Singapore's Competitiveness 2009: Key Findings and Recommendations

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Asia Competitiveness Institute

- Set up in the LKYSPM
- Launched by Finance Minister Tharman in 2006
- Mission: Enhance competitiveness of ASEAN countries through education, research and partnerships
- Current focus: Singapore, Vietnam and Indonesia
The 2009 Singapore Competitiveness Report

Objectives

- Ask the key competitiveness questions
- Identify strategic issues and policy priorities

Approach

- Broad review of overall competitiveness, using the framework developed by Prof. Michael Porter
- Use of secondary data
- Regular publication to track developments over time
- Presentation focuses on key findings and recommendations
- Detailed analyses and charts are in the full report
Key Questions facing Singapore

- Recession from the global economic crisis – has Singapore’s competitive position and fundamentals been eroded?
- Structural changes - how can Singapore continue to generate sustainable productivity growth in a fast-changing environment?
- Economic transition – what is Singapore’s progress towards being an innovation-driven economy?
Has Singapore’s competitive position and fundamentals been eroded?

- **No** – Singapore’s economic fundamentals are still strong
  - Connected to the global economy – open to trade & investments
  - Dynamic and business-friendly business environment
  - World-class infrastructure
  - Good and improving education system
  - Efficient public services
  - Trustworthy and reliable political system
  - Focused cluster development efforts

- **Response to global economic crisis**
  - Competitiveness fundamentals even more important than ever
  - No drastic changes needed
How can Singapore build upon its strengths and take advantage of emerging opportunities?

- Capitalizing on its global connectivity to encourage regional integration
- Deepening knowledge and technology applications to improve existing activities while attracting investments in new emerging areas
- Building upon the excellent business environment and scientific research foundations to develop a new innovation economy
Framework for Analysis

Productivity

Equality

Economic Performance

Quality of Life

Labour utilization

Intermediate Indicators

Patenting

Entrepreneurship

FDI flows

Investment

Knowledge Economy

Exports/Imports

Global Competitiveness Rankings

Corruption

Competitiveness Fundamentals

Governance

Doing Business

Logistical Performance Index
Prosperity and Prosperity Generation

Prosperity
- Inequality
- Non-income related dimensions

Per Capita Income

Domestic Purchasing Power
- Consumption taxes
- Efficiency of local industries
- Level of local market competition

Labor Productivity
- Skills
- Capital stock
- Total factor productivity
  - Efficiency
  - Technology

Labor Utilization
- Working hours
- Unemployment
- Participation rate
  - Population age profile
Prosperity Generation

- Singapore has become one of the most prosperous nations globally, with a strong position across the components of prosperity

- Labour productivity is solid but not exceptional
  - Labour productivity growth has become much more volatile over the last 15 years; the recent slow-down in productivity growth is consistent with the business cycle situation
  - Economic restructuring has, despite explicit policy objectives, not made a significant impact on productivity growth

- Labor mobilization has been the driver of recent growth but has limited future potential
  - Labor mobilization is at internationally exceptional high standards with limited upside potential; recent growth driven by higher mobilization of residents and further influx of foreign workers
  - Female labor participation remains at comparably low levels, despite some improvement
Labour Productivity Growth
Relative Comparison of Productivity

GDP per person Employed
Singapore against Comparators
Three-year moving average

Source: Total Economy Database 2009/09, calculations by ACI
Productivity Growth
Decomposition of Real GDP Growth

Contributions to Real GDP Growth:  
- Total Factor Productivity  
- Labour  
- Capital

Source: Singapore Statistics Online, provided by the Singapore Department of Statistics.
Productivity Growth
Decomposition of Real GDP Growth

Contribution to total
Productivity Change over
the Time Period

Source: Based on Singapore Statistics Online, provided by the Singapore Department of Statistics.
Labour Mobilization

Employment ÷ Population (15-65 years), 2008

Source: Total Economy Database 2009/01, calculations by Stevenson Q. Yu.
Labour Mobilization
Contributions to Change, 2000-2008

