COST OF THE WARS IN IRAQ AND AFGHANISTAN, AND OTHER MILITARY OPERATIONS THROUGH 2008 AND BEYOND

Steven M. Kosiak

Thinking Smarter About Defense

Center for Strategic and Budgetary Assessments

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1667 K Street, NW
Suite 900
Washington, DC 20006
(202) 331-7990
http://www.CSBAonline.org

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Executive Summary

The United States has been at war since the end of 2001. In October of that year it began sending forces into Afghanistan. In March 2003, the United States invaded Iraq. Today, US forces remain heavily engaged in both countries. In the Fall of 2008, there were some 200,000 US troops in the region, of which about 150,000 were in Iraq and about 35,000 in Afghanistan. Since the terrorist attacks of September 11, 2001, the US military has also been engaged in homeland security-related operations.

To date, some 4,800 US Service members have been killed in the wars in Iraq and Afghanistan, and about 33,000 wounded. These military operations have also incurred substantial financial costs, including both direct budgetary costs and associated interest payments on the federal debt. These costs have grown dramatically over the past few years.

In addition, some observers argue that as a result of the wars in Iraq and Afghanistan the United States has incurred significant economic and social costs that go beyond, and may even exceed, the wars' budgetary costs. Along with the concerns over strategy and the size and duration of the US deployments in these operations (especially in Iraq), the Bush Administration has also been criticized because of the way in which it has budgeted for and financed these wars.

Budgetary Costs

Since 2001, the US government and the American taxpayer have provided about $904 billion (unless otherwise noted, all cost and funding figures cited in this analysis are expressed in 2008 dollars) for military operations, including $66 billion to cover war-related costs for the first part of 2009. Moreover, the wars in Iraq and Afghanistan appear to be far from over. A set of illustrative scenarios developed by the Congressional Budget Office (CBO) suggest that the direct budgetary costs of these military operations could amount to an additional $416–817 billion through 2018—assuming the number of US troops involved in the two conflicts is reduced from today's level of about 200,000 to some 30,000–75,000 over the next several years. This would bring the direct budgetary costs of these wars to a total of some $1.3–1.7 trillion (see Figure A).

Figure A: Actual and Projected Direct Budgetary Costs of US Military Operations, by Activity
(in billions of 2008 dollars)

Category	2001–09*	2009–18**	Total (2001–18)
Military Operations (DoD)***	816	315–694	1,131–1,509
Indigenous Security Forces	40	42	82
Foreign Assistance and Diplomatic Activities	45	20	65
Veterans' Affairs***	3	40–62	43–65
Total* **	**904**	**416–817**	**1,289–1,721**

* 2009 funding included in these figures includes only that portion enacted in June 2008.
** 2009 funding included in these figures includes only that portion projected to be appropriated after June 2008.
*** Low-end estimates assume that US deployments will decline from roughly 200,000 today to 30,000 by 2011, while high-end estimates assume those deployments will fall to 75,000 by 2013.
Source: CSBA estimates based on Amy Belasco, "The Costs of the Iraq, Afghanistan, and Other Global War on Terror Operations Since 9/11," p.18; "Additional Information About the Policy Alternative in CBO's Budget and Economic Outlook: An Update for Continued Spending in Support of the War on Terrorism," CBO, September 2008 and Peter Orszag, CBO Director, "The Cost of War: A Comment on Stigliz-Bilmes," CBO Director's Blog, April 8, 2008, http://cboblog.cbo.gov.

Budgetary resources provided for the wars in Iraq and Afghanistan over the past eight years have been allocated to four main areas: the Department of Defense (DoD), for military operations and some other programs; Iraqi and Afghan security forces; foreign assistance and other diplomatic activities; and veterans' benefits. Figure A provides a rough breakdown of the direct budgetary costs of these wars to date, and projected through 2018.

The question of whether and to what extent some share of interest payments on the federal debt should also be included in estimates of the cost of these conflicts is unclear and controversial. If it is assumed that borrowing has been (and will continue to be) used to finance about 10 percent of the cost of the wars in Iraq and Afghanistan (the share of overall federal spending that has been debt-financed in recent years) interest payments would be projected to add about $68–78 billion to their costs through 2018—bringing total war costs to some $1.4–1.8 trillion. On the other hand, if it is assumed that these military operations have been (and will continue to be) financed entirely through borrowing, interest payments would be projected to add some $680–780 billion to their costs—bringing the total cost of these wars to roughly $2–2.5 trillion.

In all cases, these estimates are rough—especially with regard to projected costs. The estimates of the cost of veterans' benefits should be treated with particular caution. They were derived from an analysis by the Congressional Budget Office (CBO), but represent only preliminary estimates. Figure B shows the direct budgetary costs of ongoing military operations broken down by major mission.

Figure B: Actual and Projected Direct Budgetary Costs of Ongoing Military Operations, by Mission
(in billions of 2008 dollars)

	Iraq	Afghanistan	Homeland Security	Total
2001–09*	687	184	33	904
2009–18**	325–647	91–170	0	416–817
Total (2001–18)**	985–1,344	271–354	33	1,289–1,721

* 2009 funding included in these figures includes only that portion enacted in June 2008.
** Low-end estimates assume that US deployments will decline from roughly 200,000 today to 30,000 by 2011, while high-end estimates assume those deployments will fall to 75,000 by 2013.
Source: CSBA estimates based on Amy Belasco, "The Costs of the Iraq, Afghanistan, and Other Global War on Terror Operations Since 9/11," p.18; "Additional Information About the Policy Alternative in CBO's Budget and Economic Outlook: An Update for Continued Spending in Support of the War on Terrorism," CBO, September 2008 and Peter Orszag, CBO Director, "The Cost of War: A Comment on Stigliz-Bilmes," CBO Director's Blog, April 8, 2008, http://cboblog.cbo.gov.

Using a present-value approach would result in somewhat different estimates. This approach is sometimes used by economists to capture the time value of money. In this case, rather than being adjusted to correct solely for the effects of inflation, funding and cost figures are adjusted to reflect the fact that, even without the effects of inflation, a dollar spent today is worth more than one spent tomorrow (since it could be invested and accrue interest over time). A present-value approach can be especially useful in cases where, as with veterans' benefits, the costs incurred may not actually be paid until many years into the future. On a present-value basis, the cost of these military operations through 2018 would be projected to total some $1.6–2.1 trillion, including $1.24–1.65 trillion for Iraq, $312–402 billion for Afghanistan and $36 billion for homeland security activities.

Costs Compared to Past Wars

In real (inflation-adjusted) terms, the war in Iraq alone has already cost more than every past US war but World War II. Combined, the wars in Iraq and Afghanistan have already exceeded the cost of the Vietnam War—the second most costly past US war—by about 50 percent. On the other hand, to date at least, the financial burden imposed by these ongoing military operations is lower—measured as a share of the economy—than was imposed, for example, by the Korean or Vietnam Wars.

Growth in Costs and Funding

The trends in costs and funding for military operations have tended steeply upward since 2001. Funding provided in war-related appropriations increased from about $17 billion in 2001, when US military operations in Afghanistan began, to $93 billion in 2003, when the United States invaded Iraq. For 2008, Congress provided about $182 billion in supplemental funding. As noted earlier, Congress has so far provided $66 billion as a down-payment on 2009 costs, but ultimately more will be required to cover the cost of military operations for the full year.

Most of this growth has been related to the war in Iraq, which has ended up costing far more than the Bush Administration expected. The budgetary costs of that conflict have already exceeded initial administration estimates by roughly an order of magnitude. The most obvious cause for this underestimate of the conflict's costs was the administration's very optimistic and, as it turned out, unrealistic assumption that the vast majority of US forces would be withdrawn within a few months after Iraq's conventional military forces were defeated, and that there would be no need to conduct large-scale, long-term stability operations in the country.

The war in Iraq, as well as the war in Afghanistan, has proven to be far more costly than other recent US military operations, even adjusting for differences in the number of troops deployed and the duration of the conflicts. Some of this cost growth appears reasonable and is relatively easy to explain. In other cases, the sources of the cost growth are unclear, or the justification for the growth is questionable.

The single most important cause for the increasing size of the war-related appropriations enacted over the past few years has been the Bush Administration's adoption of a progressively broader definition of what constitutes what it calls the "Global War on Terror" and, especially, the military's "reset" (or "reconstitution") requirements. There is no way to easily or precisely estimate how much funding for weapons procurement included in recent supplementals might be reasonably attributed to the wars in Iraq and Afghanistan, and how much might be more appropriately attributed to the Services' long-term modernization requirements. However, it is clear that the amount of funding falling into this latter category is considerable, and has increased dramatically over the past four—and especially the last two—years.

Budgeting for War

The Bush Administration has budgeted for the wars in Iraq and Afghanistan in a way that differs markedly from the approach used to fund past wars. Because of its reliance on supplemental appropriations, often submitted in the middle of the year and supported by inadequate justification materials, the process has reduced the Congress's ability to exercise effective oversight. It has also tended to obscure the long-term costs and budgetary consequences of ongoing military operations.

The administration's inclusion, for the first time, of war-related funding for the coming fiscal year in its 2008 request was a positive, if long overdue, step. However, it did not include full-year funding for military operations in its most recent, 2009 request. Moreover, the inclusion of substantial amounts of funding for programs and activities unrelated to the military operations in Iraq and Afghanistan in recent war-related appropriations has further obscured the true cost of those conflicts, and undermined and weakened DoD's long-term planning and budgeting process.

Financing the War

With the exception of the 1991 Gulf War, which was a brief and relatively inexpensive war financed almost entirely by contributions from US friends and allies, the costs of all previous major conflicts were financed through a combination of tax increases, cuts in domestic programs and borrowing. The Bush Administration has taken a starkly different approach to financing the wars in Iraq and Afghanistan.

Rather than raising taxes, the administration has proposed, and Congress has implemented, significant tax cuts. This marks the first time in American history that taxes have been cut while the country was involved in a major war. Nor have major reductions in spending been implemented in non-defense portions of the budget to help pay for the wars in Iraq and Afghanistan.

This has led a number of observers to argue that the wars in Iraq and Afghanistan have been financed entirely through borrowing. However, in the end, although perhaps reasonable, this is an unprovable assertion. Since different types of federal spending and revenues are essentially fungible, one could argue that—no less than with other types of domestic or (non-war-related) defense spending—most of the costs associated with these wars are presently being covered by tax revenue.

Macroeconomic Costs

Opinions differ substantially concerning the macroeconomic effects of the ongoing wars in Iraq and Afghanistan. Some observers have argued that the war in Iraq has caused oil prices to increase, and that even assuming only a relatively small fraction of the increase in oil prices that has occurred over the past few years is attributable to that conflict, the impact on the US economy has been significant. In their book, *The Three Trillion Dollar War*, for example, Joseph Stiglitz and Linda Bilmes have argued that oil price increases they attribute to the Iraq war have cost Americans some $200–800 billion in economic loss. Others have argued that the impact of the war in Iraq on oil prices has been relatively modest, or even insignificant.

Likewise, some have argued that US spending on the wars in Iraq and Afghanistan has diverted dollars that would otherwise have been spent in more productive ways, especially on private investment that would have helped grow the economy. Both the Stiglitz' and Bilmes' book and a report by the US Congress' Joint Economic Committee, for instance, have suggested that these and other economic consequences have cost the US economy at least $1.1 trillion. In contrast, others have suggested that the macroeconomic effects of these wars have been minimal, among other things because US monetary policy has been used effectively to mitigate such negative effects.

Social Costs

In addition to budgetary costs borne by all American taxpayers, and macroeconomic costs spread across the country, the wars in Iraq and Afghanistan (like all wars) have imposed costs on specific categories of Americans—especially Service members who have been killed or injured in those wars, and their families. As with the macroeconomic costs of the ongoing wars in Iraq and Afghanistan, opinions differ dramatically concerning the "social costs" these conflicts have imposed on Americans. Stiglitz and Bilmes, for example, have estimated that these wars have generated social costs totaling some $303–423 billion. Others have suggested that the impact has been substantially less, and that various types of compensation provided by the government to these individuals and their families (e.g., life insurance payments and disability benefits) have covered the vast majority of the costs they have incurred.

Introduction

The United States has been involved in major military operations since the end of 2001. By far the largest of these involve the US deployments in Iraq and Afghanistan. Though on a much smaller scale, they have also included enhanced homeland security operations. The Bush Administration subsumes all of these operations under the term "Global War on Terror" (GWOT). However, they are largely, if not entirely, distinct operations. Moreover, while most observers might view the war in Afghanistan and homeland security-related operations as directed primarily towards combating terrorism, many would object to this characterization of the war in Iraq. For this reason, in this report, the GWOT label is not generally used—rather, funding for these three different operations, when considered altogether, is referred to as simply supplemental, or war-related funding.

To date, well over 1.7 million US military personnel have participated in the wars in Iraq and Afghanistan. The most significant cost of these conflicts has been their human toll. Some 4,800 US Service members have been killed in Iraq and Afghanistan, and some 33,000 have been wounded. Tens of thousands of others—including US civilian contractors, and Iraqi and Afghan civilians and security personnel have also been killed or injured.

In addition to these human costs, these conflicts have generated substantial financial costs. This report addresses the question of how much US military operations conducted since 2001 have cost the United States in financial terms, as well as the means used to budget for and finance these operations. The report also examines the question of how much more these operations might cost in coming years. It does not examine financial costs associated with the conflicts in Iraq and Afghanistan that have been borne by the people of those and other countries. The periods considered in this study include fiscal years 2001–2008 for historical costs, and 2009–2017 for possible future costs.

This paper examines both budgetary costs and broader economic costs associated with military operations. However, it provides a tally of budgetary costs only. The report discusses the case for including broader economic costs, such as higher oil prices and "social" costs, as well as some recent estimates of those costs made by other analysts, but it does not provide an independent estimate of those costs, or even attempt to bound the question.

The report takes this approach not because the author believes such costs are necessarily illegitimate or small. Indeed, it is conceivable that such costs exceed the budgetary costs of these military operations. Rather, the study limits itself to a general discussion of possible economic costs because estimates of such costs are necessarily speculative. Even in the case of budgetary costs, the goal of this report is as much to make the reader a more "intelligent consumer" of estimates of war costs, as it is to provide an independent estimate of those costs.

Unless otherwise noted, these estimates are expressed in (inflation-adjusted) 2008 dollars.[1] As a result, the figures included in this analysis—for the years before and after 2008—will look somewhat different from those generally cited by DoD, Congress and the press, and in some other analyses of war-related spending. However, making this adjustment is necessary in order to present an accurate estimate of war-related costs in terms of real purchasing power. It is especially important to make this adjustment because of the relatively long time period considered in this analysis—2001 through 2018. Because of inflation, a dollar spent in 2018 is likely to be worth substantially less, in terms of real purchasing power, than a dollar spent in 2001. Converting all past and projected spending into 2008 dollars corrects for this fact.

As in other areas of public policy, consideration of whether to use military force or to remain involved in ongoing military operations, should be driven, in part, by an analysis of the likely costs and benefits of doing so. Such an analysis can be effectively carried out only if the costs of such operations are accurately and fully recognized. It is hoped that this report will contribute to such an understanding. On the other hand, even if measured perfectly, costs are only half the equation. This report does not attempt to measure the possible benefits of the wars in Iraq and Afghanistan. It is also important to note that some costs and benefits may be impossible to measure and express in financial

1 Figures were converted into 2008 dollars using the US gross domestic product (GDP) deflator.

terms—meaning, among other things, that questions of war and peace can never be boiled down to a simple cost-benefit equation.

The report is organized into six chapters. Chapter 1 examines the cost of military operations in terms of their direct budgetary costs. These are essentially the direct costs paid by the federal government. They consist primarily of costs associated with deploying and sustaining US military forces in Iraq and Afghanistan, training and equipping Iraqi and Afghan security forces, foreign assistance and other diplomatic activities directed to those countries, and related veterans' benefits. They also include costs associated with conducting certain homeland security operations—however, most of those costs were incurred in the first several years after the terrorist attacks of 2001. Over the past few years, the wars in Iraq and Afghanistan have accounted for virtually all of the funding provided for military operations. This chapter also compares the cost of current military operations with past wars. It draws heavily upon work produced, since 2001, both by Amy Belasco of the Congressional Research Service (CRS) and the Congressional Budget Office (CBO).[2]

US spending on military operations has grow dramatically in recent years, both compared to pre-war estimates and the level of funding required during the first few years of military operations in Iraq and Afghanistan. Chapter 2 describes and, to the extent possible, attempts to explain the magnitude, nature and reasons for this growth.

Chapter 3 provides an overview of how the United States has budgeted for military operations since 2001. This includes the process by which the Bush Administration and DoD have determined the budgetary requirements for the wars in Iraq and Afghanistan, and presented war-related funding requests to Congress, as well as how Congress has appropriated that funding. It also compares the process used to budget for these wars with the approach used to fund previous wars, and discusses some serious limitations and shortcomings of this process.

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[2] Since 2001, Amy Belasco has tracked a wide range of cost and funding issues related to ongoing military operations through, among other products, a regularly updated CRS publication, "The Costs of the Iraq, Afghanistan, and Other Global War on Terror Operations Since 9/11." Since 2001, CBO has likewise produced a large number of different publications concerning various budgetary aspects of these military operations (available at CBO.gov).

Chapter 4 discusses the approach used to finance military operations since 2001. As with the process used to budget for these operations, these wars have differed significantly from past conflicts in the way they have been financed. This chapter examines those differences and considers, among other things, the degree to which the wars in Iraq and Afghanistan have been financed through borrowing—and the effect this may have on the total cost of those wars.

Chapter 5 provides an overview of the broader economic costs that might be attributed to the ongoing military operations in Iraq and, to a lesser extent, Afghanistan. These include, for example, the impact of the war in Iraq on oil prices and the effect on private sector investment of war-related borrowing. This chapter discusses several studies that have generated estimates of economic costs. However, as mentioned above, because of the inherently more speculative nature of these costs, no attempt is made in this analysis to derive an independent estimate, or to even suggest a plausible range of estimates for such costs.

The last chapter of this report, Chapter 6, briefly examines some of the "social costs" related to the wars in Iraq and Afghanistan. These are essentially financial costs that are imposed not on the federal government or US taxpayers generally, but on specific individuals affected by these conflicts. They include, for instance, lost pay for spouses that may have to stop working outside the home in order to help care for returning husbands or wives wounded in Iraq or Afghanistan. For reasons similar to those noted above for economic costs, no effort is made in this analysis to provide an independent estimate of these social costs.

Chapter 1: Budgetary Costs

Since the terrorist attacks of September 11, 2001, Congress has appropriated about $904 billion (2008 dollars[3]) for the wars in Iraq and Afghanistan, and certain homeland security-related missions (i.e., Operation Noble Eagle).[4] This includes some $838 billion provided over the fiscal year 2001–08 period and about a $66 billion down-payment on 2009 costs.[5] Most of this war-related funding has been provided through a series of emergency supplemental appropriations. It has been allocated to four major areas: the Department of Defense (DoD) (for military operations and some other programs); training and equipping Iraqi and Afghan security forces; foreign assistance and other diplomatic activities; and veterans' benefits (see Figure 1).

This chapter includes a brief description of the types of programs and activities that comprise each of these areas, as well as a discussion of CBO and other estimates of potential future budgetary costs. It also considers the question of whether DoD's "base" budget—which is supposed to cover only those costs associated with the Services' normal, peacetime requirements—has, in fact, been used to fund some war-related costs or, conversely, whether supplemental appropriations have been

[3] As stated in the introduction, unless otherwise noted, all cost and spending figures cited in this report are expressed in 2008 dollars.

[4] Both the Congressional Research Service (CRS) and the Congressional Budget Office (CBO) have tracked funding for military operations since 2001. There are some difference between these estimates, but the differences are generally very small (i.e., equivalent to plus or minus 1–2 percent of total war-related spending). This report relies primarily on CRS estimates of war costs through 2008. Amy Belasco, "The Costs of the Iraq, Afghanistan, and Other Global War on Terror Operations Since 9/11," p.18.

[5] Ibid. Unless otherwise noted, in this analysis years refer to fiscal years. The federal fiscal year begins on October 1 of the preceding calendar year and ends on September 30. Thus, for example, fiscal year 2008 began on October 1, 2007 and ended on September 30, 2008.

used to cover certain base budget requirements. In addition, this chapter includes a range of projections concerning possible future budgetary costs for military operations, focusing on the FY 2009–2018 period.

