

CORRUPTION AND RESOURCE ALLOCATION DISTORTION FOR “ESCWA” COUNTRIES

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ABSTRACT

Over the past few decades, the issue of corruption, in terms of the abuse of public office for private gain, has attracted both academicians and policy makers. Corruption scandals, as well as other reasons, have toppled governments in both major industrial countries and developing countries. Corruption, per se, is a phenomenon that exists in societies from an early age. In fact, it is a phase which all countries go through before they reach maturity. In developed countries, social, political and judicial reforms are now intertwined and streamlined to reduce cases of corruption. This practice has now been prompted with the conception that, at least in developing countries, corruption is a serious obstacle to development. To date, no empirical research has yet been conducted to provide evidence that these elements fully describe corruption. This text is left to further research. Regression analysis shows that when a country manages to improve its standing on the corruption index from 6 to 8, it will experience a 4 percent point increase in its investment rate and a 0.5 percent point increase in its annual per capita GDP growth rate. In addition, the government of the country in question will raise its spending on education by 0.5 of 1 percent of GDP. Those large effects suggest that policies to curb corruption could have significant payoffs. This paper aims at conducting an empirical investigation of the relation between the level of development in developing countries and their standing vis-a-vis the corruption index. In this context, the paper will test the relation between Corruption and distortion resource allocation in ESCWA countries as the required data is available. This paper concluded that one point improvement of corruption will increase public spending on education and health by 0.016 and 0.07 of GDP respectively.

Keywords: *Corruption, Transparency index, Development.*

INTRODUCTION

Over the last few years, the issue of corruption- the abuse of public office for private gain- has attracted both academicians and policy makers. Corruption scandals, as well as other reasons, have toppled governments in both major industrial countries and developing countries.

In transitioning countries, the shift from command economies to free market economies has created massive opportunities for excessive profits and has often been accompanied by a change from a well-organized system of corruption to a more chaotic one. With the end of the cold war, donor countries have placed relatively less emphasis on political consideration in allocating foreign aid among developing countries and have paid more attention to cases in which aid funds have been misused and have not reached the poor. Besides slow economic growth has persisted in many countries with malfunctioning institutions.

Indices produced by private rating agencies grade countries on their levels of corruption, typically using the replies to standardized questionnaires by consultants living in these countries. The replies are subjective, but the correlation between indices produced by different rating agencies is very high.

Corruption is dishonest or illegal behavior, especially by people in official positions, (misused power of the officials), while economists largely view corruption as a sand in the gear of the economy, political scientists view it as the grease in that gear.

Positive effects of corruption can be looked at through the lens of the argument that corruption helps to overcome bureaucratic rigidities and helps maintain allocation efficiency when there is competition between

bribers, but not between officials. (Bardhan, 1997, p1322). Small side payments to officials could speed up bureaucratic processes and hence

* **ESCWA:** Economic and Social Commission for Western Asia .

It includes 13 Countries. In this essay, Iraq and Palestine were excluded due to their circumstances.

promote economic growth (Leff 1964, leys 1970, Kaufmann 1997). Some justify corruption in the enforcement of property rights (Acemogw and Verdier 1998).

While scientific research has failed to support the above argument especially for petty corruption, Ades and Di Tella 1997 p501 conclude that corruption acts mainly as sand in the gear. Kaufman, 1998 p133 also Kaufmann and Wei 2000, showed that there is a positive relationship between incidence of bribery in a country and the time needed to be spent with bureaucrats. In addition, Gupta et al 2000, showed that the quality and quantity of health care and educational services is lower in countries with higher corruption .

Certain illegal acts such as fraud, money laundering, drug trading, and black market operations do not constitute corruption in and of themselves, because they do not involve the use of public power; however, those activities seldom thrive without widespread corruption because people who are involved in those activities must include public officials and politicians.

TYPES OF CORRUPTION

Three types of corruption can be identified in democratic societies:

1- Grand Corruption

It generally refers to the acts of the political elite (selected officials) by which they exploit their power to make economic policies (Krugger 1993).

A corrupt political elite can change either the national policies or the implementation of national policies to serve its own interests at some cost to the populace; public spending is diverted to these sectors where gains from corruption are greatest; also little attention is paid to whether the needs of the collectivity are served by those works or services (Porta and Vannucci 1997).

