

Portuguese Competitiveness

Professor Michael E. Porter
Institute for Strategy and Competitiveness
Harvard Business School

Novos Desafios da Competitividade
Lisbon, Portugal
April 17th, 2002

This presentation draws on ideas from Professor Porter's articles and books, in particular, The Competitive Advantage of Nations (The Free Press, 1990), "The Microeconomic Foundations of Economic Development," in The Global Competitiveness Report 2001/02, (World Economic Forum, 1998), "Clusters and the New Competitive Agenda for Companies and Governments" in On Competition (Harvard Business School Press, 1998), ongoing statistical study of clusters, and "What is Strategy?" (Harvard Business Review, Nov/Dec 1996). For further information please check the Institute's web site at www.isc.hbs.edu. 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.

Portuguese Economic Strategy 1995 to 2001

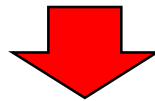
- **Secure entry to the European Monetary Union**
- **Reduce public sector deficits**
- **Bring down inflation**
- **Adopt the required European Union regulations**



- **As of 2001, all these goals were achieved**
- **The sustainability of Portugal's economic growth is uncertain**
- **A new national economic strategy will be necessary**

Sources of Prosperity

- A nation's standard of living (wealth) is determined by the **productivity** with which it uses its human, capital, and natural resources. The appropriate definition of competitiveness is productivity.
 - 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

Determinants of Productivity and Productivity Growth

Macroeconomic, Political, Social, and Legal
Context for Development

Microeconomic Foundations of Development

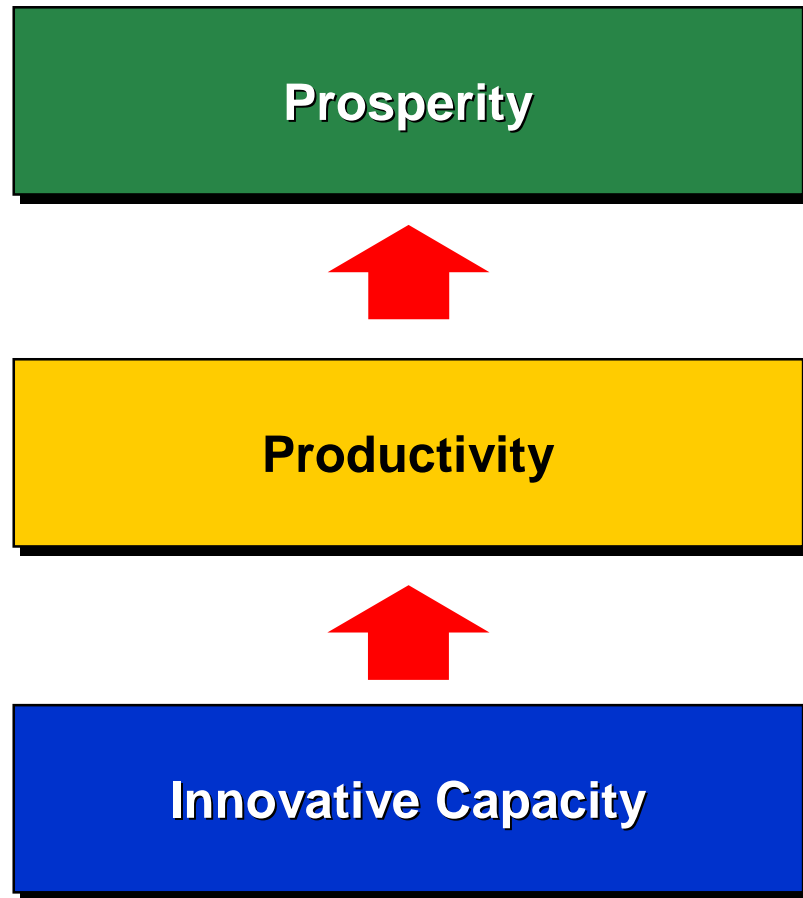
Sophistication
of Company
Operations and
Strategy



Quality of the
Microeconomic
Business
Environment

- A sound macroeconomic, political, social, and legal 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 competition**

