

Defense spending demand in Pakistan: An empirical analysis

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Abstract: *This study investigated the factors that influence the demand for defense in Pakistan. The study used the Johansen co-integration technique Julius using annual time series data. The results showed that the demand for defense spending in Pakistan is affected by many factors like defense burden of India, war with India, the atomic explosions, political stability and trade balance.*

Keywords: defense spending, Pakistan, Johansen-Julius Co-integration

INTRODUCTION

In common sense, defense spending is considered the most common type of government spending..Why do different countries assign a quota?

Important part of your budget for defense purposes? It's an attractive question that must be investigated especially in the case of Pakistan.

Sheikh and Chaudhry (2013) stated that Pakistan and India have hostile relations and aggressive and none of the countries ignore their defense spending. The burden of defense a country is inevitable and leads to the diversion of the country's resources from development projects development (Anwar, et al., 2012). Smith (1980ab, 1995) pioneered the study on the various determinants of defense spending in a focused neoclassical framework the issue at hand in a broader and more comprehensive way.

The determinants of defense spending needed to be understood above all because to the important role played by defense spending in certain circumstances after a conflict. Defense spending considered a deterrent for enemies and potentially depresses countries' economic growth Corrupt and dispossessed, therefore a better understanding of the determinants of Defense spending has great importance and consequences.

Global defense spending increased to \$1.756 trillion dollars in 2012; This is equivalent to 2.5% of total world GDP. Due to Pakistan's strategic, political and economic importance in region, the debate on defense spending has gained great importance.Pakistan is considered a developing country and ranks 156th in the world

In terms of purchasing power parity (PPP) per capita, an adjusted gross national income of \$2,600, the Human Development Index (HDI) ranks 125th.Peace ranks 145th and 35th in the defense spending rankings.

Geopolitical hostilities and internal aggression also tend to manipulate the situation defense spending Other factors such as technology, security, similarities and

Political priorities, geography and history determine defense spending (Sahin and Muarat, 2010). Similarly, Collier and Hoeffler (2002a, 2002b) reported that Both external and internal threats impact the volume of business expenses.stick up for. Other influencing factors include the greater political power of defense non-democratic regimes and the availability of financial resources for the government.

After gaining the status of independent states in 1947, Pakistan and India They are in a state of conflict and share antagonistic relationships. Several factors contribute to increasing the situation of unrest in the hostile environment of two neighboring countries in South Asia. The social, economic, racial differences,

Political and religious are the main factors that influence the relations between both paesi (Alexander, 1987; Deger and Sen, 1990; Ganguly, 1995, 1997 and Tibbett and Akram- Lodi, 1997). Although both governments do not believe that these neighboring countries are present an arms race but due to hostility, a considerable percentage of the Budgetary allocations are always reserved for defense purposes (Tibbett e Akram-Lodhi, 1997).

The rationale for considering the Pakistan case study is this, First Pakistan is located in a very strategic part of South Asia faces a high level of instability and insecurity. Some researchers believe that Pakistan and India are in an arms race (Dunne et al., 1999; ÖÖcal N, 2003; Jütilide Yildirim and ÖÖcal, N 2006). In second place,

Pakistan is experiencing internal and external security crises. Moreover, after the explosions of 1998, Pakistan became a nuclear power. Since 1995, Pakistan has spent an average of 4.5% of GDP on defense spending until 2009. These expenses are considered due to the arms race, territorial conflicts between India and Pakistan, conflict in Afghanistan and internal wave of terrorism in Pakistan. This high defense spending ratio and its impact on the Economic growth and defense problems have attracted the attention of researchers around the world (Tahir and Sajid, 1999; Khilji and Mahmood, 1997; Henderson, 1993; Looney, 1998a; 1998b). The fundamental objective of defense spending analysis is to determine the availability of resources for defense spending and discover the key determinants of defense spending for a country specific. Defense spending depends on two main parameters: the first is how much a given country is in a threatened condition and how much that country can afford in terms of safety. Therefore, defense spending is the combination of fiscal and security policies.

