

MILITARY EXPENDITURES AND SOCIAL EXPENDITURES IN PAKISTAN: MYTHS AND REALITIES

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Abstract

Welfare versus warfare is an ongoing discourse between conservatives favouring military expenditures and the others advocating for the welfare spending. In Pakistan, this debate is highly politicised as some people portray that defence budget takes the bulk of federal budget and it is draining the social budget of Pakistan. However, such arguments are mostly vague and sweeping due to inexact inferences derived from wrong hypothesis and inaccurate or incomplete data. This paper tackles these myths logically and scientifically using appropriate statistical tools with particular emphasis on the Riff off theory. The study is based on a scrupulous investigation of the realities of military expenditures of selected countries through a Time Series Analysis to ascertain the magnitude of the total military expenditure of Pakistan as compared to other countries. It clarifies the statistical relationship between the social and military budgets with the help of Regression Analysis and Correlation Coefficient. The study reveals many interesting veracities by busting various myths.

Keywords: Social expenditures, Military expenditures, Riff off, Time series Analysis, Regression Analysis.

Introduction

The importance of military for a country is indisputable as the societies require security as much as they need social services like health and education but on what cost?¹ This cost is termed as ‘military expenditure’, which is not an issue in isolation, but does so when analysed against its direct impact on social welfare as well as indirect impacts in the shape of its opportunity cost.² Welfare versus warfare is an old but popular debate between conservatives favouring military expenditures and the radicals advocating for welfare spending. Conservatives believe that it is not the military but the welfare spending which causes the budget deficits. According to them, military expenditures bolster security, expand job market and subsequently contribute towards the economic growth.³ It is social welfare not the defence budget

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that has increased more than 2000 percent since 1929 and more than 300 percent since 1960 and proved to be the major cause of the budget deficits.⁴ On the other hand, radical group sees military as the tool of imperialism whereas welfare expenditure as the apparatus of social transformation leading ultimately to social development. They believe that social expenditures are normally squeezed by the swollen military budgets justified by the fear of security which is often deliberately cultivated by the department of defence.⁵ Instead of security, much of defence budget is devoted to furthering a military-industrial complex (MIC), to influence public perceptions,⁶ and to absorb surplus of goods and services produced by capitalists,⁷ primarily aimed to benefit some organizations and contractors.⁸ Overall, the advocates of this position argue that the present welfare needs are much more compelling than the need to bolster the defence forces. Besides these scholars there is another faction of academia who is neutral in their stance. They illustrate that evidence does not suggest that high defence budgets are necessarily at the expense of welfare budgets,⁹ rather nation spending more on defence are also big spender on social welfare.¹⁰ There are also some studies which denied the existence of any relationship between defence and welfare expenditures.¹¹

The magnitude of the defence and development budget debate is very high in developing countries where the resources are constrained. UN Committee for Planning and Development consider huge military expenditure as the single and most massive obstacle to the development in the least developed countries.¹² Increase in defence budget of the developing countries is viewed with a concern and same is the case with Pakistan. One set of scholars criticises the perceived huge military expenditure as less amount is spent on health, education and development.¹³ They believe that the huge standing army is the major impediment to the social and economic development of Pakistan as it drains the major portion of the budget on pretext of external threat from India.¹⁴ But literature on the subject does not support this hypothesis as no automatic one to one correspondence between reduced military expenditure and increased socioeconomic growth could be found except for Turkey where a unidirectional causality running from economic growth to defence expenditure was found. Other scholars reckon that the army is not only contributing to the security but also socioeconomic development of the country,¹⁵ hence it has earned a respect and a dignified place in the Pakistani society.¹⁶

In this context, this paper is an endeavour to answer a critical question i.e., does rising defence expenditures adversely affect the social welfare programs by ascertaining the magnitude of defence outlay of Pakistan as compared to other countries and a comparative analysis of Pakistan's military and social expenditures in the last eight years.

Methodology

The analysis is exploratory as well as analytical in its nature. Mostly the data is secondary in nature which has been collected from different sources and processed both quantitatively as well as qualitatively. An explanatory model is employed where required.

