

**Does Military Spending Stimulate or Retard Economic Performance?
Revisiting an Old Debate**

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Does Military Spending Stimulate or Retard Economic Performance? Revisiting an Old Debate

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ABSTRACT

The current military buildup, the fourth since the end of World War II, once again raises an old debate: does military spending provide economic stimulation through higher demand and technological innovations, or does military spending retard economic performance because it draws resources from more productive activities. This paper reviews the debate with almost a half century worth of data, and concludes that neither view garners strong support. The major effect of military spending may be context specific, with the impacts depending largely on what else is happening in the economy.

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Introduction

The United States is the midst of a major expansion in its military spending, the fourth such expansion since the end of World War II. The military budget is projected to reach \$400 billion in constant (1996) dollars in Fiscal Year (FY) 2005, which is approximately the level the military budget reached at the peak of each of the three previous post-World War II buildups. These buildups were followed by drawdowns, giving military spending a cyclical pattern without an upward time trend (Figure 1).

Figure 1 goes here

Over the same time period, of course, the economy has grown substantially. Thus, the ratio of military spending to gross domestic product (GDP) commonly thought of as a measure of the defense burden, has fallen substantially, albeit with its own cyclical pattern (Figure 2).

Figure 2 goes here

Similarly, the share of the federal government budget spent on the defense function has also declined substantially (Figure 3)

Figure 3 goes here

Whenever military spending changes, there are discussions and debates as to its economic impacts. Broadly speaking, there are two sets of views. One sees the military as a drain on the economy, especially in the form of depleting the private sector of key technological and managerial resources. Whatever benefits there are from demand stimulation and technological spin-offs are swamped, in this view, by the drain of resources that could, and should, be utilized for investment in human and physical capital and for research and development. This view of the economic costs of military outlays can be found in the writings of economists and policy makers from Adam Smith¹ to Dwight Eisenhower, and received its most complete recent articulation in the works of Seymour Melman (1965; 1983), Lloyd J. Dumas (1986) and others.

¹ Smith saw military spending as an unproductive expenditure that detracts from the wealth of a nation since it uses resources that could be employed in productive activities. He also saw the military as an activity that needs to be analyzed in a larger context. See, e.g., Coloumb, 1998.

The second and alternative view treats the military budget as a source of aggregate demand for goods and services and, therefore, a source of economic stimulation. This second view has come to be known as Military Keynesianism, after John Maynard Keynes, who argued that in extreme situations the government should spend on anything as a means of stimulating aggregate demand, and following the experience of Nazi Germany in the 1930s and the United States prior to and especially after its entrance into World War II, where rearmament helped bring these countries out of depression. The U. S. experiences in World War II, Korea and Vietnam are part of what William Nordhaus (2002) more recently called “the iron law of wartime booms”. In the winter of 1949-50, Paul Nitze, with the assistance of Leon Keyserling, introduced these notions into the writing of NSC-68, the key strategy document defining the U. S. policy of containment towards the Soviet Union (Flash, 1965; Fordham, 1998, chapter 3). In a later example, James Tobin severely attacked the Eisenhower Administration for not recognizing that larger military budgets would both enhance U. S. security and stimulate a flagging economy (Tobin, 1958). Paul Baran and Paul Sweezy developed a stagnationist version of this argument in which political elites accepted military spending as a form of government-induced economic stimulation because it met a variety of specific needs besides demand stimulation, such as profits for defense contractors and protection for foreign investments, and did not directly conflict with private interests, as would government intervention into providing health services or building housing (Baran and Sweezy, 1966, chapter 7).

Military Spending as Demand Stimulation – The Long Run

The declining military burden. The data presented in Figure 1 illustrates the major problem with the argument that military spending undergirds U. S. aggregate demand: with the defense burden declining substantially over more than four decades, military spending must, in effect, follow Lewis Carroll’s advise and “run faster to stay in the same place.” The defense share of GDP declined from almost 10 per cent in the second half of the 1950s, after the post-Korea draw down, to nearly three per cent in the second half of the 1990s.² Even after three years of rapid growth in military spending after the terrorist attacks of September 11, 2001, the defense burden is only four per cent of GDP, less than one third its level during the Korean War, less than one-half its level during the Vietnam War, and less than two-thirds of its level in the mid-1980s, the peaks of the three prior buildups. With the defense to GDP ratio so much smaller in 2004 than

