War in Iraq versus Containment: Weighing the Costs

By Steven J. Davis, Kevin M. Murphy and Robert H. Topel

As an American-led force stands ready to disarm Iraq and overthrow the regime of Saddam Hussein, many doubt the wisdom and morality of war. Opponents of war advocate continued containment – including inspections, sanctions and deterrence – as a better option for dealing with Iraq and its weapons of mass destruction. In weighing the options, two key questions arise: Is war more or less costly than a policy of containment? And would containment save lives?

The U.S. Congressional Budget Office and the Democratic Staff of the House Budget Committee project direct U.S. military costs in the $50-60 billion range for a war in Iraq. The CBO study implies additional costs of $23 billion in the unlikely event that heavy combat persists for four months. Humanitarian aid, reconstruction and peacekeeping could add another $10 to $40 billion in the first two years, although U.S. allies may shoulder much of the postwar burden. Taken together, these figures imply U.S. costs of $60 to
$123 billion for war and its near-term aftermath. To be conservative, put the U.S. cost of war at $125 billion.

Effective containment requires a potent U.S. military presence, including personnel and large amounts of military hardware that could be put to other uses. Prior to the recent buildup, the U.S. devoted roughly 30,000 troops, 30 ships (including a carrier battle group), and about 200 aircraft and other equipment to containment efforts. These resources proved insufficient to enforce U.N. mandates or, evidently, to prevent Saddam Hussein from continued investments in weapons of mass destruction.

The Congressional Budget Office assigns average personnel costs of about $250,000 per person-year to overseas peacekeeping operations, yielding $7.5 billion per year for troops. Accounting for operating costs and depreciation of ships and planes adds $5.4 billion, so the direct costs of containment are about $13 billion per year. If post-9/11 security concerns and redoubled efforts to enforce sanctions were to lead the U.S. to expend 50 percent more on containment, then costs rise to about $19 billion annually.

Of course, containment is necessary only so long as the current regime, or a like-minded successor, remains in power. So our calculation of costs should also account for the possibility that the current Iraqi regime
evolves into a far less dangerous one. It is hard to assess the probable duration of a dangerous Iraqi regime, absent war, but history offers some guidance. Saddam Hussein has survived a devastating war with Iran in the 1980s, a crushing military defeat in the Gulf War of 1990-91, and 12 years of draconian sanctions. These facts suggest that the current regime will be hard to dislodge under containment. Other highly repressive regimes, such as Cuba and North Korea, also show much staying power.

In this light, consider an optimistic scenario in which the Iraqi regime morphs from malign to benign in any given year with a 3 percent probability. This implies an expected duration for the current regime of 33 years. In comparison, the Soviet empire survived nearly half a century under containment by the West, and the containment of North Korea has required a large U.S. military presence on the Korean Peninsula for 50 years.\(^9\)

Putting things together, annual containment costs of $19 billion can be converted to expected present value by discounting future expenditures at an appropriate rate, which we take to be 2 percent per year,\(^10\) and by the 3 percent annual probability that the Iraqi regime changes character. The resulting estimate for the cost of containment is $380 billion.\(^11\) This dwarfs any reasonable estimate of U.S. war costs.
Many argue that the Iraqi regime is unlikely to use, or allow others to use, its weapons of mass destruction against the U.S. Yet even a small probability that “containment” allows greater development or spread of these weapons significantly raises the costs of a containment strategy.

For example, suppose that the current Iraqi regime raises the probability of a terrorist attack of the same magnitude as 9/11 by 5 percent per year (one additional attack every 20 years). If the direct economic losses inflicted by such an attack are $50 billion, then the cost of containment rises to $430 billion. It is higher still if the prospective attack involves greater loss of life, as might occur with nuclear or biological weapons.

