DEFENCE AND DEVELOPMENT : INDIA'S DEFENCE EXPENDITURE IN THE 1930s

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CERTIFICATE

Certified that the dissertation entitled, **DEFENCE AND DEVELOPMENT : INDIA'S DEFENCE EXPENDITURE IN THE 1980s,** submitted by **ALICE MATHEW** in partial fulfilment of the award of the degree of Master of Philosophy (M.Phil) of this University, is her original work and may be placed before the examiners for evaluation. This dissertation has not been submitted for the award of any other degree of this University or of any other University.

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CONTENTS

PREFACE

Since the late 1980s the world order has been witness to some momentous changes. The demise of the Soviet Union and the socialist bloc have paved the way for the emergence of a unipolar world, with the US and its allies in the developed capitalist world in effective control of various world organs and seeking to implement their will on the rest of the world. The hopes of even those who believed that the end of the cold war would ease tensions world-wide and lead to a drastic reduction in military expenditures globally have been shattered. The senseless waste of resources on defence continues unabated. This dissertation begins by reviewing the defence and development debate and tries to argue that there is absolutely no economic justification for the expenditures on defence (Chapter 1). The reasons for such expenditure can only be political. Thereafter, we look at the specific case of India and seek to analyse its security concerns (Chapter 2). We follow this up with a detailed study of the trends in India's defence expenditure, particularly the expenditure since the early 1980s, together with that of the two most important military powers in its neighbourhood, viz. China and

Pakistan, and try to examine the adequacy of India's defence preparedness (Chapter 3). The concluding chapter summarizes our discussion in the previous three chapters and suggests some options for India in the present world situation.

CHAPTER 1

THE DEFENCE AND DEVELOPMENT DEBATE : AN APPRAISAL

Accepting the Nobel Peace Prize in Oslo, in December 1964, Martin Luther King, Jr, spoke of the "need to overcome oppression and violence without resorting to violence and oppression." He went on to say: "I refuse to accept the notion that nation after nation must spiral down a militaristic stairway into the Hell of thermonuclear destruction . I believe that unarmed truth and unconditional love will have the final word in reality. That is why right temporarily defeated is stronger than evil triumphant."[1]

If King were alive today, he would still have used the unarmed truth to alarm us that we all stand at the precipice of the hell of thermonuclear self-immolation. The last one-and-a-half decades have seen unprecedented global economic turmoil. A rapidly changing international economic order has had to accommodate the transformation of the financial system, including the massive increase in the price of oil, the international debt crisis, major recessions in developed industrial economies, the collapse of Third World export prices and large-scale famines and

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[1] Quoted in Patrick O' Hefferman, ed., Defence Sense : The Search for a Rational Military Policy (Cambridge, Massachusetts, Ballinger Publishing Company, a Subsidiary of Harper & Row, Publishers Inc., 1983), p.xxi.

deprivation. Yet military expenditures continued to rise in an inexorable fashion - one of the unrelenting 'growth' areas of the global system.

A general overview of global resource use would show that a considerable amount of the world's resources is taken up by defence, something like $415 billion in 1979 - and there is no sign that the upward trend is slackening. The global defence expenditure had grown at an average rate of 10.29 % in the ten year period 1978 - 1988.[2] In other words a 30 percent increase in world-wide defence spending in real terms.[3] The poorest countries of the world showed an even greater propensity to spend on armaments and security - a rise of over 71 percent in defence spending during the same period, i.e., 1978-88.[4] Global defence expenditure registered a slight decline in 1987-88, primarily because of reduction in defence spending by developing countries. In particular, the earlier high spending in West Asia reduced as the Iran-Iraq war came to

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[2] US Government, Arms Control and Disarmament Agency, World Military Expenditure and Arms Transfers 1989, (Washington D.C., 1990), p.91.

[3] Calculated from SIPRI Year Book 1987 : World Armaments and Disarmament (Oxford University Press, Oxford 1987), pp.163-78.

[4] These are countries with per capita GNP less than US $440 in 1982, as reported by the World Bank.

an end. The period between 1987-91 marked the end of the cold war and the intense East-West military confrontation. This was reflected in the global defence expenditure dropping from the 1987 level of $1012.66 billion to an estimated figure of $850.36 billion in 1991.[5] This drop resulted primarily from the reduction of defence expenditure of the U.S.S.R. and the East European countries who were members of the Warsaw Treaty Organisation which dissolved on April 1, 1991, in terms of military organisation and on July 1,1991 in political terms. The defence expenditure of certain other countries, such as India and the United States, also declined slightly during the period.

The increasing or spiralling cost of defence is hardly fatalistic for those countries that dominate world defence expenditure. Nine countries (the former Soviet Union, U.S.A., China, Germany, Saudi Arabia, France, Britain, Italy and the Netherlands) collectively account for 89 per cent of the world's total defence bill. For the developing countries the economic effect of defence expenditure is considerable as it involves the use of real resources, such as raw material, machinery, products, resources and manpower, all of which have alternative uses

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[5] Data based on Military Balance (IISS, London).

in the economic process that produces outputs for the civilian sector. In economics it is referred to as 'opportunity cost'. Such high spending on defence cannot be ignored.

The idea that defence expenditures are a burden on the economy is fairly well supported in the literature. Defence expenditure can blight economic prosperity and progress; the present magnitude of defence expenditure can only cause discomfort and can never bring actual happiness. Amartya Sen, an eminent economist, viewing defence expenditure says "from an economic point of view, the wastefullness of defence expenditure is obvious enough (so is the wastefulness of that expenditure from the political point of view, for the world as a whole). Defence spending diverts resources from more useful activities; reduces the productive potential of commodities vital for human well-being; limits the expenditure that could be devoted to eliminating poverty, hunger, disease and mortality; and so on. Even when aggregate production is demand constrained

(with the resource constraints being 'slack') the demand-expanding role of defence expenditure can be taken over by other more fruitful forms of public spending."[6]

These lines, in particular, the final sentence, need some elaboration. Private decisions to invest and expand productive capacity depend ultimately upon the anticipated growth of demand. And since the time of Keynes it has generally been accepted that when economic growth is constrained by deficiency of demand, then any activity, including absolutely unproductive ones, which create demand may spur investments and hence also economic growth. Keynes's well known example is, of course, that of employing workers to dig holes only to fill them up again. It is in a similar way that military expenditure can be expected to contribute to growth. Military expenditure may increase demand in the economy and thereby spur investment. The extent to which military expenditure will increase demand depends on several factors including the method of financing such expenditure. If the method of financing is such that it reduces demand somewhere else in the economy (for

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[6] Quoted in Christian Schmidt and Frank Blackaby, eds., Peace, Defence and Economic Analysis, for the International Organisation and the Stockholm International Peace Research Institute (London, Macmillan Press, 1987), p.450.

example, a tax on workers, which reduces their consumption of various goods) then the overall effect of military expenditure on demand may be negligible. However, as Patnaik argues, even in such a case, in so far as this switch in the components of demand entails a larger investment than would have occurred otherwise, it has an indirect effect upon the magnitude of demand.[7]

We also need to note that in a situation where the economy is already operating at full capacity output , that is, there is no 'slack' in the economy, any demand increasing activity, including military expenditure, will lead to inflation.

However, the more important point is, and this is the point that Sen also makes, that during a period of demand deficiency, demand does not necessarily have to be created through unproductive activities such as military expenditure . If it is in fact created through various productive activities then it would also benefit the people at large. For the world as a whole guns and bombs can serve

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[7] Prabhat Patnaik, "Market Question and Capitalist Development in India", Economic and Political Weekly; August, 1984, p.1252.

no positive purpose while investments in productive activities can enable many of the starving and homeless millions to live a life of dignity.

We also need to make a necessary distinction between economic growth and economic development. Economic growth, i.e., the growth in production of goods and services, cannot be an end in itself. For the mass of the people it is the composition and distribution of this output which is the important consideration. An economic system might be working largely to the benefit of just a narrow stratum within it. The masses might be deprived of food, education, health, housing, sanitation and other basic items of consumption. And it is these latter which are indicators of 'development'. Thus, a high rate of economic growth does not necessarily imply corresponding rates of economic development.

Though the distinction between growth and development is an important one many tend to lose sight of the distinction and use the terms as synonymous with one another. A large number of researchers, for instance, claim to have tested the relationship between defence expenditure and economic development, when in fact what they have tested is the relationship between defence expenditure and economic

growth. We shall, in what follows, look at some of the studies which have sought to test the relationship between defence expenditure and economic growth/development in some detail. The studies come to diverse conclusions. But from what we have said previously about the way in which military expenditure affects the rate of growth of the economy, such diverse results are by themselves not surprising. For much depends on the country or set of countries that is/are being studied, the period of such study, the precise relationships that are being sought to be tested and the statistical tools used by the researchers.

A well known study on the relationship between defence and economic growth is the one conducted by Emile Benoit in 1973. Benoit shook a lot of students of development with his book Defence and Economic Growth in Developing Countries. Particularly surprising to many was his conclusion that "the evidence does not indicate that defence has had any adverse effect on growth in developing countries. (It even suggests the possibility, though this is not strictly demonstrable, that on balance the defence programs may have stimulated growth)." He goes on to add that ".... The crucial evidence in this matter was the finding that the average 1950-65 defence burdens (defence as a percent of national product) of 44 developing countries

were positively, not inversely, correlated with their growth rates over comparable time periods : i.e., the more they spent on defence, in relation to the size of their economies, the faster they grew - and vice-versa. This basic correlation was strong enough so that there was less than one chance in a thousand that it could have occurred by accident."[8]

Benoit was as perturbed as some of his readers by the conclusions of his research. He noted that "at first sight, the conclusion that defence expenditure did not impede growth appears highly implausible if not paradoxical. It can hardly be doubted that if the developing countries had been able to get along with smaller defence programs, and had put more of their resources into highly productive investments, this would have improved their growth rates."

Benoit however found that, in practise, in most developing countries only a small part of non-defence expenditure goes into productive investments. Most of it goes into consumption, and much of the rest into social investment such as housing which may contribute more to

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[8] Emile Benoit, Defence and Economic Growth in Developing Countries (London, Lexington Books, 1973), p.xix.

consumer satisfaction than to increasing future production, or into "productive investments", which, however, are so badly managed that they operate to uneconomically high costs and contribute less to real growth than they may appear to do. And on the other side, defence programs could unintentionally contribute to growth and productive development indirectly. And therein lies the resolution of the paradox.[9]

Subramanyam feels that an elementary analysis of data will show that the view held by some that a high defence burden leads to low growth cannot be derived from facts. Looking at the figures in Tables 1, 2, 3(a) & 3(b) he concludes that there is no correlation between the defence burden and the growth rate.[10] Hence the popular idea that defence and development are alternative choices lacks substantiation. Subramanyam argues that economic growth is a direct function of productivity, saving and investment. And defence expenditure forms part of the nations consumption. To increase the rate of economic growth it would consequently be more useful according to Subramanyam, to tap 'the top 20 percent of our population'

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[9] ibid, p.xx.
[10] K. Subramanyam, Defence and Development (Calcutta : The Minerva Associates, 1973), pp.1-4.

Table 1. Defence Expenditure as Percentage of GNP (Developed Countries)

COUNTRY	1965-66	1966-67	1967-68	1968-69	1969-70
AUSTRALIA	3.7(6.1)	4.9(4.4)	4.6(8.0)	4.0(5.9)	3.6(NA)
CZECHOSLOVAKIA	5.7(NA)	5.7(5.5)	5.7(6.9)	5.6(7.8)	5.8(5.3)
FRANCE	5.6(5.6)	5.0(4.9)	4.8(4.6)	4.4(7.7)	4.0(6.0)
GERMANY (WEST)	4.4(NA)	4.3(NA)	3.6(7.1)	3.6(7.9)	3.3(5.5)
POLAND	5.1(3.2)	5.4(5.7)	4.8(9.0)	5.0(2.9)	5.2(6.0)
USSR	9.0(8.2)	10.6(8.7)	11.1(6.9)	11.0(NA)	11.0(NA)
USA	9.2(6.6)	9.5(2.8)	9.3(5.0)	8.7(2.6)	7.8(-0.7)
YUGOSLAVIA	4.5(6.4)	5.2(1.0)	6.0(3.0)	5.6(10.7)	5.4(NA)

NA - Not Available. Figures in brackets represent the rate of economic growth.
Source : K. Subramanyam, Defence and Development, 1973, p.1.

Table 2. Defence Expenditure as Percentage of GNP (Developing Countries)

COUNTRY	1965-66	1966-67	1967-68	1968-69	1969-70
TAIWAN	9.0(8.6)	7.9(10.0)	7.2(10.5)	9.2(7.8)	8.8(11.0)
IRAN	6.0(14.2)	3.9(8.1)	4.2(13.4)	4.0(16.1)	4.0(10.0)
PAKISTAN	5.3(4.3)	3.4(8.5)	3.4(4.6)	3.4(3.0)	3.8(6.7)
TURKEY	4.3(10.0)	4.4(6.2)	4.5(6.7)	4.2(6.0)	3.7(NA)

NA - Not available. Figures in brackets represent the rate of economic growth.
Source : K. Subramanyam, Defence and Development, 1973, p.2.

Table 3(a). Defence Expenditure as a Percentage of GNP (India)

	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70
Defence Expenditure	2.1	3.0	4.5	3.8	4.1	3.6	3.2	3.4	3.3
Economic Growth Rate	13.7	2.6	5.6	7.3	-5.2	1.8	9.0	2.5	5.2

Source : K. Subramanyam, Defence and Development, 1973, p.2.

Table 3(b). Defence Expenditure as a Percentage of GNP (India)

	1951-52	1952-53	1953-54	1954-55	1955-56	1956-57	1957-58	1958-59	1959-60	1960-61
Defence Expenditure	1.8	1.9	1.9	2.0	1.9	1.8	2.4	2.2	2.0	2.0
Economic Growth Rate	3.0	3.8	6.2	2.4	1.8	5.0	-1.2	7.0	1.8	7.3

Source : K. Subramanyam, Defence and Development, 1973, p.3.

who appropriate an overwhelmingly large part of the national income, and to unearth the volumes of 'black money' in the Indian economy.[11]

Agarwal too insists that there is no significant relationship between defence burden and economic growth[12]. He feels that economic growth depends on a host of tangible and intangible factors, of which the level of defence spending may be just one, and certainly not the most important one. Factors such as the form of government in power, nature of its economic policies and its success in implementing them, and its resource base may perhaps be more important in determining the pace of economic progress in a country. He feels further that not all defence spending has the same impact on the economy. He argues that the impact of the use of foreign exchange for importing military aircraft will be quite different from that of expenditure incurred towards the pay and sustenance of defence personnel. The usually scarce foreign exchange incurred for purchasing military aircraft could alternatively be used for importing technology and machinery that would increase the

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[11] ibid.
[12] Rajesh Kumar Agarwal, Defence Production and Development (New Delhi, Arnold-Heinemann Publishers, 1978), pp.16-29.

productive capacity of the economy. However, he feels that we cannot conclude by looking at the above example that military expenditure is an unnecessary and unproductive drain on the economy. Defence spending can contribute to, or compete with economic development depending on the unique circumstances facing each country.

Agarwal further tries to see whether an increase in defence expenditure leads to a cut in welfare expenditure. He finds that there is a positive correlation between the percentage of the state budget spent on defence and the percentage spent on welfare in twenty six out of thirty countries for which the relationship was tested. Agarwal found that national budgets had increased in all cases and this had enabled governments to make increased allocation for a number of heads including defence and welfare.

Raju Thomas conducted a study to test the relationship between defence expenditure and growth rate in India.[13] He felt that bureaucratic failure, natural calamities and unexpected events have led to considerable fluctuation in India's annual growth rate. In the 1960s,

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[13] Raju G. C. Thomas, Indian Security Policy (Princeton, New Jersey, Princeton University Press, 1986), pp.214-215.

the GNP growth rate was 2.6 percent in 1962-1963; 7.3 percent in 1967-1968, and 2.5 percent in 1968-1969. Similarly in the 1970s, the GNP growth rate swung from -1.1 percent in 1972-1973 to 9.6 per cent in 1975-1976 and -4.8 percent in 1979-1980. In the early 1980s growth rates showed signs of remaining high and commensurate with the high savings rate of 24 percent : 7.5 percent growth in 1980-1981, and 5.2 percent in 1981-1982. However, the growth rate fell to 1.8 percent in 1982-1983 because of unfavourable monsoon.

Thomas, therefore, argued that the degree to which defence allocations contribute to the ups and downs of Indian GNP growth rates is unclear and the benefits or losses related to defence spending remain controversial.

Lakshmi contends that, in the Indian case defence expenditure and economic growth are positively related and an increase in defence expenditure has not adversely affected the rate of economic growth.[14] She feels that it is a misconception that defence is an unproductive field and increasing defence expenditure over the years is partly to

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[14] Y. Lakshmi, "Defence and Development : An Empirical Study of India", Strategic Analysis (New Delhi, IDSA, February 1986), p.1139.

be blamed for the slow rate of growth. Since the 1950s the Indian G.N.P. has increased at a rate of 3% per annum on an average, enough to sustain defence expenditure of around 3% without any adverse impact on development. In the sixth five year plan, that is, since the beginning of the 1980s, the G.N.P. has jumped and is currently in the vicinity of 5%. During the period (1980-83) defence expenditure as a percentage of G.N.P. also registered a 0.5% increase at constant prices.

