

Russian Competitiveness: Where Do We Stand?

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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 2003, (World Economic Forum, forthcoming 2003), "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

Russian Economic Performance 2003

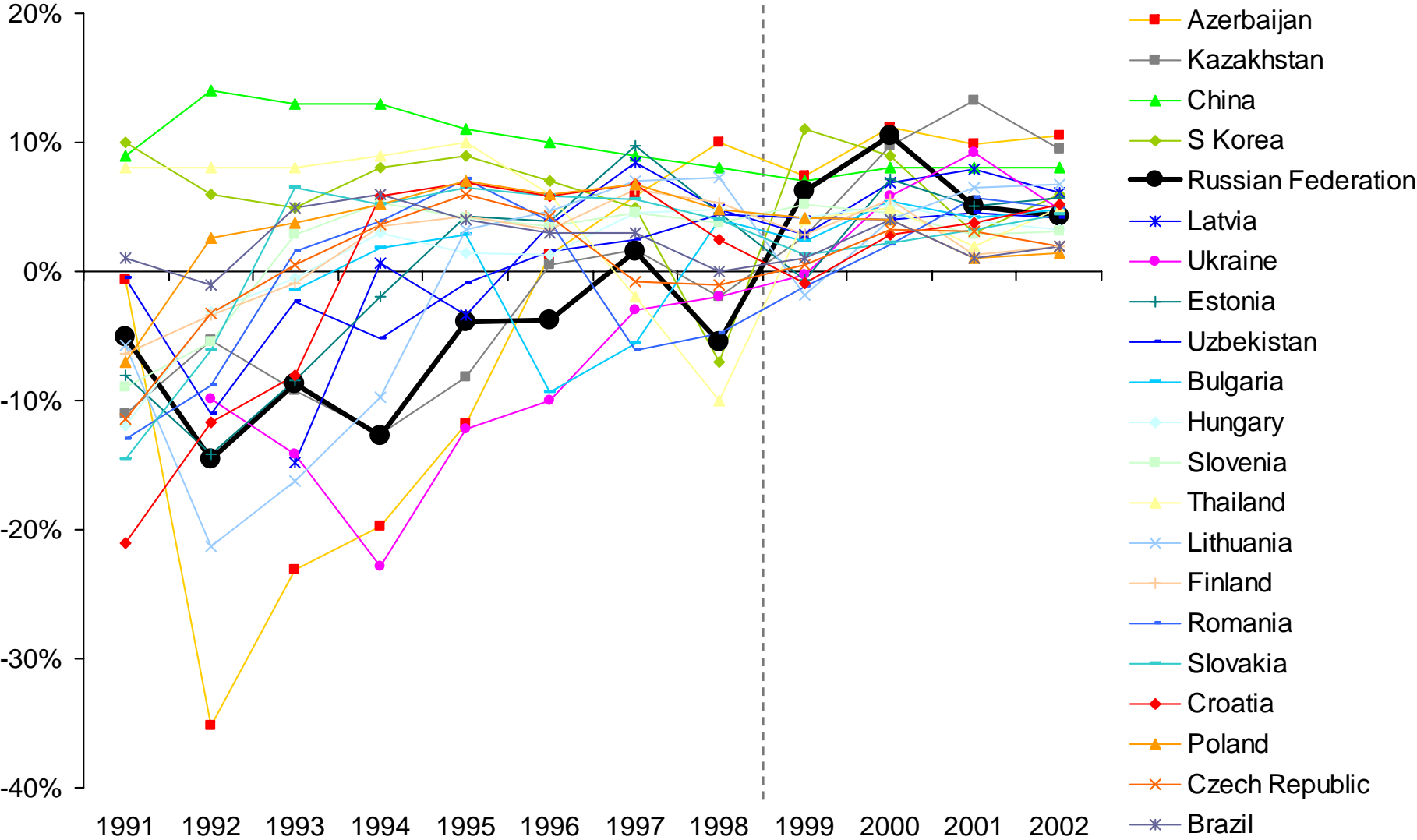
- Russia's overall economic performance has **improved** since 1999 but is **not exceptional** relative to peer countries
- Recent progress has reflected clear improvements in **macroeconomic policy** and, to a lesser extent, the legal and corporate governance framework
 - However, much work still lies ahead
- Russia's prosperity and prosperity growth still rely heavily on **inherited wealth**, not created wealth
- The critical challenge for Russia is now **microeconomic**: mobilizing its potential strengths and address its considerable weaknesses to dramatically raise the productivity of Russia as a place to do business

Comparative Economic Performance

Real GDP Growth Rates

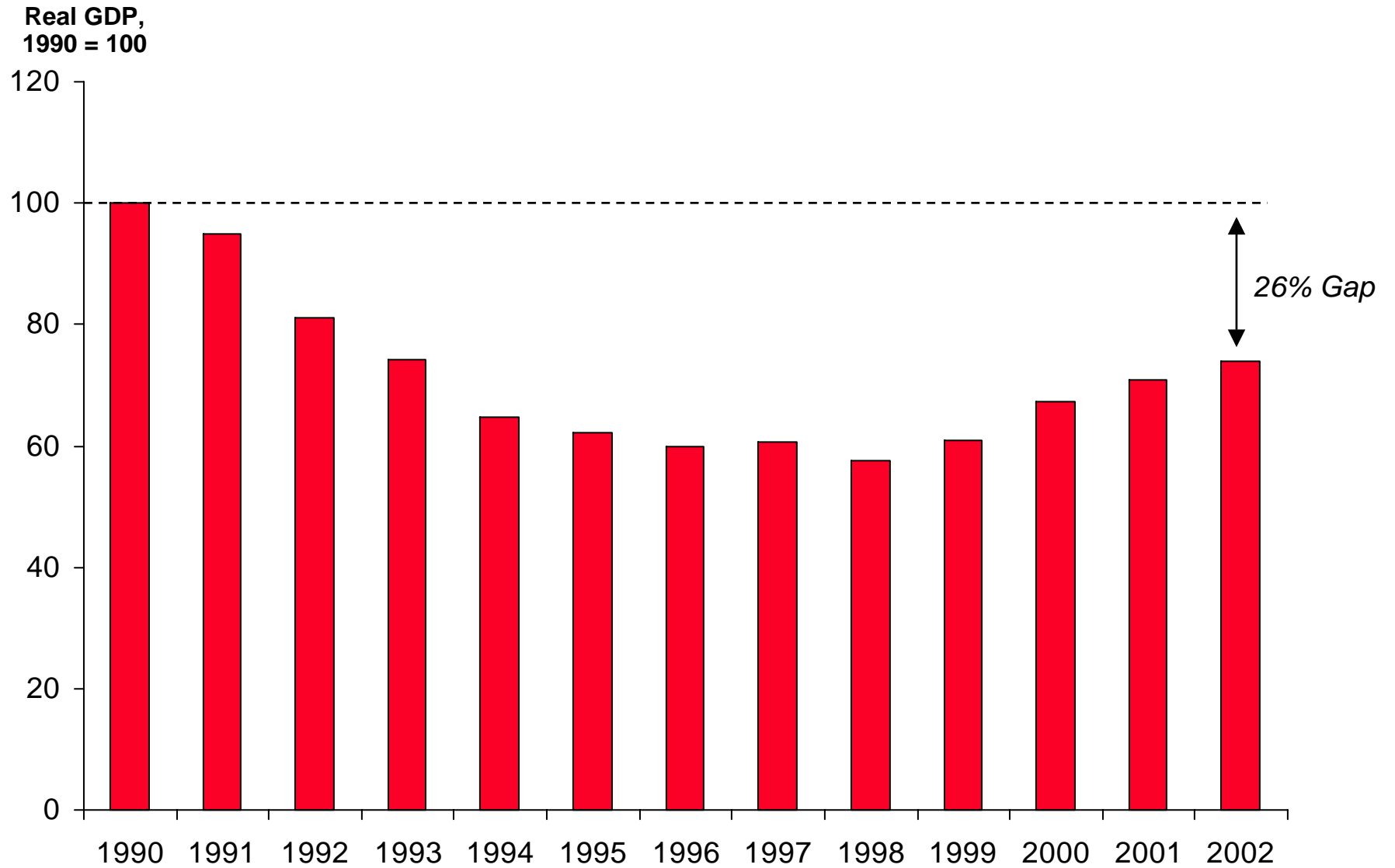
Countries sorted by 1999-2002 annual real GDP growth rate (CAGR)

Annual growth rate of real GDP



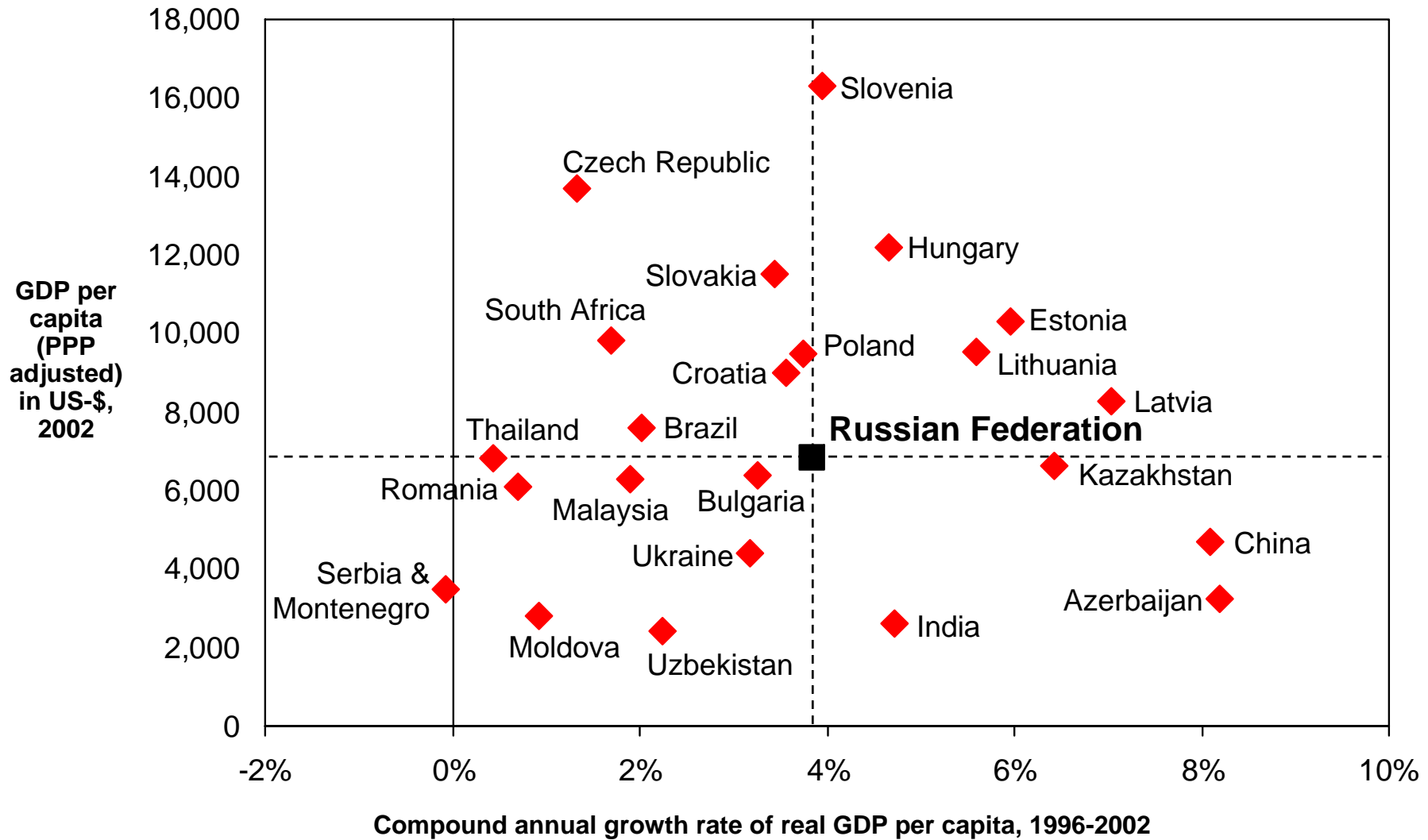
Source: EIU (2003)

Russian GDP over time



Comparative Prosperity Performance

Selected Countries



What is Competitiveness?

