

## Measuring Global Competitiveness through Index

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The rapid changes in the context of the process of economic reform, globalization and liberalization have created greater compulsions for us to be productive and competitive than ever before. With rapid advancement in technology as well as Management Theory and Practice, the concept & techniques of productivity have undergone a change over time, thereby creating a need for devising fresh approaches, coining new message and adopting a new idiom to spread the message to the stakeholders. Since 2001, The World Economic Forum has been using the growth Competitiveness Index (Growth CI) developed by Jeffery Sachs and John McArthur to assess the competitiveness of nations. Although it was cutting edge at the time it was developed, more recent advances in economic research and the rising importance of the international dimension, as well as the increasing diversity of countries covered by the report, call for adjustment of methodology. Surveys of top executives in Africa reveal considerably less concern about macroeconomic stability than they do about the impact of HIV / AIDS and other diseases on labour forces of these countries. Public health indicators were not present in the Sachs – McArthur framework, suggesting the need to include these increasingly relevant factors of competitiveness. With the aim of incorporating these and many other factors into a broader measure of competitiveness, Professor Xavier Sala – i – Martin has developed a new comprehensive competitiveness model for the World Economic Forum. The new Global Competitiveness Index (GCI) and a full description of its main methodological underpinnings was presented in the Global Competitiveness Report 2004-2005. A set of scores and rankings was again published in the Global Competitiveness Report 2005-06. With this year's (2006-2007) Global Competitiveness Index Report it has been considered as the main indicator to be used by the forum. The Global Competitiveness Index provides holistic overview of factors that are critical to driving productivity and competitiveness and group them into nine pillars:

1. Institutions
2. Infrastructure
3. Macroeconomy
4. Health and Primary Education
5. Higher Education and Training
6. Market Efficiency
7. Technological Readiness
8. Business Sophistication
9. Innovation

It is important to note that none of these factors alone can ensure competitiveness. Therefore, the most competitive economies in the world will typically be those where concerted efforts have been made to frame policies in a comprehensive way, that is, those which recognize the importance of a broad array of factors, their interconnections and need to address the underlying weakness they reveal in a proactive way.

By institution they mean the system of rules that shapes incentives and defines the way economic agents interact in an economy. The concept of competitiveness developed by the Forum explicitly incorporates notions of public sector accountability, efficiency, transparency and, more generally, the various ways in which the government interacts with economic agents in the domestic economy, particularly the business sector. The justifications for doing so are varied, sometimes reflecting reasonably well-established findings in empirical research.<sup>1</sup> As William Easterly (2005) points out, there are strong indications that differences in institutions explain much of the growth differential between countries, and therefore have an influence upon countries' growth

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performance well beyond simply getting inflation right or addressing other macroeconomic weaknesses.<sup>2</sup> More specifically, to assess the effectiveness of public institutions, the GCI uses five criteria

1. Respect for property rights
2. Ethics of government behaviour and the prevalence of corruption
3. Independence of the judiciary and the extent to which the government gives the private sector free from to operate or engages in interventionist discretionary practices (concepts captured under the headilig "undue influence)
4. Government inefficiency reflected in the waste of public resources and a heavy regulatory burden
5. the ability to provide an environment for economic activity characterized by adequate levels of public safety

There is a significant body of empirical research, for example, Aschauer (1989) and Borensztein et al. (1998)-which has shown that physical infrastructure fosters productivity growth and also investment.<sup>3</sup> Good infrastructure is essential for reducing transport time and communication, and for the efficient distribution of energy supply. Weak infrastructure was also perceived as being an important impediment to private sector development in much of Latin America. Recognizing the key role infrastructure plays in development, the World Bank and many regional development banks have made this a focus of their financial assistance, as resource constraints have often prevented low income countries from allocating adequate funding to infrastructure development within their respective public investment programs. Increasingly, many countries are bypassing the constraints on publicly available funding by exploring private or joint public-private provision of infrastructure facilities. components: energy, transport and telecommunications services, the availability of which will reduce operational costs to business and increase overall efficiency and productivity. It captures these concepts by using data from the Executive Opinion Survey addressing the quality of infrastructure.

