Global Competitiveness Report 2004-05: Sweden’s Business 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 2004-05 (World Economic Forum, 2004); “Clusters and the New Competitive Agenda for Companies and Governments,” in On Competition (Harvard Business School Press, 1998); Clusters of Innovation Initiative (www.compete.org), a joint effort of the Council on Competitiveness, Monitor Group, 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.

Additional information may be found at the website of the Institute for Strategy and Competitiveness, www.isc.hbs.edu
Global Competitiveness Report

• Annual publication of the World Economic Forum since 1979; in recent years academic guidance from
  – Professor Michael E. Porter, Harvard Business School
  – Professor Jeffrey Sachs (until 2002)/Professor Xavier Sala-i-Martin (since 2003), Columbia University
• Covers 104 economies; based on statistical data and global Executive Opinion Survey of 8,729 respondents (84 per country)

Content
• Core chapters present the Growth Competitiveness Index and the Business Competitiveness Index
• Nine other chapters by leading researchers on key competitiveness issues
• Extensive data sheets on all economies covered
Ranking Competitiveness

Business Competitiveness

The set of institutions, market structures, and economic policies supportive of high current levels of prosperity

Michael E. Porter

Growth Competitiveness

The set of institutions and economic policies supportive of high rates of economic growth in the medium term (coming five years)

Xavier Sala-i-Martin

Focus of this presentation
The Business Competitiveness Index measures the level of prosperity (GDP per capita) that an economy can sustain.

Sustainable prosperity is set by the underlying competitiveness of the economy, which is determined by the level of productivity and – over time – innovation achievable by companies.

Countries can overperform or underperform true competitiveness for substantial periods of time.
Determinants of Productivity and Productivity Growth

Macroeconomic, Political, Legal, and Social Context for Competitiveness

Microeconomic Foundations of Competitiveness

- The Sophistication of Company Operations and Strategy
- The Quality of the Microeconomic Business Environment

- Nations or regions compete in offering the most productive environment for business
- A sound macroeconomic, political, legal, and social context creates the potential for competitiveness, but is not sufficient
The Business Competitiveness Index, 2004
Measured Elements

Company Operations and Strategy

• Nature of Firm’s Competitive Advantages
• Extent of Innovation
• Sophistication of Production
• Sophistication of Marketing
• Sophistication of Organizational Structures and Incentives
• Extent of Internationalization

National Business Environment

• Factor Conditions
  – Physical Infrastructure
  – Administrative Infrastructure
  – Human Resources
  – Technology Infrastructure
  – Capital Markets
• Context for Firm Strategy and Rivalry
  – Incentives
  – Policies affecting competition
• Demand Conditions
• Related and Supporting Industries
Business Competitiveness Index 2004
Relationship with GDP Per Capita

Source: Global Competitiveness Report 2004

y = 1549.9x^2 + 8603.4x + 11188
R^2 = 0.8064
Prosperity

Compound annual growth rate of real GDP per capita, 1998-2003

Sweden’s Economic Performance

- Swedish prosperity continues to be high but lags leading OECD peers

Key drivers of Swedish prosperity

- Key strength is Sweden’s high labor **productivity**, among the best in the world although the gap to the United States has widened in recent years
- **Labor input** is also high – Sweden reports a high share of employees in the population that is still compensating for low and falling work hours
- Key weakness is the high level of local **prices** in Sweden, among the highest in the world, that are reducing the benefits Swedes derive from high productivity
Sweden’s Economic Performance

Other Indicators

**Strong**

- Sweden has a strong position in international patenting
- **FDI stocks and inflows** are substantial
- Sweden’s **world export market share** has stayed roughly stable over the last decade
- Sweden continues to be home to a relatively high number of multinational companies

**Or not so strong?**

- Patenting is reflecting **high R&D spending**
- **FDI inflows** are at the level **predicted** given the structure of the Swedish economy
- Sweden has lost ground on world markets in some **key clusters**
- Increasing concerns and reports about **relocations**, not only by large companies
The Microeconomic Foundations of Economic Performance
Using the Business Competitiveness Index