- Competitiveness is determined by the **productivity** with which a nation uses its human, capital, and natural resources. Productivity sets a nation's or region's standard of living (wages, returns to capital, returns to natural resource endowments)
 - 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.
 - The productivity of **“local”** industries is of fundamental importance to competitiveness, not just that of traded industries
 - Devaluation **does not** make a country more competitive



- 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

Sources of Prosperity

Inherited Prosperity

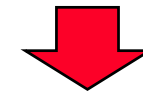
- Prosperity is derived from **selling inherited natural resources** or real estate
- Prosperity is **limited** by the amount of natural resources available, and is ultimately **temporary**
- Focus gravitates towards the **distribution** of wealth as interest groups seek a bigger share of the pie



- **Government** is the central actor in the economy as the owner and distributor of wealth

Created Prosperity

- Prosperity is derived from **creating valuable products and services**
- Prosperity is created by **firms**
- Prosperity is **unlimited**, based only by the innovativeness and productivity of companies in the economy
- Creating the **conditions** for productivity and innovation are the central policy question



- **Companies** are the central actors in the economy
- The **government's** role is to create the enabling conditions

Determinants of Productivity and Productivity Growth

Macroeconomic, Political, Legal, and Social
Context for Development

Microeconomic Foundations of Development

Sophistication
of Company
Operations and
Strategy

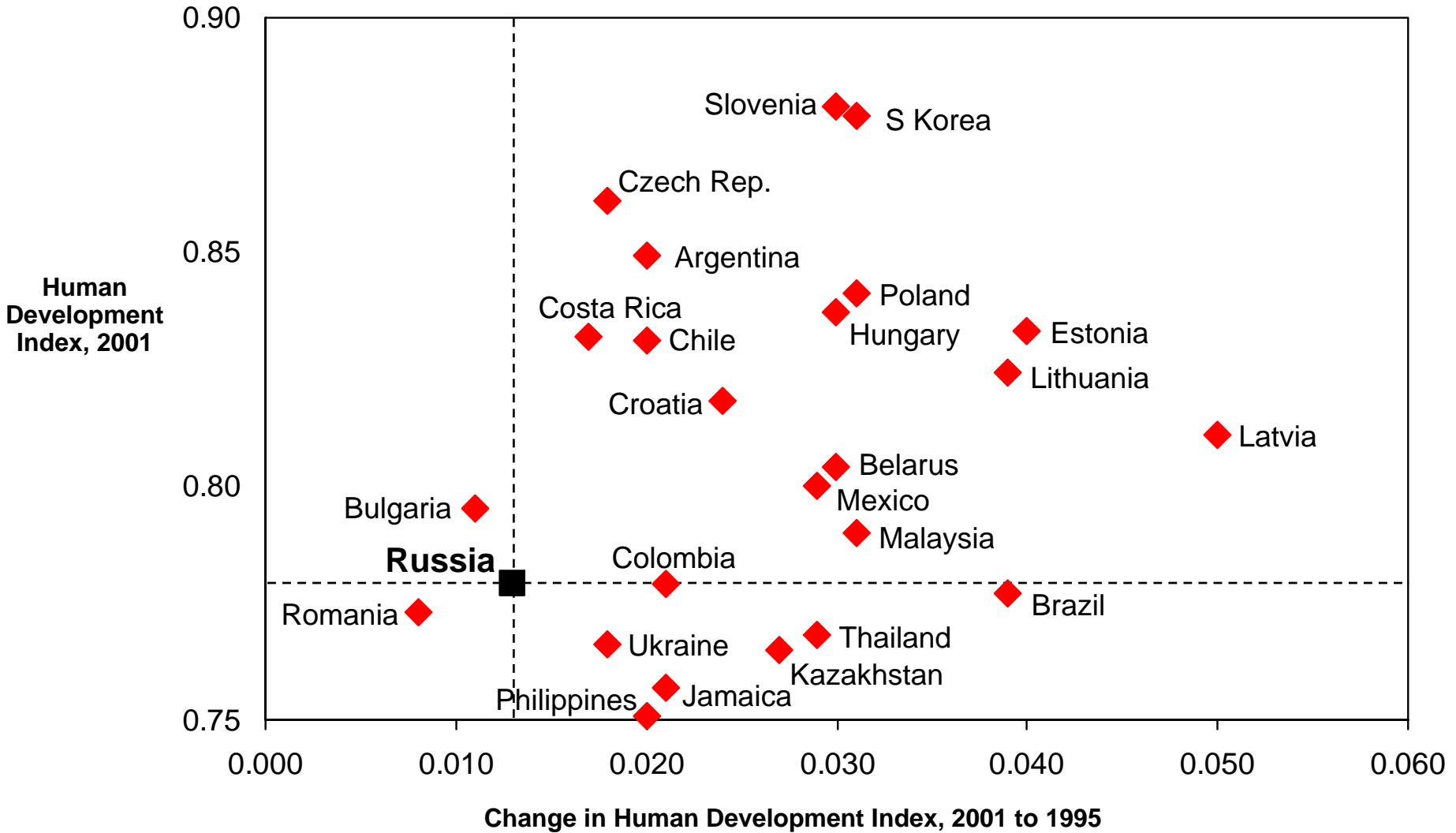


Quality of the
Microeconomic
Business
Environment

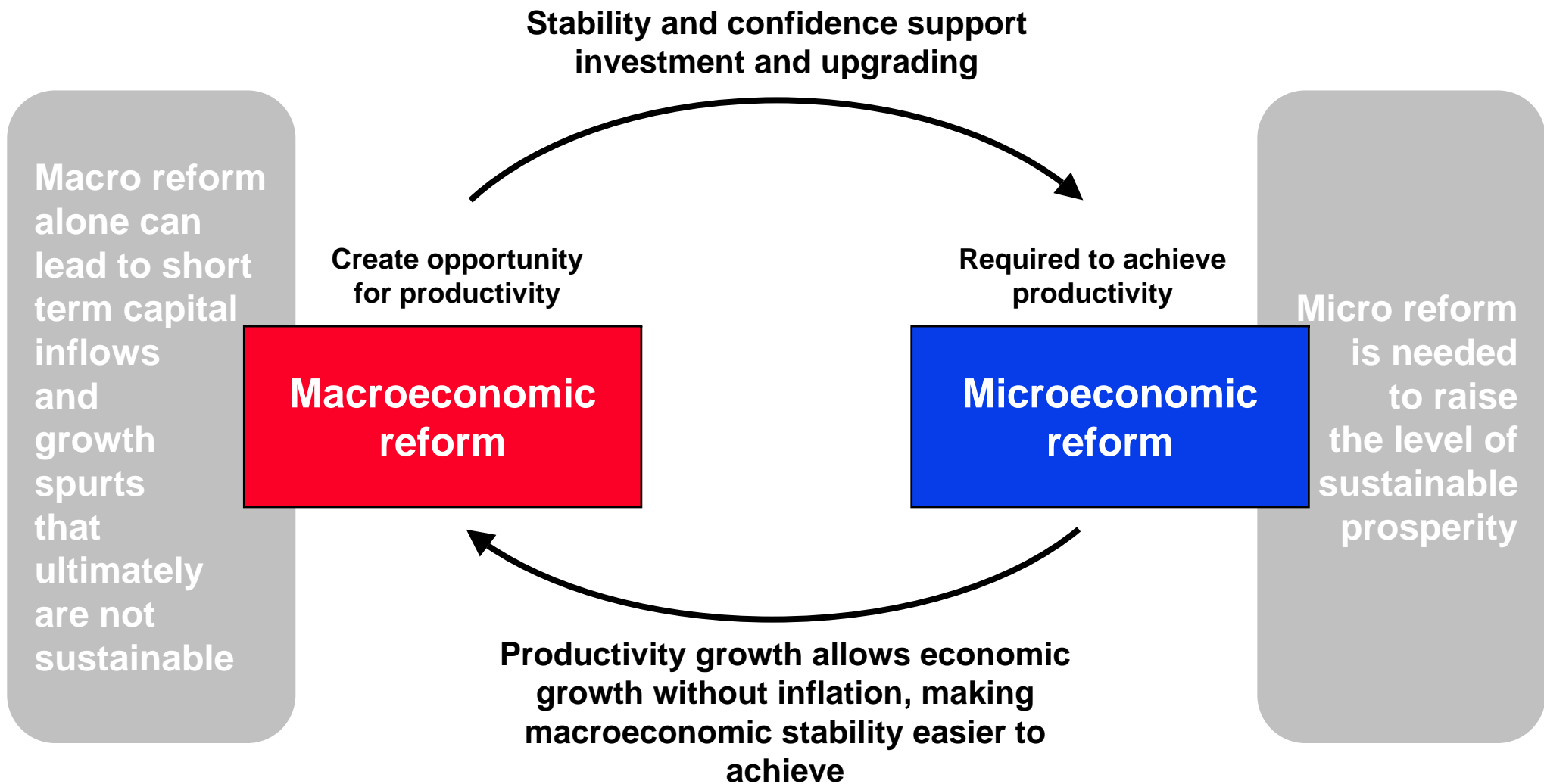
- A sound macroeconomic, political, legal, and social context creates the potential for competitiveness, **but is not sufficient**
- Competitiveness ultimately depends on improving the **microeconomic capability** of the economy and the **sophistication of local companies and local competition**

