

## **Part III**

# **Monitoring the Competitive Performance of Jordan**



## Chapter Twelve

# The Global Competitiveness Report (GCR), 2001–2002

### Introduction

The global economy is currently experiencing a period of economic and political uncertainty. Global economic activity has substantially slowed down, stock markets have exhibited considerable volatility, and the world's major currencies have undergone significant fluctuations. Due to the highly integrated world economy, most, if not all, countries engaging in international trade feel the repercussions of the global slowdown. Under such circumstances the recent backlash against globalization may gain momentum.

Hence, coping with the enormous challenges currently facing the global economy entails the pursuit of a prudent and proactive macroeconomic policy. More importantly, it requires fortifying the cross-border networks that promote private investment, entrepreneurship, and social progress around the world. In this context, the GCR is an invaluable tool. It identifies current impediments to economic growth and assists in the formulation of policy measures to remove such obstacles and advance prosperity in the world.

The main aim of this chapter is to provide a comprehensive and extensive evaluation of Jordan's economic performance, both at macro and micro level, using the GCR 2001<sup>1</sup> as a key tool and indicator. The evaluation maintains the same analytical framework and methodology followed in the Report, which is explained in more simple terms in Annex 12.1 at the end of this chapter. In other words, the assessment of Jordan's performance is based on two distinct yet complementary approaches, the Growth Competitiveness Index (GCI), and the Current Competitiveness Index (CCI), while keeping in mind the current stage of economic development in Jordan.

Following the analysis section is a brief on the implications of the September 11th, 2001 events on the highly integrated world economy. The events are regarded as particularly relevant, considering the critical role of the US in the global economic growth.

Finally, it is worth mentioning that not less than 17 countries have been included in the analysis of this year's report to reflect the integration of developing countries into the global economy. As such, the GCR remains the most comprehensive source of information for the business community, policymakers, and various other key stakeholders. These new entrants are regionally diversified, with one economy from Africa (Nigeria), two from Asia (Bangladesh and Sri Lanka), five from Central and Eastern Europe (Estonia, Latvia, Lithuania, Romania, and Slovenia), and nine from the Western Hemisphere (Dominican Republic, Guatemala, Honduras, Jamaica, Nicaragua, Panama, Paraguay, Trinidad and Tobago, and Uruguay). Hence, the total number of country participants in this year's report comes up to 75 whereas last year's report took account of 59.<sup>2</sup>

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1 It should be noted that the results in this year's Report (2001) reflect the economic performances of various participating countries in the previous year (i.e. 2000). Therefore the results do not take into consideration the shock of September 11th 2001 and the short-term uncertainties and dislocations actualized in its wake.

2 Although 17 countries were added, Luxemburg did not participate in the 2001 Report.

## GCR 2001 and the Jordanian Economy<sup>3</sup>

The information pertaining to this section provides a comprehensive analysis of the Jordanian economic performance at the macro and micro-level based on the key indicators previously outlined: the GCI and the CCI. Together, these indicators provide a complementary internal and external overall view of the regional and global performance of the Jordanian economy, considering its condition in terms of economic development and technological advancement.

To begin with, it is essential to clarify how GCR 2001 defines the Jordanian economy. Jordan is a developing nation with a low-income status.<sup>4</sup> The Report classifies it as a non-core<sup>5</sup> economy, measured by the number of US utility patents granted in 2000 per million population, which is none in Jordan's case. Its patent rank is 65 out of the 75 participating countries in the Report.

Nevertheless, economic development is a sequential process of building. As a low-income country, Jordan is still in the process of shifting from being a factor driven economy, where economic growth is determined primarily by the mobilization of primary factors of production (land, unskilled labor, and primary commodities), to an investment driven economy. In this latter phase, economic growth is achieved by harnessing global technologies, accessed through licensing, joint ventures, foreign direct investment and imitation, to local production. In such cases, technological advancement is measured largely by the economic performance in skill-based manufacturing exports. Therefore, at this stage, efficiency in producing standard products and services becomes a dominant source of global competitiveness.

Next comes an analysis of Jordan's performance at the macro level (GCI), which is then followed by an analysis of its performance at the micro level (CCI). In the present chapter both the GCI and the CCI approaches adopt the same structure:

First, a year-to-year comparison of results for both approaches is carried out for 2001-2000.

Second, the Report accomplishes an assessment of Jordan's performance against regional competitors that are identified in the analysis.

Third, Jordan is evaluated as a non-core country.

Lastly, the results Jordan attained in the indexes and sub-indexes of each approach are examined in detail.

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<sup>3</sup> The analysis in this section is based on the analytical framework explained in Annex 12.1.

<sup>4</sup> According to GCR 2001, low-income countries are those countries with a GDP per capita at purchasing power parity below US\$ 6,500. Jordan's GDP per capita at the purchasing power parity for the year 2000 amounts to US\$ 4,079 only.