• Overall **level of sustainable prosperity** that can be supported given a country’s current competitiveness

• **Strengths and weaknesses** of a country’s business environment relative to its overall level of competitiveness

• **Developments** in the overall competitiveness and the strengths and weaknesses of individual countries

• Overall patterns in the **competitive environment for locations** in the world economy
## Business Competitiveness Index 2004

<table>
<thead>
<tr>
<th>Top 25</th>
<th>Country</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>United States</td>
<td>+1</td>
</tr>
<tr>
<td>2</td>
<td>Finland</td>
<td>-1</td>
</tr>
<tr>
<td>3</td>
<td>Germany</td>
<td>+2</td>
</tr>
<tr>
<td>4</td>
<td>Sweden</td>
<td>-1</td>
</tr>
<tr>
<td>5</td>
<td>Switzerland</td>
<td>+2</td>
</tr>
<tr>
<td>6</td>
<td>United Kingdom</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>Denmark</td>
<td>-3</td>
</tr>
<tr>
<td>8</td>
<td>Japan</td>
<td>+5</td>
</tr>
<tr>
<td>9</td>
<td>Netherlands</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>Singapore</td>
<td>-2</td>
</tr>
<tr>
<td>11</td>
<td>Hong Kong SAR</td>
<td>+8</td>
</tr>
<tr>
<td>12</td>
<td>France</td>
<td>-2</td>
</tr>
<tr>
<td>13</td>
<td>Australia</td>
<td>-2</td>
</tr>
<tr>
<td>14</td>
<td>Belgium</td>
<td>+1</td>
</tr>
<tr>
<td>15</td>
<td>Canada</td>
<td>-3</td>
</tr>
<tr>
<td>16</td>
<td>Austria</td>
<td>+1</td>
</tr>
<tr>
<td>17</td>
<td>Taiwan</td>
<td>-1</td>
</tr>
<tr>
<td>18</td>
<td>New Zealand</td>
<td>0</td>
</tr>
<tr>
<td>19</td>
<td>Iceland</td>
<td>-5</td>
</tr>
<tr>
<td>20</td>
<td>Norway</td>
<td>+2</td>
</tr>
<tr>
<td>21</td>
<td>Israel</td>
<td>-1</td>
</tr>
<tr>
<td>22</td>
<td>Ireland</td>
<td>-1</td>
</tr>
<tr>
<td>23</td>
<td>Malaysia</td>
<td>+3</td>
</tr>
<tr>
<td>24</td>
<td>Korea</td>
<td>-1</td>
</tr>
<tr>
<td>25</td>
<td>South Africa</td>
<td>+2</td>
</tr>
</tbody>
</table>

Note: Constant sample of countries
Business Competitiveness Report 2004
BCI Rank Versus Value

Source: Global Competitiveness Report 2004
Business Competitiveness Report 2004
The Prediction Gap: High Income Countries

Source: Global Competitiveness Report 2004
Factors Influencing the Prediction Gap

- Location
  - Prosperity of neighbors
  - Population with access to ocean

- Governance
  - Government Accountability
  - Government Effectiveness

- Natural resources (NR)
  - NR export revenues

Other

- Transitory impact of macroeconomic or political climate
- Structural factors with no simple relationship to prosperity, e.g. taxation, imbalance of competitiveness profile

Actual GDP per Capita

Predicted GDP per Capita
Business Competitiveness Report 2004
Explaining the Prediction Gap: Examples

Overperformer
Why is prosperity so high

Underperformer
Why is prosperity so low

Mix
What are the countervailing forces

Note: Effect of each factor normalized by the average of all countries
Source: Global Competitiveness Report 2004

Location Governance Natural resources Other factors

Overperformer
Norway Italy

Underperformer
China India

Mix
Sweden Germany
Business Competitiveness Report 2004
Explaining the Prediction Gap: Taxation

Source: Global Competitiveness Report 2004
### Global Competitiveness Report 2004
#### Business Environment and Company Sophistication

