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## Economics of War with Iraq

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Economics of War with Iraq

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## **Introduction**

The purpose of this paper is to explore some possible effects of the war against Iraq on the international and Australian economies. Australia will be directly affected by higher oil prices, and indirectly through flow on effects from the rest of the world. In addition there has been massive uncertainty leading up to the conflict and this has had an adverse effect on business and consumer confidence. Beyond those observations there remain a good many unknowns. The conflict itself may not be contained in Iraq. On the one hand, Australia may be drawn into what is likely to be a very major humanitarian crisis with possibly hundreds of thousands of displaced persons in the region and throughout the world. On the other hand, an American military victory may encourage a new wave of terrorist activity. These and many other possible scenarios have been raised in recent discussions. Another scenario is a quick outcome with no further economic implications. That may involve a quick military victory without significant complications.

It is not the purpose of this paper to explore those possibilities but rather to trace through some of the effects of the war on not only oil prices but also the Australian and world economies. Australia will be affected directly by the war and also secondary effects through impacts on its trade with other countries. Of course, a lot will depend on the course of the war itself as well as the aftermath of war.<sup>1</sup> In addition there is an attempt to examine the implications for the May 2003 Budget.

## **Oil Prices**

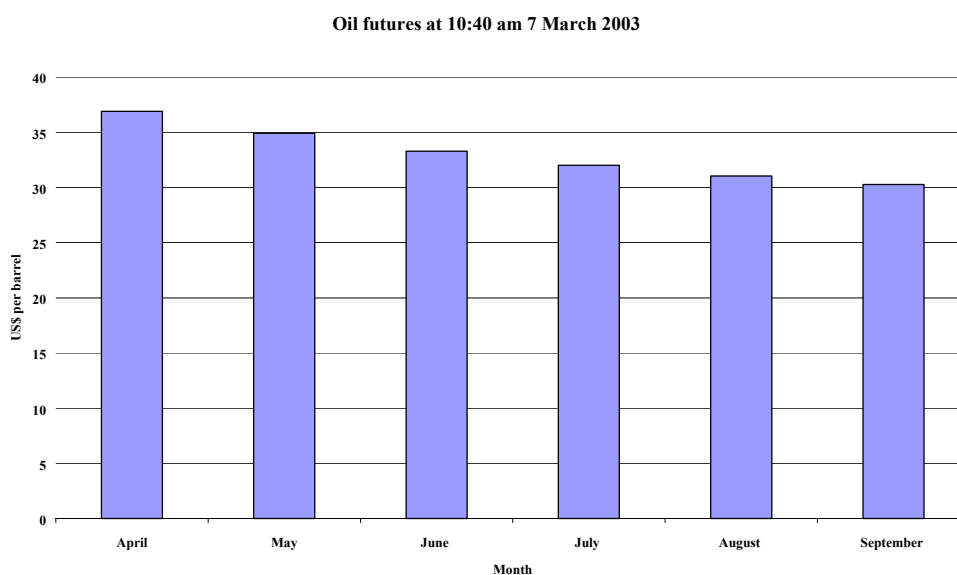
Any sort of uncertainty in the Middle East is serious because of the possible effects on oil prices and, in turn, the possible effects on the economies of the rest of the world. Iraq is particularly significant because its proven oil reserves are 112 billion barrels or about 10 per cent of the world's total. Iraq's reserves are second only to its neighbour Saudi Arabia. Further exploration is likely to significantly increase Iraq's proven reserves. Iraq's oil is also said to be very attractive because it is easy to recover and so production costs are among the lowest in the world.<sup>2</sup> Iraq's sustainable production is around 2.8 – 2.9 million barrels per day, with a net export potential of around 2.3 – 2.5 million barrels per day. Those figures compare with total world oil production of 68 million barrels per day and the Organisation of Petroleum Exporting Countries' (OPEC) production of 29 million barrels per day, or 42 per cent of the total.<sup>3</sup> The US is by far the biggest consumer of petroleum consuming 19.6 million barrels per day of which net imports are 10.9 million barrels per day.<sup>4</sup>

