The Effects of Corruption on Government Expenditures: Arab Countries Experience

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Abstract

Corruption is popularly defined as the abuse of public power for private gains. Corruption as a phenomenon , is a global problem and exist in varying degrees in different countries.

Corruption poses a serious development challenge, it has a number of adverse consequences on domestic investment, on foreign direct investment, on economic growth, on the size and composition of government expenditure.

The purpose of this paper is to briefly review the literature in order to discuss what the latter suggests about the relationship between corruption and the composition of government expenditure (education and health government expenditures) and to investigate empirically(using simple regression model) this relation for the case of Arab countries.

We found that corruption reduces education and health spending as part of total public spending.

Keywords: corruption, Government expenditures, Arab countries

Introduction

There are numerous definitions of corruption in the academic literature and among donor agencies. Some of these definitions are quite broad , and often somewhat vague. Transparency International's definition " the misuse of entrusted power for private gains"   and world Bank's definition " the exercise of official powers against public interest or the abuse of public office for private gains" are representative.

The purpose of this paper is to briefly review the literature in order to discuss what the latter suggests about the relationship between corruption and the composition of government expenditure and to investigate empirically this relation for the case of Arab countries.

section 1 gives a definition for corruption and explains the indicators used in measuring corruption. Section 2 discusses what the latter suggests about the economic consequences of corruption particularly the relationship between corruption and the composition of government expenditure and between corruption & investment.

Section 3 asses corruption levels and trends among Arab countries. Also we investigate empirically the relationship between corruption and the composition of government expenditure for the case of 13 Arab countries

Section 4 discuss how to fight corruption.

Research Problem:

In all countries, and more noticeably in developing countries, corruption stems state intervention efficiency: it hampers budget equilibrium, diminishes expenditure efficiency and distorts its allocation between different budgetary functions.

Several studies, using cross section analysis and utilizing the available corruption indexes, have reported important quantitative results on the effects of corruption on economic variables. These results suggest that corruption has a negative impact on the rate of growth of countries.

First, corruption reduces investment and, as a consequence, it reduces the rate of growth. Such reduction in investment is assumed to be caused by the higher costs and by the uncertainty that corruption creates.

Second, corruption reduces expenditure for education and health because public expenditure for education and health does not lend itself easily to corrupt practices on the part of those who make budgetary decisions.

Third, corruption is found to reduce foreign direct investment. Because high corruption in host countries may imply high expropriation risk.

Fourth, corruption substantially affects income distribution because rich have both greater motivation and more opportunity to engage in corruption, whereas the poor are more vulnerability , extortion and less able to hold the rich accountable as inequality increases.

Corruption can divert resources away from social programs. So, Substantial gains could be achieved if corruption is reduced.

Therefore, this study is set out to briefly review the literature in order to discuss what the latter suggests about the relationship between corruption and government expenditures and to investigate empirically using data from 13 Arab countries.

Research Hypothesis:

There is a relationship between corruption and the composition of government expenditure in Arab countries.

Methodology

The analysis is based on:

a)Discussing the empirical literature about the relationship between corruption and the composition of government expenditure.

b)Investigate empirically the relationship between corruption and the composition of government expenditure in Arab countries using a simple regression model.

c) This study includes 13 Arab countries (Egypt, Jordan, Tunisia , Morocco, Oman, Bahrain, Kuwait, United Arab Emirates, Libya, Lebanon, Yemen, Qatar and Syrian Arab Republic)

1.Corruption: definition and measurement:

1.1 corruption definition:

There is no agreement in the literature on how to define the phenomenon of corruption; the Transparency International's definition who describes corruption as the misuse of public office for private gain is representative. More specifically, government corruption is defined as "…the sale by government officials of government property for personal gain". This "sale" can take various forms such as collecting bribes for issuing permits or licenses or even for prohibiting the entry in specific sectors to competitors. In almost all of these cases, the competitors are charged not only the official price of the good but also the extra payment, paid to the government official.

Given the conceptual definition offered by TI, corruption can be disaggregated along many dimensions. First, one can distinguish between central, provincial and municipal levels of a political system. Corruption can be widespread at the local government level, even if it is controlled effectively at the central government level.

Second, a distinction can be made between different broad purpose of the improper actions. For example, bribes may be intended to influence the content of laws and rules, i.e state capture or alternatively to influence their implementation (administrative corruption)

Third, one can distinguish among the actors involved in a corrupt transaction. For example, bribes or diversion of public funds may involve various combinations of firms, households and public officials. These actors can be distinguished by their characteristics: large vs small firms, rich vs poor household, low level vs high levels officials.