Factoring in the indirect costs of another 9/11 event – in the form of greater security expenditures on the domestic front and more disruption to daily life – substantially raises the estimated cost of containment. According to a careful study, the U.S. cost of the extra homeland security precautions triggered by 9/11 exceeds $80 billion per year. If a policy of containing Iraq raises the cost of homeland security by even a fraction of this amount, say $10 billion per year, then the present value cost of containment rises by $200 billion. In total, our estimated U.S. cost of containment becomes $630 billion.
A different concern is that war in Iraq would lead to an expensive "nation building" effort. That concern seems well founded, but we should also recognize that successful nation building would be enormously beneficial for the Iraqi people, for the Middle East and for U.S. and world security. The net financial and security benefits of nation building are highly uncertain and may well be positive. But even if they are negative, the net costs must be enormous in order to tip the balance in favor of containment. In particular, by the calculations above, the costs of nation building must exceed the benefits by $500 billion to tip the balance against war from a U.S. cost perspective.

For the Iraqi people, the economic scale tips even more dramatically in favor of war. Since Saddam Hussein came to power in 1979, Iraqi income per person has fallen by at least 75 percent -- a truly catastrophic decline in living standards. In the dozen years since the Gulf War, lost oil revenues alone have almost certainly exceeded $12 billion a year. And much of Iraq’s greatly diminished output is diverted to an oversized military, an apparatus of terror and repression and the relentless glorification of Saddam Hussein.

We have carried out some simple calculations to assess the impact of war on Iraqi living standards and economic welfare. Our calculations rely
on the following assumptions: First, war brings regime change and a 20-year transition to a higher level of income per person. During the transition, Iraqi income per person grows by enough to make up for the historical decline between 1978 and 2002. Second, Iraq’s direct costs of war amount to half a year’s GDP. Third, in the absence of war, peaceful regime change occurs with a probability of 3 percent per year, and it triggers the same economic transition as war, but without the costs. Fourth, the long term growth of output per capita is 2 percent per year whether or not regime change takes place.

Under these assumptions, war and forcible regime change raise Iraqi welfare by 50 percent compared to containment – an enormous gain. At first, it may seem surprising that war can lead to a huge improvement in human welfare. But, in fact, this conclusion is hard to escape so long as regime change even partly undoes the collapse in living standards under Saddam.

Lastly, consider the heavy human toll of containment. The regime’s victims include 200,000 dead Iraqis and twice as many wounded during the 1980-88 war with Iran, an even greater number of Iranian casualties, the slaughter of 200,000 Kurds (many with chemical weapons), more than 10,000 dead Iraqis in the Gulf War of 1990-91 plus many Kuwaitis and allied troops, tens of thousands of Shi’ah Iraqis killed during brutal
repressions after the Gulf War, several hundred thousand Marsh Arabs whose homeland and way of life were systematically destroyed in 1992 and 1993, and at least another 100,000 Iraqi deaths from disease and malnutrition since the Gulf War.  

All told, the current regime has killed or caused the deaths of well over half a million Iraqis since Saddam Hussein came to power in 1979. Under the policy of containment after the Gulf War, a reasonable estimate is that 200,000 or more Iraqis have died prematurely at the hands of the regime or as a direct consequence of its policies.

How does this tally of human misery compare to war? Under the policy of containment in effect since the end of the Gulf War, premature Iraqi deaths have numbered at least 10,000 per year and probably two or three times as many. If we discount future lost lives in the same way as future economic costs, and allowing for the same probability of peaceful regime change, then a policy of containment means another 200,000 to 600,000 dead Iraqis.  

In comparison, the Gulf War of 1990-91 killed as many as 35,000 Iraqis, mostly troops who died during a long and intensive aerial bombardment by the U.S. and its allies. While we cannot be certain of
war’s consequences, the weight of the historical evidence clearly points to a much greater death toll from containment than from war.

In sum, the costs of containment dramatically outweigh the costs of war according to our analysis. This conclusion holds in economic terms, from both U.S. and Iraqi perspectives, and in terms of human lives. To reach a different conclusion requires a very different assessment about the relative costs of war and containment.

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War versus Containment: 
Impact on Iraqi Economic Welfare

To assess the impact of regime change on Iraqi economic welfare, we consider a 20-year transition period to a higher level of GDP per capita. During the transition, output grows by enough to make up for the decline in Iraqi GDP per capita between 1978 and 2002.

