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DISTRIBUTION OF MILITARY EXPENDITURES AND OIL REVENUES INTO THE ARABIC SPACE – GEOGRAPHY OF MANDATORY CORRELATIONS

Cezar TECLEAN

"Al. I. Cuza" University of Iasi, Faculty of Geography-Geology, Departament of Geography 20-A Carol I, Iasi, 700505, e-mail: cezar10t@vahoo.com

Abstract: The support of military component into the Arabic countries required, into the post-war period, the consumption of considerable financial energy, which led to the formation of very generous military budgets into the Arabic world, with a high percentage into the general economy of public expenditures and gross domestic product of each State. Both the size of budgets allotted to defense, as well as their dynamics within the last five six decades render the image of a drawn geopolitical space, in which the dimensions of military expenditures evolved in a convergent manner with the entropy of critical stressed intra-regional relations. The uneven space distribution of power into the Arabic territory actually reflects the uneven distribution of energetic resources. Thus, for the Arabic States rich in hydrocarbon reserves, the volume of military expenditures evolved after the second world war, directly proportional to the volume of oil revenues, some of them (Oman, Qatar, Saudi Arabia) being registered with the highest international percentage on military expenditures from the gross domestic product. Based upon these oil revenues, certain Arabic States (Iraq, Saudi Arabia) equipped their territory by important critical airport infrastructures, which increased their stake of territorial potential and which transformed them into interesting territories for the main international power actors.

Key words: Arabic States, oil revenues, military budgets, power, critical infrastructures

SPACE DISTRIBUTION OF MILITARY EXPENDITURES AND OIL **REVENUES – STRATEGIC CORRELATIONS**

The expenditures for defense on the entire Arabic speaking countries mounted in 2009 to 122.578 billion USD, which represents 4.8 % of the total G.D.P. of the area and 8.3 % of the total of military expenditures worldwide. These figures individualize the Arabic territory as of one the international areas much more extra-dimensioned in terms of military budgets, in comparison with the worldwide average of military expenditures -2.3 % of the worldwide gross domestic product.

The allotment for funds needed into the armed forces is still very different into the area. The over-budget feature is visible especially into the Arabic-Asian area, where the invoice of military budgets mounts to 7.5 % of G.D.P. and 6.7 % of the international military expenditures, unlike Arabic speaking countries in Africa, which records values of 2 % and 1.6 % (Table 1).

States	Volume of military expenditures		Volume of oil revenues			Regression residue	
States	Billion \$	% from GDP	\$/capita		% from GDP	\$/capita	(ε)
Algeria	5.65	3.3	162	72.8	42.5	2,086.0	-0.4
Saudi Arabia	31.05	10.1	1,818	280.0	59.9	10,886.0	0.5
Bahrain	1.02	5.2	1,290	17.5	88.9	2,212.0	-0.8
Chad	0.38	4.2	34	4.3	47.2	384.0	-1.2
Comoros	0.015	2.8	22	-	-	-	-
Djibouti	0.037	3.8	42	-	-	-	-
Egypt	5.54	3.5	72	23.4	14.8	305.0	0.5
U.A.E.	8.64	3.2	1,878	120.5	44.6	26,201.0	-2.2
Eritrea	0.093	6.3	18	-	-	-	_
Jordan	1.64	8.6	260	-	-	-	_
Iraq	8.06	8.6	262	56.2	59.9	1,500.0	0.5
Kuwait	8.46	5.3	2,834	85.9	53.7	28,777.0	-0.8
Libanon	0.92	3.3	218	_	-	_	_
Libya	4.45	4.1	693	60.8	56.0	9,470.0	-0.6
Malta	0.06	0.7	145	_	-	_	_
Morocco	4.97	5.5	160	0.6	0.7	19.1	2.8
Mauritania	0.2	5.5	60	0.02	0.5	6.0	1.8
Oman	6.48	11.5	2,277	20.3	36.0	7,135.0	2.3
Westbank & Gaza	_	-	_	_	-	_	_
Qatar	12.15	10.4	8,623	56.2	48.1	39,886.0	3.6
Western Sahara	-	-	-	-	-	-	-
Syria	2.71	6.1	125	1.9	4.3	86.7	1.2
Somalia	0.023	0.9	2	-	-	-	-
Sudan	1.92	3.1	45	5.4	8.7	127.7	0.2
Tunisia	0.58	1.4	56	0.9	2.1	87.1	-0.7
Yemen	1.81	6.6	76	3.2	11.6	135.7	0.1
Israel	13.77	7.3	1,860	-	_	-	_
Arabic Asia*	98.66	7.5	814	641.7	49.0	5,292.0	_
Arabic Speaking Africa	23.918	2.0	106	107.4	8.9	476.5	_
Arabic Speaking Space*	122.578	4.8	346	749.1	29.6	2,115.5	_
World	1,470.0	2.3	217	1,320	2.1	194.7	-