Iraq's production potential is limited by aging infrastructure in poor repair. UN sanctions prevent the importation of spare parts and other necessary equipment. The volume of Iraqi exports permitted under UN sanctions (the oil-for-food program) is much lower at around 1.6 million barrels per day; however, some additional oil is smuggled out of Iraq. According to the US Energy Information Agency some oil experts think that Iraq's oil production could double in the next few years provided sufficient investment were to be

made and the UN sanctions lifted.<sup>5</sup> The prospect of continued and possibly expanded Iraqi production is behind some of the optimistic scenarios examined below. Also important have been statements by the OPEC to the effect that they would be able to cover any reduction in supplies from Iraq, despite suggestions that OPEC is producing near full capacity.<sup>6</sup> Any increase in non-OPEC production would also help moderate oil prices. In the longer term supplies from non-traditional sources, including Central Asian members of the former Soviet Union, could put downward pressure on prices.

Oil prices have increased throughout most of 2002 and into 2003 from about US\$20 per barrel in mid 2002 to around US\$35 per barrel in early March 2003. There have been many commentators willing to suggest that oil prices may peak at much higher values. Bad case scenarios have been published that estimate oil prices increasing to US\$75 per barrel by George Perry from the Brookings Institute and US\$80 per barrel by the Centre for Strategic and International Studies.<sup>7</sup> While such figures tend to be reported by the press, it needs to be kept in mind that these are only worst case scenarios. Large sudden price increases cannot be ruled out. However, it is important to note that war with Iraq has been widely anticipated and we would expect that the effects of war would be anticipated in the markets and already be reflected in prices. Against that, some observers suggest that a quick war without damage to Iraq's oil wells would eliminate the war premium and reduce prices to figures around US\$20 per barrel.<sup>8</sup>

The forward markets can offer a useful insight into what the participants think will be the outcome of a war with Iraq. For example, on 7 Mar 2003 the New York Mercantile Exchange quoted oil futures showing the price for April 2003 delivery at US\$36.89 per barrel while for May, June, July, August and September respectively the prices decline to US\$34.91, US\$33.29, US\$32.01, US\$31.04 and US\$30.27 per barrel.<sup>9</sup> These figures are plotted in the following graph.



Source: NYMEX at [http://209.67.30.245/jsp/markets/lSCO\\_pre\\_agree.jsp](http://209.67.30.245/jsp/markets/lSCO_pre_agree.jsp)



The graph shows fairly clearly that the market expected the price of oil to remain relatively high into April but then subside gradually over subsequent months. That suggests the oil market anticipated a fairly quick end to the war. However, oil prices were not expected to return to around US\$25 where they tended to hover in the first half of 2002. There may have been some anticipation of some longer term supply problems as part of the outcome of the war. It also needs to be pointed out that the high prices to mid-March may have reflected a number of other factors such as the unusually cold winter in the northern hemisphere, the low level of US oil reserves and the political turmoil in Venezuela.<sup>10</sup> Venezuela is normally one of the world's top 10 oil producers at around 3 million barrels per day, but Venezuela's production was almost shut down as a result of the turmoil.<sup>11</sup> Since the high mid-March prices, war became inevitable and then a fact. As a result oil prices have actually fallen to just under US\$27 on Friday 21 March while, significantly, the price for September delivery had fallen to US\$25.46, just above the US\$25 level maintained in the first half of 2002.<sup>12</sup> Of course, it seems counter-intuitive for the oil prices to fall as the war became a fact. However, the market would appear to be expecting a short war with little disruption to Iraq's oil production.

## Effects of Higher Oil Prices

Oil price increases act like a tax on fuel that is collected by oil producers and transfers income from users to producers. It increases the burdens on users, and when the users are businesses, it increases the costs that they are likely to pass on to the consumer. The oil 'tax' also involves major changes to international trade and investment flows.

The 1970s oil price increases were associated with major disruptions to economic activity sparking international recession as well as inflation. The term 'stagflation' was introduced to refer to the unusual combination of both higher inflation and unemployment that began during this period. The International Monetary Fund (IMF) has done some work on the specific effects of higher world oil prices. Modelling the effect of a permanent US\$5 per barrel increase in oil prices the IMF finds that world GDP would fall by 0.2 per cent in year one and 0.3 per cent in years two and three. There would be a roughly equal transfer of GDP (also around 0.2 per cent) to oil producing countries from oil importing countries with additional transfers within countries. The following table presents the IMF's results.