Fourth, corruption can be disaggregated by the administrative agency or service involved, such as tax and customs, business licenses, inspections utility connections, courts or public education and health facilities.

In general , there are three basic types of corruption:

The first type :corruption for achieving or speeding up materialization of some specific right that the citizen or legal entity is entitled to- corruption without theft.

In other words, civil servants are corrupted to do their job or to do it more quickly than they usually do, instead of not doing it. The frequency of this type of corruption is a good indicator of the capacity and effectiveness of a country's administration, i.e its poor administrative capacities or poor supply of administrative services. One should bear in mind that the shortage of supply of administrative services can be deliberately produced, aimed at creating the rent and its redistribution via corruption.[13]

The second type: it is corruption that violates the legal rules, or a very biased enforcement of the rules. This is administrative corruption and is the most modeled type of corruption- the vast majority of theoretical contributions in the field are about administrative corruption. This is due to very clear motives and incentives for each economic agent and very clear relations between them.

The third type: is **state capture** corruption that is aimed at changing the rules and regulations into rules and regulations that favor the interests of the corruptor. The concept of state capture was developed by the World Bank primarily for explaining the reality of political life in transitional economies.

The underlying assumption is that legislation and public policies are decisively influenced by the bribing of legislators by a few oligarchs- very powerful business people. In other words, public policies are inevitably formulated to favor the oligarchs, not the public. Although there is no doubt that such a process exists, and that this type of corruption can explain some elements of public policy in many countries (not only transitional ones).

The causes or factors that promote corruption are those that affect the demand (by the public) for corrupt acts and those that affect the supply (by the public officials) of acts of corruption.

Among the factors affecting the demand are 1) regulations and authorizations; 2) characteristics of the tax systems ; 3) certain spending decisions ; and 4) provision of goods and services at below market prices.

Among the factors affecting the supply of acts of corruption are: 1) the bureaucratic tradition ; 2) the level of public

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[13] www.cipe.org/pdf/publications/fs/032105.pdf (corruption: concepts, types, causes and consequences)

sector wages; 3) the penalty systems ; 4) institutional controls; and 5) the transparency of rules, laws and processes. (Tanzi, 1998)

1.2 Measuring corruption:

The main question is: is it possible to measure corruption, and if so how? Corruption is a variable that cannot be measured directly. However, the number of indices focused on corruption measurement has grown exponentially. Like Transparency International's (TI) corruption Perceptions Index (CPI) and the World Bank's worldwide Governance Indicators (WGI)

Corruption perception index (CPI) has been published annually by Transparency International (TI) since 1995. CPI ranks countries in terms of the degree to which corruption is perceived to exist among public officials and politicians . it is a composite index, a poll of polls, drawing on corruption related data from expert and business surveys carried out by a variety of independent and reputable institutions.

The CPI ranks countries on a zero to ten scale, with a score of zero representing very high corruption. (Transparency International, www.transparency.org)

World Bank's worldwide Governance Indicators (WGI) reports aggregate and individual governance indicators for 212 countries for six dimensions of governance: voice and accountability, political stability, Absence of violence, Government effectiveness, Regulatory Quality, Rule of law, and control of corruption.

The aggregate indicators combine the views of a large number of enterprise, citizen and expert survey respondents in industrial and developing countries. The individual data sources underlying the aggregate indicators are drawn from a diverse variety of survey institutes, think tanks, nongovernmental organizations and international organizations.(world bank, www.worldbank.org)

Criticism of composite indicators The results of these indicators are subjective, that general corruption indicators risk reflecting citizens' general predispositions towards government, rather than actual experienced corruption. Therefore, there exists a possibility that countries where the public administration or government suffer from a very negative image will also be seen as countries where corruption is high.

2. Economic consequences of corruption

Corruption distorts markets and the allocation of resources because:

- Corruption reduces the ability of the government to impose necessary regulatory controls and inspections to correct for market failures.
- Corruption distorts incentives. In a corrupt environment, able individuals often tend to find it more profitable to apply their energies to rent seeking and to corrupt practices and not to productive activities.
- Corruption is likely to increase poverty because it reduces the income earning potential of the poor.
- Corruption reduces foreign direct investment. Less predictable is the level of corruption, the greater is the impact on foreign direct investment.

