War in Iraq: Preliminary Defence and Reconstruction Costs
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11 April 2003
Acknowledgements

For their assistance with this paper I would like to thank the members of the Economics Group of the Information and Research Services, as well as all the other fine minds that participated in the original Exploratory Workshop,

Enquiries

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Contents

Executive Summary .................................................. i
Introduction ........................................................ 1
    Historical Precedents............................................ 1
    Reconstruction and Humanitarian Assistance .................... 3
    Direct Military Costs ........................................... 3
    Occupation and Peacekeeping .................................... 3
US Cost Scenarios .................................................. 4
    Lowest Costs ................................................... 4
    Highest Costs ................................................... 4
Australian Costs ................................................... 4
    Reconstruction and Humanitarian Assistance .................... 4
    Direct Military Costs ........................................... 5
    Other Incalculable Costs ....................................... 6
Implications and Consequences for Australia ....................... 6
Conclusion ................................................................ 7
Endnotes ................................................................ 7

List of Tables
Table 1: Historical Costs of Conflicts—United States .................. 2
Table 2: Historical Costs of Conflicts (not Exhaustive)—Australia ........ 2
Table 3: Recent Australian Government Contributions to Humanitarian Assistance .... 5
Table 4: Direct Military Costs of Operations Bastille and Falconer ............ 5
Executive Summary

For all the flash and fury of the media reports, the war in Iraq is a small war. For the US—in terms of proportion of GDP—and while it may not yet be over, it is likely to cost less than the 1991 Gulf War,¹ barely half of what the Mexican War or the 1898 Spanish–American War cost, and about ten per cent of the cost of the Korean War. For Australia, the direct costs as a proportion of GDP are in the order of low fractions of one per cent, as would be expected for a 'discretionary' war. Nevertheless, historical evidence shows that nations tend to underestimate the likely costs of new wars.

However, precedents ranging from Japan and Korea, and more recently the conflict in Kosovo, suggest that most of the costs for the combatants will be incurred in the post-war period due to the military costs of peacekeeping, as well as the financial costs of reconstruction and humanitarian relief. Indeed, historic precedent suggests that the combatants may not be in a situation to leave Iraq for between five and ten years.

The following table summarises the likely costs for the US and Australia of the war in Iraq.

<table>
<thead>
<tr>
<th>Nation</th>
<th>Short War</th>
<th>Humanitarian and reconstruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>Combat: US$44 billion – US$60 billion</td>
<td>US$320 million to US$1.6 billion</td>
</tr>
<tr>
<td></td>
<td>Occupation: US$75 billion</td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td>Combat: A$154 million</td>
<td>Aid: A$100 million</td>
</tr>
</tbody>
</table>
Introduction

*It cost about 75 cents to kill a man in Caesar's time. The price rose to about $3,000 per man during the Napoleonic wars; to $5,000 in the American Civil War; and then to $21,000 per man in World War I. Estimates for the future wars indicate that it may cost the warring countries not less than $50,000 for each man killed.*

Senator Homer T. Bone (Dem. Washington, speaking before the start of WWII)

Writing in the middle days of April 2003 it seems that the war in Iraq rests on a knife's edge, and it is not possible to guess how much longer the campaign will be. While diplomats and generals shuttle between telephones and maps, analysts throughout the world have been attempting to determine the impact of this war upon their national treasuries and the global economy at large.

Past conflicts can only provide general guidance. As shown below, governments have a history of underestimating the cost of wars either because of ignorance, or because of a desire not to scare the voters. The truth in such cases is left to the historians.

There is little doubt that the United States will carry the major proportion of the costs associated with the war in Iraq. This includes not just the direct military costs but also the costs of humanitarian assistance and national reconstruction over the years following the war. Nevertheless, the global cost of the macroeconomic effects and of the uncertainty arising out of the conflict will be felt, and paid for, by all nations. As a significant exporter and participant in the 'coalition of the willing' Australia will suffer economic pain because of this war. Whether the economic impacts are merely high or ruinous will depend on the outcome of the war, its impact on the surrounding region, and the level of uncertainty that it leaves as a legacy to the world economic order.

This brief addresses some of the major constituents of the overall cost of the war, both to the US and to Australia. Given the obvious uncertainty about how the war will play out, this brief provides only estimates for the most likely scenario.

**Historical Precedents**

History is not kind to analysts who predict the cost of future wars. Maybe the best example of this comes from the US Civil War. President Lincoln's Secretary of the Treasury predicted that the war would cost some $240 million or about seven per cent of the North's GDP. The actual cost to the North was $3200 million or roughly thirteen times the predicted cost. The proclivity of the United States to engage in significant wars, allied to
its trusted system of economic statistics allows for an examination of the impact of such
wars over the decades. A summary can be seen in Table 1 below.