<sup>5</sup> Unlike core economies, non-core economies are non-innovative economies, which resort to technology importation rather than technology generation, noting that from the 75 countries; 24 are core economies and 51 are non-core economies.

## I. Macro analysis founded on the Growth Competitiveness Index (GCI):

	GCI Ranking 2001 <i>(75 countries)</i>	Normalized* Ranking <i>(%)</i>	GCI Ranking 2001 among the 2000 59 countries	Normalized Ranking <i>(%)</i>	GCI Ranking 2000 <i>(59 countries)</i>	Normalized Ranking <i>(%)</i>
Israel	24	32.0	24	40.7	18	30.5
Jordan	45	60.0	41	69.5	46	78.0
Egypt	51	68.0	44	74.6	41	69.5
Turkey	54	72.0	45	76.3	39	66.1

\* Translating ranks into percentiles.

### A. Year-to-year comparison:

From table (12.1), Jordan's GCI rank in 2001 is 45 out of 75 countries whereas in the 2000 report it maintained a rank of 46 out of 59 countries. By translating the rankings into normalized values, it is evident that the difference in ranks in terms of percentiles is, in actual effect, a significant improvement of 18% in 2001. However, for a more accurate year-to-year comparison, in view of the increase in participating countries in 2001, table (12.1) shows country GCI rankings among 2000 countries. Hence, Jordan's actual 2001 GCI rank among the same countries of the 2000 report, is 41 out of 59 countries. Indeed, although Jordan moved up just five spots in the 2001 report relative to the 2000 report countries, it improved by 8.5%.

### B. Regional comparison:

When comparing Jordan to its regional competitors, Egypt, Israel and Turkey, in the GCR, it is revealed that in the 2000 report (see table 12.1) Jordan's GCI rank was the least competitive due to its dramatic drop from 40/59 in 1999, to 46/59 in 2000; a 10% drop. However, conversed to the 2000 report, Jordan's GCI rank in GCR 2001 surpassed both that of Turkey and Egypt. This is mainly by reason of the amelioration in Jordan's position in conjunction with significant drops in ranks for Turkey and Egypt; the former dropped by six places (10.2% drop) and the latter by three (5.1% drop). The main reason why Turkey dropped by six spots goes back to its economic crisis in the early months of 2001. As for Israel, although it continues to maintain the most competitive rank regionally, since it is a technology innovator, its performance significantly regressed in terms of the GCI rank; moving down six spots (10.2% drop), whereas Jordan, as previously highlighted, improved and moved up five spots respectively (8.5% improvement).

### C. Jordan as a non-core country:

As previously explained, this year's report classified the participating countries into 24 core and 51 non-core countries, among which is Jordan. Hence, it is constructive to assess Jordan against the other non-core economies while excluding those that are considered core. Basically, Jordan ranks 21 out of 51 non-core countries in the GCI. This is relatively below Jordan's expectations, since the ICT sector is constantly under the spotlight in Jordan as one of the country's main priorities.

#### D. Detailed analysis of GCI components and sub-components:

The above is emphasized further upon a closer examination of the sub-components of the Technology Index (see table 12.2), one of the main constituents of the GCI, in which Jordan ranked 54/75. All three sub-indexes constituting the Technology Index for Jordan received rankings that are by no means competitive. Understandably, Jordan's rank in the Innovation sub-index is 60/75, considering its rank in Utility Patents for the year 2000 (65/75), and gross tertiary enrollment rate in 1997 (17.9 %). However, the biggest disappointment lies in the Technology Transfer sub-index rank, which is supposed to compensate for the description of Jordan as a non-core economy or a low innovator. As economies move from low- to middle-income status, competitiveness is increasingly achieved by harnessing global technologies to local production. Yet, Jordan's rank in the Technology Transfer sub-index for the year 2001 is 29/51 non-core countries.

Table 12.2: Technology Index Rankings for Jordan as a Non-Core Economy.

	Technology Index	Innovation Sub-index	ICT Sub-index	Technology Transfer Sub-index
<b>Country Rank</b> <i>(75 Countries)</i>	54	60	52	-
<b>Non-Core Rank</b> <i>(51 Countries)</i>	30	36	28	29

The final component of the Technology Index is the ICT sub-index in which Jordan ranked (52/75). This is primarily due to insufficient ICT usage, which is reflected in the low number of Internet hosts (1.4 per ten thousand inhabitants), low number of Internet users (190.9 per ten thousand inhabitants), and low number of personal computers (1.4 per 100 inhabitants) despite the overall good infrastructure quality, which is considered a competitive advantage. Nevertheless, the GCR endorses the extent of government prioritization of ICT, and the success it had in promoting the ICT. In the former, Jordan received a rank of (7/75), and in the latter a rank of (9/75).

The results on other important technology indicators such as Brain Drain were also disappointing and noted as a competitive disadvantage. Jordan ranked (63/75) in terms of Brain Drain for the year 2001. This means few talented, skilled Jordanian workers in the field actually decide to work in their country. This phenomenon reflects a failure in retaining the local skilled labor in the Jordanian ICT sector. Nonetheless, this also indicates that Jordan possesses an untapped resource abroad.