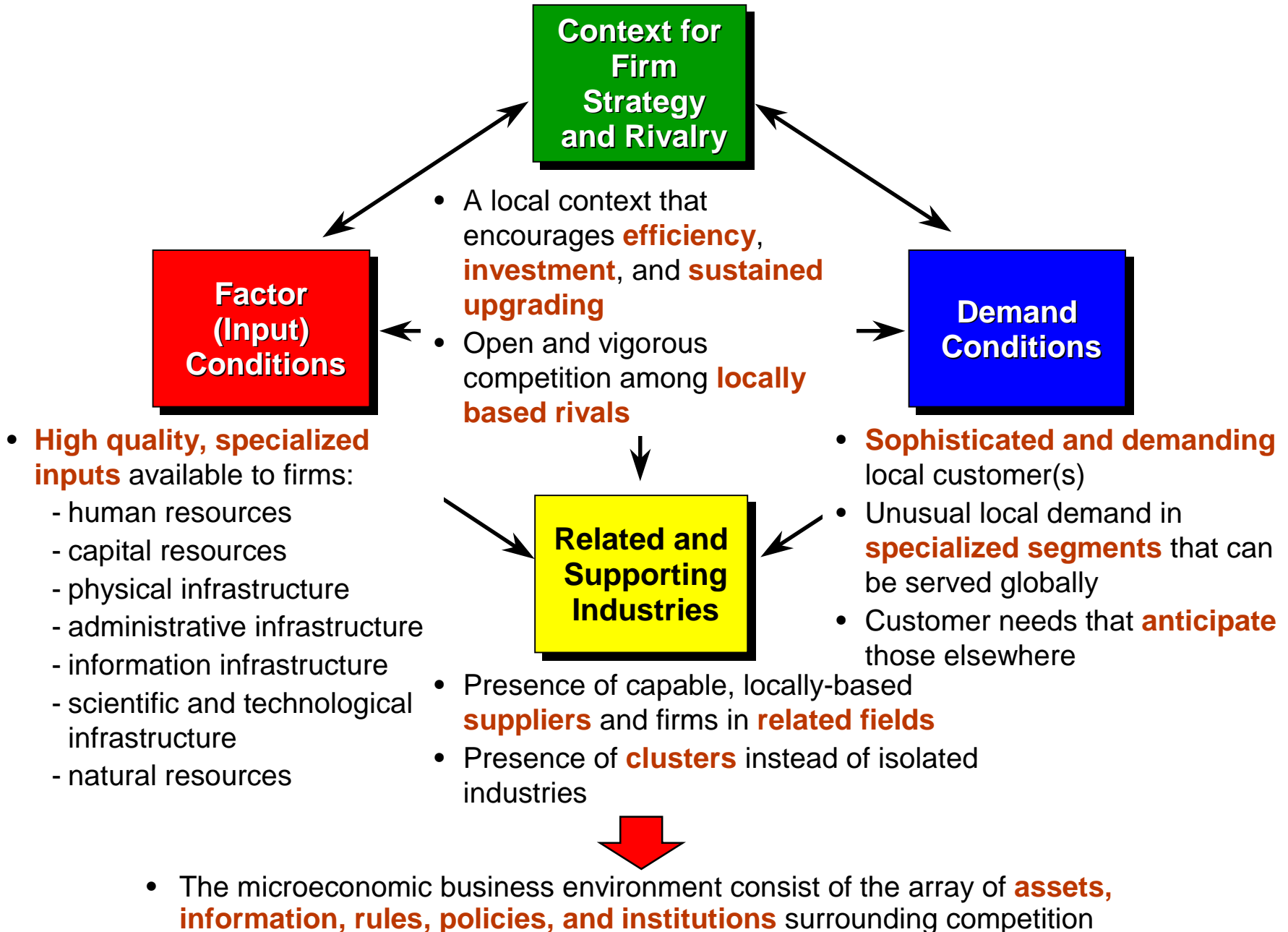
Innovation and Prosperity



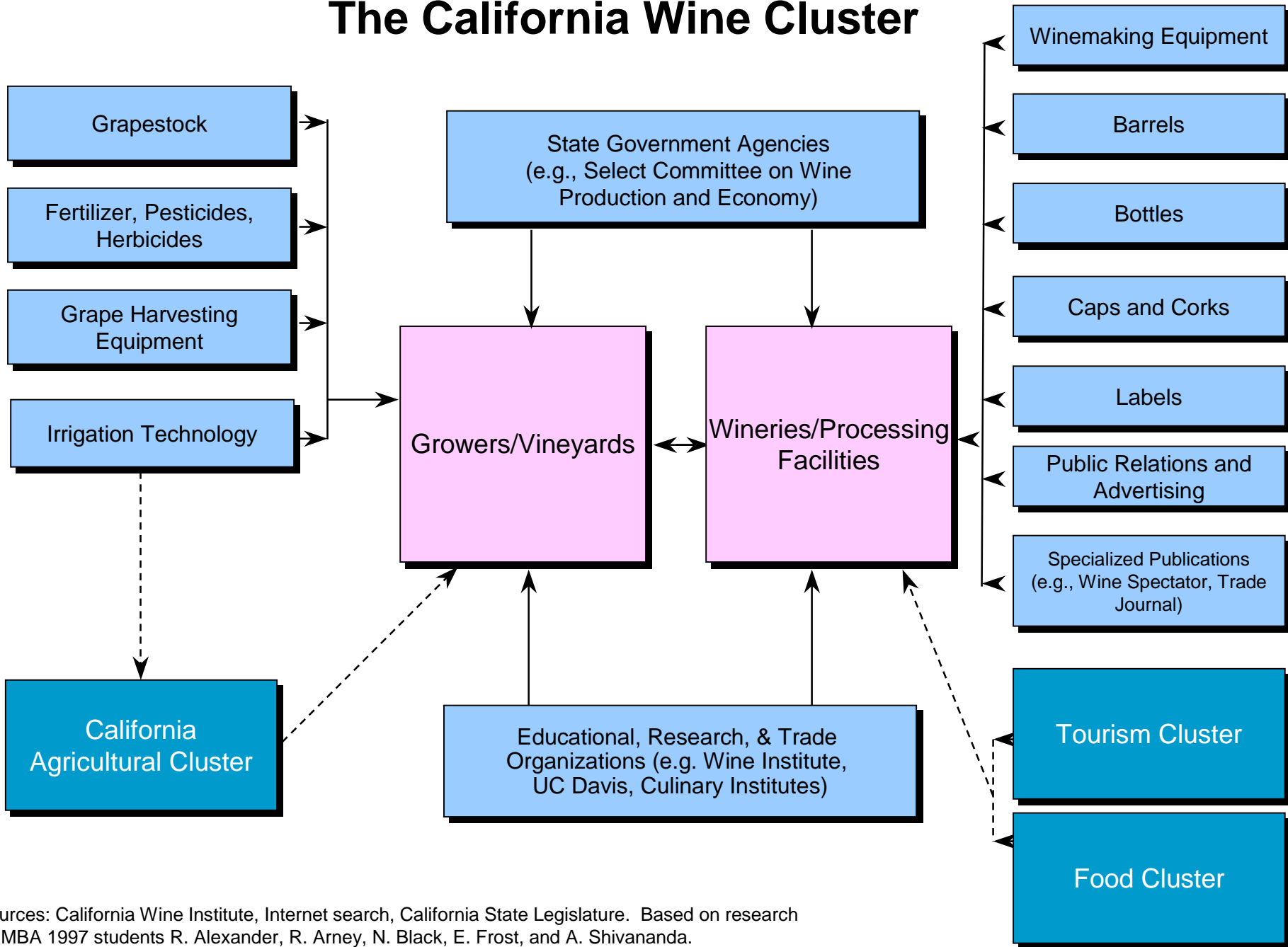
“Competitiveness”

- Innovation is **more than just scientific discovery**
- There are **no low-tech industries**, only low-tech firms

Productivity and the Microeconomic Business Environment



The California Wine Cluster



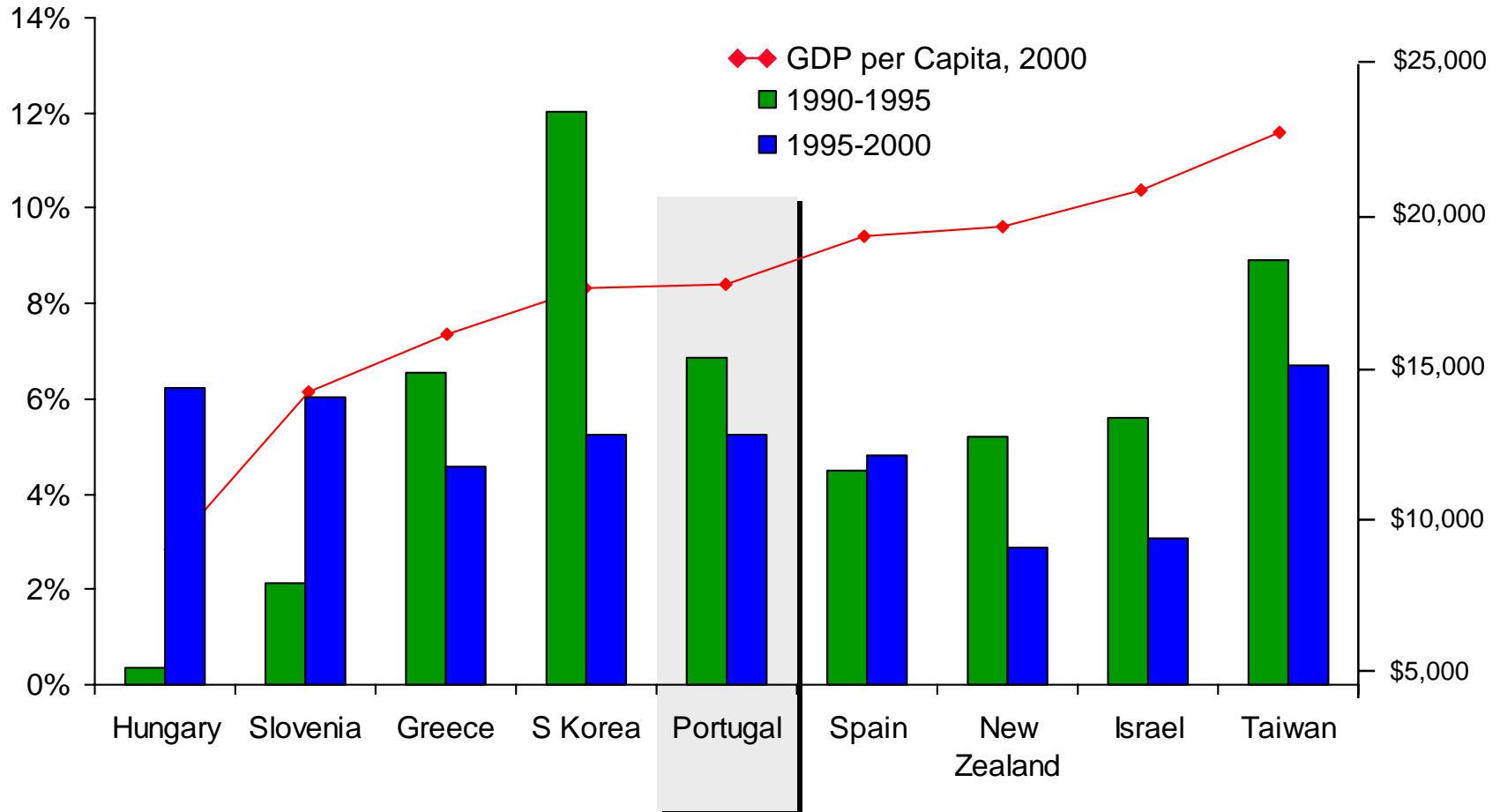
Sources: California Wine Institute, Internet search, California State Legislature. Based on research by MBA 1997 students R. Alexander, R. Arney, N. Black, E. Frost, and A. Shivananda.