Corruption has a number of adverse consequences. In this section , we review some studies that systematically examine the consequences of corruption on the economic development

2.1. Corruption and the composition of government spending

Tanzi and Davoodi (1997): carried out a systematic study on the effect of corruption on government's expenditures. There are several important findings

1)corruption tends to increase the size of public investment (at the expense of private investment)

2)corruption skews the composition of public expenditures away from needed operation and maintenance towards expenditure on new equipment.

3)corruption skews the composition of public expenditures away from needed health and education funds, because these expenditures, relative to other public projects, are less easy for officials to extract rents from.

4)corruption reduces the productivity of public investment and of a country's infrastructure.

5)corruption may reduce tax revenue because it compromises the government's ability to collect taxes and tariffs.(Tanzi & Davoodi 1997)

Mauro (1998): He estimates a cross-section regression for about 100 countries[3] worldwide, using the same perception corruption index that I use in this essay. The regressions are based on the average values of the period 1970-85 as a percentage of GDP. Initially, he divides government expenditure into four major categories: education, defense, transfer payments and social insurance and welfare payments.

His estimates reveal that corruption alters the composition of government expenditure, specifically by reducing government spending on education. Therefore, it confirms that more corrupt countries chose to spend less on education, since it does not provide as many lucrative opportunities for government officials as other components of spending do.(Mauro 1998)

Gupta, Davoodi and Tiongson (2001): show that countries with high levels of corruption are associated with inefficient government services and a low quality of public health care provision.

The authors therefore proceed their investigation with more objective proxies for the quality of government services: child and infant mortality as well as the percent of low birth weight babies in total births as a proxy for

the quality of public health care provision and student drop out rates as a proxy for the quality of public education.

 All these variables react significantly to levels of corruption . child mortality rates in countries with high levels of corruption are about one third higher than in countries with low corruption; infant mortality rates are percent of low birth weight babies are almost twice as high, and drop out rates are five times as high. (Gupta, Davoodi and Tiongson, 2001)

Delavallade (2006): find that public corruption distorts the structure of public spending by reducing social expenditure's portion, i.e education, health and social protection spending 's portion of total government spending. (Delavallade 2006)

2.2.The effects of corruption on investment and growth:

Evidence suggests that corruption lower economic growth. his happen through any of a wide range of channels.

Corruption discourages investment both domestic investment and foreign direct investment because the various forms of takings (bribes, kickbacks,..) ,also corruption raising transaction costs (delays, distortions,…….) and increase uncertainty over the returns to capital and raise the cost of production , which ultimately reduce profitability.

Corruption affects the efficiency of investment through:

First, corruption distorts the sectoral allocation of investible resources by diverting resources from potentially productive sectors to unproductive sectors and thereby decreasing the overall output generating capacity of the investment.

Second, bribes which are often the major part in any act of corruption increase the cost of production which ultimately gets reflected in a higher output price increase, reduction in demand and the eventual reduction in the incremental output capital ratio for the activity. (Sarkar&Hassan,2001)

Mauro (1995) provides empirical evidence that corruption lowers investment and economic growth. The observed effects are considerable in magnitude: in an analysis using the Business International (B1) indices of corruption, a one standard deviation improvement in the corruption index causes investment to rise by 5 percent of GDP and the annual rate of growth of GDP per capita to rise by half a percentage point. The evidence indicates that much of the effects on economic growth take place through the effects on investment.(Mauro1995)

Abed and Davoodi (2000) use a cross sectional as well as a panel data analysis to examine the effects of levels of corruption on per capita FDI inflows to transition economies. They find that countries with a low level of corruption attract more per capita FDI. However, once they control for the structural reform factor, corruption becomes insignificant. They conclude that structural reform is more important than reducing the level of corruption in attracting FDI. (Abed& Davoodi, 2000)

2.3 corruption and inequality:

a) Inequality as a consequence of corruption:

Gupta et al (2002) provided some theoretical finding of the causality from corruption to inequality and provided some empirical results on that relation. A few mechanisms of influence of corruption to increased inequality have been identified.

According to the authors, the first one is biased tax system as corruption can lead to tax evasion , defective tax administration and exemptions that favor the wealthy (and well connected)- this can reduce effective tax base and undermines possibilities for compulsory income/wealth redistribution from rich to poor, leading to the preservation or even increase of the inequality.