In brief, it is observed that hard data results (quantitative data) in the Technology Index are far more negative than the soft data results (Executive Opinion Survey; qualitative data). This condition reflects a significant gap between the general Jordanian perception of the current state of technology and innovation in the country, and the real picture.

Although technology is a key pillar of economic growth, so too is the quality of public institutions. Institutions are crucial for their role in ensuring the protection of property rights, the objective resolution of contract and other legal disputes, efficiency of government spending in public services, and transparency at all government levels.

Interestingly enough though, Jordan has attained a notably competitive rank in the Public Institutions Index (PII) (28/75), and its components. In the first component, the Contracts and Law sub-index, Jordan ranked (21/75). This reflects neutrality in government procurement, judicial independence (23/75), clear delineation and respect for property rights (24/75), and costs related to organized crime (14/75). In general, competent enforcement of contracts and laws does exist in Jordan. The second component, the Corruption sub-index evaluates the pervasiveness of bribery in three key public service areas: imports and exports, connection to public utilities, and tax collection. The rank granted to Jordan (37/75) shows the relatively weak occurrence of corruption in public institutions. It should be noted that these evaluations are not objective standards, but rather perceptions among business executives (i.e. Executive Opinion Survey data).

However, similar to the performance in the Technology Index, Jordan's rank in the Macroeconomic Environment Index is not competitive (54/75) either. It consists of three main components; the Macroeconomic Stability sub-index rank, and Country Credit Rating rank in 2001, and government expenditure rank in 2000. In terms of the first index, Jordan ranked (46/75) despite the fact that it achieved good rankings in the following areas; inflation (6/75), interest rate spread (8/75), and national savings rate in 2000 (14/75). The relatively low rank of the Jordanian economy in the Macroeconomic Stability Index, can be attributed to the high deficit of the Jordanian government budget as per Government Surplus rank in 2000 (70/75). This is to be regarded in conjunction with the low rank (61/75) in the Real Exchange Rate relative to the US in 2000. As for the second component, Jordan ranked (55/75), which contributed to the overall low ranking in the Macroeconomic Environment Index too. Nevertheless, in the final sub-index; government expenditure, Jordan attained a competitive ranking (39/75), implying appropriate investments in areas such as health and education with no excessive expenditure instigating consequences such as increased taxes and low static wages. To be specific, the general government expenditure as a percentage of Jordan's GDP in the year 2000, is 33.9%.

The three main GCI indexes are interwoven; strong institutions are needed for technological development to occur whereby a sophisticated technology base provides macroeconomic stability. Still, the amelioration in the overall GCI rank for Jordan for the year 2001 can be ascribed to three main reasons:

- The fast and significant regression in the GCI ranks of 28 of the 2000 report countries in 2001. [E.g. Ireland; (from 4 to 11/59), Indonesia; (from 43 to 53/59)].
- The achievement of the Jordanian economy to secure a very competitive ranking in the Public Institutions Index (28/75), reduced the negative impact of the other two low GCI index rankings; the Technology Index and the Macroeconomic Environment Index.
- From the 17 newly participating countries, only four achieved better overall GCI ranks than Jordan, reducing thus the weight of the negative effects of the new entrants on Jordan's position.

Finally, although Jordan's GCI rank improved significantly compared to last year, and vis-à-vis its regional competitors, the growth rank does not reflect the progress. Still Jordan ranks (64/75) according to the percentage growth in real GDP per capita in Jordan for 1999-2000.<sup>6</sup> Hence, the growth prospects of any economy are not solely dependent on the GCI score but also on the level of per capita income. Nonetheless, the results of the GCI approach highlight the potential for catch-up growth in Jordan as predicted by the (18/75) ranking.

<sup>6</sup> Jordan's percentage growth in real GDP per capita in 1999-2000 is 1.1%.

## II. Microanalysis founded on the Current Competitiveness Index (CCI):

Table 12.3: Regional Current Competitiveness Index Rankings, 2001 and 2000 Comparisons

	CCI Ranking 2001 <i>(75 countries)</i>	Normalized* Ranking <i>(%)</i>	CCI Ranking 2001 among the 2000 59 countries	Normalized Ranking <i>(%)</i>	CCI Ranking 2000 <i>(59 countries)</i>	Normalized Ranking <i>(%)</i>	2000 GDP per Capita <i>(ppp adjusted)</i>
Israel	17	22.7	17	28.8	18	30.5	19,577
Turkey	33	44.0	31	52.5	29	49.2	6,870
Jordan	44	58.7	39	66.1	35	59.3	4,079
Egypt	45	60.0	40	67.8	39	66.1	3,602

### A. Year-to-year comparison:

In table (12.3), the CCI rank for Jordan moved from (35/59) in 2000 (59.3%), to 44/75 in 2001 (58.7%), showing a meager 0.6% improvement in position. For accuracy's sake, the same sample of countries evaluated in the 2000 Report has been maintained in the 2001 CCI ranking. Using the constant country sample approach, Jordan's CCI ranking for 2001 is (39/59). This represents a drop of four positions in comparison to the 2000 CCI rank, which means a 6.8% fall in the CCI performance. The drop must be accredited to Jordan's lagging performance in relation to other countries that progress at a far more dynamic pace.