Agenda

- **Portugal's economic performance**
- Portugal's competitiveness

Relative Economic Performance

Level and Growth Rate of GDP per Capita, 1990-2000

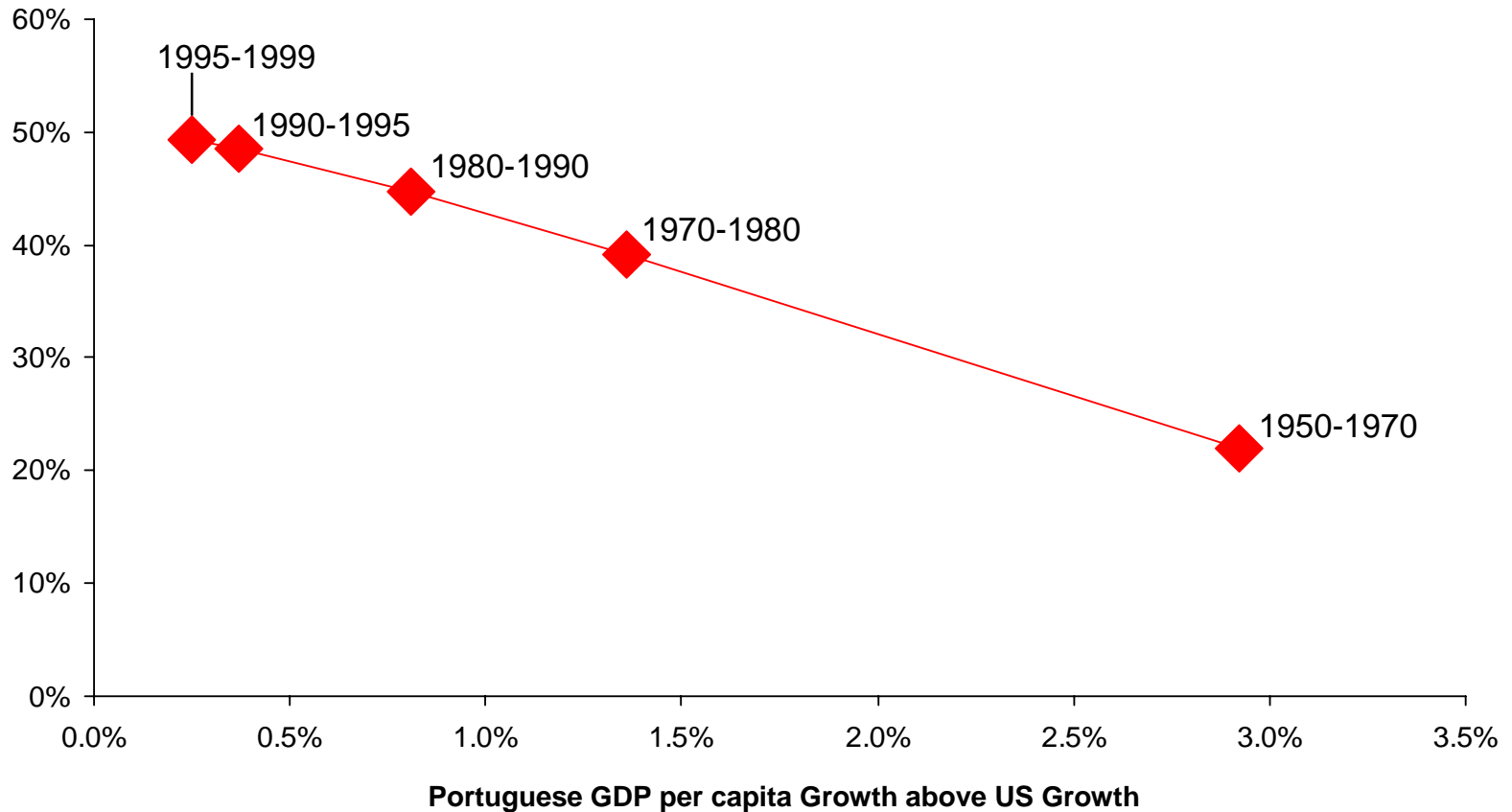


Source: EIU

Portugal Economic Performance

Annual Catch-Up Rates to US GDP per Capita Levels, 1970-1999

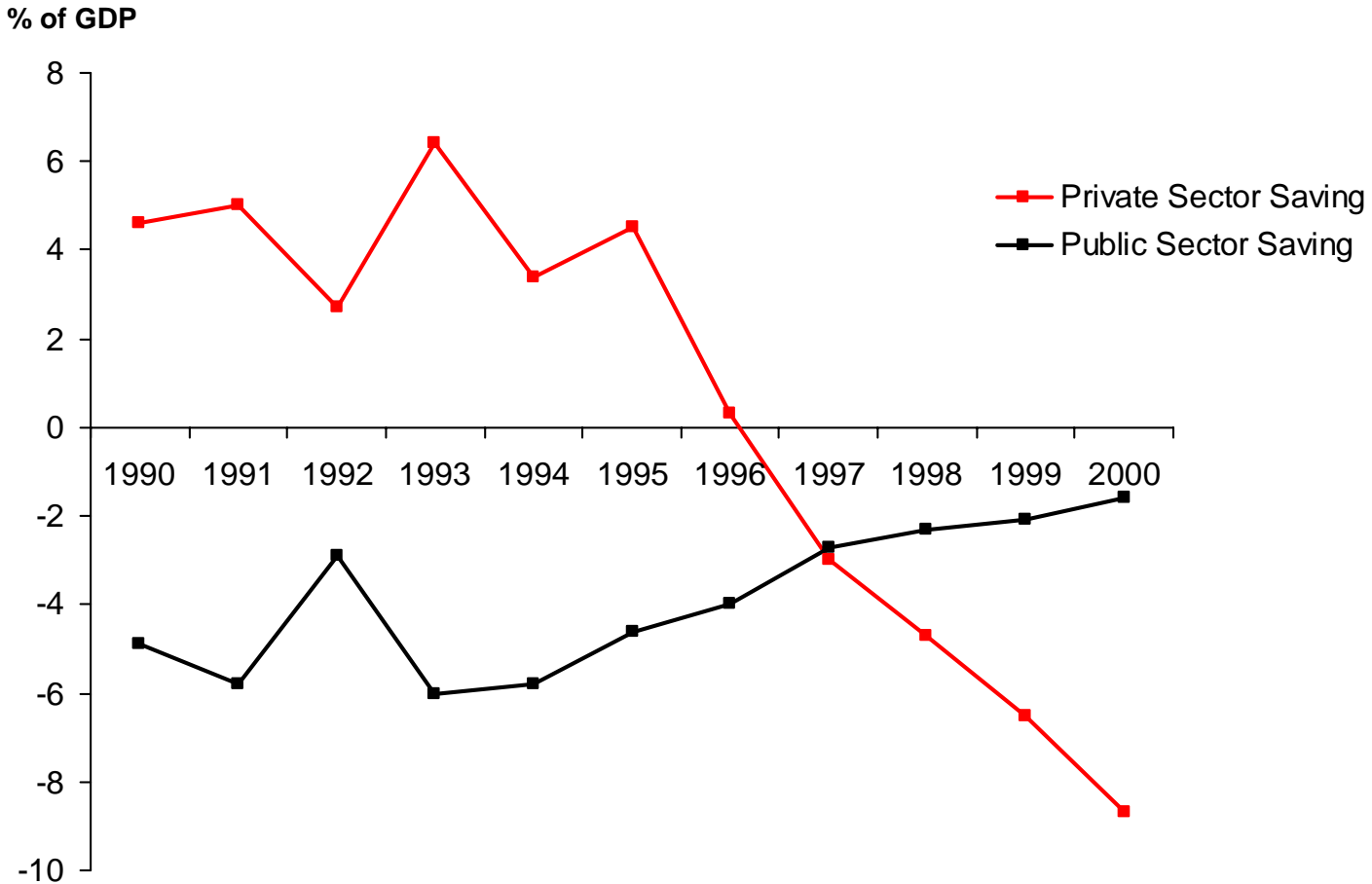
Level of GDP per Capita
relative to the US,
Beginning of Period



