

BY LINDA BILMES AND JOSEPH E. STIGLITZ

**In the last issue** of the *Milken Institute Review*, Scott Wallsten and Katrina Kosec calculated that the real cost of the Iraq war would total \$1 trillion. Here, two other distinguished scholars offer a far higher estimate – one that focuses on the long-term costs of injuries and economic dislocation created by the war.

— the editors

In January, we estimated that the true cost of the Iraq war could reach \$2 trillion, a figure that seemed shockingly high. But since that time, the cost of the war – in both blood and money – has risen even faster than our projections anticipated. More than 2,500 American troops have died and close to 20,000 have been wounded since Operation Iraqi Freedom began. And the \$2 trillion number – the sum of the current and future budgetary costs along with the economic impact of lives lost, jobs interrupted and oil prices driven higher by political uncertainty in the Middle East – now seems low.

One source of difficulty in getting an accurate picture of the direct cost of prosecuting the war is the way the government does its accounting. With “cash accounting,” income and expenses are recorded when payments are actually made – for example, what you pay off on your credit card today – not the

amount outstanding. By contrast, with “accrual accounting,” income and expenses are recorded when the commitment is made. But, as Representative Jim Cooper, Democrat of Tennessee, notes, “The budget of the United States uses cash accounting, and only the tiniest businesses in America are even *allowed* to use cash accounting. Why? Because it gives you a very distorted picture.”

The distortion is particularly acute in the case of the Iraq war. The cash costs of feeding, housing, transporting and equipping U.S. troops, paying for reconstruction costs, repairs and replacement parts and training Iraqi forces are just the tip of an enormous iceberg. Costs incurred, but not yet paid, dwarf what is being spent now – even when future anticipated outlays are converted back into 2006 dollars.

#### **OUR DEBT TO VETERANS**

A major contributor to this long-term cost is the medical care and disability benefits provided to veterans. More than one million U.S. troops have now served in Iraq. And once they leave, each is entitled to a long list of benefits for the remainder of his or her life. Veterans can apply for compensation for any

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disabling injury or disease (physical or mental) that occurred on active duty or any existing condition that was made worse by military service. Benefits are based on the extent of the disability, ranging from 10 percent to 100 percent. And, because some medical problems do not become apparent right away, claims are likely to be filed for years after the war is over.

There are 2.6 million veterans currently receiving disability pay, including a sobering 40 percent of the soldiers who served during the four-week-long Gulf War in 1991. Accrued liabilities for U.S. federal employees' and veterans' benefits now total \$4.5 trillion. Indeed, our debt for veterans' health and disability payments has risen by \$228 billion in the past year alone.

These numbers are unlikely to fall. More than half of the troops in Iraq have served two or three tours of duty under grueling

conditions. Moreover, depleted uranium, used in armor-piercing artillery shells because it is hard, heavy and cheap, was implicated in many of the medical claims by soldiers from the first Gulf War. And the same radioactive material was used in the toppling of Saddam Hussein.

Note, too, that improvements in body armor mean that an unusually high number of soldiers are surviving major injuries, but ending up disabled. About 20 percent of survivors have suffered major head or spinal injuries, 18 percent incurred serious wounds and an additional 6 percent are amputees. The estimated 7,000 veterans with severe brain, spinal, amputation and other serious injuries will require a lifetime of round-the-clock care.

Government medical facilities are currently overwhelmed by the needs of soldiers injured in Iraq. Some 144,000 of them sought care

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from the VA in the first quarter of 2006 – 23 percent more than the Bush administration had estimated for the entire year! Similarly, the government projected that 18,000 returning soldiers would seek treatment for post-traumatic stress disorder in 2006 – but the VA



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### REBUILDING THE POST-IRAQ MILITARY

Another big future obligation is the cost to “reset” the military – that is, to restore U.S. forces to their strength and preparedness prior to Iraq. This will require a major capital investment to replace military equipment depleted or destroyed by the war. The capital cost is in addition to the operating costs for repairs, ammunition, spare parts and fuel. For example, the United States now has 37,000

light military trucks in Iraq accumulating mileage at up to six times the peacetime rate. And while there may be no good time to replace the weapons, vehicles, medical equipment and the like that will be used up, it’s clear the bill will come due at a particularly bad time – that is, in the decades during which Americans will be wrestling with the question of how to pay for the pensions and medical care of retired baby boomers.