² The measure of defense spending and defense burden utilized here draws upon historical budget data and understates both the level of spending on national security, and the share of GDP this spending represents. The budget data excludes, for example, Veterans Affairs, the space program, components of homeland security such as the Coast Guard, and interest on the federal debt incurred to meet past military obligations. For a recent discussion of these issues see Brauer, 2004; an earlier attempt at identifying and measuring a wider definition is Murphy and Gold in DeGrasse, 1983. While some of these missing components should clearly be included, many have dual use attributes, which make it difficult to identify their military portion. Others do not represent direct demand for goods and services and may not be as relevant to the discussion of direct macroeconomic impacts. While some components have risen over time, others, such as the space program, have fallen. It is not clear how widening the definition of military spending would affect the trends identified above.

it has been in the past, military spending must show larger relative growth to have an impact on aggregate demand equivalent to its impact in the past.

In addition to declining, the defense to GDP ratio has fluctuated less than in the past. Indeed, since the early 1970s, the period-to-period fluctuations in the defense/GDP ratio have been considerably smaller than in the 25 years after the end of World War II. In statistical terms, the reduced variance in military spending reduces its ability to “explain” the variance in other key macroeconomic variables, such as investment or employment.

Arguments about the long-run impacts of military spending often concentrate on cross-country comparisons. Rough comparisons between military burdens and economic performance have found the two being negatively related (DeGrasse, 1983), with the U. S. and the U. K., the two developed economies with the highest defense to GDP ratios, often arrayed against Japan and Germany, the two with the lowest. However, since the early 1980s, the improved performance of the U. S. and U. K., especially in terms of productivity growth rates, and the weakened performance of Japan and Germany, has made such comparisons less compelling. Econometric studies of the U. S. have been mixed, with some finding a positive statistical link between military expenditures and GDP growth (Atesoglu, 2002), some finding a negative link (Ward and Davis, 1992) and others noting the absence of such a link (Kinsella, 1990; Payne and Ross, 1992). Model builders have tended to emphasize the likely positive impact of military spending on GDP growth rates operating through demand stimulation and technological spin-offs, and the negative effects from the drawing down of savings and the resulting trade-off with investment. The overall impact on growth is seen as the net effect of these two opposite channels.

A number of researchers have focused on the possibility of a long-term trade-off between military spending and investment in the U. S.; if such a trade-off exists, this would provide evidence that military spending weakens an economy’s growth potential over time³. For the U. S., Smith (1980) and Oden (1992) found a significant negative trade-off coefficient between military spending and private and public investment spending. Using their model, I found the trade-off was limited to the period 1947-71, and was essentially zero after that, implying the absence of any link between military spending and investment after 1971 (Gold, 1993). I suggested that the existence of a significant trade-off in the earlier period may have been the result of the two large buildups and subsequent drawdowns for Korea and Vietnam when large shifts in military outlays first crowded out, and then crowded in, all other spending. Later, I concluded there was an absence of a long-term cointegrating relationship between military spending and investment, suggesting no trade-off, and the presence of a long-term trade-off between military spending and consumption (Gold, 1997a, 1997b).⁴ Thus, the

³ Much of the empirical research on defense spending (e.g., Alexander, 1995, Smith 1980) uses cross-country data sets, either primarily or totally. I have concentrated in this paper on studies where the relationships in the U. S. can be identified.

⁴ More recently, Atesoglu (2004), using different data, a different model and a different estimating technique, has found a cointegrating relation between military spending and investment, and a positive link,

beneficiary of the long-term peace dividend shown in Figure 1 appears to be both private and public consumption, reinforcing an earlier conclusion by Boulding (1973) and Edelstein (1990).

A military consumption trade-off. Since consumption includes many elements of human capital accumulation, a long-run trade-off between military spending and both public sector and private sector consumption could be an important channel by which military outlays impact economic growth. The rapid growth of health-related outlays both absolutely and as a share of GDP is an example of the dual role of consumption expenditures (Jones, 2004). The driving force behind the growth in health spending appears to be rapidly rising costs of health as a component of investment in human capital and therefore as an element of the reproduction of the work force over time. Public demands for greater government involvement in funding health expenditures, starting with Medicare, and the recognition of the positive externalities from health research and development and the large government role on this area, are other factors. More recently, the active involvement of business in reorganizing the health delivery systems and in gaining significant control over the legislative process, resulting in legislation preventing the government from negotiating price with pharmaceutical companies, may answer a question posed by Baran and Sweezy as to why business favors military spending; apparently, business has learned how to apply the same principals to the health sector.