This type of corruption is difficult to identify and measure especially when at least some segments of the population will gain.

This type of corruption may have very serious consequences for a society. To study the link between this type of corruption and the cost of misdirected public policies is difficult because of the lack of precise measurements tools.

However, the extreme situations of this type of corruption are somewhat easier to study where a dictator makes no distinction between his own wealth and that of the country or makes policy decisions that serve exclusively his own interests.

2- Bureaucratic Corruption

This is the corrupt acts of the appointed bureaucrats in their dealings with either their superior (the political elite) or with the public. In its most common form, usually known as petty corruption, the public may be required to bribe bureaucrats either to receive a service to which they are entitled or to speed up a bureaucratic procedure. Corruption in the judiciary, where bribes can lower either the costs or the chances of legal penalties (Rose-Ackerman 1998) is another form of this type of corruption. Models for this type of corruption have relied on equilibrium in markets for supply and demand of services which in turn leads to the analysis of costs and revenues associated with these services. Figure (1)* highlights the three types of corruption in democratic societies which are shown in bold dotted arrows: the relationships between the populace and the political, administrative, and judicial elite. (Arvind K. Jain, 2001)

3- Legislative Corruption

This refers to the manner and the extent to which the voting behavior of legislators can be influenced. Legislators can be bribed by interest groups to enact legislation that can change the economic rents associated with assets. This type of corruption would include "vote-buying". (Rose-Ackerman 1999)

TYPES OF CORRUPTION IN DEVELOPING COUNTRIES

1- High-level corruption (well organized corruption)

Such types of corruption can be seen as kick back paid to defence ministers in exchange for his or her country's purchase of expensive jet fighter aircrafts.

***see appendixes**

(To whom to pay the bribes and how much to offer them are identified and the target will be delivered and guaranteed by corruptor & corruptee).

2- Low-level corruption (Chaotic Corruption)

This type of corruption includes bribes paid to civil servant for issuing a driver's license (bribes need to be paid to several officials, no guaranteed delivery for the target).

Those two types of corruption tend to coexist and reinforce each other and there is little empirical data available to test which type is worse. (Theoretically, the chaotic corruption has worse effects than the well-organized corruptions).

CAUSES OF CORRUPTION

Corruption is wide spread in developing countries, not because their people are different from people elsewhere but because conditions are ripe for it, (P.Mauro, 1996). such as :

1. Motivation to earn income is extremely strong due to:
 - a) Poverty.
 - b) Low salaries (wages).
 - c) High risks of all kinds (illness, accidents and unemployment); (lack of insurance).
2. Opportunities to engage in corruption are numerous, more regulations lead to higher opportunities for corruption.
3. Weak legislative and judicial systems:
4. Law and principles of ethics are poorly developed.
5. Population relative to natural resources is large.
6. Political instability and weak political will.

EFFECTS OF CORRUPTION

We can summarize the consequences of corruption as follows:

1. Lower investment, including foreign direct investment.
2. Reduced Economic growth.
3. A shift in the composition of government spending from more productive to less productive activities.
4. Greater inequality and high incidence of poverty.
5. Reducing the efficiency of aid.
6. Exposing the country to currency crises.

COMBATING STRATEGIES

To approach the question of how to combat corruption, it would be worthwhile laying out a framework that brings together economic and noneconomic factors.

Mauro (2002) points out the difficulties of fighting widespread corruption; he refers to strategic complementarity "where if one agent does something, it becomes more profitable for other agent to do the same."

- The economic approach to preventing or at least limiting corruption consequences by responding to the economic causes of corruption. As such, the approach does not seek quick remedies, but, by focusing on fundamental economic growth, tends to bring about conditions where corruption is minimized.

One of the root causes of corruption is the presence of heavy government intervention which is reflected in excessive and complex regulations and a high tax and tariff rates. One of the first tasks in the war against corruption must therefore be the rationalization of the role of the government in the economy.

