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# U.S. Military Intervention in Iraq: Some Economic Consequences

Updated May 16, 2003

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#### Summary

Going into the war, economists predicted that U.S. military operations in Iraq could have had two distinct effects on the economy. First, the deficit financed increase in military expenditures could increase aggregate demand in the short run. A supplemental appropriation (H.R. 1559) has been signed into law (P.L. 108-11) that includes \$62.6 billion for Iraq-related outlays. Second, the effect of military operations on the price of oil could have caused economic growth to fall and inflation to rise in the short run.

Government borrowing from the public, through the issuance of U.S. Treasury securities to finance a larger budget deficit, appears likely to be the primary financing method for military operations in Iraq. This boosts aggregate demand in the short run. Some of the boost would be directed to foreigners instead of domestic producers since the operations would occur abroad. Some of the boost in aggregate demand will be "crowded out" by higher interest rates, which reduce investment spending and other interest-sensitive spending, and dollar appreciation, which reduces exports and the production of import-competing goods. Because economic activity was sluggish during the conflict, less of the boost in aggregate demand was crowded out. Lower government spending may play a small role in financing any U.S. operation in Iraq, reducing the size of the deficit. While wars may shift resources from non-military uses to military uses, the shift would not lead to a recession since military spending is included in GDP.

Military operations against Iraq were accomplished with little damage to the Iraqi oil fields. As a result, further oil price spikes may be avoided, and the price of oil is already coming down. Some would argue that the price spike before the war was caused by anticipation of the coming conflict, and should therefore be counted as a cost of the war. Economic theory suggests that oil shocks lead to higher inflation, a contraction in output, and higher unemployment. Effective policy responses are difficult because expansionary policy would exacerbate the inflationary pressures while contractionary policy would exacerbate the contraction in output. Studies suggest that an increase in the price of oil would have little effect on the economy if it is transient.

In hindsight, we know that the size of military outlays relative to GDP and the war's effect on oil prices were both modest. Oil prices rose in the 4 months preceding the war, but fell back to previous levels before the conflict had ended. The war also had no significant effect on consumer or investor confidence. Thus, the effects of the war on the economy were mild.

Most economists do not attribute the 1990-1991 recession to the Gulf War. Rather, they attribute it to contractionary monetary policy, the spike in oil prices that accompanied the Iraqi invasion of Kuwait, and problems in the U.S. banking sector. The Gulf War did not begin until the recession was almost over. As a percentage of GDP, military outlays actually fell during the Gulf War. This report will not be updated.

## Contents

The Potential Size of the Conflict1
The Economics of War Financing 2   Borrowing from the Public 3   Equity Issues 3
The Economics of Oil Shocks
The Role of Confidence
The U.S. Economic Experience During the Gulf War
Conclusion

# List of Figures

gure 1: Monthly Oil Prices
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## List of Tables

Table 1: Economic Indicators in the Gulf War	
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# U.S. Military Intervention in Iraq: Some Economic Consequences

Military operations in Iraq raise several macroeconomic questions of congressional interest that this report will address. The economic effects of a conflict take two distinct forms, the effects of increased military outlays and the potential effects of a change in the price of oil, and it is crucial to separate those effects. This report will analyze the effects of increased military outlays and then analyze the potential effects of a change in the price of oil. It will conclude with an analysis of the economic experience during the 1991 Gulf War. But first it will examine the economic size of the conflict.

### The Potential Size of the Conflict

A \$78.45 billion supplemental appropriation has been signed into law (P.L. 108-11). Of the \$78.45 billion, \$62.6 billion is dedicated to Iraq-related outlays.<sup>1</sup> The Pentagon estimated that the war has thus far cost \$20 billion and costs related to the military effort are estimated to run \$2 billion per month through the end of the fiscal year.<sup>2</sup> This appropriation could be followed by others if the pacification and reconstruction follow a different route from that anticipated by the Administration. By way of comparison, the Gulf War is estimated to have cost \$80 billion in inflation-adjusted terms and recent military operations in Afghanistan are estimated to have cost \$10 billion to date.<sup>3</sup>

One should also take into account the fact that many of the military resources used in the conflict would be used in the absence of a conflict. For example, soldiers must be paid (albeit at a lower rate) and equipment must be maintained in peace time as well. Thus, when considering the economic effects, the relevant figure is the incremental cost of the conflict, that is, the increase in military expenditures compared to expenditures in the absence of a conflict. These incremental costs, and the fiscal stimulus they generate, somewhat lag the conflict since it takes time to replace the armaments and munitions expended.

