

Analysis Base

Case Study: Incorporating The Global Competitiveness Index in Policy Planning

Executive Summary

1. Achieving a development leap in Quality of Life in Israel depends on Israel's ability to compete for Human Capital and investments in the global marketplace.
2. Effectively improving national competitiveness through policies is grounded in comparing Israel to a reference group of competing countries.
3. Indices that enable international comparison are useful tools for decision makers to identify challenges and estimate policy successes.
4. This paper demonstrates the usefulness of the Global Competitiveness Index in examining two aspects of Quality of Life: Human Capital and an environment that supports growth.
5. Decision makers can identify issues that require government action/attention by analyzing Israel's challenges and opportunities in light of existing government policies.

Using Comparative Indices to Examine Quality of Life

6. Different indices can assist strategic policy making in:
 - **Policy design and planning** – Indices provide reliable and relevant information.¹
 - **Estimating policy success** – Indices measure the results of policy intervention.
7. In order for an index to be useful to Israel's decision makers, it should include components that are relevant to Quality of Life and allow for comparison of Israel's performance over time and relative to competing countries.
8. **The importance of analyzing various levels of an index** – A country's overall rank provides limited information. Index analysis using different resolutions – variables, clusters of variables², and pillars – allows for a better depth of understanding of the issues facing a given country.³
9. **Identifying issues that require government action** – Decision makers can identify unaddressed issues that require attention by analyzing challenges in light of present policies.

¹ Indices can be used to create a common vocabulary within the political system and the public sphere. See Reut Institute papers: [Competitiveness Indices - Tools for Policy Design](#); Seven Indices for Measuring Quality of Life.

² A cluster is a group of variables with a common theme. Variables are chosen from one or more pillars.

³ Analyzing a country's rank by overall score, pillars or variables may produce different results. For example, according to the 2006-07 GCI report, Switzerland's rank of the pillar 'Macro-Economy' is high (18th). At the same time, single variables from that pillar have lower ranking: 'government surplus/deficit' (54th), 'government debt' (61st), 'real effective exchange rate' (57th). Nevertheless, Switzerland ranked first in overall competitiveness.

The Usefulness of The Global Competitiveness Index in Examining Quality of Life

10. Quality of Life is a subjective term determined by various components. Nevertheless, The Reut Institute has identified three major aspects of Quality of Life in Israel: economic well-being, social well-being, and personal and physical well-being.⁴
11. The World Economic Forum's Global Competitiveness Index (GCI)⁵ examines growth and human capital – two aspects of economic well-being.⁶
12. **Considerations in determining a relevant reference group**
 - **Countries similar to Israel** – A reliable and comparative analysis requires identifying countries which are similar to Israel in factors that affect growth and human capital development. For example, Singapore, Ireland and Chile are each similar to Israel in some of the following areas: foreign trade, size of the economy, defense expenditure, innovation and technology, and geopolitical status.⁷
 - **Leading countries** – Israel should compare itself to leading countries, because they compete with Israel on their ability to attract resources and human capital by providing a high Quality of Life.⁸
13. **Index Limitations**
 - **Ranking may be misleading** – The absolute difference in the competitiveness between countries is masked by ordinal rankings.
 - **Misleading sub-index and pillar rankings** – For example, while Israel's 17th rank in the 'business sophistication' pillar is relatively high, Israel scores poorly on many variables within this pillar.⁹

⁴ See: Reut Institute paper: "Quality of Life".

⁵ The Global Competitiveness Index is published annually by the World Economic Forum. The index evaluates the productivity and efficiency of countries. See: Reut Institute paper: [Global Competitiveness Index](#).

⁶ Economic well-being reflects an individual's ability to secure financial stability for himself and for his family. Other world renowned indices measure competitiveness. For example, the IMD Business School in Lausanne publishes the [IMD World Competitiveness Index](#). The index analyses the extent to which countries create a competitive business environment. The structure of the pillars in the index makes it less relevant to the Quality of Life in Israel.