It is tempting to attribute the growth in health outlays as a consequence of the decline in military spending relative to GDP. Indeed, from 1960 over a thirty-year period, health outlays grew from 5 per cent of GDP to fifteen per cent of GDP (Jones, 2004), providing essentially a mirror image of the declining defense burden. However, the direction of causation is not clear. Does the decline in the military burden free resources for rising health outlays, or does the demand for increased health services crowd out military spending? I will return to this issue below.

Military-technology trade-off. A similar point applies to the discussion of the military and technology. A key element of the depletionist analysis is the contention that the military outbids the private sector for technology-intensive resources, thereby robbing the private economy of a key growth input. During the last half of the 1950s, military and space R&D accounted for 54% of measured economy-wide R&D spending (NSF, 200 , Table 6) and, by some measures, the military sector absorbed about half of the economy's scientists and engineers. These high shares contributed to the comparisons with Germany and Japan, mentioned above. At the same time, however, the defense and

not a trade-off, between military spending and investment. He attributes this positive link to an accelerator mechanism whereby higher military spending stimulates aggregate demand, which in turn increases the demand for private investment. I find this result counter-intuitive given the long-term patterns of military spending and investment, where military outlays have fluctuated but not grown, while both public and private investment have clear positive long-term time trends. Atesoglu uses the chained price index for GDP to deflator his military spending series. However, since inflation in the defense sector has tended to out pace overall inflation, this may understate defense inflation and overstate the growth in defense spending.

space sectors were apparently generating substantial positive external benefits in terms of civilian technology and products in aircraft design, propulsion systems and radar, and in electronics and computers (Flamm, 1988). Over time, the defense and space share of R&D declined, to 34% in the mid-1980s, at the height of the Reagan-era investment-intensive buildup, and to 21% in the last half of the 1990s. Spin-offs, meanwhile, appeared to decline, as defense and civilian technology drifted apart; indeed, in the 1980s and 1990s, the defense sector began to draw increasingly on civilian technology (Gold, 1991). As with health spending, it remains unclear where the line of causality should be drawn, and what the net effect is of the relative decline in defense demand for R&D resources and the apparent drop in the contribution of defense R&D to economy-wide growth.

The 1990s saw a resurgence in U. S. technology, particularly in information technology (IT), including hardware, software and the Internet, and in biotechnology. It may be tempting to see this episode as validation of the depletionist analysis, where the resurgence might be seen as a result of the freeing of resources from the military sector. But the origins of both sets of technologies go back to the late 1970s and 1980s, when military use of technological resources was growing. During this period, there was a strong two-way flow of scientists and engineers between the defense and civilian sectors (Lerner, 1992), contradicting the depletionist view that the military draws the best and the brightest talent.⁵ Both IT and biotechnology drew heavily on foreign-born technologists and entrepreneurs and both drew heavily for financial resources on capital markets being fed by an increased foreign demand for U. S. financial assets. The 1990s peace dividend may certainly have helped but the new technologies also benefited from a relatively independent virtuous circle whereby rising demand and scale economies went hand in hand (Gold, 2000b).

Globalization. A key element in the Baran and Sweezy analysis is that a strong military is needed to protect the markets, resources and profits of U. S. firms operating abroad. Certainly, there is a long history of the U. S. military and intelligence agencies intervening directly or indirectly to either install or shore up regimes friendly to U. S. interests, from Iran to Guatemala to Chile to Granada to Panama and to Iraq in 2003. What is less clear is the long-term macroeconomic impact of these activities. One recent study (Oden, 1999) concludes that military spending is positively related to the terms of trade but negatively related to the trade balance, that is, when military spending rises, there is a negative partial coefficient on net exports. The negative effect on the trade balance is consistent with results from previous periods (Dudley and Passell, 1968). This result suggests that the use of military spending as an anti-stagnation device will be limited by external leakages from a deterioration in the trade balance.

There have also been indications that growth in military outlays may have negative effects on corporate profitability. The Vietnam buildup, for example, led to a

⁵ There is also the question as to whether military demands have an expansionary effect for the economy as a whole, attracting more people into technical professions. On a personal note, as an undergraduate engineering student in the Sputnik era, I noticed a number of fellow students studying with financial aid from defense programs, but having no intention of ever working for the military or military contractors.

general profit squeeze (Baker, Pollin and Zahrt, 1996), while in the current expansion, stock market valuations suggest that asset holders expect profits from the defense sector but not from non-defense companies (Galbraith, 2004). Moreover, there are growing indications that the current military adventure in Iraq is having serious negative effects on the viability of U. S. businesses operating in foreign locations (Lobe, 2004).

