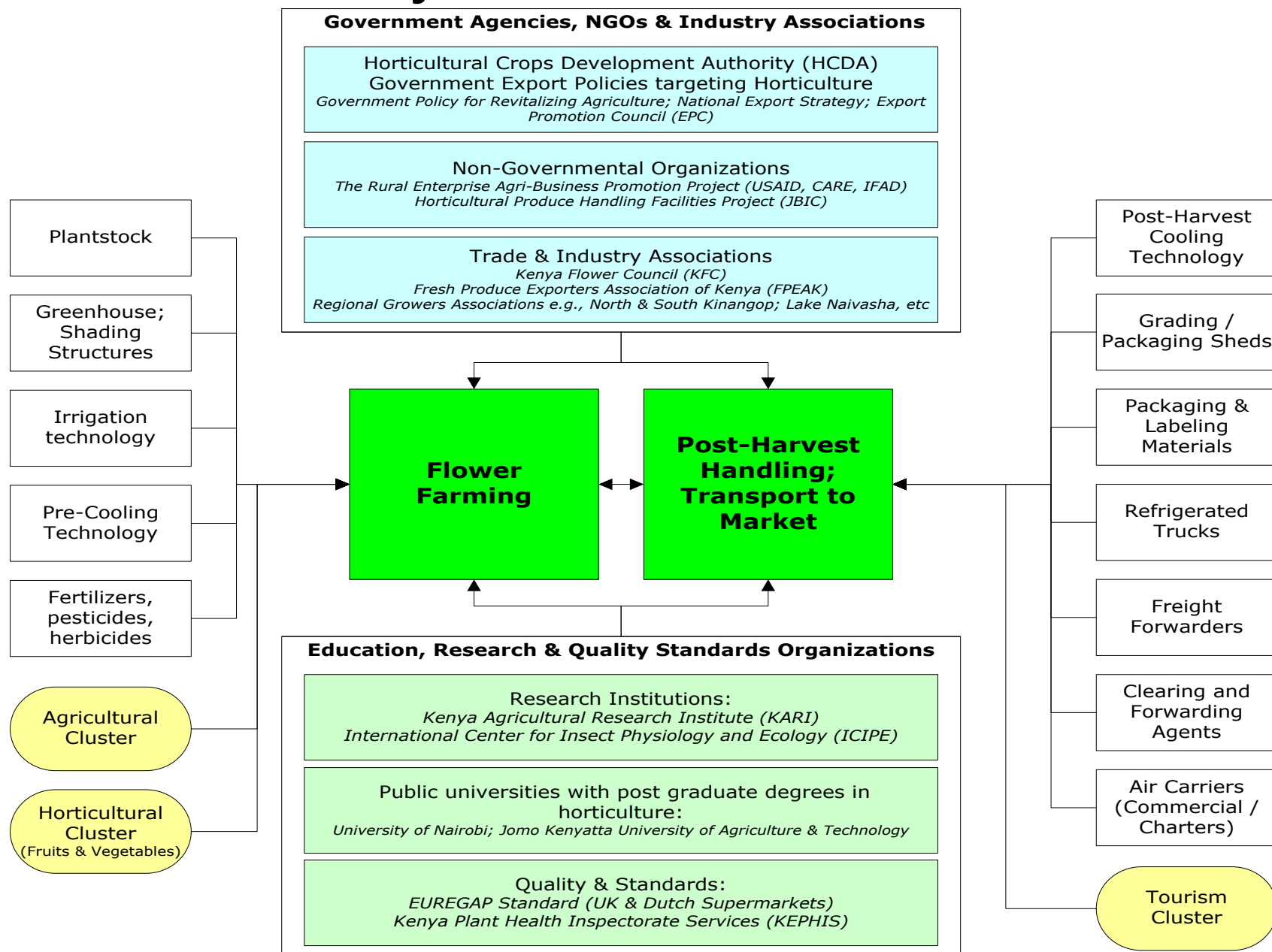
Kenyan Cut Flower Exports in thousand US \$

Kenyan Cut Flower World Export Market Share



Source: 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.

Kenya's Cut Flower Cluster



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

Institutions for Collaboration

General

- Chambers of Commerce
- Professional associations
- School networks
- University partner groups
- Religious networks
- Joint private/public advisory councils
- Competitiveness councils

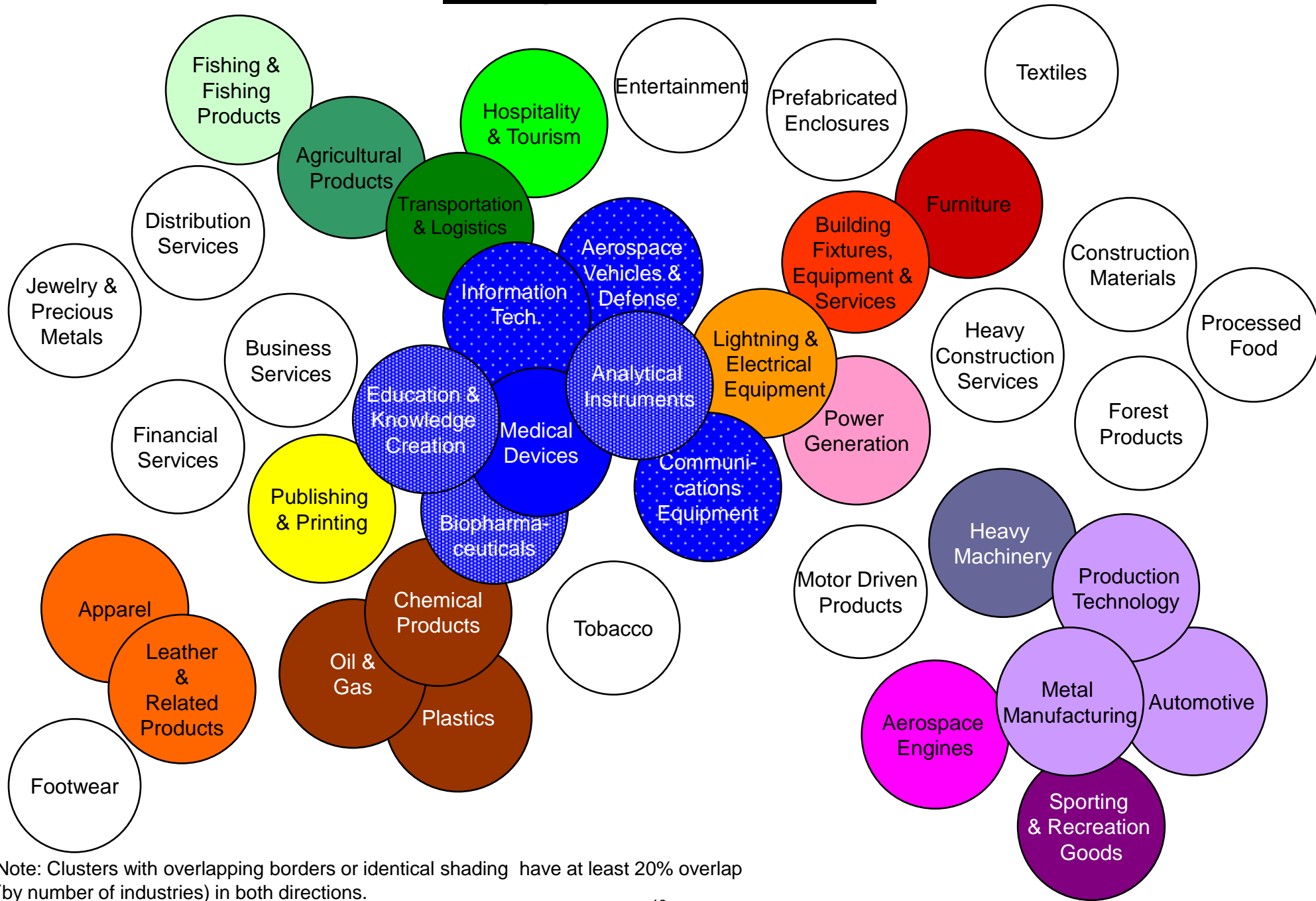
Cluster-specific

- Industry associations
- Specialized professional associations and societies
- Incubators
- Alumni groups of core cluster companies

- Institutions for collaboration are **formal and informal organizations** that
 - facilitate the exchange of information and technology
 - foster cooperation and coordination
- They can improve the business environment by
 - creating **relationships** and improving trust
 - defining **common standards**
 - facilitating **joint action**
 - fostering **shared priorities**
 - providing a mechanism to develop a common **agenda**

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.