- Multilateral initiatives can be helpful after being studied carefully before they are conducted. People must be aware of the procedure and the impact of such initiatives on their wellbeing. Public awareness is useful but for this one needs an idea of the size of investment lost to corruption.
- The definition of corruption needs to be clarified, including the types, the elements, and the legal penalties associated with it.
- Setting priorities in dealing with corruption according to the cost of corruption and the payoff to the policy intended to be conducted.

It has to be kept in mind that it took more than a century for England to bring corruption under control. (The U.K ranks 18th at the corruption perception index (CPI)). But Hong Kong and Singapore, for example, shifted reasonably quickly from being very corrupt to being relatively clean (Hong Kong ranked the 16th at the (CPI)). Botswana, Chile, Poland and Uganda have recently made some progress toward controlling corruption. Denmark has least ranking while Cameroon has the highest ranking among 85 countries, (the transparency international 1998 CPI).

- In general, there appears to be a lower threshold below which income from corruption becomes acceptable and an upper threshold above which corruption becomes unacceptable. Determination of such a threshold is subjected to socio-economic and cultural criteria.

In most countries where there is at least some corruption, there seems to be an acceptance of the "petty" corruption by which lower level of administrators supplement their income. However, some societies react strongly to such type of corruption as if they were large scandals.

We can conclude that there are three possible approaches to reducing corruption. A 'lawyer's' approach would increase the costs and risks of corruption by toughening the laws and their enforcement (Ades and D. Tella, 1997a p508, Rose-Ackerman 1997a, pp46-50, and Tanzi 1998, p126). Increasing the risk associated with corrupt deals may have the effect of raising their transaction costs and hence, may discourage corruption.

A 'business man's' approach would 'buy out' the corruption by offering incentives to officials not to engage in corrupt activities. This could be done by offering them higher wages and by offering investors legitimate routes for earning rents. However, there are some difficulties with this approach especially if it is not generally well perceived.

Finally, a 'market' or an 'economist's' approach would increase the role of competition and markets, thus reducing the range and value of transactions that can potentially be exploited by corrupt officials. One way to reduce officials' indiscretion would be to increase competition between bureaucracies by allowing clients to obtain services from more than one organization (Shleifer and Vishny 1993, p.123).

Institutionally, fighting corruption would require a commitment from the leadership (Ruzindana 1997, Tanzi 1998 p.1233) together with a strategy that includes a thorough diagnostic of the existing state of corruption in a country.

There also seems to be little disagreement that international private firms and organizations can play a very important role in combating corruption (Klitgaard 1996,1998, Leiken 1997, Rose-Ackerman 1997a, p.53).

There is strong evidence that the organization of political institutions has a strong influence on the type of corruption that can prevail in a society. Democracies are less prone to corruption (Treisman 2000) without guaranteeing probity (Rose-Ackerman 2000).

In brief, we ought to acknowledge that corruption exists in every society, on a different level. The alleviation of such a phenomenon is not just the responsibility of the government but also of the whole society at national and international levels.

The literatures indicate that economic and noneconomic factors are neither independent of each other nor with the corruption level. That leaves us with the following questions:

- Are poorer countries corrupt while richer countries clean?
- What do elites in developing countries think about corruption?
- How does openness relate to corruption?

EMPIRICAL FINDINGS

Corruption and Economic growth: (general)

Despite the paradoxical nature surrounding this subject, the conclusions suggest that corruption must have an impact on efficiency, growth and welfare. Maro(1995) analysis finds that corruption is negatively associated with investment and growth

Wei (1997a) concludes that corruption reduces foreign direct investment. Finally, Gupta, Davoodi and Alouso-Terme (1998) find that corruption tends to increase inequality and poverty due to lower economic growth.

Corruption and Government Expenditure: (Specific)

Corruption and Government Expenditure is the central aim of this paper as the following sections explain:

Hypotheses

- 1) Government regulations provide incentives for corruption.
- 2) Corruption has a distortive impact on resource allocation, if this is true then
- 3) Corruption would reduce spending on health and education .

Objective

The major objective of this paper is to investigate the consequences of corruption for resource allocation, specifically on health and education spending.

The data

The components of government expenditure were divided into two major categories: expenditure on health and education.