Source: Statistics Time Series Online, Department of Statistics, calculated by Dr. Christian Ketels.
Female Labor Mobilization

Source: LABORSta Database, provided by the International Labor Organization.
Indicators and Enablers of Competitiveness

Prosperity Generation

Investment
Trade
FDI
Innovation
Entrepreneurship

Competitive Environment
Intermediate Economic Outcomes: Findings

- Strong on trade and investment position
  - Market-driven shift towards a stronger Asia focus
- Increasing position on scientific innovation
- Position on entrepreneurship and non-science driven innovation is less clear
### Changing Trade and Investment Patterns: Merchandise Trade

**Exports**

- **Rest of World**
  - 1980: 21%
  - 1990: 16%
  - 2000: 7%
  - 2008: 8%

- **North America**
  - 1980: 10%
  - 1990: 15%
  - 2000: 11%
  - 2008: 13%

- **Europe**
  - 1980: 13%
  - 1990: 17%
  - 2000: 15%
  - 2008: 15%

- **Rest of Asia**
  - 1980: 22%
  - 1990: 19%
  - 2000: 18%
  - 2008: 12%

- **Sino Asia**
  - 1980: 13%
  - 1990: 13%
  - 2000: 22%
  - 2008: 22%

- **ASEAN**
  - 1980: 23%
  - 1990: 30%
  - 2000: 27%
  - 2008: 31%

**Imports**

- **Rest of World**
  - 1980: 20%
  - 1990: 15%
  - 2000: 10%
  - 2008: 12%

- **North America**
  - 1980: 19%
  - 1990: 14%
  - 2000: 16%
  - 2008: 14%

- **Europe**
  - 1980: 11%
  - 1990: 11%
  - 2000: 15%
  - 2008: 15%

- **Rest of Asia**
  - 1980: 12%
  - 1990: 17%
  - 2000: 22%
  - 2008: 22%

- **Sino Asia**
  - 1980: 17%
  - 1990: 15%
  - 2000: 15%
  - 2008: 15%

- **ASEAN**
  - 1980: 11%
  - 1990: 20%
  - 2000: 24%
  - 2008: 26%

**Source:** United Nations ComTrade Database; calculations by ACI.
Changing Trade and Investment Patterns: Foreign Direct Investment

**Source:** World Investment Report 2009.

**AVERAGE THREE-YEAR FLOWS (2006-2008) as % of 2008 GDP**

- **Outward FDI Stock (% of GDP) 2008**
  - Hong Kong: Out stock 25.7%, Outflow 360%
  - Singapore
  - Switzerland

- **Inward FDI Stock (% of GDP) 2008**
  - Hong Kong: Out stock 25.1%, Outflow 388%
  - Singapore
  - Switzerland
Science Performance: Utility Patents in the U.S.

Source: United States Patents and Trademarks Office database, calculations by ACI.
Dimensions of Competitiveness

Microeconomic Competitiveness
- Sophistication of Company Operations and Strategy
- State of Cluster Development
- Quality of the National Business Environment

Macroeconomic Competitiveness
- Social Infrastructure and Political Institutions
- Quality of Macroeconomic Policy

Endowments
- Natural Resources
- Geographic Location
- Size
Singapore’s Competitiveness Profile 2009

Macro (10)
- Macroeconomic Policy (58)
  - Political Institutions (6)
  - Rule of Law (5)
    - Human Development (25)

GDPpc (4)
- GCI (3)

Micro (2)
- Business Environment Quality (1)
  - Related and Supporting Industries (10)
  - Demand Conditions (1)
  - Context for Strategy and Rivalry (1)
- Company Sophistication (9)

Factor [Input] Conditions (1)
- Admin (2)
- Capital (1)
- Logistic. (2)
- Comm. (7)
- Innov. (2)

Social Infrastructure and Political Institutions (7)
-  

Context for Strategy and Rivalry (1)

Source: Institute for Strategy and Competitiveness (HBS) based on data from the Global Competitiveness Survey 2009 (WEF)
Competitiveness Findings