Kennedy's study of the correlation between defence expenditure and growth rate in Third World countries has more or less come to the conclusion that Benoit has.[15] Kennedy accepts that military in certain circumstances can be a net contributor to growth and development. But nothing in this view suggests that military is a preferred road to growth and development or that it is a necessary one.

There are, at the same time, a number of statistical studies which show a negative relationship between military spending and the rate of growth of the economy.

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[15] Gavin Kennedy, Defence Economics (Duckworth, 1983), pp.49-68.

Saadat Deger has challenged Benoit's view and has tried to show that there is a significant negative relationship between defence spending and investment-growth in developing countries, when all the interrelated factors are taken into account.[16] In a sample of fifty countries, Deger found that "an increase in defence spending leads to a reduction in investment as a proportion of GDP" and "since investment is crucial to growth, a rise in military burden, must have a detrimental effect on development."[17]

Deger feels that a rise in defence burden reduces the savings rate, competes for scarce foreign exchange, diverts imports from investment goods and increases the external gap (exports minus imports). Deger claims that for "a 1% reduction in military burden .... there will be approximately 1% increase in growth rate."

A study by Tehral states that "for India, the real civilian opportunity costs implied by allocating scarce resources to military purpose have been substantial."[18]

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[16] Saadat Deger, "Human Resources, Education and Military Expenditure in Developing Countries", 2nd World Congress Social Economics, August 1981, pg.5.
[17] ibid, pg.3.
[18] P. Tehral, "Guns or Grain : Macro Economic Cost of Indian Defence, 1960-70", Economic and Political Weekly, 5 December 1981, p.2001.

Tehral demonstrated in a study of the 1960-70 period that scarce foreign exchange, skilled manpower, research and development, and development funds had been substantially usurped by the defence sector. This diversion of resources, according to Tehral, had a "negative bearing" on capital formation by the central government and partly contributed to its decline from a growth rate of 2 percent of the G.N.P. in the period 1960-1965 to 1 percent during 1966-1970. Tehral's conclusion was supported in a broader study by Nicole Ball of several developing nations, including India.

Nicole Ball claims that high economic growth rate in no way guarantees socio-economic development. According to Ball, developing countries with high defence spending and high economic growth rates have usually been characterised by a high incidence of poverty.[19]

The argument that defence spending stimulates the economy through an increase in the aggregate demand is misleading because the same result may be obtained through civilian public works programmes. Ball feels that Benoit's case studies of Iran, Pakistan, Taiwan and South Korea, where he demonstrates a positive correlation, must be viewed

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[19] Nicole Ball, The Military in the Development Process (Claremont, California, Regina Books, 1981), pp.7-8.

as a consequence of the generous economic and military aid provided by the United States and the liberal domestic economic policies that encouraged private investment and growth conditions and policies that have not been part of the Indian experience.

Dumas conducted a detailed study to examine the particular economic effects of military expenditure in the U.S. context.[20] One of the important conclusions of this study was that the maintenance of high levels of military expenditure in the U.S. during the post-World War II period had massively contributed to the generation of both inflation and unemployment. Dumas discusses four important channels of causation. The first of these is the effect of military expenditure on prices through its effect on aggregate demand during a period of near full employment. We had discussed earlier how in the absence of any 'slack' in the economy an increase in military expenditure would lead to inflation because, while such expenditure adds to aggregate demand, it does not add to aggregate supply. Military expenditure neither provides goods for consumption

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[20] Lloyd J. Dumas, "Military Spending and Economic Decay", in Lloyd J. Dumas, ed., The Political Economy of Arms Reduction : Reversing Economic Decay, AAAS Selected Symposium Series (Colorado, Westview Press, 1982), pp.1-22.

nor does it enhance the economy's productive potential. Dumas illustrates this in the U.S. context for the period of the Vietnam war, when unemployment rates were very low (under 4%) and the rate of inflation more than tripled.

We had argued previously that if military expenditure is offset by taxation then such expenditure need not be inflationary. Dumas argues that the government did not resort to higher taxation because such raising of taxes for the express purpose of supporting increased military activity might have quickened public opposition, particularly during Vietnam, since the economic costs of this activity would be made more explicit. So a political sleight-of-hand approach was adopted, making the public pay through increased inflation that eroded their purchasing power, rather than though direct taxation.

The second effect works through the cost-plus system, where the military goods producing firm is paid an amount equal to its total cost of production (whatever that eventually turns out to be) plus a guaranteed profit. Thus, the firm involved not only has no risk but also has no incentive to hold its costs down. In fact, to the extent

that the firm wants to increase its sales revenue, it has a very powerful incentive to run its costs up in order to achieve the highest possible payment for its product.

Further, in the U.S. the incentive system has created a situation in which the military industry can and does pay whatever resources it needs or wants. As a result, it has bid up the price of those resources - resources like machine tools, engineers and scientists, skilled machinists, etc. Other industries which require these same resources are now faced with increased costs and feel pressed to raise their price. Thus a cost-push inflationary pressure is seen not only in the military sector but the entire economy as such.

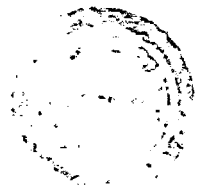
Dumas feels that such an inflationary effect has preempted a substantial amount of some of these resources with long-term effects on the health of the civilian economy.

Thirdly, Dumas considers the role that U.S. military expenditure played in affecting the U.S. international economic position directly through outflow of dollars for defence expenditure abroad, and indirectly through its effects on the balance of trade, chiefly via its

influence on the competitiveness of U.S. civilian industries in domestic and foreign markets. The entire cumulative balance of payment deficit of the U.S. for the period 1960-1970 (inclusive) was $3,5 billion, whereas over the same period, total direct defence expenditure were more than $30 billions, 86.6% of the entire U.S. balance of payments deficits during that period.

During the years 1966-70, there was a huge inflow of foreign currencies into the U.S., represented by a cumulative balance of trade surplus of nearly $62 billion. But during the same years, net military expenditures abroad were responsible for an outflow of dollars from the U.S. amounting to more than $43 billion. The outflow of U.S. currency owing to military spending abroad thus wiped out 69.9% of the balance of trade surplus during the period 1966-1970.

Dumas contends that even these figures understate the magnitude of U.S. defence expenditure abroad because they do not include outright U.S. Grants of military goods and services. However; if included, the total of almost $34 billion worth of such grants recorded during the years 1960-74 would increase the military expenditure figures given for that period by more than 80%. The data clearly



show how outflows of dollars in the form of U.S. military expenditures abroad played a major role in destroying the favourable balance of trade surplus, and contributed to the severe weakening of the U.S. dollar. This raised the price of imported goods (including oil) upon which the nations' business and consumers have become increasingly dependent in the past few years. In so far as consumer goods are directly imported from countries against whose currencies the dollar is weakening, this will contribute straight forwardly to domestic inflation. When industrial goods and resources are imported the effect of a falling dollar in raising their prices will result in broad cost-push pressure in all U.S. industries using these goods and resources (and there are many, many such industries). Thus, the massive outflow of military expenditures abroad has directly contributed to the generation of inflation within the domestic U.S. economy.

Lastly, Dumas deals with the impact of military spending on civilian technology and the implications thereof. He feels that an important fraction of the engineering and scientific personnel in the U.S. have been devoting their talents to the development of

military-oriented technology. This magnitude of technological resources has been maintained for two to three decades or more.

Since more than one-third of the nations' engineers and scientists have been seeking military-oriented solutions to military-oriented problems for the past several decades, the development of military technology has proceeded at a far more rapid pace in the U.S. than the development of civilian-oriented technology.

Dumas feels the argument that military-oriented technology development produces massive improvements in areas of civilian application and thus does not retard civilian technological progress is highly contradictory. The 1974 report of a committee of the National Academy of Engineering stated "with a few exceptions the vast technology developed by federally funded programs since World War II has not resulted in widespread 'spin offs' of secondary or additional applications of practical products, processes and services that have made an impact on the nations' economic growth, industrial productivity, unemployment gains and foreign trade."[21]

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[21] Quoted in Lloyd J. Dumas, ibid.

Moreover, the number of innovations taking place in the U.S. as compared to that in the U.K., France, Japan, and West Germany, has been very low.

The brief review above of some important studies on the relationship between defence expenditure and economic growth clearly shows the widely differing perceptions on this question. However, from what we had said earlier about the effects of any government expenditure on growth, such differing conclusions are inevitable. For much depends on the initial conditions in the economy/economies which is/are being studied as well as the method of financing such expenditure. Moreover, economic growth is affected by a number of factors other than the expenditure on defence. Consequently, any serious effort at examining the relationship must isolate the effect of defence expenditure on the growth rate from those of the various other factors. Simplistic exercises which merely compare the growth rates of military expenditure and GNP/GDP are often quite meaningless. Benoit's study is one which has no doubt made an effort to isolate the effect of defence expenditure but even in this case the reason put forth for the positive relationship is the squandering of resources allocated for non-defence purposes on unproductive activities by

developing countries in general. Benoit's argument is that if expenditure on defence in developing countries is reduced the resources that are so released will not find their way into enhancing the productive capacity of the economy. He contends that a significant proportion of military expenditure on the other hand is used to create infrastructure, goods and services, as also certain attitudes, all of which benefit the civilian sector in various ways and help economic growth. The implication of such a finding, however, is not that military expenditure is beneficial for growth but that developing countries must find ways to employ their resources in general more productively. There is no valid economic reason for the observation that resources allocated to defence are more productively used than those allocated to the non-defence sectors.

It may also be seen that almost all the studies look at the effects on growth and not those on development. The former we have said is an extremely narrow concept. Besides, it would seem almost cruel to suggest that guns and bombs would raise the level of development of an economy.

Clearly, there is no economic justification for the development of armaments and the expenditure on defence. If nevertheless billions of dollars are spent every year on defence the reasons for this can only be political. It is to an examination of these political reasons that we now turn.

II

We do not propose to go into any detail about the reasons for the tremendous growth in defence expenditure particularly since the second World War. The subject itself is no doubt extremely controversial and we shall restrict ourselves to stating, in brief, our own position.

A handful of developed countries, in particular, those who are members of the two military alliances, NATO and the erstwhile WTO, account for about 75% of the total world expenditure on defence. Within this set of developed countries two, namely, the U.S.A. and the erstwhile U.S.S.R., account for about 55% of the total world expenditure on defence. In 1985, for instance, the respective shares of the NATO, the USA, the WTO and the USSR were 52%, 32%, 25% and 23%.[22] In such a situation any attempt at analysing the growth in world defence expenditure must of necessity focus its attention on these countries. Further, we believe that the reasons for the rapid increase

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[22] Calculated from figures given in Y. Lakshmi, Trends in India's Defence Expenditure (New Delhi, ABC Publishing House, 1988), pp.157-69.

in defence expenditure in the U.S. and the capitalist bloc were fundamentally different from those for the increase in the U.S.S.R. and the socialist bloc.

Markets are crucial to the survival of capitalism and in its search for markets capitalism looks beyond national boundaries. It was this need for markets that drove the British, the Portuguese, the French, the Dutch and others to colonise vast areas of the globe in the 18th, 19th and early 20th centuries. And it is this very need for markets that continues to drive the US and other advanced capitalist countries to exercise control over the rest of the world. Such control presupposes military might. While it took directly coercive forms during the period of colonialism, in today's world the forms are often not so direct. Baran and Sweezy argue that, in the past one hundred years, America has developed its own 'empire' of effective control, based upon infiltration into industrial ownership, direct economic aid to sympathetic regimes, and also military assistance to such regimes which, of course, implies a causal factor in the growth in US military spending. They cite an impressive list of thirty-three

countries, where such neo-colonialism occurs.[23] U.S. export of military equipment in the last few decades amounted to 35 to 50 per cent of the total world export of such items.

Every effort has been made by the U.S. to subvert the independence of sovereign nations. Separatist and reactionary groups in these countries have found the ready support of the U.S. and its allies. Moreover, the U.S. has had no qualms about extending its support to some of the most oppressive and militaristic regimes in Latin America, Africa and Asia so long as they have been willing to toe the U.S. line. Such support has invariably taken the form of military aid as well.

Further, on the question of disarmament, the U.S. has taken extremely intransigent positions and has effectively thwarted a number of arms control proposals. The U.N. Conference on Disarmament and Development was postponed twice following U.S. objections and when it was eventually held, in September 1987, the U.S. boycotted it leaving no doubt about its position on the issue. The

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[23] Quoted in David Whynes, The Economics of Third World Military Expenditure (London, 1979), p.20.

Reagan Administration held that the "conference presumes a relationship between disarmament and development, which has never quite been established."[24]

In sharp contrast was the position of the Soviet Union on this issue. Brezhnev in 1978 stated very categorically "of course, we do have military plants and an army, but neither the workers nor the soldiers, associate their well-being with war; with military orders. We would very much like - to the enormous benefit of the whole society - to convert military plants, too, to the manufacture of civilian commodities, to peaceful creative goals."[25]

This difference in positions of the U.S. and the U.S.S.R. had time and again been reflected in their statements and actions. The U.N. General Assembly's resolutions on arms control, pertaining, among other things, to (1) Non-First-Use of Nuclear Weapons, (2) Comprehensive Ban on Nuclear Tests, (3) Nuclear Weapon Freeze, (4) Nuclear

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[24] Quoted in Delhi Science Forum, Darkness of a Thousand Suns : An Illustrated Account of the Causes, Complextion and Consequences of the Nuclear Arms Race (National Organising Committee, Bharat Jan Vigyan Jatha, 1987), p.38.

[25] Quoted in Delhi Science Forum, ibid, p.38.

Weapon Reduction, (5) Abolition of Nuclear Weapons, (6) Banning Chemical Weapons, (7) Scrapping of Military Alliances and Bases, and (8) Reducing Conventional Weapons and Forces, had all been wholeheartedly welcomed by the vast majority of U.N. members, including the Soviet Union, but the U.S. and its major NATO allies have consistently opposed most of them. To this day, the U.S., the U.K. and France have refused to pledge no-first-use of nuclear weapons even against non-nuclear countries. On the other hand, both the Soviet Union and China had unilaterally declared that they would never be the first to use nuclear weapons.

Further, at a time when stockpiling of nuclear weapons had reached unimaginable levels, enough to destroy the Earth many times over, a U.S. administration document argued that the "United States should develop weapons that are difficult for the Soviets to counter, impose disproportionate costs, open up new areas of major military competition and obsolesce previous Soviet investment ..."[26] This attempt at gaining absolute military superiority has found reflection in the fact that almost

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[26] Quoted in Delhi Science Forum, ibid, p.39.

every major technological innovation in offensive strategic weapons since 1945 has been first introduced in the U.S.A..[27]

Thus, the Soviet Union's military build-up as also the military aid provided by it to democratic regimes and forces had essentially been a reaction to that of the U.S. - a reaction made necessary by the fact that the alternative would have been a world in which the U.S. was absolutely free to do as it pleased, free, in particular, to destroy the socialist system and undermine the independence of other sovereign nations.

The countries outside the NATO and the erstwhile WTO account for, as we said before, a mere quarter or so of the total world expenditure on defence. A large number of these are nations which achieved independence from colonial rule only a few decades ago. Their experiences during the years of the freedom struggle had made them acutely aware of the need for building an adequate defence capability to preserve the nation's independence. They knew only too well that the threat of imperialism had far from abated.

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[27] ibid; p.20.

Border disputes have also been relatively common among developing countries, owing to social and racial tensions and disagreements over national boundaries. To some extent this may be seen as a consequence of the colonial legacy of arbitrary territorial compartmentalisation. For instance, the virtually continuous conflict between India and Pakistan as well as India's boundary dispute with China can partly be attributed to such compartmentalisation and the colonial policy of 'divide and rule'. Moreover, these arbitrary divisions have contributed to bringing about conflicts within states and demands for recognition by ethnic sub-states. An atmosphere of external danger is often created, and wars have also taken place, in an effort to divert the attention of the people from their suffering and the oppression of the ruling regimes.

In a fairly large number of countries the army, in particular, has also been used to preserve political sovereignty within the country. Baran, for instance, was convinced that arms build-up in less developed countries was primarily, if not exclusively, used for suppression of

internal popular movements.[28] In fact, in the period in which Baran was writing, i.e., 1957, there did indeed seem little possibility of a major intra-Third World conflict. The situation has no doubt changed since then, but the essential point remains that the army is used for internal security purposes, often in a very significant way.

In the years after independence a number of regimes have turned against their own people. The enormous dichotomy in terms of the distribution of wealth between the elite, who effectively control the means of production and who also possess the monopoly of political power, and the mass of the population has been primarily responsible for such a turn of events. The elite, in order to maintain its position and improve upon it, has sought to drain resources from the masses. The latter's resistance to this has taken numerous forms, including such extreme ones as demands for secession by particular ethnic groups and nationalities. In such situations the army has invariably been used to put an end to the resistance. A glaring example of the expansion of defence for the purpose of internal repression is South Africa. Military expenditure has been a tool of

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[28] Quoted in David Whynes, The Economics of Third World Military Expenditure (London, 1979), p.20.

the South African government in enforcing the obnoxious apartheid system and to prevent any strategic relationship from being formed between the indigenous black population and the anti-apartheid regimes elsewhere on the African continent.