Clusters and Regional Prosperity : Empirical Findings

Drivers of Job Growth, Wage Levels, and Patenting

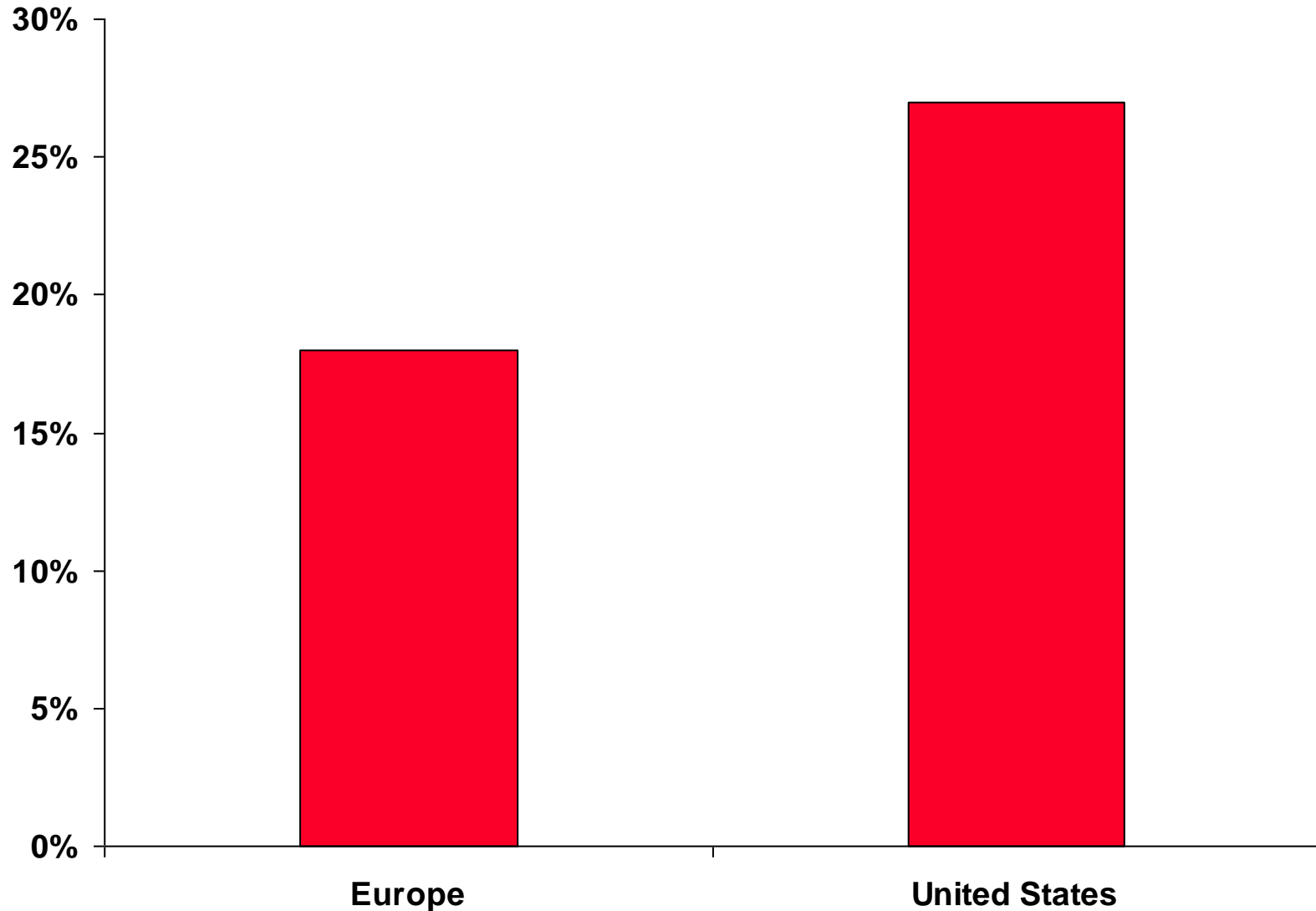
- Specialization in **strong clusters**
- **Breadth** of participation within clusters
- Positions in **related clusters**
- Region's clusters also present in **neighboring regions**

Not significant

- Positions in “High-Tech” versus other clusters

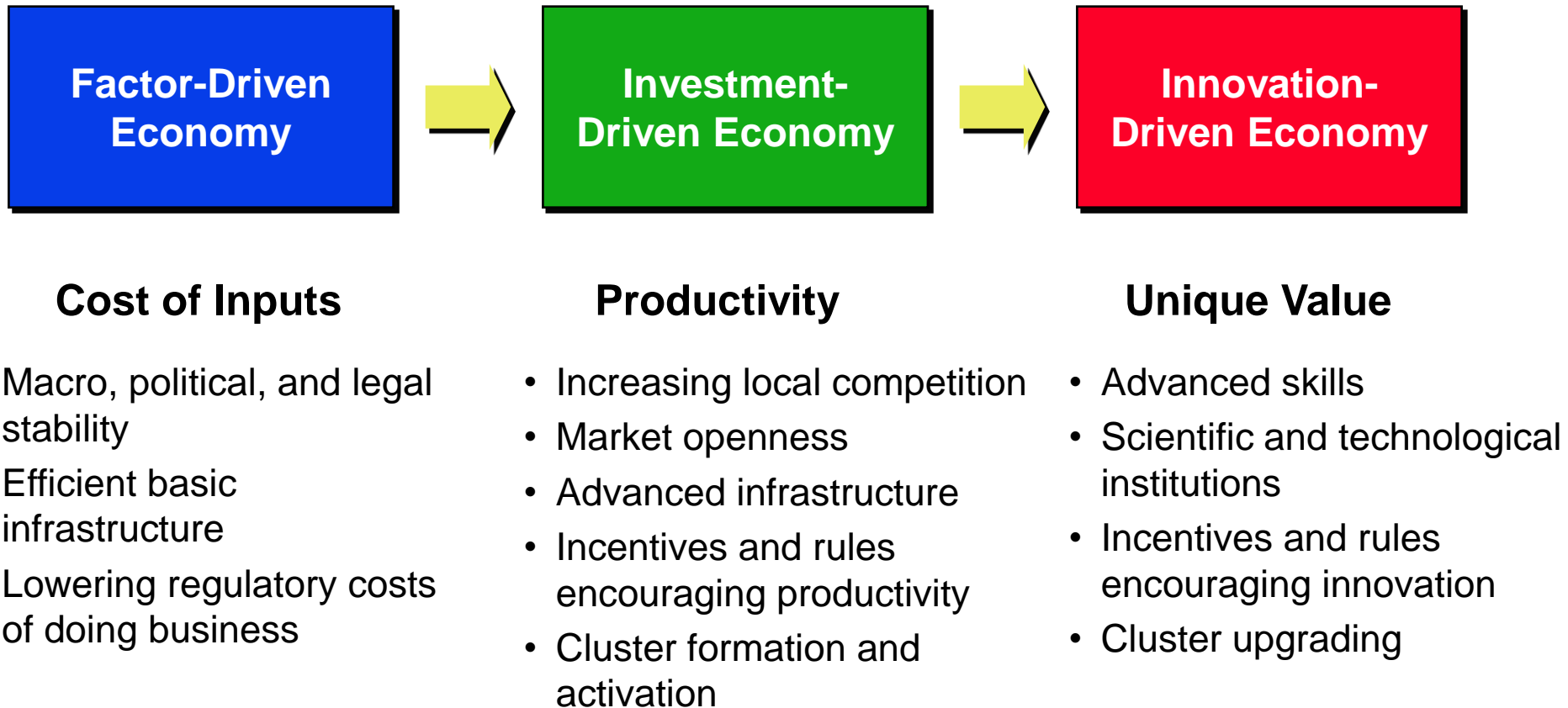
Cluster Strength in Europe versus the United States