Progress in Human Development

Selected Countries

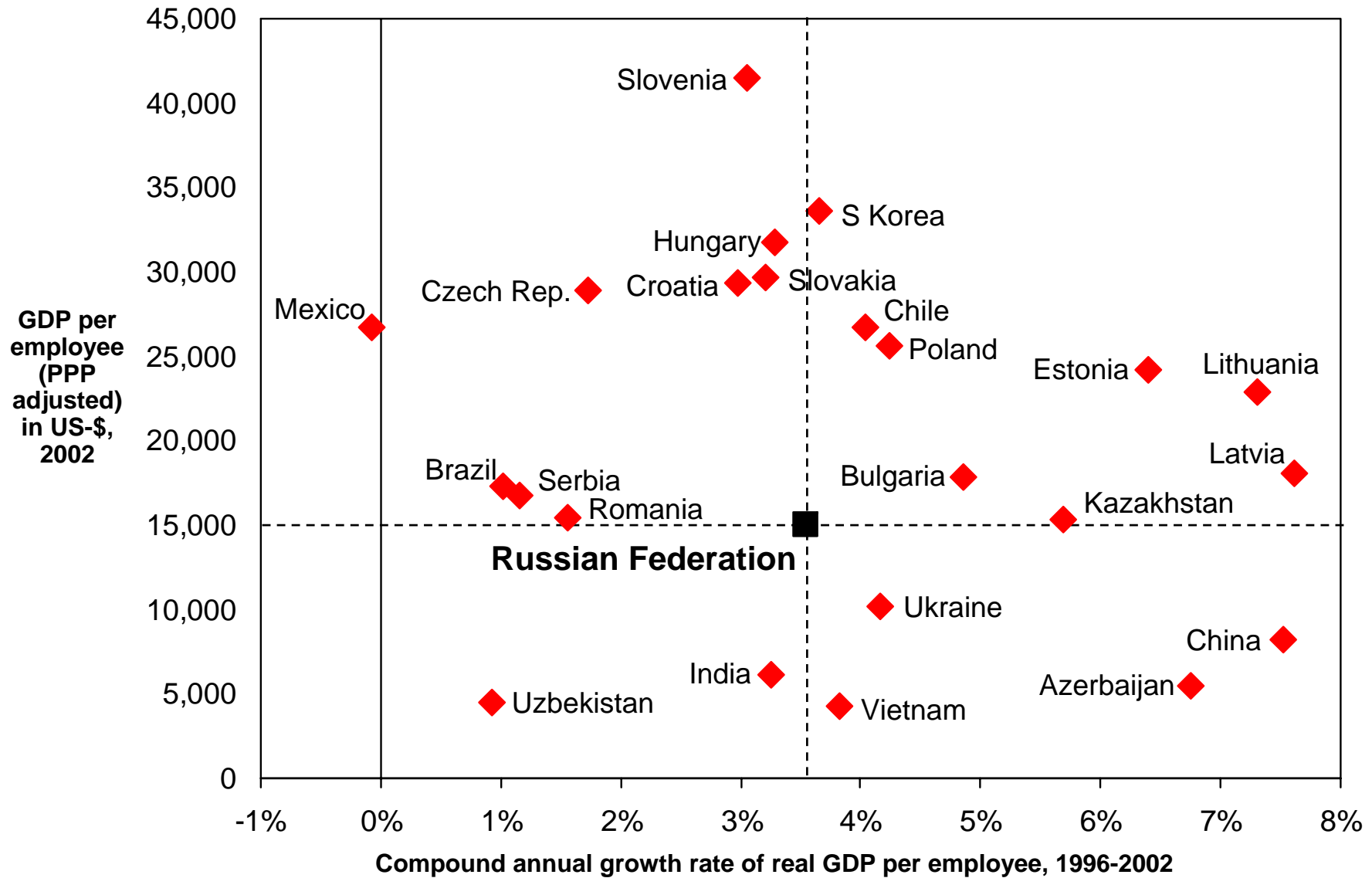


Integration of Macro- and Microeconomic Reforms



Comparative Labor Productivity

Selected Countries

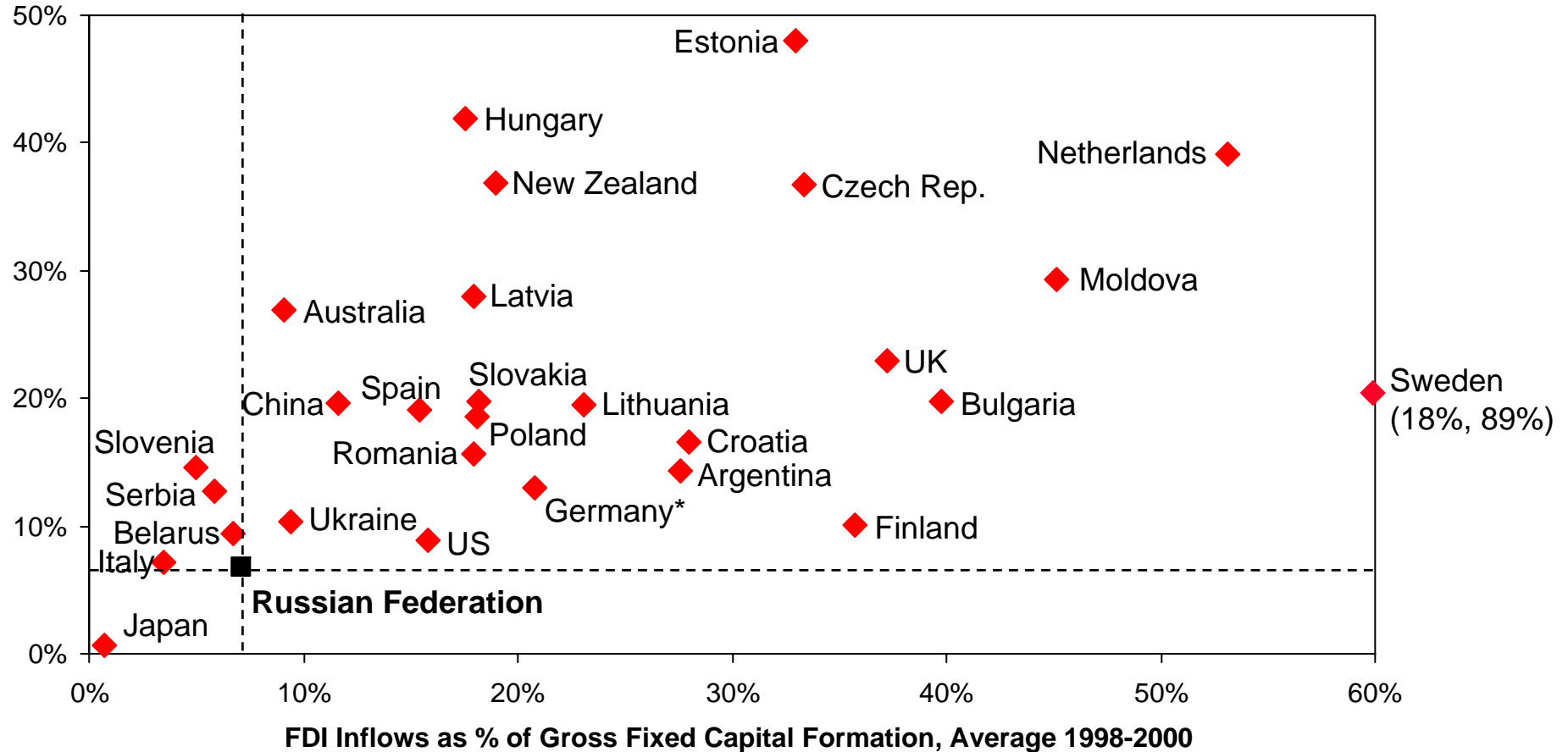


Russia's Export Performance By Broad Sector 1997-2001



Comparative Inward Foreign Investment Selected Economies

FDI Stocks as % of GDP,
Average 1998-2000

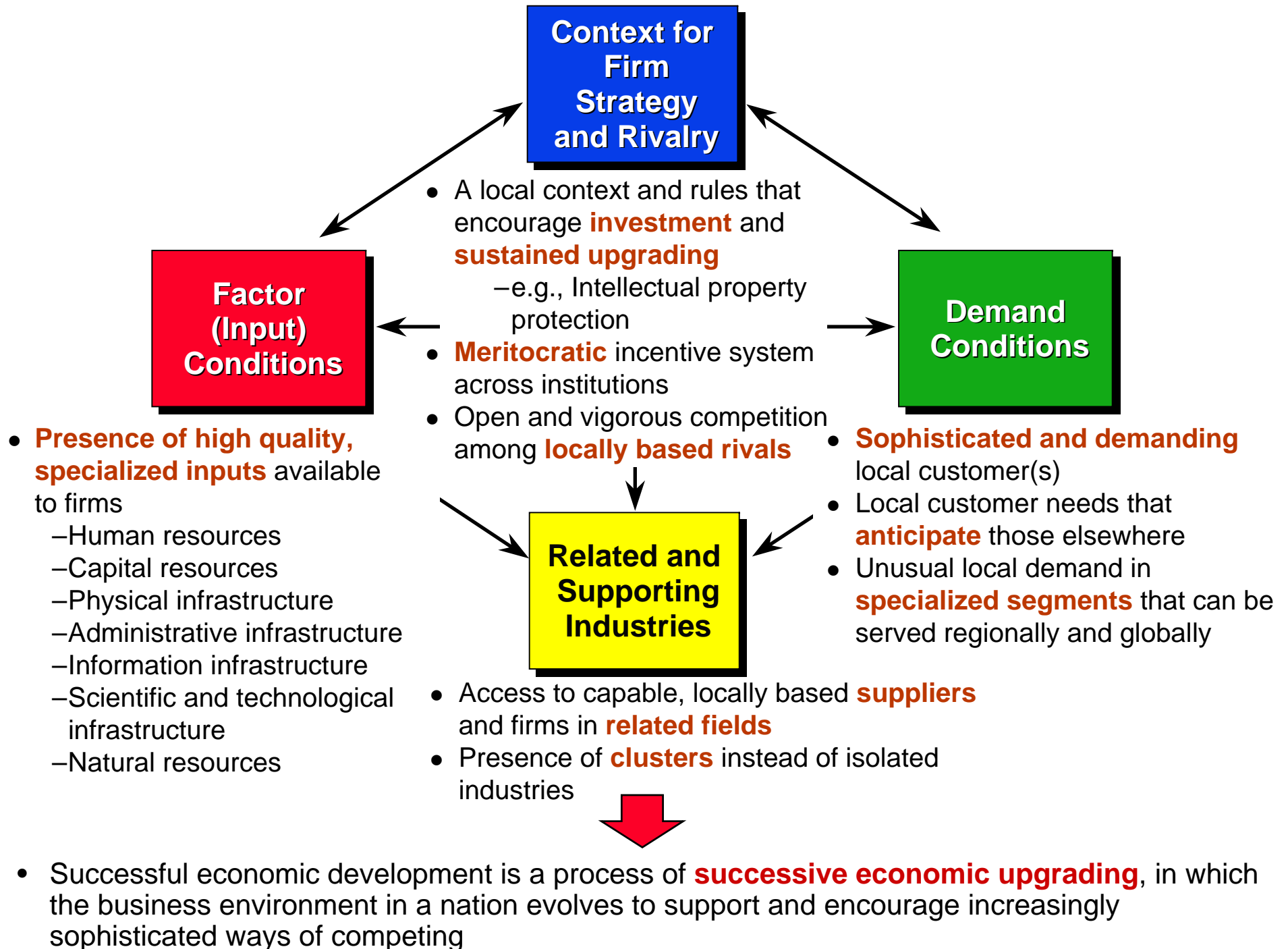


Note: FDI Stocks and Inflows for transition countries are the average of 1998-2001