Third World nations too have thus contributed to the arms build-up and we have discussed some of the general reasons for this. In the next chapter we shall look at the particular case of India and analyse the security concerns which have compelled it to divert a part of its valuable resources for the purposes of defence.

CHAPTER 2

INDIA'S SECURITY ENVIRONMENT

Security for any nation is a multi-dimensional concept and encompasses many facets of national endeavour and assumptions. Security in its totality is derived from factors both internal and external. The former includes the core values chosen by the state and the internal chemistry of cohesion that coalesces into "stability" of the nation. Here the economic, fiscal, environmental and societal robustness come into play and determine the ability of the nation-state to deal with external factors that impinge on national security. In examining the external factors of security, the geo-strategic location and the regional environment of a nation-state is the first security determinant. Superimposed on this layer of external consideration are the historical inheritance and experience, prevailing global strategic doctrines, regional levels of militarisation and technological capabilities and finally, the core values of the given nation-state, as contrasted or compared with the patterns that obtain in the region.[1]

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[1] C. Uday Bhaskar, "The Security Policy of India & the Role of the Indian Navy", Strategic Analysis, 7 November 1991, p.787.

Wayne Wilcox, points out that India's security when seen from the outside tends to appears favourable - the extensive Himalayan ranges separating her from China, a dismembered Pakistan, and other neighbours who are weak such as Burma, Afghanistan, Sri Lanka and Nepal. However when seen from the inside, perceptions may be that of danger, a frantic Pakistan in search of new allies, a menacing China with nuclear arms, a volatile Bangladesh, great power pressures tending to subvert India's independence in foreign affairs, and the existing state of India's economic dependence on other countries which make her vulnerable.[2]

India's strategic location bears heavily on its security. The vastness of the country - its long coastline and its unsatisfactory frontiers with some of its neighbours - makes it more vulnerable and exposed to alien aggression. Its extensive coastline spreads over almost 3,000 miles, facing the strategic expanses of water, the Arabian sea, the Bay of Bengal and the Indian Ocean. On the one side are the littoral states of East African countries, the Gulf oil states, Iran and Pakistan, and on the other side are Burma, Indonesia, Malaysia and the Indo-China states. Thus India's

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[2] Wayne Wilcox, "Nuclear Options and the Strategic Environment in South Asia", Arms Control and Foreign Policy Seminar, Rand Monograph, June 1971.

strategic location places it in the neighbourbood of several sensitive areas of the world, which has a sighificant impact on its defence policies. In the north, it has man-made frontiers, carved out after partition of India in 1947. A decade ago the country's chief security threats were confined to the nations with which it shared borders. However the international developments of the past few years have added new dimensions to India's security problem and have increased the sphere of potential conflict for the country. Some of these states have now amassed a formidable stockpile of highly sophisticated weapons which they also loan or lend to their neighbours. India can no longer remain a mere spectator to these developments because it threatens the very bases of its security.

The Chinese Threat

It may be expected that relations between two great nations, representing separate but proud civilizations and sharing a common border, will necessarily be friendly. But even Kautilya, in his concept of Mandala (or the circle of kingdoms), had envisaged that a neighbouring state will invariably be inimical (Ari), and the one further beyond, a

friend (Mitra).[3] Though India and China are neighbours, there has been little history of interaction between the two nations until this century.

China and India are both important Asian great powers, often regarded as threshold superpowers. They have the largest military forces in the Asia-Pacific region and have a common interest in seeing an end to European military influence in Asia. They share the world's longest stretch of disputed border and have not yet come to a solution as to how to divide the region between them. India, no doubt was one of the first countries to develop diplomatic relations with the People's Republic of China in April, 1950. The two had an amicable relationship in the 1950s based on their jointly developed principles of peaceful coexistence and a common background, as newly independent anti-colonial Asian states. This initially auspicious state of affairs was upset by the border war in 1962, the effects of the Sino-Soviet dispute, the Chinese annexation of Tibet,

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[3] R.P. Kamble, Kautilya's Arthasastra (New Delhi, Motilal Banarasidar, 1965), p.243.

domestic politics, their support for insurgency in India, and an emerging rivalry between the two countries in South Asia.[4]

Relations between the two countries began to improve in the mid-1970s, a period that coincided with the era of post-Mao pragmatism in China's domestic and foreign affairs. Diplomatic relations were restored to ambassadorial level in 1976 and annual talks on the border began in 1981. However from mid-1986 to mid-1987, the relations between the two countries deteriorated over disputed territory in the Bhutan-India-China triborder area. A well prepared Indian army was confident that it could prevent a recurrence of India's humiliating defeat in the 1962 border war. However, both sides pulled back from what appeared like the brink of another border war and relations have subsequently improved.

There have been no border incidents or military tension on the border since 1988. When the Indian Prime Minister Rajiv Gandhi met Deng Xiaopeng in 1988, Deng told Gandhi that India and China should forget the past and look to the future in a practical and realistic manner in order to reach a fair, reasonable and mutually acceptable

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[4] Beijing Review, no.20, 18 May 1987, p.7.

settlement of the boundary question so that peace and tranquillity are maintained.[5] The need for confidence building was recognised. Gandhi and Chinese Premier Li Peng signed accords to establish direct commercial flights between New Delhi and Beijing, to increase cultural, scientific and technological exchanges and to hold annual ministerial talks.

However, it must not be overlooked that the basic problems still remain unresolved. China continues to: 1. insist on Aksai Chin being its territory and claims that the border lies along the Karakoram range, 2. reject Sikkim's accession to India;[6] 3. claim the whole of Arunachal Pradesh.

In the middle of the 1980s, China took significant steps in opening up its economy and forging peaceful ties with many states with whom it was previously on a collision course, dismantled much of its ultra-leftist policies and engaged in active diplomacy. With the end of isolationism,

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[5] Government of India, Annual Report, Ministry of External Affairs, 1989-90, p.18.

[6] Sahdev Vohra, "Chinese Case for Aksai-Chin", USI Journal, April-June 1989, pp.137-44.

ultra-nationalism too has significantly dwindled. Relations have improved with European countries and the rapprochement with the former Soviet Union is developing.

Changes have taken place in China's strategic thinking. It has affirmed that a major nuclear war is unlikely and instead of preparing for war, it is necessary to build for peace. China has joined disarmament conferences and has on several issues such as Pakistan, Central America, the Gulf, South Africa and the general developing world issues, adopted a position akin to the Non-Aligned Movement and India's policies.

However, China has remained a major factor in militarising the region by its high profile military programme and support to the military build up in Pakistan and Thailand. The Pak-China strategic relationship remains a major factor of instability and tensions in Asia and deeply affects India's security interests.

It is in this changed scenario that China's foreign policy and military strategy as they affect India and the Asian theatre must be assessed.

No doubt India does not perceive any immediate threat to its security from China, but their relationship is nonetheless an uneasy one. India still regards nuclear China as a major threat to its security. It sees China's South Asian policies as anti-Indian, divisive, opportunistic and interfering. China is basically an Asian power. It has global ambitions. But it cannot suddenly leap to the status of a global power, so it is preoccupied with achieving its immediate goals in the Asia region. China shares land or sea frontiers with thirteen Asian countries - Afghanistan, Bhutan, Burma, India, Japan, Laos, Mongolia, Nepal, North Korea, Pakistan, the Philippines, Vietnam and the former Soviet Union. Unless it asserts itself as a power to be reckoned with, within the Asian region, global aspirations will simply be meaningless. Although China has been the only Asian member of the club of permanent members of the United Nations Security Council, and so far the only Asian nuclear power, it is no match for the United States and Russia in military capabilities, and economically it is one among the myriad in the developing world. It can hardly play a significant role in South-east Asia where American strategic influence and recently Japanese economic influence are predominant. Vietnam and for that matter the whole of Indo-China, was more close to the former U.S.S.R. than any other country in the world. The only region where China

hopes to play a role is thus South Asia. But it perceives an Indian threat to its role in the region. China no doubt wants to weaken India by playing on the fears of its neighbours like Nepal, Bhutan, Bangladesh, and Sri Lanka. India having involved itself militarily in Sri Lanka and Maldives is now looked upon with considerable suspicion by its smaller neighbours. China sees in it an opportunity to upset the strategic environment of India.

According to Norman D. Palmer, "China's basic aim, therefore, may be to weaken and humiliate India, to gain strategic superiority over its Asian rivals, to lessen Indian power and influence and to hamper India's progress."[7] It has tried to wean away, to a large extent, the countries of South Asia and South East Asia, from the influence of India to the Chinese fold. Thus, Beijing wants to contain India through establishing closer relations with India's neighbours and exploiting their bilateral problems with India to the hilt. China strives hard to inculcate a misplaced fear psychosis in the minds of the leaders of the

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[7] Norman D. Palmer, "Trans-Himalayan Confrontation", Orbis (Winter,1953).

smaller South Asian countries that India is an expansionist power and at the same time proclaims itself as their protector and saviour.

Bangladesh along with Pakistan and North Korea is a principal recipient of Chinese arms. The Bangladesh army possesses 20 Chinese made T-59 tanks, the air force has 18 Shenyang J-6 FGA (Fighter Ground Attack) and C J-6 training aircraft and the navy is equipped with 14 Chinese built FACP (Fast Attack Craft Patrol) - 6 H Air and 8 Shanghai I, and 4 Chinese - made FACG (Fast Attack Craft Gun) - 0.24 Hegu with 2HY - 2ss M.[8]

Nepal is a landlocked country in the central Himalayas. On three sides it is surrounded by India and to it's north is Tibet. It's only outlet to the sea is through Calcutta, India has provided it transit facilities for overseas trade and import of all materials that the Nepalese need for their survival. Nepal is a buffer state, though not so effective geographically because of its narrow size and depth, between India and China. Thus for Nepal it is almost mandatory to follow such policies as would ensure its neutrality and equidistance to both. The Chinese can cross

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[8] In IISS, The Military Balance (London, 1986-87), p.84.

into Nepal through their developed road system and pose a threat to the Indo-Gangetic plains as the physical depth of Nepal is inadequate to impose long lines of communication problems to China. Thus China causes a security threat to India through Nepal. But on the other hand Nepal remains a geographic extension of India. As a result it has to be an integral part of the defence system for the perimeter defence of India.

India has a treaty relationship with Nepal for its own security against China. Thus, India is involved in the evolution of the national strategy of Nepal, including foreign policy. China has accepted very grudgingly the position of India, yet it has played the Nepal card so well as to keep Indo-Nepalese relations very tense for the past 25 years. China has made sure that Nepal does not align itself fully with India. Since the Nepalese are economically dependent on India, it has to have political coordination with India. It is imperative for India to ensure that Nepal is not used as a tool for the anti-Indian policies of countries outside South Asia. Encouraged by the U.S.A., China, Israel and Britain have been exercising political pressures in the garb of providing economic aid as military training help.

Burma is very important to India geostrategically, as the old Burma Road of the second World War still links China through Burma with the Tirap district of Arunachal Pradesh. The Chinese can pose a threat to the Brahmaputra valley through Burma. This is a more manageable approach as the high altitude of the Sella axis can be avoided. India's geopolitical interest lies in having an independent, democratic and friendly Burma.

However, China has as not yet been able to create any serious rift between India and Burma. China, in fact, had promoted insurgency in Burma like it had done in the North East states of India. India has no outstanding problems with Burma. Their borders have been demarcated except at the trijunction where the Indian, the Burmese and the Chinese borders meet.

The Pakistan-China strategic relationship forged in 1963 remains a major factor of instability and tensions in Asia and deeply affects India's security interests. Today, their relationship has acquired a new dimension owing to the extent of involvement of China in Pakistan's search for a nuclear weapons programme.

China has been one of Pakistan's main military equipment suppliers since the mid 1960s. Arms transfer from China to Pakistan from 1966 to 1980 amounted to more than $630 million.[9] The nuclear collaboration between China and Pakistan was brought to light in 1982, when several intelligence reports leaked to the American press said that China has made available the design of an atomic weapon to Pakistan. On September 15, 1986, a formal agreement on cooperation in the nuclear field between Pakistan and China was established. The same year China agreed to provide a slightly modified version of F-7, also known as J-7, aircraft frames which can be fitted with either Pratt and Whitney 1120 or General Electric F-404 engines from the U.S.. This jet envisaged as Pakistan's LCA (Light Combat Aircraft), will also carry American avionics and armaments. Thus the involvement of China in Pakistan's nuclear weapons programme indicates the level of commitment to Pakistan's security. This commitment leads one to believe that in the event of an outbreak of war between India and Pakistan, China would surely align with Pakistan, so long as it

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[.9] Yaceo Vertzberger, "The Political Economy of Sino-Pakistan Relations : Trade and Aid, 1963-1982", Asian Survey, May 1983.

remained convinced that neither the US nor Russia would intervene. This possibility may pose serious threat to India's security.

On 18 May, 1989, the CIA director, William Webster told the U.S. senate governmental affairs that China is providing assistance in the development of Pakistan's Haft missiles.[10] The reports of Chinese assistance in Pakistan's missile programme seems to be valid, for Pakistan is believed to have signed a memorandum of understanding with China in 1989 for a ten year cooperation in the field of military procurement, R&D, technology transfer and co-production.[11] There have been a number of reports which suggest that Pakistan tried to procure M-9 missiles in the past and that it has already purchased M-11 missiles from China. This has contributed to missile proliferation in South Asia.

China has become the second largest supplier of nuclear weapons and weapon manufacturing technology to Pakistan. The U.S.A. and China also became a party to the

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[10] Ruchita Beri, "Ballistic Missile Proliferation", Asian Strategic Review 1991-92 (IDSA), p.177.

[11] IISS, The Military Balance (London, 1991), p.154.

subversive policy of Pakistan under which the Sikhs from Punjab, the Muslims from Kashmir and the Mujahideen from Afghanistan were undergoing training in hundreds of camps established in Pakistan. All these activities seriously vitiate the security environment of India.

Another major cause of concern for India from China and Pakistan is the glaciated region of Siachen. This region has always been of strategic importance. West of Siachen is Pakistan-occupied Kashmir and to the east is the disputed Indian territory of Aksai Chin, at present under Chinese control; and north of it is the area ceded to China by Pakistan. The Chinese interest in the region is that it would provide a cushion to Chinese positions in the area and de facto occupation of Siachen by Pakistan would weaken any future Indian negotiations on border issues with China. The Pakistani perception is that if Siachen comes under their control they would be in an advantageous position, for its possession would lead to their domination of Nubra Valley, sandwiched between Siachen Glacier and Northern Ladakh and the routes going down to Leh.

To avert any threat, the Indian army occupies a commanding position in the region. The Indian presence leads to effective control over the Nubra Valley and routes leading to Chinese territory.

Since both China and Pakistan are interested in this region, China may blackmail India with a threatening military posture, to help Pakistan annex this region. So, India has to be very careful to avoid any Chinese contingency in the northeast.

China's Policies of Arms Transfers

China's policies of arms transfers has been a source of security concern to India. Almost all the countries around India are recipients of Chinese arms ranging from small arms to Intermediate Range Ballistic Missiles (IRBMs). Transfer of technology from (and to) China has constituted an important element of upgradation of military power in our neighbourhood. China has become the fourth largest arms exporter in the world. Chinese arms, sold at "friendly" prices and on easy terms of payments, are capturing markets in various countries in South-East Asia, West Asia, Africa

and South America. Defence experts estimate their worth to be over two billion dollars per year in about 40 third world countries.

The eight year old Iran-Iraq war provided an excellent opportunity for arms exports, though China remained neutral in the conflict. Amid official denials and angry protests by the US administration, particularly over the supply of "Silkworm" missiles to Iran, China continued to sell arms through North Korea.

Pakistan which has nearly 70 percent of its military assets supplied by China, and has co-production and arms transfer arrangements with the U.S.A. and Turkey, has entered into a ten year Memorandum of Understanding for cooperation with China in the field of military procurement, R&D, technology transfer, and co-production. Pakistan's surface-to-surface missiles - Hatf I and Hatf II - are reported to have been developed with Chinese assistance. At the same time, besides acquiring military technology from the West, China has been seeking to modernize its defence industry with Soviet (now Russian) assistance, and negotiations on transfer/production of advanced Soviet weaponry (like the Su-27, Mig-29 and Su-24) are believed to be in progress.

Bangladesh is also one of the recipients of tanks as well as fighter aircraft, missile boats and patrol boats, which are all part of Chinese high level exports.

Chinese arms are being exported to Nepal upto the extent that Nepal hopes military related economic aid will increase military potential. Supplies already made include antiaircraft guns, medium range missiles, AK-47 rifles, huge quantities of ammunition and uniforms, boots etc.

The supply of the medium-range Chinese missiles to Saudi Arabia is seen to be more dangerous as these can hit targets not only in Iran & Israel, but also in the former Soviet Union and India. China does not have any diplomatic relations with Saudi Arabia, yet it has sold missiles to them and Pakistan seems to have been the mediating agent. Transfer of Chinese missiles to Saudi Arabia will only heighten the arms race and tension in the Gulf and West Asia and it has long term serious implications for India's west-side security sphere.