 Table 1. Military expenditures and oil revenues into the Arabic speaking countries (2009)

 (Data source: SIPRI Military Expenditure Database; CIA World Factbook)

* – the values not include Israel

Defense related budgets of 20 States have percentages of G.D.P. that exceed the worldwide average, and in 3 States they have the greatest percentages in the world: Oman (11.5 % of G.D.P.), Qatar (10.4 %), Saudi Arabia (10.1 %). As a matter of fact, according to the weigh criteria of military expenditures from G.D.P., the first 5 positions into the worldwide hierarchy are held by the Arabic States, and on the sixth place is Israel among the first 10 countries worldwide, 7 are Arabic countries Oman, Qatar, Saudi Arabia, Jordan, Iraq, Yemen, Eritrea), and among the first 20 States of the world, 11 States pertain to the Arabic countries. This reality demonstrates the *overstressing of fund priorities into the military field into the area between the Red Sea and the Persian Gulf.*

Within a larger spatial frame, the following are observed: the area of Arabic peninsula, Levant and Suez, which includes a number of 6 States with annual military expenditures of over 8 billion USD and on percentages that exceed 0.5 % of worldwide military expenditures – Saudi Arabia, Qatar, United Arab Emirates, Kuwait, Iraq, and Israel. Practically, it is a bridge-areal, which connects the two continents, and which is situated between two territorial components of the Arabic world, overlapped to a certain extent on the antiquity's Fertile Half Moon – the primordial space of human kind, which, according to the high level of army funding, is also nowadays the host of strategic human conflicts of interest. Egypt is surprisingly in a more modest position, with a financing of only 5.54 billion USD (0.37 % of worldwide military expenditures), and thus it does not reach its regional ambitions and nor the level of other hereinabove mentioned States with generously financed armies.

A second area of well budgeted armed bodies is Maghreb, where the rivals for the regional supremacy – Algeria and Morocco – allot higher military stipends (5.65 billion USD, respectively 4.97 billion USD), as well as Libya (4.45 billion USD), which transforms the Maghrebian area into a well financed "oasis" from military point of view, into the African "desert" of chronic sub-financing of the armed forces.

The military expenses per capita emphasizes an average value (346 USD/inhabitant) slightly above the international average (217 USD/inhabitant), case which is more emphasized into the South – West Asia. Actually, there are only seven States that record values/ inhabitant above the average of the Arabic world (Qatar, Kuwait, Oman, United Arab Emirates, Saudi Arabia, Bahrain, Libya), of which Qatar (8,623 USD/inhabitant), Kuwait (2,834 USD/inhabitant) and Oman (2,277 USD/ inhabitant) are among the States with the highest military stipends per capita in the world, *emphasizing the attribute of Persian Gulf area from the well armed area, which is financially subsidized.*

The ratios between the military expenditures and oil revenues are well illustrated by the correlation between their sizes/inhabitant, especially for the States that are situated into the Arabic peninsula, where the States' classification (rank) resembles for both of the variables: Qatar (with the maximum values into the Arabic space – 8,623 USD/inhabitant, respectively 39,886 USD/inhabitant), Kuwait, Saudi Arabia, Oman, United Arab Emirates, Bahrain.

Given this context, it is obvious that a series of States with military-human manpower and impressive technical-military facilities, hardly benefit from an appropriate financial support of their defense bodies, neither at the level of their budgets nor in terms of military expenditures per capita. Thus, States as Syria, Eritrea, Sudan, which hold a huge military-human resource and a technical-military arsenal much more over-dimensioned in relation to their potential and vocation into the area, cannot afford the appropriate budgeting of the related structures, phenomenon which is expressed by a low percentage of their military expenditures worldwide (under 0.2 % of worldwide expenditures) and by minimal expenditures per USD/inhabitant, Eritrea-18 USD/inhabitant, capita: Syria-125 Sudan-45 USD/inhabitant. A series of other States are charged by a chronic sub-financing of defense system and also they are not fitted with significant technical-military facilities from qualitative or quantitative point of view: Somalia (military expenditures of only 2 USD/inhabitant!), Chad, Mauritania, Comoros, Djibouti, Malta.