<table>
<thead>
<tr>
<th>The national business environment has advanced beyond company sophistication</th>
<th>Company sophistication is more advanced than the national business environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estonia</td>
<td>Philippines</td>
</tr>
<tr>
<td>Tunisia</td>
<td>Japan</td>
</tr>
<tr>
<td>Norway</td>
<td>Germany</td>
</tr>
<tr>
<td>Cyprus</td>
<td>Korea</td>
</tr>
<tr>
<td>Portugal</td>
<td>Italy</td>
</tr>
<tr>
<td>Australia</td>
<td>Guatemala</td>
</tr>
<tr>
<td>Malaysia</td>
<td>Venezuela</td>
</tr>
<tr>
<td>Jordan</td>
<td>Switzerland</td>
</tr>
<tr>
<td>Botswana</td>
<td>Costa Rica</td>
</tr>
<tr>
<td>Hungary</td>
<td>France</td>
</tr>
<tr>
<td>New Zealand</td>
<td>Brazil</td>
</tr>
<tr>
<td>Algeria</td>
<td>Poland</td>
</tr>
<tr>
<td>Hong Kong SAR</td>
<td>Honduras</td>
</tr>
<tr>
<td>Chile</td>
<td>Argentina</td>
</tr>
<tr>
<td>Singapore</td>
<td>Sweden</td>
</tr>
</tbody>
</table>

Note: Sorted by strength of imbalance
Source: Global Competitiveness Report 2004
Sweden’s Competitiveness Profile
Strengths and Weaknesses

Macroeconomic, Political, Legal, and Social Context for Competitiveness

Microeconomic Foundations of Competitiveness

- The Sophistication of Company Operations and Strategy
- The Quality of the Microeconomic Business Environment

- Relative strengths in areas of innovation, investment, and organizational structures
- Relative weaknesses in marketing and the presence along the value chain
## Company Operations and Strategy
### Sweden’s Relative Position 2004

<table>
<thead>
<tr>
<th>Competitive Advantages Relative to GDP per Capita</th>
<th>Competitive Disadvantages Relative to GDP per Capita</th>
</tr>
</thead>
<tbody>
<tr>
<td>Willingness to delegate authority 1</td>
<td>Extent of regional sales 16</td>
</tr>
<tr>
<td>Capacity for innovation 2</td>
<td>Extent of marketing 12 →     down</td>
</tr>
<tr>
<td>Production process sophistication 3</td>
<td>Value chain presence 10</td>
</tr>
<tr>
<td>Extent of staff training 3</td>
<td>Extent of incentive compensation 10</td>
</tr>
<tr>
<td>Company spending on research and development 4</td>
<td>Nature of competitive advantage 9</td>
</tr>
<tr>
<td>Extent of branding 4</td>
<td>Reliance on professional management 9 → down</td>
</tr>
</tbody>
</table>

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

Note: Rank by countries; overall Sweden ranks 4 (5 on Company Operations and Strategy, 19 on GDP pc 2003)
Source: Global Competitiveness Report 2004
Sweden’s Competitiveness Profile

Strengths and Weaknesses

Macroeconomic, Political, Legal, and Social Context for Competitiveness

Microeconomic Foundations of Competitiveness

- The Sophistication of Company Operations and Strategy
- The Quality of the Microeconomic Business Environment

- Relative strengths in technology and innovation, level playing field for competition, administrative infrastructure, physical infrastructure, and basic financial market conditions
- Relative weaknesses in competition, human resources, advanced demand conditions, and basic cluster conditions
## Factor (Input) Conditions