Share of Regional
Employment in
Strong Clusters



Stages of National Competitive Development

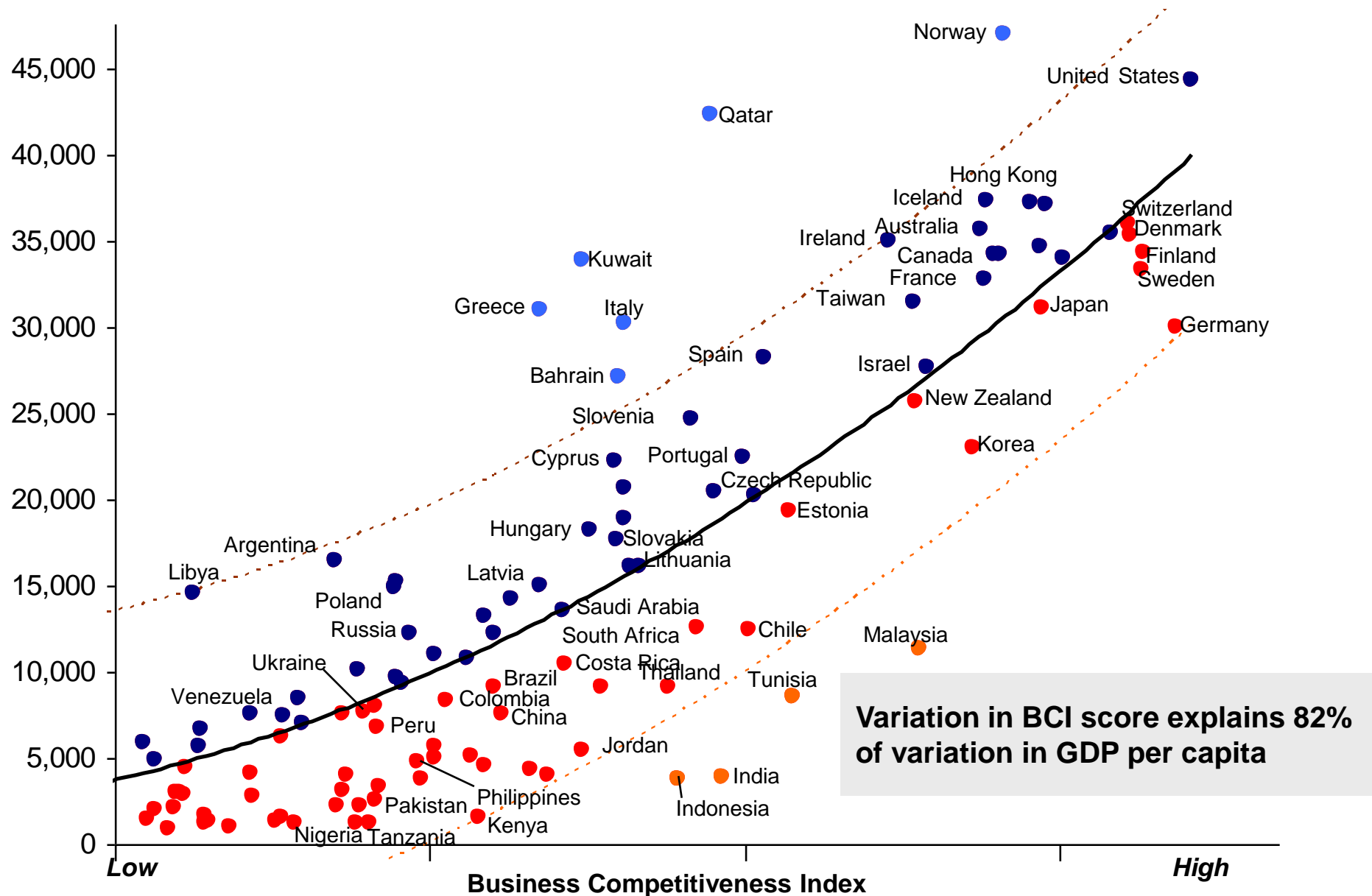
Shifting Policy Imperatives



Measuring Microeconomic Competitiveness

The Global Competitiveness Report

2006 GDP per Capita
(PPP- adjusted)

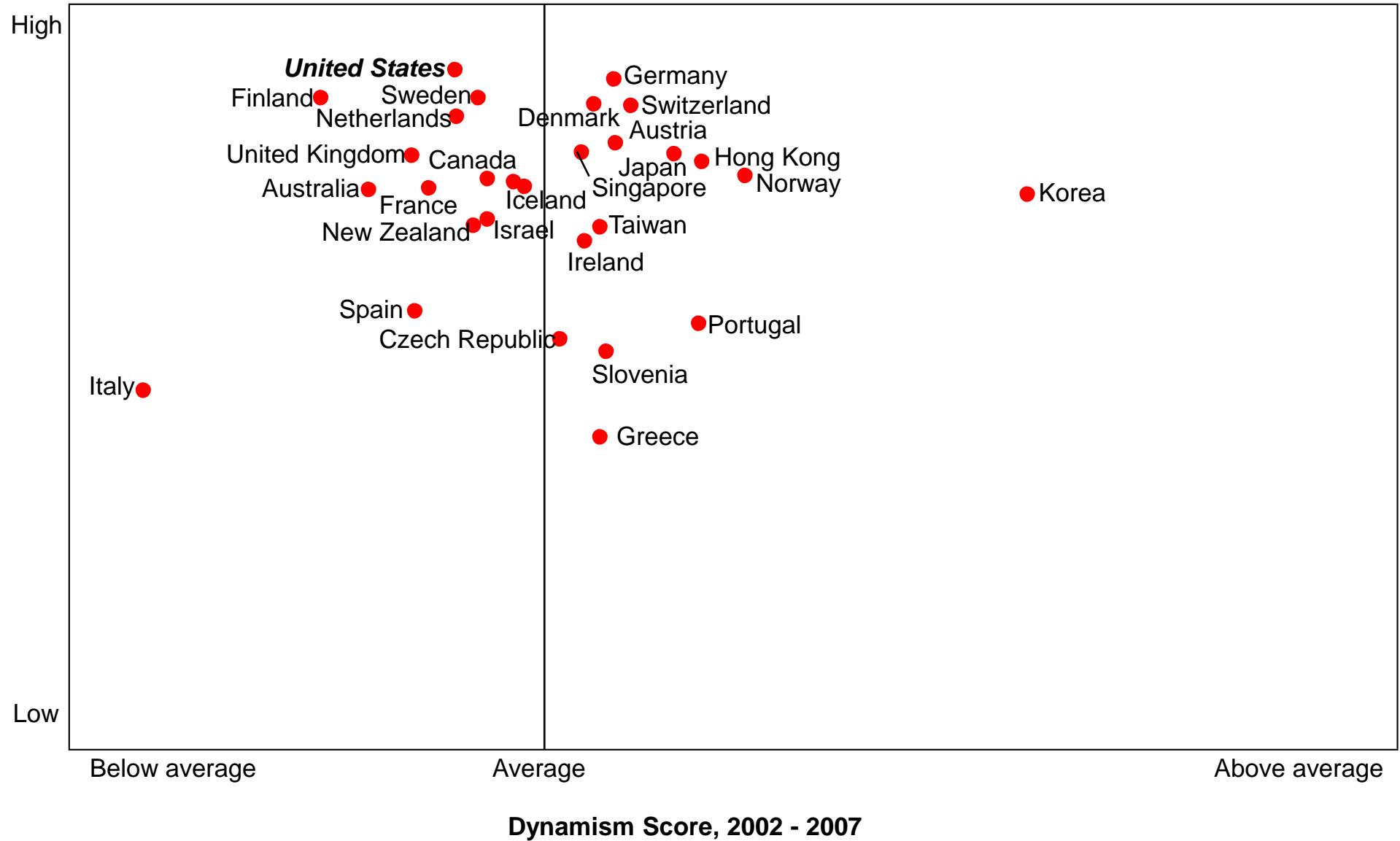


Variation in BCI score explains 82% of variation in GDP per capita

Rate of Competitiveness Improvement

High Income Countries, 2002 - 2007