Our analysis treats GDP per capita as a measure of living standards. However, since war and containment imply different time paths for GDP per capita, we carry out the analysis in terms of economic “welfare”, which captures current and future levels of GDP per capita.

Let $V^T$ denote per capita welfare at the outset of transition, immediately after regime change. The regime change may occur spontaneously or as the result of external intervention (war). In the latter case, welfare is $V^T - W$, where $W$ denotes the direct one-time impact of war on GDP per capita. Let $V^S$ denote per capita welfare under the current regime, assuming no external intervention.

We make the following assumptions:
1. Under the current Iraqi regime, GDP per capita grows at annual rate $g$.
2. After regime change, GDP per capita grows at rate $g$ plus, during the 20-year transition, an additional amount $h$.
3. The extra rate of growth $h$ during the transition equals $M^{1/20} - 1$, where $M$ is a multiple of initial output that captures the favorable long-run effect of regime change on the level of GDP per capita.
4. Under the current Iraqi regime, there is a probability $\lambda$ in any given year of a spontaneous regime change.
5. The discount rate applied to future income is $r$.

Under these assumptions, per capita welfare at the outset of transition is

$$V^T = \sum_{i=0}^{20} \left[ \frac{(1+g)(1+h)}{1+r} \right]^i + \frac{M(1+g)^{21}}{(1+r)^{20}(r-g)}.$$  

Given no external intervention, per capita welfare under the current regime satisfies the following relationship:
The first term on the right side is GDP per capita at the initial output level. The second term is the probability of a spontaneous regime change multiplied by the present value of welfare under transition. The third term is the continuation probability for the current regime multiplied by the present value of welfare. Solving this equation for $V^s$,

$$V^s = 1 + \lambda \left( \frac{V^T (1+g)}{1+r} \right) + (1-\lambda) \left( \frac{V^s (1+g)}{1+r} \right).$$

Using these equations, we can now compare the effects of war and containment on Iraqi welfare. The ratio $(V^T - W) / V^s$ provides a convenient measure for the impact of war relative to containment. When this ratio exceeds unity, war brings about an improvement in Iraqi welfare compared to containment. Subtracting one from this ratio gives the impact of war on Iraqi welfare, expressed as a percentage of initial welfare.

In our baseline case, we set $M = 4$ based on the evidence discussed above that Iraqi living standards have declined by 75 percent or more under Saddam Hussein. This choice for $M$ implies $h = 7.18$ percent. As before, we assume that the probability of spontaneous regime change is 3 percent per year. We set the long-term growth rate at $g = 2$ percent per year, and we discount future income flows at the rate of 5 percent per year.

Plugging these values into the above equations, we calculate that $(V^T - W) / V^s$ equals 1.498. That is, relative to containment, war raises Iraqi welfare by nearly 50 percent in the baseline case. Using the above model, Table 1 quantifies the impact of war on Iraqi welfare under alternative assumptions. Even in a highly unfavorable case – involving high war costs, little catch up during the transition, and a high rate of peaceful regime change – war leads to a substantial improvement in Iraqi welfare compared to a policy of containment.
A Model with Foregone Growth Prior to Regime Change

The projected Iraqi welfare gains from war in Table 1 are conservative in the sense that the underlying model assumes equal long term growth rates before and after regime change. An alternative model allows for a slower long term growth rate prior to regime change.

So consider an alternative model with growth rate $g^s$ under the current regime. As before, assume that regime change brings about a 20-year transition period to a higher level of output per capita and a long term growth rate, $g \geq g^s$. In addition, assume that output growth foregone prior to regime change is never made up. In other words, the catch up process after regime change recovers the drop in output per capita under Saddam, but it does not return the economy to its initial baseline growth path.

