

# M.A. IV semester paper IV

## Topic \*Defence and development\*

Defence can seldom ignore the standard economic problem—the need to make critical often hard resource choices. Yet the output of defence studies focuses almost entirely on professional and strategic issues, and little on finance or economics. There is a presumption in most countries that the needs of defence must be met, and often they are met without serious political debate. Defence budgets attract limited scrutiny, even in advanced countries like the US, where the general feeling is that the bigger the budget the better. In India the defence budget has at times been approved by Parliament without a debate. Given the sheer size and scale of the defence sector and its share in the world economy and trade there is a need for greater knowledge of its economics, effective financial scrutiny and debate. Developing countries such as India with significant defence sectors need the analysis and insights of defence economics. Resources are scarce, the allocation problem are acute in the face of an unfinished development agenda and optimization imperative. It holds the potential of enabling better utilisation of scarce resources, and getting a bigger “bang for the buck”, without compromising specified strategic objectives. Application of modeling and gaming theories can even assist in strategic decision-making. Insights and findings of defence economics can on the whole be expected to enhance national security.

### **\*Introduction\***

Defence and development Do these two terms go together? The defence sector has been perceived to be amenable more to professional studies and strategic analysis, rather than economic and financial analysis. This is reflected in the output of defence studies, which spans almost entirely professional and strategic issues, and has very little content of finance or economics. . Practitioners in this field are protective of their turf, and do not seem to readily welcome intrusions of financial experts and economists

On their terrain, for various reasons. Some of these reasons can be stated as:

- National security. In any matter concerning the defence of the country against foreign aggression, patriotism comes into play. Surely the activities of the defence forces should not be unduly analyzed or questioned, lest it affect their performance.
- Repository of State Power: Defence forces represent the ultimate repository of force, in the expression of state power. Particularly in many developing countries, the matter of civilian control continues to be a delicate one. There is the sense that issues relating to defence should not be probed unnecessarily.
- Strategic and Operational Requirements. These are best judged by the professionals and practitioners, and override mere financial/ economic concerns, however reasonable they may be in themselves. Surely policies or positions based on professional views and strategic perceptions cannot be second-guessed by armchair theorists and Number-crunchers.

The public and the political leadership in most countries by and large subscribe to a “holy cow” status of matters relating to defence. Particularly in less developed countries, there is a presumption that the needs of defence must be met, and these needs are generally met without serious political debate. However, this is not a perception confined to the less developed countries. Defence budgets attract limited scrutiny, even in advanced countries like the US, where the general feeling is that the bigger the budget the better. There is the spectacle in countries like India of the defence budget being passed in Parliament without debate.

In this backdrop, financial analysis of defence is always a tough, uphill task. Since public money is involved, and there are constitutional, legal and procedural requirements in most countries regarding the use of public money, this is a task that has to be done, and is being done. Economic analysis, on the other hand, is not a mandatory requirement. Economic analysis and studies relating to defence matters are virtually unheard of, except in the more advanced Western countries such as the United States of America (USA) and the United Kingdom (UK), where it is being accepted as a legitimate discipline in itself.

Are other countries, in particular developing countries, missing anything? What is the usefulness of attempting to apply economic analysis to a field like defence? Does defence economics have anything to say of relevance to the real world? If so, what are the issues that are important? How can it contribute towards tackling contemporary challenges in this sensitive domain?

Defence economics is essentially the application of economic principles and analysis to defence issues. This is easier said than done, since the defence sector has certain special features. It is largely state-controlled, opaque, and not as readily amenable to analysis as the rest of the economy. At the same time, defence is regarded as a public good in the economics literature, with significant externalities.

Various definitions have been attempted in the existing literature on defence economics. One version views defence economics as “the allocation of scarce resources to meet spending and policy goals concerning military organizations”. A broader version states that “defence economics consists of applying economic analysis to national defence issues. As economics is a science of choice, so defence economics is a systematic study of choices from among competing alternatives “In the field of defence economics, the analysis can range from consideration of almost pure economic problems to the use of economic and econometric tools, such as game theory and modeling, in strategy. Broadly, both macroeconomics and microeconomics are involved. For example, macroeconomics is used in the analysis of the defence budget, and the interrelationship of the national economy and growth with the defence sector. Microeconomics comes into play when defence industries are looked at.

