

Guns Versus Butter Equation of India

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Abstract—India having limited number of resources to distribute but maintaining a substantial amount of ambition is facing the age old “Guns vs. Butter” question, in this modern saga of technology terrorism, piracy, insurgency and nuclear threats which are working as a catalyst in attack by terrorists, while the conventional and nuclear threats from neighboring countries like Pakistan, China and Bangladesh continuous to grow. Country as whole at one point is demanding high amount of investment and expenditure in the defence and safety area and on the other hand is faced with the dilemma of producing and distributing civil goods to the domestic population, with the addition of “Make in India” campaign huge amount of funds are being transported to the production and service sector. The Guns Vs Butter equation or model showcases a relationship between a country's investment in defence equipments and civil goods, every nation has to choose how much to spend in both of these goods and so does India. The following research study will highlight the same model for India.

Keywords: Guns Vs. Butter, Defence Investment in India, Indian Defence.

1. INTRODUCTION

The decision of America to sell four of the latest technologically updated fighter planes to Pakistan which by many economists and leaders of the world is considered as the hub of terrorism has raised many eyebrows, it has also become a problematic situation for India because its nuclear equipped neighbor which has been a source of trouble and unrest for the country is buffing up its defence, safety measures and equipments.

The latest terrorist attack at the **Pathankot IAF base, Punjab** has bought the total of terrorist attacks to forty –three in past ten years which in turn troubles the Indian policymakers regarding how safe this country is? India being the largest democracy of the world the blame game is very easily played. People blame the armed forces, they blame the government and government blames the strategy designers saying- that enough funds were not allotted in order to enhance security. Looking at the situation and being the part of the blame game the best way is not to transfer the accusation to the Indian armed forces but to find new and innovative methods to protect our nation from the same and different kind of future attacks.

The allocation of financial resources among budgetary items is one of the most concrete indicators of the policies followed and preferences set by governments. What history shows us is that there emerges considerable rise in defence expenditures before great conflicts, while defence spending tends to decline in times of peace, accompanied by a rise in allocations for public investment and social state expenditures having been neglected during times of war or crisis. While welfare expenditure is exposed to cyclical fragility depending on the stability of states' social policies, government reshuffles, and political preferences, defence expenditure mostly relies on internal, regional and global security environment rather than domestic factors and takes more time for dramatic shifts. Moreover, studies in this context reveal that welfare and defence expenditures literally present competing budgetary priorities for getting a bigger slice out of the cake to the detriment of the other. This study focuses on the relationship between defence and welfare expenditures as well as linking governments' preferences to their relations with international actors, thus adding the dimension of international relations and security strategies to this very field which is conventionally regarded in the context of defence economics

2. PAPER PATTERN

The paper has been organized in the following manner-

- Introduction.
- Research Methodology.
- Scope and Limitation of the Study.
- Information about Defence and Welfare expenditure.
- The Guns vs. Butter Tradeoff Equation.
- Characteristics of Indian Armed forces.
- Conclusion.

3. RESEARCH METHODOLOGY

The following study is majorly descriptive in nature; it mostly depends upon the information published mainly in

- Books
- Magazines
- Internet
- Journals
- Newspapers etc...

4. SCOPE AND LIMITATION OF THE STUDY

The study is carefully conducted to assist future research who are looking for secondary data on how Indian armed forces work, how much investment the country is doing for its safety. The study will also be useful for Indian defence personnel and policy makers to clearly understand how much funds are being allocated to them and why.

The study is based on secondary data, which mainly revolves around the area of guns vs butter equation, Indian defence budget and how Indian armed forces are in nature and due to the normality in the data available the study is only focusing on the over-view.

5. DEFENCE AND WELFARE EXPENDITURE.

Defence expenditures can be defined as public expenditures allocated for security and defence needs that are basically of military nature. There is no consensus among nations over which spending items to be accepted as defence expenditures. The manipulative efforts of governments about the declared budget figures, the lack of transparency with regards to defence spending due to various concerns, the bad-keeping of records and the failure at producing healthy data due to deficiency of technical infrastructure or lack of sensitivity are the main factors that forbid the accurate reflecting and assessment of defence spending.

The analysis of overlapping figures of the defence spending definition made by globally recognized bodies such as International Money Fund (IMF), United Nations (UN) and North Atlantic Treaty Organization (NATO) yields the payments made to the military and civilian personnel of armed forces, military health, education, infrastructure, acquisition, operations, maintenance and sustainment, research and development as well as military aid to other countries, civil defence/protection, border security and the expenses for official paramilitary organizations as the generally accepted defence expenditures.