### BUDGETARY COST OF THE WAR

Congress has already appropriated approximately \$430 billion for military operations, reconstruction and related programs in Iraq and Afghanistan. And these cash outlays have been rising as the war has progressed. In fiscal year 2003, the average monthly cost of operations was \$4.4 billion, while today operations are running about \$10 billion a month.

Of the million troops who have served in Operation Iraqi Freedom, some 400,000 are reservists or members of the National Guard – which adds an additional layer of costs. Reservists are expensive to activate because the

treated 20,638 Iraqi war veterans for PTSD in the first quarter alone. All told, in the past year, the VA has added 250,000 new beneficiaries and still has a backlog of more than 400,000 pending claims.

military needs to start paying them full-time salaries (instead of paying for one weekend a month). By contrast, regular forces receive full-time salary in war or peace. Most reservists are older and have families, so they are paid additional compensation while on active duty. Moreover, if they are killed, their dependents are entitled to compensation and benefits including housing, education loans and job training.

The escalating costs also reflect the vast sums that the Defense Department has been spending to recruit soldiers. In the past two years, the armed forces have nearly doubled the number of recruiters, increased bonuses to as much as \$40,000 for new enlistees, and paid special bonuses and other benefits worth as much as \$150,000 for members of the Special Forces who re-enlist. The Defense Department has also relied on contractors to support the war effort, which has proved to be a very expensive way to keep the troop count down. In many contracts, security costs represent 25 to 30 percent of the total outlay. The Pentagon has managed some savings – such as no longer needing to police the “no-fly” zone that protected the Kurds before Saddam was ousted. But on balance, the Defense Department has increased spending by several billion dollars annually for war-related expenses that are over and above the sums going directly to combat operations.

While economists don’t generally include interest on extra budget deficits as a cost of the war – interest payments can be viewed as transfer payments to creditors – the budgetary reality is very different, and thus interest costs are worth considering here. With rising interest rates (themselves partly due to the war, as central banks around the world work to combat the inflation brought on by high oil prices), these costs are soaring. The Congressional Budget Office estimates that the in-

## COSTS OF THE IRAQ WAR\*

### BUDGETARY COSTS (BILLIONS)

Spending to July 2006.....	\$336
Future operating costs**.....	389
Veterans health care and disability compensation**.....	127
Net increased defense, reset and demobilization costs**.....	160

### ECONOMIC COSTS (BILLIONS)

Net economic adjustments (loss of life, brain/spinal/other injuries, Reserve pay differential, net of disability pay):.....	355
Oil price transfer (supply-side) effect.....	300
Oil aggregate demand effect.....	150
Budgetary impact.....	450

### TOTAL COSTS OF THE WAR (without interest)

**\$2,267**

SOURCE: the authors

\*Assuming Congressional Budget Office troop projections through 2016

\*\*Net present value of future expenditures

terest payments on the money borrowed to finance the Iraq war will total \$264 billion to \$308 billion.

We have used the CBO’s two scenarios for expected troop deployment to make a reasonable projection of the likely underlying costs of operations, and then adjusted these numbers to an accrual basis in order to reflect future costs outlined above. Looking purely at direct costs to taxpayers, we estimate that the total cost of the Iraq war will be in the \$1 billion to \$1.4 billion range under the CBO’s core assumption that the U.S. maintains a small presence in Iraq through 2016. Even under a more optimistic scenario – that all U.S. troops are home by 2010, the budgetary cost of the Iraq operation will reach nearly \$1 trillion.