Oil price increase of US\$5 per barrel

	Effects on real GDP		
	first year	second year	third year
All industrial countries	-0.2	-0.3	-0.3
US	-0.3	-0.4	-0.4
Euro area	-0.2	-0.4	-0.4
Japan	-0.1	-0.2	-0.3

Source: IMF, The impact of higher oil prices on the global economy, 8 December 2000 at <http://www.imf.org/external/pubs/ft/oil/2000/index.htm>

The reasons for the effect of oil prices on major economies is not difficult to understand. It was pointed out above that the US imports 10.9 million barrels per day. A US\$10 per barrel increase in oil prices increases the US import bill by just under US\$40 billion per annum.

BIS Shrapnel thinks that the impact of a US\$5 per barrel oil price increase would have an impact on Australia similar to that on all industrial countries.<sup>13</sup> It thinks the main impact would be through lower world growth causing a reduction in Australia's exports. For example, a slowdown in Asia is likely to cause a reduction in Australia's exports to Asia. An important qualification noted by the Reserve Bank of Australia (RBA), is the fact that Australia is a net exporter of energy. So while the RBA suggests that a 10 cent increase in retail petrol prices reduces household purchasing power by around \$300 per annum, or 0.5 per cent of household disposable income, it notes that many people and firms will actually benefit from oil price increases.<sup>14</sup> Certainly corporations and people working in the Australian petroleum industry would benefit. If oil price increases persist then the benefits could well spread to alternative energy suppliers, natural gas producers through to steaming coal producers.

It is useful to get some indication of the impact of oil prices on Australia's inflation. On the basis of figures published in the 2000–01 budget papers<sup>15</sup> there is a very close correlation between international oil prices and Australian domestic prices. That relation suggests that every US\$10 per barrel increase in oil prices means 29 Australian cents on domestic fuel prices. Given the CPI weighting for automotive fuel, that means a 1.37 per cent increase in the CPI.<sup>16</sup> Of course the fuel price increase is likely to be spread out over two or three quarters, but that may induce second round effects through increased wage claims and price setters passing on their increased fuel bills. Oil users and consumers can be expected to resist a reduction in their real income by such means. In that case the initial 1.37 per cent increase in the CPI may end up as an increase many times as large. For example, if price setters and wage earners are both able to pass on 50 per cent of their own increase in costs then the ultimate increase in the CPI may be of the order of 2.75 per cent.

## **Other Macroeconomic Implications**

Oil prices will play a large part in the eventual outcomes of the war with Iraq. However, there are more than just the direct effects of oil prices involved. The world economy is going through a period of volatility and uncertainty partly associated with geo-political concerns. All economic commentators refer to the present uncertainty and its effects on both investors and consumers. In the case of Iraq, political uncertainty also has a direct impact on the rest of the world through oil prices. A common view seems to be that the uncertainty relates to the immediate future and that, once the Iraq problem is out of the way, everything will be clearer. For example, in his testimony to the US Congress, the chair of the Federal Reserve Board, Alan Greenspan, anticipates 'the removal of the Iraq-related uncertainties'<sup>17</sup> that seem to be complicating the present view of the world economy. Another observer has said:

The common, hopeful view on Wall Street is that a short, decisive victory in a war with Iraq wouldn't cost much and would lead to a big stock market rally, which would be good for investor and consumer confidence.<sup>18</sup>

While a war would obviously put pressure on the budget balance that in turn can have other implications for the economy as a whole. War is not necessarily bad for the economy. It is now well known that the rearmament of the major powers in the late 1930s and 1940s, before and during the Second World War, was associated with the end of the great depression of the 1930s. As one student of this period puts it:

The Second World War brought the era of the Depression to a sudden and dramatic end, as the entire resources of the major countries were absorbed in the military struggle. With the outbreak of hostilities, full employment was fairly swiftly achieved everywhere.<sup>19</sup>

Obviously there is nothing on the horizon that looks anything like the Second World War, but there is likely to be some fiscal stimulus nevertheless. The 2002–03 budget papers note that fiscal stimulus generally has the effect of supporting the aggregate level of economic activity. As the 2002–03 budget papers put it:

Expansionary fiscal policy settings in 2000–01 and 2001–02 helped Australia maintain solid economic growth relative to other developed countries during a period of weakness in the international economy ... A large part of the stimulus in 2001–02 was unavoidable given the impact of high priority defence and domestic security expenditure. This outcome is appropriate given Australia's recent economic circumstances and international developments.<sup>20</sup>