Germany's FDI inflows in this period were exceptionally high due to the Vodafone-Mannesmann takeover in 2000

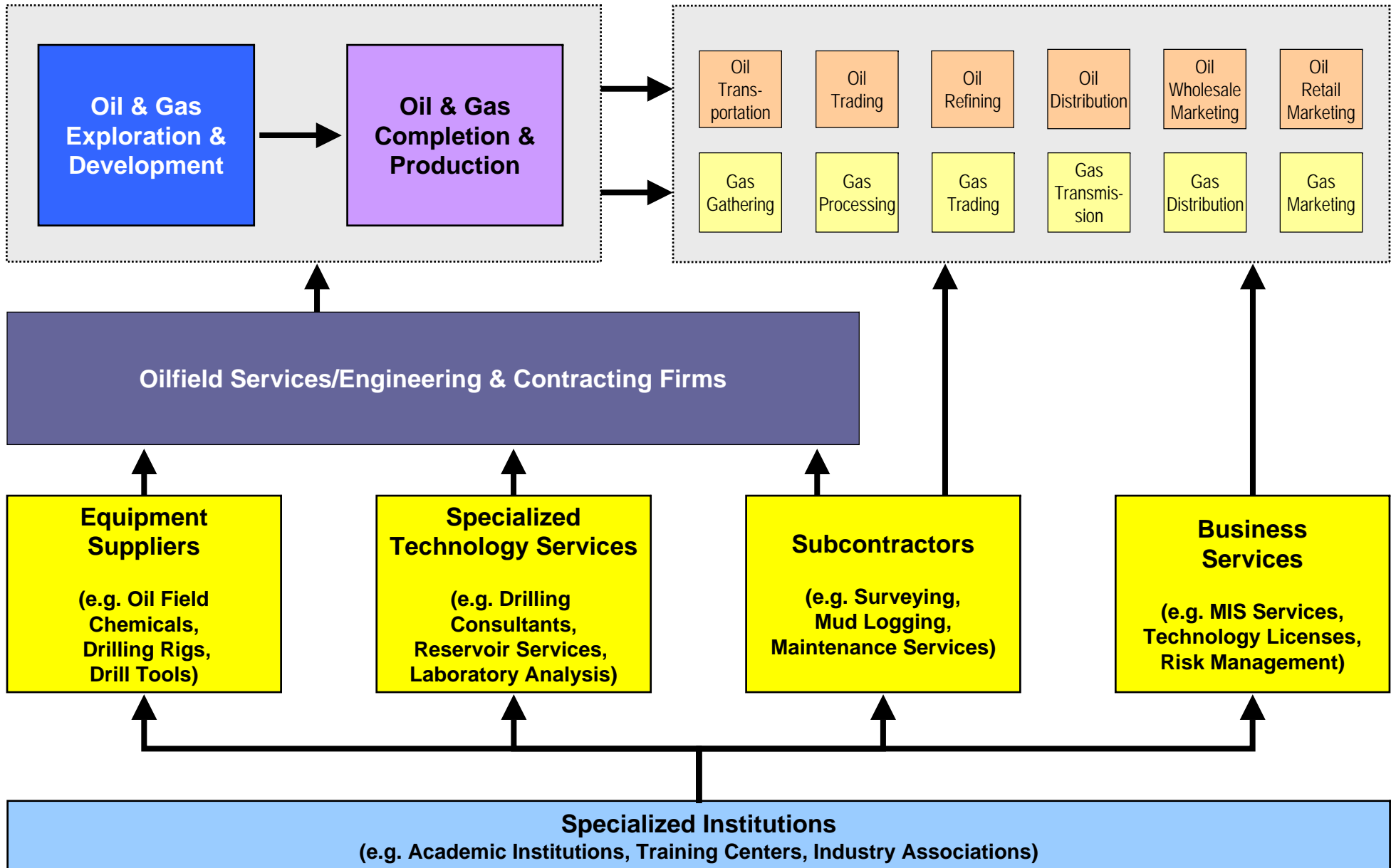
Source: World Investment Report 2002

Productivity and the Business Environment



Clusters and Competitiveness

Houston Oil and Gas Products and Services Cluster



Leading Footwear Clusters

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

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

China

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

Vietnam/Indonesia

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

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

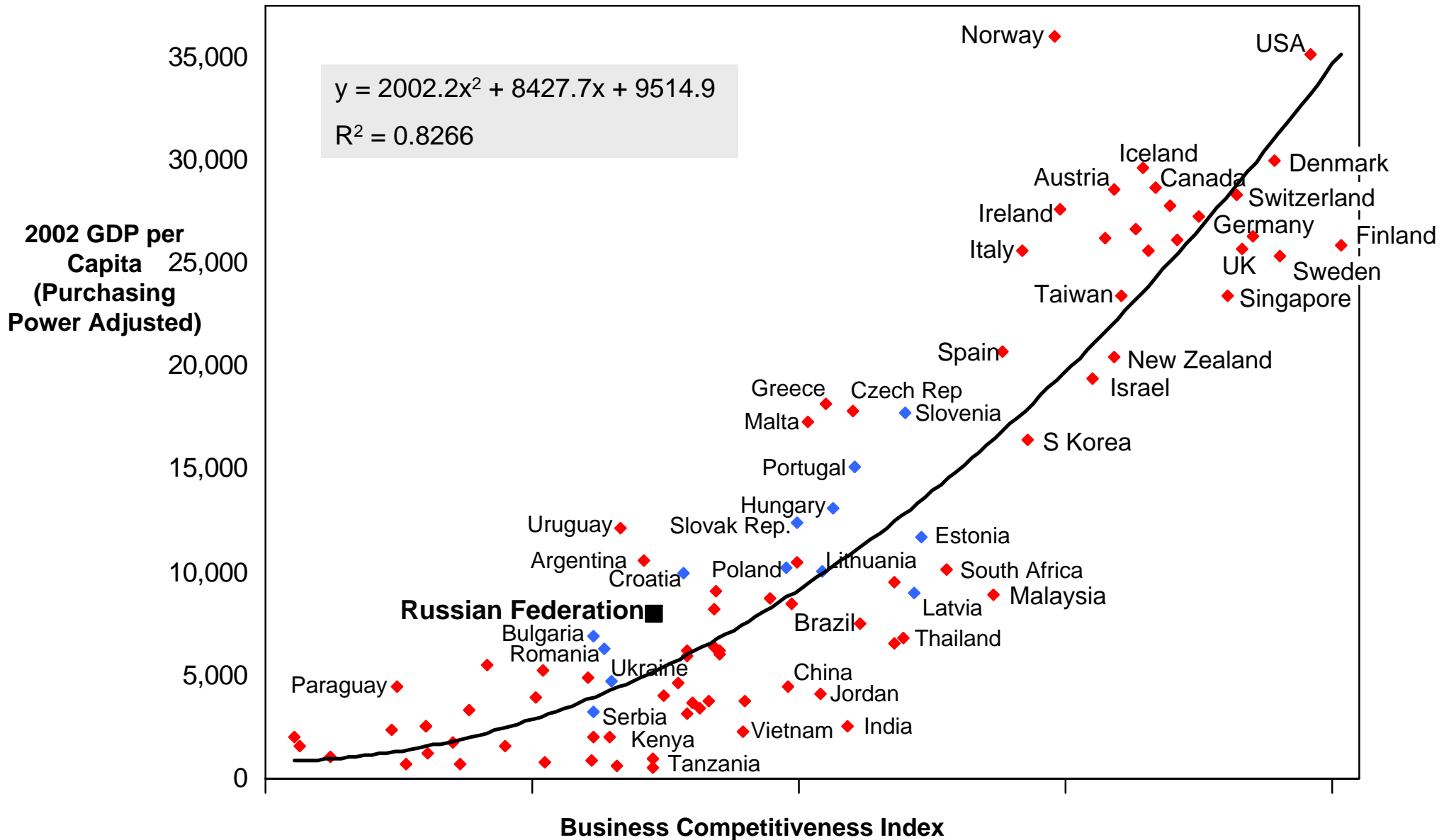
- Company alumni groups
- Venture capital community
- University alumni groups

Joint Research Initiatives

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

Global Competitiveness Report 2003

The Relationship Between Business Competitiveness and GDP Per Capita



Note: Other central European countries in blue
 Source: Global Competitiveness Report 2003
 GCR Russia 2003 10-20-03.ppt

Russia's Competitive Promise

Competitive Advantages Relative to GDP per Capita

Country Ranking, Arrows
indicate a change of 5 or more
ranks since 1998

Human Resources

Quality of Math and Science Education	18
Quality of Educational System	38
Quality of Public Schools	41 ↓
Cooperation in Labor-Employer Relations	41

Science and Technology Base

Quality of Scientific Research Institutions	25 ↓
Availability of Scientists and Engineers	26