This alternative model involves only slight modifications to the preceding equations. In particular, the $g$ terms in equations (2) and (3) are replaced by identical terms in $g^s$. Table 2 quantifies the impact of war using this modified model for various cases with $g^s=0$ and $g=.02$. As the table shows, the modified model implies that war brings very large welfare gains to the Iraqi people even under assumptions that are highly unfavorable to war relative to containment.
Table 1: Impact of War on Iraqi Welfare, Basic Model

<table>
<thead>
<tr>
<th>Description</th>
<th>War Cost (Years of GDP)</th>
<th>$g$, Long term growth rate of output</th>
<th>$M$, Catch Up, as Multiple of Initial GDP</th>
<th>$\lambda$, Spontaneous Regime Change Probability, per Year</th>
<th>Impact of War on Iraqi Welfare, as % of Initial Welfare</th>
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<tbody>
<tr>
<td>Baseline Case</td>
<td>0.5</td>
<td>.02</td>
<td>4</td>
<td>.03</td>
<td>49.8</td>
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<tr>
<td>Slower long-run growth</td>
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<td>0</td>
<td>4</td>
<td>.03</td>
<td>62.8</td>
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<tr>
<td>Higher War Cost</td>
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<td>.02</td>
<td>4</td>
<td>.03</td>
<td>49.0</td>
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<tr>
<td>Less Catch Up After Regime Change</td>
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<td>.02</td>
<td>2</td>
<td>.03</td>
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<td>7</td>
<td>.03</td>
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<tr>
<td>Highly Unfavorable Case for War</td>
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<td>.02</td>
<td>7</td>
<td>.02</td>
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Notes: All calculations use a discount rate, $r$, of 5 percent per year.
Table 2: Impact of War on Iraqi Welfare, Model with Foregone Output Growth

<table>
<thead>
<tr>
<th>Description</th>
<th>War Cost (Years of GDP)</th>
<th>Description</th>
<th>Spontaneous Regime Change Probability, per Year</th>
<th>Impact of War on Iraqi Welfare, as % of Initial Welfare</th>
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</thead>
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<td>M, Catch Up, as Multiple of Initial GDP</td>
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<td>Higher War Cost</td>
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<td>.02</td>
<td>170.0</td>
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Notes: All calculations use a long term growth rate after regime change of $g = .02$, a long term growth rate prior to regime change of $g^s = 0$ and a discount rate $r = 5$ percent per year.
Notes


2 The cost projections in the CBO’s “New War A” scenario assume 30 days of combat. The same study projects that each additional month of combat will raise military costs by $7.5 billion.

3 A Council of Foreign Relations Task Force projects postwar U.S. costs of $20 billion per year. See “Bush Risks Fire From Republicans on Postwar Costs,” Wall Street Journal, 19 March 2003. Some knowledgeable observers project substantially lower costs. See, for example, Kenneth M. Pollack, The Threatening Storm: The Case for Invading Iraq, Random House, New York, 2002. Pollack (page 398) writes that “maintaining U.S. troops in Iraq will also add to the costs of rebuilding the country – possibly by as much as $5 billion to $15 billion per year at first, but declining quickly as U.S. forces are drawn down. In this case as well, we should be able to diminish these costs significantly by securing commitments of both troops and funding from our allies.” Humanitarian assistance and reconstruction are likely to be far less costly than peacekeeping duties. For example, Nordhaus (2002, Table 7) estimates the cost of humanitarian assistance at $1 billion dollars in the event of a “short and favorable” war. A large fraction of post-war reconstruction costs are likely to be financed by U.S. allies and Iraqi petroleum revenues.