The role of military power in the global economy may also have changed in the four decades since Baran and Sweezy wrote *Monopoly Capital*. One change is the growing importance of bilateral and multilateral instruments in achieving international economic objectives, including trade and investment agreements, such as NAFTA, the interventions of multilateral agencies, such as the International Monetary Fund, and the establishment of dispute settlement procedures, as with the World Trade Organization. Moreover, foreign investment has become a two way street. The U. S. is simultaneously the world's largest exporter of both real and financial capital and the world's largest importer of real and financial capital. Threats of force are less likely to be effective when economic relations are so interdependent.

This does not mean, of course, that the use of military power is absent, merely that the balance may have shifted. The two major instances of the application of U. S. military force since the end of the Cold War have both involved the Persian Gulf and raise the issue of oil. Despite protestations from the Bush administration and its supporters, it is hard to imagine that oil is not an element in the U. S. decisions regarding the 1991 Gulf War or the 1993 invasion of Iraq.⁶ But are U. S. attempts at influencing world oil supplies a link to domestic macroeconomic performance?

Explaining the declining military burden. Why did the military burden fall in the half century after the end of the Korean War? I would suggest there are two major reasons that can explain this long-term trend. The first, touched on above, is increased demand, and increased political pressure, for greater public and private consumption. Declining tax rates and rising private debt fed private consumption spending, while increased reliance on deficit spending allowed the federal government, and state and local governments, to expand non-military spending. Guns may crowd out butter in the short term, but not over time.

The second explanation for the long term decline in the U. S. military burden is that the U. S. military has experienced significant gains in productivity; it is far more proficient at its main tasks, to deter or fight and win conventional wars, both absolutely and relative to possible antagonists. This proficiency is rooted firstly in the huge lead the U. S. has attained in weaponry and related hardware, such as communications. That lead is itself due to the U. S. advantage in R&D; the U. S. military spends more than half the world's total of military R&D (Trajtenberg, 2003). The proficiency advantage is also due

⁶ Many administration supporters reacted vehemently against the suggestion that the invasion of Iraq was motivated by oil. They remind me of Hamlet's admonishment that his mother "doth protest too much." The issue is less whether U. S. companies will control Iraq's oil but whether a U. S. friendly Iraqi regime will continue to supply oil to world markets and serve as a possible counter to countries such as Saudi Arabia and Iran in determining OPEC's policies.

to a skills lead. Since the move to an all volunteer military more than thirty years ago, the military has become more human capital intensive, stemming from greater selectivity in recruitment and re-enlistment, and providing more training to individuals both as an incentive for re-enlistment and as recognition that longer enlistments lengthen the payback period for investment in skills.

The U. S. advantage, however, is not absolute. Over the last century, from the Philippines to Vietnam to Iraq, the U. S. has been less successful in combating terrorists, guerillas and insurrectionists than fighting organized military forces. Transforming the military to deal with asymmetric threats has been high on the agenda since the end of the cold war, but military transformation has not gotten very far, in part because it has threatened entrenched interests, and budgets (GAO, 2004). One possibility is that the failures in Iraq will lead to increased pressures for a long term expansion in the military budget, in order to speed this transformation.

Military Spending as Demand Stimulation – The Short Run

The data presented in Figure 2 illustrates the major problem with the argument that military spending is an effective counter cyclical tool: there have been three complete and one partial cycle in military spending since World War II while there have been ten complete peak-to-peak business cycles and one partial cycle over the same period of time. With both the expansions and contractions in military spending being longer than the average business expansion and contraction, the conformity between the two is weak, at best. A recent study by Gerace (2002), using spectral methods, concluded that the data showed an absence of a counter cyclical relation between military spending and GDP.

To examine this further, I looked at quarter-to-quarter changes in real military spending, both consumption and investment, and in real GDP in the three quarters prior to and immediately after each business cycle trough, as identified by the National Bureau of Economic Research (NBER) business cycle dating system. The purpose is to see if military spending can be identified as easing a contraction, and pushing the following boom. Since quarter-to-quarter data can be erratic, I coded each quarter as follows: when the first difference in military spending was negative, this was taken as reinforcing a contraction or weakening a recovery, and was coded as “1”; if the ratio of the first difference in military spending to the first difference in GDP was less than the average military to GDP ratio, this was coded as “2”, or mildly expansionary; and if the marginal ratio was larger than the average ratio, the code was “3”, or strongly expansionary. If the marginal ratio is smaller than the average ratio, the average is being pulled down and defense demand is being removed from the economy, which means some other source of demand needs to be growing. Conversely, if the marginal ratio is larger than the average ratio, defense demand is being added to the economy.