Source: OECD

Macroeconomic Imbalances

Portugal

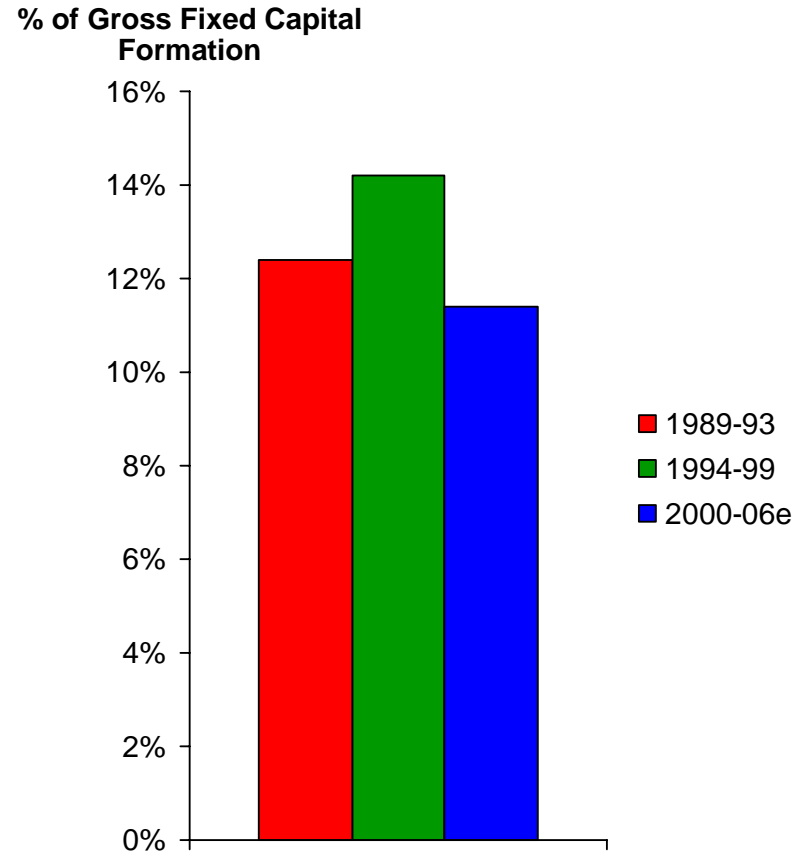
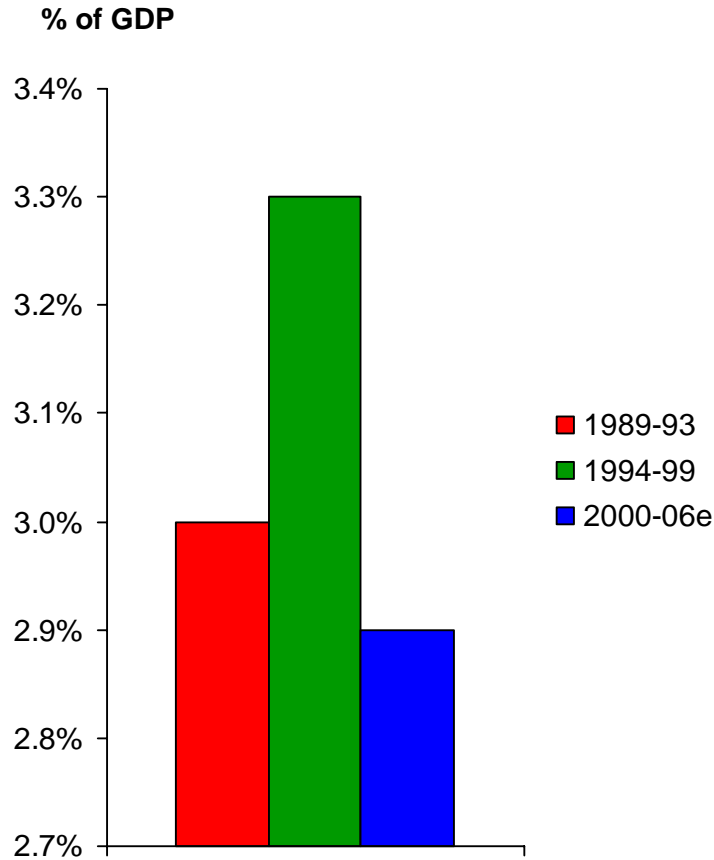


Note: The drop in private sector saving since 1995 is in roughly equal parts driven by households decreasing savings and companies increasing debts