Welfare expenditures, on the other side, are usually regarded in the context of social state and consist of education and health expenditures, social security expenditures, expenditures for supporting the children and the family, transfer payments and the expenditures made in the context of public support for the low-income mass against the unfair distribution of income. Given that social security expenditures are somehow stable over time due to their nature of being the extension of governments' continuous commitments, the variance of these expenditures should be attributed to the aging population and the increasing number of veterans rather than cyclical preferences of governments. In line with the mentioned study, the welfare expenditures basic to preference will be presumed as the sum of public education and health expenditures in this paper.

6. THE GUNS VS. BUTTER TRADEOFF EQUATION

Guns versus butter tradeoff reflects the defence-welfare model of production possibility frontier which is a basic macroeconomic phenomenon. Production possibility frontier, utilizing the simplificative logic of classical macroeconomics, is a graphic displaying that a country with the possibility of producing only two types of items, has to portion out all of its resources among these two items in order to ensure an optimal balance. It also shows that inefficiency rises due to the rule of diminishing returns coming into effect towards the point where solely either one of two items is produced. When guns versus butter tradeoff is modeled using production possibility curve, one of the producible items becomes guns for defence expenditures, as the other being butter for welfare expenditures.

Robert Gilpin carries the discussion of guns versus butter tradeoff and production possibility frontier to a very different platform of macroeconomics; the indifference curve. According to Gilpin, an increase in the resources of a nation shifts the production possibility frontier outwards while the change in the relative prices of two items (guns for defence and butter for welfare) changes the form of the indifference curve, in other words, how the nation allocates its resources among two items. Econometric and statistical studies verify that defence and welfare budgets are rival figures, however it is not possible to define a universal optimal balance among two.

Most of the studies in the field of defence economics with regards to defence-welfare tradeoff basically focus on the effects of defence and welfare expenditures. Defence expenditures influence economic performance through three channels. Ram classifies them as demand side, supply side and security effects. The fact that each unit of defence expenditure brings an alternative cost due to the abandoned investment opportunities in the framework of scarcity theory generates supply side effects similar to the guns versus butter tradeoff paradigm. Economists asserting that defence expenditures influence economy through the channel of demand fundamentally ground their points on the Keynesian multiplier effect. Namely, in an economy which is not running at full employment of resources, a rise in defence spending causes a rise in aggregate demand. Since the resources are scarce, the rise in aggregate demand causes a decrease in unemployment through the rise of capital utilization. Therefore, an increase in defence spending results in economic growth. The supporters of this view ignore the supply side effects considering the assumption that there are always idle resources in a given economy. Security effects channel, the third channel explaining the nexus of defence spending and economic growth, refers to the economic value of national defence service yielded by defence expenditures which is a public good in the sense of economics. A convenient and

encouraging setting for private investment is only achievable in a country where a secure environment is ensured by the government. On the other side, since there is almost general consensus in the literature over the positive effects of human capital creation via public investments in education and health on economic performance, the mechanism of this effect is considerably axiomatic.

7. CHARACTERISTICS OF INDIAN ARMED FORCES

The Indian army which ranks as the 4th powerful army in the world consisting of-Total Army Personnel: 1,129,900, Tanks: 4000, Anti-Tank (AT) Weapons: 51,000, Infantry Fighting Vehicles (IFV): 2200, Armored Personnel Carriers (APC): 500, Self-propelled Artillery (SPA): 230, Towed Artillery: 9500, Mortars: 5000, Anti-Aircraft (AA) Weapons: 15,500, Multiple Launch Rocket System (MLRS): 290, UAV: 170, Helicopters: 190, Logistical Vehicles: 70,000, Total Land Army Weapons: 75,100. Indian Air force which is the 5th best in the world has more than 1000 combat aircrafts consisting of more than 200 Sukhoi Su-30MKI, 2 series productions delivered with 118 more on order. 8 limited series aircraft, technology demonstrators and testing aircraft built. A total of 294 Mk.IA and Mk.II aircraft may be ordered to equip 14 squadrons replacing the MiG-21 and MiG-27. Upgraded Mk.IA aircraft to be delivered in 2018, with 106 aircraft (5 squadrons) to be delivered by 2022-23. Indian Naval Forces stood at the 7th position in the world, some of the Indian Navy's equipments consist of the following- 1 Aircraft carrier, 1 Amphibious attack ship, 19 Landing vessels, 8 Destroyers, 24 Corvettes, 12 Frigates, 32 Patrol vessels, 8 Anti-mines, 14 Assault submarines, 1 Missile submarine.