### B. Regional comparison:

With regard to Jordan's regional competitors (see table 12.3), in terms of the CCI approach the sequence of regional countries comprised in the 2000 Report corresponds with that of the 2001 Report whereby Israel remains in the lead (17/59), followed by Turkey (31/59), Jordan (39/59) and then Egypt (40/59). However, Israel is the only country in the region that improved its position relative to the previous year, though the progress was slight (1.7%). The remainder of the countries regressed. Nevertheless, Jordan regressed most significantly and at the fastest pace (6.8%). Consequently the gap between Turkey and Jordan has widened from 10.1% in 2000 to 13.6% in 2001, while Egypt on the other hand, is gradually overcoming the gap with Jordan. In 2000, the gap between Jordan and Egypt was four ranks (6.8%). In 2001 the gap was only one rank (1.7%).

### C. Jordan as a non-core country:

However, when assessed against the other 51 non-core economies of the GCR 2001, the CCI performance of Jordan is relatively satisfactory, though still in need of improvement. It ranks 20/51 non-core countries i.e. it positioned in the second quartile amongst non-core countries. Jordan, a non-core country in the CCI, exceeds its performance by only one spot in the GCI.

### D. Detailed analysis of CCI components and sub-components:

To be precise, regardless of the microeconomic approach currently being discussed; the CCI focuses on the detailed conditions that support high level, sustainable productivity and prosperity measured by GDP

per capita. Research shows that wealth actually rests on the microeconomic nitty-gritty of the economy. Company operating practices and strategies, the quality of inputs, infrastructure and institutions, as well as the entire array of regulatory and other policies, make up the business environment of a nation. Moreover, they define and structure the setting for companies' competition.

In other words, the Jordanian economy cannot be competitive unless the operating companies, whether domestic or subsidiaries of foreign companies are competitive. However, the complexity of companies is inextricably intertwined with the quality of the national business environment. More sophisticated strategies require more highly skilled people, quality information, improved infrastructure, more advanced institutions and stronger competitive coercion. In conclusion, micro reform holds the key to reversing unemployment problems,<sup>7</sup> and eventually economic growth translates into a rising standard of living.

However, reform efforts must consider the country's existing stage of development, and be in close coordination with the economic progress. As such the examination of the CCI components of Jordan is necessary.

	2001 Rankings <i>(75 countries)</i>	Normalized Ranking <i>(%)</i>	2001 Ranking among the 2000 59 countries	Normalized Ranking <i>(%)</i>	2000 Rankings <i>(59 countries)</i>	Normalized Ranking <i>(%)</i>
Company Operations and Strategy Index	56	74.7	48	81.4	46	78.0
Quality of the National Business Environment Index	41	54.7	38	64.4	35	59.3
<b>CCI Overall Ranking</b>	<b>44</b>	<b>58.7</b>	<b>39</b>	<b>66.1</b>	<b>35</b>	<b>59.3</b>

Table 12.4: Current Competitiveness Indexes  
 Rankings and 2000 Comparisons

As per the above table, in the Sophistication of Company Operations and Strategy index of 2001, Jordan ranks (56/75), which is a 3.3% improvement in comparison to the year 2000. Nevertheless, the constant country sample ranking for 2001 positions Jordan as (48/59) showing a 3.4% drop relative to the 2000 rank.

Nonetheless, the results in this index show that Jordan retains a competitive advantage in the control of international distribution (31/75), regional sales (42/75), and a somewhat satisfactory level of sophistication in the production process (48/75).

However, Jordanian companies report a poorer presence in the value chain since most Jordanian exporting companies are involved in production rather than product development, marketing and distribution. This is further emphasized by the nature of our nations' companies competitive advantage in international markets identified through the survey results, which is largely low cost labor or natural resources such as potash and phosphate. Furthermore, according to the survey results, national companies have difficulty in building

<sup>7</sup> Jordan's recorded official unemployment rate as a percentage of total labor force in 2000 is 13.7%, while its ratio of recorded employed persons to population in 2000 is 18.1.

brands. The companies that sell internationally tend to engage in selling commodities, or market under foreign brands, rather than developing their own international brands. This is due to Jordanian companies' extremely low capacity for innovation (73/75), with meager incentive compensation as identified by the rank (71/75), in conjunction with flimsy product designs (67/75). Product designs in Jordan are mostly copied or licensed from abroad. Uniqueness in product designs is a strong differentiating factor in middle-income countries.