There is a wide range of literature available on the demand for defense spending, which defines the defense determinants such as revenue, security conditions, internal and external threats, conditions policies, geopolitical environment, population; Regional defense spending, another government measures threats of war (Smith, 1995). The determinants of defense spending in developed and developing countries development are slightly different.

Empirical studies on the determinants of defense spending can be grouped into two large categories. The first group focused on the arms race model considering the comparative defense budget between two countries (Dunne, 1996; Smith 1989; Dunne et al., 2003, Kollias and Makrydakis, 1997) and the second fraction of empirical studies considered the internal model (economic and political) and external (security and strategic importance) and using neoclassical approach with formal models. Numerous studies have been conducted on the determinants of defense spending in various countries and especially in developing countries (Alexander, 1987; Deger and Sen, 1990; Oren, I, 1994; Tahir, R, 1995; Ganguly, S, 1995; Tibbett e Akram-Lodhi, 1997; Ööcal N, 2003; Jüülide Yildirim e Nadir Ööcal, 2006 Albalate, et al.2012) but some studies have been conducted for Pakistan. Therefore, it is necessary identify the determinants of defense spending and its share in defense expenditure of Pakistan.

The objective of the study was to investigate the determinants of Pakistan's defense spending since 1972 to 2012. An attempt was also made to explore the understanding of trends and relationship between various variables. The rest of the study is structured as follows: The second section provides the theoretical framework. The third section presents the review of the empirical literature. Section four shows defense burden trends in Pakistan and India. Section five discusses the model specifications and methodology. The sixth section was dedicated to the discussion of the results. Finally, section seven offers conclusions and policy implications.

APPLICATION FORMS FOR DEFENSE SPENDING

Demand patterns for defense spending or determinants of defense spending are can be classified into three groups

- 1) Approaches to the defense budget process
- 2) The arms race is approaching
- 3) Aggregate defense spending: general approaches

Approaches to the defense budget process

Approaches to the defense budget process are also called budget models.

organizational politics. In these models, various interest groups, i.e. politicians, bureaucrats and the arms industry focus their efforts on gaining power be able to achieve your goals optimally. The amount of disbursements or the defense budget is the result of such efforts, optimization and competition. These approaches show the short-term determinants of defense spending, as well as types and extent of armaments growth (Isard and Anderton, 1988).

Arms race models

The second group of models is based on exploring the determinants of defense spending in arms race models. In these models, the level of defense spending One country determines the defense spending of its rival country. These models better explain situations in which an action-reaction process is characterized and countries are in conflict with each other. Richardson (1960) proposed the study fundamental on the phenomenon of the arms race. Numerous variants and extensions of the Richardson model have been suggested in the literature. Model Richardson and its variants consider it the rival Defense expenditures of a country and various internal and external factors are the determinants of a country's defense spending.

Aggregate defense spending: general approaches

Numerous studies have been conducted on general approaches to aggregate defense spending.[Vedi Smith, 1980b, 1995; Dunne et al., 1984; In these studies, the objective is to maximize the social welfare function subject to constraints of budget and safety. Different versions of the role and limitations of the have been used in empirical studies social well-being. Smith (1980,1995) presented a pioneering study to explore the potential determinants of spending defense in the neoclassical framework.

REVIEW OF EMPIRICAL STUDIES

Anderton (2007) analyzed the determinants of defense burden in southern Africa. The author used methods of estimation of aggregated, cross-sectional time series and pooled data. The time period taken into consideration for this study it was from 1996 to 2005. The study provided an examination of the main determinants of defense spending for 12 members of the Southern African development community. In this study they were used OLS and GLS estimators. Most variables were significant at the significance level by 5%. In the fixed effects model, variables such as wars, GDP per capita, percentage of were used military population and the share of public spending in GDP.

The results of the study suggest that both economic and strategic variables are important in determining defense spending. Strategic variables are more important in influencing the burden of defense compared to economic variables. Insider threats are also responsible for high defense spending.