Drawing a parallel between the quantum of military expenditures incurred by the Arabic States and the volume of their oil incomes, we shall identify the existence of a powerful positive correlation between the two sizes, expressed by the value of 0.936 regarding Bravais-Pierson coefficient (r) and by the value of 0.876 regarding determination coefficient (r²), which means that in terms of percentages, for the entire Arabic space, 87.6 % of military budgets are supplied by hydrocarbon related revenues and it is just a percentage of 12.4 % of defense related expenditures that comes from other sources of revenues resulted from other economic activities.

The equation of regression line that defines the functional correlation between the two variables is the following: $\mathbf{y} = \mathbf{0.14} \cdot \mathbf{x} - \mathbf{3.6} + \boldsymbol{\varepsilon}$ (Figure 1), where \mathbf{x} – oil revenues, \mathbf{y} – military expenditures; \mathbf{a} =0.14 and \mathbf{b} =-3.6 – regression related coefficients; $\boldsymbol{\varepsilon}$ – regression residue.



Figure 1. The Correlation between the military expeditures and oil revenues and space districution of regression related real dues – ϵ (2009)

Testing the regression model with the help of "F" test for the variation assessment of the two sizes used (Fisher-Snedecor test) reveals the normality of relations between the assessed explained variance and the assessed residual variance, according to the following formula:

F(x, y) – distribution of the ratio between the assessed explained variance and the assessed residual variance;

 $F(x, y) = (r^2 \cdot (N - 2))/(1 - r^2)$

where: r² – determination coefficient (square of Bravais-Pearson coefficient);

N – number of terms of data row used.

The existence condition of a significant correlation between the two variables is that $F(x,y) \ge F(a)$, where F(a) represents the corresponding size of F(x,y), for the significance levels of the test defined by the following values a=0.05 and (1÷15) degrees of freedom (g.l.), respectively a=0.01 and (1÷15) g.l.

The calculated values are the following: F(x,y)=105.96; F(a)=4.54 for a=0.05 and $(1\div15)$ g.l.; F(a)=8.68 for a=0.01 and $(1\div15)$ g.l., which confirms the trust granted to regression's assessed parameters.

Space distribution of residual values (ϵ) related to regression illustrates the quantitative differences, per each State, into the contribution of oil dividends to the formation of military budgets. The residues that are largely distanced from the general tendency described by the regression line are the most relevant since their mapping allows us to seize the space structures with certain peculiarities of the interrelation between oil revenues and military expenditures as well as the identification of territorial disparities from this point of view.

Thus, that States that record the highest residual values (both positive and negative) are both the oil supply States with great hydrocarbon dividends, which substantially contribute to creation of military budgets, as well as those States in which the percentage of oil revenues is not that significant and in which the defense related budget is greatly formed of other non-oil sources. In some of these States, the registry of expenditures used for the armed forces is overdimensioned and mainly ensured from the oil annuity, which is emphasized by the residue's great and positive values, which classify the related countries way above the regression line: Qatar (ε =3.6), Oman (ε =2.3). The following is identified: certain States with more modest oil revenues, such as Morocco (ε =2.8), Mauritania (ε =2.8), fall under this category, as the regression model shows that their oil revenues do not cover the value of defense related expenditures, for the insurance of which other fund sources are necessary.

The States that record great but negative values of the residue are also States with great oil revenues, but unlike those hereinabove mentioned, they are wider in terms of sources from which they form their military budgets, as the direct oil annuity is less into the structure of defense related expenditures. This is a case particular to United Arab Emirates Federation (ϵ =-2.2), in which the dividends obtained from reinvestment of oil funds formed into the last two decades the grounds of national revenues and over-classified the net percentage of oil funds. This type of revenues has priority in building the military budget, casting a shadow over the contribution of direct oil revenues and positioning the federation under the line defined into the regression equation.

The States with residual values of regression which are situated close to the null value (between -1 - 1), are those States that form the rule of normality into the Arabic space (10 States), where military stipends that these States afford are proportionally based upon the recorded oil revenues.