Hence, it is essential for a country such as Jordan, moving from a factor-driven economy to an investment-driven economy, to enhance company sophistication and become increasingly efficient. Companies need to adopt new strategies; they have to enhance the sophistication of the production process, introduce qualitative marketing, and initiate brand development. Moreover, companies should implement the concept of authority delegation. Jordan received a low rank in terms of willingness to delegate authority to subordinates, (56/75), and a low rank in the extent of marketing. As such it qualified as poor and limited. The performance in both areas requires improvement to enable Jordan to access as many international markets as possible. Finally, investment priorities need to be revised and the role of the government in the economy reallocated.

With regard to the business environment index, the 2001 rank (41/75), reflects a 4.6% improvement relative to the 2000 rank (35/59). (See table 12.4) However, the constant country sample rank (38/59) for 2001 displays a decline of 5.1% in rank performance compared to the 2000 rank. Nevertheless, the general business environment in Jordan is more advanced than the average sophistication of local companies and subsidiaries.

For a more detailed exploration of the Jordanian business environment, the related factors are grouped into factor (input) conditions, demand conditions, related and supporting industries, and the context for firm strategy and rivalry.

Under factor conditions, Jordan achieved a very competitive rank for the quality of the overall physical infrastructure, (24/75). Furthermore, the GCR acknowledges the remarkable availability of scientists and engineers. In this area, Jordan ranked (11/75). The competitive ranking in intellectual property protection (26/75), encourages the establishment, promotion and improvement of research institutions. However, other factors like bureaucratic red tape (69/75), and the collaboration between businesses and local universities in R&D activity (50/75), are identified as competitive disadvantages. Additionally, the survey results indicate the difficulty encountered by Jordanian entrepreneurs in finding venture capital for innovative but risky projects. The quality of public schools in Jordan is perceived as relatively poor.

With regard to demand conditions, the results concerning buyer sophistication (56/75) indicate that buyers in Jordan are in general price sensitive and unsophisticated. Furthermore, Jordan ranked (40/75) in terms of regulatory standards for products such as energy, safety and environment.

Next is an examination of the elements, which represent related and supporting industries in Jordan. Such elements relate to the local availability of process machinery (71/75), and local supplier quality in which Jordan ranked (60/75). Further Jordan ranked (67/75) in the extent of collaboration with local suppliers,

customers and research institutions in terms of product and process development. The ranking (69/75) in the local availability of components and parts indicates that most are imported.

The Survey results regarding the factors that sustain the context for firm strategy and rivalry in Jordan disclose the fact that local producers perceive imports as the most significant competition factor in the local market. This is evident from the rank granted for the impact of locally based competitors (65/75). As for the intensity of local competition, the rank obtained, (60/75) indicates that it is somewhat limited rather than noteworthy. The rank in the decentralization of corporate activity factor (49/75), indicates that corporate activity is not popular among many firms in Jordan, and points to the insignificance of the local competition. In addition, results show that the state of cluster development in Jordan is still primitive, and clusters are limited and shallow. Nevertheless, Jordan attained a competitive rank in terms of the effectiveness of anti-trust policy (41/75), which is important, especially in the case of low-income countries trying to advance and progress.

The Report explored the relative state of company sophistication versus the quality of the microeconomic business environments in various countries. With regard to Jordan, the Report reveals that the business environment in Jordan is more advanced than the average sophistication of local companies and subsidiaries. Nevertheless, there is room for improvement in this area.

In terms of improving the business environment at low-income level to reflect a positive relationship with the GDP per capita the following supporting areas need to be prioritized and advanced; transportation and communications infrastructure, public education and management training, trade liberalization, corruption reduction, intellectual property protection, and antitrust policy. Upgrading the suppliers' quality, and introducing tighter regulatory standards is of particular significance in the progression of corporate governance via effective corporate boards. All above-mentioned factors strengthen efficiency, competitiveness and transparency shifting the focus from factor-driven competition to the transition to an investment-driven economy.

In so far as the results discussed reflect a regression in the CCI performance, the reasons behind Jordan's regression in the CCI ranking may be summed up as:

- Uncontrollable factors such as regional turmoil in the Middle East.
- Declining private sector performance: the relative state of company sophistication (56/75), versus the quality of the business environment (41/75).
- Business approaches: what used to be strengths in competing at earlier stages become weaknesses at more advanced levels of development. Changes are often resisted by the corporate sector, because past approaches were profitable. Moreover, old habits are deeply ingrained in companies. For instance, Jordanian phosphate and potash companies should shift from exports of bulk raw materials to exports of products with more value added such as fertilizers, which maximize profits. Similarly, in the services sector, banks should converge to more sophisticated modern and technologically advanced differentiated services, such as swift, automated and online banking rather than relying on traditional time consuming services.
- Under performance, Jordan's microeconomic performance is stronger than current GDP per capita; hence its current competitiveness would support a higher per capita income.