The results are predictably mixed but also somewhat surprising. There have been ten business cycle troughs since World War II. In only three of these episodes could military spending be characterized as unambiguously strong in terms of fighting the

recession and stimulating the ensuing recovery. Two of these episodes will come as little surprise, the trough in the fourth quarter of 1982, during the Reagan buildup, and the trough in the fourth quarter of 2001, during the buildup that started in 1998 and picked up after 9/11. The third is the third quarter of 1980, prior to the election of Ronald Reagan, as the Carter Administration had already begun an expansion of the military budget.

In two cases, 1954II and 1970IV, military spending appears to have withdrawn aggregate demand both before and immediately after the trough. In 1991, the first Gulf War provided a strong stimulus to aggregate demand up to the trough in the first quarter, but then military spending declined thereafter. Yet the recovery took hold and lasted for the remainder of the decade. In 1949, military spending was a strong stimulant during the recession, but then turned negative at the 1949II trough and continued to decline during the recovery. Only with the Korean War in the second half of 1950 did the military contribute strongly to demand, but the recovery was well underway by then. Military spending was mixed surrounding the troughs in 1958, 1961 and 1975. These erratic patterns appear to reinforce the point that the absence of coordination between the military cycles and the business cycles indicates the absence of any systematic pattern in the ability of military spending to operate counter to the business cycle.⁷

I also used this rough coding system to assess the role of military spending for each episode, that is, the seven quarters centered on the cyclical trough taken as a single entity. I calculated the average value for each episode, with a value over two signifying a net addition of aggregate demand from the military, and an average value less than two a net withdrawal. Of the ten episodes, four had values over two, 1975, 1980, 1982 and 2001; two had values under two, 1954 and 1970, and four had values between 1.9 and 2.1, that is, values indicating no addition or subtraction of aggregate demand from the military, 1949, 1958, 1961 and 1991. Yet in three of these latter, 1949, 1958 and 1991, the period leading up to the trough showed military spending as giving a net addition to demand and the period moving away from the trough showing the military responsible for a net decline in aggregate demand. Thus, in half of the ten cyclical upswings, military spending was withdrawing demand as the economy began to recover. In these examples, the recoveries proceeded in spite of, not because of, the demand contributions from military spending.

Overheating. An alternative is to look not at the business cycles but at the military spending cycles, of which we are now at the beginning of the fourth. The first two (Korea and Vietnam) began while the economy was in a cyclical upswing, the third (Carter-Reagan) began with the economy still struggling after the stagflation of the 1970s while the fourth began with the economy in a recovery (1998) but became considerably larger with the economy at its trough (9/11). In each of the first three, there was a clear and strong demand stimulus from the buildup and in each case there was eventually inflationary pressures. The largest buildup relative to GDP was, of course, Korea, and the Truman administration responded to price pressures by instituting wage and price controls and by asking for, and receiving, a large increase in tax rates. The effectiveness

⁷ Similarly, Mayer (1991), found little in the way of counter cyclical patterns in the awarding of defense contracts.

of tax increases in cutting off the inflation was followed by a significant recession as the post-Korea draw down was not matched by a cut in taxes and demand was withdrawn from the economy.

The major escalation for Vietnam came as the economy was expanding and approaching what many observers thought was close to full employment. The Johnson administration sought to downplay the costs of the war and did not seek a tax increase, leading to budget deficits and inflationary pressures. The more restrictive monetary and fiscal policies that followed may have had less to do with containing inflation and more to do with restraining cost growth and reducing pressure on aggregate profitability (Baker, Pollin and Zahrt, 1996).

The Carter-Reagan buildup occurred in an environment of rising federal budget deficits and, after 1981, downward pressure on tax rates. This episode reflects a shift in the politics of federal government finance. Prior to 1960, both Democratic and Republican administrations eschewed deficit financing except in emergencies, and then only temporarily.⁸ By the Reagan years, Republicans who had embraced “supply side economics” were justifying deficits. It is not clear, then, how much of the stimulus leading to the 1980s cyclical expansion and the later pickup of inflation was due to the rising military budget and how much to the use of deficit financing.