The macroeconomy pillar groups together a number of distinct variables. As the adverse effects of financial instability-asset price volatility, the creation of a business environment in which it is difficult to plan and invest have come to be recognized, the notion that macroeconomic stability is an important precondition for sustained growth has been broadly accepted by the policymaking community in country after country, Its theoretical and empirical underpinnings have also been firmly established.<sup>4</sup> he fact that, with rare exceptions, inflation rates (and, therefore, interest rates) everywhere have been on a sharp, downward trend over the past decade is an excellent indicator of the extent to which central banks have succeeded in persuading governments of the benefits of price stability and, increasingly, central bank independence. Governments have been less successful in reining in public sector deficits and, hence, capping levels of public indebtedness in relation to GDP. But even in this area, progress has been made in switching to non-inflationary forms of finance, in lengthening debt maturities, reducing exchange rate risk by developing domestic currency debt market, a process helped by the new emphasis in price stability.

The fourth pillar of the GCI encompasses health and primary education, which is of key relevance for competitiveness, especially in developing countries. Clearly, an unhealthy workforce hampers competitiveness and imposes heavy costs on all parts of society. In some African countries, children born in 2003 cannot expect to reach the age of 40 unless health services improve and the spread of infectious diseases such as HIV / AIDS is brought under control. Low life expectancy not only shortens active professional life, but imposes a burden on businesses, which bear the brunt of high rates of absenteeism and the loss of their investment in the costs of training. The provision of health services is thus critical for clear economic, as well as moral, considerations.

The report of the WHO Commission for Macroeconomics and Health, for example, estimates that returns to investment in health are of the order of 500 percent.

Education is also critical for development and commendable progress has been made in the past 50 years. By 1990 about half of the world's countries had primary enrollment rates of 100 percent as opposed to only 28 percent in 1960. Yet much remains to be done, as illiteracy is still a fact of life in many developing nations. For example, according to UNESCO, almost 40 percent of India's population still cannot read or write. Lack of such basic skills severely limits the possibilities of citizens to participate in the development process, in the activities, society, and professional life. It reduces their employability and, even when they are employed, limits the wages they can obtain, and leads to increased poverty.

However, enrollment rates in themselves do not tell the whole story, as they disguise important differences in the quality of education. As Easterly (2002) explains, an artificial focus on administrative targets, such as enrollment rates, has often obscured the importance of the quality of learning, and the role of incentives and motivation of teachers, students and parents. Along these lines, higher education and training, the fifth pillar, takes into account the quality of the educational system. This is crucial for economies wanting to move up the value chain beyond simple production processes and products.<sup>5</sup> In particular, they take into account the quality of science, math education, and management schools, as well as the availability of specialized training for the workforce. The importance of vocational and continuous on-the-job training, neglected in many economies, cannot be overstated, as it increases the efficiency and productivity of each worker.<sup>6</sup>

Market efficiency, the sixth pillar, is critical for ensuring that goods, labor, and financial (the three sub-pillars) are located in the most productive manner in an economy. There is a vast literature showing the adverse effects of market distortions on the efficient functioning of the economy and the welfare of consumers. In the case of goods markets, the main vehicle for achieving market efficiency is maintaining a healthy level of competition for products and services, while keeping economic distortions to a minimum. They take into account three main components in measuring goods market efficiency. First, They evaluate the openness of markets. By limiting entry and exit barriers, such as state monopolies or state licenses, competition forces unproductive firms out of the market, thereby increasing the economy's overall productivity. Second, They assess the level of distortive government intervention in the market, as regulatory instruments should be designed to keep such side-effects to a minimum. Third, They measure the size of the market available to actors in the economy, since the larger the market, the more intense the competition.<sup>7</sup> They take into account that even to small economies, openness to foreign trade and proactive In the case of labor markets, efficiency and flexibility are critical for ensuring that workers are allocated to their best use in the economy. This is measured by factors such as cooperation in employer-employee relations, and the flexibility employers have in hiring and firing and in determining the wages of their workers. Also important is the extent to which pay is related to worker productivity, and whether there is equal treatment of women and men in the business environment.

