

Identification of Top Performing Economies

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Abstract

[Using seven indicators of the economic performance of 187 countries, the paper identifies the top 50 performers during the decades of 1981-90 and 1991-2000. Five of these indicators are the trend rates of growth over a decade in imports, FDI, capital formation, per capita income and forex reserves. Average inflation rate and HDI are the remaining indicators. Comparison of top performers of the 1980s and the 1990s suggest that high performance in inflation and HDI are the precondition for consistency of high overall performance over time. The paper also examines the interrelationship among the indicators over time.]

Key Words: Emerging Economies, Economic Indicators, Cross-Country Regression, International Ranking, and Economic Development.

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I. Introduction

In the era of greater liberalization and globalisation, top performing economies of the world need to be carefully identified. This is important for the business strategy of existing and potential multinational corporations as well as the policy decisions of governments in different countries. Of late, several organizations have been conducting similar exercises regularly (*The Economist* (periodical); World Economic Forum (WEF), 1999 and 2002; International Finance Corporation (IFC), 1999; World Bank (annual) etc.). Some of these exercises use only the published macroeconomic data available readily from secondary sources (e.g. *The Economist*, IFC, 1999; World Bank, 2003; Global Edge, website), whereas the others combine them with specially conducted surveys in the participating countries (e.g. WEF, 1999 and 2002). Moreover, the precise objectives and focus of these exercises also differ. Some of them focus on the better performers amongst emerging markets only (e.g. *The Economist*, IFC, 1999; and Global Edge, website), while the others identify the most competitive and technologically advanced economies (e.g. WEF, 1999 and 2002).

The emerging economies, or more precisely, the emerging market economies, are generally identified on three criteria, viz. (i) low income or 'developing country' status, (ii) high economic growth, and (iii) government policies leading to greater opening of the economy to domestic and global market forces. (Arnold & Quelch, 1998 and Hoskisson *et al.*, 2000). *The Economist* currently identifies two distinct sets viz. emerging economies and developed countries where size is also one of the criteria (Jan. 2, 1999 issue p.17). In 1995 it had suggested grouping of countries into 'paralysed' (the poor economies), 'progressing' (the emerging economies), and 'paranoid' (the rich countries terrified by competition from the progressives). However, it soon realized that these groupings would not remain stable over time, given the ever-changing nature of the global forces, and decided to identify two sets based on the economic expansion through sound policies followed by countries with the absolute size of the economy playing an important role. IFC (1999) identified 51 rapidly growing developing countries as emerging economies and Hoskisson *et al.* (2000) added 13 transition economies in the former USSR to make it a list of 64 emerging market economies. All developed countries were excluded from their list.

There is, however, no serious effort at identifying the top performing economies in the world over a period, say a decade, irrespective of the level of their development. We need to consider the economic performance of different countries on various dimensions relevant for corporate business strategies and government policies. The present paper makes an attempt in this direction by first considering a set of relevant indicators of economic performance over a decade (Section II) and then identifying the top 50 economies with the help of those indicators (Section III). We report the results of this exercise for the decades of the eighties and the nineties and examine their similarities and implications (Section IV). The paper concludes by discussing the possibility of predicting a set of top performers for the next decade.

II. Indicators of Performance over a Decade

Since business interests are linked to the market, we may look for the performance indicators primarily connected with the markets. We may, therefore consider the international trade of a country to get our first indicator of performance. Imports of goods and services into an economy provide the rest of the world with the market opportunities to do business with the country. While the size of imports determines the importance of the economy, its rate of growth over a fairly long period, say a decade, would reflect the performance of the economy. It is not the size but the rate of expansion that provides the business opportunity. We expect a performing economy to have a consistently high growth of imports. If a performing economy shows a low growth of imports, it implies presence of either domestic distortions or restrictive trade policies as in case of Japan (Teramishi, 1992), Malta (Bonnici, 2002), Cyprus, Panama, etc. Both represent negative aspects of the economic performance of a country. On the other hand, if the growth of imports is high on a sustained basis in a country not performing well on other fronts, e.g., Brazil, Ghana, Mexico, Turkey, etc. it may reflect a long-term strategy for growth based on the correction of domestic distortion. A period as long as a decade would hopefully ensure that short term and temporary factors do not unduly influence the results.

The second indicator could be the ability of the economy to attract foreign capital. Trade liberalization is certainly an important dimension of globalisation, but factors flowing across the border are also an integral part of the concept as accepted by the World Trade Organisation and its agreements on investment and

services (Goyal and Mohd, 2001). Since Capital is fungible and relatively more mobile across nations, the net inflows of the foreign direct investment (FDI) during a year would again reflect the level of development of an economy. Growth in these flows over a decade would reveal changing perceptions of the global community and fundamental changes taking place in the structure and policies in the economy. Very low growth of FDI over a decade would indicate either relative stagnation & saturation of the growth prospects of the economy in the foreigners' perception or presence of policies discouraging FDI. Both these are negative aspects of economic performance. High growth of FDI, like high growth of imports gives extra weight to the globally emerging markets.

The third criterion to identify the top performers is to consider the total capital investment or capital formation undertaken in the economy. The gross capital formation (GCF) during a year reflects the level of development of an economy. The growth of real GCF over a decade reveals the rate of acceleration in the productive capacity and thereby indicates the maximum growth the economy is capable of achieving. It is possible to argue that an economy can grow over time mainly through sustained technical progress and may not, therefore, require very high growth of GCF^{*1}. However, most of the technical advances over a long time require fresh doses of capital (Nelson, 1964). A high rate of technical progress on a sustained basis would lead to a high rate of obsolescence and hence a high rate of depreciation. The gross investment would, therefore, show high growth. Thus, a performing economy is not likely to show low growth of GCF.

The next criterion could be the size of the market as measured by the per capita purchasing power generated in the system. Per capita real gross domestic product (GDP pc) is usually taken to reflect the level of development of a country. Its rate of growth sustained over a decade would be an undisputed indicator of economic performance of an economy. All the studies cited earlier have considered an indicator measuring economic expansion. We propose to consider GDP and not GNP because we would like to emphasize the productive capacity

^{*1} Solow (1957) and Abramovitz (1956) challenged the existing belief that capital accumulation played very important role in the growth of a country. Several empirical studies of the developed countries, e.g. Denison (1967) and Auer (1979) corroborated their finding that technical progress plays overwhelming role in accounting for the growth of per capita income of a country. However, recent evidences from the study of developing countries e.g. World Bank (1991) and Young (1995), show a significant share of capital accumulation in the growth of a country. The issue is far from settled empirically. Easterly and Levine (2001) consider it a stylised fact that total factor productivity growth (TFPG) or the residual is more important than the capital accumulation.

and resource efficiency in a geographical region rather than income accruing to the resources of a country. Secondly, the economic performance should be measured over time after adjusting for population growth.

Another criterion for measuring the economic performance of economies is price stability. Low inflation is one of the long-term policy objectives in almost all countries. The lower the consumer price inflation, the better the investment and business climate in a country (Barro, 1997,p-89). A low average rate of inflation in a country implies that the relative prices of commodities tend to remain more or less stable. The relative demand for commodities would then be determined by the growth of income and change in tastes and preferences. Both these are reasonably predictable and therefore business uncertainties and risks are lower. High inflation, on the contrary, leads to greater business uncertainties and risks. Inflation is a distinct aspect of the economic performance of a country and should be included as a performance criterion to give due consideration to the business climate and sentiments.

Yet another performance indicator is the net result of the balance of payments of the country. The net effect of the current account and capital account is on the total reserves of foreign currency in the economy. There are several countries that have been aggressively pursuing the policy of accumulating foreign exchange reserves in their central monetary authority so that the currency crisis or any such threat to the stability of their financial system can be effectively tackled if need arises (Jalan, 2002; and Kapur and Patel, 2003). In the light of the experience of the currency and financial crises during the last decade, the behaviour of the total reserves of foreign currencies in the country assumes a special significance as an indicator of the performance of the economy. It basically acts like a signal of the market power of the country's central monetary authority in the forex market. Again, it is not the level but the growth of reserves that reflects the economic performance of the country over a decade.

Finally, we consider the performance of an economy in terms of its past developmental efforts, specific points of advantage gained through deliberate development strategy or available through natural endowments, gifts or coincidences. All these factors get converted into the development of human resources in the country. The human development index (HDI) is based on the achievements of the economy on education, health, and income. It is a reasonably comprehensive measure of the level of human development in a country in relation

to other countries (UNDP, 2002). The level of HDI once attained is likely to sustain itself over time. Rapid improvements are possible but drastic reductions are unlikely. Since the level of HDI generally signals the quality of human resource in a country, it may also reflect the ability to generate innovations, absorb technical progress, and adapt to changing business environments. All these factors are likely to determine the potential of the country for economic growth and advancement. We, therefore, take the level of HDI prevailing in a country at the mid-point of the decade as an important indicator of economic performance over the decade.

Based on various aspects of the economic performance of a country relevant from the business angle, we have identified seven different indicators. Except HDI the other six indicators are annual rates of growth over a decade^{*2}. For consumer price inflation, an arithmetic average of the annual rate is taken over the relevant decade. For the remaining five indicators, semi-logarithmic time trend rate is estimated for the two decades. All these seven indicators are calculated for all countries^{*3} for the decades 1981-90 and 1991-2000 respectively in Appendix Tables 1 and 2.

How distinct are these seven indicators, chosen to reflect the economic performance of countries? They appear to be quite distinct and to represent different dimensions of the economic performance of countries during the 1980s and the 1990s. Tables 1 and 2 report the correlation matrices among these seven indicators for the 1980s and the 1990s respectively^{*4}. It is evident that none of the correlations is very high and substantial where r^2 exceeds 0.5. In fact, for most of the pairs, r^2 is less than 0.1, and for several pairs r^2 is less than 0.01. Thus the chosen seven indicators have captured quite distinct dimensions of the economic performance of countries during the last two decades. Moreover, the two tables

^{*2} The imports, GCF and GDPpc are measured in constant 1995 US dollars, whereas the net inflow of FDI is in current US dollars. Time series data on these four variables along with the consumer price annual inflation rate are available from the World Development Indicators (2002). Time series on forex reserves is available from IMF (2002), and the HDI is available from the UNDP (2002).

^{*3} Out of 207 countries for which the World Development Indicators (2002) provides data, the non-availability of data does not permit us to construct even one indicator either for the 1980s or the 1990s in the case of 20 countries. We have, therefore, dropped those 20 countries from our analysis. For two countries (Afghanistan and Libya) none of the seven indicators could be constructed for the 1990s whereas there were nine such countries for the 1980s. Moreover, countries are defined as distinct economies rather than political area. Thus, politically Macao and Hong Kong fall under China, but here we have considered them as two economies or countries.

^{*4} The number of observations for each correlation in these tables differs because of the non-reporting of data on different indicators in the basic sources.

also show a general weakening of the correlations during the 1990s when compared with the 1980s for all indicators except inflation. This is an interesting finding because it means that the economic performance of countries, which was already specialised on a few dimensions, is becoming more specialised and focused during the 1990s when compared to the 1980s. It suggests that the development goals, targets, and strategies are becoming sharper and narrowly focused over time.

Table 1: Correlation Matrix among the Seven Indicators - 1980s

	Ggcf	Gimpgs	Gfdi	Gfr	INF	HDI
Ggdppc	0.68084 (n=132)	0.55525 (n=130)	0.16520 (n=103)	0.40805 (n=134)	0.29126 (n=131)	0.34090 (n=123)
Ggcf		0.62415 (n=127)	0.20253 (n=95)	0.50281 (n=119)	0.13590 (n=117)	0.04504 (n=111)
Gimpgs			0.12082 (n=97)	0.42460 (n=123)	0.10950 (n=123)	0.31355 (n=109)
Gfdi				0.16193 (n=105)	0.00308 (n=99)	0.35334 (n=87)
Gfr					0.10554 (n=128)	0.12514 (n=109)
INF						0.01486 (n=108)

Basic Source: Appendix Table 1

Table 2: Correlation Matrix among the Seven Indicators - 1990s

	Ggcf	Gimpgs	Gfdi	Gfr	INF	HDI
Ggdppc	0.53666 (n=155)	0.57737 (n=158)	0.08711 (n=155)	0.02706 (n=164)	0.34676 (n=159)	0.15655 (n=139)
Ggcf		0.61736 (n=153)	0.14944 (n=141)	0.04251 (n=151)	0.09696 (n=148)	0.02863 (n=130)
Gimpgs			0.08429 (n=144)	0.01682 (n=154)	0.28562 (n=151)	0.15748 (n=131)
Gfdi				0.13574 (n=151)	0.02729 (n=148)	0.02901 (n=132)
Gfr					0.01629 (n=160)	0.08516 (n=133)
INF						0.06286 (n=133)

Basic Source: Appendix Table 2

This has an important implication for the identification of the top performers because the standard methods of “combining” different indicators attaching ‘some uniform weights’ become invalid and even conceptually challengeable. Thus, different popular methods like using the equal weights to ranking of individual indicators, or statistically derived weights through the principal component method (Gamini, *et al.*, 2002; Biswas and Caliendo, 2002 and Güveli, 2000), or equal weights after converting the indicators into indices as in PQLI (Morris, 1979) and

HDI (UNDP, 2002) are all meaningless in the light of our findings. The countries have different perceptions and attach different importance to various dimensions of the economic performance. Any uniform scale of weights cannot do justice to all. We need a different approach.