To the extent that there are under-utilised resources in Australia, government spending can lead to an increase economic activity and employment. However, the fiscal stimulus must be put in the context of the damaging effects of the uncertainty facing the world economy. The uncertainty surrounding the war is undoubtedly having a negative effect on investment and consumption decisions all around the world. Given that the fiscal stimulus is rather small even in the US, it might be expected that the uncertainty will more than offset any stimulus. However, a short quick war would remove uncertainty allowing the fiscal stimulus to dominate. In this context there are some forecasts that suggest the outcome could be positive for the UK economy, for example. Oxford Economic Forecasting made such a forecast showing modest GDP increases of around 0.2 per cent in the UK as a result of the stimulus from military spending.<sup>21</sup>

Newsletter Economic Scenarios has attempted to model the economic effects of a hypothetical Iraqi war on the Australian economy.<sup>22</sup> The outcome of the Economic Scenarios modelling is that, over the period 2003–10, Australia would experience a loss in GDP equivalent to US\$18 billion in the short war scenario (war is over in 2003 and rebuilding takes two years) or US\$69 billion in the long war scenario (conflict and occupation of five years and five years of rebuilding). Using exchange rates at close of business 26 February 2003 puts the loss in GDP at \$30 billion (short) to \$114 billion (long). These results suggest a very significant adverse impact on Australia. However, those results reflect the nature of the economic model and some possibly extreme assumptions, including that:

- Australian government defence outlays increase by one per cent of GDP in 2003 and either 1 or 0.5 per cent for the next few years depending on the scenario
- oil prices jump immediately to US\$80 per barrel and then either slowly return to near normal or return quickly depending on the scenario, and
- uncertainty has an effect equivalent to investors demanding 5 per cent in greater returns on their investments causing investment outlays to fall. That premium on investments fades away either slowly or quickly depending on the scenario.

The first assumption is just a guess based on Congressional Budget Office estimates that the US will spend something of that order and that small countries involved will likely spend similar amounts as a share of GDP. One percent of Australia's GDP is around \$7 billion. Access Economics puts the likely costs of war at around \$700 million for a three month engagement—a tenth of the Economic Scenarios assumption. Access Economics also estimates that over \$200 million has already been spent in pre-deployment.<sup>23</sup> Even then, reallocating resources within the Defence Department could absorb a good deal of the \$700 million. The Economic Scenarios study received headlines because it purported to show a massive cost to the Australian economy as a result of war in Iraq. However, those models are only as good as the assumptions on which they rest, and if the assumptions are extreme then results will be unrealistic.

The second and third assumptions seem arbitrary. All we know is that both of these magnitudes, oil prices and investment premiums, are likely to increase but there is little we can say beyond that. However, US\$80 seem to be a 'worse case' scenario. It is even possible, as suggested above, that any impact on oil prices has already been factored into the present market prices and there may be little further movement in the event of war.

Any attempt to model the likely war also risks omitting important variables. Economic Scenarios does not mention the effects on exchange rates, gold and other commodity prices (including substitute energy prices) and consumer confidence effects for example. No doubt as the war progresses many more factors will become apparent.

Models such as the one used by the IMF and Economic Scenarios do attempt to capture the inter-country links, including trading relations throughout the world. Australia's trade with the Middle East is likely to be damaged. One of the lessons Australia learned from the Asian crisis beginning in 1997 is that commodity exporters tend to find alternative markets relatively easily. It is not so easy to find alternative markets for manufactures such as motor vehicles.<sup>24</sup> Hence depending on the severity of the war and its aftermath there could be some long-term damage to Australian businesses that supply manufactured goods to Iraq and the Middle East generally. Motor vehicles are now Australia's main export to the Middle East with a value of \$1.83 billion in 2002. In 2003 General Motors Holden expects to sell 25 000 vehicles worth \$750 million while Toyota Motor Corporation Australia Limited plans to export vehicles worth \$1.5 billion with the Middle East being Toyota Australia's main market. The Middle East is also an important destination for live

sheep and dairy products.<sup>25</sup> While the Middle East is important for many of Australia's exports it remains a relatively small share of Australia's overall exports. The following table gives the value of Australia's exports to selected Middle East countries as well as their share in Australia's total exports.