Time Series Analysis of the military expenditures of selected countries has been carried out to ascertain the magnitude of the total military expenditure outlay of Pakistan as compared to other countries (Objective 1). A sample of five countries has been purposely selected keeping in view their strategic and geographical position. Three prominent neighbours China, India and Iran, one ideological adversary Israel and one superpower United States of America are included. The data is compiled for twenty years covering period from 1988 to 2008. The expenditures are analysed in its absolute value in constant US Dollars as well as the percentage share of GDP. Trend Curve Diagram is used to demonstrate the comparative trends of the military expenditures of selected countries. The complete data has been taken from the Stockholm International Peace Research Institute (SIPRI) Year books.

A co-relational study is conducted with the purpose to study the relationship of the social and military expenditure within Pakistan (Objective 2). Data for last eight years covering period from 2002 to 2010 has been utilized randomly to analyse the comparative state of welfare and warfare expenditures of Pakistan. The data has been taken from the federal budgets and Economic Surveys of Pakistan. As defence budget is always given separately in the federal budget of Pakistan so it has been tabulated as it is mentioned. For the calculation of social budget, different sub heads of the federal budget are grouped keeping in view the specification given in the Economic Survey of Pakistan which includes pension, income transfers, economic affairs, general public services, housing, health, education, social protection, recreational, public safety, environment protection, research and general administration and governance. To determine the percentage share of defence and social expenditures in the total expenditures of the federal government, the simple percentage formula of dividing the specific head by the total budget and then multiplying it by 100 has been used. The other sub heads of PSDP and debts have been used as the extraneous variables. Both tables have been supplemented by Trend Curve Diagrams. To discover the relationship between the defence and social expenditures of Pakistan, Regression Analysis tool is used. The strength of relationship, if any, is verified through Correlation Coefficient. As data in percentage share of GDP is considered more accurate than the absolute share in the total federal expenditure so the trend of defence and social expenditures in Pakistan has been tabulated as percentage share of the GDP. This data has been taken from

the Economic Survey of Pakistan covering period from 2001 to 2008. This data is also processed with Regression and Correlation statistical tools to substantiate the existence of any relationship and its relating strength.

Results and Discussion

A popular myth which prevails in Pakistan is that the defence outlay of Pakistan is immense as compared to other countries of the world. To critically analyse this perception, the defence expenditures of six (6) countries including Pakistan, USA, China, India, Israel and Iran are analysed in US Dollars.

Growth of Defence Budget in Constant US Million Dollars

The comparative state of defence growth of the selected countries in certain time period is illustrated in Table 1. The result shows a mixed trends, for example the defence expenditures of USA has observed a 32% decline till 1997, but has witnessed a sharp increase of 69% afterwards till 2008 as the war on terror begins. The same sharp increase can be observed in case of India in 1999 due to Kargil conflict. A inference from these observations can be drawn that countries tend to spend more on their defence during a war or state of conflict. The example of Israil clearly support this conclusion as it is constantly spending more on its defence due to its constant involvement in conflicts and skirmishes. Iran displays a massive increase of 493% whereas Pakistan and Israil exhibit an increase of 42% and 14.5% respectively. Although the rate of increase of Israil is less than that of Pakistan but the total outlay of Israil is about four times more than that of Pakistan. The defence expenditures of China and India demonstrate a gradual increase all the way through with an enormous rate of 428% and 128% respectively. The comparative analysis of the total defence outlay of these countries reveals that USA is the leading spender on its defence while Pakistan is a trivial spender.

The total defence outlay of India is eight times more than that of Pakistan and showing an increase of 128% while the rate of increase of Pakistan's defence expenditure remained around 42% during this period. So, a careful examination of the Table 1 exemplifies the fact that the total defence outlay of Pakistan is minimal as compared to other countries which busts the myth that the defence outlay of Pakistan is immense. The other myth that the defence expenditures of Pakistan are increasing massively is also proved wrong as the rate of increase in the defence expenditure of Pakistan is significantly less than that of China, Iran and India.