The second mechanism is poor effective targeting of the social programs to the truly needed due to the corruption that is shift the funds from poverty alleviation programs from the poor to the powerful/ rich individuals.

The third mechanism is the one linked to the formation of human capital, i.e education. Corruption has detrimental effects to the structure of the public expenditures in such a way that share of education is substantially decreased. Lowering provision of public education has detrimental effects on the ability of the poor to invest in their human capital. (Gupta et al ,2000)

b) inequality as a factor of corruption:

you and Khagram (2005) concluded that inequality increases the level of corruption through material and normative mechanisms. Material mechanism is explained by claiming that rich have both greater motivation and more opportunity to engage in corruption, whereas the poor are more vulnerable to extortion and less able to hold the rich accountable as inequality increases. Normative mechanism is explained as increase in inequality adversely affects social norms about corruption and people's beliefs about the legitimacy of rules and institutions. (you and khagram , 2005)

Helgson and Mickelson (1995) concluded that discrimination, social inequalities and social class gap create poverty, feelings and relative deprivation in people. So, weak people who cannot earn and increase income by legal ways might get involved in corrupt activities. (Helgson and Mickelson , 1995)

3.The effects of corruption on government expenditures in Arab countries
3.1Corruption in Arab countries:

In the Arab countries, corruption is a wide spread phenomenon, which affects economic development, resulting in serious moral and political concerns. In addition, corruption constitutes a subject of common concern to these countries as it comprises the good management of public affairs, perturbs markets well functioning, and distorts the compliance with the requirements necessary for an open and transparent competition , based on price and quality.

Noteworthy, however, corruption also entails a waste development allocated resources already not plentiful in several Arabic countries.

Transparency International's corruption perception index (CPI) consistently ranks Arab countries below the world median, with only five countries scoring 5 or above (out of 10), and 12 countries scoring below 5, the perception of corruption remains a serious problem in the Arab region.

Qatar has improved considerably in its stand on the corruption perception index (CPI). The country is the first among the least corrupt nations in the Arab region. Qatar stood on the 22th position with a CPI of 7 in 2009. It went up by ten notches from its 32nd position in year 2003.

UAE stood in the 30th place with a score of 6.5, followed by Oman at 39 place with score of 5.5, Bahrain stood 46 with a score of 5.1, Iraq and Sudan came last in the Arab Region at 176 place with a score of 1.5

The poor results of the 2009 CPI reflect how conflict and political turmoil in the region seriously hamper the effectiveness of anti- corruption efforts. The threat to political and institutional infrastructures partly explains the governance gap in the region while other factors such as lack of transparency, insecurity and oil wealth continue to fuel corruption.

Egypt's score on Transparency International's corruption perception index improved from 2 in the late of 1990s to 3.6 in 2001. The government has initiated various anti corruption measures; however, they remain inadequate in curtailing corruption and since 2001 Egypt has stagnated in the transparency index (3.2 in 2004, 2.8 in 2009). Egypt ranked 70th out of 163 countries in Transparency International's CPI 2006. Egypt's rank witnessed slowly backslides in 2007, scoring 2.9 and ranking 105 out of 180 countries. In 2009 Egypt's score stagnated at around 2.8 with a lower rank (111 out of 180 countries)

3.2Causes of corruption in Arab region:

Corruption does not proper due to, or at least, not exclusively because of defects in certain person's character. What really more matters is the environment which secures impetus and favorites motivation for a corrupt behavior.

A variety of factors have been highlighted to explain the governance gap and relatively poor governance and anti corruption performance in Arab region

Lack of transparency and access to information: Arab countries are characterized by a general lack of transparency and limited availability of information, even within government themselves. Information is mainly controlled or censored by government even if some countries are moving towards greater transparency; most governments in the region restrict access to information, control the media or make no effort to publish it widely.

Insufficient internal accountability mechanisms: Even if generally guaranteed by a strong constitutional basis, the independence of the judiciary is often compromised in the region by a lack of independence from the executive branches of government as a result, the region is characterized by weak judiciaries that don't have the power to question the executive judges are often government employees, placed under the authority of the executive through the Ministry of Justice.

Poor external accountability mechanisms: in Arab countries, civil society organizations, the media or professional associations usually exist but their effectiveness are hampered by considerable government controls and restrictions. (Transparency International, 2007)

Private sector: in the Arab region, private sector corruption is characterized by widespread collusion between public and private sectors, as members of the ruling elite often have parallel interests in politics and business.