Exports to Selected Middle East Countries, 12 Months to December 2002		
	\$m	Share of total (%)
Iran	614	0.51
Iraq	668	0.56
Israel	248	0.21
Jordan	116	0.10
Kuwait	528	0.44
Qatar	84	0.07
Saudi Arabia	2367	1.98
Yemen	124	0.10
Total Middle East	4749	3.97

Source: Australian Bureau of Statistics, *International Merchandise Trade*, Cat No. 5422.0, December quarter 2002.

While the table shows that there are a number of significant markets in the Middle East, Saudi Arabia is by far the most important accounting for around half of Australia's exports to the region. Any disruption to trade with the region and Saudi Arabia in particular could have an adverse impact on Australia.

There is the other possibility that nothing much happens to the Australian economy. On this point it is worth noting that there is some evidence that shows that it is not the oil price increases themselves that are responsible for the macroeconomic contractions that have followed earlier episodes of problems in the Middle East. Rather it has been the contractionary monetary policies that authorities in the past have used to fight the potential inflationary consequences of oil price increases.<sup>26</sup>

Before leaving this section a word of caution would appear to be in order. In a recent newsletter Goldman Sachs put the view that a quick solution for Iraq, one way or another, may not resolve the uncertainties facing the global economy. They point out that:

- there are remaining uncertainties associated with North Korea, Iran and the risk of terrorism, and
- problems in Venezuela mean that oil prices are unlikely to moderate quickly.<sup>27</sup>

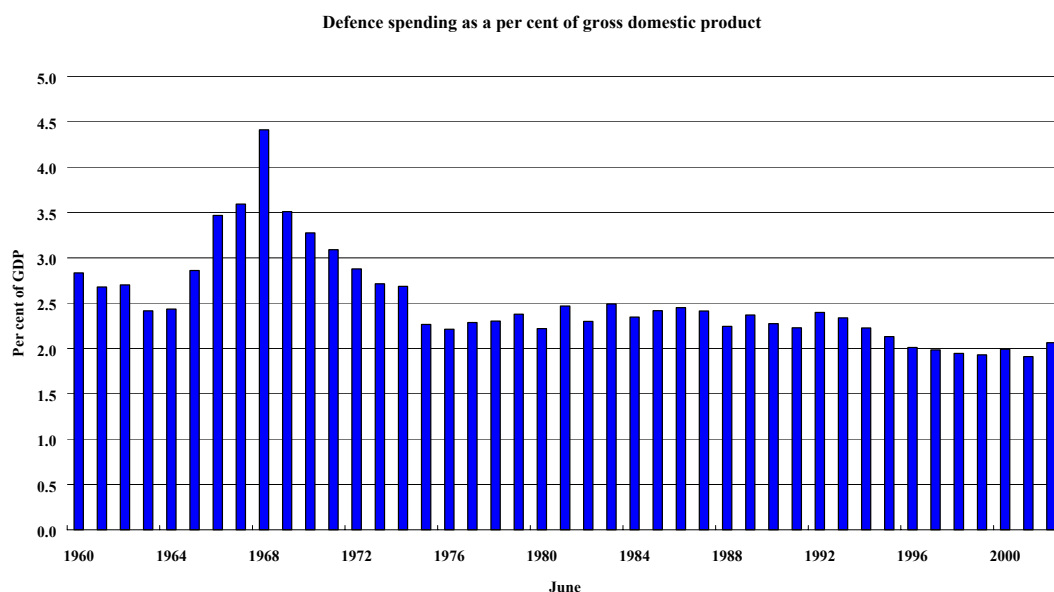
## **Budgetary Implications for the Commonwealth**

The final budgetary impact will depend on many policy decisions yet to be made. For example, the ultimate costs borne by Defence will depend on how much supplementation is given to that department and how much Defence itself has to find through a re-allocation of its resources. The total budgetary impact will depend on whether or not the Government decides to make offsetting savings in other expenditure areas. This is the old 'guns versus butter' dilemma.