### ECONOMIC COSTS OF THE WAR

Economic costs differ from budgetary costs in three ways. First, some costs are borne by individuals and families or by non-federal-government agencies, and thus do not show up in federal accounts. Second, the prices paid by the government do not reflect the market

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value of the services purchased. Third, economic costs do not include interest payments (which from an economic perspective can be viewed as transfer payments), but do include long-run impacts on the growth of the economy. Here, we have focused only on a few of these additional costs: the loss of productive capacity of the young Americans killed or seriously wounded in Iraq, the loss of civilian wages that would have been earned by those called back to duty in the Reserves, and the macroeconomic effects that reduce output.

### **Military Fatalities, Serious Casualties and Reserves Wage Differential**

Although it is problematic to translate the value of a life into monetary terms, economists and private insurance firms commonly



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determine the “value of a statistical life” (VSL) by inferring how much workers demand to perform hazardous jobs (think mining or firefighting) or how much consumers are willing to pay to reduce risk (think mammograms or smoke alarms). In non-military areas, such as safety and environmental regulation, the federal government values the life of a young adult male at around \$6.5 million.

One could argue that the true cost of death and disability for an all-volunteer army is already reflected in military pay premiums for hazardous duty. But we think this greatly underestimates the real cost. First, recruits, many of whom are too young to buy a beer legally, have little information about the likelihood of being killed or injured, or how much they will come to value their own safety later in their lives. Second, many of the soldiers in Iraq are not really volunteers. The majority serving there are either reservists or Guard members who never expected to go to war, or regular army personnel ordered by the Pentagon to serve far beyond their scheduled length of deployment.

Hence, we would argue that very little of the true cost of the deaths of American soldiers is reflected in the budget. Using a VSL estimate of \$6.5 million, the economic cost of the American soldiers and contractors who have already lost their lives adds up to \$16.9 billion. (We have not included the cost of the estimated 40,000 to 100,000 Iraqis killed in the conflict.)

By the same reasoning, the budgetary expenditures also underestimate the true economic costs to the soldiers wounded because the outlays do not include adequate compensation for what tort law calls pain and suffering, or additional health care expenditures by



the soldiers' families and non-federal-government agencies. We believe veterans, and their families, receiving full disability payments bear costs equal to those who die in combat, and therefore we should assign each case a non-budgetary cost of \$6.5 million (the value of a statistical life). We assign a modest 20 percent of that figure to those who are wounded less seriously.

There is also an economic cost in the difference between civilian and military wages for reservists. This difference is a cost borne by the economy and shows up as lower productivity. In their study of the economic costs of the war published by the AEI/Brookings Joint Center in 2005, Scott Wallsten and Katrina Kosec calculated that the "opportunity cost" of using Reserve troops at current levels is \$3.9 billion to date.

Note, moreover, that a disproportionate number of these reservists work in critical "first-responder" jobs back home – as firefighters, police and emergency medical personnel. Nearly half the police forces in the

United States now have some of their ranks deployed in Iraq, and the average length of Guard mobilization is 480 days. It is difficult to measure the cost of this deployment in purely economic terms because there is a large unquantifiable "insurance" value of having trained first responders available for domestic emergencies. Consider, for example, the losses associated with Hurricane Katrina that might have been avoided if the 7,000 Louisiana and Mississippi Guardsmen in Iraq had been home to help.

#### **MACROECONOMIC EFFECTS OF THE WAR**

As large as the direct costs are, the indirect impact on total economic output may be several times larger. Consider just two sources of macroeconomic cost.

##### **Oil Prices**

The price of oil is significantly higher today than it was before the war in Iraq. But to even begin to assign a macroeconomic cost to this,

**soldiers is reflected in the budget.**

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we need to know what the price would have been if there had been no war.

Commodity futures markets provide some insight. Before the war, they were implicitly forecasting that oil prices would remain in the range that they had been – \$20 to \$30 a barrel – in spite of other, more predictable factors affecting prices, such as strong economic growth in China and India. Today, by contrast, the oil futures markets predict prices will be in the mid-\$60-per-barrel range during 2006 and 2007, and fall no earlier than the year 2008.