3.3Empirical Study of the effects of corruption on government expenditures in Arab countries:

Corruption may distort the composition of government expenditures. Corruption may tempt government officials to choose government expenditures less on the basis of public welfare than on the opportunity they provide for extorting bribes. Large projects whose exact value is difficult to monitor may present lucrative opportunities for corruption. Expecting that it is easier to collect substantial bribes on large infrastructure projects or high technology defense systems than on textbooks or teachers' salaries.

Data:

Dependent variables:

In this study the components of government expenditures divided to three major categories: expenditures on defense, education and health . Although there are other types of public expenditures as well such as: general public services, transport and communications and economic services which may in fact provide services for

many lucrative opportunities for corrupt behavior only these four categories were commonly available for the arab countries.

The study included five different dependent variables in the regressions. The first variable measures government expenditure on education as a share of GDP. The second variable measures government expenditure on health as percentage of GDP. The third and fourth variables measuring education and health spending as share of total government expenditure, to see whether an effect on education and health spending as share of GDP could actually be due to an increase in the total budget, and not to a change in the composition of government expenditures.

Key explanatory variable:

The data on corruption is drawn from the corruption perception index (CPI) by Transparency International. This is an index of perceived corruption, ranging from 0 to 10; 0 being the most corrupt, and 10 the least corrupt.

Countries:

Due to unavailability of data this study includes only 13 Arab countries. We used data from 1998 to 2008 for only 4 countries (Egypt, Jordan, Tunisia and Morocco) and data from 2003 to 2008 for the other 9 countries (Bahrain, Kuwait, Oman, United Arab Emirates, Libya, Lebanon, Yemen, Qatar and Syrian Arab Republic).

Results

Dependent variable	constant	Corruption index (CPI)	R^2
Government expenditure on education as % of GDP	-0.028	1.12	0.10
Government expenditure on health as % of GDP	-0.019	1.06	0.13
Government expenditure on education as % of total government expenditure	-0.030	1.64	0.15
Government expenditure on health as % of total government expenditure	-0.012	1.43	0.12
Government expenditure on defense as % of GDP	-0.002	0.006	0.003

The above result shows that when CPI increases or the level of corruption decreases there is a significant (with a probability of more than 95 percent) increase in government spending on education & health.

Corruption appears to modify the structure of public expenditure in favor of defense and energy at the expense of social sectors like education and health.

These results consistent with the empirical literature, the analysis in this paper has established a statistically significant effect of corruption on composition of government expenditure in a sample of 13 Arab countries. But one of the problems that face this study is the weakness in data so we don't rely on comprehensive data.

Such results have several explanations. First, corrupt agents are incited to favor spending sectors where decisions are taken in a secret environment such as defense and energy. Second, firms can be prompted to bribe foreign public agents in order to export arms, military equipments, gas or gold.

Moreover , in sectors like defense and energy each project involves greater public investments. These projects prove to generate more rents for the producers who, therefore the latter are ready to pay more bribes to get the market.

In the end, corruption reduces the amount of government spending affected to a budget item, and with the same budget, it alters the allocation of expenditure, estimated after the ratio of each item in the total allocated government spending.

4.How to fight corruption:

Because corruption is a crime in most countries' penal codes, it is common to emphasize the role of law enforcement in the fight against corruption. While there is no question that law and law enforcement are important, we should note that it is also important to look into the causes of corruption, the institutional environment and the incentive structure under which corruption thrives.

Public sector corruption, as a symptom of failed governance, depends on multitude of factors such as the quality of public sector management, the nature of accountability, relations between the government and citizens, the legal framework and the degree to which public sector processes are accompanied by transparency and dissemination of information.

Institutional Reforms

The institutional design of the state can be an important mechanism in combating corruption.

Anti corruption legislation: any anti corruption strategy needs a functioning legal system to build on if it is to introduce real change.

Competitive private sector: transparency in formulating and implementing economic policy is crucial to combating corruption, especially in the areas of privatization and regulation. Enhancing competition , by

lowering barriers to entry, requiring competitive restructuring and clarifying ownership structures are important elements towards creating a vibrant and corruption free private sector. (Global organization of parliamentarians against corruption2005)

Competitive procurement: competitive procurement limits the authority of government officials thereby guarding against corruption. Competitive procurement removes personal discretion from the selection of government suppliers and contractors by prescribing an open bidding process and laying out clear procedures and criteria for selection. (USAID, 1999)

Decentralization: decentralization of service delivery can make the state more responsive to the needs of the people and improve service delivery.