Source: OECD

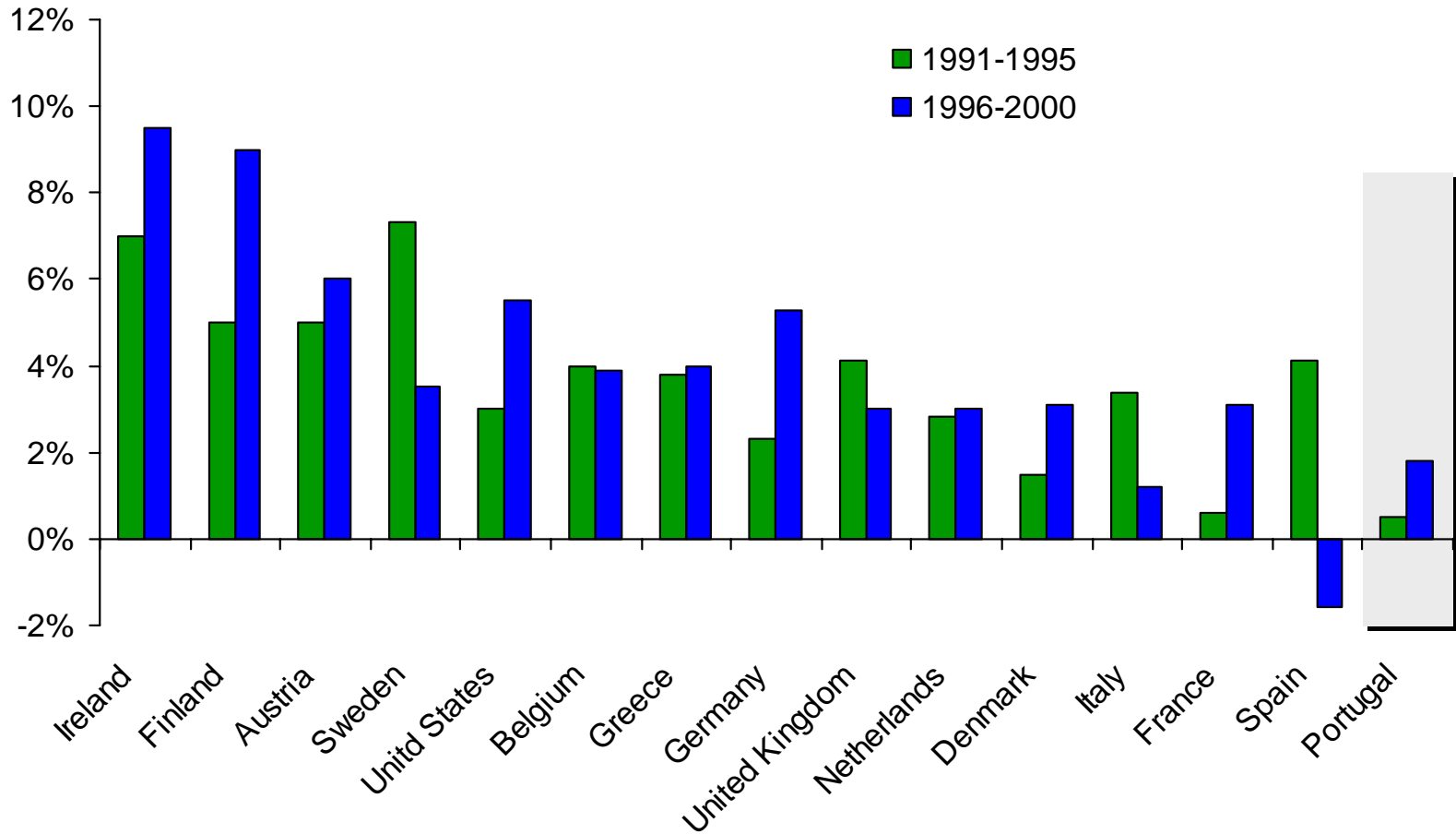
Comparative Economic Performance

EU Structural and Cohesion Funds for Portugal



Comparative Economic Performance

Productivity Growth in Manufacturing, Selected Countries



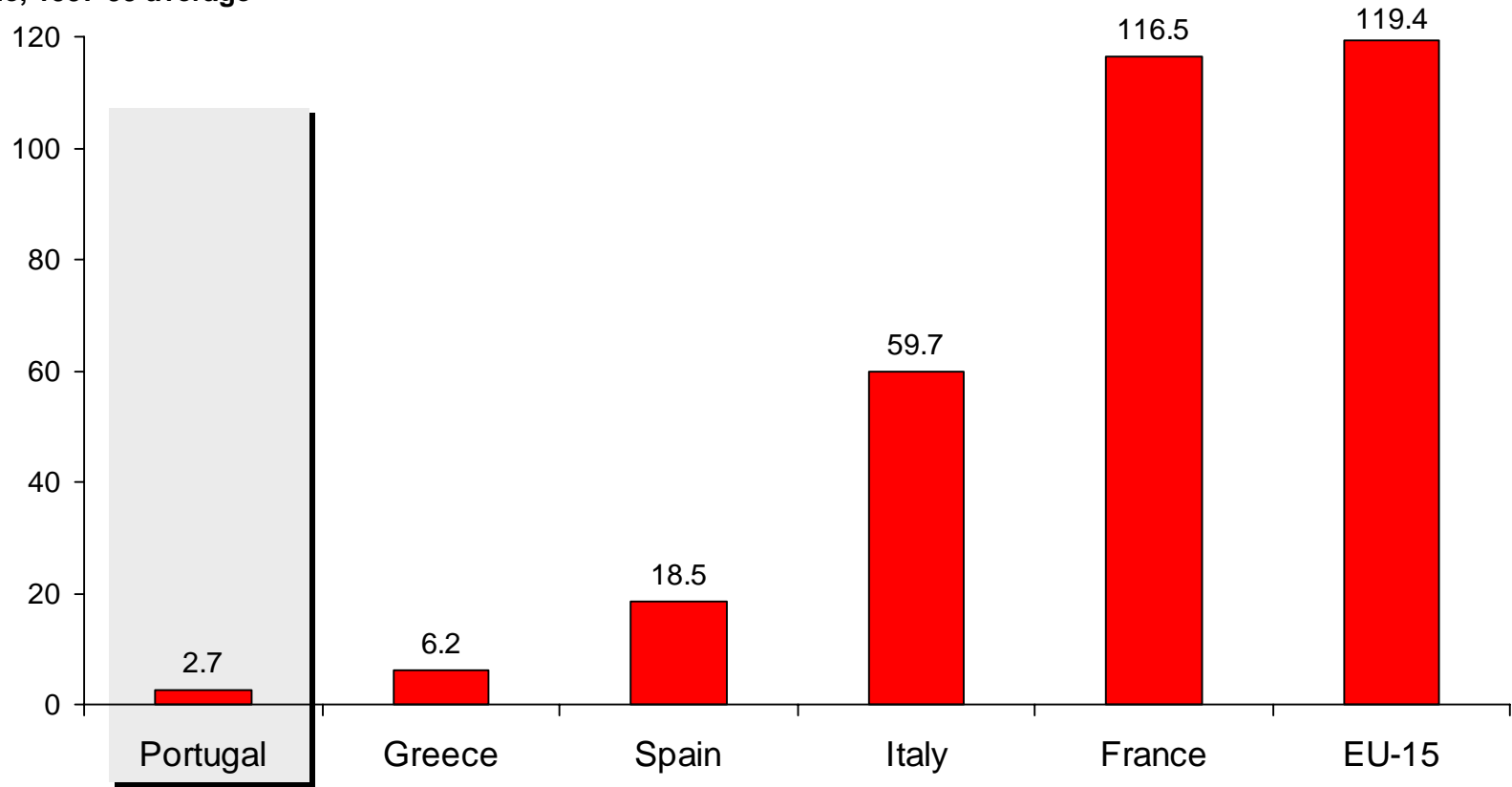
Note: Sorted by overall productivity growth 1991-2000

Source: European Commission

Comparative Innovation Performance

Selected Countries and European Union

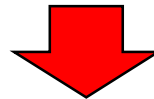
EU Patents per million people, 1997-99 average



Portuguese Economic Performance 1995 to 2001

Performance

- Solid economic growth
- Very slow productivity growth
- Extremely low innovation rates



- No microeconomic competitiveness strategy
- Sustainability of macroeconomic policies in question

Portugal's Competitive Position in 2002

- Easy catch-up period is over
- Reduction of EU structural funds is likely
- Ability to use devaluation to prop up “competitiveness” is gone
- Eastern European countries with lower wages are about to enter EU market



- **What is the new economic strategy to deal with this environment?**

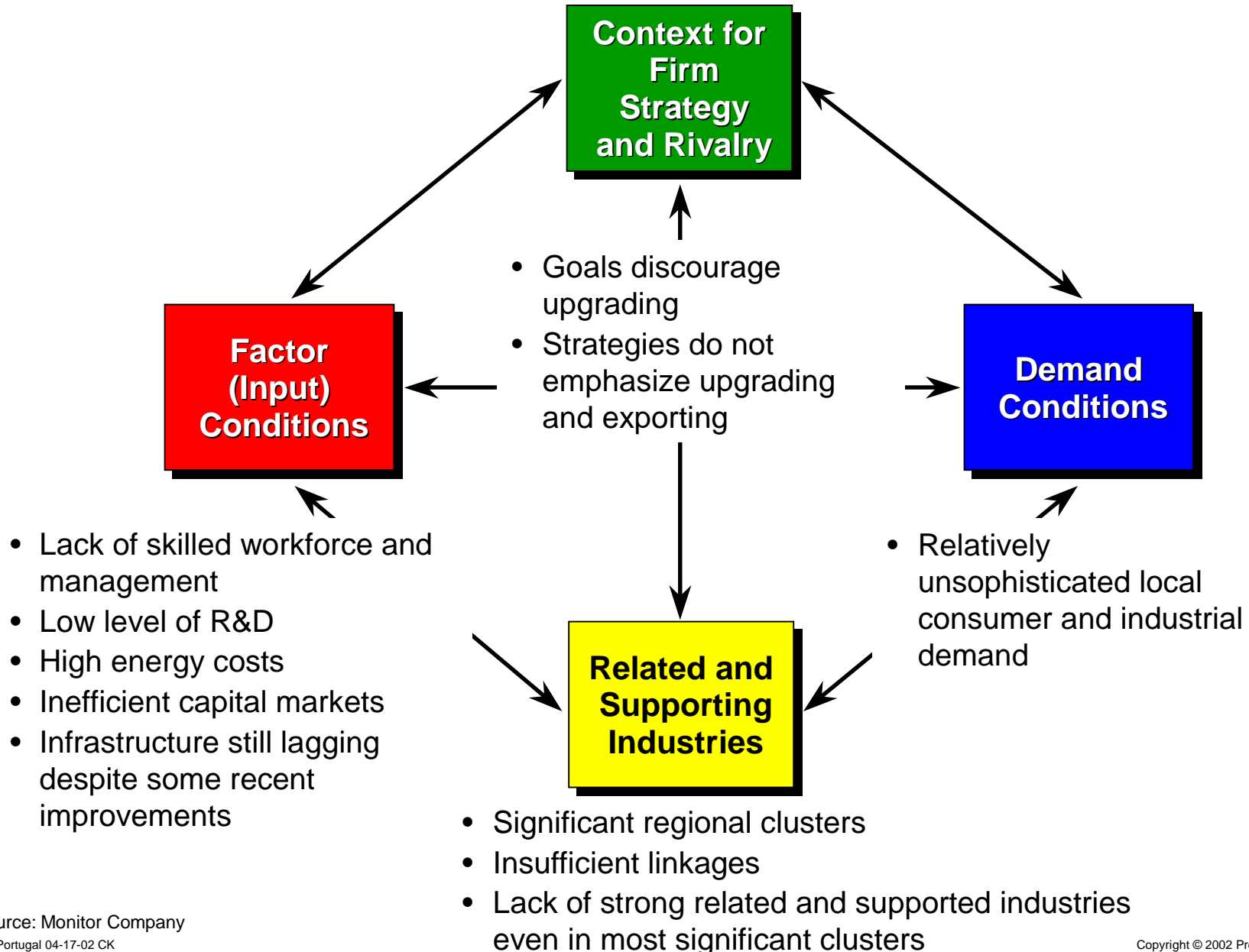
Agenda

- Portugal's economic performance

- **Portugal's competitiveness**

Portuguese Diamond in 1994

Findings from “The Competitiveness of Portugal”-study



Factor (Input) Conditions

Portugal's Relative Position

Competitive Advantages Relative to GDP per Capita

	Country Ranking
Road Infrastructure Quality	18
Ease of Access to Loans	19
Local Equity Market Access	23
Availability and Cost of Cellular Phones	23
Financial Market Sophistication	24
Venture Capital Availability	24
Police Protection of Businesses	25
Speed and Cost of Internet Access	25