Dunne et al. (2011) studied the economic and strategic determinants of defense spending using analysis of cross-sectional and panel data. The sample size was 80 people and the time period taken for the study ranged from 1988 to 2008. Different estimation techniques produced different results. The analysis cross-sectional produced a positive effect of per capita income on the share of defense spending in GDP, while the population had a negative effect. The analysis of time series, however, showed results

opposites. There was a clear difference between the two approaches. The results of the political and strategic variables were widely accepted. The heterogeneity between countries describes the importance of both the dynamic process and the panel than modeling. The spillover effect was not important for this study. The results of the study suggest that democratic countries spend less on defense, while countries at war spend more for the defense. NATO member countries have higher defense spending.

Sheikh and Chaudhry (2012) studied the main determinants of defense spending in Pakistan and India using the ARDL approach. The time period taken for this study was from 1972 to 2010. The study identified several economic, political and strategic factors as determinants of defense.

The study proposed a result on the economic determinants according to which the GDPR and public spending non-defense related were positively related to both countries' defense spending. The index of democracy has a positive effect on defense spending in Pakistan, while in India it has a negative effect. The Strategic factors have a positive impact on the defense spending of both countries. This study concluded with the result that both countries are engaged in an arms race due to hostility and aggression in their relationships.

There are also some internal threats that are responsible for the high defense spending. The question of defense is a public good in both the long and short term.

Abdel Fattah et al. (2012) studied the economic and strategic factors of spending requests for defense in Egypt. Egypt plays an important role in the security of the Middle East. She's involved in some regional disputes and has changed its defense spending over time. That's why it's very interesting study their defense spending. An empirical demand model with techniques was applied cointegration (FMOLS, CCR, DOLS and JOHANSEN) which studied the Egyptian demand for expenditure on defense taking into account strategic and economic factors. Egyptian defense spending was unaffected from defense spending by its allies. The results of the study suggest that both economic factors and strategic ones play an important role in determining the defense burden and that simple related relationships to the arms race do not explain the strategic relationship as a whole.

Wang (2013) studied the demand for defense spending among different Southeast Asian countries since the end of the Cold War. The author used a dynamic panel approach and found that defense spending in the region was determined by economic, strategic and socio-political factors. The growing foreign debt burden and the rise of China were also important drivers, along with other general variables. Therefore, an impartial and level-sensitive approach is needed regional to study defense development. The study presented an advanced empirical examination of Determinants of defense spending among Southeast Asian countries in the post-war period Cold. A dynamic panel model was used to find that the determinants of defense budgets for the region include GDP, the burden of foreign debt, the impact on security, the perceived threat from China, the population and democracy. These variables have both short-term and even greater long-term effects term. The results of the study revealed that defense spending is jointly affected by factors of an economic, strategic and socio-political dimension. It was necessary to explore the rich effect of factors economic and socio-political factors as determinants of defense spending. It was also discovered as the crisis financial and the rise of China have contributed to the defense construction process increases in

Southeast Asia.

2.1 Institutional and political determinants

Othman (2008) analyzed the main determinants of defense spending in sub-Saharan African countries. It is the most conflict-ridden region in the world. These conflicts are the main ones reason for it underdevelopment. There are several determinants of defense spending in the sub-Saharan region. Few of these are corruption, lootable assets, type of government, local ethnopolitical groupings. To measure the degree of democracy, the author used a rating scale used by Freedom House.

To measure the degree of corruption, the author used an index of international perception of transparency. Posner's ELF index is used to measure ethnopolitical grouping variables. They have been calculated defense spending per capita and percentage of GDP. The objective of this article was to verify its real use of high defense spending taking into account previous studies. There is no single theory this fully explains the reasons for defense spending in Africa.

Bel and Elias (2009) studied the effect of institutional Determinants such as the form of government, electoral rules and ideology on defense spending. The sample size was 157 people. OLS regression was used on the aggregate data. Some variables were used such as press, GDP system and per capita income. There is the possibility that, in the presence of a plural voting system, the burden of defense be reduced. Countries with a presidential democracy spend more on defense than their counterparts parliamentarians. Different institutions have different impacts on public goods. The effect of institutional variables on defense spending has improved understanding of this issue.