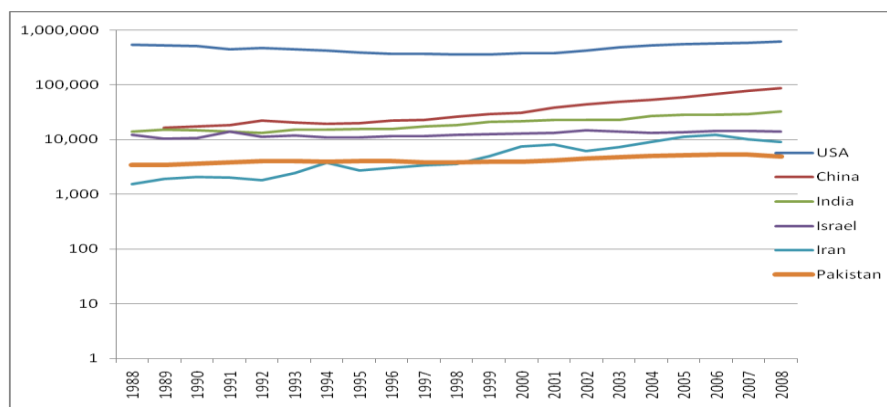
Table-1: The Comparative Growth of Defence Budget in Constant \$ Million

		Countries					
		USA	China	India	Israel	Iran	Pakistan
Year	1988	533,580		14,141	12,298	1,545	3,419
	1989	528,140	16,300	15,103	10,407	1,939	3,417
	1990	504,534	17,500	14,877	10,746	2,101	3,605
	1991	443,129	18,200	13,891	14,183	2,042	3,861
	1992	468,216	22,000	13,276	11,313	1,817	4,099
	1993	443,598	20,400	14,994	12,037	2,465	4,093
	1994	416,580	19,400	15,061	11,101	3,812	3,989
	1995	393,996	19,900	15,512	10,849	2,746	4,055
	1996	372,569	22,000	15,794	11,555	3,051	4,050
	1997	370,627	22,600	17,483	11,618	3,400	3,879
	1998	362,277	25,900	18,241	12,060	3,587	3,874
	1999	363,170	29,400	21,198	12,487	5,012	3,909
	2000	377,228	31,200	21,874	12,856	7,409	3,920
	2001	380,271	38,400	22,636	13,423	8,175	4,195
	2002	426,982	44,400	22,566	14,888	6,148	4,508
	2003	485,975	48,500	23,070	13,993	7,195	4,814
	2004	529,673	53,100	26,773	13,357	9,109	5,015
	2005	554,930	59,000	28,295	13,685	11,296	5,210
	2006	563,549	68,800	28,465	14,559	12,233	5,269
	2007	578,340	77,900	28,866	14,397	10,158	5,275
	2008	616,073	86,200	32,334	14,076	9,174	4,877

Source: Stalkholm International Peace Research Institute, 1988-2008.

Figure-1 shows the graphic illustration of this fact. The bottom bolde line representing Pakistan is almost a straight line showing a marginal increase in the Defence Expenditure as compared to other lines. So we can infer from the above discussion that the Total Defence Expenditures of Pakistan are not immense and these are increasing with a negligible rate.

Figure-1: The Comparative Growth of Defence Budget of Pakistan in Constant US Dollars in Millions



Source: SIPRI, 1988-2008.

Defence Expenditures as Percentage share of GDP

The percentage share of GDP is the best method to compare the expenditures across countries without conversion or deflation.¹⁷ So, Table 2 expresses the defence expenditure tendency of six selected countries in terms of GDP share to give a more accurate picture. Israel is the major investor in the defence by allocating 7% of its GDP followed by USA with 4.3%. Pakistan and India share the same spot with equal military burden of 2.6% only a place higher than the bottom of the line where China is present with only 2% of the military burden. The USA has shown a continuous rise after 1999 till 2008. This momentary upward trend may be due to war on terror which confirms the previous conclusion that countries tend to spend more during a war or a conflict. Pakistan has also exhibited a tremendous decrease of 138% by cutting its defence share in the GDP by almost three times in the last two decades.