III. Identifying The Top Performers

If the economic performance of countries is considered along one dimension and with one indicator, the rankings generally are non-controversial. However, when there are several dimensions and multiple indicators, overall rankings would be problematic. But, in order to identify a certain number of top performers, we may not need precise overall rankings of countries. This is because, if our objective is to identify the 50 top overall performers, we can first identify the top 50 countries in each of the seven indicators by awarding one point each. We would then emerge with seven different sets of 50 countries each. The countries that are common to all the seven sets are necessarily among the top 50 overall performers. This would be a sub-set comprising of only a small number of countries if at all. During the nineties, for example, there was no such country and during the eighties, there were only three such countries. We may, then, consider countries present in six out of the seven sets. These countries are among the top 50 performers in six out of the seven dimensions. Again the number of such countries is likely to be small, e.g. only eight such countries in the 1980s and two in the 1990s. We can, then, consider the countries appearing in any five sets, 4 sets and so on. Table 3 provides the distribution of 187 countries considered in this study according to their score that shows the number of sets they appear in during the 1980s and the 1990s.

Table 3: Distribution of Countries According to their Score During the 1980s and the 1990s

Score *	7	6	5	4	3	2	1	0
No. of Countries During the 1980s	3	8	14	14	17	26	52	53
No. of Countries During the 1990s	0	2	10	18	36	30	48	43

*If a country appears in one set during the decade, it gets a score of one. The score of five, for instance, means that the country is in top 50 countries in five out of seven indicators during the decade

Source: Calculated from Appendix Tables 1 and 2

Some interesting patterns of economic performance of countries emerge from Table 3. The number of all-round performers scoring at least five points has sharply reduced to 12 during the 1990s compared to 25 during the 1980s. But at the same time, the number of countries with a score of two or more has increased from 82 in the 1980s to 96 in the 1990s. An average country during the eighties had a score of one or none, whereas during the nineties it has two or more. However, among the top performers, the shift appears to be in the reverse direction – an average top performer having a score of four or more during the 1980s to only three during the 1990s.

We may return to our question of how to select the top 50 overall performers if the distribution of the countries is as given in Table 3. We can readily see that there are 39 countries in the 1980s and 30 countries in the 1990s with a score of four or more, but there are 56 countries in the 1980s and 66 countries in the 1990s with a score three or more. Therefore, we have to select 11 out of 17 countries in the 1980s and 20 out of 36 countries in the 1990s with the score of three to complete the list of 50 top overall performers in each decade. In order to select those countries, the indicators are converted into the corresponding indexes with the best value in the indicator during a decade as 100 and the worst value as zero, from among all 187 countries. This exercise is done only for those indicators where the country ranks in the top 50. Then, the index values for all the three indicators in each of the 17 countries in the 1980s and 36 countries in the 1990s are added to arrive at the rankings of those countries so as to select 11 countries in the 1980s and 20 countries in the 1990s^{*5}. The top 50 overall performers so identified in the 1980s and the 1990s are presented in Tables 4 and 5 respectively along with their rankings in the seven indicators and the total score.

^{*5} Equal weights to indexes at this stage is justified because all the countries in the group have appeared in the top 50 performers in any three out of the seven indicators. Our suggested method picks up only those indicators for a country where it has performed. Different countries may have performed on different indicators. Index only measures the strength of their relative performance compared to the best and the worst performers. Equal weights to add such relative performance in three different dimensions has nothing objectionable.

Table 4: Top 50 Countries on Overall Economic Performance During the 1980

No.	Country	Ggdppc Rank	Ggcf Rank	Gimpgs Rank	Gfdi Rank	Gfr Rank	INF Rank	HDI Rank	Score @
1	Japan	27	29	25	21	33	7	4	7
2	Korea, Rep.	3	4	6	17	20	47	39	7
3	United Kingdom	36	23	20	11	39	49	18	7
4	Belize	47	6	51	14	10	27	48	6
5	Canada	60	34	19	13	25	43	1	6
6	Denmark	66	35	48	4	31	42	8	6
7	Finland	41	55	39	7	23	50	12	6
8	Spain	40	24	12	29	22	75	20	6
9	St. Kitts and Nevis	2	1	29	12	26	20		6
10	St. Vincent and the Grenadines	14	22	46	20	30	32		6
11	Thailand	9	8	5	28	14	30	61	6
12	Antigua and Barbuda	5	10	21		35	48		5
13	Belgium	59	42	47	37	53	18	10	5
14	China	1	5	15	27	49	87	79	5
15	Dominica		26	36	5	17	34		5
16	Luxembourg	16	17	30			31	17	5
17	Malta	22	12	16	71	90	9	33	5
18	Mauritius	12	9	3	8	1	69	59	5
19	Portugal	33	51	17	19	6	102	34	5
20	Singapore	17	67		49	44	8	36	5
21	St. Lucia	8	16	11	77	19	28		5
22	Sweden	55	31	41	23	37	61	8	5
23	Switzerland	75	48	38	37	68	18	5	5
24	Turkey	38	27	10	25	29	121	67	5
25	United States	44	54	18	44	51	35	2	5
26	Australia	63	59	34	39	36	67	12	4
27	Botswana	6	3	7	68	4	81	73	4
28	Chad	31		8	106	11	12	117	4
29	Costa Rica	95	21	14	51	40	116	41	4
30	Cyprus	13	56	54	79	46	36	26	4
31	France	65	53	45	32	82	46	10	4
32	Grenada	10	38	71	24	89	38		4
33	Hong Kong, China	11	50	2			66	25	4
34	India	29	25	31	35	120	72	97	4
35	Italy	49	63	27	67	45	77	19	4
36	Macao, China	25	18	23		3	76		4
37	Mali	137	46	24	50	18		118	4
38	Netherlands	67	52	49	33	73	11	6	4
39	Seychelles	21	7	1	56	99	15		4
40	Austria	61	60	42	52	74	22	15	3
41	Burkina Faso	91	14	72	93	24	3	121	3
42	Chile	35	11	61	58	69	108	42	3
43	Dominican Republic	90	33	4	47	123	114	65	3
44	Germany	53	64	58	34	81	13	14	3
45	Greece	97	85	43	62	34	106	22	3
46	Ireland	37	89	35	94	61	64	21	3
47	New Zealand	96	77	56	30	21	82	16	3
48	Norway	50	82	74	36	55	63	6	3
49	Panama	152	129	111	3	100	5	44	3
50	Swaziland	24	69	50	16	57	96	85	3

@The number of indicators in which the country is in top 50

Basic Source: (1) World Development Indicators 2002 (on CD ROM)

(2) International Financial Statistics 2003 (online: <http://ifs.apdi.net>)

(3) Human Development Report 2002 (online: <http://hdr.undp.org>)

Table 5: Top 50 Countries on Overall Economic Performance During the 1990

No.	Country	Ggdppc Rank	Ggcf Rank	Gimpgs Rank	Gfdi Rank	Gfr Rank	INF Rank	HDI Rank	Score @
1	Ireland	4	14	6	22	131	30	21	6
2	Poland	8	8	4	26	17	129	39	6
3	Australia	38	40	37	124	117	18	2	5
4	Croatia	26	29	90	16	9	154	41	5
5	India	18	24	27	27	23	87	102	5
6	Korea, Rep.	17	119	30	34	40	62	28	5
7	Lithuania	159	22	48	9	10	145	43	5
8	Slovak Republic	32	18	13	61	26	90	33	5
9	Trinidad and Tobago	49	6	28	89	36	66	42	5
10	Uganda	24	21	5	7	15	105	125	5
11	United States	53	26	26	35	145	32	4	5
12	Vietnam	5	5	2	86	29	45	88	5
13	Bangladesh	36	23	22	4	150	63	116	4
14	Canada	66	55	47	40	84	13	1	4
15	Chile	9	30	23	57	92	94	37	4
16	Denmark	67	47	73	39	87	15	16	4
17	Finland	31	77	51	19	124	10	15	4
18	Hungary	44	12	9	134	80	117	38	4
19	Israel	68	94	44	48	39	96	22	4
20	Japan	104	124	94	38	46	2	7	4
21	Luxembourg	20	45	83		155	16	13	4
22	Maldives	7	39	32	118	24	78	72	4
23	Malta	25	127	119	42	135	34	30	4
24	New Zealand	73	32	49	138	125	8	18	4
25	Nicaragua	103	9	19	23	35	156	95	4
26	Romania	120	143	38	15	48	151	48	4
27	Singapore	13	38		117	89	7	26	4
28	Slovenia	27	10	53	116	11	107	28	4
29	Uruguay	56	71	41	14	43	139	35	4
30	Yemen, Rep.	42	19	46		22	132	119	4
31	Armenia	127	42	159	8	5	160	70	3
32	Austria	84	103	72	49	116	21	14	3
33	Bahamas, The	115			5	83	28	34	3
34	Belgium	78	93	95	44	148	11	2	3
35	Bosnia and Herzen.	2	3	3					3
36	Cyprus	33	140	135	132	119	47	25	3
37	Czech Republic	86	44	7	54	66	79	31	3
38	Equatorial Guinea	1	2	1	74	100		98	3
39	Georgia	178	1	17	6	163	140		3
40	Germany	100	113	85	12	151	19	16	3
41	Malaysia	22	90	39	151	96	44	53	3
42	Netherlands	62	89	80	47	161	26	8	3
43	Norway	37	54	76	59	112	24	4	3
44	Panama	80	20	100	53	102	5	50	3
45	Seychelles	108	36	8	82	140	20		3
46	Spain	52	86	33	126	157	49	20	3
47	Sudan	6			1	13	148	112	3
48	Sweden	72	88	60	36	159	23	4	3
49	Switzerland	117	110	91	44	137	11	11	3
50	United Kingdom	54	65	57	50	144	35	10	3

@The number of indicators in which the country is in top 50

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(3) Human Development Report 2002 (online: <http://hdr.undp.org>)

The advantage of this method over the other methods is that non-availability of data on one, two or three indicators for a country does not disqualify the country from being effectively considered. Actually, Tables 4 and 5 clearly bring out that there are several countries among the top 50 performing economies in the world, where the data on some of the seven indicators are not available or reported. Methodological requirements of comprehensive data availability should not come in the way of recognizing their superior performance on other fronts. The only assumption we have to make about the non-availability of an indicator value in a country is that the country does not rank among the top 50 in that particular indicator during the decade. It is certainly not as restrictive an assumption or a procedure as dropping the country altogether from the analysis, a common practice in other similar exercises.

IV. Top Performers of the 1980s and the 1990s

A comparison of the top 50 performers during the 1980s and the 1990s is interesting. Twenty-six countries are common to both the lists. Twenty-four countries out of the top 50 during the 1980s dropped out of the list to make room for 24 new entrants during the 1990s. Out of the 24 emerging top performers during the 1990s, as many as 13 countries had serious problems about data availability during the 1980s. It is difficult to say whether they would have made it into the top 50 performers in the 1980s had satisfactory data been available on all indicators during the 1980s. Ignoring the problem of data availability, however, it is important to compare the performance of all these 74 countries over two decades. Table 6 provides the comparison in terms of the seven indicators between the two decades for each of the 26 countries common to both the lists.

