

December 10, 1979

## ASSESSING DEFENSE SPENDING

### INTRODUCTION

The perennial debate over an appropriate level of United States defense spending has resurfaced, with added meaning, during the recent SALT II hearings. This debate, coming as it does in the midst of a larger national debate over the context of U.S. strategic policy and SALT II, will have profound implications for the ability of the U.S. to meet its security requirements and arms control objectives in the 1980s. The defense spending issue has been resurrected due to the increasing acknowledgement that the Soviet Union will achieve military superiority in the 1980s (if it has not already) unless the U.S. reverses the longstanding neglect in modernization of its conventional and strategic military programs, and works more diligently to prevent any further erosion of the U.S.-Soviet military balance.

This paper examines the two most important components of the debate over the defense budget of the United States: the nature and importance of the asymmetrical trends in Soviet and U.S. spending, and the relative role of defense spending in the U.S. budget and its impact on the U.S. economic growth. Examining these two aspects of the defense debate indicates that the U.S. has underutilized its defense resources (in this case, expenditures) in an effort to forestall Soviet military and strategic superiority. At the same time, contrary to an often prevailing attitude, defense expenditure has not impinged upon either governmental social programs or U.S. economic growth. Rather, the inability of the United States to meet the Soviet threat and increase defense expenditures is largely due to self-imposed restraints.

## THE FOREIGN CONTEXT: U.S.-SOVIET DEFENSE SPENDING TRENDS IN THE 1970s

It is necessary to examine the foreign context of the defense spending debate to show why the U.S. has failed to match Soviet defense expenditure over the past decade. Longer-term analyses of U.S.-Soviet trends in defense spending are preferable to isolated, yearly analyses because they measure the cumulative impact of defense spending, and therefore are a more reliable indicator of defense spending commitments and general spending policy than isolated yearly figures. Secondly, longer-term analyses can more accurately gauge future spending requirements, since they demonstrate in what areas U.S. defense spending has been deficient. As the recent RAND study prepared for the U.S. Air Force concluded, the cumulative approach to comparing U.S. and Soviet defense spending "more closely approaches an appropriate value of force inventories."<sup>1</sup> What we are to be concerned with here is the Soviet long-term commitment to increased defense expenditure, and the nature of the U.S. response in terms of defense expenditure on strategic force modernization and procurement in light of the Soviet increase.

### SPENDING COMMITMENT

The cumulative evidence documenting the decade-long decline in U.S. defense spending commitments, contrasted with the long-term real growth in Soviet spending is overwhelming. The significance of this fact is two-fold. First, military spending results in an end - in this case, weapons development and procurement. This end subsequently leads to a second factor - increased military capabilities and capacity to apply military power. It is this aspect of the debate which must be fully accounted for (especially in the areas of equipment procurement and R & D) since it relates to both present and future capabilities of the U.S. to deter and, if need be, fight either a conventional or a strategic war and emerge from such a conflict having satisfactorily accomplished its military and political objectives.

Whether measured in overall dollar spending, spending as a percentage of the Gross National Product (GNP) or spending devoted to military investment and research and development, the Soviet commitment to defense spending in the 1970s far exceeded that of the U.S. The trends indicate that unless the U.S. reverses its declining commitment to defense spending, the spending gap between the Soviet Union and the U.S. will widen over the next decade.

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1. Arthur J. Alexander, Abraham S. Becker and William E. Hoehm, The Significance of Divergent U.S.-U.S.S.R. Military Expenditure, A RAND Note prepared for the United States Air Force, # N-1000-AF, February, 1979 (Santa Monica, Cal.: The RAND Corporation, 1979) p. 2.

In spite of past CIA estimates of declining Soviet economic productivity and potential energy shortages, little substantial evidence exists to support the hypothesis that the Soviets will lessen the burden which defense expenditure places upon their economy.<sup>2</sup> Instead, the Soviet defense spending commitment (estimated in rubles) has increased over the 1970s by a minimum 4 to 5 percent every year.<sup>3</sup> This has doubled the Soviet military budget, in real terms, over the past 15 years. Moreover, the 4 to 5 percent growth figure may be too low. William T. Lee, a noted expert on Soviet defense spending, calculates the annual real growth of Soviet defense spending (in rubles) to be from 8-10 percent.<sup>4</sup> Recent estimates of Soviet real growth indicate defense expenditure in constant U.S. dollars has ranged from 3.0 to 4.5 percent.<sup>5</sup>

The comparative U.S.-Soviet military expenditure figures used in this study are in U.S. dollars. The figures for U.S.-Soviet military expenditures as a percent of the Gross National Product of the two countries, however, are in dollars and rubles, respectively. Soviet military expenditure figures used in this study have been taken from CIA, DOD, IISS and RAND studies which have measured Soviet military expenditure, relative to that of the U.S. by the "dollar costing" method, which evaluates what it would cost to reproduce Soviet military programs, R&D and manpower expenditures in terms of U.S. dollars. While this method does produce some overestimation (especially in manpower costs), the CIA (which uses dollar costing to measure the divergence in U.S.-Soviet military procurement) has concluded that "it is clearly not large enough to alter the basic conclusion that the Soviet military program overall is currently significantly larger than that of the U.S."<sup>6</sup>

In contrast, the appropriate method from which to gauge the burden of military expenditure on the country in question is the ratio of military expenditure to the nation's GNP. For the U.S., this has to be reflected in dollars; for the Soviets, in rubles.

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2. See Gregory Grossman, "The Economics of Detente and American Foreign Policy" in Institute of Contemporary Studies, Defending America (New York: Basic Books, 1977), pp. 72-76; and CIA, "The Soviet Economy: Performance in 1975 and Prospects for 1976," ER-7610296, May 1976; and "Soviet Military Spending Up," Washington Post, November 2, 1979, p. A3.
  3. Alexander, et al., p. 18.
  4. William T. Lee, Understanding the Soviet Military Threat: How the CIA Estimates Went Astray Agenda Paper No. 6 (New York: National Strategy Information Center, 1977), p. 10. See also, "Selected Readings on the Strategic Arms Treaty - Soviet vs. U.S. Military Expenditures," Wall Street Journal, September 11, 1979, p. 22.
  5. Alexander, et al., p. 14; The Military Balance 1979-80 (London: International Institute for Strategic Studies), p. 12.
  6. CIA, A Dollar Comparison of Soviet and U.S. Defense Activities, 1965-1975, SR 76-10053, February 1976.

Therefore, it does not follow that because the Soviets devote twice as much of their national resources to the military that they necessarily spend twice as much on defense (evaluated in dollars) than does the U.S., since, as the RAND study indicates, a dollar costing of the Soviet economy would show it to be "as much as 2/3rds of the American" economy. The long-term trends in dollar costing of U.S.-Soviet military expenditure do, however, signify that Soviet defense production capabilities have far surpassed those of the U.S. in the past ten years.

The trend towards increased Soviet defense expenditure began in the mid-1960s. Following the Cuban Missile Crisis, the Soviets changed the economic emphasis of their Seven-Year Plan (1959-1965) to reflect increased defense investment (particularly in the strategic area) as the means by which to bolster Soviet military power and political influence. Today, according to Donald Burton, chief of the CIA's Military Economics Analysis Center, the Soviets spend roughly 50 percent more on military outlays than the U.S. does. During the 1970s, Soviet military spending "exceeded comparable U.S. outlays by almost 30 percent."

During the mid-1960s and early 1970s, the U.S. intelligence community severely underestimated both projected Soviet strategic force deployments and overall military expenditure. The CIA had to revise its own estimates of Soviet defense expenditure as late as 1976, when it concluded that it had underestimated Soviet defense spending (in rubles) by a factor of two. During this period, U.S. intelligence projections were tempered by a "mirror-imaging" of Soviet strategic intentions with those of the United States. It was still generally assumed that the Soviets would accept strategic parity with the U.S. and that they based their strategic doctrine upon assured destruction concepts.<sup>10</sup> This mirror-imaging of Soviet strategic doctrine and intentions served as the intellectual framework from which subsequent U.S. weapons procurement and defense spending policies were made in the mid-1960s and early 1970s.