China's Nuclear Programme

By 1961, following the Sino-Soviet rift, when the last batch of Soviet technicians left China, the Chinese people had gained enough experience to establish a series of Atomic Reactors, as well as the institute of Atomic Energy at Beijing and Shanghai. China detonated its first nuclear weapon on 16 October, 1964, in Xinjiang Desert, 150 kilometres north-west of the Lop Nor marshes. The event was described as "a major achievement." The official explanation was that China had become a nuclear weapon state after a decade of struggle to strengthen its defence and to "oppose the US imperialist policy of nuclear blackmail and nuclear threats."

The day after the explosion, Premier Zhou Enlai called for "complete prohibition and thorough destruction of nuclear weapons" stating that although China had been "compelled" to conduct nuclear testing and develop nuclear weapons, the Chinese government solemnly declared that "at no time and in no circumstances (would) China be the first to use nuclear weapons."

China's nuclear capability grew steadily after 1964 and now the nation possesses a nuclear weapons inventory which according to some estimates is greater than that of the French and British strategic forces combined. Since 1964, China is said to have conducted 37 known nuclear weapon tests. The latest Chinese test conducted on 21 September, 1992.

On December 10, 1992, China conducted an operational training exercise test of a sea-launched ballistic missile (SLBM) which impacted in the reaches of the East China sea, about 400 km. north-east of Taiwan. The surface distance the missile is estimated to have travelled from the launch point to the area of impact, is 1480 km., slightly over half of its estimated full range capability. By now the range has probably increased to a considerable extent. During 1987, China initiated a programme of major reform in the military that would reduce its size but eventually increase its combat capabilities. Consequently, there was emphasis on qualitative, rather than quantitative improvements. However, the US intelligence community predicted in 1986 that China's nuclear arsenal will double by 1996. This could mean that China would have some 600-700 warheads, including MIRV ed missiles. Presently, China is continuing to carry out R&D efforts on a number of nuclear weapon

programmes and to keep as many options as possible open for the future.[12] A recent survey completed at the US Natural Resources Defence Council, by a nuclear weapons expert, Stan Norris, shows that China has between 250 and 325 nuclear warheads of at least five different yields, explosive power, and designs.[13]

A contract for the supply of a 300 MWe PWR was signed by China and Pakistan on 31 December 1991. The reactor would be under IAEA safeguards and is likely to cost around $500 million. It is scheduled to be completed before the year 2000. Under the agreement China will also supply all fuel for the new unit. Two subsidiary contracts were also signed by the PAEC and the China National Nuclear Corporation on February 22 relating to the Chashma nuclear power plant.

Today China has operational nuclear forces in the form of IRBMs (2500 km. range) deployed in Xijang and MRBMs (1800 km. range) at Xijang and CSS-3 with a range of

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[12] Quoted in SIPRI, US Congress Joint Economic Allocation of Reserves in Soviet Union and China - 1985. Hearing 99th Congress, II Session Senate Hearings (US Government Printing Office, Washington D.C., 1986), pp.99-252.

[13] ibid.

3200-3800 km. at Qinghai. And the testing of CSS-4 (13000 km. range) ICBM in May, 1980, has added a new dimension to the threat posed by China.[14]

To safeguard their nuclear installations, their hard and soft targets, China has established tracking stations in Xijang covering Central Asia, and at Shanxi covering the western border. To cover the sites for IRBMs and NRBMs, a ballistic missiles early warning phased-array radar complex has been established at Xinjiang. China has developed an Air Defence system to defend the Chinese skies. This includes 6000 naval and air force fighters. In addition to this defensive layout, China has about 100 SAM units and approximately 16,000 ack-ack guns capable of limited defence on key urban and industrial areas, military installations and weapon complexes.[15]

Though the Chinese air force is considered to be inferior to India's in the face of the induction of Jaguars, MIGs and Mirage 2000 into the Indian air force, it has the advantage of being more in numbers. The Chinese air force

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[14] Pradyot Pradha, "People's Republic of China : A Security Threat to India", Strategic Analysis, January 1988, pp.1196-97.

[15] ibid, p.1198.

has some 5000 aircrafts and the probable number it can deploy against India could be between 200-500. Conversion of its TU-16 bombers and AN-12 transport planes into tankers for air to air refuelling of its frontline combat aircrafts would result in an increased number of military and civil installations in India coming within the range of the Chinese air force. If China extends this facility to Pakistan, it would be an added cause of concern for India.

China is very secretive about the magnitude of its technological advances. We have to rely on the data provided by World Military Balance. It is considered to be unbiased. According to the World Military Balance 1991-92. China has:

Strategic missile forces : offensive (strategic rocket units) : 90,000.

Missiles: 1 in 6 Army with bde/vegt : varies by missile type. ICBM ; 8

2 CSS - 4 (DF - 5): Mod tested 1 MIRV.

6 CSS - 3 (DF 4),

IRBM : 60 CSS - 2 (DF - 3), some updated.

Submarines : 1

SSBN : 1 Xia with 12 CSS - N - 3 (J-1)

(Note: The Chinese SSBN programme is continuing but extremely slowly)

Defensive :

(a) Tracking stations: Xinjiang (Covers Central Asia) and Shanxi (northern borders),

(b) Phased - array radar complex . Ballistic missile early warning.

This indicates an increase of two ICBMs (DF-4) and 10 IRBMs (DF-3) compared with the data for 1988-1989 - that is a 21.4 percent increase in three years.[16] What is significant is that China was increasing its IRBMs after the INF Treaty abolishing IRBMs was signed by the USA and the USSR. Thus, the continuing modernisation of the Chinese missile force and its policy of exporting missiles and missile technology have raised the concerns of the countries in Asia, particularly India.

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[16] IISS, The Military Balance, 1988-89 (London), p.43.

The Threat from Pakistan

The origin and history of Pakistan is based on the plank of unrelenting hostility towards India. At the time of partition, a Muslim majority state, Jammu and Kashmir, acceded to India, which Pakistan felt should have been a part of their territory. India and Pakistan have gone to war thrice, yet the problem has remained unresolved. The 1971 Indo-Pak war culminated in the Simla Agreement, under which disputes were to be resolved bilaterally. Further, under this agreement both parties had agreed not to change the Line of Actual Control in J&K. However, Zia's government did not consider this agreement sacrosanct.

Pakistan has exploited its geopolitical advantage to become the frontline state of US global policy vis-a-vis the USSR. In Afghanistan it had agreed to fight a proxy war for the USA, against the USSR, in that country, house all mujahideen, train them and launch them back into Afghanistan. For this Pakistan has been receiving military aid from USA and China and economic aid from Saudi Arabia. In addition it has received money running into billions of dollars from USA, Saudi Arabia and other Muslim countries in the garb of funds for the Mujahideen. Pakistan has been

continuously receiving military aid from USA, China and West Asian countries. Pakistan has used the Kashmir issue to spread hate-India sentiment amongst their co-religionists in South-Western Asia including the Arab countries who are amenable to Islamic nationalism. Pakistan's unabashed support to seccessionists in Kashmir has plunged the two countries into an unprecedented confrontation which will have far reaching implications for peace and security in the region.

PAKISTAN'S NUCLEAR BUILD-UP

Indo-Pakistan hostility is threatening to assume a nuclear dimension. Of late, Islamabad has been quite forthcoming about its nuclear capability, though ambiguity and confusion is very evident in the contradictory statements of Pakistani leaders. In a March 1987 interview with a British newspaper (The Observer), Dr. Abdullah Qadir Khan, doyen of the Pakistan nuclear establishment who heads the nuclear enrichment facility at Kahuta, near Islamabad, admitted that his country already has an atomic bomb and would be prepared to use it if its existence was threatened. A short while later in a Time magazine interview, President Zia-ul-Haq confirmed, more or less, what Dr. Khan had

already revealed : "You can virtually write today that Pakistan can build a (nuclear) bomb whenever it wishes... once you have acquired the technology, which Pakistan has, you can do whatever you like".[17] General Zia also implied that the uncertainty and confusion about what was going on at Kahuta was Pakistan's calculated policy to keep up the guessing game.

As a result of Pakistan's disclosures and various foreign press reports backing them there is tremendous pressure on the Indian government to go nuclear. This was clearly reflected in a statement in the Indian Parliament on April 27, 1989, by the then Defence Minister, K.C. Pant, who said, "The emerging nuclear threat to us from Pakistan is forcing us to review our options." And he added, "I am sure the House does not expect me to detail this option as our response will be adequate to our perception of the threat." Pant also sought to put Pakistan's nuclear quest in the larger context of its links with the US and China.[18] The US, he said, had ignored Pakistan's search for nuclear capability and had continued to supply it with a whole range of highly sophisticated conventional weaponry. He

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[17] Time (Australia), 30 March 1987), p.42.
[18] Khan's interview is quoted in Times of India, 2 March, 1987.

maintained that over the previous year the "linkage between the U.S., China and Pakistan, with anti-Indian overtones, have become more and more pronounced." He gave as an example, "the plan to update F-7 fighters (Chinese plane supplied to Pakistan) utilising U.S. technology, Chinese air-frames and Pakistani defence facilities."[19]

According to Stephen Cohen, "a Pakistani nuclear capability paralyzes not only the Indian nuclear decision but also Indian conventional forces and a brash, bold Pakistani strike to liberate Kashmir might go unchallenged if the Indian leadership was weak or indecisive."[20]

There is another wider dimension to Pakistani nuclear doctrine. Islamabad believes that its bomb will also be an Islamic bomb. Bhutto, who took the decision to launch Pakistan on its nuclear path, said, "We know that Israel and South Africa have full nuclear capability. The Christians (and the) Jewish and Hindu civilizations have this capability. The communist powers also possess it. Only the Islamic civilization was without it, but that position was about to change." President Zia had said the

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[19] ibid.
[20] Quoted in K. Subramanyam, "A Bomb We Cannot Ignore", Times of India, Sunday Review, 18 March 1984.

same thing, "China, India, the USSR and Israel possess the atomic arms. No Muslim country has any. If Pakistan has such a weapon it would reinforce the power of the Muslim world."[21]

The main aim behind the U.S. policy of equipping Pakistan's armed forces with all modern sophisticated weapons was to cultivate Pakistan as a military ally in its global strategy in South Asia, South West and West Asia. In the mid-fifties and early sixties, Pakistan was not only advanced U.S. weapons like Sabre Jets, Palton tanks and submarines but also economic and military aid. U.S. interest in Pakistan declined rapidly following the shift in the U.S. strategy of land-based confrontation in the northern tier to the naval strategy in the Indian Ocean with its focus on the Gulf.[22] Iran became the focal point of U.S. strategy in the region. Pakistan had, therefore, to switch over to China for augmenting its military capability. The Sino-Indian conflict and China's policy of indirect confrontation with India in South Asia helped to forge that strategic link between China and Pakistan. The link is

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[21] Asian Survey, vol.28, July-December 1988, p.72.
[22] S. Nihal Singh, "SAARC and Indo-Pak Ties", Monthly Public Opinion Survey, vol.xxxiv, no.4, January 1989.

sustained by both of them even today. In the 1970s, Pakistan took the help of the Gulf states also in its military modernisation programme. During these years, Pakistan had limited military help from the United States.

In the 1980s, Pakistan once again acquired a strategic role in the context of U.S. strategy in South-West Asia. Despite the earlier rejection of U.S. aid offer of $400 mn as peanuts by President Zia during the Carter regime, Pakistan was able to get a $3.2 bn aid package for five years. Half of this was military aid.

Period	U.S. Military Aid to Pakistan	Average Per Year
1953-61	$ 508.2 mn	$ 62.5 mn
1962-81	$ 208.0 mn	$ 10.4 mn
1982-87	$ 600.0 mn	$320.0 mn
1988-94	$2000.0 mn	$330.0 mn

Source : K.R. Singh, "Indian Security Environment in the 1990s", USI Journal, pp.37.

In 1987, the U.S. agreed to supply AWACS aircrafts to Pakistan. In addition, the Grumman corporation of the U.S. was reportedly studying the feasibility of equipping

the China made F-7Mm fighter aircraft with an American engine and other equipment for Pakistan. The project involved construction of a completely new aircraft in collaboration with Chengdu Aircraft Corporation of China. The U.S. also indicated its desire to lease Grumman E-2c early warning aircraft to Pakistan. Pakistan also requested the U.S. for the supply of Chinook helicopters, CH-47D international and CH-47C. There were also reports in the same year about the possibility of sale of three Royal Navy Type-23 frigates to Pakistan.

In early 1988, Pakistan reportedly acquired an unspecified number of helicopters from the US in order to improve its military position at the Siachen Glacier. In April 1988, the U.S. indicated its intention to sell Pakistan General Dynamic F-16C/D fighters and the support equipment and also offered to sell an unspecified number of M1A1 main battle tanks. A few months later, Washington and Islamabad agreed to set up a joint committee to study and explore the requirements for modernisation of the Pakistan navy. Such an agreement came about at a time when the Pakistan government had embarked upon a programme of naval modernisation that included an effort to acquire a nuclear powered submarine from either the US or UK and a plan to acquire additional number of destroyers, long-range maritime

patrol aircraft, submarines, coastal defence missiles and improved versions of ASW equipment. Talks between Pakistan and a Canadian company was already going on since early 1988 for the supply of a hybrid/conventional submarine to Pakistan.

In 1991, the U.S. continued large-scale sale of military equipment to Pakistan despite the imposition of the Pressler Amendment. The value of the equipment of the likely sale of such equipment in 1992 was estimated to be $80.148 million. Besides this sale, the U.S. Administration allocated $106.595 million for Pakistan as security assistance by way of grant and another $6.961 million loan on concessional terms.[23]

The dependence of Pakistan on the U.S. for military aid is tremendous. Inspite of statements made by A.Q. Khan about Pakistan's possession of nuclear weapons and using it whenever its existence is threatened, and inspite of the Symington amendment prohibiting military sales to countries engaged in the development of nuclear weapons and in which

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[23] Jasjit Singh, "The Growing Offensive Capability", Strategic Analysis, February 1988, p.1229.

human rights are violated, the United States gave military and economic aid worth $4.02 billion over the 1987-1992 period. The U.S. has been reassuring India that these nuclear weapons would not be used against India. U.S. claims that it is helping Pakistan just to avoid Pakistan from making its own nuclear weapons. India no doubt cannot get assured by such statements as it threatens its security.

CHINA - PAKISTAN NEXUS

China has become the second largest supplier of weapons and weapons manufacturing technology to Pakistan. China is using Pakistan's strong ties with the Muslim and Arab world to extend its reach deep into West Asia. On 25 April, 1988, Pakistan announced that it had tested two types of Ballistic missiles (BM) named Hatf-I and Hatf-II. Hatf-I is a single-stage BM, with a weight of 1,500 kg. and a range of 80 km. (developed in 1987). While Hatf-II is a two stage ballistic missile with a weight of 3,000 kg., and a range of 280 km. (developed in 1988). Pakistan could not have produced these missiles on its own as it has limited technological base. There are reports which suggest that Pakistan developed these missiles with the help of France

and China. In 1989, Pakistan is believed to have signed a memorandum for a 10-year cooperation in transfer and co-production. A number of reports have suggested that Pakistan tried to procure M-9 missiles in the past and has already purchased M-11 missiles from China. In April 1990, according to the US naval intelligence reports, the PRC was planning to sell theatre ballistic missiles, most likely M-93, to Pakistan. In February 1991, it was reported that during the visit to Beijing, the Pakistan military delegation led by Army Chief Aslam Beg was expected to pursue negotiations for the purchase of M-9 missiles as a part of general discussions on enlarging defence cooperation between the two countries.

THREATS FROM THE INDIAN OCEAN

The Indian Ocean is one of the five great Oceans of the World. It has become an area of considerable strategic importance over the past decade or so. Once a vital lake for the very existence of the British empire, it is a very important zone for the security of many countries bordering it. To India, the security of this region is of paramount importance, as Ocean routes carry the bulk of her overseas

trade. If these routes come under the control of countries not friendly to India, this would threaten her independence, peace and security.

The Indian Ocean is the third largest of the world's oceans. It covers nearly 72,000,000 sq. km., i.e., 14 per cent, of the earth's surface, and span the continents of Africa, Asia and Australia and all the island territories. More than 65 per cent of the world's oil reserves and 31 per cent of natural gas reserves are in this region. The region is rich in minerals and uranium, which are of vital strategic importance.

India has a coastline of over 7,000 km., which occupies a central dominating position in the Ocean. All the countries in the Indian Ocean littoral, except Australia, are developing countries. They are dependent on economic aid, technologies, arms and weapon systems from industrially advanced countries.

In view of the richness of this area in terms of raw material, ocean resources and population, the industrialized nations, have a strong interest in this region. Furthermore, on account of most of the littoral states being weak, both economically and militarily, the super-powers

came to play a dominant role in this area. They established military bases at crucial points in the India Ocean in order to secure strategic advantages against rival powers, and some space for intervening in the internal affairs of the countries of the area or in disputes among them. There have been persistent moves by the countries of the region for declaring this Ocean as a Zone of Peace but unfortunately it continues to remain a playground for the big powers.