Table 1: Historical Costs of Conflicts—United States

<table>
<thead>
<tr>
<th>Conflict</th>
<th>Total Direct Cost of Wars (in US$ billions)</th>
<th>Per Capita Cost</th>
<th>Cost</th>
<th>Percentage of annual GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revolutionary War (1775–1783)</td>
<td>0.1</td>
<td>2.2</td>
<td>447</td>
<td>63</td>
</tr>
<tr>
<td>War of 1812 (1812–1815)</td>
<td>0.09</td>
<td>1.1</td>
<td>120</td>
<td>13</td>
</tr>
<tr>
<td>Mexican War (1846–1848)</td>
<td>0.07</td>
<td>1.6</td>
<td>68</td>
<td>3</td>
</tr>
<tr>
<td>Civil War (1861–1865)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Union</td>
<td>3.2</td>
<td>38.1</td>
<td>1357</td>
<td>84</td>
</tr>
<tr>
<td>- Confederate</td>
<td>2.0</td>
<td>23.8</td>
<td>2749</td>
<td>169</td>
</tr>
<tr>
<td>- Combined</td>
<td>5.2</td>
<td>62.0</td>
<td>1686</td>
<td>104</td>
</tr>
<tr>
<td>Spanish American War (1898)</td>
<td>0.4</td>
<td>9.6</td>
<td>110</td>
<td>3</td>
</tr>
<tr>
<td>World War I (1917–1918)</td>
<td>16.8</td>
<td>190.6</td>
<td>2489</td>
<td>24</td>
</tr>
<tr>
<td>World War II (1941–1945)</td>
<td>285.4</td>
<td>2896.3</td>
<td>20388</td>
<td>130</td>
</tr>
<tr>
<td>Korea (1950–1953)</td>
<td>54.0</td>
<td>335.9</td>
<td>2266</td>
<td>15</td>
</tr>
<tr>
<td>Vietnam (1964–1972)</td>
<td>111.0</td>
<td>494.3</td>
<td>2204</td>
<td>12</td>
</tr>
<tr>
<td>First Persian Gulf War (1990–1991)</td>
<td>61.0</td>
<td>76.1</td>
<td>306</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: US Commerce Department. Costs are direct budgetary costs only and do not include post-war costs of veterans’ pensions and health benefits.

The costs of the more significant or recent conflicts for Australia are included in Table 2 below:

Table 2: Historical Costs of Conflicts (not Exhaustive)—Australia

<table>
<thead>
<tr>
<th>Military Conflicts (not exhaustive)</th>
<th>Cumulative costs at the time (A$m)</th>
<th>Cost in 2002 dollars (A$m)</th>
<th>Per capita cost ($)</th>
<th>Percentage of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>World War I (1914–1918)</td>
<td>1 423.2</td>
<td>57 300</td>
<td>286.40</td>
<td>124</td>
</tr>
<tr>
<td>World War II (1939–1945)</td>
<td>4 988.5</td>
<td>144 900</td>
<td>665.10</td>
<td>165</td>
</tr>
<tr>
<td>Vietnam (1962-72)</td>
<td>218.4</td>
<td>1 490</td>
<td>16.80</td>
<td>0.47</td>
</tr>
<tr>
<td>Gulf War (1990-92)</td>
<td>96</td>
<td>115</td>
<td>5.64</td>
<td>0.02</td>
</tr>
<tr>
<td>East Timor (1999–2003)</td>
<td>3 683</td>
<td>3 369</td>
<td>177.32</td>
<td>4.7</td>
</tr>
</tbody>
</table>

(Note: proportion of GDP is calculated from the total cost of the conflict as a proportion of the GDP for the final year of the conflict.)
As would be expected, wars of survival such as the WWII cost upwards of one year's GDP, while more recent 'wars of choice', such as Somalia or the First Gulf War, incurred costs representing very small fractions of one year's GDP.

**Reconstruction and Humanitarian Assistance**

While it is difficult to guess before the war ends what the eventual requirements will be for reconstruction and humanitarian assistance, the conduct of the war thus far has proven false the earlier expectations of a massive efflux of refugees. However, this may place even greater burdens on the civil infrastructure of a shattered Iraq.