## Conclusion/ Overall Performance

To sum up, Jordan improved its GCI rank in 2001 relative to its 2000 rank, and in contrast with the regression of the other 28 countries. As for Jordan's rank in the CCI, it regressed in comparison to the year 2000. Nevertheless, as previously stated, GDP per capita income should be higher; current competitiveness performance can support a higher GDP per capita income. Therefore, Jordan possesses an upside potential. To maximize its potential it is necessary that Jordan improves and enhances its microeconomic foundations to allow political and macroeconomic reform to bare full fruit.

Most importantly, significant improvements should be made in the ICT sector in Jordan to facilitate the transfer of technology. Currently, there is still a limited potential for technology advancement in Jordan due to the significant gap between the overall Jordanian perception of the current state of technology and innovation in the country versus the real picture as revealed in the Report. To be more specific, Jordanians are overestimating the state of technology and innovation in the country. The persistence of this sort of over-estimation limiting Jordan's potential for technology advancement can hinder the completion of Jordan's transition to an investment-driven economy, in which efficiency is a key factor and catalyst for progress and advancement.

Furthermore, Jordanians must always bear in mind that paradoxically old business strategies become the new weaknesses. With regard to the private sector, it is recommendable that new business approaches focus on quality and customer orientation to meet international standards. In addition, the private sector has an important role in improving the national competitive platform through collective activities and cluster development initiatives.

As for the public sector, efficient attempts to reduce corruption and bureaucracy further on should be made; i.e. less centralization, more decentralization and willingness to delegate authority. The government should maintain and continue to play a range of positive roles that are fundamental to prosperity, such as investment in human resources, building innovative capacity, and stimulating advanced demand via regulatory standards.

Finally, sizeable investments in higher education, a fair information technology base, high levels of government spending on R&D, and effective intellectual property laws that promote R&D are key factors that allow the Jordanian economy to eventually become an innovator, and improve living standards.

In conclusion, the central challenge posed to the world economy is microeconomic reform; yet reform that moves beyond past approaches. Progress in terms of company sophistication and quality of the business environment is the only way to produce genuine advancement in efficiency, product quality, new business opportunities, and finally a rising standard of living.

## The Wake of September 11th 2001

In September 2001, the world economy was already in the midst of a cyclical slowdown. However, the terrorist attacks of September 11th have probably worked as a catalyst pushing the world economy into

a recession more quickly and more severely than would have been the case otherwise. This is due to the fact that the terrorist attacks and the security precautions taken in their wake have made travel, trade and communication more costly. Possible disruptions in transportation networks threaten the functioning and efficiency of global production chains. Furthermore, and more importantly, business and consumer confidence suffered a significant blow.

The short-term economic reactions of the terrorist attacks were severe. Up until September 25th, an estimated US\$ 2 trillion was lost in world equity markets, twenty of the world's major stock market indexes dropped by more than 10%, and 32 national indexes dropped by at least 8%. Amman Stock Exchange (ASE) Financial Market Price Index dropped by 8.3% during that same period. Additionally, at least 15 currencies saw their values drop by 4% or more relative to the US dollar, which is a tremendous amount over a short period. Luckily, many of these losses were later recovered; between September 25th and October 3rd, more than US\$ 500 billion was retrieved of the US\$ 800 billion lost in US equity markets.

In the longer term, the terrorist attacks will have a lasting negative impact if the policy responses trigger a reversal of the global economic integration that has characterized the past twenty years. The possibility of large-scale global conflict, terrorism, political backlash, and market uncertainty have the potential to raise the costs of cross-border business to levels not seen in decades, and thereby limit the gains in economic well-being that global integration can yield.

To determine the enormity of the aftermath of September 11th over the coming six months, between September 26th and October 1st, the WEF conducted a flash survey of 90 senior executives of member companies. Six questions were asked about how their business operations had been affected by the terrorist attacks in the US. It requested their views of the world economy in terms of changes to corporate investment, anticipated changes in demand, effects of increased risk and costs of business, effects of potential disruptions to supply chains, effects of potential disruptions in world oil markets, and overall recession perceptions. Although the limited sample size prevents accurate statistical analysis, the main results and their consistency across regions and sectors provide useful insights into the current thinking in global business.

Overall, the survey shows that the terrorist attacks have had a slightly, but not devastating, negative effect on business and consumer confidence. It indicates that the global economy is more resilient than many observers would suggest. According to the responses, the general picture of the world economy is portrayed as follows; both corporate investment and consumer demand will decline at least slightly in the near future, but perhaps not by as much as foreseen by early fears. The relative stability of planned investment and only minor anticipated drop in consumer and corporate demand imply that executives do not see the events of September 11th as being disastrous for the world economy. However, the persistence of this view will no doubt depend on future political and military developments.