By 2001, of course, the Republican fascination with deficits was complete, and a major military buildup was accompanied by large cuts in tax rates and rising deficits, the first time in U. S. history that a war was fought in concert with tax cuts. The rapid expansionary shift in the federal deficit along with the jump in defense outlays should have touched off a strong boom. That it did not may be attributed to substantial external leakages and heightened international risks due to the rising threat from terrorism. These risks have been indicated by rising prices for oil, shipping, business insurance, all of which are thought to include substantial risk premiums, and reductions in tourism and other activities. Rather than being an obvious demand stimulant, military spending appears to have a complicated relation to the macro economy.

Why Do We Spend as Much, or as Little, as We Do

One of the striking features about the ongoing debate regarding U. S. military spending is that people can passionately and seriously argue both sides of the key question: How much is enough? That may be a question without an answer since it requires first a political judgment as to the objectives of US military policy, and knowledge of the equivalent of a “military production function” to decide what resources

⁸ As described by one historian, Harry Truman “... believed deeply in a balanced budget The Keynesian Revolution did not disturb so much as a hair on his neatly combed head, at least until 1950, when he would turn to the new economics more out of expediency than out of conviction.” (Hogan, 1998, p. 71). And this was temporary, as Truman quickly moved to re-balance the budget with tax increases.

are needed to achieve those objectives. What we do know is that military budgets have fluctuated but have not grown, and we can ask why?⁹

A primary source of fluctuations are major national security events (Korea, Vietnam, 9/11) and shifts in doctrine (from containment to confrontation under Reagan). Yet in each of the four post-World War II buildups, military spending began to rise prior to the event or the shift in doctrine. Other factors clearly enter. One is demand from the defense industry and the military services for new weaponry or larger forces. A second is a push on the part of electoral coalitions who use supposed shortfalls in defense spending as a campaign anthem; this was clearly the case in 1960 and 1980, and to a lesser extent in 2000. These two factors lead to coalitions supporting larger outlays, and fed by intelligence leaks, blue ribbon commissions and books and essays by national security professionals arguing that the military is being seriously under funded. Examples include the bomber and missile gaps of the 1950s, the Team B report of the 1970s, and the Rumsfeld Commission report of the 1990s arguing for a missile defense program. In each case, the ensuing national security event becomes, in part, a tree on which to hang separate ornaments.

The desire for economic stimulation may be an element in the politics of defense buildups, but that appears to be more relevant on the local and regional levels than the national level. As described by Markusen et al (1992), the rise of gunbelt led to a spreading of political influence across a number of U. S. regions giving the military significant political power even as its share of the total economy has declined.

Each of the first three buildups ended, and resulted in a decline on military spending. Again, the first answer is that the national security event ended – the Korean armistice, the withdrawal from Vietnam and the rise of Gorbachev. But each episode also contained additional elements – growing unpopularity of the military actions, scandals around defense contracting, budget crunches as civilian programs were squeezed, and negative macroeconomic outcomes all contributed to weakening political support for high defense budgets.

There are indications that some of the elements that ended previous buildups are operating in the present context. The war in Iraq is losing popularity, scandals are growing (Halliburton, lack of armor for vehicles, etc), the falling dollar is being exacerbated by Iraq and continuing deficits, defense spending projections are far greater than available resources (CBO, 2003; Kosiak, 2003), and the administration is beginning to propose cuts in certain military programs. How far this goes remains to be seen, but the elements pushing towards retrenchment appear to be growing.

Concluding Comments

U. S. military spending has gone through a series of cycles but has not grown, in real terms, for more than fifty years. As a share of the economy and as a share of

⁹ This question is explored in Gold (2003).

government spending, military spending has declined substantially over the same period. The two approaches to explaining the link between military spending and economic performance appear to be incomplete both as explanations of what military spending does, and what it is intended to do.

Military spending appears to provide relatively little in the way of demand stimulation either secularly or cyclically, and when it does, it is more by coincidence than by volition. The long-term decline in the military burden has benefited consumption, not investment, and while there may be some substitution between military and civilian activity in technology-intensive activities, there are also complementarities. Thus, neither the Keynesian nor the depletionist approaches provide a full explanation of the economic effects of U. S. military budgets.