Finally, efficient financial markets ensure that available capital is invested in the most efficient and productive way, providing firms with access to the capital they need to grow their business activity.<sup>8</sup> They measure the extent to which sophisticated financial markets make capital available for business investment from such sources as credit from a sound banking sector, well functioning equity markets, or venture capital. They also include an indicator to capture the soundness of the banking sector, given the links between effective financial intermediation and employment and growth. Many of the financial crises of the past decade in some of the largest

emerging markets have often involved weaknesses in the financial sector, including deficiencies in the regulatory regime, a limited supervisory capacity on the part of the central bank, and delays in the modernization of the legal framework for bankruptcy procedures and creditor rights. A sound financial sector is increasingly perceived as a key ingredient of the institutional infrastructure underlying a growing economy. The seventh pillar, technological readiness, measures the agility with which an economy adopts existing technologies to enhance the productivity of its industries. This is a critical because technological differences have been shown to explain much of the variation in productivity between countries. In fact, the relative importance of technology adoption for national competitiveness has been increasing in recent years, as progress in the dissemination of knowledge and the increasing use of information and communications technologies (ICT) have become increasingly widespread. For example, the strong productivity growth recorded in the United States over the past decade has been linked to the high adoption of information technologies, with productivity increases registered particularly in sectors using ICT extensively, such as retail and wholesale.<sup>9</sup>

In order to assess the technological readiness of countries, They measure the availability of ICTs and other technologies in the economy, as well as the aggressiveness of firms in adopting these new technologies. They also note that technology-intensive FDI not only provides strong productivity gains and improvements in business processes, but also has a number of important spillover effects, including improvements in management practice and positive effects on human capital when new technologies prove the incentive for employees to acquire new skills.<sup>10</sup> At the same time, other companies become increasingly aware of the advantages of upgrading technology, with positive repercussions for the productivity of the sector as a whole

The technological readiness pillar thus complements the innovation pillar, described below, as it aims to gauge the existing technological infrastructure and the ability of a country to absorb technology from home or abroad, while the innovation pillar assesses the economy's ability to produce brand new technologies. Most of the aspects of competitiveness discussed so far pertain to the environment in which businesses operate. But company performance and productivity also depend greatly on the ability of business leaders to manage their companies efficiently. To capture this key aspect of competitiveness, the eighth pillar assesses the level of business sophistication of an economy's enterprises. This is particularly important for productivity at the top end of the global value chain, and is measured by the quantity and quality of local suppliers, well-developed production processes, and the extent to which companies in a country are turning out the most sophisticated products. A recent study conducted at the London School of Economics has shown that differences in the quality of management among firms explain variations in their productivity.<sup>11</sup>

Although the scope for public policy to actively improve business sophistication is some what limited, experience has shown that fostering geographic concentration of firms as well as suppliers and service providers active in the same sector (clustering) can significantly improve company performance. Geographical proximity favours horizontal and vertical cooperation between firms, which in turn improves corporate productivity. Productivity gains stem IT on better access to specialized suppliers of inputs and machines, the availability of appropriately skilled employees, and the development of specialized knowledge

The ninth pillar, innovation, is particularly important for countries that have reached the high-tech frontier, as it is the only self sustaining driver of growth.<sup>12</sup> While less advanced countries can still improve their productivity by adopting existing technologies or making incremental improvements in other areas, for countries that have reached the innovation stage of development, this is no longer sufficient to increase productivity. Firms in these countries must design and develop cutting-edge products and processes to maintain a competitive advantage.

This requires an environment that is conducive to, innovative activity, supported. By both the public and the private sectors. In particular, this means sufficient business investment in research and development, high-quality scientific research institutions, collaboration in research between universities and industry, and protection of intellectual property

Given the importance of innovation for long-term growth, innovation policy is currently very much at the center of economic policy in many countries. Overall, there is consensus that simply promoting and supporting large, isolated R&D projects has not proven to be a successful strategy. Instead, cumulative small improvements, along with informal innovation can have similar growth effects to large R&D project.<sup>13</sup>

The Global Competitiveness Report is a yearly report published by the World Economic Forum. The first report was released in 1979. The 2006-2007 report covers 125 major and emerging economies. The report "assesses the ability of countries to provide high levels of prosperity to their citizens. This in turn depends on how productively a country uses available resources. Therefore, the Global Competitiveness Index measures the set of institutions, policies, and factors that set the sustainable current and medium-term levels of economic prosperity." It has been widely cited and used by many scholarly and peer-reviewed articles.

One part of the report is the Executive Opinion Survey which is a survey of a representative sample of business leaders in their respective countries. Respondent numbers have increased every year and is currently just over 11,000 in 125 countries. The report ranks the world's nations according to the Global Competitiveness Index. The report states that it is based on the latest theoretical and empirical research. It is made up of over 90 variables, of which two thirds come from the Executive Opinion Survey, and one third comes from publicly available sources such as the United Nations. The variables are organized into nine pillars, with each pillar representing an area considered as an important determinant of competitiveness.