The survey responses also helped classify the countries that are at greatest risk from the heightened uncertainty brought about by the attacks of September 11th into four main, yet, overlapping groups in terms of exposure. These are:

1. Emerging market economies, whose growth in output is closely affiliated to the US business cycle.<sup>8</sup> This is particularly relevant to the East Asian export-oriented economies such as Singapore, Korea and Taiwan.
2. Economies with high levels of sovereign debt, particularly those with high debt-to-export ratios, for example, Brazil, Argentina, Bolivia, and Peru.<sup>9</sup>
3. Economies likely to be disrupted by interruptions to existing trade patterns, caused by increased insurance and freight costs, lengthened shipping time, and extended delays at customs. Again, the highly trade-dependent export-oriented economies of East Asia (e.g. Singapore, Korea and Malaysia) will be affected, in addition to Canada and Mexico.
4. Countries that depend on travel and tourism as significant sources of national income such as Jamaica.

In view of the head turning events that took place on September 11th, it was seen as necessary to provide a brief short-term analysis of the effects of the wake on the world economy.

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8 These economies were already suffering prior to September 11th and are likely to bear a heavy burden if the US economy requires an extended period to regain momentum.

9 The main problem faced by such economies comprises a strained ability to finance new debt or refinance old debt in the months ahead.

## Annex 12.1

### The Analytical Framework Followed in GCR 2001

*Successful economic development is a process of successive upgrading, in which business and their supporting environments co-evolve, to foster increasingly sophisticated ways of producing and competing.<sup>1</sup>*

The GCR of this year emphasizes an increasingly important issue that confronts many nations: as countries move from resource-based to knowledge-based economies, challenges and priorities emerge case by case, depending on the specific stage of economic and technological development of each country. Consequently, the principal factors that contribute to global competitiveness and improved living standards differ for economies at different levels of development. Below is a simple illustration of the different stages in economic development.

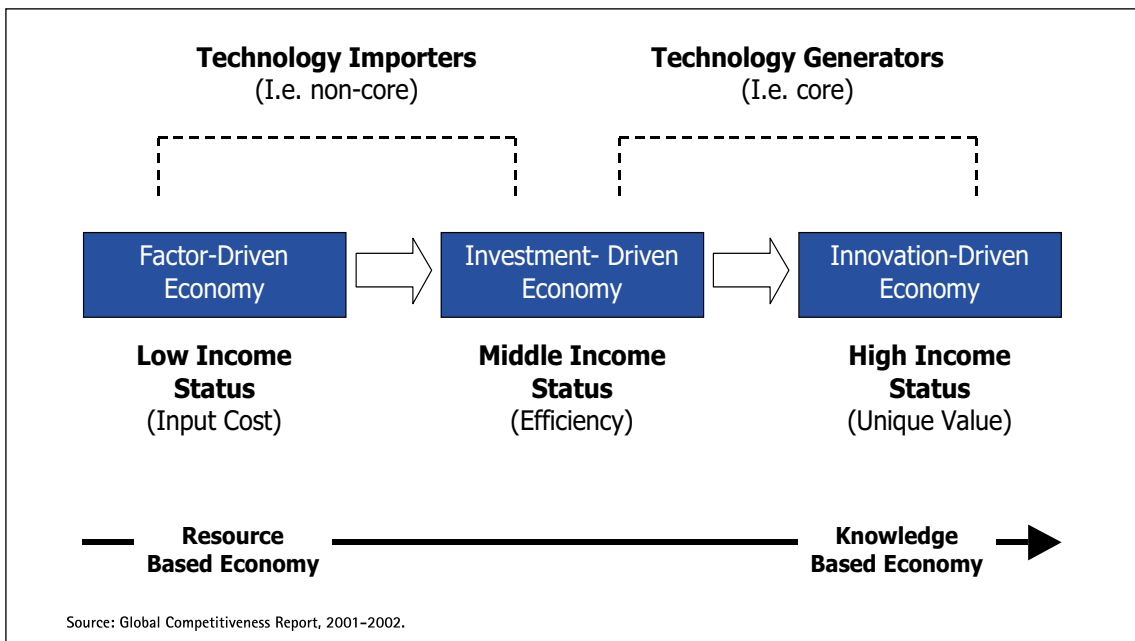


Figure 12.1: Stages of Economic Development

Transitions in economic development (i.e. from low to middle income economies, or middle to high-income economies) play a crucial role in the logic sustaining the methodology of this year's report. As seen from figure (12.1), the first transition in economic development, entailing factor driven economies to move to investment driven economies, requires technology importation, which allows for technological transfer and diffusion into local production. In return, this process gives room to economic growth and development. In the Report such economies are referred to as non-core economies.

<sup>1</sup> The Global Competitiveness Report, 2000-2001, pg 17.

As for the second, and perhaps the hardest, transition in economic development, it requires investment driven economies to move to innovation driven economies. This type of transition requires technology generation rather than importation. Hence, in this latter stage of economic development, economies depend on technological innovation to achieve economic growth and development. These economies are referred to as core economies in the Report, based on the empirical definition: all economies that achieve at least 15 US utility patents per million population.<sup>2</sup> Typically, the core economies are the richest countries that have achieved sustained economic growth over the course of many years. Their economic growth is powered fundamentally by their capacity for innovation.