<sup>&</sup>lt;sup>1</sup> See CRS Report RL31829, Supplemental Appropriations FY2003: Iraq Conflict, Afghanistan, Global War on Terrorism, and Homeland Security by Amy Belasco and Larry Knowles.

<sup>&</sup>lt;sup>2</sup> Estimate provided by the Pentagon's Comptroller, Dov Zakheim, at a press conference on April 16, 2003.

<sup>&</sup>lt;sup>3</sup> Gulf War estimates: CRS Report RS21013, *Costs of Major U.S. Wars and Recent U.S. Overseas Military Operations*, by Stephen Daggett and Nina Serafino; Congressional Budget Office, *The Economic and Budget Outlook*, (Washington: January 1992), p. 63. Afganistan estimates: Congressional Budget Office, "Letter to the Honorable Pete Domenici," April 10, 2002.

For the purpose of estimating macroeconomic effects, the most important point to recognize is that even the highest estimates of the military conflict are relatively small given gross domestic product (GDP), which is now in excess of \$10 trillion. While the expenditures would be expected to have the effects on the economy described in the next section, this means that the magnitude of those effects would be small.

## The Economics of War Financing<sup>4</sup>

People often assume that wars will lead to recessions, reasoning that the spending on war will lead to less spending in the rest of the economy. While this reasoning is correct, the conclusion is wrong. Recessions are characterized by a reduction in spending in the entire economy, including the military sector. While it is true resources must be shifted to the military sector, since the military sector is a part of GDP, the shift does not lower GDP. Wars may lead to less spending on *non-military* goods and services, but there is no reason to assume that it will lead to less spending on *total* goods and services. In fact, under certain financing methods, it is likely to lead to *greater* spending on total goods and services, which would increase the growth rate of aggregate demand in the short run.

The increased government outlays associated with wars can be financed in four ways: through higher taxes, reductions in other government spending, government borrowing from the public (the issuance and sale of U.S. Treasury securities to the public), or money creation. Major wars have relied upon all four measures.

The first two methods are unlikely to have an effect on economic growth (aggregate demand) in the short run. The expansion in aggregate demand caused by greater military outlays is largely offset by the contraction in aggregate demand caused by higher taxes and/or lower non-military government spending.

The latter two financing methods increase aggregate demand. Thus, a byproduct of wars has typically been a short-term economic boom and increase in employment in excess of the economy's sustainable rate of growth. The sectors of the economy that are recipients of the military spending, such as the transportation sector and military equipment producers, would receive the biggest boost. Just as a military buildup in wartime typically boosts aggregate demand, the reduction in defense expenditures after a war typically causes a brief economic contraction as the economy adjusts to the return to peacetime activities.

In the conflict with Iraq, money creation and higher taxes were not used as financing methods. It is possible that some resources could be freed up through lower government spending. But given the small projected size of the military outlays in relation to GDP and the temporary nature of the expenditures, the bulk of the financing will most likely come from borrowing (an increase in the budget deficit).

<sup>&</sup>lt;sup>4</sup> For more information, see CRS Report RL31177, *Financing Issues and Economic Effects of Past American Wars*, by Marc Labonte.

**Borrowing from the Public.** If the economy's resources are fully employed when the government boosts aggregate demand, the increase in government spending must be offset by a reduction in spending elsewhere in the economy. In the case of borrowing from the public, prices and interest rates would be expected to rise, the latter causing investment and other interest-sensitive spending to be lower than it otherwise would be. Economists refer to this phenomenon as government purchases "crowding out" private investment and interest-sensitive spending. Since private investment is crucial to long-run growth, the long-run effect of these policies would be to reduce the private capital stock and future size of the economy.<sup>5</sup>

Government budget deficits can be financed by foreigners as well as domestic citizens. If a budget deficit is financed by foreigners, exports and import-competing goods rather than private investment would be "crowded out" by government expenditures through an appreciation of the dollar and a larger trade deficit. The appreciation occurs because demand for the dollar increases as foreigners purchase U.S. financial instruments.

In the case of expenditures on a military campaign abroad, there may be less of an expansion in aggregate demand than from other forms of government spending since some of the expenditures would be used for foreign goods and services. This suggests that there would be less upward pressure on the exchange rate and less crowding out of U.S. exports and import-competing goods.

Around the time of the war, most economists would agree that the economy was operating below full employment. This reduces the extent of crowding out due caused by the deficit because unemployed resources can be brought back into use to match the rise in spending. The economy may not be that far from full employment, however. Some economists estimate the full employment rate of unemployment to be 5%; since the beginning of 2002, the unemployment rate has fluctuated between 5.5-6.0%.