The Access Economics estimate (see above page 6) puts the Australian costs of the war with Iraq at \$700 million. However, there are hints that some of the costs may be borne within the Defence Department. Minister for Finance and Administrative Services, Senator Nick Minchin, was reported as saying 'we spend a lot of money on the military now and to a certain extent military engagement can be absorbed'.<sup>28</sup> On the other hand the Treasurer, the Hon. Peter Costello MP, said that in the 2003–04 budget, defence spending would be a priority. He was reported as saying '[o]bviously there is going to be a big draw on the budget in relation to our defence because we pre-deployed troops and that will have a priority in relation to new expenditures'.<sup>29</sup> The best guess would appear to be that Defence will have to absorb some costs but the Government is also likely to limit expenditure elsewhere.

While it is not possible to anticipate the exact budgetary implications of the war in Iraq it is nevertheless worth examining the past record of Australian spending on defence. In the December 2002 quarter defence spending, both consumption and capital, increased to 2.3 per cent of GDP on a national accounts basis.<sup>30</sup> That follows a figure of 2.1 per cent of GDP in the September quarter. These figures compare with annual defence spending of less than 2 per cent of GDP since 1992–93. Australian defence spending is illustrated in the following graph. This graph goes as far back as is possible using national accounts data. The graph shows the peaks in spending about the time of the heaviest involvement in the Vietnam War. The Vietnam period was followed by a period during which defence spending hovered at or just under 2.5 per cent of GDP. However, with the 1990s there appears to be a downward trend in defence spending, perhaps an Australian version of the 'peace dividend', which refers to the ability of countries to lower military spending in the 1990s in response to the end of the Cold War.<sup>31</sup> It is possible this trend may have been stronger were it not for the impact of the depreciation of the Australian dollar during the 1990s which raised the costs of overseas purchases of defence equipment.<sup>32</sup>

The recent increases in defence spending may well mean that the era of the peace dividend is over, at least as far as Australia is concerned. Spending for the year 2001–02 exceeds that for the years since 1995–96 and, as discussed above, the December quarter's expenditures are even higher. Of course, returning to the discussion of the fiscal stimulus, national accounts figures show that additional defence spending contributed half of the recorded growth in GDP in the September quarter 2002, and one-third of the additional Government stimulus in the year to the December quarter 2002.



Source: Australian Bureau of Statistics, *National Income, Expenditure and Product, Australian National Accounts, December 2002*, Cat No 5206.0.

In addition to the direct effects of the military spending on the budget, there will be additional impacts as a result of the oil price increases, as well as the impacts of the war on prices and wages, employment and unemployment, and incomes. Each of these will influence government outlays and/or revenue. The government publishes a 'ready-reckoner' in the budget papers that allows us to calculate the approximate effects of the parameter changes.<sup>33</sup> For example, an additional 0.5 per cent for inflation in 2003–04 and which feeds into wages would imply an increase in expenses of \$575 million in that year and an increase in revenue of \$730 million.<sup>34</sup> That gives an overall increase in the budget balance of \$155 million for 2003–04. In addition there will be the direct effects on oil-related revenues; the petroleum resource rent tax, crude oil excise, petroleum royalties, and oil company tax.

## Conclusions

Iraq sits on at least 10 per cent of the world's oil reserves and so war with Iraq necessarily raises concerns about oil prices. There have been some commentators who have predicted very large increases in oil prices to around US\$75 to 80 per barrel compared with around US\$25 last year. However, there are no indications of such large price increases coming from the futures market. Prices for delivery of oil over the next several months tend to suggest oil prices around present levels into April but some moderation thereafter. Futures prices are expected to fall by around one US dollar per month through to September 2003.

Oil price increases can be expected to have serious adverse impacts on the major industrial economies. The IMF has modelled those impacts and shows that a US\$5 per barrel increase in oil prices would reduce GDP in all industrialised countries by 0.2 per cent of GDP in year one and 0.3 per cent in years two and three. Australia may suffer a similar

impact. However, Australia is a net energy exporter so there may be some offsetting benefits.

Oil price increases will be a major source of transmitting the economic impacts to countries like Australia. Also important are the general uncertainty and lack of confidence that discourages both business and consumer spending. An implication of that is the common view that an outcome in the war, any outcome, will at least remove the present uncertainty and so improve business and consumer confidence. A factor often ignored is the fiscal stimulus that is often associated with military spending. The 2002–03 budget papers mention the role of fiscal stimulus in supporting the economy, including defence and domestic security expenditure. Of course, Australia also trades heavily with the Middle East as well as with Iraq itself. Some damage to exporters is possible in the event of protracted unrest in that region.