Soviet military writings and defense spending behavior reveal that the Soviet Union does not share the assured destruction strategic doctrines formulated by the U.S. arms control and

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7. Alexander, et. al., p. 11.
  8. David S. Sullivan, "The Legacy of SALT I: Soviet Deception and U.S. Retreat," Strategic Review, Winter 1979, pp. 28-29.
  9. "Soviet Military Spending Up." See footnote 2 above; and, "USSR: Arms Estimate Problems," Defense and Foreign Affairs Daily, Friday, November 16, 1979. Burton concluded, "We think it unlikely that economic problems will force the Soviets to reverse their commitment to continuing improvement in their military forces."
  10. Lee, op. cit., pp. 30-37; and Albert Wohlstetter, "Is There A Strategic Arms Race?" Foreign Policy, Spring 1974.

intelligence communities during the 1960s. The Soviet emphasis upon gaining war-fighting and war-winning capabilities has played a major role in causing Soviet defense spending to maintain a fairly constant rate of growth in both the conventional and strategic areas.<sup>11</sup> It follows, therefore, that this emphasis (which by nature involves increased offensive potential) necessarily requires increased defense expenditure.

An effort was made during the final months of the Ford Administration to bring in a group of outside defense analysts to review the intelligence analysis process and Soviet strategic programs and objectives independently of the intelligence community. The group, called the B-Team, concluded that Soviet strategic behavior is based upon a long-term, determined drive to achieve strategic superiority over the United States. At the time, the seven-man B-Team was unfairly criticized in the press for having a "worst case" outlook and for somehow having "bullied" the entire intelligence community to accept its conclusions. Yet, since that time additional intelligence analyses have warned the current Administration and the Congress of the nature and seriousness of the Soviet drive for military superiority.<sup>12</sup> However, subsequent budget requests and ceilings have not reflected, in terms of programs or dollars, an adequate U.S. response to the Soviet drive for a war-fighting and war-winning capability.

#### THE U.S. RESPONSE

Tables I and II contrast the defense spending commitments of the U.S. and the Soviet Union in the 1970s. Table I shows how the U.S. has trailed the Soviet Union in defense expenditures over the past decade, both in terms of current dollar expenditures and percentage of the GNP. Table II reveals that this asymmetry has increased since the beginning of the decade, and that the gap has nearly tripled in the past ten years.

Even more revealing is the contrast in Soviet and U.S. defense expenditure when held constant for inflation. As stated earlier, Soviet defense spending has increased after being adjusted for inflation, whether calculated in rubles or dollars. U.S. defense expenditures, when held constant for inflation at 1970 prices,<sup>13</sup> have declined at an annual average of 2.69 percent each year. This contrast indicates that a significant asymmetry exists in the defense spending habits of the two superpowers. The Soviet real growth in defense spending has not been matched

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11. Alexander, et al., pp. 54-55.

12. William R. Van Cleave and Seymour Weiss, "National Intelligence and the USSR," National Review, June 23, 1978, p. 777; and "ASC Press Seminar Focuses National Defense Debate," Washington Report, February, 1977, p. 2.

13. The Military Balance, 1979-1980, p. 93.

Table I  
U.S.-Soviet Military Expenditure (1970-1979)

	U.S. Current TOA (in billions \$)	Estimated Range of Soviet Spending (in billions \$) Lee
1970	79.0	80-90
1972	77.0	84-99
1974	85.1	96-112
1975	87.9	105-124
1976	97.5	127-136
1977	110.2	133-148
1978	116.5	148-154
1979	127.7	161-177 (est.)

Military Spending - % of GNP

	U.S. Spending % GNP	Soviet Spending* % GNP (CIA)	Lee
1970	7.4	11-13	12%
1972	6.7	11-13	12%
1974	6.1	11-13	12%
1975	5.9	11-13	14-15%
1976	5.4	11-13	14-15%
1977	5.2	11-13	14-15%
1978	5.0	11-13	14-15%
1979	4.9 (est.)	11-13	18% (est.)*

\*Note: CIA estimates Soviet defense spending as percent of GNP to be from 11-13 percent. Lee's recent estimate for 1980 is 18 percent.

Sources: U.S. defense TOA (Total Obligational Authority) figures taken for 1970 and 1972 from U.S. Congress, Senate, Second Concurrent Resolution on the Budget, Fiscal Year 1980, Report of the Committee on the Budget (Washington, D.C.: Government Printing Office, 1979) p. 150; 1974-1977 figures from Donald H. Rumsfeld, Annual Defense Department Report, FY 1978, pp. 315-316, 320; 1978 and 1979 U.S. defense TOA figures from Harold Brown, Department of Defense Annual Report, FY 1980, pp. 20-21 and "Defense Supplemental Bill," Congressional Quarterly, June 30, 1979, p. 6. Soviet spending and U.S. and Soviet figures as percent of GNP from The Military Balance, 1979-80, pp. 11-12, 93-94; The Military Balance 1978-1979, pp. 11, 88; The Military Balance, 1975-76, p. 76; The Military Balance 1973-74, p. 74; Alexander, op. cit., p. 20; Lee, op. cit., p. 11.

Table II  
Annual Gap in U.S.-Soviet Defense Spending (1970 v. 1979)  
(in billions of current U.S. dollars)

Year	Annual Spending Gap	Soviet Spending as % of U.S.
1970	1-11	100-114% (range)
1979	35-50 (est.)*	125% (minimum)

\*Current CIA figures put the spending gap as high as \$50 billion per year.

by a corresponding real growth by the U.S., but rather by a decline if adjustments for inflation are taken into consideration.

This contrast in U.S.-Soviet defense spending commitments becomes all the more apparent when one considers the size of each nation's Gross National Product (GNP). The U.S. GNP is more than two times the size of that of the Soviet Union.<sup>14</sup> However, the U.S. appears to have trailed the Soviets in all procurement categories of military expenditure (except tactical air power) for the last decade.<sup>15</sup> The search for a reason for this phenomenon must begin with the basic orientation of U.S. military doctrine and strategy, as well as earlier inaccurate estimates of Soviet strategic doctrine and defense-spending behavior.

#### COMPARATIVE ECONOMIC AND MILITARY EMPHASIS

The comparative economic emphasis between Soviet and U.S. military spending reveals that during the SALT decade (1969-1979) the Soviet Union has shown little hesitation at increasing their annual defense expenditures, regardless of its economic impact. Soviet military investment (RDT & E, procurement and construction) is estimated currently to be from 65-75 percent greater than that of the U.S. Unilateral actions taken by the U.S. in an attempt to influence Soviet military spending and procurement decision-making have notably failed to gain the desired result of slowing down Soviet military weapons procurement. Rather, as Under Secretary of Defense for Research and Engineering William J. Perry has conceded:

The Soviets have achieved impressive force by configuring their military production base close to the needs of wartime mobilization and by insulating this base as much as possible from the shortcomings of their non-military economy.<sup>16</sup>

The Soviet pursuit of military force modernization and higher levels of military expenditure is largely independent of domestic economic constraints. The frequently used rationale of "bureaucratic inertia" cannot explain either the intensity or longevity of the Soviet military investment effort. Earlier this month, the CIA team testifying before the Senate Armed Services Committee on Soviet military spending overwhelmingly concluded that the Soviet leadership was united on this issue, and that a deterioration of Soviet economic conditions would not change the thrust of Soviet military spending behavior. It can be argued that an established consensus in favor of obtaining Soviet milita-

14. Alexander, et al., pp. 9-10.

15. Charles W. Corddrey, "Soviet Arms Spending Will Go On, CIA Says," Baltimore Sun, November 2, 1979, p. 6.

16. U.S. Congress, Senate, Department of Defense Authorization for Fiscal Year 1979. Hearings before the Committee on Armed Services, Part 8-Research and Development (Washington, D.C.: Government Printing Office, 1978), p. 5634.

ry superiority exists within the Soviet political hierarchy. This consensus is generally willing to sacrifice much, in terms of meeting domestic wants and needs, to spend whatever is needed in the military realm to enable the Soviet Union to achieve these ambitious strategic objectives.