The predictions that some 10 million (or 40 per cent of the Iraqi population) would require emergency assistance appear likely.\(^3\) As has arguably been the case in recent humanitarian emergencies, there is a difference between the perceived requirement and the level of humanitarian aid and support actually provided. As an example, in the recent intervention in Afghanistan, the requirement for humanitarian and reconstruction aid was estimated at US$10 billion, while the funds actually pledged only totalled US$2 billion.\(^4\)

If we accept that the requirement for assistance for Iraq would be similar to that in Kosovo and the Former Yugoslavia, then Iraqi refugees could expect approximately US$160 per person.\(^5\) Consequently, the expectation for humanitarian aid ranges from US$320 million to US$1.6 billion.\(^6\)

**Direct Military Costs**

The best analysis of the US military costs of a war in Iraq is the one provided by Professor William Nordhaus.\(^7\) His estimates, based on work from the Congressional Budget Office and others, suggests that the cost of a short and successful war would be around US$50 billion. Professor Nordhaus estimates that if the war became a matter of protracted urban warfare, then the US military costs would climb to about US$140 billion. It is important to note that these costs are for the conflict itself and do not include any consideration of the, likely larger, costs of peacekeeping after the conflict.

**Occupation and Peacekeeping**

Given the historic requirements for occupation and peacekeeping in locations such as Japan post-WWII, Korea in the mid-1950s, Bosnia and Kosovo, Nordhaus suggests that the coalition would require between 75 000 and 200 000 troops for duties in Iraq for a period lasting between six and ten years. The cost of this undertaking is given as between US$75 billion and US$500 billion. Despite their enormous size, the US land forces would be unable to maintain a commitment of 200 000 troops for peacekeeping purposes for any extended period. Under such circumstances, there would be significant pressure on all members of the 'coalition of the willing', including Australia, and perhaps other UN members, to commit ground forces for occupation and peacekeeping duties.
US Cost Scenarios

The US government has studiously avoided releasing any estimates of the likely cost of the war in Iraq. This vacuum has been filled by a broad range of think-tanks and commentators from across the political spectrum. Below are listed the more credible estimates for the lowest and highest costs of the war.

Lowest Costs

Estimates from the US Democratic Staff of the House Budget committee suggest that a quick war lasting about as long as the 1991 Gulf War would cost somewhere between US$48 billion and US$60 billion. This compares favourably with the actual cost of the 1991 Gulf War which, in 2002 dollars, cost some US$80 billion. Of course, in 1991 the bulk of the costs was shouldered by nations such as Japan and others which did not provide combat forces. It is expected that in the current situation the US will have to pay all its own costs.

Highest Costs

The costs of this military intervention would escalate significantly if the military advance is stalled by stubborn Iraqi resistance in the built-up urban areas of Baghdad or other Iraqi cities, or if the conflict widens as a result of opportunistic interventions by Iraq's neighbours such as Iran, Syria, or Turkey. In his study, Professor Nordhaus quotes figures from the Congressional Budget Office for a six-month campaign that would be in the order of US$160 billion.  

To put these costs in context, a halfway cost of US$100 billion would be:

- three times what the US federal government spends on primary and secondary education
- enough to provide health care to all children in the US without medical insurance for a period of five years, and
- more than four times the US international affairs budget.

Australian Costs

Reconstruction and Humanitarian Assistance

Over recent decades, Australian commitment to reconstruction and humanitarian assistance after military conflicts has been limited. The exception was East Timor where Australia committed significant funds, as would be expected for the lead nation in the recovery from conflict. The following table outlines recent examples:
Table 3: Recent Australian Government Contributions to Humanitarian Assistance

<table>
<thead>
<tr>
<th>Conflict</th>
<th>No. of Displaced Persons (approx)</th>
<th>Australian Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kosovo</td>
<td>860 000</td>
<td>A$6 million</td>
</tr>
<tr>
<td>Afghanistan</td>
<td>4.5 million (2001)¹⁰</td>
<td>A$53 million¹¹</td>
</tr>
<tr>
<td>East Timor</td>
<td>250 000</td>
<td>A$231 million</td>
</tr>
</tbody>
</table>

As of mid-April 2003, the Australian government has allocated some A$100 million for humanitarian relief in Iraq.¹² This consists of $17.5 million to UN humanitarian agencies, the Red Cross and Australian non-government aid agencies, as A$38 million which has been made available to cover the cost of 100 000 tonnes of wheat and A$45 million for milling, bagging and distribution of the wheat.

The Australian government has so far proceeded in an incremental fashion when committing aid to Iraq. It is quite conceivable that additional humanitarian aid will be pledged in the post-war period.