Figure 1: Direct Budgetary Costs of US Military Operations, 2001–09*
(in billions of 2008 dollars)

	Iraq	Afghanistan	Homeland Sec.	Total
Military Operations (DoD)	628	155	33	816
Indigenous Security Forces	25	15	0	40
Foreign Assistance and Diplomatic Activities	32	13	0	45
Veterans' Affairs	3	**	0	3
Total	687	184	33	904

* 2009 funding included in these figures includes only that portion enacted in June 2008.
** Less than $500 million.
Source: CSBA estimates based on Amy Belasco, "The Costs of the Iraq, Afghanistan, and Other Global War on Terror Operations Since 9/11," p.18; "Additional Information About the Policy Alternative in CBO's Budget and Economic Outlook: An Update for Continued Spending in Support of the War on Terrorism," CBO, September 2008 and Peter Orszag, CBO Director, "The Cost of War: A Comment on Stigliz-Bilmes," CBO Director's Blog, April 8, 2008, http://cboblog.cbo.gov.

In reading this chapter, it is important to understand that it focuses on direct budgetary costs. Later chapters in this report consider whether interest costs (Chapter 4), macroeconomic costs (Chapter 5) and social costs (Chapter 6) should also be attributed to the wars in Iraq and Afghanistan.

DoD Military Operations and Other Programs

This category consists primarily of "incremental" costs incurred by DoD as a result of its involvement in military operations—in other words, costs above and beyond those DoD would incur if it were simply executing its normal, peacetime readiness, force structure and modernization plans. However, as will be discussed at the end of this section, emergency supplemental appropriations have also been used, especially in recent years, to fund a range of DoD programs that are, at best, only indirectly related to the ongoing military operations in Iraq and Afghanistan. A total of about $816 billion in supplemental appropriations has so far been provided to DoD to cover the cost of military operations over the 2001–2009 period.[6]

Just over half of the funding for military operations appropriated since 2001 has been provided to the Army, the Service that has borne primary responsibility for the operations in both Iraq and Afghanistan—with most of the remainder of that funding allocated to the other Services and defense agencies.[7] Perhaps a more useful way to break down the war-related funding provided to date is to divide it into DoD's major appropriations titles. The vast majority of this funding has been allocated to the military personnel, operations and maintenance (O&M) and procurement titles.

Military Personnel

To date, a total of about $121 billion has been included in war-related appropriations for military pay and other benefits, with this total accounting for some 15 percent of all DoD supplemental funding. Pay and benefits for active-duty military personnel are not generally funded through these special appropriations because they do not represent incremental costs associated with being at war (since active-duty personnel have to be paid in peacetime as well). However, some such costs have been included.

For most of the past eight years, the number of active-duty Army and Marine Corps troops exceeded the permanently authorized end strength ceilings for those Services by several tens of thousands of personnel. The administration argued that those extra troops were needed

6 This category includes essentially all supplemental funding provided to DoD since 2001, except for that portion allocated to training and equipping Iraqi and Afghan security forces—which is included in the "Indigenous Security Forces" category discussed later in this chapter.

7 Authors estimate based on DoD and CBO data. See, in particular, CBO, "Analysis of the Growth in Funding for Operations in Iraq, Afghanistan, and Elsewhere in the War on Terrorism," February 11, 2008, pp. 6–9.

on a temporary basis to help sustain the deployments in Iraq and Afghanistan, and that their costs should therefore be covered through supplemental appropriations. However, last year, the administration announced plans to permanently increase the active-duty end strength of the Army and Marine Corps by some 65,000 and 27,000 troops, respectively.[8] For 2008, DoD covered the cost of this expansion through the use of both emergency supplemental appropriations and DoD base budget funding. But for 2009 and beyond, DoD claims that active-duty pay and benefits (with the exception of some "special pays" noted below) will be funded entirely through the department's base budget.

Military personnel costs associated with mobilizing reserve personnel needed to support the wars in Iraq and Afghanistan have also been covered with supplemental appropriations. The level of military personnel funding provided for reserve Service members through these appropriations essentially amounts to the difference between the pay and benefits they would normally receive in peacetime (for the one weekend a month and two weeks each summer they typically train) and the compensation they receive once they are called up—at which point they receive full-time pay and benefits. Another major category of military personnel costs associated with the wars in Iraq and Afghanistan consists of a variety of special pays (e.g., hazardous duty and imminent danger pay) for Service members that are attributable to US involvement in these operations. Lastly, war-related appropriations have included some funding for recruiting and retention bonuses—on grounds that they are needed primarily because the US military's continuous involvement in large-scale military operations, since 2001, has led to a tougher recruiting and retention environment.

Operations and Maintenance (O&M)

By far the greatest share of war-related appropriations has been allocated to O&M programs and activities. To date, O&M activities have absorbed a total of $509 billion, or some 55 percent of all DoD supple-

[8] The main argument for making this relatively large, permanent increase in end strength appears to be that the US military is likely to be involved in large-scale deployments in Iraq, Afghanistan and/or elsewhere for many years into the future. On the other hand, some critics have argued that by the time the planned increases are completed US deployments in these operations may be substantially smaller, raising questions about the wisdom and necessity for this costly expansion.

mental funding. The O&M budget covers the costs of purchasing fuel, spare parts and many other supplies, as well as equipment maintenance, repair, and transportation activities. In addition, it covers the cost of many programs less immediately related to near-term readiness, such as military health care, base operations and other support, or "infrastructure," activities. These costs include the salaries of most civilian DoD personnel, who perform many of DoD's infrastructure functions.

O&M costs covered through supplemental appropriations have largely involved the following activities:

- **Operations.** Equipment has been used far more intensively in Iraq and Afghanistan than it is normally used during peacetime training. Measured in terms of miles driven, Army combat vehicles, for example, have been used some four to six times more intensively in these military operations than they are typically used in peacetime, while Army helicopters have been flown about two to three times more.[9] This higher operational tempo (OPTEMPO) has necessitated much greater spending on fuel, spare parts and other "consumable" supplies.

- **Transportation and Sustainment.** Other significant war-related costs covered mostly through the O&M budget are those associated with transporting personnel, equipment and supplies into both the Iraqi and Afghan theaters, periodically rotating troops (and some equipment) back to their home bases, and providing base operations and other support to deployed US forces.

- **Equipment Maintenance and Repair.** O&M funding provided through supplemental appropriations has also been used to cover most equipment maintenance and repair costs related to ongoing military operations (see discussion of reset costs, below).

- **Healthcare.** DoD has incurred significant additional healthcare costs as a result of the military's involvement in operations in Iraq and Afghanistan. These include costs related to caring for Service members wounded in these conflicts, and the cost of

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[9] Francis Lussier, *Replacing and Repairing Equipment Used in Iraq and Afghanistan: The Army's Reset Program* (Washington, DC: CBO, September 2007), p.xii.

providing full healthcare benefits to members of the National Guard and Reserve once they have been mobilized. Most of these healthcare costs are covered through the O&M budget.

Procurement

The Services' procurement budgets are used to fund the production of new weapons and other equipment (e.g., trucks, radios and satellites), as well as modifications and upgrades of existing equipment. To date, a total of about $190 billion in procurement funding has been provided through war-related appropriations, accounting for about 25 percent of all DoD supplemental funding. Procurement funding provided through these supplementals has been used for the following purposes[10]:

- Replacing combat vehicles, helicopters and other types of equipment destroyed in wartime operations (either through combat or accidents);
- Replacing munitions consumed during combat;
- Purchasing larger numbers of existing types of weapons and other equipment to meet needs identified after the onset of military operations;
- Purchasing additional equipment (such as trucks) needed to fill shortfalls in existing inventories—many of which pre-date the wars in Iraq and Afghanistan;
- Upgrading existing equipment to make it more effective; and
- Accelerating the production of some new "next-generation" weapon systems included in the Services' long-term modernization plans.

There is some debate and uncertainty concerning the extent to which each of these types of procurement truly represent incremental costs associated with the wars in Iraq and Afghanistan, or can reasonably be attributed—at least in full—to the US military's involvement

[10] CBO, "Analysis of the Growth in Funding for Operations in Iraq, Afghanistan, and Elsewhere in the War on Terrorism," p. 10.

in those wars. The first two categories of procurement funding noted above (replacing equipment and munitions destroyed and consumed in the course of the operations in Iraq and Afghanistan) clearly represent incremental costs entirely attributable to those conflicts.

The situation is substantially less clear, however, in the case of the remaining four categories of procurement funding. To the degree that additional equipment is purchased to meet new requirements identified in the wars in Iraq and Afghanistan, or to improve the effectiveness of US forces deployed in those conflicts by filling existing equipment shortfalls and upgrading equipment, it may also be reasonable to attribute to those conflicts the costs associated with these efforts. On the other hand, this new and upgraded equipment is likely to be in service for many years (typically thirty or more years in the case of major weapon systems) and to be used to arm US forces long after the wars in Iraq and Afghanistan have wound down. Attributing to those conflicts the cost of purchasing next-generation weapon systems—which are typically far more expensive and capable than the current-generation systems actually being used in those conflicts, and are included in the Services' long-term modernization plans—may be especially questionable.

It is impossible to estimate precisely how much of the procurement funding provided through supplemental appropriations, to date, is directly and closely related to the ongoing military operations in Iraq and Afghanistan, and how much is, at best, only indirectly related. However, the best available evidence suggests that only a relatively small amount of that funding has been used to replace equipment damaged or destroyed in those conflicts, and that most of this procurement funding has gone towards buying new current- and next-generation weapon systems, and upgrading existing weapons and other equipment.

Reset

In 2007, the Army estimated that it needed about $13 billion a year to cover equipment "reset" (or "reconstitution") costs incurred as a result of the ongoing conflicts in Iraq and Afghanistan, and that it would need to continue to receive this level of funding for at least two years after hostilities had ended in order to fully recover.[11] About 60 percent of this

[11] Lussier, *Replacing and Repairing Equipment Used in Iraq and Afghanistan: The Army's Reset Program*, p.ix.

funding, or roughly \$7–8 billion a year, has been designated to replace and repair equipment damaged or destroyed in those conflicts—with the remaining funding allocated to buying new equipment (to make up for existing shortfalls or meet new requirements) and upgrading existing equipment.[12]

CBO's own analysis indicates that, if anything, the Army's estimates may be too high. It estimates that Army replacement and repair costs may amount to only some \$3–4 billion a year for major systems (combat vehicles, helicopters and trucks).[13] Including the other Services' requirements might drive annual reset costs to some \$20 billion a year if the cost of making up existing equipment shortfalls and upgrading equipment is included, or \$5–12 billion if reset is limited only to equipment replacement and repair costs.[14] In recent years, procurement has typically accounted for two thirds to three quarters of reset funding, with O&M (e.g., overhaul) activities accounting for the remainder.[15]

Over the past several years, far more has been requested and provided for procurement and reset than either DoD or CBO estimates suggest is needed to simply cover equipment replacement and repair costs.[16] The Army has been provided a total of about \$100 billion in procurement funding through supplemental measures over the past nine years, including some \$27 billion in 2007 and \$41 billion in 2008. Although the Army has borne the brunt of the burden in both Iraq and Afghani-

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[12] Ibid., ix.

[13] Ibid., p. xvii. Some of the difference between the Army and CBO estimates is attributable to the latter's inclusion of other (non-major) equipment in its estimate. However, according to CBO, combat vehicles, helicopters and trucks account for about 80 percent of the value of all of the Army's equipment deployed in Iraq and Afghanistan. This suggests that including the cost of replacing and repairing non-major equipment would increase CBO's estimate by only perhaps \$1 billion, bringing the total to roughly \$4–5 billion a year.

[14] Author's estimate. This is roughly consistent with an earlier CBO study which estimated that the Army accounted for about two-thirds of all war-related equipment replacement and repair costs. It is also consistent with the estimates of replacement and repair costs derived in this earlier study for DoD as a whole (by contrast, the most recent CBO study considers only Army requirements). Daniel Frisk and Francis Lussier, "The Potential Costs Resulting from Increased Usage of Military Equipment in Ongoing Operations," CBO, March 18, 2005, p. 2.

[15] Newman and Wheelock , "Analysis of the Growth in Funding for Operations in Iraq, Afghanistan, and Elsewhere in the War on Terrorism," p. 11.

[16] In recent years, DoD has classified about half of the procurement funding it has requested in GWOT appropriations as "reset" (along with some O&M funding).

stan, the other Services have also received a great deal of procurement funding through supplemental appropriations. Altogether, to date, DoD (all Services) has been provided a total of $190 billion in procurement funding through these measures.

The amount of funding specifically designated for reset (which, as noted above includes both procurement and O&M activities) in recent years, also seems to be well in excess of the Services' requirements for equipment replacement and repair. Over the past several years, DoD has requested a total of some $109 billion in reset funding, including $37 billion in 2007 and $52 billion in 2008.[17]

The inclusion of large amounts of funding in recent supplemental appropriations for buying upgraded or new current-generation weapon systems and, especially, new next-generation weapon systems, has raised concerns that the supplemental process is being misused by the Bush Administration. Specifically, as discussed in greater detail in Chapter 3 of this report, some observers worry that DoD is using emergency supplemental appropriations to cover a substantial portion of the costs of the Services' long-term modernization plans and, in doing so, is undermining the discipline and effectiveness of the department's long-term planning and budgeting process.

For the purposes of this chapter, however, the important question is not whether the supplemental process has been used appropriately or abused. Instead, the key question is to what extent these supplementals have, in fact, included significant amounts of funding for equipment that, rather than essentially being consumed in these conflict, will be used to arm and equip US forces for years to come, perhaps long after most US troops have been withdrawn from Iraq and Afghanistan.

There is, unfortunately, no way to easily or precisely estimate how much of the funding for procurement included in supplemental appropriations enacted since 2001 might reasonably be attributed to those conflicts and how much might be more appropriately attributed to the Services' long-term modernization plans. That said, it seems clear that the amount of funding falling into this latter category is considerable. One way to get a rough sense for the potential magnitude of this funding is to compare the amount provided for reset in the 2006 supplemental—when DoD applied the term relatively narrowly—to the amount requested in the 2008 supplemental—when a much broader definition

[17] Ibid., p. 11.

was used (see discussion in Chapter 3). The 2008 request included some $32 billion more for reset than was provided for 2006.[18] Likewise, the 2008 supplemental included some $47 billion more for procurement than was provided for 2006.

Future DoD Costs for Military Operations

It is impossible to estimate with certainty how much DoD will require to cover the cost of military operations in the future. In the case of such operations, the primary cost driver for DoD is the number of troops deployed. And since there is a great deal of uncertainty about the number of troops the United States will have in Iraq and Afghanistan (and possibly elsewhere) in coming years, there must logically be at least some amount of uncertainty concerning how much it will cost to support those forces. The best that can be done to take into account likely future funding requirements for military operations is to consider a range of plausible, illustrative scenarios.

CBO has estimated costs through 2018 based on two scenarios. Under the first scenario it is assumed that the United States will reduce the number of troops deployed in military operations abroad from roughly 200,000 today, to 30,000 in 2011, and that a force of this size will remain deployed in Iraq, Afghanistan and/or elsewhere (CBO makes no assumption about where the forces will be deployed) through 2018. CBO estimates under this scenario suggest that DoD would incur costs of some $315 billion over the 2009–2018 period.[19] Under the sec-

[18] Moreover, the level of funding provided for reset in FY 2006, about $20 billion (including $13 billion for procurement and $7 billion for O&M), was roughly consistent with the level of funding that (as noted earlier in this section) the Army and the other Services indicated, as recently as 2007, is needed for reset.

[19] "Additional Information About the Policy Alternative in CBO's Budget and Economic Outlook: An Update for Continued Spending in Support of the War on Terrorism," CBO, September 2008. CBO does not provide a breakdown of these costs by major funding category. The amount that is assumed to be provided to DoD in this analysis was calculated by subtracting from this total the amounts projected to be provided for foreign assistance and diplomatic activities, indigenous security forces and veterans' benefits in an earlier CBO projection (Peter Orszag, CBO Director, "Estimated Costs of US Operations in Iraq and Afghanistan and of Other Activities Related to the War on Terrorism," statement before the House Budget Committee, October 24, 2007, p. 2).

ond scenario, CBO assumes that the size of US forces deployed in military operations will decline more slowly and less substantially—with the number falling to some 75,000 by 2013, and remaining at that level through 2017. In this case, CBO estimates suggest that the incremental costs to DoD over the 2009–18 period would amount to about $694 billion.[20]

Combined with the $816 billion in supplemental funding that has already been provided to DoD to cover the cost of military operations and other programs through early 2009, these estimates of future costs imply total costs of some $1.1–1.5 trillion over the FY 2001–2018 period (see Figure 2). There is some uncertainty and disagreement concerning how the $816 billion in supplemental funding provided to DoD to date has been allocated among different military missions. Assuming that all of this funding can be fairly attributed to one of essentially three military missions (the war in Iraq, the war in Afghanistan, or homeland security) a reasonable estimate is that the total breaks down roughly as indicated in Figure 1. This estimate is based largely on an analysis of war costs conducted by Amy Belasco of the Congressional Research Service.[21]

It is far more difficult to project how funding might be allocated among these different missions in the future, given the enormous uncertainty surrounding the future of US military operations in those countries (as well as the possibility that the US military might become involved in a conflict elsewhere). Figure 2 simply projects future funding allocations based on the assumption that the operations in Iraq and Afghanistan will, in coming years, continue to absorb approximately the same share of DoD supplemental funding that they have over the past several years—some 80 percent and 20 percent, respectively. Based on recent experience, it is assumed that no additional supplemental funding will be provided for DoD homeland security activities in coming years (with that funding instead, as it is today, being provided through the DoD's base budget).

[20] Ibid.

[21] Amy Belasco, "The Costs of Iraq, Afghanistan, and Other Global War on Terror Operations Since 9/11," p. 18. Belasco includes a fourth category, "DoD unallocated." This consists of $5.5 billion (current dollars) in 2003 emergency supplemental funding for which insufficient detail is available to accurately attribute the funding to one of the three military missions. In this analysis, as a simplifying assumption, this funding is allocated proportionately among the three missions.

Figure 2: Illustrative Projections of Direct Budgetary Costs of US Military Operations, 2009–18*
(in billions of 2008 dollars)

	Iraq	Afghanistan	Homeland Sec.	Total
Military Operations (DoD)**	250–553	65–141	0	315–694
Indigenous Security Forces	27	15	0	42
Foreign Assistance and Diplomatic Activities	14	6	0	20
Veterans Benefits**	34–53	5–8	0	40–62
Total**	325–647	91–170	0	416–817

* 2009 funding included in these figures includes only that portion enacted after June 2008.
** Low-end estimates assume that US deployments will decline from roughly 200,000 today to 30,000 by 2011, while high-end estimates assume those deployments will fall to 75,000 by 2013.
Source: CSBA estimates based on "Additional Information About the Policy Alternative in CBO's Budget and Economic Outlook: An Update for Continued Spending in Support of the War on Terrorism," CBO, September 2008 and Peter Orszag, CBO Director, "The Cost of War: A Comment on Stigliz-Bilmes," CBO Director's Blog, April 8, 2008, http://cboblog.cbo.gov.

Combined with the funding already provided for these operations to date (see Figure 1), these illustrative estimates suggest that, in terms of DoD budget requirements for military operations, the war in Iraq could end up costing a total of some $985 billion to $1.334 trillion, while the war in Afghanistan might cost roughly $271–354 billion, over the 2001–2018 period (see Figure 4). These estimates are relatively close to those derived by Joseph Stiglitz and Linda Bilmes in their book The Three Trillion Dollar War.[22] The authors of that study estimated that DoD's operating costs for the conflicts in Iraq and Afghanistan, through 2017, would total some $855 billion and $318 billion, respectively, under their "base case." In their "moderate-realistic" estimate, Stiglitz and Bilmes projected costs of $1.165 trillion and $425 billion, respectively, for the two conflicts.[23] This range primarily reflects differences in the number of troops assumed to remain in those countries in coming

[22] Joseph Stiglitz and Linda Bilmes, *The Three Trillion Dollar War,* pp. 57–58. All cost and funding figures cited in this book were expressed in 2007 dollars. By contrast, as indicated in the introduction, unless otherwise noted, all cost and funding figures cited in this report are expressed in 2008 dollars.
[23] Ibid., pp. 57–59.

years—with the range closely paralleling the troop level assumptions included in CBO's two illustrative projections.