This should be recognized not only as a serious challenge to the U.S., but as a potential weak link in the Soviet military-industrial system. As one author puts it, "Land, labor, capital and system-wide productivity are all under great pressure: the USSR now appears to be operating at the limit of its economic capabilities, though these are generally below Western levels. Nevertheless, these constraints have not impeded the rapid expansion and modernization of Soviet military capabilities...."<sup>17</sup> Therefore, there is reason to believe that, in the face of a determined U.S. military modernization effort, the Soviet economic system could not compete effectively with the U.S. over the long term. They are already pushing themselves close to the limit of their economic capacity in the absence of a determined U.S. modernization effort.

Table III depicts the shortfall in U.S. defense spending as compared to Soviet defense spending that has come about during the 1970s. The comparative shortfall has grown each year over the past decade, and since 1973 the shortfall in spending for military equipment and facilities has been at least \$100 billion. The U.S. could have purchased (in constant FY 1980 dollars) "nearly all" of the following military systems during the 1970s if it had invested at the same rate the Soviets had:

- 1) 241 B-1 bombers (\$16 billion);
- 2) MX system, with 340 missiles and 5,000 vertical shelters (\$18 billion);
- 3) 13 Trident submarines and all Trident 1 SLBMs (\$17 billion);
- 4) 7,000 XM-1 tanks, 500 advanced attack helicopters, 7,000 new Infantry Fighting Vehicles and 300 AMSTs (Advanced Medium STOL Transport) (\$15 billion);
- 5) 400 F-14s and 800 F-18s (\$20 billion);
- 6) 400 F-15s, 1250 F-16s and 500 A-10s (\$16 billion).<sup>18</sup>

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17. Richard B. Foster, "Soviet Economic Performance as a Reflection of State Goals and Objectives," Comparative Strategy, Volume 1, Numbers 1 & 2, 1978, p. 19.

18. Alexander, et al., pp. 47-48.



Table III  
Shortfall in U.S. Spending Vs. Soviet Union  
(1970-1979) -- constant 1978 dollars

Area	Spending (in billions \$)	Estimated % of U.S.S.R. defense expenditure exceeding U.S.
Procurement of Defense Equipment and Facilities	\$104	65%-75%
Research, Develop- ment, Testing	\$ 35	50%*
Overall Spending last half of decade.	\$300 (current dollars)	25-30% (est.)

Source: Alexander, et al., pp. 44-49; and "Oil Seen Spurring Soviet Mideast Move," Aviation Week and Space Technology, October 1, 1979, p. 1. Corddrey, op. cit. The CIA reported that from 1970-1979 the Soviets spent \$1.35 trillion on military spending, compared to \$1.05 trillion for the U.S., in current dollars.

\*Last half of the decade. Soviet RD&T spending exceeded that of the U.S. by \$40 billion over this period.

The research and development spending trends are particularly disturbing, for they reflect the commitment of the superpowers to finance future military systems that will come on-line in later years. The R & D figures of the 1970s paint a dark portrait for the U.S. in the 1980s unless substantial commitments are made to invest more funds in military R & D. According to Lt. General Thomas P. Stafford, former Deputy Chief of Staff for Research, Development and Acquisition of the U.S. Air Force, Soviet RD & T spending has increased by 92 percent, in real terms, from 1968 to 1979, while U.S. RD & T spending has declined in real terms by 19 percent over the same period.<sup>19</sup> Only part of the explanation for these trends can be found in the traditional Soviet military emphasis on proliferating weapons systems in large quantities. Soviet weapons share a much higher degree of commonality, simplicity and limitations in their performance characteristics than do U.S. military systems, which are generally more advanced and tend to take longer to develop, procure and deploy.<sup>20</sup> U.S. weapons procurement policy has been criticized for its politicization,

19. "Defense: A Message to the Taxpayer," World Report, First National Bank of Chicago, July-August, 1979, pp. 1-2.
20. Alexander, et al., pp. 26-33; "U.S. Advantage in Arms Quality Called Illusory," Aviation Week and Space Technology, November 20, 1978, pp. 26-27.

its overemphasis on prototyping, and its tendency to hesitate at replacing military systems on the grounds that the replacement, although an improvement would soon be "obsolete." This has resulted, according to defense expert John Collins, in a paradoxical situation in which U.S. R & D policy all too often strains for "quantum breakthroughs" in defense technologies, while the Soviets generally pursue incremental technological improvements in weapons systems that have enabled them to close the military technology gap with the U.S.<sup>21</sup>

#### EMPHASIS BY CATEGORY

Soviet and U.S. defense expenditures also differ in terms of the emphasis by category in which defense funding is directed. As Table IV indicates, U.S. defense spending is highly labor-intensive, with more than half of all defense expenditures being in the personnel category. Soviet defense spending, on the other hand, is hardware-oriented, with nearly 70 percent of Soviet defense spending going into procurement and research and development. The disparity in military procurement spending is particularly ominous. As Defense Secretary Harold Brown has stated, "the disparity of military forces that can result from disparate spending will be the accumulation of annual differences - each yearly imbalance increases the disparity,<sup>22</sup> and in many measures of capability the disparity is cumulative."

The RAND study commissioned on this subject for the Air Force also reached a similar conclusion. RAND found that the decade-long trends in U.S.-Soviet military spending have resulted in "a change in comparative capability relative to the situation of the early 1960s," and that a continuation of these trends "is likely to result in additional capability changes in the same direction."<sup>23</sup> (Emphasis added.) The Soviet Union's growing ability to close the military technology gap between itself and the U.S. could become so serious that, as former Defense Department Director of Research and Engineering Malcolm Currie has observed, the Soviets may be able to obtain superiority in deployed military technology over the U.S. by the late 1980s.<sup>24</sup>

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21. John Collins, American and Soviet Military Trends Since the Cuban Missile Crisis (Washington, D.C.: Georgetown University Center for Strategic and International Studies, 1977) p. 62. For a listing of areas in which the Soviets are decreasing the U.S. defense technology lead see page 65.
  22. U.S. Congress, Senate, First Concurrent Resolution on the Budget, FY 1980, Report of the Committee on the Budget (Washington, D.C.: Government Printing Office, 1979) p. 353.
  23. Alexander, et al., pp. 23-24.
  24. S. A. Conigliaro, "R & D for Defense - The Vital Investment," National Defense, May-June 1979, reprinted in the Congressional Record, July 19, 1979, p. H 6289.

Table IV  
U.S.-Soviet Defense Spending Comparisons  
Estimated Averages (%)

<u>Category</u>	<u>U.S.</u>	<u>Soviet Union</u>
Procurement, Research, Development and Testing	30%	68%
Personnel	57%	13%
1968-79 Increase/Decrease in RD & T Spending (Real Growth)	-19%	92%
Annual Growth Rate (1971-78) in Defense Spending (Real Growth after Inflation)	-2.69%	3-4.5% - dollars 4-5% (min.) - rubles 8-10% (max.) - rubles
% change in defense spending as a % of GNP (1970-1979)	-35%*	none at CIA level; increase at Lee level of close to 50% (from 12% to 18% of GNP)

\*U.S. drop from 7.8% of GNP in 1970 to 5.0% in 1979 approximates a 35% drop in U.S. defense spending as a portion of the U.S. GNP.

Source: Senate Second Concurrent Budget Resolution, p. 152; The Military Balance, 1979-80, pp. 11-12, 93; and "Defense: A Message to the Taxpayer," p. 1; and Lee, op. cit., p. 11.

Since it is deployed military technology and not potential military technology that wins wars, this trend should be considered extremely grave.

The closing of the U.S. lead in deployed military technology should be a central concern of U.S. national security planners and the Congress. The Soviet effort to close the military gap in deployed military technology is a dedicated and continuous one. Soviet military R & D expenditure has increased annually at a rate of 6 to 8 percent.<sup>25</sup> Constant dollar U.S. spending on military R & D declined from 1967-1976 and, although there was a small increase in 1977, recent trends have shown no real growth.<sup>26</sup>

25. Committee on the Present Danger, Is America Becoming Number 2? Current Trends in the U.S.-Soviet Military Balance (Washington, D.C.: October, 1978), p. 38.

26. Ibid.; Conigliaro, op. cit.

To preserve the U.S. lead in deployed military technology requires the determination to modernize and deploy military systems more rapidly in the coming decade and reverse the current adverse trends in the U.S.-Soviet balance.