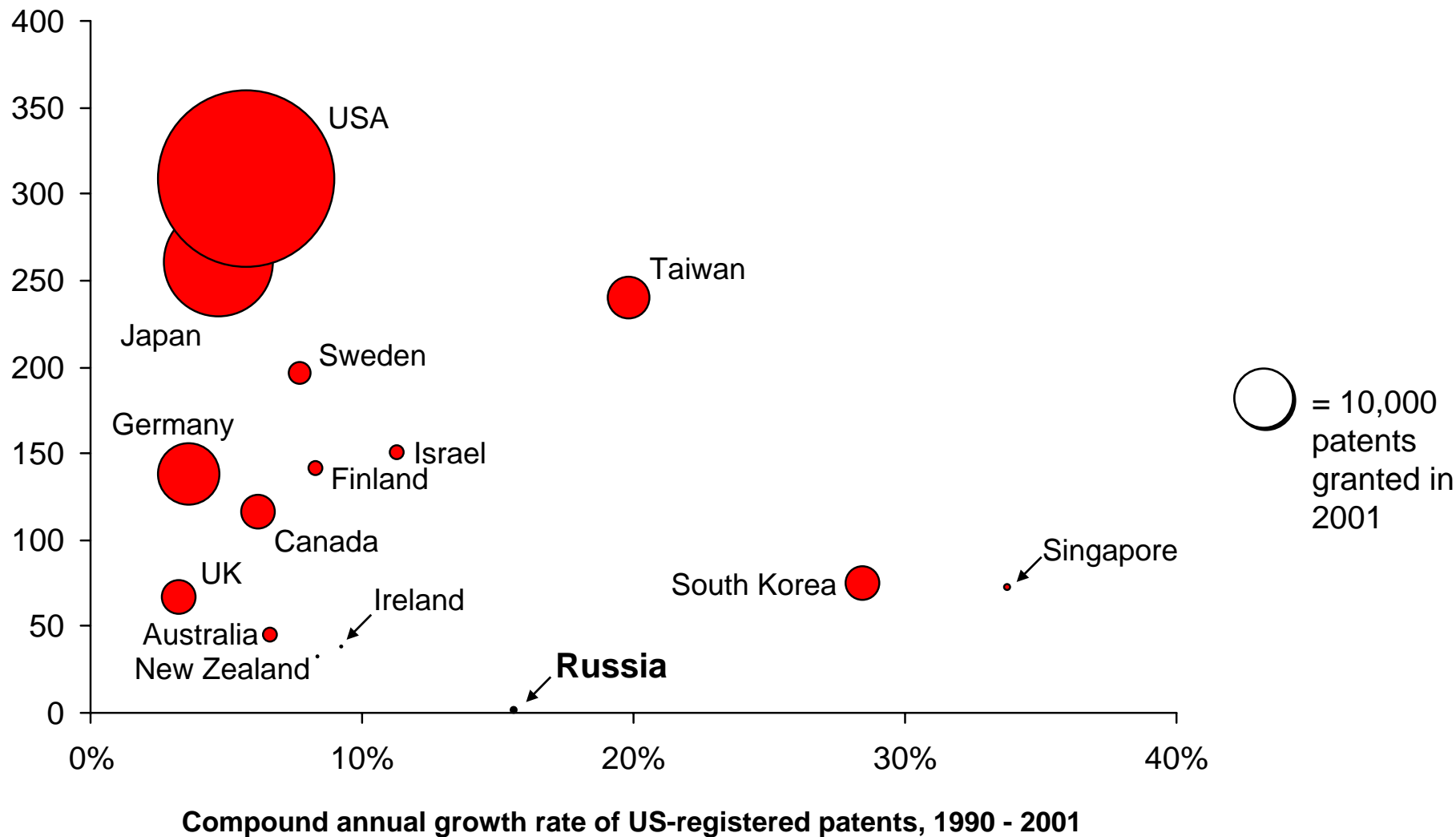
Note: Rank by countries; overall Russia ranks 65 (63 on National Business Environment, 48 on GDP pc 2002)

Source: Global Competitiveness Report 2003

GCR Russia 2003 10-20-03.ppt

International Patenting Output Selected Countries

Annual U.S. patents
per 1 million
population, 2001



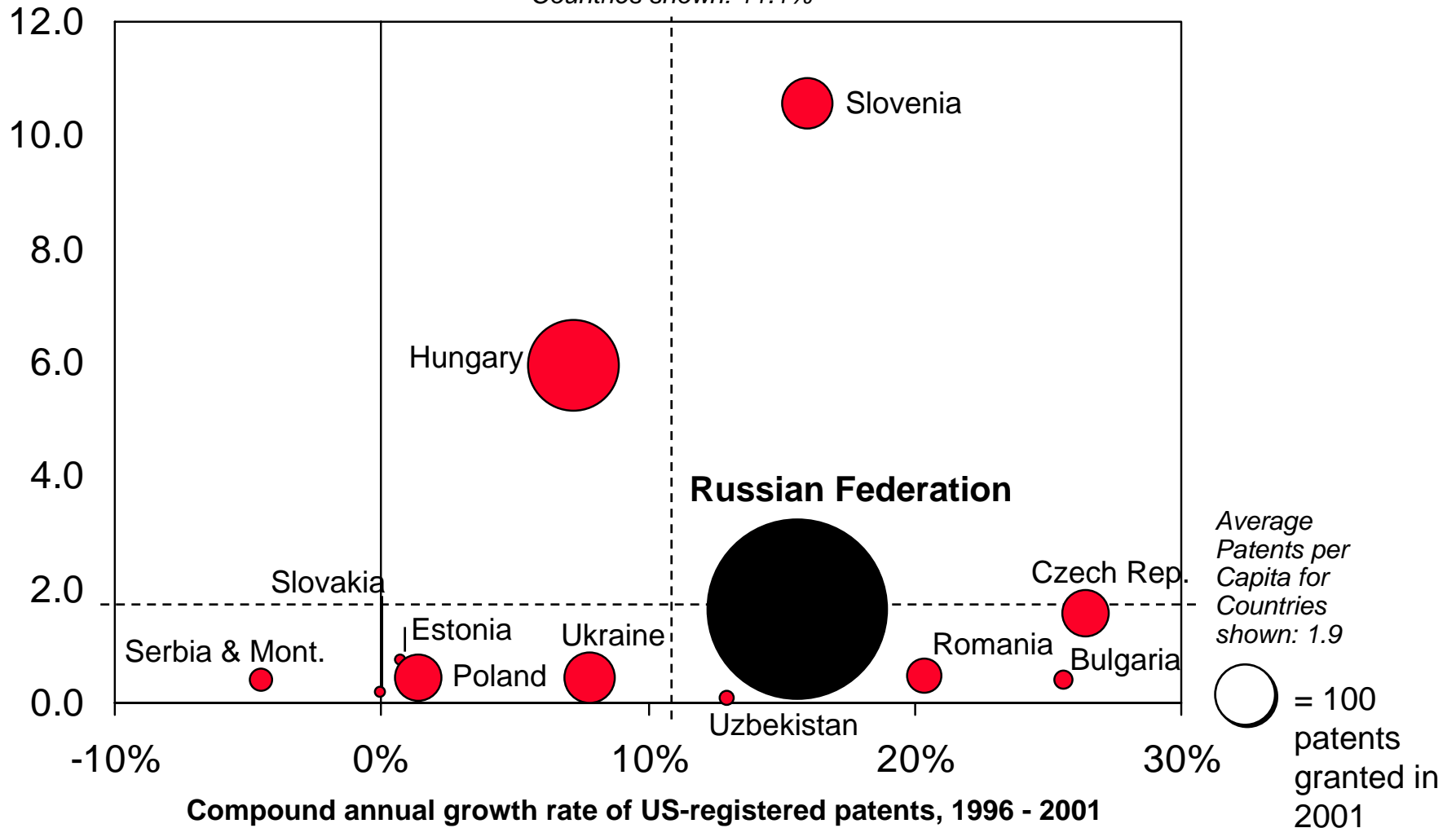
Source: US Patent and Trademark Office (www.uspto.gov). Author's analysis.

International Patenting Output

Selected Transition Countries

Annual U.S. patents per 1 million population, 2001

Average Growth Rate of Countries shown: 11.1%



Note: Other Latin American countries have negligible rates of US patenting
 Source: US Patent and Trademark Office (www.uspto.gov). Author's analysis.
 GCR Russia 2003 10-20-03.ppt

Barriers to Structural Change in the Russian Economy

- Competition
 - Russia scores low in the Global Competitiveness Report on **trade liberalization** and **non-tariff barriers**
 - Russia scores low on the level of **domestic competition**
 - Competition is hampered and distorted by **corruption** and **administrative inefficiencies**
- Entry and exit
 - Russia has low formal barriers to entry, but business leaders report significant **burdens for start-ups**
 - Russia has high formal barriers for **firing employees** and **closing businesses**, but business leaders report them as non-binding in practice
- Financial market
 - Russian financial markets get low scores for providing sophisticated services and **credit** to companies

Russian Competitiveness

Competitive Advantages and Disadvantages

Competitive Advantages Relative to GDP per Capita

Country Ranking, Arrows
indicate a change of 5 or more
ranks since 1998

Human Resources

Quality of Math and Science Education	18	
Quality of Educational System	38	
Quality of Public Schools	41	↓
Cooperation in Labor-Employer Relations	41	

Science and Technology Base

Quality of Scientific Research Institutions	25	↓
Availability of Scientists and Engineers	26	

Physical Infrastructure

Railroad Infrastructure Quality	17	
Port Infrastructure Quality	42	

Competitive Disadvantages Relative to GDP per Capita

Country Ranking, Arrows
indicate a change of 5 or more
ranks since 1998

Openness and Vitality of Competition

Foreign Ownership of Companies	93	
Intensity of Local Competition	83	
Hidden Trade Barrier Liberalization	79	
Adequacy of Public Sector Legal Recourse	78	
Tariff Liberalization	76	
Effectiveness of Anti-Trust Policy	73	
Extent of Distortive Government Subsidies	70	
Efficacy of Corporate Boards	64	↑

Administrative Efficiency and Transparency

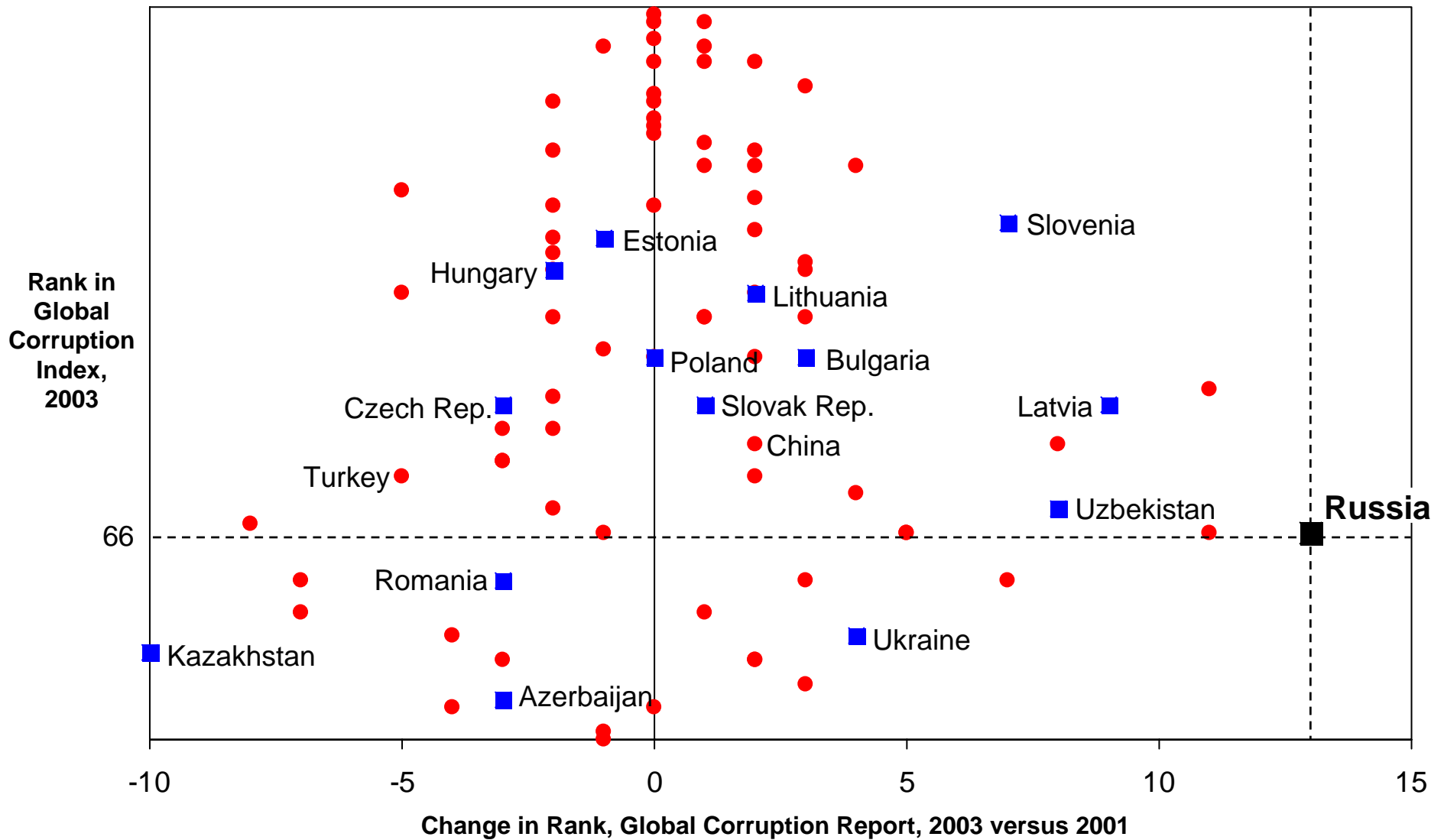
Extent of Bureaucratic Red Tape	89	↓
Police Protection of Businesses	80	
Favoritism in Decisions of Government Officials	74	
Judicial Independence	74	
Business Costs of Corruption	53	