Unfortunately, although there are other types of public expenditures, such as defense, social security and welfare, transportation, general public services and economic activities, which may in fact provide sources for many lucrative opportunities for corrupt behavior, only these two categories were commonly available for the ESCWA Countries. The data for the components of government expenditure is from the World Bank group and WHO Reports. The corruption perception index (CPI) used in this essay is from Transparency International Reports for the period 1995-2008 (appendices A, B, and C) (all types of different sources of data are subjective and therefore biased towards the foreign investors' perception of the various economies; Nevertheless, they are highly correlated; hence, the results can be considered robust as far as the choice of alternative indices is concerned).

It has to be noted that the lower the score of the CPI the higher probability of corruption. All indices take values between 0 (most corrupt) and 10 (least corrupt).

Thus, when we move on the estimation results, one should keep in mind that negative values of the corruption coefficient estimators denote a positive relationship between the level of corruption and the respective dependent variable.

Estimation Methodology

The methodology employed in this paper is the estimation using cross-section time series data for ESCWA countries. The reasons that these countries were chosen are two: first, they belong, all or most, to the same culture and tradition; therefore the use of time series data is possible. Second, they belong, all or most, to an average rate of corruption (2 to 6).

Regression Results

This section analyzes empirically the relationship between corruption and the composition of public expenditure. The empirical findings are based on the cross section-time series procedure for ESCWA Countries for the period (1995-2008).

Tables 1 and 2 summarize the results for a simple regression model. Each component of public expenditure (as a ratio of GDP) is regressed on constant and the corruption index.

From the two tables below, one thing that has to be indicated about the results is fair value of adjusted R-squared, which indicate that the corruption index can not be considered as the sole determinant of the referred component of public expenditure, namely, education and health.

As far as the relation of corruption and each type of government spending is concerned, all estimates are statistically significant at 5% level and their magnitudes are considerable. The signs of the coefficients seem to be in accordance with what it has been discussed thus far. (A positive sign of a coefficient reveals a negative relation between corruption and the respective dependent variable and vice versa). Corruption is found to be negatively related to education and health spending. To see the impact of this relationship, we can say that one point improvement on the corruption index of ESCWA countries as a whole would increase public spending on education and health by 0.016 and 0.07 of GDP respectively.

We note that the impact of the enhancement in the transparency record of these countries will lead to a greater share of public spending of GDP on health than on education. This is because the health sector provides larger lucrative opportunities for corrupt officials (through high technology products transactions provided by international monopolies and oligopolies which are difficult to be monitored by people).

On the other hand, education gives less attractive opportunities to corruption where salaries and wages, the major components of the education spending, are not difficult to be monitored and controlled.

CONCLUDING REMARKS

Our brief review of the literatures revealed that corruption is a result of government intervention and weak state management. However, this is not necessarily always true, as the case of Singapore, where government plays a major role in the economy; yet the country consistently receives one of the highest scores in the world for a corruption-free economy.

Despite such exceptions, the corruption can have large implications for the distortion of resource allocation and its impact on the development of the economy as a whole. That will be manifested through the attempt of the corrupt government officials to channel public funds to those spendings that provide more lucrative opportunities.

The results of this conducted study proved that the expenditures on education and health are negatively related to the level of corruption, which has great impact on health, probably because in general its provision is associated with high technology products provided by international monopolies and oligopolies.

One approach to solving corruption may involve raising risks associated with contracting deals, and improvements to the monitoring and accounting system should be considered by governments. In general, the system of increasing the share of these spendings stands as unattractive to corruption and should be taken into account.

Creating an effective incentive system by the international and local anticorruption agencies, to those who are highly involved in decision making and law enforcement at levels of legal, political and social institutions is an essential element for lessening corruption.

Also, introducing the subject of professional ethics in every field of education may form a good remedy for the corruption phenomenon.