The increase in population and growth in the area of residence the requirement of safety is increasing and the details mentioned above are not fulfilling the requirement. The defence budget for the year 2015-16 and 2016-17 displayed many changes including a new format for the budget of India stood as: -

Comparative Statistics of Defence Budget: 2015-16 & 2016-17 (Old Format)

	2015-16	2016-17
Defence Budget (Rs. in Crore)	246727.0	249099.0
Growth of Defence Budget (%)	7.74	0.96
Revenue Expenditure (Rs. in Crore)	152139.0	162759.0*
Growth of Revenue Expenditure (%)	13.2	6.98
Share of Revenue Expenditure in Defence Budget (%)	61.7	65.3
Capital Expenditure (Rs. in Crore)	94588.0	78586.0*
Growth of Capital Expenditure (%)	0.0	-8.7
Share of Capital Expenditure in Defence Budget (%)	38.3	34.7
Capital Acquisition (Rs. in Crore)	77406.69	70413.92*
Growth of Capital Acquisition (%)	3.0	-9.4
Share of Defence Budget in GDP (%)	1.82	1.65

Share of Defence Budget in Central Government Expenditure (%)	13.9	12.6
MoD's Budget (Rs. in Crore)	3,10,079.6	3,40,921.98
Growth in MoD's Budget (%)	8.72	9.95
Share of MoD Budget in GDP (%)	2.29	2.26

Note: *: approximate figure.

: *: Source Laxman Kumar Behera, All About Pay and Perks India's Defence Budget 2016-17, IDSA Issue Brief. 3, March 2016

The major concerns raised by the defence budget are the allocation for the next year is only 1.65 per cent of the GDP, perhaps the lowest since the 1962 India-China war. Even if defence pensions are included, the budget amounts to 2.26 per cent of the GDP, which is far lower than the 3 per cent of GDP recommended by the Parliamentary Standing Committee on Defence in its reports spanning a decade.

The yardstick of 3 per cent of GDP is important because the defence services formulate their Long Term Integrated Perspective Plan (LTIPP) which prioritises their procurement over the next 15 years based on that yardstick. Continued shortfall in defence allocation by that yardstick means that the gaps in defence modernization widen with every passing year. While the desirable equipment profile of the armed forces, as per the defence secretary's testimony to Parliamentary Standing Committee last year, is 30:40:30 (30 per cent state-of-the-art, 40 per cent current and 30 per cent nearing obsolescence), experts estimate the current profile to be 15:45:40. Any more deterioration of the profile – an inevitability considering the budgetary allocation — will constrain the defence services from fulfilling their primarily role of defending the country.

Related to the issue of overall defence allocation is the proportion of the budget earmarked for capital expenditure, which is used to buy weapons and military equipment. While the budget allocates Rs 82,332 crore for pensions and Rs 95,852 crore for salaries, it allocates only Rs 78,586 crore for capital expenditure by the defence services. A significant portion of that amount, to the tune of 60 per cent, is already committed to paying for weapon systems and military platforms already bought by the defence services. Even then, the defence ministry could not spend 13.5 per cent of its capital budget for the defence services this year.

This limitation of non-availability and non-expenditure of funds for new procurement is reflected in the fact that the defence ministry has been unable to sign many new major deals this year. Rafale fighters, M-777 artillery guns and Russian frigates are prime examples of equipment where deals could not be signed.

A lot of focus in defence procurement in recent years has been on bureaucratic procedures and decision making. The defence ministry has also been very vocal about the Make in India scheme, with little to show for as results. Revision of Defence Procurement Procedure and other related policies are important but perhaps not critical to the problems. It is much

more about the resources available to the defence ministry to buy big-ticket equipment.

In simple words, the defence budget may seem high in numbers, but a large portion is committed to just paying the soldiers and ex-servicemen. There is little money available to buy new weapons, and even among that, that money is already committed to equipment under supply. This puts a serious question mark about India's national security plans. Let's hope the parliament will devote time to raise that question when it discusses the union budget.

8. CONCLUSION

The fiscal year 2016-17 marks yet another year in which defence allocation has been overshadowed by the increases in the manpower cost and more resources being allocated to other heads of budget. More disturbingly, the manpower-centric growth in the defence budget has begun eating into the capital expenditure which is key for modernization of the armed forces.

The PPC of expenditure on civil goods and defence is moving in the favor of civil goods, Indian defence has again been put on the back-foot and less money has been allotted to them, this means that India as a country has to work with high amount of diplomatic tool and techniques. The only options left to reverse the current imbalance are either to make substantial hike to the defence budget or find a scope for controlling the manpower cost so as to free more resources for modernization. The first option is easier said than done due to the already stretched budgetary position of the central government after the acceptance of the 14th Finance Commission (that has resulted in greater devolution of central taxes to the states) and the greater focus of socio-economic development of the country. This therefore leaves the second option as the only viable alternative to explore like reviewing the level of compensation, reducing employee turnover, share jobs between employees, trade time off for payroll expenses, eliminate redundancy between departments and reduce perquisites. With the present guns vs. butter scenario of India we need more budget funds to be allocated to the defence head but by not compromising the production and distribution of

civil goods, the only economic way to do so is by increasing the overall monetary resources of the country. At the present situation we are highly equipped to fight a battle but we would think twice before fighting a war.

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