Competitive Disadvantages Relative to GDP per Capita

	Country Ranking
Quality of Math and Science Education	56
Availability of Scientists and Engineers	50
Port Infrastructure Quality	45
Quality of Scientific Research Inst.	41
Administrative Burden for Start-Ups	41
Quality of Public Schools	40
Railroad Infrastructure Quality	40
Air Transport Infrastructure Quality	39
Extent of Bureaucratic Red Tape	39
University/Industry R&D Collaboration	38
Patents per Capita (2000)	37
Quality of Management Schools	36
Adequacy of Private Sector Legal Recourse	34

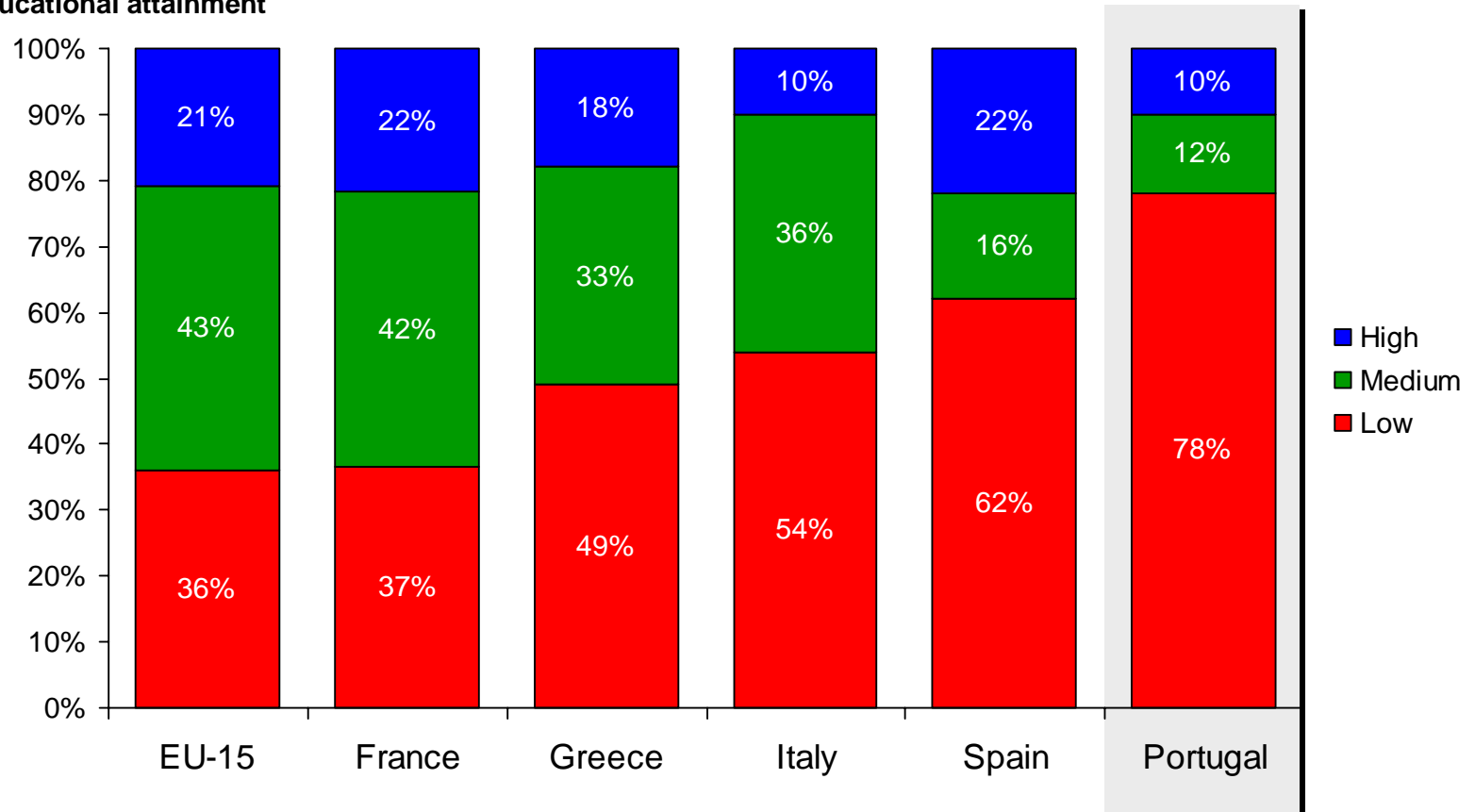
Note: Rank by countries; overall Portugal ranks 31 (29 on Quality of the National Business Environment)

Source: Global Competitiveness Report 2001

Educational Attainment

Southern European Countries and Regions

Share of 25-59 year old by level of educational attainment



Context for Firm Strategy and Rivalry

Portugal's Relative Position

Competitive Advantages Relative to GDP per Capita

	Country Ranking
Intellectual Property Protection	23
Hidden Trade Barrier Liberalization	24
Tariff Liberalization	24

Competitive Disadvantages Relative to GDP per Capita

	Country Ranking
Efficacy of Corporate Boards	53
Extent of Distortive Government Subsidies	51
Decentralization of Corporate Activity	47
Cooperation in Labor-Employer Relations	40
Extent of Locally Based Competitors	36
Intensity of Local Competition	33
Effectiveness of Anti-Trust Policy	30

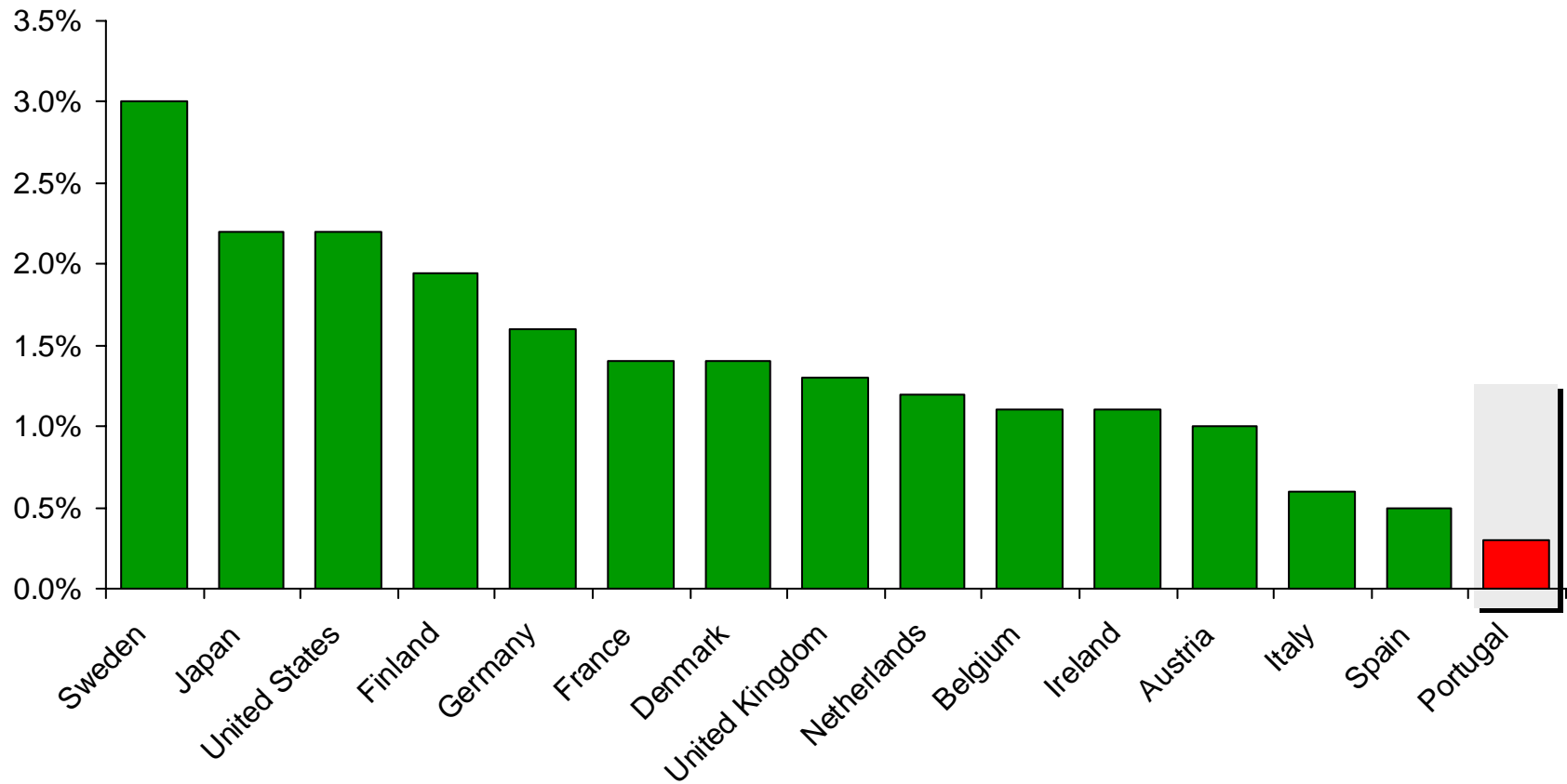
Note: Rank by countries; overall Portugal ranks 31 (29 on Quality of the National Business Environment)