Note: Rank by countries; overall Russia ranks 65 (63 on National Business Environment, 48 on GDP pc 2002)

Source: Global Competitiveness Report 2003

Corruption

Transparency International Global Corruption Report



Note: Eastern European and CIS countries in blue, constant country sample
 Source: Global Corruption Report, 2003

Russian Competitiveness

Competitive Advantages and Disadvantages (Continued)

Competitive Advantages Relative to GDP per Capita

Country Ranking, Arrows
indicate a change of 5 or more
ranks since 1998

Human Resources

Quality of Math and Science Education	18
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Competitive Disadvantages Relative to GDP per Capita

Country Ranking, Arrows
indicate a change of 5 or more
ranks since 1998

Efficiency of Financial Markets

Protection of Minority Shareholders	94
Regulation of Securities Exchanges	86
Financial Market Sophistication	84 ↓
Existence of Bankruptcy Law	82
Ease of Access to Loans	72
Local Equity Market Access	70
Venture Capital Availability	60

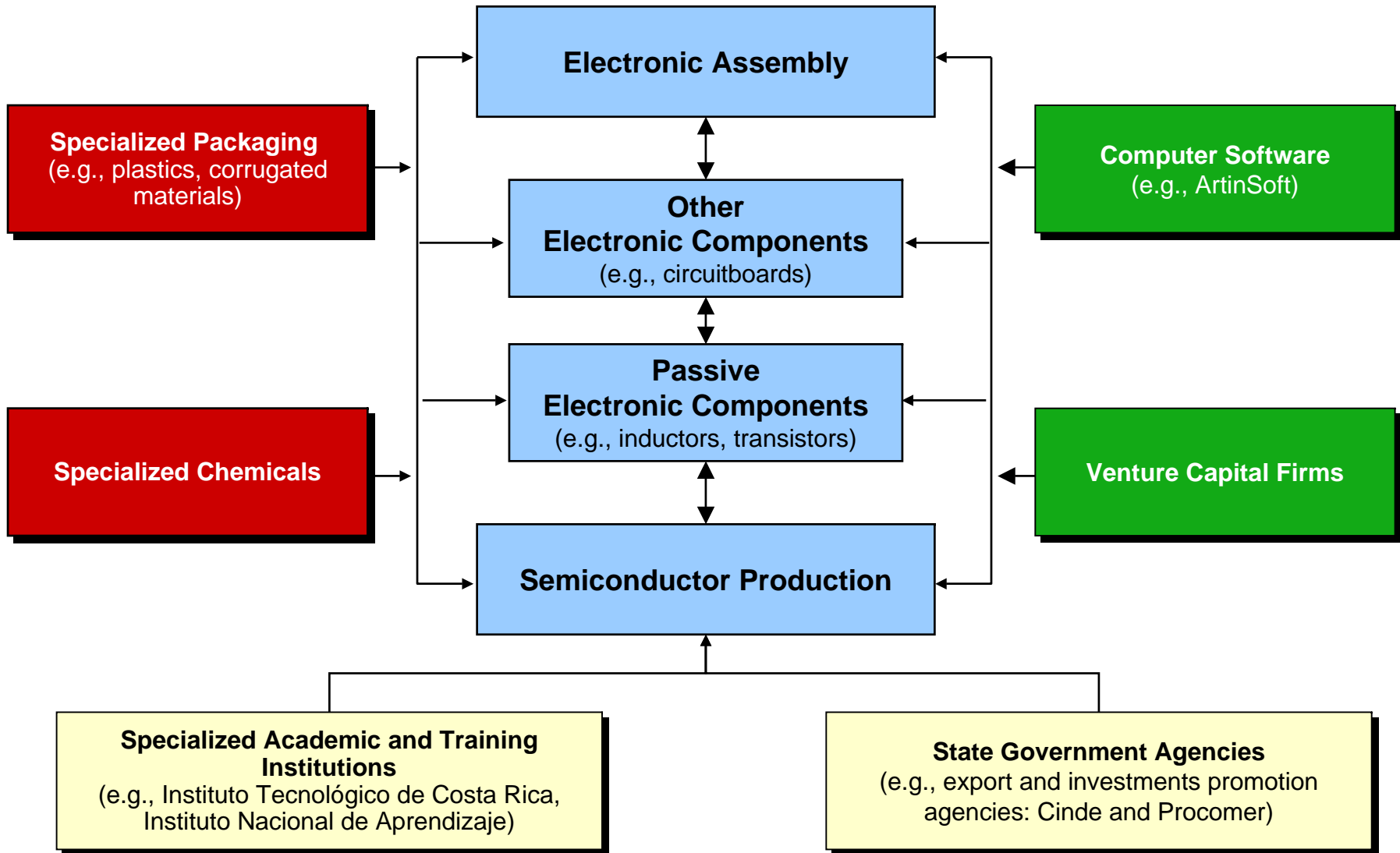
Quality of the Regulatory Environment

Intellectual Property Protection	85
Laws Relating to Information Technology	71
Stringency of Environmental Regulations	70

Note: Rank by countries; overall Russia ranks 65 (63 on National Business Environment, 48 on GDP pc 2002)

Source: Global Competitiveness Report 2003

The Costa Rica Information Technology Cluster



Creating a Productive Economic Structure

Legacies of a Planned-Economy

- Economic policy is **centrally** directed
- Buyer/supplier linkages seen from a **national** perspective
- Relationships between suppliers and buyers are specified and focused on production of **defined** goods and services
- The geographic locations of related economic activities driven by **political and security considerations**

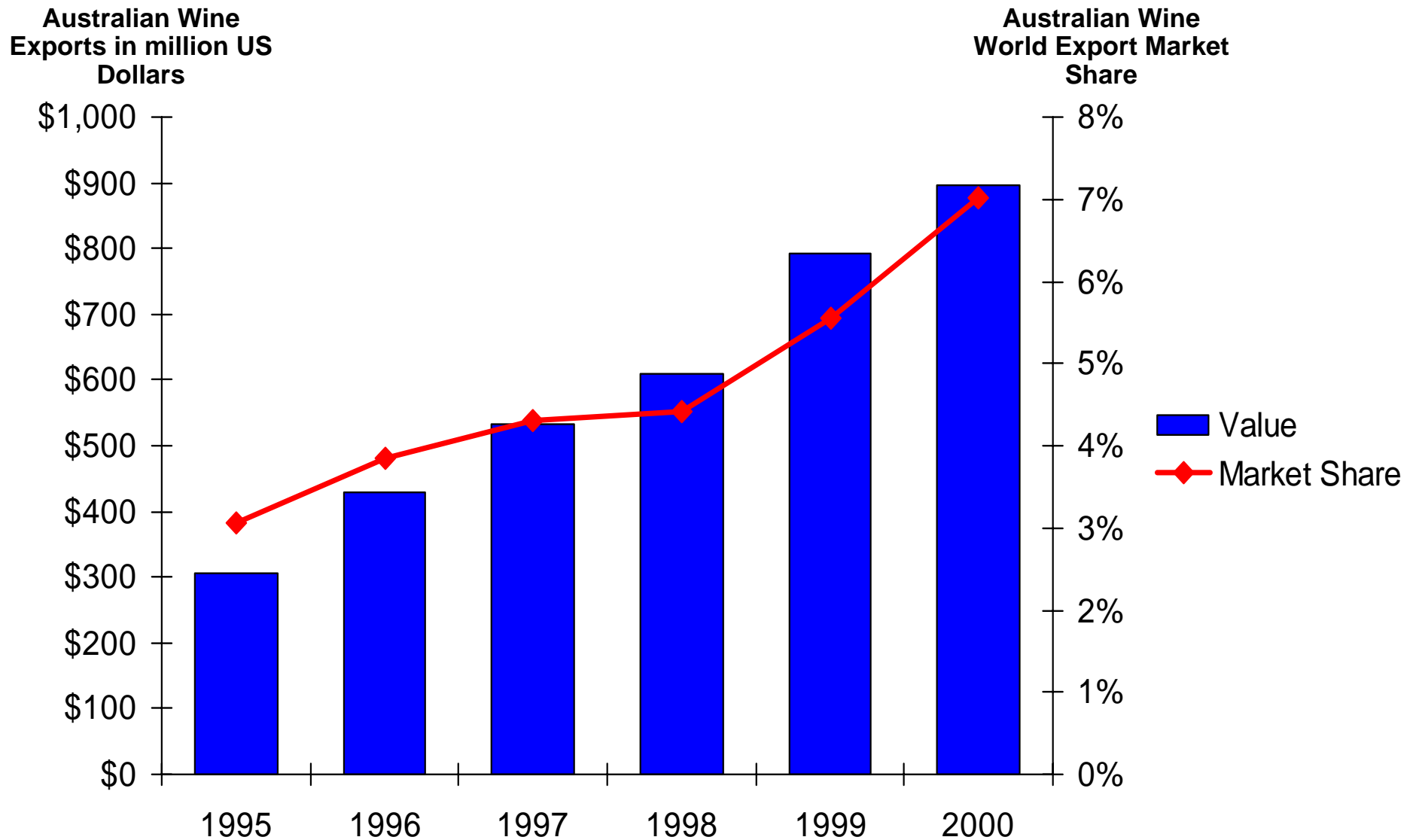


Cluster-based Economy

- Economic policy involves significant **autonomy** and institutions at the regional and local level
- There is **specialization** of regions across the fields in which they compete
- Externalities across firms and institutions in **clusters** facilitate productivity and dynamism
- Geographic choices are based on the **economic attractiveness** of locations; firms co-locate with others to reap **cluster benefits**