## STRATEGIC SPENDING

The disparity in defense spending is particularly grave in the area of strategic forces. Analyses of the decade-long trends in U.S.-Soviet strategic spending reveal that the Soviets have outspent the U.S. in this area by 250 percent.<sup>27</sup> In fact, Soviet spending for strategic forces spending has exceeded U.S. spending each year over the last 10 years. U.S. funding has declined, in real terms (after inflation) by 53 percent since 1964.<sup>28</sup> Such a wide divergence in strategic expenditure, coming as it does within the context of SALT, clearly shows that SALT has not markedly inhibited Soviet strategic modernization or force procurement. More importantly, as the 1980s commence U.S. unilateral decisions taken earlier either to delay strategic force modernization (MX IOC set back three years; Trident slowdown) or cancel new weapons systems (B-1) make this trend all the more serious.

A recent Congressional Budget Office working paper on the costs of strategic force modernization alludes to the probability that the U.S. would have to increase its spending in the strategic forces area by 80 percent (in real budget authority) from FY 1980 to FY 1984 just to meet the requirements of the Administration's own current strategic programs.<sup>29</sup> Moreover, these programs, (MX, Trident, cruise missile carrier, B-52G modification, etc.) are generally geared for the mid-to-late 1980s. They do not take into account the need for short-term programs designed to counter the Soviet threat to U.S. retaliatory survivability in the 1980-1982 time frame.

Enhanced strategic program recommendations for this period (so-called quick fixes) have been developed.<sup>30</sup> To develop and deploy strategic systems needed for the early 1980s would, of necessity, require additional spending (above even a 5 percent

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27. Alexander, et al., p. 44.
  28. "Oil Seen Spurring Soviet Mideast Move," Aviation Week and Space Technology, October 1, 1979, p. 48.
  29. Congressional Budget Office, SALT II and the Costs of Modernizing U.S. Strategic Forces, Staff Working Paper, September 1979, pp. 3-5.
  30. William R. Van Cleave and W. Scott Thompson (eds.), Strategic Options for the Early Eighties, What Can Be Done? (New York: National Strategy Information Center, 1979); and Francis P. Hoerber, "Strategic Forces," in Francis P. Hoerber, David B. Kassing and William Schneider, Jr. (eds.), Arms, Men and Military Budgets, Issues for Fiscal Year 1979, National Strategy Information Center (New York: Crane Russak & Co., Inc., 1978), pp. 16-59. See also Arms, Men and Military Budgets, Issues for Fiscal Year 1981 (forthcoming).

real growth) to guide the U.S. through this period of maximum vulnerability. Thus far, Administration statements acknowledge this period of vulnerability as imminent, but Administration budgets for strategic nuclear force (SNF) programs have not reflected a commitment to enhanced, short-term strategic programs.<sup>31</sup>

It is not yet certain what will be needed to change Administration and congressional attitudes toward the gap in U.S.-U.S.S.R. defense spending. Yet, clearly, U.S. weapons development and procurement decisions, euphoria over SALT, and underestimation of Soviet military expenditure and force procurement have all served to limit the scope of the U.S. response to the Soviet military threat. The ingrained hostility to larger commitments to defense spending also has roots in competing U.S. domestic interests for federal dollars, as well as in inaccurate political assessments of Soviet strategic intentions and poor weapons procurement decision making.

#### THE DOMESTIC CONTEXT OF THE DEFENSE SPENDING DEBATE

The domestic context of the defense spending debate reflects the competition of differing special interests eager for a larger share of federal spending. Groups wishing to advance their own particular social goals, through increased federal spending for social welfare, concentrate on the presumed tendency of defense spending to impinge upon the funding of social welfare programs. Other frequent criticisms of U.S. spending involve the issue of waste in the defense budget and the presumed negative effect that defense spending (especially in military research and development) has on America's economic productivity and capacity for technological innovation.

##### Social Welfare

One of the most frequently heard domestic criticisms of increased U.S. defense spending is its supposed negative impact on the ability of the U.S. to meet social needs. Liberal coalitions of pro-welfare and anti-defense spending activists (Members of Congress for Peace Through Law, academia, and many private research organizations and foundations) have frequently succeeded

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31. "Dr. Van Cleave on SALT," Congressional Record, October 29, 1979, p. S15344; and "Defense Expenditures and SALT II," National Security Record, October 1979. Enhanced, quick fix strategic programs include redevelopment of the MM III missile in an MPS (multiple protective structures) mode, dispersal of strategic bombers to non-SAC bases, accelerated production of GLCMs and SLCMs, development of an air-launched cruise missile carrier based on AMST (a mid-term option) and the immediate re-opening of the MM III production line. Extra funds are also needed for increasing bomber and submarine alert rates and ABM R&D.

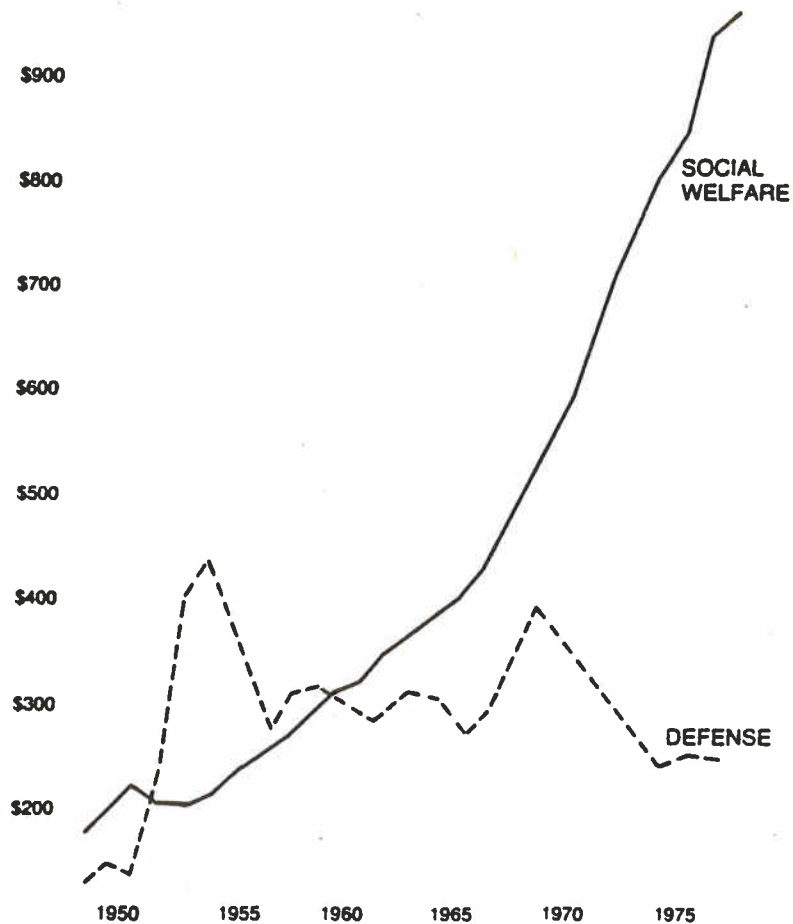
in lobbying against higher defense spending.<sup>32</sup> However, the cumulative evidence does not substantiate their criticisms and, if anything, leads one to the conclusion that the reverse is true. It can be argued that the unrestrained growth of the public sector has diminished the capability of the U.S. to expand its economic productivity and, in turn, increase its capital formation to provide for a larger economic and industrial base from which to meet its strategic and military requirements.

Since 1950, federal transfer payments have grown to become about 9 percent of the U.S. GNP (from slightly more than 2 percent in 1950) while U.S. defense spending is now approximately 5 percent of the GNP.<sup>33</sup> Much of the change in the composition of the U.S. federal budget was due to the initiation of the Great Society social programs under President Johnson. These trends have continued into the 1970s. Funds allotted to federal income transfer programs have risen from \$8.5 billion in 1952 to \$198 billion in FY 1979.<sup>34</sup>

Even more revealing is the fact that total government spending (federal, state and local) has continued to rise as a percent of the GNP, and, more importantly, that the percentage of total government spending going to individual benefit payment programs has doubled (from 16 percent to 33 percent) from 1955 to 1975.<sup>35</sup> All governmental individual income benefit programs have nearly tripled (from 4.1 percent to 11.0 percent) as a percentage of the GNP during this same period, while defense spending has declined from 9.8 percent of the GNP in 1956 to 5.8 percent in 1975.<sup>36</sup> Tables V and VI document the contrast in the growth of governmental spending and individual benefit programs with the decline in defense spending as a percentage of the GNP. Chart One depicts the rapid real growth in per capita social welfare expenditures at all levels of government (federal, state and local) over the past 30 years, compared with the recent decline in per capita defense expenditures. It clearly demonstrates that defense spending has not impinged upon social welfare spending.