When borrowing is undertaken on a very large scale, the public will eventually refuse to lend more resources to the government. This would then lead to a budgetary crisis where the government would be forced to turn to other forms of financing and/or default on its existing debt. Policymakers have little reason to be concerned about the government's ability to finance operations on the scale undertaken in Iraq. The Administration's current budgetary requests (war and domestic) would increase the projected budget deficit to only about 4% of GDP. The government faced no difficulty in persuading the public to finance deficits from 4-6% of GDP in the mid-1980s and early 1990s, and the national debt today is substantially smaller, both absolutely and relative to GDP. The fact that the borrowing would be on a manageable scale does not imply it could not lead to a significant crowding out of interest-sensitive goods and exchange-rate sensitive goods, however.

**Equity Issues.** All four methods of war financing raise equity questions, since each method places the financing burden on different groups of individuals.

<sup>&</sup>lt;sup>5</sup> For a more detailed discussion, see CRS Report RL30583, *The Economics of the Federal Budget Deficit*, by Brian Cashell.

The burden of financing wars through higher taxes is borne by the individuals who have their taxes raised. The burden of financing wars through a reduction in other government spending is borne by the individuals to whom the spending was previously directed. The burden of financing wars through money creation is borne by those whose real wealth and real income fall when prices rise. Uniquely, the burden of financing wars through borrowing from the public is thought to be borne in part by future generations rather than present generations. The result of borrowing from the public is lower private investment, and lower private investment leads to a smaller future economy, and hence lower standards of living in the future. Philosophically, the debt financing of wars has often been justified on the grounds that the peace or security that wars make possible is enjoyed by present and future generations.<sup>6</sup>

## The Economics of Oil Shocks

Before the war, there were concerns that a military conflict could cause widespread damage to the oil-producing capacity of Iraq and its neighbors, which would lead to a large spike in oil prices. These fears did not come to pass: Iraq's oil fields were secured quickly by coalition forces and there was no damage to its neighbors fields. As seen in **Figure 1**, monthly oil prices peaked in February – before the war – and have fallen since then. Thus, the war had no contemporaneous effect on oil prices, and through this channel, on the U.S. economy. However, some would argue that fear of the war is what caused prices to begin rising from about \$20/barrel at the beginning of 2002 to \$30/barrel by the end of the year, and this price rise should be counted as part of the cost of the war. It is difficult to say what path prices would have taken in late 2002 and early 2003 without the buildup to war. There were other circumstances at the time that could have also pushed oil prices up, such as the unrest in Venezuela. This report will not attempt to determine whether or not the increase in prices should be attributed to the war, but will describe how a run-up in prices affects the economy in general.

<sup>&</sup>lt;sup>6</sup> For more information, see CRS Report RL30520, *The National Debt: Who Bears Its Burden?*, by Marc Labonte and Gail Makinen.



Figure 1: Monthly Oil Prices

Source: Energy Information Administration

Due to the central role energy plays in the functioning of our economy, changes in energy prices are not the same as changes in the price of most other goods. Energy "shocks" can have macroeconomic consequences, in terms of higher inflation, higher unemployment, and lower output.

Historically, energy price shocks have proven particularly troublesome for the U.S. economy. Sharp spikes in the price of oil have preceded eight of the nine postwar recessions, including the current one. When oil prices rise suddenly, the overall inflation rate is temporarily pushed up because other prices do not instantly adjust and fall. At the same time, because energy is an important input in the production process, the price shock raises the cost of production. Because other prices do not instantly fall, the overall cost of production rises and producers must cut back production, which causes the contraction in output and employment, all else equal. There may also be adjustment costs to shifting toward less energy intensive methods of production, and this could have a negative effect on output in the short run. Typically, the effect on output occurs over a few quarters. The recent energy price spike followed this pattern, with oil prices rising in the second half of 1999 through the first half of 2000, and output growth slowing in the third quarter of 2000.<sup>7</sup>

<sup>&</sup>lt;sup>7</sup> If rising energy prices affect the economy through this transmission mechanism, then falling energy prices should have the opposite effect on the economy: they should temporarily reduce inflation and raise output. Indeed, some economists partly attribute the (continued...)