⁷ Singapore is similar to Israel in aspects such as: (1) geopolitics (2) innovation driven economy, with emphasis on biotech, ICT and banking (3) extensive foreign trade. See: Lee Kuan Yew, [From Third World to First: The Singapore Story](#). Harper Collins, 2000.

Ireland is similar to Israel in (1) size (2) dependency on foreign trade (3) investment in technology and human capital. See OECD paper: [Economic Survey of Ireland](#), 2001.

Chile resembles Israel in its dependency on export and the need for high quality human capital. See World Bank paper: [Chile Country Brief](#).

⁸ According to the 2006-07 GCI report, the ten most competitive countries are (from most competitive to least competitive): Switzerland, Finland, Sweden, Denmark, Singapore, United States, Japan, Germany, Holland and Britain. See the world Economic Forum webpage for the [2006-07 country rankings](#).

⁹ See GCI Report article 21 on [business sophistication](#).

14. **Identifying challenges and opportunities** in improving Israel's Quality of Life can be done by analyzing an index on various levels: overall rank, sub-indices, pillars and clusters of variables.¹⁰
15. **Overall rank** – According to the 2006-07 GCI, Israel is ranked 15th out of 125 countries, indicating a marked improvement compared with the 2005-06 ranking (23rd).
16. **Rank in Sub-indices** – In the 2006-07 GCI report, Israel ranked 29th in the 'basic requirements' sub-index, 12th in the 'efficiency enhancers' sub-index, and 8th in the 'innovation and sophistication factors' sub-index.
17. **Pillar rankings**¹¹ –
 - **Within the 'Basic Requirements' sub-index** – The relevant pillars to growth are: 'macro-economic stability' (10th), 'institutions' (29th), and 'infrastructure' (24th).
 - **Within the 'Efficiency Enhancers' sub-index** – The relevant pillars to growth and human capital development are: 'higher education and training' (20th), 'market efficiency' (14th) and technological readiness' (3rd).
 - **Within the 'Innovation and Sophistication factors' sub-index** – The relevant pillars to growth are: 'business sophistication' (17th) and 'innovation' (7th).
18. **Cluster Analysis** – Cluster analysis, a selection of related variables within a pillar or a grouping of variables from different pillars, provides a better understanding of characteristics relevant to growth and human capital development in Israel.
19. The following cluster analysis reveals that Israel has a 'Knowledge Economy':
 - **Innovation** – The World Economic Forum states that innovation is a key contributor to growth for countries with GDP per capita over \$17,000. Economies that rely on high-tech industries must have the ability to develop cutting edge goods and services in order to maintain their competitive advantage.
 Within this cluster, the variables relevant to Israel are: quality of scientific research institutions (4th), company spending on research and development (7th), university/industry research collaboration (6th), intellectual property protection (21st) and capacity for innovation (8th).
 - **Technological readiness** – Technology level is related to differences in countries' productivity and competitiveness.¹² This cluster measures an economy's ability to adapt existing technologies in order to improve productivity in various industries.
 Within this cluster, the variables relevant to Israel are: technological readiness (4th), firm-level technology absorption (4th), laws relating to ICT (22nd), FDI and technology transfer (26th), cellular phones (6th), internet users (25th), prevalence of foreign technology licensing (22nd), government prioritization of ICT (45th), government success in ICT promotion (23rd), quality of competition in the ISP sector(3rd), extent of business internet

¹⁰ The GCI Report provides a detailed analysis for each country, including rankings based on: overall score, sub-indices, pillars and variables. For Israel's analysis see articles 14-21. For more information on the GCI see: Reut Institute paper: [Global Competitiveness Index](#).

¹¹ Israel's 2006-07 GCI rank appears in parenthesis.

¹² See: The World Economic Forum, The Global Competitiveness Report 2006-07, p.10.

use (14th), internet access in schools (16th), impact of rules on FDI (30th), internet hosts (19th).