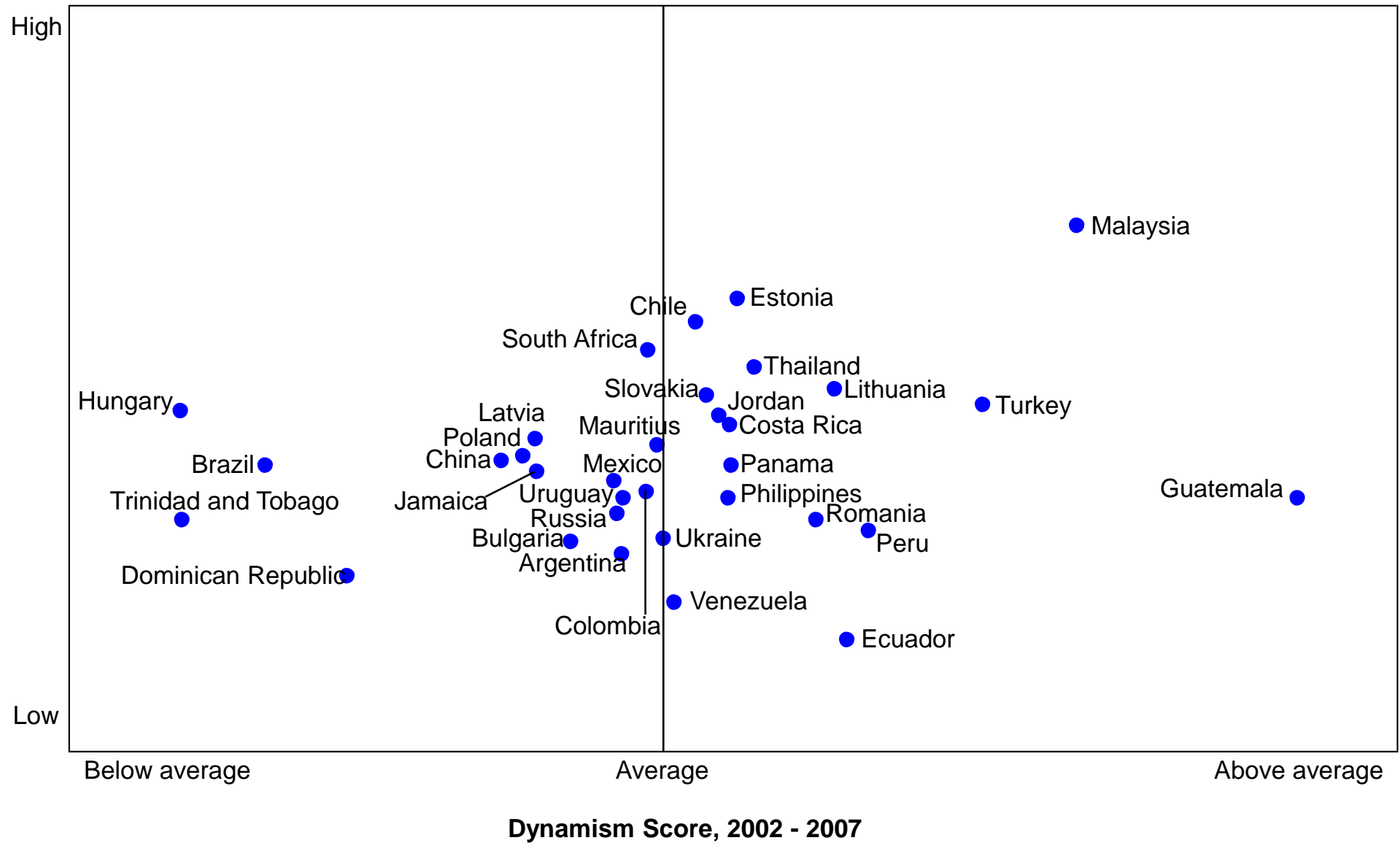
BCI Value, 2007



Rate of Competitiveness Improvement

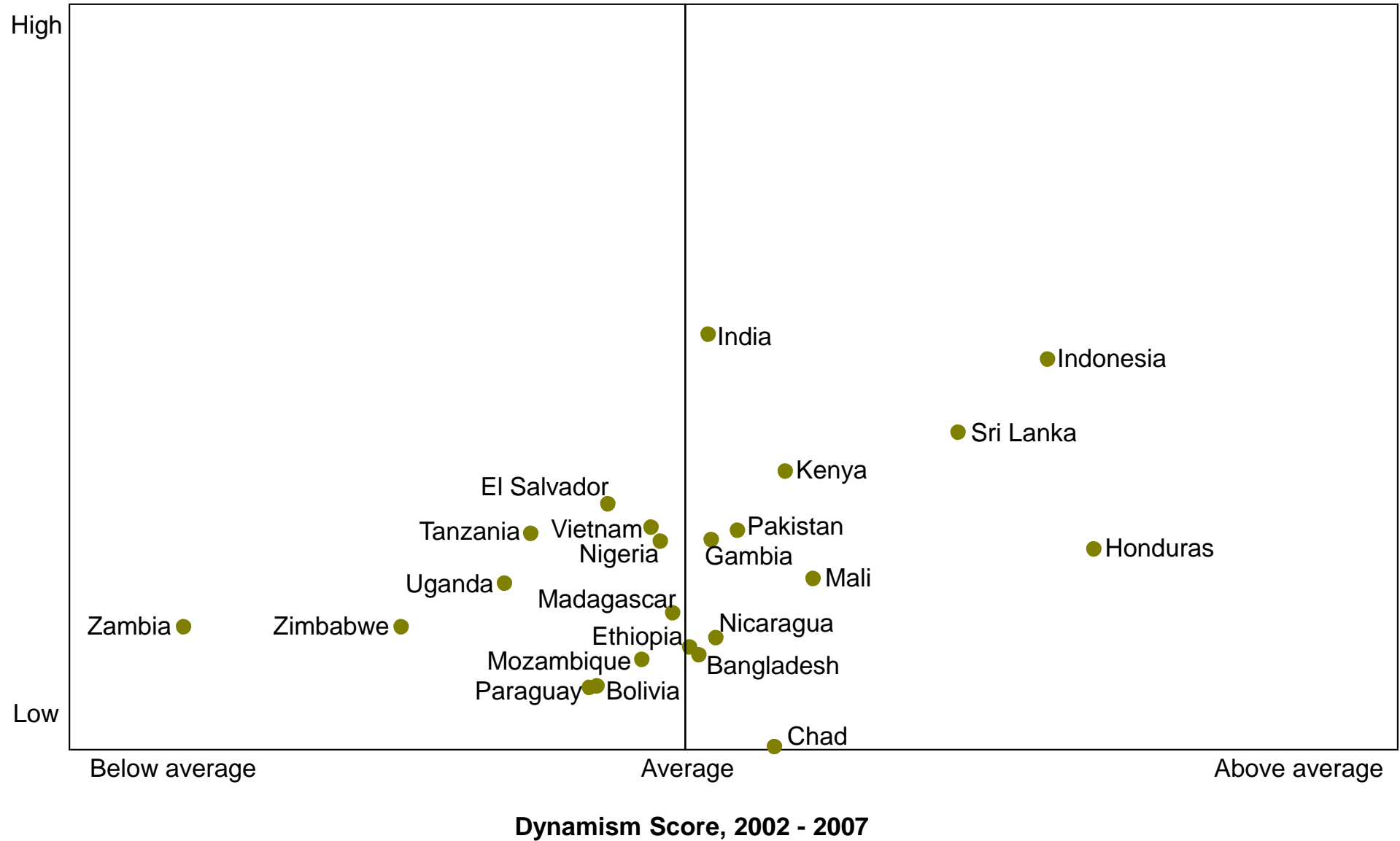
Middle Income Countries, 2002 - 2007

BCI Value, 2007

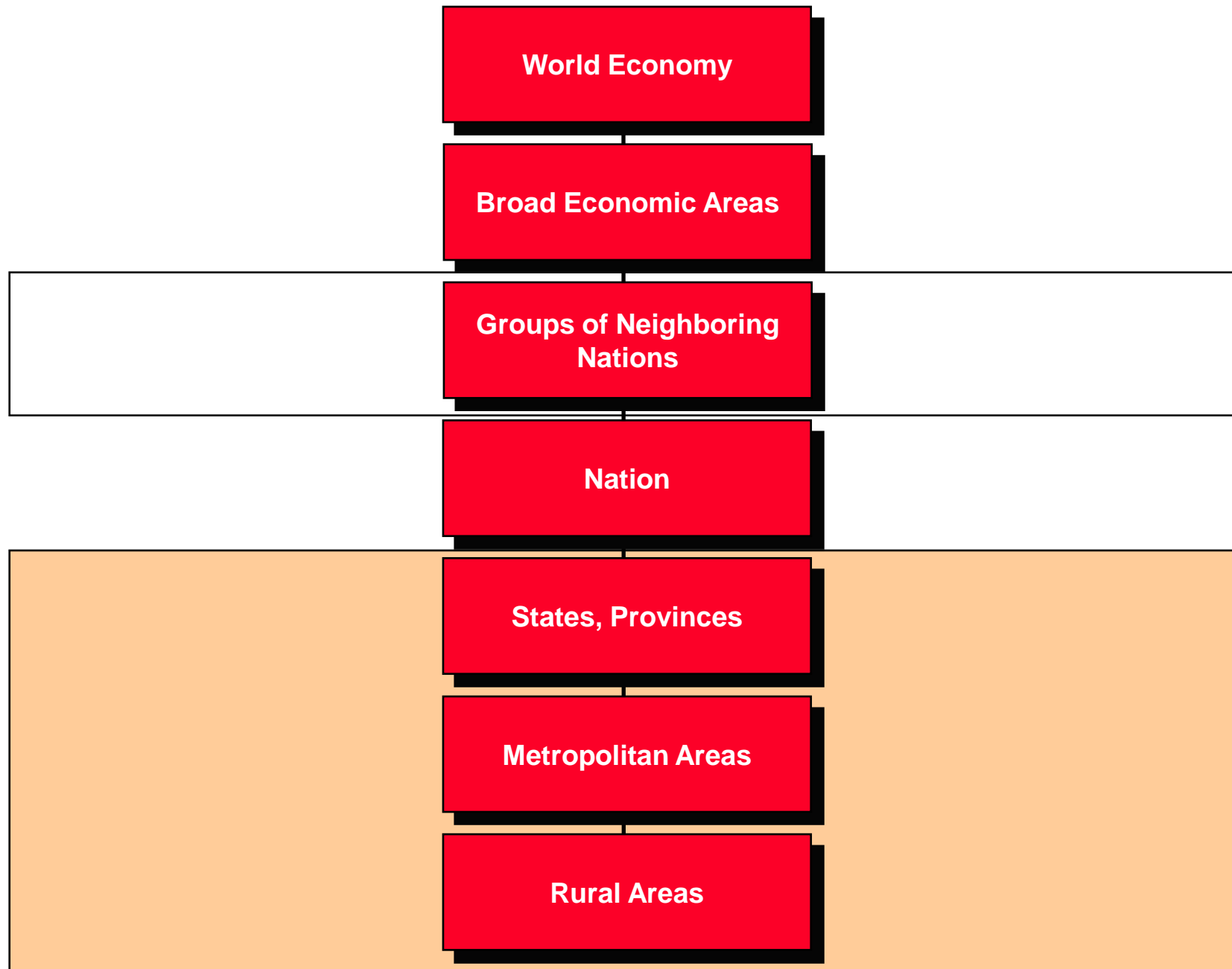


Rate of Competitiveness Improvement Low Income Countries, 2002 - 2007

BCI Value, 2007



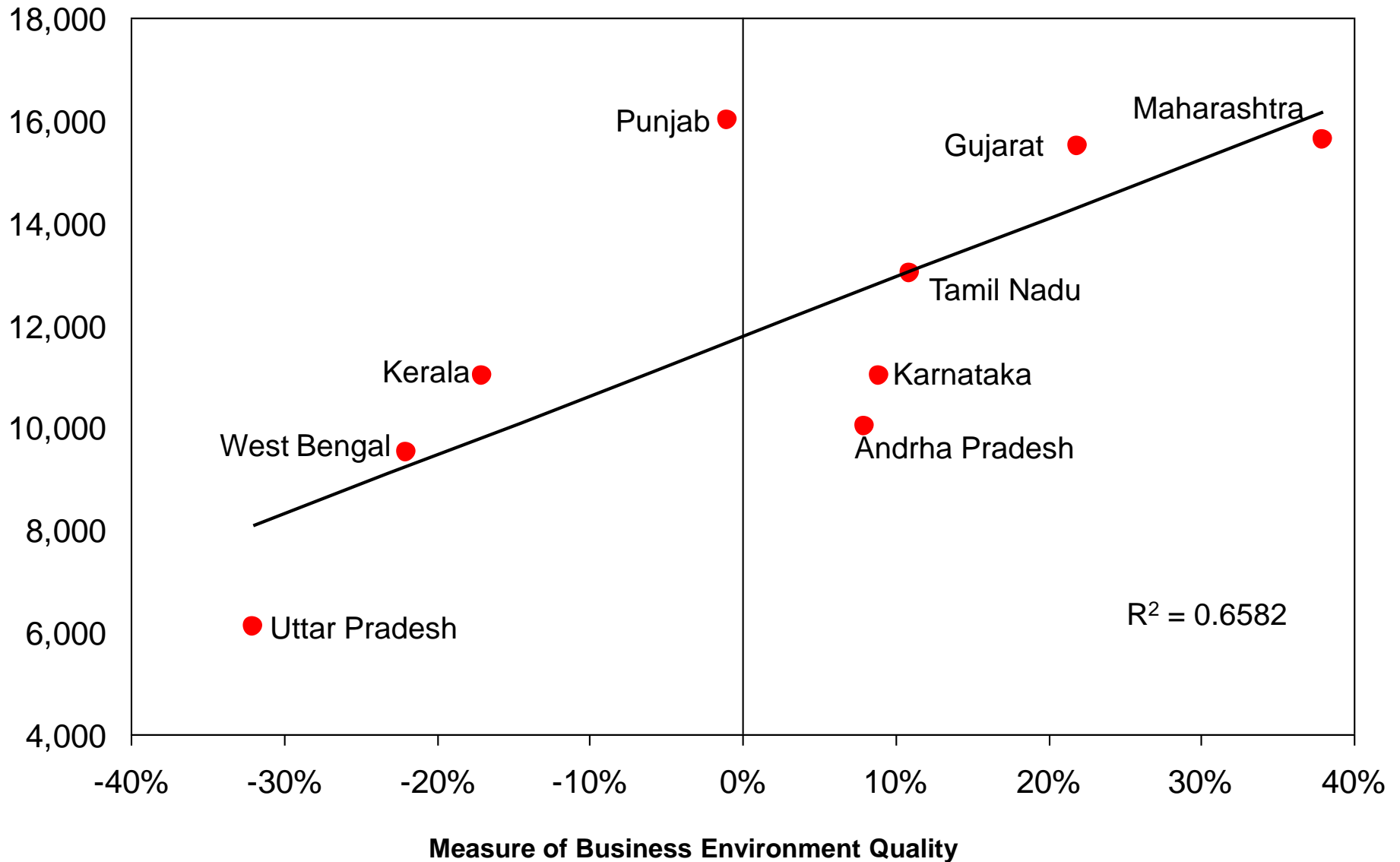
Geographic Influences on Competitiveness