Other Possible DoD Costs

Although Stiglitz and Bilmes derive similar estimates for what they refer to as DoD operating costs they argue that those funding totals (both historical and projected) exclude a substantial amount of other DoD funding that has gone—or will in the future go—towards covering war costs. In this category of "Other Military Costs/Adjustments" the authors include four major funding additions, and one deduction. Under their "base case" cost estimate, the net effect of these factors is to add about $135 billion to their projection for cost of the wars in Iraq and Afghanistan through 2017.[24] Under their "realistic-moderate" estimate, which generally makes more pessimistic (and the authors argue, more realistic) assumptions about costs, the net effect is to add some $412 billion to that total.[25]

The largest addition is for "Future Defense Reset." Stiglitz and Bilmes estimated that recovering from the wars in Iraq and Afghanistan will cost the US military some $255–383 billion.[26] Their discussion focuses primarily on the need to replace and repair equipment destroyed or worn-out in those conflicts. But they also argue that a heavy investment will have to be made in military personnel, to restore US forces "to their pre-war levels of strength, fitness and readiness."[27] Both the authors' "base case" and "realistic-moderate" estimates also include $20 billion to cover "demobilization" costs (e.g., costs related to redeploying US troops and equipment home when the conflicts end).[28]

In addition to these costs, in their "moderate-realistic" estimate, Stiglitz and Bilmes attribute to the wars in Iraq and Afghanistan a portion of the increase in DoD's base budget that has occurred over the past eight years, and the future costs associated with the planned expansion of the Army and Marine Corps. As noted earlier, DoD's "base budget" is the portion of the department's budget that is supposed to cover the Services' normal peace-time force structure, readiness and modernization

24 Ibid., p. 59.
25 Ibid.
26 Ibid., p. 44.
27 Ibid., p. 43.
28 Ibid., p. 45.

requirements, with war-related costs covered through special supplemental appropriations. However, the authors argue that DoD's base budget was provided a total of some $510 billion more in recent years than it would have been projected to receive based on historical rates of growth pre-dating these conflicts, and that one-quarter, or about $128 billion, of this increase should be attributed to these wars.[29] This is justified, they believe, primarily because involvement in the wars in Iraq and Afghanistan "has indirectly made the Pentagon's 'base' costs much bigger, [especially in areas] such as intelligence funding, recruiting and compensation."[30]

Stiglitz and Bilmes also argue that the long-term costs associated with supporting the planned addition of 92,000 active-duty Army and Marine Corps troops should be attributed to the wars in Iraq and Afghanistan because, although under current plans future funding for this expansion is to be provided through DoD's base budget, the expansion is being driven primarily, if not solely, by the need to sustain the deployments in those conflicts. The authors estimate that these costs will amount to some $16 billion a year over the coming decade.[31]

Along with these additions, the Stiglitz and Bilmes study includes one deduction in its "Other Military Costs/Adjustments" category. Specifically, the authors subtract $10 billion a year from their total to reflect the fact that, since 2003, the US military has no longer been required to carry out operations Northern Watch and Southern Watch—through which it enforced no-fly zones in Iraq and provided support to Kurdish areas of the country, from soon after the 1991 Gulf War until the invasion of Iraq.[32]

This study does not incorporate into its war-cost estimates any of the major additions (or the one deduction) to DoD costs described above. In the case of reset costs, it appears that Stiglitz and Bilmes may be double counting. As discussed earlier, recent supplemental appropriations have actually included a great deal of funding for equipment reset. Indeed, it may be more likely that recent supplementals have inappropriately included significant amounts of funding—perhaps even tens of billions of dollars annually—for weapons modernization programs at best only indirectly related to the wars in Iraq and Afghanistan than

29 Ibid., p. 46 and p. 251.
30 Ibid., p. 46.
31 Ibid., p. 49.
32 Ibid.

that they have failed to provide sufficient funding to cover war-related equipment replacement and repair costs.

Moreover, to the extent that both CBO's and the author's own projections of future funding requirements for military operations are largely based on an extrapolation of recent supplemental funding levels and patterns, which include large amounts of funding for reset and procurement, presumably, these projections likewise include substantial amounts of such funding. It is less clear whether estimates of future costs derived from essentially an extrapolation of current costs will fully capture what Stiglitz and Bilmes refer to as "demobilization" costs; but those are, in any event, relatively modest costs.

A stronger case can perhaps be made for attributing to the wars in Iraq and Afghanistan the costs of the planned increases in the permanent end strength of the Army and Marine Corps. It is probably correct that, absent the US military's extended, large-scale involvement in these conflicts (and the war in Iraq, in particular), neither the Bush Administration nor Congress would have seen the necessity for such an expansion. On the other hand, although these additional troops may well be used in coming years to help support the deployments in Iraq and Afghanistan, no less than with existing Army and Marine Corps forces, they could (depending on how those conflicts develop) also be used to carry out a wide variety of other peace-time or war-time missions.

Stiglitz and Bilmes may also be correct in asserting that increases in DoD's base budget made over the past eight years were driven, at least in part, by war-related requirements. This is especially true, as they discuss in their study, in terms of military compensation. In short, war-time stresses on military personnel and their families created a tougher environment for recruitment and retention. In turn, the administration and Congress may have provided larger increases in compensation than they likely would have otherwise provided to military personnel over these years. And military pay and benefits—which, as noted earlier, at least in the case of active-duty personnel, are funded primarily through DoD's base budget—have grown dramatically in recent years.

However, by far the most costly of these increases resulted from benefit expansions enacted prior to the war in Afghanistan and, especially, the war in Iraq. In 1999, Congress enacted a more generous pension plan for military retirees and set in law a requirement that, through 2006, military pay raises exceed the employment cost index

(ECI, a measure of wage growth in the overall economy) by at least half a percentage point each year. In 2000, it enacted the "TRICARE for Life" program, which provided expanded healthcare benefits to military retirees sixty-five years of age and older, and began increasing the military housing allowance. Furthermore, in 2002, Congress began to enhance disability benefits for military retirees.[33] To be sure, some benefits were improved or further expanded after the wars began, and pay raises remained high in 2007 and 2008. But the value of those increases does not appear to amount to anything like $125 billion over the past eight years.

A reasonable case can be made for deducting, from the cost of the war in Iraq, costs foregone because of the lack of the need to continue to carry out operation Northern Watch and Southern Watch. However, those costs—at least as reported by DoD at the time—were much less than the $10 billion a year assumed by Stiglitz and Bilmes. During the second half of the 1990s, for example, those operations were estimated to cost an average of about $1–2 billion annually.[34] This suggests that the level of savings from any such deduction would, in any case, be relatively modest.

As should be obvious from the above discussion, there is no simple, clear-cut and "objective" way to divide DoD costs—either past or future—between war-related programs and activities, and those related to essentially peace-time and long-term force structure, readiness and modernization requirements. Additionally, reasonable minds can differ concerning whether the cost of the planned expansion of the Army and Marine Corps, and some portion of the recent increase in DoD's base budget (especially as directed towards military compensation), should be attributed to the wars in Iraq and Afghanistan.

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33 For a discussion of these benefits, see Steven M. Kosiak, *Military Compensation: Issues and Options for the Future* (Washington, DC: CSBA, 2005) and Adam Talaber, *The Long-Term Implications of Current Defense Plans: Summary Update for Fiscal Year 2008* (Washington, DC: CBO, December 2007), pp. 9–11.

34 Steven M. Kosiak, "Potential Cost of US Operations in Kosovo," CSBA, March 22, 1999, p. 3. It is possible that the estimates made at the time understated the actual cost of Operations Northern and Southern Watch, and that applying the same methodology employed by DoD to project the cost of military operations today would generate higher estimates; however, conducting such analysis of these earlier costs is far beyond the scope of this report.

In the end, it was decided not to add these costs to the estimates of DoD funding requirements for military operations derived earlier in this chapter for three reasons. First, while an analytically defensible case could be made for including some of these costs, as discussed above, a case could also be made for excluding most of them. Second, especially with regard to the growth in the base budget over the past eight years, the share of this funding that might reasonably be attributable to the wars in Iraq and Afghanistan seems relatively modest (and much less than $128 billion). Third, and perhaps most importantly, it appears at least as likely that recent supplemental appropriations have provided more funding than is actually needed to cover the cost of the wars in Iraq and Afghanistan as it is that they have provided insufficient funding—and, further, war-related measures enacted in coming years may continue to include substantial amounts of funding for programs and activities at best only indirectly related to these wars.

It was likewise decided not to reduce the cost estimates for ongoing military operations generated in this report to reflect savings associated with the termination of Operations Northern Watch and Southern Watch. In this case, the decision was made in part because the amount of the deduction—and thus the magnitude of the adjustment—would be relatively small, and in part because including the deduction seems inconsistent with the overall focus on this study on war costs, vice costs and benefits.

Indigenous Security Forces

A total of about $40 billion has been provided, to date, to train and equip indigenous security forces in Iraq and Afghanistan.[35] Of the total provided for indigenous security forces so far, about $25 billion has been allocated to Iraqi forces, and some $15 billion to Afghan forces.

As with the cost of DoD military operations, there is no way to estimate with confidence how much the United States will spend on training and equipping Iraqi and Afghan security forces in coming years. However, as noted earlier, CBO has derived two illustrative sce-

[35] This includes about $5 billion provided through the State Department's budget in 2004. Since 2005, funding for these forces has been provided through DoD's supplemental appropriations, and, specifically, the O&M portion of those measures.

narios to project potential future war-related costs. In the case of training and equipping indigenous security forces, CBO assumes in both of its scenarios that a total of some $42 billion more would be provided over the 2009–2018 period.[36] Assuming that Iraq and Afghanistan continue to receive roughly the same shares of that funding they have over the past few years, an additional $27 and $15 billion would be projected to provided to the two countries, respectively (see Figure 2).

Diplomatic Operations and Foreign Assistance

US diplomatic activities (e.g., State Department consular operations and embassy construction) and foreign assistance (e.g., reconstruction and economic assistance) directed to Iraq and Afghanistan have accounted for a total of about $45 billion in supplemental appropriations.[37] This includes some $32 billion for Iraq and $13 billion for Afghanistan.[38]

As in the case of DoD funding for military operations, it is difficult to determine precisely how all of this funding has been allocated. By far the greatest portion of the funding in this category has been provided to Iraq, with US foreign assistance to that country peaking in 2004. Congress approved a $20.5 billion foreign assistance package for Iraq for that year. The package included about $5.6 billion for training and equipping Iraqi security forces (included in the funding totals discussed in the preceding section of this chapter) and nearly $15 billion in other forms of reconstruction assistance.[39] Figure 3 provides a breakdown of this funding. Considerable controversy has surrounded the cost effectiveness of these and other relief and reconstruction activities.

[36] Orszag, "Estimated Costs of US Operations in Iraq and Afghanistan and of Other Activities Related to the War on Terrorism," p. 8.
[37] This estimate is based on CRS's estimate of funding for foreign aid and diplomatic operations related to Iraq and Afghanistan (Amy Belasco, "The Cost of Iraq, Afghanistan, and Other Global War on Terror Operations Since 9/11," p. 18). However, in order to avoid double counting, $5.6 billion in 2004 funding has been deducted from CRS's estimate for Iraq. Although provided through the foreign assistance budget, this funding was allocated to training and equipping Iraqi Security forces, and is included in that total (after 2004, all such funding was provided through DoD's budget).
[38] Ibid.
[39] Curt Tarnoff, "Iraq: Reconstruction Assistance," CRS Report to Congress, June 25, 2007, p. 14.

Figure 3: 2004 Supplemental for Iraqi Reconstruction
(in millions of 2008 dollars)

Category	Funding
Electricity	4,706
Water and Sanitation	2,361
Oil Infrastructure	1,925
Justice, Public Safety and Civil Society	1,455
Democracy	1,114
Health	911
Private Sector	903
Transportation and Telecommunications	510
Education, Refugees, Governance	458
Roads, Bridges and Construction	373
Administrative Expenses	235
Total	**14,950**

Source: Curt Tarnoff, "Iraq: Reconstruction Assistance," CRS Report to Congress, June 25, 2007, p. 14.

Projecting future funding requirements for diplomatic activities and foreign assistance is no easier than estimating the future cost of military operations in Iraq and Afghanistan, or the cost of training and equipping indigenous security forces. Here too this report incorporates the illustrative projections of future costs derived by CBO. In the case of diplomatic activities and foreign assistance, CBO projects in both of its scenarios that a total of some $20 billion more will be provided over the 2009–2018 period.[40] Assuming the two countries continue to receive roughly the same shares of this funding as they have over the past few years, an additional $14 billion would be provided to Iraq and $6 billion to Afghanistan (see Figure 2).

[40] Orszag, "Estimated Costs of US Operations in Iraq and Afghanistan and of Other Activities Related to the War on Terrorism," p. 8.

Veterans' Benefits

Another significant war-related cost consists of medical care, disability compensation, survivors' benefits and other assistance provided by the Department of Veterans Affairs (VA) to former military personnel who have returned from Iraq and Afghanistan (and, in some cases, family members of those personnel). Generally, personnel become eligible for VA benefits only after they have separated from the active military.[41] Disability and medical benefits account for the vast majority of VA costs each year. A total of about $3 billion has been appropriated to date to cover VA benefits for veterans of the wars in Iraq and Afghanistan.[42] Ultimately, these wars will end up costing far more in terms of VA benefits—though it is difficult to estimate with much confidence just what those costs will total.

In their book The Three Trillion Dollar War, Stiglitz and Bilmes estimated that as a result of the wars in Iraq and Afghanistan the federal government would ultimately have to provide veterans with disability and medical benefits totaling some $431–731 billion, on a present-value basis.[43] This includes VA disability and medical benefits, as well as Social Security disability benefits. It represents essentially the life-time value of these benefits to veterans who served in Iraq or Afghanistan during the 2001–2017 period. A present-value approach is often used by economists in order to capture the time value of money. Under this approach, rather than being adjusted to correct solely for the effects of inflation (i.e., converting all funding and cost figures to 2008 dollars, as has been done in this report), funding and cost figures are adjusted to reflect the fact that—even without the effects of inflation—a dollar spent today is worth more than one spent tomorrow. This, in turn, reflects the fact that money can be invested, and accrue interest, over time.

A present-value approach can be especially useful in cases where the costs incurred may not actually be paid until many years into the future. This is true in the case of veterans' benefits, since veterans wounded or injured in the wars in Iraq and Afghanistan may, in some

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[41] Mathew S. Goldberg, Deputy Assistant Director for National Security, "Projecting the Costs to Care for Veterans of US Military Operations in Iraq and Afghanistan," statement before the House Committee on Veterans' Affairs, October 17, 2007, p. 1.

[42] Belasco, "The Cost of Iraq, Afghanistan, and Other Global War on Terror Operations Since 9/11," p. 18

[43] Stiglitz and Bilmes, *The Three Trillion Dollar War: The True Costs and Consequences of the Iraq Conflict*, p. 87.

cases, continue to receive benefits for many decades after these conflicts have ended. Essentially, what the Stiglitz's and Bilmes' present-value estimate of veterans' benefits means is that, although in practice the veterans' benefits associated with the wars in Iraq and Afghanistan will be paid out over a period of decades, those costs would be equivalent (taking into account the time value of money) to paying out $431–731 billion today.[44]

Preliminary analysis by CBO suggests that cost of veterans' benefits resulting from the wars in Iraq and Afghanistan will be substantial, but probably significantly lower than estimated by Stiglitz and Bilmes.[45] Stiglitz and Bilmes estimate that disability payments made by the VA to veterans of the Iraq and Afghan wars will total $283–396 billion over the next several decades, on a present-value basis.[46] This is based, among other things, on the assumption that a total of about 1.8–2.1 million US troops will have served in these conflicts by the end of 2017 and that, upon returning, about 40 percent of those will eventually receive some level of VA disability benefits.[47] The range in their estimate reflects differences in assumptions concerning both the number of returning veterans and the cost of the average disability payment. CBO argues that Stiglitz and Bilmes' estimates include many veterans of the current conflicts that might have become disabled had they not deployed to those theaters (e.g., in the course of normal peacetime training activities), and that they may also overstate the percentage of veterans likely to receive VA disability benefits.[48] Altogether, CBO estimates that the number of veterans who will receive VA disability benefits as a result of being deployed in Iraq and Afghanistan may be only about half the number projected by Stigliz and Bilmes, causing the cost of these benefits, likewise, to essentially fall by half.[49] This implies total VA disability cost of roughly $142–198 billion on a present-value basis.

44 Stiglitz and Bilmes discount the flow of future VA costs at a real rate of 1.5 percent—the rate at which the federal government is generally able to borrow money. Ibid., p. 229. The choice of the appropriate discount rate can be a source of controversy in economic analysis. Assuming a higher discount rate would lead to a lower present value.

45 Peter Orszag, CBO Director, "The Cost of War: A Comment on Stigliz-Bilmes," CBO Director's Blog, April 8, 2008, http://cboblog.cbo.gov/

46 Stiglitz and Bilmes, *The Three Trillion Dollar War*, p. 87.

47 Ibid., p. 39.

48 Orszag, "The Cost of War: A Comment on Stigliz-Bilmes," p. 6.

49 Ibid.

Stiglitz and Bilmes estimate that providing medical care to Iraq and Afghan war veterans will cost a total of some $123–291 billion on a present-value basis.[50] The authors assume that about 50 percent of these veterans will eventually seek medical treatment from the VA, with 50–60 percent of those individuals receiving short-term treatment (less than five years) and 40–50 percent receiving care for the rest of their lives.[51] The range in their cost estimate reflects differences in assumptions concerning both the share of veterans receiving short-term (versus long-term) care, and the average annual cost of treating those personnel. In this case, CBO believes that the authors' high-end estimate probably overstates average treatment costs by a factor of two.[52] It concludes that "in light of the uncertainty in projecting both the average cost and number of veterans of the current conflicts who will utilize VA medical care in the future, Stiglitz's and Bilmes' projection of up to $291 billion for VA medical costs may be overestimated by at least $100 billion."[53] This implies total VA medical care costs of some $191 billion on a present-value basis.

In addition to VA disability benefits and medical care, some disabled veterans of the wars in Iraq and Afghanistan will also be eligible for Social Security disability benefits. Stiglitz and Bilmes assume that veterans who have a 50 percent or greater service-connected disability will receive Social Security disability compensation, and that the total cost of these benefits, on a present-value basis, will amount to about $26–45 billion.[54] CBO has not evaluated this estimate. However, CBO's finding (noted earlier) that the total number of veterans with disabilities attributable to the wars in Iraq and Afghanistan may be only half the number projected by Stigliz and Bilmes might suggest that a better estimate of Social Security disability costs would be some $13–23 billion on a present-value basis.

Taken together, the above discussion suggests that the cost of veterans' benefits attributable to the wars in Iraq and Afghanistan might

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50 Stiglitz and Bilmes, *The Three Trillion Dollar War*, p. 87.

51 Ibid., pp. 40–41.

52 Stiglitz's and Bilmes' low-end estimate assumes that treatment costs will average about $3,500 per beneficiary, while the high-end assumes average costs of $5,765 (the average amount the VA spent in 2006 to treat veterans of all eras). Ibid., pp. 86. By contrast, CBO believes that a better estimate is $2,610, the average amount the VA spent in 2006 to treat veterans of the wars in Iraq and Afghanistan. Orszag, p. 7.

53 Ibid.

54 Stiglitz and Bilmes, *The Three Trillion Dollar War*, p. 41.

eventually total some $277–411 billion, on a present-value basis, for military personnel deployed in those countries through 2017—including $333–389 billion in VA disability and medical benefits, and $13–23 billion in Social Security disability benefits. Extending the timeframe to those personnel who were deployed in Iraq and Afghanistan by one year, to 2018 (to make it consistent with the time frame that is the focus of this report) might, as a rough approximation, be expected to increase the present value of these benefits by some 10 percent—to roughly $305–452 billion.

A reasonable estimate is that a present value of $305–452 billion implies direct budgetary costs of perhaps $40–62 billion between 2009 and 2018. [55] Combined with the $3 billion already provided for veterans' benefits over the 2001–2009 period, this would result in total budgetary costs over the 2001–2018 period of about $43–65 billion. The direct budgetary cost of providing these benefits through 2018 is much lower than the present value of the veterans' benefits accrued by personnel deployed to Iraq through 2018 because, as noted earlier, the vast majority of those benefits will be paid out in the years and decades beyond 2018.

Summary: Total Direct Budgetary Costs

As noted at the outset of this chapter, to date, the United States has spent about $904 billion on the wars in Iraq, Afghanistan and certain homeland security operations—with that funding split among four major budget categories (see Figure 1). Future costs are far more difficult to estimate with much confidence. However, combining the various projections discussed in this chapter suggests that additional costs of about $416–817 billion might be incurred through 2018 (see Figure 2). Taken together, these estimates imply total war-related costs (over the 2001–2018 period) of roughly $1.3–1.7 trillion (see Figure 4).

[55] Author's estimate. Figures provided by Stiglitz and Bilmes suggest that the ten-year (2008–17) budgetary costs of veterans' disability and medical benefits accruing to personnel serving in Iraq and Afghanistan through 2018 would be about 15 percent as much as the cost of those benefits calculated on a present-value basis. See, ibid., pp. 78–79, 87 and 249. It is assumed here that the ratio of ten-year budgetary costs to present-value costs would be the same for CBO's estimate as it was for the Stiglitz's and Bilmes' estimate.