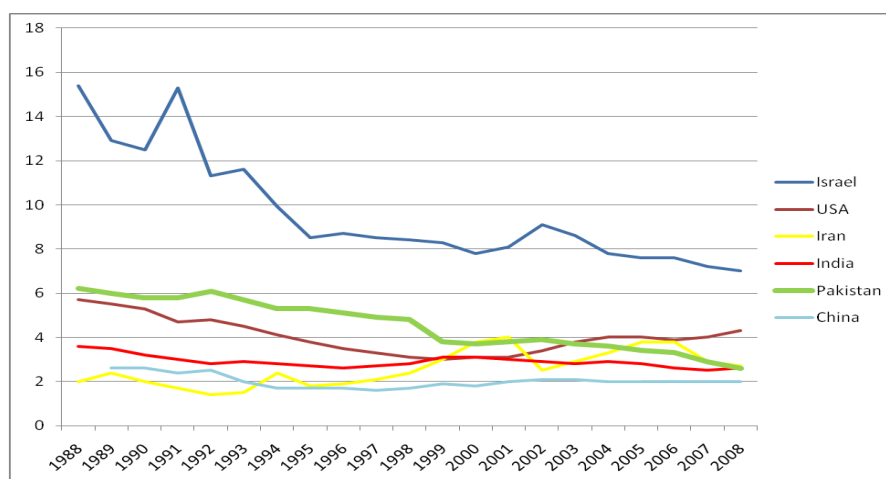
The indepth analysis of Table 2 validate the previous inference that Pakistan is spending comparatively less on its defence needs than the other countries of the interest. As far as the rate of increase is concerned, the above table gives a quite clear picture that Pakistan is continuously decreasing its defence share in the GDP inspite of the fact that Pakistan is constantly in state of war. Even during the Kargil war Pakistan has not increased the defence share in the GDP.

Table-2: Defence Expenditure comparison in Percent of GDP (1988-2008)

		Country					
		Israel	USA	Iran	India	Pakistan	China
Year	1988	15.4	5.7	2	3.6	6.2	-
	1989	12.9	5.5	2.4	3.5	6	2.6
	1990	12.5	5.3	2	3.2	5.8	2.6
	1991	15.3	4.7	1.7	3	5.8	2.4
	1992	11.3	4.8	1.4	2.8	6.1	2.5
	1993	11.6	4.5	1.5	2.9	5.7	2
	1994	9.9	4.1	2.4	2.8	5.3	1.7
	1995	8.5	3.8	1.8	2.7	5.3	1.7
	1996	8.7	3.5	1.9	2.6	5.1	1.7
	1997	8.5	3.3	2.1	2.7	4.9	1.6
	1998	8.4	3.1	2.4	2.8	4.8	1.7
	1999	8.3	3	3	3.1	3.8	1.9
	2000	7.8	3.1	3.8	3.1	3.7	1.8
	2001	8.1	3.1	4	3	3.8	2
	2002	9.1	3.4	2.5	2.9	3.9	2.1
	2003	8.6	3.8	2.9	2.8	3.7	2.1
	2004	7.8	4	3.3	2.9	3.6	2
	2005	7.6	4	3.8	2.8	3.4	2
	2006	7.6	3.9	3.8	2.6	3.3	2
	2007	7.2	4	2.9	2.5	2.9	2
	2008	7	4.3	2.7	2.6	2.6	2

Source: SIPRI, 1988-2008.

Figure-2 graphically represent this declining trend. The bold green line showing the defence spending tendency of Pakistan, is clearly demonstrating a decreasing trend instead of the wrongly perceived massively increasing tendency. By meshing the facts from Table 1 and Table 2, one can see the complete picture of the military expenditures of the selected countries. It can be easily concluded that comparatively Pakistan has less defence budget as it has only allocated 2.6 % of its GDP to the defence which is decreasing every year. So, neither the defence budget of Pakistan is immense, nor it is increasing massively.

Figure-2: Defence Expenditure comparison in Percent of GDP (Last 20 years)

Source: SIPRI.

Comparison of Military and Social Expenditures of Pakistan

A general perception is that defence consumes the larger portion of the federal budget of Pakistan which adversely affects the social development programs. To test this postulation, eight federal budgets of Pakistan have been analysed from 2002 to 2010. The complete budget has been subdivided into five heads of debt, development, social, defence and others.