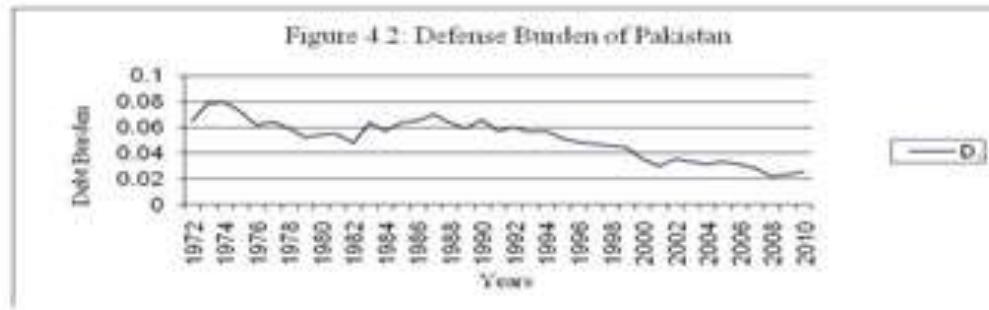
Albalato et al. (2012) studied the institutional determinants of defense spending, such as the form of government, democracy, electoral roles and the concentration of parliamentary parties. The sample size was 157 people. The results of this study indicated that defense spending increased the most in presidential democracy than in the parliamentary system. On the other hand, the electoral role of the majority has reduced the weight of the defense. The importance of the institutional variable for defense burden has increased in post-conflict situations. Exist different types of political systems that can reduce war risk and defense spending. The literature predicted that democratic institutions produced the same outcome for all public goods, but the outcomes of regression in this study were different from those in the literature.

PAKISTAN DEFENSE LOAD TRENDS

Pakistan's overall average defense burden between 1972 and 2010 is 0.051 GDP attrition. The maximum defense load was observed in 1974. This proves t1hat it existed a major influence of the atomic explosion in India in 1974. The minimum value was in 2008. Figure 2 shows that Pakistan's defense burden remained high, averaging 6.5 percent from 1972 to 1980 and 6.1% from 1981 to 1990. This was the period in which the weight of the defense was very high. But after 2000, a significant decline in defense spending began. Once again, between 2001 and 2003, the weight of the defense began to increase and then decrease again. Pakistan appears to have received military aid from other countries after the war against terrorism This was the main reason for increasing this expense. Decision-making bodies e Decision makers explain that there are several threats to Pakistan's internal security and externally, which is the main reason for these high defense expenditures.

After the separation of Pakistan and India in 1947, a wave of enmity began between these two countries. These two countries they have the same institutions and political structure, but in reality they have many differences, such as various religious affiliations alliances and foreign policy. In the first years after the birth of Pakistan it was recognized that India will not be a friendly neighbor and will pose a threat to Pakistan's sovereignty. Once again, during General Zia-ul-Haq's regime in the 1980s, the government rejected any suggestion to reduce military spending because he believed that a nuclear submarine and airplanes the reaction with the sticks was a good defense. Therefore, they felt the need to equalize the capabilities of the arsenal with those of our adversaries. Therefore, a reduction in costs of the defense was not acceptable Because Pakistan's security threat cannot be resolved. (Chawla, 2001). These security threats have led Pakistan and India to share relations hostile to each other and both fought four territorial wars.

An arms race began between these two countries due to their hostility. The reports and this arms race have been a negative example for the rest of the world the last times. So this arms race took up a significant portion of their budgets. Hollist (1977) reported that retaliation coefficients were unclear in the career model Richardson-type weapon system for the years 1948 to 1973.



In 1979, the Soviet Union's action in Afghanistan had a great effect

Pakistan's security environment has emerged as a frontline state in the war against Pakistan Communism. Pakistan cannot escape an adverse situation due to its position in the world map that no other South Asian state has ever experienced. Pakistan returns become a frontline state and a non-NATO ally of the United States United in the war against terrorism in Afghanistan. Pakistan received help with expenses defense of the United States during both Afghan wars. US support for Pakistan gives him the confidence to resist Soviet pressure. Pakistan also tried to fight Taliban and terrorists with US support.