Appendixes

Figure (1)

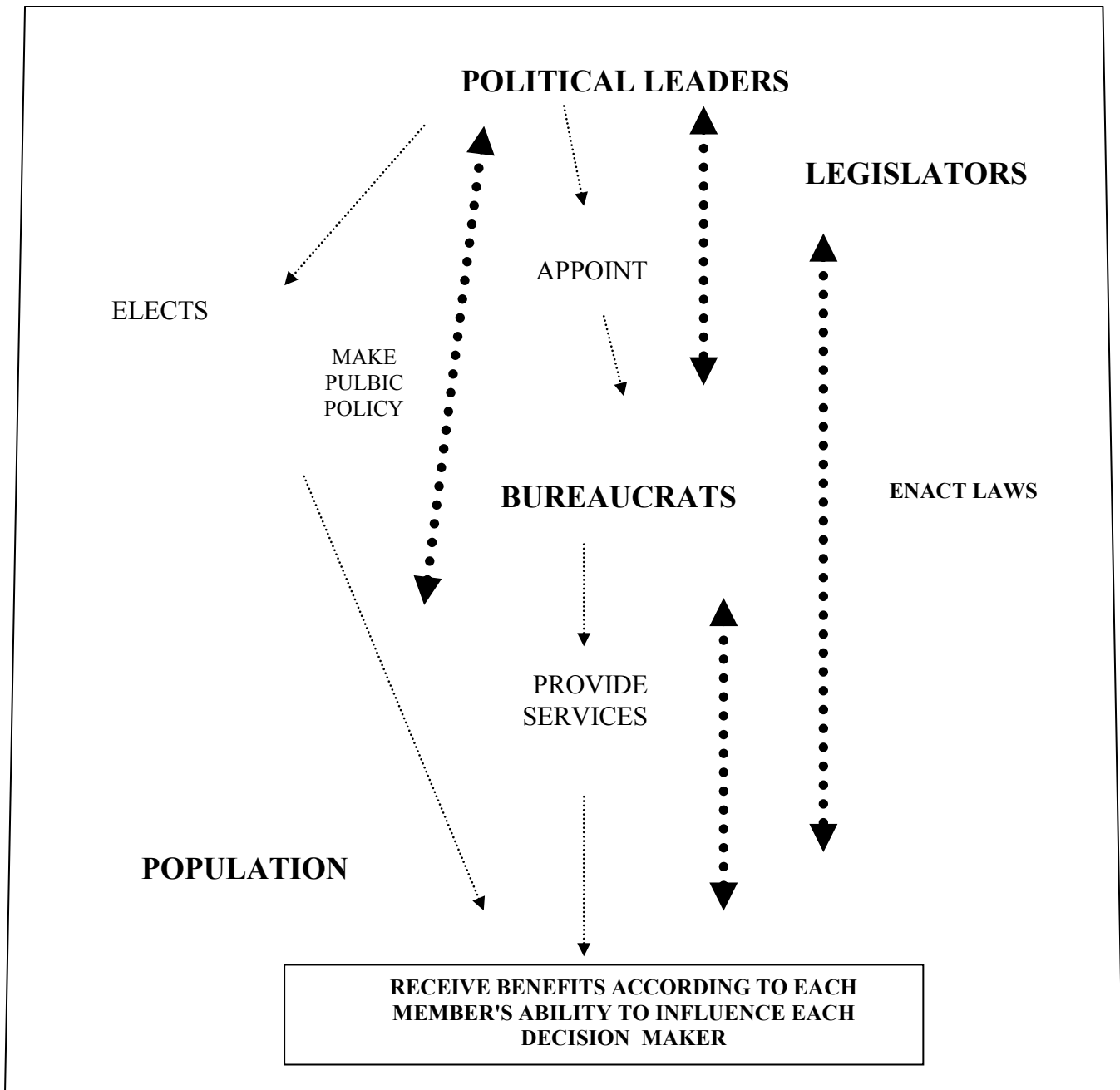


Figure 1. Corrupt relationships in democratic societies.