Comparison in Terms of Rupees

Table-3 shows the comparative state of defence and social expenditures of the last eight years. It is clear from the Table that defence expenditure has never been greater than the social expenditures. It should also be noted that both the expenditures show an overall positive with only exception of 2003. Defence expenditure has shown a total increase of Rs 296.2 billion with a rate of 202% whereas social expenditure has demonstrated a total increase of Rs 387 billion with a rate of 229%, slightly more than that of defence, in these eight years. The remaining heads also display an increase. A rapid rate of increase of about 400% has been observed in the PSDP. As the total budget outlay has also increased with a rate of about 272% so, the overall increase may be attributed to the economic growth as postulated by Wagner's Law. According to Wagner's Law, the security expenditures are bound to increase with the economic growth as the military becomes more modernized and capital intensive. In similar manner, welfare expenditure would also increase with level of economic development as the state gradually took on many of the private sector's former responsibilities.¹⁸ The Correlation coefficient of defence

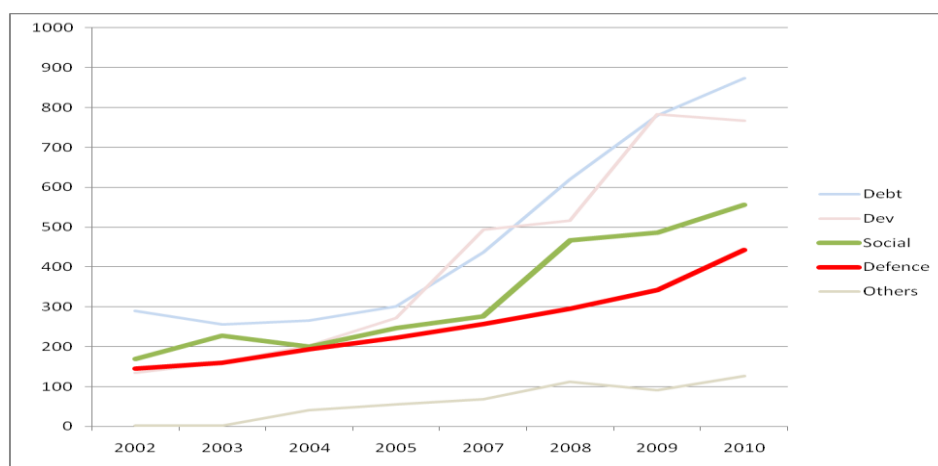
and social expenditure is 0.947 which portray a high positive relation between the two. The regression coefficient is 1.42 where defence expenditure is shown on X axis and social on Y axis. It means with one unit of increase in defence there is 1.42 units increase in social expenditures.

Table-3: Military Expenditure and Social Expenditure,(2002-2010 In Rs Billions)

		Budget Expenditure (Billions Rs.)					
		Debt	PSDP	Social	Defence	Others	Total
Year	2002	289.7	134.0	169.0	146.0	2.5	742.0
	2003	256.0	160.0	227.0	160.3	1.9	805.0
	2004	265.3	202.0	199.8	193.9	41.7	902.7
	2005	301.3	272.0	246.9	223.5	54.7	1098.5
	2007	437.5	493.3	275.5	257.0	68.2	1549.7
	2008	619.3	516.6	466.3	296.0	111.5	2009.7
	2009	779.6	783.0	486.0	342.9	90.7	2482.2
	2010	873.2	766.5	556.0	442.2	126.7	2764.6

Source: Government of Pakistan.

Figure-3: Yearwise state of Military Expenditure and Social Expenditure, (Rs Billions)



Source: Government of Pakistan.

Figure-3 shows that the defence expenditures demonstrate a smooth and gradual upward trend whereas social expenditures exhibit a mixed trend of sharp and steady increase. Till 2007, both sails together with a less gap but after 2007 there is a sharp flight of social expenditures which widen the gap between the two. A sharp

incline can be observed in the defence expenditures during 2009 narrowing the gap between the two. This little upward drift may be attributed to the new democratic government's generous increase in salaries, as this was their first budget. A sharp boost in debt servicing is clearly visible after 2005 which is constantly increasing till 2010. The PSDP also experienced some sharp increases in 2005 and 2008 but a small dip in 2010.