The military interests of the Ministry of Defense are protected by its organizational structure. Military officers serve in this ministry to control and monitor its security functions in accordance with the requirements of the military establishment.

The civilian establishment of this ministry also has enough influence to handle its affairs. (Siddiqah-Agha, 2000). The trend in India's defense burden (DBI: military spending as a drag on GDP) is shown in Figure 3. The DBI range is 0.01% to 0.029.

The low point occurred in early 2007, when stability collapsed in Kashmir and Pakistan's commitment to the war on terrorism. In 2008, the new increase of The burden of defense may be due to the Mumbai incident. The highest point is produced in 1986, immediately after the internal war in Punjab. The defense burden increased from 3% in 1970 to 3.4% in 1971. This figure after the war it decreased slightly, but in the early 1990s the defense burden increased steadily. During 1991-97, the defense load level in India was less than 0.02 clutch. The burden then increased again in 1998 with the nuclear test and approached 0.02 of GDP again in 1999 due to the Kargil conflict. From 2000 to 2010, India's defense burden fluctuated.

3. MODEL SPECIFICATION AND METHODOLOGY

a) Model specification

We are using the neoclassical model to investigate the determinants of defense spending in Pakistan. For this, the dependent variable is Pakistan's defense burden and the variables independent are India's defense burden, trade balance, democracy, Indian atomic explosion in 1974 and 1998 and war.

Data and description of variables

b) Data sources

In this study, several sources were used to acquire data. The Statistics Manual on the economy of Pakistan, world development indicators, SIPRI yearbook and Global development finance is the main source. Expense data defense, GDP and trade balance were taken from the Manual of Economic Statistics from Pakistan. The data on India's defense spending was taken from the Handbook of statistics on the Indian economy. ATOMIC7498 and WAR were used as dummy variables in this study to show the effect of internal and external threats. ATOMIC7498 shows India's atomic explosion in 1974 and 1998 as a threat to Pakistan's security. WAR shows war situations

c) Description of the variables

DBP=Defense Burden of Pakistan (Actual Defense Expenditure/GDP)

DBI=Indian Defense Burden (Actual Defense Expenditure/GDP) TB=Trade balance

DM=Democracy Index

ATOMIC7498=Atomic threat to Pakistan due to atomic explosions in India in 1974 and 1998.

WAR= Dummy variable for wars or similar situations

The Johansen-Julius cointegration methodology was applied to investigate the correlates of defense spending in Pakistan.

Empirical results

First, the unit root test was performed for all variables. Therefore, as a first step, it is the Augmented Dickey Fuller (ADF) test was applied to verify the integration properties of the variables time series data. The mean and variance of the data must be the same over the same time period to obtain stationary characteristics.

We tested the stationarity of three variables: defense load of Pakistan (DBP), load of defense of India (DBI) and trade balance. From Table 1 it is clear that all the variables they are not stationary in their level form and the variables change to become stationary later take the first difference Johansen and Juselius co-integration test was also performed since all variables are in I (1). This test makes the study free from spurious regressions. Johansen-Julius co-integration test. The results of the ADF test suggest that since all variables are in the first difference,

Test	Variables	Intercept	Lags	Trends	Lags	None	Lags	Co
At Level	DBP	-0.7562	1	-1.794	1	-2.1141	1	
	DBI	-1.2061	0	-2.3934	3	-1.4458	0	
	TB	-2.1229	0	-2.3368	0	0.0344	0	
At first Difference	DBP	-8.473	0	-8.2946	0	-7.941	0	
	DBI	-8.0725	0	-7.9816	0	-7.9396	0	
	TB	-5.8841	0	-5.8384	0	-5.9144	0	

Source: authors' calculations.