The report notes that as a nation develops, wages tend to increase, and that in order to sustain this higher income, labor productivity must improve in order for the nation to be competitive. In addition, what creates productivity in Sweden is necessarily different from what drives it in Ghana. Thus, the GCI separates countries into three specific stages: factor-driven, efficiency-driven, and innovation-driven, each implying a growing degree of complexity in the operation of the economy.

In the factor-driven stage countries compete based on their factor endowments, primarily unskilled labor and natural resources. Companies compete on the basis of prices and sell basic products or commodities, with their low productivity reflected in low wages. To maintain competitiveness at this stage of development, competitiveness hinges mainly on well-functioning public and private institutions (Pillar 1), appropriate infrastructure (Pillar 2), a stable macroeconomic framework (Pillar 3), and good health and primary education (Pillar 4).

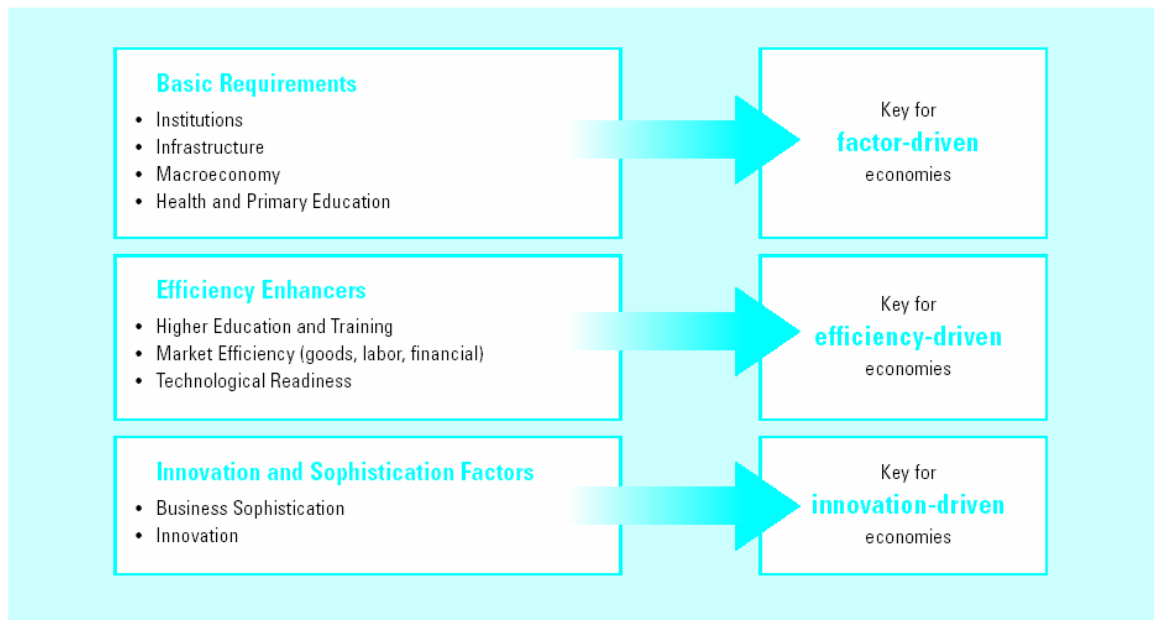
As wages rise with advancing development, countries move into the efficiency-driven stage of development, when they must begin to develop more efficient production processes and increase product quality. At this point, competitiveness becomes increasingly driven by higher education and training (Pillar 5), efficient markets (Pillar 6), and the ability to harness the benefits of existing technologies (Pillar 7).

Finally, as countries move into the innovation-driven stage, they are only able to sustain higher wages and the associated standard of living if their businesses are able to compete with new and

unique products. At this stage, companies must compete by producing new and different goods using the most sophisticated production processes (Pillar 8) and through innovation (Pillar 9).

Thus, the impact of each pillar on competitiveness varies across countries, in function of their stages of economic development. Therefore, in the calculation of the GCI, pillars are given different weights depending on the per capita income of the nation. The weights used are the values that best explain growth in recent years. For example, the sophistication and innovation factors contribute 10% to the final score in factor and efficiency-driven economies, but 30% in innovation-driven economies. Intermediate values are used for economies in transition between stages.