So, it can be concluded from this table and figure that defence and social expenditures have strong positive correlation as the increase is simultaneous in both, whereas the defence expenditures have remained lesser than the social expenditures throughout.

Comparison as Percentage Share of Budget

Another myth is that defence consumes about 80% of the federal budget. To dig deep into this myth the percentage share of all the three heads have been analysed. Table 4 shows the comparative percentage share of all respective heads. The bird eye view of the table clarifies this misperception. It is very evident that the defence share never even reaches the line of the 22%, the line of 80% can only be termed as the lunatic imaginations. Social expenditures have always consumed the greater share than the defence. The Social expenditure shows a mixed trend of rise and fall maintaining a positive correlation of 0.417 with Defence expenditures. This means that they do not drain each other but there must be some other variable which is affecting both. So, correlation coefficient of both was calculated with other variables like debt and development. The results were quite interesting. Defence demonstrated a negligible inverse relation with debt whereas social expenditures exhibit a negligible positive relation. Both defence (-0.67952) and social (-0.78746) expenditures displayed a high negative correlation with development expenditures. So, the statistical analysis gives an indication of the existence of a draining phenomenon in developmental expenditures rather than in defence. An interesting point must be noted that although the debt servicing has shown a sharp increase in terms of billions of rupees but demonstrate a decline as percentage share of the budget till 2005. Debt servicing illustrates a total of 8 unit drop till 2010, a decrease of 23%.

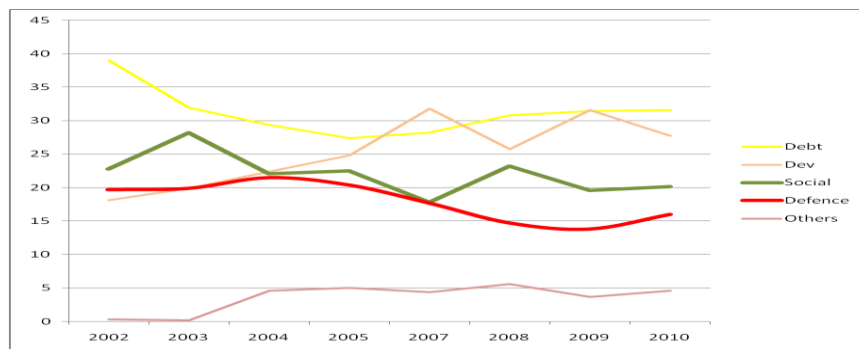
Table-4: Military Expenditure and Social Expenditure of Pakistan (2002-2010 as Percentage of Budget)

		Budget Expenditure(Percentage Share)				
		Debt	Dev	Social	Defence	Others
Year	2002	39	18.1	22.8	19.7	0.3
	2003	31.9	19.9	28.2	19.9	0.2
	2004	29.4	22.4	22.1	21.5	4.6
	2005	27.4	24.8	22.5	20.4	5
	2007	28.2	31.8	17.8	17.7	4.4
	2008	30.82	25.71	23.20	14.73	5.55
	2009	31.41	31.54	19.58	13.81	3.65
	2010	31.59	27.73	20.11	16.00	4.58

Source: Government of Pakistan.

Figure-4 shows these trends more clearly. The bold red line represents the defence while the bold green line symbolizes the social expenditures. It can be easily understood from the Fig 4 that the green line has always been above the red line which means that the social expenditures have always been greater than defence expenditures. A visible downward gradual slope in red line can be observed depicting a steady fall in the defence expenditures from 2004 till 2009. The upward hook is also visible in 2010 caused by the welfare package for the Armed Forces by the new democratic government. The zigzag green line displays the rise and fall trend of the social expenditures. The inverse relation of the social expenditure with development expenditure, represented by the brown line, is also very prominent. The declining attitude of the debt servicing, depicted by the top yellow line, is also quite evident.