These estimates include projections of future costs that are inherently speculative; as such they should be treated cautiously. This is true both in terms of the estimates of overall costs and the breakdown of those costs between the operations in Iraq and Afghanistan. As indicated earlier, in attempting to estimate total costs, the analysis in this report essentially embraces and incorporates CBO's illustrative projections of costs over the next decade. While reasonable, those projections could turn out to be substantially off. It is conceivable that US deployments in military operations will be cut more quickly and deeply than assumed in either of CBO's illustrative scenarios, in which case costs would be lower than estimated here. On the other hand, it is possible (and perhaps more likely) that CBO's projections will prove overly optimistic, and that substantially larger US forces will remain deployed in military operations through 2018 than is assumed even in CBO's high-end scenario—in which case total costs would be significantly higher than estimated in this report.

Likewise, it is possible that—even if the estimates of total GWOT costs included in this analysis turn out to be accurate—the division of resources between the wars in Iraq and Afghanistan will end up being substantially different than estimated here. As noted earlier, in allocating future costs between these two operations, this report adopted the simplifying assumption that each of these conflicts would continue to account for essentially the same share of overall GWOT funding they have in recent years—with Iraq and Afghanistan absorbing, respectively, about 80 percent and 20 percent of those costs.

Instead, it is possible that in coming years the share of war-related spending allocated to Afghanistan may increase. The decline in violence that has occurred in Iraq over the past year may increase the likelihood that the size of the US military presence in that country will be reduced. Conversely, rising levels of violence in Afghanistan have recently led DoD to begin increasing its force levels in that country. If rather than an 80/20 split future costs are split 50/50 between Iraq and Afghanistan, the total (2001–18) costs of those conflicts would amount to roughly $895 billion to $1.096 trillion for Iraq and $392 to $592 billion for Afghanistan.

Notwithstanding these caveats, the estimates derived in this chapter represent plausible projections of the ultimate costs of ongoing US military operations. And from a policymaking perspective, incorporating into one's planning and decision-making a plausible (albeit imperfect) estimate of those costs is certainly preferable to incorporating no estimate at all—which in effect amounts to assuming, completely implausibly, that there will be no additional costs.

Figure 4: Actual and Projected Direct Budgetary Costs of US Military Operations, 2001–18
(in billions of 2008 dollars)

	Iraq	Afghanistan	Homeland Sec.	Total
Military Operations (DoD)*	878–1,181	220–295	33	1,131–1,509
Indigenous Security Forces	51	31	0	82
Foreign Assistance and Diplomatic Activities	46	19	0	65
Veterans' Benefits*	37–56	6–9	0	43–65
Total*	985–1,344	271–354	33	1,289–1,721

* Low-end estimates assume that US deployments will decline from roughly 200,000 today to 30,000 by 2011, while high-end estimates assume those deployments will fall to 75,000 by 2013.
Source: CSBA estimates based on Amy Belasco, "The Costs of the Iraq, Afghanistan, and Other Global War on Terror Operations Since 9/11," p.18; "Additional Information About the Policy Alternative in CBO's Budget and Economic Outlook: An Update for Continued Spending in Support of the War on Terrorism," CBO, September 2008 and Peter Orszag, CBO Director, "The Cost of War: A Comment on Stigliz-Bilmes," CBO Director's Blog, April 8, 2008, http://cboblog.cbo.gov.

War Costs on a Present-Value Basis

The cost estimates discussed in this chapter and presented in Figures 1–4 have been adjusted to correct for the effects of inflation (i.e., have been converted into constant 2008 dollars). But they have not been adjusted to take into account the time value of money. The section on veterans' benefits included a discussion of the present-value approach to estimating costs, as well as specific present-value cost estimates. However, even in this case, the projections were not—in the end—incorporated into the chapter's cost estimates. Instead, those estimates were used to derive ten-year budgetary estimates comparable to those generated for the other sections of this chapter concerning DoD military operations, indigenous security forces, and diplomatic operations and foreign assistance.

By contrast, in their book *The Three Trillion Dollar War*, Stiglitz and Bilmes presented all of their cost estimates on a present-value basis, in an effort to capture the full cost of the wars in Iraq and Afghanistan, including costs that will not be paid until decades into the future. Figure 5 shows the estimates of various war costs derived in this chapter converted to a present-value basis.[56] By far the greatest difference is in the area of VA benefits, reflecting the fact that, as noted earlier, those costs will have to continue to be paid for decades—well beyond the 2001–2018 timeframe that is the focus of this report.

Figure 5: Actual and Projected Direct Budgetary Costs of US Military Operations on a Present-value Basis
(in billions of 2008 dollars)

	Iraq	Afghanistan	Homeland Sec.	Total
Military Operations (DoD)*	880–1,160	222–292	36	1,138–1,488
Indigenous Security Forces	50	30	0	80
Foreign Assistance and Diplomatic Activities	46	19	0	65
Veterans' Benefits*	264–391	42–62	0	305–452
Total*	1,240–1,647	312–402	36	1,588–2,085

* Low-end estimates assume that US deployments will decline from roughly 200,000 today to 30,000 by 2011, while high-end estimates assume those deployments will fall to 75,000 by 2013.
Source: CSBA estimates based on Amy Belasco, "The Costs of the Iraq, Afghanistan, and Other Global War on Terror Operations Since 9/11," p.18; "Additional Information About the Policy Alternative in CBO's Budget and Economic Outlook: An Update for Continued Spending in Support of the War on Terrorism," CBO, September 2008 and Peter Orszag, CBO Director, "The Cost of War: A Comment on Stigliz-Bilmes," CBO Director's Blog, April 8, 2008, http://cboblog.cbo.gov.

Costs Compared to Past Wars

Before closing this chapter on the budgetary costs of the ongoing military operations in Iraq and Afghanistan, as well as homeland security operations, it may be useful to consider these costs in comparison to

[56] Author's estimate based on a real discount rate of 1.5 percent.

previous wars involving US forces. Estimates of past military operations are generally limited to DoD costs. Thus, in order to provide an "apples-to-apples" comparison, the baseline used here is the actual, and projected, cost to DoD of the wars in Iraq and Afghanistan, and homeland security operations.

A total of about $818 billion in supplemental funding has so far been provided to DoD for military operations in Iraq and Afghanistan—some $648 billion and $170 billion, respectively.[57] Judged by these figures, the war in Iraq alone has already cost more than every past US war but World War II (See Figure 5). The most costly US conflict since World War II was the war in Vietnam. If the projections of future funding requirements discussed earlier (which would bring total DoD costs for the war in Iraq to some $878 billion to $1.227 trillion) are close to the mark, it is possible that, ultimately, that war will end up costing more than twice as much as the Vietnam War.

Figure 6: Cost of Past Major Military Operations
(in billions of 2008 dollars)

Conflict	Cost	Defense Share of GDP in Peak Year	War Cost as Share of One Year's GDP**
Gulf War*	91	4.6%	1%
Vietnam War	518	9.5%	12%
Korean War	456	14.2%	19%
World War II	3,452	37.8%	141%
World War I	227	16.1%	30%

* About 90 percent of these costs were paid for by contributions from US friends and allies.

** The figure was derived by dividing the total cost of the war by the US GDP at the height of the conflict.

As noted earlier, the Bush Administration has argued that the wars in Iraq and Afghanistan, as well as homeland security operations,

[57] In addition to $628 billion provided for DoD military operations in Iraq and $155 billion provided for DoD military operations in Afghanistan, these totals include $20 billion provided to DoD for training and equipping Iraqi security forces and $15 billion provided to DoD for training and equipping Afghan security forces. The total for Iraq does *not* include $5 billion provided for Iraqi security forces in 2004 through the State Department's budget. The above totals exclude all spending on veterans' benefits, as well as foreign assistance and diplomatic activities.

are all part of a single larger conflict, the so-called Global War on Terror GWOT). With a combined cost of $851 billion (including only DoD costs), these military operations have already exceeded the cost of the Vietnam War by about 65 percent. Moreover, it is quite possible—again based on the projections of future costs discussed earlier—that the overall GWOT will eventually end up costing as much as three times the cost of the Vietnam War.

On the other hand, to date at least, the financial burden imposed by these ongoing military operations is lower—measured as a share of the economy—than was the case during, for example, the Korean or Vietnam Wars. This is because the US economy today is much larger than it was at the time of those wars. One way to compare this economic burden is to consider the share of GDP absorbed by military spending during the peak year of various conflicts. By that measure, the burden is much less today than it has been during most major wars. US defense spending is estimated to account for about 4.2 percent of GDP in 2008—to date, at least, the most costly year of ongoing wars in Iraq and Afghanistan. By comparison, at the height of the Korean and Vietnam Wars, for instance, military spending absorbed, respectively, about 14.2 percent and 9.5 percent of GDP (see Figure 5).

Another way to measure this economic burden is to express the total cost of the war as a percentage of the country's GDP at the midpoint or height of the conflict.[58] By this measure, as well, the war in Iraq and even the overall GWOT has so far been less burdensome than the Korean and Vietnam Wars. Those wars absorbed, respectively, the equivalent of 19 percent and 12 percent of one year's GDP (see Figure 5). By comparison, the war in Iraq has, to date, accounted for the equivalent of about 4.5 percent one year's GDP, and the overall GWOT some 6 percent.

Even assuming the wars in Iraq and Afghanistan continue and costs grow as projected earlier, these conflicts might still prove less burdensome than the Korean and Vietnam Wars. However, at least as measured by the second of these two metrics, the economic burden *could* approach these past levels. Including only funding provided to DoD,

[58] This is similar to the approach used by William D. Nordhaus, "The Economic Consequences of a War with Iraq," in Carl Kaysen, Steven E. Miller, Martin B. Malin, William D. Nordhaus, and John D. Steinbruner, *War with Iraq: Costs, Consequences, and Alternatives* (Cambridge, MA: American Academy of Arts and Sciences, 2002), p. 55.

the estimates of potential costs through 2018 discussed earlier amount to some $924 billion to $1.227 trillion for the war in Iraq alone and $1.208–1.586 trillion for the GWOT as a whole. If these estimates are correct, the percentage of one year's GDP absorbed by military operations would ultimately range from about 6.4–8.5 percent for the war in Iraq, to some 8.4–11.1 percent for the GWOT.

Chapter 2: Growth in Costs and Funding

Funding for military operations has been climbing steeply since 2001. Annual supplemental funding grew from about $17 billion in 2001, when US military operations in Afghanistan began, to $93 billion in 2003, when the United States invaded Iraq.[59] By 2006, the annual budget for military operations had reached $127 billion. For 2008, Congress provided about $182 billion in supplemental funding. As noted earlier, Congress has so far provided $66 billion as a down-payment on 2009 costs, but ultimately far more will be required to cover the cost of military operations for the full year.

Most of this growth in funding has been related to the war in Iraq. That war has ended up costing far more than anticipated by the Bush Administration prior to its invasion of that country in March 2003. At the end of 2002, Lawrence Lindsey, then Director of the National Economic Council, speculated that the war might cost $100–200 billion (current dollars).[60] Secretary of Defense Donald Rumsfeld, however, stated that estimates that the Iraq war might cost hundreds of billions of dollars were "baloney."[61] Similarly, Mitch Daniels, then Director of the Office of Management and Budget (OMB), indicated that he believed Lindsey's estimate was "very, very high" and suggested that the costs would be closer to $50–60 billion (current dollars).[62] With some $687 billion hav-

[59] As noted earlier, unless otherwise noted, all cost and funding figures cited in this report are expressed in 2008 dollars.

[60] Unlike the 2008 constant dollars used throughout most of this report, "current dollars" (sometimes referred to "then-year" or "nominal" dollars) are not adjusted to taking account the impact of inflation on purchasing power. Dana Bash, "Cost of Second War With Iraq 'Impossible to Know,'" CNN.com, December 31, 2002, www.cnn.com/2002/US/12/31/project.irq.war.cost/

[61] Interview with Secretary of Defense Donald Rumsfeld on ABC's "This Week With George Stephanopoulos," January 19, 2003.

[62] Elizabeth Bumiller, "Budget Director Lowers Estimate of Cost of War," *The New York Times*, December 31, 2002, p. 1.

ing been provided so far to cover the direct budgetary costs of the war in Iraq, these estimates have already proven to be wildly optimistic.

The most important reason for this dramatic underestimate of the conflict's costs was the administration's assumption that the vast majority of US forces would be withdrawn from Iraq within a few months after Iraq's conventional military forces were defeated, and that there would be no need to conduct large-scale, long-term stability operations in the country. However, this is by no means the only factor responsible for the growth in war-related costs and funding levels. This chapter describes and attempts to explain the magnitude and nature of the contribution to this growth by these other factors.

Growth in Cost Estimates

Estimates of the cost of conducting military operations in Iraq and Afghanistan have grown substantially and consistently over the past half-dozen years. This is true even adjusting for the changes in force levels (i.e., on a cost per troop/year basis). In September 2002, CBO estimated that—based on the costs incurred in the Balkans, Afghanistan and Desert Shield/Desert Storm—sustaining an occupation force consisting of 75,000–200,000 US troops in Iraq would cost some $19–52 billion a year.[63] This equates to an average cost of about $250,000 per troop/year.[64] CBO's high-end estimate turned out to be fairly close to the mark in terms of the number of troops deployed in and around Iraq after the invasion in the spring of 2003. However, the costs per troop have turned out to be much higher than CBO anticipated based on the cost of past military operations.

In 2004, CBO released another estimate.[65] This estimate projected the incremental cost of sustaining all US forces engaged in military

[63] CBO, "Estimated Costs of a Potential Conflict with Iraq," September 2002, p. 5. All CBO cost estimates cited in this analysis have been converted to 2008 dollars.

[64] CBO does not, in its own analysis, cite cost per troop/year. This estimate was derived by CSBA by dividing the total cost estimate provided by CBO by the number troops assumed to be deployed (also specified in CBO's analysis). Cost per troop/year provides a convenient metric for measuring cost growth since, by definition, it is adjusted for changes in force levels.

[65] CBO, "Estimated Costs of Continuing Operations in Iraq and Other Operations of the Global War on Terrorism," June 25, 2004.

operations, including not only US forces in Iraq, but those in Afghanistan and personnel assigned to Operation Noble Eagle. This new estimate equated to costs per troop/year of some $325,000.[66] Part of the reason for this higher cost per troop/year is that CBO's new cost estimate included some funding for classified programs, as well as support to other countries ("coalition support"). According to CBO, its new, higher estimate also resulted from a refinement and reevaluation of its methodology for estimating war costs. At the time, CBO noted that, even with these refinements, its methodology appeared to produce estimates that were some 12 percent below those that would be derived by simply extrapolating from DoD's expected obligations from 2004 appropriations.[67]

CBO also indicated that it was unlikely that this difference was attributable to increases in the pace of military operations (operational tempo, or OPTEMPO) caused by the worsening security situation in Iraq. It pointed out that most of the costs incurred in overseas military operations are associated with personnel, base support and other factors that are not usually correlated with OPTEMPO. Indeed, CBO noted that, based on DoD reports, costs driven by OPTEMPO appear to account for only about 10 percent of the total costs associated with the war in Iraq and other military operations.[68]

In 2005, CBO again increased its estimate of war-related costs.[69] This time, its estimate equated to costs per troop/year of about $450,000. However, unlike CBO's 2004 revision of its earlier cost estimates, this change does not appear to have resulted, at least primarily, from a refinement of its methodology. The new estimate made use of a new CBO methodology to estimate the costs of equipment repair and replacement requirements. But for all military personnel and other operations and support (O&S) activities (representing the bulk of the costs associated with military operations), CBO based its estimate not on an independent "bottom-up" assessment but on a simple extrapolation of obligations data reported by DoD in 2004, adjusted to take into account inflation and changes in personnel levels.

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[66] Author's estimate based on Tables 3 and 4. Ibid.
[67] Ibid., p. 8.
[68] Ibid., p. 9.
[69] CBO, "An Alternative Budget Path Assuming Continued Spending for Military Operations in Iraq and Afghanistan and in Support of the Global War on Terrorism," February 2005.

Since 2005, CBO has revised its estimates of GWOT costs several more times. Most recently, in March 2008, figures released by CBO indicate that, over the long run, costs per troop/year would average some $775,000.[70] This is some three times more than CBO projected in 2002, based on the cost of recent past wars, and about 70 percent more than its estimate from 2005. In this case, the estimate appears to be based primarily on an extrapolation of funding levels included in the 2008 supplemental request, adjusted for inflation and changes in force levels.

The fact that CBO has not derived a truly independent estimate of the cost of military operations in Iraq or Afghanistan since 2004 should not be taken as a criticism of CBO. The problem is that DoD has not generally provided CBO with the kind of data it needs to generate its own independent estimates of those costs.[71] As early as 2004, CBO made clear the serious nature of its concerns about the war-related cost data DoD was providing:

> Obligations for Operations Iraqi Freedom and the other GWOT operations vary widely from month to month, making it difficult to discern trends. Those data provide no information about the pace of operations or the force levels underpinning those costs, nor do they segregate one-time costs from recurring or day-to-day costs. Some obligations are recorded months after the actual activity occurred because of the time needed to establish proper billing and reimbursement. Without more detailed information, it is difficult, if not impossible, to use the reported obligations to estimate future costs.[72]

As discussed in Chapter 3, the 2007 and especially the 2008 supplemental requests were supported by substantially more detailed justification materials than previous requests. However, critical gaps

[70] Author's estimate based on CBO data. CBO, "The Long-Term Implication of Current Defense Plans: Detailed Update for Fiscal Year 2008," March 2008, p. 5.
[71] See, for example, Robert A. Sunshine, "Issues in Budgeting for Operations in Iraq and the War on Terrorism," testimony before the Committee on the Budget, US House of Representatives, January 18, 2007.
[72] CBO, "Estimated Cost of Continuing Operations in Iraq and Other Operations of the Global War on Terrorism," p. 7.

remain, making it difficult to use this data to effectively estimate costs and funding requirements.[73]

Areas of Cost Growth

A comparison of the amounts provided for military operations in 2004 and 2008 provides some insights concerning the main areas of cost growth. In real terms, the level of funding provided to DoD for military operations more than doubled over this period, growing from about $81 billion to $176 billion. Changes in O&M funding and, especially, procurement funding, are responsible for the vast majority of this $95 billion increase.

O&M funding accounts for about $48 billion of the additional supplemental funding provided in 2008. Funding to train and equip Iraqi and Afghan security forces, which since 2005 has been channeled through the O&M budget, has accounted for about $6 billion of this increase.

Excluding funding for indigenous security forces, O&M funding provided in supplemental appropriations grew by $42 billion between 2004 and 2008. This represents a real increase of about 90 percent. Part of this growth probably stems from the increase in deployment levels that occurred between 2004 and 2008. However, the average number of troops deployed in and around Iraq and Afghanistan grew by only some 10 percent over this period; so this seems likely to explain, at best, only a small fraction of the increase in O&M.[74] Increased costs associated with overhauling military equipment might account for some of the remaining O&M cost growth, but it is unclear what accounts for most of the growth.

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[73] Amy Belasco, "The Cost of Iraq, Afghanistan, and Other Global War on Terror Operations Since 9/11," CRS, p. 44.

[74] David Newman and Jason Wheelock, "Analysis of the Growth in Funding For Operations in Iraq, Afghanistan and Elsewhere in the War on Terrorism," CBO, February 11, 2008, p. 14, Table 5.

EXPANDING DEFINITION OF THE "GWOT" AND RESET

The bulk of the growth in funding for military operations that has occurred over the past four years has been in weapons procurement, which has increased by some 750 percent, or $60 billion. In turn, the main reason for this growth appears to be DoD's adoption of a progressively broader definition of what constitutes the GWOT and, especially what constitutes reset. As noted by CBO, "at two points, DoD seems to have loosed its criteria for the type of programs whose funding could be requested in supplemental budget submissions," first in 2005 and then, more substantially, in 2007.[75]

According to CBO, "before 2005, requests for procurement funds were primarily limited to replacing equipment that had been damaged or destroyed in the war and to purchasing items that could be delivered almost immediately to satisfy urgent requirements in Iraq and Afghanistan."[76] But beginning in FY 2005, DoD began including funds related to longer-term requirements, and less closely related to the conflicts in those two countries. For example, the 2005 and 2006 supplementals each included about $5 billion to cover the cost of the Army's "modularity" initiative and restructuring the Marine Corps, $4 billion of which was for buying new equipment.[77] This restructuring may, indeed, improve the ability of the Services to operate more effectively in Iraq and Afghanistan. However, according to Service officials, these efforts would have been pursued in any case, as a means of improving the military's ability to fight in future conflicts. Thus, the costs associated with this restructuring cannot reasonably be deemed to be incremental costs stemming from the wars in Iraq and Afghanistan.