In defence economics, standard economic principles are applied to the formulation of defence policy: A good exposition of this has been set out by Keith Hartley. In particular, the principle of final outputs has been explained in the following manner:

“Typically, the final output of defence can be expressed in such terms as protection, security and peace, as well as crisis management, and humanitarian aid. However, debates on defence policy usually focus on the numbers of aircraft, warships, infantry regiments and tank units. These are inputs into producing defence output. The key question is what is the contribution of each of these inputs of equipment and military personnel (capital and labour) to final outputs in the form of protection and security? Furthermore, what would be the impacts on final outputs of small changes (marginal increases and decreases) in each of these inputs?” Another important principle is the principle of substitution. The peace-keeping this recognizes that there are alternative methods of achieving protection each with different cost implications. In principle, defence policy-makers have to seek the least-cost solution to providing various defence capabilities. And then there is the principle of competition<sup>5</sup>. Competition is a means of achieving efficiency. Although the defence forces operate largely in a monopolistic framework, competition can be harnessed for the purchase of equipment and for some of the activities traditionally undertaken ‘in-house’ by the Armed Forces

### **\*Relevance of Defence and development\***

The sheer size and scale of the defence sector and its significant share in world economy and trade compel attention, and underline its importance. The world spent more than a trillion (1000 billion) US dollar on military expenditures<sup>6</sup> in 2004: Nearly half of this was spent by these alone. After a decade of overall decline following the end of the Cold War, world defense

expenditures have been on the rise since 2001. Defense spending is significant and increasing in major countries like India, China, Japan, France, the UK and Brazil.

Globally, arms sales<sup>7</sup> (excluding China) were of the order of \$ 236 billion in 2003. Similarly, the value of the international arms trade in 2003 was estimated at between \$ 38 billion to \$ 42 billion. This represented around 0.5 to 0.6% of total world trade. The top exporting countries are Russia and the USA, while the top importers are China and India. Likewise, military manpower numbers<sup>8</sup> are also impressive. Active troops in just the ten major countries number over 10 million, while if we count reserves and paramilitary forces, this number goes up to over 48 million, for the same set of countries. These figures do not include civilians employed directly or indirectly by the defence sector. Surely, these figures suggest that the defence sector is a crucial component of the world economy and is worthy of study.

### **\*National Security\***

The security of a country, whatever the posture adopted in terms varying from aggression to deterrence with preparedness, has always been extremely costly. There are indeed few countries where the defence budget does not occupy the highest place in the national economy in terms of expenditure.

“What do dollars matter when national survival is at stake?” They matter precisely because they represent (however imperfectly in some circumstances) generalized national resources at the disposal of the military. Unless they are economically used, resources will be wasted, and the nation will have less military capability... If any one dimension of military power is wastefully planned, that is, at greater than minimum cost, some other dimension will, with a given total military budget, have fewer resources at its disposal and necessarily less capability.

An economically efficient solution to military problems does not imply a cheap force or a small military budget. It simply implies that whatever the military budget (or other limitation, for example, on personnel) the greatest military capabilities are developed.

### **\*The Impact of Economic Growth on Defence\***

The level of economic growth expands development options, increases revenue raising potential and also thereby influences the degree to which a country can comfortably spend on defence. In the long run, the effective constraint on the nation's activities, including defence, can be regarded as the nation's capacity to produce, as measured by Gross National Product (GNP). The sustainability of the defence budget is a function of the health of the economy. A glaring example of this in recent times has been inability of the Soviet Union to sustain high levels of defence spending in superpower competition with the USA, in the face of a faltering economy. At the beginning of the 21st century technology offsets have become commonplace for countries undertaking major overseas arms procurement. The purpose of offsets is to ensure that a proportion of funds spent are re-invested to achieve economic development goals. As noted above, arms purchasing countries wield substantial market power.

### **\*Defence Industry\***

This is an important part of defence micro-economics. A nation's defence industry and the efficiency with which it supplies equipment are major inputs into “national protection<sup>27</sup>”. By all accounts, the size of the defence industrial base is significant. An interview indicator for defence production is the figures for arms sales brought out by the Stockholm International Peace Research Institute (SIPRI). In 2003, arms sales of the top hundred companies of the world (excluding China) were of the order of \$ 236 billion. This is no mean amount by any count. Countries seek to build up a defence industry for reasons such as:

- National independence, security of supply (self sufficiency) and responsiveness in emergencies and war.
- The need to maintain a capability which a nation believes will be required in the future.
- Foreign supply leaves the buyer vulnerable to monopoly price increases.
- Foreign supply provides equipment not tailored to a nation's requirements.
- National economic benefits.
- The desire to reduce dependence on arms imports and excessive of reliance upon one foreign nation.