It is a confirmation of cointegration between the variables and also a sign of a long-term correlation term between the dependent variable Defense Burden of Pakistan (DBP) and the independent variables: defense burden of India (DBI), balance of trade (TB), democracy (DM).), Co-integration testing for the series has since been performed. They are first difference integrated or first order I(1) integrated. The first column of Table 2 shows the hypothetical values, the second column illustrates the values Own. The third column shows the trace statistics, the next column shows the values critics based on Mackinnon-Haug-Michelis (1999) of tracks. The last column shows the probability of these values. The trace test indicates a cointegration equation at the 0.05 level. The first value of tracking statistics is 131.54, which is greater than the critical tracking value 117.708. Subsequently, the tracking statistics are less than the critical value, since in the second row the trace statistics are 76.3727, which is lower than the critical trace 88.8038 and so on. The first equation shows the co-integration value. In this test a trend was hypothesized linear deterministic. The statistical trace criterion (\hat{y} trace) shows that there is at most one vector of co-integration.

Another criterion, namely the statistical test of the Maximum Eigen.

Rejecting the hypothesis at 5% levels. Table 3 shows the results of the rank test unlimited co-integration. The results verify the significant long-term relationship between variables.

Table 3: Rank test of unrestricted cointegration (maximum eigenvalue)

Hypothesized(CE)	Eigen Value	Trace statistic	0.05critical value	Prob.
None*	0.7748	131.54	117.708	0.0050
At most 1	0.6111	76.3727	88.8038	0.2802

At most 2	0.3398	41.4256	63.8761	0.7989
At most 3	0.2947	26.081	42.9192	0.7342
At most 4	0.1859	13.1391	25.8721	0.7273
At most 5	0.1387	5.5254	12.5179	0.5228

Source: authors' calculations.

The first column of Table 3 shows the number of co-integration equations.

The second column shows the eigen value, while the third column shows the Max- statistics Eigen. The fourth column shows the critical values with a 5% confidence level. The fifth column shows MacKinnon-Haug-Michelis (1999) p values. The first value of the Max-Eigen value is 55.1710, which is greater than the critical value 44.49772. So, the test of the maximum eigen values also indicates a co-integration equation at the 0.05 level. These two values show the rejection of the hypotheses at the 5% level.

3.1 Long-term analysis

The empirical results of equation 1 are presented in Table 4, which shows the relationship long-term between DBP and DBI, TB, DM, ATOMIC98 and WAR.

The results for some variables are in agreement with our previous expectations. THE results show that all the parameters of the variables i.e. Defense Burden of India (DBI), Trade Burden (TB), Democracy (DM), Atomic Explosion (ATOMIC7498) e War Situation (WAR), have a positive sign.

The Defense Variable Load of India (DBI) shows the positive relationship with the load Defense Forces of Pakistan (DBP). This result is in line with our expectations precedents. DBP and DBI were expected to go in the same direction.

If India increased its defense spending, it would force Pakistan to increase its defense expenditure as Pakistan and India hardly have relations friendly matches since 1947. The DBI coefficient shows a positive sign.

Table 4: Long-term results

Hypothesized No. of CE(s)	Eigen value	Max-Eigen Statistics	0.05 Critical Value	Prob.
None *	0.7748	55.1710	44.4972	0.0025
At most 1	0.6111	34.9470	38.3310	0.1164
At most 2	0.3398	15.3675	32.1183	0.9360
At most 3	0.2947	12.9190	25.8232	0.8097
At most 4	0.1859	7.6136	19.3870	0.8546
At most 5	0.1387	5.5254	12.5179	0.5228

Source: authors' calculations.

The reason for the positive signal could be that Pakistan is responding to the proposal Indian defense due to hostility and rivalry between the countries.

Interestingly, the DBI parameter is insignificant. Indeed, this result proves it

Indian defense spending would no longer be important for Pakistan in the long term

because as Pakistan would get more weapons and deterrence, it would not spend on defense retaliation for Indian defense spending.

In other words, Pakistan can follow the model of Indian defense strategy and increase defense spending. Furthermore, Pakistan will follow its own situation or factors rather than simply looking at India's long-term defense spending.