In order to achieve its objectives the USA safeguards the political, economic and military interests of its allies and client states in the region and has a permanent presence of the Rapid Deployment Force under its central command, with advance command headquarters at Diego Garcia. This base maintains sea-based nuclear deterrence against the former USSR and others. The political interests of the USA emanate from its geo-economic interest to import oil, export arms for a big price and import strategic minerals for the Western economies. The US has a permanent presence of its air force, army and navy within the Indian Ocean littoral areas. In order to have support areas for forward deployment, it has fully prepared and protected bases in South Africa, Somalia, Egypt, Kenya, Oman, Saudi Arabia, Pakistan, Thailand, Singapore, Australia and Israel. These bases are designed to have adequate control to project

US power and keep the sea-lanes open for communications. These bases permit extensive use of air power to stall a ground war. Yet these bases permit the American forces to be near the desired area of influence and put an amphibious force ashore, if required. Most importantly, these bases permit ship repair, refuelling and rest areas for the vast nuclear propelled, nuclear deterrence submarine force, deployed by the US in the Indian Ocean.

The Gulf War has given an opportunity to the US to strengthen its presence in the Indian Ocean. Thus, Diego Garcia and all other US bases will remain active and a source of security threat to India.

The Soviet interest in the Indian Ocean also emerged from national security considerations as well as commercial interests. For Russia, the Indian Ocean is important as major trade routes from the Black Sea and the Baltic ports to South Asian and South-east Asian ports run through this ocean. Russia has the largest merchant fleet. In order to spread its influence in the littoral states, the USSR provided or sold arms to these countries. It helped the USSR to gain access to military facilities of its client states.

While the Chinese navy is capable of showing its effective presence in the western Pacific Ocean and the South China sea, its capacity to perform such a task in the Indian Ocean is marginal.

The Chinese submarine force with SSNs deployed in the Indian Ocean could also pose a security threat to India. China is already developing land-attack, submarine-launched missiles. If China makes use of Pakistan's maritime facilities it could pose a very serious security threat to India.

India, no doubt, is increasing its naval capability to meet the potential challenge of the big powers. Thus it has to have adequate anti-submarine capability to protect its vital targets from submarine fired missiles. The Indian navy has to be supported by observation satellites, ocean surveillance satellites and marine reconnaissance capability. It has to have its own strike capability to forestall threats to its vital areas. Such a navy has to be backed by ships capable of firing long-range missiles.

Sri Lanka, formerly known as Ceylon, an Island with an area of 25,332 sq. miles and a population of 10 million, appears on the map like a pendent dangling from the tip of

the triangular land mass of India. Sri Lanka's geopolitical location is another important factor that compels India's anxiety over any destabilising development in the Island. Often described as the fulcrum of the Indian Ocean, Sri Lanka is barely thirty miles from the southern tip of India.

The single issue that constraints the relationship between the two is the Sinhalese-Tamil ethnic conflict in Sri Lanka which broke out in the summer of 1983. As a result of the conflict, more than 140,000 Sri Lankan refugees, political immigrants, and leaders of Lankan Tamil organisations have settled in the Indian state of Tamil Nadu. Jingoist and separatist sentiments also intensified among the Indian Tamils. Sri Lanka's invitation to Pakistani, British and even Israeli military forces created the danger that the conflict would be internationalised. The Indian government repeatedly offered assistance for a peaceful settlement through political means. Finally on July 29, 1987, in Colombo, Rajiv Gandhi and Julius Jayawardene signed an agreement on the integration of the northern and eastern provinces of Sri Lanka, with their predominantly Tamil populations, into a single autonomous region (to be verified by a referendum), cessation of hostilities, disarmament of separatist units, political amnesty and the return of the refugees. To assist in the

implementation of the agreement, Jayawardene invited the Indian troops (IPKF) into the country and Indian warships began patrolling the coastal area to prevent arms smuggling.[24]

The IPKF's task was perceived to be simple as India thought that the LTTE could be persuaded to surrender arms to the IPKF. However, the IPKF operations turned out to be very costly to India in terms of lives, materials and money. The failure of Indian intelligence made India commit itself to a task in a "no-win" situation. Counter-insurgency operations are time-consuming and politically risky ventures. The Indian forces found themselves in an extremely complex political environment. They were eventually fighting against the LTTE, which was not the original objective. Consequently, Sri Lanka wanted IPKF to withdraw.

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[24] Manoj Joshi, "A Base for All Seasons : How LTTE Used T. Nadu", Frontline, 3-16 August, 1991, pp.21-23.

On the Sri Lankan government's demand the V.P. Singh government decided to withdraw the IPKF from Sri Lanka. But the withdrawal of the IPKF did not bring any kind of a settlement, and the LTTE and the Sri Lankan forces again came to fight each other.

Inspite of moral and material assistance, there has been an inflow of more than 3 lakhs Tamil refugees into India. More than 2000 civilian casualties have taken place since the withdrawal of the IPKF.[25] It is in the national interest of India to have this problem resolved, normalise Indo-Sri Lanka relations and secure the return of refugees to their homeland.

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[25] Manoj Joshi, "With Savvy, from Sri Lanka". Frontline, 6 November, 1992, p.41.

CHAPTER 3

INDIA'S DEFENCE EXPENDITURE IN THE 1980s

We said in chapter 1, that expenditure on defence does not serve any economic purpose directly. It is in a sense a diversion of resources from vital civilian needs. At the time of independence, therefore, India had to make a crucial decision, namely, how much of its resources should it spend on defence. The vast majority of its population was poor and underfed, millions were homeless and lacked the basic conditions of a dignified existence. The magnitude of the economic problems that independent India inherited from the British colonisers was such that a vast amount of resources would be required to bring about some improvement in the situation.

At the same time India could not turn a blind eye to its security concerns. How these concerns have developed over the years has been outlined in chapter 2. Before we undertake a comprehensive appraisal of India's defence expenditure, it is necessary to study the trends in defence spending of our main adversaries, namely, China and Pakistan, with whom India has already fought four wars. Much of India's defence spending depends on the military build-up in these countries.

China's Defence Expenditure

China is the only major country that provides no details of its military and military-related spending; and no scrutiny is possible. International estimates are at best useful for showing trends in defence expenditure and enable rough comparison between different periods in the People's Liberation Army's (PLA's) growth since the mid-1960s. However, such estimates when used for comparative studies of military expenditures of different countries raise major problems of accuracy and correct methodology. The Stockholm International Peace Research Institute (SIPRI) has stopped estimating Chinese military expenditure since 1986, SIPRI had stated : "it is believed that the sums announced (under defence budget) cover only manpower costs, while procurement and Research and Development (R&D) are financed within the budgets of the ministries of machine building. The composition of the Chinese national budget is such that it can also be assumed that certain investments take place through off budget accounts."[1] SIPRI has also made a gross error in representing data. China's total government expenditure (as

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[1] Quoted in Jasjit Singh, "Trends in Defence Expenditure", Asian Strategic Review (IDSA, 1991-92), p.40.

given out by the Chinese Statistical Bureau) is represented as the central government expenditure.[2] SIPRI analysis, therefore, stands on fundamentally false assumptions.

The Military Balance (IISS, London), an international estimate, merely reproduces the Chinese official defence expenditure (ODE) in current Yuans and converts them to current US dollars. These figures, scientifically cannot be the basis of either international comparisons or accurate estimation of what is actually spent on the Chinese military. Other reliable international estimates available for the purpose are only those provided by the US Arms Control and Disarmament Agency (ACDA) in its annual data.[3] And given the uncertainty factor, even these figures have fluctuated, and the old Chinese official defence expenditure estimates had to be drastically reassessed in the mid-1980s. The only source of official data is the one line defence expenditure allocation figure provided in the annual national budget. It provides no clue as to what heads are included, nor any break-up of figures. But there is increasing evidence that China's ODE includes

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[2] ibid, p.40.
[3] Arms Control and Disarmament Agency, US Government, World Military Expenditures and Arms Transfers 1991-92 (Washington, D.C.), p.73.

only manpower costs and possibly some operational costs. Even these are not expenditures on the PLA. The PLA runs a large number of commercial concerns, including airlines, hotels, etc - besides undertaking a vast range of economic activities ranging from agriculture to trade. The profits go to pay the costs incurred on the PLA. Capital expenditures, procurement and R&D expenses are believed to be excluded from the ODE. According to a recent study, some grants to the Central Military Commission are made by the government that are not recorded in the budget.[4]

Tables 1(a) & 1(b) gives a general overview of China's official defence expenditure (ODE) at current prices and constant prices and the Total Government expenditure (TGE) at current prices (ACDA Figures).

In the year 1955, China's expenditure had reached a peak of Yuan 6.5 billion, but in the late 1950s, it reduced to an average of Yuan 5.5 billion, and further adopted to Yuan 500 crores in 1961. From 1962 (the year of the Sino-Indian War), the defence expenditure increased rapidly. In 1966 it reached a peak of Yuan 1010 crores. In 1967, it

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[4] Quoted in Jasjit Singh, op.cit., p.41.

Table 1a. CHINA'S DEFENCE EXPENDITURE

Year	Official Defence Expenditure (Yuans)	Total Government Expenditure (Yuans)	Ratio of ODE to Total Government Expenditure (%)	Annual Growth of Military Expenditure
1961	500	3670	13.6	
1962	569	3053	18.6	13.8
1963	664	3396	19.6	16.7
1964	729	3990	18.3	9.8
1965	869	4663	18.6	19.2
1966	1010	5416	18.6	16.2
1967	830	4419	18.8	-17.8
1968	941	3598	26.2	13.4
1969	1262	5259	24.0	34.1
1970	1453	6494	22.4	15.1
1971	1695	7322	23.1	16.7
1972	1594	7664	20.8	-6.0
1973	1454	8093	18.0	-8.8
1974	1334	7908	16.9	-8.3
1975	1425	8209	17.4	6.8
1976	1345	8062	16.7	-5.6
1977	1490	8435	17.7	10.8
1978	1678	11110	15.1	12.6
1979	2227	12739	17.5	32.7

Source: IISS, Military Balance,1987-1992 (London 1987) p.

Table 1(b). CHINA

(CRORES YUAN)

YEAR	MILITARY EXPEND. CURRENT PRICES	TOTAL GOVT. EXPT. CURRENT PRICES	ME/TGE %	ANNUAL GROWTH OF M.E. %
1980	1938	12127	15.98	
1981	1680	11150	15.07	-13.31
1982	1764	11533	15.30	5.00
1983	1771	12925	13.70	0.40
1984	1808	15150	11.93	2.09
1985	1915	18448	10.38	5.92
1986	2008	23308	8.62	4.86
1987	2100	24269	8.65	4.58
1988	2108	26983	7.81	0.38
1989	2520	30146	8.36	19.54
1990	2903	33952	8.55	15.20
1991	3303	37939	8.71	13.78
1992	3700	41200	8.98	12.02

Source : Jasjit Singh, "Trends in Defence Expenditure", Asian Strategic Review, pp.42,44.
IISS, Military Balance (London), 1986, 1987, 1990, 1992.

showed a slight decline but again the ODE experienced a sharp increase in 1969 (the year of the Sino-Soviet conflict). The defence expenditure underwent a second phase of rapid increase from 1969, and peaked in 1971 at Yuan 1695 crores. The defence expenditure thereafter reduced and then stagnated till 1978.

A look at Tables 1(a) & 1(b) will show that the TGE at current prices has been constantly increasing and the increase has been quite modest. We only see a slight decline in the years 1962 and 1963. From 1964 onwards, the TGE showed a rapid increase and in 1978 it reached a peak of Yuan 12739 crores. In the year 1979 following the Sino-Vietnam war, ODE again showed an increase of 31.5 per cent over the previous year. The Chinese defence budget has grown from Yuan 1680 crores in 1981 to Yuan 2100 crores in 1987. The proportion of military expenditure to the Total Government Expenditure reached a peak of 15.98 per cent in the year 1980. Thereafter the proportion of military expenditure to TGE declined rapidly.It averaged 8.44 per cent from 1986 to 1992.

The ODE continued to rise again from 1989 onwards, following the rising cost of manpower (what the budget essentially covers) due to economic reforms, inflation and political needs to invest more in defence after the Tiananmen Square tragedy.

The ODE grew at an average annual rate of 15.27 per cent between 1987 and 1992 and the proportion of defence expenditure to TGE also showed a slight increase from 7.81 per cent in 1988 to 8.98 per cent in 1992. The military crack down on student protestors has been the prime reason for the increase in defence expenditure during the end of 1980s. In 1990, the defence budget for the Chinese military, the PLA, jumped to 15.2 per cent, its first increase in real terms in ten years. Over the last two years defence expenditure has increased by another 12 per cent annually. Much of the money was gone into countering inflation and improving the military's pay and living conditions.

China emerged as a major arms supplier to the world arms market in the 1980s. Its arms exports reached a peak of 8.2 percent of total world exports of weapons to the developing world in 1988, but for most of the decade it stayed below 5 percent.

According to the CIA's estimates, China's total arms sales in the 1980-90 period was $16,370 million. As per ACDA estimates China sold arms worth $13,200 million during 1978-88 and $9,3 billion in the 1984-88 phase. As has been said earlier the Chinese Government provides no information on its arms sales, and international estimates vary.

During 1984-88 China supplied large chunks of arms to West Asia amounting to over 9 per cent of total arms imports into the region; in 1988, China exported $2.7 billion worth of arms to West Asia.

The main recipients (over $100 million) of Chinese weapons in the 1984-88 phase were : Iraq, Iran, Saudi Arabia, Egypt, Pakistan, Thailand, Bangladesh and Zimbabwe.

In India's neighbourhood, China was the largest supplier of weapons to both Bangladesh ($160 million out of $230 million) and Sri Lanka ($40 million out of $135 million) in the 1984-88 phase, and since 1990 to Burma (over $1 billion). Beijing sold huge quantities of arms to Afghan mujahideen groups based in Pakistan in the 1980's and it is likely to emerge as an important supplier to the Afghan Government in future (see Table 2).

Table 2.
Value of Chinese Arms Exports between 1984-88

(in millions of current Yuans)

Bangladesh	160
Pakistan	330
Sri Lanka	40
Middle East	8,270
Iraq	2,800
Iran	2,500
Saudi Arabia	2,100
Egypt	450

Source : Arms Control and Disarmament Agency, US Government, World Military Expenditures and Arms Transfers, 1989 (Washington, D.C., 1990)

Overall there has been a tremendous increase in the value and quantity of arms sold to various countries. Before 1978, China exported weapons to some 15 states, most of them in Africa. By the late 1980s, Chinese arms were going to 22 countries. Pakistan alone has remained a major destination since 1965.

Table 3. Arms Exports as a Percentage of Total Exports, by Region, and Leading Arms Exporting Countries, 1978–88.

Year	World	Developed	Developing	China	USA	USSR	France
1978	2.0	2.6	0.4	1.7	4.4	20.4	2.3
1979	1.9	2.6	0.3	1.0	3.2	25.6	1.6
1980	1.8	2.4	0.3	1.6	2.8	22.2	2.3
1981	2.2	2.9	0.5	1.9	3.6	22.5	4.0
1982	2.6	3.1	1.2	5.9	4.3	21.9	5.6
1983	2.7	3.4	0.9	7.2	5.6	21.1	4.1
1984	2.7	2.9	1.4	8.1	5.8	21.1	4.2
1985	2.4	2.9	0.8	2.5	5.1	19.6	5.0
1986	2.1	2.5	0.8	3.9	4.1	21.6	3.4
1987	2.2	2.5	1.0	5.8	5.6	20.7	1.8
1988	1.7	1.9	0.9	6.5	4.4	19.3	1.1

Source : US Arms Control and Disarmament Agency, World Military Expenditure and Arms Transfer, 1989 (Washington, D.C., 1990).
Sujit Dutta, "China's Military System", in IDSA, Asian Strategic Review, 1991-92, (New Delhi), p.278.

Arms exports is an important feature of China's overall export policy and since 1982 the proportion of China's arms exports have been larger than the world average. In Table 3 one can see that the Chinese figures for most of the 1980s has been higher than that for almost all other countries (the Soviet Union being the only exception).

After the end of the cold war, the Iran-Iraq war, and the U.N. arms embargo against Iraq, the value of Chinese arms export has fallen from its peak in 1988. Its arms export for the year 1989, 1990 and 1991 stood at $2.1 billion, $1.25 billion, and over $1.2 billion respectively. But it is highly doubtful whether China will stop pursuing higher quantum of arms sales in the future for foreign exchange and technological and strategic imperatives.

Pakistan's Defence Expenditure

Like in the case of China, Pakistan's defence expenditure is published only in terms of a single-line entry, and no details are given service-wise. Also, Pakistan's defence expenditure has no capital budget portion. Though in recent years, a vast defence production complex has been created, air fields have been constructed and old ones renovated and modernised, and some ships have been purchased - yet, the defence expenditure reveals no capital budget portion, thereby giving rise to the suspicion that some part of the Pakistani defence budget is hidden in the budgets of varibus other departments. Pakistan's defence budget also does not include assistance received from other countries.

A look at the defence spending over a period of time will show that Pakistan's defence expenditure more than doubled in one year from 1,262 million in 1964-65 to Rs 2,855 million in 1965-66, jumping from 4.82 per cent of the GDP to 9.86 per cent. It dropped over the next two years before starting to rise again. The U.S. arms embargo consequent to the launching of operations "Gibraltar" and "Grand Slam" and receipt of military assistance from China

(and some Arab Countries) were factors responsible for stabilising the defence expenditure. The defence expenditure again showed an increase in 1971-72 when the army was deployed in a repressive role in East Pakistan. With the separation of Bangladesh defence expenditure did not come down. It continued to grow and in current prices increased by 39.70 per cent in 1974-75 over the previous year, followed by another jump of 33.07 per cent two years later. Between 1971 and 1980, defence expenditure grew at a cumulative rate of 377.8 per cent in current Pakistani rupees. The effect was a substantive increase in military power between 1972 (after the Indo-Pak war) and December 1979 (before the Soviet intervention in Afghanistan) as may be seen from Table 4.