4 This assessment of U.S. military resources devoted to Iraqi containment draws on two sources. First, on 19 September 2000 General Tommy R. Franks testified before the U.S. Senate Committee on the Armed Services as follows: “By maintaining a significant forward presence in the region, the U.S. seeks to deter and, if need be, to defeat Iraqi aggression. To this end, at any given time, some 30 naval vessels, 175 military aircraft, and between 17,000-25,000 soldiers, sailors, airmen and Marines are in the CENTCOM AOR [Area of Responsibility].” (Available at www.fas.org/news/iraq/2000/09/iraq-000919a.htm.) In his testimony, Franks makes clear that EUCOM, which encompasses
Turkey in its AOR, also played a key role in containing Iraq, particularly in the enforcement of the Northern No-Fly Zone. On this basis, we use a figure of 200 military aircraft devoted to Iraqi containment at the time of General Franks’ testimony in 2000. His testimony also refers to a Maritime Interdiction Force, comprised of naval vessels from the United States and seven other countries, charged with enforcing U.N. sanctions that restrict Iraqi exports and imports. Franks does not provide figures for troops, aircraft or naval vessels devoted to Iraqi containment under EUCOM or the Maritime Interdiction Force, but it is clear that the figures for troops, aircraft and naval vessels in the CENTCOM AOR comprise only a partial inventory of the military resources devoted to containing Iraq. Second, “Overseas Contingency Operations Transfer Fund: FY 2001 President’s Budget Submission” (available at www.dod.mil/comptroller/defbudget/fy2001/budget_justification/pdfs/overseas/fy01pb_overseas.pdf) describes FY 2001 budget requests for U.S. military operations in Bosnia, Kosovo, Southwest Asia and East Timor. For the operations in Southwest Asia, which are directed toward the containment and deterrence of Iraq, the document lists “troop strength” levels (including Guard and Reserve troops) of 3,550 for Army Requirements, 15,691 for Navy Requirements, 426 for Marine Corps Requirements, 8,457 for Air Force Requirements and 40 for Defense Health Program Requirements for a total of 28,164 troops. The document also shows expenditures for Southwest Asia under Defense-Wide Requirements but does not list troops in this category. Presumably, the U.S. also undertakes other surveillance and intelligence-gathering activities to contain Iraq (including CIA and State Department activities) that are not reflected in this document.

Prior to the recent build up of U.S. and British forces, Iraq had for several years refused U.N. weapons inspections. See, for example, the testimony of General Tommy R. Franks before the U.S. Senate Committee on the Armed Services on 19 September 2000: “Iraq’s WMD capabilities remain a key concern. It has been more than a year and a half since UN weapons inspections last occurred in Iraq, and Saddam Hussein has thus far refused new inspections.” Iraq has a long history of stalling, evading, undermining and circumventing the U.N. weapons inspection process, as related in chapter 3 of The Threatening Storm by Kenneth Pollack. Even on the brink of war, Iraq continues to resist and impede U.N. weapons inspections, often with considerable success. See, for example, “U.N. Withdraws U-2 Planes,” New York Times, 12 March 2003. Given this history and the Iraqi regime’s continued resistance to inspection and disarmament, an effective containment policy would require a substantially larger commitment of U.S. military resources than past efforts.

See the CBO report cited above.

General Franks’ testimony (see note 4) indicates that there are about 30 navy ships and 200 aircraft involved in Iraqi containment as of 2000. The CBO estimates that the average shipbuilding rate necessary to maintain a 300-ship Navy is 8.5 per year at a cost of $10.8 billion, so capital costs for 30 “average” ships is $38.1 billion. The same CBO document estimates the annual expenditures for 148 aircraft at $10.2 billion, so the capital cost of 200 “average” aircraft is about $15.3 billion. See Tables 4 and 5 in
We assume costs of operation and depreciation of 10 percent on $53.4 billion, or $5.4 billion per year. Adding this figure to our estimate of $7.5 billion for personnel costs yields a containment cost of $12.9 billion per year. As a check on this containment cost figure, consider an alternative calculation that draws on somewhat different inputs. First, note that Table 5 in “Budgeting for Naval Forces” provides a figure $94.7 billion as the annual cost of maintaining a 300-ship navy (excluding $10.3 billion for research and development). This figure encompasses procurement costs, operating costs, personnel costs, military construction and other items. The implied all-in cost for an “average” 30-ship naval force is about $9.5 billion per year. Second, recall from the President’s FY 2001 Budget Submission (note 4) that naval forces account for about 15,700 out of 28,200 military personnel devoted to the containment of Iraq. Multiplying $9.5 billion by (28.2/15.7) yields $17 billion per year. This figure is substantially larger than the $13 billion figure we calculated under the first approach. We stick with the $13 billion figure for the calculations in the text, because personnel may account for a substantially smaller share of total costs in the navy than in the other branches of the U.S. military, which would mean that the $17 billion figure is too high.