The next variable is trade balance (TB). The coefficient of the estimated variable is positive, which coincides with our expectations. The positive impact of the scale trade in defense spending may be due to the fact that when a country becomes more open you can have more funds to buy more weapons. An increase, therefore of the trade balance leads to an increase in defense spending. This turns out agree with [Dunne and Perlo Freeman, 2003; Rosch, 1988; Dunne and Mohammed, 1995; Dunne, Perlo Freeman e Smith, 2008].

The third variable is democracy (DM). According to our expectations, the report of democracy with defense spending is bad. If the government is less democratic, it will depend more on defense spending to combat the highest level of risk (Collier and Hoeffler, 2002).

The percentage of GDP that will be spent on defense will be higher in a dictatorial society than in a fully democratic society. The variable outcome of democracy

our estimated model is positive. The estimated parameter of the democracy index for Pakistan it is significant and positive because the military regime remained in Pakistan in power most of the time. Therefore, defense spending has always been

high since its birth. Our results are in line with studies [Sheikh & Chaudhry 2012, Maizels e Nissanke, 1986, Hewitt, 1996; e Dommen e Maizels, 1988]. Defense expenditure is determined by the military regime indicated in these Education.

ATOMIC7498 is the next variable in our estimated equation. The coefficient of Atomic7498 is positive. After the atomic explosions of 1974 and 1998 in India, Pakistan has increased defense spending. Pakistan has launched its nuclear program over the years 70 and successfully completed it in 1998 with an atomic explosion. This leads to an immense increase in Pakistan's defense spending.

The next variable in Table 4 is WAR, which is used for war situations or similar. It is clear from the literature on the determinants of defense

Expenses that increase in the event of war or similar situations, defense expenses increase considerably. So, the result of this parameter is second our expectations.6.4. Error correction analysis (stability condition)

The error correction term shows how quickly the values are adjusted. variables to restore equilibrium in the dynamic model. Table 5 shows the analysis of stability where the dependent variable is Pakistan's defense weight and the independent variable is India's defense weight, trade balance, democracy,the atomic threat and war.

Table 5: Results of the stability condition

Explanatory Variables	Coefficient	Standard errors	t-statistic
DBI	3.8032	5.4497	0.6978
TB	0.1155	0.0807	1.4311
DM	7744.18	1746.37	4.4344
ATOMIC ₇₄₉₈	1.0809	0.1877	5.7584
WAR	0.0575	0.0613	0.9373
C	0.3328	----	----

Source: authors' calculations.

Column 1 of Table 5 shows the dependent and independent variables.

Column 2 shows the cointegration vectors. Column 3 shows the correction coefficients of the error. The last column shows the importance of these variables. The condition of stability comes used to analyze the error correction mechanism. The necessary condition of the stability condition is that the sum of the product of the cointegration coefficient and the error correction coefficient is negative.

This is true in our case. The sufficient condition for stability is that the individual product of the cointegration coefficients and the error correction coefficient are negative. The variable DM shows a negative sign and is also significant, so if long-term discrepancies occur in the model, they would be corrected by DM. The War variable also has a negative sign but in our case it is insignificant. Tuberculosis is significant but shows positive signs. ATOMIC7498 shows a positive sign and is insignificant.

Conclusions and policy implications

This study was planned to investigate the determinants of defense spending of Pakistan. We used time series data from 1972 to 2012. To obtain empirical results was Johansen Juselius test applied.

The results of the study show that all the variables such as Defense Burden of India (DBI), Balance of Trade (TB), Democracy (DM), Atomic7498 and WAR have positive relationship with Defense Spending of Pakistan . These variables are responsible for the increase in DBP. The stability condition shows that DM will correct a discrepancy in the model.

Based on the analysis, the following policies were recommended:

The government can increase its trade balance along with development projects. The government can encourage trade in goods and services instead of commerce weapons.Political and judicial institutions should seek to strengthen democracy and military rule should be discouraged.

The nuclear arms race must be discouraged to divert resources towards development projects.Regional conflicts must be resolved for the dream of regional peace and stability to become a reality and war situations can be avoided.

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