The most important effects of military spending may lie elsewhere. The definition of security, the choice of objectives and strategies, and the allocation of resources within the security sector are important issues. Thus, for example, spending on missile defense or supersonic fighter aircraft that do not have missions while skimping on economic assistance and medical aid to developing countries is a clear misallocation that has long-term security implications.

Perhaps the most obvious cost is the proclivity towards using military forces and engaging in violent conflict. War may be the largest negative for any economy, especially when the war is not necessary and has severe long-term consequences.

Figure 1

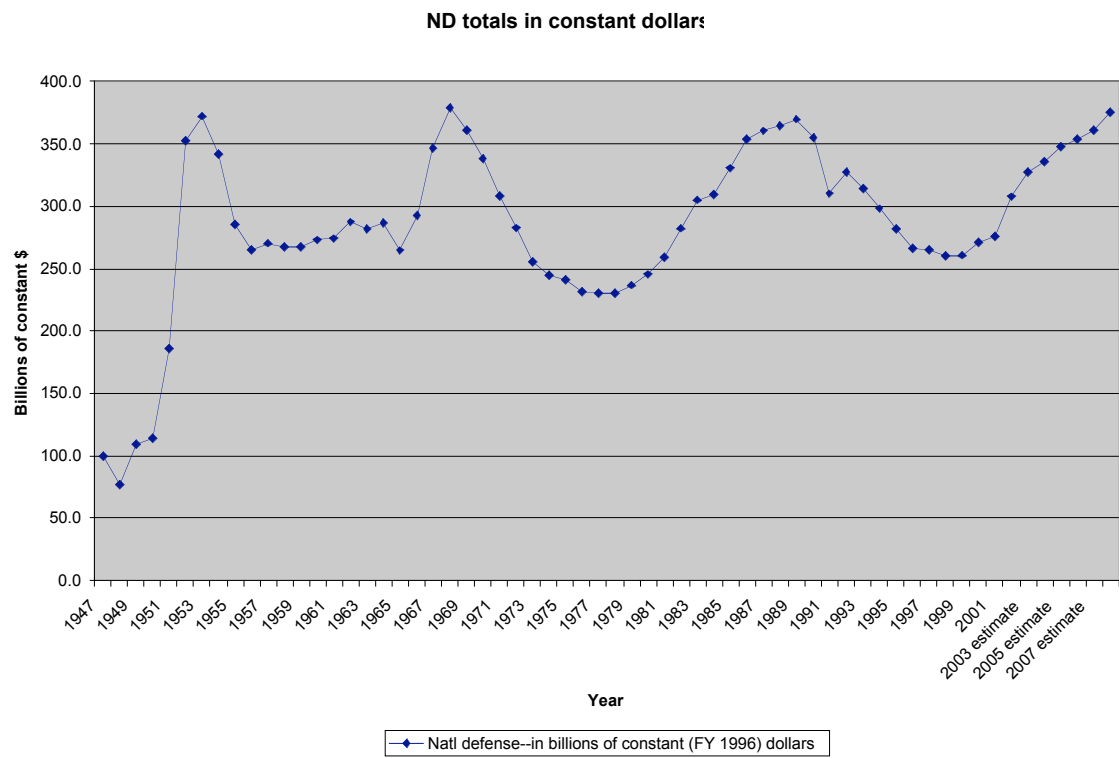


Figure 2

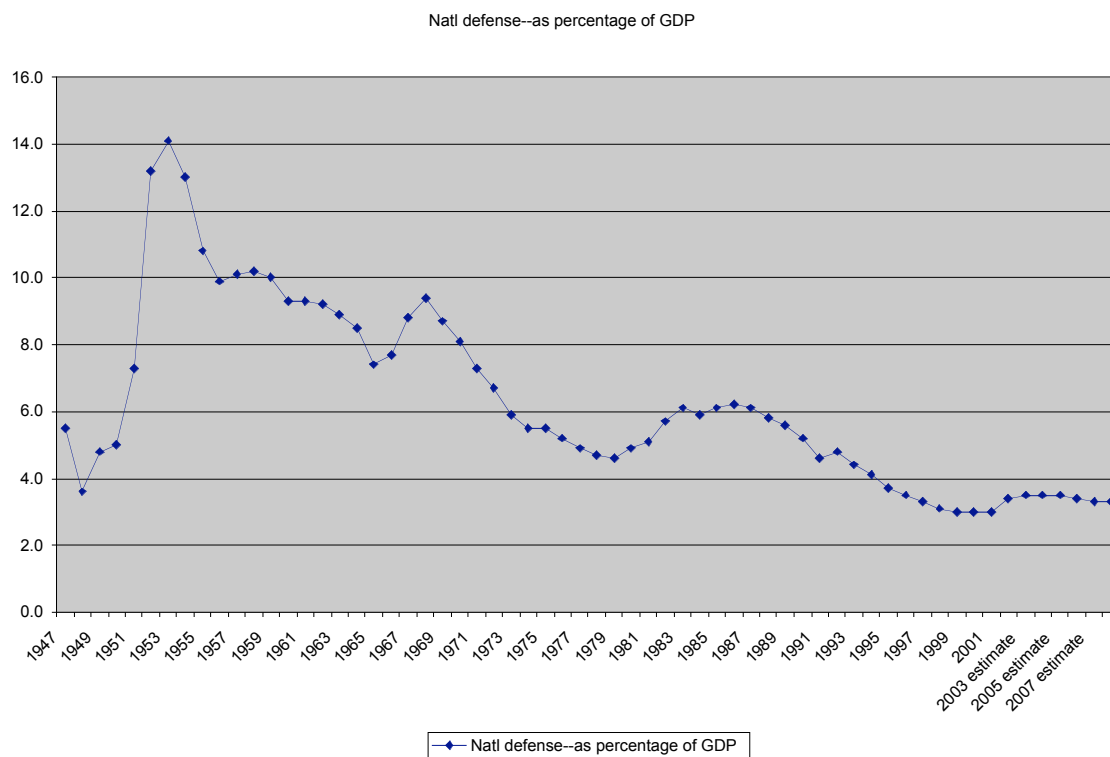
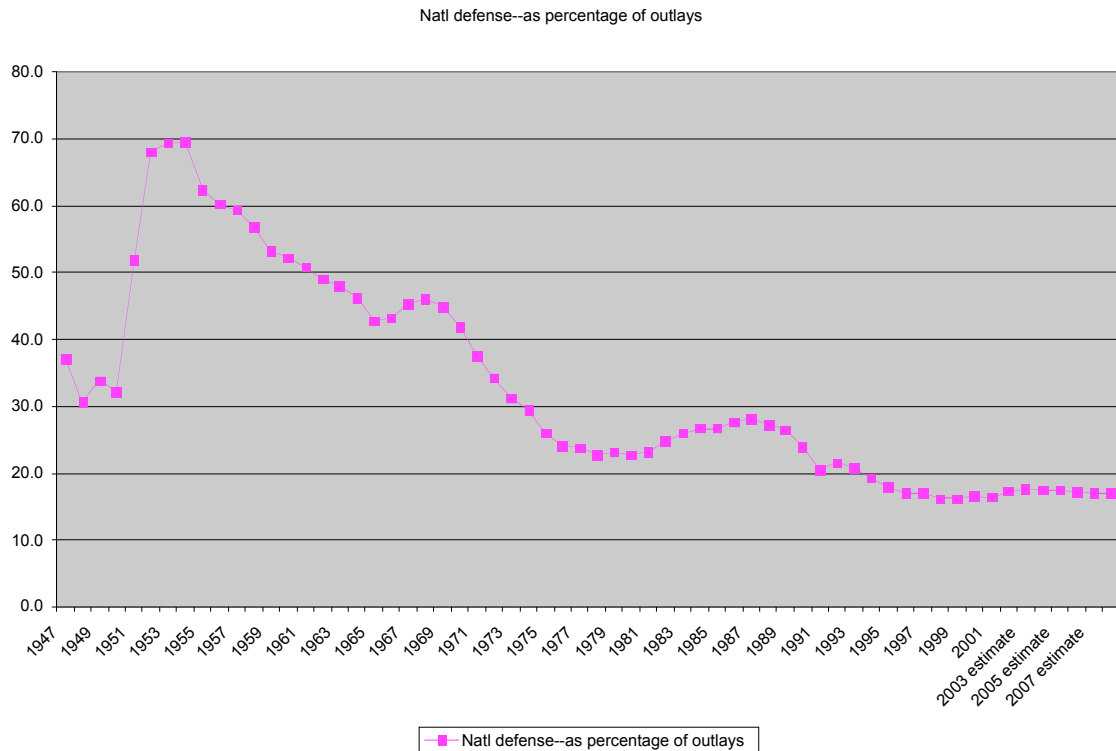


Figure 3

National Defense Outlays as a Percentage of Federal Government Outlays



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