Table 4 : Pakistan's Military Build-up

	January 1972	December 1979
Army Manpower		
- without reserves	250,000	400,000
- with reserves	250,000	900,000
Helicopters	3	134
Navy Warships	5	16
Air Force Combat Sqns.	11	17*

* Includes 3 sqns of operational trainers.

Source : Jasjit Singh, "Trends in Defence Expenditure", Asian Strategic Review 1991-92 (IDSA), p.65.

In 1977, under Zia-ul-Haq, two significant developments influenced Pakistan's defence expenditure. At one level, the Soviet intervention in Afghanistan in December, 1979, and the subsequent influx of Afghan refugees from Kabul enabled Zia to project Pakistan as a frontline state, vulnerable to Soviet invasion at any time. This coincided with the U.S. policy of bleeding the Soviets in Afghanistan. Once this convergence of U.S, Pakistan interests took place, there was resumption of U.S. military and economic aid to Pakistan on a large scale. This worked

out to around Rs 6-7 billion annually, and as has been mentioned earlier, military aid never gets reflected in defence budget allocations.

Throughout the Zia period too defence expenditure remained high. In the last year of his rule, it reached an all time high. It increased in terms of Pakistan rupees from 10,302 millions in 1978/79 to Rs 23,224 million in 1982-83.and by 1987-88 it had touched 47,105 million. In 1988-89, it reached Rs 51050 million. Pakistani defence expenditure, remained high after Zia's death in an air crash in 1988. There is also a circumstantial correlation of this increase with the higher level of external support to militancy and violence in Kashmir since 31st July 1988. After the suspension of U.S. military aid to Pakistan from 1 October 1990, the foreign military sales agreements under the aid programme were promptly converted into commercial arrangements. U.S. commercial sales to Pakistan came down to $22.781 million in 1990 (from $99.329 million in 1989), shot up to $800.148 million in 1991, and were projected at $480.089 million for 1992 (see Table 5).[5]

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[5] Quoted in Jasjit Singh, op.cit., pp.65-66.

Table 5. PAKISTAN

(PAK. RUPEES CRORES)

YEAR	MILITARY EXPEND. CURRENT PRICES	GDP CURRENT PRICES	CENTRAL GOVT. EXPT CURRENT PRICES	ME/GDP %	ME/CGE %	ANNUAL GROWTH OF M.E. %
1980-81	1530	24783	4635	6.17	33.01	
1981-82	1863	29215	5112	6.38	36.44	21.76
1982-83	2322	32841	5908	7.07	39.30	24.64
1983-84	2680	37435	7590	7.16	35.31	15.42
1984-85	3187	42506	9007	7.50	35.38	18.92
1985-86	3560	46632	10004	7.63	35.59	11.70
1986-87	4134	51543	11186	8.02	36.96	16.12
1987-88	4702	60103	13615	7.82	34.54	13.74
1988-89	5105	68314	15642	7.47	32.64	8.57
1989-90	5793	75935	17328	7.63	33.43	13.48
1990-91	6327	88781	19880	7.13	31.83	9.22
1991-92	7096	102453	18565	6.93	38.22	12.15
1992-93	8215	115000	21882	7.14	37.54	15.77

Source : Government of Pakistan, Economic Survey, 1990-91 (Islamabad), pp.134-36.
Arms Control and Disarmament Agency, World Military Expenditures and Arms Transfers (Washington, D.C.,1989), p.60.

During the decade 1971-1980, Pakistan devoted 6.20 per cent of GDP to defence. The proportion of defence expenditure to GDP increased to an average of 7.37 per cent during 1981-90. During the past five years, Pakistan not only acquired nuclear weapons but also built up its military capital stocks further. Over 600 main battle tanks, 775 armoured personnel carriers (M113-A2) and 185 combat aircraft (Mirage and F-7p) were reported added to the inventory.

A Brief Review of the Trends and Patterns of India's Defence Expenditure from 1947 to 1979

To begin with, it would be useful to examine some of the overall trends and patterns in India's defence spending since 1947.

Between the budget years 1950-51 and 1961-62, the annual Indian defence budget had averaged under 2 per cent of GNP.[6] During the same period, the Indian GNP grew at annual average rate of 4.6 per cent. The grounds for establishing the actual size of the defence programme before 1962 were, however, somewhat unclear. After the 1948 Kashmir war with Pakistan, there appeared to be no determined and planned effort to increase defence expenditures to any appreciable level. Between 1949 and 1954, defence spending wars maintained at about 1.8 per cent of the GNP, the figure itself being primarily a carry over burden from the post-World War II demobilized Indian military apparatus left behind by the British in 1947. The equipments of the army, the navy and the air force, mainly acquired during the second World War, were maintained as were the complements of officers and enlisted men.[7]

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[6] For defence expenditure as a percentage of GNP see IDSA Journal, vol.4, no.4, April 1972, p.434 ; for the annual GNP growth rates see the Annual Statistical Year Book (New York : United Nations Publications Division).

[7] Raju G.C. Thomas, The Defence of India : A Budgetary Perspective of Strategy and Politics (Macmillan, 1978), pp.102-3.

The first conscious effort to review the defence service began after 1954-55, the years during which Pakistan entered the SEATO and CENTO defence parts with the United States and her allies in Asia. It was estimated that between 1955 and 1965, the United States gave Pakistan about 1.5 billion dollars worth of planes, tanks and a submarine together with at least another half billion dollar worth of communication equipment.[8] The modernization and re-equipment of the Pakistani military by the United States under the Mutual Defence Assistance programme appeared to necessitate similar action on the Indian side although assurances had been given by Washington that these arms were intended only to stem the communist advance from the north. Nevertheless, it is not clear whether the weapon modernization programme that began in India after 1955 was in response to such a new international development affecting South Asia, or merely to a call by the armed services for replacing aging equipment.

The favourable foreign exchange reserves conditions between 1945 and 1957, the general lack of experience in domestic weapons production and the apparent absence of any

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[8] Emile Benoit, Defence and Economic Growth in Developing Countries (Lexington, Mass.: Lexington Books. 1973), p.155.

serious and immediate military threat to India, prompted the Government of India to follow a policy of weapon purchases from abroad, mainly from Britain and France. Nevertheless, there were some moves to initiate domestic weapons production as well from 1955 onward. Whatever little effort was made after 1955 for establishing a domestic weapon production base was therefore only modestly fruitful and external dependence continued to be the mainstay of the Indian services.

Prior to 1962, it was assumed that a major threat to Indian security could come only from Pakistan. All this changed after the 1962 war with China. It was realised that India's northern borders had to be strengthened as well against the Chinese threat and the country had to be prepared for collaboration between China and Pakistan in case the latter attacked India.

Accordingly, the annual budget for 1963-64, the first after the Sino-Indian war, provided for a massive increase in defence expenditure over the previous years' allocation: Rs 867 crores as against Rs 473 crores spent in

1962-63, the latter figure in itself representing an increase of Rs 100 crores than originally budgeted in 1962.[9]

The near doubling of defence allocation in 1963 was primarily intended to expand and modernize the Indian Army. Defence expenditure thereafter increased to account for nearly 3.5 percent of GNP and 15 to 22 per cent of the Central Government expenditure on an average.

With the immediate and urgent necessities of India's defence taken care of a year later, in 1964, a five-year defence plan of Rs 5,000 crores was formulated and sanctioned by the parliament.[10] The plan proposed an average annual expenditure over the first five years of about Rs 1,000 crores, with more being distributed over the latter years.

While India was still regrouping her defence forces after the 1962 debacle, Pakistan attacked India, in the Rann of Kutch in April-May, 1965. Despite the second war in 1965 in less than three years, the five year defence plan which had sanctioned Rs 5,000 crores in 1964 was maintained for

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[9] Raju G.C. Thomas, op.cit., pp.105-6.
[10] ibid, p.107.

the remaining four years from 1965 to 1969. The annual defence budget in this period continued to range from 25 per cent to 30 per cent of the central government expenditure, and averaged 3.6 per cent of the GNP.[11]

The notable feature of the post-Bangladesh phase has been the declining defence burden relative to the Indian GNP after 1973. Here it is necessary to mention Pakistan's defence expenditure following the 1972 war. Pakistan's defence expenditure following the war rose to 9.8 per cent of the GNP and subsequently the amount has been between 7.2 and 8.4 per cent, figures much higher than India. Unlike that of India, Pakistan's defence budget is presented in aggregative terms. The one line defence budget does not provide break-ups for military industries and investments on R&D. Since most of the armed forces modernisation programmes were carried out with the help of generous grants from China throughout the seventies and with aid from the United States, it can be argued that a large share of the defence budget all through these years was utilised for the rapid expansion and modernisation of local arms industries.

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[11] Ministry of Defence, Government of India, Annual Report, 1966-67, New Delhi, p.4 and IDSA Journal, vol.4, no.4, April 1972, p.434.

In 1973, the year following the Indo-Pakistan war, defence spending had reached 3.9 percent of the GNP. This was the highest percentage since 1963-64, the budgetary year following the Sino-Indian war. Like the post-war years of 1963 and 1966, the increase arose from the need to replenish and replace destroyed military stock. However, two year later in 1974, defence spending dipped to 2.7 per cent of the GNP, the lowest since 1963. The following year the burden rose again to 3 per cent, an amount still much lower than the average of 3.5 per cent of the last 15 years. In absolute terms, the total allocation for 1975-76 was Rs 2,448 crores while for 1976 there was a marginal increase to Rs 2,593 crores.[12]

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[12] Chanakya Defence Annual, 1976 (Allahabad : Chanakya Publishing House), p.195, and 1977, p.169.

Table (6) shows the defence expenditure during the conflict years.

Defence Expenditure (in Rs. Crores)

Year	Current Prices	% of GNP	Constant Prices	% of GNP	% of CGE
1962-63	473.9	3.01	827.05	3.08	17.0
1965-66	884.8	4.05	1217.00	4.23	22.6
1971-72	152.34	3.91	1444.45	3.90	20.4

Source : Y. Lakshmi, Trends in India's Defence Expenditure (New Delhi, ABC Publishers, 1988), p.73.

Table 6 shows that defence expenditure in current prices more than tripled between 1962-63 and 1971-72 and in constant prices registered an increase of nearly 75 per cent.

The higher level of defence expenditure reached in constant prices in 1963-64 (see Table 6), Rs 1340.1 crore, was overtaken only by 1971-72 when it reached Rs 1444.5 crore. Further, defence expenditure was 3.6 per cent of GNP in the decade as a whole.

The only two years in post-independence India, when defence expenditure exceeded 4 per cent of GNP were 1963-64 and 1965-66 in both current and constant prices.

Defence expenditure formed around 22 per cent of Central Government Expenditure on an average, during the entire decade. In 1963-64, defence expenditure formed over 32 per cent of Central Government Expenditure, a massive jump from 17 per cent in 1962-63. This figure has not been crossed even today.[13]

After the 1971 war, Indian defence planners took a relaxed view of the security environment in the following decade. There were expectations of a prolonged period of peace without security threats either on the western or on the northern borders. Pakistan had signed the Simla Agreement in return for substantial concessions by India, and the Sino-Indian border showed signs of tranquillity. This made possible re-equipment and the postponing of defence modernisation. Even if the security environment had

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[13] Y. Lakshmi, Trends in India's Expenditure (New Delhi : ABC Publishing House, 1988), pp.73-74.

remained unchanged, it is highly doubtful if critical modernisation could have been deferred beyond the end of the 1970s.

The security environment however progressively deteriorated toward the end of the 1970s and the beginning of the 1980s. We had noted that Pakistan had gone in for a massive expansion programme, nearly doubling its forces, between December 1971 and 1979, and had moved rapidly to improve its quality with sophisticated weapons acquired through U.S. aid and Arab funding. Pakistan also adopted a more bellicose attitude about this time and even denounced the Simla Agreement. At the same time, China set in motion its military modernisation programme, and the pressure of extra-regional military forces in the Indian Ocean increased significantly after 1978. The result, by the early 1980s, was a combination of deteriorating security environment and long over due re-equipment. This, of course, resulted in the telescoping of acquisitions, most of which rightly should have been spread through the 1970s.

The Expenditure in the 1980s

Table (7) indicates that India's defence expenditure in current prices has continuously risen during the 1980s. This is mainly accounted for by the long over due modernization of equipment. India went in for long-range guns, aeroplanes and submarines. Despite vigourous import substitution most of these equipments are still not produced in our defence enterprises. Thus the growth in defence expenditure in the 1980s has also increased the country's dependence on foreign suppliers of defence equipments. The Dutch economist, Tehral, estimated that the share of imports in military expenditure fluctuated between 8 per cent and 15 per cent during the 1960s and 1970s.[14] Preliminary projections for the 1980s based on his analysis suggest that the foreign exchange requirement as a proportion of defence expenditure has increased beyond 15 per cent. Tehral also points out that up to the 1970s the major share of military aid that financed military imports came from the socialist world, the interest cost of this aid was low. In the 1980s the situation seems to have changed. We have become more

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[14] Dalip S. Swamy, "Some Aspects of India's Military Effort", The Radical Humanist, vol.51, no.12, March 1988, p.3.

Table 7. INDIA

(INDIAN RUPEES CRORES)

YEAR	MILITARY EXPEND. CURRENT PRICES	GDP CURRENT PRICES	CENTRAL GOVT. EXPT CURRENT PRICES	ME/GDP %	ME/CGE %	ANNUAL GROWTH OF M.E. %
1980-81	4091	122427	22495	3.34	18.19	
1981-82	4652	143216	25401	3.25	18.31	13.71
1982-83	5408	159395	30494	3.39	17.73	16.25
1983-84	6309	186723	35988	3.38	17.53	16.66
1984-85	6661	208577	43879	3.19	15.18	5.58
1985-86	7987	233799	53112	3.42	15.04	19.91
1986-87	10477	260030	64023	4.03	16.36	31.18
1987-88	11967	294851	70305	4.06	17.02	14.22
1988-89	13341	353517	81402	3.77	16.39	11.48
1989-90	14500	405827	95049	3.57	15.26	8.69
1990-91	15750	472660	104973	3.33	15.00	8.62
1991-92	16350	541888	111430	3.02	14.67	3.81
1992-93	17500		124726		14.03	7.03
1993-94	19180		131324		14.61	9.60

Source : M.E.(Current Prices) : Defence Service Estimates, Government of India, various issues and Budget Papers, Government of India, 1993-94.
GDP : Economic Survey, 1991-92, Government of India, p.76.
CGE : 1980-81/1990-91 from Economic Survey, 1992-93, and 1991-92 to 1993-94 from Budget Papers, p.76.

dependent on the aid from capitalist countries, the interest cost on which is higher than that on aid given by socialist countries. On this basis one can say that if military expenditure continues to rise in future the country's dependence on foreign suppliers will increase not only an account of the rising cost of imported equipments but also due to the interest cost on foreign finances.

Apart from the huge defence expenditure incurred on procurement of arms from abroad, another reason for the increasing trend in defence expenditure in the 1980s is deteriorating internal security. In the early 1980s disturbances started in Assam and Punjab (later on in Darjeeling). India started experiencing the fallout of terrorism by internal disgruntled elements (supported by hostile countries, in particular Pakistan). India's defence expenditure increased to counteract these internal threats to security.

Looking at Table (7) one can deduct that India's defence expenditure more than doubled at current prices between 1980-81 and 1986-87. The annual growth of military expenditure recorded 31.18 per cent in 1986-87 as against an annual growth of 19.91 in 1985-86. If we look at the ratio of military expenditure to GDP for the years from 1980-81 to

1986-87, we notice that the increase was modest. In 1986-87 defence expenditure rose to 4.03 per cent of GDP. Subsequently it has tended to decline India's defence expenditure as a proportion of Central Government Expenditure (CGE) has been steadily coming down. In 1980-81 and 1986-87 the proportion of military expenditure as a percentage of CGE were recorded at 18.19 per cent and 16.36 per cent respectively. The Central Government budget allocations for defence steadily came down in the second half of the eighties - it has fallen from 17.02 per cent in 1987-88 to 14.67 percent in 1991-92 (see Table 7) India's defence, nondefence ratio on an average is nearly two-fifths that of Pakistan and nearly half that of China over the past fifteen years.

Table (7) indicates that from 1987 onward the annual growth rate of military expenditure too has been coming down and touched its lowest level (3.8 percent) in 1991-92. The budget estimates for 1992-93 indicate an increase of 7 per cent over the previous year. However, in US dollar terms, it registered a marked decline from 1987- 88 onwards. A significant decline of defence expenditure in real terms has been registered since 1987.