Both the inflation and output effects of energy shocks are temporary: once prices adjust, the economy returns to full employment and its sustainable growth path. This observation yields an important insight: it is not the *level* of energy prices that affects economic growth and inflation, but rather the *change* in energy prices. Thus, if policymakers' priority is to mitigate the effect of energy prices on output and inflation, they should be concerned with rising energy prices and should not be concerned with "high" energy prices, even if the high prices are permanent. The only permanent macroeconomic effect of higher energy prices is their negative effect on the terms of trade. The "terms of trade" is a measure of standard of living that refers to the labor and capital embodied in U.S. exports that can be exchanged for the labor and capital embodied in foreign imports. Permanently higher energy prices lead to a one-time permanent decline in the terms of trade and the standard of living of U.S. consumers, all else equal.

Historically, formulating an effective policy response to oil shocks has been difficult. Expansionary fiscal or monetary policy increases aggregate demand and inflationary pressures. In typical downturns, monetary and fiscal policy can safely become expansionary without triggering a significant increase in inflation because the fall in demand reduces inflationary pressures. In oil shocks, policymakers must be simultaneously concerned with the fall in economic activity and the rise in prices. By tackling one problem, they risk exacerbating the other. For example, if policymakers use expansionary fiscal or monetary policy to offset the fall in output, prices may rise further and inflationary expectations could become embedded. This was the problem in the 1970s. Inflation, which was already rising before the oil shocks, continued to accelerate following the oil shock of 1973 until it reached double digits in 1974. Once the public came to expect higher inflation, the subsequent expansionary policy measures had less and less of a positive effect on aggregate demand, making the purported tradeoff between inflation and unemployment less and less favorable.<sup>8</sup> Following the second oil shock of 1979, a Federal Reserve that was determined to stamp out double-digit inflation chose instead to tackle the inflationary pressures caused by the oil shock by raising interest rates. This decision exacerbated the effect on output, contributing to the deepest economic contraction since the Great Depression. With inflation quiescent today, the tradeoff has been easier to manage.

Empirical evidence suggests that the cumulative effect of a sustained 10% increase in oil prices<sup>9</sup> would be to reduce economic growth by 0.7-1.4 percentage

 $<sup>^{7}</sup>$  (...continued)

salutary combination of unusually low inflation and high economic growth of the late 1990s with the fall in energy prices during that time.

<sup>&</sup>lt;sup>8</sup> Expansionary monetary policy leads to an increase in output only because prices do not adjust instantly to the increase in the money stock. If prices adjusted instantly, there would be no increase in output. Thus, a given change in the money stock would have a smaller effect on output when inflationary expectations are high.

<sup>&</sup>lt;sup>9</sup> The estimate assumes that the price of oil increases by 10% in the first quarter and then stays constant (at the higher level) for the next three quarters.

points over the next year.<sup>10</sup> But if the price rise were short lived and quickly reversed, there would likely be little effect on the economy.<sup>11</sup> Since the price of oil fell during the war, that had a positive but mild effect on the economy. In the runup to the war, prices were above \$25/barrel from April 2002 on, and above \$30/barrel from January to March 2003. But since prices averaged about \$30/barrel in 2000 and \$25/barrel for the first 9 months of 2002, arguably there was no new shock to oil prices, but merely a continuation of the previous one, after a brief respite at the beginning of 2002. Since it is the change in oil prices, rather than the level of prices, that affects economic activity, oil prices in 2002 probably had little effect on the economy, and the increase in prices in the first 3 months of 2003 was not long-lasting enough to have a serious effect on the economy. That assessment is based on current trends, since prices have been declining since April 2003. If high prices soon returned and were sustained, then the effect on the economy could be significant.

<sup>&</sup>lt;sup>10</sup> The literature estimating the economic effects of oil shocks is reviewed in CRS report RL31608, *The Effects of Oil Shocks on the Economy: A Review of the Empirical Evidence*, by Marc Labonte.

<sup>&</sup>lt;sup>11</sup> Hamilton offers evidence that oil price increases only have an significant effect on the economy if they persist. James Hamilton, "What is an Oil Shock?" *National Bureau of Economic Research*, working paper 7755, June 2000.

### The Role of Confidence

This report has discussed the effect of the military expenditures and oil price on the economy. Before the war, many of the reports and projections of the war's effects on the economy were highly pessimistic. Most of the war's negative economic effects in these forecasts came through another channel: by reducing consumer and investor confidence. According to this story, independent of the effects of higher oil prices and military expenditures, households and businesses would reduce their spending because of a psychological malaise and heightened uncertainty brought on by the conflict. This, they predicted, would depress economic activity.