Variations in Prosperity Across Subnational Regions

India

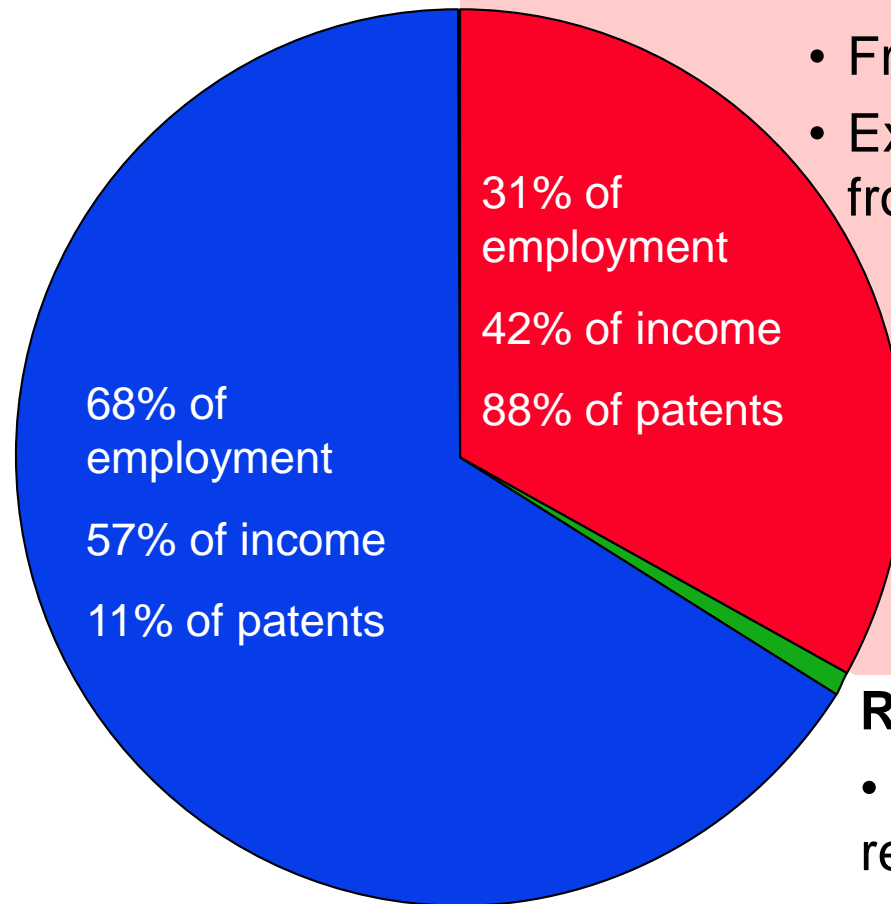
Per Capita GDP, 1998/99



Composition of Regional Economies, United States

Local Clusters

- Serve almost exclusively the local market
- Not exposed to cross-regional competition for employment



Traded Clusters

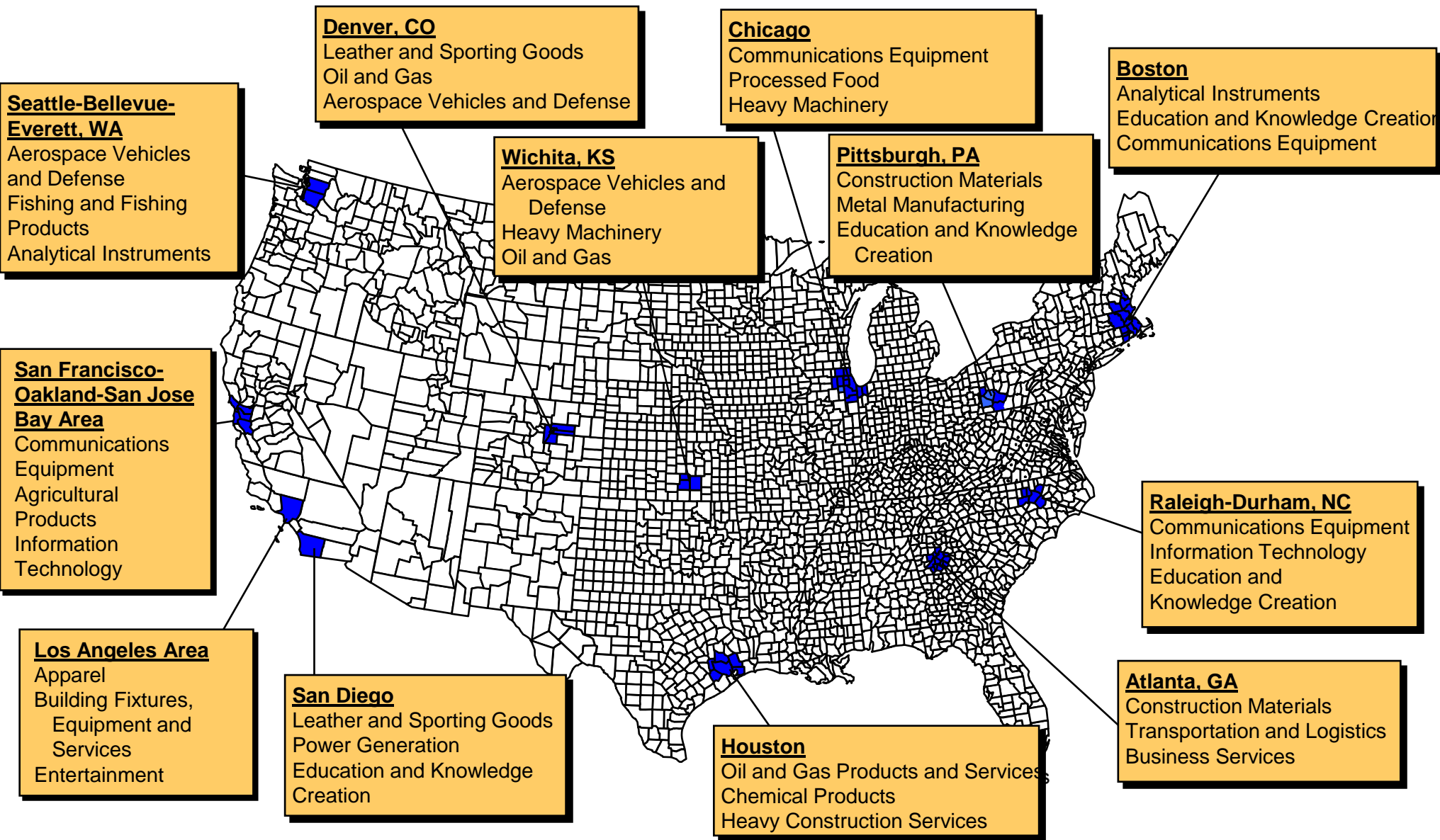
- Serve markets in other regions and countries
- Free to choose location
- Exposed to competition from other regions