Table 6: Comparison of Performance of the Common 26 Countries during 1980s and 1990s

No.	Nations	GDP pc	GCF	Imp GS	FDI	TR	INF	HDI	Score
1	Australia 80s	0.0216	0.0346	0.0576	0.1965	0.1312	8.1277	0.873	4
	90s	0.0300	0.0701	0.0842	0.0675	0.0515	2.2212	0.927	5
2	Austria 80s	0.0221	0.0331	0.0506	0.1265	0.0395	3.5296	0.867	3
	90s	0.0172	0.0207	0.0584	0.2592	0.0532	2.3185	0.909	3
3	Belgium 80s	0.0225	0.0495	0.0482	0.2032	0.0755	3.4088	0.875	5
	90s	0.0187	0.0308	0.0452	0.2734	-0.0069	1.9597	0.927	3
4	Canada 80s	0.0222	0.0560	0.0785	0.3591	0.1681	5.9693	0.906	6
	90s	0.0223	0.0566	0.0778	0.2923	0.1043	1.9968	0.932	4
5	Chile 80s	0.0321	0.0907	0.0357	0.0942	0.0447	20.4466	0.754	3
	90s	0.0477	0.0803	0.0999	0.2398	0.0844	9.5399	0.811	4
6	Cyprus 80s	0.0529	0.0386	0.0442	0.0207	0.0932	4.8960	0.821	4
	90s	0.0316	-0.0321	0.0019	0.0333	0.0501	3.8301	0.866	3
7	Denmark 80s	0.0204	0.0552	0.0479	0.5453	0.1407	5.9457	0.883	6
	90s	0.0221	0.0615	0.0579	0.2942	0.1013	2.1377	0.907	4
8	Finland 80s	0.0295	0.0387	0.0519	0.4559	0.1784	6.7690	0.873	6
	90s	0.0324	0.0414	0.0737	0.3746	0.0414	1.8628	0.908	4
9	Germany 80s	0.0237	0.0284	0.0387	0.2234	0.0245	2.6323	0.868	3
	90s	0.0118	0.0132	0.0519	0.4441	-0.0153	2.2454	0.907	3
10	India 80s	0.0354	0.0653	0.0599	0.2109	-0.0821	8.8793	0.473	4
	90s	0.0431	0.0831	0.0959	0.3470	0.2310	9.0508	0.545	5
11	Ireland 80s	0.0315	-0.0063	0.0574	-0.1125	0.0553	7.8471	0.846	3
	90s	0.0684	0.1079	0.1358	0.3568	0.0351	2.5392	0.894	6
12	Japan 80s	0.0360	0.0601	0.0654	0.2997	0.1382	2.0582	0.893	7
	90s	0.0101	-0.0007	0.0453	0.2978	0.1852	0.8345	0.923	4
13	Korea, Rep.80s	0.0761	0.1200	0.1126	0.3467	0.1871	6.3942	0.774	7
	90s	0.0433	0.0041	0.0904	0.3124	0.1990	5.0970	0.852	5
14	Luxembourg 80s	0.0481	0.0733	0.0622			4.4578	0.860	5
	90s	0.0396	0.0631	0.0523		-0.0207	2.1842	0.912	4
15	Malta 80s	0.0397	0.0870	0.0816	0.0580	0.0044	2.2998	0.793	5
	90s	0.0381	-0.0032	0.0200	0.2839	0.0275	2.8937	0.850	4
16	Netherlands 80s	0.0203	0.0412	0.0478	0.2324	0.0397	2.4606	0.888	4
	90s	0.0231	0.0324	0.0531	0.2679	-0.0757	2.4517	0.922	3
17	New Zealand 80s	0.0067	0.0148	0.0427	0.2378	0.1869	10.8799	0.866	3
	90s	0.0194	0.0774	0.0749	0.0099	0.0405	1.7520	0.902	4
18	Norway 80s	0.0244	0.0056	0.0268	0.2068	0.0727	7.6645	0.888	3
	90s	0.0302	0.0569	0.0555	0.2343	0.0547	2.3404	0.925	3
19	Panama 80s	-0.0215	-0.0989	-0.0230	0.5903	-0.0159	1.8440	0.745	3
	90s	0.0186	0.0963	0.0401	0.2442	0.0707	1.1682	0.770	3
20	Seychelles 80s	0.0410	0.0980	0.1480	0.1144	-0.0141	3.0784		4
	90s	0.0085	0.0719	0.1239	0.1780	0.0108	2.2870		3
21	Singapore 80s	0.0471	0.0237		0.1437	0.1002	2.2843	0.782	5
	90s	0.0445	0.0714		0.0824	0.0981	1.7296	0.857	4
22	Spain 80s	0.0298	0.0674	0.0949	0.2457	0.1844	9.3628	0.855	6
	90s	0.0251	0.0336	0.0894	0.0645	-0.0265	3.8929	0.895	3
23	Sweden 80s	0.0233	0.0589	0.0512	0.2809	0.1287	7.6141	0.883	5
	90s	0.0195	0.0324	0.0678	0.2996	-0.0467	2.3303	0.925	3
24	Switzerland 80s	0.0162	0.0447	0.0535	0.2032	0.0456	3.4088	0.892	5
	90s	0.0043	0.0154	0.0467	0.2734	0.0221	1.9597	0.914	3
25	United Kingdom 80s	0.0318	0.0678	0.0681	0.3807	0.1227	6.5854	0.858	7
	90s	0.0241	0.0501	0.0705	0.2550	-0.0008	3.0520	0.916	3
26	United States 80s	0.0275	0.0399	0.0790	0.1786	0.0797	4.7401	0.898	5
	90s	0.0243	0.0818	0.0974	0.3080	-0.0009	2.8014	0.925	5

Basic Source: Appendix Table 1 and 2

The table clearly reveals that in only five countries, viz., Australia, Chile, India, Ireland and New Zealand, has the country score increased during the 1990s over the 1980s. In another five countries, it has remained the same and in the remaining 16 countries, it has fallen. Thus, although the 26 countries appear to have maintained their status as belonging to the top 50 performers in the 1980s and the 1990s, in 16 of them the relative performance has actually deteriorated over the years. A closer look at Table 6 reveals that, while the absolute performance in terms of most of the seven indicators has deteriorated for several of these 16 countries, it has actually improved for Denmark, Finland, and the Netherlands in spite of their relative performance going down. The trend rate of growth of per capita real GDP has increased from the 1980s to the 1990s only in nine out of these 26 common top performers during the two decades.

Another distinctive feature of the 26 common countries coming out clearly from Table 6 is that except India, all countries have very high performance on the inflation and / or HDI front. Among this group of consistent performers, India is the only country with poor performance on both these counts. Except India, all countries show improvement in terms of inflation, while on the HDI front, all countries show clear improvement. It appears that high level of human development with good control over consumer inflation is almost a pre-condition for consistently high overall economic performance^{*6}. None of the other five indicators generates such a close association.

Those 24 countries that dropped out of the list of 50 top performers during the 1990s from the list of the 1980s tell a story of all-round deteriorated performance except HDI (Table 7). In HDI, there is a clear improvement in all countries.

^{*6} See Barro (1997), Ch. 3. Using similar measurement and concept of consumer inflation with the cross-country data for the 1960, 1970s and 1980s, he finds a significant negative relation between inflation and growth. He also finds the "causation from higher long-term inflation to reduced growth" (p.117). Barro's (1997) results do provide support to our finding here. It should be noted, however, that our finding considers good relative performance of a country on multiple dimensions and not on a single dimension of growth in income.

Table 7: Comparison of Performance of 24 Countries Not Listed among the Top Performers during 1990s

No.	Nations	GDP pc	GCF	Imp GS	FDI	TR	INF	HDI	Score
1	Antigua and Barbuda 80s	0.0657	0.0925	0.0680		0.1332	6.4708		5
	90s	0.0286	0.0207	0.0300		0.0704	2.5180		2
2	Belize 80s	0.0263	0.0988	0.0453	0.3583	0.2356	4.1761	0.718	6
	90s	0.0139	0.0304	0.0270	0.0739	0.0810	1.7580	0.772	2
3	Botswana 80s	0.0637	0.1293	0.1100	0.0616	0.2925	10.5841	0.613	4
	90s	0.0234	-0.0046	0.0147	-0.1791	0.0728	10.5134	0.620	0
4	Burkina Faso 80s	0.0092	0.0800	0.0280	-0.0983	0.1703	1.3416	0.282	3
	90s	0.0230	0.0749	0.0182	-0.0250	-0.0012	4.5795	0.300	1
5	Chad 80s	0.0341		0.1087	-0.2529	0.2346	2.5345	0.298	4
	90s	-0.0089		-0.0368	0.1503	0.1104	7.0622	0.335	0
6	China 80s	0.0823	0.1072	0.0928	0.2599	0.0829	11.8369	0.591	5
	90s	0.0856	0.1067	0.0530	0.1911	0.2411	7.4735	0.681	3
7	Costa Rica 80s	0.0070	0.0707	0.0928	0.1266	0.1180	27.1867	0.770	4
	90s	0.0298	0.0468	0.0865	0.1261	0.0478	16.0461	0.805	3
8	Dominica 80s		0.0628	0.0554	0.5195	0.1911	4.6900		5
	90s		0.0162	0.0166	-0.0540	0.0701	2.1072		1
9	Dominican Republic 80s	0.0092	0.0564	0.1230	0.1580	-0.0892	24.2451	0.667	3
	90s	0.0444	0.0639	0.0677	0.2316	0.0384	11.0107	0.698	2
10	France 80s	0.0205	0.0406	0.0497	0.2343	0.0242	6.3683	0.875	4
	90s	0.0146	0.0191	0.0563	0.1064	0.0511	1.7242	0.914	2
11	Greece 80s	0.0064	0.0010	0.0504	0.0876	0.1378	19.0408	0.845	3
	90s	0.0192	0.0373	0.0638	-0.0182	0.1350	9.3896	0.868	1
12	Grenada 80s	0.0571	0.0512	0.0289	0.2772	0.0072	5.2858		4
	90s	0.0326	0.0533	0.0652	0.1113	0.1534	2.1959		2
13	Hong Kong, China 80s	0.0549	0.0423	0.1340			8.0906	0.823	4
	90s	0.0159	0.0454	0.0709		0.1552	5.3448	0.877	1
14	Italy 80s	0.0257	0.0287	0.0645	0.0660	0.0950	9.7217	0.856	4
	90s	0.0146	0.0181	0.0497	0.1239	-0.0188	3.7292	0.897	2
15	Macao, China 80s	0.0372	0.0722	0.0668		0.3159	9.6485		4
	90s	-0.0030	-0.0692	0.0094		0.1461	3.3975		1
16	Mali 80s	-0.0132	0.0453	0.0668	0.1420	0.1907		0.292	4
	90s	0.0147	-0.0045	0.0287	0.1758	0.0403	4.0512	0.346	0
17	Mauritius 80s	0.0535	0.0942	0.1310	0.4555	0.3921	8.3024	0.686	5
	90s	0.0399	0.0392	0.0522	0.2164	-0.0089	6.6819	0.746	1
18	Portugal 80s	0.0337	0.0414	0.0800	0.3240	0.2584	17.3141	0.787	5
	90s	0.0262	0.0549	0.0727	0.0649	-0.0663	4.9396	0.855	2
19	St. Kitts and Nevis 80s	0.0765	0.1377	0.0626	0.3604	0.1600	3.4399		6
	90s	0.0467	0.0460	0.0457	0.1800	0.1038	3.5251		2
20	St. Lucia 80s	0.0596	0.0742	0.0972	0.0272	0.1885	4.2976		5
	90s	0.0076	0.0246	0.0018	0.0519	0.0500	3.2908		1
21	St. Vincent and Gren. 80s	0.0523	0.0688	0.0490	0.3102	0.1445	4.5265		6
	90s	0.0275	0.0511	0.0301	0.1640	0.0712	2.4217		2
22	Swaziland 80s	0.0385	0.0227	0.0469	0.3516	0.0693	14.5265	0.569	3
	90s	0.0023	0.0209	0.0268	-0.2400	0.0616	9.4532	0.620	0
23	Thailand 80s	0.0594	0.0979	0.1222	0.2462	0.2044	4.4398	0.676	6
	90s	0.0267	-0.0627	0.0309	0.1360	0.0636	4.5367	0.749	1
24	Turkey 80s	0.0300	0.0617	0.0984	0.2769	0.1467	46.2873	0.654	5
	90s	0.0215	0.0426	0.1124	0.0230	0.1928	76.7014	0.717	2

Basic Source: Appendix Table 1 and 2

Table 7 shows that in 18 out of 24 countries, the trend rate of growth in per capita real GDP has fallen sharply during the 1990s compared to the 1980s. The presence of China among these 24 countries is somewhat surprising because it has experienced absolute improvement in all but two indicators and yet it has lost its place relative to the others. However, drawing from our earlier discussion, we can argue that China is not performing very well relatively on both HDI and inflation and hence may not be able to maintain consistently high overall economic performance. In fact, out of the performers of the eighties there are only two countries, viz., France and Belize that have high performance on HDI and inflation and yet failed to maintain consistently high relative overall economic performance during the 1990s.

The group of the emerging performers of the 1990s is presented in Table 8. Non-availability of data for the 1980s in the case of 11 out of the 24 countries makes it difficult to draw meaningful conclusions. Some of those countries could have been among the top 50 countries had the satisfactory data been available for the 1980s. From whatever data are available, however, we can say that several of these new entrants to this club of 50 are relatively shaky in the sense that they may not be able to hold on to their membership in the coming decade. This is because their performance on HDI and inflation front is relatively not high and far from what is required. Thus Armenia, Bangladesh, Bosnia, Equatorial Guinea, Georgia, Maldives, Nicaragua, Sudan, Uganda, and Yemen will have to be extra cautious and make extra efforts to maintain their relative performance over the next decade.