**Table No:-1 Composition of three Sub-Index**



**Table No:-2 Weightage of sub-Index at each stage of Development**

Weights	Basic requirements	Efficiency enhancers	Innovation and sophistication factors
Factor-driven stage	50%	40%	10%
Efficiency-driven stage	40%	50%	10%
Innovation-driven stage	30%	40%	30%

**Table No:-3 Income Level For Establishing Stage of Development**

Stage of Development	GDP per capita (in US\$)
Stage 1: Factor-driven	< 2,000
Transition from stage 1 to stage 2	2,000–3,000
Stage 2: efficiency driven stage	3,000–9,000
Transition from stage 2 to stage 3	9,000–17,000
Stage 3: innovation-driven stage	> 17,000

**Table No:-4 List of Countries in Each Stage of Development**

Stage 1	Transition from 1 to 2	Stage 2	Transition from 2 to 3	Stage 3
GDP p.c. < US\$2,000	GDP p.c. US\$2,000-US\$3,000	GDP p.c. US\$3,000-US\$9,000	GDP p.c. US\$9,000-US\$17,000	GDP p.c. > US\$17,000
Angola	Albania	Algeria	Bahrain	Australia
Armenia	Bosnia and Herzegovina	Argentina	Barbados	Austria
Azerbaijan	Colombia	Botswana	Czech Republic	Belgium
Bangladesh	Ecuador	Brazil	Estonia	Canada
Benin	El Salvador	Bulgaria	Hungary	Cyprus
Bolivia	Jordan	Chile	Korea	Denmark
Burkina Faso	Macedonia, FYR	Costa Rica	Malta	Finland
Burundi	Namibia	Croatia	Taiwan, China	France
Cambodia	Peru	Dominican Republic	Trinidad and Tobago	Germany
Cameroon	Suriname	Jamaica		Greece
Chad	Thailand	Kazakhstan		Hong Kong SAR
China	Tunisia	Latvia		Iceland
Egypt		Lithuania		Ireland
Ethiopia		Malaysia		Israel
Gambia, The		Mauritius		Italy
Georgia		Mexico		Japan
Guatemala		Panama		Kuwait
Guyana		Poland		Luxembourg
Honduras		Romania		Netherlands
India		Russian Federation		New Zealand
Indonesia		Serbia and Montenegro		Norway
Kenya		Slovak Republic		Portugal
Kyrgyz Republic		South Africa		Qatar
Lesotho		Turkey		Singapore
Madagascar		Uruguay		Slovenia
Malawi		Venezuela		Spain
Mali				Sweden
Mauritania				Switzerland
Moldova				United Arab Emirates
Mongolia				United Kingdom
Morocco				United States
Mozambique				
Nepal				
Nicaragua				
Nigeria				
Pakistan				
Paraguay				
Philippines				
Sri Lanka				
Tajikistan				
Tanzania				
Timor-Leste				
Uganda				
Ukraine				
Vietnam				
Zambia				
Zimbabwe				

TABLE NO:-5 GLOBAL COMPETITIVENESS INDEX RANKING AND COMPARISON

Country/Economy	GCI 2006-07 rank	GCI 2006-07 score	GCI 2005-06 rank
Switzerland	1	5.81	4
Finland	2	5.76	2
Sweden	3	5.74	7
Denmark	4	5.70	3
Singapore	5	5.63	5
United States	6	5.61	1
Japan	7	5.60	10
Germany	8	5.58	6
Netherlands	9	5.56	11
United Kingdom	10	5.54	9
Hong Kong SAR	11	5.46	14
Norway	12	5.42	17
Taiwan, China	13	5.41	8
Iceland	14	5.40	16
Israel	15	5.38	23
Canada	16	5.37	13
Austria	17	5.32	15
France	18	5.31	12
Australia	19	5.29	18
Belgium	20	5.27	20
Ireland	21	5.21	21
Luxembourg	22	5.16	24
New Zealand	23	5.15	22
Korea, Rep.	24	5.13	19
Estonia	25	5.12	26
Malaysia	26	5.11	25
Chile	27	4.85	27
Spain	28	4.77	28
Czech Republic	29	4.74	29
Tunisia	30	4.71	37
Barbados	31	4.70	—
United Arab Emirates	32	4.66	32
Slovenia	33	4.64	30
Portugal	34	4.60	31
Thailand	35	4.58	33
Latvia	36	4.57	39
Slovak Republic	37	4.55	36
Qatar	38	4.55	46
Malta	39	4.54	44
Lithuania	40	4.53	34
Hungary	41	4.52	35
Italy	42	4.46	38
India	43	4.44	45
Kuwait	44	4.41	49
South Africa	45	4.36	40
Cyprus	46	4.36	41
Greece	47	4.33	47
Poland	48	4.30	43
Bahrain	49	4.28	50
Indonesia	50	4.26	69
Croatia	51	4.26	64
Jordan	52	4.25	42
Costa Rica	53	4.25	56
China	54	4.24	48
Mauritius	55	4.20	55
Kazakhstan	56	4.19	51
Panama	57	4.18	65
Mexico	58	4.18	59
Turkey	59	4.14	71
Jamaica	60	4.10	63
El Salvador	61	4.09	60
Russian Federation	62	4.08	53
Egypt	63	4.07	52
Azerbaijan	64	4.06	62
Colombia	65	4.04	58
Brazil	66	4.03	57