The reason for such a significant decline was that India's economy grew some 2 per cent, not a very good result when population growth is around 2 per cent. The monsoon failure in 1987 resulted in severe drought which affected both agricultural output, which normally accounts for 36 per cent of GDP, and hydro-electric generation. Some Rs 5 billion were transferred from the Rs 125 billion defence budget for FY 1987-88 to provide drought relief, but the modernisation of equipment continued. Neither reequipment nor the heavy cost of peace-keeping operations in Sri Lanka appear to be reflected in defence allocations, which at Rs 130 bn for FY 1988-89 do not compensate for inflation (of over 15 per cent) and is unlikely to be sufficient to meet IPKF and procurement costs. Unless, therefore, there is some concealed defence expenditure, acquisition may have to be cancelled or delayed and readiness and training levels reduced.[15]

India's defence expenditure decreased in real terms in 1989 but the official figure excluded the cost of operations in Sri Lanka, the Maldives and on the Siachen Glacier, as well as on R&D programme which is largely funded by the Department of Science and Technology. The ISRO which

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[15] IISS, The Military Balance, 1987-88.

carries out work of defence nature is not funded by the defence ministry, nor is a significant portion of foreign arms procurement which is financed by special allocation from the Finance ministry.

India's defence spending has been set at 191.8 billion rupees ($6.36 billion) for 1993-94.[16] It registered a 9.6 per cent growth over last year's figure of Rs 175 billion and it barely covers the 7 per cent official inflation rate. Worse, with falling capital outlay this years allocation is inadequate even to meet the contractual commitments of the services, let alone acquire new weapons. According to a 1989 study, even the army's deficiencies in equipment and ammunition amounted to Rs 11,000 crores and it does not include the short falls of Rs 8,500 crore for housing.[17]

With such resource shortfalls, the services have begun resorting to panic measures - freezing expansion and modernisation, cutting down on ammunition reserves. Just

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[16] Defence Organisation Planning and Strategy, Strategic Digest (New Delhi, IDSA), vol.xxiii, no.5, May 1993, p.827.

[17] Quoted in Shekhar Gupta and others, "Defence : A Middle-Aged Military Machine, India Today, 30 April 1993, p.40.

when some of the country's indigenous defence research programmes are coming to fruition, Prithvi (surface to surface) and Nag (anti-tank) missiles for example, the forces have no money to buy any. The air force makes do without an advanced jet trainer in an era when frontline fighter aircraft are getting more and more advanced.

The cruellest cut of all is on training. The army has not held a major field exercise since Operation Brasstacks and Chequé Board, relying, instead, on sand-model simulations. Allocations for field firing by artillery and tank units have been cut down; ordnance units and manufacturing shells confirm that orders have fallen to 20 per cent of their peacetime levels.

The navy too has cut down its sailing time while the air force has imposed restrictions on flying hours.

The inflation rate in the case of defence weapons, equipment and materials is approximately 50 to 70 per cent higher than the national inflation rate. The compensation for inflation should be 1.5 times the previous year's

national inflation rate. The latter was :9.1 per cent in 1989-90, 12.1 per cent in 1990-91, 13.6 per cent in 1991- 92 and an estimated 10 per cent in 1992-93.[18]

The Rupee devaluation by 25 per cent in 1991, and thereafter, required a one time compensation to be built into the defence budget to cater for the increment in foreign exchange costs. This amounts to roughly 20 to 25 per cent of the annual allocation.

The services have to recreate the accumulated shortage which have been allowed to rise annually. This is over and above the traditional annual expenses of the armed forces.

The exponential increase in the deployment of the military to aid civil authority has not been compensated with additional resources to cater for unplanned wastage rates.

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[18] Hindustan Times, Sunday Review, 4 July, 1993.

Defence pension bills rise annually. As against 2.86 per cent in 1960, 12.11 per cent of the defence budget went towards pensions in 1992-93. An average annual increase of 0.3 per cent or Rs. 57.4 crore.[19]

In the last 10 years costs of defence R&D have doubled from 2.05 percent to 4.12 per cent of the defence budget . With the crying need for indigenisation, the allocation has to be drastically increased.

As is clear from the above, for five years resource allocations to sustain and modernise the military establishment have steadily diminished. Economic logic suggests that a given establishment requires additional resources, proportional to the inflation rate, to maintain it at a state of efficiency. Resource cutbacks, therefore, imply a reduction in existing force levels. More over increasing redundancy rates of modern military equipment because of the prodigious technological revolution and the need to reorganise force structures in keeping with evolving doctrines, require commensurate increments in resource allocation.

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[19] ibid.

A breakdown of India's defence expenditure (service and department wise) over the ten year period 1983-84 to 1992-93 indicates the following average distribution pattern.

Table 8(a): Average Share of Defence Expenditure

Service/Dept.	Share of Def. Exp.(%)
Army	55.75
Navy	13.07
Air Force	23.90
Production & Supplies	3.00
Research & Development	4.28

Source : Government of India, Defence Service Estimates, 1981-82 to 1992-93 (New Delhi, Government of India Press).

A study of the distribution of share for various years (see Table 8(b)) indicates a marked increase (by 21.07 percent) in the allocation for the army between 1985-86 and 1987-88. At the same time, the allocation for the department of production and supplies registered a 10.7 percent drop in the same period due to change in accounting

Table 8(b). INDIA

Year	Proportion of the Central Government Budget going to					
	Army	Navy	Air Force	Defence Production	Defence R&D	Total
1983-84	46.2	12.9	23.3	14.8	2.8	100
1984-85	48.2	12.2	22.7	13.7	3.2	100
1985-86	46.5	12.5	23.3	13.8	3.9	100
1986-87	49.5	12.5	21.4	12.5	4.1	100
1987-88	56.3	12.9	23.1	3.1	4.6	100
1988-89	56.3	13.5	22.5	3.4	4.3	100
1989-90	55.5	13.5	23.1	3.7	4.2	100
1990-91	56.3	12.7	24.1	2.6	4.3	100
1991-92	55.4	13.0	24.8	2.6	4.2	100
1992-93	54.7	12.8	25.8	2.6	4.1	100

Note : All figures are in percentages.
Source : Jasjit Singh, "Trends in Defence Expenditure", IDSA, Asian Strategic Review, 1991-92 (New Delhi), p.59.

procedures. Procurement costs of weapons, ammunition and equipment from the Department of Production &Suppliers (which controls the ordinance factories and defence public sector units) were shifted from this head to the respective services. Most of the procurement allocation was meant for the army. This would indicate a residual increase of nearly 11-12 per cent in the army's budget between 1984-85 and 1986-87. This represents the sharp increase in pay and allowances and other man power costs (of all the Central Government Employees) consequent to the fourth pay commission report. The increase was most evident in the army's share of the defence expenditure because of its large manpower base. The decrease in the army's share and a corresponding increase in the air force's share between 1990-91 and 1992-93 appears to be a more a result of the higher costs of equipment in technology intensive air force than any policy reorientation. The service department wise breakdown of defence expenditure for 1988-89 to 1992 is shown in the Table 8(b). Defence expenditure on manpower grew at an average annual rate of 8.66 per cent between 1990-91 and 1992-93, well below the inflation rate of 12.5 per cent.

The navy's share of defence expenditure remained fairly steady and above the 10 per cent mark for most of the 1980s. It was only in 1980-81 that it was below this level, at 8.93 per cent of the defence budget.[20]

This belies the argument from various quarters suggesting a "great naval build-up" in the late 1980s. Compared with this western experts have estimated the Chinese allocation for its navy during the 1970s at around 25 per cent of the defence expenditure.

Pensions of defence personnel, which used to be included in the defence expenditure, were segregated and shown separately after 1984-85 in keeping with the larger policy of making allocations for pensions of Central Government Employees. (From the consolidated fund of India. Earlier changes in manpower policies and implementation of the Fourth Pay Commission resulted in significant growth in the pension bill which at Rs 21.2 billion is equivalent to 12-11 per cent of the defence budget for 1992-93 compared with 2.86 per cent in the 1960s).[21]

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[20] Government of India, Defence Service Estimates, 1982-83 (1982), pp.4-6.

[21] Jasjit Singh, op.cit., p.60.

India's arms imports stood at $24.41 billion between 1981-1990.[22] Against this, the arms acquisitions were estimated to be closer to the figure of $13.20 billion for the same period.

India is ranked as one of the world's largest importers of arms. Acquisition include tanks, ICVS, 155m HOWS, AD Guns (Missiles, combat Engineer Tractors, Mobile Bridging equipment, etc) for the army. The latest operational MIG series in aircraft (MIG-25,-27,-29), the Jaguar and Mirage 2000 aircraft, armed and heavy-lift (MI-17,-24,-25,-26) helicopters, besides surface to air and air-to -air missiles for the air force, the aircraft carrier INS Virat; SSK type (hunter-killer) submarines, a nuclear powered submarine (INS Chakra) and the TU-142 M reconnaissance aircraft for the navy.[23] India has made these acquisitions from both the Soviet Union and the west and in some cases the MOU includes transfer of technology and assistance in setting up indigenous production. It is as a result of the colossal US military aid to Pakistan, and China's on going efforts to modernize, re equip and

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[22] ibid.
[23] Major General K.N. Pendse, "India's Defence Budget - A Case for Better Planning", Indian Defence Review (New Delhi, Bharat Verma), July 1989, pp.58-172.

Table 9(a). CHINA : MILITARY EXPENDITURE, GNP AND CENTRAL GOVERNMENT EXPENDITURE
(MILLION DOLLARS)

YEAR	MILITARY EXPENDITURE		GNP		CENTRAL GOVT.EXPT
	CURRENT PRICES	CONSTANT PRICES (1988)	CURRENT PRICES	CONSTANT PRICES (1988)	CONSTANT PRICES (1988)
1978	14070	23630	131500	220900	70480
1979	16520	25500	153300	236700	77720
1980	16370	23160	180600	255500	71460
1981	17590	22700	207600	267900	64530
1982	18700	22680	238200	288900	66130
1983	19010	22200	272600	318300	73120
1984	19310	21730	324000	364700	83410
1985	19890	21740	377100	412200	91290
1986	19960	21270	419600	447100	110200
1987	20510	21180	475000	490700	108700
1988	21270	21270	545600	545600	106600

Source : US Arms Control & Disarmament Agency, World Military Expenditure and Arms Transfers (Washington, D.C., 1989), p.42.

Table 9(b). INDIA : MILITARY EXPENDITURE, GNP AND CENTRAL GOVERNMENT EXPENDITURE
(MILLION DOLLARS)

YEAR	MILITARY EXPENDITURE		GNP		CENTRAL GOVT.EXPT
	CURRENT PRICES	CONSTANT PRICES (1988)	CURRENT PRICES	CONSTANT PRICES (1988)	CONSTANT PRICES (1988)
1978	3647	6124	101300	170100	31840
1979	3687	5691	105100	162300	31730
1980	3922	5549	122200	173000	32250
1981	4689	6053	142600	184100	33080
1982	5557	6739	157200	190700	36200
1983	6278	7331	177100	206800	39340
1984	6905	7773	189600	213500	44370
1985	7373	8059	208300	227700	51400
1986	8051	8479	222900	237600	56870
1987	9171	9474	240000	247900	58570
1988	9458	9458	268700	268700	61280

Source : US Arms Control & Disarmament Agency, World Military Expenditure and

Table 9(c). PAKISTAN : MILITARY EXPENDITURE, GNP AND CENTRAL GOVERNMENT EXPENDITURE
(MILLION DOLLARS)

YEAR	MILITARY EXPENDITURE		GNP		CENTRAL GOVT.EXPT
	CURRENT PRICES	CONSTANT PRICES (1988)	CURRENT PRICES	CONSTANT PRICES (1988)	CONSTANT PRICES (1988)
1978	636	1068	11490	19300	4365
1979	701	1082	12950	19990	5012
1980	845	1196	15570	22020	5062
1981	1019	1316	18460	23820	5541
1982	1210	1468	20900	25350	5402
1983	1581	1846	23100	26970	6368
1984	1626	1830	25180	28340	6780
1985	1905	2082	27840	30430	7399
1986	2109	2247	30020	31990	8960
1987	2287	2362	32940	34030	9176
1988	2516	2516	36380	36380	9292

Source : US Arms Control & Disarmament Agency, World Military Expenditure and Arms Transfers (Washington, D.C., 1989), p.60.

Table 10(a).
RATIO OF MILITARY EXPENDITURE
TO GROSS NATIONAL PRODUCT (%)

YEAR	CHINA	PAKISTAN	INDIA
1978	10.70	5.54	3.60
1979	10.78	5.41	3.51
1980	9.06	5.43	3.21
1981	8.47	5.52	3.29
1982	7.85	5.79	3.53
1983	6.97	6.84	3.54
1984	5.96	6.46	3.64
1985	5.27	6.84	3.54
1986	4.76	7.03	3.61
1987	4.32	6.94	3.82
1988	3.90	6.92	3.52
AVG.	7.09	6.25	3.53

Calculated from Tables 9(a), 9(b) & 9(c)

Table 10(b).
RATIO OF MILITARY EXPENDITURE
TO CENTRAL GOVT. EXPDT. (%)

YEAR	CHINA	PAKISTAN	INDIA
1978	33.53	24.47	19.23
1979	32.81	21.59	17.94
1980	32.41	23.63	17.21
1981	35.18	23.75	18.30
1982	34.30	27.18	18.62
1983	30.36	28.99	18.63
1984	26.05	26.99	17.52
1985	23.81	28.14	15.68
1986	19.30	25.08	14.91
1987	19.48	25.74	16.18
1988	19.95	27.08	15.43
AVG.	27.93	25.69	17.24

Calculated from Tables 9(a), 9(b) & 9(c)

Table 11(a).
ANNUAL GROWTH IN MILITARY EXPENDITURE (CURRENT PRICES, %)

YEAR	CHINA	PAKISTAN	INDIA
1979	17.41	10.22	1.10
1980	-0.91	20.54	6.37
1981	7.45	20.59	19.56
1982	6.31	18.74	18.51
1983	1.66	30.66	12.97
1984	1.58	2.85	9.99
1985	3.00	17.16	6.78
1986	0.35	10.71	9.20
1987	2.76	8.44	13.91
1988	3.71	10.01	3.13
AVG.	4.33	14.99	10.15

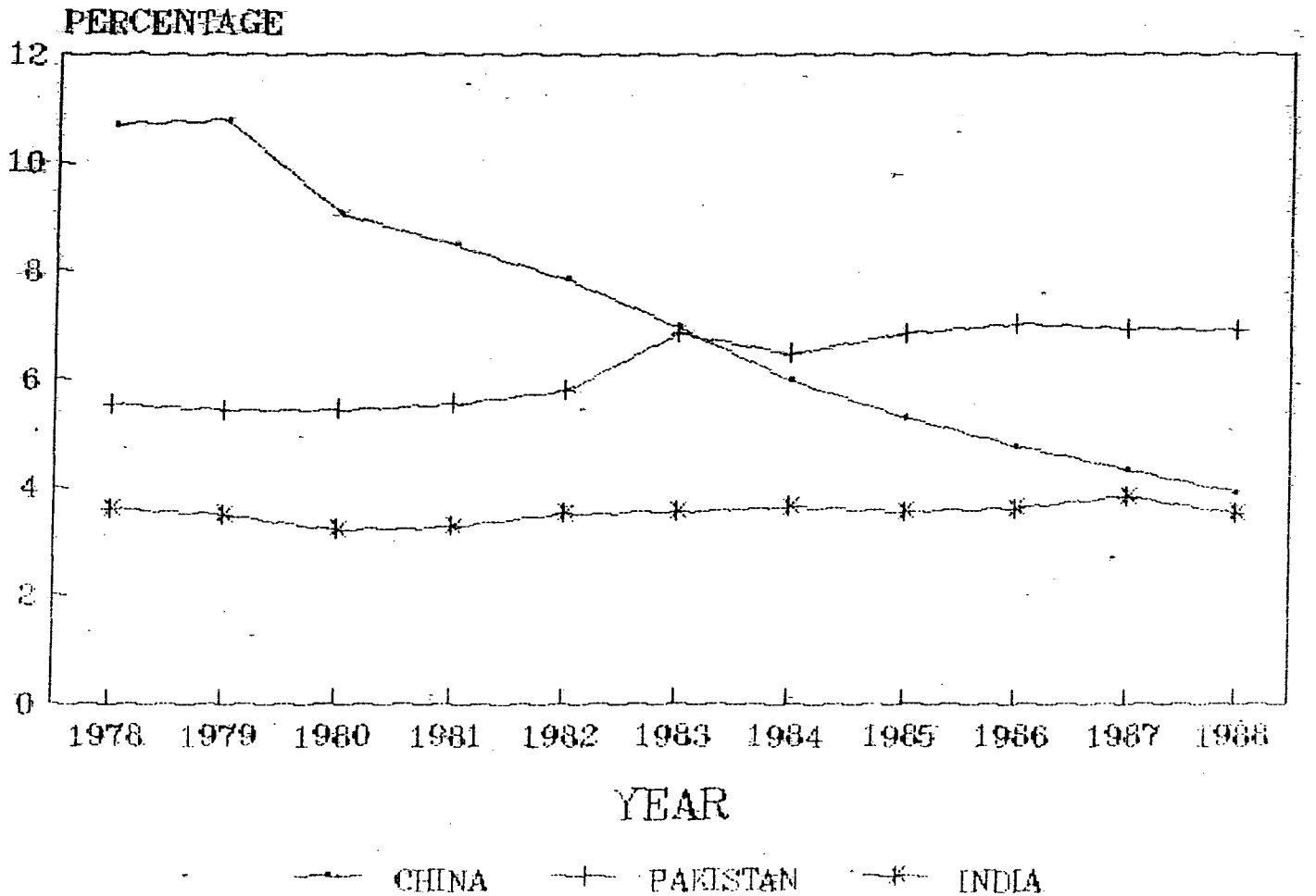
Calculated from Tables 9(a), 9(b) & 9(c)