Accountability:

Improving accountability entails efforts to improve both the detection and the sanctioning of corrupt acts.

Open budget process: open budget process improve accountability by enhancing transparency of government expenditures and income.

Financial management systems and Audit offices: financial management systems improve accountability by enhancing transparency and oversight in government operations. (USAID,1999)

Transparency in tax and customs: reforms to simplify tax policy and eliminate discretionary exemptions , standardization of forms and procedures , and transparent systems.

Civil society participation:

Civil society can achieve anticorruption objectives by creating public awareness , and promoting action plans to fight corruption. (Global organization of parliamentarians against corruption2005)

5.Limitation of the study

Two main problems arise when this study tries to estimate the relationship between corruption and the composition of government expenditure

  a) **Causality problem:** the causality refers to the direction of association between corruption and the composition of public expenditure. Whether the corruption alters the composition of public expenditures or it is the composition of expenditure which causes corruption.

  b) **Data Problems:** Due to unavailability of data this study includes only 13 Arab countries. We used data from 1998 to 2008 for only 4 countries and data from 2003 to 2008 for the other 9 countries.

conclusion

The paper investigated the relationship between major categories of government expenditure and corruption based on the method of pooled least squares for the arab countries .The results proved that expenditures on defense may be positively related to the level of corruption. This can be attributed to the fact that this type of spending is the most difficult one to be monitored by people as it involves transactions in high technology products.

Further, corruption was found to reduce expenditures on education and health. Because in general their provision is not associated with sophisticated equipment provided by international (or domestic) monopolies and oligopolies. The implications for the latter can be better understood when one considers that the international literature has gathered robust evidence that government spending on education is an important determinant of economic growth.

Public expenditures is a key instrument of development, and in particular of human development through social spending . therefore, our evidence suggests that combating corruption shall be one of the main objectives of Arab countries and more strongly in lowest human development countries. It notably suggests that corrupt countries should be incited to allocate their expenditure towards education and health.

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Web sites:

Transparency International

www transparency.org

world Bank

www. Worldbank.org

world Health Organization

www.who.org

UNESCO institute for statistics

Stats.uis.unesco.org

Statistical Appendix

Table (1): Corruption perception index for Arab Region (2009)

Country	score	Rank
Qatar	7.0	22
United Arab Emirates	6.5	30
Oman	5.5	39
Bahrain	5.1	46
Jordan	5.0	49
Tunisia	4.2	65
Kuwait	4.1	66
Morocco	3.3	89
Egypt	2.8	111
Algeria	2.8	111
Djibouti	2.8	111
Syrian Arab Republic	2.6	126
Libya	2.5	130
Lebanon	2.5	130
Yemen	2.1	154
Sudan	1.5	176
Iraq	1.5	176

Source : Transparency International (TI), www.transparency.org

Table2 : Corruption Perception Index (CPI) in Arab countries

year	Egypt	Jordan	Tunisia	Morocoo	Bahrain	United Arab Emirate	Kuwait	oman	Libya	Lebanon	Yemen	Qatar	Syrian Arab Republic
1998	2.9	4.7	5.0	3.7									
1999	3.3	4.4	5.0	4.1									
2000	3.1	4.6	5.2	4.7									
2001	3.6	4.9	5.3	--									
2002	3.4	4.5	4.8	3.7									
2003	3.3	4.6	4.9	3.3	6.1	5.2	5.3	6.3	2.5	3.0	2.5	5.6	3.4
2004	3.2	5.3	5.0	3.2	5.8	6.1	4.6	6.1	2.5	2.7	2.4	5.2	3.4
2005	3.4	5.7	4.9	3.2	5.8	6.2	4.7	6.3	2.5	3.1	2.7	5.9	3.4
2006	3.3	5.3	4.6	3.2	5.7	6.2	4.8	5.4	2.7	3.6	2.6	6.0	--
2007	2.9	4.7	4.2	3.3	5.0	5.7	4.3	4.7	2.5	3.0	--	6.0	2.4
2008	2.8	5.1	4.4	3.5	5.4	5.9	4.3	5.5	2.6	3.0	2.3	6.5	2.1
2009	2.8	5.0	4.2	3.3	5.1	6.5	4.1	5.5	2.5	2.5	2.1	7.0	2.6