Table (1) : statistical estimation of the relation between CPI and expenditure on education as percentage of GDP for ESCWA Countries (1995-2008)

| Dependent Variable: Expenditure on education as percentage of GDP | | | | | |
|--|-----------------|--------------------------------|-------------|--------------------------------|--------------------|
| | Constant | Corruption Index | \bar{R}^2 | 95% Confidence Interval | |
| | | | | Upper Bound | Lower Bound |
| Bahrain | 2.78 | 0.019 (1.27) | 0.61 | 0.516 | -0.136 |
| Egypt | 3.632 | 0.0255 (1.4) | 0.56 | 1.37 | -0.863 |
| Jordan | 13.55 | 0.047 (1.61) | 0.69 | 0.494 | -0.343 |
| Kuwait | 5.61 | 0.007 (3.1) | 0.64 | 2.7 | -2.7 |
| Lebanon | 6.615 | 1.252 (2.26) | 0.6 | 2.456 | -0.049 |
| Oman | 2.73 | 0.177 (1.9) | 0.59 | 0.577 | -0.224 |
| Qatar | -0.684 | 0.0681 (1.49) | 0.67 | 1.67 | -3.09 |
| Saudi Arabia | 6.12 | 0.0125 (1.5) | 0.68 | 2.267 | -2.017 |
| Syria | 3.67 | 0.053 (1.9) | 0.71 | 0.553 | -0.659 |
| U.A.E. | 2.101 | 0.059 (2.1) | 0.77 | 0.527 | -0.645 |
| Yemen | -2.004 | 3.96 (1.9) | 0.7 | 12.7 | -4.86 |
| ESCWA Countries | 1.325 | 0.016 (1.6) | 0.72 | 1.7 | -0.252 |

t-statistics in parentheses

Table (2) : statistical estimation of the relation between CPI and expenditure on Health as percentage of GDP for ESCWA Countries (1995-2008)

| Dependent Variable: Expenditure on Health as percentage of GDP | | | | | |
|---|-----------------|-------------------------------|-------------|--------------------------------|--------------------|
| | Constant | Corruption Index | \bar{R}^2 | 95% Confidence Interval | |
| | | | | Upper Bound | Lower Bound |
| Bahrain | 2.93 | 0.229 (1.7) | 0.8 | 0.907 | -0.449 |
| Egypt | 0.05 | 1.7 (2.23) | 0.69 | 3.506 | 0.048 |
| Jordan | 4.596 | 0.99 (2.07) | 0.76 | 2.02 | -0.048 |
| Kuwait | 6.05 | 0.653 (1.56) | 0.7 | 2.56 | -1.562 |
| Lebanon | 7.74 | 0.745 (1.8) | 0.54 | 2.903 | -1.414 |
| Oman | 3.74 | 0.134 (1.9) | 0.67 | 0.163 | -0.43 |
| Qatar | 3.647 | 0.022 (1.5) | 0.8 | 0.81 | -0.77 |
| Saudi Arabia | 0.88 | 0.746 (1.4) | 0.74 | 1.88 | -0.39 |
| Syria | 2.68 | 0.654 (2.5) | 0.72 | 1.208 | 0.101 |
| U.A.E. | -0.084 | 0.568 (1.6) | 0.73 | 1.438 | -0.303 |
| Yemen | 4.06 | 0.282 (1.74) | 0.68 | 1.7 | -1.17 |
| ESCWA Countries | 5.108 | 0.076 (5.1) | 0.61 | 0.64 | -0.67 |

t-statistics in parentheses

Appendix (A) : Corruption Perception Index (CPI) for ESCWA Countries (1995-2008)***