Likewise, it appears that the supplementals enacted in 2005 and 2006 included more funding for upgrading existing equipment and buying new equipment needed to make up existing shortfalls. As a result of these changes, by 2006, the amount of procurement funding provided through war-related supplementals had more than tripled, from some $8 billion in 2004 to $26 billion. Of this total, about $13 billion was for

[75] Newman and Wheelock, "Analysis of the Growth in Funding For Operations in Iraq, Afghanistan and Elsewhere in the War on Terrorism," p. 8.
[76] Ibid.
[77] Through that initiative, the Army is moving from a division-focused force, to one organized primarily around smaller brigade combat teams (BCTs) capable of operating independently.

reset (with an additional $7 billion provided for reset through the O&M budget). By comparison, as discussed in Chapter 1, the annual cost of replacing and repairing equipment damaged and destroyed in Iraq and Afghanistan has probably averaged some $5–12 billion in recent years, including both procurement and O&M funding.

A more substantial expansion of DoD's conceptualizations of the GWOT and of reset in particular occurred with the 2007 supplemental request. As discussed in more detail in Chapter 4, beginning with this request, DoD explicitly instructed the Services to include funding in these supplementals not only to cover those costs incurred directly as a result of the conflicts in Iraq and Afghanistan (i.e. the incremental costs of these military operations), but also funding for programs related to winning the broader Global War on Terror. Since in the administration's eyes, the GWOT, or The Long War, as it is referred to in the 2006 Quadrennial Defense Review (QDR), represents the central framework for organizing the US military's strategy, planning, programming and budgeting over the coming decades, this change greatly expanded the number and types of weapons programs the Services determined they could pay for through supplemental appropriations.

Reflecting these new instructions, the level of procurement funding included in supplemental appropriations doubled in 2007, reaching $52 billion, and grew to $68 billion in 2008. As indicated above, by 2005 the war-related supplementals had already moved beyond covering costs associated with replacing and repairing equipment destroyed or worn-out in Iraq and Afghanistan, to include a significant amount of funding for upgrading existing equipment and buying new equipment. However, that equipment was generally limited to current-generation systems. This began to change with the 2007 request. As CBO has noted, in the case of aircraft programs:

> Initially, appropriations were provided to replace, with equipment of the same model, aircraft that had been destroyed in combat or otherwise lost in operations—primarily helicopters such as the UH-60 Blackhawk or the CH-47 Chinook. However, in 2007 the department requested and received appropriations to replace losses of older systems, such as the CH-46 helicopter and the

> F-16 fighter, with next-generation systems that are currently in production or development, such as the CV-22 tilt-rotor and the F-35 Joint Strike Fighter.[78]

Recent supplemental appropriations have also included an increasing amount of funding to improve the military's force protection capabilities. For example, the 2008 supplemental includes some $20 billion for equipment (including mine resistant ambush protected vehicles, or MRAPs) designed to protect deployed forces from a variety of unanticipated threats that emerged soon after the invasion of Iraq, especially the use of improvised explosive devices (IEDs).[79]

Summary and Conclusions

The war in Iraq has ended up costing far more than the Bush Administration expected it would cost just prior to launching the US invasion of that country in March 2003. The budgetary costs of that conflict have already exceeded initial administration estimates by roughly an order of magnitude. The most obvious cause for this underestimate of the conflict's costs was the administration's extremely optimistic assumption that the vast majority of US forces would be withdrawn from Iraq within a few months after the country's conventional military forces were defeated, and that there would be no need to conduct large-scale, long-term stability operations in Iraq.

The wars in Iraq and Afghanistan have proven to be far more costly than previous military operations, even adjusting for differences in the number of troops deployed and the duration of the conflicts. As discussed above, costs per service member deployed in and around Iraq and Afghanistan are currently several times higher than initial calculations based on costs incurred in past military operations, including Bosnia and Kosovo in the late 1990s, and the 1991 Gulf War. Some of this cost growth appears reasonable and is relatively easy to explain. But in some cases, it is unclear what is driving this growth.

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[78] Ibid., p. 11.
[79] Ibid., p. 12.

The single most important cause for the increasing size of the supplementals enacted and requested since 2004 has been the Bush Administration's and DoD's adoption of a progressively broader definition of what constitutes the GWOT and, especially, reset. As discussed in Chapter 1, there is no way to easily or precisely estimate how much funding for procurement included in recent supplementals might be reasonably attributed to the wars in Iraq and Afghanistan, and how much might more appropriately be attributed to the Services' long-term modernization requirements. However, it is clear that the amount of funding falling into this latter category is considerable, and has increased dramatically over the past four—and especially the last two—years.

Chapter 3: Budgeting for the Wars in Iraq and Afghanistan

This chapter provides an overview of how the United States has budgeted for military operations since 2001. This includes the process by which the Bush Administration and DoD have determined the budgetary requirements for the wars in Iraq and Afghanistan, and presented war-related funding requests to Congress, as well as how Congress has appropriated that funding. Although there are some similarities, there are also some notable differences between the approach used by the United States to budget for the wars in Iraq and Afghanistan and the approach it has used to fund previous wars.

As will be discussed in detail below, the process used to budget for military operations since 2001 has suffered from some serious limitations and shortcomings. Among other things, the process has tended to obscure the long-term costs and budgetary consequences of ongoing military operations, reduced the ability of Congress to exercise effective oversight over this funding, and undermined the effectiveness of DoD's long-term planning, programming and budgeting process. Although the process used to budget for military operations has been improved in some ways over the past few years, in other ways it has become even less efficient.

Over-Reliance on Supplemental Appropriations

Historically, the United States has generally used supplemental appropriations only to cover the initial, unanticipated phases of major wars or other military operations. By contrast, the United States relied *primar-*

ily on supplemental appropriations to cover the cost of the wars in Iraq and Afghanistan until FY 2008, some five years into the former conflict and seven years into the latter—long past the point where either of these wars could be reasonably considered *unanticipated* emergencies.

In the past, after the initial, unanticipated phase of major wars or other military operations, administrations have relatively quickly shifted from supplementals to regular annual appropriations. The Truman Administration began to include funding to cover the cost of the Korean War in its regular annual budget request in the first year of that conflict, and by the second year such appropriations accounted for almost 98 percent of the total funding provided for the war.[80] Likewise, the Johnson Administration began including funding to cover part of the cost of the Vietnam War in its regular annual budget request in January 1966, less than a year after the United States began to deploy combat troops in that country.[81] By 1968, such appropriations accounted for 86 percent of war-related funding. Long-term funding was not an issue in the case of the 1991 Gulf war due to the short duration of that conflict. More recently, by the second year of the military's deployment in Bosnia, the Clinton Administration included funding for that operation in its regular annual budget request.

Certainly, and especially in the case of the Korean and Vietnam Wars, it was no easier to project costs for the upcoming year than it is, today, in Iraq and Afghanistan. But the Services made good faith efforts to do so, and generally appear to have succeeded.

Congress began to push the Bush Administration to include funding for the wars in Iraq and Afghanistan as part of its regular annual defense budget request relatively shortly after the US invasion of Iraq. When the administration continued to rely on supplementals instead, Congress began to attach a "bridge fund" to the annual defense appropriations act that provided a down payment on war-related costs for the coming fiscal year. The size of these bridge funds grew from $27 billion in 2005 to $52 billion in 2006, and $71 billion in FY 2007. In addition, the 2007 defense authorization act included language directing

[80] Stephen Daggett, "Military Operations: Precedents for Funding Contingency Operations in Regular or in Supplemental Appropriations Bills, CRS, June 13, 2006, p. 3. See, also, Amy Belasco, Statement before the House Budget Committee, Hearing on the Growing Costs of the Iraq War, October 24, 2007, pp. 9–13.
[81] Ibid., p. 5.

the administration to include full funding for the cost of military operations in Iraq and Afghanistan in its fiscal year 2008 budget request. The bipartisan Iraq Study Group, which released its report in 2006, also recommended that war costs be included in the president's annual budget request.[82]

With its 2008 defense budget submission, the Bush Administration did, finally, include a request for funding to cover the estimated full-year costs of military operations in Iraq and Afghanistan for the upcoming fiscal year. Initially totaling $141 billion, this request was later amended to include a total of $189 billion. Congress ultimately approved $176 billion of this request.[83]

As part of its 2009 defense budget submission, sent to Congress in February 2008, the Bush Administration included a request for about $68.5 billion for military operations, including $66 billion for DoD. It acknowledged that this level of funding was insufficient to cover the full-year cost of the wars in Iraq and Afghanistan, and indicated that it would amend its request later in 2008 to include the necessary additional funding. In taking this approach, the administration argued that the security situation in Iraq was too uncertain to make (early in 2008) accurate estimates of the level of funding that would be required to cover the cost of military operations throughout 2009. Specifically, the administration stated that DoD would not be in a position to generate a reasonable estimate of 2009 war-related funding requirements until after Gen. David Petraeus, the commander of US forces in Iraq, had reported his findings concerning the success of the "surge" and the size of forces he believed would need to be kept in that country.[84] The administration also argued that efforts to draw up a full-year funding request for military operations for 2009 were hindered by Congress' failure to complete action on its 2008 request for war-related funding prior to the administration's submission of the its 2009 request, since

[82] *The Iraq Study Group Report: The Way Forward—A New Approach,* December 2006, pp. 59–60.

[83] Amy Belasco, "The Cost of Iraq, Afghanistan, and Other Global War on Terror Operation," p. 3. Another $5.2 billion was provided for foreign assistance and diplomatic activities, and $1.3 billion for veterans' benefits. Ibid.

[84] The "surge" involved a temporary increase in the number of US troops deployed in Iraq. It was intended to provide a period of greater stability and reduced violence within the country, thereby facilitating political reconciliation between various Sunni, Kurdish and Shia factions. General Petraeus testified before Congress on April 8, 2008.

the level of funding provided for 2008 could affect the level of resources required for 2009.[85]

Some might argue that it is of little consequence whether funding for the ongoing military operations in Iraq and Afghanistan is provided through regular annual appropriations or supplemental appropriations, that it is the amount of funding required that is important, not the process used to provide it. But in this case, process does matter, as it often does in budgeting. There are at least two reasons for this.

First, a budget that does not include a reasonable estimate of projected funding requirements for ongoing military operations is an incomplete budget. It is a budget that provides a misleading and overly optimistic picture of overall federal funding requirements and spending for the coming fiscal year. This would be a minor matter if the United States were spending only hundreds of millions or, at most, several billion dollars each year on military operations, as it was during most of the 1990s. But with war-related funding approaching $100 billion by 2003, this has become an enormous gap. A sound budgeting process forces policymakers to recognize the true costs of their policy choices. By contrast, the administration's reliance on supplementals tends to mask and obscure the cost of the wars in Iraq and Afghanistan. The failure to include estimates of the costs of these military operations in the administration's annual projections of federal spending means that those projections substantially understate likely future funding requirements. In turn, this may lead the administration and Congress to enact spending increases in other areas or tax cuts that it would not consider if, more realistically, its projections of federal spending requirements included an estimate of war costs. In other words, the failure to acknowledge and realistically budget for war costs tends to encourage deficit spending.

Second, reliance on supplemental appropriations diminishes substantially the level of oversight Congress can exercise over war-related funding. Unlike funding requests submitted through the regular annual budget process, which work their way through the House and Senate budget committees, armed services committees and, finally, appropriations committees, requests for supplemental appropriations are submitted directly to, and handled primarily by, the appropriations committees.

[85] Congress approved $87 billion in DoD funding for 2008 military operations in December 2007. It approved another $89 billion for DoD in the 2008 supplemental enacted in June 2008.

Moreover, because supplemental requests are typically submitted in the middle of the fiscal year, the amount of time available to consider these measures is severely limited. In addition, the substantial expertise resident in the House and Senate Armed Services committees is effectively shut out of the process. Meanwhile, members of Congress and staff on the appropriations committees are forced, year after year, to try to quickly work through extraordinarily large supplemental requests at the same time they are considering the administration's base budget request for the upcoming fiscal year. Taken together, these factors substantially reduced the effectiveness of congressional oversight of war-related funding.

The Bush Administration's decision to bow to congressional pressure and include a request for full-year funding for the wars in Iraq and Afghanistan as part of its 2008 regular annual defense budget request represented an important, if belated, process improvement. On the other hand, its decision to defer the submission of such a request for 2009 represented a step backwards. It is true that the situation in Iraq is uncertain and that the size and shape of the 2009 request for war funding could be affected by Congress' action on the 2008 request, which was, at the time, still pending before Congress. But it is doubtful that the level of uncertainty related to these considerations is significantly greater than is typically the case in wartime. Moreover, the administration is always free to amend its request as the picture becomes clearer—as it did in 2008, when it added some $47 billion to its initial $142 billion request for full-year funding of the wars in Iraq and Afghanistan. At a minimum, the Bush Administration might be fairly criticized for submitting an initial place-holder request of only $66 billion for 2009 war costs, given that under almost any plausible scenario it seemed clear, even when the 2009 defense budget request was submitted in early 2008, that war-related costs for the year would greatly exceed that amount. Moreover, by the summer of 2008 (after Congress had approved a second increment of funding to fully cover war costs for 2008) the administration had still not submitted a supplemental request to cover the full-year costs of military operations in 2009.[86]

[86] On the other hand, there seems to be little likelihood that Congress would have approved any such measure prior to the election even if the Bush Administration had submitted a request for full-year funding.

Lack of Detailed and Timely Justification Materials

The problems caused by the administration's over-reliance on supplemental appropriations to cover war costs over the past eight years have been compounded by a failure, throughout most of this period, to provide detailed and timely justification materials. In its 2006 report, the Iraq Study Group complained:

> [T]he executive branch presents [its war-related] budget requests in a confusing manner, making it difficult for both the general public and members of Congress to understand the request or to differentiate it from counterterrorism operations around the world or operations in Afghanistan. Detailed analyses by budget experts are needed to answer what should be a simple question: "How much money is the President requesting for the war in Iraq?"[87]

In 2006 testimony, CBO identified a number of specific concerns about DoD's war-related budget justification materials. It noted, for example, that those materials often do "not provide enough detail to determine how DoD develops its budget requests and how funds for operations in Iraq and the war on terrorism have been obligated."[88] In turn, the lack of clear and consistent historical obligations data makes it difficult for CBO or others to develop independent projections of future war costs against which to compare the estimates included in DoD's requests. As an example of the absence of detail often present in DoD's war-related supplemental requests, CBO also noted that although O&M funding accounted for $33 billion of DoD's 2007 supplemental request, the justification materials accompanying the request included only five pages focused on O&M.[89]

87 *Iraq Study Group Report*, p. 60.

88 Donald B. Marron, Acting Director, CBO,"Issues in Estimating the Cost of Operations in Iraq and the War on Terrorism," statement before the Subcommittee on National Security, Emerging Threats, and International Relations, Committee on Government Reform, US House of Representatives, July 18, 2006, p. 3.

89 Ibid. By contrast, the "O&M Overiew," which summarizes DoD's request for O&M funding in the base budget, is typically more than 200 pages long.

In recent years, DoD has expanded and improved the quality of the backup material sent to Congress to support its war-related funding requests. However, the materials still fell short in a number of respects. As Amy Belasco of the Congressional Research Service (CRS) has noted:

> While DoD has provided considerably more detailed justification material for its war cost requests beginning with the FY 2007 supplemental, many questions remain difficult to answer—such as the effect of changes in troop levels on costs—and there continue to be unexplained discrepancies in DoD's war cost reports.[90]

Overly Expansive Notion of GWOT

Another criticism of the process the Bush Administration has used to budget for the wars in Iraq and Afghanistan is that, especially over the past several years, it has begun to include significant amounts of funding in its war-related appropriations requests for programs and activities that are, at best, only indirectly related to the wars in Iraq and Afghanistan. This has both made it more difficult to track the true costs of these two wars and weakened DoD's long-term planning and budgeting process.

When the United States began Operation Enduring Freedom (OEF) in Afghanistan at the end of 2001, the Defense Department leadership coined the term Global War on Terror.[91] The GWOT label was attached to the request for supplemental appropriations submitted to Congress at that time to pay for military operations in Afghanistan, as well as Operation Noble Eagle, DoD's homeland security operation.

When the United States invaded Iraq in 2003, the administration decided to subsume this operation within the rubric of the GWOT as well. Thus, beginning in fiscal year 2003, the GWOT supplemental request submitted to Congress included funding for both OEF and

[90] Amy Belasco, "The Cost of Iraq, Afghanistan, and Other Global War on Terror Operations Since 9/11," p. 41.
[91] Although the primary focus of OEF is Afghanistan, the operation also encompasses a number of much smaller counterterrorist efforts in other countries.

Operation Iraqi Freedom (OIF), as well as a relatively small amount of funding for Operation Noble Eagle and some other activities. Beginning with the fiscal year 2005 submission, funding for Operation Noble Eagle was removed from the supplemental appropriations process, and funded instead through the regular annual defense appropriations act.

Traditionally, DoD has directed that appropriations measures used to fund military operations should be limited to covering only incremental costs directly related to carrying out the operations. In other words, according to DoD guidance, such measures should only be used to cover costs that are incurred as a direct result of the military's involvement in these operations, and are above and beyond the costs they would, in any case, incur through the execution of their peacetime readiness, force structure and modernization plans. Examples of incremental costs that meet DoD's traditional definition include: costs associated with activating reserve personnel called up to serve in military operations; the cost of extra fuel, spare parts and ammunition consumed in wartime; and costs associated with transporting and sustaining forces deployed to military operations.

Notwithstanding the focus on incremental costs in DoD's past guidance, each of the war-related supplemental appropriations submitted to Congress and enacted between FY 2001 and FY 2006 also included some amount of funding for programs and activities that were, at best, only indirectly related to the wars in Iraq and Afghanistan. The most obvious example of this was the inclusion of funding for the Army's modularity program in the fiscal year 2005 and 2006 supplemental requests. However, through FY 2006, the amount of funding included to cover such costs appears to have been relatively modest.

By contrast, starting with the 2007 supplemental request, the administration and DoD began taking a much more expansive view of the kinds of costs that could be covered through supplemental appropriations. In October 2006, Deputy Secretary of Defense Gordon England sent the Services new guidance to use in drawing up their respective requests to the Office of the Secretary of Defense for 2007 supplemental funding. The most important element of this brief memo was the following instruction:

> By this memo, the ground rules for the FY'07 Spring Supplemental are being expanded to include the [Defense] Department's efforts related to the Global

War on Terror and not strictly limited to Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF).[92]

With this guidance, the Defense Department greatly expanded the kinds of programs and activities the Services could ask to have funded through supplemental appropriations. Moreover, at the end of 2007, DoD issued new budgeting guidance that essentially institutionalized the changes introduced in Gordon England's 2006 memo.[93]

The administration has, since the invasion of Iraq if not earlier, embraced a very broad notion of what constitutes the GWOT. Although almost all observers would agree that military operations in Afghanistan appropriately fit within the concept of the GWOT, the idea that the US invasion of Iraq and subsequent military operations in that country should be considered part of the GWOT is much more controversial. But the administration's concept of the GWOT is much broader than even this construction.

As noted in Chapter 1, in the Bush Administration's view, the GWOT or "The Long War" is the central framework for organizing the US military's strategy, planning, programming and budgeting over the coming decades. It is similar to the way in which the concept of containing the Soviet Union was used to provide such a framework during the second half of the twentieth century.

Whether or not such a broad conceptualization is the most useful way to view the wars in Iraq and Afghanistan is debatable. Whatever the merits of this nomenclature, combining such a broad definition with guidance that allows the Services to include virtually anything in their requests for war-related appropriations appears to have had a detrimental effect on DoD's planning and budgeting process. In essence, the new guidance largely removed any principled distinction between what should be included in special war-related appropriations and what should be included in the base defense budget.

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92 Gordon England, Memorandum for Secretaries of the Military Department, "Ground Rules and Process for FY'07 Spring Supplemental," October 25, 2006, p. 1.

93 Amy Belasco, Statement before the House Budget Committee, Hearing on the Growing Costs of the Iraq War, p. 14.

This approach would have been like telling the Services in 1968, at the height of the Vietnam War, that their requests for Vietnam War funding could include basically anything related to winning the Cold War competition with the Soviet Union. The most significant problem with this approach is that such guidance amounts to, in effect, telling the Services that they no longer need to find room in the regular annual defense budget to cover the full cost of their long-term plans.

The Services already have a perennial problem with developing and presenting long-term readiness, force structure and modernization plans that are actually affordable within projected or likely funding levels. In march 2008, CBO estimated that unless the base defense budget—i.e., the defense budget exclusive of funding for military operations—is increased well above current levels and the levels projected for the next five years under the administration's current plan, the gap between available funding and the cost of implementing the Defense Department's long-term plans could average as much as some $50 billion annually over the next two decades.[94] Offering the Services the option of shifting some of these funding requirements into special supplemental appropriations—which in earlier years had been, at least largely, limited to covering the cost of military operations—has only further diminished the realism of their long-term planning and budgeting.[95]

Though far from perfect, the Defense Department's long-term planning and budgeting process is a valuable tool that, among other things, attempts to force the senior leadership to make hard decisions about competing programs and priorities. That process had already been stressed to some extent by the impact of more than five years of military operations. The decision to abandon the traditionally relatively narrow definition of costs that can be covered through special war-related appropriations has significantly loosened the already somewhat tenuous[96] budgetary discipline imposed on the Defense Department's planning and budgeting process.