8 It may be helpful to compare this figure for the flow costs of containment to the size of the U.S. defense budget. The U.S. House approved a $355 billion defense budget for Fiscal Year 2003 on October 10, 2002 (http://usinfo.state.gov/topical/pol/terror/0210105.htm). Thus, $19 billion amounts to about 5.4 percent of the U.S. defense budget.

9 There are currently 37,000 U.S. military personnel stationed in South Korea and another 45,000 in nearby Japan. See Robert Burns (AP Military Writer), “Rumsfeld: Move U.S. Troops from Korea DMZ,” AP Online, March 6, 2003, available at www.austin360.com/aas/news/ap/ap_story.html/Intl/AP.V0317.AP-US-Troops-Korea.html. The United States also relies on additional military resources to contain and deter North Korea. For example, Burns writes that “In response to recent North Korean moves to reactivate its nuclear weapons program, the Pentagon this week is sending 12 B-52 bombers and 12 B-1 bombers from U.S. bases to Guam, within striking distance of the Korean peninsula.”

10 Two percent per year is a reasonable figure for the real rate of interest facing the U.S. government.

11 This figure of $380 billion is our estimated cost of a “pure” containment policy that does not involve the possibility of a future war. Factoring in the possibility of a future war will not alter the conclusion that war today is less costly than containment. If we assign some probability to a future war with Iraq under a policy of containment, and a future war is just as costly as a current war, then the cost of containment becomes a weighted average of the cost of war and the cost of a pure containment policy. However, the assumption that a future war would cost no more than one fought today may be
unduly optimistic. In a recent interview with the New York Times, Kenneth Pollack argues that “The choice we have before us is we either go to war now or we will never go to war with Saddam until he chooses to use a nuclear weapon and he chooses the time and place. The question for me is not war or no war. It’s a question of war now, when the costs may be significant, or war later when they may be unimaginable.” This quotation is drawn from “Some of Intellectual Left’s Longtime Doves Taking the Role of Hawks” by Kate Zernike, 14 March 2003.

12 Fifty billion dollars is a highly conservative estimate for the cost of 9/11. Jason Bram, James Orr and Carol Rapaport estimate direct costs of the attack on the World Trade Center – “comprising earnings losses, property damage, and the cleanup and restoration of the site” – of $33 billion to $36 billion. See “Measuring the Effects of the September 11 Attack on New York City,” Economic Policy Review, Federal Reserve Bank of New York, November 2002. However, their calculations understate the direct costs, because they equate the value of lost lives to the value of foregone earnings. In fact, as common sense suggests and economic analysis shows, a lost life is worth more than foregone earnings. Kevin Murphy and Robert Topel estimate that the value of a human life is about three times as large as income earning capacity. See the “Value of Health and Longevity”, University of Chicago, 2002. Tripling the Bram et al. estimate of lost earnings yields a figure of about $50 billion for the direct costs of the 9/11 attack on the World Trade Center.

13 A 5 percent annual probability of a $50 billion attack translates into an expected loss of $2.5 billion per year. Discounting a flow of $2.5 billion per year at 5 percent yields an expected present value of $50 billion. Adding this amount to $380 billion yields $430 billion.

14 Bart Hobijn estimates that the 9/11 attacks will lead to $72 billion per year in additional public- and private-sector spending for U.S. homeland security. New security measures will impose other costs as well. For example, Hobijn estimates that longer airport check-in and security procedures alone will cause a loss of time valued at $12 billion per year. See “What Will Homeland Security Cost?” Economic Policy Review, Federal Reserve Bank of New York, November 2002.