| Year | Bahrain | Egypt | Jordan | Kuwait | Lebanon | Oman | Qatar | Saudi Arabia | Syria | U.A.E. | Yemen | Average |
|---------|---------|-------|--------|--------|---------|-------|-------|--------------|-------|--------|-------|---------|
| 1995 | 5 | 2.6 | 4.8 | 4.2 | 3.2 | 4 | 5 | 3.4 | 3.1 | 6.5 | 2.3 | 4.009 |
| 1996 | 5.3 | 3.1 | 4.2 | 4 | 3 | 4.2 | 5.4 | 3.2 | 3.5 | 6.8 | 2.5 | 4.109 |
| 1997 | 5 | 2.8 | 4.5 | 4.1 | 3.5 | 4.5 | 4.8 | 3 | 3.7 | 5.9 | 2.4 | 4.018 |
| 1998 | 6 | 2.9 | 4.6 | 4 | 3.1 | 5 | 5.5 | 3.6 | 3.5 | 6 | 2.1 | 4.209 |
| 1999 | 5.5 | 3.3 | 4.7 | 4.5 | 3.5 | 6.5 | 4.6 | 3.5 | 3.4 | 5.8 | 2.5 | 4.345 |
| 2000 | 5 | 3.1 | 4.4 | 4.5 | 2.5 | 6 | 5.8 | 4 | 4 | 5.5 | 2.4 | 4.29 |
| 2001 | 5.8 | 3.6 | 4.6 | 5 | 3.5 | 5.5 | 6 | 3 | 2.5 | 6.4 | 2.6 | 4.409 |
| 2002 | 6 | 3.4 | 4.9 | 4 | 3 | 4.5 | 5.8 | 3.6 | 3.5 | 5.8 | 2.2 | 4.245 |
| 2003 | 6.1 | 3.3 | 4.5 | 5.3 | 3 | 6.3 | 5.6 | 3.8 | 3.4 | 5.2 | 2.6 | 4.463 |
| 2004 | 5.8 | 3.2 | 4.6 | 4.6 | 2.7 | 6.1 | 5.2 | 3.4 | 3.4 | 6.1 | 2.4 | 4.318 |
| 2005 | 5.9 | 3.4 | 5.3 | 4.7 | 3.1 | 6.3 | 5.9 | 3.4 | 3.4 | 6.2 | 2.7 | 4.572 |
| 2006 | 5.7 | 3.3 | 5.7 | 4.8 | 3.6 | 5.4 | 6 | 3.3 | 2.9 | 6.2 | 2.6 | 4.5 |
| 2007 | 5 | 2.9 | 4.7 | 4.3 | 3 | 4.7 | 6 | 3.4 | 2.4 | 5.7 | 2.5 | 4.018 |
| 2008 | 5.4 | 2.8 | 5.1 | 4.3 | 3 | 5.5 | 6.5 | 3.5 | 2.1 | 5.9 | 2.3 | 4.218 |
| Average | 5.535 | 3.121 | 4.757 | 4.45 | 3.121 | 5.321 | 5.578 | 3.435 | 3.2 | 6 | 2.45 | 4.26 |

* A high value of corruption index means the country has a low corruption [CPI (0-10)].

** Data on CPI, expenditure on health and education, for countries other than Egypt and Jordan, for the period 1995-2002, was drawn from their trends.

*** Source: Transparency International Reports.

Appendix (B): Expenditure on Health as Percentage of GDP for ESCWA Countries (1995-2008)*

| Year | Bahrain | Egypt | Jordan | Kuwait | Lebanon | Oman | Qatar | Saudi Arabia | Syria | U.A.E. | Yemen | Avg. |
|------|---------|-------|--------|--------|---------|-------|-------|--------------|-------|--------|-------|--------|
| 1995 | 4.2 | 3.9 | 7.9 | 3.6 | 10.7 | 3.5 | 4.1 | 2.6 | 5.5 | 4.3 | 4.3 | 4.9636 |
| 1996 | 4.6 | 4.3 | 8.2 | 3.4 | 10.7 | 3.4 | 4.2 | 2.6 | 5.5 | 4 | 4 | 4.990 |
| 1997 | 4.7 | 4.1 | 8.7 | 3.6 | 11.6 | 3.2 | 3.6 | 2.7 | 5.3 | 3.9 | 4.2 | 5.054 |
| 1998 | 5 | 4.8 | 8.8 | 4.3 | 11.7 | 3.7 | 4.2 | 3 | 5.1 | 4.1 | 5 | 5.427 |
| 1999 | 4.7 | 5.5 | 8.8 | 3.7 | 11.1 | 3.5 | 3.6 | 3.8 | 5.2 | 3.7 | 4.6 | 5.290 |
| 2000 | 4 | 5.6 | 9.4 | 3.1 | 11 | 3 | 2.3 | 4 | 4.9 | 3.1 | 4.5 | 4.981 |
| 2001 | 4.3 | 6 | 9.6 | 3.5 | 10.7 | 3 | 2.7 | 4.2 | 4.9 | 3.7 | 5 | 5.236 |
| 2002 | 4.4 | 6.3 | 9.3 | 3.6 | 9.4 | 3.1 | 2.9 | 4 | 5 | 3.3 | 5 | 4.668 |
| 2003 | 4.3 | 6.4 | 9.3 | 3.1 | 8.9 | 3.1 | 4.3 | 3.8 | 5.1 | 3.1 | 5.4 | 5.1636 |
| 2004 | 4 | 6.1 | 10.1 | 2.8 | 8.8 | 2.9 | 3.9 | 3.5 | 4.5 | 2.8 | 5 | 4.945 |
| 2005 | 3.8 | 6.1 | 10.5 | 2.2 | 8.7 | 2.5 | 4.1 | 3.4 | 4.2 | 2.6 | 5.1 | 4.836 |
| 2006 | 3.8 | 6.3 | 9.9 | 2.2 | 8.9 | 2.3 | 4.3 | 3.4 | 3.9 | 2.6 | 4.6 | 4.745 |
| 2007 | 3.4 | 6.4 | 10 | 2.4 | 9 | 2.5 | 4.2 | 3.6 | 3.8 | 2.7 | 5 | 4.818 |
| 2008 | 3.6 | 6.6 | 9.8 | 2.6 | 9.7 | 2.8 | 4.4 | 3.7 | 4 | 2.6 | 4.8 | 4.963 |
| Mean | 4.2 | 5.6 | 9.307 | 3.15 | 10.064 | 3.035 | 3.771 | 3.45 | 4.775 | 3.321 | 4.75 | 5.038 |