Source: Transparency International, www.transparency.org

Table3 : Government expenditure on health as % of GDP

year	Egypt	Jordan	Tunisia	Morocoo	Bahrain	United Arab Emirate	Kuwait	oman	Libya	Lebanon	Yemen	Qatar	Syrian Arab Republic
1998	1.6	3.6	2.2	1.2	2.6	0.8	3.6	2.9	2.3	2.2	2.5	2.3	2.0
1999	2.1	4.2	3	1.1	2.7	2.0	3.2	2.5	1.8	3.2	2.3	2	2.0
2000	1.8	4.3	2.9	1.6	2.8	2.5	2.7	2	1.5	3.7	1.5	2.5	1.6
2001	1.9	4.5	3.1	2.0	2.9	2.6	3.0	2.4	1.6	3.4	1.6	2.3	2.4
2002	1.8	4.3	2.9	1.5	3.2	2.3	2.9	2.8	1.6	3.5	1.0	2.4	2.3
2003	2.5	4.2	2.5	1.7	2.8	2.5	2.7	2.7	2.6	3.0	2.2	2	2.5
2004	2.2	4.7	2.8	1.7	2.7	2.0	2.2	2.4	2.8	3.2	1.9	1.8	2.2
2005	1.4	5	3.2	1.4	3.8	2.6	2.2	2.6	2.6	3.7	1.7	3.1	2.1
2006	1.6	4.6	3.1	1.7	3.6	2.6	2.1	2.4	2.4	4.0	1.6	3.1	1.9
2007	2.4	5.4	3.0	1.7	3.7	2.7	2.2	2.4	2.7	3.9	1.5	2.9	1.6
2008	2.5	5.3	3.0	1.9	3.7	2.4	2.2	2.4	2.7	4.3	1.5	2.3	1.5

Source: world Health organization, www.who.org

Table4: Government expenditure on health as % of total government expenditure

year	Egypt	Jordan	Tunisia	Morocoo	Bahrain	United Arab Emirate	Kuwait	oman	Libya	Lebanon	Yemen	Qatar	Syrian Arab Republic
1998	6.4	14.3	7.8	4.2	11.2	7.9	7.2	7.3	6.1	10.4	7.8	5.0	6.5
1999	7.2	12.1	7.9	4.1	11.2	7.9	7.2	7.6	5.5	9.6	8.5	5.0	6.5
2000	7.3	11.3	8.1	4.0	10.2	7.6	6.7	7.1	7.2	7.8	8.3	5.0	6.5
2001	7.7	11.4	8.4	4.4	10.3	7.7	7.0	6.6	6.3	10.3	8.4	6.0	6.5
2002	7.6	11.6	8.1	5.0	9.5	7.9	6.8	7.0	15.0	9.0	7.7	6.1	6.5
2003	7.7	10.5	9.1	5.0	9.6	8.3	6.8	6.9	9.1	9.6	7.6	11.0	6.3
2004	7.1	11.0	8.7	5.1	9.4	8.1	6.7	6.1	5.4	11.1	6.2	9.7	6.1
2005	7.1	10.5	9.2	4.6	9.0	8.6	6.8	6.1	5.4	11.9	4.8	9.7	6.8
2006	7.1	10.2	9.4	5.9	9.5	8.9	6.9	5.4	5.4	11.3	4.9	9.7	6.0
2007	7.1	11.4	9.1	6.2	9.8	8.9	5.4	5.2	5.4	11.7	4.5	9.7	6.0
2008	7.1	11.3	8.9	6.2	9.8	8.9	6.3	4.7	5.4	12.4	4.5	9.7	6.0