Table 8: Comparison of Performance of 24 Countries Emerging only in 1990s as Top Performers

No.	Nations	GDP pc	GCF	Imp GS	FDI	TR	INF	HDI	Score
1	Armenia 80s								0
	90s	0.0018	0.0656	-0.1179	0.5094	0.6214	739.9026	0.715	3
2	Bahamas, The 80s	0.0244				0.0153	5.5348	0.817	2
	90s	0.0055			0.6045	0.1086	2.5162	0.816	3
3	Bangladesh 80s	0.0145	0.0192	0.0646	-0.2326	0.1274	7.3649	0.386	2
	90s	0.0304	0.0933	0.1034	0.6091	-0.0122	5.2992	0.445	4
4	Bosnia and Herzegovina 80s								0
	90s	0.1840	0.3047	0.1960					3
5	Croatia 80s						453.8095		0
	90s	0.0376	0.0805	0.0473	0.3964	0.3176	238.2516	0.789	5
6	Czech Republic 80s								0
	90s	0.0164	0.0638	0.1331	0.2409	0.1479	7.5935	0.843	3
7	Equatorial Guinea 80s	-0.0087		0.0580		-0.0421		0.533	1
	90s	0.1948	0.3841	0.4202	0.1978	0.0727		0.582	3
8	Georgia 80s	-0.0090							0
	90s	-0.0966	0.4818	0.1059	0.5642	-0.1046	39.3309		3
9	Hungary 80s	0.0158	-0.0059	0.0192		-0.0966	10.9270	0.805	1
	90s	0.0284	0.1133	0.1167	0.0234	0.1141	20.2521	0.809	4
10	Israel 80s	0.0174	0.0223	0.0405	0.1225	0.0277	118.2897	0.836	1
	90s	0.0219	0.0307	0.0795	0.2624	0.2007	9.6304	0.877	4
11	Lithuania 80s	0.0629							1
	90s	-0.0153	0.0946	0.0752	0.4751	0.3169	70.3021	0.781	5
12	Malaysia 80s	0.0229	0.0235	0.0679	0.0102	0.0738	3.2481	0.693	2
	90s	0.0391	0.0321	0.0831	-0.1203	0.0793	3.5538	0.760	3
13	Maldives 80s	0.0706			0.0063	0.2372		0.629	2
	90s	0.0568	0.0704	0.0895	0.0799	0.2296	7.4807	0.707	4
14	Nicaragua 80s	-0.0515	-0.0745	-0.0270			2438.8706	0.584	0
	90s	0.0106	0.1192	0.1053	0.3554	0.2097	339.1007	0.615	4
15	Poland 80s	-0.0736			0.0600	0.2022	107.6725		1
	90s	0.0506	0.1252	0.1450	0.3483	0.2749	28.4287	0.808	6
16	Romania 80s	-0.0027	0.0712	-0.0052		0.0479	22.2534	0.794	2
	90s	0.0034	-0.0388	0.0835	0.4008	0.1840	121.0157	0.772	4
17	Slovak Republic 80s	0.0154	0.0028	0.0360				0.813	1
	90s	0.0317	0.0999	0.1113	0.2333	0.2231	9.2172	0.817	5
18	Slovenia 80s								0
	90s	0.0363	0.1146	0.0734	0.0888	0.3141	13.6422	0.852	4
19	Sudan 80s	-0.0245				-0.0727	40.2020	0.395	0
	90s	0.0571			1.5106	0.3072	82.1034	0.462	3
20	Trinidad and Tobago 80s	-0.0256	-0.1122	0.0217	0.4437	-0.3699	11.0800	0.774	2
	90s	0.0264	0.1368	0.0952	0.1602	0.2096	5.4693	0.787	5
21	Uganda 80s	0.0037	0.0770	0.0430		-0.1121	103.4137	0.386	1
	90s	0.0387	0.0958	0.1403	0.5299	0.2992	12.8222	0.404	5
22	Uruguay 80s	0.0054	-0.0495	0.0131	0.1175	0.0639	62.4875	0.781	1
	90s	0.0238	0.0450	0.0820	0.4198	0.1914	38.0910	0.815	4
23	Vietnam 80s	0.0219						0.583	0
	90s	0.0590	0.1737	0.2688	0.1679	0.2170	3.7115	0.649	5
24	Yemen, Rep. 80s				-0.5380				0
	90s	0.0287	0.0999	0.0783		0.2385	30.6111	0.439	4

Basic Source: Appendix Table 1 and 2

The key to success in these economies appears to be control of inflation because they are lagging far behind in terms of HDI, the other critical indicator. Malaysia, The Bahamas, and Trinidad and Tobago, on the other hand, are very likely to maintain their relative performance during the next decade. All other countries on the list have to tackle the problem of high inflation in their economy to achieve stability and consistency of performance. It is indeed surprising that all the emerging performers of the 1990s except The Bahamas, Malaysia, and Vietnam have experienced relatively very high average inflation rate during the 1990s. Thus, high inflation during a decade does not deter the solid real economic performance on the other dimensions during the same decade,^{*7} but may create problems of maintaining the consistency of relative performance over time, if not checked.

V. Predicting Future Performance

Finally, we attempt to predict the economic performance of countries in the next decade. As a first step, we find the correlation for each indicator value during the 1980s and the 1990s. All correlation coefficients are very low except for HDI where it turns out to be +0.9853^{*8}. For the rest, the r^2 s are less than 0.09. Thus, except HDI, the future values of the other six indicators are not highly correlated with their current values when performance over a decade is considered on a given dimension. As a second step, then, we take the past performance on all the seven dimensions to check whether the future performance on seven individual dimensions can be explained. We, therefore, run regressions with each indicator in the 1990s as the dependent variable and all the seven indicators in the 1980s as the independent variables^{*9}. Here our intension is to examine the explanatory power of the performance indicator we are using rather than statistically mining explanatory variables. Four of our seven indicators are not explained satisfactorily

^{*7} Our finding here appears to be in sharp contrast to Barro (1997) who finds “no sign in any range of a positive relation that would signify that higher inflation had to be tolerated to obtain more growth” (p.98). While growth of income is just one dimension of economic performance, we are considering multiple dimensions and only the emerging performers during the nineties.

^{*8} This is not surprising since HDI is more of a stock variable.

^{*9} Here the problem of data non-availability becomes a severe constraint. Fitting a multiple regression requires that the data matrix be complete and uniform for all variables. When we consider this constraint, the number of countries falls sharply from 187 to only 80. Since 80 is a large sample, our result may be considered reliable for prediction if found statistically significant.

by the past performance measures. Only three out of the seven regressions turn out to be statistically significant at 3% level of significance in terms of the goodness of fit test. On these three regressions, we applied the step-wise regression procedures to arrive at the most significant and acceptable fit. The results are as under:

$$1. (Ggdppc)_{1990s} = 0.0079 + 0.5157(Ggdppc)_{1980s} - 0.1231(Ggcf)_{1980s} + 0.1321(Gimpgs)_{1980s} + 1.87(10)^{-5}(Inf)_{1980s}$$

t-value:	(3.37)	(4.58)	(-2.45)	(2.55)	(2.35)
P-Value:	(0.001)	$(1.82(10)^{-5})$	(0.017)	(0.013)	(0.021)

$R^2 = 0.3864$; $F(4,75) = 11.808$, $P\text{-value} = 1.72(10)^{-7}$

$$2. (Gfdi)_{1990s} = -0.0505 - 0.1733(Gfdi)_{1980s} - 0.3177(Gfr)_{1980s} + 0.3851(HDI)_{1980}$$

t-values:	(-0.57)	(-1.49)	(-1.78)	(2.82)
P-values :	(0.569)	(0.140)	(0.079)	(0.006)

$R^2 = 0.1170$; $F(3,75) = 3.312$, $P\text{-value} = 0.0245$

$$3. (HDI)_{1995} = 0.0337 + 0.5641(Ggdppc)_{1980s} + 1.86(10)^{-5}(Inf)_{1980s} + 0.9961(HDI)_{1985}$$

t-values:	(3.19)	(4.72)	(1.56)	(62.84)
P-values:	(0.002)	$(1.05(10)^{-5})$	(0.124)	$(2.8(10)^{-67})$

$R^2 = 0.9834$; $F(3,76) = 1503.96$, $P\text{-value} = 1.5(10)^{-67}$

These findings do spring some surprises:

1. Contrary to what Barro (1997) found, inflation in our equation (1) has a positive and significant coefficient implying a direct relationship with growth of income. Thus, our finding suggests the existence of a trade-off between higher inflation and higher growth.
2. A negative and significant coefficient of Ggcf in equation (1) seems to contradict the finding of Blomstrom et al. (1996) that investment does not cause future growth. Higher investment is likely to result in higher incremental capital-output ratio by depressing the rate of return ultimately leading to a fall in the future growth of income. Thus, investment may cause output growth, albeit negatively.

3. A negative and significant coefficient of Gfr in equation (2) contradicts the arguments of Patel and Kapur (2003) that the foreign investors may see high accumulation of forex reserves by a country as reducing the risk of financial crises. On the contrary, the foreign investors may perceive very rapid growth of forex reserves in a country as a symptom and a potential threat of the government intervention to the market forces.
4. In view of the importance of inflation and HDI emerging from the discussion in the previous section, the finding in equation (3) suggest some distant trade-off considering the magnitude and significance of its coefficient.

The rest of the findings of our regressions are in line with the existing literature. Thus, a positive and significant coefficient of $Ggdppc$ in equation (3) and absence of HDI in equation (1) supports the hypothesis that growth causes human capital and not vice-versa (Bils & Klenow, 1996). Similarly, HDI is very important for growth of FDI (equation 2).

Based on these three regressions, it is possible to generate the expected performance of different countries on the three indicators. On the assumption that the extent of relationship given by the estimated parameters in these regressions remain stable over time, we may plug in the values of the independent variables for the 1990s to generate the prediction of the trend rates of growth of per capita real GDP, and net inflow of FDI for the decade of 2001-2010, and the level of HDI in 2005 in different countries. Since the data availability is better in the 1990s, the number of countries covered in our prediction is 156.

Table 9: Predicted Values of 3 Performance Indicators with Ranking for the Decade 2001-10

No.	Countries	Trend Growth in GDPpc			Trend Growth in FDI			HDI		
		Observed	Predicted	Rank	Observed	Predicted	Rank	Observed	Predicted	Rank
		1990s	2000s	2000s	1990s	2000s	2000s	1995	2005	2005
1	Albania	0.0438	0.0210	64	0.1021	0.1600	61	0.702	0.759	70
2	Algeria	0.0028	0.0094	114	-0.0846	0.1494	67	0.663	0.696	84
3	Antigua and Barbuda	0.0286	0.0241	49						
4	Argentina	0.0224	0.0277	31	0.2042	0.1865	48	0.830	0.874	32
5	Armenia	0.0018	-0.0010	135	0.5094	-0.0608	122	0.715	0.761	66
6	Australia	0.0300	0.0259	40	0.0675	0.2785	7	0.927	0.974	2
7	Austria	0.0172	0.0219	59	0.2592	0.2378	20	0.909	0.949	16
8	Azerbaijan	-0.0583	-0.0129	142	0.6045	0.1245	76	0.816	0.850	39
9	Bahrain	0.0090	0.0147	97						
10	Bangladesh	0.0304	0.0258	42	0.6091	0.0192	113	0.445	0.494	110
11	Barbados	0.0233	0.0167	85						
12	Belarus	-0.0060	0.0166	86	0.4670	0.1202	80	0.776	0.815	43
13	Belgium	0.0187	0.0197	74	0.2734	0.2613	11	0.927	0.968	5
14	Belize	0.0139	0.0149	95	0.0739	0.2083	36	0.772	0.811	47
15	Benin	0.0191	0.0140	103	0.2342	0.0406	106	0.388	0.431	122
16	Bhutan	0.0359	0.0158	89						
17	Bolivia	0.0155	0.0132	106	0.3402	0.0658	101	0.630	0.670	87
18	Botswana	0.0234	0.0226	57	-0.1791	0.1962	40	0.620	0.665	89
19	Brazil	0.0159	0.0373	9	0.4325	0.1213	78	0.737	0.787	56
20	Bulgaria	-0.0104	0.0153	92	0.3910	0.1108	87	0.778	0.806	49
21	Burkina Faso	0.0230	0.0130	107	-0.0250	0.0698	98	0.300	0.346	131
22	Burundi	-0.0503	-0.0156	143				0.316	0.320	132
23	Cambodia	0.0177	0.0146	98	0.1619	0.0128	115	0.531	0.573	100
24	Cameroon	-0.0003	0.0138	104	0.2289	0.2365	21	0.499	0.531	104
25	Canada	0.0223	0.0227	56	0.2923	0.2247	24	0.932	0.975	1
26	Cape Verde	0.0348	0.0399	7	0.3292	0.1976	38	0.678	0.729	78
27	Central African Republic				0.1286	0.0233	112	0.369	0.401	124
28	Chad				0.1503	0.0174	114	0.335	0.363	127
29	Chile	0.0477	0.0360	11	0.2398	0.1935	43	0.811	0.869	33
30	China	0.0856	0.0460	3	0.1911	0.1021	90	0.681	0.761	67
31	Colombia	0.0089	0.0216	61	0.1840	0.1965	39	0.750	0.786	57
32	Comoros				0.3654	0.0443	104			
33	Congo, Dem. Rep.	-0.0763	0.0434	4	-0.0836	0.1873	47	0.511	0.589	99
34	Congo, Rep.	-0.0361	-0.0029	136						
35	Costa Rica	0.0298	0.0292	25	0.1261	0.2225	25	0.805	0.853	38
36	Cote d'Ivoire	0.0078	0.0048	125	0.1263	-0.1217	125	0.416	0.453	119
37	Croatia	0.0376	0.0280	29	0.3964	0.0838	93	0.789	0.845	40
38	Cyprus	0.0316	0.0285	27	0.0333	0.2614	10	0.866	0.914	24
39	Czech Republic	0.0164	0.0262	36	0.2409	0.1855	49	0.843	0.883	31
40	Denmark	0.0221	0.0194	75	0.2942	0.2157	32	0.907	0.950	15
41	Dominican Republic	0.0444	0.0320	18	0.2316	0.1660	56	0.698	0.754	72
42	Ecuador	-0.0058	0.0074	119	0.1587	0.1854	50	0.719	0.747	73
43	Egypt, Arab Rep.	0.0277	0.0166	87	0.1400	0.1318	73	0.605	0.652	93
44	El Salvador	0.0237	0.0273	33	0.1864	0.1111	86	0.682	0.727	80
45	Estonia	0.0260	0.0327	16						
46	Equatorial Guinea				0.1978	0.1163	82			
47	Ethiopia	0.0300	0.0198	70	0.3905	-0.0385	121	0.308	0.358	129
48	Fiji	0.0063	0.0144	99	0.0113	0.2152	33	0.743	0.777	59
49	Finland	0.0324	0.0292	24	0.3746	0.2212	26	0.908	0.957	13
50	France	0.0146	0.0205	65	0.1064	0.2668	9	0.914	0.952	14
51	Gabon	0.0008	0.0048	124						
52	Gambia, The	-0.0009	0.0043	129	0.0718	0.0703	97	0.375	0.407	123
53	Georgia	-0.0966	-0.0865	145						
54	Germany	0.0118	0.0192	76	0.4441	0.2267	23	0.907	0.944	18
55	Ghana	0.0187	0.0298	23	0.0931	0.0964	92	0.525	0.568	101
56	Greece	0.0192	0.0218	60	-0.0182	0.2441	18	0.868	0.909	26
57	Grenada	0.0326	0.0268	35						
58	Guatemala	0.0143	0.0203	66	0.1235	0.1356	71	0.609	0.649	94

Table 9: Predicted Values of 3 Performance Indicators with Ranking for the Decade 2001-10 (contd.)