*Source: World Bank Group Reports and WHO Reports

Appendix (C) : Expenditure on Education as Percentage of GDP for ESCWA Countries (1995-2008)

| Year | Bahrain | Egypt | Jordan | Kuwait | Lebanon | Oman | Qatar | Saudi Arabia | Syria | U.A.E. | Yemen | Avg. |
|------|---------|-------|--------|--------|---------|-------|-------|--------------|-------|--------|-------|-------|
| 1995 | 3.6 | 4 | 8 | 6 | 2 | 4 | 2 | 6 | 3 | 2 | 4 | 4.054 |
| 1996 | 3.5 | 5 | 7 | 6 | 3 | 3 | 4 | 5 | 4 | 2 | 5 | 4.138 |
| 1997 | 3.5 | 4 | 6 | 6 | 3 | 3 | 3 | 7 | 3 | 2 | 5 | 4.136 |
| 1998 | 3.6 | 4 | 8 | 5 | 2 | 4 | 4 | 5 | 4 | 2 | 10 | 4.690 |
| 1999 | 3.5 | 4 | 4.7 | 2.9 | 2 | 4.2 | 3 | 8 | 4 | 2 | 10 | 4.372 |
| 2000 | 4 | 5 | 7 | 2.7 | 4.2 | 4 | 2 | 7 | 3 | 1.6 | 9.5 | 4.545 |
| 2001 | 4 | 4 | 4.6 | 5 | 2.5 | 4.6 | 3 | 6 | 3 | 1.6 | 5 | 3.936 |
| 2002 | 4 | 5 | 7 | 8.2 | 2.6 | 3 | 4 | 7 | 3 | 2 | 5 | 4.618 |
| 2003 | 4 | 4 | 8 | 8.2 | 2 | 4 | 2 | 6 | 4 | 2 | 10 | 4.927 |
| 2004 | 4 | 5 | 7 | 8 | 2.6 | 3.6 | 1.6 | 6.8 | 3 | 1.3 | 9.6 | 4.773 |
| 2005 | 4 | 5 | 4.5 | 5.1 | 3 | 3 | 4 | 7 | 4 | 1 | 10 | 4.6 |
| 2006 | 4 | 4 | 5 | 4 | 2 | 4 | 3 | 8 | 4 | 2 | 10 | 4.909 |
| 2007 | 4 | 4 | 8 | 5 | 3 | 4 | 4 | 7 | 3 | 2 | 8 | 4.727 |
| 2008 | 4 | 5 | 7 | 6 | 4 | 3 | 4 | 6 | 4 | 1 | 6 | 4.545 |
| Mean | 3.835 | 4.428 | 6.557 | 5.578 | 2.707 | 3.671 | 3.114 | 6.557 | 3.5 | 1.75 | 7.65 | 4.497 |

*Source: World Bank Group Reports and WHO Reports

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