Country/Economy	GCI 2006-07 rank	GCI 2006-07 score	GCI 2005-06 rank
Trinidad and Tobago	67	4.03	66
Romania	68	4.02	67
Argentina	69	4.01	54
Morocco	70	4.01	76
Philippines	71	4.00	73
Bulgaria	72	3.96	61
Uruguay	73	3.96	70
Peru	74	3.94	77
Guatemala	75	3.91	95
Algeria	76	3.90	82
Vietnam	77	3.89	74
Ukraine	78	3.89	68
Sri Lanka	79	3.87	80
Macedonia, FYR	80	3.86	75
Botswana	81	3.79	72
Armenia	82	3.75	81
Dominican Republic	83	3.75	91
Namibia	84	3.74	79
Georgia	85	3.73	86
Moldova	86	3.71	89
Serbia and Montenegro	87	3.69	85
Venezuela	88	3.69	84
Bosnia and Herzegovina	89	3.67	88
Ecuador	90	3.67	87
Pakistan	91	3.66	94
Mongolia	92	3.60	90
Honduras	93	3.58	97
Kenya	94	3.57	93
Nicaragua	95	3.52	96
Tajikistan	96	3.50	92
Bolivia	97	3.46	101
Albania	98	3.46	100
Bangladesh	99	3.46	98
Suriname	100	3.45	—
Nigeria	101	3.45	83
Gambia	102	3.43	109
Cambodia	103	3.39	111
Tanzania	104	3.39	105
Benin	105	3.37	106
Paraguay	106	3.33	102
Kyrgyz Republic	107	3.31	104
Cameroon	108	3.30	—
Madagascar	109	3.27	107
Nepal	110	3.26	—
Guyana	111	3.24	108
Lesotho	112	3.22	—
Uganda	113	3.19	103
Mauritania	114	3.17	—
Zambia	115	3.16	—
Burkina Faso	116	3.07	—
Malawi	117	3.07	114
Mali	118	3.02	115
Zimbabwe	119	3.01	110
Ethiopia	120	2.99	116
Mozambique	121	2.94	112
Timor-Leste	122	2.90	113
Chad	123	2.61	117
Burundi	124	2.59	—
Angola	125	2.50	—

## Conclusions

### EUROPE AND NORTH AMERICA

Switzerland takes the leading position as the world's most competitive economy in 2006-07, overtaking Finland and Sweden and replacing the United States, which dropped to sixth position. Switzerland's top ranking reflects a combination of a world class capacity for innovation and the presence of a highly sophisticated business culture. The country has a well developed infrastructure for scientific research, with close collaboration between the leading research centers and industry. Companies spend generously on research and development. Intellectual property protection is strong and this has helped spur high levels of technological innovation. Business activity in the country benefits from a well developed institutional framework

,characterized by respect for the rule of law, an efficient working judicial system and high level of transparency and accountability within public institutions. Flexible labour markets and excellent infrastructure facilities are two healthy features of the business environment. Steady efforts to improve macroeconomic fundamentals over the past few years, in particular reducing the budget deficit and stabilizing public debts levels are paying off and have boosted the ranking on the macro economies pillar from 30 to 18. For Switzerland to retain its top ranking, it will have to address a number of remaining weaknesses, some of which stand at odds with developments elsewhere in the industrial world. Competition in goods markets is limited by various forms of government intervening on; there is resource misallocation through agricultural support and, at a time when the EU and much of the rest of the world is quickly moving to remove barriers to international trade.