No.	Countries	Trend Growth in GDPpc			Trend Growth in FDI			HDI		
		Observed	Predicted	Rank	Observed	Predicted	Rank	Observed	Predicted	Rank
		1990s	2000s	2000s	1990s	2000s	2000s	1995	2005	2005
59	Guinea-Bissau	-0.0147	0.0177	82				0.331	0.356	130
60	Guyana	0.0458	0.0365	10	-0.1037	0.2131	34	0.703	0.760	68
61	Haiti	-0.0234	0.0101	113	0.2800	-0.0119	118	0.457	0.476	113
62	Honduras	0.0025	0.0068	121	0.2264	0.0543	103	0.628	0.661	90
63	Hong Kong, China	0.0159	0.0199	68				0.877	0.916	23
64	Hungary	0.0284	0.0244	46	0.0234	0.2208	28	0.809	0.856	37
65	Iceland	0.0224	0.0212	63	0.0380	0.2953	1	0.918	0.961	10
66	India	0.0431	0.0327	15	0.3470	0.0259	111	0.545	0.601	97
67	Indonesia	0.0184	0.0257	43	0.2400	0.1210	79	0.664	0.706	83
68	Iran, Islamic Rep.	0.0154	-0.0041	138				0.688	0.728	79
69	Ireland	0.0684	0.0478	2	0.3568	0.2208	27	0.894	0.963	9
70	Israel	0.0219	0.0261	39	0.2624	0.1780	52	0.877	0.920	22
71	Italy	0.0146	0.0198	73	0.1239	0.2795	6	0.897	0.936	21
72	Jamaica	-0.0082	0.0048	126	0.1791	0.1478	68	0.736	0.763	64
73	Japan	0.0101	0.0192	77	0.2978	0.1945	41	0.923	0.959	12
74	Jordan	0.0107	0.0178	81	0.8473	0.0301	109	0.703	0.740	75
75	Kazakhstan	-0.0226	0.0040	130						
76	Kenya	-0.0033	0.0102	111	0.2123	0.0323	108	0.523	0.553	102
77	Korea, Rep.	0.0433	0.0417	5	0.3124	0.1603	60	0.852	0.907	27
78	Kuwait	-0.0143	0.0047	127	0.0237	0.2455	17	0.812	0.835	41
79	Kyrgyz Republic	-0.0399	-0.0196	144						
80	Lao PDR							0.445	0.500	108
81	Latvia	-0.0007	0.0151	93	0.3131	0.1767	53	0.763	0.794	53
82	Lebanon				0.6098	0.0692	99			
83	Lesotho	0.0206	0.0187	79	0.4556	0.0406	105	0.572	0.615	95
84	Lithuania	-0.0153	-0.0004	133	0.4751	0.0673	100	0.781	0.804	50
85	Luxembourg	0.0396	0.0275	32				0.912	0.965	8
86	Macao, China	-0.0030	0.0161	88						
87	Macedonia, FYR	-0.0076	0.0149	96						
88	Madagascar	-0.0045	0.0075	117	0.1597	0.0259	110	0.441	0.471	114
89	Malawi	0.0186	0.0283	28	0.2516	0.0025	116	0.403	0.446	120
90	Malaysia	0.0391	0.0351	12	-0.1203	0.2378	19	0.760	0.813	45
91	Maldives	0.0568	0.0405	6	0.0799	0.1350	72	0.707	0.770	62
92	Mali	0.0147	0.0199	69	0.1758	0.0395	107	0.346	0.387	125
93	Malta	0.0381	0.0306	21	0.2839	0.2189	29	0.850	0.902	29
94	Mauritania	0.0128	0.0044	128	-0.1631	0.0713	96	0.418	0.457	117
95	Mauritius	0.0399	0.0306	20	0.2164	0.2021	37	0.746	0.799	51
96	Mexico	0.0147	0.0256	44	0.1298	0.1929	44	0.774	0.813	44
97	Moldova				0.3184	0.1674	55	0.704	0.688	85
98	Mongolia				0.2995	0.0741	95	0.636	0.673	86
99	Morocco	0.0061	0.0157	90	-0.6060	0.2565	13	0.569	0.604	96
100	Mozambique	0.0441	0.0243	47	0.2851	-0.0325	120	0.313	0.371	126
101	Myanmar	0.0473	0.0140	101						
102	Namibia	0.0167	0.0156	91				0.629	0.670	88
103	Nepal	0.0233	0.0233	52	0.0951	0.0819	94	0.453	0.498	109
104	Netherlands	0.0231	0.0229	55	0.2679	0.2822	5	0.922	0.965	7
105	New Zealand	0.0194	0.0183	80	0.0099	0.2823	4	0.902	0.943	19
106	Nicaragua	0.0106	0.0189	78	0.3554	0.0582	102	0.615	0.659	91
107	Niger	-0.0070	-0.0036	137	0.0893	0.1069	88	0.262	0.291	133
108	Nigeria	-0.0048	0.0051	123	0.0182	0.1149	83	0.448	0.478	112
109	Norway	0.0302	0.0238	50	0.2343	0.2478	15	0.925	0.972	3
110	Pakistan	0.0099	0.0140	102	0.0515	0.1055	89	0.473	0.511	106
111	Panama	0.0186	0.0110	108	0.2442	0.1813	51	0.770	0.811	46
112	Papua New Guinea	0.0038	0.0133	105	0.0465	0.1302	74	0.519	0.553	103
113	Paraguay	-0.0050	0.0073	120	0.0427	0.2180	31	0.735	0.763	63
114	Peru	0.0295	0.0262	37	0.1444	0.1553	64	0.730	0.779	58
115	Philippines	0.0136	0.0202	67	0.1249	0.1614	58	0.733	0.772	61

Table 9: Predicted Values of 3 Performance Indicators with Ranking for the Decade 2001-10 (concl.)

No.	Countries	Trend Growth in GDPpc			Trend Growth in FDI			HDI		
		Observed	Predicted	Rank	Observed	Predicted	Rank	Observed	Predicted	Rank
		1990s	2000s	2000s	1990s	2000s	2000s	1995	2005	2005
116	Poland	0.0506	0.0382	8	0.3483	0.1130	84	0.808	0.868	34
117	Portugal	0.0262	0.0243	48	0.0649	0.2886	3	0.855	0.900	30
118	Romania	0.0034	0.0277	30	0.4008	0.1189	81	0.772	0.807	48
119	Russian Federation	-0.0392	0.0101	112	0.1944	0.1683	54	0.779	0.791	55
120	Rwanda	-0.0126	-0.0006	134	0.2695	-0.0148	119	0.335	0.360	128
121	Samoa				-0.0552	0.2188	30	0.689	0.733	76
122	Saudi Arabia	-0.0154	-0.0067	141				0.737	0.759	69
123	Senegal	0.0126	0.0106	109	0.2400	-0.1127	124	0.400	0.439	121
124	Seychelles	0.0085	0.0198	71						
125	Sierra Leone	-0.0656	0.0036	131						
126	Singapore				0.0824	0.2341	22	0.857	0.913	25
127	Slovak Republic	0.0317	0.0268	34	0.2333	0.1529	65	0.817	0.866	35
128	Slovenia	0.0363	0.0224	58	0.0888	0.1625	57	0.852	0.903	28
129	South Africa	0.0030	0.0149	94	0.1003	0.1427	69	0.724	0.757	71
130	Spain	0.0251	0.0286	26	0.0645	0.2915	2	0.895	0.939	20
131	Sri Lanka	0.0387	0.0312	19	0.1068	0.1892	46	0.719	0.772	60
132	St. Kitts and Nevis	0.0467	0.0324	17						
133	St. Lucia	0.0076	0.0090	115						
134	St. Vincent and Gren.	0.0275	0.0198	72						
135	Sudan				1.5106	-0.2319	126	0.462	0.528	105
136	Swaziland	0.0023	0.0102	110	-0.2400	0.2103	35	0.620	0.653	92
137	Sweden	0.0195	0.0229	54	0.2996	0.2687	8	0.925	0.966	6
138	Switzerland	0.0043	0.0144	100	0.2734	0.2471	16	0.914	0.947	17
139	Syrian Arab Republic	0.0240	0.0170	84				0.665	0.710	82
140	Tanzania	0.0033	0.0074	118	0.3418	-0.0009	117	0.427	0.461	115
141	Thailand	0.0267	0.0335	14	0.1360	0.1942	42	0.749	0.795	52
142	Togo	0.0012	0.0080	116	0.1261	0.1499	66	0.476	0.509	107
143	Trinidad and Tobago	0.0264	0.0173	83	0.1602	0.1583	63	0.787	0.833	42
144	Tunisia	0.0305	0.0245	45	0.0795	0.1597	62	0.682	0.730	77
145	Turkey	0.0215	0.0300	22	0.0230	0.1604	59	0.717	0.762	65
146	Uganda	0.0387	0.0348	13	0.5299	-0.0818	123	0.404	0.458	116
147	Ukraine	-0.0864	0.0026	132	0.1983	0.1416	70	0.745	0.743	74
148	United Kingdom	0.0241	0.0235	51	0.2550	0.2584	12	0.916	0.960	11
149	United States	0.0243	0.0232	53	0.3080	0.2527	14	0.925	0.969	4
150	Uruguay	0.0238	0.0261	38	0.4198	0.1298	75	0.815	0.860	36
151	Vanuatu	-0.0143	-0.0063	140						
152	Venezuela, RB	-0.0106	0.0067	122	0.2315	0.1895	45	0.766	0.791	54
153	Vietnam	0.0590	0.0525	1	0.1679	0.1014	91	0.649	0.714	81
154	Yemen, Rep.	0.0287	0.0213	62				0.439	0.488	111
155	Zambia	-0.0196	-0.0044	139	0.2167	0.1217	77	0.432	0.455	118
156	Zimbabwe	0.0064	0.0259	41	0.3423	0.1130	85	0.563	0.599	98

Source : Appendix Table 2 & Regression Equations 1 to 3.

Table 9 presents the predicted values and the observed values of each of these three indicators for different countries for 2001-10 and 1981-90. The table predicts a more even growth of per capita real GDP during the first decade of the twenty-first century. It also predicts strong growth in the developed countries and considerable swings in the growth of the net inflows of FDI. Based on our prediction of the three performance indicators, 15 economies are likely to be among the top performers of the next decade and would obviously invite the attention of the business community. These countries, in the

alphabetical order, are: Argentina, Australia, Chile, Costa Rica, Cyprus, Czech Republic, Finland, Hungary, Ireland, Malaysia, Malta, Mexico, Norway, Portugal, and Spain. There may be genuine surprises in store as far as the other 35 top performers of the future are concerned. This is because four of our seven indicators of economic performance do not depend on the past performance. They are largely governed by the policies and changes in economic environment. Therefore, while we can identify some of the 50 top performers of the future, we may not be able to identify most of them.