Extremely relevant for the appreciation of dependency level between the volume of military expenditures and oil revenues is the dynamics of values pertaining to the Bravais-Pearson correlation coefficient (r) and of determination coefficient (r^2), calculated for the entire Arabic area at different points in time during the post – war period (1950, 1970, 1990, 2009) (Table 2.)

Table 2. Dynamics of values pertaining to correlation coefficients and determinationcoefficients between the volume of military expenditures and oil revenues (1950-2009)Parameters for determination of correlation's intensity1950197019902009Bravais-Pearson correlation coefficient (r)0.9520.9680.9450.936

Determination coefficient (r²)0.9060.9370.8930.876The analysis of values pertaining to the hereinabove mentioned coefficients
emphasizes the fact that within the last six decades, the volume of defense related
expenditures into the Arabic world had been tightly connected to recorded oil
revenues and the powerful intensity of the correlation between the two variables is
expressed by values that exceed 0.900 of the correlation coefficient (r) and over
0.870 of determination coefficient, which are registered for the entire post-war
period. At the level of the entire Arabic space, the intensity of the correlation had
been much "diluted" due to the existence of States without oil production,
registering an overall decreasing dynamics, given the context of diversification of

Arabic economies proven into the last four decades. In 1950, the percentage of oil related revenues in configuring the military budgets was already of 90.6 % at the level of the entire Arabic field, percentage mainly due, at that particular date, to oil related revenues of Saudi Arabia and to reduced military budgets of the other few independent Arabic States into the era.

At the beginning of the seventies, the economic boom of oil into the young States of Persian Gulf and North of Africa determined the increase of their military ambitions and thus a greater and greater supply of the invoice related to military expenditures based upon the estimates obtained from the hydrocarbon exports. This phenomenon is well emphasized by the increased level of the correlation between the two sizes (r=0.968) and by the percentage of 93.7 % of the oil related annuity into the structure of defense related expenditures. The difference of 6.3 % was mainly represented by the low military budgets of the few non-oil poor States which appeared on the political map into the seventh decade of the last century.

During the seventies and eighties, there had been immense financial accumulations following the trade of hydrocarbons in a very poisonous period for the great Arab producers after the crises of 1973 and 1981-1982, fact, which triggered the initiation into the diversification and development of national economy. Given this context, the possibilities (sources) to supply the military budgets, especially in non-oil States, resulting in a slight reduction into dependency of petrodollar into the military expenditures. The phenomenon was materialized by reducing the value of correlation coefficient to 0.945 and by decreasing the percentage of oil revenues when forming the military budgets to 89.3 % in 1990. The decrease could have been even more accentuated, but it was attenuated due to the extension of oil production into the new States (Oman, Yemen, Sudan, Chad), which, into the well-known tradition of the Arabic world, as soon as they entered into possession of the first oil funds they got orientated towards the equipment of their armed forces: Oman and Yemen during the nineties until 2000, and then Chad after 2003 (the year when oil exploitations started in Doba Basin).

The tendency was maintained on the same coordinates in 2000 as well, when, due to the same arguments, the percentage of hydrocarbon dividends into the invoice of military expenditures decreased by 87.6 %.

As the Arabic economies diversified during the globalization process, as dividends issued from reinvestment of oil funds increased and as the usage of new alternative energetic sources increased worldwide, for the following decades we may assess the maintenance of current tendency in decreasing the contribution of direct oil revenues upon the insurance of military expenditures.

DYNAMICS OF MILITARY EXPENDITURES AND THEIR PERCENTAGE FROM GROSS DOMESTIC PRODUCT

The almost permanent inter-Arabic and Arabic-Israeli conflict related relations, the mark of international tensions over the East-West competition during the post-war II period, as well as the privileged financial possibilities of some of the Arabic oil States have led to the building of well equipped armed forces and in consequence, to a continuous increase of the volume pertaining to military expenditures (Table 3).

Although not all Arabic States benefited from the hereinabove mentioned financial privileges, the dividends of those blessed with the gift of black gold have continuously raised the level of their military expenditures into the Arabic world from 2 billion USD in 1950 to over 122 billion USD in 2009. In exchange, we must observe that the percentage of such expenditures from Gross Domestic Product, for all Arabic countries as well as for most of the States, recorded a much more attenuated dynamics than the dynamics in absolute figures, due to the armed options set as a strategic priority by big and small, rich or poor States, within the context of a general level of conflict into the post-war Arabic space. Thus, the percentage of the armed expenditures from the total Gross Domestic Product recorded by the Arabic world had a relatively constant evolution, which is from 4.2 % in 1950 to 4.8 % in 2009, and into the Arabic-Asian space, it evolved almost constantly around the value of 7.5 %. Into the Arabic Africa, where most of the States gained their independence later on and thus, they entered into the worldwide circuit of values later on, the dynamics of military expenditures within the G.D.P. was more visible, evolving from 1.1 % in 1950 to 2 % in 2009.