Resource-based Clusters

- Location determined by resource availability
- 1% of income, employment, and patents in the U.S.

Specialization of Regional Economies

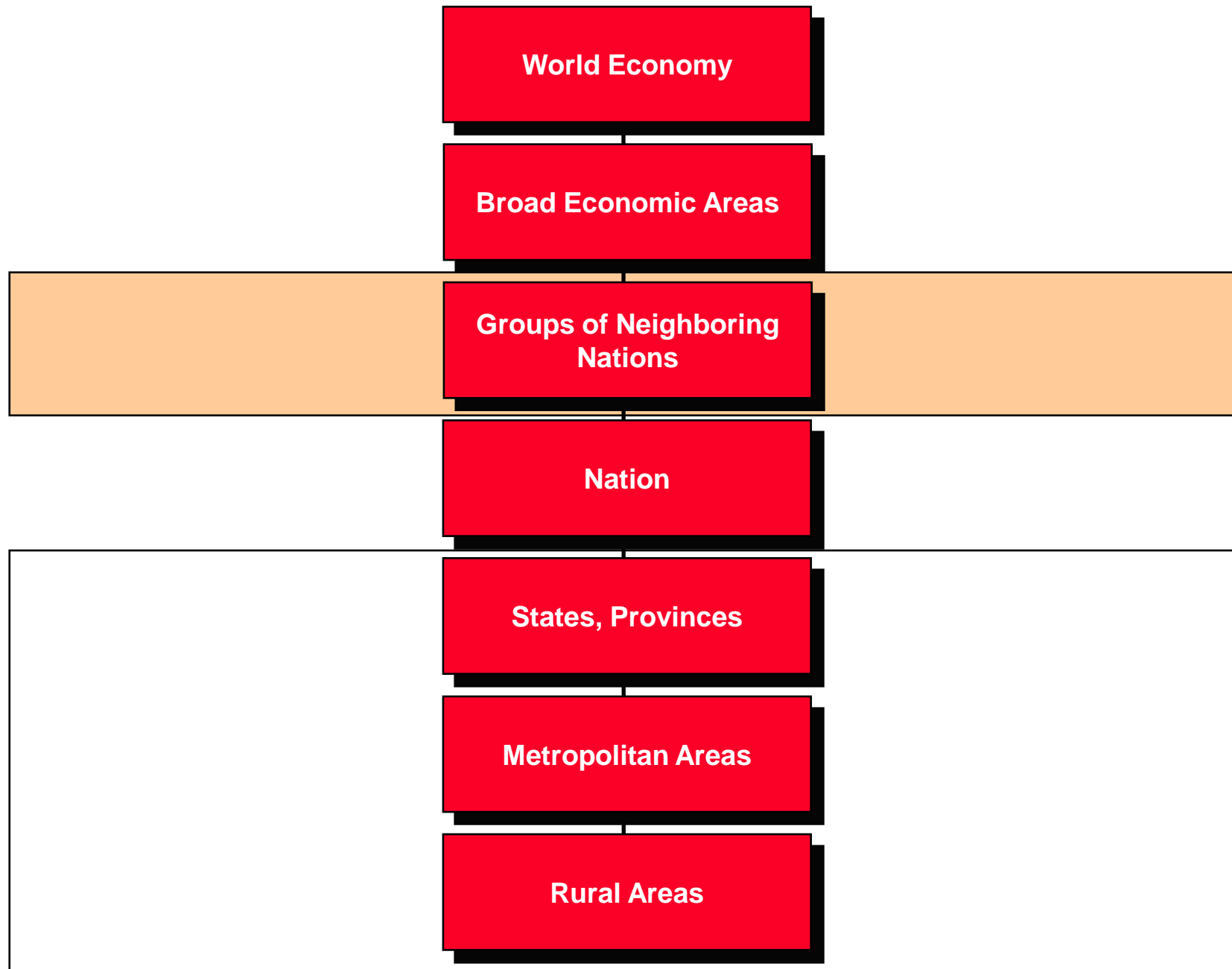
Selected U.S. Geographic Areas



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.

Influences on Competitiveness



Competitiveness and the Neighborhood

- A nation's most natural trading and investment partners are its **neighbors**
- A nation's competitiveness can be **significantly enhanced by economic coordination with neighbors**
 - Capturing **spillovers** in policy and infrastructure
 - Facilitating **internationalizing of local firms**
 - **Specialization** in the **value chain**
 - **Attracting FDI**
 - Clout in **international negotiations**
- Economic collaboration among the neighborhood can improve internal competitiveness by helping overcome domestic **political and economic barriers** to progress

Economic Coordination Among Neighbors

Harnessing Spillovers

Factor (Input) Conditions

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

Context for Strategy and Rivalry

- Coordinate **macro-economic** policies
- Eliminate **trade and investment barriers** within the region
- Simplify and harmonize **cross-border** regulations and paperwork
- Coordinate **anti-monopoly** and **fair competition** policies

Demand Conditions

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

Related and Supporting Industries

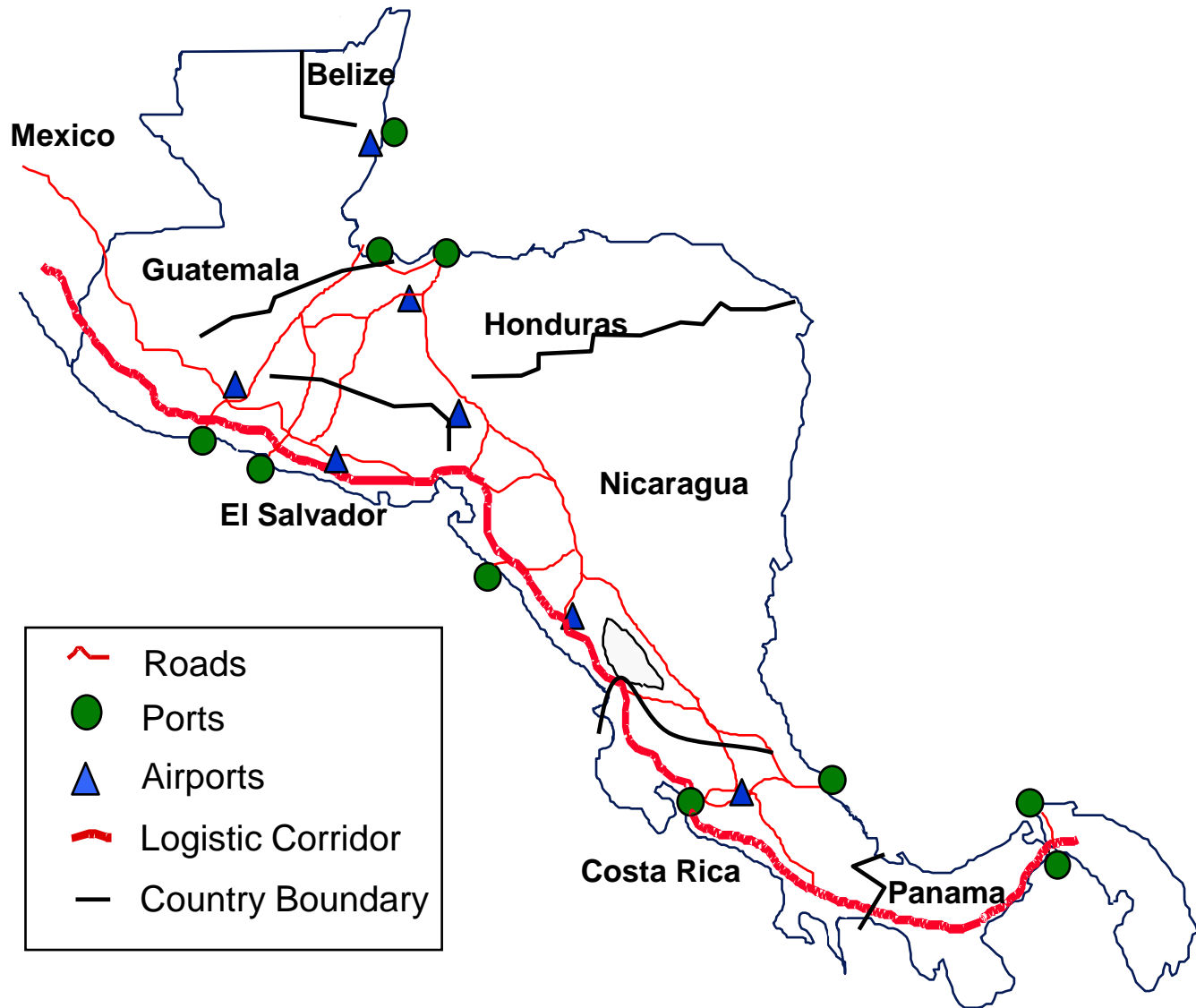
- Coordinate development of **cross-border clusters**, e.g.
 - Tourism
 - Agribusiness
 - Transport & Logistics
 - Business services