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32. James L. Clayton, Does Defense Beggar Welfare? Myths Versus Realities, Agenda Paper No. 9 (New York: National Strategy Information Center, 1979), pp. 5-6.
33. Ibid., pp. 37-38.
34. Ibid., p. 11.
35. Senate Second Concurrent Budget Resolution, FY 1980, p. 164.
36. Ibid., p. 164; and Clayton, op. cit., p. 10.

CHART ONE  
PER CAPITA SOCIAL WELFARE  
AND DEFENSE EXPENDITURES, 1948-1978  
(1967 Prices)



Sources: Social Security Administration, Office of Management and Budget, Department of Defense. The chart appeared in James L. Clayton, Does Defense Beggar Welfare?, Agenda Paper No. 9 (New York: National Strategy Information Center, 1979), p. 40.

Table V  
 Defense Spending and Non-Defense Spending  
 Outlays in Billions of Current and Constant (1972)  
 Dollars and as Percent of GNP (1960-1979)

Outlays (Current \$)

<u>Year</u>	<u>National Defense</u>	<u>Federal Non-Defense</u>	<u>Federal Non-Defense Payments to Individuals</u>
1960	45.2	47.1	22.9
1965	47.5	71.0	30.5
1970	78.6	118.0	59.8
1975	85.6	240.6	142.7
1979 (est.)	114.5	378.9	213.2

Outlays (Constant 1972 \$)

<u>Year</u>	<u>National Defense</u>	<u>Federal Non-Defense</u>	<u>Federal Non-Defense Payments to Individuals</u>
1960	73.8	77.0	32.1
1965	69.3	103.9	40.1
1970	90.3	130.5	65.1
1975	67.1	186.4	113.3
1979 (est.)	68.3	215.9	126.6

Spending as a Percent of GNP

<u>Year</u>	<u>Defense</u>	<u>All Social Welfare Spending</u>
1960	9.3	10.5
1965	7.6	11.7
1970	8.4	15.2
1975	5.8	19.9
1979 (est.)	5.1	20.0*

Source: Clayton, op. cit., pp. 10 and 14; and Senate First Concurrent Budget Resolution, FY 1980, pp. 346-347; also The United States Budget in Brief, Fiscal Year 1980, p. 81.

\*exceeds 20 percent.



Table VI  
Total Government Spending, Individual Benefit  
Spending and Defense Spending (1955-1975)

Year	All Government Spending (State, federal, local) as % of GNP	Defense Spending as % of GNP	Individual Benefit Programs	
			% GNP	% all Gov't
1955	25%	9.8%	4.1%	16%
1975	33%	5.8%	11.0%	33%

\*for 1956.

Table taken from figures in footnotes 34 and 35. Estimate of all government spending for the year 2000 come from Office of Management and Budget paper, "The Trend of Government Spending, 1955-2000." See Second Senate Concurrent Budget Resolution, FY 1980, pp. 164-165.

Of particular importance is the fact that non-defense spending is increasing in constant dollar terms. Certainly, defense spending cannot be said to impinge upon federal social welfare spending when it is shown that the federal spending commitment of these social programs is rising, after being adjusted for inflation, while that for defense has decreased during the 1970s. Moreover, it is clear, given the figures in tables V and VI, that the steady growth of the government at the federal level has been typified by a shift in priorities leading to decreased defense expenditure and increased social welfare spending. As Secretary Brown indicated in February, 1979, projected increases in current (not constant) defense budget authority and outlays for FY 1979-1980 lagged behind those for health, education and welfare.<sup>37</sup> The arguments made by defense critics that U.S. military spending impinges upon social welfare spending are not consistent with the figures. Perhaps because of this fact, recent anti-defense spending arguments have turned elsewhere in an attempt to prevent the U.S. from increasing its commitment to defense spending.

#### Waste and Cost Overruns

A second domestic-related issue that is used by defense critics to argue against higher levels of defense expenditure is that of waste in the defense budget. Two often-used arguments are that the DOD too frequently uses "sole source contracts" instead of competitive bidding in the granting of defense contracts, thus encouraging cost-overruns, and that the Defense Department

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37. Senate First Concurrent Budget Resolution, FY 1980, p. 348. (A projected increase of 7.3 percent in defense budget authority as opposed to one of 10.3 percent for HEW, and a projected increase of 8.8 percent in defense outlays as opposed to 9.3 percent in HEW outlays.)

runs up huge "unexpended balances" which the DOD doesn't know how to spend.<sup>38</sup>

While it is true that waste and cost overruns do exist within the federal budget, the reasons for them are primarily political, and cannot be attributed solely to the Defense Department management. Cost overruns on non-defense construction projects far exceed those in the defense area. According to GAO audits, the Pentagon is generally regarded as one of the best-managed of all of the federal departments.<sup>39</sup> Moreover, James T. McIntyre, the Carter Administration's own Budget Director, has noted that cost overruns in defense programs have four main causes: 1) inflation, 2) alterations in systems capabilities before full-scale development (thus driving up costs), 3) the tendency to make changes in these systems capabilities after competition has ended and the weapons design choice has already been made, thus requiring "sole-source" contracts, 4) and, very importantly, programmatic disruptions (or "stretchout") that "constantly stop, start and detour programs from their original plans."<sup>40</sup>

Inflation naturally drives up costs and is an important element in cost escalation, but is not the sole reason for sudden increases in defense program expenditures. The length of the U.S. weapons acquisition cycle, and its subjection to political manipulation, most certainly deserves mention as well. Alterations in a system's capabilities after initial contracts have been awarded reflects a conscious political decision to obtain, in some cases, better performance characteristics even if they require increased cost. And, as Congressman Richard Ichord has noted, some of these "front-end" problems are all too often the result of "the institutionalization of prototyping, fly-before-buy and operational testing strategies."<sup>41</sup> Costs in defense programs have therefore risen primarily due to longer acquisition times "at the transition from development to procurement" rather than solely longer development times.<sup>42</sup> So, clearly, DOD mismanagement is not the only, or even the major, factor in the cost escalation of military systems.

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38. "Exchange of Correspondence on Defense Cost Control and Competitive Bidding" in Senate First Concurrent Resolution on the Budget, FY 1980, pp. 386-389; and Lawrence J. Korb, "The FY 1980-1984 Defense Program, Issues and Trends," AEI Foreign Policy and Defense Review, Vol. I, No. 4, pp. 32-33.
39. Korb, op. cit., p. 32; See also Paul Ignatius, Department Headquarters Study: A Report to the Secretary of Defense, June 1, 1978.
40. Senate First Concurrent Budget Resolution, p. 390.
41. "U.S. Advantage in Arms Quality Called Illusory," Aviation Week and Space Technology, November 20, 1978, p. 27.
42. Ibid.

### The Stretchout and Shortfall Problems

Another reason for cost overruns is the disruption of the procurement schedule. Program "stretchouts" occur when the procurement schedules of weapons systems are moved back to accommodate lower budgetary ceilings. Stretchout will result in cost escalations for both the Trident II submarine (\$1.6 billion) and the F-14 fighter plane (\$1.0 billion).<sup>43</sup> The stretchout solution reflects a conscious political judgement to put short-run budgetary considerations before both efficient long-term procurement decision-making and national security considerations. Not only does program stretchout increase program costs, but it also results in deployment delays at a time when Soviet force deployments are proceeding on schedule. Unfortunately, the stretchout solution may have to be used for many more U.S. military systems unless<sup>44</sup> increased funding is made available within the next few years.

The irony in holding down defense budgetary ceilings in hopes of reallocating funds to the social sector of the federal budget is that once the decision to modernize is made, the cost of replacing older systems becomes all the greater. This further compounds the problem of choosing where the budget is to be constrained. As Lawrence J. Korb has documented, the 20-year-long delay in modernizing U.S. conventional military systems has resulted in the serious problem of U.S. force block obsolescence, and continued inflation has raised the costs<sup>45</sup> of procuring new U.S. military forces by over \$65.5 billion.