### **\*Core Issues\***

Defence economics including defence and development, has been emerging, mainly in the USA and UK, as a distinct branch of economics since the Second World War. The literature on defence and development, while not prolific, has covered a number of areas relevant for defence analysis, and used a wide range of tools in the consideration of defence issues. The presumption in the literature is usually that we are looking at more advanced, democratic countries where civilian control of the military is taken for granted. Developing countries studies are there, but rarely developing country perspectives. If we look thematically, almost all the topics in defence economics can be grouped in five sets of issues. These are:

1. The Demand for Defence (Expenditure), encompassing the "Guns versus Butter" debate, and arms races
2. Defence and Economic Growth, including issues of impact and sustainability
3. Military Manpower
4. Arms Procurement and Trade
5. Defence Industry, including "Make versus Buy" issues, and those related to Research and Development.

### **\*The Demand for Defence (Expenditure)\***

In most economics primers, the "guns versus butter" example is used to illustrate the resource allocation problem. In a two-commodity economy, with a given amount of resources, the dilemma is to allocate resources either for guns (defence and security) or butter (development and welfare), both of which are equally important for the well-being of the people. How much to allocate for defence would depend on the demand for defence, in terms of expected outputs like protection from external aggression, internal security and keeping the peace. A valuation of these outputs in turn determines the demand relationship which indicates the manner in which a country allocates its resources between defence and non-defence goods (i.e., the classic guns versus butter trade-off).

### **Some of the determinants of demand may be factors like:**

- Confrontations with neighbors, due to territorial and sovereignty disputes, competition over natural resources, managing bordering ethnic peoples, instability of a neighbor.
- Multilateral and treaty obligations, including cooperative efforts with the United Nations and other coalitions and countries, including peacekeeping operations, humanitarian assistance, and disaster relief.
- Impact of trans-national issues such as terrorism, drug-trafficking, and environmental issues
- Protection of Exclusive Economic Zones (EEZs), marine resources, and fisheries.
- Protection of market access to trade, investment, energy, food, and other vital resources.
- Maintaining domestic law and order, counter-insurgency. Further, it is not always a straightforward choice between guns and butter. Guns also enable butter to be churned. The enabling environment provided by peace and security, though difficult to quantify, is

important. For example, surely a value should be placed on deterrence, a strike capability, the defence of economic zones? It can also be argued that there is need to look at the value that is contributed indirectly by defence to economically productive sectors. For example the tourist industry, which always takes a hit at the first signs of conflict, and which prospers in an environment of stability and security. Similarly, inflows of foreign investment into a country are directly affected by signs of conflict. There is also a developmental spin-off of defence industries, research and development, and employment of military personnel into the civilian economy. If decisions were to be made rationally and optimally, the demand for defence in most democratic, peace-loving countries would be based on the policy objective to offer minimum deterrence in a situation of possible conventional war of limited duration. A policy of minimum deterrence presumes that

- (a) The most effective preparedness should be determined in relation to the given threat; and
- (b) The preparedness, so determined, be procured and operated at the lowest possible cost.

### **\*The Impact of Defence on Growth\***

The defence sector has a major share of the budget in most countries, and is considered essentially non-developmental or economically unproductive. Accordingly, where defence spending is high and has a large share of the government's budget, we would expect it to act as a drag on the economy, and result in reduced rates of growth. This would be especially so in the case of developing countries where resource limitations tend to be serious constraints on the pace of development and growth. The perceived adverse effects of higher defence spending on economic growth are due to the following:

- Purchase by the defence sector of domestic goods or the use of scarce foreign exchange to purchase imported goods. This lowers the investment and consequently growth rate of civilian output. The government sector shows no measurable productivity increases, thus an enlargement in defence shifts resources from the productive sector to the non-productive sector,
- a shift of resources to defence reduces the size of the civilian non- defence sector.

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