War with Iraq has implications for the Australian budget due in May 2003. Australia's contribution may be around \$700 million over the next several months and will then depend on how events unfold. It can be expected that some of the costs will be absorbed in the Defence budget, however, it is also likely that non-defence areas will be less than they might otherwise have been. From another perspective it is a concern that the 'peace dividend' or budgetary savings associated with the end of the Cold War may have come to an end.

## Endnotes

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1. A good discussion of the post war environment is Michael Ong, 'Iraq: Issues on the Eve of War', *Current Issues Brief no 19*, Department of the Parliamentary Library, 2002–03 at <http://www.aph.gov.au/library/pubs/CIB/2002-03/03Cib19.pdf>.
2. Figures from US Energy Information Agency at <http://www.eia.doe.gov/emeu/cabs/iraq.html>.
3. Figures from W. D. Nordhaus, 'The economic consequences of a war with Iraq,' November 2002 at <http://www.econ.yale.edu/~nordhaus/iraq.html>. Note that different sources seem to arrive at different estimates for some of these magnitudes.
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6. BBC News, 'US to tap oil reserves in crisis', 11 March 2003 at <http://news.bbc.co.uk/1/hi/business/2838735.stm>.
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8. *Business Review Weekly*, 6–12 February 2003, p. 47.
9. These prices are for light sweet crude oil traded on the New York Mercantile Exchange (NYMEX) at 10.40 am AEST, 7 March 2003.



10. 'Don't look back,' *The Economist*,  
[http://www.economist.com/agenda/displayStory.cfm?story\\_id=1632787](http://www.economist.com/agenda/displayStory.cfm?story_id=1632787).
11. For further information on Venezuela's oil see <http://www.eia.doe.gov/emeu/cabs/venez.html>.
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14. RBA, *Statement on Monetary Policy*, May 2002 at  
[http://www.rba.gov.au/PublicationsAndResearch/StatementsOnMonetaryPolicy/statement\\_on\\_monetary\\_0502.html](http://www.rba.gov.au/PublicationsAndResearch/StatementsOnMonetaryPolicy/statement_on_monetary_0502.html).
15. 2000–01 Budget Paper No 1: Budget Strategy and Outlook 2000–01, May 2000.
16. The weighting is given in Australian Bureau of Statistics, *A Guide to the Consumer Price Index*, 14th Series, Cat No 6440.0. That also assumes that the current exchange rate, one \$A buys US\$0.6136 at 12 noon 4 March 2003. The estimate is also based on fuel prices of just under 90 cents a litre at the time the ABS estimated the CPI weights.
17. Testimony of Chairman Alan Greenspan, to the Committee on Banking, Housing, and Urban Affairs, U.S. Senate, 11 February 2003 on the occasion of the *Federal Reserve Board's semiannual monetary policy report to the Congress*. See  
<http://www.federalreserve.gov/boarddocs/hh/2003/february/testimony.htm>.
18. K Hays, 'The cost of war', CNN, 5 February 2003 at  
[http://money.cnn.com/2003/02/05/commentary/column\\_hays/hays/index.htm](http://money.cnn.com/2003/02/05/commentary/column_hays/hays/index.htm)
19. M Bleaney, *The Rise and Fall of Keynesian Economics*, London: Macmillan, 1985, p. 81.
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21. For example, see G. Allen, 'The economic background to the 2003 budget,' in *Economic Indicators, Research Paper no 03/18*, House of Commons Library, 3 March 2003.
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29. Australian Associated Press, 17 February 2003.
30. Australian Bureau of Statistics, National Income, Expenditure and Product, Australian National Accounts, December 2002, Cat No 5206.0, 5 March 2003.
31. See A. Markusen (ed.), [America's Peace Dividend](http://www.ciaonet.org/book/markusen/introduction.html), Columbia International Affairs Online, 2000 available at <http://www.ciaonet.org/book/markusen/introduction.html>.

32. During 1990 the \$A was sometimes worth more than US 80 cents but by 1999 was sometimes close to US 60 cents.
33. Budget Strategy and Outlook, 2002–03: Budget Paper no 1, 14 May 2002, table 1, p 9–24.
34. The revenue increase would include a small bracket creep.