- Strong overall with no signs of slippage over time; consistent with the high level of prosperity observed
- Macroeconomic competitiveness driven by strong and efficient institutions
  - Macroeconomic policy is solid
  - Voice and accountability low but performance of public institutions is good and corruption is under control
- Microeconomic competitiveness position strong with limited weaknesses
  - Weaker in company sophistication, innovation capacity and regional distribution
- Overall competitiveness profile is highly consistent with a high-skill version of an efficiency-driven economy; less clear that it is fitting all the needs of an innovation-driven economy
Conclusions and Recommendations
The Changing Global Economic Landscape

- Competitiveness fundamentals will become more important, and this is where Singapore continues to excel.
- Readjustment towards new specialization patterns in global trade and investment flows is already happening in a market-driven process.
Changing Global Economic Landscape: Recommendations

- Stay the course; no need for drastic changes in Singapore’s economic strategy
- Continue with policy to support the market-driven process towards tighter integration into the Asian economy
- Revive ASEAN around a competitiveness agenda where collaboration creates direct benefits for participants
  - Current trade liberalization approach has clear economic rationale but faces strong political challenges (market access as “concession”)
  - Competitiveness approach focuses on individual activities with direct mutual benefits
    - Policy learning
    - Cross-border infrastructure
    - Cluster networks
    - FDI attraction
    - Skills and research
The Transition to a Knowledge-Driven Economy

- Singapore is progressing towards a knowledge-driven economy but the achievements remain patchy
  - So far limited returns to significant public investments made
  - Entrepreneurship improving in quantity but still lagging in quality

- Singapore’s vision of a knowledge-driven economy is strongly influenced by the example of the US
  - Science driven and focus on entrepreneurial start-ups

- Singapore’s policies in knowledge-driven sectors are similar to those successfully applied in other sectors in the past
  - Heavy government involvement and FDI-MNCs as drivers

- Economy and value creation remain dominated by activities of traditional Singaporean strengths with MNCs and GLCs as the core
Transition to a Knowledge-Driven Economy: Recommendations

- Develop and choose among different visions for a knowledge-driven economy
  - Efficient research hub versus global trader of knowledge versus entrepreneurial hot spot

- Move beyond science-driven innovation
  - Go beyond scientific patents and have a broader perspective of innovation as a global knowledge hub
  - Leverage Singapore’s knowledge and expertise in public services into a strong export industry

- Review policy approach in knowledge-driven sectors
  - Have a closer alignment between developing and commercializing knowledge in publicly-funded research labs
  - Develop programs to encourage commercial spin-offs from MNCs, GLCs and Statutory Boards
  - Infuse talent into local enterprises to develop them into more knowledge-intensive business with higher value-added outputs
Productivity growth

- Productivity growth has become more volatile, with significant slow-down in total factor productivity in recent years.
- Economic restructuring has not been a strong driver of productivity growth, despite explicit policy ambitions.
- Productivity opportunity: 3rd in overall competitiveness vs 19th in labour productivity.
- Singapore’s high level of competitiveness suggests that higher level of productivity should be possible, especially versus the United States.
  - Investments in IT applications to improve work systems and processes in the US have contributed to improved productivity.
  - Labour intensive industries companies may have chosen a low-productivity operating model, which is the most profitable choice given the availability of low cost foreign labour.
Productivity growth: Recommendations

- Focus on productivity growth in existing and emerging sectors; don’t focus too much on “new opportunities” in narrow industries

- Productivity improvements should go beyond developing worker skills (to get more output for the same input) to
  - Deploying knowledge effectively to produce new and different outputs that have higher customer value
  - Enabling innovative recombination of knowledge from different sources to produce new higher value products and applications
  - Strengthening management capabilities to organize the best use of the knowledge and skills of every employee and business partner

- Productivity improvements should be targeted at the company and cluster level
  - Encouraging companies to re-invent their business models to create higher value through knowledge and innovation rather than depend on low-cost low-skill foreign workers
  - Strengthening cluster linkages to enable companies to develop highly specialized skills that have significant value-added