Stretching out weapons production lines and deployment dates leads to severe spending shortfalls as well as to eventually higher costs in defense spending. Former Defense Secretary Donald Rumsfeld has estimated that the Carter Administration's previous defense budgets (FY 1978-1980) have already resulted in a \$38.6 billion shortfall in defense budgetary authority from those of the Ford Administration in January 1977. Most of this spending shortfall has already severely impeded the modernization of the U.S. Navy and procurement of naval aircraft. Even under a 5 percent real growth plan, it could be well into the third or fourth year of the program before this shortfall is made up, since the projected increases would not amount to anywhere close to \$38 billion during the first two years of the program. A 5 percent real growth in defense spending for FY 1981 (\$161.2 billion) would amount to an increase of only about \$7 billion.

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43. Korb, op. cit., p. 14.

44. "Army's Pierre Sees Stretchouts as Solution to Procurement Crunch," Aero-Space Daily, September 12, 1979; Congressional Record, September 18, 1979, p. S12839-lists conventional programs which would experience funding shortfalls under a 3% real growth limit for FY 1980; and Francis J. West, "Planning the Navy's Future," U.S. Naval Institute Proceedings, October 1979, p. 26; Korb, op. cit., pp. 13-14.

45. Korb, op. cit., pp. 12-14.

Current projections of the Administration's FY 1981 defense budget range from \$151-162 billion. A most likely compromise in the middle sector of this range would amount to much less than five percent real growth from the FY 1980 budget. Yet, even a five percent real growth would be inadequate. Five percent real growth in the FY 1981 defense budget (\$6.5-7.0 billion) would be insufficient to fund new and enhanced strategic programs needed for the early 1980s.<sup>46</sup> Most of the funding increases, moreover, would come in non-procurement (personnel, operations and maintenance, military construction, etc.) portions of the budget.

Secondly, a five percent real growth in defense spending would not make up for the shortfall in defense budget authority that has accrued over the past three years. Former Ford Administration defense officials (including Rumsfeld, former Deputy Defense Secretary William P. Clements, former Army Secretary Martin R. Hoffman, former Navy Secretary William Middendorf and former Air Force Secretary Thomas Reed) have recently urged that annual growth in the defense budget be increased by \$20-25 billion over the next two years.<sup>47</sup> Due to the excessive defense budget shortfalls that have collected since 1977, it may be necessary to have increases in defense budget authority of similar magnitude during the final three years of the five-year program as well.

Moreover, the congressional budget committees have consistently proposed budgetary ceilings beneath those of the Administration. Both the Administration and the budget committees severely underestimated the rate of<sup>48</sup> inflation upon which their defense budget proposals were made. Because of the three-year-long failure to sufficiently budget for and fund U.S. military weapons programs this shortfall in defense spending may not be made up for many years to come. Unless prompt and vigorous action is taken to fund U.S. weapons programs at levels far above even the 5 percent level, the U.S. will continue to see the comparative balance in defense expenditure and weapons procurement between itself and the Soviet Union erode. Tables VII and VIII illustrate the defense spending shortfall problem that is facing the U.S. as a result of the trends of the past three years.

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46. Enhanced strategic programs would cost from \$6-10 billion. See: "Defense Expenditures and SALT II," National Security Record, No. 14 (October 1979), which is largely excerpted from a forthcoming study by Francis P. Hoerber to appear in Arms, Men and Military Budgets: Issues for Fiscal Year 1981. See footnote 30; and "Budget Overview," Aviation Week and Space Technology, November 26, 1979, p. 13. For a discussion of the shortfall problem see: "Statement of Donald H. Rumsfeld on SALT II," Congressional Record, October 11, 1979, p. S14407; Congressional Record, September 18, 1979, p. S12839; and Richard Burt, "Carter Seeking Rise in Military Outlay," New York Times, October 26, 1979, p. 1.
47. Vernon A. Guidry, "5 Ex-Defense Officials Urge Defeat of SALT II, Billions More for Arms," Washington Star, November 26, 1979, p. 8; and Raymond Coffey, "Rumsfeld Urges SALT Defeat," Chicago Tribune, November 27, 1979, p. 1.
48. Senate First Concurrent Budget Resolution, p. 358.

Table VII  
TOA Shortfall From Ford Recommendations  
(FY 1978-FY 1980 in billions of current dollars)

	<u>FY 1978</u>	<u>FY 1979</u>	<u>FY 1980</u>	<u>Total</u>
Ford 1/77 <sup>a</sup>	123.1	135.4	145.8	404.3
Final level	116.5 <sup>b</sup>	127.0 <sup>c</sup>	140.5 <sup>d</sup>	384.0
Short	7.4	8.4	5.3	20.3

Rumsfeld Shortfall (adjusted for inflation) - \$38.6 billion<sup>e</sup>

- a) FY 1978 DOD Report, p. 319.  
 b) Korb, op. cit., p. 28.  
 c) Third Concurrent Budget Resolution, FY 1979.  
 d) Estimate.  
 e) Rumsfeld estimate for FY 1978-FY 1980, constant FY 1980 dollars.

Table VIII  
Comparative FY 1980 Defense Budget Requests  
(Ford and Carter) and Congressional Budget Resolutions  
and Budget Committee Recommendations for Defense Spending

<u>Request/Recommendation</u>	<u>TOA</u>	<u>Outlays</u>
Ford Administration 1/77 <sup>a</sup>	145.8	133.8
Carter original 1/79 <sup>b</sup>	135.5	122.7
Carter 7/31/79 revision <sup>c</sup>	138.5	126.8
Carter 9/10/79 revision <sup>c</sup>	141.4	130.6
House First Budget Resolution <sup>c</sup>	136.6	124.2
House Budget Committee 2nd Recomm. <sup>c</sup>	138.2	128.6
Senate First Budget Resolution <sup>d</sup>	136.6	124.2
Senate Budget Committee 2nd Reco. <sup>d</sup>	136.8	127.4
Senate Second Budget Resolution <sup>e</sup>	141.2	-----
3% growth <sup>f</sup>	141.8	130.7
5% growth <sup>f</sup>	144.5	133.3
<u>Expected Appropriation</u>	<u>140.5 (est.)</u>	<u>129.0 (est.)</u>

- a) FY 1978 DOD Report, p. 319.  
 b) Korb, op. cit., pp. 6 and 29.  
 c) U.S. Congress, House, Second Concurrent Resolution on the Budget, FY 1980, Report of the Committee on the Budget, September 14, 1979 (Washington, D.C.: Government Printing Office, 1979), p. 29.  
 d) Senate Second Concurrent Budget Resolution, FY 1980, p. 50.  
 e) Congressional Quarterly, September 22, 1979, p. 2031.  
 f) House Second Concurrent Resolution on the Budget, FY 1980, p. 307. Based upon overall inflation rate of 8.4 percent for defense spending. Break-down: 9.3 percent for purchases; 7 percent for payroll and 10 percent for retirement pay.

### Procurement Decisions

Wasteful spending has also occurred due to misguided Defense development and procurement decision-making. A prime example of the first case is the loss of \$5.9 billion that was put into R & D on the B-1 bomber. President Carter's decision against procurement of the B-1 will result in the loss of billions of dollars in advanced development technology for a new deployed penetrating bomber, unless that decision is either reversed, or the Administration decides to develop a B-52 follow-on based primarily on B-1 structural designs and technologies.

The Carter Administration's MX deployment decision is another example of a loss of defense spending potential, not because the MX is unnecessary (the author believes ICBM vulnerability to be the major U.S. strategic problem of the 1980s), but because a much more expensive deployment mode (the closed-loop "race-track") was chosen. This mode will run into as many, if not more, environmental objections as did the MPS (multiple protective structures system which was the Air Force favorite) mode, which may result in further delays and unnecessary program stretchout. The MX race-track system is estimated to be from \$7.8-13 billion<sup>49</sup> more expensive than a multiple protective structures system. And given a recently published exchange between Secretary of Defense Brown and Soviet Defense Minister Ustinov, there is no evidence that the Soviets will view the race-track system as any more acceptable, from a verification perspective, than the MPS.