Direct Military Costs

The Australian contribution to the conflict is only about one per cent of the total combat troops is one which is much lighter and easy to deploy than the US or UK forces. Consequently, for a short war¹³ with no additional forces apart from those included in Operations Bastille and Falconer,¹⁴ the direct military costs would reach some A$154 million. These costs cover, in broad terms the additional costs incurred by the ADF to deploy 2 000 personnel to Iraq for a period of about three months and the daily direct costs of the ships and aircraft deployed to operations. It assumes that all troops, ships and aircraft survive the conflict. For aircraft, the figures have been calculated on the basis of an average of six flying hours per day.¹⁵ Details are provided in the table below.

Table 4: Direct Military Costs of Operations Bastille and Falconer¹⁶

<table>
<thead>
<tr>
<th>Daily Direct Costs (2000) ($)</th>
<th>Total ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAVY</td>
<td>63 772 900</td>
</tr>
<tr>
<td>HMAS ANZAC</td>
<td>215 479</td>
</tr>
<tr>
<td>HMAS DARWIN</td>
<td>279 826</td>
</tr>
<tr>
<td>HMAS KANIMBLA</td>
<td>142 424</td>
</tr>
<tr>
<td>RAAF</td>
<td>48 026 900</td>
</tr>
<tr>
<td>F/A-18 (4 hrs flying avg per day)</td>
<td>31 648</td>
</tr>
<tr>
<td>C-130 (6 hrs flying avg per day)</td>
<td>12 399</td>
</tr>
<tr>
<td>ARMY</td>
<td>2 100 900</td>
</tr>
<tr>
<td>CH-47 Chinook Helicopter</td>
<td>7 003</td>
</tr>
<tr>
<td>2000 personnel</td>
<td>40 000 000</td>
</tr>
<tr>
<td>Total Costs</td>
<td>153 900 700</td>
</tr>
</tbody>
</table>
The Australian government has made it clear that it does not intend to provide troops for occupation and peacekeeping purposes after the defeat of Saddam Hussein's regime. However, both HMAS KANIMBLA and HMAS SYDNEY, as well as SAS troops may remain in Iraq for some time. The above estimates do not include these costs.

While objectively large, the costs are best understood in context. The costs as estimated would be equivalent to:

- about 0.8 percent of the annual Defence budget
- $100 million less than the expected cost overrun in buying twelve additional troop carrying helicopters
- approximately equivalent to the annual budget of the Department of Prime Minister and Cabinet, or
- about the same as the total cost of running Parliament House for one year.

Other Incalculable Costs

Some costs and economic influences are currently impossible to calculate. These include:

- the effects on the tourism industry from reduced international arrivals and constrained airline schedules
- opportunity costs from government policy initiatives discarded or postponed due to the current focus on Defence expenditure, and
- the costs to regional centres with large defence communities which find local expenditure reduced as the ADF members are overseas and their families may move to larger cities to be with relatives.

Implications and Consequences for Australia

To a large extent Australia has proved itself to be largely immune to recent shocks. For example, despite the 1997 Asian financial crisis, the global shocks attending the September 11 attacks on New York and Washington and the terrorist attack on Bali, Australia has continued to enjoy positive growth in capital expenditure and in other measures as demonstrated by the record levels of new car sales. Nevertheless, the lessons from the war in Iraq may lead to significant shifts—with large attendant future expenditures—in the direction of the Defence Budget. Similarly, the Australian government may find itself bound to provide forces and funds to the reconstruction of Iraq over a protracted period of maybe up to ten years.
Conclusion

Whether the War in Iraq proves quick or protracted, the major cost of this endeavour will be the occupation, humanitarian and reconstruction costs after the war ends. Evidence from past conflicts suggest that the combatants will be required to provide troops for occupation as well as funds for nation building for a period of about five to ten years. Such participation will come, if Australia chooses to participate, at the cost of deferred domestic policy initiatives in areas such as health and education, as well as turmoil in the management and upgrade of the ADF military capabilities.

Furthermore, Australia, as a member of the 'coalition of the willing' may find itself unable to resist pressure from the United States to contribute peacekeeping troops as well as other government assistance to rebuild Iraq's shattered infrastructure. For Australia to refuse would put at risk the very closeness with America which Australia's participation in the war was intended to heighten.

Endnotes

1. However, unlike the case in 1991, the US will have to pay for the bulk of its costs.
5. UN Office for the Coordination of Humanitarian Affairs Consolidated Appeal Data, Global Humanitarian Assistance 2000.
6. The lower figure being just for the 2 million expected refugees, while the higher figure being for the 10 million people requiring assistance.
7. Nordhaus, loc cit.
13. A short war is deemed to be one in which the Australian contingent spends three months or less in the Area of Operations. This includes the pre-deployment period.

14. Operation Bastille covered the pre-deployment of forces to the Middle East, while Operation Falconer was the actual military conflict against Iraq.


16. ibid.