The Scandinavian countries remain among the top performers with Finland, Sweden, and Denmark occupying 2<sup>nd</sup> to 4<sup>th</sup> places. They share with Switzerland a broadly similar institutional and structural profile. Finland and Denmark have the best institutions in the world (ranked 1 and 2, respectively) and place in the top ten ranks in health and primary education, compared to Switzerland's rank of 29. These three countries also occupy the top three positions in the higher education and training pillar, where Finland's rank of 1 is remarkable for its durability over time. The Nordic countries that transparent institutions and excellent macroeconomic management, coupled with world class educational attainment and a focus on technology and innovation are a successful strategy for maintaining competitiveness in small, highly developed economies. Their results match the widely held perception that its competitive position may indeed be weakening. The United States remains a world leader in a number of key categories assessed by the GCI, such as market efficiency, innovation, higher education and training, and business sophistication. However, growing imbalances have dented a number of macroeconomic indicators, and the levels of efficiency and transparency underpinning its public institutions do not match those of the more developed industrial countries. Overall, the picture in the remaining European Union countries remains relatively stable with only a few countries registering significant moves in the rankings. Germany and the United Kingdom continue to hold privileged positions, ranked 8th and 10th, respectively. There are interesting contrasts in the performance of both economies when looked at through the perspective of the GCI pillars. Both countries have excellent institutional underpinnings, and in some areas (the property rights environment and quality of the judicial system). The United Kingdom does better than Germany in the higher education and training pillar reflecting good quality of education indicators. The United Kingdom excels in market efficiency indicators, with the most efficient financial markets in the world. Italy's competitive position has continued the downward trend observed over the past few years, and the country dropped four places in this year's Report. The market efficiency pillar does not deliver very good results either, with particular weaknesses in the areas of labor market flexibility and financial market sophistication and openness. Italy earned much better scores in innovation and business sophistication, and this explains why, the above weaknesses notwithstanding, its current rank falls between that of Hungary (41) and India (43) and is not actually lower. Poland remains the worst performer among the EU economies, with a rank of 48, right behind Greece (47) and well behind Estonia (25), the Czech Republic (29) and Slovenia (33), Central and Eastern Europe's top performers. Particular weaknesses in Poland stem from the highly protected and rigid labor markets, particularly harmful in a country where unemployment is close to 18 percent. Russia has fallen from its 53rd rank in 2005 to 62nd in 2006. The private sector in Russia has serious missive for the protection of property rights is extremely poor and worsening. Russia's ranking in this indicator during the last two years has suffered a precipitous decline, from 88 in 2004 to 114 in 2006, among the worst in the world.

## ASIA

Asia is home to some of the most, as well as some of the least competitive economies in our rankings. Singapore leads the pack, ranked 5th overall, followed by Japan in 7th place, Hong Kong in 11th and Taiwan in 13th place overall. These economies all have high-quality infrastructure flexible and efficient markets and healthy, well-educated workforces. They are also operating on the outer boundaries of the technology frontier, both at the firm and consumer level. In Japan, economic recovery has begun with deflation on the wane, yet a number of challenges, mainly in management of the public finances and market efficiency remain. Nevertheless, private sector commitment to R&D, sophisticated production process and a highly educated labor force contribute to deliver one of the most innovative economies in the world. Another strong performer this year is Malaysia, ranked 26th overall, just behind the Republic of Korea: which was ranked 24th. Malaysia exhibits one of the most efficient economies in the region; flexible labor market relatively undistorted goods markets, and public institutions which in many areas.

India ranked 43rd overall and, as the leading country in the GCI's first stage of development, scores remarkably high in capacity for innovation and sophistication of firm operations. This is especially true of the quality of scientific research and the number of scientists and engineers, which are increasingly supplying highly skilled profession: to the private sector. Indian enterprises tend to utilize sophisticated production processes and use numerous high-quality local suppliers, thus lowering input costs. Additionally, successive Indian governments have proven to be remarkably ineffective in reducing the public sector deficit, one of the highest in the world.