Regional Governance

- Share **best practices** in government operations
- Create regional **institutions**
 - Dispute resolution mechanisms
 - Regional development bank
- Collaborate on regional **marketing** and relationships with international institutions

Strategy for Cross-National Regions

Central American Logistical Corridor

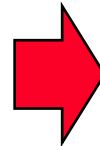


The Process of Economic Development

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 improvement works best when it is a **bottoms-up process** in which many individuals, companies and institutions take responsibility
- **Every** community and cluster can take steps to enhance competitiveness
- **Private sector** engagement will speed competitiveness improvement

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

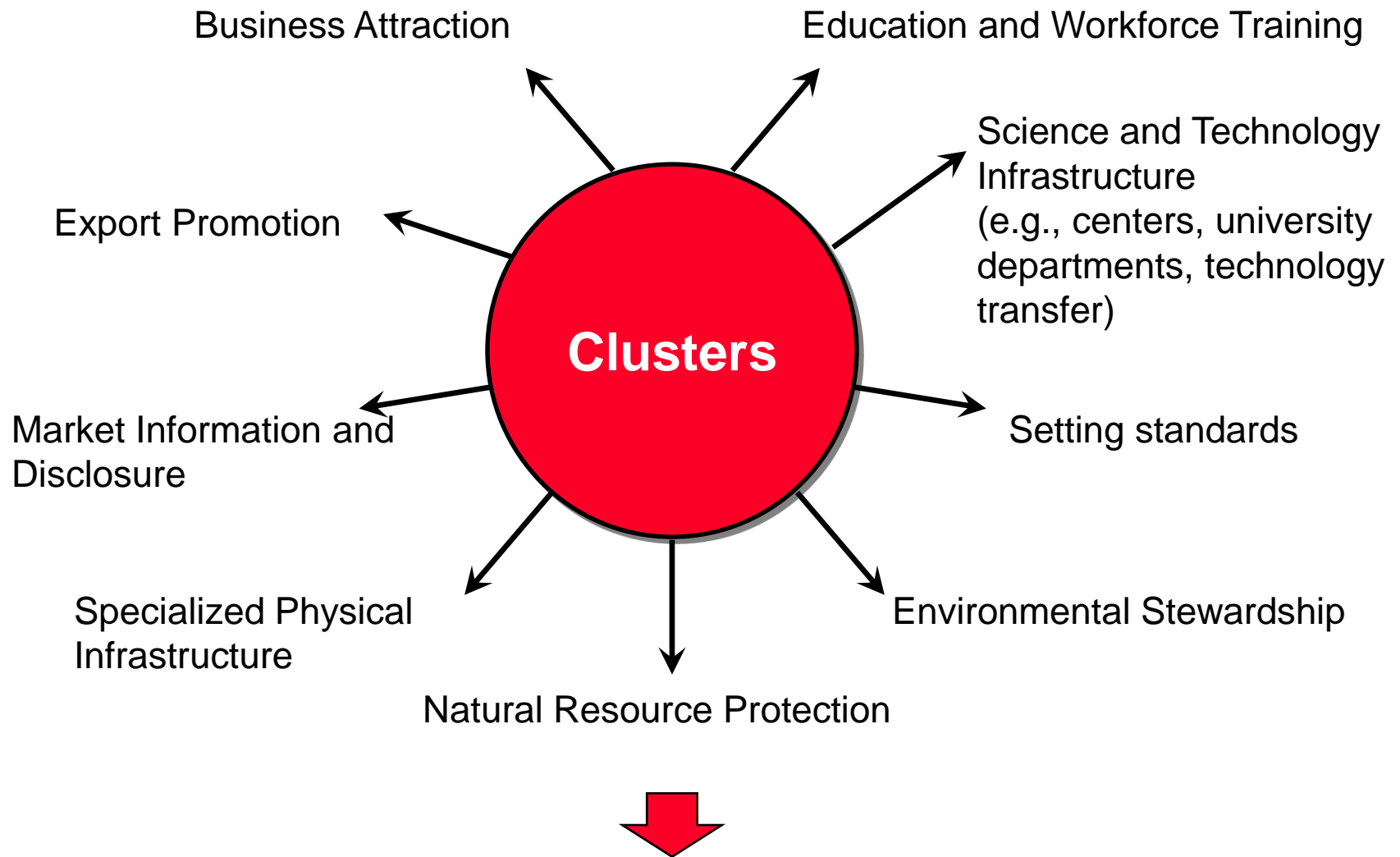


- Moga has advanced its economic development versus other nearby regions
- Nestlé has developed a **long-term competitive advantage** in the milk cluster in numerous developing countries

Some Implications of Micro Thinking for Economic Development

- **Cluster-based** economic development **models**
- Harmonize the **role of FDI** and **MNCs** in development
- **Economic diversification** paths
- Creating economic **strategy**

Aligning Public Policy with Clusters



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

Cluster Initiatives

- Cluster initiatives are **public-private efforts** to remove the specific barriers that limit the competitiveness of a cluster
 - Deficits in the cluster-specific business environment
 - Opportunities for investments in “public goods”
 - Address company weaknesses

Success factors

- **Sequencing** cluster initiatives rather than picking winners
- Working with willing **collaborators** among region and in the private sector
- Action priorities reflecting the **unique needs of clusters**
- Appropriate roles of government as convener and participant, but with clear **private sector leadership**
- Institutionalized cluster groups to enable **sustained effort**

FDI and the Business Environment

CONTEXT

- Foreign investors can prod government to improve governance, upgrade safety, environment, and anti-discrimination regulations, and enhance transparency

Context for Firm Strategy and Rivalry

- FDI can infuse modern ways of managing and competing
- FDI can enhance the intensity and sophistication of local competition
- FDI can facilitate trade and internationalization

Factor Conditions

- FDI brings new skills, capabilities, and technologies
- FDI can encourage and assist in improving local factor conditions