Congressional MX budget cutbacks and Administration waffling on the deployment mode (an air-mobile mode was given serious consideration in spite of the fact that it had double the direct life cycle costs of the MPS) due to pre-emptive arms control considerations, will undoubtedly lead to a more expensive, and probably less effective, MX system than if the U.S. had based its MX deployment decision on primarily strategic considerations. Recent reports indicate that the cost estimates of the race-track mode have since been raised by \$3 billion.<sup>50</sup> But by far the greatest loss is that of time. MX program stretchouts, due to pre-emptive arms control considerations, have seen the MX IOC date move back from FY 1983 to FY 1986.

### Military Repair and Construction

Military repair and construction costs comprise another area where cost savings can be made. All too often contracts for

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49. "The Crumbling Keystones: Taking the FY80 Force Improvement Plans at Less Than Face Value," Armed Forces Journal, June 1979; Clarence A. Robinson, "Five year Budget Curbs Aircraft, Ship Buys," Aviation Week and Space Technology, August 27, 1979. See also, William H. Gregory, "Tangled in Policy," Aviation Week and Space Technology, September 24, 1979, p. 27.
50. David R. Griffiths, "MX Flexibility Allows Doubling Shelters," Aviation Week and Space Technology, September 17, 1979, pp. 16-17.

military repair and construction are given to advance isolated social and economic goals at the expense of the broader national good. One example of this is the Administration's decision to give the SLEP (Surface Life Extension Program) contract for the overhaul of the Saratoga aircraft carrier to a Philadelphia shipyard instead of to the better-equipped Newport News, Virginia shipyard. A major reason for this decision was apparently to advance the social goal of increasing employment in Philadelphia. Yet, the taxpayers will find that they will have to pay from \$37-\$100 million more for the cost of overhauling the Saratoga at Philadelphia than would have been the case at Newport News.<sup>51</sup>

Another means by which the U.S. could cut down on military construction costs is to exempt military contracts from the provisions of the Davis-Bacon Act. According to Deputy Assistant Secretary of Defense Perry J. Fliakas, savings of 5-15 percent (or from \$70 to \$210 million) on labor costs could have been gained if the FY 1980 Military Construction Authorization Bill had been exempted<sup>52</sup> from the prevailing wage requirements of the Davis-Bacon Act. This has significance for the U.S. military procurement problem, since the U.S. currently has a backlog of \$35 billion in military construction.<sup>53</sup>

Also, a recent report of the Government Accounting Office revealed that the DOD has a backlog of \$2 billion (from FY 1973 to FY 1978) in property construction and repair work. The primary reasons given for this large backlog were not DOD mismanagement, but rather political and budgetary decision-making. The GAO cited budget constraints, inflation, redefinition of what work was to be included, continued deterioration of the work identified but not repaired, and increased emphasis on identifying the backlog as the primary reasons for the \$2 billion backlog in property maintenance and repair work.<sup>54</sup>

#### Unexpended Balances or DOD "Surplus Funds"

Critics of higher defense spending often charge that the U.S. runs up huge "unexpended balances" which leave the DOD with large sums of money that it doesn't know how to spend.<sup>55</sup> These critics say that the DOD should fund current programs out of

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51. Korb, op. cit., p. 30.
  52. Congressional Record, July 30, 1979, p. S10815-10816. Fliakas' estimates were based on a number of studies, including one by the University of Pennsylvania using 1979 GAO figures, Fliakas estimated that the extra cost of military construction resulting from Davis-Bacon would be "\$14 to \$126 million for DOD construction."
  53. Congressional Record, July 30, 1979, p. S10808.
  54. GAO, DOD's Real Property Maintenance and Repair Backlog, LCD-79-314, August 31, 1979.
  55. Steven R. Weisman, "Addabbo Plans to be a Hawk on Spending by Pentagon," The New York Times, February 11, 1979, p. E-4.

those balances. Some sources within this Administration circulated similar arguments prior to the Senate vote on the Hollings amendment in September in an attempt to sway Senators against voting increased defense expenditures.

The fact of the matter is that all government departments use this accounting procedure. The DOD's percentage of unexpended balances is about 1/7 of that of the entire federal government.<sup>56</sup> Of the \$87 billion in projected DOD unexpended balances, as of October 1 of this year three-fourths of that amount, or approximately \$67 billion, is already obligated to future defense programs that must be funded over a long-term period.<sup>57</sup> Monies already obligated for future systems cannot be diverted to fund present systems. Unexpended balances occur in the DOD budget because of the need to replace obsolete weapons systems through increased procurement, and necessarily, increased spending. Until the U.S. fully modernizes its military forces, it can expect DOD unexpended balances to continue to rise.

The unobligated balances that remain (estimated to be from \$22-23 billion), are in specific multiple-year or no-year accounts for particular items and services, "and must either be obligated for those items within a specified period of time...or returned to the Treasury."<sup>58</sup> The anti-defense spending criticism of higher U.S. defense expenditure based on the charge that "unexpended balances" can be used to alleviate current budget shortfalls is a false and misleading one.

#### Defense Industry Dislocations

Another argument used against increased defense spending is that it results in a decline in U.S. economic productivity and non-defense related jobs. The argument is largely based on the assumption that defense spending comes at the expense of job creation in other non-defense areas and of increased social welfare. If that were to be the case, one would expect to find that both defense spending and defense-related employment have progressively increased over a period of ten to twenty years, to the detriment of both private sector job creation and increased social welfare spending. Instead, the facts show that the constant dollar decreases in defense spending, particularly in the procurement area, have caused significant problems for U.S. defense industries.

It already has been shown that defense spending has declined as a percentage of the U.S. GNP over the past twenty years, from

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56. Korb, op. cit., p. 34.

57. Ibid., p. 33. Korb emphasizes that advocates of using unexpended balances to fund current year defense budgets are seeking a means to find more money for social programs.

58. Ibid. (Korb states that only \$3 billion in unobligated balances have been returned to the Treasury since 1976.) See also House First Concurrent Budget Resolution, pp. 215-219.



close to 10 percent to approximately 5 percent. Defense spending now takes up only 23 percent of all federal spending, a decline from 57 percent in 1956.<sup>59</sup> Moreover, Secretary of Defense Harold Brown indicated in testimony before the Senate Budget Committee in February that defense-related workers now account for only 4.9 percent of the U.S. work force, the lowest level since before World War II. The number of DOD civilian employees dropped below the 1 million level in 1976 (from a high of 1,341,000 in 1969) and has remained relatively constant since then.<sup>60</sup> Both of these facts demonstrate that defense-related spending and employment have decreased in relation to the growth in the rest of the economy.

The decline in constant dollar (inflation adjusted) defense spending should be a source of concern for Congress and the Administration, for it has caused a number of problems for U.S. defense industries. The constant dollar decline in U.S. defense procurement spending, in particular, has led to:

- 1) less than full utilization of our defense production capacity;
- 2) increased industry reliance upon foreign military sales, rather than on U.S. sales;
- 3) insufficient investment incentives due to the fluctuating, cyclical nature of the U.S. defense sales market during the 1970s; and,
- 4) a need to upgrade our defense "production surge capability" (the ability to efficiently increase defense production in a short time period) in the event of national mobilization or emergency.<sup>61</sup>

Meanwhile, federal non-defense constant dollar spending (including payments to individuals) has increased, as the U.S. defense-industrial base continues to suffer these serious problems. Increased public sector spending and chronic government deficits at all levels could lead the U.S. to a situation where it becomes increasingly difficult to develop a tax base broad enough to fund the defense programs needed to counter the Soviet threat in the 1980s.<sup>62</sup>

### R & D Spending

Defense spending critics have recently begun using a new argument in their attack against higher defense budgets. These critics contend that U.S. military Research and Development (R&D)

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59. Clayton, op. cit., p. 10.