Source: Global Competitiveness Report 2001

Investments in Research & Development

Private Sector R&D Expenditure

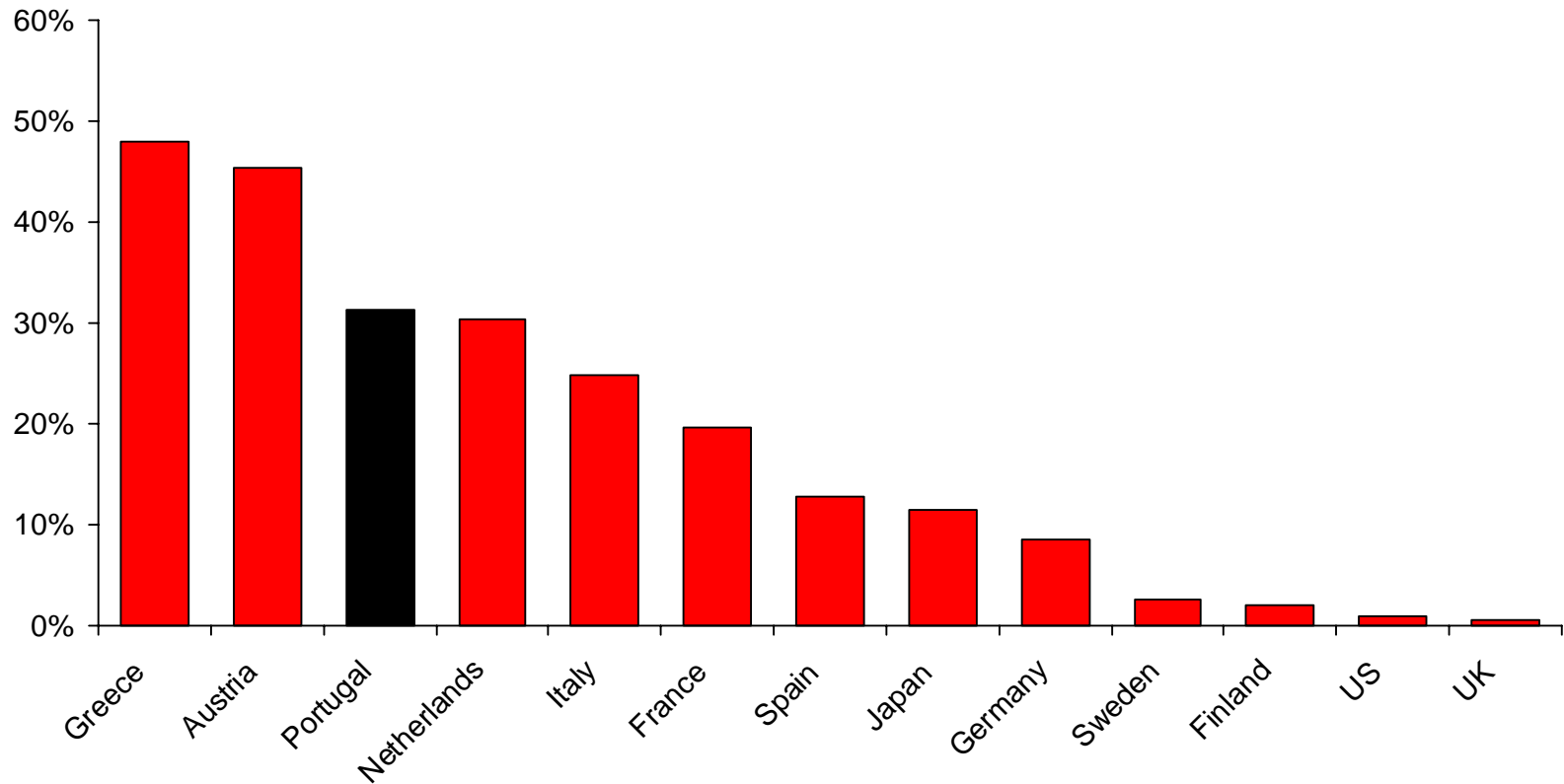
Share of GDP, 1999



Difficulty of Business Formation

Selected OECD Countries

Cost of Business Formation
relative to GDP per capita



Demand Conditions

Portugal's Relative Position

Competitive Advantages Relative to GDP per Capita

Competitive Disadvantages Relative to GDP per Capita

Country Ranking

Government Procurement of Advanced Technology Products	31
Stringency of Environmental Regulations	28
Presence of Demanding Regulatory Standards	28
Laws Relating to Information Technology	28
Buyer Sophistication	27
Consumer Adoption of Latest Products	26

Note: Rank by countries; overall Portugal ranks 31 (29 on Quality of the National Business Environment)