At the State level, a powerfully increasing dynamics was recorded into the volume of amounts allotted to defense for the entire post-war period, except for Iraq and Somalia, where, due to the internal political context, the invoice of military expenditures evolved according to a crescent initial curve, following which they met a "crash" in values, at the same time with the fall of totalitarian regimes of those States.

In Iraq, the leading of Baath Party during the governance of Saddam Hussein built a main objective from the militarization of the country and from the maintenance of aggressive relations towards most of the neighbors, context in which the volume of military expenditures, supported by the oil annuity, reached in 1990 to more than 20 billion USD each year. Practically, a great part of the oil related revenues had been used by the former regime from Baghdad for the maintenance and equipment of an army excessively over-dimensioned, to the detriment of socio-economic projects and public utilities. Nevertheless, there has been a development into those segments of critical infrastructures of both civil and military use, as the case of Iraq over-dimensioned airport infrastructure developed, opposite to the natural objective needs of the country: a network made of 76 modern aerodromes (of a total of 110), that is the same number of aerodromes as those into its developed neighbor - The Saudi Kingdom. This aspect, in such a sensitive area as the one of Middle East, had weighed and it still weighs heavily into the pragmatic calculations of those powers (U.S.A., Great Britain) that are military and economically involved in Iraq, transforming Iraq in a space of high stakes, not only from economic (energetic) point of view,

but also under the aspect of its territory fitting with a strategic air infrastructure.

(Data source: SIPRI Military Expenditure Database; CIA World Factbook)								
States	1950		1970		1990		2009	
States	M	Р	M	Р	M	Р	M	Р
Algeria	-	-	0.9	16.4	3.8	53.2	5.7	72.8
Saudi Arabia	0.4	9.6	4.2	58.5	25.3	245	31.05	280
Bahrain	-	-	-	-	0.7	12.4	1.02	17.5
Chad	-	_	0.01	-	0.08	-	0.4	4.3
Comoros	-	-	-	-	0.01	-	0.015	I
Djibouti	-	-	-	-	0.02	-	0.037	-
Egypt	0.7	2.6	2.7	10.2	4.6	20.5	5.54	23.4
U.A.E.	-	-	-	-	7.6	105.4	8.64	120.5
Eritrea	-	-	-	-	-	-	0.093	Ι
Jordan	0.08	-	0.7	-	1.2	-	1.64	-
Iraq	0.5	3.3	3.2	26.5	21.5	52.2	8.06	56.2
Kuwait	-	-	0.5	32.2	4.3	78.4	8.46	85.9
Libanon	0.05	-	0.5	-	0.75	-	0.92	Ι
Libya	-	-	0.6	18.4	3.6	49.2	4.45	60.8
Malta	-	-	0.02	-	0.04	-	0.06	-
Morocco	-	-	0.65	0.05	3.4	0.3	4.97	0.6
Mauritania	-	-	0.07	-	0.15	-	0.2	0.02
Oman	-	-	0.6	2.8	4.8	12.5	6.48	20.3
Westbank & Gaza	-	-	-	-	-	-	-	-
Qatar	-	-	-	-	7.8	45.3	12.15	56.2
Western Sahara	-	-	-	-	-	-	-	-
Syria	0.2	-	1.3	-	2.4	0.8	2.71	1.9
Somalia	-	-	0.08	-	0.22	_	0.023	-
Sudan	-	-	0.2	0.8	1.1	3.3	1.92	5.4
Tunisia	-	-	0.2	0.1	0.45	0.4	0.58	0.9
Yemen	0.08	-	0.5	-	1.4	_	1.81	3.2
Israel	2.7	-	8.4	-	12.8	-	13.77	-
Arabic Asia*	1.31	12.9	11.5	120.0	82.8	552.0	98.66	641.7
Arabic Speaking Africa	0.7	2.6	5.4	45.9	17.43	126.9	23.918	107.4
Arabic Speaking Space*	2.01	15.5	16.9	165.9	100.2	678.9	122.58	749.1
World	76	35	565	322	1,230	1,080	1,470	1,320

Tabel 3 . Compared dynamics of military expenditures and oil revenues (1950-2009)
(M – volume of military expenditures – billion \$; P – Oil related revenues – billion \$)
(Data source: SIPRI Military Expenditure Database; CIA World Factbook)

* – the vallues not include Israel

In Somalia, the maximum level of defense related stipendiums was recorded at the end of the eighties and after 1991, the country fell in a total chaos, which ended even in destroying regular armed forces.