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[94] Author's estimate, based on *The Long-Term Implications of Current Defense Plans: Detailed Update for Fiscal Year 2008* (Washington, DC: CBO, March 2008), p. 2.

[95] For similar reasons, the increasingly expansive use of supplemental appropriations has also reduced the level of discipline exerted on the congressional appropriations processes.

[96] Traditionally, even in peacetime the discipline of DoD's planning and budgeting process has tended to be undermined by, among other things, its inability to anticipate or control effectively cost growth in weapons programs and O&S activities (e.g., health care).

Moreover, in the end, the Services may suffer the most from this weakening of their planning and budgeting process. At some point, the wars in Iraq and Afghanistan will wind down. And when that happens, the Services may find the special war-related appropriations drying up, and their base budgets—after years of relying on these special measures to cover a portion of their costs—below the level of funding needed to actually carry out their long-term force structure, readiness and modernization plans. Indeed, the Services have increasingly recognized and raised concerns about this prospect.

Use of Emergency Designation for War-Related Appropriations

The vast majority of funding provided for the wars in Iraq and Afghanistan has been designated "emergency" spending by the administration and Congress. As a result, funding for these military operations has not, generally, been required to compete against other federal budgetary priorities, the way other programs and activities are, during the annual budget process. As such, critics argue, the wars have been budgeted for in a way that has reduced fiscal discipline, contributed to increased deficit spending and obscured the true cost of the wars.

In 1990, Congress enacted the Budget Enforcement Act (BEA). Among other things, the BEA placed statutory caps on the amount of defense and other discretionary funding that Congress could appropriate each year. These caps, which were intended to help impose greater budget discipline and contribute to deficit reduction efforts, were in place from 1990 through 2002. During those years, the only way funding in excess of the caps could be provided was if the President and Congress agreed to designate the additional spending *emergency*. Only the first two war-related supplemental appropriations (for 2001 and 2002) enacted after the terrorist attack of September 11, 2001 were approved before the BEA's statutory caps expired. In both instances the administration and Congress agreed to designate the spending as emergency, thereby obviating any need to make offsetting cuts in other appropriations to help cover those costs.

Since then, the administration has continued to designate its requests for war-related funding as emergency spending. The expiration of the BEA means that this designation is no longer needed to avoid discretionary spending caps set in law (which no longer exist). Instead, the primary advantage of using the emergency designation now relates to the Congressional Budget Resolution (CBR). Rather than a statute, the CBR is an internal budget blueprint developed by Congress each year (or, at least, most years) that sets out overall spending and revenue goals. Among other things, the CBR specifies the total amount of discretionary funding that can be appropriated for the upcoming fiscal year. Programs and activities funded through these appropriations must compete with each other, and the ceilings set in the CBR cannot be exceeded, unless the extra funding is designated emergency spending or the rule is waived.[97] In this case, the requirement for the emergency designation is stipulated not in law, but in House and Senate rules.[98]

As with the use of supplemental appropriations, in the immediate aftermath of 9/11 few observers disagreed with the use of the emergency designation for war-related appropriations. However, as the wars in Iraq and Afghanistan have continued year after year, some critics have argued that funding for those operations no longer meets a reasonable—or Congress' own—definition of "emergency." The 2006 CBR defined an emergency as a requirement that is:

- necessary, essential, or vital;
- sudden, quickly coming into being, and not building up over time;
- an urgent, pressing and compelling need requiring immediate action;
- unforeseen, unpredictable, and unanticipated; and
- not permanent, temporary in nature.[99]

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97 Appropriations that would exceed the ceilings set in the CBR are subject to a point of order in the House and Senate. In the House, a point of order can waived by a majority vote. In the Senate, doing so requires the vote of 60 members.
98 See, James V. Saturno, "Emergency Spending: Statutory and Congressional Rules," CRS, July 17, 2003, pp. 1–4.
99 Steven Daggett and Amy Belasco, "Assessment of FY 2007 Supplemental Appropriations Request," CRS Memorandum, February 23, 2007, p. 1.

Although it is certainly critical that US forces fighting in Iraq and Afghanistan are adequately funded so long as they remain engaged in those countries (meeting the first of the above criteria), it is far less clear that they meet most, or even any, of the remaining criteria. With the shortest of these two conflicts now in its seventh year, and the Bush Administration's own description of the wars in Iraq and Afghanistan as part of "The Long War" against radical Islam and terrorists, that could last for decades, it would seem that the time has long passed since it made sense to designate war-related appropriations as emergency spending.

Absence of War-Related Funding in Long-Term Budget Projections

A final criticism of the Bush Administration's budgeting for the wars in Iraq and Afghanistan is that it has generally not included any funding for those operations, beyond the upcoming fiscal year, in its long-term (e.g. five-year) budget and deficit projections. This may have been understandable during the first year or two of the military operations in those countries. However, it became clear relatively early on that under the administration's plans US forces would likely remain deployed in those countries, and perhaps elsewhere as part of "The Long War," for an extended period of time.

To be sure, providing a precise estimate of long-term ("out-year") costs would be impossible, given the uncertainty inherent in military operations. But it would have been more realistic for OMB to make even a very rough "guesstimate" of those costs than to include (as it generally did for most of the past eight years) no funding for military operations in its long-term budget projections.

In early 2007, when the administration submitted its 2008 budget request for the wars in Iraq and Afghanistan (as noted earlier, the first and only time so far that it has submitted a request for the full-year funding of military operations), it also included $50 billion for 2009 war-related costs as a place-holder in its long-term projections for overall federal spending. This was more realistic than the assumption that no additional funding would be required beyond the upcoming fiscal year. However, since a place-holder figure was provided for only one additional year (OMB's budget projections typically look out five years), and the figure was well below what has been required to cover the cost of military operations in recent years, this change represented, at best, only a modest improvement in terms of realism.

As noted earlier, a sound budgeting process forces policymakers to recognize the true costs of their policy choices. Unfortunately, the failure to include realistic assumptions about the out-year costs associated with the wars in Iraq and Afghanistan in long-term budget projections—as with the reliance on emergency supplemental appropriations—has tended to obscure those costs, thereby weakening government's resource allocation process.

Summary and Conclusions

The way the Bush Administration has budgeted for the Iraq and Afghanistan wars differs markedly from the approach typically used to fund wars. Because of its reliance on supplemental appropriations, often submitted in the middle of the year and supported by inadequate justification material, the process has reduced the ability of Congress to exercise effective oversight. It has also tended to obscure the long-term costs and budgetary consequences of ongoing military operations. The administration's inclusion, for the first time, of funding for military operations for the coming fiscal year in its 2008 request was a positive, if long overdue, step. However, the inclusion of substantial amounts of funding for programs and activities unrelated to the military operations in Iraq and Afghanistan in recent supplemental appropriations has led to further confusion concerning the cost of those conflicts, and has undermined and weakened DoD's long-term planning and budgeting process.

Chapter 4: Financing the War

Over the past eight years, federal taxes have been cut significantly at the same time as federal spending has been increased substantially, leading to dramatic growth in size of the national debt and large annual deficits. This has led a number of observers to argue that the wars in Iraq and Afghanistan have been financed entirely through borrowing.

In the end, this is an unprovable presumption. Over the past eight years, federal spending has exceeded federal revenues by an average of about 10 percent.[100] Put another way, overall, revenues have been sufficient to cover about 90 percent of federal spending, with 10 percent of those costs covered through borrowing. Since different types of spending and revenues are essentially fungible, one could argue that—no less than with other types of domestic or (non-war-related) defense spending—some 90 percent of the cost of the wars in Iraq and Afghanistan are presently being financed by revenues, and only 10 percent through borrowing.[101]

That said, the ongoing wars in Iraq and Afghanistan differ from past major American wars in the way they are being financed, and, although ultimately subjective and unprovable, a reasonable case can be made for attributing a higher share of interest costs to these wars than to other federal spending.

[100] Author's estimate based on CBO data. See, CBO, *The Budget and Economic Outlook: Fiscal Years 2008 to 2018* (Washington, DC: CBO, January 2008), pp. 152–58.
[101] As CRS has noted "There is no way to conclusively determine that a particular spending program is debt-financed rather than financed with taxes or foregone spending." Gavelle, November 27, 2007, p. 6.

Traditional US Approach to Financing Wars

With the exception of the 1991 Gulf War, which was a brief and relatively inexpensive war financed primarily by contributions from US friends and allies, the costs of all previous major conflicts were financed through a combination of tax increases, cuts in domestic programs and borrowing. As one commentator recently noted, "Higher taxes as well as cuts in luxuries and non-essential spending have been hallmarks of fiscal policy during every other major war in which the US has been engaged—until now."[102]

A month after Pearl Harbor, in his 1942 State of the Union address, President Franklin Delano Roosevelt told Congress, "War costs money. That means taxes and bonds and bonds and taxes. It means cutting luxuries and other non-essentials."[103] Tax increases covered about 45 percent of the costs of World War II, with the remainder covered by a mixture of cuts in New Deal programs, and borrowing.[104] President Truman attempted to cover the full costs of the Korean War through higher taxes, and President Eisenhower (who succeeded him before the conflict had ended) resisted pressure by members of his own party to cut taxes during the war.[105]

At the outset of the Vietnam War, President Johnson sought to avoid making any tax increases or program cuts to help him pay for the conflict. However, early in 1967—about a year and a half after US forces began major military operations in Vietnam—he proposed a 6 percent surcharge (later increased to 10 percent) on individual and corporate income taxes to "last for two years or for as long as the unusual expenditures associated with our efforts in Vietnam continue."[106] Hoping to protect his various "Great Society" initiatives aimed at helping low-income Americans, Johnson resisted pressure to cut spending. However, he ultimately agreed to a package, enacted in June 1968, that included both a 10 percent tax surcharge and $6 billion (current dollars) in spending cuts (with most of the money taken out of Great Society

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[102] Robert D. Hormats, "The Costs of the Iraq War," testimony before the Joint Economic Committee of the United States Congress, February 28, 2008, p. 2.
[103] Ibid.
[104] Ibid., p. 4.
[105] Ibid., p. 2.
[106] Robert D. Hormats, *The Price of Liberty* (New York: Times Books, 2007), p. 218.

social programs). The enactment of this measure enabled the federal budget, which had been in deficit, to run a small surplus in 1969.[107]

The Bush Administration has taken a starkly different approach to financing the wars in Iraq and Afghanistan. Rather than raising taxes, the administration has proposed, and Congress has implemented, significant tax cuts. This marks the first time in American history that taxes have been cut while the country was involved in a major war. The 2001 and 2003 tax cuts have ten-year costs of some $2 trillion (current dollars).[108] Nor have major reductions in spending been implemented in non-defense portions of the budget to help pay for the wars in Iraq and Afghanistan. Though much more slowly than defense spending, non-defense discretionary spending has also grown in real terms since 2008 (with much of the increase allocated to homeland security programs). Likewise, entitlement benefits have been expanded—in particular, the Medicare prescription drug benefit enacted at the end of 2003 had ten-year costs of some $500 billion. Thus, in contrast to past wars, in this case the United States has largely avoided a “guns-versus-butter” debate.

Attributing Interest Costs to Military Operations

The idea of attributing interest costs to the wars in Iraq and Afghanistan is arguably consistent with the approach used by CBO to estimate the cost of certain spending and revenue options. Each year, CBO generates a “baseline budget projection.” This baseline is essentially a ten-year “current services” projection that assumes discretionary spending will grow from its most recently enacted level at the same rate as inflation, while mandatory spending and revenues will follow the paths set in current law.[109] As CBO notes, this baseline is meant “to be used as a

[107] Ibid., p. 223.

[108] Center on Budget and Policy Priorities, September 11, 2008. The 2001 tax cut was *enacted* prior to the US invasion of Afghanistan, but was implemented and its costs incurred primarily after the war began.

[109] Funding for discretionary programs must be approved each year through the annual appropriations process and accounts for about one third of overall federal spending. By contrast, funding for mandatory programs (e.g., Social Security, Medicare and Medicaid) is provided essentially automatically, with the levels determined based on benefit and eligibility criteria set in law. Mandatory programs currently account for about two thirds of federal spending.

benchmark against which to measure the effects of proposed changes in spending and tax laws and policies."[110]

In addition to providing estimates of the direct budgetary costs of various policy alternatives, CBO includes an estimate of the interest costs that would be associated with these options if they were adopted and financed entirely through borrowing—rather than being offset, entirely or in part, by higher taxes or spending cuts in other parts of the budget.

The fact that the Bush Administration and Congress have treated the supplemental funding provided for the wars in Iraq and Afghanistan as "emergency" appropriations may, likewise, support the idea that these wars are not part of the baseline budget that existing revenues are intended to finance. Among other things, funding designated "emergency" is essentially exempt from the normal congressional budget process that requires all other programs, as well as proposals for changes in tax policy, to compete within the budget and revenue targets specified in the Congressional Budget Resolution.

Finally, to the degree that the war in Iraq (unlike the war in Afghanistan) is viewed as a "war of choice" rather than a "war of necessity" it might be appropriate to attribute a higher share of interest costs to that war.

Potential Pitfalls of Debt-Financing Military Operations

To the extent that the Bush Administration and Congress have, indeed, relied on borrowing—rather than a combination of higher taxes, spending cuts and borrowing—to pay for the wars in Iraq and Afghanistan, this practice might be troubling on a number of grounds:

- **Higher Costs.** The assumption that the $904 billion provided to cover the cost of military operations through the beginning of 2009 has been financed entirely through borrowing would add some $600 billion to the cost of those conflicts—in the form of interest payments on the accumulated debt—over the FY

[110] CBO, *The Budget and Economic Outlook: Fiscal Years 2008 to 2018*, p. 5.

2001–2018 period.[111] Assuming, as discussed in Chapter 1, that another $416–817 billion will be spent on military operations in Iraq and Afghanistan over the coming decade, the associated interest costs would grow to a total of some $680–780 billion through FY 2018.[112] On the other hand, if the wars in Iraq and Afghanistan are assumed to be no more responsible for the current levels of borrowing than other federal spending, the interest costs associated with those wars would amount to about $60 billion over the FY 2001–2018 period for operations to date, and would grow to a total of some $68–78 billion through FY 2018 if US forces continue to be involved in military operations in Iraq and Afghanistan as specified in Chapter 1.[113]

- **Money Sent Abroad.** Interest payments on the national debt represent real costs to the federal government no less than do the direct costs associated with military operations or other federal programs. Thus, these costs contribute to the federal deficit. However, to the extent that the debt is held by Americans, and the interest on that debt is paid to Americans, the associated spending might be thought of partly as transfer payments rather than costs.114 By comparison, interest payments made to foreign holders of US debt more clearly represent costs to the United States. Presently, about 40 percent of Treasury bonds are purchased by foreigners, suggesting that roughly 40 percent of the interest associated with financing the wars in Iraq and Afghanistan will be paid to foreigners.

- **Increased Strategic Vulnerability.** Prior to the wars in Iraq and Afghanistan, the only time foreign lenders had been relied upon extensively in wartime was during the Revolutionary War,

[111] Authors estimate based on CBO data.
[112] Ibid. In contrast to the other budgetary costs discussed elsewhere in this report (especially in Chapter 1), which are expressed in terms of *budget authority* (essentially, the amount of funding Congress has, or is projected to, appropriate), interest payments are expressed in terms of *outlays* (the amount actually paid out by the Treasury). Ultimately, the amount provided in outlays will equal the amount appropriated. However, there is typically a lag between when funding is appropriated and when it is actually spent (i.e., becomes an outlay).
[113] Author's estimate. These estimates assume that, as has been the case over the past eight years, over the next ten years (i.e. through 2018), on average, about 10 percent of overall federal spending will be financed through borrowing.
[114] Jane G. Gravelle, "Comment on Methodological Issues of "War at Any Price," CRS Memorandum, November 27, 2007, p. 6.

when the Continental Army was financed in part by loans from France and the Netherlands.[115] As noted above (and discussed further in Chapter 5), the fact that a substantial share of the national debt is currently owned by foreigners may increase the economic costs of borrowing, since a portion of the interest payments will be sent abroad. But the United States' growing dependence on foreign lenders may also represent a strategic vulnerability. As Robert Hormats has noted:

> Were there to be another catastrophic terrorist attack in the near term, at a time when foreign confidence in American finances is already low due to the crisis in our credit markets and to the expectation of rising federal deficits in coming years, the massive sums of foreign funds that we count on—roughly $2–3 billion net every working day—could decline precipitously. That would sharply slow an already weak US economy that would have been further weakened by the attack.[116]

The fact China, a potential strategic competitor of the United States, is among the largest purchasers of US bonds may further increase concerns about this vulnerability. On the other hand, some analysts question the seriousness of this vulnerability—in part because foreign investors who already hold a substantial amount of US debt could themselves be harmed significantly by a collapse of the US economy. Moreover, even if this is deemed a serious danger, the wars in Iraq and Afghanistan are responsible for only a portion of the national debt and, thus, of the portion held by foreigners. The national debt is currently some $10 trillion. Assuming the wars in Iraq and Afghanistan have been financed entirely by borrowing, their costs would account for roughly 10 percent of that debt. But the share would decline to some 1 percent assuming that—as with federal spending overall—only about 10 percent of the cost of these wars has been financed through borrowing.

- **Crowding Out Investment.** Another argument against debt-financing is that borrowing money to pay for the wars in Iraq and Afghanistan has crowded out other, more productive, investments. This argument is discussed in Chapter 5.

[115] Robert Hormats, "The Costs of the Iraq War," p. 3.
[116] Robert Hormats, "The Costs of the Iraq War," p. 7.

- **Avoidance of Debate on War and Other Priorities.** By failing to propose increases in taxes or cuts in other federal spending to help offset the costs of the wars in Iraq and Afghanistan and instead relying on borrowing, the Bush Administration, according to some observers, has sought to hide, or at least obscure, the cost of those conflicts. In major conflicts of the past, before or soon after the wars began, there was a significant debate within and between the executive branch and Congress concerning how the war should be financed, including the share of those costs that should be financed by higher taxes, cuts in other spending, and borrowing.[117] This debate forced policymakers and citizens to explicitly consider the potential costs of these wars and the tradeoffs, in terms of taxes and other programs, that might have to be made to cover the cost of those wars. To the extent the wars in Iraq and Afghanistan have been financed through borrowing, and thus the bills for the conflicts essentially deferred, a similar kind of debate has been largely avoided in the case of these wars. In the short run, the failure to address and debate, upfront, the cost of these wars, and how to finance them, may have helped maintain support for these conflicts. However, over the longer run, the failure of the president to engage in an open and vigorous debate on these topics early on may have made it more difficult to sustain support for the wars in Iraq and Afghanistan as the costs of those conflicts have grown.

- **Diminished Sense of Shared Sacrifice.** A related criticism is that in cutting rather than increasing taxes and, generally, expanding rather than cutting spending in other parts of the budget, at a time when the country is engaged in large-scale military operations, the Bush Administration diminished, or eliminated, any sense of shared sacrifice. During World War II, President Roosevelt noted that "Battles are not won by soldiers or sailors who think first of their own safety. And Wars are not won by people who are concerned primarily about their own comfort, their own convenience and their own pocketbooks."[118] Roosevelt believed that it was important to conduct the war in a way that connected Americans at home with US troops serving abroad, in part by requiring those at home to at least bear the burden of paying for the war through higher taxes or cuts

[117] Ibid., p. 4.
[118] Hormats, "The Costs of the Iraq War," p. 3.

in other programs. By contrast, to the extent that the wars in Iraq and Afghanistan have been financed through borrowing, critics argue, only those in the military and their families have been required to sacrifice for these conflicts.

- **Costs Passed on to Future Generations.** A further criticism of relying on borrowing to cover the cost of the wars in Iraq and Afghanistan is that doing so amounts to passing along those costs to future generations. Federal spending and borrowing are projected to increase dramatically over the next several decades. According to an estimate by the Center for Budget and Policy Priorities (CBPP), absent changes in tax or spending policies, the size of national debt will grow from the equivalent of about 37 percent of gross domestic product (GDP) today to some 230 percent by 2050, while annual deficits will increase from 2.8 percent of GDP today to 20 percent over this same period.[119] These estimates are very similar to the projections made by the Government Accountability Office (GAO); if anything, the GAO report suggests that the long-term fiscal outlook may be even bleaker than the CBPP analysis indicates.[120] On the other hand, war costs are only one of the factors contributing to this explosion of debt. The greatest sources of growth, over the long run, are the Medicare and Medicaid programs—the costs of which are projected to continue to increase (as they are for private health insurance plans) faster than inflation.