Source: Global Competitiveness Report 2001

Related and Supporting Industries

Portugal's Relative Position

Competitive Advantages Relative to GDP per Capita

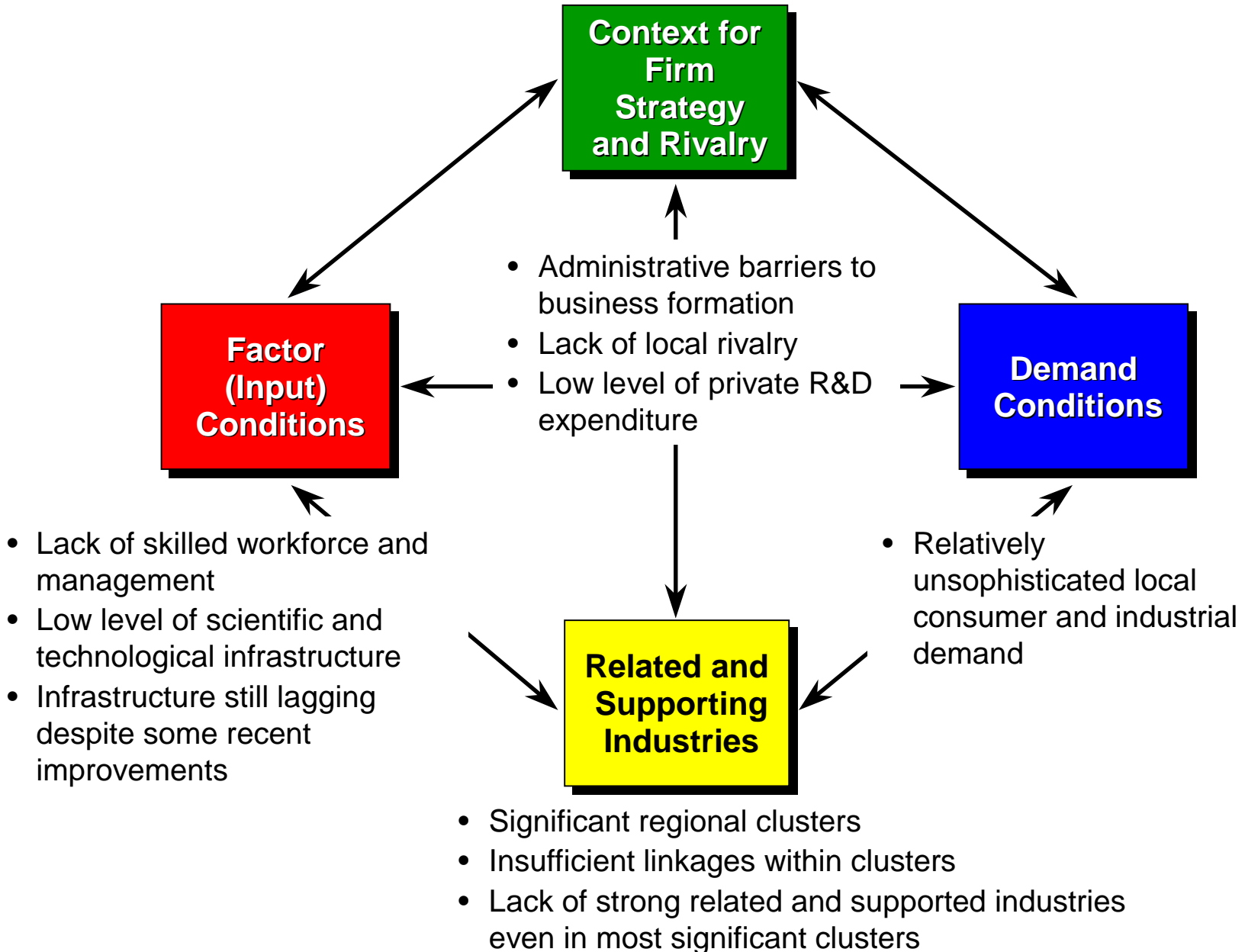
Competitive Disadvantages Relative to GDP per Capita

	Country Ranking
Local Availability of Process Machinery	42
Local Supplier Quality	41
Local Availability of Specialized Research and Training Services	41
Local Availability of Information Technology Services	41
Extent of Product and Process Collaboration	38
Local Availability of Components and Parts	34
Local Supplier Quantity	31
State of Cluster Development	29

Note: Rank by countries; overall Portugal ranks 31 (29 on Quality of the National Business Environment)

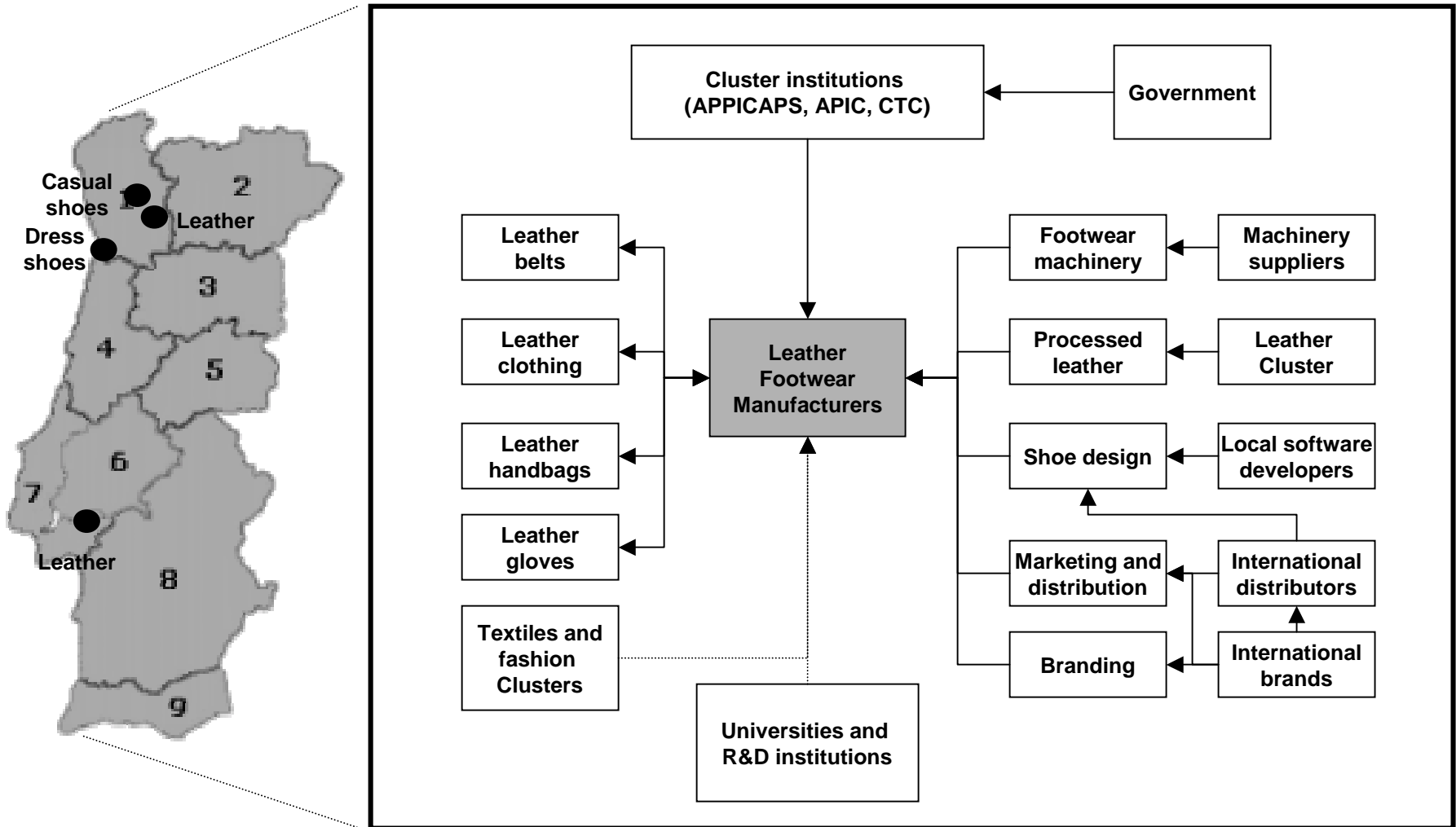
Source: Global Competitiveness Report 2001

Portuguese Diamond in 2002



Portuguese Clusters

Footwear



Portuguese Clusters

Footwear

- Cluster analyzed in the 1994 study
 - Concentrated around Porto
 - Competing on price and low wage
 - Low productivity, poor relations to suppliers, low level of product differentiation, and limited understanding of consumer needs
- Situation in 2002
 - Increasing competition from low cost locations in Asia
 - Moderate improvements in productivity, response times, and technical efficiency
 - Still poor relations to related and supporting industries
 - Active cluster organization APICCAPS; recently launched “Portugal Quality Shoes” re-branding initiative
 - In a contracting world shoe market, Portuguese export market share has slightly increased to 6.1% between 1995 and 1999

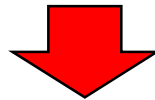


- Progress suggests potential of cluster development in Portugal
 - No concerted commitment across the country

Portuguese Competitiveness

1994 versus 2002

- Portugal has made important progress on macroeconomic terms
- Progress on the microeconomic foundations of competitiveness has been largely absent
 - There are exceptions (E.g., reduction of government subsidies, privatizations, creation of a more independent anti-trust authority)
 - The exceptions were more a by-product of adopting EU rules than part of a competitiveness strategy

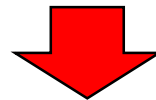


- Portugal must address its microeconomic weaknesses if it is to improve or even sustain its prosperity

Portugal in 2002

The Need for a New Strategy

- The central challenge is microeconomic
- Portugal's new strategy must focus on competitiveness and productivity
 - A long-term program to upgrade the business environment
 - A long-term program to build innovative capacity
- Aggressive cluster development throughout the economy must become a national priority



- Leaders must create a national economic vision to inspire and motivate the Portuguese people