References

- Abramovitz, M. (1956): "Resource and Output Trends in United States since 1870", *American Economic Review, Papers and Proceedings*, Vol. 46, May, pp. 115-23
- Arnold D.J. and Quelch J.A. (1998): "New Strategies in Emerging Economies", *Sloan Management Review*, Vol. 40, No.1, pp.7-20
- Auer, L. (1979): *Regional Disparities of Productivity and Growth in Canada*, Economic Council of Canada.
- Barro, R.J. (1997): *Determinants of economic growth – A cross-country empirical study*, Cambridge, MIT Press
- Bils, Mark, and P. Klenow (1996): "Does Schooling cause Growth?", *American Economic Review*, Vol. 90, No. 5, pp. 1160-83
- Biswas, Basudeb and Frank Caliendo (2002): "A Multivariate Analysis of the Human Development Index", *Indian Economic Journal*, Vol. 49, No.4, April-June, pp. 96-100
- Blomstrom, Magnus, R. Lipsey, and M. Zejan (1996): "Is Fixed Investment the Key to Economic Growth?", *Quarterly Journal of Economics*, Vol. 111 No. 1, pp. 269-76
- Bonnici, Josef (2002): 'Inaugural Address', Malta External Trade Corporation Conference on "Think Global – Act How?", Feb. 6
- Denison, E. (1967): *Why Growth Rates Differ: Post War Experience in Nine Westerns Countries*, Washington DC, Brookings Institute
- Easterly, William and Ross Levine (2001): "It's Not Factor Accumulation: Stylized Facts and Growth Models", *World Bank Economic Review*, Vol. 15, No. 3 pp.177-219

- DeSilva, Gamini, R.O. Thattil, S. Samita Gamini (2000): "Construction of a Composite Index of Human Development for Developing Nations", IAOS Conference on Statistics Development and Human Rights, held at Montreaux (Switzerland), 4-8 September.
- Global Edge (2002): <http://ciber.msu.edu/Research/MPI/default.asp>
- Goyal, Arun and Noor Mohd (eds.) (2001): *WTO in the New Millennium: Commentary, Case Law and Legal Texts*, Fifth Edition, Bombay: MUIRDC World Trade Centre, September
- Güveli, Serdar K (2000): "A Ranking of Islamic Countries in Terms of their Levels of Socio-Economic Development", *Journal of Economic Cooperation*, Vol. 21, No. 1, pp.97-114
- Hoskisson R.E. Eden L., Lan C.M. and Wright (2000): "Strategy in Emerging Economies", *Academy of Management Journal*, Vol. 43, Issue 3, June; pp. 249-67
- International Finance Corporation (IFC) (1999): Database from <http://www.ifc.org/EMBD/SLIDES/img009.gif>
- International Monetary Fund (2003): *International Financial Statistics*, Washington DC
- Jalan Bimal (2002): "Financial Architecture: To Each His Own", address delivered to the symposium of Central Bank Governors hosted by the Bank of England at London, July 5.
- Kapur, Devesh and Urjit R. Patel (2003): "Large Foreign Currency Reserves: Insurance for Domestic Weakness and External Uncertainties", *Economic and Political Weekly*, Vol. 38 No. 11, March 15, pp. 1047-53
- Morris, David Morris (1979): *Measuring the Conditions of The World's Poor: The Physical Quality of Life Index*, Washington DC: Overseas Development Council.
- Nelson R. (1964): "Aggregate Production Functions and Medium Range Growth Projections", *American Economic Review*, Vol.54, No. 5, Sept., pp. 575-606
- Solow, R (1957): "Technical Change and the Aggregate Production Function", *Review of Economics and Statistics*, Vol. 39, August, pp. 312-20
- Teranishi Juro (1992): *Import Substitution Policy in Japan's Economic Development*, Tokyo: Institute of Economic Research, Hototsubashi University
- UNDP (2002): *Human Development Report 2002*, New York
- World Bank (2003): *Global Economic Prospects and the Developing Countries*, Washington DC: WBDP

World Bank (2002): *World Development Indicators 2002*, (on CD-ROM), Washington DC

World Bank (1991): *World Development Report 1991*, Washington DC

World Economic Forum (WEF) (2002): *The Global Competitiveness Report 2001-02*, New York: Oxford University Press

World Economic Forum (WEF) (1999): *The Global Competitiveness Report 1998-99*, New York: Oxford University Press

Young A. (1995): "The Tyranny of Numbers: Confronting the Statistical Realities of the East Asian Growth Experience", *Quarterly Journal of Economics*, Vol. 110, No. 3, August, pp. 641-80

Appendix 1: Values of the 7 Indicators of Economic Performance by Countries During 1980s								
No.	Countries	Exponential Trend Rates during 1980s for						
		GDP pc	GCF	Imports of Goods & Serv.	FDI	Forex Reserves	Average Infl. Rate	HDI (1985)
1	Afghanistan					-0.0244		
2	Albania	-0.0082	-0.0104					0.691
3	Algeria	-0.0016	-0.0264	-0.0571	0.6439	-0.1638	9.7403	0.600
4	Angola	0.0080			-0.1239			
5	Antigua and Barbuda	0.0657	0.0925	0.0680		0.1332	6.4708	
6	Argentina	-0.0190	-0.0439	-0.0418	0.0766	-0.0015	787.0115	0.805
7	Armenia							
8	Aruba					0.0407	3.6166	
9	Australia	0.0216	0.0346	0.0576	0.1965	0.1312	8.1277	0.873
10	Austria	0.0221	0.0331	0.0506	0.1265	0.0395	3.5296	0.867
11	Azerbaijan	-0.0825						
12	Bahamas, The	0.0244				0.0153	5.5348	0.817
13	Bahrain	-0.0106	-0.0409	0.0094		-0.0683	1.9567	
14	Bangladesh	0.0145	0.0192	0.0646	-0.2326	0.1274	7.3649	0.386
15	Barbados	0.0241	-0.0044	-0.0246	0.1684	-0.0244	5.7497	
16	Belarus	0.0368	0.0448					
17	Belgium	0.0225	0.0495	0.0482	0.2032	0.0755	3.4088	0.875
18	Belize	0.0263	0.0988	0.0453	0.3583	0.2356	4.1761	0.718
19	Benin	-0.0099	-0.0608	-0.0606		-0.0290	3.0037	0.350
20	Bhutan	0.0517	0.0318	-0.0286		0.1017	9.1954	
21	Bolivia	-0.0198	0.0257	0.0597	-0.1419	-0.0191	1380.1453	0.573
22	Bosnia and Herz.							
23	Botswana	0.0637	0.1293	0.1100	0.0616	0.2925	10.5841	0.613
24	Brazil	0.0127	0.0471	0.0202	-0.0803	0.0028	613.8457	0.692
25	Brunei	-0.0263						
26	Bulgaria	0.0329	0.0194	-0.0495			7.5970	0.784
27	Burkina Faso	0.0092	0.0800	0.0280	-0.0983	0.1703	1.3416	0.282
28	Burundi	0.0134	0.0469	0.0047	-0.1675	0.1004	7.6247	0.338
29	Cambodia	0.0195						
30	Cameroon	-0.0065	-0.0553	0.0160	-0.2430	-0.0880	8.2524	0.505
31	Canada	0.0222	0.0560	0.0785	0.3591	0.1681	5.9693	0.906
32	Cape Verde	0.0397	-0.0486	0.0318		0.0662	7.2352	0.587
33	Central African Rep.	-0.0107			0.0543	0.0715	3.2543	0.371
34	Chad	0.0341		0.1087	-0.2529	0.2346	2.5345	0.298
35	Chile	0.0321	0.0907	0.0357	0.0942	0.0447	20.4466	0.754
36	China	0.0823	0.1072	0.0928	0.2599	0.0829	11.8369	0.591
37	Colombia	0.0169	0.0113	0.0029	0.0066	-0.0080	23.7236	0.704
38	Comoros	-0.0013	-0.0487	-0.0084		0.1391		0.498
39	Congo, Dem. Rep.	-0.0171	-0.0511	0.1060		0.0637	60.4205	0.517
40	Congo, Rep.	-0.0104	-0.1885	-0.0781	-0.1341	-0.2793	1.3448	
41	Costa Rica	0.0070	0.0707	0.0928	0.1266	0.1180	27.1867	0.770
42	Cote d'Ivoire	-0.0292	-0.1037	-0.0217	0.0212	-0.0341	5.1972	0.412
43	Croatia						453.8095	
44	Cyprus	0.0529	0.0386	0.0442	0.0207	0.0932	4.8960	0.821
45	Czech Republic							
46	Denmark	0.0204	0.0552	0.0479	0.5453	0.1407	5.9457	0.883
47	Djibouti	-0.0767				0.0402		
48	Dominica		0.0628	0.0554	0.5195	0.1911	4.6900	
49	Dominican Republic	0.0092	0.0564	0.1230	0.1580	-0.0892	24.2451	0.667
50	Ecuador	-0.0057	-0.0317	-0.0068	0.0922	-0.0125	37.5211	0.694
51	Egypt, Arab Rep.	0.0258	-0.0113	-0.0226	0.0920	0.0903	16.9603	0.532
52	El Salvador	-0.0004	0.0351	0.0186	-0.2099	0.0888	19.1870	0.606
53	Equatorial Guinea	-0.0087		0.0580		-0.0421		0.533
54	Eritrea							
55	Estonia	0.0137	-0.0097					
56	Ethiopia	-0.0191	0.0205	0.0146		-0.2155	4.6646	0.275
57	Fiji	-0.0013	-0.1481	-0.0463	-0.0330	0.0487	6.8230	0.697
58	Finland	0.0295	0.0387	0.0519	0.4559	0.1784	6.7690	0.873
59	France	0.0205	0.0406	0.0497	0.2343	0.0242	6.3683	0.875
60	French Polynesia	0.0265						

Appendix 1: Values of the 7 Indicators of Economic Performance by Countries During 1980s (contd.)								
No.	Countries	Exponential Trend Rates during 1980s for						
		GDP pc	GCF	Imports of Goods & Serv.	FDI	Forex Reserves	Average Infl. Rate	HDI (1985)
61	Gabon	-0.0232	-0.0833	-0.0462	0.0580	-0.1922	6.0306	
62	Gambia, The	-0.0024	0.0072	-0.0506		0.2624	18.0077	
63	Georgia	-0.0090						
64	Germany	0.0237	0.0284	0.0387	0.2234	0.0245	2.6323	0.868
65	Ghana	0.0017	0.0496	0.0343	0.0281	0.0273	46.9867	0.481
66	Greece	0.0064	0.0010	0.0504	0.0876	0.1378	19.0408	0.845
67	Grenada	0.0571	0.0512	0.0289	0.2772	0.0072	5.2858	
68	Guatemala	-0.0142	-0.0135	-0.0003	0.0324	0.0367	15.1069	
69	Guinea	0.0161	0.0320	0.0517	0.5113			
70	Guinea-Bissau	0.0107	0.1373	-0.0069	0.3466	-0.0524		0.283
71	Guyana	-0.0241	-0.0698	-0.0581		0.0485		0.671
72	Haiti	-0.0190	-0.0089	0.0293	0.0161	-0.0679	6.9648	0.445
73	Honduras	-0.0017	0.0537	0.0274	0.1559	-0.1800	7.9234	0.597
74	Hong Kong, China	0.0549	0.0423	0.1340			8.0906	0.823
75	Hungary	0.0158	-0.0059	0.0192		-0.0966	10.9270	0.805
76	Iceland	0.0200	0.0115	0.0300		0.0757	34.8599	0.894
77	India	0.0354	0.0653	0.0599	0.2109	-0.0821	8.8793	0.473
78	Indonesia	0.0414	0.0716	0.0003	0.1914	0.0219	8.6074	0.582
79	Iran, Islamic Rep.	-0.0210	-0.0207	-0.0496			18.5211	0.607
80	Ireland	0.0315	-0.0063	0.0574	-0.1125	0.0553	7.8471	0.846
81	Israel	0.0174	0.0223	0.0405	0.1225	0.0277	118.2897	0.836
82	Italy	0.0257	0.0287	0.0645	0.0660	0.0950	9.7217	0.856
83	Jamaica	0.0101	-0.0114	0.0940		0.0365	15.0669	0.692
84	Japan	0.0360	0.0601	0.0654	0.2997	0.1382	2.0582	0.893
85	Jordan	-0.0171	-0.0208	0.0101	-0.2015	-0.1290	7.5299	0.658
86	Kazakhstan							
87	Kenya	0.0100	0.0187	0.0445	0.0475	-0.0447	11.9111	0.512
88	Kiribati	-0.0171						
89	Korea, Rep.	0.0761	0.1200	0.1126	0.3467	0.1871	6.3942	0.774
90	Kuwait	-0.0105	-0.0200	0.0206		-0.1283	3.8790	0.777
91	Kyrgyz Republic	0.0440						
92	Lao PDR	0.0098						0.374
93	Latvia	0.0287	0.0206					0.802
94	Lebanon	-0.1790			0.0788	-0.1151		
95	Lesotho	0.0266	0.0601	0.0333	0.1887	-0.0013	13.3925	0.547
96	Liberia				0.0197	-0.0526		
97	Libya					-0.0728		
98	Lithuania	0.0629						
99	Luxembourg	0.0481	0.0733	0.0622			4.4578	0.860
100	Macao, China	0.0372	0.0722	0.0668		0.3159	9.6485	
101	Macedonia, FYR							
102	Madagascar	-0.0091	0.0818	-0.0393	0.2355	0.2287	17.9211	0.427
103	Malawi	-0.0040	-0.0155	0.0131		0.1470	16.3066	0.354
104	Malaysia	0.0229	0.0235	0.0679	0.0102	0.0738	3.2481	0.693
105	Maldives	0.0706			0.0063	0.2372		0.629
106	Mali	-0.0132	0.0453	0.0668	0.1420	0.1907		0.292
107	Malta	0.0397	0.0870	0.0816	0.0580	0.0044	2.2998	0.793
108	Mauritania	-0.0056	0.0503	-0.0151	-0.1156	-0.1367	7.2876	0.379
109	Mauritius	0.0535	0.0942	0.1310	0.4152	0.3921	8.3024	0.686
110	Mexico	-0.0116	-0.0264	0.0311	0.1195	0.1161	69.0783	0.752
111	Micronesia, Fed. Sts.	0.0094						
112	Moldova	0.0171						0.741
113	Mongolia	0.0299					9.0032	0.650
114	Morocco	0.0227	0.0150	0.0353	0.0883	0.1940	7.3253	0.508
115	Mozambique	-0.0084	0.0458	-0.0323	0.2983	0.2483		0.290
116	Myanmar	0.0089	-0.0504	-0.1478		0.0073	11.7881	
117	Namibia	-0.0210	0.0003	0.0057			12.9369	
118	Nepal	0.0227	0.0582	0.0553	0.1920	0.0210	10.1938	0.370