- **Non-banking financing** reflects the ability of businesses to finance activities by sources other than banks. The following cluster analysis reveals that Israeli businesses have good access to non-banking financing:¹³

Within this cluster, the variables relevant to Israel are: venture capital availability (2nd), financial market sophistication (15th), ease of access to loans (18th), and ease of access to loans (18th).

- **Human capital** is a key growth resource in developed economies with limited natural resources, such as Israel. Cluster analysis reveals that Israel has a relative advantage in human capital.

Within this cluster, the variables relevant to Israel are: nature of competitive advantage (12th) and value chain presence (17th).

20. The following cluster analysis reveals that Israel's public sector efficiency and productivity is relatively low:

- **Business supporting environment** – Within this cluster, the variables relevant to Israel are: recent access to credit (41st), extent and effect of taxation (58th), time required to start a business (50th), and number of procedures required to start a business (10th).

- **Trust in the political sphere** – Within this cluster, the variables relevant to Israel are: public trust of politicians (33rd), effectiveness of law-making bodies (30th), favoritism in decisions of government officials (38th).¹⁴

- **Personal security** – Within this cluster, the variables relevant to Israel are: business cost of terrorism (121st), reliability of police services (42nd), organized crime (38th), business cost of crime and violence (36th).

- **Budgeting process** – Within this cluster, the variables relevant to Israel are: diversion of public funds (32nd), centralization of economic policy making (26th), wastefulness of government spending (28th) and burden of government regulation (23rd).

- **Macroeconomic stability** is a prerequisite for achieving an economic development leap.¹⁵

Within this cluster, the variables relevant to Israel are: government surplus/deficit (71st), national savings rate (68th), inflation (11th), interest rate spread (27th), government debt (99th), real effective exchange rate (10th), country credit rating (41st), and recession expectations (28th).

- **Higher education and training** – This cluster has tremendous importance for economies aspiring to move from the production of simple products to complex ones.¹⁶

¹³ For the importance of credit to small businesses, see Koret Israel Economic Development Funds [publications](#).

¹⁴ See: Francis Fukuyama, [Trust: The Social Virtues and The Creation of Prosperity](#).

¹⁵ The 2006-07 GCI Report states: "In fact, there is overwhelming evidence that in the absence of a solid foundation of macroeconomic stability, growth will be anemic—viz. Argentina—or, at best, volatile—viz. Turkey." (Part 1, p.4)

¹⁶ *Ibid*, p.8

Within this cluster, the variables relevant to Israel are: secondary enrollment (29th), quality of the education system (22nd), quality of math and science education (17th), quality of management schools (14th), local availability of specialized research and training services (10th), extent of staff training (23rd) and quality of public schools (24th).

- **Infrastructure** – Energy, communication and transportation play a key role in economic development because they encourage productivity and attract investments.¹⁷

Within this cluster, the variables relevant to Israel are: overall infrastructure quality (23rd), railroad infrastructure development (31st), quality of port infrastructure (30th), quality of air transport infrastructure (26th), quality of electricity supply (17th), telephone lines (28th), quality of the roads (26th) and quality of telephone/fax infrastructure (10th).

21. The following cluster analysis reveals that traditional industries in Israel's private sector have relatively low efficiency and productivity:

- **Business Sophistication** – The World Economic Forum identifies innovation and sophistication as key contributor to growth for countries with GDP per capita over \$17,000. Economies with innovative and sophisticated industries produce goods and services with high added value. The 2006-07 GCI report reveals that Israel's business sophistication is a relatively low.

This cluster includes variables from the 'business sophistication' pillar and additional ones: local supplier quantity (34th), local supplier quality (21st), production process sophistication (18th), extent of marketing (21st), control of international distribution (12th), willingness to delegate authority (22nd), nature of competitive advantage (12th), value chain presence (17th), degree of customer orientation (20th), local availability of process machinery (31st), extent of incentive compensation (14th), reliance on professional management (21st), government prioritization of ICT (45th).

- **Public company management** – Public companies allow investment in sectors with a high growth potential. Inefficient management wards off investments.