For example, the Center for Strategic & International Studies evaluated the macroeconomic effects of four scenarios (no war, benign, intermediate, worse) using the Macroeconomic Advisers model. In the "worse case" scenario (which includes an oil price of \$80/barrel), GDP would contract by 3.8% in the first quarter following the invasion and 3.2% in the second quarter of the invasion. As disastrous as the results in these simulations are, what is even more telling is a chart that separates the direct macroeconomic effects of the war (oil prices and military expenditures) from the confidence-induced macroeconomic effects (decline in confidence, rise in bond spread, fall in stock markets, and fall in the exchange value of the dollar). If the confidence-induced effects are removed, GDP never shrinks under the worse case scenario, and the economy's performance is virtually indistinguishable from the "no war" scenario.

The likelihood of these effects occurring was highly speculative, since it was not clear if there was a rational reason for them to occur. A small conflict (as a percentage of GDP) far from the homeland should have little long-term effect on the future profitability of U.S. corporations and the future earnings of U.S. workers. Only the rise in oil prices should affect profitability and earnings, but the length and severity of the price spike was unknown. Furthermore, the economy has boomed during most wars, and the growth in consumer spending showed no decline following the large decline in consumer confidence caused by 9/11. Because psychological effects were so uncertain, but so important to the outcome of the projection, the projections themselves became highly uncertain.

As it turned out, consumer confidence fell slightly in March 2003 (4%), but rose sharply in April (30%). It fell significantly in 2002 (42% in the year ending March 2003), but it did not collapse. By comparison, the index was at a similar value in 1993. How much of that fall is attributable to the buildup of the war is highly debatable – there were many factors that could have been reducing consumer confidence in 2002. For example, consumer confidence is highly correlated with the unemployment rate. Signs of investor panic during the war, such as widening yield spreads or falling stocks did not materialize. Presumably these confidence factors were mild since the military conflict was so successful.

Source: Joel Prakken, "After an Attack on Iraq: The Economic Consequences," Macroeconomic Advisers, prepared for a conference sponsored by The Center for Strategic and International Studies, November 12, 2002.

### The U.S. Economic Experience During the Gulf War

The Gulf War was the only major military operation of the 20<sup>th</sup> century that did not require any increase in military expenditures as a percentage of GDP. In fact, it took place during the long reduction in military spending (as a percentage of GDP) that accompanied the end of the Cold War. In this broad sense, there is no reason to consider the economic effects of financing the buildup. In fact, an economic contraction occurred during the Gulf War, unlike the typical wartime economic boom, proving that small conflicts have small economic effects. (See **Table 1** for data on the economic environment before, during, and after the Persian Gulf crisis.) The 1990-1991 recession is not typically attributed to the war, except for its possible negative effects on confidence. Instead, it is typically attributed to contractionary monetary policy (undertaken in 1988-1989 to quell the rising inflation rate), problems in the banking sector, and the spike in oil prices associated with the Iraqi invasion of Kuwait.<sup>12</sup> Timing supports this argument: the monetary tightening took place in 1988 and 1989, the recession began in July 1990, the oil price spike began in August 1990, and military operations began in January 1991. After the conflict ended, the economy began to expand again (in March 1991) – it did not experience a typical post-war contraction.

Unlike previous military conflicts, in which the Federal Reserve had tolerated excessive money creation, during the Gulf War the Federal Reserve sought to stamp out inflationary pressures that originated before the conflict, even at the risk of recession. The budget deficit rose during the conflict, but it would be difficult to claim that military spending contributed to the rise in the deficit when overall military spending was declining during this time. Instead, the rising budget deficit was characterized by falling tax revenues and rising non-military outlays, both of which can be largely accounted for by automatic changes in revenues and outlays caused by the economic slowdown.<sup>13</sup> To reduce the widening deficit, the Omnibus Budget Reconciliation Act of 1990 cut spending and increased taxes. It was estimated that over the following 5 years, 57% of the deficit reduction would come from spending cuts and 29% from tax increases (14% would come from lower interest payments). Changes to excise taxes, payroll taxes, and individual income taxes accounted for the bulk of the tax increases. The revenue raising provisions of the Act were estimated to raise tax revenues by 0.3% of GDP in 1991. Most of the spending reductions were to come from reductions in military outlays and Medicare spending.<sup>14</sup>

<sup>&</sup>lt;sup>12</sup> For more information, see CRS Report RL31237, *The Current Economic Recession: How Long, How Deep, and How Different From the Past?* by Marc Labonte and Gail Makinen.