Appendix 1: Values of the 7 Indicators of Economic Performance by Countries During 1980s (contd.)								
No.	Countries	Exponential Trend Rates during 1980s for						
		GDP pc	GCF	Imports of Goods & Serv.	FDI	Forex Reserves	Average Infl. Rate	HDI (1985)
119	Netherlands	0.0203	0.0412	0.0478	0.2324	0.0397	2.4606	0.888
120	Netherlands Antilles				-0.3380	0.0207	3.8940	
121	New Caledonia	0.0470						
122	New Zealand	0.0067	0.0148	0.0427	0.2378	0.1869	10.8799	0.866
123	Nicaragua	-0.0515	-0.0745	-0.0270			2438.8706	0.584
124	Niger	-0.0299	-0.0406	-0.0666		0.1555	2.4573	0.246
125	Nigeria	-0.0024	-0.0755	-0.1576	0.0828	-0.0482	22.8090	0.403
126	Norway	0.0244	0.0056	0.0268	0.2068	0.0727	7.6645	0.888
127	Oman	0.0356		0.0077	-0.0202	0.0461	-1.4051	
128	Pakistan	0.0339	0.0521	0.0318	0.1653	-0.1497	6.9769	0.404
129	Panama	-0.0215	-0.0989	-0.0230	0.5903	-0.0159	1.8440	0.745
130	Papua New Guinea	-0.0055	-0.0098	-0.0139	0.0682	-0.0427	5.8293	0.462
131	Paraguay	-0.0049	0.0014	0.0644	0.0185	-0.0955	22.0446	0.705
132	Peru	-0.0245	-0.0377	-0.0363	0.6091	-0.1004	1223.5745	0.692
133	Philippines	-0.0139	-0.0180	0.0447	0.3572	-0.0227	13.6717	0.688
134	Poland	-0.0736			0.0600	0.2022	107.6725	
135	Portugal	0.0337	0.0414	0.0800	0.3240	0.2584	17.3141	0.787
136	Puerto Rico	0.0347						
137	Qatar			-0.0577		0.0289	3.5179	
138	Romania	-0.0027	0.0712	-0.0052		0.0479	22.2534	0.794
139	Russian Federation	0.0156						0.827
140	Rwanda	-0.0104	0.0280	0.0145	-0.0334	-0.1212	4.3928	0.396
141	Samoa	0.0126				0.3342	11.6723	0.650
142	Sao Tome and Principe	-0.0101	-0.0079	0.0498				
143	Saudi Arabia	-0.0470	-0.0465	-0.0013		-0.1237	-0.1339	0.670
143	Saudi Arabia	-0.0470	-0.0465	-0.0013		-0.1237	-0.1339	0.670
144	Senegal	0.0015	0.0509	0.0152		0.0145	6.0680	0.356
145	Seychelles	0.0410	0.0980	0.1480	0.1144	-0.0141	3.0784	
146	Sierra Leone	-0.0089		-0.0136	-0.1737	-0.1527	72.7535	
147	Singapore	0.0471	0.0237		0.1437	0.1002	2.2843	0.782
148	Slovak Republic	0.0154	0.0028	0.0360				0.813
149	Slovenia							
150	Solomon Islands	0.0283			0.4004	-0.0695	12.1204	
151	Somalia					-0.0122		
152	South Africa	-0.0158	-0.0562	-0.0030		-0.0030	14.6664	0.683
153	Spain	0.0298	0.0674	0.0949	0.2457	0.1844	9.3628	0.855
154	Sri Lanka	0.0234	0.0076	0.0057	-0.0397	-0.0557	12.3626	0.676
155	St. Kitts and Nevis	0.0765	0.1377	0.0626	0.3604	0.1600	3.4399	
156	St. Lucia	0.0596	0.0742	0.0972	0.0272	0.1885	4.2976	
157	St. Vincent and Gren.	0.0523	0.0688	0.0490	0.3102	0.1445	4.5265	
158	Sudan	-0.0245				-0.0727	40.2020	0.395
159	Suriname	-0.0287	-0.0926	-0.2061		-0.3177	13.6941	
160	Swaziland	0.0385	0.0227	0.0469	0.3516	0.0693	14.5265	0.569
161	Sweden	0.0233	0.0589	0.0512	0.2809	0.1287	7.6141	0.883
162	Switzerland	0.0162	0.0447	0.0535	0.2032	0.0456	3.4088	0.892
163	Syrian Arab Republic	-0.0208	-0.0663	0.0029	0.1856	-0.0374	22.6213	0.614
164	Tajikistan	-0.0104	-0.0700					0.740
165	Tanzania	0.0214				0.2494	30.6311	
166	Thailand	0.0594	0.0979	0.1222	0.2462	0.2044	4.4398	0.676
167	Togo	-0.0103	0.0426	0.0362	-0.0923	0.0552	3.9064	0.440
168	Tonga	0.0193			-0.0693	0.0426	10.2489	
169	Trinidad and Tobago	-0.0256	-0.1122	0.0217	0.4437	-0.3699	11.0800	0.774
170	Tunisia	0.0077	-0.0247	0.0145	-0.1763	0.0277	7.4325	0.613
171	Turkey	0.0300	0.0617	0.0984	0.2769	0.1467	46.2873	0.654
172	Turkmenistan	-0.0088						
173	Uganda	0.0037	0.0770	0.0430		-0.1121	103.4137	0.386
174	Ukraine	-0.0009						
175	United Arab Emirates	-0.0686				0.0519		

Appendix 1: Values of the 7 Indicators of Economic Performance by Countries During 1980s(concl.)								
No.	Countries	Exponential Trend Rates during 1980s for						
		GDP pc	GCF	Imports of Goods & Serv.	FDI	Forex Reserves	Average Infl. Rate	HDI (1985)
176	United Kingdom	0.0318	0.0678	0.0681	0.3807	0.1227	6.5854	0.858
177	United States	0.0275	0.0399	0.0790	0.1786	0.0797	4.7401	0.898
178	Uruguay	0.0054	-0.0495	0.0131	0.1175	0.0639	62.4875	0.781
179	Uzbekistan	0.0176						
180	Vanuatu	-0.0005	0.0593	0.0057	0.0942	0.2140	8.3827	
181	Venezuela, RB	-0.0110	-0.0538	-0.0200	0.0360	-0.0826	24.9270	0.738
182	Vietnam	0.0219						0.583
183	West Bank and Gaza							
184	Yemen, Rep.				-0.5380			
185	Yugoslavia, Fed. Rep.							
186	Zambia	-0.0202	-0.0301	-0.0031	0.2650	0.0799	76.8615	0.480
187	Zimbabwe	-0.0036	0.0354	0.0307		-0.0125	14.0014	0.621

Basic Source: (1) World Development Indicators 2002 (on CD ROM)

(2) International Financial Statistics 2003 (online: <http://ifs.apdi.net>)

(3) Human Development Report 2002 (online: <http://hdr.undp.org>)

Appendix 2: Values of the 7 Indicators of Economic Performance by Countries During 1990s								
No.	Countries	Exponential Trend Rates during 1990s for						
		GDP pc	GCF	Imports of Goods & Serv.	FDI	Forex Reserves	Average Infl. Rate	HDI (1995)
1	Afghanistan							
2	Albania	0.0438	0.1970	0.1057	0.1021	0.1329	45.3730	0.702
3	Algeria	0.0028	0.0044	0.0023	-0.0846	0.2207	18.7801	0.663
4	Angola	-0.0080			0.1922	0.2403	1044.5208	
5	Antigua and Barbuda	0.0286	0.0207	0.0300		0.0704	2.5180	
6	Argentina	0.0224	0.0502	0.1063	0.2042	0.1490	21.4237	0.830
7	Armenia	0.0018	0.0656	-0.1179	0.5094	0.6214	739.9026	0.715
8	Aruba					0.0579	3.8736	
9	Australia	0.0300	0.0701	0.0842	0.0675	0.0515	2.2212	0.927
10	Austria	0.0172	0.0207	0.0584	0.2592	0.0532	2.3185	0.909
11	Azerbaijan	-0.0583	0.0544	0.0559	0.2390	0.9996	459.2728	
12	Bahamas, The	0.0055			0.6045	0.1086	2.5162	0.816
13	Bahrain	0.0090	-0.0232	-0.0049		0.0033	1.0329	
14	Bangladesh	0.0304	0.0933	0.1034	0.6091	-0.0122	5.2992	0.445
15	Barbados	0.0233	0.0741	0.0450	0.0791	0.1650	2.8245	
16	Belarus	-0.0060	-0.0825	-0.0773	0.4670	0.1487	637.6623	0.776
17	Belgium	0.0187	0.0308	0.0452	0.2734	-0.0069	1.9597	0.927
18	Belize	0.0139	0.0304	0.0270	0.0739	0.0810	1.7580	0.772
19	Benin	0.0191	0.0596	0.0260	0.2342	0.0560	9.0075	0.388
20	Bhutan	0.0359	0.0815	-0.0059		0.1870	9.8459	
21	Bolivia	0.0155	0.0783	0.0513	0.3402	0.2123	9.1674	0.630
22	Bosnia and Herzegovina	0.1840	0.3047	0.1960				
23	Botswana	0.0234	-0.0046	0.0147	-0.1791	0.0728	10.5134	0.620
24	Brazil	0.0159	0.0344	0.1148	0.4325	0.1169	549.2097	0.737
25	Brunei	-0.0064						
26	Bulgaria	-0.0104	-0.0190	0.0527	0.3910	0.2224	187.2285	0.778
27	Burkina Faso	0.0230	0.0749	0.0182	-0.0250	-0.0012	4.5795	0.300
28	Burundi	-0.0503	-0.0069	0.0098		-0.1672	15.2368	0.316
29	Cambodia	0.0177	0.1256	0.0980	0.1619	0.3563	5.3861	0.531
30	Cameroon	-0.0003	0.0194	0.0633	0.2289	-0.4232	5.5965	0.499
31	Canada	0.0223	0.0566	0.0778	0.2923	0.1043	1.9968	0.932
32	Cape Verde	0.0348	-0.0228	0.0844	0.3292	-0.1387	6.1517	0.678
33	Central African Republic	-0.0003			0.1286	0.1450	4.3616	0.369
34	Chad	-0.0089		-0.0368	0.1503	0.1104	7.0622	0.335
35	Chile	0.0477	0.0803	0.0999	0.2398	0.0844	9.5399	0.811
36	China	0.0856	0.1067	0.0530	0.1911	0.2411	7.4735	0.681
37	Colombia	0.0089	0.0066	0.0726	0.1840	0.0315	20.4993	0.750
38	Comoros	-0.0241	-0.0595	-0.0097	0.3654	0.1156		0.506
39	Congo, Dem. Rep.	-0.0763	0.0075	-0.1008	-0.0836	-0.0833	4774.2697	0.511
40	Congo, Rep.	-0.0361	-0.0038	0.0546	0.1700	0.7124	8.2174	
41	Costa Rica	0.0298	0.0468	0.0865	0.1261	0.0478	16.0461	0.805
42	Cote d'Ivoire	0.0078	0.1113	0.0490	0.1263	0.6597	6.2896	0.416
43	Croatia	0.0376	0.0805	0.0473	0.3964	0.3176	238.2516	0.789
44	Cyprus	0.0316	-0.0321	0.0019	0.0333	0.0501	3.8301	0.866
45	Czech Republic	0.0164	0.0638	0.1331	0.2409	0.1479	7.5935	0.843
46	Denmark	0.0221	0.0615	0.0579	0.2942	0.1013	2.1377	0.907
47	Djibouti	-0.0360			0.2021	-0.0287		
48	Dominica		0.0162	0.0166	-0.0540	0.0701	2.1072	
49	Dominican Republic	0.0444	0.0639	0.0677	0.2316	0.0384	11.0107	0.698
50	Ecuador	-0.0058	-0.0204	-0.0063	0.1587	0.0426	43.7924	0.719
51	Egypt, Arab Rep.	0.0277	0.0821	0.0329	0.1400	0.0833	9.1127	0.605
52	El Salvador	0.0237	0.0551	0.1050	0.1864	0.2166	8.4358	0.682
53	Equatorial Guinea	0.1948	0.3841	0.4202	0.1978	0.0727		0.582
54	Eritrea	0.0111		0.0658	-0.0167			0.408
55	Estonia	0.0260	0.0125	0.0946	0.1729	0.1817	26.9257	
56	Ethiopia	0.0300	0.1033	0.0688	0.3905	0.1226	7.3124	0.308
57	Fiji	0.0063	-0.0174	0.0084	0.0113	0.0584	3.4559	0.743
58	Finland	0.0324	0.0414	0.0737	0.3746	0.0414	1.8628	0.908
59	France	0.0146	0.0191	0.0563	0.1064	0.0511	1.7242	0.914
60	French Polynesia	0.0017						