In the analysis of economic competitiveness, with respect to core and non-core economies, the GCR focuses on two distinct yet complementary approaches, which shed light on the macro and micro priorities at different phases of economic development:

### I. The Growth Competitiveness Index (GCI), 2000-2001:

*The overall GCI aims to measure the capacity of the national economy to achieve sustained economic growth over the medium term, controlling for the current level of economic development.*<sup>3</sup>

In other words, the GCI builds on the foundations of theoretical and empirical macroeconomics to measure the set of structures, institutions and economic policies supporting high rates of economic growth in the medium term. It represents the best estimate of an economy's underlying prospects for growth over a period of five years. It focuses on three pillars of growth, or three indexes:

1. **Technology Index:** measures the capacity for innovation and diffusion of technology. It consists of three main components; the Innovation sub-index, the Technology transfer sub-index and the ICT sub-index.
2. **Public Institutions Index:** evaluates the role of politics and bureaucracy in supporting the market-based economic activity and the division of labor. It has two main components, the Contracts and Law sub-index, and the Corruption sub-index.
3. **Macroeconomic Environment Index:** measures variables related to capital accumulation and the efficiency of the division of labor. It has three main elements, which include the Macroeconomic Stability sub-index, country credit rating in March 2000 and general government expenditure in 2000.

It is noteworthy that different factors play different roles at different stages of development. For example, public institutions play a crucial role at low and middle levels of development. Their role diminishes at higher levels of development where economies tend to have fewer discrepancies in institutional quality and a satisfactory threshold of organizational efficiency. Consequently, the weightings of the GCI indexes and sub-indexes are allocated according to the stage of development, based on whether an economy is core or non-core.

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2 The number of US Utility patents granted per million population in 2000 is a very useful measure of innovation intensity in an economy, and to certain extent, the frequency with which innovations are taken to the market.

3 The Global Competitiveness Report, 2000-2001, pg. 32.

## II. The Current Competitiveness Index (CCI):

The CCI examines the complex range of national circumstances that support productivity. It uses microeconomic indicators to measure the set of institutions, market structures, and economic policies supportive of high current levels of prosperity, and refers mainly to the effective utilization of the existing stock of resources in an economy. These microeconomic differences account for most of the disparity in the level of GDP per capita among various countries. This index assesses the existing productive potential of an economy depending on the principal variable used, which is the level of GDP per capita in 2000, adjusted for purchasing power parity (PPP). It consists of two main indexes:

1. The Sophistication of Company Operations and Strategy Index, which evaluates the impact of knowledge, technology, physical capital, and managerial skill on the operating practices and strategies of a company.
2. The Quality of Business Environment Index, which estimates four areas:
  - The quality of the inputs available to firms (e.g. human resources, physical infrastructure and the availability of information).
  - The availability and sophistication of local suppliers of components, machinery and services, and the presence of clusters of related firms.
  - The sophistication of local demand for advanced products and processes, including the stringency of regulatory requirements.
  - The rules governing the vitality of competition and the incentives for productive modes of rivalry.

Both the GCI and the CCI combine hard data and survey data to assess competitiveness for a large sample of countries. Crucial to both indexes is the Executive Opinion Survey, conducted annually by the WEF. The Survey is vital, since no reliable hard data sources exist for many of the most important aspects of an economy, such as the efficiency of government institutions, the sophistication of local supplier networks, or the nature of competitive practices. The Executive Opinion survey records the perceptions of business leaders around the world regarding various aspects of their local business environment in relation to global standards. In effect, the business leaders surveyed are the ones to make many of the investment policy decisions that drive the economic growth and development. Their viewpoints provide an excellent, up-to-date knowledge base concerning the current state of economic affairs in each of the countries assessed.

## Annex 12.2

### Jordan's Growth Competitiveness Indexes and Sub-indexes Rankings, 2001.

	2001 Rankings <i>(75 countries)</i>	2001 non-core Rankings <i>(51 countries)</i>
<b>GCI Overall Ranking:</b>	<b>45</b>	<b>21</b>
<b>(1) Technology Index:</b>	<b>54</b>	<b>30</b>
- ICT Sub-index	52	28
- Innovation Sub-index	60	36
- Technology Transfer Sub-index	-	29
<b>(2) Public Institutions Index:</b>	<b>28</b>	<b>-</b>
- Corruption Sub-index	37	-
- Contracts and Law Sub-index	21	-
<b>(3) Macroeconomic Environment Index:</b>	<b>54</b>	<b>-</b>
- Macroeconomic Stability Sub-index	46	-
- Country Credit Rating Rank	55	-
- Government Expenditure Rank	39	-

### Key facts

GDP per capita at Purchasing Power Parity (PPP), 2000	\$4,079
GDP per capita rank	58
Percentage Growth in Real GDP per capita 1999-2000	1.1
Growth rank	64
US Utility Patents Granted in 2000 (per million population)	0.0
Patent rank	65