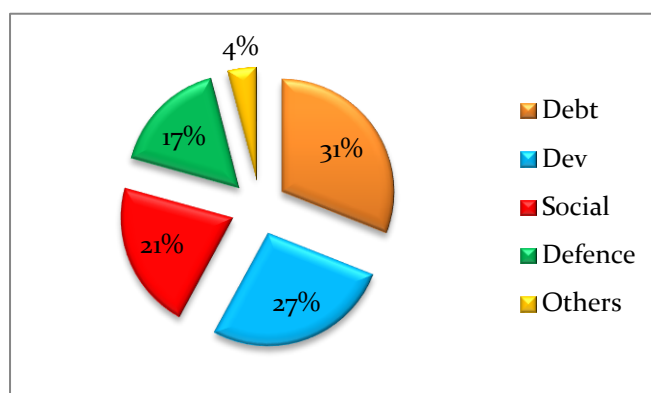
Figure-4: Yearwise Percentage Share of Military and Social Expenditure of Pakistan



Source: Government of Pakistan, 2002-2010.

Figure-5 shows the average shares of different heads in the federal budget. It is quite evident from the above figure that the greater portion of the budget is consumed by the debts followed by the development and then trailed by the social expenditures. Defence comes almost at the bottom. Hence, defence does not consume 80% of the federal budget but only 17% of the federal government expenditures.

Figure-5: Average share of defence and social welfare in the federal budget



Source: Government of Pakistan, 2002-2010.

Comparison as Share of the GDP

To clarify further the relationship of defence and social expenditure, both have been compared in terms of percentage share of the GDP as it is considered as the best tool for comparison. The complete data is shown in Table 5.

Table-5: Yearwise Military Expenditure and Social Expenditure of Pakistan

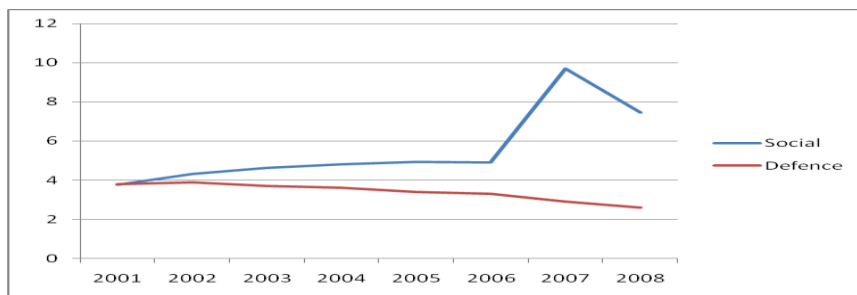
	Social	Defence
2001	3.77	3.8
2002	4.33	3.9
2003	4.63	3.7
2004	4.81	3.6
2005	4.93	3.4
2006	4.89	3.3
2007	9.7	2.9
2008	7.46	2.6

Source: Economic Survey of Pakistan, 2010.

Table 5 shows that defence share is declining consistently whereas the share of the social expenditures is increasing steadily. This table does support the Riff off

theory, but the causation cannot be established. While taking the defence as independent variable and social expenditure as dependent variable, Regression coefficient is -3.66875 but if variables are interchanged, the regression coefficient is -0.19045. Figure-6 shows the comparative trend of both graphically. This indicates a Spurious Relationship where the compounding factor may be the economic growth. All the three tables provide altogether different correlation coefficient which may be attributed to the specification error. So finally, it can be concluded that both defence and social expenditures are independent variables which are spurious related due to the compounding factor of the economic growth whereas the correlation does not imply causation.

Figure-6: Yearwise Military Expenditure and Social Expenditure of Pakistan, (as Percentage share of GDP 2001-2008)



Source: Government of Pakistan.

Conclusion

The primary aim of study was to critically evaluate the popular debate of welfare versus warfare expenditure. This is a very old debate which is common in almost every country of the world. The intensity of this debate amplifies with the technological advancement of the militaries as they become more capital intensive. The dilution of this dispute magnifies in the countries with resource constraints. Same debate is very popular in Pakistan as well due to its developing status and scarce resources. Different myths and misperceptions regarding defence expenditure have penetrated the minds of the masses. In a nutshell, the military expenditures are recognized as the major impediment to the social development of Pakistan. Contrarily, statistical analysis refutes all the misperceptions. This criticism on defence budget is common all over the world, but it does not diminish the importance of a strong and well-equipped army. It is due to this undaunted importance that every sovereign country of the world fosters a well-trained professional military to ensure its geographical as well as ideological security. A strong military is considered as the emblem of the sovereignty and independence of a country.

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