### Sweden’s Relative Position

<table>
<thead>
<tr>
<th>Competitive Advantages Relative to GDP per Capita</th>
<th>Competitive Disadvantages Relative to GDP per Capita</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of scientific research institutions</td>
<td>Extent of bureaucratic red tape</td>
</tr>
<tr>
<td>Internet users per 10,000 people (2003)</td>
<td>Quality of math and science education</td>
</tr>
<tr>
<td>University/industry research collaboration</td>
<td>Local equity market access</td>
</tr>
<tr>
<td>Efficiency of legal framework</td>
<td>Air transport infrastructure quality</td>
</tr>
<tr>
<td>Ease of access to loans</td>
<td>Quality of public schools</td>
</tr>
<tr>
<td>Patents per million population (2003)</td>
<td>Quality of electricity supply</td>
</tr>
<tr>
<td>Availability of scientists and engineers</td>
<td>Venture capital availability</td>
</tr>
<tr>
<td></td>
<td>Quality of management schools</td>
</tr>
<tr>
<td></td>
<td>Reliability of police services</td>
</tr>
<tr>
<td></td>
<td>Cell phones per 100 people (2003)</td>
</tr>
<tr>
<td></td>
<td>Overall infrastructure quality</td>
</tr>
<tr>
<td></td>
<td>Telephone/fax infrastructure quality</td>
</tr>
<tr>
<td></td>
<td>Administrative burden for startups</td>
</tr>
</tbody>
</table>

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

#### Note:
Rank by countries; overall Sweden ranks 4 (6 on National Business Environment, 19 on GDP per Capita 2003).

Source: Global Competitiveness Report 2004
Context for Firm Strategy and Rivalry

Sweden’s Relative Position

<table>
<thead>
<tr>
<th>Competitive Advantages Relative to GDP per Capita</th>
<th>Competitive Disadvantages Relative to GDP per Capita</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intellectual property protection 1</td>
<td>Intensity of local competition 39 ↓</td>
</tr>
<tr>
<td>Tariff liberalization 2</td>
<td>Extent of locally based competitors 33</td>
</tr>
<tr>
<td>Hidden trade barrier liberalization 4</td>
<td>Decentralization of corporate activity 24</td>
</tr>
<tr>
<td>Cooperation in labor-employer relations 5</td>
<td>Centralization of economic policy-making 22</td>
</tr>
<tr>
<td>Favoritism in decisions of government officials 5</td>
<td>Prevalence of mergers and acquisitions 20</td>
</tr>
<tr>
<td>Business costs of corruption 6</td>
<td>Effectiveness of anti-trust policy 19 ↓</td>
</tr>
<tr>
<td>Effectiveness of bankruptcy law 6</td>
<td>Efficacy of corporate boards 17 ↓</td>
</tr>
<tr>
<td></td>
<td>Foreign ownership restrictions 13</td>
</tr>
<tr>
<td></td>
<td>Regulation of securities exchanges 10</td>
</tr>
<tr>
<td></td>
<td>Protection of minority shareholders’ interests 9</td>
</tr>
</tbody>
</table>

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

Note: Rank by countries; overall Sweden ranks 4 (6 on National Business Environment, 19 on GDP pc 2003)
Source: Global Competitiveness Report 2004
Demand Conditions
Sweden’s Relative Position

Competitive Advantages
Relative to GDP per Capita

Stringency of environmental regulations 6

Competitive Disadvantages
Relative to GDP per Capita

Government procurement of advanced technology products 19
Buyer sophistication 13
Laws relating to ICT 12
Presence of demanding regulatory standards 11

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

Note: Rank by countries; overall Sweden ranks 4 (6 on National Business Environment, 19 on GDP pc 2003)
Source: Global Competitiveness Report 2004
## Related and Supporting Industries
### Sweden’s Relative Position

### Competitive Advantages Relative to GDP per Capita

<table>
<thead>
<tr>
<th>Factor</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extent of collaboration among clusters</td>
<td>6</td>
</tr>
<tr>
<td>Local supplier quality</td>
<td>6</td>
</tr>
</tbody>
</table>

### Competitive Disadvantages Relative to GDP per Capita

<table>
<thead>
<tr>
<th>Factor</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local availability of components and parts</td>
<td>21</td>
</tr>
<tr>
<td>Local supplier quantity</td>
<td>20</td>
</tr>
<tr>
<td>Local availability of process machinery</td>
<td>14</td>
</tr>
<tr>
<td>State of cluster development</td>
<td>9</td>
</tr>
<tr>
<td>Local availability of specialized research and training services</td>
<td>8</td>
</tr>
</tbody>
</table>