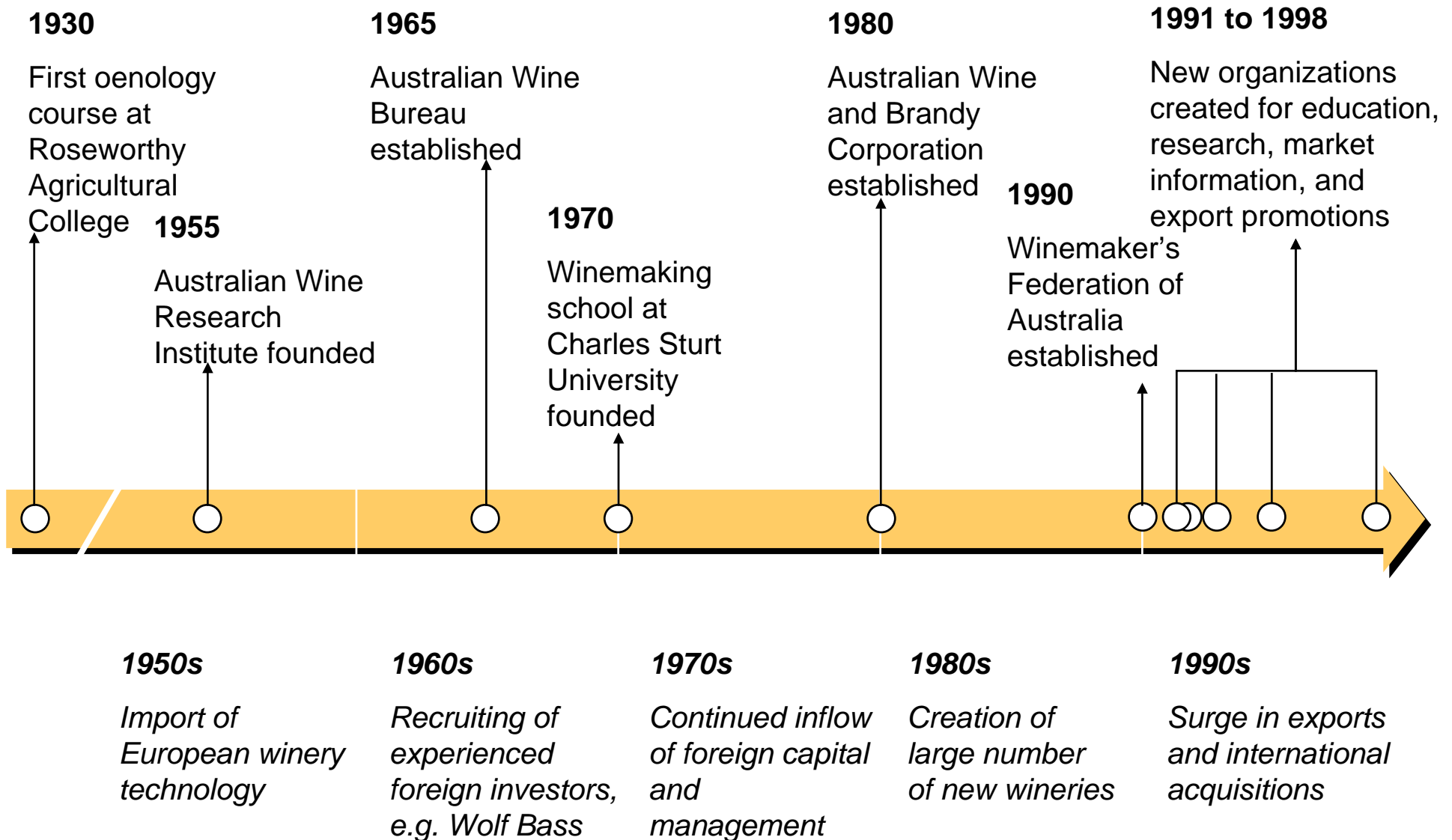
The Australian Wine Cluster

Trade Performance



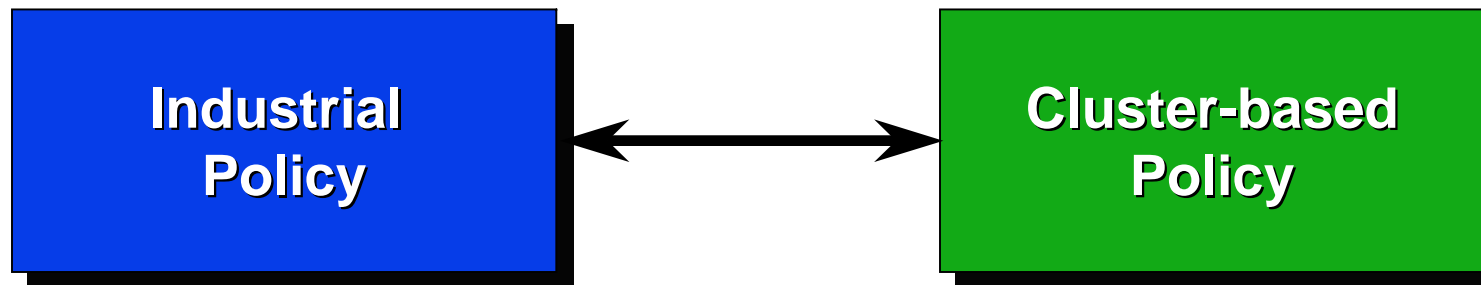
Source: UN Trade Statistics

The Australian Wine Cluster History



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

Cluster Policy versus Industrial Policy



- Target desirable industries / sectors
- Focus on domestic companies
- Intervene in competition (e.g., protection, industry promotion, subsidies)
- Centralizes decisions at the national level



Distort competition

- **All** clusters can contribute to prosperity
- Domestic and foreign companies both enhance productivity
- Relax impediments and constraints to productivity
- Emphasize cross-industry linkages / complementarities
- Encourage initiative at the state and local level



Enhance competition

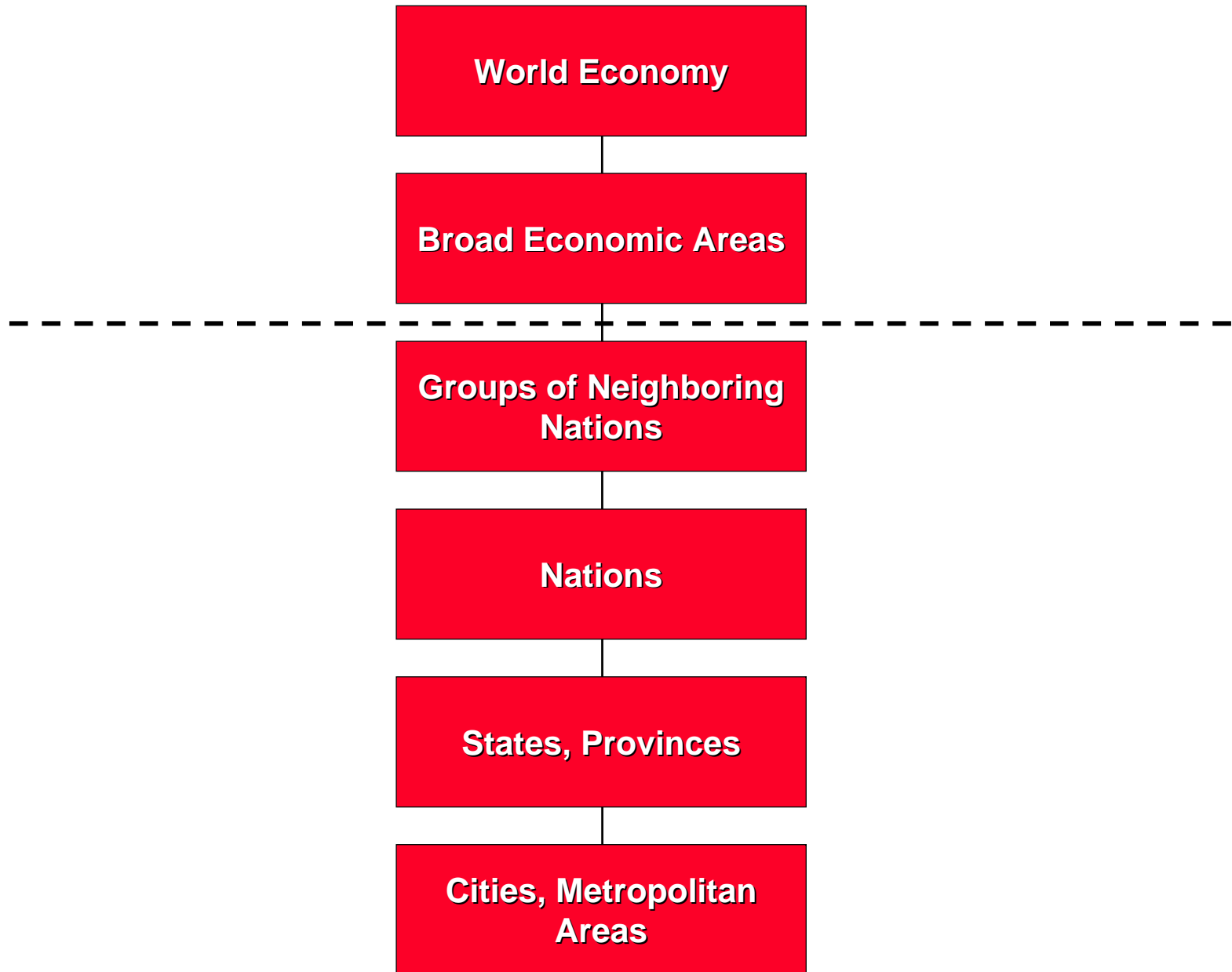
The Role of Clusters in Economic Development

Overview

- Clusters are **critical engines** in the economic structure of national and regional economies
 - The health of their cluster determines the level of productivity companies can reach
 - Regional prosperity depends on significant positions in a number of competitive clusters
- Clusters can **identify fundamental challenges** in the national or regional business environment
 - Clusters are more aligned with the nature of competition and the microeconomic factors that influence competitive advantage
 - At the economy-wide level, only generic topics like taxes and trade protection are of joint interests to all companies
- Clusters provide a **new way of thinking** about an economy and organizing economic development efforts
 - Recast the role of the private sector, government, trade associations and educational or research institutions
 - Brings together firms of all sizes to identify common opportunities, not just common problems