- **Inconsistency with the Notion of a Long War.** A final criticism of relying on debt-financing to cover the cost of the wars in Iraq and Afghanistan is that it is inconsistent with the idea (embraced and articulated by the Bush Administration) that the conflicts in these two countries are part of "The Long War." As President Bush described the conflict, "Americans should not expect one battle, but a lengthy campaign, unlike

[119] Richard Kogan, Matt Fiedler, Aviva Aron-Dine, and James Horney, "The Long-Term Fiscal Outlook is Bleak: Restoring Fiscal Sustainability Will Require Major Changes to Programs, Revenues, and the Nation's Health Care System," CBPP, January 29, 2007.

[120] David M. Walker, Comptroller General of the United States, "Long-Term Budget Outlook: Deficits Matter—Saving Our Future Requires Tough Choices Today," Statement before the House Budget Committee, January 23, 2007, p. 7.

any other we have ever seen."[121] Borrowing to cover the costs of even a short war may be ill-advised; relying on such financing after it has become clear that the war, or wars, will be both costly and long term, is all the more questionable.

Summary and Conclusions

Historically, the United States has generally relied on a combination of spending cuts, tax increases and borrowing to finance the wars it has fought. By contrast, taxes have been cut while the wars in Iraq and Afghanistan have been waged, and non-defense spending has increased. As a result, some have argued that these wars are being financed entirely through borrowing. In this case, interest payments made through 2018 would add about $600 billion to the cost of military operations to date. And those interest costs could grow to some $680–780 billion through 2018, assuming US forces remain engaged in Iraq and Afghanistan over the next decade.

However, while perhaps reasonable, the argument that the wars in Iraq and Afghanistan have been financed solely through borrowing is ultimately an unprovable presumption. Different types of federal spending and revenue are essentially fungible. Thus, there is no way to determine definitively whether a particular program or activity has been paid for with tax revenues, or through foregone spending or borrowing. On the other hand, at a minimum, it might be reasonable to assume that at least 10 percent of the cost of the wars in Iraq and Afghanistan has been financed through borrowing—since an average of roughly 10 percent of overall federal spending has, in recent years, been covered through borrowing. In this case, associated interest costs would amount to some $62 billion for operations to date, and perhaps increase to $73–86 billion if US forces remain engaged in military operations through 2018.

To the extent that these wars have, indeed, been financed through borrowing, the practice may be a cause for concern on a number of other grounds as well. Among other things, since a substantial portion of federal debt is now held by foreigners, the practice may create or at least add to a strategic vulnerability. It may also crowd out more productive

[121] Department of Defense, *Quadrennial Defense Review Report* (Washington, DC: DoD, February 6, 2006), p. 9.

private investments. In addition, over-reliance on borrowing may have reduced the seriousness with which the country has debated the war and other priorities, and diminished any sense of shared sacrifice.

Chapter 5: Macroeconomic Costs

In addition to the direct budgetary costs of military operations (discussed in Chapter 1) and the indirect budgetary costs of such operations, associated with the use of debt-financing (discussed in Chapter 5), wars may also have significant macroeconomic costs. Perhaps the most often-cited of these costs, in the case of the war in Iraq, is the impact the conflict may have had on rising oil prices. Other possible macroeconomic costs associated the wars in Iraq and Afghanistan are linked to the potential for war-related borrowing to crowd out private investment, the argument that military spending (even if it is not debt-financed) may do less to grow the economy than other types of government spending, and a number of other considerations.

Some observers have claimed that the macroeconomic costs of the wars in Iraq and Afghanistan may approach or even exceed the budgetary costs of these conflicts. Others have argued that the impact may have been relatively modest or that it is, in any event, impossible to quantify the impact with much accuracy or confidence, and thus highly speculative.

This chapter reviews a range of estimates of potential macroeconomic costs of the wars in Iraq and Afghanistan, as well as critiques of those estimates and the methodologies used to generate them. No attempt is made in this chapter or elsewhere in this report to: resolve the debate over which (if any) types of macroeconomic costs should be included; derive an independent estimate of the magnitude of those costs; or even bound the question by offering a range of estimates. Deriving such an estimate is both beyond the capabilities of the author, and beyond the scope of this report. Nevertheless, it is hoped that the discussion in this chapter will enable the reader to better understand the substantive and methodological issues involved, and better be able to make her or his own decision concerning the extent to which it may be appropriate to include in an estimate of overall war costs various macroeconomic costs.

This chapter is organized into two parts. The first section discusses the question of what, if any, impact the US invasion of Iraq has had on oil prices, and considers a number of studies that have addressed this question. The second section discusses arguments for and against including, in an estimate of war costs, a range of other potential macroeconomic costs.

Higher Oil Prices

The price of oil has increased dramatically over the past five years—from about $25 (current dollars) a barrel to over $100 a barrel. Although oil prices fell substantially at the end of 2008,[122] the price remains well above what futures markets were projecting prior to, or in the immediate aftermath, of the US invasion of Iraq. In early 2004, for example, most analysts expected the price of oil to remain on the order of $30 a barrel throughout the next decade.[123] It seems likely that the war in Iraq has contributed to this increase in the price of oil. According to a 2005 report by the Congressional Research Service:

> The war in Iraq has contributed to high oil prices in different ways as events have progressed. The predominant effect of the conflict on oil prices has been an increase in uncertainty. During the early stages of the conflict, concerns about a possible disruption of oil supply out of the Persian Gulf and disruption of Iraqi production due to military operations were prominent, until it became clear that the military would quickly oust the government of Saddam Hussein. Later marked uncertainty revolved around the ability of Iraq to export oil in the midst of political transition in which pipeline and other oil facilities were attacked by hostile groups within the country. Uncertainty with respect to terror-

[122] At press time, the price of crude oil was about $70 a barrel. The recent price decline appears to have been driven largely by reductions in demand stemming from a global economic downturn.
[123] John Peterson, *The Economic Effects of Recent Increases in Energy Prices* (Washington, DC: CBO, July 2006), p. vii.

ist attacks, both in Iraq, and spilling over to other Gulf nations, including Saudi Arabia, continue to unsettle the oil market and contribute to a "fear factor" being build into the price of oil.[124]

In a 2006 report, CBO likewise concluded that "continuing attacks on oil fields and pipelines in Iraq" have disrupted oil supplies and thereby contributed to higher oil prices.[125] The report also noted that because worldwide production is now close to its short-term limits, "even the threat of a reduction in supply of a few hundred thousand barrels a day causes sharp fluctuations in prices."[126]

Although, as suggested above, it appears likely that the unrest in Iraq has contributed to the increase in oil prices experienced in recent years, there is considerable uncertainty and disagreement concerning just how substantial the impact has been. In its 2007 study, the Joint Economic Committee (JEC) estimated that the conflict in Iraq had caused a decline in world oil supply ranging from about 1.3 million barrels per day (BPD) in 2003 to 600,000 BPD in 2007, with this disruption, in turn, causing oil price increases ranging from some 15 percent in 2003 to 7–9 percent between 2004 and 2007.[127] This equates to an average price increase of about $5 per barrel between 2003 and 2007.[128] The JEC report assumed that this $5 per barrel higher price will be maintained through 2008, causing US consumers to transfer an extra $124 billion (current dollars) to foreign oil producers over the 2003–08 period.[129]

In addition to this direct impact, the JEC study assumes that the rise in oil prices caused by the ongoing unrest in Iraq has a wider weakening effect on the US economy. Specifically, it assumes that this rise in oil prices will cause a total decline in US GDP of about $274 billion (current dollars), including a direct transfer of $124 billion and

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[124] Robert Pirog, "World Oil Demand and Its Effect on Oil Prices," Congressional Research Service, June 9, 2005, p. 14.
[125] Peterson, *The Economic Effects of Recent Increases in Energy Prices*, p.1.
[126] Ibid., p. 3.
[127] Joint Economic Committee (JEC), "War at Any Price: The Total Economic Costs of the War Beyond the Federal Budget," November 2007, p. 11.
[128] Ibid.
[129] Ibid., p. 12. This is based on the assumption of a - .1 elasticity for oil consumption by US energy consumers and a recycling of 10 percent of foreign oil revenues into the US economy.

an additional GDP effect of $150 billion.[130] This implies an "oil import multiplier" of about 2.2. This multiplier reflects that fact that, absent the higher oil prices, more money would have been spent on US goods and services, leading to higher US wages and profits—most of which would have been spent in the United States, causing a further growth of GDP.

In their 2008 study, Stiglitz and Bilmes also included estimates of the impact of the war in Iraq on oil prices and the US economy. In their "Base Case," like the JEC report, they assume that the conflict in Iraq is responsible for $5 of the price per barrel increase that has occurred since 2003.[131] Since the United States imports about 5 billion barrels of oil a year, this translates into additional costs of about $25 billion a year. In their Base Case, Stiglitz and Bilmes assume that the higher oil prices caused by the war in Iraq will last for a total of seven years.[132] Applying an oil import multiplier of 1.5, they estimate that this $25 billion increase in annual oil import costs would cause total US output to decline by $37.5 billion annually, or about $187 over seven years, on a present-value basis.[133]

In their "Realistic-Moderate" estimate, Stiglitz and Bilmes change three of their assumptions. They assume that: the war in Iraq is responsible for $10 (vice $5) of the increase in oil prices that has occurred since 2003; the impact of this price increase continues for eight (vice seven) years; and the multiplier is 2.0 (vice 1.5).[134] Based on these assumptions, the authors' "Realistic-Moderate" estimate yields a total cost to the US economy of about $800 billion.[135] Stiglitz and Bilmes argue that, although less conservative than those used in their "Base Case," these assumptions are still quite conservative.[136]

Other analyses suggest that the impact of the war in Iraq on oil prices, and the effect of any such increase on the US economy, may be

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130 Ibid., p. 13.
131 Stiglitz and Bilmes, *The Three Trillion Dollar War*, p. 117.
132 Ibid., p. 119.
133 Ibid.
134 Ibid.
135 $400 billion of this cost is directly attributable to higher oil prices. According to Stiglitz and Bilmes, of the remaining $400 billion, $200 billion is attributable to the "conventional" oil import multiplier of 1.5, and $200 billion is caused by a "global general equilibrium effect." This latter multiplier attempts to account for the fact that higher oil prices have also weakened the economies of US trading partners, and specifically caused a decline in their purchases of US goods and services. Ibid.
136 Ibid.

substantially less than estimated in the JEC report and the Stiglitz and Bilmes study. As mentioned, in its 2006 study the *Economic Effects of Recent Increases in Energy Prices*, CBO noted that the war in Iraq had contributed to reductions in oil supply and, thus, to higher oil prices.[137] However, this was only one of several specific events that CBO indicated had weakened oil supplies. Others include civil unrest in Nigeria, foreign investors' concerns about political developments in Russia, the hurricanes that hit the Gulf Coast of the United States, and worries about the potential impact on oil supplies of international efforts to constrain Iran's nuclear program.[138] CBO also concluded that "for crude oil, growth in demand around the world explains much of the price increase."[139] According to CBO, in 2004, oil consumption "shot up" in China and the United States, in particular, and also grew in many other parts of the world.[140]

In addition, the CBO report suggests that, whatever the causes of the growth in oil prices, the impact on the US economy of these higher prices, at least through 2006, appears to have been relatively modest.[141] CBO notes that higher oil prices can have a substantial impact on economic output. Among other things, higher prices for crude oil can siphon off the buying power of US consumers, causing a decline in demand for goods and services produced in the United States, with this reduction in consumer spending temporarily also dampening investment and other spending, thus magnifying the negative effect on GDP growth.[142] However, CBO estimates that the doubling of oil prices that occurred between 2004 and 2006 dampened the growth in US GDP by only about a quarter of a percentage point in 2004 and less than half a percentage point in 2005, and that by the middle of 2006 the level of GDP was about 1 percent lower than it would otherwise have been.[143] These figures suggest that, through 2006, higher oil prices had cost the United States a total of some $235 billion in economic output.[144] Moreover, if, as CBO suggests, the war in Iraq has been only one of several

[137] Peterson, *The Economic Effects of Recent Increases in Energy Prices*, p. 1.
[138] Ibid.
[139] Ibid.
[140] Ibid.
[141] Ibid.
[142] Ibid., p. 6. *The Economic Effects of Recent Increases in Energy Price*s, p. 6.
[143] Ibid.
[144] Author's estimate based on CBO data.

factors that have led to higher oil prices, it might be reasonable to attribute only a portion of this $235 billion cost to that conflict.[145]

According to CBO, there are a number of reasons why the impact on the US economy of higher oil prices has been relatively modest. Among other things, it noted that:

> The US and many foreign economies were at robust points in the business cycle when energy prices began to rise, the Federal Reserve has built up a legacy of successful monetary policy, and the US economy has changed over the past 25 years in ways that have increased its underlying flexibility and stability.[146]

On the other hand, the 2006 CBO study considered only the increases in oil prices that occurred between 2004 and 2006, over which time the price of crude oil grew from about $30 (current dollars) a barrel to $70 a barrel.[147] Subsequently, the price of crude oil grew to some $100 a barrel, before declining back to around $70 a barrel at the end of 2008. Incorporating this additional price increase and accounting for another two years (2007 and 2008) of such high prices would presumably raise the cost to the US economy to substantially more than $235 billion.

Other Macroeconomic Costs

Beyond the potential impact of the war in Iraq on oil prices, most discussions of possible macroeconomic costs associated with the wars in Iraq and Afghanistan concern one or more of the following arguments:

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[145] Jane G. Gravelle of the Congressional Research Service, has likewise argued that there "appears to be little justification for ascribing a significant price to the decline in Iraqi oil production" that occurred in the aftermath of the US invasion. According to Garvelle, the "contribution of Iraqi oil to the world supply currently is small and erratic," and the decline in Iraqi out put has been so small that "it might be made up by other producers." Jane G. Gravelle, "Analysis of Economic and Methodological Issues in the Bilmes and Stiglitz Study of the Cost of the War in Iraq," CRS Memorandum, March 8, 2006, p. 15.

[146] Peterson, *The Economic Effects of Recent Increases in Energy Prices*, p.vii.

[147] Ibid., p. vii.

war-related spending, no matter how it is financed, does less to grow the economy than domestic spending; to the extent that the wars in Iraq and Afghanistan have been financed by borrowing domestically, this spending has crowded out private investment that would have fostered greater economic growth; and, to the degree these wars have been financed by foreign borrowing, national wealth will be reduced by the need, over the long run, to send interest payments abroad. Each of these arguments is summarized below, after which a number of questions and criticisms of these arguments are offered.

War Spending Contributes Less to Economic Growth: Just as decreasing spending in the United States by a dollar to cover higher oil import costs tends to reduce US economic output (i.e., GDP) by more than a dollar, increasing government spending by a dollar tends to *increase* US output by more than a dollar. The size of the multiplier varies, depending on the kind of government spending. But Stiglitz and Bilmes argue that the multiplier is smaller in the case of military operations than it is for most other types of government spending, in part because some of the money is spent abroad. They assume that the multiplier for spending on military operations is 0.4 percentage points lower than it is for domestic spending. According to Stiglitz and Bilmes, were the United States to spend the money allocated to the wars in Iraq and Afghanistan on domestic programs instead, the country's GDP would ultimately be some $320 billion higher.[148]

War-Related Borrowing Crowds out Private Investment: Another argument made by Stiglitz and Bilmes, the JEC and others, is that to the extent the wars in Iraq and Afghanistan have been financed by borrowing domestically, these wars have crowded out private investment. Stiglitz and Bilmes estimate that the private investment forgone as a result of war-related deficit financing will likely end up reducing US economic output by a total at least some $1.2 trillion, and possibly as much as $5 trillion.[149] The JEC estimated that because of this crowding out effect, domestic borrowing to cover the cost of the war in Iraq will lead to some $875 billion (current dollars) in foregone investment return through 2017.[150]

Borrowing from Abroad to Cover War Costs Results in a Transfer of Wealth: To the extent that the wars in Iraq and

148 Stiglitz and Bilmes, *The Three Trillion Dollar War*, p 121.
149 Ibid., pp. 123–24.
150 JEC, "War at Any Price," p. 9.

Afghanistan are financed by borrowing from abroad, government borrowing to pay for those wars will not cause private sector investment to be displaced. However, in this case, because of the need to pay interest to foreign holders of US debt, national wealth would still be reduced below what it would otherwise be. The JEC estimates that about 40 percent of US debt is financed by foreigners, and that as a result of borrowing to cover the cost of the Iraq war, some $220 billion (current dollars) in interest payments will be sent abroad through 2017.[151] Stiglitz and Bilmes estimate that even if the direct budgetary costs of the wars in Iraq and Afghanistan were financed entirely by borrowing from abroad, the associated interest costs would, ultimately, likely decrease US national wealth by some $2 trillion.[152]

Altogether, the JEC concludes that borrowing to finance the war in Iraq will cause an income loss to the United States of about $1.1 trillion on a present-value basis due to the combined effects of crowding out private investment and paying interest to foreign lenders.[153] Stiglitz and Bilmes, similarly, assume that the non-oil related macroeconomic costs of the wars in Iraq and Afghanistan will amount to at least $1.1 trillion. They argue that, in fact, this estimate is "almost surely a gross underestimate of the actual costs our economy will be paying."[154] Adding together the estimates for various kinds of economic costs derived by Stiglitz and Bilmes (and discussed above) suggests substantially higher overall macroeconomic costs. Likewise, the authors state that they believe "the most realistic estimate of the overall macroeconomic costs" of the wars in Iraq and Afghanistan is about $7 trillion.[155] According to the authors, they chose to incorporate the smaller ($1.1 trillion) figure in their overall estimate of the cost of these wars "simply to be conservative."[156]

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[151] Ibid.
[152] Stiglitz and Bilmes, *The Three Trillion Dollar War*, p. 124.
[153] JEC, "War at Any Price," p. 10.
[154] Stiglitz and Bilmes, *The Three Trillion Dollar War*, p. 125.
[155] Ibid., p. 271, footnote 31.
[156] The authors also note that this is the same figure used by the JEC. Stiglitz and Bilmes, p. 124. However, the JEC figure appears to include only macroeconomic costs associated with the war in Iraq, while Stiglitz and Bilmes adopt it as their estimate of the total non-oil related macroeconomic costs for both the wars in Iraq and Afghanistan.

Macroeconomic Effects of War Spending: Critiques and Criticisms

A number of observers have raised questions and concerns about attributing macroeconomic costs to the wars in Iraq and Afghanistan, including the specific estimates of those costs discussed in the preceding section of this chapter. In terms of the first argument discussed above, that spending on military operations leads to less economic growth than spending on domestic programs, Jane Gravelle of CRS has noted that the relative size of the multipliers for different types of spending is uncertain. She further notes that Stiglitz and Bilmes provide "no specific evidence" to support their selection of multipliers.[157]

Perhaps a more serious criticism relates to the argument that government borrowing for the wars in Iraq and Afghanistan has crowded out private investment. As discussed in Chapter 5, there is considerable disagreement concerning the degree to which it is fair and reasonable to attribute interest payments to the cost of these conflicts. Both the Stiglitz and Bilmes study and the JEC report assume that the wars have been (and will continue to be) financed entirely through borrowing. If, instead, it is assumed that—as with federal spending overall—only a relatively small share of war-related costs have been debt-financed, the macroeconomic costs associated with this borrowing would be correspondingly less.

Thus, assuming that, for example, only 10 percent of the cost of these wars is debt-financed, the associated macroeconomic costs stemming from the crowding out effect and interest payments being made to foreigners would be only 10 percent of the amount projected by Stiglitz and Bilmes, or the JEC. Moreover, even assuming that the wars in Iraq and Afghanistan have been largely, or entirely, debt-financed, there is considerable disagreement over how much this borrowing has done to crowd out private investment. As Robert Hormats—generally a forceful critic of the Bush Administration's approach to financing these wars—has acknowledged:

> "Presumably less federal borrowing for the war would have lowered the cost of capital and thus encouraged some additional private sector investment—although there is little evidence in recent years that the cost of

[157] Gravelle, "Analysis of Economic and Methodological Issues in the Bilmes and Stiglitz Study of the Cost of the War in Iraq," p. 18.

capital has been an inhibiting factor in capital investment in the United States. So it is difficult to measure with any precision how much private investment was *actually* displaced by federal borrowing for the war. Conceivably, the major impact of less federal borrowing would have been to encourage even more consumer borrowing (which was already enormous)—and that would have contributed little to national productivity."[158]

Summary and Conclusions

As discussed in this chapter, opinions differ substantially concerning the macroeconomic effects of the ongoing wars in Iraq and Afghanistan. Some observers have argued that the war in Iraq, in particular, has caused oil prices to increase, and that even assuming only a relatively small fraction of the increase in oil prices that has occurred over the few years is attributable to that conflict, the impact on the US economy has been significant. Others have argued that the impact of the war in Iraq on oil prices, and thus the US economy, has probably been relatively modest. Likewise, some have argued that US spending on the wars in Iraq and Afghanistan has diverted dollars that would otherwise have been spent in more productive ways, especially on private investment that would have helped grow the economy, while others have suggested that these macroeconomic effects of these wars have been minimal.