Note: Rank by countries; overall Sweden ranks 4 (6 on National Business Environment, 19 on GDP pc 2003)

Source: Global Competitiveness Report 2004
Swedish’s overall BCI index value has dropped slightly (32 advancing/39 falling indicators), balanced across all elements of competitiveness.
Swedish Competitiveness 2004
Key Observations

Level of competitiveness
• High and **should** support higher prosperity
• Prosperity held back by **taxes** and imbalance between **company sophistication** and business environment quality

Strengths and weaknesses
• Strengths in areas related to technology and innovation, level playing field for competition, administrative infrastructure, physical infrastructure, and basic financial market conditions
• Weaknesses in areas related to competition, human resources, advanced demand conditions, and basic cluster conditions

Trend
• Slightly **positive** development in the last few years
• But 2004 seems to have been a **lost year** for competitiveness upgrading
Appendix
Prosperity

GDP per capita (PPP adjusted) in US-$, 2003

Compound annual growth rate of real GDP per capita, 1998-2003

Decomposing Prosperity

Prosperity

Domestic Purchasing Power

- Consumption taxes
- Level of local market competition
- Efficiency of local industries

Income

Labor Productivity

- Skills
- Capital stock
- TFP

Labor Utilization

- Working hours
- Unemployment
- Participation rate
- Population age profile
Productivity

Compound annual growth rate (CAGR) of real GDP per employee, 1997-2002

Swedish Labor Productivity Growth Versus the U.S.

Source: Groningen Growth and Development Centre and The Conference Board (2004)
Labor Utilization
Selected Countries

Annual Hours Worked per Employee, 2003

Growth of Annual Hours Worked per Employee, CAGR, 2000-2003

Source: Groningen Growth and Development Centre and The Conference Board (2004), authors' calculations
Domestic Purchasing Power of Income
Selected European Countries

Purchasing Power Parity Factor, 2003

Source: Groningen Growth and Development Centre and The Conference Board (2004), authors' calculations
Innovation

Annual U.S. patents per 1 million population, 2003


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R&D Spending Effectiveness

US Patents in 2003 per 1 Mio. R&D Spending in 2001 (or latest available)

Source: OECD, USPTO, author’s calculation
Comparative Inward Foreign Investment
OECD Countries

FDI Stocks as % of GDP, Average 2000-2002

FDI Inflows as % of Gross Fixed Capital Formation, Average 2000-2002

Comparative Inward Foreign Investment
Inward FDI Performance versus Potential

Rank Difference:
FDI Performance – FDI Potential, 2001

Source: UNCTAD (2004), author’s analysis.
Sweden’s Export Performance

World Export Market Shares

Swedish Cluster Portfolio
Goods Exports, 1992-2002

Change in Swedish World Export Market Share, 1992 - 2002: -0.2%

Source: UNCTAD Trade Data. Author's analysis.

Compound annual growth rate of Swedish world export market share, 1992 – 2002

Swedish World Export Market Share, 2002: 1.46%
# Multinational Companies’ Home Base

## Business Week 1000

<table>
<thead>
<tr>
<th>Country</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>423</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>73</td>
</tr>
<tr>
<td>Canada</td>
<td>37</td>
</tr>
<tr>
<td>Germany</td>
<td>35</td>
</tr>
<tr>
<td><strong>Sweden</strong></td>
<td><strong>15</strong></td>
</tr>
<tr>
<td>Spain</td>
<td>10</td>
</tr>
<tr>
<td>Finland</td>
<td>5</td>
</tr>
<tr>
<td>Norway</td>
<td>5</td>
</tr>
<tr>
<td>Denmark</td>
<td>4</td>
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<tr>
<td>Ireland</td>
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<td>Austria</td>
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<tr>
<td>Portugal</td>
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<tr>
<td>Poland</td>
<td>2</td>
</tr>
<tr>
<td>Hungary</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: Business Week ranks by Market Value