15 According to Nordhaus (2002, page 53), Iraqi “GDP per capita peaked in 1979 at around $9,000 in 2002 prices.” Based on available data, which are sketchy, he estimates that Iraqi “per capita income was in the range of $1,000-1,200 in 2001.” The more optimistic figure for 2001 implies an 87 percent decline in per capita income since 1979. However, as a gauge for the change in living standards wrought by the regime of Saddam Hussein, this calculation suffers from at least three problems. First, a PPP-adjusted measure of real GDP would probably show a smaller percentage decline, because imports accounted for a larger fraction of the Iraqi consumption bundle in 1979. Second, temporarily high oil prices in 1979 boosted Iraqi per capita GDP by 20 percent or more. Absent major advances in Iraqi productivity, the 1979 level of GDP per capita was not sustainable in the face of later declines in the price of oil. Third, the militarization of Iraqi
society under Saddam means a declining share of GDP available for private sector consumption. This third effect cuts in the opposite direction from the first two. We do not quantify these three effects, nor are we aware of another study that does so. However, in light of these observations and the limited data, it is reasonable to conclude that the current Iraqi regime has caused real income per capita to decline by at least 75 percent relative to pre-1979 levels.

16 Nordhaus (2002, page 52): “Under sanctions, oil production during the 1991-2002 period averaged 1.4 million bpd. Assuming Iraq could have produced 3 millions bpd during this period, the revenue shortfall since the first Persian Gulf War was about $150 billion.” These figures imply that the annual revenue shortfall from lost oil production has been about $12.5 billion per year. However, this figure is almost certainly too low, if the comparison benchmark is an Iraqi economy with ready access to export markets and international oil exploration and extraction technologies. Quoting Nordhaus (page 72) again, “after two decades of war and sanctions, Iraq’s oil infrastructure is poorly maintained and plagued by technical difficulties. From a peak of around 3.5 million bpd in 1979, Iraq’s current capacity declined to about 2.8 and 3.0 million bpd in 2002. Oil production in 2001 was close to capacity at 2.5 million bpd. Experts believe that, if restructuring operations can operate effectively, Iraq’s production capacity can be raised to between 3 and 4 million bpd within two years.” In addition, “Iraq has enormous reserves relative to its current production … Iraq has negotiated $40 billion of contracts with Russia, China, and France to develop approximately 5 million bpd of new capacity.”

17 Iraq employs nearly 500,000 persons in various intelligence, security and police organizations and a total of nearly 1.3 million when the armed forces and paramilitary units are included (The Threatening Storm, pages 116-117). Despite the sanctions imposed on Iraq after the Gulf War, the regime “embarked upon a series of costly projects to build victory monuments and palaces for Saddam (fifty of them at last count), which cost Iraq as much as another $2.5 billion per year. “Many of the fifty new palaces Saddam has built for himself since the Gulf War have gold-plated faucets and artificial rivers, lakes, and waterfalls that employ pumping equipment that could have been used to address the country’s desperate water and sanitation problems.” (The Threatening Storm, pages 131 and 135).

18 The appendix describes these calculations in detail.

19 Many have speculated that Iraq will sabotage its own oil wells if U.S. forces invade, which would certainly raise the costs of war. The Kuwaiti experience, after sabotage by Iraqi troops in 1991, suggests that the impact of sabotage would not be long lived. In 1991, “Iraqis detonated hundreds of mines throughout Kuwait’s fields. They blew up pipelines, storage tanks and gathering facilities, where freshly pumped oil is piped for initial processing. They also torched about 700 wells.” As a result, “petroleum geologists and engineers said Kuwait’s reservoirs were irreparably damaged.” Such predictions proved incorrect: “It took Kuwait three months to return to exporting significant amounts of oil, and 21 months to restore its preinvasion production levels.” See “Iraqi Sabotage of