Table 11(b).
ANNUAL GROWTH IN MILITARY EXPENDITURE (CONSTANT PRICES, %)

YEAR	CHINA	PAKISTAN	INDIA
1979	7.91	1.31	-7.07
1980	-9.18	10.54	-2.50
1981	-1.99	10.03	9.08
1982	-0.09	11.55	11.33
1983	-2.12	25.75	8.78
1984	-2.12	-0.87	6.03
1985	0.05	13.77	3.68
1986	-2.16	7.93	5.21
1987	-0.42	5.12	11.73
1988	0.42	6.52	-0.17
AVG.	-0.97	9.16	4.61

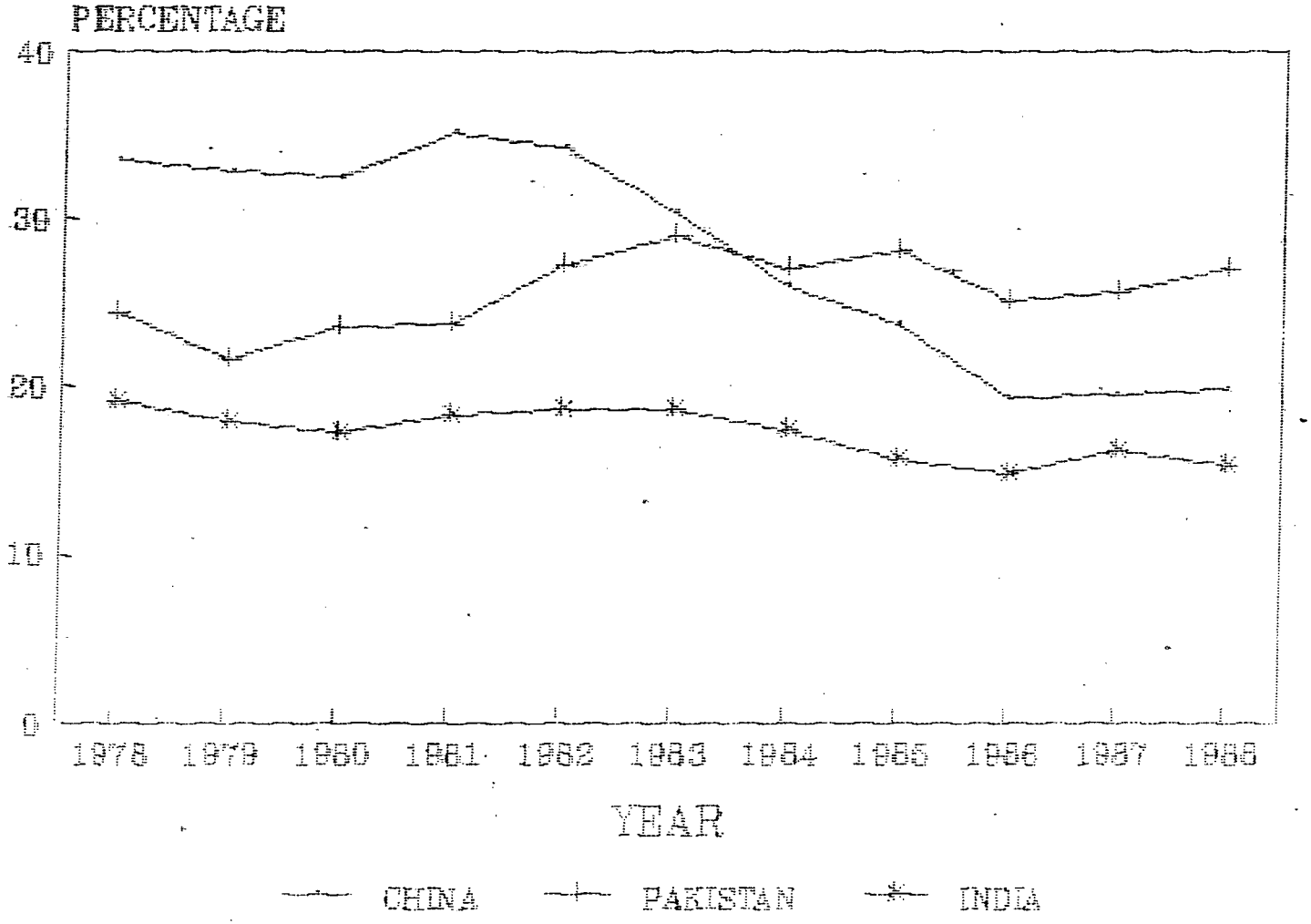
Calculated from Tables 9(a), 9(b) & 9(c)

RATIO OF MILITARY EXPENDITURE TO GROSS NATIONAL PRODUCT



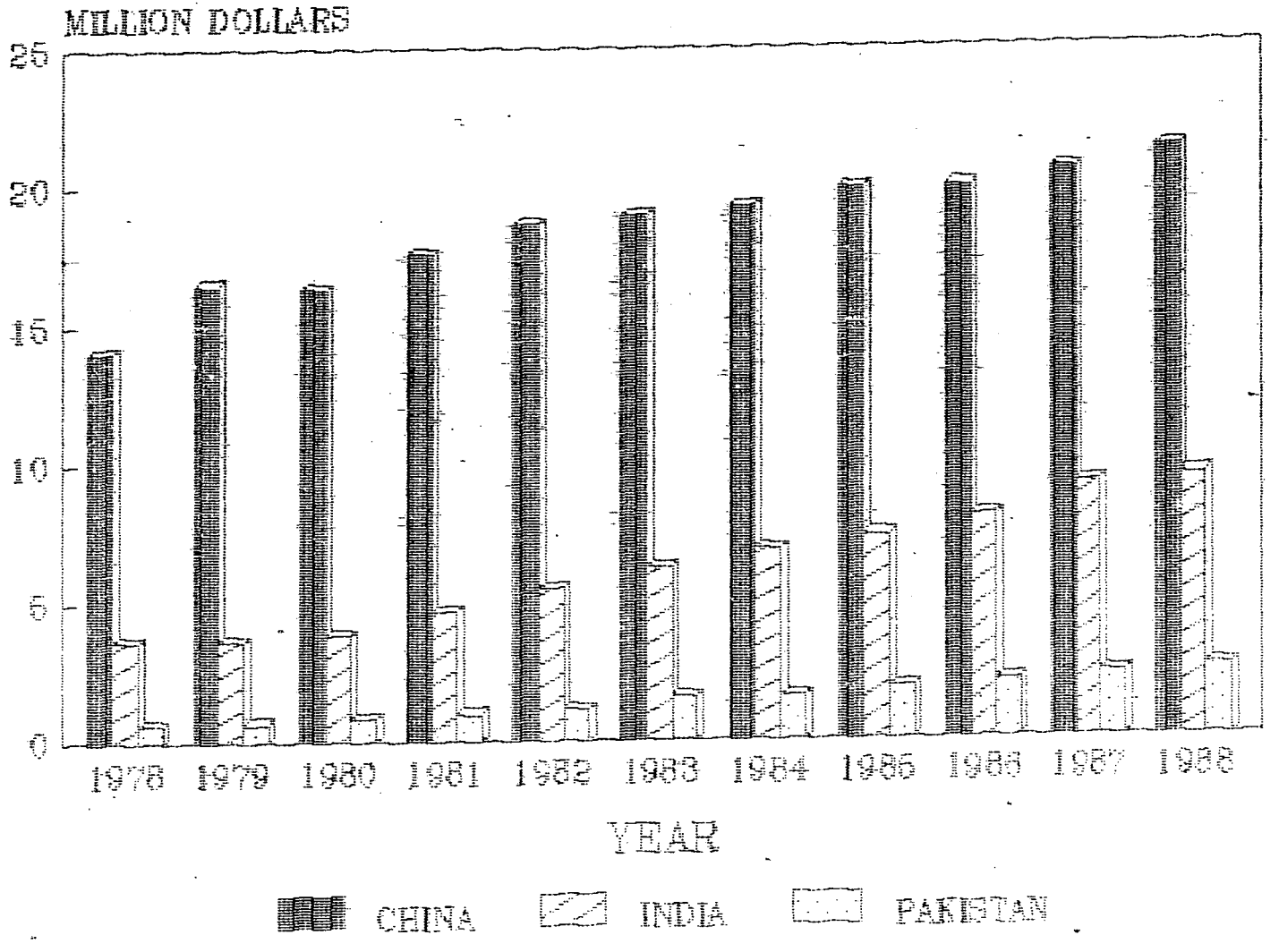
Source : Derived from Table 10a

RATIO OF MILITARY EXPENDITURE TO CENTRAL GOVERNMENT EXPENDITURE



Derived From Table 10(b).

DEFENCE EXPENDITURE



Calculated from Tables 9(a), 9(b) & 9(c)

reorganise her army, air force and navy and enhance her nuclear and missile capability that has forced India into acquiring arms.

How then does India's defence expenditure compare with that of the two most important military powers in her neighbourhood? Is it adequate to keep her borders secure and at the same time cater to the demands made on it by the civilian authorities ? These are questions which are difficult to answer, particularly given the fact that a significant portion of defence expenditure is officially not recorded as such. But nevertheless answers will have to be found if India is to survive as an entity.

It is clear from Tables 10(a) & 10(b) that India's defence expenditure as a proportion of both the GNP and the Central Government Expenditure compares poorly with that of China and Pakistan throughout the 1980s. The average percentage for the period 1978-88 in the case of the GNP was 7.09 for China, 6.25 for Pakistan and 3.53 for India, and in the case of the Central Government Expenditure was 27.93 for China, 25.69 for Pakistan and 17.24 for India. While China seems to have made some effort at pruning its expenditure during this decade, Pakistan is moving strongly ahead with its militarisation programme. Pakistan's average annual

growth rate of military expenditure (constant prices) between 1979 and 1988 was 9.61 per cent, almost double that of India's 4.61 per cent (see Table 11(a) & 11(b)).

Further, India's defence preparedness has been very adversely affected by the disintegration of the erstwhile Soviet Union. India had received a large amount of military aid from the U.S.S.R. Between 1951 and 1989 the total value of Indian military purchase from the Soviet Union exceeded $ 15 billion, which represented 62 per cent of all Indian arms receipts. The Soviet Union supplied large numbers of sophisticated aircraft, ships, tanks and other military equipment to India at a much lower price than Western equipment. At the same time, the Soviet Union helped India develop a largely indigenous production capability. including T72 tanks and MIG-27 aircraft. The rupee-rouble clearing arrangements had also been extremely beneficial to India.[24]

India's military supplies have been severely hit. Although the new Russian Government has expressed its willingness to maintain defence supplies to and cooperation

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[24] Zheng Ruiziang, "Shifting Obstacles in Sino-Indian Relations", Strategic Digest, vol.23, no.6, June 1993, p.870.

with India, it is doubtful that it can fulfil its commitments. Such an outcome seems inevitable given Russia's domestic economic problems and the tremendous pressure exerted on it by the U.S., as reflected in its actions relating to the rocket engine deal between India and Russia.

These problems have been compounded by the Indian Government's new approach to the domestic economy. Its inability to raise resources for itself had led to rapidly increasing budget deficits and the accumulation of debt. With pressure being exerted by lending agencies such as the World Bank and the IMF to reduce the budget deficit, the Indian Government has gone in for drastic pruning of its expenditures. Since a major part of its expenditure is on defence this latter too has been affected.

In the concluding chapter we shall suggest some possible options for India in the difficult situation today.

CONCLUSION

CONCLUSION

The idea that defence expenditures are a major, economically unproductive, consumption expenditure is well supported in the literature. Defence expenditure diverts resources from more useful economic services (agriculture, industry, infrastructure) as well as social services and welfare programmes (education, health, social security, unemployment benefits). A considerable amount of the world's resources is taken up by defence. The world spends close to $1000 billion on the military every year, and this limits considerably the expenditure that could be devoted to reducing poverty, hunger, disease and mortality.

Private decisions to invest and expand productive capacity depend ultimately on the anticipated growth of demand. When economic growth is constrained by demand, then any activity, including unproductive ones, which increase demand, may increase investment and hence the rate of growth of the economy. Military expenditure too, in this manner, may increase demand in the economy and thereby spur investment, but the extent to which military expenditure will increase demand depends on several factors, including the method of financing such

expenditure. If the method of financing is such that it reduces demand somewhere else in the economy, then the overall effect of military expenditure on demand may be negligible.

Military expenditure, like other items of government expenditure, can have a variety of other effects depending on the initial conditions in the economy. However, the essential point is that military expenditure crowds out those other forms of expenditure which can contribute to human capital and productivity. The long-term economic effects of military expenditure can only be negative for it does not add to the productive capacity of the economy, nor does it enhance welfare.

This, of course, does not mean that a country can or should unilaterally disarm for the sake of economic development. For there are a number of political reasons why this cannot be done. We have looked at the particular case of India to examine the threats confronting it, and the reasons why, inspite of being a poor country, it is compelled to divert a part of its resources to defence.

The existing military threats to India emanate primarily from Pakistan to the west and China to the north. India has already fought three wars with Pakistan and one with China. The continuing militarisation programmes of these countries together with the arms transfers by China have significantly vitiated the security environment around India. The nexus between China and Pakistan extending beyond the political, economic and conventional military field to include cooperation in the field of nuclear technology and transfer of M-11 missiles capable of delivering nuclear devices is a particular cause of concern for India.

The growing military capability of Bangladesh, despite benign relations with India, may have to take into account realignments which that state may have with China or Pakistan. Currently, Myanmar, to the east, is embroiled in serious internal problems. However, it is in the process of increasing its military potential which could create problems for India. This will be considerably exacerbated once China completes the development of strategic surface communications in Myanmar. This would allow the former to apply military force from that direction in conjunction with forces to the north and maritime forces through the Indian Ocean.

The demise of the erstwhile U.S.S.R. and the the consequent unipolar pressures on the world economy, and attempted control over world resources as well as over the UN Security Council decision-making, has caused serious imbalance in the world strategic environment. The strategic perceptions and needs of the U.S.. now hold sway. This situation is no doubt, alarming and disadvantageous to developing nations such as India, who had been non-aligned or dependent on Soviet political support and technological-cum-military equipment aid on soft terms. The recent attacks by the U.S. on Iraq and its actions in Somalia have grave implications. A number of developing countries have, at one point or the other, experienced U.S. arm-twisting on issues of vital concern. The U.S., for instance, is exerting tremendous pressure on India through multilateral agencies such as the World Bank and the IMF to amend its economic policies in line with U.S. demands. Moreover, since the U.S. acquired the status of the only superpower, the pressure on India to sign the Nuclear Non-Proliferation Treaty (NPT) has increased manifold. Its continuing arm-twisting of Russia to abrogate the rocket engine deal with India on the specious plea that it violates provisions of the MTCR is yet another instance of U.S.

arrogance. The U.S. has a notorious history of aiding some of the most oppressive and militaristic regimes in the Third World, including the ones in Pakistan. As is well known, Pakistan has used such military help, with the full knowledge of the U.S., to aid and abet the terrorists in Punjab and Jammu & Kashmir.

With such grave threats confronting India, it is absolutely necessary for it to have a defence capability which can thwart any attempt to erode its sovereignty. India compares poorly with both Pakistan and China in terms of the ratio of defence expenditure to GNP as well as Central Government Expenditure. Though India did go for a programme of modernisation and reequipment in the first half of the 1980s, its defence capability was severely affected subsequently by the disruption of supplies from the former Soviet Union, following the latter's disintegration. This troubled phase continues and it is extremely unlikely that India will, in the foreseeable future, enjoy a relationship with Russia of the kind that it did with the Soviet Union.

Drastic cuts in the Central Government's budgetary allocations in recent years in an effort to reduce the fiscal deficit have also adversely affected

the defence sector. Allocations to the defence sector have hardly been able to cover the higher costs arising from inflation and rupee devaluation.

India's options in the present world situation would indeed seem to be limited. And if India is to face up to the challenges before it with dignity, it has to go for certain hard options. It will have to make serious efforts at shoring up its defence capability. This will have to include a programme of indigenisation. This in turn will however mean that the funds allocated to defence have to be increased considerably. Since reducing the expenditure on other sectors is hardly an option (it would indeed be cruel to do so), the only way out for the government is to enhance its resources by adequately taxing the richer sections of our society and mobilising the enormous amount of resources that lie today in the black economy. The government's objective of fiscal correction can well be achieved through increasing its receipts, rather than by reducing its expenditures.

Together with this, India's diplomatic efforts must very earnestly be directed towards resolving the various matters of dispute with Pakistan and China.

Already some serious efforts are on, with China, in particular, and these must be taken to their logical conclusion.

However, it is certain longer-term efforts which are far more important. In the struggle for global disarmament India has played a very significant role in the past. It is that role which India must play again. A number of Third World nations look upon countries such as India to take the lead in this matter. Sustained pressure on major military powers such as the U.S., which are primarily responsible for the global arms race, is imperative. This is a common concern among all Third World countries in particular. They realize that a significant reduction in defence expenditure will enable them to launch a major attack on poverty, hunger, malnutrition and disease. It is absolutely crucial for India to use all legitimate means available to try and ease tensions world-wide and further the cause of development through disarmament.

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