Source: world Health organization, www.who.org

Table 5: Government expenditure on education as % of GDP

year	Egypt	Tunisia	Morocoo	Bahrain	United Arab Emirate	Kuwait	oman	Lebanon	Yemen	Qatar	Syrian Arab Republic
1998	4.5	6.9	5.5	2.9	1.9	6.7	4.0	2.0	9	3.6	4.0
1999	4.7	6.9	5.4	3.0	2.0	6.5	4.0	2.0	10	3.5	4.0
2000	4.9	6.8	5.8	3.0	2.0	6.6	3.1	2.0	9.9	3.4	4.1
2001	5.0	6.8	5.6	3.0	2.0	6.6	3.9	2.9	9.6	2.5	4.3
2002	5.2	6.4	5.8	3.1	2.0	6.6	4.3	2.6	9.5	1.6	4.4
2003	4.9	7.5	5.6	3.1	1.8	6.5	3.9	2.6	9.4	1.8	4.6
2004	4.7	7.5	5.6	3.2	1.6	5.5	4.0	2.6	9.5	2.1	4.8
2005	4.8	7.2	5.9	3.3	1.3	4.7	3.5	2.6	9.6	3.3	5.0
2006	4.0	7.1	5.5	3.4	1.1	3.8	4.0	2.8	8.0	4.0	5.3
2007	3.7	7.2	5.6	3.0	0.9	3.9	3.7	2.6	8.1	3.5	4.9
2008	3.8	7.1	5.7	2.9	0.9	3.8	4.0	2.0	5.2	3.7	5.1
2009	3.9	7.3	5.7	3.0	1.0	4.0	4.1	2.2	6.0	4.0	4.9

Source: UNESCO institute for statistics, Human Development Reports different issues, world development indicators& Arab Human Development Reports different issues

Table6 : Government expenditure on education as % of total government expenditure

year	Egypt	Jordan	Tunisia	Morocoo	Bahrain	United Arab Emirate	Kuwait	oman	Lebanon	Yemen	Syrian Arab Republic
1998	14.2				12.0	21.8	12.0	19.2			
1999	14.9	20.6	16.8	25.7	11.4	22.0	12.0	21.3	10.4		11.1
2000	15.6	20.6	17.4	23.5		22.2	13.5	18.2	9.2	32.8	12.6
2001	16.2	29.2	18.2	25.0		22.8	13.6	21.5	11.1	32.8	13.2
2002	16.1		16.5	26.4	12.2	23.5	14.8	22.6	12.3		14.2
2003	16.2		21.1			24.9	14.0	21.3		32.8	
2004	15.5		21.3	27.8	12.7	25.0	13.6	24.2	12.7		15.1
2005	16.0	20.6	20.8	27.2	12.6	28.3	12.7	24.2	11.0	32.8	
2006	12.0		21.5	26.1	12.8	26.1	12.9	31.1	9.8		18.4
2007	12.6	22.1	22.4	26.0	11.6	24.8	12.6		9.6		16.7
2008	11.9	24.3	23.1	25.7	11.7	27.2			8.1	16.0	17.1
2009	12.0										

Source: UNESCO institute for statistics, Human Development Reports different issues, world development indicators& Arab Human Development Reports different issues

Table7 : Military expenditures as % of GDP

year	Egypt	Jordan	Tunisia	Morocoo	Bahrain	United Arab Emirate	Kuwait	oman	Libya	Lebanon	Yemen	Qatar	Syrian Arab Republic
1998	3.3	6.3	1.7	3.6	4.8	6.3	8.8	12.5	5.3	4.0	6.1	3.2	5.8
1999	3.2	6.3	1.6	3.0	4.9	5.9	7.6	11.4	3.8	4.8	5.3	4.0	5.8
2000	3.2	6.2	1.5	2.3	4.0	6.3	7.1	10.6	3.2	5.4	5.0	4.2	5.3
2001	3.3	5.9	1.5	3.9	4.2	6.3	7.7	12.2	2.9	5.4	5.7	4.5	5.3
2002	3.4	5.4	1.5	3.6	4.7	5.6	7.4	12.4	2.3	4.7	7.4	4.7	5.2
2003	3.3	6.0	1.5	3.7	4.8	5.4	6.5	12.2	2.3	4.6	7.3	4.0	6.2
2004	3.0	5.1	1.4	3.4	4.3	5.1	5.8	12.1	2.1	4.4	5.3	2.9	5.5
2005	2.9	4.8	1.5	3.4	3.6	4.2	4.3	11.8	1.5	4.4	4.9	2.5	5.0
2006	2.7	4.5	1.4	3.3	3.4	3.7	3.6	11.0	1.1	4.5	4.3	2.1	4.4
2007	2.5	5.8	1.3	3.2	3.2	3.8	3.6	10.3	0.9	4.6	4.9	2.2	4.1
2008	2.3	5.9	1.3	3.3	3.0	4.3	3.0	7.6	1.2	3.9	4.4	2.3	3.6
2009	2.1	5.6	1.3	3.4	3.7	5.8	4.0	9.6	1.2	4.1	4.5	2.3	4.0

Source: http//data.worldbank.org/indicators