Appendix 2: Values of the 7 Indicators of Economic Performance by Countries During 1990s(contd.)								
No.	Countries	Exponential Trend Rates during 1990s for						
		GDP pc	GCF	Imports of Goods & Serv.	FDI	Forex Reserves	Average Infl. Rate	HDI (1995)
61	Gabon	0.0008	0.0388	0.0093		0.2412	4.2472	
62	Gambia, The	-0.0009	0.0327	0.0060	0.0718	0.0352	4.2936	0.375
63	Georgia	-0.0966	0.4818	0.1059	0.5642	-0.1046	39.3309	
64	Germany	0.0118	0.0132	0.0519	0.4441	-0.0153	2.2454	0.907
65	Ghana	0.0187	0.0226	0.1100	0.0931	0.1232	26.4052	0.525
66	Greece	0.0192	0.0373	0.0638	-0.0182	0.1350	9.3896	0.868
67	Grenada	0.0326	0.0533	0.0652	0.1113	0.1534	2.1959	
68	Guatemala	0.0143	0.0488	0.0823	0.1235	0.0853	11.2399	0.609
69	Guinea	0.0187	0.0292	0.0176	0.2311	0.0975		
70	Guinea-Bissau	-0.0147	-0.1347	0.0016		0.1538	35.0105	0.331
71	Guyana	0.0458	0.0188	0.0543	-0.1037	0.0791	6.8557	0.703
72	Haiti	-0.0234	-0.0007	0.1046	0.2800	0.2799	20.5579	0.457
73	Honduras	0.0025	0.0611	0.0369	0.2264	0.3079	15.8897	0.628
74	Hong Kong, China	0.0159	0.0454	0.0709		0.1552	5.3448	0.877
75	Hungary	0.0284	0.1133	0.1167	0.0234	0.1141	20.2521	0.809
76	Iceland	0.0224	0.0560	0.0656	0.0380	0.0038	3.2203	0.918
77	India	0.0431	0.0830	0.0959	0.3470	0.2310	9.0508	0.545
78	Indonesia	0.0184	-0.0215	0.0413	0.2400	0.1342	14.1132	0.664
79	Iran, Islamic Rep.	0.0154	0.0258	-0.1298	0.3670		24.3942	0.688
80	Ireland	0.0684	0.1079	0.1358	0.3568	0.0351	2.5392	0.894
81	Israel	0.0219	0.0307	0.0795	0.2624	0.2007	9.6304	0.877
82	Italy	0.0146	0.0181	0.0497	0.1239	-0.0188	3.7292	0.897
83	Jamaica	-0.0082	0.0071	0.0113	0.1791	0.1703	26.4231	0.736
84	Japan	0.0101	-0.0007	0.0453	0.2978	0.1852	0.8345	0.923
85	Jordan	0.0107	-0.0111	0.0226	0.8473	0.1365	3.5242	0.703
86	Kazakhstan	-0.0226	-0.1486	-0.1231	0.3525	0.1595	305.4336	
87	Kenya	-0.0033	0.0490	0.0736	0.2123	0.2575	16.0112	0.523
88	Kiribati	0.0054						
89	Korea, Rep.	0.0433	0.0041	0.0904	0.3124	0.1990	5.0970	0.852
90	Kuwait	-0.0143	-0.0381	-0.0041	0.0237	0.0398	2.3286	0.812
91	Kyrgyz Republic	-0.0399	-0.0356	-0.0886	0.2298	0.2235	24.0860	
92	Lao PDR	0.0393			0.2494		34.0969	0.445
93	Latvia	-0.0007	0.0426	0.0902	0.3131	0.0391	49.8510	0.763
94	Lebanon	0.0269	0.0441	-0.0092	0.6098	0.1755		0.730
95	Lesotho	0.0206	0.0014	0.0011	0.4930	0.1581	11.5672	0.572
96	Liberia				-0.1111	0.6987		
97	Libya							
98	Lithuania	-0.0153	0.0946	0.0752	0.4751	0.3169	70.3021	0.781
99	Luxembourg	0.0396	0.0631	0.0523		-0.0207	2.1842	0.912
100	Macao, China	-0.0030	-0.0692	0.0094		0.1461	3.3975	
101	Macedonia, FYR	-0.0076	0.0220	0.0997	0.3526	0.1980	24.3342	
102	Madagascar	-0.0045	0.0541	0.0632	0.1597	0.2070	17.3545	0.441
103	Malawi	0.0186	-0.0939	-0.0099	0.2516	0.1846	32.8005	0.403
104	Malaysia	0.0391	0.0321	0.0831	-0.1203	0.0793	3.5538	0.760
105	Maldives	0.0568	0.0704	0.0895	0.0799	0.2296	7.4807	0.707
106	Mali	0.0147	-0.0045	0.0287	0.1758	0.0403	4.0512	0.346
107	Malta	0.0381	-0.0032	0.0200	0.2839	0.0275	2.8937	0.850
108	Mauritania	0.0128	0.1076	0.0230	-0.1631	0.2124	6.0479	0.418
109	Mauritius	0.0399	0.0392	0.0522	0.2164	-0.0089	6.6819	0.746
110	Mexico	0.0147	0.0444	0.1160	0.1298	0.1014	18.6899	0.774
111	Micronesia, Fed. Sts.	-0.0156				0.0738		
112	Moldova	-0.0847	-0.1689		0.3184	-0.0059	20.8069	0.704
113	Mongolia	0.0081			0.2995	0.2154	73.6160	0.636
114	Morocco	0.0061	0.0261	0.0596	-0.6060	0.0539	3.9532	0.569
115	Mozambique	0.0441	0.1139	0.0541	0.2851	0.1674	32.6771	0.313
116	Myanmar	0.0473	0.0598	-0.0859	0.0746	-0.0178	25.1062	
117	Namibia	0.0167	0.0718	0.0585		0.3075	10.0611	0.629
118	Nepal	0.0233	0.0593	0.0799	0.0951	0.0806	8.9030	0.453

Appendix 2: Values of the 7 Indicators of Economic Performance by Countries During 1990s(contd.)								
No.	Countries	Exponential Trend Rates during 1990s for						
		GDP pc	GCF	Imports of Goods & Serv.	FDI	Forex Reserves	Average Infl. Rate	HDI (1995)
119	Netherlands	0.0231	0.0324	0.0531	0.2679	-0.0757	2.4517	0.922
120	Netherlands Antilles				-0.3079	0.0294	2.6202	
121	New Caledonia	-0.0099						
122	New Zealand	0.0194	0.0774	0.0749	0.0099	0.0405	1.7520	0.902
123	Nicaragua	0.0106	0.1192	0.1053	0.3554	0.2097	339.1007	0.615
124	Niger	-0.0070	0.0553	-0.0086	0.0893	-0.2264	4.6485	0.262
125	Nigeria	-0.0048	0.0586	0.0482	0.0182	0.0127	30.5977	0.448
126	Norway	0.0302	0.0569	0.0555	0.2343	0.0547	2.3404	0.925
127	Oman	0.0024		0.0459	-0.1756	0.0536	0.3504	
128	Pakistan	0.0099	0.0134	0.0189	0.0515	0.0543	9.2472	0.473
129	Panama	0.0186	0.0963	0.0401	0.2442	0.0707	1.1682	0.770
130	Papua New Guinea	0.0038	0.0015	0.0260	0.0465	0.0350	9.6076	0.519
131	Paraguay	-0.0050	-0.0015	0.0125	0.0427	0.0225	13.5653	0.735
132	Peru	0.0295	0.0686	0.0789	0.1444	0.1586	60.1079	0.730
133	Philippines	0.0136	0.0374	0.0744	0.1249	0.1536	8.6004	0.733
134	Poland	0.0506	0.1252	0.1450	0.3483	0.2749	28.4287	0.808
135	Portugal	0.0262	0.0549	0.0727	0.0649	-0.0663	4.9396	0.855
136	Puerto Rico	0.0190						
137	Qatar			0.0666		0.0691	2.4808	
138	Romania	0.0034	-0.0388	0.0835	0.4008	0.1840	121.0157	0.772
139	Russian Federation	-0.0392	-0.1932	-0.0379	0.1944	0.1495	197.0376	0.779
140	Rwanda	-0.0126	0.0438	0.0247	0.2695	0.1467	8.5853	0.335
141	Samoa	0.0235		0.0868	-0.0552	0.0178	3.3791	0.689
142	Sao Tome and Principe	-0.0069	-0.0026	-0.0183		0.2014		
143	Saudi Arabia	-0.0154	0.0016	-0.0489		0.1121	0.9774	0.737
144	Senegal	0.0126	0.0576	0.0248	0.2400	0.5500	4.4753	0.400
145	Seychelles	0.0085	0.0719	0.1239	0.1780	0.0108	2.2870	
146	Sierra Leone	-0.0656	-0.3083	-0.0681	-0.4605	0.1382	34.7455	
147	Singapore	0.0445	0.0714		0.0824	0.0981	1.7296	0.857
148	Slovak Republic	0.0317	0.0999	0.1113	0.2333	0.2231	9.2172	0.817
149	Slovenia	0.0363	0.1146	0.0734	0.0888	0.3141	13.6422	0.852
150	Solomon Islands	-0.0153			-0.0099	0.1560	10.9252	
151	Somalia				-0.3466			
152	South Africa	0.0030	0.0320	0.0703	0.1003	0.2149	8.9899	0.724
153	Spain	0.0251	0.0336	0.0894	0.0645	-0.0265	3.8929	0.895
154	Sri Lanka	0.0387	0.0615	0.0813	0.1068	0.0590	9.7181	0.719
155	St. Kitts and Nevis	0.0467	0.0460	0.0457	0.1800	0.1038	3.5251	
156	St. Lucia	0.0076	0.0246	0.0018	0.0519	0.0500	3.2908	
157	St. Vincent and the Grenadines	0.0275	0.0511	0.0301	0.1640	0.0712	2.4217	
158	Sudan	0.0571			1.5106	0.3072	82.1034	0.462
159	Suriname	0.0307		0.1085		0.3345	104.6147	
160	Swaziland	0.0023	0.0209	0.0268	-0.2400	0.0616	9.4532	0.620
161	Sweden	0.0195	0.0324	0.0678	0.2996	-0.0467	2.3303	0.925
162	Switzerland	0.0043	0.0154	0.0467	0.2734	0.0221	1.9597	0.914
163	Syrian Arab Republic	0.0240	0.0315	0.0037	-0.0680		6.3505	0.665
164	Tajikistan	-0.1109	-0.1592		0.1233			0.669
165	Tanzania	0.0033	-0.0170	-0.0346	0.3418	0.1751	20.0971	0.427
166	Thailand	0.0267	-0.0627	0.0309	0.1360	0.0636	4.5367	0.749
167	Togo	0.0012	0.0384	0.0307	0.1261	-0.1225	7.2101	0.476
168	Tonga	0.0212			0.1246	-0.0230	4.1118	
169	Trinidad and Tobago	0.0264	0.1368	0.0952	0.1602	0.2096	5.4693	0.787
170	Tunisia	0.0305	0.0364	0.0401	0.0795	0.1217	4.5092	0.682
171	Turkey	0.0215	0.0426	0.1124	0.0230	0.1928	76.7014	0.717
172	Turkmenistan	-0.0755		0.0064	0.0922			
173	Uganda	0.0387	0.0958	0.1403	0.5299	0.2992	12.8222	0.404
174	Ukraine	-0.0864	-0.1913	-0.0050	0.1983	0.1904	876.0535	0.745
175	United Arab Emirates	-0.0104				0.0990		

Appendix 2: Values of the 7 Indicators of Economic Performance by Countries During 1990s(concl.)								
No.	Countries	Exponential Trend Rates during 1990s for						
		GDP pc	GCF	Imports of Goods & Serv.	FDI	Forex Reserves	Average Infl. Rate	HDI (1995)
176	United Kingdom	0.0241	0.0501	0.0705	0.2550	-0.0008	3.0520	0.916
177	United States	0.0243	0.0818	0.0974	0.3080	-0.0009	2.8014	0.925
178	Uruguay	0.0238	0.0450	0.0820	0.4198	0.1914	38.0910	0.815
179	Uzbekistan	-0.0175		-0.0007	0.1600			0.714
180	Vanuatu	-0.0143	0.0812	0.0237	-0.0309	-0.0003	3.0683	
181	Venezuela, RB	-0.0106	0.0147	0.0416	0.2315	0.0468	33.4913	0.766
182	Vietnam	0.0590	0.1737	0.2688	0.1679	0.2170	3.7115	0.649
183	West Bank and Gaza	-0.0147	0.0370	0.0366				
184	Yemen, Rep.	0.0287	0.0999	0.0783		0.2385	30.6111	0.439
185	Yugoslavia, Fed. Rep.	0.0039						
186	Zambia	-0.0196	0.0742	0.0402	0.2167	-0.1365	87.0297	0.432
187	Zimbabwe	0.0064	-0.0476	0.0628	0.3423	-0.0187	29.8177	0.563

Basic Source: (1) World Development Indicators 2002 (on CD ROM)
(2) International Financial Statistics 2003 (online: <http://ifs.apdi.net>)
(3) Human Development Report 2002 (online: <http://hdr.undp.org>)