One explanation is that the instability in the Middle East brought about by the Iraq war has increased the risk of investing in the region. But because costs of extraction are so much lower in the Middle East, high oil prices have not stimulated a commensurate supply response elsewhere. If political stability is restored, the reasoning goes, prices will fall and investments in high-cost liquid fuels elsewhere in the world – think heavy oil in Venezuela or tar sands in Canada – will prove to be losing ventures.

We believe, accordingly, that the best estimate of the impact of Iraq on oil prices is a large proportion of the \$45-a-barrel increase since the war began. Nonetheless, we offer a conservative calculation based on the assumption that only a small fraction of that amount – \$5 to \$10 – is due to Iraq. Given U.S. imports of roughly five billion barrels a year, a \$10-per-barrel increase translates into an extra expenditure of approximately \$50 billion. Americans are poorer by that amount. If merely a \$5 price increase persists for five years, this generates a conservative estimate of \$125 billion in costs. More plausibly, if we base our estimates on a \$10 price increase, and assume (as futures markets believe) it extends for at least six years, the cost is \$300 billion.

Most macroanalyses assume that one must reckon with more than just these direct supply-side effects if the economy is prone to operating below full capacity. The increase in oil prices means Americans have that much less to spend on other goods – including goods made in the United States. This in turn leads to a reduction in aggregate demand, and the reduction leads to lower economic output. Standard macroeconomic models suggest an “oil multiplier” of around 1.5 (achieved over two years). Thus, assuming that the economy remains below its potential, our cost estimate rises to \$450 billion.

### Budget Reallocation

The macroeconomic costs associated with the increased expenditure on the war are more difficult to estimate. If we were not spending the money on Iraq, would we be spending it on something else? Would we have had the same deficit, but just more tax cuts? Would the Federal Reserve have stopped raising interest rates sooner if it wasn't worried about the inflationary effects of higher oil prices – and thereby made recession in 2006 less likely?

Here, we offer a very conservative estimate of these macroeconomic effects using an “expenditure-switching” model. Spending money to hire, say, Nepalese workers in Iraq provides little indirect stimulation to the American economy – far less than would have been provided if the money had been spent on investments in schools or roads (or, for that matter, on houses and cars) in the United States. In estimates presented last January, we put the cost of budgetary impacts (including expenditure switching and the impact on future productivity) at \$450 billion.

### \$2 TRILLION AND COUNTING

The total costs of the war, including the budgetary, social and macroeconomic costs, are



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likely to exceed \$2 trillion. As large as these costs are, an equally large set of costs have been omitted. We have not included the costs borne by other countries, either directly (as a result of military expenditures) or indirectly (as a result of the increase in the price of oil.) Then there are the intangible costs – the cost of our reduced capability to respond to national security threats elsewhere in the world, and the cost of rising anti-American sentiment in Europe and the Middle East. Americans have long taken pride in fighting for human rights. But our credentials have been badly tarnished by the Iraq war, leading to a sharp decline in America’s “soft power.” On issues from trade negotiations to global warming to the international criminal justice system, this decline will have a continuing impact on the United States’ ability to have its point of view prevail.

#### **LAST THOUGHTS**

In responding to cost-based criticisms of the invasion and occupation of Iraq, the Bush Administration argues that one does not go to war on the basis of calculations by bean

counters. After all, Franklin Roosevelt did not wait to respond to Pearl Harbor until his budget analysts could assay the costs and benefits. But, with Iraq, America had a choice of whether and when to attack. If there ever was a “project” that should have been subject to careful scrutiny from all perspectives – including the economics – this was it.

Just as going to war was a matter of choice, staying in Iraq is also a matter of choice. There may be costs associated with leaving. But there will be costs associated with staying. Every day we stay in Iraq we accrue costs that will be reflected in budget outlays, lost productivity and individual pain and suffering for decades to come. We need to ask: are they outweighed by the benefits? **M**