In The Threatening Storm, Kenneth Pollack recounts the following: (1) 200,000 Iraqi troops killed in battle during the 1980-1988 war with Iran, and another 400,000 to 500,000 wounded. (Page 24) (2) In reprisal for Kurdish assistance to the Iranians in the Iran-Iraq war, the Iraqi regime slaughtered Kurds and destroyed their homes in 1988 and 1989. “When the campaign finally ended in 1989, some two hundred thousand Kurds were dead, roughly 1.5 million had been forcibly resettled, a huge swatch of Kurdistan had been scorched by chemical warfare, and four thousand towns had been razed.” (Page 20) (3) The Gulf War initiated by Saddam “probably caused no more than 10,000 to 30,000 Iraqi military casualties and another 1,000 to 5,000 civilian casualties.” (Page 139) (4) In 1991, after the Gulf War, “anywhere from 30,000 to 60,000 Shi’ah were killed in the suppression of the intifadah in the south.” (Page 51) (5) In 1992 and 1993, the regime drained about 4,500 square kilometers of wetlands in the south. “In so doing, [the regime] created an ecological catastrophe and destroyed the way of life of several hundred thousand Marsh Arabs who had made their homes among the rushes and reeds for more than a millennium.” (Page 125) (6) In addition, perhaps 200,000 or more Iraqis have died after the Gulf War and the postwar intifadah through some combination of sanctions and internal repressions. (Pages 138-139) More than half of the premature deaths were children under five. The issue of child deaths has attracted much attention; see “The Politics of Dead Children: Have sanctions against Iraq murdered millions?” by Matt Welch, ReasonOnline, March 2002 at reason.com/0203/fe.mw.the.shtml. Welch cites Richard Garfield, Clinical Professor of International Nursing at Columbia University, as the most credible source for estimates of how sanctions have affected mortality among Iraqi children. According to Welch, “Garfield concluded that between August 1991 and March 1998 there were at least 106,000 excess deaths of children under 5, with a ‘more likely’ worst-case sum of 227,000. (He recently updated the latter figure to 350,000 through this year.) Of those deaths, he estimated one quarter were ‘mainly associated with the Gulf war.’ The chief causes, in his view, were ‘contaminated water, lack of high quality foods, inadequate breast feeding, poor weaning practices, and inadequate supplies in the curative health care system. This was the product of both a lack of some essential goods, and inadequate or inefficient use of existing essential goods.’ ” Welch concludes “It seems awfully hard not to conclude that the embargo on Iraq has been ineffective (especially since 1998) and that it has, at the least, contributed to more than 100,000 deaths since 1990. With Bush set to go to war over Saddam’s noncompliance with the military goals of the sanctions, there has never been a more urgent time to confront the issue with clarity.”

Despite their sobering quality, the raw numbers fail to convey the sheer horror inflicted by the current Iraqi regime on its own unfortunate subjects. As Kenneth Pollack writes on page 123 of The Threatening Storm, “This is a regime that will gouge out the eyes of children to force confessions from their parents and grandparents. This is a regime that will crush all of the bones in the feet of a two-year old girl to force her mother to divulge her father’s whereabouts. This is a regime that will hold a nursing baby at arm’s length
from its mother and allow the child to starve to death to force the mother to confess. This is a regime that will slowly lower its victims into huge vats of acid, either to break their will or simply as a means of execution. This is a regime that applies electric shocks to the bodies of its victims, particularly their genitals, with great creativity. This is a regime that in 2000 decreed that the crime of criticizing the regime (which can be as harmless as suggesting that Saddam’s clothing does not match) would be punished by cutting out the offender’s tongue. This is a regime that practices the systematic rape against its female victims. This is a regime that will drag in a man’s wife, daughter, or other female relative and repeatedly rape her in front of him. This is a regime that will force a white-hot metal rod into a person’s anus or other orifices. This is a regime that employs thalium poisoning, widely considered to be one of the most excruciating ways to die. This is a regime that will behead a young mother in the street in front of her house and children because her husband was suspected of opposing the regime. This is a regime that used chemical warfare on its own Kurdish citizens—not just on the fifteen thousand killed and maimed at Halabja but on scores of other villages all across Kurdistan. This is a regime that tested chemical and biological warfare agents on Iranian prisoners of war, using the POWs in controlled experiments to determine the best ways to disperse the agents to inflict the greatest damage.”

22 *The Threatening Storm*, page 139.