For those States directly involved into the Arabic-Israeli conflicts, the dynamics of financial-military efforts had known the fastest growth in the 6th, 7th and 8th decades of the last century, that is during the wars with Israel, and following that there was a maintenance of the increase of defense related expenditures, but to a more moderate level, which is a typical case for States such as Syria, Jordan, Lebanon, Egypt, States that during the fifties, sixties and seventies even exceeded the double of amounts used for defense. A similar case was recorded for the states involved in inter-Arabic regional conflicts or rivalries, some of them even tripled the amount of their military expenditures into the hereinabove mentioned decades: Algeria, Morocco, Libya, Tunisia, Sudan, and Yemen.

The oil-monarchies into the Arabic peninsula perceived the spectrum of a potential Iraqi threat both before and especially after the invasion of Kuwait in

1990, reason for which later on they increased their military expenditures in a significant manner, obviously based upon the oil revenues, reaching during the last two decades record levels: Saudi Arabia – the Arabic State with the highest military expenditures, increased their financial funds from 30.3 billion USD in 1990 to 46.77 billion USD in 2009; Qatar increased its military stipendiums from 7.8 billion USD in 1990 to 12.15 billion USD in 2009; The United Arab Emirates increased their military budget from 7.6 billion USD in 1990 to 8.64 billion USD in 2009; Kuwait, directly affected by Iraqi aggression, doubled its volume of military expenditures from 4.3 billion USD in 1990 to 8.46 billion USD in 2009, and Oman increased the military financial effort from 4.8 billion USD in 1990 to 6.48 billion USD at present.

REFERENCES

- ANDERSON, E.W., (2000), *The Middle East: Geography & Geopolitics*, Routledge, 8 edition, London & New York;
- BONIFACE, P., BILLION, D., (2004), Les défis du monde arabe, Paris;
- BOULANGER, P., (2009), Les défis géopolitique d'une nouvelle puissance régionale: les Émirates Arabes Unis, in Hérodote, n° 133, p. 58-91;
- BROWN, L.R., (2006), Planul B.02, Editura Tehnică, București;

CLAVAL, Paul, (2001), Geopolitică și geostrategie - gândirea politică, spațiul și teritoriul în secolul al XX-lea, Editura Corint, București;

- CORDESMAN, A., (2004), The Military Balance in the Middle East, Praeger Publishers, New York;
- DUMORTIER, B., (1997), Géographie de l'Orient Arab, Armand Colin, Paris;
- FLINT, Colin, (2004), *The Geography of War and Peace: from death camps to diplomats*, Oxford University Press, New York;

GROZA, O., (2000), Geografia industriei, Editura Universității "Al. I. Cuza" Iași;

- LEMARCHAND, P., (1994), Atlas géopolitique du Moyent-Orient et du monde arabe: croissant des crises, Editions Complexe, Paris;
- MUTIN, G., DURAND-DASTÈS, F., (1995), Afrique du Nord, Moyen-Orient, Monde indien, Belin-Reclus;
- MUTIN, G., (2005), Géopolitique du Proche-Orient, Ellipses, Paris;
- RABINOVICH, I., (2004), Waging Peace: Israel and the Arabs, 1948-2003, Princeton University Press, New Jersey;
- RUSSELL, R., (2005), Weapons Proliferation and War in the Greater Middle East Strategic Contest, Routledge, 1 edition, London & New York;
- SIMILEANU, V., (2009), Spațiul islamic geopolitică aplicată, Editura Top Form, București;

THÉBAULT, V., POURTIER, R., (2006), Géopolitique de l'Afrique et du Moyen-Orient, Nathan, Paris; http://www.cia.gov (CIA World Factbook);

http://www.imf.org (International Monetary Fund – World Economic Outlook Database); http://www.sipri.org (SIPRI Arms Transfers Database; SIPRI Military Expenditures Database);

http://siteresources.worldbank.org (World Bank - World Development Indicators Database).

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