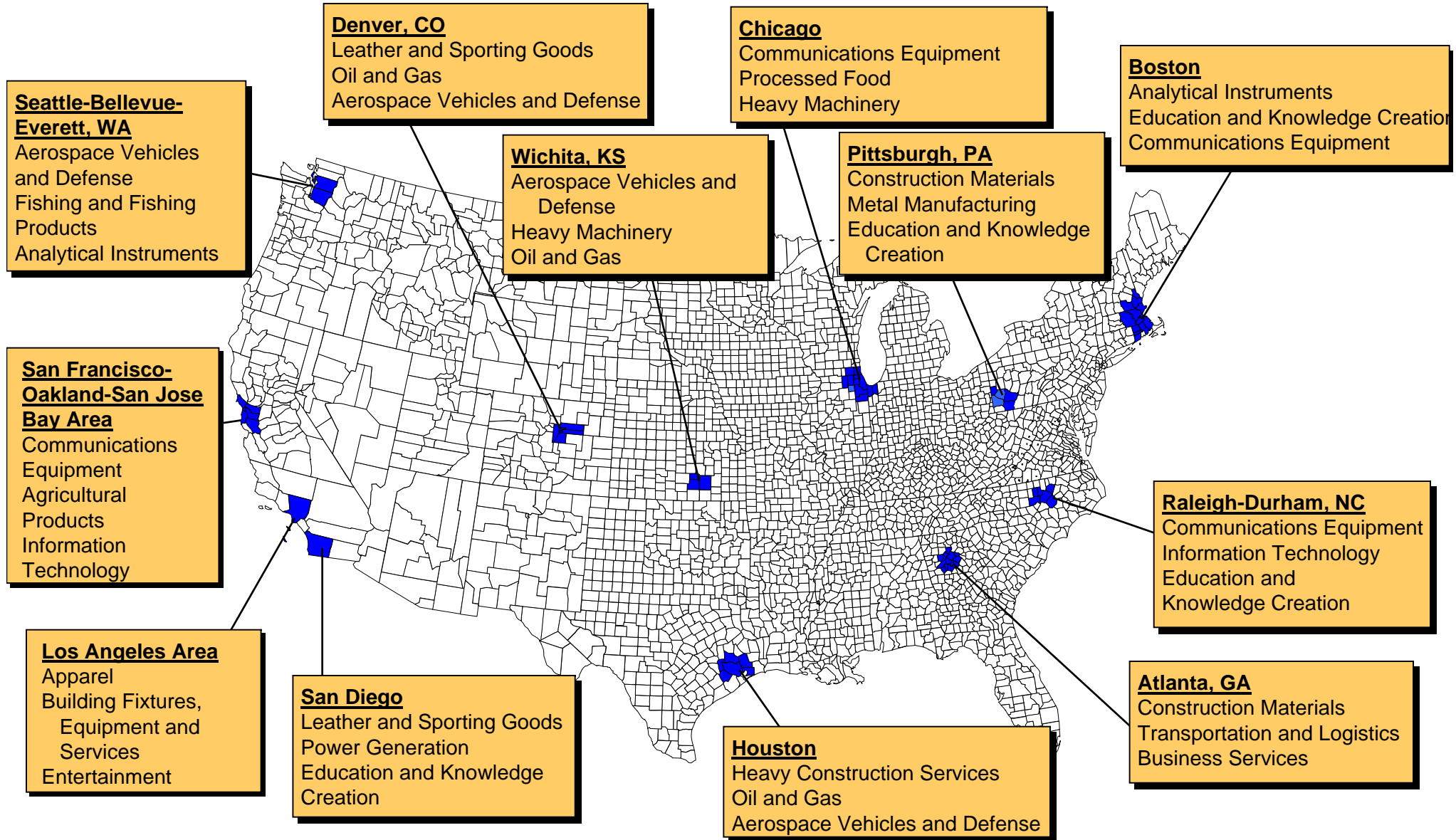
Influences on Competitiveness

Multiple Geographic Levels



Specialization of Regional Economies

Select 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

U.S. Patenting by Russian Institutions

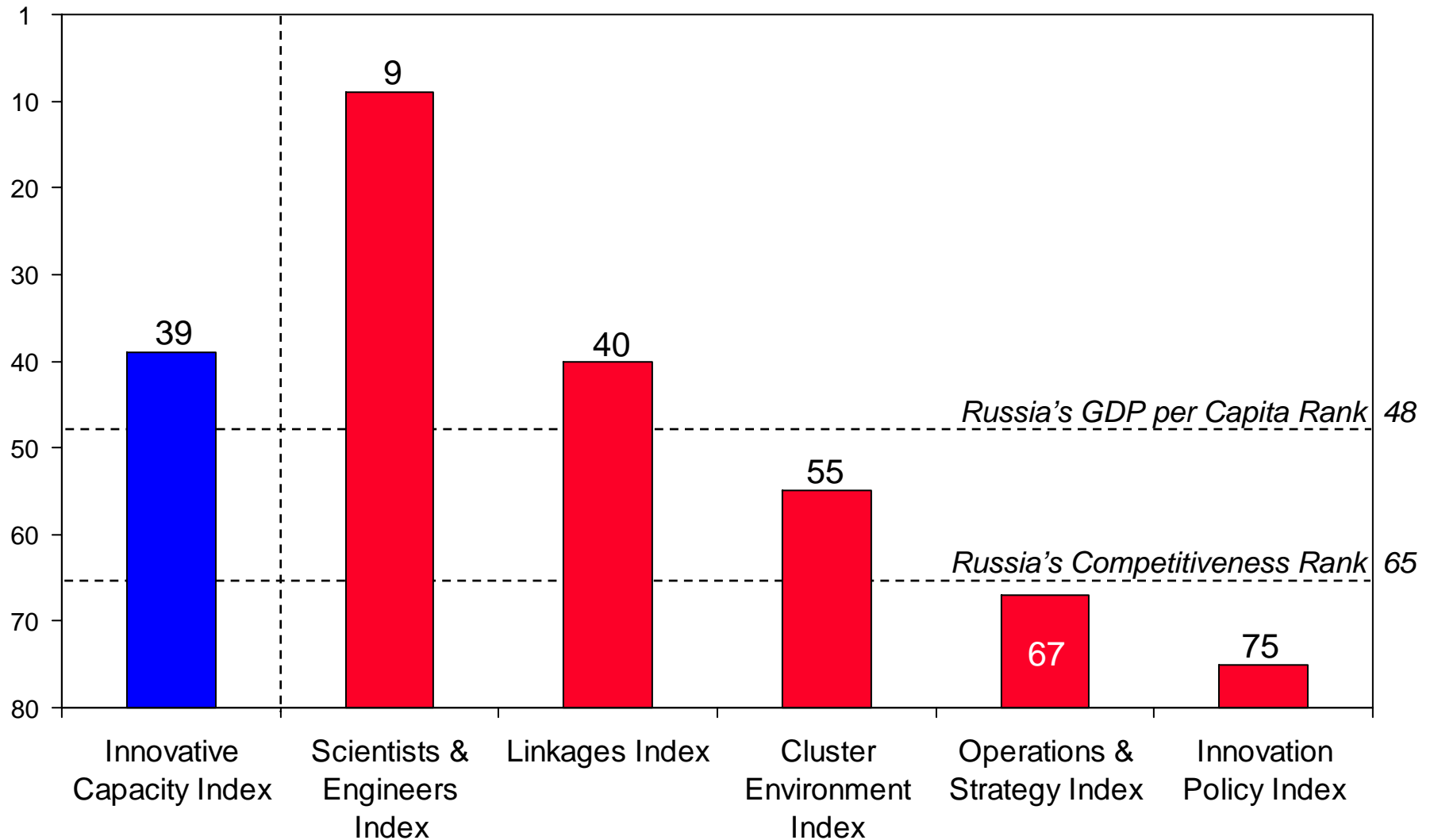
Organization	1996	1997	1998	1999	2000	2001	Patents Issued 1996-2001
SUN MICROSYSTEMS, INC.	1	5	8	13	2	1	30
SAMSUNG ELECTRONICS CO., LTD.	0	1	1	2	10	9	23
NPO ENERGOMASH	0	0	0	0	2	16	18
R-AMTECH INTERNATIONAL, INC.	0	0	1	6	4	7	18
CERAM OPTEC INDUSTRIES, INC.	4	4	3	2	2	0	15
UNIVERSITY OF CHICAGO	0	0	4	5	2	1	12
ELBRUS INTERNATIONAL LTD.	0	0	1	4	0	6	11
AJINOMOTO COMPANY INCORPORATED	2	2	1	0	3	2	10
SOCIETE NATIONALE INDUSTRIELLE AEROSPATIALE	3	4	3	0	0	0	10
RENAL TECH INTERNATIONAL LLC	0	0	0	0	8	1	9
GENERAL ELECTRIC COMPANY	2	1	1	1	4	0	9
ADVANCED ION TECHNOLOGY, INC.	0	0	0	1	3	3	7
ALARIS INC.	0	2	3	0	0	2	7
LSI LOGIC CORPORATION	0	0	0	0	1	5	6
CYTRAN, INC.	0	0	3	1	2	0	6
ALM DEVELOPMENT, INC.	0	0	0	0	1	4	5
TCI INC.	0	0	0	3	1	1	5
QUANTA VISION, INC.	0	1	2	0	1	1	5
MCDONNELL DOUGLAS CORP.	0	0	1	1	3	0	5
SAWTEK, INC.	0	0	0	2	3	0	5

Note: Shading indicates universities, research institutions, and other government agencies

Source: US Patent and Trademark Office (www.uspto.gov). Author's analysis.

Innovative Capacity Index

Russia's Relative Position



Leveraging the Russian Technology Base

Illustrative Strategic Options

- Russia faces **challenges in attracting traditional manufacturing investments** given the inefficiencies in its business environment relative to other locations
- Near term opportunities should focus where Russia is **most unique**



- Improve the **innovation policy environment**
 - Intellectual property right protection
- Create **Technology Parks** and R&D Free Zones
 - Simplified administrative rules
- Support **cluster-development efforts** around universities
 - Technology transfer offices
 - Recruiting foreign companies
 - Incubators

Shifting Responsibilities for Economic Development

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

Roles of Government in Economic Development

- **Improve the macroeconomic, political, legal, and social context**
 - Establish a **stable and predictable** macroeconomic, legal, and political environment
 - Improve the **social conditions** of citizens
- **Upgrade the general business environment**
 - Improve the availability, quality, and efficiency of **cross-cutting or general purpose inputs, infrastructure, and institutions**
 - Set **overall rules and incentives** governing competition that encourage productivity growth
- **Facilitate cluster formation and upgrading**
 - Identify **existing and emerging clusters**
 - Convene and participate in the identification of **cluster constraints** and **action plans** to address them
- **Lead a collaborative process of economic change**
 - Create institutions and **processes for upgrading competitiveness** that inform citizens and mobilize the private sector, government at all levels, educational and other institutions, and civil society to take action

Role of the Private Sector in Economic Development

- Take an **active role** in upgrading the local infrastructure
- Nurture **local suppliers** and attract new supplier investments
- Work closely with local **educational and research institutions** to upgrade **quality and create specialized programs addressing cluster needs**
- Provide government with **information** and **substantive input** 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
 - Cost sharing

Russia's Competitiveness Agenda

- **Raise the productivity of the Russian business environment**
- **Adopt a cluster-based approach to economic development**
- **Push economic strategy to the regional level**
- **Shift the roles of government, business, and other institutions in economic development**



- **Creating the microeconomic foundations of sustainable prosperity in Russia**

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