The variables in this cluster are: ethical behavior of firms (26th), efficacy of corporate boards (29th), protection of minority shareholders' interests (30th), strength of auditing and accounting standards (19th).

- **Labor relations** – Stable labor relations promote economic growth. In countries that have achieved an economic development leap, relations between the government, employees, and employers are based on trust and cooperation. Cluster analysis reveals that labor relations in Israel demand improvement.

The variables in this cluster are: cooperation in labor-employer relations (33rd), flexibility of wage determination (65th), hiring and firing practices (35th).

Estimating Policy Success

22. Israel's performance in improving Quality of Life should be measured in relation to past performance and to competing countries.
23. Comparison of the GCI report from 2001-02 to 2006-07 reveals that Israel has achieved a marked improvement in some areas but has declined in others. For example:

¹⁷ *Ibid*, p.6

Two components of Quality of Life advanced:

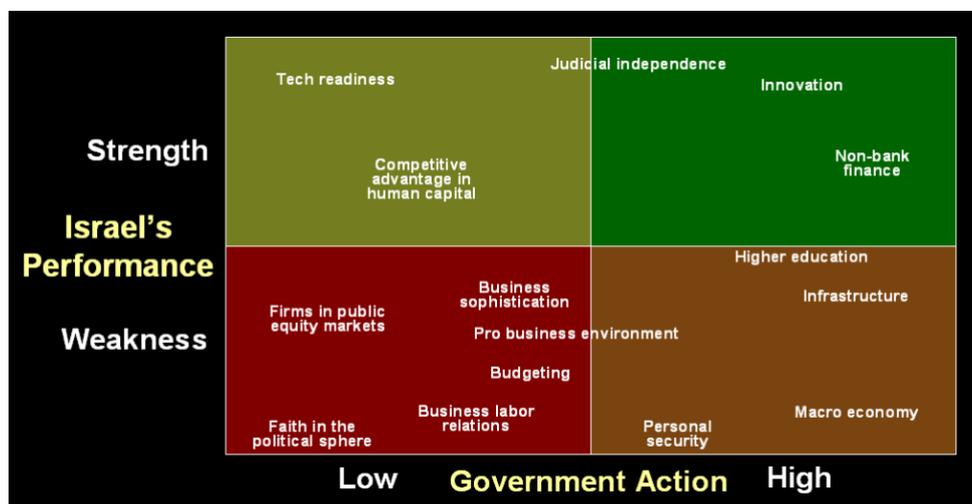
- **The growth component of economic well-being** – railway infrastructure development (+13), real effective exchange rate (+10), control of international distribution (+13).
- **The Human Capital aspects of economic well-being** – quality of math and science education (+9), pay and productivity (+10), personal computers (+17).

Two components of Quality of Life deteriorated:

- **The trust and rights aspects of social well-being** – public trust in politicians (-14), favoritism in decisions of government officials (-18), private sector employment of women (-51).¹⁸
- **The growth component of economic well-being** – government debt (-28), national savings rate (-14), FDI and technology transfer (-10).

Identifying Issues That Require Action

24. Challenges facing Quality of Life improvement should be reviewed in relation to current policy in these areas.¹⁹
25. Analyzing current policies in light of the challenges raised by the index facilitates identifying issues that have yet to be addressed by policy.
26. The following chart helps to communicate the need for immediate government action. For example, the lower left quadrant highlights areas of poor Israeli performance that have yet to be addressed by policy, such as labor relations, business supporting environment, trust in the political sphere and public company management.



End.

¹⁸ Note that The Freedom of the World Index, published by Freedom House, is the most suitable index for measuring components of social well-being, such as trust, rights, and social cohesion.

¹⁹ For example, current policies of the Government of Israel are already addressing specific areas of Quality of Life: The Bachar committee set the groundwork for competitive financial markets; the Shochat committee proposed reforms to higher education; initiatives exist for the privatization of public transport; and reforms in the electricity and port sectors have been proposed.