<sup>&</sup>lt;sup>13</sup> When adjusted for the effects of the economic slowdown, the structural budget deficit was equivalent to 2.1% of GDP in 1989, 2.1% of GDP in 1990, and 2.5% of GDP in 1991. Source: Congressional Budget Office, *The Budget and Economic Outlook*, (Washington: January 2001), Table F-1.

<sup>&</sup>lt;sup>14</sup> CRS Report 91-20E, *Tax Provisions of the Omnibus Budget Reconciliation Act of 1990*, by David Brumbaugh and Gregg Esenwein; Congressional Budget Office, *Budget and Economic Outlook*, January 1991, "Special Supplement," *Tax Notes*, October 29, 1990.

Another unique aspect of the financing of the Gulf War was the financial contributions that the U.S. received from its allies. In effect, foreign governments financed a large part of the war effort for the United States – contributions from foreign governments equaled \$48 billion, while the overall cost of the war was \$61 billion in current dollars.<sup>15</sup> In the balance of payments, these contributions represented a unilateral transfer to the United States, which is recorded as a reduction in the current account deficit. The exchange value of the dollar was unlikely to have been significantly affected, however, since a substantial portion of the contributions came from Saudi Arabia and Kuwait, both of whom have a *de facto* fixed exchange rate with the dollar. Foreign financing of possible military operations in Iraq seems less likely, given the geo-political environment.

Year	Military Outlays (% of GDP)	Tax Revenue (% of GDP)	Budget Deficit (-) (% of GDP)	Non- Military Outlays (% of GDP)	Real GDP Growth	Inflation Rate (Price Deflator)	Real Corporate Bond Yields
1989	5.6%	18.3%	-2.8%	12.5%	3.8%	3.8%	5.4%
1990	5.2%	18.0%	-3.9%	13.4%	2.3%	3.8%	6.0%
1991	4.6%	17.8%	-4.5%	14.4%	0.0%	3.9%	5.6%
1992	4.8%	17.5%	-4.7%	14.2%	2.2%	2.6%	6.0%

#### Table 1: Economic Indicators in the Gulf War

Source: Office of Management and Budget, *Historical Tables*; Bureau of Labor Statistics, *Consumer Price Index*; Federal Reserve.

Note: Non-Military Outlays do not include interest payments on the federal debt; real corporate bond yields are for Moody's BAA series as recorded by the Federal Reserve less the consumer price index (CPI); all data are calculated on a fiscal year basis except for corporate bond yields which are calculated on a calendar year basis.

#### Conclusion

Prior to the conflict, it was highly uncertain how a war would affect the U.S. economy. It was not clear if the world oil market would be disrupted by the conflict; if it was disrupted, and the disruption was long-lasting, the negative economic effects could have been serious. Additionally, had the war gone poorly, the effect on U.S. consumer and investor confidence could have also had serious, negative effects on the economy. It was more certain that the military expenditures would have a positive effect on the economy, but their size was uncertain since the scope and duration of the conflict was unknown.

<sup>&</sup>lt;sup>15</sup> Department of Defense, *Report of the Secretary of the Defense to the President and the Congress*, (Washington, DC: January 1993), Table 4. Foreign governments also contributed \$5.7 billion of in-kind assistance.

In hindsight, we now know how all these factors played out, and a more definitive analysis of the war's economic effects can be given:

- **Military Expenditures.** At about \$60 billion in 2003, the deficitfinanced military expenditures have had a positive, if mild, effect on the economy in the short run.
- Oil Prices. Oil prices did not rise during the war and have been falling since. If the decline continues, this will boost economic growth over the next year. Some would argue that the increase in oil prices in the run-up to the war should be counted as a cost of the war. While this report makes no judgement on the validity of that argument, if one were to count that run-up as a cost of the war, it had a mildly negative effect on the economy. Prices rose from roughly \$25 to \$30 barrel from December 2002 to March 2003. This price increase was too brief to do serious, lasting damage to the economy. Counting the oil price rise to \$25 in early 2002 as a cost of the war seems more dubious since it happened long before the war began, and only brought prices back to levels seen in 2000 and 2001.
- **Confidence.** Consumer confidence fell slightly during the war and shot up after it had ended. The fall during the war was too small to have a significant economic impact. There were no signs that the war was causing an increase in risk aversion in financial markets. Some would argue that the large decline in confidence in the year before the war should be counted as a cost of the war, but there are many unrelated factors that could have been causing confidence to fall in the last year.

Since none of these three factors were significant (at least while the conflict was taking place), the economic effects of the war in Iraq were probably fairly small