Demand Conditions

- FDI can bring sophisticated customers and new needs

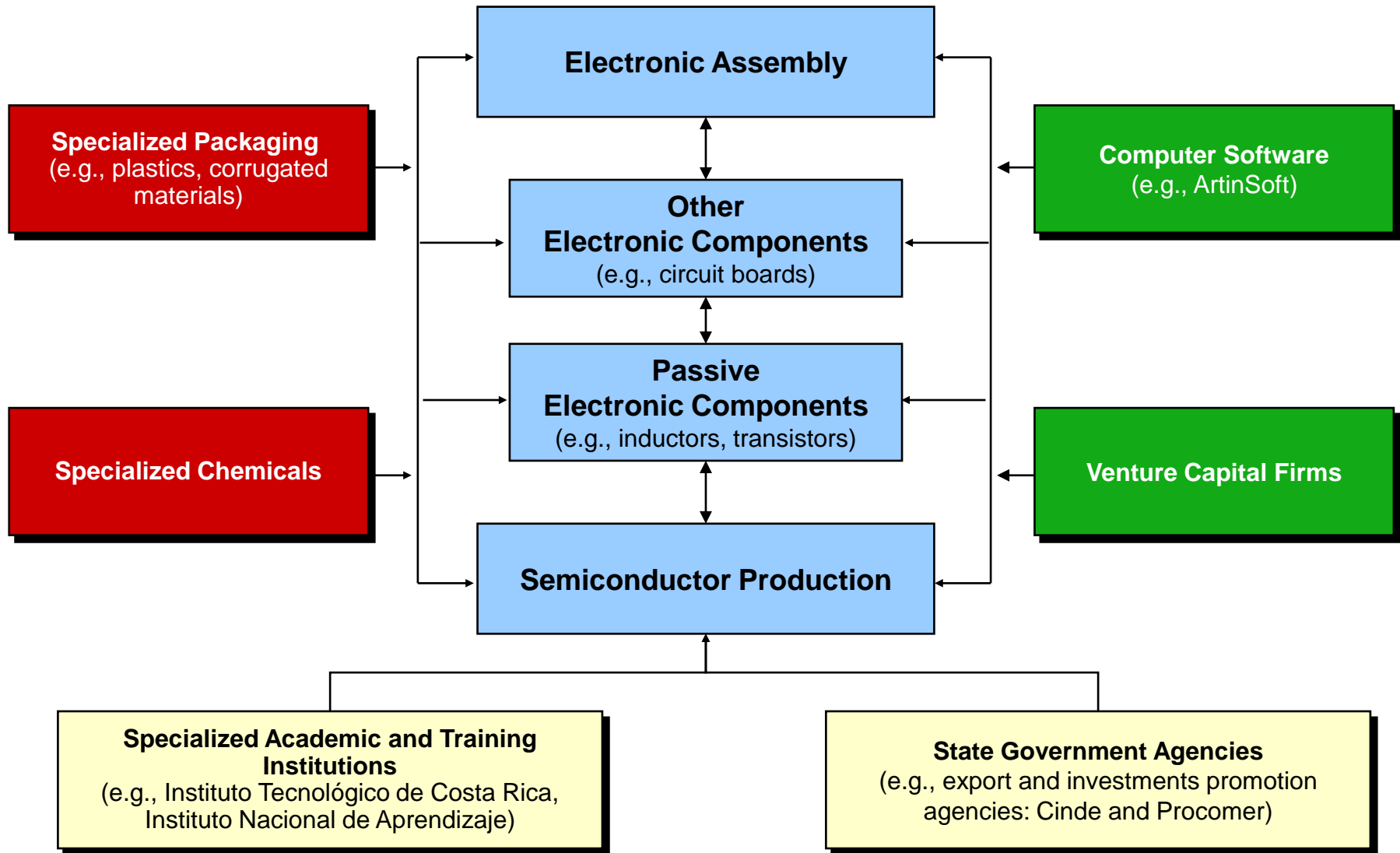
Related and Supporting Industries

- FDI can deepen and broaden clusters, and stimulate cluster development

- FDI is **not an end in itself**, but a tool for enhancing competitiveness

Clusters and FDI in Developing Countries

The Costa Rica Information Technology Cluster



Principles of FDI Attraction

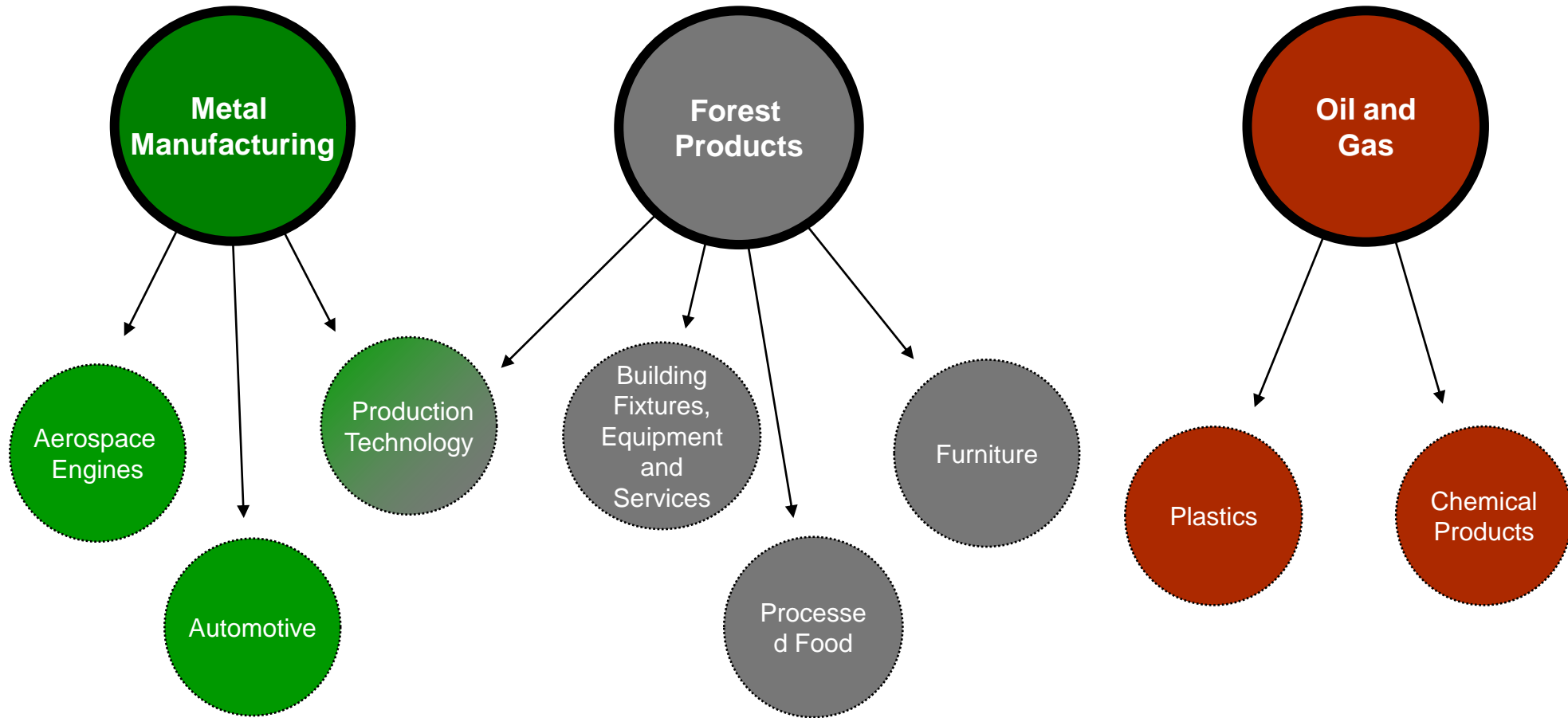
- The goal of FDI attraction is to **enhance prosperity through upgrading competitiveness**, not to maximize foreign dollars invested or number of jobs created per se
- FDI attraction should **fit** the country's or region's state of development, strategy, and value proposition
- Investment attraction should follow **cluster principles** in order to raise the odds of success in attracting companies, create **externalities** and multiplier effects from each investment, and increase the **sustainability** of investments over time
- Investment attraction activities and incentives should create value for **both the location and the investor**
- **Other local entities** such as cluster groups, companies, and other public and private sector institutions, should be engaged in the investment attraction process, not just government

Economic Diversification Paths

- Local clusters (domestic demand)
- Tourism clusters
 - Including at the regional level
- Expansion within existing clusters
- Related clusters
- FDI nodes
- Clusters in neighboring countries/regions
- Niche products that can become clusters

Growth in Related Clusters

Russia



Source: Institute for Strategy and Competitiveness, Harvard University, authors' calculations (2007)

The Need For an Economic Strategy

National Value Proposition

- What is the **unique competitive position of the** nation or region given its location, legacy, and existing strengths, 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 context** and the **business environment** can be unique strengths?
- What are the **emerging** and **existing clusters**?

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

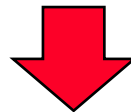
Positioning Rwanda

What is Unique about Rwanda?

- Relatively corruption-free
- Stable
- Secure
- Clean
- Responsive government
- Unique climate and growing conditions
- Central location on the African continent
- Growing positions in tea, coffee, tourism

Some Implications

- Rwanda can become a regional business service hub
- Rwanda is unlikely to be competitive in exporting bulky goods with low value-to-weight
- Service and air freightable goods exports nullify Rwanda's logistical disadvantages
- Land reform and better utilization of property will be indispensable to productivity improvement in Rwanda's large agricultural economy
- Rwanda needs to encourage urbanization in multiple centers to allow productive deployment of infrastructure and local services



“Switzerland of Africa”

Some Implications for the World Bank

- Set the right **goals** for development: income, wealth, and job creation that is widely distributed
- Work with countries to identify a distinctive economic strategy
 - Use **foreign aid** to support this process, not fragment it further
- Integrate **social** and **economic** development rather than seeing them as separate
- Put **private sector development** at the heart of the competitiveness agenda
- Embrace a **cluster-based** development approach
- Mobilize **private sector** involvement, including foreign investors, in the design and implementation of policies
- **Decentralize** economic policy formulation and implementation to states and regions in order to create healthy competition, accountability and local responsibility
- Utilize **cross-national cooperation** to leverage resources, improve productivity, and speed up the reform process
- **Capacity building** and **improving professionalism** in government and business organizations will pay huge dividends in the implementation of competitiveness programs