China's ranking has fallen from 48 to 54. Its performance is highly uneven and this raises a number of concern consistent with the cautious macroeconomic management of its authorities and extremely high GDP growth rates, the macroeconomy pillar of the GCI shows a very high rank, 6th overall in the world. This reflects China's low inflation, one of the highest savings rates in the world, and manageable levels of public debt. Perhaps more than any other country in the world, China's large and rapidly growing market has attracted large volumes of FDI in recent years. The banking sector is largely state-controlled and the capacity to price risk is limited. Levels of financial intermediation are low and the state has had to intervene from time to time to mitigate the adverse effects of a large nonperforming loan portfolio. Like India, China has low penetration rates for the latest technologies (mobile telephones, internet, personal computers) and because these are expanding more quickly in other countries, China's ranks in these indicators are actually falling behind. Secondary and tertiary school enrollment rates are better than they are in India, but still low by international standards.

### **Latin America and the Caribbean**

Brazil's ranking, 66th overall, down from 57th last year reflects a particularly poor position in the macroeconomy pillar of the GCI (114th, as compared to 91st 2005), resulting from a large budget deficit, at least in relation to that of other countries, if not in relation to Brazil's historical performance, which has not been good. High levels of government debt and a wide interest rate spread; indicate the heavy intermediation costs in the Brazilian banking sector, which negatively affect private sector investment and contribute to lower economic growth. A lack of sound and credible institutions remains a significant stumbling block in many Latin American countries. Bolivia (97), Ecuador (90), Guyana (111), Honduras (93), Nicaragua (95), Paraguay (106), and Venezuela I achieve low rankings overall and, in particular, are among the worst performers in the GCR sample for the presence of the basic elements of good governance, including reasonably transparent and open institutions. These countries all suffer from poorly defined property rights, undue influence in decision making, inefficient government operations, as well as unstable business environments. Perceived favoritism in government decision-making, an insufficiently

independent judiciary, and security costs associated to high levels of crime and corruption make it difficult for the business community to compete effectively, either within the region or in the world.

### **Middle East and North Africa**

The competitiveness landscape in the Middle East and North African region has generally seen an improvement since last year's Report. Among the larger economies, Algeria and Morocco moved up six places each, to ranks 76 and 70, respectively, while Tunisia, the most competitive economy of the region, reached rank 30, up seven places from last year, closely followed by the United Arab Emirates at rank 32. The smaller Gulf States also did well Kuwait moved up five places to rank 44, Qatar leaped eight places to rank 38, and Bahrain achieved rank 49. Israel also saw a notable improvement, advancing eight places to rank 15 (a detailed assessment of Israel's competitive performance is covered in Box 8). Only Egypt (rank 63) and Jordan (rank 52) lost significant ground, dropping eleven and ten ranks respectively. The move to a more comprehensive Index this year has caused some adjustments in country rankings. The new Index considers a number of important factors which were not accounted for previously and provides a more balanced picture of the issues that have an impact on competitiveness. For example, some of these newly assessed aspects include infrastructure, higher education and training, business sophistication, technological readiness, and innovation, as well as efficiency of financial markets. Egypt, ranks 63rd this year, dropping 9 places. It suffered an extremely sharp drop of 58 places to rank 108 in the macroeconomy pillar, as it struggled with worsening government finances and a large debt ratio. It also fell back in the higher education and training and innovation pillars to 75th and 82nd rank, respectively.

### **Sub-Saharan Africa**

Although sub-Saharan Africa has experienced high growth over the past few years, the results of the Global Competitiveness Index suggest that this trend may not be sustainable. In terms of competitiveness, the region lags far behind the rest of the world. Nineteen of the 24 countries from sub-Saharan Africa included in this year's sample rank among the 25 weakest performers occupying ranks of 100 or lower. Only a few countries are taking advantage of the global boom in commodity prices to build a basis for long-term growth. Over the last 50 years, the growth of Africa's exports did not manage to keep up with the surge in global trade flows, suggesting that the continent has not benefited much from globalization. South Africa remains the top performer of the region (45th overall). Despite significant achievements since the ending of apartheid, the country is in many ways still struggling with its legacy, including gross inequalities, high unemployment, major skill shortages, and a striking dichotomy between first and third world characteristics.

This paper has presented a comprehensive overview the results of the World Economic Forum's new Global Competitiveness Index, officially being launched this as the primary instrument for assessing national competitiveness. Reflecting changes in the global economic environment and in the relative importance of those factor affecting productivity and the Global Competitiveness.

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