60. Senate First Concurrent Budget Resolution, p. 348; and Facts 1978, Department of Defense, p. 35.

61. Jacques S. Gansler, "Let's Change the Way the Pentagon Does Business," Harvard Business Review, May-June 1977.

62. Clayton, op. cit., p. 60; and William Simon, A Time for Truth (New York: Berkeley Publishing Company, 1979).

is harmful to the overall health of U.S. commercial research and development, and that the monies allotted to military R & D must be even further reduced. Ironically, some defense spending critics have long maintained that U.S. technological superiority offsets Soviet quantitative superiority. This charge is made in spite of the fact that a \$35-\$40 billion gap in military R & D has evolved between the U.S. and the U.S.S.R. during the last decade. As an example, one such critic recently contended (in spite of his own use of statistics that showed that defense R & D spending has dropped from 50 percent of all U.S. R & D spending from 1957-1966 to 1/3rd of all R & D spending today) that U.S. military R & D is impeding U.S. economic productivity.<sup>63</sup>

Table IX  
U.S.-Soviet R&D Personnel

	Total R&D	Mil. R&D	% in Mil. Research
Soviet	850,000	500,000	59
U.S.	500,000	150,000	30

Source: Senate Second Concurrent Budget Resolution, FY 1980, p. 152.

Other criticisms of military R & D are that it hurts the U.S. in competition with its international economic competitors, that it "produces little knowledge useful in the civilian sector,"<sup>64</sup> and diminishes R & D in other scientific and technological areas.

These arguments fail to account for both the complexity and interdependence of the U.S. economy and for the real impact of military R & D on overall U.S. research and development expenditure. Current U.S. defense RD&T spending for FY 1980 is \$13.5 billion.<sup>65</sup> That level of spending represents no real growth from that of the FY 1979 military R & D budget.<sup>66</sup> Indeed, when adjusted for inflation, that amount registers a net decline from military

63. James M. Suarez, "Too Many Dollars for Military R&D," Christian Science Monitor, June 13, 1979, p. 23. This author also contends that U.S. defense R&D has resulted in an excessive "brain drain" of personnel from the civilian industry to the defense industry - while all the while conceding that defense-related personnel now account for less of a percentage of total U.S. scientific personnel engaged in military R&D (40%) than was the case in the 1960s (50%). The U.S. should be concerned with the balance in scientific personnel used for military R&D with the Soviet Union. The Soviets have 500,000 personnel in this capacity. The U.S. has only 150,000.

64. Ibid.

65. "Defense Authorizations, 1980 - Conference Report," Congressional Record, October 24, 1979, p. S15075. Final appropriation may be even lower.

66. Conigliaro, op. cit. The total would represent no growth at a 6 percent inflation rate. Inflation for overall military spending in FY 1980 budget authorization was 8.5 percent.

R & D spending of the last fiscal year. To say that this level of military R & D funding inordinately strains the U.S. international economic competitive edge fails to account for the importance of high-technology industries on the general health of the nation's economy. A 1976 National Science Foundation study found that the U.S. trade balance in R & D intensive goods and technologies more than doubled from 1960-76.<sup>67</sup> The U.S. dominance of the aerospace and electronics markets, both of which are highly defense-related, is a primary reason why the NSF study concluded that "the technology-intensive product group has been responsible for yielding surpluses and largely covering deficits in trade from specific non-R & D intensive product groups throughout the period through 1976."<sup>68</sup> Our technology-intensive, defense-related industries should be seen as a definite good rather than a drag on U.S. international competitiveness.

Moreover, as the FY 1980 DOD report emphasizes, the Defense Science and Technology program is designed not only for increasing a military system's capabilities, but also for "technology infrastructure programs such as those in materials, semi-conductors and electronics that are the basic foundation for technological advances in all areas of military interest."<sup>69</sup> The DOD has its own staff working with an inter-agency committee on Domestic Policy Review of Industrial Innovation "to assess the impact of government programs on industrial innovation that could enhance the national capacity for innovation which will have a direct impact on our military capabilities."<sup>70</sup> To imply that military R & D does not result in some "spin off" in the form of improved technologies in electronics, data processing, and manufacturing and industrial production processes ignores the interdependence of the military and industrial sectors of our economy. In addition, some commercial technologies are developing so rapidly that they even pose an export control problem for the United States, since many have "dual purpose" military applications.

Some critics have gone so far as to suggest that U.S. military R & D spending should decline by as much as 70 percent over the next decade.<sup>71</sup> The facts clearly point to an opposite conclusion: U.S. military R & D spending needs to be increased to meet the Soviet military threat of the 1980s. Defense-related R & D spending has suffered, just as has defense spending in general, from the decade-long neglect of U.S. defense investment. As writer Stephen L. Lukasik has noted, U.S. military R & D spending has fluctuated over the last twenty years, and by the late 1960s defense and space-related R & D spending amounted to less of a percentage of total U.S. R & D spending than did other public and

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67. "National Science Foundation Report Documents Importance of R&D on U.S. Balance of Trade," Congressional Record, May 11, 1978, p. E2519.

68. Ibid.

69. FY 1980 DOD Report, p. 225.

70. Ibid., p. 254.

71. Conigliaro, op. cit.

private R & D spending.<sup>72</sup> That trend has continued, and by the mid-1970s, defense-related R & D amounted to less than 30 percent of all U.S. R & D spending, a drop from a high of 52.6 percent in 1958.<sup>73</sup> Clearly, military R & D, rather than hindering R & D in other areas, has itself been constrained by conscious political decisions in such a manner as to impede the ability of the U.S. to compete with the Soviet Union for superiority in deployed military forces during the 1980s.<sup>74</sup>

Military R & D cannot be said to have stifled creativity in the commercial sector. The private sector is suffering from chronic lags in capital investment for new plant equipment and technological innovation due to governmental confiscation of capital needed for private investment.<sup>75</sup> The solution to this problem lies primarily in our own governmental non-defense spending, rather than with military R & D. At a time when the Soviet Union clearly outspends us in military R & D, and devotes a far larger number of personnel to military-related research, this important fact should be taken into consideration.

#### CONCLUSION

The defense spending debate can be expected to continue, and become even more intense, as the U.S. enters the decade of the 1980s. It is unquestionable that if the asymmetry in comparative U.S.-Soviet defense spending is allowed to continue, Soviet military capabilities will continue to grow, while those of the U.S. will in all probability decline in relation to those of the Soviets. There is no justifiable domestic reason why this state of affairs should be allowed to continue. The United States has twice the Gross National Product of the Soviet Union, a far more educated and talented citizenry, and an economic system, which in spite of its faults (mainly self-imposed), is far superior to that of the Soviet Union.

Debate shall soon begin on the Carter Administration's proposed FY 1981 defense program and its revised five-year defense plan. A five percent real growth in defense spending will not begin to make up for the severe shortfall and stretchout problems that are facing the U.S. defense program planners at the present

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72. Stephen L. Lukasik, "Military Research and Development," in Francis P. Hoerber and William Schneider, Jr., (eds.), Arms, Men and Military Budgets, Issues for Fiscal Year 1978, National Strategy Information Center (New York: Crane, Russak & Co., Inc. 1977), pp. 192-195.
73. Ibid., p. 201.
74. Conigliaro, op. cit., p. H6289.
75. Simon, op. cit., p. 104. Simon estimates private investment in the U.S. to be approximately 18 percent of the U.S. GNP, while those of Japan and West Germany are 35 percent and 26 percent respectively.

time.<sup>76</sup> Congress and the Administration must soon face up to this reality, and develop defense spending guidelines in light of the increased Soviet threat largely caused by the decade-long asymmetry in U.S.-Soviet military modernization and procurement. Given the nature of the security problems that face the U.S., and the rest of the free world, in the coming decade, arbitrary upper limits on real growth in defense spending cannot be justified on either economic or military grounds.

Conflicting domestic pressures upon the federal budget are bound to continue into the 1980s. Anti-defense spending critics, using faulty assumptions and inaccurate analyses, will continue to oppose the U.S. increasing its commitment to defense, in spite of the increased Soviet threat. The search for an appropriate level of defense spending to meet U.S. military requirements must not be side tracked by either mirror-imaging of Soviet intentions or domestic pressure politics. For, as Air Marshall Sir John Slessor has written, "It is customary in democratic countries to deplore expenditures on armaments as conflicting with the requirements of the social services. There is a tendency to forget the most important social service that a government can provide for its people is to keep them alive and free."<sup>77</sup>

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76. Rumsfeld, Congressional Record, op. cit., p. S14407; and "Defense Expenditures and SALT II," National Security Record, October 1979, No. 14, p. 2-3.
77. Taken from Rumsfeld, Congressional Record, op. cit., p. S14411.