Although it is beyond the scope of this report to resolve the question of whether and to what extent the wars in Iraq and Afghanistan have had a substantial macroeconomic cost, the question is an important one. As noted at the outset of this chapter, the omission from this report of an independent estimate of the macroeconomic costs of the wars in Iraq and Afghanistan reflects an appreciation of the difficulties involved in accurately generating such estimates, rather than any determination that such costs either lack validity or are necessarily insubstantial. Perhaps future analysis of this question will be able to provide a clearer and more definitive answer.

[158] Hormats, "The Costs of the Iraq War," p. 6.

Chapter 6:
Social Costs

In addition to budgetary costs borne by all American taxpayers, and macroeconomic costs spread across the country, the wars in Iraq and Afghanistan, like all wars, have imposed costs on specific categories of Americans, especially Service members who have been killed or injured in those wars, and their families. Some observers argue that the economic costs imposed on these individuals (in the form, for example, of lost income to both those injured and family members who must act as caregivers) substantially exceed the level of compensation they, or their families, receive from the government, in the form, for instance, of "death gratuity" and life insurance payments, and veterans' disability and medical benefits. Simply defined, these extra "social costs" are "those costs that aren't captured in the federal government budget but that nevertheless represent a real burden on society."[159]

This chapter provides a brief summary of a number of estimates of the social costs associated with the wars in Iraq and Afghanistan, and discusses several criticisms and concerns expressed about some of these estimates. As in the case of the potential macroeconomic costs of these wars, ultimately, no attempt is made here to pass judgment on the validity of these estimates, or to derive an independent estimate of such costs. Generating this kind of judgment or estimate is beyond both the capabilities of the author, and the scope of this report. However, as with the discussion of macroeconomic costs in the preceding chapter, it is hoped that the review included in this chapter will make the reader better able to reach her or his own decisions concerning the degree to which it may be appropriate to include social costs in an estimate of overall war costs, and some notion of what those costs might be.

[159] Stiglitz and Bilmes, *The Three Trillion Dollar War*, p. 91.

In their book, *The Three Trillion Dollar War*, Stiglitz and Bilmes estimate that the social costs of the wars in Iraq and Afghanistan total some $303 billion to $423 billion on a present-value basis.[160] The primary methodology the authors use to estimate the social costs of these wars involves the economic valuing of lost lives and injuries. As Jane Gravelle of CRS has noted, "Although it may seem difficult to consider placing a dollar value on human life, such measures are necessary to evaluate many types of public programs."[161] The so-called "value of a statistical life" (VSL) is widely used by government agencies to, among other things, help value the benefits of lives saved from risk reduction efforts, such as enhanced safety and environmental regulations.

Estimating the VSL is a complex and imperfect process, and VSL estimates vary widely. One review of the literature on the subject found that most estimates range from between $4 million and $9 million per statistical life,[162] with values sometimes varying significantly across different industries, occupations and individual characteristics.[163] In their study, Stiglitz and Bilmes use a mid-range VSL estimate of about $7.2 million for US military personnel killed in the conflicts in Iraq and Afghanistan.[164] By comparison, the government provides each deceased Service member's family about $500,000 in death gratuity and life insurance payments. To calculate total VSL costs, the authors subtract this latter amount from their estimated VSL, to avoid double-counting (since these latter costs represent budgetary expenditures that are covered elsewhere in their study), and multiply this adjusted figure by the number of US fatalities (including both US military personnel and US contractors) they project will ultimately result from these wars. This methodology yields projected costs of $57 billion in their "Base Case," and $65 billion in their "Realistic-Moderate" estimate.[165]

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[160] Ibid., p. 112.
[161] Gavelle, "Analysis of Economic and Methodological Issues in the Bilmes and Stiglitz Study of the Cost of the War in Iraq," p. 5.
[162] W. Kip Viscusi and Joseph E. Aldy, "The Value of a Statistical Life: A Critical Review of Market Estimates Throughout the World," Journal of Risk and Uncertainty, vol. 17, no. 1, 2003, pp. 5–76. The total span of all VSL estimates is, unsurprisingly, even greater—ranging from some $100,000 to over $25 million. Gavelle, "Analysis of Economic and Methodological Issues in the Bilmes and Stiglitz Study of the Cost of the War in Iraq," p. 6.
[163] Scott Wallsten and Katrina Kosec, "The Economic Costs of the War in Iraq," Working Paper 05-19, AEI-Brookings Joint Center for Regulatory Studies, September 2005, p. 9.
[164] Stiglitz and Bilmes, *The Three Trillion Dollar War*, p. 95.
[165] Ibid., p. 112.

In order to make a comparable estimate of the costs imposed on wounded and injured Service members, Stiglitz and Bilmes use the value of a statistical injury (VSI), which is estimated as a fraction of the VSL, with the precise proportion based on the severity of the injury. To determine that proportion, the authors apply the "percentage disability" ratings they estimate the VA will assign to injured personnel, based on the assumption that this represents a reasonable proxy for calculating the economic costs imposed on those individuals.[166] To determine the total social cost of these injuries, they multiply these adjusted VSL figures by the total number of Service members they project will receive disability benefits as a result of the wars in Iraq and Afghanistan. Using this approach, Stiglitz and Bilmes project total VSI costs for these wars of $184 billion ("Base Case") to $278 billion ("Realistic-Moderate" estimate).[167] To avoid double-counting, they also subtract from those totals the VA disability payments they project those individuals will receive.[168]

Combined, the VSL and VSI cost estimates derived by Stiglitz and Bilmes amount to $241 billion to $344 billion. These costs account for roughly 80 percent of all of the quantifiable social costs the authors believe the wars in Iraq and Afghanistan have imposed.[169]

Another study that considered the social costs of military personnel killed and injured in Iraq (but not Afghanistan) was written by Scott Wallsten and Katrina Kosec, and published in 2005.[170] These authors used a similar approach and methodology. Like Stiglitz and Bilmes, they applied an estimated VSL to project the social costs of US fatalities resulting from these wars, and applied an estimated VSI to project the social costs associated with Service members wounded or injured in those conflicts. Wallsten and Kosec, like Stiglitz and Bilmes, also considered not only costs resulting from casualties to date, but likely future casualties.[171]

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[166] Ibid., p. 98. Thus, for example, the cost to an individual assigned a VA disability rating of 50 percent would be $3.6 million (0.5 x $7.2 million).

[167] Ibid., p. 112.

[168] The authors project that VA disability benefits would offset about $12 billion and $16 billion, respectively, from their Base Case and "Moderate-Realistic" estimates.

[169] These other costs, which include societal, family and other medical costs (not paid for by the government), are not considered in this analysis.

[170] Wallsten and Kosec, "The Economic Costs of the War in Iraq," AEI-Brookings Joint Center for Regulatory Studies, Working Paper 05-19, September 2005.

[171] The study by Wallsten and Kosec does, however, cover a slightly different period—2003–15, rather than 2001–17.

The two studies differ, however, in several respects. In the case of the VSL estimate, the differences are relatively modest and, at $43 billion, Wallsten's and Kosec's mid-range estimate of the social cost of US fatalities in the war in Iraq appears reasonably consistent with Stiglitz's and Blimes' estimates.[172] By contrast, the two studies differ dramatically in their estimates of the social costs imposed on wounded or injured Service members. Wallsten and Kosec project total VSI costs of about $35 billion resulting from the war in Iraq. Even adjusting for the fact that Stiglitz and Bilmes also include costs associated with the war in Afghanistan, their estimate of $184–242 billion is far higher.[173]

It is not entirely clear what accounts for this difference. Part of it may stem from differences in the number of Service members projected to be wounded or injured in Iraq. However, most of it appears to be related to differences in the fraction of the VSL the two studies attribute to injuries and wounds. In short, Stiglitz and Bilmes appear to assume that such injuries and wounds will, on average, impose substantially greater costs on affected Service members than do Wallsten and Kosec.[174]

An analysis by Jane Gravelle of CRS suggests that even the Wallsten and Kosec study may substantially overstate the social costs of

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[172] This is especially true considering that, unlike the estimate by Stiglitz and Bilmes, the estimate by Wallsten and Kosec includes fatalities only from the war in Iraq (rather than from Iraq and Afghanistan),

[173] Stiglitz and Bilmes do not provide a breakdown, between Iraq and Afghanistan, of estimated VSI costs. However, they clearly assume that Iraq will account (as it has to date) for the vast majority US war-related casualties, including wounded and injured personnel.

[174] This conclusion is based, in part, on an analysis by Jane Gravelle of CRS that compared Wallsten's and Kosec's study with an earlier study by Stiglitz and Bilmes (Linda Bilmes and Joseph E. Stiglitz, "The Economic Costs of the Iraq War: An Appraisal Three Years After the Beginning of the Conflict," Prepared for the Allied Social Science Association, January 6, 2006). The fraction of the VSL that Wallsten and Kosec assume for severe head injuries (0.475), amputations (0.124) and other injuries that prevent the individual from returning to duty (0.037) is much lower than Stiglitz and Bilmes assumed in their earlier study (1.00, 0.68-0.88 and 0.68-0.88, respectively). Gravelle, 2006, pp. 6–9.The specific fractions assumed by Stiglitz and Bilmes are not enumerated in their most recent study. However, the estimates of the social costs stemming from war-related wounds and injuries included in their latest estimate are generally comparable to or higher than those cited in their earlier study, suggesting that their latest estimate continues to assume relatively high VSL fractions for injuries.

the wars in Iraq and Afghanistan.[175] The Wallsten and Kosec estimate was derived, in part, from reports indicating that severe brain injuries and amputations have accounted for, respectively, about 20 percent[176] and 6 percent[177] of injuries incurred by US personnel in Iraq.[178] However, according to Gravelle, those estimates greatly overstate the rates of such severe injuries, which are actually about 1.2 percent for severe brain injuries and 3.6 percent for amputations.[179] CBO has also raised questions about the validity of the data upon which Wallsten and Kosec based their analysis.[180] Correcting for this data error, Gravelle finds, would reduce Wallsten's and Kosec's estimate of the costs imposed on wounded and injured Service members from $32 billion to some $8 billion.[181]

Gravelle found that an earlier study by Stiglitz and Bilmes, which made use of the same flawed data, overstated the likely social costs imposed on injured and wounded Service members even more substantially.[182] However, the estimate of those costs included in their recent book adopts a different methodology, and does not appear to rely on this same data. There may, nevertheless, be reason to believe that this

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[175] Gravelle, "Analysis of Economic and Methodological Issues in the Bilmes and Stiglitz Study of the Cost of the War in Iraq."

[176] Robert Schlesinger, "Brain Injuries Take a Toll on US Soldiers," The Boston Globe, October 16, 2003.

[177] Raja Mishra, "Amputation Rate for US Troops Twice that of Past Wars," *The Boston Globe*, December 9, 2004.

[178] Wallsten and Kosec, "The Economic Costs of the War in Iraq,"p. 20.

[179] Gravelle, "Analysis of Economic and Methodological Issues in the Bilmes and Stiglitz Study of the Cost of the War in Iraq." pp. 7–8.

[180] Orszag, "Estimated Costs of US Operations in Iraq and Afghanistan and of Other Activities Related to the War on Terrorism," pp. 13–14.

[181] Gravelle, "Analysis of Economic and Methodological Issues in the Bilmes and Stiglitz Study of the Cost of the War in Iraq." p. 8.

[182] In their earlier study, published in 2006 (Bilmes and Stiglitz, "The Economic Costs of the Iraq War: An Appraisal Three Years After the Beginning of the Conflict") the authors used the same (apparently flawed) data as Wallsten and Kosec to estimate the share of injuries associated with different levels of severity. However, they attached higher VSL fractions to those different categories. Primarily for this reason, they projected substantially greater total VSI costs than Wallsten and Kosec—with their estimates ranging from $82 billion to $138 billion. According to data provided by Gravelle, even assuming Stiglitz's and Bilmes' assumptions about VSI fractions are accurate, correcting for the flawed data on the share of injuries associated with different levels of severity would reduce their estimates of the costs imposed on wounded and injured service members to between $23 billion and $32 billion. Gravelle, "Analysis of Economic and Methodological Issues in the Bilmes and Stiglitz Study of the Cost of the War in Iraq." p. 8.

estimate also overstates those costs. As noted earlier, the methodology used in their latest estimate involves using VA disability ratings as a proxy for calculating the VSI for Service members wounded and injured in Iraq and Afghanistan, and then multiplying the VSI by the number of veterans they project will ultimately receive VA disability benefits. However, as discussed in Chapter 1, CBO believes that the number of Iraq and Afghanistan war veterans who will eventually receive disability benefits may be only about half the number projected by Stiglitz and Bilmes. If CBO is correct, this suggests that—even assuming the average VSI used by Stiglitz and Bilmes is accurate—the authors' estimate of total VSI costs might be overstated by a factor of two.

Summary and Conclusions

As with the macroeconomic costs of the wars in of the ongoing wars in Iraq and Afghanistan, opinions differ dramatically concerning the social costs these conflicts have imposed on Americans. Some have argued that social costs attributable to these wars have placed a great economic burden on certain Americans, in particular Service members killed or injured in these conflicts, and their families. Others have suggested that the impact has been substantially smaller, and that various types of compensation provided by the government to these individuals and their families (e.g., life insurance payments and disability benefits) have covered the vast majority of the costs they have incurred.

No attempt has been made in this chapter to resolve the disagreement and uncertainty surrounding the question of social costs. But the question is a serious one. As with macroeconomic costs spread across the country, economic costs imposed on individuals (that the government does not cover) are no less real than the war-related costs budgeted for by the administration and Congress each year. Nor are they any less real for being more difficult to identify and quantify. As in the case of macroeconomic costs, perhaps future analysis of this question will be able to provide a clearer and more definitive answer.

Conclusion

The goal of this report has been to illuminate the question of how much US military operations conducted since 2001—including the wars in Iraq and Afghanistan, and certain homeland security activities—have cost the United States in financial terms, as well as the means used to budget for and finance these operations. The report also considered the question of how much more these operations might cost in coming years, specifically, through 2018. Finally, the report examined both the budgetary costs and broader economic costs that might be associated with these military operations.

The report finds that, since 2001, some $904 billion has been provided to cover the cost of US military operations. This includes some $687 billion for Iraq, $184 billion for Afghanistan and $33 billion for various homeland security activities. The $904 billion total breaks down roughly as follows:

- DoD military operations: $816 billion
- Training and equipping Iraqi and Afghan security forces: $40 billion
- Foreign assistance and diplomatic activities: $45 billion
- Veterans' benefits: $3 billion.

Estimating the financial costs of the ongoing wars in Iraq and Afghanistan and certain homeland security activities is a complicated task, in part because of data limitations and in part because there is not, in all cases, a way of objectively and reliably quantifying these costs. The task is easier (though not necessarily simple or entirely straightforward) in the case of direct budgetary costs, and more difficult and speculative in the case of macroeconomic and social costs. But even in the case of budgetary costs, in some areas, such as veterans' benefits, there is substantial uncertainty and the figures should be treated cautiously.

Based largely on a set of illustrative scenarios developed by CBO, the report estimates that another $416–817 billion in war-related funding may be provided over the 2009–2018 period. This would bring the direct budgetary costs of these operations to a total of some $1.3–1.7 trillion, with the war in Iraq alone costing perhaps $985 billion to $1.4 trillion.

The Bush Administration has budgeted for the wars in Iraq and Afghanistan in a way that differs markedly from the approach typically used to fund past wars. Because of its reliance on supplemental appropriations, often submitted in the middle of the year and supported by inadequate justification materials, the process has reduced the ability of Congress to exercise effective oversight. It has also tended to obscure the long-term costs and budgetary consequences of ongoing military operations. In addition, the inclusion of substantial amounts of funding for programs and activities unrelated to the wars in Iraq and Afghanistan in recent supplemental appropriations has led to further confusion concerning the cost of those conflicts, and has undermined and weakened DoD's long-term planning and budgeting process.

The ongoing wars in Iraq and Afghanistan also differ from past major American wars in the way they are being financed. A reasonable—although ultimately subjective and unprovable—case can be made for attributing a share of federal interest costs to these wars. With the exception of the 1991 Gulf War, which was a brief and relatively inexpensive war financed primarily by contributions from US friends and allies, the costs of all previous major conflicts were financed through a combination of tax increases, cuts in domestic programs and borrowing. By contrast, rather than raising taxes, the Bush Administration proposed, and Congress implemented, significant tax cuts. Nor have major reductions in spending been implemented in non-defense portions of the budget to help pay for the wars in Iraq and Afghanistan. On the other hand, since different types of federal spending and revenues are essentially fungible, one could argue that, no less than with other types of domestic or (non-war-related) defense spending, most of the costs associated with these wars are presently being covered by tax revenue.

If it is assumed that—since neither taxes were raised, nor other spending cut to help pay for these conflicts—the wars in Iraq and

Afghanistan have been, and will continue to be, entirely debt-financed, interest cost would add about $68–780 billion to the cost of these military operations over the 2001–2018 period. By contrast, assuming that borrowing was used to finance only about 10 percent of the cost of these operations (the share of overall federal spending that has been debt-financed in recent years), interest costs would add some $68–78 billion to the projected cost of the operations. Thus, if interest costs are included, the total budgetary cost through 2018 of ongoing US military operations would be projected to reach some increase to a total of some $1.4–2.5 trillion dollars.

In addition to various direct and indirect budgetary costs, this report discussed the case for including a range of broader economic costs in estimates of the cost of these wars. Opinions differ substantially concerning the macroeconomic effects of the ongoing wars in Iraq and Afghanistan. Some observers have argued that the war in Iraq, in particular, has caused oil prices to increase, and that even assuming only a relatively small fraction of the increase in oil prices that has occurred over the last several years is attributable to that conflict, the impact on the US economy has been significant, with economic losses amounting to as much as $200–800 billion. Others have argued that the impact of the war in Iraq on oil prices has been relatively modest, or even insignificant, with higher demand explaining most of the price increase.

Likewise, some have argued that US spending on the wars in Iraq and Afghanistan has diverted dollars that would otherwise have been spent in more productive ways, especially on private investment that would have helped grow the economy, causing economic losses of as much as $1.1 trillion or possibly more. By contrast, others have suggested that these macroeconomic effects of these wars have been minimal because, among other reasons, US monetary policy has been used to effectively mitigate such negative effects.

Similarly, opinions differ dramatically concerning the extent to which the wars in Iraq and Afghanistan have imposed costs on specific categories of Americans—especially Service members who have been killed or injured in those wars, and their families. In their book, *The Three Trillion Dollar War*, Stiglitz and Bilmes, for example, have estimated that these wars may ultimately generate "social" costs totaling some $303–423 billion. Others have suggested that the impact is likely to be substantially lower, and that various types of compensation provided by the government to these individuals and their families (e.g., life insurance payments and disability benefits) have covered the vast majority of the costs they have incurred.

While this report discusses these broader macroeconomic and social costs, no attempt was made to generate and an independent estimate of those costs, or even to bound the question. The report took this approach not because the author believes such costs are necessarily illegitimate or small; indeed, it is *conceivable* that such costs exceed the budgetary costs of these military operations. Rather, the study limits itself to a general discussion of possible economic costs because estimates of such costs are both very difficult to assess and necessarily much more speculative. Even in the case of budgetary costs, the goal of this report has been as much to make the reader a more “intelligent consumer” of information and estimates of war costs, as it has been to provide an independent estimate of those costs.

In closing, it is worth reiterating why it is so important that we have as complete an understanding as possible of the costs of the wars in Iraq and Afghanistan, and military operations generally. As in other areas of public policy, consideration of whether to use military force or to remain involved in military operations, should be driven, in part, by an analysis of the likely costs and benefits of doing so. Such an analysis can be effectively carried out only if the costs of such operations are accurately and fully recognized. It is hoped that this report has contributed to such an understanding.

On the other hand, even if measured perfectly, costs are only half the equation. This report did not attempt to measure the possible benefits of the wars in Iraq and Afghanistan. It is also important to note that some costs and benefits may be impossible to measure and express in financial terms—meaning, among other things, that questions of war and peace can never be boiled down to a simple cost-benefit equation.

Center for Strategic

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Assessments

1667 K Street, NW
Suite 900
Washington, DC 20006
Tel. 202-331-7990
Fax 202-331-8019
www.CSBAonline.org